StarKist

April , 2010

Mr. Alan Ota
US EPA Region 9-OPINAP (E-4) WTR-2
75 Hawthorne Street
San Francisco, CA 94105

Dr. Toafa Vaiaga'e, Director
Office of the Governor, AS EPA
EOB Utulei, American Samoa 96799

Gentlemen:

RE: OD 93-01 SECTION 6.2
Reports and Correspondence

Pursuant to the above referenced Ocean Dumping permit, the final quarterly report for OD 93-01 is enclosed.

Section 6.2.1 and Section 6.2.3

All reports and related correspondence required by General Condition 1.10, Special Conditions 3.2, 3.3, 4.3, 4.5, 4.7, 5.2, 5.3, 5.4, 6.1, and all other materials, including applications shall be submitted to ***(EPA Region IX) (American Samoa Environmental Protection Agency).***

Data compiled are for the period of January 2010 to March 2010. Analytical performance concluded all parameters were met

Joe Carney.
Manager, Engeneering and Maintenance

cc: Brett Butler, SKS General Manager
Carl Goldstein, OPINAP Program Director
File

[illegible]

Reporting Period: From January 2010 to March 2010

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
13-Jan-10	25074	13495	45402	5530	630	3900	2355	6.71	1.0
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
11-Feb-10	38038	25421	56194	5317.5	610	4000	3000	5.81	1.01
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
10-Mar-10	24197	11420	34429	5019	420	4200	1710	6.73	1.02
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

Note: An asterisk [illegible] to the wash [illegible] that a violation of the permit limit occurred.

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : January 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Jan-10	0	0	0	0	0
2-Jan-10	250	1000	1250	2500	0
3-Jan-10	1000	4000	5000	10000	0
4-Jan-10	6250	25000	31250	62500	0
5-Jan-10	9500	38000	47500	95000	145000
6-Jan-10	7000	28000	35000	70000	0
7-Jan-10	8250	33000	41250	82500	180000
8-Jan-10	9000	36000	45000	90000	0
9-Jan-10	2750	11000	13750	27500	172500
10-Jan-10	1750	7000	8750	17500	0
11-Jan-10	6250	25000	31250	62500	0
12-Jan-10	6250	25000	31250	62500	130000
13-Jan-10	8000	32000	40000	80000	0
14-Jan-10	7000	28000	35000	70000	187500
15-Jan-10	8750	35000	43750	87500	0
16-Jan-10	3500	14000	17500	35000	160000
17-Jan-10	1000	4000	5000	10000	0
18-Jan-10	5500	22000	27500	55000	0
19-Jan-10	8250	33000	41250	82500	120000
20-Jan-10	9250	37000	46250	92500	0
21-Jan-10	12050	48200	60250	120500	162500
22-Jan-10	8250	33000	41250	82500	0
23-Jan-10	9500	38000	47500	95000	175000
24-Jan-10	12500	50000	62500	125000	0
25-Jan-10	7750	31000	38750	77500	125000
26-Jan-10	7000	28000	35000	70000	0
27-Jan-10	8000	32000	40000	80000	160000
28-Jan-10	9500	38000	47500	95000	0
29-Jan-10	8000	32000	40000	80000	175000
30-Jan-10	7250	29000	36250	72500	0
31-Jan-10	5500	22000	27500	55000	170000
Monthly Totals	204800	819200	1024000	2048000	2062500

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.

The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum sulfate: 19159.7 Pounds/Month

Coagulant polymer: 476.4 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : February 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	200,000

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Feb-10	4750	19000	23750	47500	0
2-Feb-10	8750	35000	43750	87500	147500
3-Feb-10	8500	34000	42500	85000	0
4-Feb-10	6750	27000	33750	67500	167500
5-Feb-10	8750	35000	43750	87500	0
6-Feb-10	4500	18000	22500	45000	165000
7-Feb-10	1750	7000	8750	17500	0
8-Feb-10	5250	21000	26250	52500	0
9-Feb-10	8250	33000	41250	82500	147500
10-Feb-10	10750	43000	53750	107500	0
11-Feb-10	8250	33000	41250	82500	175000
12-Feb-10	3500	14000	17500	35000	112500
13-Feb-10	0	0	0	0	0
14-Feb-10	250	1000	1250	2500	0
15-Feb-10	2000	8000	10000	20000	0
16-Feb-10	6500	26000	32500	65000	0
17-Feb-10	6750	27000	33750	67500	162500
18-Feb-10	11250	45000	56250	112500	0
19-Feb-10	6750	27000	33750	67500	185000
20-Feb-10	8500	34000	42500	85000	0
21-Feb-10	5750	23000	28750	57500	177500
22-Feb-10	6000	24000	30000	60000	0
23-Feb-10	13250	53000	66250	132500	140000
24-Feb-10	10125	40500	50625	101250	0
25-Feb-10	6750	27000	33750	67500	163750
26-Feb-10	9500	38000	47500	95000	0
27-Feb-10	1500	6000	7500	15000	175000
28-Feb-10	2500	10000	12500	25000	0
Monthly Totals	177125	708500	885625	1771250	1918750

Note: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred. The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 16021.9 Pounds/Month
Coagulant Polymer : 404.6 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : March 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	**30,000**	**70,000**	**100,000**	**200,000**

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Mar-10	6750	27000	33750	67500	0
2-Mar-10	6750	27000	33750	67500	172500
3-Mar-10	9500	38000	47500	95000	0
4-Mar-10	7750	31000	38750	77500	172500
5-Mar-10	10500	42000	52500	105000	0
6-Mar-10	4750	19000	23750	47500	170000
7-Mar-10	1750	7000	8750	17500	0
8-Mar-10	3875	15500	19375	38750	0
9-Mar-10	9000	36000	45000	90000	181250
10-Mar-10	10750	43000	53750	107500	0
11-Mar-10	11250	45000	56250	112500	192500
12-Mar-10	8500	34000	42500	85000	0
13-Mar-10	7000	28000	35000	70000	187500
14-Mar-10	1750	7000	8750	17500	135000
15-Mar-10	4000	16000	20000	40000	0
16-Mar-10	11750	47000	58750	117500	0
17-Mar-10	10000	40000	50000	100000	170000
18-Mar-10	9000	36000	45000	90000	0
19-Mar-10	8875	35500	44375	88750	180000
20-Mar-10	4500	18000	22500	45000	0
21-Mar-10	1500	6000	7500	15000	183750
22-Mar-10	3850	15400	19250	38500	0
23-Mar-10	11000	44000	55000	110000	185000
24-Mar-10	10125	40500	50625	101250	0
25-Mar-10	7375	29500	36875	73750	0
26-Mar-10	6125	24500	30625	61250	170000
27-Mar-10	6000	24000	30000	60000	0
28-Mar-10	500	2000	2500	5000	168750
29-Mar-10	2000	8000	10000	20000	0
30-Mar-10	4125	16500	20625	41250	0
31-Mar-10	10250	41000	51250	102500	0
Monthly Totals	210850	843400	1054250	2108500	2268750

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred. The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 18136.0 Pound/Month
Coagulant Polymer : 458.8 Pounds/Month

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

[illegible] - 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	2.0	0.010	0.05	0.47	[illegible]
	control-3	4.5	2.0	0.005	0.25	0.23	[illegible]
	control-10	7.0	2.5	0.015	0.05	0.45	[illegible]
	1	5.5	3.5	0.010	0.05	0.34	[illegible]
	3	6.0	3.0	0.020	0.10	0.41	[illegible]
	10	5.5	1.0	0.015	0.05	0.47	0.041
Station 2	1	7.0	2.5	0.000	0.10	0.23	0.033
	3	6.5	2.0	0.010	0.05	0.45	[illegible]
	10	6.0	3.0	0.005	0.10	0.22	[illegible]
[illegible]	1	7.0	2.0	0.015	0.00	0.35	[illegible]
	3	6.0	2.5	0.010	0.15	0.24	[illegible]
	10	7.0	2.5	0.015	0.20	0.12	[illegible]
Station 4	1	6.5	1.5	0.015	0.10	0.35	0.029
	3	5.5	2.5	0.000	0.15	0.23	0.032
	10	5.5	1.5	0.000	0.15	0.48	[illegible]
Station 5	1	5.5	1.5	0.015	0.15	0.34	[illegible]
	3	6.5	1.5	0.000	0.10	0.58	0.052
	10	6.5	2.0	0.000	0.05	0.34	0.027

Feb. - 11 - 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	3.0	0.000	0.15	0.23	[illegible]
	control-3	6.0	2.5	0.000	0.10	0.24	0.029
	control-10	7.5	1.5	0.000	0.65	0.11	0.024
	1	6.5	3.0	0.000	0.20	0.11	0.035
	3	6.0	1.5	0.000	0.05	0.12	0.036
	10	5.5	3.5	0.025	0.25	0.23	0.034
Station 2	1	6.5	3.0	0.000	0.25	0.34	[illegible]
	3	5.5	3.0	0.000	0.45	0.23	0.036
	10	5.5	3.5	0.015	0.45	0.34	[illegible]
[illegible]	1	6.0	2.5	0.025	0.15	0.23	0.022
	3	5.0	3.0	0.025	0.75	0.11	0.022
	10	4.5	2.5	0.010	0.50	0.12	0.019
Station 4	1	5.0	2.5	0.000	0.20	0.35	0.016
	3	4.5	4.0	0.005	0.35	0.24	0.018
	10	5.0	2.5	0.025	0.20	0.12	0.015
Station 5	1	5.0	2.5	0.025	0.15	0.26	[illegible]
	3	6.5	2.5	0.015	0.15	0.23	[illegible]
	10	6.5	2.5	0.015	0.00	0.34	0.012

TSS - reported as non-filterable residue
TVSS - reported as volatile non-filterable residue

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

[illegible] 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
[illegible] 1	control-1	5.0	2.0	0.025	0.15	0.56	0.02[illegible]
	control-3	5.5	2.0	0.010	0.15	0.35	0.02[illegible]
	control-10	5.5	1.5	0.005	0.10	0.56	0.01[illegible]
	1	6.0	2.5	0.020	0.15	0.38	0.017
	3	5.0	2.0	0.005	0.15	0.35	0.01[illegible]
	10	5.5	1.5	0.005	0.05	0.34	0.00[illegible]
[illegible] 2	1	5.5	3.0	0.005	0.30	0.33	0.014
	3	6.0	2.0	0.005	0.25	0.35	0.00[illegible]
	10	5.5	2.0	0.030	0.20	0.25	0.00[illegible]
[illegible]	1	6.0	1.5	0.030	0.20	0.25	[illegible]
	3	6.0	2.0	0.005	0.15	0.22	[illegible]
	10	5.5	2.5	0.010	0.00	0.47	[illegible]
[illegible] 1	1	5.5	1.5	0.000	0.20	0.38	0.00[illegible]
	3	6.0	1.5	0.015	0.20	0.26	0.01[illegible]
	10	5.5	1.5	0.065	0.35	0.44	0.01[illegible]
[illegible] 5	1	5.5	1.5	0.010	0.05	0.57	0.009
	3	5.5	2.5	0.000	0.10	0.22	0.02[illegible]
	10	4.5	2.5	0.015	0.20	0.38	0.00[illegible]

[illegible] reported as non-filterable residue
[illegible] reported as volatile non-filterable residue

StarKist

July 07, 2010

Mr. Alan Ota
US EPA Region 9-OPINAP (E-4) WTR-2
75 Hawthorne Street
San Francisco, CA 94105

Dr. Toafa Vaiaga'e, Director
Office of the Governor, AS EPA
EOB Utulei, American Samoa 96799

Gentlemen:

RE: OD 93-01 SECTION 6.2
Reports and Correspondence

Pursuant to the above referenced Ocean Dumping permit, the final quarterly report for OD 93-01 is enclosed.

Section 6.2.1 and Section 6.2.3

All reports and related correspondence required by General Condition 1.10, Special Conditions 3.2, 3.3, 4.3, 4.5, 4.7, 5.2, 5.3, 5.4, 6.1, and all other materials, including applications shall be submitted to ***(EPA Region IX) (American Samoa Environmental Protection Agency).***

Data compiled are for the period of April 2010 to June 2010. Analytical performance concluded all parameters were met

Joe Carney.
Manager, Engeneering and Maintenance

cc: Brett Butler, SKS General Manager
Carl Goldstein, OPINAP Program Director
File

323 North Shore Drive Suite 600 Pittsburgh, Pennsylvania 15212 412.323.7400 www.starkist.com

7/17/10

APPENDIX B - REPORT FORM 2

Data Form for 3-Month Report on Waste Stream Analyses for StarKist Samoa MPRSA 102 Permit #OD 93-01

Reporting Period: From April 2010 to June 2010

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
21-Apr-10	41520	23827	39829	4406	725	4350	3430	6.69	1.01
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
7-May-10	48136	22687	44735	4508	655	4700	3330	6.70	1.01
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
9-Jun-10	47718	35367	39716	4048.8	665	4500	4085	6.51	1.01
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

Note: An asterisk (*) next to the waste concentration signifies that a violation of the permit limit has occurred.

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : April 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Apr-10	9000	36000	45000	90000	0
2-Apr-10	6875	27500	34375	68750	0
3-Apr-10	12750	51000	63750	127500	162500
4-Apr-10	3000	12000	15000	30000	160000
5-Apr-10	7250	29000	36250	72500	0
6-Apr-10	7000	28000	35000	70000	0
7-Apr-10	10000	40000	50000	100000	165000
8-Apr-10	8250	33000	41250	82500	0
9-Apr-10	11750	47000	58750	117500	190000
10-Apr-10	8750	35000	43750	87500	177500
11-Apr-10	1750	7000	8750	17500	0
12-Apr-10	15000	60000	75000	150000	115000
13-Apr-10	7250	29000	36250	72500	0
14-Apr-10	11500	46000	57500	115000	175000
15-Apr-10	6125	24500	30625	61250	0
16-Apr-10	6500	26000	32500	65000	181250
17-Apr-10	9750	39000	48750	97500	0
18-Apr-10	3250	13000	16250	32500	190000
19-Apr-10	5000	20000	25000	50000	0
20-Apr-10	6000	24000	30000	60000	0
21-Apr-10	6500	26000	32500	65000	180000
22-Apr-10	8500	34000	42500	85000	0
23-Apr-10	9250	37000	46250	92500	182500
24-Apr-10	8500	34000	42500	85000	0
25-Apr-10	5000	20000	25000	50000	197500
26-Apr-10	4500	18000	22500	45000	0
27-Apr-10	10750	43000	53750	107500	0
28-Apr-10	6500	26000	32500	65000	190000
29-Apr-10	10125	40500	50625	101250	0
30-Apr-10	7850	31400	39250	78500	191250
Monthly Totals	234225	936900	1171125	2342250	2457500

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.

The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum sulfate: 20002.2 Pounds/Month

Coagulant polymer: 511.2 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : May 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	200,000

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-May-10	7250	29000	36250	72500	0
2-May-10	2750	11000	13750	27500	182500
3-May-10	5625	22500	28125	56250	0
4-May-10	7750	31000	38750	77500	0
5-May-10	5000	20000	25000	50000	167500
6-May-10	9625	38500	48125	96250	0
7-May-10	4500	18000	22500	45000	178750
8-May-10	2250	9000	11250	22500	0
9-May-10	250	1000	1250	2500	175000
10-May-10	3250	13000	16250	32500	0
11-May-10	11125	44500	55625	111250	0
12-May-10	10000	40000	50000	100000	173750
13-May-10	5500	22000	27500	55000	0
14-May-10	3500	14000	17500	35000	175000
15-May-10	1750	7000	8750	17500	0
16-May-10	0	0	0	0	0
17-May-10	250	1000	1250	2500	0
18-May-10	2250	9000	11250	22500	0
19-May-10	6875	27500	34375	68750	0
20-May-10	7250	29000	36250	72500	163750
21-May-10	8250	33000	41250	82500	0
22-May-10	1750	7000	8750	17500	180000
23-May-10	750	3000	3750	7500	0
24-May-10	2500	10000	12500	25000	0
25-May-10	6750	27000	33750	67500	0
26-May-10	4375	17500	21875	43750	185750
27-May-10	14250	57000	71250	142500	0
28-May-10	13625	54500	68125	136250	177500
29-May-10	9450	37800	47250	94500	138750
30-May-10	4000	16000	20000	40000	0
31-May-10	4250	17000	21250	42500	0
Monthly Totals	166700	666800	833500	1667000	1898250

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 15179.2 Pounds/Month
Coagulant Polymer : 394.6 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : June 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	200,000

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Jun-10	8200	32800	41000	82000	150000
2-Jun-10	5250	21000	26250	52500	
3-Jun-10	9000	36000	45000	90000	180500
4-Jun-10	7000	28000	35000	70000	
5-Jun-10	6500	26000	32500	65000	187500
6-Jun-10	1500	6000	7500	15000	
7-Jun-10	6000	24000	30000	60000	
8-Jun-10	9500	38000	47500	95000	170000
9-Jun-10	8250	33000	41250	82500	
10-Jun-10	9650	38600	48250	96500	195000
11-Jun-10	7625	30500	38125	76250	
12-Jun-10	8450	33800	42250	84500	186250
13-Jun-10	3250	13000	16250	32500	
14-Jun-10	3875	15500	19375	38750	
15-Jun-10	10125	40500	50625	101250	176250
16-Jun-10	8375	33500	41875	83750	
17-Jun-10	6750	27000	33750	67500	175500
18-Jun-10	7750	31000	38750	77500	
19-Jun-10	8375	33500	41875	83750	190000
20-Jun-10	4000	16000	20000	40000	
21-Jun-10	3750	15000	18750	37500	177250
22-Jun-10	6625	26500	33125	66250	
23-Jun-10	9000	36000	45000	90000	
24-Jun-10	7000	28000	35000	70000	187500
25-Jun-10	8125	32500	40625	81250	
26-Jun-10	7250	29000	36250	72500	176200
27-Jun-10	4000	16000	20000	40000	
28-Jun-10	6750	27000	33750	67500	
29-Jun-10	7375	29500	36875	73750	175000
30-Jun-10	8125	32500	40625	81250	
Monthly Totals	207425	829700	1037125	2074250	2326950

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred. The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 19928 Pounds/Month
Coagulant Polymer : 520.6 Pounds/Month

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

21- April - 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	6.0	2.5	0.005	0.25	0.33	0.029
	control-3	5.5	2.5	0.020	0.30	0.64	0.027
	control-10	4.5	2.0	0.010	0.15	0.34	0.023
	1	5.0	2.5	0.020	0.15	0.47	0.021
	3	5.0	3.0	0.035	0.25	0.47	0.019
	10	6.0	2.5	0.010	0.20	0.44	0.018
Station 2	1	4.5	2.5	0.025	0.25	0.23	0.032
	3	6.0	3.0	0.045	0.05	0.22	0.054
	10	5.0	2.5	0.025	0.25	0.55	0.052
Station 3	1	4.5	2.5	0.025	0.25	0.53	0.043
	3	5.0	3.0	0.020	0.25	0.38	0.023
	10	4.5	3.5	0.010	0.20	0.25	0.029
Station 4	1	5.5	3.0	0.015	0.15	0.68	0.020
	3	6.5	3.5	0.005	0.25	0.44	0.033
	10	5.0	3.5	0.010	0.25	0.67	0.021
Station 5	1	4.5	4.0	0.015	0.25	0.46	0.024
	3	4.5	4.5	0.010	0.15	0.44	0.030
	10	5.5	4.5	0.015	0.35	0.58	0.049

May - 07- 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	2.5	0.005	0.25	0.45	0.022
	control-3	5.0	2.0	0.020	0.30	0.56	0.031
	control-10	4.5	2.5	0.010	0.15	0.23	0.038
	1	4.5	2.0	0.020	0.15	0.25	0.021
	3	6.0	2.0	0.035	0.25	0.24	0.017
	10	4.0	2.5	0.010	0.20	0.45	0.028
Station 2	1	5.5	2.5	0.025	0.25	0.67	0.020
	3	6.0	3.0	0.045	0.05	0.25	0.024
	10	5.0	1.5	0.025	0.25	0.26	0.031
Station 3	1	5.5	2.5	0.025	0.25	0.38	0.027
	3	4.5	2.5	0.020	0.25	0.48	0.028
	10	4.0	3.0	0.010	0.20	0.26	0.021
Station 4	1	5.0	3.0	0.015	0.15	0.62	0.023
	3	5.0	3.0	0.005	0.25	0.38	0.035
	10	5.5	2.0	0.010	0.25	0.25	0.036
Station 5	1	4.5	3.5	0.015	0.25	0.53	0.029
	3	5.0	3.0	0.010	0.15	0.49	0.027
	10	5.5	2.5	0.015	0.35	0.39	0.024

TSS is reported as non-filterable residue
TVSS is reported as volatile non-filterable residue

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

June - 10 - 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	6.5	2.0	0.005	0.15	0.63	0.031
	control-3	5.5	2.5	0.000	0.15	0.75	0.028
	control-10	6.0	2.5	0.000	0.30	0.29	0.038
	1	6.5	2.0	0.005	0.25	0.40	0.023
	3	5.5	1.5	0.005	0.15	0.28	0.041
	10	5.5	1.5	0.000	0.20	0.49	0.042
Station 2	1	5.5	2.5	0.010	0.05	0.53	0.020
	3	5.5	1.5	0.005	0.30	0.29	0.043
	10	6.5	2.5	0.000	0.20	0.38	0.029
Station 3	1	6.5	2.0	0.010	0.15	0.43	0.020
	3	6.0	2.0	0.025	0.20	0.64	0.025
	10	5.5	2.0	0.010	0.10	0.49	0.036
Station 4	1	6.0	2.5	0.005	0.25	0.38	0.042
	3	5.5	2.0	0.015	0.25	0.59	0.025
	10	5.5	2.0	0.015	0.15	0.38	0.040
Station 5	1	5.0	2.5	0.015	0.15	0.38	0.023
	3	4.5	2.5	0.010	0.20	0.53	0.029
	10	4.5	2.5	0.010	0.15	0.62	0.029

TSS is reported as non-filterable residue
TVSS is reported as volatile non-filterable residue

StarKist

July 07, 2010

Mr. Alan Ota
US EPA Region 9-OPINAP (E-4) WTR-2
75 Hawthorne Street
San Francisco, CA 94105

Dr. Toafa Vaiaga'e, Director
Office of the Governor, AS EPA
EOB Utulei, American Samoa 96799

Gentlemen:

RE: OD 93-01 SECTION 6.2
Reports and Correspondence

Pursuant to the above referenced Ocean Dumping permit, the final quarterly report for OD 93-01 is enclosed.

Section 6.2.1 and Section 6.2.3

All reports and related correspondence required by General Condition 1.10, Special Conditions 3.2, 3.3, 4.3, 4.5, 4.7, 5.2, 5.3, 5.4, 6.1, and all other materials, including applications shall be submitted to ***(EPA Region IX) (American Samoa Environmental Protection Agency).***

Data compiled are for the period of April 2010 to June 2010. Analytical performance concluded all parameters were met

Joe Carney.
Manager, Engeneering and Maintenance

cc: Brett Butler, SKS General Manager
Carl Goldstein, OPINAP Program Director
File

APPENDIX B - REPORT FORM 2

Data Form for 3-Month Report on Waste Stream Analyses for StarKist Samoa MPRSA 102 Permit #OD 93-01

Reporting Period: From April 2010 to June 2010

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
21-Apr-10	41520	23827	39829	4406	725	4350	3430	6.69	1.01
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
7-May-10	48136	22687	44735	4508	655	4700	3330	6.70	1.01
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
9-Jun-10	47718	35367	39716	4048.8	665	4500	4085	6.51	1.01
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

Note: An asterisk (*) next to the waste concentration signifies that a violation of the permit limit has occurred.

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : April 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	**30,000**	**70,000**	**100,000**	

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Apr-10	9000	36000	45000	90000	0
2-Apr-10	6875	27500	34375	68750	0
3-Apr-10	12750	51000	63750	127500	162500
4-Apr-10	3000	12000	15000	30000	160000
5-Apr-10	7250	29000	36250	72500	0
6-Apr-10	7000	28000	35000	70000	0
7-Apr-10	10000	40000	50000	100000	165000
8-Apr-10	8250	33000	41250	82500	0
9-Apr-10	11750	47000	58750	117500	190000
10-Apr-10	8750	35000	43750	87500	177500
11-Apr-10	1750	7000	8750	17500	0
12-Apr-10	15000	60000	75000	150000	115000
13-Apr-10	7250	29000	36250	72500	0
14-Apr-10	11500	46000	57500	115000	175000
15-Apr-10	6125	24500	30625	61250	0
16-Apr-10	6500	26000	32500	65000	181250
17-Apr-10	9750	39000	48750	97500	0
18-Apr-10	3250	13000	16250	32500	190000
19-Apr-10	5000	20000	25000	50000	0
20-Apr-10	6000	24000	30000	60000	0
21-Apr-10	6500	26000	32500	65000	180000
22-Apr-10	8500	34000	42500	85000	0
23-Apr-10	9250	37000	46250	92500	182500
24-Apr-10	8500	34000	42500	85000	0
25-Apr-10	5000	20000	25000	50000	197500
26-Apr-10	4500	18000	22500	45000	0
27-Apr-10	10750	43000	53750	107500	0
28-Apr-10	6500	26000	32500	65000	190000
29-Apr-10	10125	40500	50625	101250	0
30-Apr-10	7850	31400	39250	78500	191250
Monthly Totals	234225	936900	1171125	2342250	2457500

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum sulfate: 20002.2 Pounds/Month
Coagulant polymer: 511.2 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : May 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	**30,000**	**70,000**	**100,000**	**200,000**

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-May-10	7250	29000	36250	72500	0
2-May-10	2750	11000	13750	27500	182500
3-May-10	5625	22500	28125	56250	0
4-May-10	7750	31000	38750	77500	0
5-May-10	5000	20000	25000	50000	167500
6-May-10	9625	38500	48125	96250	0
7-May-10	4500	18000	22500	45000	178750
8-May-10	2250	9000	11250	22500	0
9-May-10	250	1000	1250	2500	175000
10-May-10	3250	13000	16250	32500	0
11-May-10	11125	44500	55625	111250	0
12-May-10	10000	40000	50000	100000	173750
13-May-10	5500	22000	27500	55000	0
14-May-10	3500	14000	17500	35000	175000
15-May-10	1750	7000	8750	17500	0
16-May-10	0	0	0	0	0
17-May-10	250	1000	1250	2500	0
18-May-10	2250	9000	11250	22500	0
19-May-10	6875	27500	34375	68750	0
20-May-10	7250	29000	36250	72500	163750
21-May-10	8250	33000	41250	82500	0
22-May-10	1750	7000	8750	17500	180000
23-May-10	750	3000	3750	7500	0
24-May-10	2500	10000	12500	25000	0
25-May-10	6750	27000	33750	67500	0
26-May-10	4375	17500	21875	43750	185750
27-May-10	14250	57000	71250	142500	0
28-May-10	13625	54500	68125	136250	177500
29-May-10	9450	37800	47250	94500	138750
30-May-10	4000	16000	20000	40000	0
31-May-10	4250	17000	21250	42500	0
Monthly Totals	166700	666800	833500	1667000	1898250

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred. The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 15179.2 Pounds/Month
Coagulant Polymer : 394.6 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : June 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	**30,000**	**70,000**	**100,000**	**200,000**

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Jun-10	8200	32800	41000	82000	150000
2-Jun-10	5250	21000	26250	52500	
3-Jun-10	9000	36000	45000	90000	180500
4-Jun-10	7000	28000	35000	70000	
5-Jun-10	6500	26000	32500	65000	187500
6-Jun-10	1500	6000	7500	15000	
7-Jun-10	6000	24000	30000	60000	
8-Jun-10	9500	38000	47500	95000	170000
9-Jun-10	8250	33000	41250	82500	
10-Jun-10	9650	38600	48250	96500	195000
11-Jun-10	7625	30500	38125	76250	
12-Jun-10	8450	33800	42250	84500	186250
13-Jun-10	3250	13000	16250	32500	
14-Jun-10	3875	15500	19375	38750	
15-Jun-10	10125	40500	50625	101250	176250
16-Jun-10	8375	33500	41875	83750	
17-Jun-10	6750	27000	33750	67500	175500
18-Jun-10	7750	31000	38750	77500	
19-Jun-10	8375	33500	41875	83750	190000
20-Jun-10	4000	16000	20000	40000	
21-Jun-10	3750	15000	18750	37500	177250
22-Jun-10	6625	26500	33125	66250	
23-Jun-10	9000	36000	45000	90000	
24-Jun-10	7000	28000	35000	70000	187500
25-Jun-10	8125	32500	40625	81250	
26-Jun-10	7250	29000	36250	72500	176200
27-Jun-10	4000	16000	20000	40000	
28-Jun-10	6750	27000	33750	67500	
29-Jun-10	7375	29500	36875	73750	175000
30-Jun-10	8125	32500	40625	81250	
Monthly Totals	207425	829700	1037125	2074250	2326950

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 19928 Pounds/Month
Coagulant Polymer : 520.6 Pounds/Month

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

21- April - 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	6.0	2.5	0.005	0.25	0.33	0.029
	control-3	5.5	2.5	0.020	0.30	0.64	0.027
	control-10	4.5	2.0	0.010	0.15	0.34	0.023
	1	5.0	2.5	0.020	0.15	0.47	0.021
	3	5.0	3.0	0.035	0.25	0.47	0.019
	10	6.0	2.5	0.010	0.20	0.44	0.018
Station 2	1	4.5	2.5	0.025	0.25	0.23	0.032
	3	6.0	3.0	0.045	0.05	0.22	0.054
	10	5.0	2.5	0.025	0.25	0.55	0.052
Station 3	1	4.5	2.5	0.025	0.25	0.53	0.043
	3	5.0	3.0	0.020	0.25	0.38	0.023
	10	4.5	3.5	0.010	0.20	0.25	0.029
Station 4	1	5.5	3.0	0.015	0.15	0.68	0.020
	3	6.5	3.5	0.005	0.25	0.44	0.033
	10	5.0	3.5	0.010	0.25	0.67	0.021
Station 5	1	4.5	4.0	0.015	0.25	0.46	0.024
	3	4.5	4.5	0.010	0.15	0.44	0.030
	10	5.5	4.5	0.015	0.35	0.58	0.049

May - 07- 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	2.5	0.005	0.25	0.45	0.022
	control-3	5.0	2.0	0.020	0.30	0.56	0.031
	control-10	4.5	2.5	0.010	0.15	0.23	0.038
	1	4.5	2.0	0.020	0.15	0.25	0.021
	3	6.0	2.0	0.035	0.25	0.24	0.017
	10	4.0	2.5	0.010	0.20	0.45	0.028
Station 2	1	5.5	2.5	0.025	0.25	0.67	0.020
	3	6.0	3.0	0.045	0.05	0.25	0.024
	10	5.0	1.5	0.025	0.25	0.26	0.031
Station 3	1	5.5	2.5	0.025	0.25	0.38	0.027
	3	4.5	2.5	0.020	0.25	0.48	0.028
	10	4.0	3.0	0.010	0.20	0.26	0.021
Station 4	1	5.0	3.0	0.015	0.15	0.62	0.023
	3	5.0	3.0	0.005	0.25	0.38	0.035
	10	5.5	2.0	0.010	0.25	0.25	0.036
Station 5	1	4.5	3.5	0.015	0.25	0.53	0.029
	3	5.0	3.0	0.010	0.15	0.49	0.027
	10	5.5	2.5	0.015	0.35	0.39	0.024

TSS is reported as non-filterable residue
TVSS is reported as volatile non-filterable residue

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

June - 10 - 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	6.5	2.0	0.005	0.15	0.63	0.031
	control-3	5.5	2.5	0.000	0.15	0.75	0.028
	control-10	6.0	2.5	0.000	0.30	0.29	0.038
	1	6.5	2.0	0.005	0.25	0.40	0.023
	3	5.5	1.5	0.005	0.15	0.28	0.041
	10	5.5	1.5	0.000	0.20	0.49	0.042
Station 2	1	5.5	2.5	0.010	0.05	0.53	0.020
	3	5.5	1.5	0.005	0.30	0.29	0.043
	10	6.5	2.5	0.000	0.20	0.38	0.029
Station 3	1	6.5	2.0	0.010	0.15	0.43	0.020
	3	6.0	2.0	0.025	0.20	0.64	0.025
	10	5.5	2.0	0.010	0.10	0.49	0.036
Station 4	1	6.0	2.5	0.005	0.25	0.38	0.042
	3	5.5	2.0	0.015	0.25	0.59	0.025
	10	5.5	2.0	0.015	0.15	0.38	0.040
Station 5	1	5.0	2.5	0.015	0.15	0.38	0.023
	3	4.5	2.5	0.010	0.20	0.53	0.029
	10	4.5	2.5	0.010	0.15	0.62	0.029

TSS is reported as non-filterable residue
TVSS is reported as volatile non-filterable residue

October 08 , 2010

Mr. Alan Ota
US EPA Region 9-OPINAP (E-4) WTR-2
75 Hawthorne Street
San Francisco, CA 94105

Dr. Toafa Vaiaga'e, Director
Office of the Governor, AS EPA
EOB Utulei, American Samoa 96799

Gentlemen:

RE: OD 93-01 SECTION 6.2
Reports and Correspondence

Pursuant to the above referenced Ocean Dumping permit, the final quarterly report for OD 93-01 is enclosed.

Section 6.2.1 and Section 6.2.3

All reports and related correspondence required by General Condition 1.10, Special Conditions 3.2, 3.3, 4.3, 4.5, 4.7, 5.2, 5.3, 5.4, 6.1, and all other materials, including applications shall be submitted to ***(EPA Region IX) (American Samoa Environmental Protection Agency).***

Data compiled are for the period of July 2010 to September 2010. Analytical performance concluded all parameters were met

Joe Carney.
Manager, Engeneering and Maintenance

cc: Brett Butler, SKS General Manager
Carl Goldstein, OPINAP Program Director
File

APPENDIX B - REPORT FORM 2

Data Form for 3-Month Report on Waste Stream Analyses for StarKist Samoa MPRSA 102 Permit #OD 93-01

Reporting Period: From July 2010 to September 2010

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
1-Jul-10	38814	22795	34768	4976.3	720	4750	2925	6.56	1.00
OD 93-01 Permit Limits	**95,760**	**77,170**	**105,900**	**52,110**	**3,080**	**13,370**	**7,640**	**6.2 to 7.3**	**0.93 to 1.05**

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
5-Aug-10	40701	21274	64500	4743	850	4400	4700	6.60	1.01
OD 93-01 Permit Limits	**95,760**	**77,170**	**105,900**	**52,110**	**3,080**	**13,370**	**7,640**	**6.2 to 7.3**	**0.93 to 1.05**

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
1-Sep-10	36283	23885	32420	4551.3	810	4800	4950	6.68	1.01
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

Note: An asterisk (*) next to the waste concentration signifies that a violation of the permit limit has occurred.

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : July 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Jul-10	5875	23500	29375	58750	192500
2-Jul-10	7750	31000	38750	77500	
3-Jul-10	1000	4000	5000	10000	199750
4-Jul-10	0	0	0	0	
5-Jul-10	0	0	0	0	
6-Jul-10	0	0	0	0	80000
7-Jul-10	0	0	0	0	
8-Jul-10	0	0	0	0	
9-Jul-10	0	0	0	0	
10-Jul-10	0	0	0	0	
11-Jul-10	4750	19000	23750	47500	
12-Jul-10	4625	18500	23125	46250	
13-Jul-10	2250	9000	11250	22500	136250
14-Jul-10	16500	66000	82500	165000	
15-Jul-10	3000	12000	15000	30000	[illegible]
16-Jul-10	16375	65500	81875	163750	
17-Jul-10	7500	30000	37500	75000	[illegible]
18-Jul-10	750	3000	3750	7500	
19-Jul-10	6375	25500	31875	63750	
20-Jul-10	8125	32500	40625	81250	176250
21-Jul-10	9375	37500	46875	93750	
22-Jul-10	7250	29000	36250	72500	180000
23-Jul-10	8700	34800	43500	87000	[illegible]
24-Jul-10	8500	34000	42500	85000	
25-Jul-10	2000	8000	10000	20000	
26-Jul-10	6000	24000	30000	60000	
27-Jul-10	9625	38500	48125	96250	200000
28-Jul-10	8625	34500	43125	86250	
29-Jul-10	8375	33500	41875	83750	192500
30-Jul-10	6750	27000	33750	67500	
31-Jul-10	7250	29000	36250	72500	[illegible]
Monthly Totals	167325	669300	836625	1673250	[illegible]

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.

The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 14898.3 Pounds/Month
Coagulant Polymer : 383.5 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month :August 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Aug-10	5000	20000	25000	50000	
2-Aug-10	6250	25000	31250	62500	
3-Aug-10	7750	31000	38750	77500	196500
4-Aug-10	9875	39500	49375	98750	
5-Aug-10	7625	30500	38125	76250	183750
6-Aug-10	9750	39000	48750	97500	
7-Aug-10	10000	40000	50000	100000	193750
8-Aug-10	750	3000	3750	7500	
9-Aug-10	6125	24500	30625	61250	
10-Aug-10	9125	36500	45625	91250	188750
11-Aug-10	7750	31000	38750	77500	
12-Aug-10	6250	25000	31250	62500	188250
13-Aug-10	6500	26000	32500	65000	
14-Aug-10	7500	30000	37500	75000	172500
15-Aug-10	2500	10000	12500	25000	
16-Aug-10	6750	27000	33750	67500	
17-Aug-10	5875	23500	29375	58750	133000
18-Aug-10	10000	40000	50000	100000	
19-Aug-10	7250	29000	36250	72500	171250
20-Aug-10	9625	38500	48125	96250	
21-Aug-10	8750	35000	43750	87500	173750
22-Aug-10	3000	12000	15000	30000	
23-Aug-10	6375	25500	31875	63750	
24-Aug-10	5500	22000	27500	55000	196250
25-Aug-10	9500	38000	47500	95000	
26-Aug-10	6000	24000	30000	60000	197000
27-Aug-10	6875	27500	34375	68750	
28-Aug-10	500	2000	2500	5000	191250
29-Aug-10	1500	6000	7500	15000	
30-Aug-10	4250	17000	21250	42500	
31-Aug-10	8750	35000	43750	87500	
8/29/2010	203250	813000	1016250	2032500	2236000

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 20134.7 Pounds/Month
Coagulant Polymer : 508.0 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : Sep 2010

OD 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Sep-10	7500	30000	37500	75000	
2-Sep-10	6750	27000	33750	67500	192500
3-Sep-10	10375	41500	51875	103750	
4-Sep-10	6500	26000	32500	65000	178750
5-Sep-10	1000	4000	5000	10000	
6-Sep-10	1000	4000	5000	10000	
7-Sep-10	4750	19000	23750	47500	135000
8-Sep-10	6375	25500	31875	63750	
9-Sep-10	4000	16000	20000	40000	155750
10-Sep-10	5750	23000	28750	57500	
11-Sep-10	7750	31000	38750	77500	169500
12-Sep-10	1500	6000	7500	15000	
13-Sep-10	6125	24500	30625	61250	
14-Sep-10	5250	21000	26250	52500	193750
15-Sep-10	8625	34500	43125	86250	
16-Sep-10	5875	23500	29375	58750	166250
17-Sep-10	9250	37000	46250	92500	
18-Sep-10	8000	32000	40000	80000	166250
19-Sep-10	3000	12000	15000	30000	
20-Sep-10	4875	19500	24375	48750	
21-Sep-10	8125	32500	40625	81250	161750
22-Sep-10	6500	26000	32500	65000	
23-Sep-10	6200	24800	31000	62000	181750
24-Sep-10	6575	26300	32875	65750	
25-Sep-10	4000	16000	20000	40000	178750
26-Sep-10	500	2000	2500	5000	
27-Sep-10	750	3000	3750	7500	
28-Sep-10	1000	4000	5000	10000	
29-Sep-10	1500	6000	7500	15000	
30-Sep-10	8000	32000	40000	80000	
Monthly Totals	3148000	629600	787000	1574000	1880000

An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred. The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 17967.0 Pounds/ Month
Coagulant Polymer : 420.4 Pounds/ Month

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

July 01, 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	3.0	0.015	0.15	0.38	0.030
	control-3	4.5	1.0	0.015	0.55	0.53	0.025
	control-10	4.0	3.0	0.005	0.05	0.38	0.032
	1	5.0	2.0	0.010	0.00	0.50	0.021
	3	4.0	1.5	0.020	0.25	0.23	0.038
	10	4.5	2.5	0.015	0.05	0.34	0.025
Station 2	1	5.0	2.0	0.010	0.15	0.11	0.033
	3	5.0	2.5	0.015	0.10	0.48	0.041
	10	4.5	2.5	0.015	0.15	0.45	0.022
Station 3	1	6.0	2.0	0.025	0.15	0.35	0.020
	3	4.5	1.5	0.010	0.10	0.56	0.039
	10	5.0	2.0	0.025	0.20	0.50	0.038
Station 4	1	5.0	2.5	0.015	0.25	0.25	0.042
	3	5.0	2.5	0.020	0.10	0.47	0.027
	10	4.0	2.0	0.025	0.30	0.45	0.033
Station 5	1	5.0	3.0	0.005	0.25	0.25	0.036
	3	5.0	2.0	0.025	0.25	0.49	0.021
	10	5.5	3.0	0.030	0.30	0.38	0.038

Aug - 05- 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	2.5	0.015	0.35	0.38	0.030
	control-3	5.0	2.5	0.005	0.15	0.24	0.030
	control-10	4.0	2.0	0.020	0.20	0.22	0.026
	1	5.0	2.0	0.005	0.30	0.13	0.033
	3	5.5	2.5	0.010	0.05	0.49	0.025
	10	4.0	3.5	0.020	0.10	0.25	0.030
Station 2	1	4.5	2.0	0.010	0.20	0.13	0.028
	3	4.0	3.0	0.015	0.15	0.25	0.025
	10	5.5	2.5	0.015	0.35	0.58	0.031
Station 3	1	4.5	2.5	0.015	0.25	0.38	0.028
	3	5.5	2.5	0.025	0.25	0.49	0.035
	10	5.0	2.5	0.015	0.30	0.25	0.020
Station 4	1	4.5	2.5	0.015	0.10	0.56	0.027
	3	5.0	3.0	0.015	0.15	0.29	0.020
	10	5.0	2.5	0.030	0.15	0.37	0.031
Station 5	1	6.0	2.5	0.005	0.15	0.36	0.032
	3	4.5	2.5	0.020	0.15	0.25	0.024
	10	5.5	2.0	0.035	0.20	0.36	0.022

TSS is reported as non-filterable residue
TVSS is reported as volatile non-filterable residue

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

Sep - 02 - 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	2.5	0.025	0.30	0.57	0.033
	control-3	4.5	2.5	0.015	0.25	0.38	0.025
	control-10	5.5	2.0	0.015	0.25	0.24	0.033
	1	4.0	3.5	0.025	0.35	0.38	0.023
	3	5.5	2.5	0.005	0.35	0.62	0.018
	10	4.5	2.0	0.010	0.30	0.53	0.025
Station 2	1	5.0	2.5	0.015	0.30	0.25	0.037
	3	5.0	3.5	0.020	0.30	0.38	0.040
	10	5.5	3.0	0.020	0.20	0.37	0.029
Station 3	1	5.0	2.5	0.025	0.35	0.37	0.036
	3	5.5	2.5	0.015	0.30	0.51	0.040
	10	4.5	2.5	0.005	0.20	0.48	0.017
Station 4	1	6.0	2.5	0.015	0.25	0.25	0.028
	3	5.0	2.5	0.015	0.40	0.66	0.019
	10	4.5	3.5	0.010	0.15	0.50	0.036
Station 5	1	5.5	2.5	0.020	0.30	0.49	0.033
	3	5.5	3.0	0.010	0.30	0.35	0.038
	10	4.5	2.5	0.015	0.35	0.51	0.019

TSS is reported as non-filterable residue
TVSS is reported as volatile non-filterable residue

StarKist

October 08 , 2010

Mr. Alan Ota
US EPA Region 9-OPINAP (E-4) WTR-2
75 Hawthorne Street
San Francisco, CA 94105

Dr. Toafa Vaiaga'e, Director
Office of the Governor, AS EPA
EOB Utulei, American Samoa 96799

Gentlemen:

RE: OD 93-01 SECTION 6.2
Reports and Correspondence

Pursuant to the above referenced Ocean Dumping permit, the final quarterly report for OD 93-01 is enclosed.

Section 6.2.1 and Section 6.2.3

All reports and related correspondence required by General Condition 1.10, Special Conditions 3.2, 3.3, 4.3, 4.5, 4.7, 5.2, 5.3, 5.4, 6.1, and all other materials, including applications shall be submitted to ***(EPA Region IX) (American Samoa Environmental Protection Agency).***

Data compiled are for the period of July 2010 to September 2010. Analytical performance concluded all parameters were met

Joe Carney.
Manager, Engeneering and Maintenance

cc: Brett Butler, SKS General Manager
Carl Goldstein, OPINAP Program Director
File

P.O. Box 368 Pago Pago, AS 96799 684-644-4231 (p) 684-644-2440 (f) www.starkist.com

APPENDIX B - REPORT FORM 2

Data Form for 3-Month Report on Waste Stream Analyses for StarKist Samoa MPRSA 102 Permit #OD 93-01

Reporting Period: From July 2010 to September 2010

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
1-Jul-10	38814	22795	34768	4976.3	720	4750	2925	6.56	1.00
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
5-Aug-10	40701	21274	64500	4743	850	4400	4700	6.60	1.01
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
1-Sep-10	36283	23885	32420	4551.3	810	4800	4950	6.68	1.01
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

Note: An asterisk (*) next to the waste concentration signifies that a violation of the permit limit has occurred.

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : July 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Jul-10	5875	23500	29375	58750	192500
2-Jul-10	7750	31000	38750	77500	
3-Jul-10	1000	4000	5000	10000	199750
4-Jul-10	0	0	0	0	
5-Jul-10	0	0	0	0	
6-Jul-10	0	0	0	0	80000
7-Jul-10	0	0	0	0	
8-Jul-10	0	0	0	0	
9-Jul-10	0	0	0	0	
10-Jul-10	0	0	0	0	
11-Jul-10	4750	19000	23750	47500	
12-Jul-10	4625	18500	23125	46250	
13-Jul-10	2250	9000	11250	22500	136250
14-Jul-10	16500	66000	82500	165000	
15-Jul-10	3000	12000	15000	30000	190000
16-Jul-10	16375	65500	81875	163750	
17-Jul-10	7500	30000	37500	75000	198750
18-Jul-10	750	3000	3750	7500	
19-Jul-10	6375	25500	31875	63750	
20-Jul-10	8125	32500	40625	81250	176250
21-Jul-10	9375	37500	46875	93750	
22-Jul-10	7250	29000	36250	72500	180000
23-Jul-10	8700	34800	43500	87000	152000
24-Jul-10	8500	34000	42500	85000	
25-Jul-10	2000	8000	10000	20000	
26-Jul-10	6000	24000	30000	60000	
27-Jul-10	9625	38500	48125	96250	200000
28-Jul-10	8625	34500	43125	86250	
29-Jul-10	8375	33500	41875	83750	192500
30-Jul-10	6750	27000	33750	67500	
31-Jul-10	7250	29000	36250	72500	198750
Monthly Totals	167325	669300	836625	1673250	2090750

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.

The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 14898.3 Pounds/Month

Coagulant Polymer : 383.5 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month :August 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Aug-10	5000	20000	25000	50000	
2-Aug-10	6250	25000	31250	62500	
3-Aug-10	7750	31000	38750	77500	196500
4-Aug-10	9875	39500	49375	98750	
5-Aug-10	7625	30500	38125	76250	183750
6-Aug-10	9750	39000	48750	97500	
7-Aug-10	10000	40000	50000	100000	193750
8-Aug-10	750	3000	3750	7500	
9-Aug-10	6125	24500	30625	61250	
10-Aug-10	9125	36500	45625	91250	188750
11-Aug-10	7750	31000	38750	77500	
12-Aug-10	6250	25000	31250	62500	188250
13-Aug-10	6500	26000	32500	65000	
14-Aug-10	7500	30000	37500	75000	172500
15-Aug-10	2500	10000	12500	25000	
16-Aug-10	6750	27000	33750	67500	
17-Aug-10	5875	23500	29375	58750	183000
18-Aug-10	10000	40000	50000	100000	
19-Aug-10	7250	29000	36250	72500	171250
20-Aug-10	9625	38500	48125	96250	
21-Aug-10	8750	35000	43750	87500	173750
22-Aug-10	3000	12000	15000	30000	
23-Aug-10	6375	25500	31875	63750	
24-Aug-10	5500	22000	27500	55000	196250
25-Aug-10	9500	38000	47500	95000	
26-Aug-10	6000	24000	30000	60000	197000
27-Aug-10	6875	27500	34375	68750	
28-Aug-10	500	2000	2500	5000	191250
29-Aug-10	1500	6000	7500	15000	
30-Aug-10	4250	17000	21250	42500	
31-Aug-10	8750	35000	43750	87500	
8/29/2010	203250	813000	1016250	2032500	2236000

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 20134.7 Pounds/Month
Coagulant Polymer : 508.0 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : Sep 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	**30,000**	**70,000**	**100,000**	

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Sep-10	7500	30000	37500	75000	
2-Sep-10	6750	27000	33750	67500	192500
3-Sep-10	10375	41500	51875	103750	
4-Sep-10	6500	26000	32500	65000	178750
5-Sep-10	1000	4000	5000	10000	
6-Sep-10	1000	4000	5000	10000	
7-Sep-10	4750	19000	23750	47500	135000
8-Sep-10	6375	25500	31875	63750	
9-Sep-10	4000	16000	20000	40000	155750
10-Sep-10	5750	23000	28750	57500	
11-Sep-10	7750	31000	38750	77500	169500
12-Sep-10	1500	6000	7500	15000	
13-Sep-10	6125	24500	30625	61250	
14-Sep-10	5250	21000	26250	52500	193750
15-Sep-10	8625	34500	43125	86250	
16-Sep-10	5875	23500	29375	58750	166250
17-Sep-10	9250	37000	46250	92500	
18-Sep-10	8000	32000	40000	80000	166250
19-Sep-10	3000	12000	15000	30000	
20-Sep-10	4875	19500	24375	48750	
21-Sep-10	8125	32500	40625	81250	161750
22-Sep-10	6500	26000	32500	65000	
23-Sep-10	6200	24800	31000	62000	181750
24-Sep-10	6575	26300	32875	65750	
25-Sep-10	4000	16000	20000	40000	178750
26-Sep-10	500	2000	2500	5000	
27-Sep-10	750	3000	3750	7500	
28-Sep-10	1000	4000	5000	10000	
29-Sep-10	1500	6000	7500	15000	
30-Sep-10	8000	32000	40000	80000	
Monthly Totals	3148000	629600	787000	1574000	1880000

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 17967.0 Pounds/ Month
Coagulant Polymer : 420.4 Pounds/ Month

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

July 01, 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	3.0	0.015	0.15	0.38	0.030
	control-3	4.5	1.0	0.015	0.55	0.53	0.025
	control-10	4.0	3.0	0.005	0.05	0.38	0.032
	1	5.0	2.0	0.010	0.00	0.50	0.021
	3	4.0	1.5	0.020	0.25	0.23	0.038
	10	4.5	2.5	0.015	0.05	0.34	0.025
Station 2	1	5.0	2.0	0.010	0.15	0.11	0.033
	3	5.0	2.5	0.015	0.10	0.48	0.041
	10	4.5	2.5	0.015	0.15	0.45	0.022
Station 3	1	6.0	2.0	0.025	0.15	0.35	0.020
	3	4.5	1.5	0.010	0.10	0.56	0.039
	10	5.0	2.0	0.025	0.20	0.50	0.038
Station 4	1	5.0	2.5	0.015	0.25	0.25	0.042
	3	5.0	2.5	0.020	0.10	0.47	0.027
	10	4.0	2.0	0.025	0.30	0.45	0.033
Station 5	1	5.0	3.0	0.005	0.25	0.25	0.036
	3	5.0	2.0	0.025	0.25	0.49	0.021
	10	5.5	3.0	0.030	0.30	0.38	0.038

Aug - 05- 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	2.5	0.015	0.35	0.38	0.030
	control-3	5.0	2.5	0.005	0.15	0.24	0.030
	control-10	4.0	2.0	0.020	0.20	0.22	0.026
	1	5.0	2.0	0.005	0.30	0.13	0.033
	3	5.5	2.5	0.010	0.05	0.49	0.025
	10	4.0	3.5	0.020	0.10	0.25	0.030
Station 2	1	4.5	2.0	0.010	0.20	0.13	0.028
	3	4.0	3.0	0.015	0.15	0.25	0.025
	10	5.5	2.5	0.015	0.35	0.58	0.031
Station 3	1	4.5	2.5	0.015	0.25	0.38	0.028
	3	5.5	2.5	0.025	0.25	0.49	0.035
	10	5.0	2.5	0.015	0.30	0.25	0.020
Station 4	1	4.5	2.5	0.015	0.10	0.56	0.027
	3	5.0	3.0	0.015	0.15	0.29	0.020
	10	5.0	2.5	0.030	0.15	0.37	0.031
Station 5	1	6.0	2.5	0.005	0.15	0.36	0.032
	3	4.5	2.5	0.020	0.15	0.25	0.024
	10	5.5	2.0	0.035	0.20	0.36	0.022

TSS is reported as non-filterable residue
TVSS is reported as volatile non-filterable residue

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

Sep - 02 - 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	2.5	0.025	0.30	0.57	0.033
	control-3	4.5	2.5	0.015	0.25	0.38	0.025
	control-10	5.5	2.0	0.015	0.25	0.24	0.033
	1	4.0	3.5	0.025	0.35	0.38	0.023
	3	5.5	2.5	0.005	0.35	0.62	0.018
	10	4.5	2.0	0.010	0.30	0.53	0.025
Station 2	1	5.0	2.5	0.015	0.30	0.25	0.037
	3	5.0	3.5	0.020	0.30	0.38	0.040
	10	5.5	3.0	0.020	0.20	0.37	0.029
Station 3	1	5.0	2.5	0.025	0.35	0.37	0.036
	3	5.5	2.5	0.015	0.30	0.51	0.040
	10	4.5	2.5	0.005	0.20	0.48	0.017
Station 4	1	6.0	2.5	0.015	0.25	0.25	0.028
	3	5.0	2.5	0.015	0.40	0.66	0.019
	10	4.5	3.5	0.010	0.15	0.50	0.036
Station 5	1	5.5	2.5	0.020	0.30	0.49	0.033
	3	5.5	3.0	0.010	0.30	0.35	0.038
	10	4.5	2.5	0.015	0.35	0.51	0.019

TSS is reported as non-filterable residue
TVSS is reported as volatile non-filterable residue

StarKist

January 11 , 2011

Mr. Alan Ota
US EPA Region 9-OPINAP (E-4) WTR-2
75 Hawthorne Street
San Francisco, CA 94105

Dr. Toafa Vaiaga'e, Director
Office of the Governor, AS EPA
EOB Utulei, American Samoa 96799

Gentlemen:

RE: OD 93-01 SECTION 6.2
Reports and Correspondence

Pursuant to the above referenced Ocean Dumping permit, the final quarterly report for OD 93-01 is enclosed.

Section 6.2.1 and Section 6.2.3

All reports and related correspondence required by General Condition 1.10, Special Conditions 3.2, 3.3, 4.3, 4.5, 4.7, 5.2, 5.3, 5.4, 6.1, and all other materials, including applications shall be submitted to ***(EPA Region IX) (American Samoa Environmental Protection Agency).***

Data compiled are for the period of October 2010 to December 2010. Analytical performance concluded all parameters were met

Joe Carney.
Manager, Engeneering and Maintenance

cc: Brett Butler, SKS General Manager
Carl Goldstein, OPINAP Program Director
File

P.O. Box 368 Pago Pago, AS 96799 684-644-4231 (p) 684-644-2440 (f) www.starkist.com

APPENDIX B - REPORT FORM 2

Data Form for 3-Month Report on Waste Stream Analyses for StarKist Samoa MPRSA 102 Permit #OD 93-01

Reporting Period: From October 2010 to December 2010

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
6-Oct-10	32943	17130	38509	5153.8	785	5100	4700	6.74	1.01
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
3-Nov-10	43032	19919	44506	3846.3	805	4900	4900	6.74	1.02
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
1-Dec-10	40396	20035	32417	5348.8	780	4900	5100	6.70	1.02
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

Note: An asterisk (*) next to the waste concentration signifies that a violation of the permit limit has occurred.

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : October 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	**30,000**	**70,000**	**100,000**	

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Oct-10	6000	24000	30000	60000	
2-Oct-10	10000	40000	50000	100000	170000
3-Oct-10	2000	8000	10000	20000	
4-Oct-10	6875	27500	34375	68750	
5-Oct-10	537	2148	2685	5370	198750
6-Oct-10	8625	34500	43125	86250	
7-Oct-10	5625	22500	28125	56250	182500
8-Oct-10	5625	22500	28125	56250	
9-Oct-10	3000	12000	15000	30000	180500
10-Oct-10	3500	14000	17500	35000	
11-Oct-10	750	3000	3750	7500	
12-Oct-10	1500	6000	7500	15000	70000
13-Oct-10	7875	31500	39375	78750	
14-Oct-10	4700	18800	23500	47000	105750
15-Oct-10	9250	37000	46250	92500	
16-Oct-10	3000	12000	15000	30000	173500
17-Oct-10	2000	8000	10000	20000	
18-Oct-10	750	3000	3750	7500	
19-Oct-10	7050	28200	35250	70500	85750
20-Oct-10	7000	28000	35000	70000	
21-Oct-10	8500	34000	42500	85000	152500
22-Oct-10	5375	21500	26875	53750	
23-Oct-10	1500	6000	7500	15000	128750
24-Oct-10	250	1000	1250	2500	
25-Oct-10	0	0	0	0	
26-Oct-10	500	2000	2500	5000	
27-Oct-10	6125	24500	30625	61250	
28-Oct-10	4500	18000	22500	45000	148750
29-Oct-10	5625	22500	28125	56250	
30-Oct-10	1000	4000	5000	10000	136250
31-Oct-10	2000	8000	10000	20000	
Monthly Totals	131037	524148	655185	1310370	1733000

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.

The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum sulfate: 16329.3 Pounds/Month
Coagulant polymer: 366.8 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : November 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	**30,000**	**70,000**	**100,000**	**200,000**

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Nov-10	4625	18500	23125	46250	
2-Nov-10	9000	36000	45000	90000	133750
3-Nov-10	5375	21500	26875	53750	
4-Nov-10	8750	35000	43750	87500	173750
5-Nov-10	6375	25500	31875	63750	
6-Nov-10	3750	15000	18750	37500	163750
7-Nov-10	1000	4000	5000	10000	
8-Nov-10	7625	30500	38125	76250	
9-Nov-10	4750	19000	23750	47500	140750
10-Nov-10	8125	32500	40625	81250	
11-Nov-10	6375	25500	31875	63750	172000
12-Nov-10	5875	23500	29375	58750	
13-Nov-10	750	3000	3750	7500	125750
14-Nov-10	500	2000	2500	5000	
15-Nov-10	1500	6000	7500	15000	
16-Nov-10	5000	20000	25000	50000	
17-Nov-10	4875	19500	24375	48750	
18-Nov-10	3625	14500	18125	36250	173750
19-Nov-10	4625	18500	23125	46250	
20-Nov-10	250	1000	1250	2500	192500
21-Nov-10	750	3000	3750	7500	
22-Nov-10	250	1000	1250	2500	
23-Nov-10	250	1000	1250	2500	
24-Nov-10	250	1000	1250	2500	
25-Nov-10	250	1000	1250	2500	
26-Nov-10	250	1000	1250	2500	
27-Nov-10	0	0	0	0	
28-Nov-10	500	2000	2500	5000	
29-Nov-10	3250	13000	16250	32500	
30-Nov-10	6875	27500	34375	68750	165000
Monthly Totals	105375	421500	526875	1053750	1441000

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 13356.0 Pounds/Month
Coagulant Polymer : 300.4 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : December 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	**30,000**	**70,000**	**100,000**	**200,000**

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Dec-10	6125	24500	30625	61250	
2-Dec-10	8000	32000	40000	80000	155000
3-Dec-10	6125	24500	30625	61250	
4-Dec-10	1700	6800	8500	17000	158750
5-Dec-10	1000	4000	5000	10000	
6-Dec-10	3250	13000	16250	32500	
7-Dec-10	6500	26000	32500	65000	135000
8-Dec-10	7625	30500	38125	76250	
9-Dec-10	5000	20000	25000	50000	136250
10-Dec-10	6750	27000	33750	67500	
11-Dec-10	1000	4000	5000	10000	155500
12-Dec-10	1000	4000	5000	10000	
13-Dec-10	4625	18500	23125	46250	
14-Dec-10	7875	31500	39375	78750	165000
15-Dec-10	5625	22500	28125	56250	
16-Dec-10	9000	36000	45000	90000	138250
17-Dec-10	1000	4000	5000	10000	
18-Dec-10	0	0	0		120000
19-Dec-10	0	0	0		
20-Dec-10	0	0	0		
21-Dec-10	0	0	0		
22-Dec-10	0	0	0		
23-Dec-10	0	0	0		
24-Dec-10	0	0	0		
25-Dec-10	0	0	0		
26-Dec-10	0	0	0		
27-Dec-10	0	0	0		
28-Dec-10	0	0	0		
29-Dec-10	0	0	0		
30-Dec-10	0	0	0		
31-Dec-10	0	0	0		
Monthly Totals	82200	328800	411000	822000	1163750

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred. The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 9322.7 Pounds/Month
Coagulant Polymer : 215.4 Pounds/Month

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

07 - Oct - 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	2.0	0.025	0.30	0.38	0.035
	control-3	4.5	2.0	0.025	0.20	0.50	0.018
	control-10	6.5	2.0	0.010	0.25	0.29	0.018
	1	6.5	2.0	0.025	0.25	0.27	0.031
	3	4.5	1.0	0.000	0.25	0.13	0.035
	10	5.0	2.5	0.020	0.20	0.25	0.041
Station 2	1	5.5	1.5	0.020	0.20	0.38	0.041
	3	6.0	1.5	0.015	0.30	0.25	0.046
	10	5.5	2.0	0.015	0.15	0.38	0.035
Station 3	1	5.5	2.5	0.015	0.35	0.38	0.045
	3	6.5	1.5	0.015	0.15	0.41	0.023
	10	5.0	2.5	0.005	0.25	0.44	0.020
Station 4	1	5.5	3.5	0.025	0.35	0.26	0.027
	3	5.0	2.0	0.010	0.15	0.38	0.026
	10	5.0	1.5	0.025	0.30	0.25	0.031
Station 5	1	6.0	2.5	0.025	0.35	0.39	0.021
	3	6.5	1.5	0.015	0.20	0.25	0.033
	10	4.5	2.0	0.025	0.25	0.41	0.023

Nov - 04- 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	6.0	1.5	0.015	0.20	0.25	0.027
	control-3	4.5	2.0	0.010	0.30	0.13	0.033
	control-10	6.0	2.0	0.015	0.10	0.31	0.017
	1	4.5	2.5	0.010	0.25	0.29	0.023
	3	4.0	3.0	0.010	0.25	0.25	0.031
	10	5.5	1.5	0.005	0.30	0.18	0.026
Station 2	1	5.5	2.0	0.015	0.30	0.27	0.028
	3	4.0	2.5	0.005	0.20	0.25	0.034
	10	5.5	1.5	0.015	0.25	0.34	0.019
Station 3	1	5.5	2.0	0.005	0.15	0.14	0.031
	3	5.0	3.0	0.010	0.25	0.32	0.031
	10	4.5	1.5	0.010	0.20	0.34	0.024
Station 4	1	5.0	2.0	0.015	0.35	0.20	0.035
	3	5.5	1.5	0.015	0.20	0.19	0.038
	10	5.0	2.5	0.005	0.25	0.32	0.035
Station 5	1	5.5	2.5	0.015	0.05	0.32	0.024
	3	4.5	2.5	0.005	0.15	0.32	0.032
	10	5.0	1.0	0.010	0.10	0.28	0.029

TSS is reported as non-filterable residue
TVSS is reported as volatile non-filterable residue

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

Dec - 02 - 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	4.5	3.0	0.015	0.15	0.37	0.027
	control-3	5.0	3.0	0.015	0.15	0.50	0.023
	control-10	5.5	2.5	0.010	0.15	0.58	0.021
	1	5.5	2.5	0.005	0.20	0.68	0.018
	3	4.5	2.0	0.015	0.20	0.62	0.031
	10	4.5	2.5	0.015	0.30	0.66	0.040
Station 2	1	5.0	2.0	0.015	0.10	0.49	0.025
	3	5.0	3.0	0.025	0.20	0.53	0.028
	10	4.5	2.5	0.010	0.10	0.38	0.033
Station 3	1	5.0	3.0	0.010	0.30	0.38	0.028
	3	5.5	3.5	0.015	0.25	0.45	0.027
	10	5.0	2.5	0.025	0.25	0.43	0.030
Station 4	1	5.5	2.5	0.005	0.20	0.53	0.029
	3	4.5	3.5	0.025	0.30	0.50	0.028
	10	4.5	2.0	0.015	0.10	0.49	0.035
Station 5	1	6.0	3.5	0.025	0.05	0.43	0.040
	3	4.5	2.5	0.025	0.15	0.55	0.035
	10	4.5	2.5	0.010	0.20	0.62	0.025

TSS is reported as non-filterable residue
TVSS is reported as volatile non-filterable residue

StarKist Samoa, Co Ltd.
P.O. Box 368
Pago, American Samoa 96799
Phone: (684) 644-4231 Ext. 421
Fax (684) 644-1033 or 644-2440

January 11, 2010

Mr. Alan Ota
US EPA Region 9-OPINAP (E-4) WTR-2
75 Hawthorne Street
San Francisco, CA 94105

Dr. Toafa Vaiaga'e, Director
Office of the Governor, AS EPA
EOB Utulei, American Samoa 96799

Gentlemen:

RE: OD 93-01 SECTION 6.2
Reports and Correspondence

Pursuant to the above referenced Ocean Dumping permit, the final quarterly report for OD 93-01 is enclosed.

Section 6.2.1 and Section 6.2.3

All reports and related correspondence required by General Condition 1.10, Special Conditions 3.2, 3.3, 4.3, 4.5, 4.7, 5.2, 5.3, 5.4, 6.1, and all other materials, including applications shall be submitted to ***(EPA Region IX) (American Samoa Environmental Protection Agency).***

Data compiled are for the period of October 2009 to December 2009. Analytical performance concluded all parameters were met

Joe Carney.
Manager, Engeneering and Maintenance

cc: Brett Butler, SKS General Manager
Carl Goldstein, OPINAP Program Director
File

Reporting Period: From October 2009 to December 2009

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
28-Oct-09	32542	23468	46274	4368	790	4300	4120	6.9	1.01
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
12-Nov-09	39078	30158	68992	5325	520	5800	2555	6.5	1
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
9-Dec-09	60537	21023	65486	5592	770	4800	4050	6.7	1.01
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

Note: An asterisk (*) next to the waste concentration signifies that a violation of the permit limit has occurred

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : October 2009

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	200,000

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Oct-09	0	0	0	0	0
2-Oct-09	0	0	0	0	0
3-Oct-09	0	0	0	0	0
4-Oct-09	0	0	0	0	0
5-Oct-09	0	0	0	0	0
6-Oct-09	0	0	0	0	0
7-Oct-09	0	0	0	0	0
8-Oct-09	0	0	0	0	0
9-Oct-09	0	0	0	0	0
10-Oct-09	0	0	0	0	0
11-Oct-09	0	0	0	0	0
12-Oct-09	0	0	0	0	0
13-Oct-09	0	0	0	0	0
14-Oct-09	0	0	0	0	0
15-Oct-09	0	0	0	0	0
16-Oct-09	0	0	0	0	0
17-Oct-09	0	0	0	0	0
18-Oct-09	0	0	0	0	0
19-Oct-09	0	0	0	0	0
20-Oct-09	0	0	0	0	0
21-Oct-09	0	0	0	0	0
22-Oct-09	0	0	0	0	0
23-Oct-09	0	0	0	0	0
24-Oct-09	1250	5000	6250	12500	0
25-Oct-09	8000	32000	40000	80000	120000
26-Oct-09	6000	24000	30000	60000	0
27-Oct-09	7000	28000	35000	70000	90000
28-Oct-09	6250	25000	31250	62500	0
29-Oct-09	11750	47000	58750	117500	155000
30-Oct-09	7250	29000	36250	72500	97500
31-Oct-09	1500	6000	7500	15000	95000
Monthly Totals	49000	196000	245000	490000	557500

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.

The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum sulfate: 5072.1 Pounds/Month

Coagulant polymer: 142.3 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : November 2009

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	200,000

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Nov-09	2750	11000	13750	27500	0
2-Nov-09	9000	36000	45000	90000	0
3-Nov-09	7000	28000	35000	70000	142500
4-Nov-09	8250	33000	41250	82500	0
5-Nov-09	8000	32000	40000	80000	167500
6-Nov-09	9875	39500	49375	98750	0
7-Nov-09	750	3000	3750	7500	163750
8-Nov-09	500	2000	2500	5000	0
9-Nov-09	2400	9600	12000	24000	0
10-Nov-09	6500	26000	32500	65000	0
11-Nov-09	8750	35000	43750	87500	155000
12-Nov-09	9000	36000	45000	90000	0
13-Nov-09	6250	25000	31250	62500	162500
14-Nov-09	7500	30000	37500	75000	0
15-Nov-09	4250	17000	21250	42500	170000
16-Nov-09	9000	36000	45000	90000	0
17-Nov-09	8750	35000	43750	87500	132500
18-Nov-09	10250	41000	51250	102500	0
19-Nov-09	6500	26000	32500	65000	170000
20-Nov-09	10500	42000	52500	105000	0
21-Nov-09	8250	33000	41250	82500	173000
22-Nov-09	7000	28000	35000	70000	0
23-Nov-09	5250	21000	26250	52500	160000
24-Nov-09	9500	38000	47500	95000	0
25-Nov-09	9000	36000	45000	90000	167500
26-Nov-09	12500	50000	62500	125000	0
27-Nov-09	10000	40000	50000	100000	17500
28-Nov-09	4500	18000	22500	45000	0
29-Nov-09	5000	20000	25000	50000	135200
30-Nov-09	5000	20000	25000	50000	0
31-Aug-09	0	0	0	0	0
Monthly Totals	211775	847100	1058875	2117750	1916950

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 19106.5 Pounds/Month
Coagulant Polymer : 455.9 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : December 2009

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	200,000

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Dec-09	8000	32000	40000	80000	0
2-Dec-09	9750	39000	48750	97500	17500
3-Dec-09	7500	30000	37500	75000	0
4-Dec-09	11250	45000	56250	112500	175000
5-Dec-09	3750	15000	18750	37500	160000
6-Dec-09	9500	38000	47500	95000	0
7-Dec-09	4250	17000	21250	42500	0
8-Dec-09	10250	41000	51250	102500	165000
9-Dec-09	6500	26000	32500	65000	0
10-Dec-09	12000	48000	60000	120000	170200
11-Dec-09	3000	12000	15000	30000	87700
12-Dec-09	10250	41000	51250	102500	125200
13-Dec-09	4500	18000	22500	45000	0
14-Dec-09	6000	24000	30000	60000	0
15-Dec-09	6750	27000	33750	67500	185200
16-Dec-09	10750	43000	53750	107500	0
17-Dec-09	6750	27000	33750	67500	175400
18-Dec-09	10000	40000	50000	100000	0
19-Dec-09	8500	34000	42500	85000	190200
20-Dec-09	1250	5000	6250	12500	0
21-Dec-09	500	2000	2500	5000	125000
22-Dec-09	250	1000	1250	2500	0
23-Dec-09	250	1000	1250	2500	0
24-Dec-09	1250	5000	6250	12500	0
25-Dec-09	250	1000	1250	2500	0
26-Dec-09	250	1000	1250	2500	0
27-Dec-09	250	1000	1250	2500	0
28-Dec-09	500	2000	2500	5000	0
29-Dec-09	250	1000	1250	2500	0
30-Dec-09	250	1000	1250	2500	0
31-Dec-09	250	1000	1250	2500	0
Monthly Totals	154750	619000	773750	1547500	1576400

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 15026.2 Pounds/Month
Coagulant Polymer : 360.0 Pounds/Month

StarKist Samoa Inc
Ocean Dump Site Monitoring Reports

29-Oct-2009	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	3.0	0.015	0.10	0.23	0.029
	control-3	5.0	2.5	0.010	0.10	0.34	0.022
	control-10	6.0	3.0	0.005	0.10	0.23	0.019
	1	6.0.	4.0	0.005	0.20	0.47	0.027
	3	6.0	4.0	0.025	0.30	0.55	0.022
	10	5.5	3.0	0.020	0.15	0.24	0.019
Station 2	1	6.0	3.5	0.010	0.25	0.44	0.050
	3	5.5	2.5	0.025	0.10	0.60	0.038
	10	5.0	3.0	0.050	0.35	0.55	0.021
Station 3	1	5.5	2.5	0.010	0.10	0.45	0.020
	3	5.5	3.5	0.020	0.40	0.32	0.037
	10	5.5	3.0	0.040	0.40	0.44	0.037
Station 4	1	4.5	2.0	0.030	0.35	0.33	0.037
	3	5.0	2.5	0.030	0.35	0.23	0.019
	10	5.0	2.5	0.015	0.45	0.34	0.025
Station 5	1	5.5	2.5	0.020	0.20	0.25	0.031
	3	5.5	3.5	0.035	0.25	0.34	0.030
	10	5.0	3.5	0.030	0.25	0.34	0.028

13 - Nov - 2009	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	3.0	0.040	0.20	0.38	0.038
	control-3	5.0	3.0	0.010	0.25	0.47	0.029
	control-10	6.0	3.0	0.040	0.15	0.58	0.033
	1	5.0	3.0	0.025	0.15	0.24	0.040
	3	6.0	3.0	0.015	0.40	0.47	0.025
	10	5.5	3.5	0.035	0.15	0.23	0.035
Station 2	1	5.5	3.0	0.015	0.20	0.12	0.036
	3	4.5	3.5	0.040	0.20	0.59	0.028
	10	5.5	3.0	0.015	0.40	0.35	0.031
Station 3	1	5.5	2.5	0.010	0.15	0.25	0.047
	3	5.5	3.0	0.030	0.20	0.23	0.049
	10	5.5.	3.0	0.025	0.10	0.35	0.035
Station 4	1	5.5	2.5	0.005	0.30	0.47	0.035
	3	6.0	2.5	0.010	0.15	0.24	0.027
	10	5.0	2.5	0.045	0.20	0.35	0.030
Station 5	1	6.0	3.5	0.015	0.10	0.23	0.031
	3	5.0	2.5	0.015	0.10	0.35	0.027
	10	6.0	3.5	0.045	0.15	0.35	0.035

TSS is reported as non-filterable residue

TVSS is reported as volatile non-filterable residue

StarKist Samoa Inc
Ocean Dump Site Monitoring Reports

10-Dec-2009	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	4.0	1.5	0.030	0.25	0.34	0.020
	control-3	5.5.	2.0	0.015	0.20	0.11	0.016
	control-10	5.0	3.0	0.020	0.30	0.23	0.024
	1	4.5	1.5	0.020	0.25	0.34	0.023
	3	5.5	2.5	0.015	0.30	0.11	0.029
	10	5.0	2.5	0.015	0.25	0.47	0.032
Station 2	1	6.0	2.5	0.015	0.20	0.11	0.024
	3	5.0	1.5	0.030	0.30	0.45	0.022
	10	5.0	2.0	0.020	0.20	0.46	0.021
Station 3	1	5.0	2.0	0.020	0.35	0.57	0.021
	3	5.0	1.5	0.030	0.05	0.11	0.032
	10	4.5	3.0	0.025	0.20	0.47	0.028
Station 4	1	5.5	2.5	0.020	0.10	0.58	0.030
	3	6.0	1.0	0.025	0.20	0.44	0.024
	10	5.0	2.5	0.015	0.10	0.34	0.020
Station 5	1	6.0	3.0	0.035	0.00	0.11	0.033
	3	5.0	1.5	0.020	0.15	0.23	0.023
	10	4.5.	2.0	0.005	0.25	0.23	0.024

TSS is reported as non-filterable residue
TVSS is reported as volatile non-filterable residue

StarKist

January 11 , 2011

Mr. Alan Ota
US EPA Region 9-OPINAP (E-4) WTR-2
75 Hawthorne Street
San Francisco, CA 94105

Dr. Toafa Vaiaga'e, Director
Office of the Governor, AS EPA
EOB Utulei, American Samoa 96799

Gentlemen:

RE: OD 93-01 SECTION 6.2
Reports and Correspondence

Pursuant to the above referenced Ocean Dumping permit, the final quarterly report for OD 93-01 is enclosed.

Section 6.2.1 and Section 6.2.3

All reports and related correspondence required by General Condition 1.10, Special Conditions 3.2, 3.3, 4.3, 4.5, 4.7, 5.2, 5.3, 5.4, 6.1, and all other materials, including applications shall be submitted to ***(EPA Region IX) (American Samoa Environmental Protection Agency).***

Data compiled are for the period of October 2010 to December 2010. Analytical performance concluded all parameters were met

Joe Carney.
Manager, Engeneering and Maintenance

cc: Brett Butler, SKS General Manager
Carl Goldstein, OPINAP Program Director
File

P.O. Box 368 Pago Pago, AS 96799 684-644-4231 (p) 684-644-2440 (f) www.starkist.com

APPENDIX B - REPORT FORM 2

Data Form for 3-Month Report on Waste Stream Analyses for StarKist Samoa MPRSA 102 Permit #OD 93-01

Reporting Period: From October 2010 to December 2010

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
6-Oct-10	32943	17130	38509	5153.8	785	5100	4700	6.74	1.01
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
3-Nov-10	43032	19919	44506	3846.3	805	4900	4900	6.74	1.02
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
1-Dec-10	40396	20035	32417	5348.8	780	4900	5100	6.70	1.02
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

Note: An asterisk (*) next to the waste concentration signifies that a violation of the permit limit has occurred.

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : October 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	**30,000**	**70,000**	**100,000**	

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Oct-10	6000	24000	30000	60000	
2-Oct-10	10000	40000	50000	100000	170000
3-Oct-10	2000	8000	10000	20000	
4-Oct-10	6875	27500	34375	68750	
5-Oct-10	537	2148	2685	5370	198750
6-Oct-10	8625	34500	43125	86250	
7-Oct-10	5625	22500	28125	56250	182500
8-Oct-10	5625	22500	28125	56250	
9-Oct-10	3000	12000	15000	30000	180500
10-Oct-10	3500	14000	17500	35000	
11-Oct-10	750	3000	3750	7500	
12-Oct-10	1500	6000	7500	15000	70000
13-Oct-10	7875	31500	39375	78750	
14-Oct-10	4700	18800	23500	47000	105750
15-Oct-10	9250	37000	46250	92500	
16-Oct-10	3000	12000	15000	30000	173500
17-Oct-10	2000	8000	10000	20000	
18-Oct-10	750	3000	3750	7500	
19-Oct-10	7050	28200	35250	70500	85750
20-Oct-10	7000	28000	35000	70000	
21-Oct-10	8500	34000	42500	85000	152500
22-Oct-10	5375	21500	26875	53750	
23-Oct-10	1500	6000	7500	15000	128750
24-Oct-10	250	1000	1250	2500	
25-Oct-10	0	0	0	0	
26-Oct-10	500	2000	2500	5000	
27-Oct-10	6125	24500	30625	61250	
28-Oct-10	4500	18000	22500	45000	148750
29-Oct-10	5625	22500	28125	56250	
30-Oct-10	1000	4000	5000	10000	136250
31-Oct-10	2000	8000	10000	20000	
Monthly Totals	131037	524148	655185	1310370	1733000

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.

The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum sulfate: 16329.3 Pounds/Month
Coagulant polymer: 366.8 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : November 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	**30,000**	**70,000**	**100,000**	**200,000**

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Nov-10	4625	18500	23125	46250	
2-Nov-10	9000	36000	45000	90000	133750
3-Nov-10	5375	21500	26875	53750	
4-Nov-10	8750	35000	43750	87500	173750
5-Nov-10	6375	25500	31875	63750	
6-Nov-10	3750	15000	18750	37500	163750
7-Nov-10	1000	4000	5000	10000	
8-Nov-10	7625	30500	38125	76250	
9-Nov-10	4750	19000	23750	47500	140750
10-Nov-10	8125	32500	40625	81250	
11-Nov-10	6375	25500	31875	63750	172000
12-Nov-10	5875	23500	29375	58750	
13-Nov-10	750	3000	3750	7500	125750
14-Nov-10	500	2000	2500	5000	
15-Nov-10	1500	6000	7500	15000	
16-Nov-10	5000	20000	25000	50000	
17-Nov-10	4875	19500	24375	48750	
18-Nov-10	3625	14500	18125	36250	173750
19-Nov-10	4625	18500	23125	46250	
20-Nov-10	250	1000	1250	2500	192500
21-Nov-10	750	3000	3750	7500	
22-Nov-10	250	1000	1250	2500	
23-Nov-10	250	1000	1250	2500	
24-Nov-10	250	1000	1250	2500	
25-Nov-10	250	1000	1250	2500	
26-Nov-10	250	1000	1250	2500	
27-Nov-10	0	0	0	0	
28-Nov-10	500	2000	2500	5000	
29-Nov-10	3250	13000	16250	32500	
30-Nov-10	6875	27500	34375	68750	165000
Monthly Totals	105375	421500	526875	1053750	1441000

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 13356.0 Pounds/Month
Coagulant Polymer : 300.4 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : December 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	**30,000**	**70,000**	**100,000**	**200,000**

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Dec-10	6125	24500	30625	61250	
2-Dec-10	8000	32000	40000	80000	155000
3-Dec-10	6125	24500	30625	61250	
4-Dec-10	1700	6800	8500	17000	158750
5-Dec-10	1000	4000	5000	10000	
6-Dec-10	3250	13000	16250	32500	
7-Dec-10	6500	26000	32500	65000	135000
8-Dec-10	7625	30500	38125	76250	
9-Dec-10	5000	20000	25000	50000	136250
10-Dec-10	6750	27000	33750	67500	
11-Dec-10	1000	4000	5000	10000	155500
12-Dec-10	1000	4000	5000	10000	
13-Dec-10	4625	18500	23125	46250	
14-Dec-10	7875	31500	39375	78750	165000
15-Dec-10	5625	22500	28125	56250	
16-Dec-10	9000	36000	45000	90000	138250
17-Dec-10	1000	4000	5000	10000	
18-Dec-10	0	0	0		120000
19-Dec-10	0	0	0		
20-Dec-10	0	0	0		
21-Dec-10	0	0	0		
22-Dec-10	0	0	0		
23-Dec-10	0	0	0		
24-Dec-10	0	0	0		
25-Dec-10	0	0	0		
26-Dec-10	0	0	0		
27-Dec-10	0	0	0		
28-Dec-10	0	0	0		
29-Dec-10	0	0	0		
30-Dec-10	0	0	0		
31-Dec-10	0	0	0		
Monthly Totals	82200	328800	411000	822000	1163750

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred. The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 9322.7 Pounds/Month
Coagulant Polymer : 215.4 Pounds/Month

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

07 - Oct - 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	2.0	0.025	0.30	0.38	0.035
	control-3	4.5	2.0	0.025	0.20	0.50	0.018
	control-10	6.5	2.0	0.010	0.25	0.29	0.018
	1	6.5	2.0	0.025	0.25	0.27	0.031
	3	4.5	1.0	0.000	0.25	0.13	0.035
	10	5.0	2.5	0.020	0.20	0.25	0.041
Station 2	1	5.5	1.5	0.020	0.20	0.38	0.041
	3	6.0	1.5	0.015	0.30	0.25	0.046
	10	5.5	2.0	0.015	0.15	0.38	0.035
Station 3	1	5.5	2.5	0.015	0.35	0.38	0.045
	3	6.5	1.5	0.015	0.15	0.41	0.023
	10	5.0	2.5	0.005	0.25	0.44	0.020
Station 4	1	5.5	3.5	0.025	0.35	0.26	0.027
	3	5.0	2.0	0.010	0.15	0.38	0.026
	10	5.0	1.5	0.025	0.30	0.25	0.031
Station 5	1	6.0	2.5	0.025	0.35	0.39	0.021
	3	6.5	1.5	0.015	0.20	0.25	0.033
	10	4.5	2.0	0.025	0.25	0.41	0.023

Nov - 04- 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	6.0	1.5	0.015	0.20	0.25	0.027
	control-3	4.5	2.0	0.010	0.30	0.13	0.033
	control-10	6.0	2.0	0.015	0.10	0.31	0.017
	1	4.5	2.5	0.010	0.25	0.29	0.023
	3	4.0	3.0	0.010	0.25	0.25	0.031
	10	5.5	1.5	0.005	0.30	0.18	0.026
Station 2	1	5.5	2.0	0.015	0.30	0.27	0.028
	3	4.0	2.5	0.005	0.20	0.25	0.034
	10	5.5	1.5	0.015	0.25	0.34	0.019
Station 3	1	5.5	2.0	0.005	0.15	0.14	0.031
	3	5.0	3.0	0.010	0.25	0.32	0.031
	10	4.5	1.5	0.010	0.20	0.34	0.024
Station 4	1	5.0	2.0	0.015	0.35	0.20	0.035
	3	5.5	1.5	0.015	0.20	0.19	0.038
	10	5.0	2.5	0.005	0.25	0.32	0.035
Station 5	1	5.5	2.5	0.015	0.05	0.32	0.024
	3	4.5	2.5	0.005	0.15	0.32	0.032
	10	5.0	1.0	0.010	0.10	0.28	0.029

TSS is reported as non-filterable residue
TVSS is reported as volatile non-filterable residue

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

Dec - 02 - 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	4.5	3.0	0.015	0.15	0.37	0.027
	control-3	5.0	3.0	0.015	0.15	0.50	0.023
	control-10	5.5	2.5	0.010	0.15	0.58	0.021
	1	5.5	2.5	0.005	0.20	0.68	0.018
	3	4.5	2.0	0.015	0.20	0.62	0.031
	10	4.5	2.5	0.015	0.30	0.66	0.040
Station 2	1	5.0	2.0	0.015	0.10	0.49	0.025
	3	5.0	3.0	0.025	0.20	0.53	0.028
	10	4.5	2.5	0.010	0.10	0.38	0.033
Station 3	1	5.0	3.0	0.010	0.30	0.38	0.028
	3	5.5	3.5	0.015	0.25	0.45	0.027
	10	5.0	2.5	0.025	0.25	0.43	0.030
Station 4	1	5.5	2.5	0.005	0.20	0.53	0.029
	3	4.5	3.5	0.025	0.30	0.50	0.028
	10	4.5	2.0	0.015	0.10	0.49	0.035
Station 5	1	6.0	3.5	0.025	0.05	0.43	0.040
	3	4.5	2.5	0.025	0.15	0.55	0.035
	10	4.5	2.5	0.010	0.20	0.62	0.025

TSS is reported as non-filterable residue
TVSS is reported as volatile non-filterable residue

StarKist

April, 2010

Mr. Carl L. Goldstein
U. S. EPA Region 9
Pacific Insular Area Program (CMD-5)
75 Hawthorne Street
San Francisco, CA 94105

Dr. Toafa Vaiaga'e
Director, AS EPA
Office of the Governor
EOB Utulei, American Samoa 96799

Gentlemen :

Re : **Discharge Monitoring Report for the Months of January,February and March of 2010, under NPDES No . AS0000019 as issued to Star Kist Samoa, INC.**

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of January, February and March of 2010.

Star Kist Samoa met all Effluent limits.

Sincerely

Joe Carney
Manager , Engineering and Maintenance

Wa \ ls : \ npdes \samoa
Attachments :
cc :
Mr. Alan Ota
Mr. Brett Butler

323 North Shore Drive Suite 600 Pittsburgh, Pennsylvania 15212 412.323.7400 www.starkist.com

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799
FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799
ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	01/01/2010	TO	01/31/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Temperature, water deg. fahrenheit	SAMPLE MEASUREMENT	******	******	******	******	78	82		0		
00011 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	90 30DA AVG	95 DAILY MX	deg F		Continuous	CONTIN
BOD, 5-day, 20 deg. C	SAMPLE MEASUREMENT	******	******	******	******	312.8	26.6		0		
00310 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	Req. Mon. MO AVG	Req. Mon. DAILY MX	mg/L		Weekly	COMP24
pH	SAMPLE MEASUREMENT	******	******	******	7.0	******	7.3		0		
00400 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	6.5 MINIMUM	******	8.6 MAXIMUM	SU		Continuous	CONTIN
Solids, total suspended	SAMPLE MEASUREMENT	1081.8	1572.4		******	******	******	******	0		
00530 1 0 Effluent Gross	PERMIT REQUIREMENT	3960 MO AVG	9960 DAILY MX	lb/d	******	******	******	******		Weekly	COMP24
Nitrogen, total (as N)	SAMPLE MEASUREMENT	704.0	1011.2		******	******	******	******	0		
00600 1 0 Effluent Gross	PERMIT REQUIREMENT	1200 MO AVG	2100 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24
Nitrogen, ammonia total (as N)	SAMPLE MEASUREMENT	346.5	391.5		******	26.0	26.6		0		
00610 1 0 Effluent Gross	PERMIT REQUIREMENT	2016 MO AVG	4045 DAILY MX	lb/d	******	83.36 30DA AVG	167.26 DAILY MX	mg/L		Weekly	COMP24
Phosphorus, total (as P)	SAMPLE MEASUREMENT	100.2	135.4		******	******	******	******	0		
00665 1 0 Effluent Gross	PERMIT REQUIREMENT	192 MO AVG	309 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe.Carney Engineering & Maint	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	684-644-4232		4-6-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799

FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	01/01/2010	TO	01/31/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oil and grease	SAMPLE MEASUREMENT	231.0	457.6		******	******	******	******	0		
03582 1 0 Effluent Gross	PERMIT REQUIREMENT	1008 MO AVG	2520 DAILY MX	lb/d	******	******	******	******		Weekly	GRAB
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	1.236129	1.770000		******	******	******	******	0		
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	Req. Mon. DAILY MX	Mgal/d	******	******	******	******		Continuous	METER

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe.Carney Engineering & Maint	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	684-644-4232		4-6-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Wastewater Summary Report for the month of January 2010

Date	Production Tons	Flow mgd	Alum #/day	Poly #/day	Max Temp F	pH Limits Lo	pH Limits Hi	Oil &Grease Eff mg/l	Oil &Grease Total #/day	TSS Eff mg/l	TSS Total #/day	TP Eff mg/l	TP Total #/day	TN Eff mg/l	TN Total #/day	Total Ammonia Eff mg/L	Total Ammonia #/day	BOD5 Eff mg/l	BOD5 Total #/day
1																			
2		0.040000	84.8	2.5	80	7.2	7.2												
3		0.560000	259.7	8.2	80	7.0	7.3												
4	231.1100	1.400000	779.1	19.5	82	7.2	7.3												
5	312.6006	1.480000	869.2	21.7	82	7.0	7.2	22.0	270.8	106.0	1304.6	8.4	103.4	53.0	652.3	25.5	313.8	341.6	4204.3
6	368.9008	1.670000	869.2	19.6	80	7.2	7.2					6.6	91.7	44.0	611.1				
7	393.4211	1.570000	821.5	18.3	80	7.2	7.2												
8	423.0471	1.350000	620.1	14.0	80	7.2	7.2												
9		0.470000	238.5	4.8	80	7.2	7.2												
10		0.670000	270.3	6.2	80	7.2	7.2												
11	339.6506	1.350000	609.5	13.0	80	7.2	7.2												
12	365.3694	1.520000	901.0	21.0	80	7.2	7.2	36.2	457.6	71.3	901.3	7.8	98.6	45.0	568.8	26.5	335.0		
13	414.1822	1.600000	880.0	20.0	80	7.2	7.2					5.9	78.5	76.0	1011.2			268.8	3576.5
14	402.8979	1.660000	810.9	20.0	80	7.2	7.2												
15	387.4726	1.260000	614.8	16.1	80	7.2	7.2												
16		0.500000	302.1	6.6	82	7.0	7.2												
17		0.530000	249.1	6.6	80	7.1	7.2												
18	372.4821	1.340000	694.3	18.2	80	7.0	7.2												
19	369.8802	1.520000	689.0	17.1	80	7.0	7.1												
20	416.9082	1.770000	848.0	22.0	82	7.0	7.1	7.2	106.0	37.3	549.0	9.2	135.4	48.0	706.5	26.6	391.5	331.8	4883.9
21	390.5072	1.750000	853.3	22.1	82	7.0	7.1					7.9	115.0	39.0	567.6				
22	423.0478	1.720000	757.9	19.7	81	7.1	7.1												
23	419.2798	1.220000	593.6	15.5	81	7.0	7.2												
24		1.310000	598.9	16.1	80	7.0	7.2												
25	430.5605	1.570000	789.7	20.7	80	7.0	7.2												
26	434.2409	1.630000	837.4	22.1	80	7.0	7.2	6.6	89.5	116.0	1572.4	8.1	109.8	45.0	610.0	25.5	345.7	308.8	4185.8
27	451.5647	1.490000	858.6	21.7	80	7.0	7.1					5.6	69.4	73.0	904.5				
28	461.6088	1.520000	863.9	22.0	80	7.1	7.1												
29	449.7225	1.600000	773.8	20.9	80	7.1	7.1												
30	445.5043	1.220000	392.2	11.3	80	7.0	7.2												
31		1.030000	429.3	8.9	80	7.1	7.1												
TOT	8703.9593	38.320000	19159.7	476.4					923.9		4327.3		801.8		5632.0		1386.0		16850.5
AVG	395.6345	1.236129	618.1	15.4	78			18.0	231.0	82.7	1081.8	7.4	100.2	52.9	704.0	26.0	346.5	312.8	4212.6

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799

FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	02/01/2010	TO	02/28/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Temperature, water deg. fahrenheit	SAMPLE MEASUREMENT	******	******	******	******	77	81		0		
00011 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	90 30DA AVG	95 DAILY MX	deg F		Continuous	CONTIN
BOD, 5-day, 20 deg. C	SAMPLE MEASUREMENT	******	******	******	******	416.7	437.2		0		
00310 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	Req. Mon. MO AVG	Req. Mon. DAILY MX	mg/L		Weekly	COMP24
pH	SAMPLE MEASUREMENT	******	******	******	7.0	******	7.2		0		
00400 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	6.5 MINIMUM	******	8.6 MAXIMUM	SU		Continuous	CONTIN
Solids, total suspended	SAMPLE MEASUREMENT	1160.6	1776.3		******	******	******	******	0		
00530 1 0 Effluent Gross	PERMIT REQUIREMENT	3960 MO AVG	9960 DAILY MX	lb/d	******	******	******	******		Weekly	COMP24
Nitrogen, total (as N)	SAMPLE MEASUREMENT	814.2	1033.3		******	******	******	******	0		
00600 1 0 Effluent Gross	PERMIT REQUIREMENT	1200 MO AVG	2100 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24
Nitrogen, ammonia total (as N)	SAMPLE MEASUREMENT	295.3	389.6		******	21.0	25.3		0		
00610 1 0 Effluent Gross	PERMIT REQUIREMENT	2016 MO AVG	4045 DAILY MX	lb/d	******	83.36 30DA AVG	167.26 DAILY MX	mg/L		Weekly	COMP24
Phosphorus, total (as P)	SAMPLE MEASUREMENT	105.9	145.1		******	******	******	******	0		
00665 1 0 Effluent Gross	PERMIT REQUIREMENT	192 MO AVG	309 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe Carney Engineering & Maint	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	684-644-4232		4-6-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799
FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	02/01/2010	TO	02/28/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oil and grease	SAMPLE MEASUREMENT	224.2	425.4		******	******	******	******	0		
03582 1 0 Effluent Gross	PERMIT REQUIREMENT	1008 MO AVG	2520 DAILY MX	lb/d	******	******	******	******		Weekly	GRAB
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	1.296666	1.960000		******	******	******	******	0		
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	Req. Mon. DAILY MX	Mgal/d	******	******	******	******		Continuous	METER

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe.Carney Engineering & Maint	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	684-644-4232		4-6-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Wastewater Summary Report for the month of February 2010

Date	Production Tons	Flow mgd	Alum #/day	Poly #/day	Max Temp F	pH Limits Lo	pH Limits Hi	Oil &Grease Eff mg/l	Oil &Grease Total #/day	TSS Eff mg/l	TSS Total #/day	TP Eff mg/l	TP Total #/day	TN Eff mg/l	TN Total #/day	Total Ammonia Eff mg/L	Total Ammonia #/day	BOD5 Eff mg/L	BOD5 Total #/day
1	460.9104	1.470000	731.4	18.8	81	7.0	7.1												
2	455.5737	1.460000	789.7	18.9	81	7.0	7.2	6.7	81.3	86.7	1052.7	6.8	82.6	47.0	570.6	25.3	307.2	388.2	4713.3
3	447.2983	1.630000	869.2	21.7	80	7.0	7.1					8.1	109.8	58.0	786.2				
4	465.8208	1.610000	710.2	20.3	80	7.0	7.1												
5	429.0447	1.200000	561.8	13.8	81	7.0	7.1												
6		0.430000	127.2	3.5	80	7.1	7.1												
7		0.740000	286.2	6.2	80	7.1	7.2												
8	496.9449	1.470000	752.6	20.2	80	7.0	7.1												
9	494.5112	1.780000	842.7	21.7	81	7.0	7.1	15.3	226.5	120.0	1776.3	6.6	97.7	39.0	577.3	18.7	276.8		
10	471.7360	1.750000	821.5	22.4	80	7.0	7.1					6.2	90.2	71.0	1033.3			437.2	6362.6
11	473.5027	1.680000	689.0	19.5	80	7.0	7.1												
12		0.200000	132.5	3.7	80	7.1	7.2												
13																			
14		0.070000	63.6	2.1	80	7.0	7.0												
15		0.440000	291.5	6.6	80	7.1	7.2												
16	466.7013	1.650000	848.0	21.2	80	7.0	7.2												
17	447.6573	1.560000	858.6	21.4	80	7.0	7.1	12.6	163.5	52.7	683.7	8.8	114.2	60.0	778.4	16.0	207.6		
18	434.9976	1.740000	816.2	22.3	80	7.1	7.1					7.6	110.0	55.0	795.8			412.7	5971.7
19	398.0801	1.790000	752.6	18.9	80	7.1	7.1												
20	386.8915	1.370000	583.0	15.8	80	7.1	7.1												
21		0.950000	498.2	9.2	80	7.1	7.1												
22	432.9476	1.700000	651.9	16.2	80	7.0	7.1												
23	405.9675	1.710000	651.9	15.8	81	7.0	7.1												
24	386.2776	1.960000	863.9	18.6	80	7.0	7.1	26.1	425.4	69.3	1129.5	6.0	97.8	59.0	961.7	23.9	389.6		
25	409.3780	1.960000	821.5	19.9	80	7.0	7.1					8.9	145.1	62.0	1010.6			428.8	6989.2
26	411.1100	1.570000	551.2	14.5	80	7.0	7.1												
27		0.130000	106.0	2.5	80	7.1	7.1												
28		0.990000	349.8	8.9	80	7.1	7.1												
TOT	8375.3512	35.010000	16021.8	404.6					896.7		4642.2		847.4		6513.9		1181.2		24036.8
AVG	440.8080	1.296666	593.4	15.0	77			15.2	224.2	82.2	1160.6	7.4	105.9	56.4	814.2	21.0	295.3	416.7	6009.2

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799
FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	03/01/2010	TO	03/31/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Temperature, water deg. fahrenheit	SAMPLE MEASUREMENT	******	******	******	******	80	82		0		
00011 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	90 30DA AVG	95 DAILY MX	deg F		Continuous	CONTIN
BOD, 5-day, 20 deg. C	SAMPLE MEASUREMENT	******	******	******	******	403.0	475.1		0		
00310 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	Req. Mon. MO AVG	Req. Mon. DAILY MX	mg/L		Weekly	COMP24
pH	SAMPLE MEASUREMENT	******	******	******	7.0	******	7.2		0		
00400 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	6.5 MINIMUM	******	8.6 MAXIMUM	SU		Continuous	CONTIN
Solids, total suspended	SAMPLE MEASUREMENT	1226.2	1558.5		******	******	******	******	0		
00530 1 0 Effluent Gross	PERMIT REQUIREMENT	3960 MO AVG	9960 DAILY MX	lb/d	******	******	******	******		Weekly	COMP24
Nitrogen, total (as N)	SAMPLE MEASUREMENT	752.6	1009.9		******	******	******	******	0		
00600 1 0 Effluent Gross	PERMIT REQUIREMENT	1200 MO AVG	2100 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24
Nitrogen, ammonia total (as N)	SAMPLE MEASUREMENT	264.4	310.8		******	19.4	20.2		0		
00610 1 0 Effluent Gross	PERMIT REQUIREMENT	2016 MO AVG	4045 DAILY MX	lb/d	******	83.36 30DA AVG	167.26 DAILY MX	mg/L		Weekly	COMP24
Phosphorus, total (as P)	SAMPLE MEASUREMENT	145.7	179.5		******	******	******	******	0		
00665 1 0 Effluent Gross	PERMIT REQUIREMENT	192 MO AVG	309 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe.Carney Engineering & Maint	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	684-644-4232		4-6-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799
FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	03/01/2010	TO	03/31/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oil and grease	SAMPLE MEASUREMENT	286.5	376.4		******	******	******	******			
03582 1 0 Effluent Gross	PERMIT REQUIREMENT	1008 MO AVG	2520 DAILY MX	lb/d	******	******	******	******		Weekly	GRAB
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	1.242258	1.850000		******	******	******	******			
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	Req. Mon. DAILY MX	Mgal/d	******	******	******	******		Continuous	METER

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe Carney Engineering & Maint	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.				4-6-10
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Wastewater Summary Report for the month of March 2010

Date	Production TONS	Flow mgd	Alum #/day	Poly #/day	Max Temp F	pH Limits Lo	pH Limits Hi	Oil &Grease Eff mg/l	Oil &Grease Total #/day	TSS Eff mg/l	TSS Total #/day	TP Eff mg/l	TP Total #/day	TN Eff mg/l	TN Total #/day	Total Ammonia Eff mg/L	Total Ammonia #/day	BOD5 Eff mg/L	BOD5 Total mg/l
1	450.9147	1.570000	821.5	19.5	80	7.0	7.1												
2	399.0047	1.850000	874.5	22.1	80	7.0	7.1	16.6	255.4	101.3	1558.5	8.9	136.9	53.0	815.4	20.2	310.8	475.1	7309.2
3	438.5400	1.840000	863.9	22.1	80	7.0	7.1					10.7	163.7	66.0	1009.9				
4	419.5509	1.740000	816.2	19.3	80	7.0	7.1												
5	460.0632	1.590000	514.1	12.0	80	7.0	7.1												
6		0.370000	185.5	5.8	80	7.0	7.0												
7		0.550000	333.9	7.9	80	7.1	7.1												
8	482.8866	0.780000	556.5	14.0	80	7.1	7.1												
9	468.7920	1.720000	768.5	18.0	80	7.0	7.1												
10	467.8012	1.670000	853.3	22.0	82	7.0	7.1	27.1	376.4	71.3	990.2	10.6	147.2	42.0	583.3	17.8	247.2	225.8	3135.8
11	440.8793	1.660000	763.2	21.3	80	7.0	7.1					8.9	122.9	62.0	855.9				
12	447.7115	1.430000	455.8	12.1	81	7.0	7.1												
13		0.070000	74.2	1.7	80	7.1	7.1												
14		0.500000	265.0	6.2	81	7.1	7.1												
15	380.7950	1.580000	662.5	17.8	81	7.0	7.1												
16	424.4812	1.760000	826.8	21.7	81	7.0	7.1												
17	418.1817	1.570000	879.8	22.0	81	7.0	7.1	20.2	263.7	109.3	1427.0	11.3	147.5	60.0	783.4	20.0	261.1	457.3	5970.6
18	436.7485	1.700000	890.4	21.6	80	7.0	7.1					12.7	179.5	41.0	579.6				
19	429.1154	1.390000	657.2	15.4	81	7.0	7.1												
20		0.350000	164.3	5.5	80	7.1	7.1												
21		0.640000	280.9	7.3	80	7.1	7.1												
22	403.0760	1.620000	694.3	17.6	80	7.0	7.1												
23	376.6841	1.470000	816.2	20.9	80	7.0	7.1	20.5	250.6	76.0	929.1	11.2	136.9	50.0	611.2	19.5	238.4	453.6	5545.0
24	387.9880	1.680000	842.7	21.6	81	7.0	7.1					9.4	131.3	56.0	782.4				
25	395.3070	1.720000	683.7	17.6	80	7.0	7.1												
26	396.8830	1.310000	593.6	14.4	81	7.0	7.1												
27		0.400000	143.1	3.8	80	7.1	7.2												
28		0.300000	106.0	3.0	80	7.2	7.2												
29		0.880000	365.7	8.9	80	7.1	7.1												
30	381.6180	1.340000	689.0	17.9	80	7.0	7.1												
31	335.0240	1.460000	694.3	17.8	80	7.0	7.1												
TOT	9242.0460	38.510000	18136.6	458.8					1146.1		4904.8		1166.0		6021.1		1057.5		21960.6
AVG	420.0930	1.242258	585.1	14.8	80			21.1	286.5	89.5	1226.2	10.5	145.7	53.8	752.6	19.4	264.4	403.0	5490.2

StarKist®

April , 2010

Mr. Alan Ota
US EPA Region 9-OPINAP (E-4) WTR-2
75 Hawthorne Street
San Francisco, CA 94105

Dr. Toafa Vaiaga'e, Director
Office of the Governor, AS EPA
EOB Utulei, American Samoa 96799

Gentlemen:

RE: OD 93-01 SECTION 6.2
Reports and Correspondence

Pursuant to the above referenced Ocean Dumping permit, the final quarterly report for OD 93-01 is enclosed.

Section 6.2.1 and Section 6.2.3

All reports and related correspondence required by General Condition 1.10, Special Conditions 3.2, 3.3, 4.3, 4.5, 4.7, 5.2, 5.3, 5.4, 6.1, and all other materials, including applications shall be submitted to ***(EPA Region IX) (American Samoa Environmental Protection Agency).***

Data compiled are for the period of January 2010 to March 2010. Analytical performance concluded all parameters were met

Joe Carney.
Manager, Engeneering and Maintenance

cc: Brett Butler, SKS General Manager
Carl Goldstein, OPINAP Program Director
File

APPENDIX E - REPORT FORM 2

Data Form for 3-Month Report on Waste Stream Analyses for StarKist Samoa MPRSA 102 Permit #OD 93-01

Reporting Period: From January 2010 to March 2010

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
13-Jan-10	25074	13495	45402	5530	630	3900	2355	6.71	1.0
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
11-Feb-10	38038	25421	56194	5317.5	610	4000	3000	5.81	1.01
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
10-Mar-10	24197	11420	34429	5019	420	4200	1710	6.73	1.02
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

Note: An asterisk (*) next to the waste concentration signifies that a violation of the permit limit has occurred.

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : January 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	**30,000**	**70,000**	**100,000**	

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Jan-10	0	0	0	0	0
2-Jan-10	250	1000	1250	2500	0
3-Jan-10	1000	4000	5000	10000	0
4-Jan-10	6250	25000	31250	62500	0
5-Jan-10	9500	38000	47500	95000	145000
6-Jan-10	7000	28000	35000	70000	0
7-Jan-10	8250	33000	41250	82500	180000
8-Jan-10	9000	36000	45000	90000	0
9-Jan-10	2750	11000	13750	27500	172500
10-Jan-10	1750	7000	8750	17500	0
11-Jan-10	6250	25000	31250	62500	0
12-Jan-10	6250	25000	31250	62500	130000
13-Jan-10	8000	32000	40000	80000	0
14-Jan-10	7000	28000	35000	70000	187500
15-Jan-10	8750	35000	43750	87500	0
16-Jan-10	3500	14000	17500	35000	160000
17-Jan-10	1000	4000	5000	10000	0
18-Jan-10	5500	22000	27500	55000	0
19-Jan-10	8250	33000	41250	82500	120000
20-Jan-10	9250	37000	46250	92500	0
21-Jan-10	12050	48200	60250	120500	162500
22-Jan-10	8250	33000	41250	82500	0
23-Jan-10	9500	38000	47500	95000	175000
24-Jan-10	12500	50000	62500	125000	0
25-Jan-10	7750	31000	38750	77500	125000
26-Jan-10	7000	28000	35000	70000	0
27-Jan-10	8000	32000	40000	80000	160000
28-Jan-10	9500	38000	47500	95000	0
29-Jan-10	8000	32000	40000	80000	175000
30-Jan-10	7250	29000	36250	72500	0
31-Jan-10	5500	22000	27500	55000	170000
Monthly Totals	204800	819200	1024000	2048000	2062500

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.

The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum sulfate: 19159.7 Pounds/Month
Coagulant polymer: 476.4 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : February 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	200,000

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Feb-10	4750	19000	23750	47500	0
2-Feb-10	8750	35000	43750	87500	147500
3-Feb-10	8500	34000	42500	85000	0
4-Feb-10	6750	27000	33750	67500	167500
5-Feb-10	8750	35000	43750	87500	0
6-Feb-10	4500	18000	22500	45000	165000
7-Feb-10	1750	7000	8750	17500	0
8-Feb-10	5250	21000	26250	52500	0
9-Feb-10	8250	33000	41250	82500	147500
10-Feb-10	10750	43000	53750	107500	0
11-Feb-10	8250	33000	41250	82500	175000
12-Feb-10	3500	14000	17500	35000	112500
13-Feb-10	0	0	0	0	0
14-Feb-10	250	1000	1250	2500	0
15-Feb-10	2000	8000	10000	20000	0
16-Feb-10	6500	26000	32500	65000	0
17-Feb-10	6750	27000	33750	67500	162500
18-Feb-10	11250	45000	56250	112500	0
19-Feb-10	6750	27000	33750	67500	185000
20-Feb-10	8500	34000	42500	85000	0
21-Feb-10	5750	23000	28750	57500	177500
22-Feb-10	6000	24000	30000	60000	0
23-Feb-10	13250	53000	66250	132500	140000
24-Feb-10	10125	40500	50625	101250	0
25-Feb-10	6750	27000	33750	67500	163750
26-Feb-10	9500	38000	47500	95000	0
27-Feb-10	1500	6000	7500	15000	175000
28-Feb-10	2500	10000	12500	25000	0
Monthly Totals	177125	708500	885625	1771250	1918750

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred. The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 16021.9 Pounds/Month
Coagulant Polymer : 404.6 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : March 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	**30,000**	**70,000**	**100,000**	**200,000**

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Mar-10	6750	27000	33750	67500	0
2-Mar-10	6750	27000	33750	67500	172500
3-Mar-10	9500	38000	47500	95000	0
4-Mar-10	7750	31000	38750	77500	172500
5-Mar-10	10500	42000	52500	105000	0
6-Mar-10	4750	19000	23750	47500	170000
7-Mar-10	1750	7000	8750	17500	0
8-Mar-10	3875	15500	19375	38750	0
9-Mar-10	9000	36000	45000	90000	181250
10-Mar-10	10750	43000	53750	107500	0
11-Mar-10	11250	45000	56250	112500	192500
12-Mar-10	8500	34000	42500	85000	0
13-Mar-10	7000	28000	35000	70000	187500
14-Mar-10	1750	7000	8750	17500	135000
15-Mar-10	4000	16000	20000	40000	0
16-Mar-10	11750	47000	58750	117500	0
17-Mar-10	10000	40000	50000	100000	170000
18-Mar-10	9000	36000	45000	90000	0
19-Mar-10	8875	35500	44375	88750	180000
20-Mar-10	4500	18000	22500	45000	0
21-Mar-10	1500	6000	7500	15000	183750
22-Mar-10	3850	15400	19250	38500	0
23-Mar-10	11000	44000	55000	110000	185000
24-Mar-10	10125	40500	50625	101250	0
25-Mar-10	7375	29500	36875	73750	0
26-Mar-10	6125	24500	30625	61250	170000
27-Mar-10	6000	24000	30000	60000	0
28-Mar-10	500	2000	2500	5000	168750
29-Mar-10	2000	8000	10000	20000	0
30-Mar-10	4125	16500	20625	41250	0
31-Mar-10	10250	41000	51250	102500	0
Monthly Totals	210850	843400	1054250	2108500	2268750

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred. The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 18136.0 Pound/Month
Coagulant Polymer : 458.8 Pounds/Month

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

14 - Jan - 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	2.0	0.010	0.05	0.47	0.027
	control-3	4.5	2.0	0.005	0.25	0.23	0.043
	control-10	7.0	2.5	0.015	0.05	0.45	0.016
	1	5.5	3.5	0.010	0.05	0.34	0.036
	3	6.0	3.0	0.020	0.10	0.41	0.035
	10	5.5	1.0	0.015	0.05	0.47	0.041
Station 2	1	7.0	2.5	0.000	0.10	0.23	0.033
	3	6.5	2.0	0.010	0.05	0.45	0.027
	10	6.0	3.0	0.005	0.10	0.22	0.030
Station 3	1	7.0	2.0	0.015	0.00	0.35	0.031
	3	6.0	2.5	0.010	0.15	0.24	0.039
	10	7.0	2.5	0.015	0.20	0.12	0.027
Station 4	1	6.5	1.5	0.015	0.10	0.35	0.029
	3	5.5	2.5	0.000	0.15	0.23	0.032
	10	5.5	1.5	0.000	0.15	0.48	0.027
Station 5	1	5.5	1.5	0.015	0.15	0.34	0.035
	3	6.5	1.5	0.000	0.10	0.58	0.032
	10	6.5	2.0	0.000	0.05	0.34	0.027

Feb - 11- 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	3.0	0.000	0.15	0.23	0.019
	control-3	6.0	2.5	0.000	0.10	0.24	0.020
	control-10	7.5	1.5	0.000	0.65	0.11	0.024
	1	6.5	3.0	0.000	0.20	0.11	0.035
	3	6.0	1.5	0.000	0.05	0.12	0.036
	10	5.5	3.5	0.025	0.25	0.23	0.034
Station 2	1	6.5	3.0	0.000	0.25	0.34	0.037
	3	5.5	3.0	0.000	0.45	0.23	0.036
	10	5.5	3.5	0.015	0.45	0.34	0.030
Station 3	1	6.0	2.5	0.025	0.15	0.23	0.022
	3	5.0	3.0	0.025	0.75	0.11	0.022
	10	4.5	2.5	0.010	0.50	0.12	0.019
Station 4	1	5.0	2.5	0.000	0.20	0.35	0.016
	3	4.5	4.0	0.005	0.35	0.24	0.015
	10	5.0	2.5	0.025	0.20	0.12	0.013
Station 5	1	5.0	2.5	0.025	0.15	0.26	0.012
	3	6.5	2.5	0.015	0.15	0.23	0.012
	10	6.5	2.5	0.015	0.00	0.34	0.012

TSS is reported as non-filterable residue
TVSS is reported as volatile non-filterable residue

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

March - 11 - 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.0	2.0	0.025	0.15	0.56	0.026
	control-3	5.5	2.0	0.010	0.15	0.35	0.028
	control-10	5.5	1.5	0.005	0.10	0.56	0.016
	1	6.0	2.5	0.020	0.15	0.38	0.017
	3	5.0	2.0	0.005	0.15	0.35	0.013
	10	5.5	1.5	0.005	0.05	0.34	0.009
Station 2	1	5.5	3.0	0.005	0.30	0.33	0.014
	3	6.0	2.0	0.005	0.25	0.35	0.007
	10	5.5	2.0	0.030	0.20	0.25	0.006
Station 3	1	6.0	1.5	0.030	0.20	0.25	0.026
	3	6.0	2.0	0.005	0.15	0.22	0.007
	10	5.5	2.5	0.010	0.00	0.47	0.010
Station 4	1	5.5	1.5	0.000	0.20	0.38	0.009
	3	6.0	1.5	0.015	0.20	0.26	0.015
	10	5.5	1.5	0.065	0.35	0.44	0.014
Station 5	1	5.5	1.5	0.010	0.05	0.57	0.009
	3	5.5	2.5	0.000	0.10	0.22	0.020
	10	4.5	2.5	0.015	0.20	0.38	0.008

TSS is reported as non-filterable residue
TVSS is reported as volatile non-filterable residue

StarKist

July 07, 2010

Mr. Carl L. Goldstein
U. S. EPA Region 9
Pacific Insular Area Program (CMD-5)
75 Hawthorne Street
San Francisco, CA 94105

Dr. Toafa Vaiaga'e
Director, AS EPA
Office of the Governor
EOB Utulei, American Samoa 96799

Gentlemen :

Re : **Discharge Monitoring Report for the Months of April, May and June of 2010, under NPDES No . AS0000019 as issued to Star Kist Samoa, INC.**

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of April, May and June of 2010.

Star Kist Samoa met all Effluent limits.

Sincerely

Joe Carney
Manager , Engineering and Maintenance

Wa \ ls : \ npdes \samoa
Attachments :
cc :
Mr. Alan Ota
Mr. Brett Butler

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799

FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	04/01/2010	TO	04/30/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Temperature, water deg. fahrenheit	SAMPLE MEASUREMENT	******	******	******	******	81	82		0		
00011 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	90 30DA AVG	95 DAILY MX	deg F		Continuous	CONTIN
BOD, 5-day, 20 deg. C	SAMPLE MEASUREMENT	******	******	******	******	296.1	335.4		0		
00310 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	Req. Mon. MO AVG	Req. Mon. DAILY MX	mg/L		Weekly	COMP24
pH	SAMPLE MEASUREMENT	******	******	******	7.0	******	7.1		0		
00400 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	6.5 MINIMUM	******	8.6 MAXIMUM	SU		Continuous	CONTIN
Solids, total suspended	SAMPLE MEASUREMENT	1304.5	1729.3		******	******	******	******	0		
00530 1 0 Effluent Gross	PERMIT REQUIREMENT	3960 MO AVG	9960 DAILY MX	lb/d	******	******	******	******		Weekly	COMP24
Nitrogen, total (as N)	SAMPLE MEASUREMENT	883.0	1095.7		******	******	******	******	0		
00600 1 0 Effluent Gross	PERMIT REQUIREMENT	1200 MO AVG	2100 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24
Nitrogen, ammonia total (as N)	SAMPLE MEASUREMENT	391.1	580.5		******	29.5	43.9		0		
00610 1 0 Effluent Gross	PERMIT REQUIREMENT	2016 MO AVG	4045 DAILY MX	lb/d	******	83.36 30DA AVG	167.26 DAILY MX	mg/L		Weekly	COMP24
Phosphorus, total (as P)	SAMPLE MEASUREMENT	135.1	172.0		******	******	******	******	0		
00665 1 0 Effluent Gross	PERMIT REQUIREMENT	192 MO AVG	309 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe.Carney-Manager Engineering & Maint	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	684-644-4232		7-7-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799
FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	04/01/2010	TO	04/30/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oil and grease	SAMPLE MEASUREMENT	196.7	304.1		******	******	******	******	0		
03582 1 0 Effluent Gross	PERMIT REQUIREMENT	1008 MO AVG	2520 DAILY MX	lb/d	******	******	******	******		Weekly	GRAB
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	1.459667	1.970000		******	******	******	******	0		
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	Req. Mon. DAILY MX	Mgal/d	******	******	******	******		Continuous	METER

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe Carney-Manager Engineering & Maint	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	684-644-4232		7-7-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Wastewater Summary Report for the month of April 2010

Date	Production Tons	Flow mgd	Alum #/day	Poly #/day	Max Temp F	pH Limits Lo	pH Limits Hi	Oil &Grease Eff mg/l	Oil &Grease Total #/day	TSS Eff mg/l	TSS Total #/day	TP Eff mg/l	TP Total #/day	TN Eff mg/l	TN Total #/day	Total Ammonia Eff mg/L	Total Ammonia #/day	BOD5 Eff mg/l	BOD5 Total #/day
1	354.4961	1.540000	869.2	21.0	82	7.0	7.1	15.4	197.2	92.7	1187.2	10.9	139.6	76.0	973.3	38.1	487.9		
2	350.8497	1.400000	805.6	18.8	80	7.1	7.1					8.9	103.6	50.0	582.1			335.4	3904.9
3	357.1695	1.180000	508.8	12.7	80	7.1	7.1												
4		0.950000	371.0	8.7	81	7.1	7.1												
5	476.0564	1.540000	726.1	19.0	80	7.0	7.1												
6	433.9224	1.590000	848.0	22.1	81	7.0	7.1	23.0	304.1	85.3	1127.9	8.8	116.4	62.0	819.8	43.9	580.5		
7	419.8884	1.610000	810.9	21.0	80	7.0	7.1					12.0	160.7	78.0	1044.3			238.8	3197.2
8	385.5309	1.560000	699.6	18.2	80	7.0	7.1												
9	330.3650	1.400000	540.6	14.8	81	7.0	7.1												
10	322.0353	1.250000	424.0	11.7	80	7.0	7.1												
11		0.670000	254.4	6.2	80	7.1	7.1												
12	337.5524	1.540000	784.4	17.6	80	7.0	7.1												
13	359.2864	1.560000	789.7	21.0	81	7.0	7.1	11.9	154.4	133.3	1729.3	12.7	164.8	82.0	1063.8	12.3	159.6	326.9	4240.9
14	351.6273	1.510000	848.0	22.6	80	7.0	7.1					8.6	108.0	70.0	879.0				
15	343.4475	1.540000	657.2	17.8	80	7.0	7.1												
16	328.1090	1.330000	593.6	14.5	80	7.0	7.1												
17	308.8418	1.300000	657.2	16.1	80	7.0	7.1												
18		0.840000	249.1	7.5	80	7.1	7.1												
19	396.2825	1.620000	752.6	20.4	80	7.0	7.1												
20	359.2675	1.650000	832.1	21.6	81	7.0	7.1	13.3	182.5	77.3	1060.7	8.1	111.1	55.0	754.7	26.3	360.9		
21	318.7665	1.560000	810.9	21.0	80	7.0	7.1					10.6	137.5	58.0	752.4			248.4	3222.5
22	385.8512	1.930000	805.6	18.3	80	7.0	7.1												
23	361.4145	1.590000	620.1	15.8	80	7.0	7.1												
24	322.0020	1.180000	466.4	13.7	80	7.0	7.1												
25		0.990000	413.4	9.4	80	7.1	7.1												
26	382.3051	1.610000	726.1	18.9	80	7.0	7.1												
27	370.8405	1.650000	821.5	21.2	81	7.0	7.0	10.6	145.4	103.3	1417.4	10.0	137.2	63.0	864.4	26.7	366.4	331.1	4543.2
28	371.9428	1.830000	858.6	22.3	81	7.0	7.0					11.3	172.0	72.0	1095.7				
29	384.7635	1.900000	800.3	20.6	80	7.0	7.0												
30	368.5350	1.970000	657.2	16.7	80	7.0	7.1												
TOT	9481.1492	43.790000	20002.2	511.2					983.6		6522.5		1350.9		8829.5		1955.3		19108.7
AVG	364.6595	1.459667	666.7	17.0	81			14.8	196.7	98.4	1304.5	10.2	135.1	66.6	883.0	29.5	391.1	296.1	3821.7

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799
FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	05/01/2010	TO	05/31/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Temperature, water deg. fahrenheit	SAMPLE MEASUREMENT	******	******	******	******	80	82		0		
00011 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	90 30DA AVG	95 DAILY MX	deg F		Continuous	CONTIN
BOD, 5-day, 20 deg. C	SAMPLE MEASUREMENT	******	******	******	******	311.9	364.7		0		
00310 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	Req. Mon. MO AVG	Req. Mon. DAILY MX	mg/L		Weekly	COMP24
pH	SAMPLE MEASUREMENT	******	******	******	7.0	******	7.2		0		
00400 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	6.5 MINIMUM	******	8.6 MAXIMUM	SU		Continuous	CONTIN
Solids, total suspended	SAMPLE MEASUREMENT	1061.9	1295.3		******	******	******	******	0		
00530 1 0 Effluent Gross	PERMIT REQUIREMENT	3960 MO AVG	9960 DAILY MX	lb/d	******	******	******	******		Weekly	COMP24
Nitrogen, total (as N)	SAMPLE MEASUREMENT	992.4	1224.6		******	******	******	******	0		
00600 1 0 Effluent Gross	PERMIT REQUIREMENT	1200 MO AVG	2100 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24
Nitrogen, ammonia total (as N)	SAMPLE MEASUREMENT	453.1	509.2		******	30.9	37.8		0		
00610 1 0 Effluent Gross	PERMIT REQUIREMENT	2016 MO AVG	4045 DAILY MX	lb/d	******	83.36 30DA AVG	167.26 DAILY MX	mg/L		Weekly	COMP24
Phosphorus, total (as P)	SAMPLE MEASUREMENT	143.9	159.2		******	******	******	******	0		
00665 1 0 Effluent Gross	PERMIT REQUIREMENT	192 MO AVG	309 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe.Carney-Manager Engineering & Main	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	684-644-4232		7-7-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799

FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	05/01/2010	TO	05/31/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oil and grease	SAMPLE MEASUREMENT	341.2	458.4		******	******	******	******	0		
03582 1 0 Effluent Gross	PERMIT REQUIREMENT	1008 MO AVG	2520 DAILY MX	lb/d	******	******	******	******		Weekly	GRAB
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	1.158710	1.990000		******	******	******	******	0		
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	Req. Mon. DAILY MX	Mgal/d	******	******	******	******		Continuous	METER

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe.Carney-Manager Engineering&Maint	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	684-644-4232		7-7-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Wastewater Summary Report for the month of May 2010

Date	Production Tons	Flow mgd	Alum #/day	Poly #/day	Max Temp F	pH Limits Lo	pH Limits Hi	Oil &Grease Eff mg/l	Oil &Grease Total #/day	TSS Eff mg/l	TSS Total #/day	TP Eff mg/l	TP Total #/day	TN Eff mg/l	TN Total #/day	Total Ammonia Eff mg/L	Total Ammonia #/day	BOD5 Eff mg/L	BOD5 Total #/day
1		1.410000	344.5	8.5	80	7.0	7.1												
2		0.800000	222.6	8.5	81	7.0	7.1												
3	383.7344	1.590000	662.5	15.9	80	7.0	7.2												
4	378.1647	1.620000	816.2	22.4	80	7.0	7.2	22.0	296.4	68.0	916.1	9.2	123.9	60.0	808.3	37.8	509.2		
5	399.1497	1.740000	842.7	22.1	80	7.0	7.2					11.0	159.2	77.0	1114.2			295.8	4280.2
6	391.6534	1.680000	826.8	20.4	80	7.2	7.2												
7	336.0446	1.160000	445.2	12.7	80	7.0	7.2												
8		0.840000	243.8	5.6	80	7.1	7.2												
9		0.070000	37.1	1.8	80	7.1	7.1												
10	371.8900	1.700000	588.3	15.5	80	7.0	7.2												
11	367.8490	1.770000	869.2	22.3	81	7.0	7.2	17.5	257.6	88.0	1295.3	10.6	156.0	67.0	986.2	26.7	393.0	339.5	4997.2
12	397.4740	1.760000	821.5	22.0	80	7.0	7.2					8.9	130.3	54.0	790.4				
13	399.6200	1.470000	540.6	14.0	80	7.0	7.2												
14		0.370000	143.1	4.2	80	7.0	7.0												
15		0.130000	95.4	2.3	80	7.0	7.2												
16																			
17		0.070000	37.1	1.4	80	7.2	7.2												
18		0.750000	434.6	11.4	80	7.1	7.2												
19	389.1045	1.720000	742.0	20.0	80	7.0	7.2												
20	408.6655	1.730000	821.5	20.3	82	7.0	7.2	24.5	352.5	63.3	910.7	10.8	155.4	62.0	892.0	29.8	428.7	364.7	5246.8
21	430.2365	1.780000	773.8	19.7	80	7.0	7.2					9.0	133.2	78.0	1154.6				
22		0.460000	259.7	6.6	80	7.2	7.2												
23		0.130000	37.1	0.7	80	7.2	7.2												
24		1.060000	344.5	8.6	80	7.1	7.2												
25	502.9149	1.780000	747.3	19.7	81	7.0	7.2												
26	518.9563	1.990000	800.3	21.5	81	7.0	7.2	27.7	458.4	68.0	1125.3	8.4	139.0	74.0	1224.6	29.1	481.6		
27	530.9311	1.850000	810.9	21.0	82	7.0	7.2					10.0	153.8	63.0	969.2			247.5	3807.7
28	502.8528	1.900000	810.9	19.8	80	7.0	7.2												
29	481.4585	1.650000	567.1	14.1	81	7.0	7.1												
30		0.540000	280.9	6.2	81	7.1	7.2												
31		0.400000	212.0	5.4	80	7.2	7.2												
TOT	7190.6999	35.920000	15179.2	394.6					1364.9		4247.4		1150.8		7939.5		1812.5		18331.9
AVG	422.9823	1.158710	489.7	12.7	81			22.9	341.2	71.8	1061.9	9.7	143.9	66.9	992.4	30.9	453.1	311.9	4583.0

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799
FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	06/01/2010	TO	06/30/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Temperature, water deg. fahrenheit	SAMPLE MEASUREMENT	******	******	******	******	80	81		0		
00011 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	90 30DA AVG	95 DAILY MX	deg F		Continuous	CONTIN
BOD, 5-day, 20 deg. C	SAMPLE MEASUREMENT	******	******	******	******	287.4	370.5		0		
00310 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	Req. Mon. MO AVG	Req. Mon. DAILY MX	mg/L		Weekly	COMP24
pH	SAMPLE MEASUREMENT	******	******	******	7.0	******	7.2		0		
00400 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	6.5 MINIMUM	******	8.6 MAXIMUM	SU		Continuous	CONTIN
Solids, total suspended	SAMPLE MEASUREMENT	1037.3	1546.3		******	******	******	******	0		
00530 1 0 Effluent Gross	PERMIT REQUIREMENT	3960 MO AVG	9960 DAILY MX	lb/d	******	******	******	******		Weekly	COMP24
Nitrogen, total (as N)	SAMPLE MEASUREMENT	932.7	1197.5		******	******	******	******	0		
00600 1 0 Effluent Gross	PERMIT REQUIREMENT	1200 MO AVG	2100 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24
Nitrogen, ammonia total (as N)	SAMPLE MEASUREMENT	442.4	555.4		******	31.4	36.9		0		
00610 1 0 Effluent Gross	PERMIT REQUIREMENT	2016 MO AVG	4045 DAILY MX	lb/d	******	83.36 30DA AVG	167.26 DAILY MX	mg/L		Weekly	COMP24
Phosphorus, total (as P)	SAMPLE MEASUREMENT	133.5	166.7		******	******	******	******	0		
00665 1 0 Effluent Gross	PERMIT REQUIREMENT	192 MO AVG	309 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe.Carney-Manager Engineering & Main	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	684-644-4232		7-7-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799
FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	06/01/2010	TO	06/30/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oil and grease	SAMPLE MEASUREMENT	230.9	338.3		******	******	******	******	0		
03582 1 0 Effluent Gross	PERMIT REQUIREMENT	1008 MO AVG	2520 DAILY MX	lb/d	******	******	******	******		Weekly	GRAB
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	1.595000	1.980000		******	******	******	******	0		
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	Req. Mon. DAILY MX	Mgal/d	******	******	******	******		Continuous	METER

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe Carney-Manager Engineering & Maint	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	684-644-4232		7-7-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799
FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-S
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	01/01/2010	TO	06/30/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001S/SEMIANNUAL
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Zinc, total recoverable	SAMPLE MEASUREMENT				******						
01094 1 0 Effluent Gross	PERMIT REQUIREMENT	27.52 MO AVG	55.24 DAILY MX	lb/d	******	1138 30DA AVG	2284 DAILY MX	ug/L		Semiannual	COMP24
Copper, total recoverable	SAMPLE MEASUREMENT				******						
01119 1 0 Effluent Gross	PERMIT REQUIREMENT	1.41 MO AVG	2.84 DAILY MX	lb/d	******	58.42 30DA AVG	117.2 DAILY MX	ug/L		Semiannual	COMP24
Mercury, total recoverable	SAMPLE MEASUREMENT				******						
71901 1 0 Effluent Gross	PERMIT REQUIREMENT	.04 MO AVG	.11 DAILY MX	lb/d	******	1.8 30DA AVG	4.72 DAILY MX	ug/L		Semiannual	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe.Carney-Manager Engineering & Maint	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	684-644-4232		7-7-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

StarKist

April, 2010

Mr. Carl L. Goldstein
U. S. EPA Region 9
Pacific Insular Area Program (CMD-5)
75 Hawthorne Street
San Francisco, CA 94105

Dr. Toafa Vaiaga'e
Director, AS EPA
Office of the Governor
EOB Utulei, American Samoa 96799

Gentlemen :

Re : **Discharge Monitoring Report for the Months of January,February and March of 2010, under NPDES No . AS0000019 as issued to Star Kist Samoa, INC.**

Attached is the Star Kist Samoa's Discharge Monitoring Reports covering the months of January, February and March of 2010.

Star Kist Samoa met all Effluent limits.

Sincerely

Joe Carney
Manager , Engineering and Maintenance

Wa \ ls : \ npdes \samoa
Attachments :
cc :
Mr. Alan Ota
Mr. Brett Butler

323 North Shore Drive Suite 600 Pittsburgh, Pennsylvania 15212 412.323.7400 www.starkist.com

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799
FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	01/01/2010	TO	01/31/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Temperature, water deg. fahrenheit	SAMPLE MEASUREMENT	******	******	******	******	78	82		0		
00011 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	90 30DA AVG	95 DAILY MX	deg F		Continuous	CONTIN
BOD, 5-day, 20 deg. C	SAMPLE MEASUREMENT	******	******	******	******	312.8	26.6		0		
00310 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	Req. Mon. MO AVG	Req. Mon. DAILY MX	mg/L		Weekly	COMP24
pH	SAMPLE MEASUREMENT	******	******	******	7.0	******	7.3		0		
00400 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	6.5 MINIMUM	******	8.6 MAXIMUM	SU		Continuous	CONTIN
Solids, total suspended	SAMPLE MEASUREMENT	1081.8	1572.4		******	******	******	******	0		
00530 1 0 Effluent Gross	PERMIT REQUIREMENT	3960 MO AVG	9960 DAILY MX	lb/d	******	******	******	******		Weekly	COMP24
Nitrogen, total (as N)	SAMPLE MEASUREMENT	704.0	1011.2		******	******	******	******	0		
00600 1 0 Effluent Gross	PERMIT REQUIREMENT	1200 MO AVG	2100 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24
Nitrogen, ammonia total (as N)	SAMPLE MEASUREMENT	346.5	391.5		******	26.0	26.6		0		
00610 1 0 Effluent Gross	PERMIT REQUIREMENT	2016 MO AVG	4045 DAILY MX	lb/d	******	83.36 30DA AVG	167.26 DAILY MX	mg/L		Weekly	COMP24
Phosphorus, total (as P)	SAMPLE MEASUREMENT	100.2	135.4		******	******	******	******	0		
00665 1 0 Effluent Gross	PERMIT REQUIREMENT	192 MO AVG	309 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe.Carney Engineering & Maint	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	684	644-4232	4-6-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799
FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	01/01/2010	TO	01/31/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oil and grease	SAMPLE MEASUREMENT	231.0	457.6		******	******	******	******	0		
03582 1 0 Effluent Gross	PERMIT REQUIREMENT	1008 MO AVG	2520 DAILY MX	lb/d	******	******	******	******		Weekly	GRAB
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	1.236129	1.770000		******	******	******	******	0		
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	Req. Mon. DAILY MX	Mgal/d	******	******	******	******		Continuous	METER

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe.Carney Engineering & Maint	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	684-644-4232		4-6-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Wastewater Summary Report for the month of January 2010

Date	Production Tons	Flow mgd	Alum #/day	Poly #/day	Max Temp F	pH Limits Lo	pH Limits Hi	Oil &Grease Eff mg/l	Oil &Grease Total #/day	TSS Eff mg/l	TSS Total #/day	TP Eff mg/l	TP Total #/day	TN Eff mg/l	TN Total #/day	Total Ammonia Eff mg/L	Total Ammonia #/day	BOD5 Eff mg/l	BOD5 Total #/day
1																			
2		0.040000	84.8	2.5	80	7.2	7.2												
3		0.560000	259.7	8.2	80	7.0	7.3												
4	231.1100	1.400000	779.1	19.5	82	7.2	7.3												
5	312.6006	1.480000	869.2	21.7	82	7.0	7.2	22.0	270.8	106.0	1304.6	8.4	103.4	53.0	652.3	25.5	313.8	341.6	4204.3
6	368.9008	1.670000	869.2	19.6	80	7.2	7.2					6.6	91.7	44.0	611.1				
7	393.4211	1.570000	821.5	18.3	80	7.2	7.2												
8	423.0471	1.350000	620.1	14.0	80	7.2	7.2												
9		0.470000	238.5	4.8	80	7.2	7.2												
10		0.670000	270.3	6.2	80	7.2	7.2												
11	339.6506	1.350000	609.5	13.0	80	7.2	7.2												
12	365.3694	1.520000	901.0	21.0	80	7.2	7.2	36.2	457.6	71.3	901.3	7.8	98.6	45.0	568.8	26.5	335.0		
13	414.1822	1.600000	880.0	20.0	80	7.2	7.2					5.9	78.5	76.0	1011.2			268.8	3576.5
14	402.8979	1.660000	810.9	20.0	80	7.2	7.2												
15	387.4726	1.260000	614.8	16.1	80	7.2	7.2												
16		0.500000	302.1	6.6	82	7.0	7.2												
17		0.530000	249.1	6.6	80	7.1	7.2												
18	372.4821	1.340000	694.3	18.2	80	7.0	7.2												
19	369.8802	1.520000	689.0	17.1	80	7.0	7.1												
20	416.9082	1.770000	848,0	22,0	82	7.0	7.1	7.2	106.0	37.3	549.0	9.2	135.4	48.0	706.5	26.6	391.5	331.8	4883.9
21	390.5072	1.750000	853.3	22.1	82	7.0	7.1					7.9	115.0	39.0	567.6				
22	423.0478	1.720000	757.9	19.7	81	7.1	7.1												
23	419.2798	1.220000	593.6	15.5	81	7.0	7.2												
24		1.310000	598.9	16.1	80	7.0	7.2												
25	430.5605	1.570000	789.7	20.7	80	7.0	7.2												
26	434.2409	1.630000	837.4	22.1	80	7.0	7.2	6.6	89.5	116.0	1572.4	8.1	109.8	45.0	610.0	25.5	345.7	308.8	4185.8
27	451.5647	1.490000	858.6	21.7	80	7.0	7.1					5.6	69.4	73.0	904.5				
28	461.6088	1.520000	863.9	22.0	80	7.1	7.1												
29	449.7225	1.600000	773.8	20.9	80	7.1	7.1												
30	445.5043	1.220000	392.2	11.3	80	7.0	7.2												
31		1.030000	429.3	8.9	80	7.1	7.1												
TOT	8703.9593	38.320000	19159.7	476.4					923.9		4327.3		801.8		5632.0		1386.0		16850.5
AVG	395.6345	1.236129	618.1	15.4	78			18.0	231.0	82.7	1081.8	7.4	100.2	52.9	704.0	26.0	346.5	312.8	4212.6

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799
FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	02/01/2010	TO	02/28/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Temperature, water deg. fahrenheit	SAMPLE MEASUREMENT	******	******	******	******	77	81		0		
00011 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	90 30DA AVG	95 DAILY MX	deg F		Continuous	CONTIN
BOD, 5-day, 20 deg. C	SAMPLE MEASUREMENT	******	******	******	******	416.7	437.2		0		
00310 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	Req. Mon. MO AVG	Req. Mon. DAILY MX	mg/L		Weekly	COMP24
pH	SAMPLE MEASUREMENT	******	******	******	7.0	******	7.2		0		
00400 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	6.5 MINIMUM	******	8.6 MAXIMUM	SU		Continuous	CONTIN
Solids, total suspended	SAMPLE MEASUREMENT	1160.6	1776.3		******	******	******	******	0		
00530 1 0 Effluent Gross	PERMIT REQUIREMENT	3960 MO AVG	9960 DAILY MX	lb/d	******	******	******	******		Weekly	COMP24
Nitrogen, total (as N)	SAMPLE MEASUREMENT	814.2	1033.3		******	******	******	******	0		
00600 1 0 Effluent Gross	PERMIT REQUIREMENT	1200 MO AVG	2100 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24
Nitrogen, ammonia total (as N)	SAMPLE MEASUREMENT	295.3	389.6		******	21.0	25.3		0		
00610 1 0 Effluent Gross	PERMIT REQUIREMENT	2016 MO AVG	4045 DAILY MX	lb/d	******	83.36 30DA AVG	167.26 DAILY MX	mg/L		Weekly	COMP24
Phosphorus, total (as P)	SAMPLE MEASUREMENT	105.9	145.1		******	******	******	******	0		
00665 1 0 Effluent Gross	PERMIT REQUIREMENT	192 MO AVG	309 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe Carney Engineering & Maint	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	684-644-4232		4-6-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799
FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	02/01/2010	TO	02/28/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oil and grease	SAMPLE MEASUREMENT	224.2	425.4		******	******	******	******	0		
03582 1 0 Effluent Gross	PERMIT REQUIREMENT	1008 MO AVG	2520 DAILY MX	lb/d	******	******	******	******		Weekly	GRAB
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	1.296666	1.960000		******	******	******	******	0		
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	Req. Mon. DAILY MX	Mgal/d	******	******	******	******		Continuous	METER

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe.Carney Engineering & Maint	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	684-644-4232		4-6-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Wastewater Summary Report for the month of February 2010

Date	Production Tons	Flow mgd	Alum #/day	Poly #/day	Max Temp F	pH Limits Lo	pH Limits Hi	Oil &Grease Eff mg/l	Oil &Grease Total #/day	TSS Eff mg/l	TSS Total #/day	TP Eff mg/l	TP Total #/day	TN Eff mg/l	TN Total #/day	Total Ammonia Eff mg/L	Total Ammonia #/day	BOD5 Eff mg/L	BOD5 Total #/day
1	460.9104	1.470000	731.4	18.8	81	7.0	7.1												
2	455.5737	1.460000	789.7	18.9	81	7.0	7.2	6.7	81.3	86.7	1052.7	6.8	82.6	47.0	570.6	25.3	307.2	388.2	4713.3
3	447.2983	1.630000	869.2	21.7	80	7.0	7.1					8.1	109.8	58.0	786.2				
4	465.8208	1.610000	710.2	20.3	80	7.0	7.1												
5	429.0447	1.200000	561.8	13.8	81	7.0	7.1												
6		0.430000	127.2	3.5	80	7.1	7.1												
7		0.740000	286.2	6.2	80	7.1	7.2												
8	496.9449	1.470000	752.6	20.2	80	7.0	7.1												
9	494.5112	1.780000	842.7	21.7	81	7.0	7.1	15.3	226.5	120.0	1776.3	6.6	97.7	39.0	577.3	18.7	276.8		
10	471.7360	1.750000	821.5	22.4	80	7.0	7.1					6.2	90.2	71.0	1033.3			437.2	6362.6
11	473.5027	1.680000	689.0	19.5	80	7.0	7.1												
12		0.200000	132.5	3.7	80	7.1	7.2												
13																			
14		0.070000	63.6	2.1	80	7.0	7.0												
15		0.440000	291.5	6.6	80	7.1	7.2												
16	466.7013	1.650000	848.0	21.2	80	7.0	7.2												
17	447.6573	1.560000	858.6	21.4	80	7.0	7.1	12.6	163.5	52.7	683.7	8.8	114.2	60.0	778.4	16.0	207.6		
18	434.9976	1.740000	816.2	22.3	80	7.1	7.1					7.6	110.0	55.0	795.8			412.7	5971.7
19	398.0801	1.790000	752.6	18.9	80	7.1	7.1												
20	386.8915	1.370000	583.0	15.8	80	7.1	7.1												
21		0.950000	498.2	9.2	80	7.1	7.1												
22	432.9476	1.700000	651.9	16.2	80	7.0	7.1												
23	405.9675	1.710000	651.9	15.8	81	7.0	7.1												
24	386.2776	1.960000	863.9	18.6	80	7.0	7.1	26.1	425.4	69.3	1129.5	6.0	97.8	59.0	961.7	23.9	389.6		
25	409.3780	1.960000	821.5	19.9	80	7.0	7.1					8.9	145.1	62.0	1010.6			428.8	6989.2
26	411.1100	1.570000	551.2	14.5	80	7.0	7.1												
27		0.130000	106.0	2.5	80	7.1	7.1												
28		0.990000	349.8	8.9	80	7.1	7.1												
TOT	8375.3512	35.010000	16021.8	404.6					896.7		4642.2		847.4		6513.9		1181.2		24036.8
AVG	440.8080	1.296666	593.4	15.0	77			15.2	224.2	82.2	1160.6	7.4	105.9	56.4	814.2	21.0	295.3	416.7	6009.2

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799
FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	03/01/2010	TO	03/31/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Temperature, water deg. fahrenheit	SAMPLE MEASUREMENT	******	******	******	******	80	82		0		
00011 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	90 30DA AVG	95 DAILY MX	deg F		Continuous	CONTIN
BOD, 5-day, 20 deg. C	SAMPLE MEASUREMENT	******	******	******	******	403.0	475.1		0		
00310 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	******	Req. Mon. MO AVG	Req. Mon. DAILY MX	mg/L		Weekly	COMP24
pH	SAMPLE MEASUREMENT	******	******	******	7.0	******	7.2		0		
00400 1 0 Effluent Gross	PERMIT REQUIREMENT	******	******	******	6.5 MINIMUM	******	8.6 MAXIMUM	SU		Continuous	CONTIN
Solids, total suspended	SAMPLE MEASUREMENT	1226.2	1558.5		******	******	******	******	0		
00530 1 0 Effluent Gross	PERMIT REQUIREMENT	3960 MO AVG	9960 DAILY MX	lb/d	******	******	******	******		Weekly	COMP24
Nitrogen, total (as N)	SAMPLE MEASUREMENT	752.6	1009.9		******	******	******	******	0		
00600 1 0 Effluent Gross	PERMIT REQUIREMENT	1200 MO AVG	2100 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24
Nitrogen, ammonia total (as N)	SAMPLE MEASUREMENT	264.4	310.8		******	19.4	20.2		0		
00610 1 0 Effluent Gross	PERMIT REQUIREMENT	2016 MO AVG	4045 DAILY MX	lb/d	******	83.36 30DA AVG	167.26 DAILY MX	mg/L		Weekly	COMP24
Phosphorus, total (as P)	SAMPLE MEASUREMENT	145.7	179.5		******	******	******	******	0		
00665 1 0 Effluent Gross	PERMIT REQUIREMENT	192 MO AVG	309 DAILY MX	lb/d	******	******	******	******		Twice Per Week	COMP24

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe.Carney Engineering & Maint	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	684-644-4232		4-6-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved
OMB No. 2040-0004

PERMITTEE NAME/ADDRESS *(Include Facility Name/Location if Different)*

NAME: STAR-KIST SAMOA
ADDRESS: PO BOX 368
PAGO PAGO, AS 96799
FACILITY: STAR-KIST SAMOA TUNA CANNERY
LOCATION: ANUA
PAGO PAGO, AS 96799

ATTN: MR. JOE CARNEY

AS0000019	001-A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD			
	MM/DD/YYYY		MM/DD/YYYY
FROM	03/01/2010	TO	03/31/2010

DMR Mailing ZIP CODE: 96799
MAJOR

DISCHARGE 001/MONTHLY
External Outfall

No Discharge ☐

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Oil and grease	SAMPLE MEASUREMENT	286.5	376.4		******	******	******	******			
03582 1 0 Effluent Gross	PERMIT REQUIREMENT	1008 MO AVG	2520 DAILY MX	lb/d	******	******	******	******		Weekly	GRAB
Flow, in conduit or thru treatment plant	SAMPLE MEASUREMENT	1.242258	1.850000		******	******	******	******			
50050 1 0 Effluent Gross	PERMIT REQUIREMENT	Req. Mon. MO AVG	Req. Mon. DAILY MX	Mgal/d	******	******	******	******		Continuous	METER

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE
Joe Carney Engineering & Maint	I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT			4-6-10
TYPED OR PRINTED			AREA Code	NUMBER	MM/DD/YYYY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Wastewater Summary Report for the month of March 2010

Date	Production TONS	Flow mgd	Alum #/day	Poly #/day	Max Temp F	pH Limits Lo	pH Limits Hi	Oil &Grease Eff mg/l	Oil &Grease Total #/day	TSS Eff mg/l	TSS Total #/day	TP Eff mg/l	TP Total #/day	TN Eff mg/l	TN Total #/day	Total Ammonia Eff mg/L	Total Ammonia #/day	BOD5 Eff mg/L	BOD5 Total mg/l
1	450.9147	1.570000	821.5	19.5	80	7.0	7.1												
2	399.0047	1.850000	874.5	22.1	80	7.0	7.1	16.6	255.4	101.3	1558.5	8.9	136.9	53.0	815.4	20.2	310.8	475.1	7309.2
3	438.5400	1.840000	863.9	22.1	80	7.0	7.1					10.7	163.7	66.0	1009.9				
4	419.5509	1.740000	816.2	19.3	80	7.0	7.1												
5	460.0632	1.590000	514.1	12.0	80	7.0	7.1												
6		0.370000	185.5	5.8	80	7.0	7.0												
7		0.550000	333.9	7.9	80	7.1	7.1												
8	482.8866	0.780000	556.5	14.0	80	7.1	7.1												
9	468.7920	1.720000	768.5	18.0	80	7.0	7.1												
10	467.8012	1.670000	853.3	22.0	82	7.0	7.1	27.1	376.4	71.3	990.2	10.6	147.2	42.0	583.3	17.8	247.2	225.8	3135.8
11	440.8793	1.660000	763.2	21.3	80	7.0	7.1					8.9	122.9	62.0	855.9				
12	447.7115	1.430000	455.8	12.1	81	7.0	7.1												
13		0.070000	74.2	1.7	80	7.1	7.1												
14		0.500000	265.0	6.2	81	7.1	7.1												
15	380.7950	1.580000	662.5	17.8	81	7.0	7.1												
16	424.4812	1.760000	826.8	21.7	81	7.0	7.1												
17	418.1817	1.570000	879.8	22.0	81	7.0	7.1	20.2	263.7	109.3	1427.0	11.3	147.5	60.0	783.4	20.0	261.1	457.3	5970.6
18	436.7485	1.700000	890.4	21.6	80	7.0	7.1					12.7	179.5	41.0	579.6				
19	429.1154	1.390000	657.2	15.4	81	7.0	7.1												
20		0.350000	164.3	5.5	80	7.1	7.1												
21		0.640000	280.9	7.3	80	7.1	7.1												
22	403.0760	1.620000	694.3	17.6	80	7.0	7.1												
23	376.6841	1.470000	816.2	20.9	80	7.0	7.1	20.5	250.6	76.0	929.1	11.2	136.9	50.0	611.2	19.5	238.4	453.6	5545.0
24	387.9880	1.680000	842.7	21.6	81	7.0	7.1					9.4	131.3	56.0	782.4				
25	395.3070	1.720000	683.7	17.6	80	7.0	7.1												
26	396.8830	1.310000	593.6	14.4	81	7.0	7.1												
27		0.400000	143.1	3.8	80	7.1	7.2												
28		0.300000	106.0	3.0	80	7.2	7.2												
29		0.880000	365.7	8.9	80	7.1	7.1												
30	381.6180	1.340000	689.0	17.9	80	7.0	7.1												
31	335.0240	1.460000	694.3	17.8	80	7.0	7.1												
TOT	9242.0460	38.510000	18136.6	458.8					1146.1		4904.8		1166.0		6021.1		1057.5		21960.6
AVG	420.0930	1.242258	585.1	14.8	80			21.1	286.5	89.5	1226.2	10.5	145.7	53.8	752.6	19.4	264.4	403.0	5490.2

StarKist®

April , 2010

Mr. Alan Ota
US EPA Region 9-OPINAP (E-4) WTR-2
75 Hawthorne Street
San Francisco, CA 94105

Dr. Toafa Vaiaga'e, Director
Office of the Governor, AS EPA
EOB Utulei, American Samoa 96799

Gentlemen:

RE: OD 93-01 SECTION 6.2
Reports and Correspondence

Pursuant to the above referenced Ocean Dumping permit, the final quarterly report for OD 93-01 is enclosed.

Section 6.2.1 and Section 6.2.3

All reports and related correspondence required by General Condition 1.10, Special Conditions 3.2, 3.3, 4.3, 4.5, 4.7, 5.2, 5.3, 5.4, 6.1, and all other materials, including applications shall be submitted to ***(EPA Region IX) (American Samoa Environmental Protection Agency).***

Data compiled are for the period of January 2010 to March 2010. Analytical performance concluded all parameters were met

Joe Carney.
Manager, Engeneering and Maintenance

cc: Brett Butler, SKS General Manager
Carl Goldstein, OPINAP Program Director
File

APPENDIX B - REPORT FORM 2

Data Form for 3-Month Report on Waste Stream Analyses for StarKist Samoa MPRSA 102 Permit #OD 93-01

Reporting Period: From January 2010 to March 2010

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
13-Jan-10	25074	13495	45402	5530	630	3900	2355	6.71	1.0
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
11-Feb-10	38038	25421	56194	5317.5	610	4000	3000	5.81	1.01
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

StarKist Samoa - On Shore Storage Tank

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-day Biological Oxygen Demand (mg/L)	Oil & Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
10-Mar-10	24197	11420	34429	5019	420	4200	1710	6.73	1.02
OD 93-01 Permit Limits	95,760	77,170	105,900	52,110	3,080	13,370	7,640	6.2 to 7.3	0.93 to 1.05

Note: An asterisk (*) next to the waste concentration signifies that a violation of the permit limit has occurred.

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : January 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	**30,000**	**70,000**	**100,000**	

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Jan-10	0	0	0	0	0
2-Jan-10	250	1000	1250	2500	0
3-Jan-10	1000	4000	5000	10000	0
4-Jan-10	6250	25000	31250	62500	0
5-Jan-10	9500	38000	47500	95000	145000
6-Jan-10	7000	28000	35000	70000	0
7-Jan-10	8250	33000	41250	82500	180000
8-Jan-10	9000	36000	45000	90000	0
9-Jan-10	2750	11000	13750	27500	172500
10-Jan-10	1750	7000	8750	17500	0
11-Jan-10	6250	25000	31250	62500	0
12-Jan-10	6250	25000	31250	62500	130000
13-Jan-10	8000	32000	40000	80000	0
14-Jan-10	7000	28000	35000	70000	187500
15-Jan-10	8750	35000	43750	87500	0
16-Jan-10	3500	14000	17500	35000	160000
17-Jan-10	1000	4000	5000	10000	0
18-Jan-10	5500	22000	27500	55000	0
19-Jan-10	8250	33000	41250	82500	120000
20-Jan-10	9250	37000	46250	92500	0
21-Jan-10	12050	48200	60250	120500	162500
22-Jan-10	8250	33000	41250	82500	0
23-Jan-10	9500	38000	47500	95000	175000
24-Jan-10	12500	50000	62500	125000	0
25-Jan-10	7750	31000	38750	77500	125000
26-Jan-10	7000	28000	35000	70000	0
27-Jan-10	8000	32000	40000	80000	160000
28-Jan-10	9500	38000	47500	95000	0
29-Jan-10	8000	32000	40000	80000	175000
30-Jan-10	7250	29000	36250	72500	0
31-Jan-10	5500	22000	27500	55000	170000
Monthly Totals	204800	819200	1024000	2048000	2062500

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.

The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum sulfate: 19159.7 Pounds/Month
Coagulant polymer: 476.4 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : February 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	200,000

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Feb-10	4750	19000	23750	47500	0
2-Feb-10	8750	35000	43750	87500	147500
3-Feb-10	8500	34000	42500	85000	0
4-Feb-10	6750	27000	33750	67500	167500
5-Feb-10	8750	35000	43750	87500	0
6-Feb-10	4500	18000	22500	45000	165000
7-Feb-10	1750	7000	8750	17500	0
8-Feb-10	5250	21000	26250	52500	0
9-Feb-10	8250	33000	41250	82500	147500
10-Feb-10	10750	43000	53750	107500	0
11-Feb-10	8250	33000	41250	82500	175000
12-Feb-10	3500	14000	17500	35000	112500
13-Feb-10	0	0	0	0	0
14-Feb-10	250	1000	1250	2500	0
15-Feb-10	2000	8000	10000	20000	0
16-Feb-10	6500	26000	32500	65000	0
17-Feb-10	6750	27000	33750	67500	162500
18-Feb-10	11250	45000	56250	112500	0
19-Feb-10	6750	27000	33750	67500	185000
20-Feb-10	8500	34000	42500	85000	0
21-Feb-10	5750	23000	28750	57500	177500
22-Feb-10	6000	24000	30000	60000	0
23-Feb-10	13250	53000	66250	132500	140000
24-Feb-10	10125	40500	50625	101250	0
25-Feb-10	6750	27000	33750	67500	163750
26-Feb-10	9500	38000	47500	95000	0
27-Feb-10	1500	6000	7500	15000	175000
28-Feb-10	2500	10000	12500	25000	0
Monthly Totals	177125	708500	885625	1771250	1918750

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred. The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 16021.9 Pounds/Month
Coagulant Polymer : 404.6 Pounds/Month

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : March 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	**30,000**	**70,000**	**100,000**	**200,000**

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Mar-10	6750	27000	33750	67500	0
2-Mar-10	6750	27000	33750	67500	172500
3-Mar-10	9500	38000	47500	95000	0
4-Mar-10	7750	31000	38750	77500	172500
5-Mar-10	10500	42000	52500	105000	0
6-Mar-10	4750	19000	23750	47500	170000
7-Mar-10	1750	7000	8750	17500	0
8-Mar-10	3875	15500	19375	38750	0
9-Mar-10	9000	36000	45000	90000	181250
10-Mar-10	10750	43000	53750	107500	0
11-Mar-10	11250	45000	56250	112500	192500
12-Mar-10	8500	34000	42500	85000	0
13-Mar-10	7000	28000	35000	70000	187500
14-Mar-10	1750	7000	8750	17500	135000
15-Mar-10	4000	16000	20000	40000	0
16-Mar-10	11750	47000	58750	117500	0
17-Mar-10	10000	40000	50000	100000	170000
18-Mar-10	9000	36000	45000	90000	0
19-Mar-10	8875	35500	44375	88750	180000
20-Mar-10	4500	18000	22500	45000	0
21-Mar-10	1500	6000	7500	15000	183750
22-Mar-10	3850	15400	19250	38500	0
23-Mar-10	11000	44000	55000	110000	185000
24-Mar-10	10125	40500	50625	101250	0
25-Mar-10	7375	29500	36875	73750	0
26-Mar-10	6125	24500	30625	61250	170000
27-Mar-10	6000	24000	30000	60000	0
28-Mar-10	500	2000	2500	5000	168750
29-Mar-10	2000	8000	10000	20000	0
30-Mar-10	4125	16500	20625	41250	0
31-Mar-10	10250	41000	51250	102500	0
Monthly Totals	210850	843400	1054250	2108500	2268750

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred. The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 18136.0 Pound/Month
Coagulant Polymer : 458.8 Pounds/Month

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

14 - Jan - 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	2.0	0.010	0.05	0.47	0.027
	control-3	4.5	2.0	0.005	0.25	0.23	0.043
	control-10	7.0	2.5	0.015	0.05	0.45	0.016
	1	5.5	3.5	0.010	0.05	0.34	0.036
	3	6.0	3.0	0.020	0.10	0.41	0.035
	10	5.5	1.0	0.015	0.05	0.47	0.041
Station 2	1	7.0	2.5	0.000	0.10	0.23	0.033
	3	6.5	2.0	0.010	0.05	0.45	0.027
	10	6.0	3.0	0.005	0.10	0.22	0.030
Station 3	1	7.0	2.0	0.015	0.00	0.35	0.031
	3	6.0	2.5	0.010	0.15	0.24	0.039
	10	7.0	2.5	0.015	0.20	0.12	0.027
Station 4	1	6.5	1.5	0.015	0.10	0.35	0.029
	3	5.5	2.5	0.000	0.15	0.23	0.032
	10	5.5	1.5	0.000	0.15	0.48	0.027
Station 5	1	5.5	1.5	0.015	0.15	0.34	0.035
	3	6.5	1.5	0.000	0.10	0.58	0.032
	10	6.5	2.0	0.000	0.05	0.34	0.027

Feb - 11- 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.5	3.0	0.000	0.15	0.23	0.019
	control-3	6.0	2.5	0.000	0.10	0.24	0.020
	control-10	7.5	1.5	0.000	0.65	0.11	0.024
	1	6.5	3.0	0.000	0.20	0.11	0.035
	3	6.0	1.5	0.000	0.05	0.12	0.036
	10	5.5	3.5	0.025	0.25	0.23	0.034
Station 2	1	6.5	3.0	0.000	0.25	0.34	0.037
	3	5.5	3.0	0.000	0.45	0.23	0.036
	10	5.5	3.5	0.015	0.45	0.34	0.030
Station 3	1	6.0	2.5	0.025	0.15	0.23	0.022
	3	5.0	3.0	0.025	0.75	0.11	0.022
	10	4.5	2.5	0.010	0.50	0.12	0.019
Station 4	1	5.0	2.5	0.000	0.20	0.35	0.016
	3	4.5	4.0	0.005	0.35	0.24	0.015
	10	5.0	2.5	0.025	0.20	0.12	0.013
Station 5	1	5.0	2.5	0.025	0.15	0.26	0.012
	3	6.5	2.5	0.015	0.15	0.23	0.012
	10	6.5	2.5	0.015	0.00	0.34	0.012

TSS is reported as non-filterable residue
TVSS is reported as volatile non-filterable residue

StarKist Samoa CO
Ocean Dump Site Monitoring Reports

March - 11 - 2010	Depth (m)	TSS mg/l SKS	TVSS mg/l SKS	TP mg/l SKS	TN mg/l SKS	O&G mg/l SKS	Ammonia mg/l SKS
Station 1	control-1	5.0	2.0	0.025	0.15	0.56	0.026
	control-3	5.5	2.0	0.010	0.15	0.35	0.028
	control-10	5.5	1.5	0.005	0.10	0.56	0.016
	1	6.0	2.5	0.020	0.15	0.38	0.017
	3	5.0	2.0	0.005	0.15	0.35	0.013
	10	5.5	1.5	0.005	0.05	0.34	0.009
Station 2	1	5.5	3.0	0.005	0.30	0.33	0.014
	3	6.0	2.0	0.005	0.25	0.35	0.007
	10	5.5	2.0	0.030	0.20	0.25	0.006
Station 3	1	6.0	1.5	0.030	0.20	0.25	0.026
	3	6.0	2.0	0.005	0.15	0.22	0.007
	10	5.5	2.5	0.010	0.00	0.47	0.010
Station 4	1	5.5	1.5	0.000	0.20	0.38	0.009
	3	6.0	1.5	0.015	0.20	0.26	0.015
	10	5.5	1.5	0.065	0.35	0.44	0.014
Station 5	1	5.5	1.5	0.010	0.05	0.57	0.009
	3	5.5	2.5	0.000	0.10	0.22	0.020
	10	4.5	2.5	0.015	0.20	0.38	0.008

TSS is reported as non-filterable residue
TVSS is reported as volatile non-filterable residue

January 10th, 2010

Carl Goldstein
Program Manager
Pacific Islands Office
USEPA Region IX
75 Hawthorne Street
San Francisco, CA 94105

RE: OCEAN DUMPING PERMIT OD93-02 SPECIAL

Dear Carl:

Pursuant to the requirements of the above referenced permit, we are herewith submitting the Quarterly ocean dumping report for the period of October 2010 through December 2010 for COS Samoa Packing Company. No waste has been generated or transferred or dumped in this quarter. Enclosed are the following:

* EPA Forms 1, 2 and 3.
* Results of Monthly Onshore Storage Tank Analysis. No testing was done.
* Letter to ASEPA reporting exceedances and irregularities during the 3 month period where applicable. There were no exceedances.
* Monthly Site Monitoring Reports.
* Results of Monthly Site Monitoring Analysis.

Please advise if additional information is required.

Sincerely,

Craig Double
Facility Manager
COS Samoa Packing Co.

Enclosures:
Pacific Island Office

Cc(1) Except Vessel Logs	Director American Samoa Environmental Protection Agency American Samoa Government Pago Pago, American Samoa 96799
Cc(1) Complete Report	Director of Engineering Chicken of the Sea International 9330 Scranton Road Suite 500 San Diego, California 92121
Cc(1) Vessel Logs Only	Commanding Chief U.S. Coast Guard Liaison Office P.O. Box 249 Pago Pago, American Samoa 96799
Cc(1) Except Vessel Logs:	Project Leader Office of Environmental Services U.S. Fish and Wildlife Service 300 Ala Moana Boulevard P.O. Box 50167 Honolulu, Hawaii 96850
	John Naughton Pacific Island Regional Office 1601 Kapiolani BLvd. Suite 1110 Honolulu, Hawaii 96814-4700
	Executive Director Western Pacific Regional Fishery Management Council 1164 Bishop Street, Suite 1405 Honolulu, Hawaii 96813

STAR KIST SAMOA, CO
P. O. BOX 368, PAGO PAGO AMERICAN SAMOA 96799
WATER TREATMENT DEPARTMENT

REPORT OF ANALYSES RESULTS

SAMPLE TYPE : Sea Water - Ocean Monitoring Sampling - October 07,2010
REPORTING DATE : November 03,2010

SAMPLES	AMMONIA (mg N/L)	TOTAL NITROGEN (mg N/L)	TOTAL PHOSPHORUS (mg P/L)	NON FILTERABLE RESIDUE (mg/L)	VOLATILE NON FILTERABLE RESIDUE (mg/L)	OIL& GREASE (mg / L)
Stn : 1-1Mtr Control	0.035	0.30	0.025	5.5	2.0	0.38
Stn : 1-3 Mtr Control	0.018	0.20	0.025	4.5	2.0	0.50
Stn :1-10 Mtr Control	0.018	0.25	0.010	6.5	2.0	0.29
Stn : 1-1Mtr	0.031	0.25	0.025	6.5	2.0	0.27
Stn : 1-3 Mtr	0.035	0.25	0.000	4.5	1.0	0.13
Stn : 1-10 Mtr	0.041	0.20	0.020	5.0	2.5	0.25
Stn : 2-1 Mtr	0.041	0.20	0.020	5.5	1.5	0.38
Stn : 2-3 Mtr	0.046	0.30	0.015	6.0	1.5	0.25
Stn : 2-10 Mtr	0.035	0.15	0.015	5.5	2.0	0.38
Stn : 3-1 Mtr	0.045	0.35	0.015	5.5	2.5	0.38
Stn : 3-3 Mtr	0.023	0.15	0.015	6.5	1.5	0.41
Stn : 3-10 Mtr	0.020	0.25	0.005	5.0	2.5	0.44
Stn : 4-1 Mtr	0.027	0.35	0.025	5.5	3.5	0.26
Stn : 4-3 Mtr	0.026	0.15	0.010	5.0	2.0	0.38
Stn : 4-10 Mtr	0.031	0.30	0.025	5.0	1.5	0.25
Stn : 5-1 Mtr	0.021	0.35	0.025	6.0	2.5	0.39
Stn : 5-3 Mtr	0.033	0.20	0.015	6.5	1.5	0.25
Stn : 5-10 Mtr	0.023	0.25	0.025	4.5	2.0	0.41

Joe Carney: Engineering Manager

STAR KIST SAMOA, CO
P. O. BOX 368, PAGO PAGO AMERICAN SAMOA 96799
WATER TREATMENT DEPARTMENT

REPORT OF ANALYSES RESULTS

SAMPLE TYPE : Sea Water - Ocean Monitoring Sampling - November, 2010
REPORTING DATE : Jan 05 2011

SAMPLES	AMMONIA (mg N/L)	TOTAL NITROGEN (mg N/L)	TOTAL PHOSPHORUS (mg P/L)	NON FILTERABLE RESIDUE (mg/L)	VOLATILE NON FILTERABLE RESIDUE (mg/L)	OIL& GREASE (mg / L)
Stn : 1-1Mtr Control	0.027	0.20	0.015	6.0	1.5	0.25
Stn : 1-3 Mtr Control	0.033	0.30	0.010	4.5	2.0	0.13
Stn :1-10 Mtr Control	0.017	0.10	0.015	6.0	2.0	0.31
Stn : 1-1Mtr	0.023	0.25	0.010	4.5	2.5	0.29
Stn : 1-3 Mtr	0.031	0.25	0.010	4.0	3.0	0.25
Stn : 1-10 Mtr	0.026	0.30	0.005	5.5	1.5	0.18
Stn : 2-1 Mtr	0.028	0.30	0.015	5.5	2.0	0.27
Stn : 2-3 Mtr	0.034	0.20	0.005	4.0	2.5	0.25
Stn : 2-10 Mtr	0.019	0.25	0.015	5.5	1.5	0.34
Stn : 3-1 Mtr	0.031	0.15	0.005	5.5	2.0	0.14
Stn : 3-3 Mtr	0.031	0.25	0.010	5.0	3.0	0.32
Stn : 3-10 Mtr	0.024	0.20	0.010	4.5	1.5	0.34
Stn : 4-1 Mtr	0.035	0.35	0.015	5.0	2.0	0.20
Stn : 4-3 Mtr	0.036	0.20	0.015	5.5	1.5	0.19
Stn : 4-10 Mtr	0.035	0.25	0.005	5.0	2.5	0.32
Stn : 5-1 Mtr	0.024	0.05	0.015	5.5	2.5	0.32
Stn : 5-3 Mtr	0.032	0.15	0.005	4.5	2.5	0.32
Stn : 5-10 Mtr	0.029	0.10	0.010	5.0	1.0	0.28

Joe Carney: Engineering Manager

STAR KIST SAMOA, CO
P. O. BOX 368, PAGO PAGO AMERICAN SAMOA 96799
WATER TREATMENT DEPARTMENT

REPORT OF ANALYSES RESULTS

SAMPLE TYPE : Sea Water - Ocean Monitoring Sampling - December 02, 2010
REPORTING DATE : January 05 2011

SAMPLES	AMMONIA (mg N/L)	TOTAL NITROGEN (mg N/L)	TOTAL PHOSPHORUS (mg P/L)	NON FILTERABLE RESIDUE (mg/L)	VOLATILE NON FILTERABLE RESIDUE (mg/L)	OIL& GREASE (mg / L)
Stn : 1-1Mtr Control	0.027	0.15	0.015	4.5	3.0	0.37
Stn : 1-3 Mtr Control	0.023	0.15	0.015	5.0	3.0.	0.50
Stn :1-10 Mtr Control	0.021	0.15	0.010	5.5	2.5	0.58
Stn : 1-1Mtr	0.016	0.20	0.005	5.5	2.5	0.68
Stn : 1-3 Mtr	0.031	0.20	0.015	4.5	2.0	0.62
Stn : 1-10 Mtr	0.040	0.30	0.015	4.5	2.5	0.66
Stn : 2-1 Mtr	0.025	0.10	0.015	5.0	2.0	0.49
Stn : 2-3 Mtr	0.028	0.20	0.025	5.0	3.0	0.53
Stn : 2-10 Mtr	0.033	0.10	0.010	4.5	2.5	0.38
Stn : 3-1 Mtr	0.028	0.30	0.010	5.0	3.0	0.38
Stn : 3-3 Mtr	0.027	0.25	0.015	5.5	3.5	0.45
Stn : 3-10 Mtr	0.030	0.25	0.025	5.0	2.5	0.43
Stn : 4-1 Mtr	0.029	0.20	0.005	5.5	2.5	0.53
Stn : 4-3 Mtr	0.028	0.30	0.025	4.5	3.5	0.50
Stn : 4-10 Mtr	0.035	0.10	0.015	4.5	2.0	0.49
Stn : 5-1 Mtr	0.040	0.05	0.025	6.0	3.5	0.43
Stn : 5-3 Mtr	0.035	0.15	0.025	4.5	2.5	0.55
Stn : 5-10 Mtr	0.025	0.20	0.010	4.5	2.5	0.62

Joe Kimey: Engineering Manager

Cumulative Yearly Data on Fish Processing Wastes
Generated at COS Samoa Packing Company and Disposed at the Ocean Site
MPRSA 102 Special Permit #OD 93-02

Reporting Period: From 01 JAN. 2010 31 DEC. 2010

Month & Year	DAF Sludge Generated (gallons/month)	Cooker Water Generated (gallons/month)	Press Water Generated (gallons/month)	Total Generated (gallons/month)	Coagulate polymer (pounds/month)	Volume Ocean Disposed (gallons/month)
Jan. 2010	0	0	0	0	0	0
Feb. 2010	0	0	0	0	0	0
Mar. 2010	0	0	0	0	0	0
Apr. 2010	0	0	0	0	0	0
May. 2010	0	0	0	0	0	0
Jun. 2010	0	0	0	0	0	0
Jul. 2010	0	0	0	0	0	0
Aug. 2010	0	0	0	0	0	0
Sep. 2010	0	0	0	0	0	0
Oct. 2010	0	0	0	0	0	0
Nov. 2010	0	0	0	0	0	0
Dec. 2010	0	0	0	0	0	0
Cumulative Yearly Totals	0	0	0	0	0	0

NOTE: A seperate table shall be prepared for each calendar year.

APPENDIX B - REPORT FORM 2

Data Form for 3-Month Report on Waste Stream Analyses for COS Samoa Packing MPRSA 102 Permit #OD 93-02

Reporting Period: From October 2010 to December 2010

COS Samoa Packing - Onshore Storage Monitoring Report

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Oil and Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
October-10									
November-10									
December-10									
OD 93-02 Permit Limits	54,590	58,760	87,780	48,630	2,820	11,070	5,200	5.8 to 7.5	.97 to 1.03

NOTE: An asterisk(*) next to the waste concentration signifies that an exceedance of the permit limit has occurred.

APPENDIX B - REPORT FORM 1

Monthly Volumes of COS Samoa Packing Fish Processing Wastes Generated
Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month: October 2010

OD 93-02 Permit Limits	DAF Sludge Generated (gallons/day) 60,000	Precooker Water Generated (gallons/day) 100,000	Press Water Generated (gallons/day) 40,000	Total Generated (gallons/day) 200,000	Volume Ocean Disposed (gallons/day) 200,000
Oct 2010	No waste for October			0	
Totals	0	0	0	0	0

Note: An asterisk(*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly "Totals" row.
Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate: 0 pounds/month

APPENDIX B - REPORT FORM 1

Monthly Volumes of COS Samoa Packing Fish Processing Wastes Generated
Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month: November 2010

OD 93-02 Permit Limits	DAF Sludge Generated (gallons/day) 60,000	Precooker Water Generated (gallons/day) 100,000	Press Water Generated (gallons/day) 40,000	Total Generated (gallons/day) 200,000	Volume Ocean Disposed (gallons/day) 200,000
Nov 2010	No waste for November			0	
Totals	0	0	0	0	0

Note: An asterisk(*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly "Totals" row.
Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate: 0 pounds/month

APPENDIX B - REPORT FORM 1

Monthly Volumes of COS Samoa Packing Fish Processing Wastes Generated
Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month: December 2010

OD 93-02 Permit Limits	DAF Sludge Generated (gallons/day) 600,00	Precooker Water Generated (gallons/day) 100,000	Press Water Generated (gallons/day) 40,000	Total Generated (gallons/day) 200,000	Volume Ocean Disposed (gallons/day) 200,000
Dec 2010	No waster for December			0	
Totals	0	0	0	0	0

Note: An asterisk(*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly "Totals" row.
Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate: 0 pounds/month

January 10th, 2011

Carl Goldstein
Program Manager
Pacific Islands Office
USEPA Region IX
75 Hawthorne Street
San Francisco, CA 94105

RE: OCEAN DUMPING PERMIT OD93-02 SPECIAL

Dear Carl:

Pursuant to the requirements of the above referenced permit, we are herewith submitting the Quarterly ocean dumping report for the period of October 2010 through December 2010 for COS Samoa Packing Company. No waste has been generated or transferred or dumped in this quarter. Enclosed are the following:

* EPA Forms 1, 2 and 3.
* Results of Monthly Onshore Storage Tank Analysis. No testing was done.
* Letter to ASEPA reporting exceedances and irregularities during the 3 month period where applicable. There were no exceedances.
* Monthly Site Monitoring Reports.
* Results of Monthly Site Monitoring Analysis.

Please advise if additional information is required.

Sincerely,

Craig Double
Facility Manager
COS Samoa Packing Co.

Enclosures:
Pacific Island Office

Cc(1) Except Vessel Logs	Director American Samoa Environmental Protection Agency American Samoa Government Pago Pago, American Samoa 96799
Cc(1) Complete Report	Director of Engineering Chicken of the Sea International 9330 Scranton Road Suite 500 San Diego, California 92121
Cc(1) Vessel Logs Only	Commanding Chief U.S. Coast Guard Liaison Office P.O. Box 249 Pago Pago, American Samoa 96799
Cc(1) Except Vessel Logs:	Project Leader Office of Environmental Services U.S. Fish and Wildlife Service 300 Ala Moana Boulevard P.O. Box 50167 Honolulu, Hawaii 96850
	John Naughton Pacific Island Regional Office 1601 Kapiolani BLvd. Suite 1110 Honolulu, Hawaii 96814-4700
	Executive Director Western Pacific Regional Fishery Management Council 1164 Bishop Street, Suite 1405 Honolulu, Hawaii 96813

STAR KIST SAMOA, CO
P. O. BOX 368, PAGO PAGO AMERICAN SAMOA 96799
WATER TREATMENT DEPARTMENT

REPORT OF ANALYSES RESULTS

SAMPLE TYPE : Sea Water - Ocean Monitoring Sampling - October 07,2010
REPORTING DATE : November 03,2010

SAMPLES	AMMONIA (mg N/L)	TOTAL NITROGEN (mg N/L)	TOTAL PHOSPHORUS (mg P/L)	NON FILTERABLE RESIDUE (mg/L)	VOLATILE NON FILTERABLE RESIDUE (mg/L)	OIL& GREASE (mg / L)
Stn : 1-1Mtr Control	0.035	0.30	0.025	5.5	2.0	0.38
Stn : 1-3 Mtr Control	0.018	0.20	0.025	4.5	2.0	0.50
Stn :1-10 Mtr Control	0.018	0.25	0.010	6.5	2.0	0.29
Stn : 1-1Mtr	0.031	0.25	0.025	6.5	2.0	0.27
Stn : 1-3 Mtr	0.035	0.25	0.000	4.5	1.0	0.13
Stn : 1-10 Mtr	0.041	0.20	0.020	5.0	2.5	0.25
Stn : 2-1 Mtr	0.041	0.20	0.020	5.5	1.5	0.38
Stn : 2-3 Mtr	0.046	0.30	0.015	6.0	1.5	0.25
Stn : 2-10 Mtr	0.035	0.15	0.015	5.5	2.0	0.38
Stn : 3-1 Mtr	0.045	0.35	0.015	5.5	2.5	0.38
Stn : 3-3 Mtr	0.023	0.15	0.015	6.5	1.5	0.41
Stn : 3-10 Mtr	0.020	0.25	0.005	5.0	2.5	0.44
Stn : 4-1 Mtr	0.027	0.35	0.025	5.5	3.5	0.26
Stn : 4-3 Mtr	0.026	0.15	0.010	5.0	2.0	0.38
Stn : 4-10 Mtr	0.031	0.30	0.025	5.0	1.5	0.25
Stn : 5-1 Mtr	0.021	0.35	0.025	6.0	2.5	0.39
Stn : 5-3 Mtr	0.033	0.20	0.015	6.5	1.5	0.25
Stn : 5-10 Mtr	0.023	0.25	0.025	4.5	2.0	0.41

Joe Carney: Engineering Manager

STAR KIST SAMOA, CO
P. O. BOX 368, PAGO PAGO AMERICAN SAMOA 96799
WATER TREATMENT DEPARTMENT

REPORT OF ANALYSES RESULTS

SAMPLE TYPE : Sea Water - Ocean Monitoring Sampling - November, 2010
REPORTING DATE : Jan 05 2011

SAMPLES	AMMONIA (mg N/L)	TOTAL NITROGEN (mg N/L)	TOTAL PHOSPHORUS (mg P/L)	NON FILTERABLE RESIDUE (mg/L)	VOLATILE NON FILTERABLE RESIDUE (mg/L)	OIL& GREASE (mg / L)
Stn : 1-1Mtr Control	0.027	0.20	0.015	6.0	1.5	0.25
Stn : 1-3 Mtr Control	0.033	0.30	0.010	4.5	2.0	0.13
Stn :1-10 Mtr Control	0.017	0.10	0.015	6.0	2.0	0.31
Stn : 1-1Mtr	0.023	0.25	0.010	4.5	2.5	0.29
Stn : 1-3 Mtr	0.031	0.25	0.010	4.0	3.0	0.25
Stn : 1-10 Mtr	0.026	0.30	0.005	5.5	1.5	0.18
Stn : 2-1 Mtr	0.028	0.30	0.015	5.5	2.0	0.27
Stn : 2-3 Mtr	0.034	0.20	0.005	4.0	2.5	0.25
Stn : 2-10 Mtr	0.019	0.25	0.015	5.5	1.5	0.34
Stn : 3-1 Mtr	0.031	0.15	0.005	5.5	2.0	0.14
Stn : 3-3 Mtr	0.031	0.25	0.010	5.0	3.0	0.32
Stn : 3-10 Mtr	0.024	0.20	0.010	4.5	1.5	0.34
Stn : 4-1 Mtr	0.035	0.35	0.015	5.0	2.0	0.20
Stn : 4-3 Mtr	0.038	0.20	0.015	5.5	1.5	0.19
Stn : 4-10 Mtr	0.035	0.25	0.005	5.0	2.5	0.32
Stn : 5-1 Mtr	0.024	0.05	0.015	5.5	2.5	0.32
Stn : 5-3 Mtr	0.032	0.15	0.005	4.5	2.5	0.32
Stn : 5-10 Mtr	0.029	0.10	0.010	5.0	1.0	0.28

Joe Carney: Engineering Manager

STAR KIST SAMOA, CO
P. O. BOX 368, PAGO PAGO AMERICAN SAMOA 96799
WATER TREATMENT DEPARTMENT

REPORT OF ANALYSES RESULTS

SAMPLE TYPE : Sea Water - Ocean Monitoring Sampling - December 02, 2010
REPORTING DATE : January 05 2011

SAMPLES	AMMONIA (mg N/L)	TOTAL NITROGEN (mg N/L)	TOTAL PHOSPHORUS (mg P/L)	NON FILTERABLE RESIDUE (mg/L)	VOLATILE NON FILTERABLE RESIDUE (mg/L)	OIL& GREASE (mg / L)
Stn : 1-1Mtr Control	0.027	0.15	0.015	4.5	3.0	0.37
Stn : 1-3 Mtr Control	0.023	0.15	0.015	5.0	3.0.	0.50
Stn :1-10 Mtr Control	0.021	0.15	0.010	5.5	2.5	0.58
Stn : 1-1Mtr	0.018	0.20	0.005	5.5	2.5	0.68
Stn : 1-3 Mtr	0.031	0.20	0.015	4.5	2.0	0.62
Stn : 1-10 Mtr	0.040	0.30	0.015	4.5	2.5	0.66
Stn : 2-1 Mtr	0.025	0.10	0.015	5.0	2.0	0.49
Stn : 2-3 Mtr	0.028	0.20	0.025	5.0	3.0	0.53
Stn : 2-10 Mtr	0.033	0.10	0.010	4.5	2.5	0.38
Stn : 3-1 Mtr	0.028	0.30	0.010	5.0	3.0	0.38
Stn : 3-3 Mtr	0.027	0.25	0.015	5.5	3.5	0.45
Stn : 3-10 Mtr	0.030	0.25	0.025	5.0	2.5	0.43
Stn : 4-1 Mtr	0.029	0.20	0.005	5.5	2.5	0.53
Stn : 4-3 Mtr	0.028	0.30	0.025	4.5	3.5	0.50
Stn : 4-10 Mtr	0.035	0.10	0.015	4.5	2.0	0.49
Stn : 5-1 Mtr	0.040	0.05	0.025	6.0	3.5	0.43
Stn : 5-3 Mtr	0.035	0.15	0.025	4.5	2.5	0.55
Stn : 5-10 Mtr	0.025	0.20	0.010	4.5	2.5	0.62

Joe Carney: Engineering Manager

Cumulative Yearly Data on Fish Processing Wastes
Generated at COS Samoa Packing Company and Disposed at the Ocean Site
MPRSA 102 Special Permit #OD 93-02

Reporting Period: From 01 JAN. 2010 31 DEC. 2010

Month & Year	DAF Sludge Generated (gallons/month)	Cooker Water Generated (gallons/month)	Press Water Generated (gallons/month)	Total Generated (gallons/month)	Coagulate polymer (pounds/month)	Volume Ocean Disposed (gallons/month)
Jan. 2010	0	0	0	0	0	0
Feb. 2010	0	0	0	0	0	0
Mar. 2010	0	0	0	0	0	0
Apr. 2010	0	0	0	0	0	0
May. 2010	0	0	0	0	0	0
Jun. 2010	0	0	0	0	0	0
Jul. 2010	0	0	0	0	0	0
Aug. 2010	0	0	0	0	0	0
Sep. 2010	0	0	0	0	0	0
Oct. 2010	0	0	0	0	0	0
Nov. 2010	0	0	0	0	0	0
Dec. 2010	0	0	0	0	0	0
Cumulative Yearly Totals	0	0	0	0	0	0

NOTE: A seperate table shall be prepared for each calendar year.

APPENDIX B - REPORT FORM 2

Data Form for 3-Month Report on Waste Stream Analyses for COS Samoa Packing MPRSA 102 Permit #OD 93-02

Reporting Period: From October 2010 to December 2010

COS Samoa Packing - Onshore Storage Monitoring Report

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Oil and Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
October-10									
November-10									
December-10									
OD 93-02 Permit Limits	54,590	58,760	87,780	48,630	2,820	11,070	5,200	5.8 to 7.5	.97 to 1.03

NOTE: An asterisk(*) next to the waste concentration signifies that an exceedance of the permit limit has occurred.

APPENDIX B - REPORT FORM 1

Monthly Volumes of COS Samoa Packing Fish Processing Wastes Generated
Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month: October 2010

OD 93-02 Permit Limits	DAF Sludge Generated (gallons/day) 60,000	Precooker Water Generated (gallons/day) 100,000	Press Water Generated (gallons/day) 40,000	Total Generated (gallons/day) 200,000	Volume Ocean Disposed (gallons/day) 200,000
Oct 2010	No waste for October			0	
Totals	0	0	0	0	0

Note: An asterisk(*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly "Totals" row.
Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate: 0 pounds/month

APPENDIX B - REPORT FORM 1

Monthly Volumes of COS Samoa Packing Fish Processing Wastes Generated
Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month: November 2010

OD 93-02 Permit Limits	DAF Sludge Generated (gallons/day) 60,000	Precooker Water Generated (gallons/day) 100,000	Press Water Generated (gallons/day) 40,000	Total Generated (gallons/day) 200,000	Volume Ocean Disposed (gallons/day) 200,000
Nov 2010	No waste for November			0	
Totals	0	0	0	0	0

Note: An asterisk(*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly "Totals" row.
Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate: 0 pounds/month

APPENDIX B - REPORT FORM 1

Monthly Volumes of COS Samoa Packing Fish Processing Wastes Generated
Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month: December 2010

OD 93-02 Permit Limits	DAF Sludge Generated (gallons/day) 600,00	Precooker Water Generated (gallons/day) 100,000	Press Water Generated (gallons/day) 40,000	Total Generated (gallons/day) 200,000	Volume Ocean Disposed (gallons/day) 200,000
Dec 2010	No waster for December			0	
Totals	0	0	0	0	0

Note: An asterisk(*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly "Totals" row.
Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate: 0 pounds/month

Ocean Disposal Site
Monitoring Report
(OD Permit 93-01 & 93-02)

07 October, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS/Samoa Packing	Craig Double
Determination of Sampling Positions:	All positions obtained by GPS Satellite Navigation

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
10 Oct. 2010

Introduction

On November 4, 2010 the waste water tanker *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dump-site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0615: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master/Principal Investigator, Chief and Mate on board.

0713: The *Blue Moon* entered the dumpzone circle @ 14*22.6' S / 170*38.6' W.

0723: The *Blue Moon* arrived at the dump-zone center, where observed stiff southeasterly winds and moderate southeasterly seas indicated disposal operations be conducted in the southeast dump-zone quadrant.

0740: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were rough with SE swells to 2.5 meters and a strong SE wind of 20+ knots and the barometer reading 29.60. Current set and drift, of the ship, were to the northwest at 1.4 knots. No floating materials or sea life were observed here.

0747: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elliptical type pattern, approximately 2 miles long (see Plot 1) until 0820 hrs when, due to the rough sea condition, the discharge pattern was changed to the Figure 8 or Bow Tie pattern to reduce the excessive rolling of the ship. Wastewater discharging was completed at 10:52 hrs.

1055: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had increased to 25 knots during the discharge but had subsequently dropped back at this time to about 20 knots, with still, overcast skies. The waste plume was not visible at all here, with no sign of the typical glassy surface

sheen. The current/wind drift of the ship was now GPS determined to be northwesterly @ 1.2 knots. No sea life or floatable materials were observed.

1105: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position, like Station #1, lacked any visual presence of the wastewater plume in it's immediate area, just clear natural blue appearing seawater. However, a few track-line remnants of the typical glassy surface sheen were apparent further down-current to the northwest and a few hundred meters to the north. The average drift rate of the ship with current and wind was GPS determined to be northwesterly (NW) at 1.3 knots between stations 2 & 3 (See Plot #1). No sea-life or floatable materials were noted at this position.

1115: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position showed some heavy glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was 1.25 knots to the west-northwest.

1125: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 miles NW of Station #3, showed the same visual characteristics of the waste plume as Stations #1 & #2 with another large area of natural clear blue water. There were no floating or suspended materials. The NW current/drift rate of the ship was noted here to be a brisk 1.3 knots which had carried the last visible remnants of the plume at least an additional ¾ of a mile further down-current to the NW.

1015: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.6 NM southwest of the zone center (see Plot #1). The leading edge of the waste plume was clearly visible at this location as a patchy area of moderate and heavy streaks of glassy surface sheen with clear, natural appearing blue waters further down-current to the NW. No notable sea life was observed at this position or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.61 when monitoring activities were concluded at 1140 hrs. The *Blue Moon* exited the disposal zone at 1150 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1245 hours.

Introduction

On October 7, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dump-site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0615: The *Blue Moon* departed Pago Pago Harbor bound for the dump-site location with Master/Principal Investigator, Chief and Mate on board.

0703: The *Blue Moon* entered the dumpzone circle @ 14*22.5' S / 170*38.7' W.

0713: The *Blue Moon* arrived at the dump-zone center, where observed light easterly winds and slight southerly seas initially indicated disposal operations be conducted in the eastern dump-zone quadrant.

0725: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or east (E) of the dump-zone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with south swells to 2.0 meters and a light E breeze of 7 knots and the barometer reading 29.58. Current set and drift, of the ship, were to the west at 0.5 knots. No floating materials or sea life were observed here.

0735: The *Blue Moon* began disposal operations in the eastern dump zone quadrant and continued discharging material with a north to south reciprocal, elongated elliptical pattern, approximately 2.2 miles long (see Plot 1) until 1025 hrs.

1035: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The E winds had increased slightly to 10 knots with still, partly cloudy skies. The waste plume appeared here as elongate streaks of moderate glassy surface sheen extending in a north to south direction and moving to the west. The current/wind drift of the ship was now GPS determined to be westerly @ 0.6 knots. No sea life or floatable materials were observed.

1045: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position showed moderate glassy surface sheen along with abundant fine, suspended particulate material. These particulates extended down to the limit of water visibility and were light brown to ash colored. The average drift rate of the ship with current and wind was GPS determined to be westerly (W) at 0.6 knots between stations 2 & 3 (See Plot #1). No sea-life was noted at this position.

1055: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position showed only some very light glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was again, 0.6 knots to the west.

1105: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM, W of Station #3, didn't show any of the typical visual characteristics of the waste plume (like the glassy surface sheens or milky discolorations) and appeared to be in an area of natural clear blue water within the plume itself. There were no floating or suspended materials. The W current/drift rate of the ship was again noted here to be at 0.5 knots.

1115: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.26 NM south-southeast of the zone center (See Plot #1). The leading edge of the waste plume was clearly visible at this location as an area of moderate glassy surface sheen with clear, natural appearing blue waters further down-current to the west. The final drift rate of the ship was noted to be 0.6 knots. No notable sea life was observed at this position or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.60 when monitoring activities were concluded at 1125 hrs. The *Blue Moon* exited the disposal zone at 1135 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1225 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

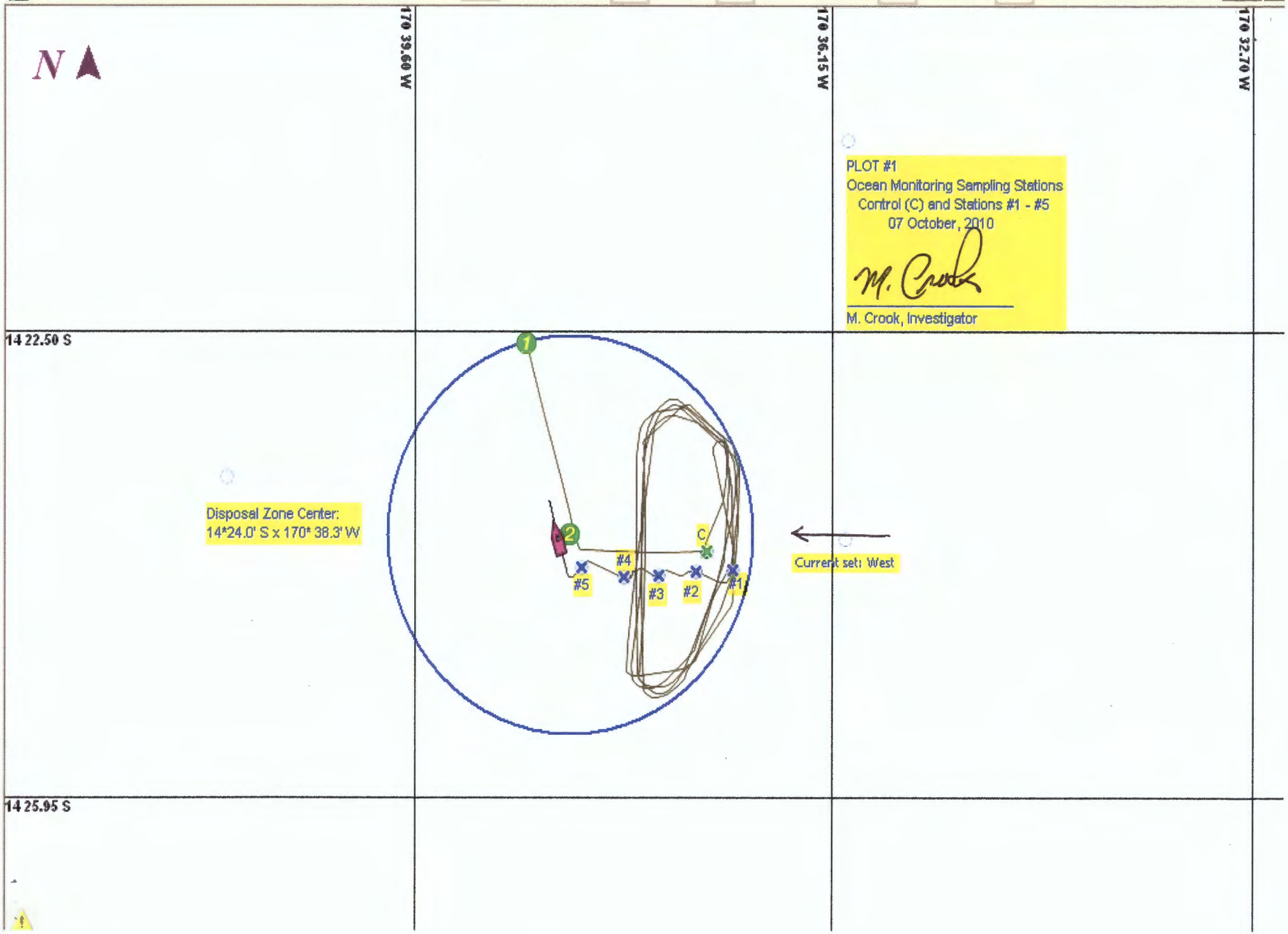
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 07 October 2010	Sea Conditions: Slight w/ South swells to 2.0 meters. Wind: East @ 7 - 10 knots Visibility: Unlimited Barometer: 29.58 – 29.61 Current Set & Drift Rate: West @ average 0.6 knots Sky: Partly Cloudy to cloudy, 30 – 90%					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0725	Control	1	28.3	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	28.3	7.3		
		10	28.3	7.3		
1035	Station 1	1	28.3	7.3	Slightly Pungent	Moderate glassy surface sheen with some light milky blue patches. No floating or suspended particulate or other material.
		3	28.3	7.3		
		10	28.3	7.3		
1045	Station 2	1	28.3	7.3	Slightly Pungent	A large area of moderate glassy sheen with abundant suspended, fine particulate materials, light brown in color extending down to the limit of visibility (approx. 4 meters).
		3	28.3	7.3		
		10	28.3	7.3		
1055	Station 3	1	28.3	7.3	Slightly Pungent	Light surface sheen over deep, clear blue. No floating or suspended particulate materials at this position, 0.25 NM down-current of Station #2.
		3	28.3	7.3		
		10	28.3	7.3		
1105	Station 4	1	28.3	7.3	Slightly Pungent	No visible evidence (i.e. typical sheen) of the wastewater plume sheen in the vicinity of this position, an apparent void in the midst of the plume . No floating or suspended materials noted either.
		3	28.3	7.3		
		10	28.3	7.3		
1115	Station 5	1	28.3	7.3	Slightly Pungent	Leading edge of the waste plume. Moderate glassy surface sheen with clear, blue, natural appearing seas further down-current to the west. No floating or suspended materials of any description.
		3	28.3	7.3		
		10	28.3	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.14'	South	170° 37.19'	West
Station 1	14° 24.21'	South	170° 36.95'	West
Station 2	14° 24.28'	South	170° 37.21'	West
Station 3	14° 24.27'	South	170° 37.48'	West
Station 4	14° 24.26'	South	170° 37.72'	West
Station 5	14° 24.24'	South	170° 38.26'	West


N
170 39.60 W
170 36.15 W
170 32.70 W
14 22.50 S
14 25.95 S
PLOT #1
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
07 October, 2010
M. Crook, Investigator
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
C
#1
#2
#3
#4
#5
Current set: West

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

04 November, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS/Samoa Packing	Craig Double
Determination of Sampling Positions:	All positions & drift rates obtained by GPS Satellite Navigation.

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
06 November. 2010

Prepared by M. Crook
Mike Crook, Principal Investigator

OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 04 November 2010	Sea Conditions: Moderate to Rough w/ East/Southeast swells to 2.5 meters. Wind: Southeast @ 20 - 25 knots Visibility: Fair to Good Barometer: 29.60 – 29.63 Current Set & Drift: Northwest @ average 1.3 knots Sky: 100% Cloudy w/ passing rains.					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0740	Control	1	26.1	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	26.1	7.3		
		10	26.1	7.3		
1055	Station 1	1	26.7	7.3	None	Same color characteristics as the Control Station
		3	26.7	7.3		
		10	26.7	7.3		
1105	Station 2	1	26.7	7.3	None	Deep, clear blue water but a couple broken glassy track lines 300 meters to the north of this position. No floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
1115	Station 3	1	26.7	7.3	Slightly Pungent	Heavy, glassy surface sheen over clear blue water. No floating or suspended particulate materials present.
		3	26.7	7.3		
		10	26.7	7.3		
1125	Station 4	1	26.7	7.3	Slightly Pungent	Same characteristics as the Control and #1 Stations.
		3	26.7	7.3		
		10	26.7	7.3		
1135	Station 5	1	26.7	7.3	Slightly Pungent	The leading edge of the waste plume consisted of broken up patches of earlier glassy track lines w/ moderate to heavy surface sheen. No floating or suspended particulate materials.
		3	26.7	7.3		
		10	26.7	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.74'	South	170° 37.14'	West
Station 1	14° 24.67'	South	170° 37.40'	West
Station 2	14° 24.64'	South	170° 37.50'	West
Station 3	14° 24.47'	South	170° 37.66'	West
Station 4	14° 24.36'	South	170° 37.87'	West
Station 5	14° 24.58'	South	170° 38.57'	West

N

3.05 W

9.60 W

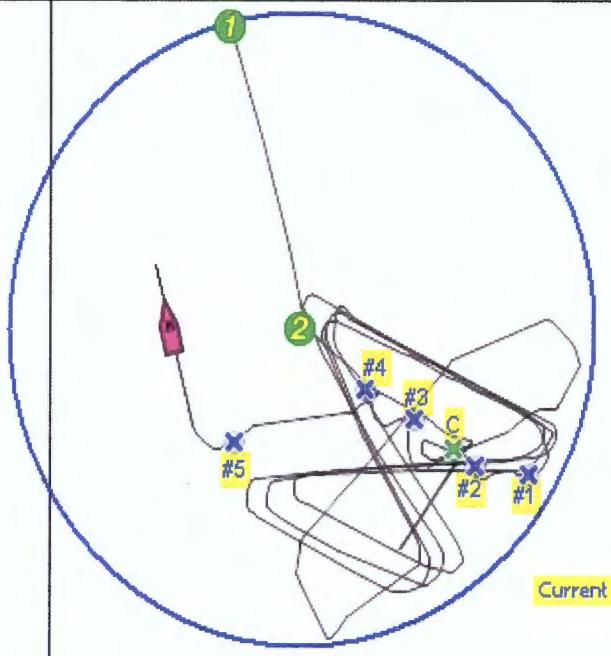
5.15 W

PLOT #1
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
04 November, 2010

M. Crook, Investigator

14 22.50 S

Disposal Zone Center:
14*24.0' S x 170* 38.3' W



Current Set: Northwest

14 25.95 S

Ocean Disposal Site
Monitoring Report
(OD Permit 93-01 & 93-02)

02 December, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS/Samoa Packing	Craig Double
Determination of Sampling Positions:	All positions obtained by GPS Satellite Navigation

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
06 December, 2010

Introduction

On December 2, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dump-site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0605: The *Blue Moon* departed Pago Pago Harbor bound for the dump-site location with Master/Principal Investigator, Chief and Mate on board.

0655: The *Blue Moon* entered the dumpzone circle @ 14*22.6' S / 170*38.7' W.

0705: The *Blue Moon* arrived at the dump-zone center, where observed light northeasterly winds and slight east/SE seas initially indicated disposal operations be conducted in the northeastern dump-zone quadrant.

0715: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or northeast (NE) of the dump-zone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with station's position were recorded (Table 1). Seas at this time were slight with east & SE swells to1.0 meters and a light NE breeze of 5 knots with the barometer reading 29.56. Current set and drift, of the ship, were to the southwest at 0.4 knots. No floating materials or sea life were observed here.

0725: The *Blue Moon* began disposal operations in the NE dump zone quadrant and continued discharging material with a northwest to SE reciprocal, elongated elliptical pattern, approximately 2.25 miles long (see Plot 1) until 1005 hrs.

1010: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The NE winds had increased slightly to 10 knots with still, partly cloudy skies. The waste plume appeared here as an oblong body of moderate glassy surface sheen extending in a northwest (NW) to SE direction and moving to the southwest (SW). The current/wind drift of the ship was now GPS determined to be westerly @ 0.5 knots. No sea life or floatable materials

were observed.

1020: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position showed heavy glassy surface sheen but no floating or suspended particulate material. The average drift rate of the ship with current and wind was GPS determined to be southwesterly at 0.5 knots between stations 2 & 3 (See Plot #1). No sea-life was noted at this position.

1030: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position showed only some very light glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was again, 0.4 - 0.5 knots to the SW.

1040: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM SW of Station #3, showed the typical heavy glassy surface sheen characteristic of the waste plume and was within 0.25 NM from the visible leading edge of the plume. There were no floating or suspended materials. The SW current/drift rate of the ship was again noted here to be at 0.5 knots.

1050: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.45 NM south of the zone center (See Plot #1). The leading edge of the waste plume was clearly visible at this location as an area of heavy glassy surface sheen with clear, natural appearing blue waters further down-current to the southwest. Also present in this sheen, were fine, suspended particulate material extending down to the limit of water visibility as well as a few floating, golf ball sized blobs of a grease-like substance . All the above were brown to gray or ash colored. The final drift rate of the ship was noted to be 0.5 knots. Other than a few random seabirds flying by, no notable sea life was observed at this position or any of the previous stations, although a 10 kg. Wahoo was caught on trolling gear near the zone perimeter on the return. The final barometer reading was 29.52 when monitoring activities were concluded at 1100 hrs. The *Blue Moon* exited the disposal zone at 1115 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1205 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 02 December 2010	Sea Conditions: Slight w/ South/Southeast swells to 1.0 meters. Wind: Northeast @ 5 - 10 knots Visibility: Good @ 6-10+ miles. Barometer: 29.53 – 29.57- 29.52 Current Set & Drift: Southwest @ average 0.5 knots Sky: Partly cloudy 25 - 60%.					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0715	Control	1	27.8	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	27.8	7.3		
		10	27.8	7.3		
1010	Station 1	1	28.9	7.3	None	Moderate glassy surface sheen over clear blue water. No floating or suspended materials or sea life.
		3	28.9	7.3		
		10	28.9	7.3		
1020	Station 2	1	28.9	7.3	Slightly Pungent	Heavy glassy surface sheen over clear blue water. No floating or suspended materials.
		3	28.3	7.3		
		10	28.3	7.3		
1030	Station 3	1	28.9	7.3	Slightly Pungent	Light glassy surface sheen over clear blue water at the center of the plume ellipse. No floating or suspended particulate materials present.
		3	28.9	7.3		
		10	28.9	7.3		
1040	Station 4	1	28.9	7.3	Pungent	Same characteristics as Station #2.
		3	28.9	7.3		
		10	28.9	7.3		
1050	Station 5	1	28.9	7.3	Pungent	The leading edge of the wastewater plume: Heavy surface sheen with fine, gray suspended particulate materials and several floating, golf ball sized blobs of greasy material.
		3	28.9	7.3		
		10	28.3	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 23.53'	South	170° 37.32'	West
Station 1	14° 23.43'	South	170° 37.00'	West
Station 2	14° 23.65'	South	170° 37.27'	West
Station 3	14° 23.87'	South	170° 37.57'	West
Station 4	14° 24.14'	South	170° 37.83'	West
Station 5	14° 24.39'	South	170° 38.15'	West

Copy: Nav Plot, Blue Moon

N

170 43.05 W | 170 39.60 W | 170 36.15 W

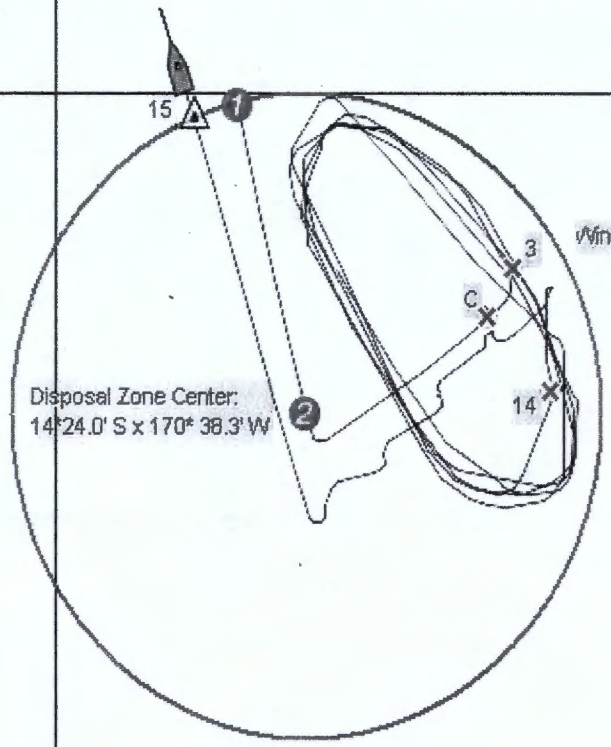
14 22.50 S

14 25.95 S

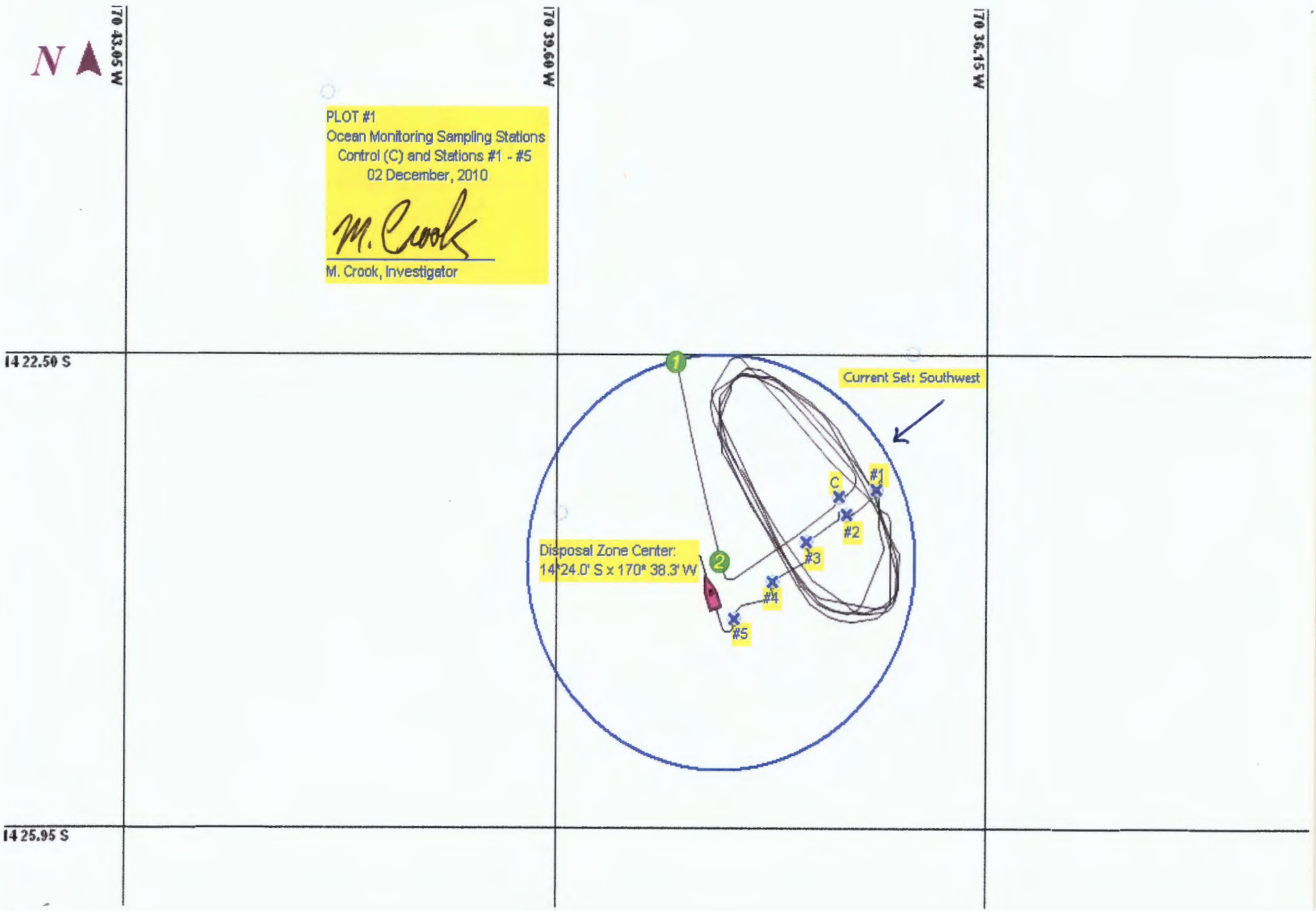
02 December, 2010 - Thurs.
Voyage # 5368
Starkist Cargo, Trip #1
*Ocean Monitoring/Sampling Conducted

M. Crook

M. Crook, Master
F/V Blue Moon



Wind: Northeast @ 5 - 10 kts.


N
170 43.05 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
PLOT #1
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
02 December, 2010
M. Crook, Investigator
Current Set: Southwest
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
1
2
C
#1
#2
#3
#4
#5

October 4th, 2010

Carl Goldstein
Program Manager
Pacific Islands Office
USEPA Region IX
75 Hawthorne Street
San Francisco, CA 94105

RE: OCEAN DUMPING PERMIT OD93-02 SPECIAL

Dear Carl:

Pursuant to the requirements of the above referenced permit, we are herewith submitting the Quarterly ocean dumping report for the period of July 2010 through September 2010 for COS Samoa Packing Company. No waste has been generated or transferred or dumped in this quarter. Enclosed are the following:

* EPA Forms 1, 2 and 3.
* Results of Monthly Onshore Storage Tank Analysis. No testing was done.
* Letter to ASEPA reporting exceedances and irregularities during the 3 month period where applicable. There were no exceedances.
* Monthly Site Monitoring Reports.
* Results of Monthly Site Monitoring Analysis.

Please advise if additional information is required.

Sincerely,

Craig Double
Facility Manager
COS Samoa Packing Co.

Enclosures:
Pacific Island Office

Cc(1) Except Vessel Logs	Director American Samoa Environmental Protection Agency American Samoa Government Pago Pago, American Samoa 96799
Cc(1) Complete Report	Director of Engineering Chicken of the Sea International 9330 Scranton Road Suite 500 San Diego, California 92121
Cc(1) Vessel Logs Only	Commanding Chief U.S. Coast Guard Liaison Office P.O. Box 249 Pago Pago, American Samoa 96799
Cc(1) Except Vessel Logs:	Project Leader Office of Environmental Services U.S. Fish and Wildlife Service 300 Ala Moana Boulevard P.O. Box 50167 Honolulu, Hawaii 96850
	John Naughton Pacific Island Regional Office 1601 Kapiolani BLvd. Suite 1110 Honolulu, Hawaii 96814-4700
	Executive Director Western Pacific Regional Fishery Management Council 1164 Bishop Street, Suite 1405 Honolulu, Hawaii 96813

Cumulative Yearly Data on Fish Processing Wastes
Generated at COS Samoa Packing Company and Disposed at the Ocean Site
MPRSA 102 Special Permit #OD 93-02

Reporting Period: From 01 JAN. 2010 31 DEC. 2010

Month & Year	DAF Sludge Generated (gallons/month)	Cooker Water Generated (gallons/month)	Press Water Generated (gallons/month)	Total Generated (gallons/month)	Coagulate polymer (pounds/month)	Volume Ocean Disposed (gallons/month)
Jan. 2010	0	0	0	0	0	0
Feb. 2010	0	0	0	0	0	0
Mar. 2010	0	0	0	0	0	0
Apr. 2010	0	0	0	0	0	0
May. 2010	0	0	0	0	0	0
Jun. 2010	0	0	0	0	0	0
Jul. 2010	0	0	0	0	0	0
Aug. 2010	0	0	0	0	0	0
Sep. 2010	0	0	0	0	0	0
Oct. 2010						
Nov. 2010						
Dec. 2010						
Cumulative Yearly Totals	0	0	0	0	0	0

NOTE: A seperate table shall be prepared for each calendar year.

APPENDIX B - REPORT FORM 1

Monthly Volumes of COS Samoa Packing Fish Processing Wastes Generated
Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month: July 2010

OD 93-02 Permit Limits	DAF Sludge Generated (gallons/day) 60,000	Precooker Water Generated (gallons/day) 100,000	Press Water Generated (gallons/day) 40,000	Total Generated (gallons/day) 200,000	Volume Ocean Disposed (gallons/day) 200,000
July 2010	No waste for July			0	
Totals	0	0	0	0	0

Note: An asterisk(*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly "Totals" row.
Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate: 0 pounds/month

APPENDIX B - REPORT FORM 1

Monthly Volumes of COS Samoa Packing Fish Processing Wastes Generated
Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month: August 2010

	DAF Sludge Generated (gallons/day)	Precooker Water Generated (gallons/day)	Press Water Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
OD 93-02 Permit Limits	60,000	100,000	40,000	200,000	200,000
Aug 2010	No waste for August			0	
Totals	0	0	0	0	0

Note: An asterisk(*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly "Totals" row.
Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate: 0 pounds/month

APPENDIX B - REPORT FORM 1

Monthly Volumes of COS Samoa Packing Fish Processing Wastes Generated
Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month: September 2010

OD 93-02 Permit Limits	DAF Sludge Generated (gallons/day) 600,00	Precooker Water Generated (gallons/day) 100,000	Press Water Generated (gallons/day) 40,000	Total Generated (gallons/day) 200,000	Volume Ocean Disposed (gallons/day) 200,000
Sept 2010	No waster for September			0	
Totals	0	0	0	0	0

Note: An asterisk(*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly "Totals" row.
Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate: 0 pounds/month

APPENDIX B - REPORT FORM 2

Data Form for 3-Month Report on Waste Stream Analyses for COS Samoa Packing MPRSA 102 Permit #OD 93-02

Reporting Period: From July 2010 to September 2010

COS Samoa Packing - Onshore Storage Monitoring Report

Month & Year	Total Solids (mg/L)		Total Volatile Solids (mg/L)		5-Day Biological Oxygen Demand (mg/L)		Oil and Grease (mg/L)		Total Phosphorus (mg/L)		Total Nitrogen (mg/L)		Ammonia (mg/L)		pH (pH units)		Density (g/mL)	
July-10 August-10 September-10																		
OD 93-02 Permit Limits	54,590		58,760		87,780		48,630		2,820		11,070		5,200		5.8 to 7.5		.97 to 1.03	

NOTE: An asterisk(*) next to the waste concentration signifies that an exceedance of the permit limit has occurred.

STAR KIST SAMOA, CO.
P. O. BOX 368, PAGO PAGO AMERICAN SAMOA 96799
WATER TREATMENT DEPARTMENT

REPORT OF ANALYSES RESULTS

SAMPLE TYPE : Sea Water - Ocean Monitoring Sampling - July 01, 2010
REPORTING DATE : August - 11 - 10

SAMPLES	AMMONIA (mg N/L)	TOTAL NITROGEN (mg N/L)	TOTAL PHOSPHORUS (mg P/L)	NON FILTERABLE RESIDUE (mg/L)	VOLATILE NON FILTERABLE RESIDUE (mg/L)	OIL& GREASE (mg / L)
Stn : 1-1Mtr Control	0.030	0.15	0.015	5.5	3.0	0.38
Stn : 1-3 Mtr Control	0.025	0.55	0.015	4.5	1.0	0.53
Stn :1-10 Mtr Control	0.032	0.05	0.005	4.0	3.0	0.38
Stn : 1-1Mtr	0.021	0.00	0.010	5.0	2.0	0.50
Stn : 1-3 Mtr	0.038	0.25	0.020	4.0	1.5	0.23
Stn : 1-10 Mtr	0.025	0.05	0.015	4.5	2.5	0.34
Stn : 2-1 Mtr	0.033	0.15	0.010	5.0	2.0	0.11
Stn : 2-3 Mtr	0.041	0.10	0.015	5.0	2.5	0.48
Stn : 2-10 Mtr	0.022	0.15	0.015	4.5	2.5	0.45
Stn : 3-1 Mtr	0.020	0.15	0.025	6.0	2.0	0.35
Stn : 3-3 Mtr	0.039	0.10	0.010	4.5	1.5	0.56
Stn : 3-10 Mtr	0.038	0.20	0.025	5.0	2.0	0.50
Stn : 4-1 Mtr	0.042	0.25	0.015	5.0	2.5	0.25
Stn : 4-3 Mtr	0.027	0.10	0.020	5.0	2.5	0.47
Stn : 4-10 Mtr	0.033	0.30	0.025	4.0	2.0	0.45
Stn : 5-1 Mtr	0.036	0.25	0.005	5.0	3.0	0.25
Stn : 5-3 Mtr	0.021	0.25	0.025	5.0	2.0	0.49
Stn : 5-10 Mtr	0.038	0.30	0.030	5.5	3.0	0.38

Joe Carney: Engineering Manager

STAR KIST SAMOA, CO
P. O. BOX 368, PAGO PAGO AMERICAN SAMOA 96799
WATER TREATMENT DEPARTMENT

REPORT OF ANALYSES RESULTS

SAMPLE TYPE : Sea Water - Ocean Monitoring Sampling - August,05 2010
REPORTING DATE : September- 07-10

SAMPLES	AMMONIA (mg N/L)	TOTAL NITROGEN (mg N/L)	TOTAL PHOSPHORUS (mg P/L)	NON FILTERABLE RESIDUE (mg/L)	VOLATILE NON FILTERABLE RESIDUE (mg/L)	OIL& GREASE (mg / L)
Stn : 1-1Mtr Control	0.030	0.35	0.015	5.5	2.5	0.38
Stn : 1-3 Mtr Control	0.030	0.15	0.005	5.0	2.5	0.24
Stn :1-10 Mtr Control	0.026	0.20	0.020	4.0	2.0	0.22
Stn : 1-1Mtr	0.033	0.30	0.005	5.0	2.0	0.13
Stn : 1-3 Mtr	0.025	0.05	0.010	5.5	2.5	0.49
Stn : 1-10 Mtr	0.030	0.10	0.020	4.0	3.5	0.25
Stn : 2-1 Mtr	0.028	0.20	0.010	4.5	2.0	0.13
Stn : 2-3 Mtr	0.025	0.15	0.015	4.0	3.0	0.25
Stn : 2-10 Mtr	0.031	0.35	0.015	5.5	2.5	0.58
Stn : 3-1 Mtr	0.028	0.25	0.015	4.5	2.5	0.38
Stn : 3-3 Mtr	0.035	0.25	0.025	5.5	2.5	0.49
Stn : 3-10 Mtr	0.020	0.30	0.015	5.0	2.5	0.25
Stn : 4-1 Mtr	0.027	0.10	0.015	4.5	2.5	0.56
Stn : 4-3 Mtr	0.020	0.15	0.015	5.0	3.0	0.29
Stn : 4-10 Mtr	0.031	0.15	0.030	5.0	2.5	0.37
Stn : 5-1 Mtr	0.032	0.15	0.005	6.0	2.5	0.36
Stn : 5-3 Mtr	0.024	0.15	0.020	4.5	2.5	0.25
Stn : 5-10 Mtr	0.022	0.20	0.035	5.5	2.0	0.36

Joe Carney: Engineering Manager

STAR KIST SAMOA, CO
P. O. BOX 368, PAGO PAGO AMERICAN SAMOA 96799
WATER TREATMENT DEPARTMENT

REPORT OF ANALYSES RESULTS

SAMPLE TYPE : Sea Water - Ocean Monitoring Sampling - September 02 2010
REPORTING DATE October 06 2010

SAMPLES	AMMONIA (mg N/L)	TOTAL NITROGEN (mg N/L)	TOTAL PHOSPHORUS (mg P/L)	NON FILTERABLE RESIDUE (mg/L)	VOLATILE NON FILTERABLE RESIDUE (mg/L)	OIL& GREASE (mg / L)
Stn 1-1Mtr Control	0.033	0.30	0.025	5.5	2.5	0.57
Stn 1-3 Mtr Control	0.025	0.25	0.015	4.5	2.5	0.38
Stn 1-10 Mtr Control	0.033	0.25	0.015	5.5	2.0	0.24
Stn : 1-1Mtr	0.023	0.35	0.025	4.0	3.5	0.38
Stn : 1-3 Mtr	0.018	0.35	0.005	5.5	2.5	0.62
Stn 1-10 Mtr	0.025	0.30	0.010	4.5	2.0	0.53
Stn 2-1 Mtr	0.037	0.30	0.015	5.0	2.5	0.28
Stn 2-3 Mtr	0.040	0.30	0.020	5.0	3.5	0.39
Stn 2-10 Mtr	0.029	0.20	0.020	5.5	3.0	0.37
Stn 3-1 Mtr	0.036	0.35	0.025	5.0	2.5	[illegible]
Stn 3-3 Mtr	0.040	0.30	0.015	5.5	2.5	0.51
Stn 3-10 Mtr	0.017	0.20	0.005	4.5	2.5	0.48
Stn 4-1 Mtr	0.028	0.25	0.015	6.0	2.5	0.25
Stn 4-3 Mtr	0.019	0.40	0.015	5.0	2.5	0.06
Stn 4-10 Mtr	0.036	0.15	0.010	4.5	3.5	0.50
Stn 5-1 Mtr	0.033	0.30	0.020	5.5	2.5	0.49
Stn 5-3 Mtr	0.038	0.30	0.010	5.5	3.0	0.35
Stn 5-10 Mtr	0.019	0.35	0.015	4.5	2.5	0.51

Joe Carney Engineering Manager

Ocean Disposal Site
Monitoring Report
(OD Permit 93-01 & 93-02)

01 July, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS/Samoa Packing	Craig Double
Determination of Sampling Positions:	All positions obtained by GPS Satellite Navigation

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
07 July, 2010

Introduction

On July 1, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master/Principal Investigator, Chief and Mate on board.

0600: The *Blue Moon* entered the dumpzone circle @ 14*22.5' S / 170*38.7' W.

0610: The *Blue Moon* arrived at the dump-zone center, where observed light southeasterly winds and slight southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0622: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with SE swells to 1.5 meters and a light SE breeze of 5 knots and the barometer reading 29.66. Current set and drift, of the ship, were to the northwest at 0.4 knots. No floating materials or sea life were observed here.

0635: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical pattern, approximately 2.2 miles long (see Plot 1) until 0927 hrs.

0935: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had increased slightly to 7 knots with still, partly cloudy skies. The waste plume appeared here as elongate streaks of moderate glassy surface sheen extending in a NE to southwesterly direction and moving, generally, to the northwest. The current/wind drift of the ship was now GPS determined to be northwesterly @ 0.5 knots. No sea life or floatable materials were observed.

0945: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position showed a lighter glassy surface sheen than at Station #1, over clear natural blue appearing seawater. The average drift rate of the ship with current and wind was GPS determined to be northwesterly (NW) at 0.4 knots between stations 2 & 3 (See Plot #1). No sea-life or floatable materials were noted at this position.

0955: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position showed only some very light glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was 0.5 knots, again, to the NW.

1005: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM, NW of Station #3, showed the same visual characteristics of the waste plume as Station #1 with another large area of moderate to heavy surface sheen over natural clear blue water extending from NE to SW and roughly 2 miles long. There were no floating or suspended materials. The NW current/drift rate of the ship was again noted here to be at 0.4 knots.

1015: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.35 NM southeast of the zone center. The leading edge of the waste plume was clearly visible at this location as an area of both heavy and light streaks of glassy surface sheen with clear, natural appearing blue waters further down-current to the NW. No notable sea life was observed at this position or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.67 when monitoring activities were concluded at 1022 hrs. The *Blue Moon* exited the disposal zone at 1035 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1130 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

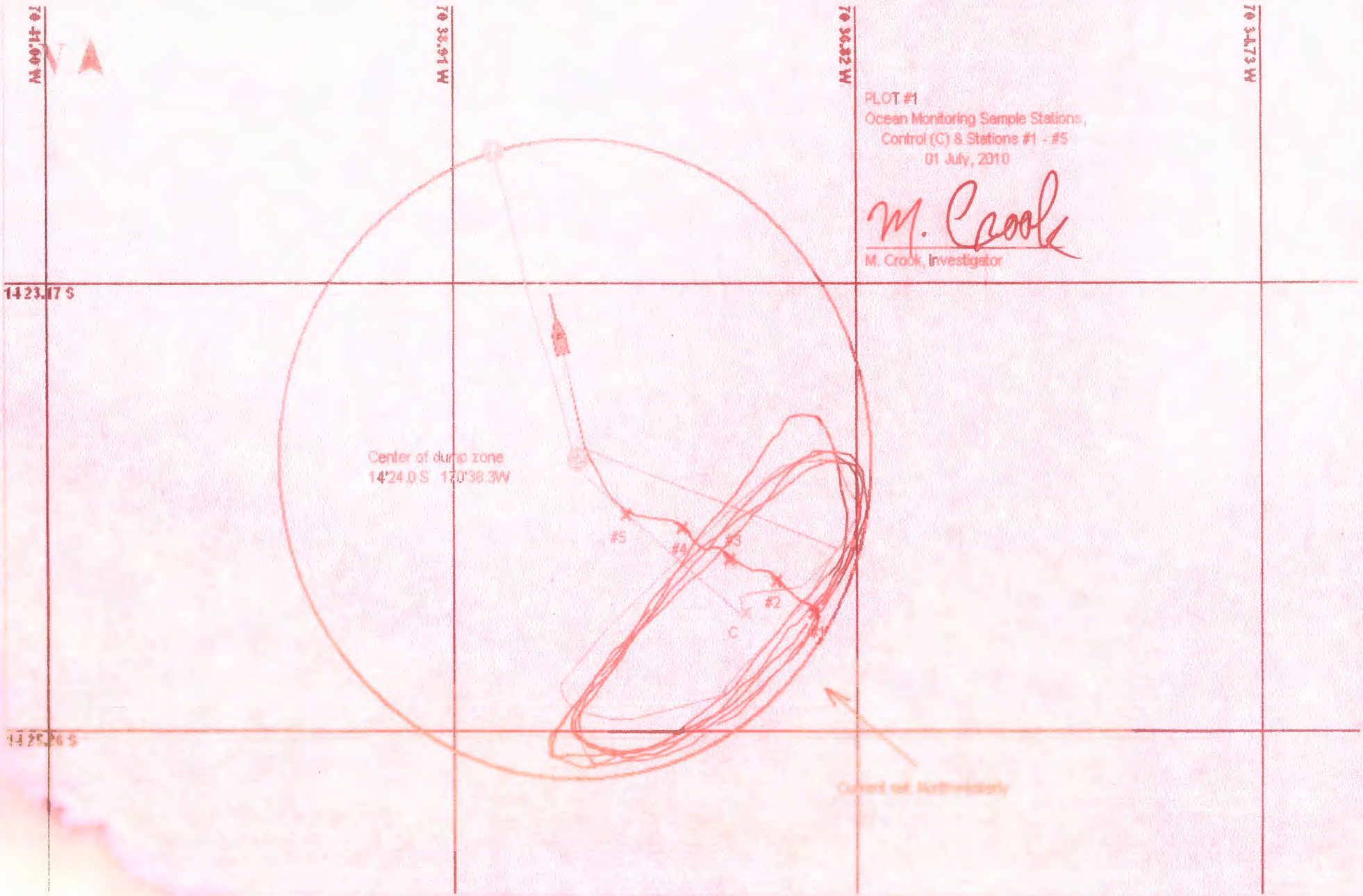
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 01 July, 2010	Sea Conditions: Slight w/ Southeast (SE) swells to 1.5 meters. Wind: SE @ 5 - 7 knots Sky: Partly Cloudy, 20 - 40% Barometer: 29.63 – 29.67 Current Set & Drift: Northwest @ average 0.45 knots Visibility: Unlimited					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0622	Control	1	27.8	8.8	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	27.8	8.8		
		10	27.8	8.8		
0935	Station 1	1	28.3	8.7	Slightly Pungent	Moderate glassy surface sheen over deep pelagic blue w/ no floating or suspended materials.
		3	28.3	8.7		
		10	28.3	8.7		
0945	Station 2	1	28.3	8.8	Slightly Pungent	Light, glassy surface sheen over deep, clear blue. No floating or suspended materials.
		3	28.3	8.7		
		10	28.3	8.7		
0955	Station 3	1	28.3	8.7	Slightly Pungent	Very light, glassy surface sheen over deep, clear blue. No floating or suspended particulate materials.
		3	28.3	8.7		
		10	28.3	8.8		
1005	Station 4	1	28.3	8.7	Pungent	Moderate to heavy oily surface sheen over clear blue w/ no suspended or floating particulates or scum etc..
		3	28.3	8.7		
		10	28.3	8.8		
1015	Station 5	1	28.3	8.7	Slightly Pungent	Leading edge of the waste plume: A mix of both both heavy and very light streaks of glassy surface sheen with clear blue water beyond down-current to NW. No floating or suspended particulate materials
		3	28.3	8.8		
		10	27.8	8.8		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.71'	South	170° 37.44'	West
Station 1	14° 24.39'	South	170° 36.96'	West
Station 2	14° 24.45'	South	170° 37.21'	West
Station 3	14° 24.38'	South	170° 37.47'	West
Station 4	14° 24.27'	South	170° 37.68'	West
Station 5	14° 24.26'	South	170° 38.00'	West


PLOT #1
Ocean Monitoring Sample Stations,
Control (C) & Stations #1 - #5
01 July, 2010
M. Crook, Investigator
Center of dump zone
14°24.0 S 170°38.3W
#5
#4
#3
#2
#1
C
Current set: Northwesterly
14 23.17 S
14 25.26 S
170 34.32 W
170 36.91 W
170 39.49 W
170 43.73 W

2010

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

02 September, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue moon
Chief investigator:	Mike Crook
Starkist Samoa Co. Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling Positions:	All positions obtained by Global Positioning Satellite Navigator (GPS)

Mike Crook

P.O. Box 4933 Pago Pago, AS

Introduction

On September 02, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0605: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master, Principal Investigator, Chief and Mate onboard.

0657: The *Blue Moon* entered the dumpzone circle @ 14*22.3' S / 170*38.5' W.

0708: The *Blue Moon* arrived at the dump-zone center, where observed southeasterly winds and slight southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0715: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with SE swells to 1.5 meters and a southeast wind of 15 knots. Skies were partly cloudy with unlimited visibility and the barometer reading 29.72 Current set and drift, of the ship, were to the northwest at 0.7 knots. No floating materials or sea life were observed here.

0725: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical/triangular pattern (see Plot 1) until 1020 hrs.

1030: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had

Introduction

On September 02, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0605: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master, Principal Investigator, Chief and Mate onboard.

0657: The *Blue Moon* entered the dumpzone circle @ 14*22.3' S / 170*38.5' W.

0708: The *Blue Moon* arrived at the dump-zone center, where observed southeasterly winds and slight southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0715: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with SE swells to 1.5 meters and a southeast wind of 15 knots. Skies were partly cloudy with unlimited visibility and the barometer reading 29.72 Current set and drift, of the ship, were to the northwest at 0.7 knots. No floating materials or sea life were observed here.

0725: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical/triangular pattern (see Plot 1) until 1020 hrs.

1030: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had

increased to 18 knots with still partly cloudy skies (40%). The waste plume was either dissipated here or had moved off to the northwest as there was very little of the typical tell-tale surface sheen or water discoloration visible. The current/wind drift of the ship was now GPS determined to be northwesterly @ 1.2 knots. No sea life or floatable materials were observed.

1040: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position had only a few light and scattered streaks of the characteristic glassy surface sheen of the waste plume. The drift rate of the ship with current and wind was GPS determined to be northwesterly (NW) at 1.1 knots between stations 2 & 3. No sea-life or floatable materials were noted at this position.

1050: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was in another area of broken patches of light glassy surface sheen over clear blue water. The drift rate of the ship between stations 3 & 4 was steady at 1.1 knots again, to the NW.

1100: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM, NW of Station #3, had the same visual absence of the waste plume as Station #1 with just natural clear blue water. There were no floating or suspended materials. The NW current/drift rate of the ship was again noted here to be at 1.0 knots.

1110: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.25 NM SSW of the zone center (Plot #1). The waste plume was barely visible at this location which was mostly natural, clear blue ocean with a few, barely visible, streaks of surface sheen. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds, mainly white Terns, flying by. The final barometer reading was 29.75 when monitoring activities were concluded at 1115 hrs. The *Blue Moon* exited the disposal zone at 1125 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 12:20 PM.

Prepared by:

M. Crook

Mike Crook, Principal Investigator
03 September, 2010

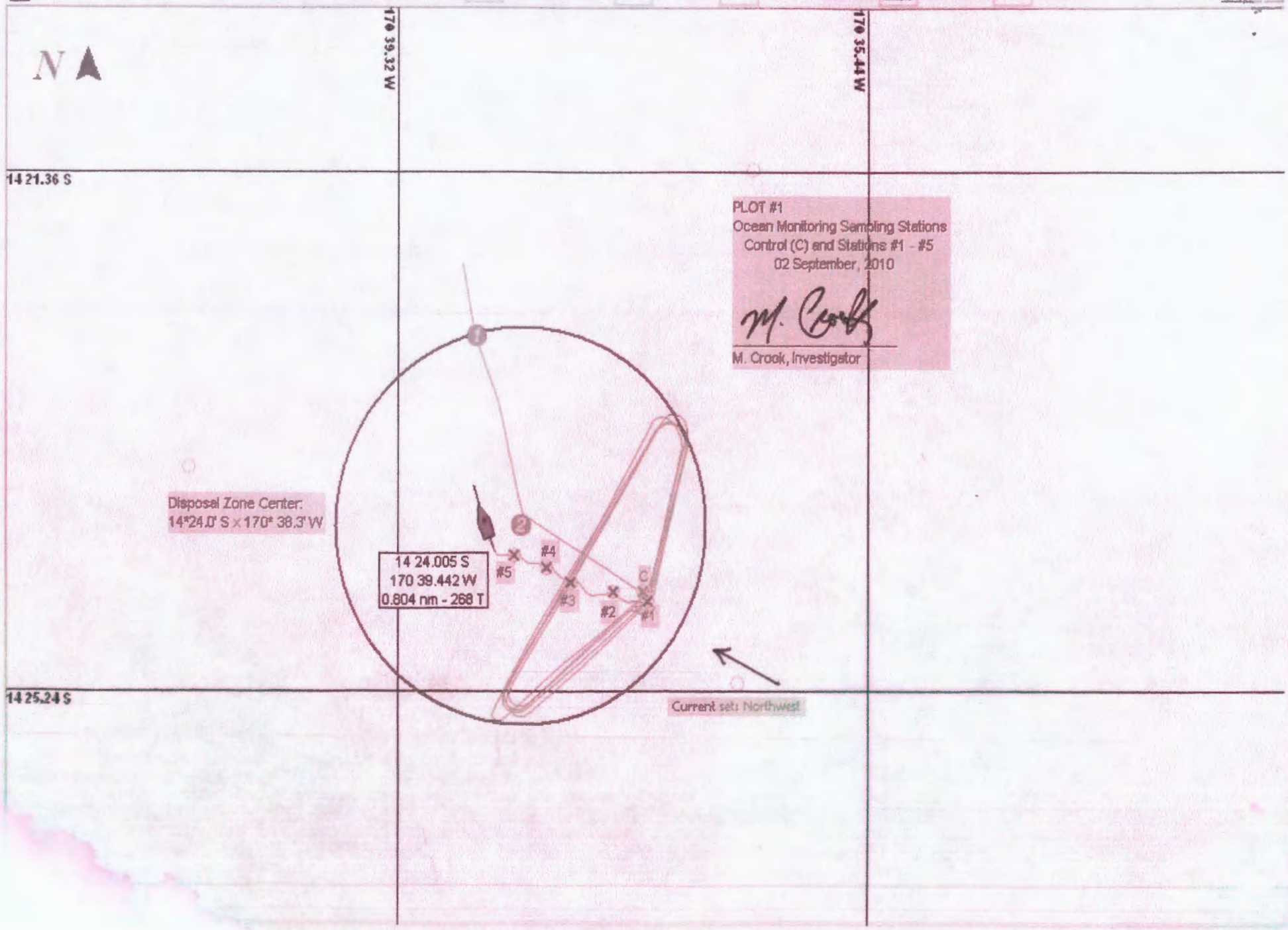
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 02 September 2010	Sea Conditions: Slight-Moderate w/ Southeast swells to 1.5 meters. Wind: Southeast @ 15 - 18 knots Visibility: Unlimited Barometer: 29.72 – 29.75 Current Set & Drift Rate: Northwest @ average 1.1 knots Sky: Partly Cloudy, 30 – 40%					
Time	Station	Depth (meters)	Temp. (°C)	pH	Odor	Color
0715	Control	1	26.7	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
1030	Station 1	1	26.7	7.3	None	Same as Control Station color characteristics. Waste plume not extensively visible, appeared to be mostly dissipated
		3	26.7	7.3		
		10	26.7	7.3		
1040	Station 2	1	26.7	7.3	Slightly Pungent	A few light and scattered streaks of glassy surface sheen. No floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
1050	Station 3	1	27.2	7.3	Slightly Pungent	Same situation as Station #2. No floating or suspended particulate materials.
		3	26.7	7.3		
		10	26.7	7.3		
1100	Station 4	1	27.2	7.3	None	No visible evidence of the wastewater plume sheen in the vicinity of this position. No floating or suspended materials noted either.
		3	26.7	7.3		
		10	26.7	7.3		
1110	Station 5	1	27.2	7.3	Slightly Pungent	Leading edge of the waste plume. A very few light and widely scattered streaks of semi-glassy surface sheen with clear, blue, natural appearing seas further down-current to the northwest.
		3	26.7	7.3		
		10	26.7	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.57'	South	170° 37.27'	West
Station 1	14° 24.59'	South	170° 37.25'	West
Station 2	14° 24.52'	South	170° 37.52'	West
Station 3	14° 24.45'	South	170° 37.83'	West
Station 4	14° 24.33'	South	170° 38.07'	West
Station 5	14° 24.24'	South	170° 38.32'	West


N
170 39.32 W
170 35.44 W
14 21.36 S
14 25.24 S
PLOT #1
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
02 September, 2010
M. Crook, Investigator
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
14 24.005 S
170 39.442 W
0.804 nm - 268 T
#5
#4
#3
#2
#1
C
Current set: Northwest

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

05 August, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS/Samoa Packing	Sam Augspurger
Determination of Sampling Positions:	All positions & drift rates obtained by GPS Satellite Navigation.

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
10 August, 2010

Introduction

On August 05, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dump-site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dump-site location with Master/Principal Investigator, Chief and Mate on-board.

0602: The *Blue Moon* entered the dumpzone circle @ 14*22.6' S / 170*38.7' W.

0613: The *Blue Moon* arrived at the dump-zone center, where observed easterly winds and slight to moderate east/southeasterly seas indicated disposal operations be conducted in the east dump-zone quadrant.

0625: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or east of the dump-zone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight to moderate with east & SE swells to 1.5 meters and an east wind of 15 knots. Skies were partly cloudy with unlimited visibility and the barometer was at 29.69. Current set and drift of the ship were to the west at 0.9 knots. No floating materials or sea life were observed here.

0635: The *Blue Moon* began disposal operations in the eastern dump zone quadrant and continued discharging material with a roughly, north to south, reciprocal, elliptical pattern (see Plot 1) until 0925 hrs.

0935: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The east winds had increased to 18 knots with still partly cloudy skies. The waste plume in this area was very prominent as a heavy glassy surface sheen. The current/ wind drift of the ship was now GPS determined to be westerly @ 1.1 knots. No sea life or floatable materials were observed.

0945: Station Two Monitoring. Station two was sampled with the same

procedures as Station #1 with measurements and observations being recorded in Table 1. This position had no sign of the waste plume, including the typical glassy surface sheen, and appeared to be in the center space of the discharge pattern between the north and south running track lines as the plume moved, with it's elliptical shape roughly intact, to the west (See Plot #1). The average drift rate of the ship with current and wind was GPS determined to be westerly at 1.1 knots between stations 2 & 3 (See Plot #1). No sea-life or floatable materials were noted at this position.

0955: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was in another clear area between the glassy track lines of the plume's elliptical pattern. The drift rate of the ship between Stations #3 & 4 was noted at 1.1 knots, again, to the west.

1005: Station Four Monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM west of Station #3, showed the same visual characteristics of the waste plume as Station #1 and was, visually, the leading edge of the plume. Also noted was the presence of several patches of floating brownish surface scum of 5-7 square meters or less. In addition, suspended brownish particulate materials that appeared to be 0.5 cm or less in size, were observed extending down to the limit of visibility (about 3-4 meters) . The westerly current/drift rate of the ship was again noted here to be at 1.0 knots.

1015: Station Five monitoring. Sampling for this final station was conducted 0.25 NM down-current (west) of Station #4 and approximately 0.35 NM east of the zone center (Plot #1). The waste plume was not visually present at this location which showed natural, clear blue ocean comparable to the color qualities of the Control Station. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.70 when monitoring activities were concluded at 1015 hrs. The *Blue Moon* exited the disposal zone at 1025 hours and arrived back in Pago Pago Harbor to deliver the collected seawater samples to the Starkist Samoa Co. laboratory at 1120 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

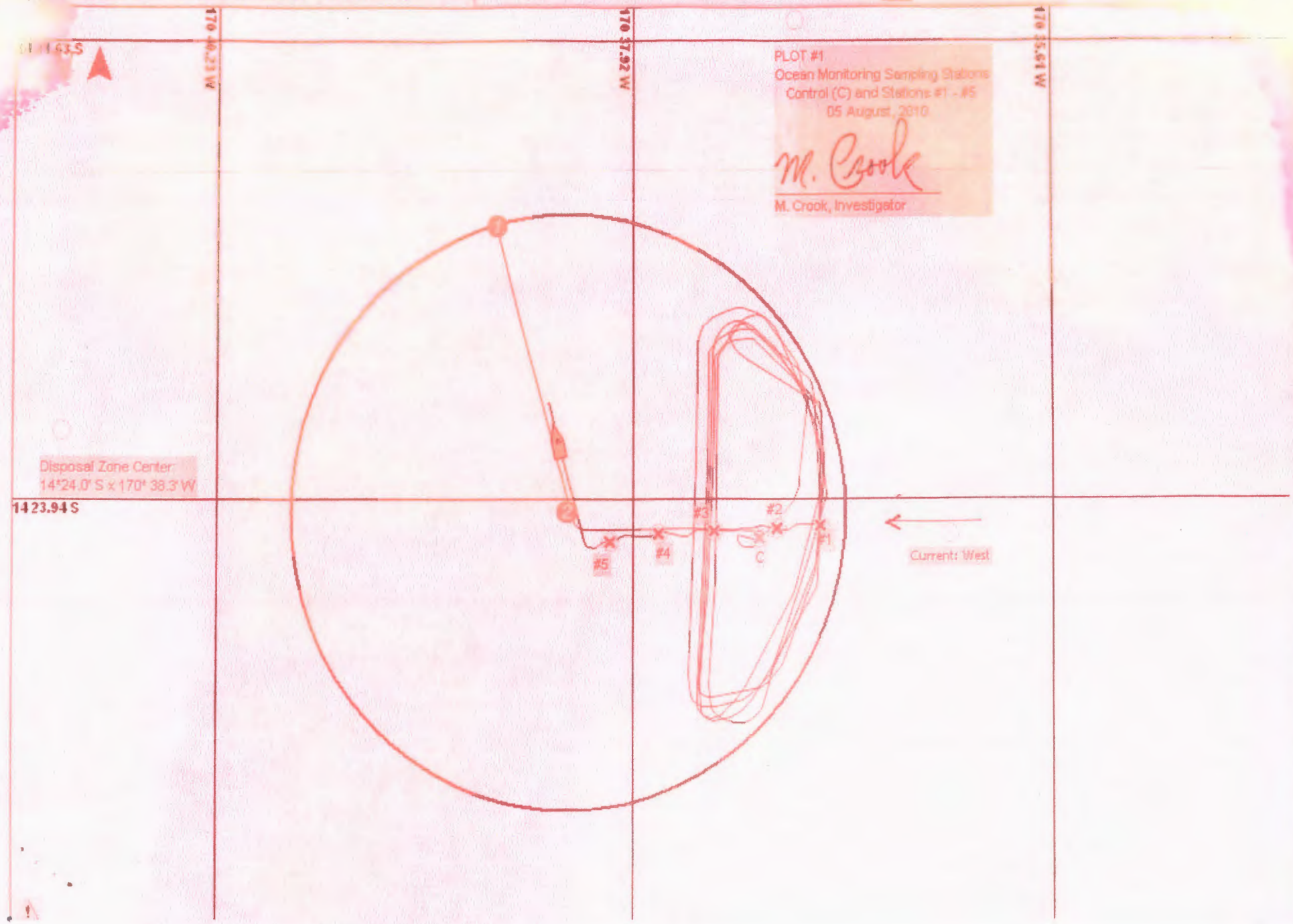
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 05 August, 2010	Sea Conditions: Slight-Moderate w/ East/Southeast swells to 1.5 meters. Wind: East @ 15 - 18 knots Visibility: Unlimited Barometer: 29.68 – 29.70 Current Set & Drift: West @ average 1.1 knots Sky: Partly Cloudy; 30 – 40%					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0625	Control	1	26.1	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	26.1	7.3		
		10	26.1	7.3		
0935	Station 1	1	26.7	7.3	Pungent	Heavy glassy surface sheen over deep pelagic blue w/ no floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
0945	Station 2	1	26.7	7.3	Slightly Pungent	In the center of the plume ellipse, deep, clear blue water but surrounded by glassy track lines to the east and west of this position.. No floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
0955	Station 3	1	26.7	7.3	Slightly Pungent	Same situation as Station#2. No floating or suspended particulate materials.
		3	26.7	7.3		
		10	26.7	7.3		
1005	Station 4	1	26.7	7.3	Pungent	Heavy oily surface sheen over clear blue w/ some occasional patches of floating brownish scum along with some suspended brownish particulate materials. The visible leading edge of the waste plume.
		3	26.7	7.3		
		10	26.7	7.3		
1015	Station 5	1	26.7	7.3	Slightly Pungent	Same as Control Station
		3	26.7	7.3		
		10	26.7	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.11'	South	170° 37.21'	West
Station 1	14° 24.05'	South	170° 36.89'	West
Station 2	14° 24.07'	South	170° 37.20'	West
Station 3	14° 24.10'	South	170° 37.44'	West
Station 4	14° 24.11'	South	170° 37.75'	West
Station 5	14° 24.12'	South	170° 37.96'	West


PLOT #1
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
05 August, 2010
M. Crook, Investigator
170 40.23 W
170 37.92 W
170 35.61 W
14 23.94 S
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
#1
#2
#3
#4
#5
C
Current: West

April 19, 2010

Carl Goldstein
Program Manager
Pacific Islands Office
USEPA Region IX
75 Hawthorne Street
San Francisco, CA 94105

RE: OCEAN DUMPING PERMIT OD93-02 SPECIAL

Dear Carl:

Pursuant to the requirements of the above referenced permit, we are herewith submitting the Quarterly ocean dumping report for the period of January 2010 through March 2010 for COS Samoa Packing Company. No waste has been generated or transferred or dumped in this quarter. Enclosed are the following:

* EPA Forms 1, 2 and 3.
* Results of Monthly Onshore Storage Tank Analysis. No testing was done.
* Letter to ASEPA reporting exceedances and irregularities during the 3 month period where applicable. There were no exceedances.
* Monthly Site Monitoring Reports.
* Results of Monthly Site Monitoring Analysis.

Please advise if additional information is required.

Sincerely,

Samuel P. Augspurger
Operations Manager
Samoa Packing Co.

Enclosures:
Pacific Island Office

Cc(1) Except Vessel Logs	Director American Samoa Environmental Protection Agency American Samoa Government Pago Pago, American Samoa 96799
Cc(1) Complete Report	Director of Engineering Chicken of the Sea International 9330 Scranton Road Suite 500 San Diego, California 92121
Cc(1) Vessel Logs Only	Commanding Chief U.S. Coast Guard Liaison Office P.O. Box 249 Pago Pago, American Samoa 96799
Cc(1) Except Vessel Logs:	Project Leader Office of Environmental Services U.S. Fish and Wildlife Service 300 Ala Moana Boulevard P.O. Box 50167 Honolulu, Hawaii 96850 John Naughton Pacific Island Regional Office 1601 Kapiolani BLvd. Suite 1110 Honolulu, Hawaii 96814-4700 Executive Director Western Pacific Regional Fishery Management Council 1164 Bishop Street, Suite 1405 Honolulu, Hawaii 96813

APPENDIX B - REPORT FORM 1

Monthly Volumes of COS Samoa Packing Fish Processing Wastes Generated Per Day
and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month: Jan-10

OD 93-02 Permit Limits	DAF Sludge Generated (gallons/day) 60,000	Precooker Water Generated (gallons/day) 100,000	Press Water Generated (gallons/day) 40,000	Total Generated (gallons/day) 200,000	Volume Ocean Disposed (gallons/day) 200,000
1/31/2010	No waste for January				
Totals	0	0	0	0	0

Note: An asterisk(*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate: 0 pounds/month

APPENDIX B - REPORT FORM 1

Monthly Volumes of COS Samoa Packing Fish Processing Wastes Generated Per Day
and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month: Feb-10

	DAF Sludge Generated (gallons/day)	Precooker Water Generated (gallons/day)	Press Water Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
OD 93-02 Permit Limits	60,000	100,000	40,000	200,000	200,000
2/28/2010	No waste for February				
Totals	0	0	0	0	0

Note: An asterisk(*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate: 0 pounds/month

APPENDIX B - REPORT FORM 1

Monthly Volumes of COS Samoa Packing Fish Processing Wastes Generated Per Day
and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month: Mar-10

OD 93-02 Permit Limits	DAF Sludge Generated (gallons/day) 60,000	Precooker Water Generated (gallons/day) 100,000	Press Water Generated (gallons/day) 40,000	Total Generated (gallons/day) 200,000	Volume Ocean Disposed (gallons/day) 200,000
3/31/2010	No waste for March				
Totals	0	0	0	0	0

Note: An asterisk(*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.
The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate: 0 pounds/month

APPENDIX B - REPORT FORM 2

Data Form for 3-Month Report on Waste Stream Analyses for COS Samoa Packing MPRSA 102 Permit #OD 93-02

Reporting Period: From January 2010 to March 2010

COS Samoa Packing - Onshore Storage Monitoring Report

Month & Year	Total Solids (mg/L)	Total Volatile Solids (mg/L)	5-Day Biological Oxygen Demand (mg/L)	Oil and Grease (mg/L)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)	Ammonia (mg/L)	pH (pH units)	Density (g/mL)
8-Jan 9-Feb 9-Mar									
OD 93-02 Permit Limits	54,590	58,760	87,780	48,630	2,820	11,070	5,200	5.8 to 7.5	.97 to 1.03

NOTE: An asterisk(*) next to the waste concentration signifies that an exceedance of the permit limit has occurred.

No waste has been dumped in this 1st Quarter 2010. No testing was done as there was no stored waste to test.

Cumulative Yearly Data on Fish Processing Wastes
Generated at COS Samoa Packing Company and Disposed at the Ocean Site
MPRSA 102 Special Permit #OD 93-02

Reporting Period: From 1-Jan 2010 to 31-Mar 2010

Month & Year	DAF Sludge Generated (gallons/month)	Cooker Water Generated (gallons/month)	Press Water Generated (gallons/month)	Total Generated (gallons/month)	Coagulate polymer (pounds/month)	Volume Ocean Disposed (gallons/month)
Jan. 2010	0	0	0	0	0	0
Feb. 2010	0	0	0	0	0	0
Mar. 2010	0	0	0	0	0	0
Apr. 2010						
May. 2010						
Jun. 2010						
Jul. 2010						
Aug. 2010						
Sep. 2010						
Oct. 2010						
Nov. 2010						
Dec. 2010						
Cumulative Yearly Totals	0	0	0	0	0	0

NOTE: A seperate table shall be prepared for each calendar year.
No waste was generated in this 1st quarter 2010.

OCEAN DUMPSITE MONITORING REPORT
(OD 93-01 & OD 93-02)

14 January , 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling positions:	All positions obtained by Global Position Satellite Navigator (GPS)

Introduction

On January 14, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master, Principal Investigator, Chief and Mate onboard.

0550: The *Blue Moon* entered the dumpzone circle @ 14*22.6' S / 170*38.7' W.

0558: The *Blue Moon* arrived at the dumpzone center, where observed northerly winds and very slight east/southeasterly seas indicated disposal operations be conducted in the north dump-zone quadrant.

0610: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) upcurrent (North) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were very slight with east/southeast swells to 1 meter and northerly winds at 5 knots. Skies were partly cloudy with 5 miles visibility and the barometer reading 29.50. Current set and drift were to the south at 1.1 knots. No floating materials or sea life were observed here.

0615: The *Blue Moon* began disposal operations in the north dump zone quadrant and continued discharging material with a generally, east to west reciprocal, elongated triangular pattern (see Plot 1) until 0905 hrs.

0915: Station One Monitoring. Discrete water samples were drawn from depths 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The northerly winds had increased to 15 knots w/ cloudy skies. The waste plume had moved/dissipated completely from this area and could only be seen some distance to the south as a narrow east to west oriented area of surface sheen about 2.5 NM long by 0.25 NM wide, moving to the south. No sealife or floatable materials were observed.

0925: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. The average drift rate of the ship with current and wind was GPS determined to be southerly at 1.3 knots between stations 1 & 2. No sea-life or floatable materials were noted at this position.

0932: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position still showed no sign of the waste plume in the clear blue seas. The drift rate of the ship between stations 2 & 3 was 1.5 knots to the south.

0943: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM south of Station #3, was the first station to show any sign of the waste plume with a few light and scattered streaks of surface sheen over natural clear blue water. There were no floating or suspended materials. The southerly current/drift rate of the ship was again noted to be at 1.4 knots.

0952: Station Five monitoring. Sampling for this final station was conducted at the leading edge of the waste plume approximately 0.35 NM down current (south) from station #4 and was 0.18 miles east of the zone center. The waste plume was visually prominent at this location as a long, narrow, east to west track line of the typical surface sheen with natural, clear, blue ocean beyond to the south. No notable sea life was observed at this position other than a few seabirds flying by. The final barometer reading was 29.49 when monitoring activities were concluded at 0955 hrs. The *Blue Moon* exited the disposal zone at 1010 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa laboratory at 1100 hours.

Prepared by:

M. Crook

Mike Crook, Principal Investigator

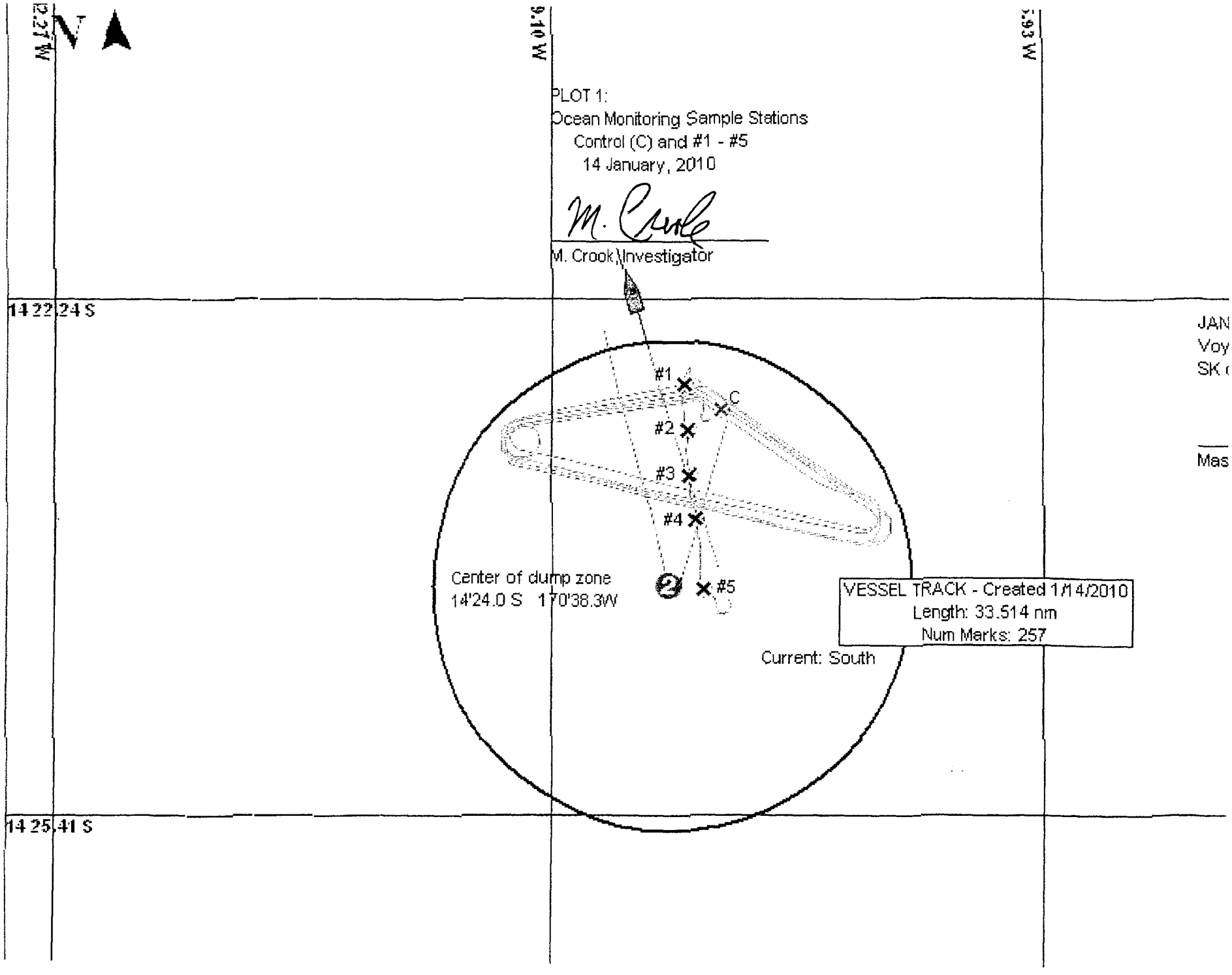
OCEAN DUMPING RESEARCH PERMIT: OD-93-02

Table 1

Date: 14 January, 2010	Sea Conditions: Slight w/ East & SE swells to 1.0 meters. Wind: Northerly @ 5 - 15 knots. Sky: Overcast w/ some light rain. Direction & Rate of Current: Southerly set @ 1.4 knot average. Visibility: 3-8 miles. Barometer: 29.50 – 29.49					
Time	Station	Depth (meters)	Temp. (°C)	pH	Odor	Color
0610	Control	1	27.2	8.0	None	Deep, clear and natural pelagic blue. No floatable or suspended particulate material present.
		3	27.2	8.0		
		10	26.7	8.0		
0915	Station 1	1	27.2	8.0	None	Same as Control Station
		3	27.2	8.0		
		10	27.2	8.0		
0925	Station 2	1	27.2	8.0	None	Same as Control & Station #1.
		3	27.2	8.0		
		10	27.2	8.0		
0932	Station 3	1	27.2	8.0	None	Same as Station #2.
		3	27.2	8.0		
		10	27.2	8.0		
0943	Station 4	1	27.2	8.0	Slightly Pungent	Only a few residual, very light & scattered streaks of glassy surface sheen over clear, blue water with no subsurface or floating particulate or other material.
		3	27.2	8.0		
		10	27.2	8.0		
0952	Station 5	1	27.8	8.0	Slightly Pungent	The leading edge of the waste plume consisted of an unbroken east to west track line of moderate, glassy surface sheen about 2 miles long and 0.25 mile wide over clear, blue subsurface water. No floating or suspended materials
		3	27.8	8.0		
		10	27.8	8.0		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 22.94'	South	170° 37.96'	West
Station 1	14° 22.73'	South	170° 38.22'	West
Station 2	14° 22.96'	South	170° 38.23	West
Station 3	14° 23.33'	South	170° 38.20'	West
Station 4	14° 23.56'	South	170° 38.17'	West
Station 5	14° 24.00'	South	170° 38.10'	West


N
PLOT 1:
Ocean Monitoring Sample Stations
Control (C) and #1 - #5
14 January, 2010
M. Crook Investigator
14 22.24 S
14 25.41 S
#1
C
#2
#3
#4
#5
Center of dump zone
14'24.0 S 170'38.3W
VESSEL TRACK - Created 1/14/2010
Length: 33.514 nm
Num Marks: 257
Current: South

OCEAN DUMPSITE MONITORING REPORT
(OD 93-01 & OD 93-02)

11 February, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling positions:	All positions obtained by Global Position Satellite Navigator (GPS)

Introduction

On February 11, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master/Principal Investigator, Chief and Mate onboard.

0535: The *Blue Moon* entered the dumpzone circle @ 14*22.5' S / 170*38.7' W.

0605: The *Blue Moon* arrived at the dumpzone center, where observed southeasterly winds and slight southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0615: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) upcurrent or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with SE swells to 1.5 meters and a southeast wind of 5 knots. Skies were cloudy with 8 miles visibility and the barometer reading 29.43. Current set and drift, of the ship, were to the northwest at 0.5 knots. No floating materials or sea life were observed here.

0625: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical pattern (see Plot 1) until 0940 hrs.

0945: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had increased to 12 knots with still cloudy skies. The waste plume appeared as a series of long glassy track lines and large patches of moderate surface sheen about 1.75 miles long, NE to SW by 1.4 miles wide, SE to NW and moving, generally, to the NW. The current/wind drift of the ship was now GPS determined to be northwesterly @ 1.0 knot. No sea life or floatable

materials were observed.

0955: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position was in an area of more glassy surface sheen. The average drift rate of the ship with current and wind was GPS determined to be north-northwest (NNW) at 1.1 knots between stations 1 & 2. No sea-life or floatable materials were noted at this position.

1005: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was again, in a large area of glassy surface sheen over clear blue water. The drift rate of the ship between stations 2 & 3 was 1.0 knots to the NW.

1015: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM northwest of Station #3, was visibly, the leading edge of the waste plume with just a few light and scattered streaks of surface sheen over natural clear blue water. There were no floating or suspended materials. The NW current/drift rate of the ship was noted here to be at 1.2 knots.

1025: Station Five monitoring. Sampling for this final station was conducted 0.25 NM down-current (NW) from Station #4 and approximately 0.32 miles SE of the zone center. The waste plume was not visually apparent at this location which had natural, clear blue ocean. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.47 when monitoring activities were concluded at 1030 hrs. The *Blue Moon* exited the disposal zone at 1040 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1130 hours.

Prepared by:

M. Crook

Mike Crook, Principal Investigator

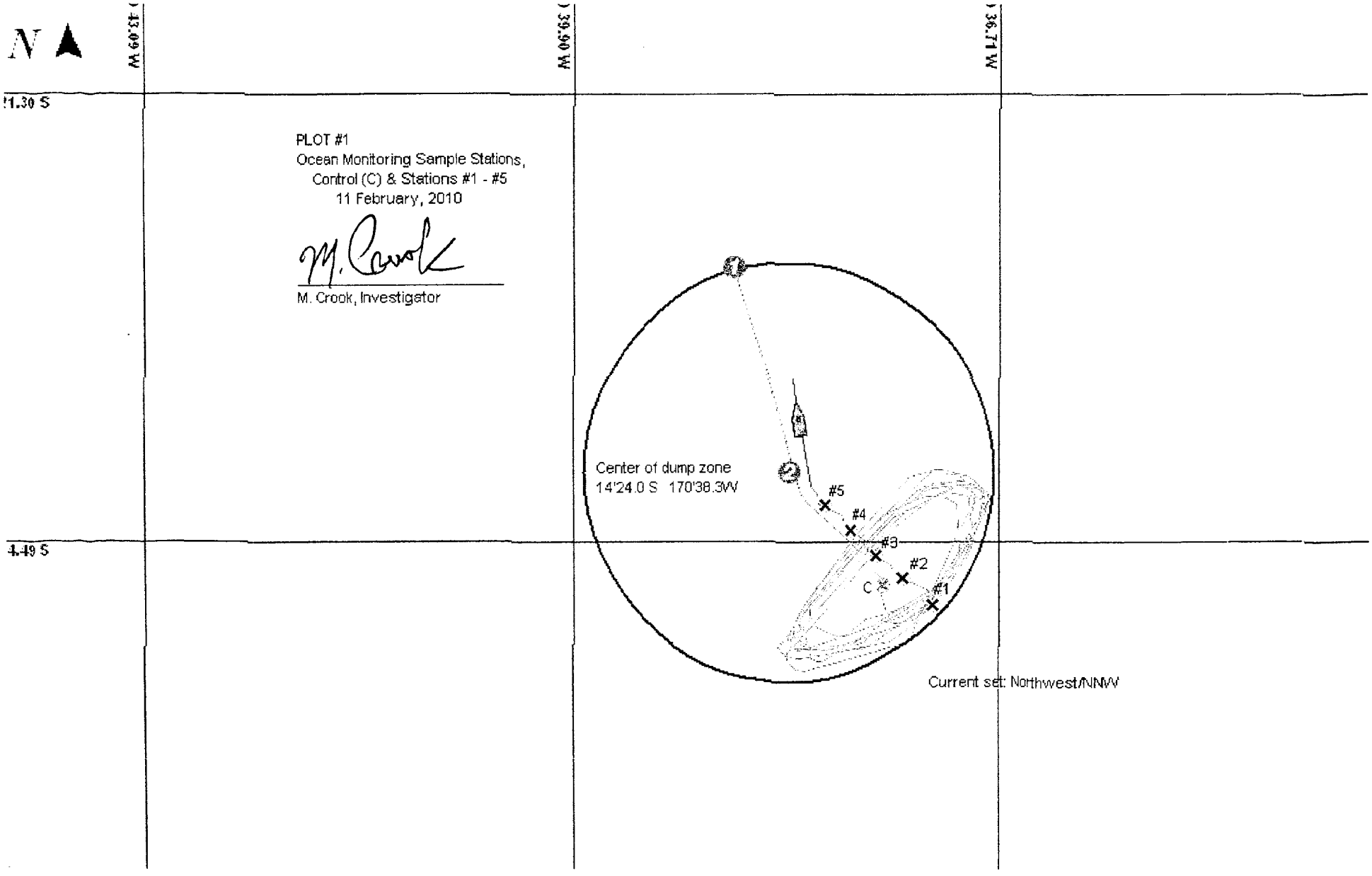
OCEAN DUMPING RESEARCH PERMIT: OD-93-02

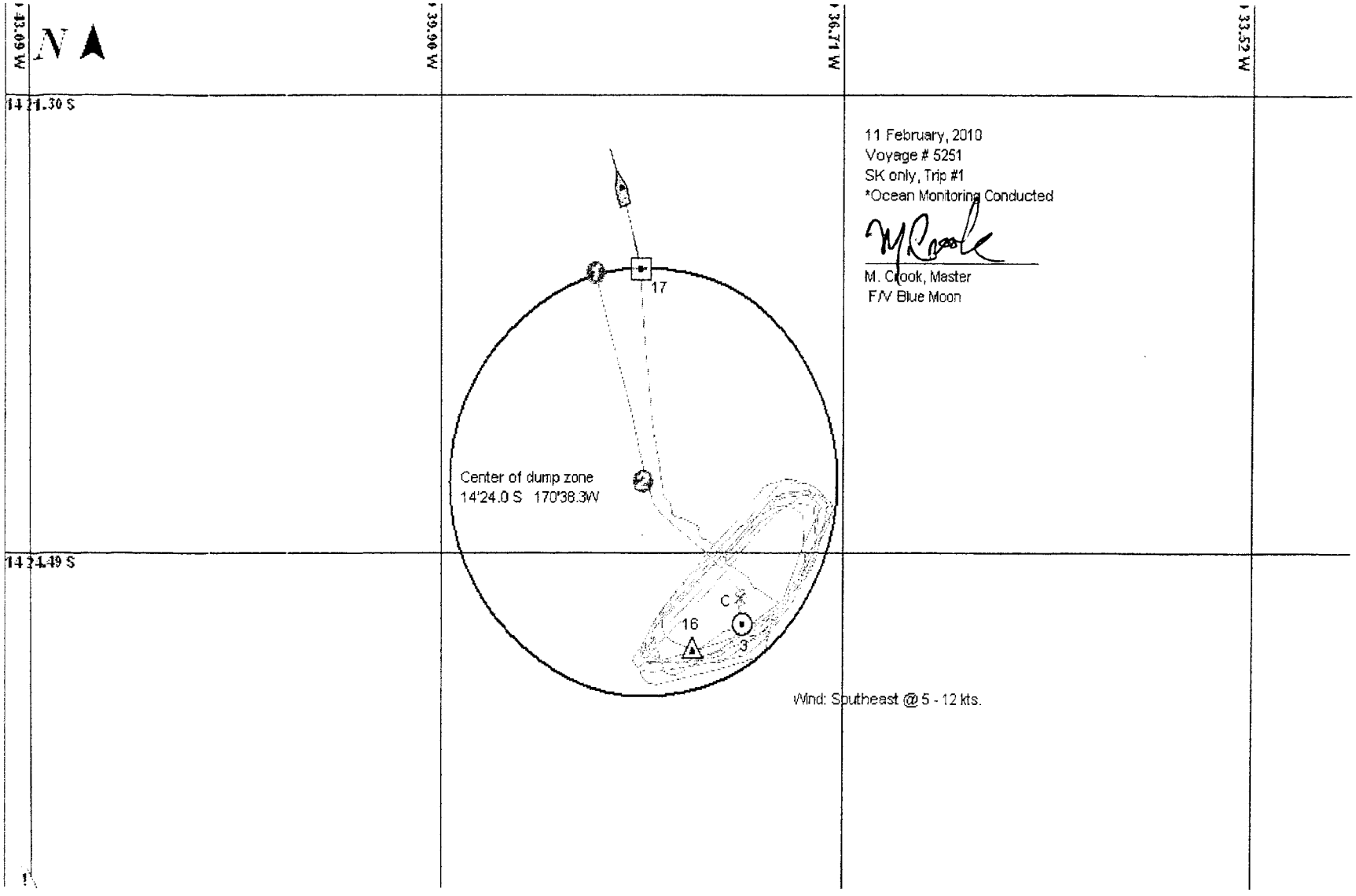
Table 1

Date: 11 February 2010	Sea Conditions: Slight w/ Southeast swells to 1.5 meters. Wind: Southeast @ 5 – 12 knots. Sky: Cloudy - 80% Direction & Rate of Current: Northwest set @ 1.1 knot average. Visibility: 8 - 10 miles. Barometer: 29.43 – 29.47					
Time	Station	Depth (meters)	Temp. (°C)	pH	Odor	Color
0615	Control	1	26.7	8.2	None	Deep, clear and natural pelagic blue. No floatable or suspended particulate material present.
		3	26.7	8.2		
		10	26.7	8.2		
0945	Station 1	1	27.2	8.2	Slightly Pungent	Track lines & areas of moderate glassy surface sheen over deep, clear blue. No floating or suspended materials.
		3	27.2	8.2		
		10	27.2	8.2		
0955	Station 2	1	27.2	8.2	Slightly Pungent	More areas of glassy surface sheen present as at Station #1. No floating or suspended particulates etc.
		3	27.2	8.2		
		10	27.2	8.2		
1005	Station 3	1	27.8	8.2	Pungent	More areas of moderate glassy surface sheen. Again, no floatable or suspended materials.
		3	27.2	8.2		
		10	27.2	8.2		
1015	Station 4	1	27.8	8.2	Pungent	Visible leading edge of the waste plume. Only a few residual light & scattered streaks of glassy surface sheen with no subsurface or floating particulate or other material.
		3	27.8	8.2		
		10	27.8	8.2		
1025	Station 5	1	27.8	8.2	None	Same as Control Station.
		3	27.8	8.2		
		10	27.2	8.2		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.80'	South	170° 37.55'	West
Station 1	14° 24.96'	South	170° 37.25'	West
Station 2	14° 24.76'	South	170° 37.39	West
Station 3	14° 24.59'	South	170° 37.64'	West
Station 4	14° 24.43'	South	170° 37.78'	West
Station 5	14° 24.21'	South	170° 38.01'	West


N
43.69 W
39.90 W
36.71 W
11.30 S
14.49 S
PLOT #1
Ocean Monitoring Sample Stations,
Control (C) & Stations #1 - #5
11 February, 2010
M. Crook, Investigator
Center of dump zone
14'24.0 S 170'38.3W
#5
#4
#3
#2
#1
C
Current set: Northwest/NNW



11 February, 2010
Voyage # 5251
SK only, Trip #1
*Ocean Monitoring Conducted

M. Crook, Master
F/V Blue Moon

OCEAN DUMPSITE MONITORING REPORT
(OD 93-01 & OD 93-02)

11 March, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling positions:	All positions obtained by GPS (Global Position Satellite) Navigation

Introduction

On March 11, 2010 the tank-ship *Blue Moon* departed *Starkist Samoa* dock bound for the designated ocean dump site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dump site location with Master/Principal Investigator, Chief and Mate on board.

0600: The *Blue Moon* entered the dump-zone circle at 14*22.5' S / 170*38.6' W.

0612: The *Blue Moon* arrived at the dump-zone center, where observed brisk easterly winds and easterly seas initially indicated disposal operations be conducted in the eastern dump-zone quadrant.

0620: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up current or east (E) of the dump-zone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were moderate with east swells to 1.5 meters and an east wind of 15 knots. Skies were cloudy with 8 miles visibility and the barometer reading 29.55. Current set and drift of the ship were to the west at 0.9 knots. No floating materials or sea life were observed here.

0635: The *Blue Moon* began disposal operations in the east dump-zone quadrant and continued discharging material with a north to south reciprocal, elongated elliptical pattern (see Plot 1) until 09:35 hrs.

0940: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The east winds had increased to 25 knots with still cloudy skies and some brief, passing rain. Although there was no sign of the plume at this exact position, just down-current the plume appeared as a series of short, broken-up glassy track lines and small patches of light surface sheen about 1.75 miles long, N to S by about 1.2 miles wide, E to W and moving to the west. The current/wind drift of the ship was now GPS determined to be westerly @

1.1 knots. No sea life or floatable materials were observed.

0950: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position was in an area of light glassy surface sheen. The average drift rate of the ship with current and wind was GPS determined to be westerly at 1.0 knots between stations 1 & 2. No sea-life or floatable materials were noted at this position.

1000: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was again, in a small area of glassy surface sheen over clear blue water. The drift rate of the ship between stations 2 & 3 was 0.9 knots to the west.

1010: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM west of Station #3, was visibly, the leading edge of the waste plume with just a few light and scattered streaks of surface sheen over natural clear blue water. There were no floating or suspended materials. The westerly current/drift rate of the ship was noted here to be 1.2 knots.

1020: Station Five monitoring. Sampling for this final station was conducted 0.25 NM down-current (W) from Station #4 and approximately 0.30 miles ESE of the zone center (Plot #1). The waste plume was not visually apparent at this location which had natural, clear blue ocean. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.58 when monitoring activities were concluded at 10:30 hrs and the wind held steady at about 25 knots. The final current & drift rate of the ship was checked to be 1.1 knots. The *Blue Moon* exited the disposal zone at 10:42 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the *Starkist Samoa Co.* laboratory at 11:25 hours.

Prepared by:

M. Crook

Mike Crook, Principal Investigator

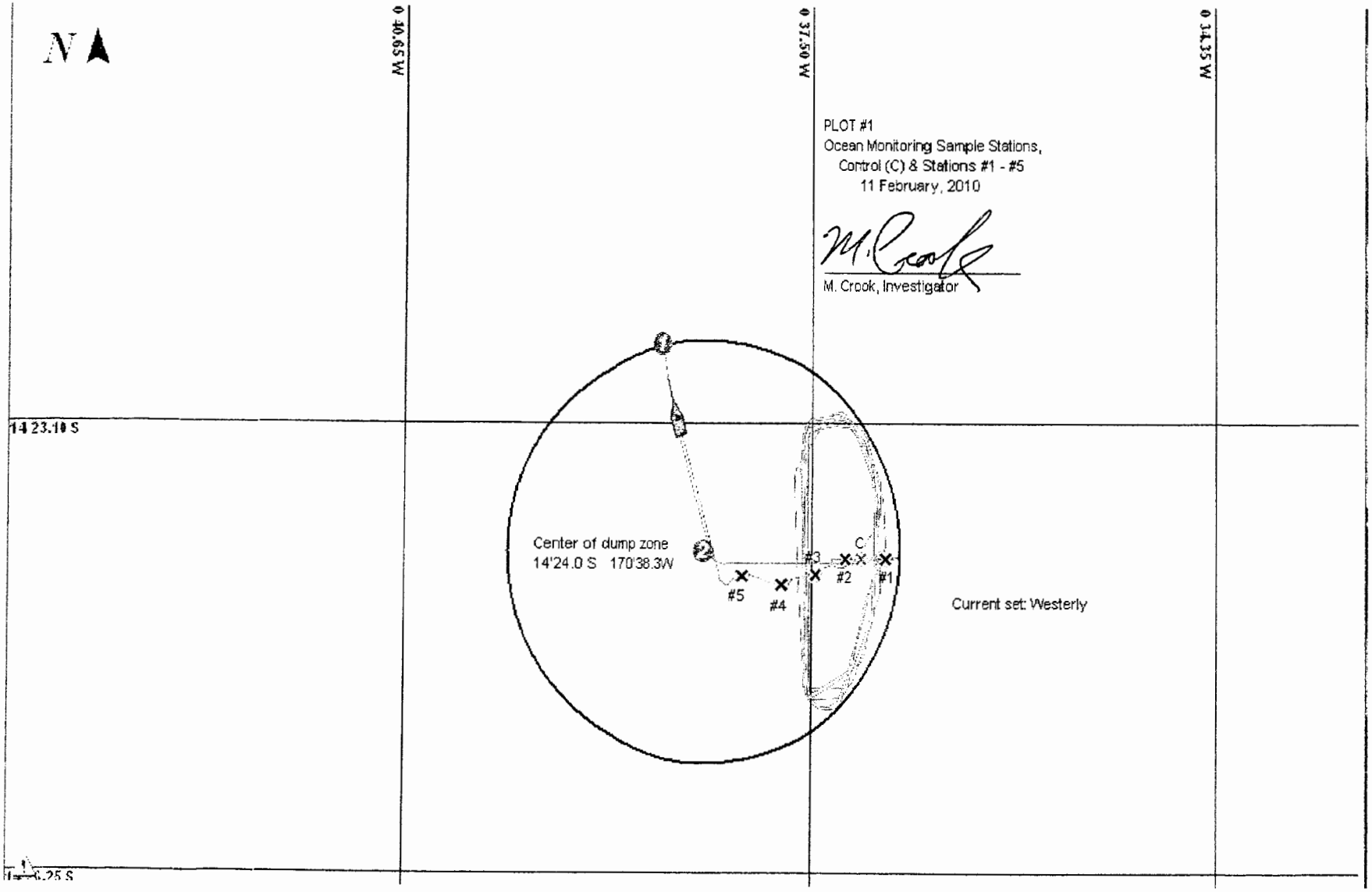
OCEAN DUMPING RESEARCH PERMIT: OD-93-02

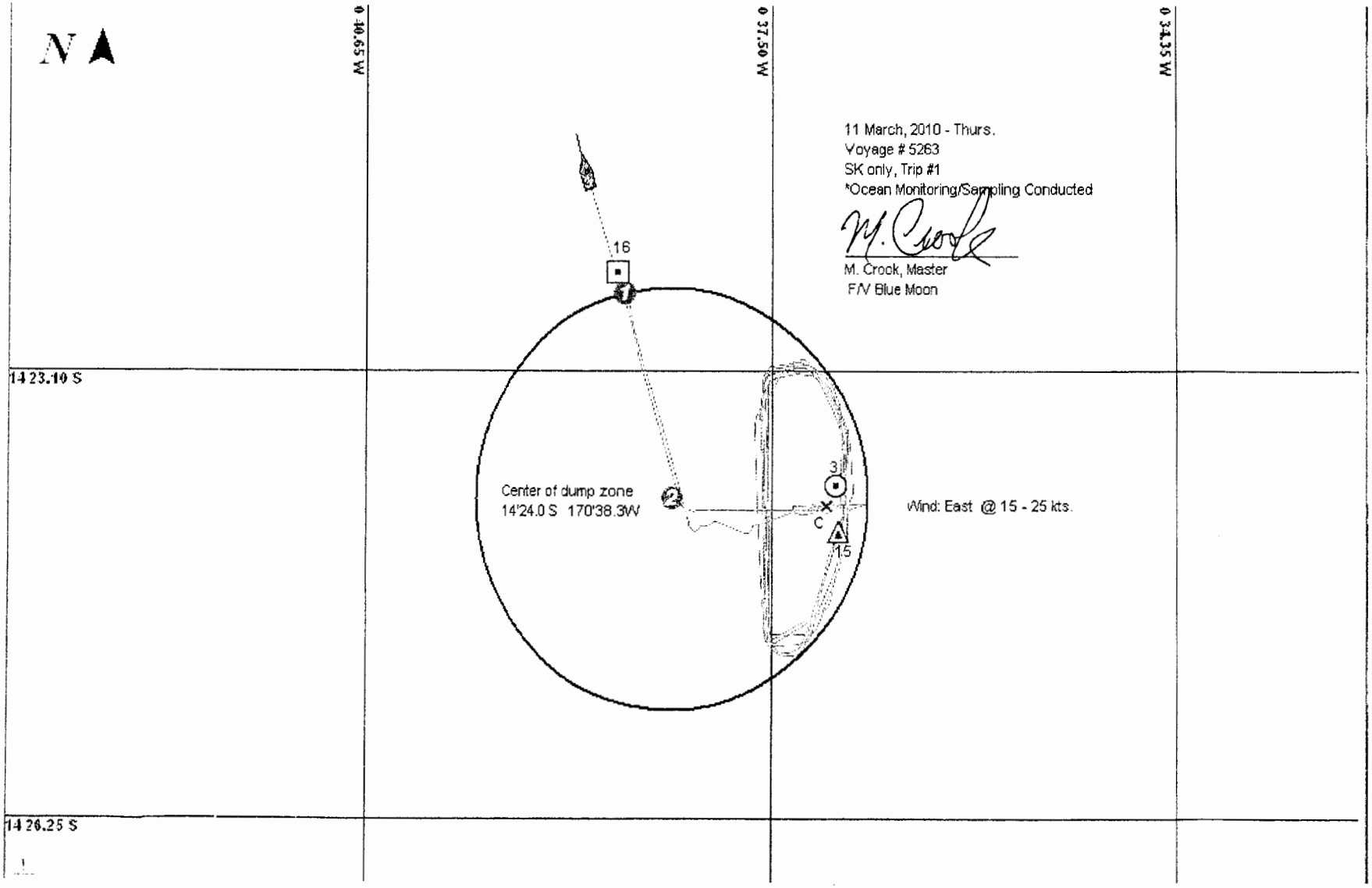
Table 1

Date: 11 March, 2010	Sea Conditions: Moderate w/ East swells to 2.0 meters. Wind: East @ 15 - 25 knots. Sky: Cloudy w/ some light rain. Direction & Rate of Current: Westerly set @ 1.0 knot average. Visibility: 6 - 8 miles. Barometer: 29.51 – 29.58					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0620	Control	1	27.2	8.4	None	Deep, clear and natural pelagic blue. No floatable or suspended particulate material present.
		3	27.2	8.4		
		10	27.2	8.4		
0940	Station 1	1	27.8	8.4	None	Same as Control Station
		3	27.8	8.4		
		10	27.2	8.4		
0950	Station 2	1	27.8	8.4	Slightly Pungent	A few scattered patches and broken track lines of moderate, glassy surface sheen. No floating or suspended particulate materials.
		3	27.8	8.4		
		10	27.2	8.4		
1000	Station 3	1	27.8	8.4	Slightly Pungent	Same as Station #2.
		3	27.8	8.4		
		10	27.2	8.4		
1010	Station 4	1	27.8	8.4	Slightly Pungent	Only a few residual, light & scattered streaks of glassy surface sheen over clear, blue water with no subsurface or floating particulate or other material. The apparent/visual leading edge of the waste plume
		3	27.8	8.4		
		10	27.8	8.4		
1020	Station 5	1	27.8	8.4	None	Sampled 0.25 NM down-current (West) from Station #4 and had the same water color/qualities as the Control Station w/ no floating or suspended materials
		3	27.8	8.4		
		10	27.8	8.4		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.05'	South	170° 37.09'	West
Station 1	14° 24.00'	South	170° 36.91'	West
Station 2	14° 24.07'	South	170° 37.11	West
Station 3	14° 24.08'	South	170° 37.46'	West
Station 4	14° 24.20'	South	170° 37.70'	West
Station 5	14° 24.16'	South	170° 37.97'	West


N
0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
14 26.25 S
PLOT #1
Ocean Monitoring Sample Stations,
Control (C) & Stations #1 - #5
11 February, 2010
M. Crook, Investigator
Center of dump zone
14'24.0 S 170'38.3W
C
#1
#2
#3
#4
#5
Current set: Westerly


N
0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
14 26.25 S
16
1
2
3
C
15
Center of dump zone
14'24.0 S 170'38.3W
Wind: East @ 15 - 25 kts.
11 March, 2010 - Thurs.
Voyage # 5263
SK only, Trip #1
*Ocean Monitoring/Sampling Conducted
M. Crook, Master
F/V Blue Moon

STAR KIST SAMOA, CO
P. O. BOX 368, PAGO PAGO AMERICAN SAMOA 96799
WATER TREATMENT DEPARTMENT

REPORT OF ANALYSES RESULTS

SAMPLE TYPE Sea Water - Ocean Monitoring Sampling - January 14, 2010
REPORTING DATE : February 02, 2010

SAMPLES	AMMONIA (mg N/L)	TOTAL NITROGEN (mg N/L)	TOTAL PHOSPHORUS (mg P/L)	NON FILTERABLE RESIDUE (mg/L)	VOLATILE NON FILTERABLE RESIDUE (mg/L)	OIL& GREASE (mg / L)
Stn : 1-1Mtr Control	0.027	0.05	0.010	5.5	2.0	0.47
Stn 1-3 Mtr Control	0.043	0.25	0.005	4.5	2.0	0.23
Stn 1-10 Mtr Control	0.016	0.05	0.015	7.0	2.5	0.45
Stn : 1-1Mtr	0.036	0.05	0.010	5.5	3.5	0.34
Stn 1-3 Mtr	0.035	0.10	0.020	6.0	3.0	0.41
Stn . 1-10 Mtr	0.041	0.05	0.015	5.5	1.0	0.47
Stn 2-1 Mtr	0.033	0.10	0.000	7.0	2.5	0.23
Stn 2-3 Mtr	0.027	0.05	0.010	6.5	2.0	0.45
Stn 2-10 Mtr	0.030	0.10	0.005	6.0	3.0	0.22
Stn . 3-1 Mtr	0.031	0.00	0.015	7.0	2.0	0.35
Stn 3-3 Mtr	0.039	0.15	0.010	6.0	2.5	0.24
Stn 3-10 Mtr	0.027	0.20	0.015	7.0	2.5	0.12
Stn 4-1 Mtr	0.029	0.10	0.015	6.5	1.5	0.35
Stn 4-3 Mtr	0.032	0.15	0.000	6.5	2.5	0.23
Stn 4-10 Mtr	0.027	0.15	0.000	5.5	1.5	0.48
Stn 5-1 Mtr	0.035	0.15	0.015	5.5	1.5	0.34
Stn 5-3 Mtr	0.032	0.10	0.000	6.5	1.5	0.58
Stn 5-10 Mtr	0.027	0.05	0.000	6.5	2.0	0.34

hey Engineering Manager

STAR KIST SAMOA, CO
P. O. BOX 368, PAGO PAGO AMERICAN SAMOA 96799
WATER TREATMENT DEPARTMENT

REPORT OF ANALYSES RESULTS

SAMPLE TYPE : Sea Water - Ocean Monitoring Sampling - February 11, 2010
REPORTING DATE : March 03

SAMPLES	AMMONIA (mg N/L)	TOTAL NITROGEN (mg N/L)	TOTAL PHOSPHORUS (mg P/L)	NON FILTERABLE RESIDUE (mg/L)	VOLATILE NON FILTERABLE RESIDUE (mg/L)	OIL& GREASE (mg / L)
Stn : 1-1Mtr Control	0.019	0.15	0.000	5.5	3.0	0.23
Stn : 1-3 Mtr Control	0.020	0.10	0.000	6.0	2.5	0.24
Stn :1-10 Mtr Control	0.024	0.65	0.000	7.5	1.5	0.11
Stn : 1-1Mtr	0.035	0.20	0.000	6.5	3.0	0.11
Stn : 1-3 Mtr	0.036	0.05	0.000	6.0	1.5	0.12
Stn : 1-10 Mtr	0.034	0.25	0.025	5.5	3.5	0.23
Stn : 2-1 Mtr	0.037	0.25	0.000	6.5	3.0	0.34
Stn : 2-3 Mtr	0.036	0.45	0.000	5.5	3.0	0.23
Stn : 2-10 Mtr	0.030	0.45	0.015	5.5	3.5	0.34
Stn : 3-1 Mtr	0.022	0.15	0.030	6.0	2.5	0.23
Stn : 3-3 Mtr	0.022	0.75	0.000	5.0	3.0	0.11
Stn : 3-10 Mtr	0.019	0.50	0.010	4.5	2.5	0.12
Stn : 4-1 Mtr	0.016	0.20	0.015	5.0	2.5	0.35
Stn : 4-3 Mtr	0.015	0.35	0.035	4.5	4.0	0.24
Stn : 4-10 Mtr	0.013	0.20	0.045	5.0	2.5	0.12
Stn : 5-1 Mtr	0.012	0.15	0.010	5.0	2.5	0.26
Stn : 5-3 Mtr	0.012	0.15	0.030	6.5	2.5	0.23
Stn : 5-10 Mtr	0.012	0.00	0.010	6.5	2.5	0.34

Joe Carney: Engineering Manager

STAR KIST SAMOA, CO
P. O. BOX 368, PAGO PAGO AMERICAN SAMOA 96799
WATER TREATMENT DEPARTMENT

REPORT OF ANALYSES RESULTS

SAMPLE TYPE : Sea Water - Ocean Monitoring Sampling - March, 2010
REPORTING DATE : April 03

SAMPLES	AMMONIA (mg N/L)	TOTAL NITROGEN (mg N/L)	TOTAL PHOSPHORUS (mg P/L)	NON FILTERABLE RESIDUE (mg/L)	VOLATILE NON FILTERABLE RESIDUE (mg/L)	OIL& GREASE (mg / L)
Stn : 1-1Mtr Control	0.026	0.15	0.025	5.0	2.0	0.56
Stn : 1-3 Mtr Control	0.028	0.15	0.010	5.5	2.0	0.35
Stn : 1-10 Mtr Control	0.016	0.10	0.005	5.5	1.5	0.56
Stn : 1-1Mtr	0.017	0.15	0.020	6.0	2.5	0.38
Stn : 1-3 Mtr	0.013	0.15	0.005	5.0	2.0	0.35
Stn : 1-10 Mtr	0.009	0.05	0.005	5.5	1.5	0.34
Stn : 2-1 Mtr	0.014	0.30	0.005	5.5	3.0	0.33
Stn : 2-3 Mtr	0.007	0.25	0.005	6.0	2.0	0.35
Stn : 2-10 Mtr	0.006	0.20	0.030	5.5	2.0	0.25
Stn : 3-1 Mtr	0.026	0.20	0.030	6.0	1.5	0.25
Stn : 3-3 Mtr	0.007	0.15	0.005	6.0	2.0	0.22
Stn : 3-10 Mtr	0.010	0.00	0.010	5.5	2.5	0.47
Stn : 4-1 Mtr	0.009	0.20	0.000	5.5	1.5	0.38
Stn : 4-3 Mtr	0.015	0.20	0.015	6.0	1.5	0.26
Stn : 4-10 Mtr	0.014	0.35	0.065	5.5	1.5	0.44
Stn : 5-1 Mtr	0.009	0.05	0.010	5.5	1.5	0.57
Stn : 5-3 Mtr	0.020	0.10	0.000	5.5	2.5	0.22
Stn : 5-10 Mtr	0.008	0.20	0.015	4.5	2.5	0.38

Joe Carney: Engineering Manager

OCEAN DUMPSITE MONITORING REPORT

(OD 93-01 & OD 93-02)

14 January , 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling positions:	All positions obtained by Global Position Satellite Navigator (GPS)

Introduction

On January 14, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master, Principal Investigator, Chief and Mate onboard.

0550: The *Blue Moon* entered the dumpzone circle *at* 14*22.6' S / 170*38.7' W.

0558: The *Blue Moon* arrived at the dumpzone center, where observed northerly winds and very slight east southeasterly seas indicated disposal operations be conducted in the north dump-zone quadrant.

0610: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) upcurrent (North) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were very slight with east southeast swells to 1 meter and northerly winds at 5 knots. Skies were partly cloudy with 5 miles visibility and the barometer reading 29.50. Current set and drift were to the south at 1.1 knots. No floating materials or sea life were observed here.

0615: The *Blue Moon* began disposal operations in the north dump zone quadrant and continued discharging material with a generally, east to west reciprocal, elongated triangular pattern (see Plot 1) until 0905 hrs.

0915: Station One Monitoring. Discrete water samples were drawn from depths 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The northerly winds had increased to 15 knots w/ cloudy skies. The waste plume had moved/dissipated completely from this area and could only be seen some distance to the south as a narrow east to west oriented area of surface sheen about 2.5 NM long by 0.25 NM wide, moving to the south. No sealife or floatable materials were observed.

0925: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. The average drift rate of the ship with current and wind was GPS determined to be southerly at 1.3 knots between stations 1 & 2. No sea-life or floatable materials were noted at this position.

0932: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position still showed no sign of the waste plume in the clear blue seas. The drift rate of the ship between stations 2 & 3 was 1.5 knots to the south.

0943: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM south of Station #3, was the first station to show any sign of the waste plume with a few light and scattered streaks of surface sheen over natural clear blue water. There were no floating or suspended materials. The southerly current drift rate of the ship was again noted to be at 1.4 knots.

0952: Station Five monitoring. Sampling for this final station was conducted at the leading edge of the waste plume approximately 0.35 NM down current (south) from station #4 and was 0.18 miles east of the zone center. The waste plume was visually prominent at this location as a long, narrow, east to west track line of the typical surface sheen with natural, clear, blue ocean beyond to the south. No notable sea life was observed at this position other than a few seabirds flying by. The final barometer reading was 29.49 when monitoring activities were concluded at 0955 hrs. The *Blue Moon* exited the disposal zone at 1010 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa laboratory at 1100 hours.

Prepared by:

Mike Crook, Principal Investigator

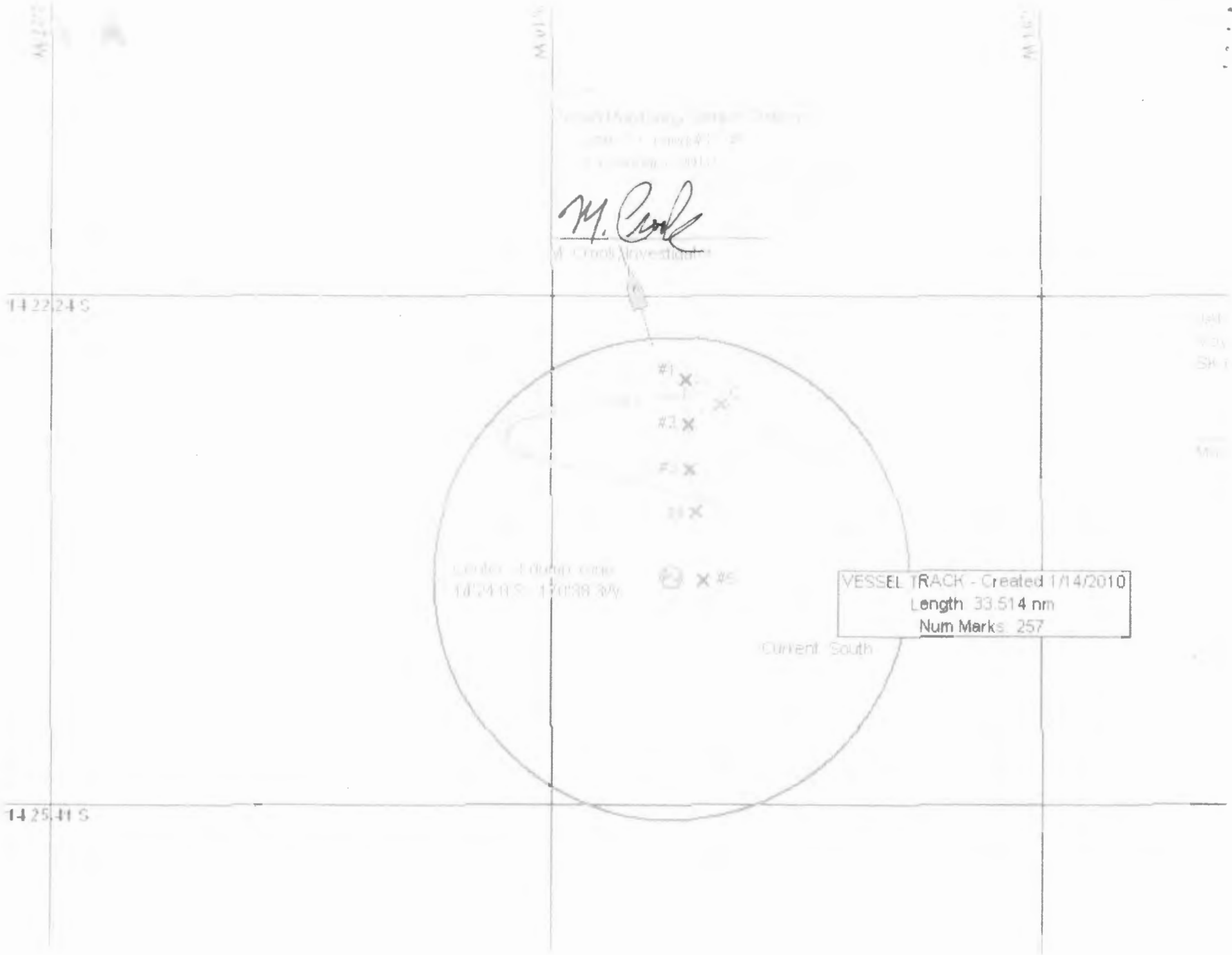
OCEAN DUMPING RESEARCH PERMIT: OD-93-02

Table 1

Date: 14 January, 2010	Sea Conditions: Slight w/ East & SE swells to 1.0 meters. Wind: Northerly @ 5 - 15 knots. Sky: Overcast w/ some light rain. Direction & Rate of Current: Southerly set @ 1.4 knot average. Visibility: 3-8 miles. Barometer: 29.50 – 29.49					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0610	Control	1	27.2	8.0	None	Deep, clear and natural pelagic blue. No floatable or suspended particulate material present.
		3	27.2	8.0		
		10	26.7	8.0		
0915	Station 1	1	27.2	8.0	None	Same as Control Station
		3	27.2	8.0		
		10	27.2	8.0		
0925	Station 2	1	27.2	8.0	None	Same as Control & Station #1.
		3	27.2	8.0		
		10	27.2	8.0		
0932	Station 3	1	27.2	8.0	None	Same as Station #2.
		3	27.2	8.0		
		10	27.2	8.0		
0943	Station 4	1	27.2	8.0	Slightly Pungent	Only a few residual, very light & scattered streaks of glassy surface sheen over clear, blue water with no subsurface or floating particulate or other material.
		3	27.2	8.0		
		10	27.2	8.0		
0952	Station 5	1	27.8	8.0	Slightly Pungent	The leading edge of the waste plume consisted of an unbroken east to west track line of moderate, glassy surface sheen about 2 miles long and 0.25 mile wide over clear, blue subsurface water. No floating or suspended materials
		3	27.8	8.0		
		10	27.8	8.0		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 22.94'	South	170° 37.96'	West
Station 1	14° 22.73'	South	170° 38.22'	West
Station 2	14° 22.96'	South	170° 38.23	West
Station 3	14° 23.33'	South	170° 38.20'	West
Station 4	14° 23.56'	South	170° 38.17'	West
Station 5	14° 24.00'	South	170° 38.10'	West


14 22.24 S
14 25.41 S
#1
#3
#5
Current South
VESSEL TRACK - Created 1/14/2010
Length 33.514 nm
Num Marks 257

OCEAN DUMPSITE MONITORING REPORT

(OD 93-01 & OD 93-02)

14 January , 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling positions:	All positions obtained by Global Position Satellite Navigator (GPS)

Introduction

On January 14, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master, Principal Investigator, Chief and Mate onboard.

0550: The *Blue Moon* entered the dumpzone circle at 14*22.6' S / 170*38.7' W.

0558: The *Blue Moon* arrived at the dumpzone center, where observed northerly winds and very slight east southeasterly seas indicated disposal operations be conducted in the north dump-zone quadrant.

0610: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) upcurrent (North) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were very slight with east southeast swells to 1 meter and northerly winds at 5 knots. Skies were partly cloudy with 5 miles visibility and the barometer reading 29.50. Current set and drift were to the south at 1.1 knots. No floating materials or sea life were observed here.

0615: The *Blue Moon* began disposal operations in the north dump zone quadrant and continued discharging material with a generally, east to west reciprocal, elongated triangular pattern (see Plot 1) until 0905 hrs.

0915: Station One Monitoring. Discrete water samples were drawn from depths 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The northerly winds had increased to 15 knots w/ cloudy skies. The waste plume had moved/dissipated completely from this area and could only be seen some distance to the south as a narrow east to west oriented area of surface sheen about 2.5 NM long by 0.25 NM wide, moving to the south. No sealife or floatable materials were observed.

0925: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. The average drift rate of the ship with current and wind was GPS determined to be southerly at 1.3 knots between stations 1 & 2. No sea-life or floatable materials were noted at this position.

0932: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position still showed no sign of the waste plume in the clear blue seas. The drift rate of the ship between stations 2 & 3 was 1.5 knots to the south.

0943: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM south of Station #3, was the first station to show any sign of the waste plume with a few light and scattered streaks of surface sheen over natural clear blue water. There were no floating or suspended materials. The southerly current drift rate of the ship was again noted to be at 1.4 knots.

0952: Station Five monitoring. Sampling for this final station was conducted at the leading edge of the waste plume approximately 0.35 NM down current (south) from station #4 and was 0.18 miles east of the zone center. The waste plume was visually prominent at this location as a long, narrow, east to west track line of the typical surface sheen with natural, clear, blue ocean beyond to the south. No notable sea life was observed at this position other than a few seabirds flying by. The final barometer reading was 29.49 when monitoring activities were concluded at 0955 hrs. The *Blue Moon* exited the disposal zone at 1010 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa laboratory at 1100 hours.

Prepared by:

Mike Crook, Principal Investigator

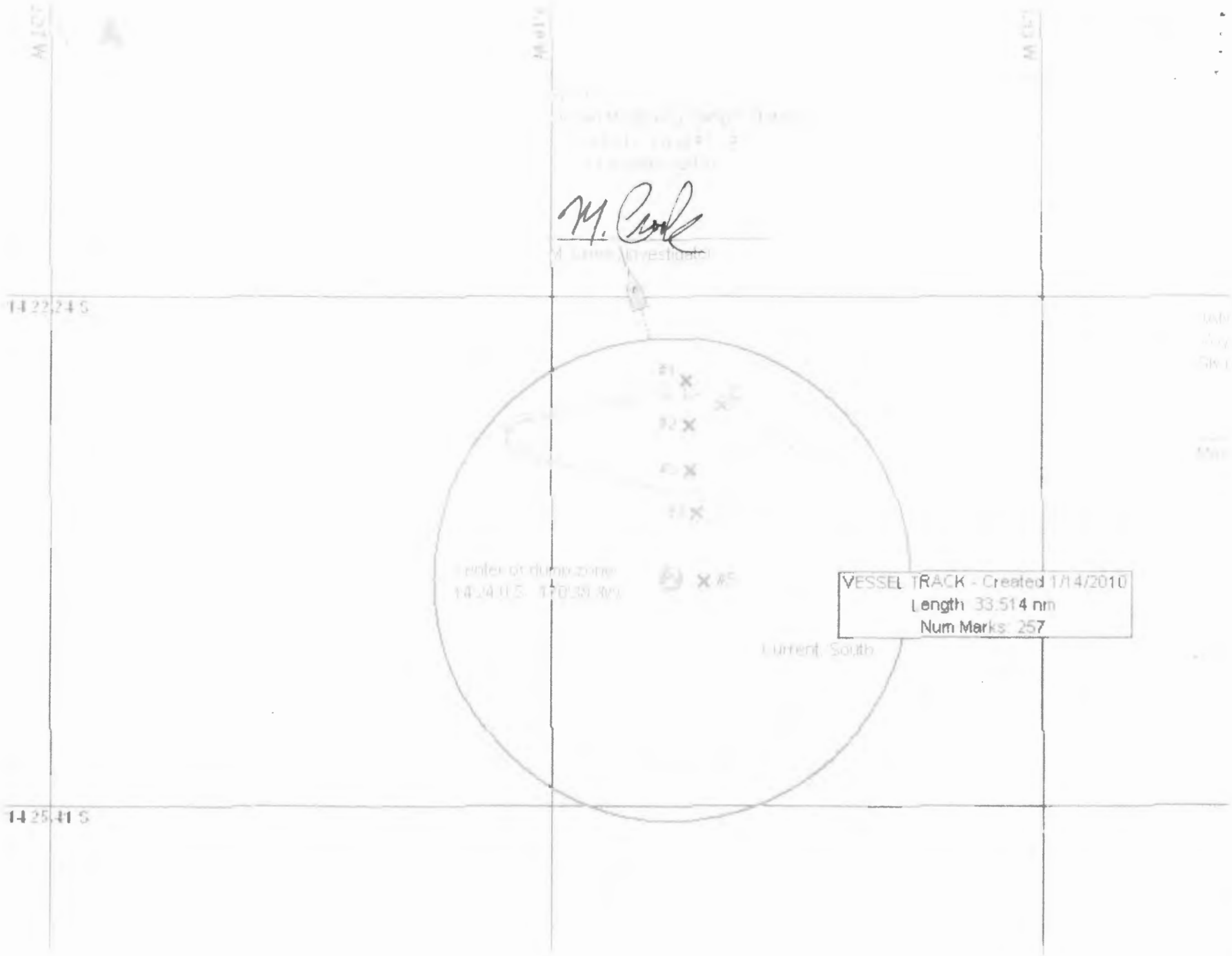
OCEAN DUMPING RESEARCH PERMIT: OD-93-02

Table 1

Date: 14 January, 2010	Sea Conditions: Slight w/ East & SE swells to 1.0 meters. Wind: Northerly @ 5 - 15 knots. Sky: Overcast w/ some light rain. Direction & Rate of Current: Southerly set @ 1.4 knot average. Visibility: 3-8 miles. Barometer: 29.50 – 29.49					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0610	Control	1	27.2	8.0	None	Deep, clear and natural pelagic blue. No floatable or suspended particulate material present.
		3	27.2	8.0		
		10	26.7	8.0		
0915	Station 1	1	27.2	8.0	None	Same as Control Station
		3	27.2	8.0		
		10	27.2	8.0		
0925	Station 2	1	27.2	8.0	None	Same as Control & Station #1.
		3	27.2	8.0		
		10	27.2	8.0		
0932	Station 3	1	27.2	8.0	None	Same as Station #2.
		3	27.2	8.0		
		10	27.2	8.0		
0943	Station 4	1	27.2	8.0	Slightly Pungent	Only a few residual, very light & scattered streaks of glassy surface sheen over clear, blue water with no subsurface or floating particulate or other material.
		3	27.2	8.0		
		10	27.2	8.0		
0952	Station 5	1	27.8	8.0	Slightly Pungent	The leading edge of the waste plume consisted of an unbroken east to west track line of moderate, glassy surface sheen about 2 miles long and 0.25 mile wide over clear, blue subsurface water. No floating or suspended materials
		3	27.8	8.0		
		10	27.8	8.0		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 22.94'	South	170° 37.96'	West
Station 1	14° 22.73'	South	170° 38.22'	West
Station 2	14° 22.96'	South	170° 38.23	West
Station 3	14° 23.33'	South	170° 38.20'	West
Station 4	14° 23.56'	South	170° 38.17'	West
Station 5	14° 24.00'	South	170° 38.10'	West


14 22.24 S
14 25.41 S
#1
#2
#3
#4
#5
Current South
VESSEL TRACK - Created 1/14/2010
Length 33.514 nm
Num Marks: 257

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON January ~~2009~~ 2010

NUMBER OF TRIPS	SK	SP	JOINT.	TOTAL
	13	0	0	13

GALLONS-FOR THE MONTH	SK	SP	JOINT:	TOTAL
	2,062,500	0	0	2,062,500

GALLONS FOR SOLO TRIPS	SK	SP
	2,062,500	0

RUNNING TIME ON TRIPS	65.6 hrs.
DISCHARGE TIME ON TRIPS	37.5 hrs.
AV GPM DISCHARGE RATE	95.4 g/m/k
AV TRIP TIME	5.04 hrs

AV PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK	COS
100.00%	0.00%

MASTER

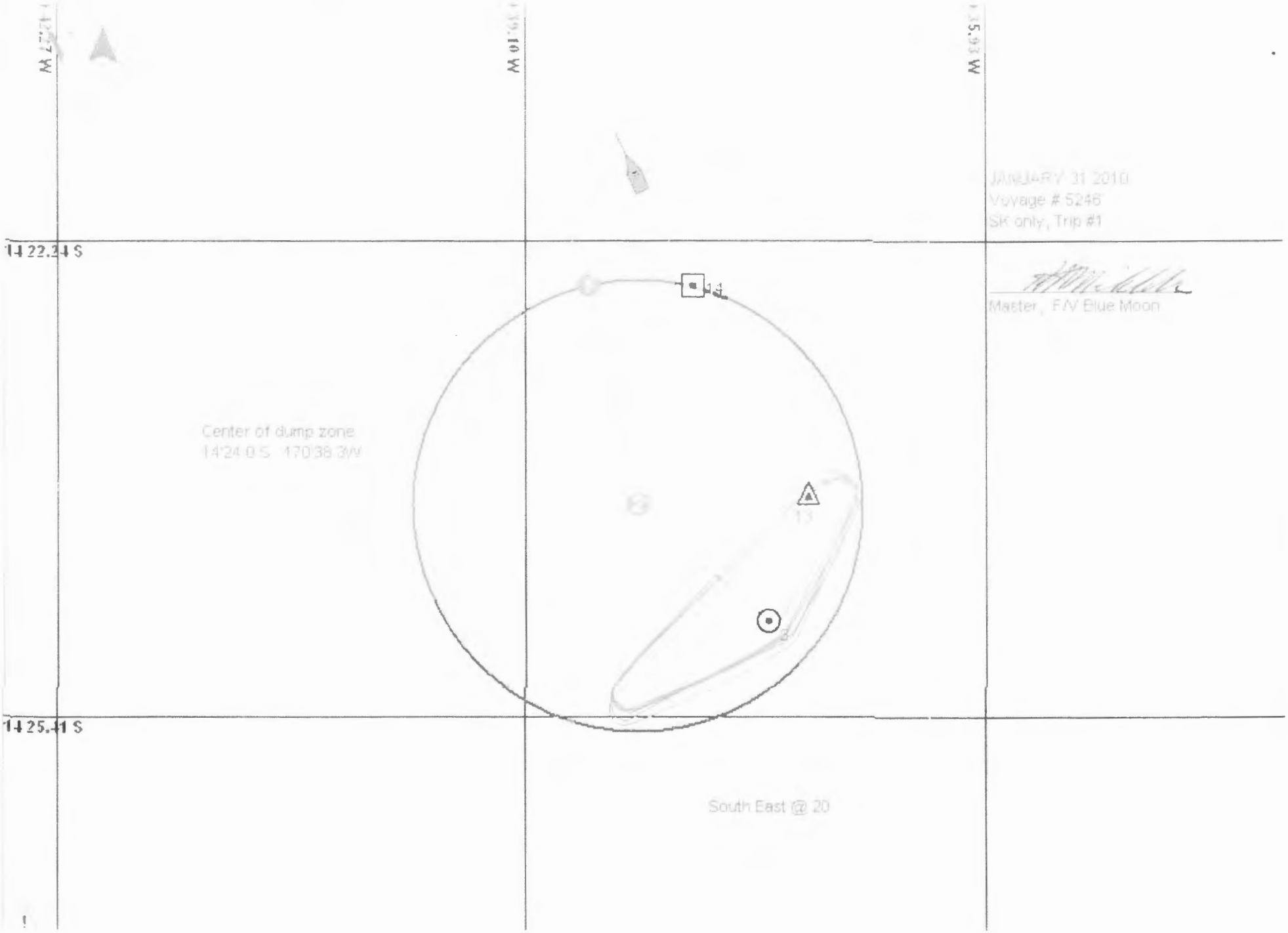
STAR KIST SAMOA CO
WATER TREATMENT DEPARTMENT

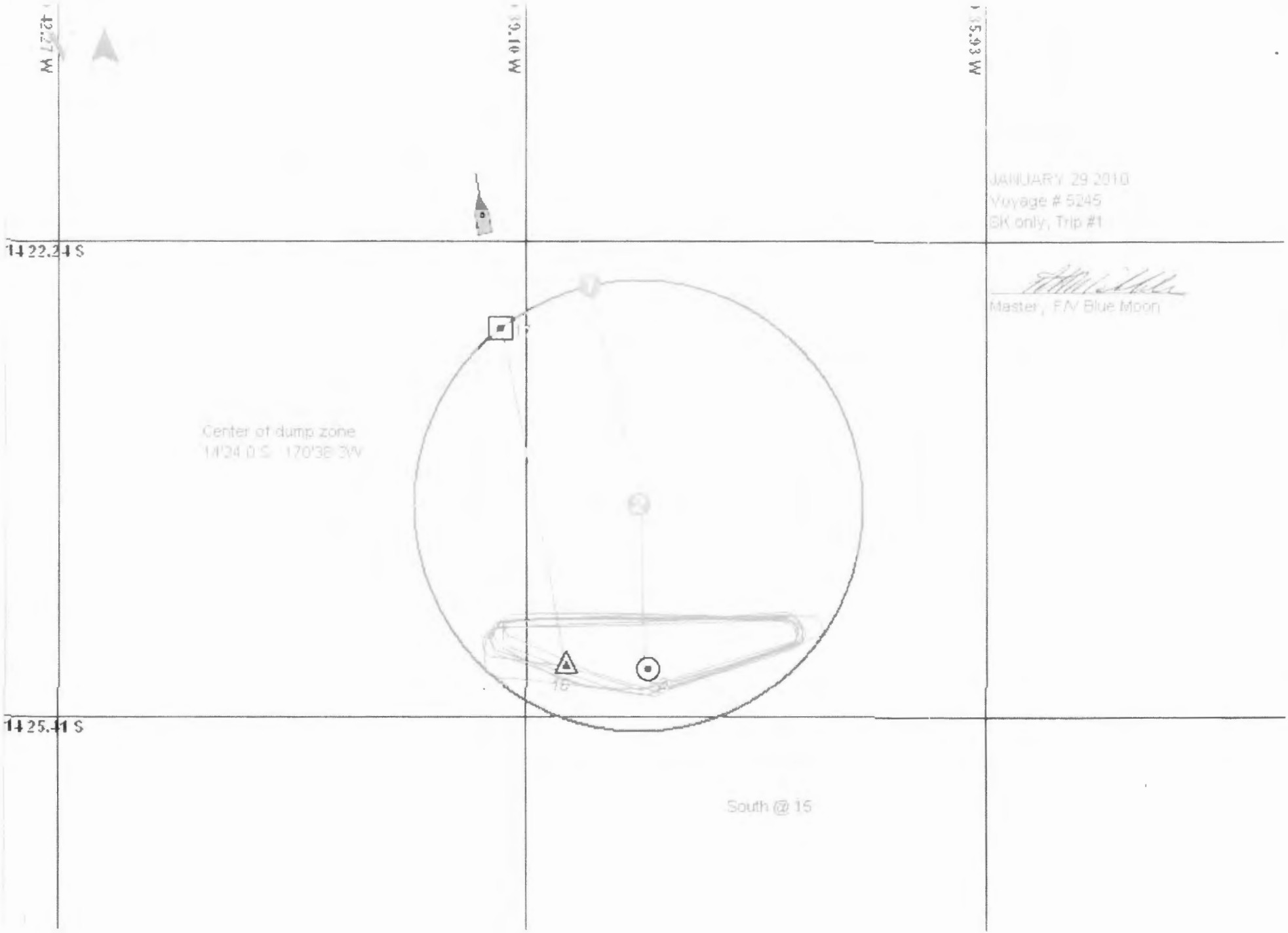
BLUE MOON - OCEAN DUMPING LOG

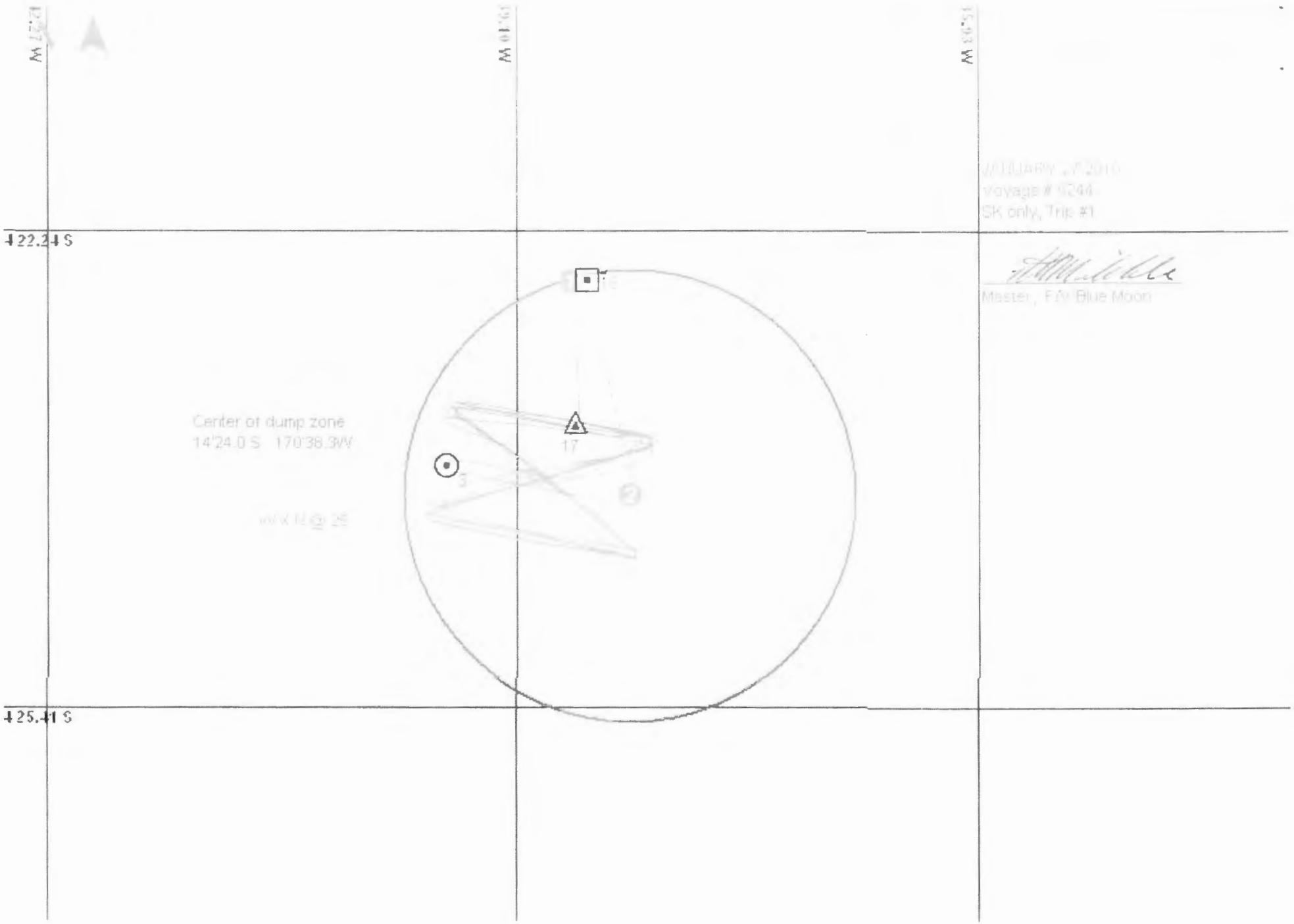
February 01, 2010

Trip Date	1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Total Volume
[illegible]	1st Trip	NONE	0	2nd Trip	NONE	0
[illegible]	1st Trip	NONE	0	2nd Trip	NONE	0
[illegible]	1st Trip	NONE	0	2nd Trip	NONE	0
[illegible]	1st Trip	1500[illegible] (145000)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	145000	2nd Trip	NONE	0
[illegible]	1st Trip	1410[illegible]2010 (180000)		2nd Trip	NONE	0
[illegible]	1st Trip	1520[illegible]1640 (42500)	180000	2nd Trip	NONE	0
[illegible]	1st Trip	1500[illegible]2000 (130000)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	172500	2nd Trip	NONE	0
[illegible]	1st Trip	NONE	0	2nd Trip	NONE	0
[illegible]	1st Trip	1500[illegible]2000		2nd Trip	NONE	0
[illegible]	1st Trip	1530[illegible]1730 (52500)	130000	2nd Trip	NONE	0
[illegible]	1st Trip	1500[illegible]2000 (135000)		2nd Trip	NONE	0
[illegible]	1st Trip	1[illegible]1730 (37500)	187500	2nd Trip	NONE	0
[illegible]	1st Trip	1500[illegible]1930 (122500)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	160000	2nd Trip	NONE	0
[illegible]	1st Trip	NONE	0	2nd Trip	NONE	0
[illegible]	1st Trip	1400[illegible]1800 (120000)		2nd Trip	NONE	0
[illegible]	1st Trip	1400[illegible]1530 (47500)	120000	2nd Trip	NONE	0
[illegible]	1st Trip	1330[illegible]1530 (115000)		2nd Trip	NONE	0
[illegible]	1st Trip	1330[illegible]1530 (60000)	162500	2nd Trip	NONE	0
[illegible]	1st Trip	1400[illegible]1730 (115000)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	175000	2nd Trip	NONE	0
[illegible]	1st Trip	1400[illegible] (125000)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	125000	2nd Trip	NONE	0
[illegible]	1st Trip	1330[illegible]1930 (160000)		2nd Trip	NONE	0
[illegible]	1st Trip	143[illegible]1700 (57500)	160000	2nd Trip	NONE	0
[illegible]	1st Trip	1330[illegible]1730 (117500)		2nd Trip	NONE	0
[illegible]	1st Trip	1330[illegible]1530 (60000)	175000	2nd Trip	NONE	0
[illegible]	1st Trip	1330[illegible]1730 (110000)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	170000	2nd Trip	NONE	0
TOTAL	1st Trip		2062500	2nd Trip		0
					Total 1st & 2nd	2,062,500

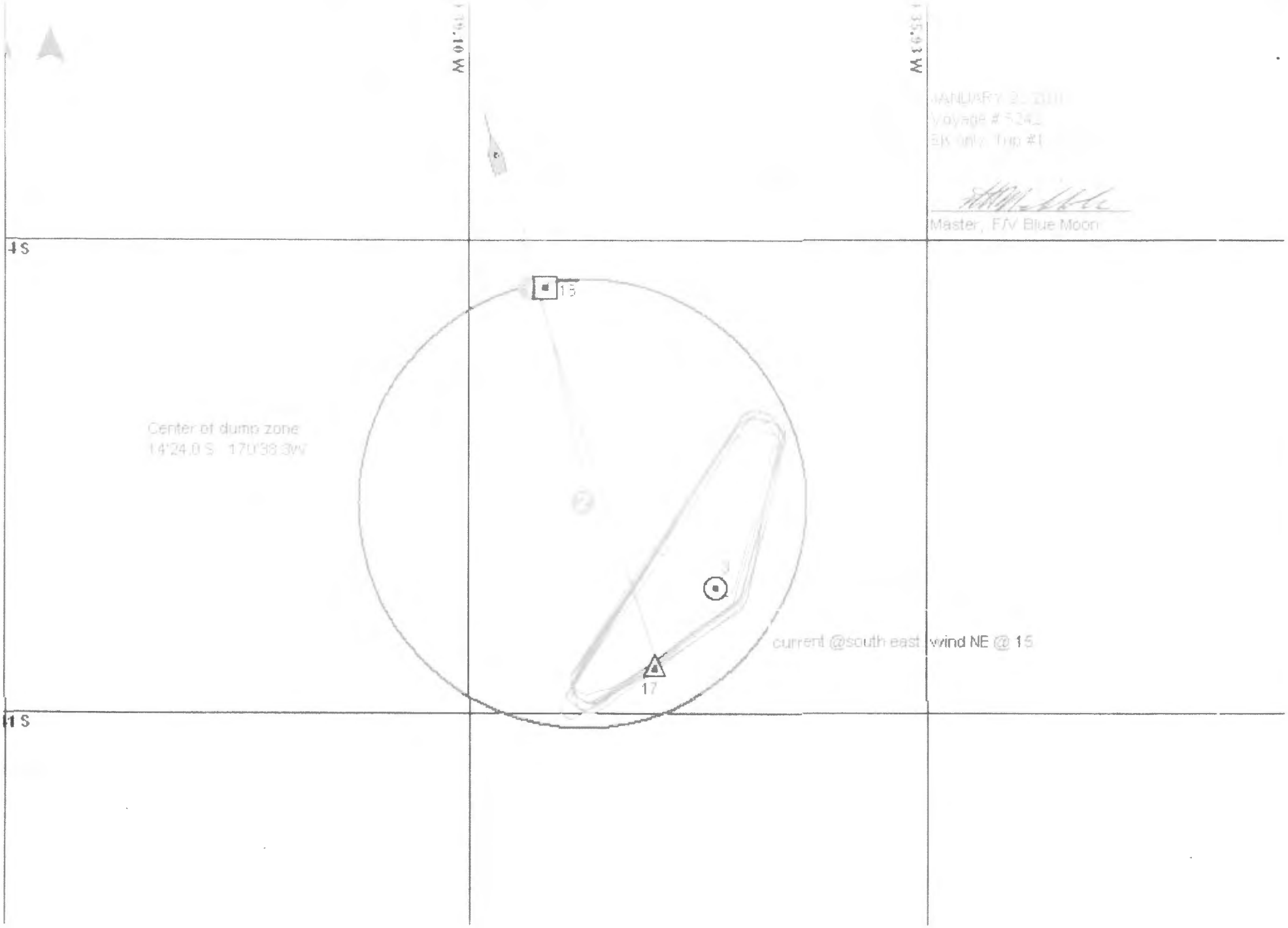
Prepared by W W


JANUARY 31 2010
Voyage # 5246
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0'S 170°38.3'W
14
13
8
South East @ 20


170 27 W
170 10 W
165 43 W
14 22.24 S
14 25.41 S
JANUARY 29 2010
Voyage # 5245
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0'S 170°38.3'W
South @ 15

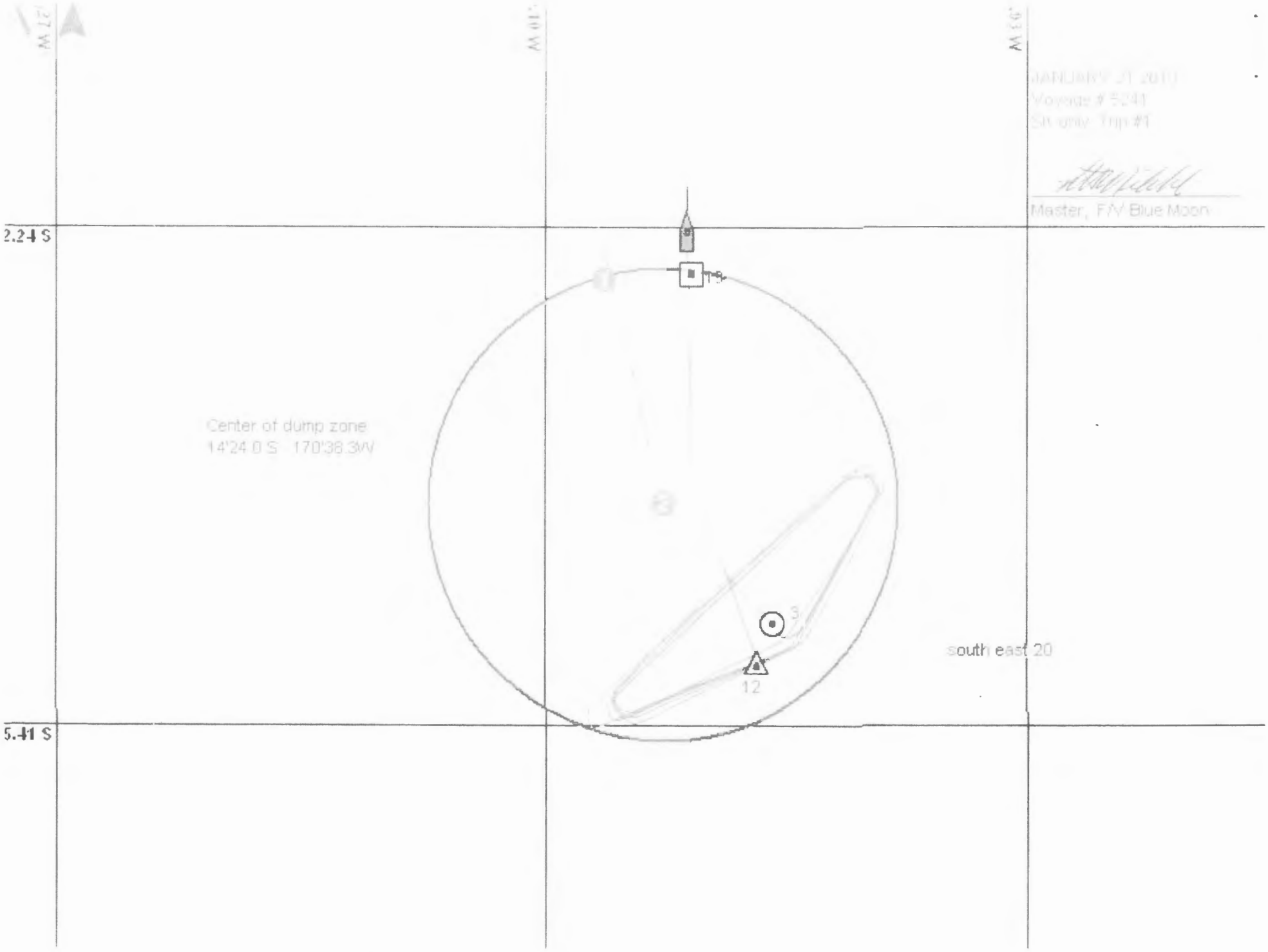

W 172.7
W 169.9
W 167.1
22.24 S
25.41 S
16
17
3
2
Center of dump zone
14°24.0 S 170°38.3W
WXN @ 25
JANUARY 17 2010
Voyage # 5244
SK only, Trip #1
Master, F/V Blue Moon

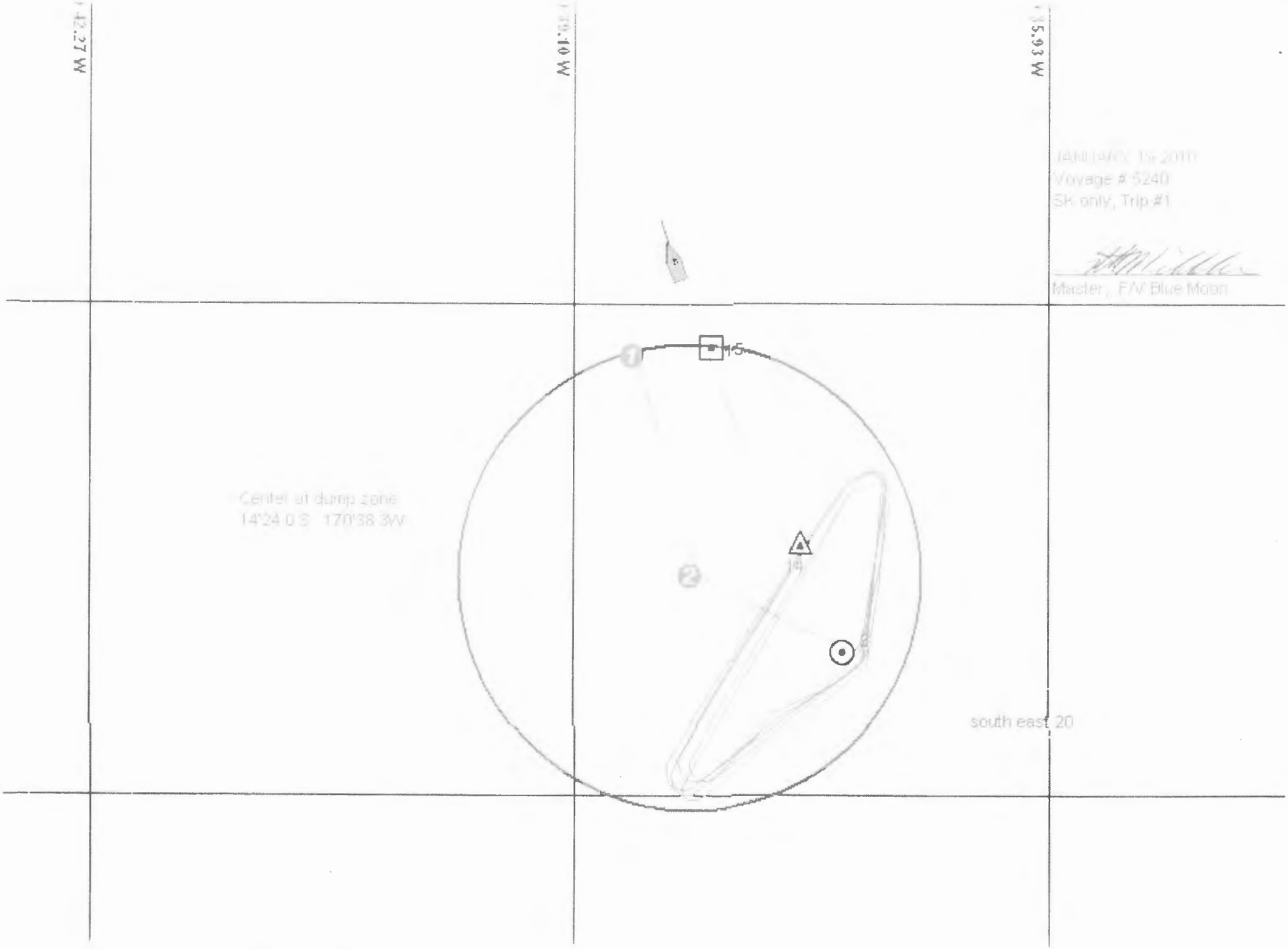
JANUARY 25 2010
Voyage # 5243
SK only, Trip #1
Master, F/V Blue Moon
North East @ 20
Center of dump zone
14°24.0'S 170°38.3'W
3
14
22.24 S
25.41 S

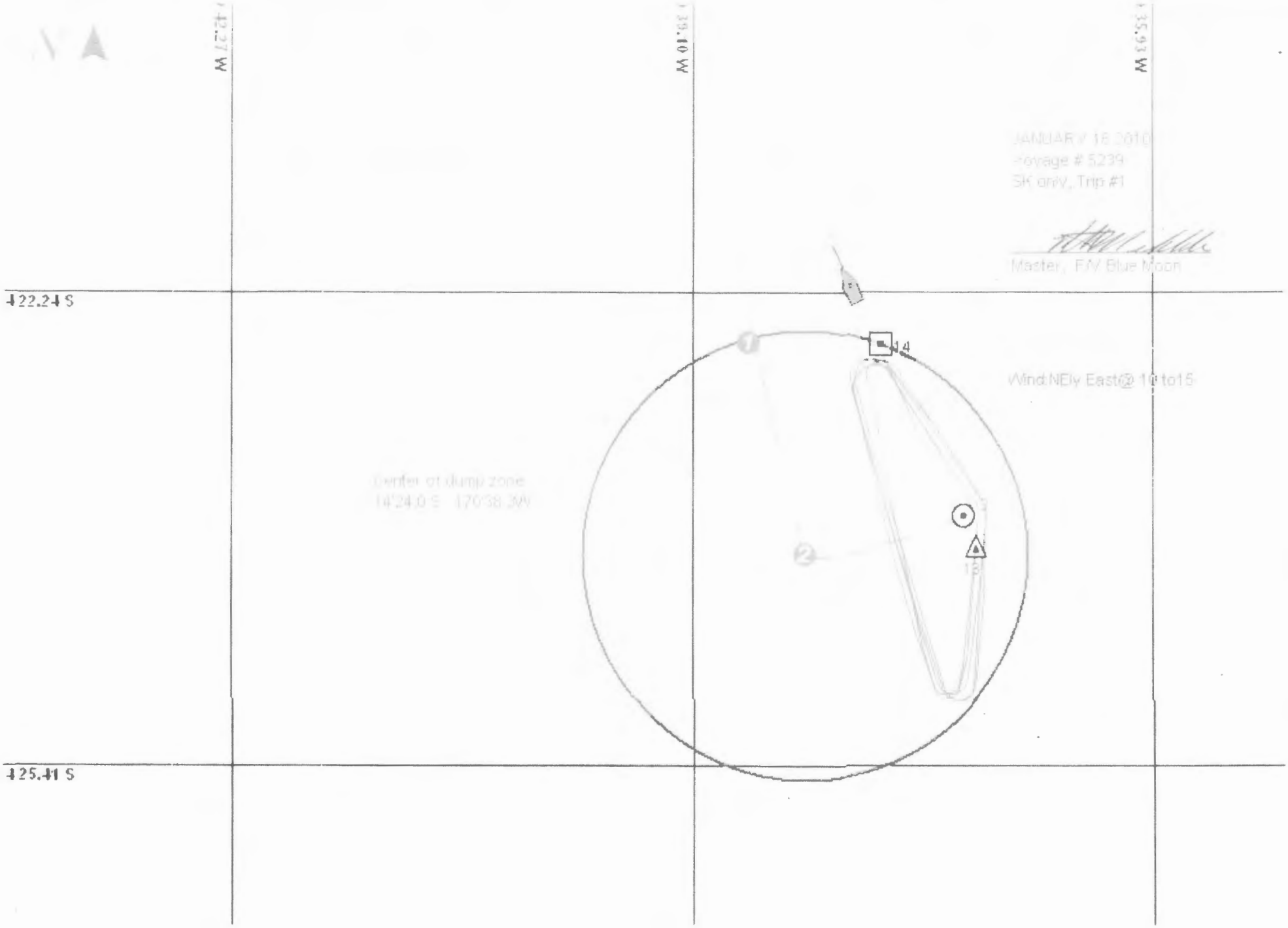

19.10 W
35.93 W
JANUARY 2, 2010
Voyage # 5242
EK only Trip #1
Master, F/V Blue Moon
4 S
15
Center of dump zone
14°24.0 S 170°38.3W
current @south east
wind NE @ 15
17
1 S

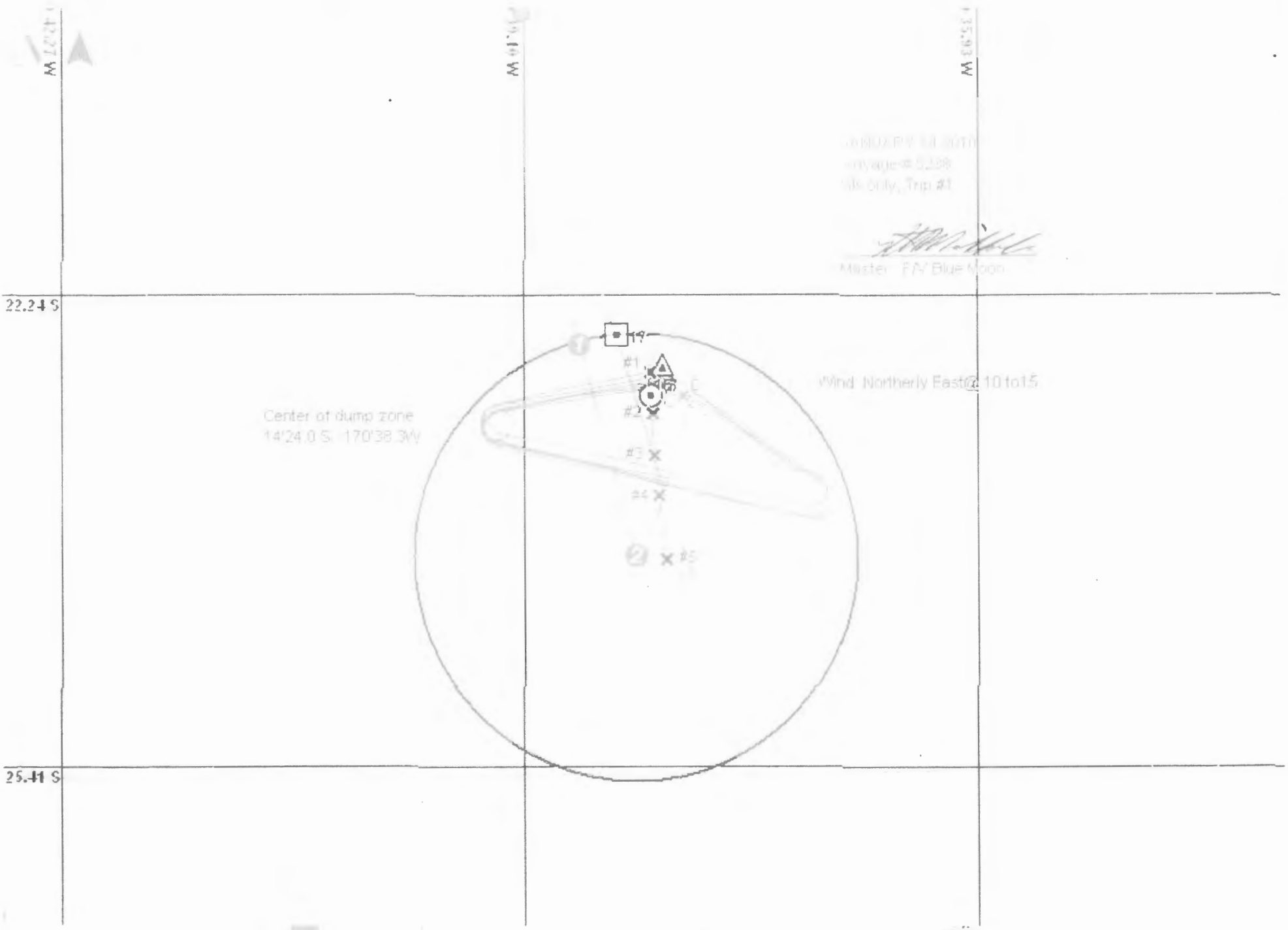
JANUARY 21 2010
Voyage # 5241
Skipjay Trip #1

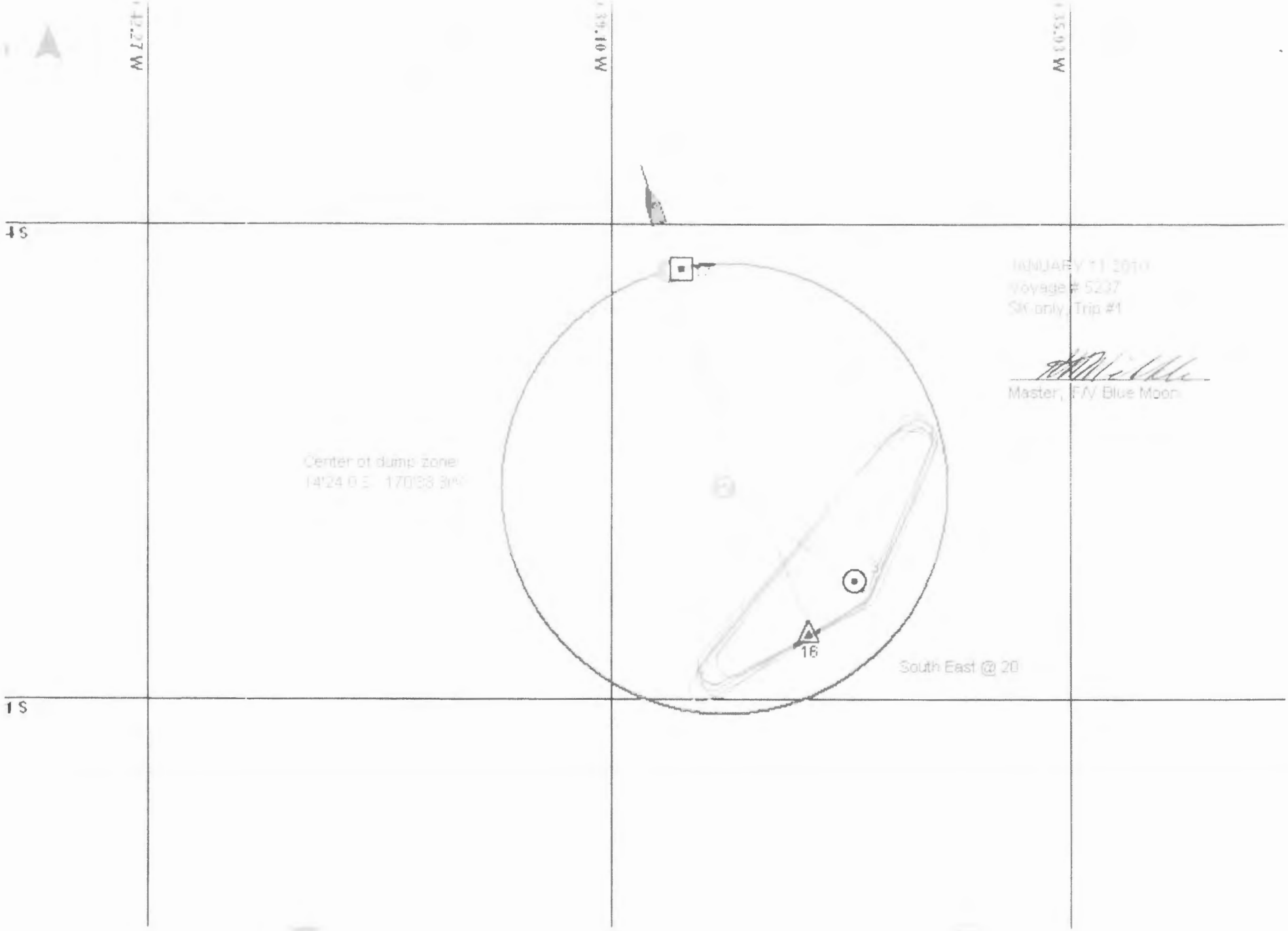
Master, F/V Blue Moon

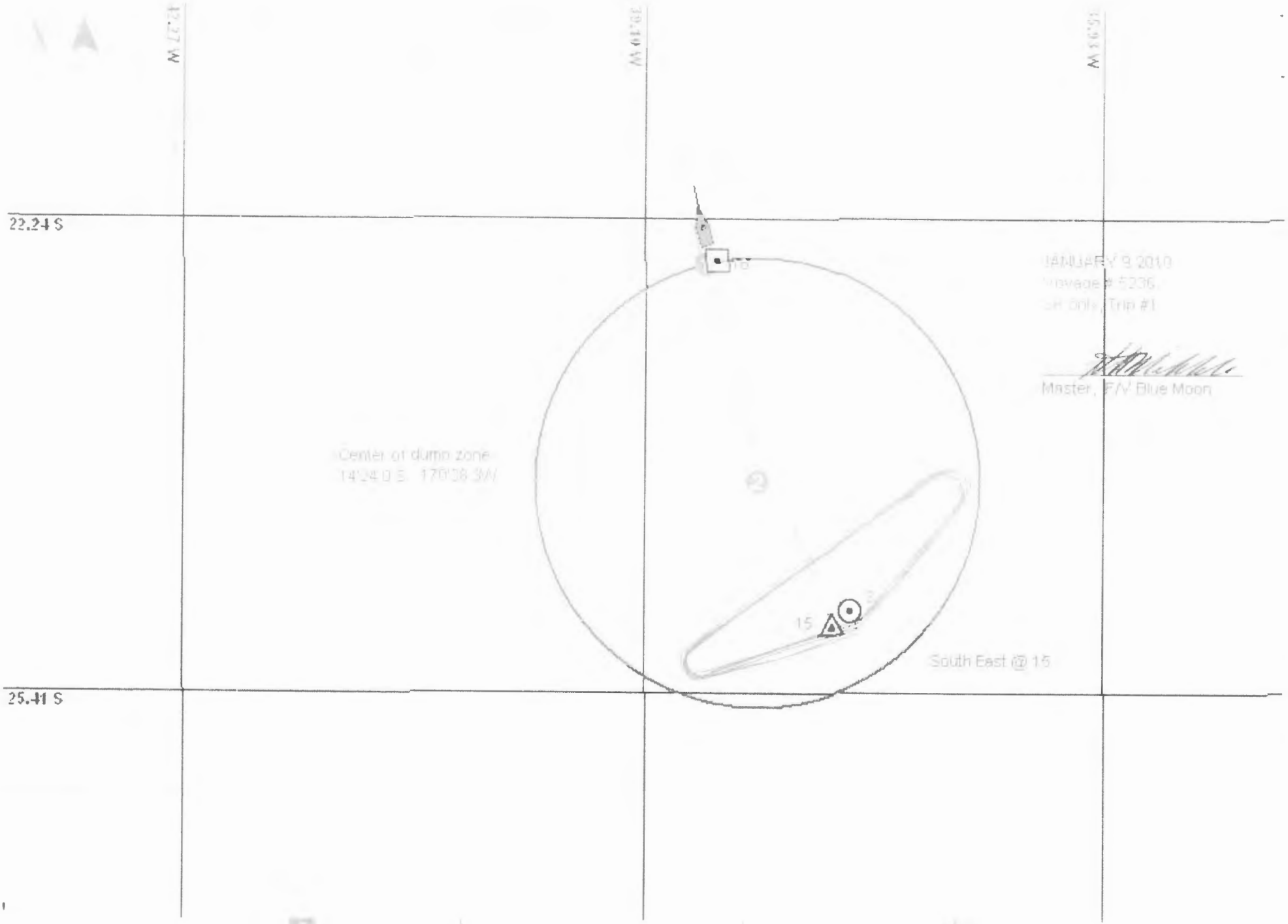


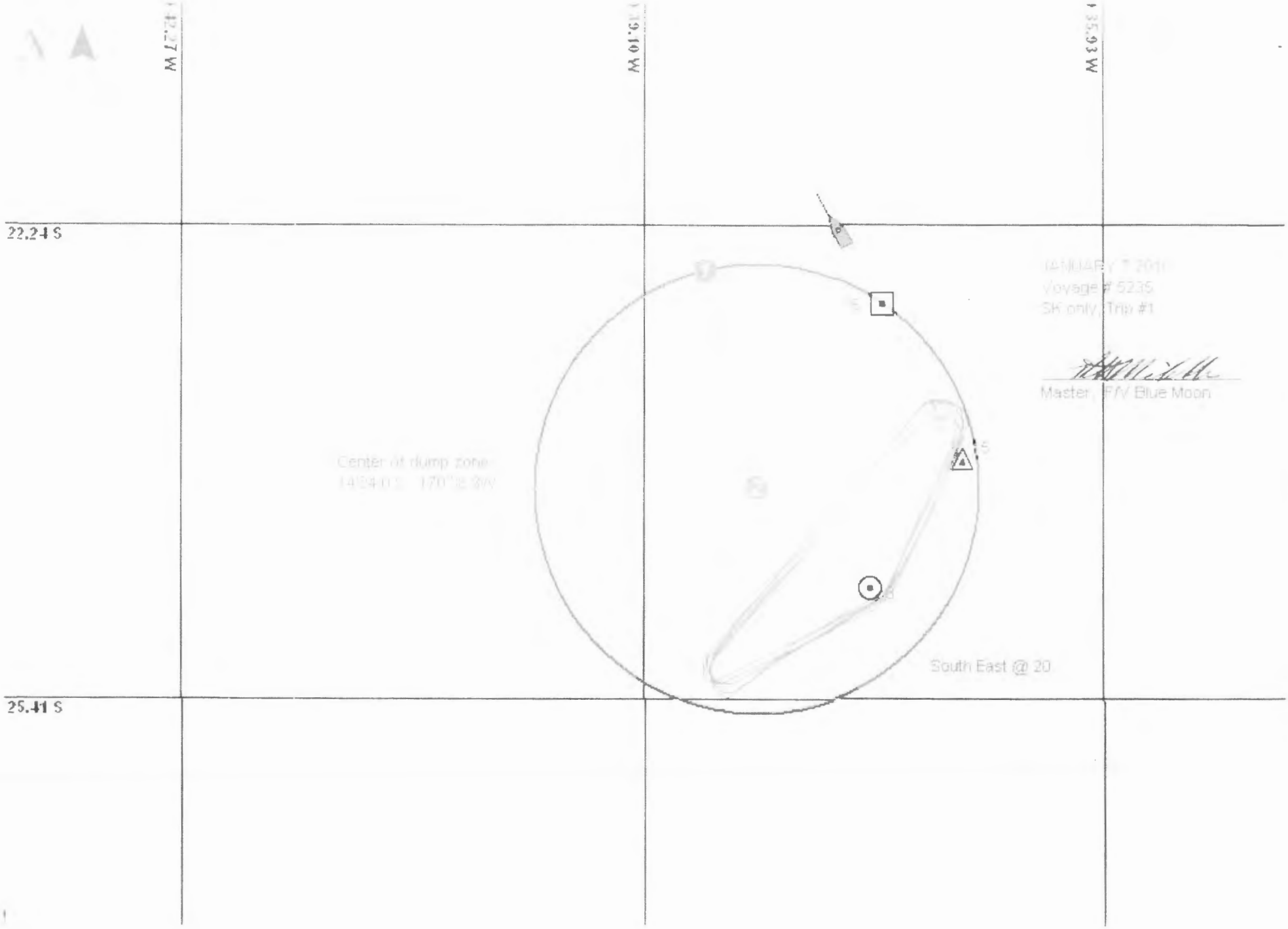

42.27 W
170.10 W
15.93 W
JANUARY 19 2010
Voyage # 5240
SK only, Trip #1
Master , F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
south east 20

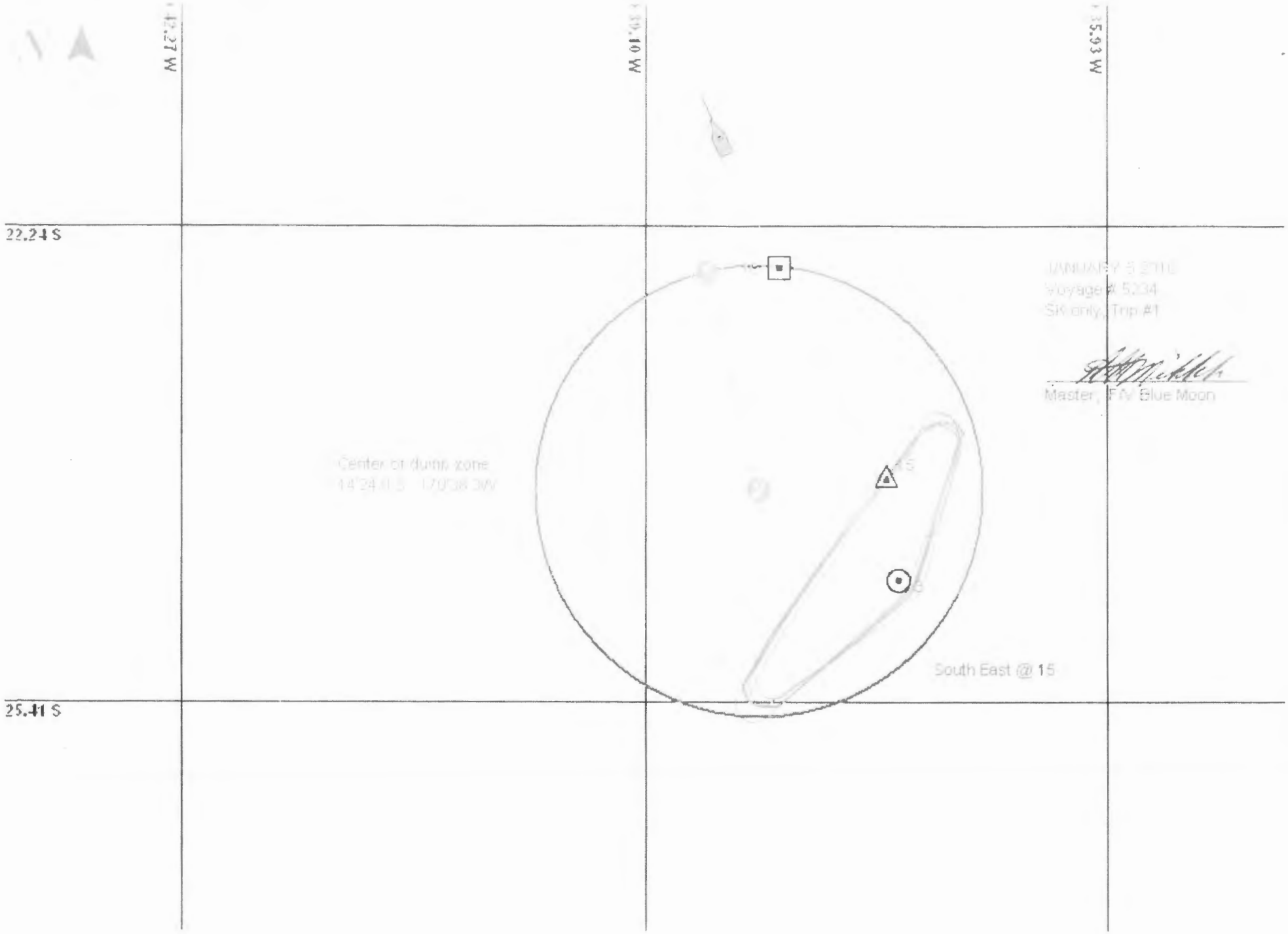

42.27 W
39.10 W
35.93 W
JANUARY 18 2010
Voyage # 5239
SK only, Trip #1
Master, F/V Blue Moon
22.24 S
25.41 S
Wind:NEly East@ 10 to15
Center of dump zone
14°24.0 S 170°38.3W
1
2
3
4
12
14


22.24 S
25.41 S
Center of dump zone
14°24.0 S, 170°38.3W
Wind: Northerly East@ 10 to15
#1
#2
#3
#4
#5
Master F/V Blue Moon


W
W
W
4 S
1 S
16
South East @ 20
Center of dump zone:
14°24.0 S 170°33.3W
JANUARY 11 2010
Voyage # 5237
Sk only Trip #1
Master, F/V Blue Moon


22.24 S
25.41 S
JANUARY 9 2010
Voyage # 5236
Jet Only Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
South East @ 15
15


22.24 S
25.41 S
South East @ 20
Center of dump zone
Voyage # 5235
Master, F/V Blue Moon


W 127.27 W
W 130.10 W
W 135.93 W
22.24 S
25.41 S
JANUARY 5 2010
Voyage # 5234
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°08.3W
South East @ 15

Date: 01/31/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5246

Permit # OD 93-01 & OD 93-02

Time	
1336	Begin Loading SK
1532	Finish Loading SK
1736	Begin Loading ~~SP~~
1738	Finish Loading ~~SP~~

Trip # 1

Trip # 2

Volume Loaded:		
SK	76 000	Gallons
SP	0	Gallons
Total	76 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0600	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.3			
0630	Arrive Edge of Zone	# 1	14*22.4	S	170*38.1	W		100	29.3	1.5	10	164°
0645	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		100	29.3	1.5	10	164°
0705	Begin Discharge	# 3	14*2 4.6	S	170*3 7.6	W	SE 15	100	29.3	1.5 X	9.7	139°
20		# 4	14*2 4.4	S	170*3 7.7	W	SE 20	100	29.3	1.5	10	223°
35	Remarks:	# 5	14*2 4.1	S	170*3 7.5	W	SE 20	70	29.3	1.5	9.4	063°
50		# 6	14*2 4.5	S	170*3 7.5	W	SE 20	70	29.3	1.5	10.1	326°
0705		# 7	14*2 4.5	S	170*3 7.2	W	SE 20	70	29.3	1.5 5	9.2	026°
20		# 8	14*2 4.5	S	170*3 7.6	W	SE 20	70	29.3	1.5	10	227°
35		# 9	14*2 4.9	S	170*3 7.2	W	SE 20	70	29.3	1.5	10	025°
50		# 10	14*2 4.9	S	170*3 7.2	W	SE 20	70	29.3	1.5	9.9	225°
0800		# 11	14*2 4.6	S	170*3 6	W	SE 20	70	29.3	1.5	9.5	024°
20		# 12	14*2 4.9	S	170*3 8.2	W	SE 20	70	29.3	1.5 10	10	225°
35		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1935	Finish Discharge	13	14*2 3.5	S	170*3 7.6	W	SE 20	90	29.3	1.5	10.5	264°
1945	Exit Discharge Zone	14	14*2 2.6	S	170*3 7.7	W	SE 20	80	29.3	1.5	10.2	313°
1930	Secure SK Dock		14*16.50'	S	170*41 2'	W						

Current Direction: At Center ____ End of Discharge ____ Discharge Pattern ____

Total Discharge Time 50 mins. Average Speed During Discharge ____ kts Total Time Run 11.5 hr

Navigational Plot made ____ Presence of Plume? ____

Time and position of any floating material: ____ Discharge Rate ____ Gallons/min/kts

Unusual Occurrences? ____

Notifications made A S P A ____ U S C G M S D ____ Master F/V Blue Moon ____

Date: 01/29/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5245

Permit # OD 93-01 & OD 93-02

Time		
1430	Begin Loading SK	
1700	Finish Loading SK	Trip # 1
1350	Begin Loading SP	Trip # 2
1770	Finish Loading SP	

Volume Loaded:		
SK	175000	Gallons
SP		Gallons
Total	175000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0500	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.4	Metric	kts	True*
0553	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	LAL	70	29.4	2	9.7	166
0602	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	LAL	70	29.4	2	9.5	165
0610	Begin Discharge	# 3	14*2 5.6	S	170*3 5.2	W	S 15	70	29.4	2 X	9.5	177
25		# 4	14*2 4.7	S	170*3 8.1	W	S LAL	70	29.4	2	10	176
40	Remarks:	# 5	14*2 5.0	S	170*3 7.6	W	S LAL	70	29.4	2	9.5	174
55		# 6	14*2 4.5	S	170*3 7.0	W	S 15	70	29.4	2	10	172
0710		# 7	14*2 5.1	S	170*3 7.7	W	S 15	50	29.4	2 5	9.4	174
25		# 8	14*2 4.5	S	170*3 7.7	W	S 15	50	29.4	2	10.2	167
40		# 9	14*2 4.9	S	170*3 7.3	W	S 15	50	29.4	2	9.5	178
55		# 10	14*2 5.6	S	170*3 7.1	W	S 15	50	29.4	2	10	166
0716		# 11	14*2 4.7	S	170*3 7.1	W	S 15	50	29.4	2	10	28
25		# 12	14*2 4.7	S	170*3 7.1	W	S 15	50	29.4	2 10	9.5	166
40		# 13	14*2 4.7	S	170*3 7.1	W	S 15	50	29.4	2	10	171
55		# 14	14*2 5.0	S	170*3 7.6	W	S 15	50	29.4	2	10.1	174
0710		# 15	14*2 4.7	S	170*3 5.6	W	S 15	50	29.4	2	9.5	171
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0715	Finish Discharge	16	14*2 5.0	S	170*3 5.3	W	S 15	70	29.4	2	9.1	172
0727	Exit Discharge Zone	17	14*2	S	170*3	W	[illegible]	70	29.4	2	10	171
0815	Secure SK Dock		14*16 50'	S	170*41.2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern Elliptical

Total Discharge Time 155 mins Average Speed During Discharge 9.5 kts Total Time Run 2.25 hr

Navigational Plot made yes Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon _____

Date: 01/27/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5244

Permit # OD 93-01 & OD 93-02

Time		
1330	Begin Loading SK	
1930	Finish Loading SK	Trip # 1
	Begin Loading SP	Trip # 2
	Finish Loading SP	

Volume Loaded:		
SK	[illegible]	Gallons
SP	[illegible]	Gallons
Total	166,000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True°
0500	Depart Starkist		14°16.50'	S	170° 41.2'	W			29.25			
0550	Arrive Edge of Zone	# 1	14°22.4	S	170°38.7	W		100	29.25	2	16.3	167°
0600	Arrive Zone Center	# 2	14°24.0	S	170°38.3	W		100	29.25	2	16	166°
0610	Begin Discharge	# 3	14°23.9	S	170°39.2	W	WxN 25	100	29.25	2 X	5.8	252°
25		# 4	14°23.5	S	170°39.2	W	WxN 25	100	29.25	2	5.5	275°
40	Remarks:	# 5	14°22.2	S	170°38.4	W	WxN 25	100	29.25	2	7.5	127°
55		# 6	14°23.9	S	170°38.5	W	WxN 25	100	29.25	2	16.5	253°
0710		# 7	14°23.4	S	170°39.2	W	WxN 25	100	29.25	2 5	5.9	251°
25		# 8	14°22.2	S	170°38.9	W	WxN 25	100	29.3	2	5.2	252°
40		# 9	14°23.5	S	170°38.9	W	WxN 25	100	29.3	2	5.5	251°
55		# 10	14°23.4	S	170°39.2	W	WxN 25	100	29.3	2	16.5	128°
0810		# 11	14°23.9	S	170°39.2	W	WxN 25	100	29.3	2	11	670°
25		# 12	14°23.5	S	170°39.3	W	WxN 25	100	29.3	2 10	11.2	126°
40		# 13	14°22.2	S	170°39.3	W	WxN 25	100	29.3	2	5.6	250°
55		# 14	14°22.3	S	170°39.3	W	WxN 25	100	29.3	2	5.6	256°
0910		# 15	14°22.3	S	170°39.4	W	WxN 25	100	29.3	2	5.7	276°
25		# 16	14°23.9	S	170°39.5	W	WxN 25	100	29.3	2	16.5	274°
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
0930	Finish Discharge	17	14°2	S	170°3	W	WxN 25	100	29.3	2	16.2	328°
0933	Exit Discharge Zone	19	14°2	S	170°3	W	WxN 25	100	29.3	2	11.3	342°
1620	Secure SK Dock		14°16 50'	S	170°41 2'	W						

Current Direction At Center [illegible] End of Discharge [illegible] Discharge Pattern Fig 8

Total Discharge Time [illegible] mins Average Speed During Discharge [illegible] kts Total Time Run [illegible] hr

Navigational Plot made [illegible] Presence of Plume? [illegible]

Time and position of any floating material [illegible] Discharge Rate [illegible] Gallons/min/kts

Unusual Occurrences? [illegible]

Notifications made A S P A [illegible] U S C G M S D [illegible] Master F/V Blue Moon [illegible]

Date: 01/25/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5243

Permit # OD 93-01 & OD 93-02

Time		
1400	Begin Loading SK	
2000	Finish Loading SK	Trip # 1
	Begin Loading SP	Trip # 2
	Finish Loading SP	

Volume Loaded:

SK	125000	Gallons
SP	0	Gallons
Total	125000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
										Metric		kts	True*
600	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.5				
633	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		100	29.5	1.5		16	169
700	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		100	29.5	1.5		16	129
715	Begin Discharge	# 3	14*2 3.2	S	170*3 2.5	W	NE 25	100	29.5	2	X	8.9	048
30		# 4	14*2 3.1	S	170*3 7.9	W	NE 25	100	29.5	2		9.1	049
45	Remarks:	# 5	14*2 3.7	S	170*3 5.4	W	NE 25	100	29.5	2		9	047
800		# 6	14*2 3.8	S	170*3 7.7	W	NE 25	100	29.5	2		10.5	212
5		# 7	14*2 3.4	S	170*3 7.1	W	NE 25	100	29.5	2	5	10.4	237
10		# 8	14*2 2.2	S	170*3 7.5	W	NE 25	100	29.5	2		9.5	057
15		# 9	14*2 4.1	S	170*3 7.5	W	NE 25	100	29.5	2		9.6	052
		# 10	14*2 [illegible]	S	170*3 [illegible]	W	NE 25	100	29.5	2		9.7	[illegible]
5		# 11	14*2 [illegible]	S	170*3 [illegible]	W	NE 25	100	29.5	2		9.5	[illegible]
10		# 12	14*2 [illegible]	S	170*3 [illegible]	W	NE 25	100	29.5	2	10	[illegible]	[illegible]
		# 13	14*2 [illegible]	S	170*3 [illegible]	W	NE 25	100	29.5	2		9.7	[illegible]
1600		# 14	14*2 2.5	S	170*3 7.4	W	NE 25	100	29.5	2		10	058
		# 15	14*2	S	170*3	W							
		# 16	14*2	S	170*3	W							
		# 17	14*2	S	170*3	W					15		
		# 18	14*2	S	170*3	W							
		# 19	14*2	S	170*3	W							
		# 20	14*2	S	170*3	W							
			14*2	S	170*3	W							
			14*2	S	170*3	W					20		
			14*2	S	170*3	W							
1600	Finish Discharge	14	14*2 [illegible]	S	170*3 [illegible]	W	NE 25	100	29.5	2		10	[illegible]
1612	Exit Discharge Zone	15	14*2 2.6	S	170*3 2.7	W	NE 25	100	[illegible]	2		[illegible]	[illegible]
	Secure SK Dock		14*16 50'	S	170*41.2'	W							

Current Direction: At Center SW End of Discharge SW Discharge Pattern [illegible]

Total Discharge Time 165 mins Average Speed During Discharge [illegible] kts Total Time Run [illegible] hr

Navigational Plot made [illegible] Presence of Plume? [illegible]

Time and position of any floating material: [illegible] Discharge Rate [illegible] Gallons/min/kts

Unusual Occurrences? [illegible]

Notifications made A S P A [illegible] U S C G M S D [illegible] Master F/V Blue Moon [illegible]

Date: 01/23/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5242

Permit # OD 93-01 & OD 93-02

Time	
1320	Begin Loading SK
1530	Finish Loading SK
1400	Begin Loading SP
1700	Finish Loading SP

Trip # 1

Trip # 2

Volume Loaded:

SK	175000	Gallons
SP	0	Gallons
Total	175000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
1600	Depart Starkist		14*16.50'	S	170* 41 2'	W		70	29.55	Metric	kts	True*
0650	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	CALM	70	29.55	1	9.5	160
0700	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		70	29.55	1	9.3	160
0710	Begin Discharge	# 3	14*2 7.5	S	170*3 7.2	W	VAR 10	70	29.5	1 X	9.5	125
0725		# 4	14*2 4.3	S	170*3 7.5	W	VAR 10	70	29.5	1.5	9.6	217
0730	Remarks:	# 5	14*2 4.7	S	170*3 7.3	W	VAR 10	70	29.5	1.5	9.4	053
0735		# 6	14*2 4.2	S	170*3 7.7	W	VAR 10	70	29.5	1.5	9.7	213
0740		# 7	14*2 4.9	S	170*3 7.6	W	VAR 10	70	29.5	1.5 5	9.5	059
0745		# 8	14*2 4.1	S	170*3 7.7	W	VAR 10	70	29.5	1.5	10.3	213
0750		# 9	14*2 4.7	S	170*3 7.3	W	VAR 10	70	29.5	1.5	9.4	032
0755		# 10	14*2 4.4	S	170*3 7.2	W	VAR 10	70	29.5	1.5	9.5	216
0800		# 11	14*2 5.6	S	170*3 7.7	W	VAR 10	70	29.5	1.5	9.7	059
0805		# 12	14*2 4.3	S	170*3 7.7	W	VAR 10	70	29.5	1.5 10	9.5	213
0810		# 13	14*2 4.6	S	170*3 7.7	W	VAR 10	70	29.5	1.5	9.5	059
0815		# 14	14*2 4.2	S	170*3 7.7	W	VAR 10	70	29.5	1.5	10.5	213
0820		# 15	14*2 4.7	S	170*3 7.6	W	VAR 10	70	29.5	1.5	9.5	059
0825		# 16	14*2 3.4	S	170*3 7.5	W	VAR 10	70	29.5	1.5	10.5	213
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0830	Finish Discharge		14*2	S	170*3	W						
0833	Exit Discharge Zone		14*2	S	170*3	W						
0837	Secure SK Dock		14*16 50'	S	170*41 2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon _____

Date: 01/21/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5241

Permit # OD 93-01 & OD 93-02

Time		
1400	Begin Loading SK	
1530	Finish Loading SK	
1326	~~Begin Loading~~ SP	
1630	~~Finish Loading~~ SP	

Trip # 1

Trip # 2

Volume Loaded: SK [illegible] Gallons

SP [illegible] Gallons

Total 162[illegible] Gallons

Time		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
635	Depart Starkist		14*16.50'	S	170* 41.2'	W		66	29.5			
634	Arrive Edge of Zone	# 1	14*22.4	S	170*38	W		66	29.5	1.5	9.2	162°
742	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		60	29.5	1.5	9.	166°
750	Begin Discharge	# 3	14*2 4.7	S	170*3 7.6	W	SE20	60	29.5	1.5 X	9	66°
805		# 4	14*2 4.6	S	170*3 7.6	W	SE20	60	29.5	1.5	9.5	227°
20	Remarks:	# 5	14*2 5.0	S	170*3 7.6	W	SE20	50	29.5	1.5	9.5	254°
35		# 6	14*2 4.3	S	170*3 7.7	W	SE20	90	29.5	1.5	9.9	229°
50		# 7	14*2 4.9	S	170*3 7.6	W	SE20	20	29.5	1.5 5	9.5	264°
1405		# 8	14*2 5.6	S	170*3 5.4	W	SE20	90	29.5	1.5	16	225°
20		# 9	14*2 4.5	S	170*3 7.2	W	SE20	50	29.5	1.5	16	232°
30		# 10	14*2 3.2	S	170*3 7.6	W	SE20	90	29.5	1.5	16	227°
1625		# 11	14*2 4.9	S	170*3 5.3	W	SE20	90	29.5	1.5	16.3	227°
		# 12	14*2	S	170*3	W				10		
		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1615	Finish Discharge	12	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1636	Exit Discharge Zone	13	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1735	Secure SK Dock		14*16 50'	S	170*41.2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time: 1[illegible] mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon _____

Date: 01/19/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5240

Permit # OD 93-01 & OD 93-02

Time					
1416	Begin Loading SK		Volume Loaded	SK	25 000 Gallons
1900	Finish Loading SK	Trip # 1		SP	0 Gallons
	Begin Loading SP	Trip # 2		Total	120 000 Gallons
	Finish Loading SP				

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
1616	Depart Starkist		14*16.50'	S	170* 41.2'	W		50	29.5			
1554	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		50	29.5	1.9	9.4	166
0600	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		80	29.5	1.5	9.5	164
0610	Begin Discharge	# 3	14*2 [illegible]	S	170*3 [illegible]	W	SE 15	50	29.5	1.5 X	9.5	219
25		# 4	14*2 [illegible]	S	170*3 [illegible]	W	SE 20	50	29.5	1.5	9.6	216
40	Remarks:	# 5	14*2 4.8	S	170*3 2.5	W	SE 20	50	29.5	1.5	9.6	053
55		# 6	14*2 [illegible]	S	170*3 2.5	W	SE 20	50	29.5	1.5	9.6	211
0710		# 7	14*2 5.3	S	170*3 5.2	W	SE 20	50	29.5	1.5 5	9.4	261
25		# 8	14*2 [illegible]	S	170*3 [illegible]	W	SE 20	50	29.5	1.5	9.5	[illegible]
40		# 9	14*2 [illegible]	S	170*3 [illegible]	W	SE 20	50	29.5	1.5	16	211
55		# 10	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	50	29.5	1.5	[illegible]	[illegible]
0810		# 11	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	29.5	1.5	16	[illegible]
25		# 12	14*2 [illegible]	S	170*3 [illegible]	W	SE 20	[illegible]	29.5	1.5 10	16	[illegible]
40		# 13	14*2 [illegible]	S	170*3 [illegible]	W	SE 20	[illegible]	29.5	[illegible]	[illegible]	[illegible]
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
	Finish Discharge		14*2 [illegible]	S	170*3 [illegible]	W						
	Exit Discharge Zone		14*2 [illegible]	S	170*3 [illegible]	W						
	Secure SK Dock		14*16 50'	S	170*41.2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon _____

Date: 01/16/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5239

Permit # OD 93-01 & OD 93-02

Time	
16[illegible]	Begin Loading SK
17.3[illegible]	Finish Loading SK
1[illegible]	Begin Loading SP
1[illegible]	Finish Loading SP

Trip # 1

Trip # 2

Volume Loaded: SK [illegible] Gallons; SP [illegible] Gallons; Total [illegible] Gallons

Time		WP#	GPS Position				Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
[illegible]	Depart Starkist		14*16.50'	S	170* 41.2'	W						
[illegible]	Arrive Edge of Zone	# 1	14*22.4	S	170*38.[illegible]	W	calm	50	29.55	1	[illegible]	[illegible]
[illegible]	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	calm	[illegible]	29.55	1	[illegible]	[illegible]
[illegible]	Begin Discharge	# 3	14*2[illegible]	S	170*3[illegible]	W	calm	[illegible]	[illegible]	1 X	[illegible]	[illegible]
[illegible]		# 4	14*2[illegible]	S	170*3[illegible]	W	NE 15	[illegible]	[illegible]	1	[illegible]	169
[illegible]	Remarks.	# 5	14*2[illegible]	S	170*3[illegible]	W	NE 15	50	29.5	1	[illegible]	[illegible]
[illegible]		# 6	14*2[illegible]	S	170*3[illegible]	W	NE 15	50	29.5	1	[illegible]	169
[illegible]		# 7	14*2 4.4	S	170*3[illegible]	W	NE 15	50	29.5	1 5	[illegible]	[illegible]
[illegible]		# 8	14*2[illegible]	S	170*3[illegible]	W	NE 15	50	29.5	1	[illegible]	[illegible]
[illegible]		# 9	14*2[illegible]	S	170*3[illegible]	W	NE 15	50	29.5	1	[illegible]	[illegible]
[illegible]		# 10	14*2[illegible]	S	170*3[illegible]	W	NE 15	50	29.5	1	[illegible]	[illegible]
[illegible]		# 11	14*2[illegible]	S	170*3[illegible]	W	NE 15	50	29.5	1	[illegible]	[illegible]
[illegible]		# 12	14*2	S	170*3	W	NE 15	50	29.5	1 10	[illegible]	[illegible]
		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
[illegible]	Finish Discharge	[illegible]	14*2	S	170*3	W	NE 15	50	29.5	1	[illegible]	[illegible]
[illegible]	Exit Discharge Zone	[illegible]	14*2	S	170*3	W	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]
[illegible]	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction At Center ____ End of Discharge ____ Discharge Pattern [illegible]

Total Discharge Time ____ mins Average Speed During Discharge [illegible] kts. Total Time Run [illegible] hr

Navigational Plot made ____ Presence of Plume? ____

Time and position of any floating material ____ Discharge Rate ____ Gallons/min/kts

Unusual Occurrences? ____

Notifications made A S P A ____ U S C G M S D ____ Master F/V Blue Moon ____

Date: 01/14/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5238

Permit # OD 93-01 & OD 93-02

Time	
570	Begin Loading SK
1730	Finish Loading SK
[illegible]	Begin Loading SP
[illegible]	Finish Loading SP

Trip # 1

Trip # 2

Volume Loaded		
SK	187 500	Gallons
SP	0	Gallons
Total	187 500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0516	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.5	Metric	kts	True*
0550	Arrive Edge of Zone	# 1	14*22.4	S	170*38.1	W		100	29.5	1	9.8	163°
0555	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		100	29.5	1	9.8	166°
0615	Begin Discharge	# 3	14*2 [illegible]	S	170*3 [illegible]	W	NE 15	100	29.5	1 X	9	276°
30		# 4	14*2 2.1	S	170*3 9.1	W	NNE 15	100	29.5	1	9.4	165°
45	Remarks:	# 5	14*2 2.3	S	170*3 7.3	W	NNW 15	100	29.5	1	9.6	257°
0700		# 6	14*2 5.2	S	170*3 9.2	W	NNW 15	100	29.5	1	9.7	165°
15	0610 water	# 7	14*2 2.5	S	170*3 6.9	W	N 15	100	29.5	1 5	9.3	355°
30	sample	# 8	14*2 2.9	S	170*3 5.7	W	N 15	100	29.5	1	10.1	261°
45		# 9	14*2 [illegible]	S	170*3 [illegible]	W	N 15	100	29.5	1	9.5	166°
0800		# 10	14*2 [illegible]	S	170*3 5.3	W	NE 15	100	29.5	1	10.3	262°
		# 11	14*2 [illegible]	S	170*3 [illegible]	W	NE 15	100	29.5	1	9.7	154°
		# 12	14*2 [illegible]	S	170*3 [illegible]	W	NE 15	[illegible]	[illegible]	1 10	[illegible]	[illegible]
		# 13	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	29.5	1	[illegible]	[illegible]
0900		# 14	14*2 [illegible]	S	170*3 [illegible]	W	NNE 15	30	29.5	1	10.1	304°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0910	Finish Discharge	16	14*2 [illegible]	S	170*3 [illegible]	W	NE 15	50	29.5	1	10.1	[illegible]
1015	Exit Discharge Zone	17	14*2 [illegible]	S	170*3 [illegible]	W	NE 15	50	29.5	1	10.1	304°
[illegible]	Secure SK Dock		14*16 50'	S	170*41 2'	W						

Current Direction: At Center [illegible] End of Discharge [illegible] Discharge Pattern [illegible]

Total Discharge Time [illegible] mins Average Speed During Discharge [illegible] kts. Total Time Run 5.15 hr

Navigational Plot made [illegible] Presence of Plume? [illegible]

Time and position of any floating material [illegible] Discharge Rate [illegible] Gallons/min/kts

Unusual Occurrences? [illegible]

Notifications made A S P A [illegible] U S C G M S D [illegible] Master F/V Blue Moon [illegible]

Date: 01/12/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5237

Permit # OD 93-01 & OD 93-02

Time		
[illegible]	Begin Loading SK	
[illegible]	Finish Loading SK	
	Begin Loading SP	
	Finish Loading SP	

Trip # 1

Trip # 2

Volume Loaded		
SK	[illegible]	Gallons
SP	[illegible]	Gallons
Total	[illegible]	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
[illegible]	Depart Starkist		14*16.50'	S	170* 41.2'	W			[illegible]	Metric	kts	True*
[illegible]	Arrive Edge of Zone	# 1	14*22.[illegible]	S	170*38.[illegible]	W		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Begin Discharge	# 3	14*2[illegible]	S	170*3[illegible]	W	SE 15	[illegible]	[illegible]	[illegible] X	[illegible]	[illegible]
[illegible]		# 4	14*2[illegible]	S	170*3[illegible]	W	SE 15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Remarks.	# 5	14*2[illegible]	S	170*3[illegible]	W	SE 15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		# 6	14*2[illegible]	S	170*3[illegible]	W	SE 15	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		# 7	14*2[illegible]	S	170*3[illegible]	W	SE 20	[illegible]	[illegible]	[illegible] 5	[illegible]	[illegible]
[illegible]		# 8	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		# 9	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		# 10	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		# 11	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		# 12	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	10	[illegible]	[illegible]
[illegible]		# 13	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]		# 14	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		# 15	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
[illegible]	Finish Discharge	[illegible]	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Exit Discharge Zone	[illegible]	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center [illegible] End of Discharge [illegible] Discharge Pattern [illegible]

Total Discharge Time [illegible] mins Average Speed During Discharge [illegible] kts Total Time Run [illegible] hr

Navigational Plot made [illegible] Presence of Plume? [illegible]

Time and position of any floating material [illegible] Discharge Rate [illegible] Gallons/min/kts

Unusual Occurrences? [illegible]

Notifications made A S P A [illegible] U S C G M S D [illegible] Master: F/V Blue Moon [illegible]

Date: 01/09/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5236

Permit # OD 93-01 & OD 93-02

Time	
20	Begin Loading SK
1611	Finish Loading SK
1500	Begin Loading SP
2600	Finish Loading SP

Trip # 1

Trip # 2

Volume Loaded		
SK	172500	Gallons
SP	0	Gallons
Total	172500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
516	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.5	Metric	kts	True*
0543	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		40	29.5	1.5	9.2	166
0552	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 15	40	29.5	1.5	9	160
0600	Begin Discharge	# 3	14*24.7	S	170*37.7	W	SE 15	40	29.5	1.5 X	9.1	142
5		# 4	14*24.1	S	170*37.2	W	SE 15	40	29.5	1.5	9.5	237
30	Remarks:	# 5	14*25.1	S	170*38.3	W	SE 15	20	29.5	1.5	9	274
15		# 6	14*24.1	S	170*37.3	W	SE 15	20	29.5	1.5	9.5	236
0700		# 7	14*25.2	S	170*35.5	W	SE 15	20	29.45	1.5 5	9	277
5		# 8	14*23.9	S	170*37.1	W	SE 15	20	29.45	1.5	9.9	241
30		# 9	14*25.2	S	170*36.6	W	SE 15	20	29.45	1.5	9.1	272
45		# 10	14*24.6	S	170*37.1	W	SE 15	20	29.45	1.5	10.2	245
0800		# 11	14*25.2	S	170*35.5	W	SE 15	20	29.45	1.5	9.3	273
5		# 12	14*23.9	S	170*37.1	W	SE 15	20	29.45	1.5 10	10.4	241
30		# 13	14*25.2	S	170*36.4	W	SE 15	20	29.45	1.5	9.5	272
45		# 14	14*24.1	S	170*37.1	W	SE 15	20	29.45	1.5	10.3	235
0900		# 15	14*25.1	S	170*35.1	W	SE 15	20	29.45	1.5	10.5	272
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
	Finish Discharge		14*2	S	170*3	W						
	Exit Discharge Zone		14*2	S	170*3	W						
	Secure SK Dock		14*16 50'	S	170*41 2'	W						

Current Direction: At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon _____

Date: 01/07/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5235

Permit # OD 93-01 & OD 93-02

Time					
[illegible]	Begin Loading SK		Volume Loaded:	SK	150 000 Gallons
2010	Finish Loading SK	Trip # 1		SP	- Gallons
	Begin Loading SP	Trip # 2		Total	150 000 Gallons
	Finish Loading SP				

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
516	Depart Starkist		14*16.50'	S	170* 41 2'	W			29.5	Metric	kts	True*
4 3	Arrive Edge of Zone	# 1	14*22 4	S	170*38.7	W		50	29 5	1.5	8.1	165
0600	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE15	50	29.5	1.5	8.9	162
0610	Begin Discharge	# 3	14*2 4.6	S	170*3 1.3	W	SE20	50	29.5	1.5 X	9.1	027
25		# 4	14*2 4.6	S	170*3 1.7	W	SE20	50	29.5	1.5	9.3	217
7	Remarks	# 5	14*2 5.6	S	170*3 5.0	W	SE20	50	29.5	1.5	8.8	065
50		# 6	14*2 3.6	S	170*3 1.2	W	SE20	50	29.5	1.5	8.5	225
716		# 7	14*2 5.2	S	170*3 5.4	W	SE20	50	29.5	1.5 5	8.5	067
25		# 8	14*2 4.1	S	170*3 7.1	W	SE20	50	29.5	1.5	7.2	025
1		# 9	14*2 4.7	S	170*3 5.2	W	SE20	50	29.5	1.5	8.7	227
55		# 10	14*2 1.4	S	170*3 7.2	W	SE20	50	29.5	1.5	8.7	225
[illegible]		# 11	14*2 4.1	S	170*3 2.7	W	SE20	50	29.5	1.5	10.1	232
25		# 12	14*2 4.3	S	170*3 2.1	W	SE20	50	29.5	1.5 10	9.6	225
1		# 13	14*2 [illegible]	S	170*3 2.9	W	SE20	50	29.5	1.5	6.0	222
25		# 14	14*2 4.5	S	170*3 2.6	W	SE20	50	29.5	1.5	9.1	221
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
7	Finish Discharge	5	14*2 1.5	S	170*3 [illegible]	W	[illegible]	5	[illegible]	1.5	[illegible]	[illegible]
[illegible]	Exit Discharge Zone	[illegible]	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Secure SK Dock		14*16 50'	S	170*41 2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A.S.P.A. _____ U.S.C.G.M.S.D. _____ Master F/V Blue Moon _____

Date: 01/05/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5234

Permit # OD 93-01 & OD 93-02

Time		
1500	Begin Loading SK	
2000	Finish Loading SK	Trip # 1
	Begin Loading SP	Trip # 2
	Finish Loading SP	

Volume Loaded:		
SK	145 000	Gallons
SP	0	Gallons
Total	145 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True°
0500	Depart Starkist		14°16.50'	S	170° 41.2'	W			29.45			
0545	Arrive Edge of Zone	# 1	14°22.4	S	170°38.7	W		10	29.45	1.5	9.7	166°
0553	Arrive Zone Center	# 2	14°24.0	S	170°38.3	W		10	29.45	1.5	9.7	165°
0600	Begin Discharge	# 3	14°2 4.5	S	170°3 7.2	W	SE 15	70	29.45	1.5 X	9.8	025°
15		# 4	14°2 3.9	S	170°3 7.4	W	SE 15	70	29.45	1.5	10	214°
30	Remarks:	# 5	14°2 5.0	S	170°3 7.6	W	SE 15	70	29.45	1.5	9.1	044°
45		# 6	14°2 3.9	S	170°3 7.5	W	SE 15	50	29.45	1.5	10	215°
700		# 7	14°2 5.2	S	170°3 7.4	W	SE 15	50	29.45	1.5 5	9.3	051°
		# 8	14°2 3.9	S	170°3 7.4	W	SE 15	50	29.45	1.5	10.2	229°
30		# 9	14°2 4.8	S	170°3 7.4	W	SE 15	50	29.45	1.5	9.2	218°
45		# 10	14°2 3.5	S	170°3 7.3	W	SE 15	50	29.45	1.5	10.2	226°
800		# 11	14°2 [illegible]	S	170°3 7.6	W	SE 15	50	29.45	1.5	9.3	[illegible]
15		# 12	14°2 [illegible]	S	170°3 [illegible]	W	SE 15	50	29.45	1.5 10	[illegible]	226°
30		# 13	14°2 [illegible]	S	170°3 [illegible]	W	SE 15	50	29.45	1.5	9.5	215°
45		# 14	14°2 [illegible]	S	170°3 [illegible]	W	SE 15	50	29.45	1.5	10.5	214°
		# 15	14°2	S	170°3	W						
		# 16	14°2	S	170°3	W						
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
0856	Finish Discharge	15	14°2 [illegible]	S	170°3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
0857	Exit Discharge Zone	16	14°2 [illegible]	S	170°3 [illegible]	W	SE 15	50	[illegible]	[illegible]	[illegible]	[illegible]
0945	Secure SK Dock		14°16.50'	S	170°41.2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U.S.C.G M S D _____ Master F/V Blue Moon _____

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON January ~~2009~~ 2010

NUMBER OF TRIPS	SK:	SP:	JOINT:	TOTAL
	13	0	0	13

GALLONS-FOR THE MONTH	SK:	SP:	JOINT:	TOTAL:
	2,062,500	0	0	2,062,500

GALLONS FOR SOLO TRIPS:	SK	SP
	2,062,500	0

RUNNING TIME ON TRIPS	65.6 hrs.
DISCHARGE TIME ON TRIPS	37.5 hrs
AV GPM DISCHARGE RATE	95.4 g/m/k
AV TRIP TIME	5.04 hrs

AV PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK	COS:
100.00%	0.00%

MASTER

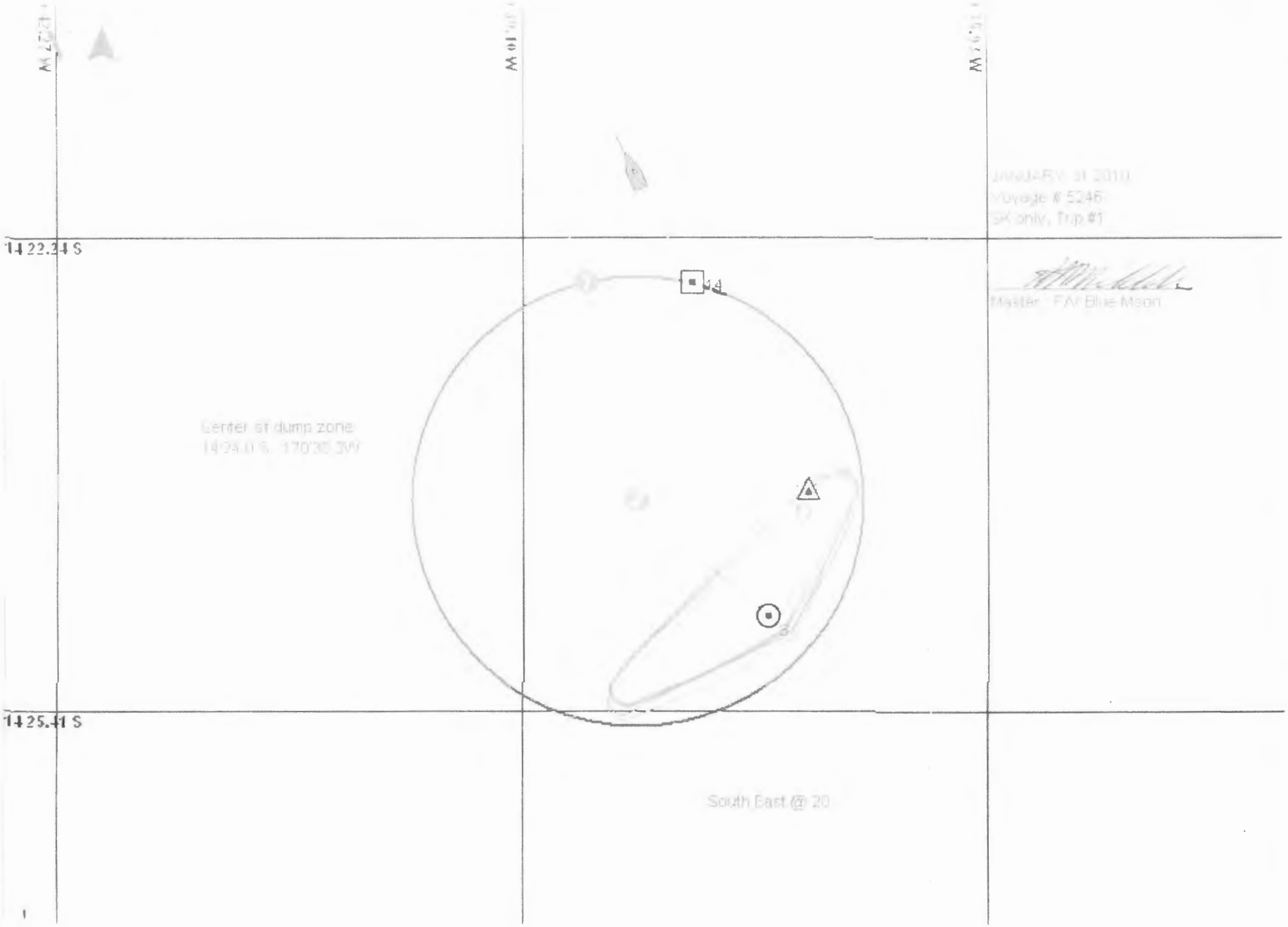
STAR KIST SAMOA CO
WATER TREATMENT DEPARTMENT

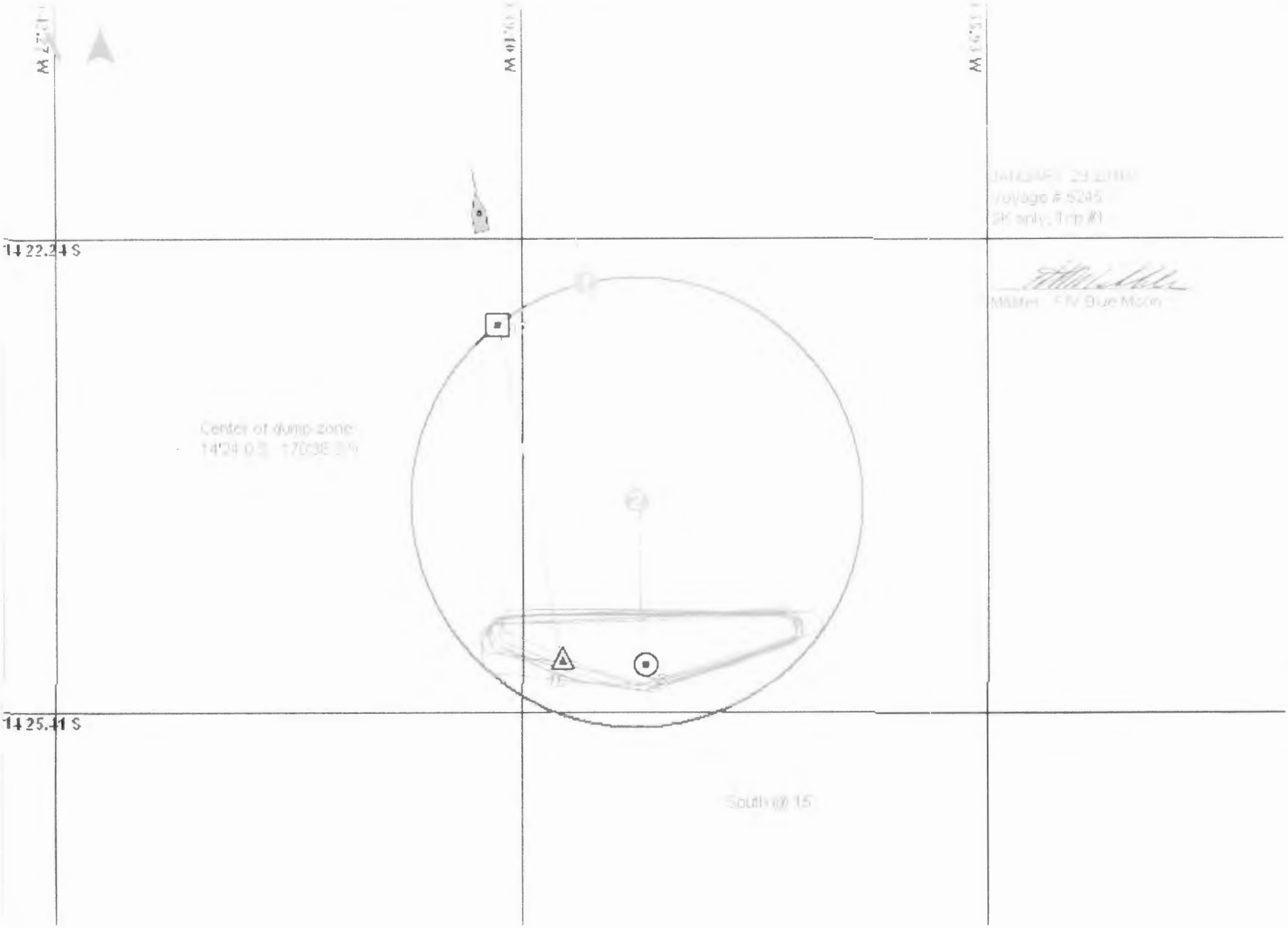
BLUE MOON - OCEAN DUMPING LOG

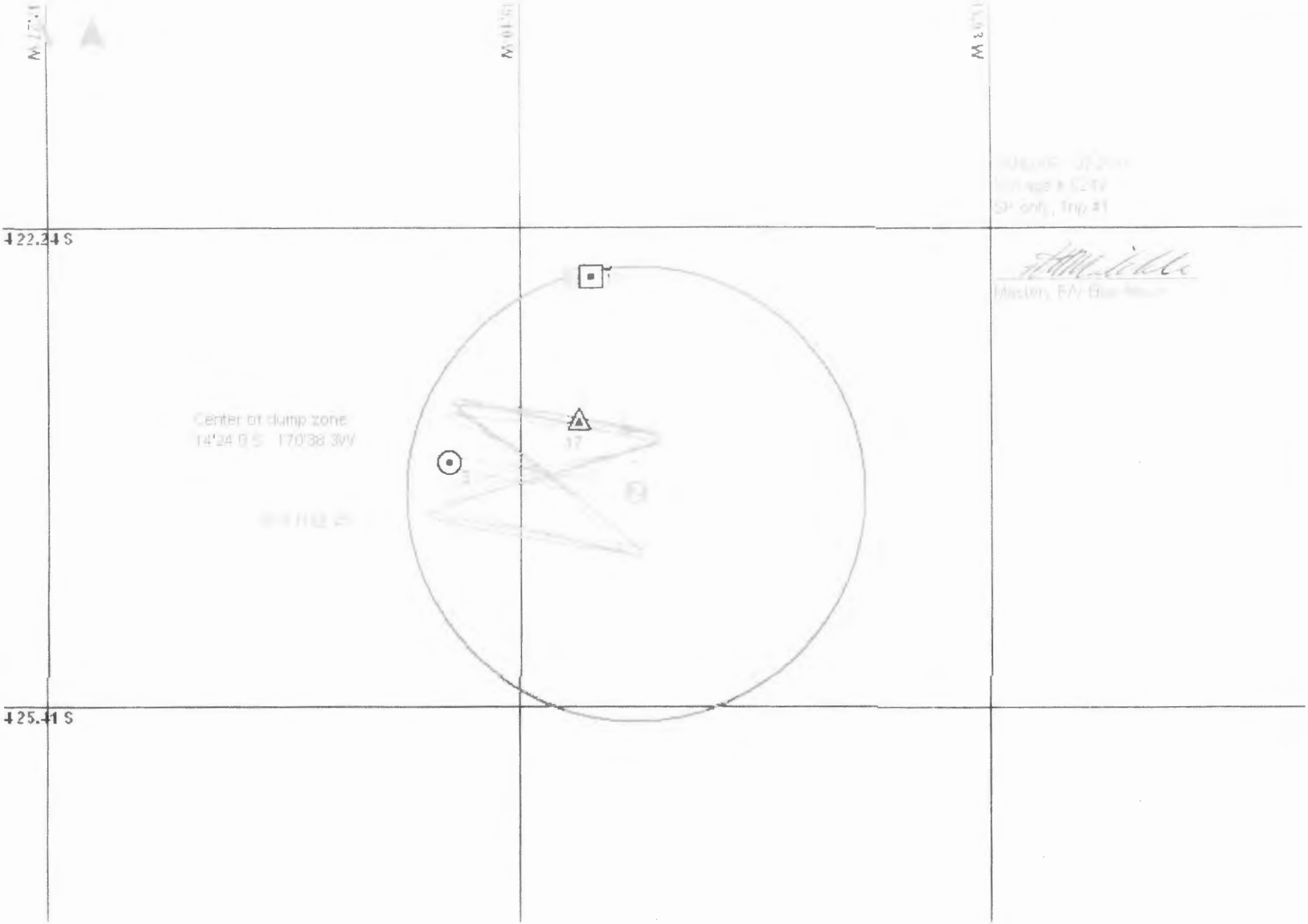
February 01, 2010

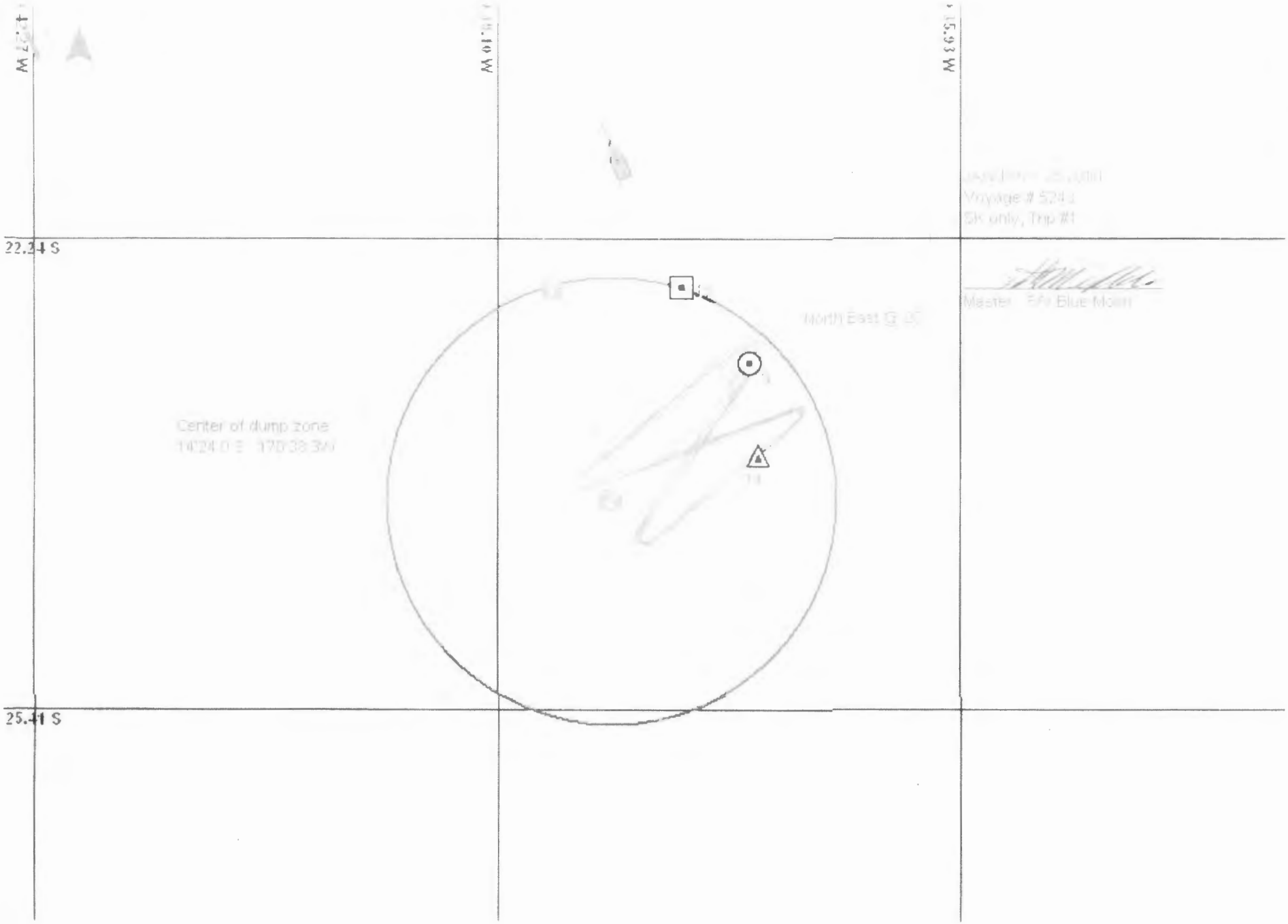
Trip Date	1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Total Volume
[illegible]	1st Trip	NONE	0	2nd Trip	NONE	0
[illegible]	1st Trip	NONE	0	2nd Trip	NONE	0
[illegible]	1st Trip	NONE	0	2nd Trip	NONE	0
[illegible]	1st Trip	1500[illegible] (145000)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	1450[illegible]	2nd Trip	NONE	0
[illegible]	1st Trip	1410[illegible] (180000)		2nd Trip	NONE	0
[illegible]	1st Trip	1520[illegible] (42500)	180000	2nd Trip	NONE	0
[illegible]	1st Trip	1500[illegible] (130000)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	172500	2nd Trip	NONE	0
[illegible]	1st Trip	NONE	0	2nd Trip	NONE	0
[illegible]	1st Trip	1500[illegible]		2nd Trip	NONE	0
[illegible]	1st Trip	1530[illegible] (52500)	130000	2nd Trip	NONE	0
[illegible]	1st Trip	1500[illegible] (135000)		2nd Trip	NONE	0
[illegible]	1st Trip	1600[illegible] (37500)	187500	2nd Trip	NONE	0
[illegible]	1st Trip	1500[illegible] (122500)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	160000	2nd Trip	NONE	0
[illegible]	1st Trip	NONE	0	2nd Trip	NONE	0
[illegible]	1st Trip	1400[illegible] (120000)		2nd Trip	NONE	0
[illegible]	1st Trip	1400[illegible] (47500)	120000	2nd Trip	NONE	0
[illegible]	1st Trip	1330[illegible] (115000)		2nd Trip	NONE	0
[illegible]	1st Trip	1330[illegible] (60000)	162500	2nd Trip	NONE	0
[illegible]	1st Trip	1400[illegible] (115000)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	175000	2nd Trip	NONE	0
[illegible]	1st Trip	1400[illegible] (125000)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	125000	2nd Trip	NONE	0
[illegible]	1st Trip	1330[illegible] (160000)		2nd Trip	NONE	0
[illegible]	1st Trip	1430[illegible] (57500)	160000	2nd Trip	NONE	0
[illegible]	1st Trip	1330[illegible] (117500)		2nd Trip	NONE	0
[illegible]	1st Trip	1330[illegible] (60000)	175000	2nd Trip	NONE	0
[illegible]	1st Trip	1330[illegible] (110000)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	170000	2nd Trip	NONE	0
TOTAL	1st Trip		2062500	2nd Trip		0
					Total 1st & 2nd	2,062,500

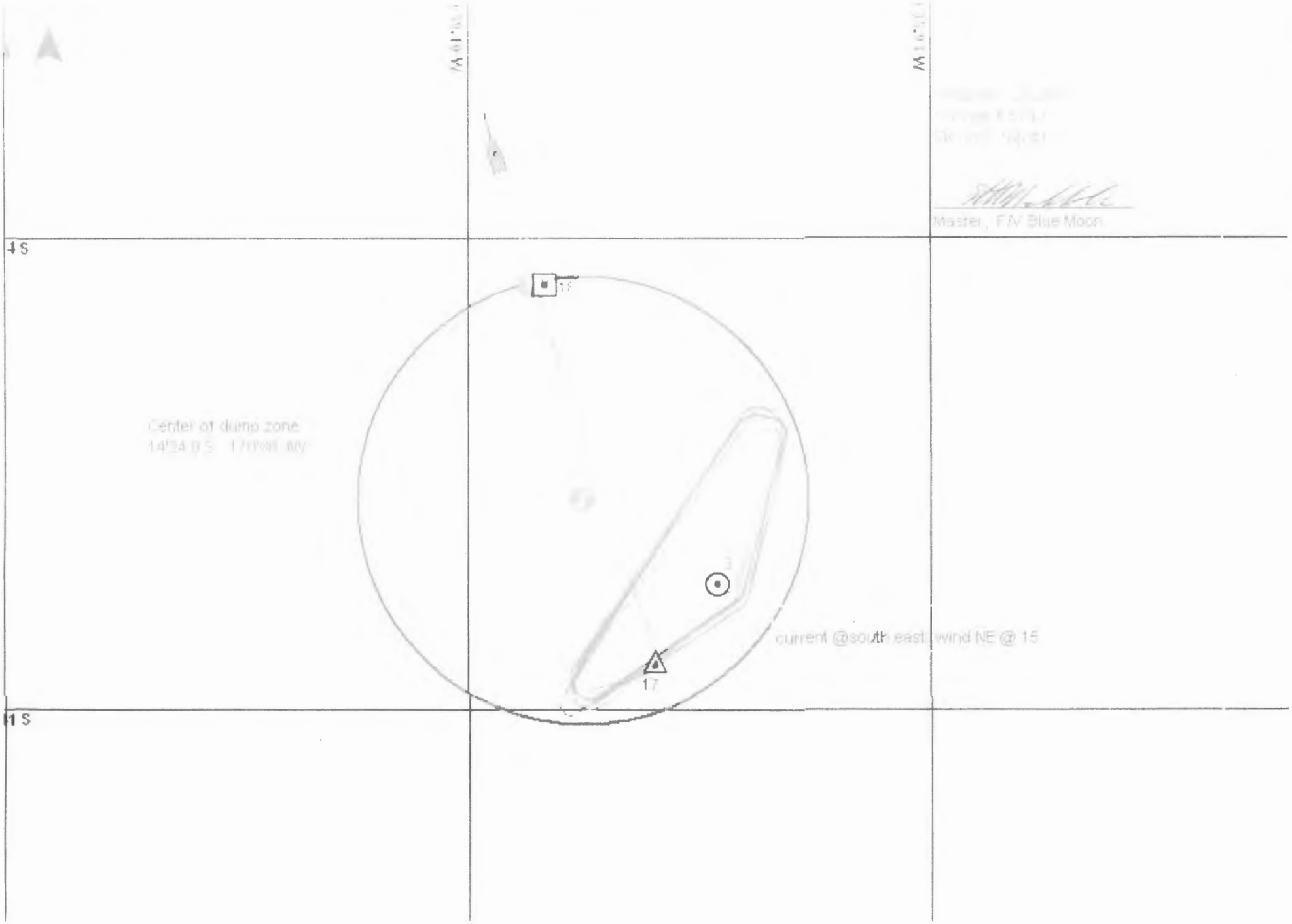
Prepared by W W

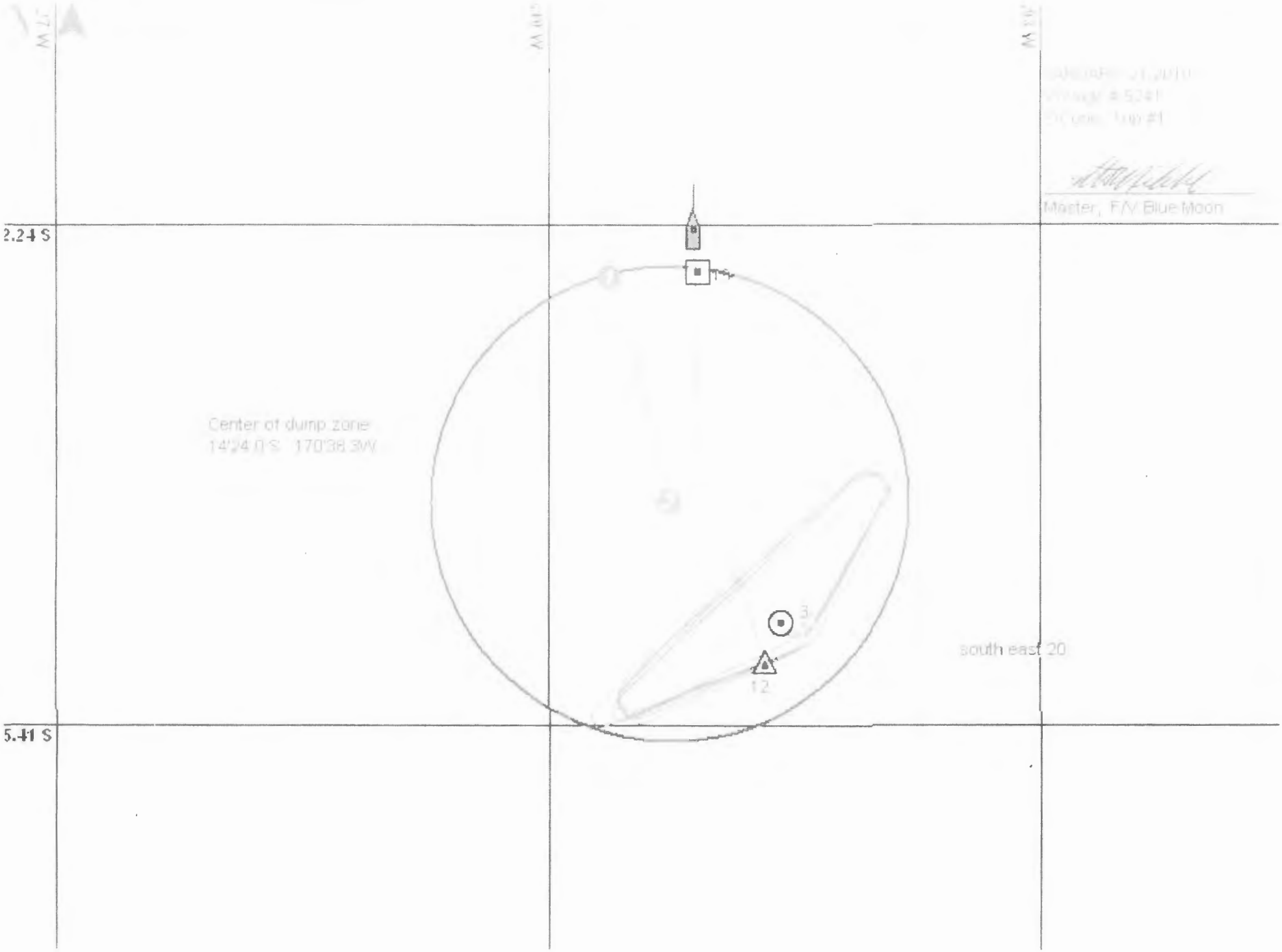

14 22.34 S
14 25.41 S
Center of dump zone
14°24.01'S, 170°35.3'W
South East @ 20
JANUARY 31 2010
Voyage # 5246
SK only, Trip #1
Master - F/V Blue Moon

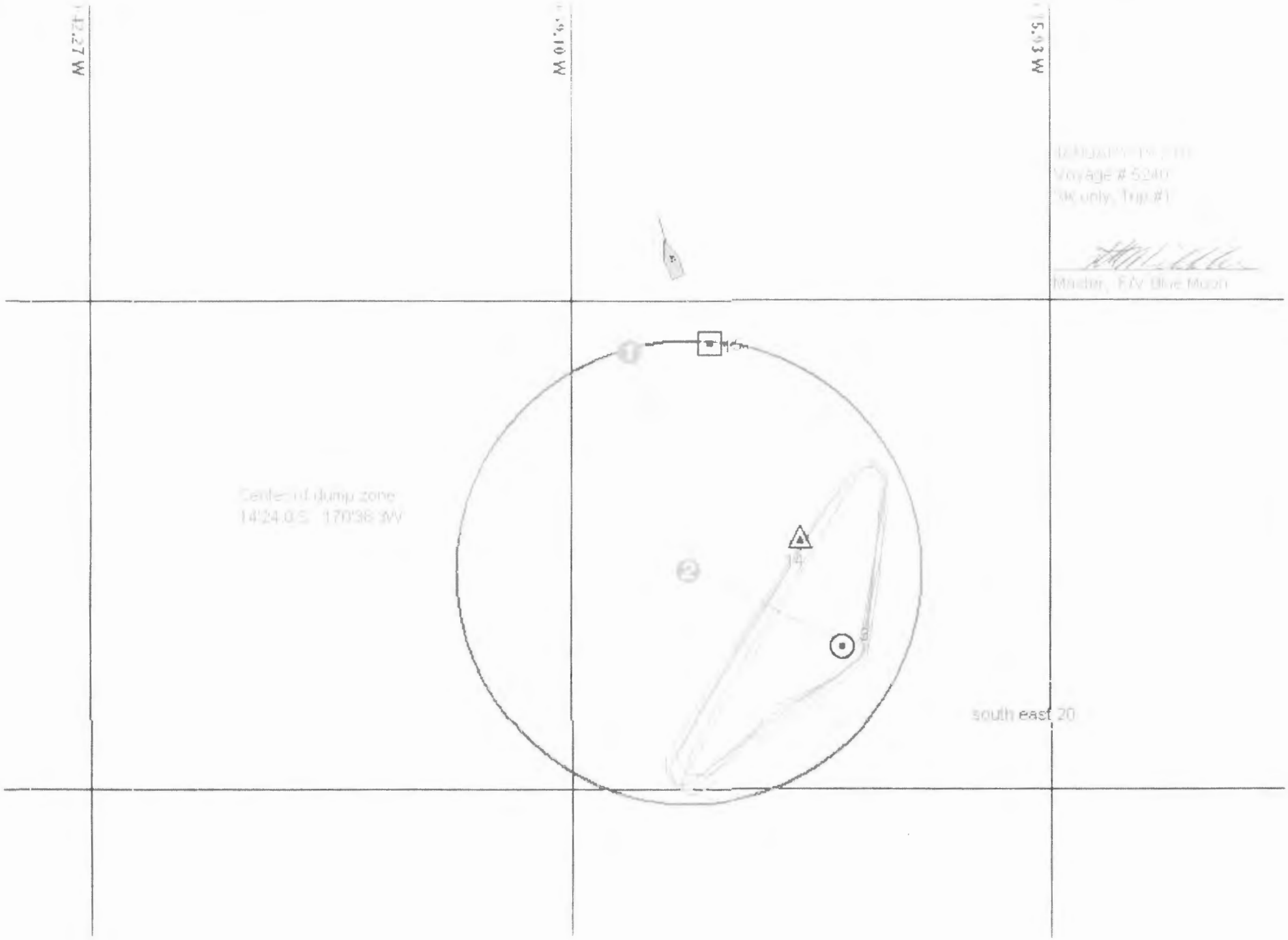

14 22.24 S
14 25.41 S
Center of dump zone:
Voyage # 5245
Master: FV Blue Moon
South @ 15

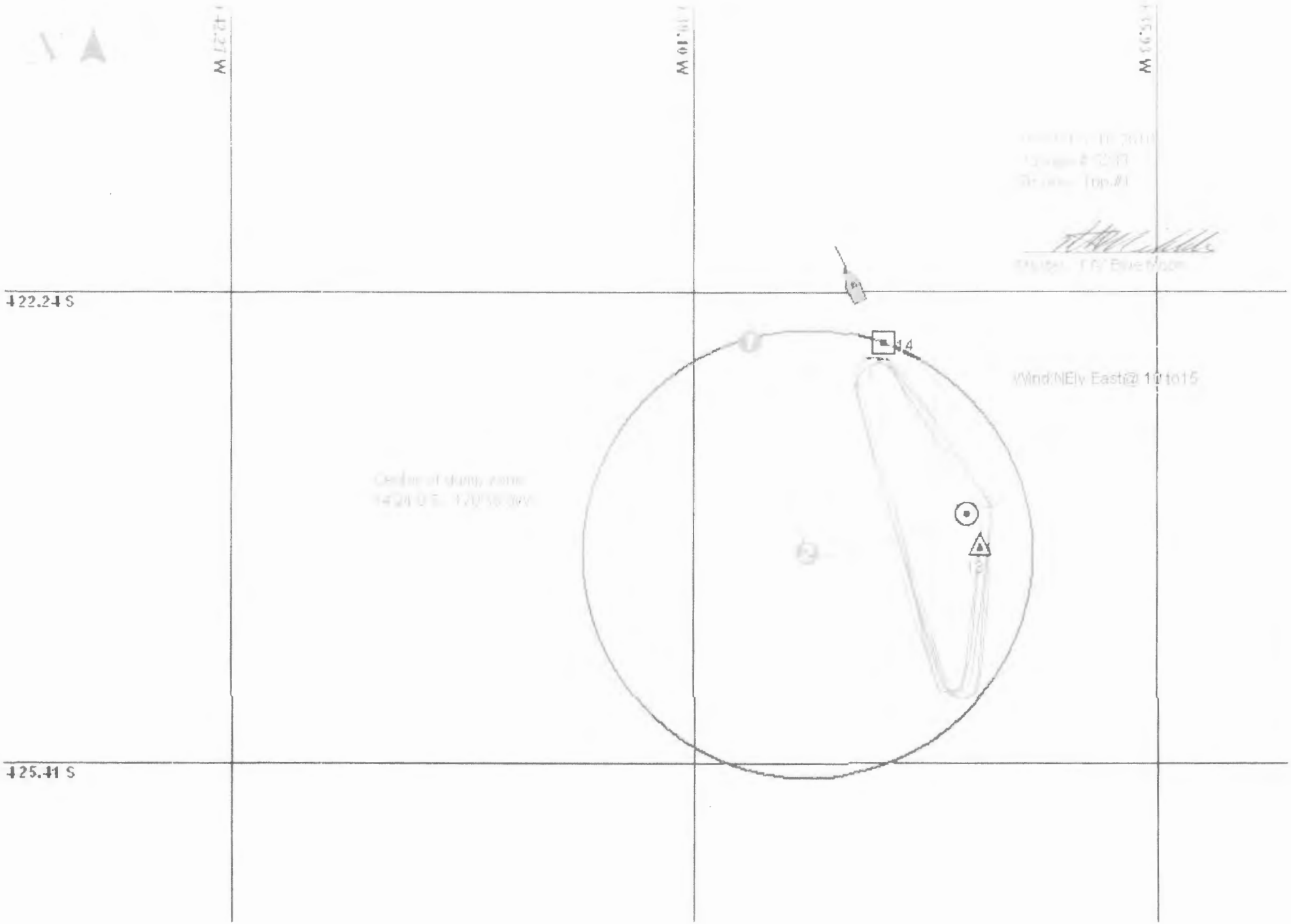

422.24 S
425.41 S
Center of dump zone
14°24.0'S 170°38.3'W
17

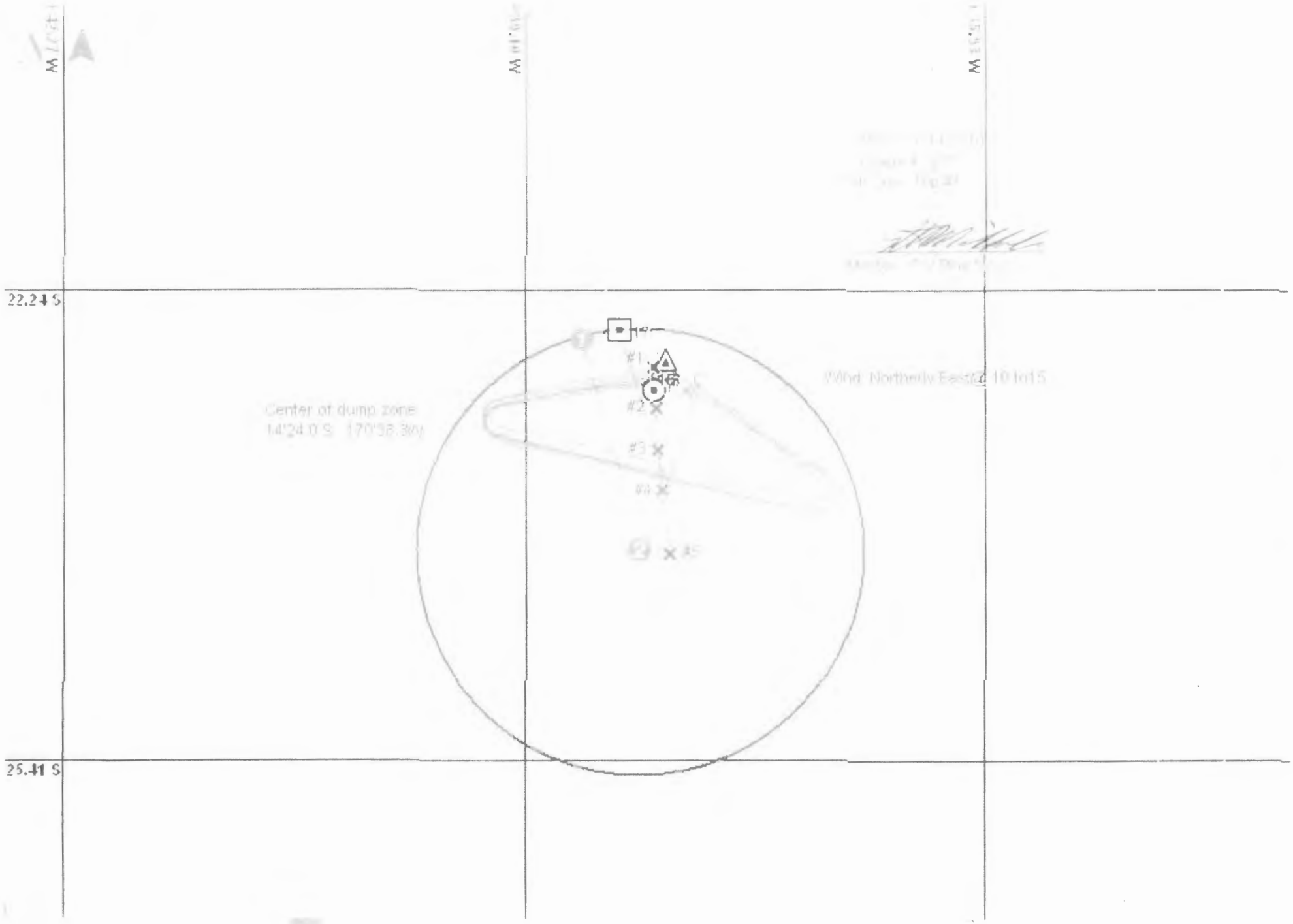

22.34 S
25.41 S
Center of dump zone
14°24.0'E 170°38.3'W
North East @ 0C
Vnyage # 5241
Master F/V Blue Moon

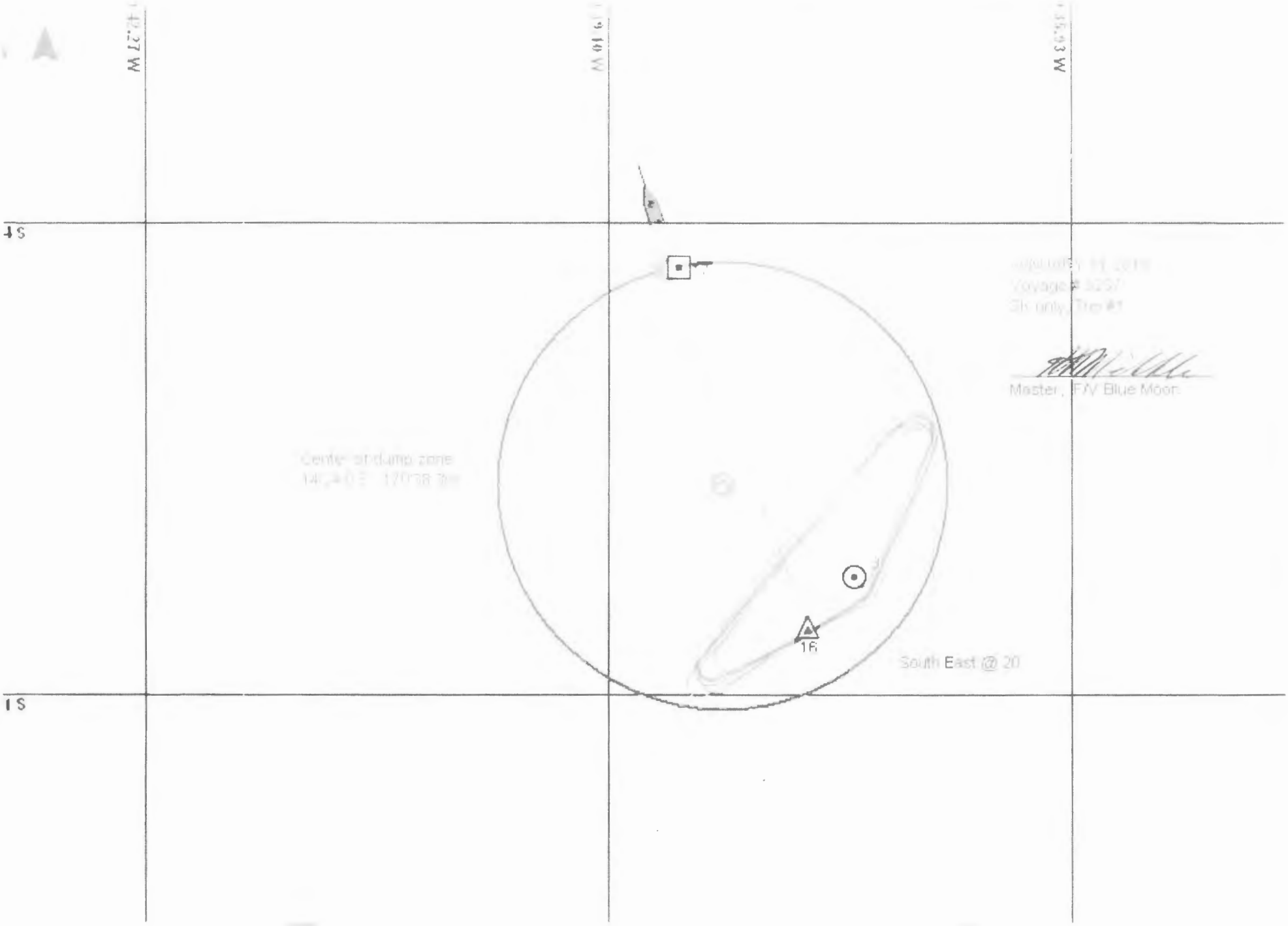

Master, F/V Blue Moon
Center of dump zone
current @south east, wind NE @ 15
17
17

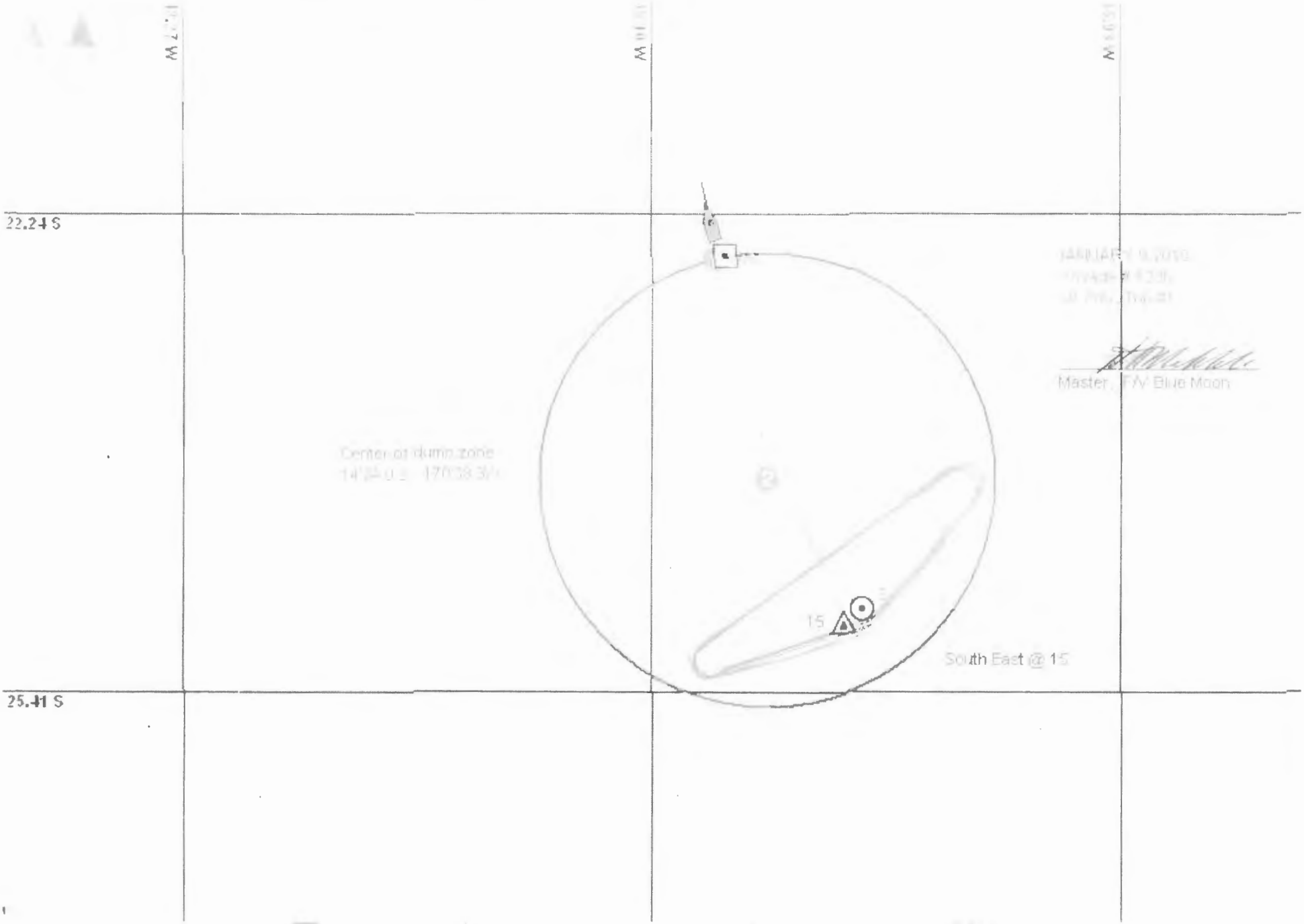

Master, F/V Blue Moon
2.24 S
5.41 S
Center of dump zone
14°24.0'S 170°38.3W
south east 20
3
12

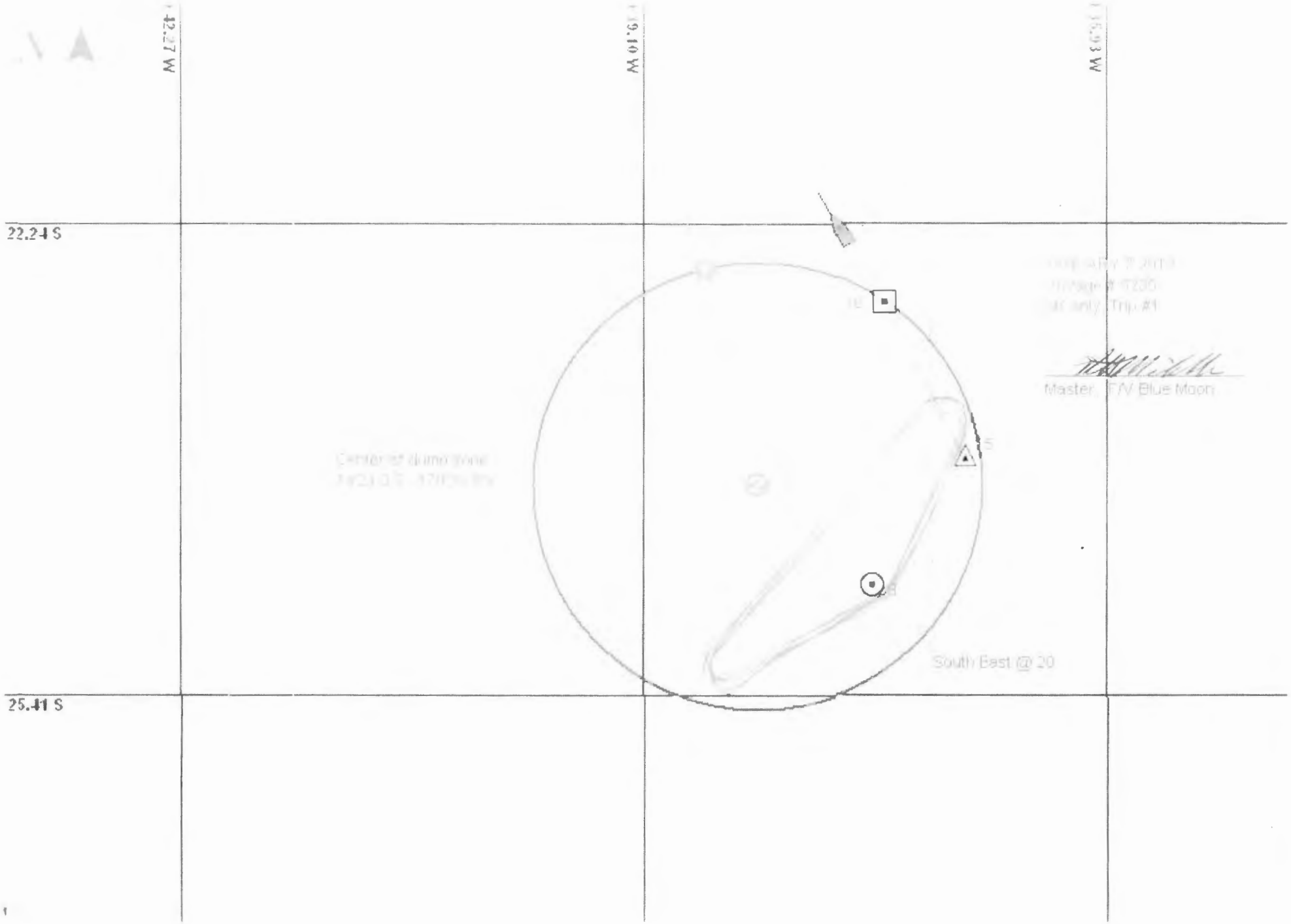

Voyage # 5240
Master, F/V Blue Moon
Center of dump zone
14°24.0'S 170°36.9'W
south east 20

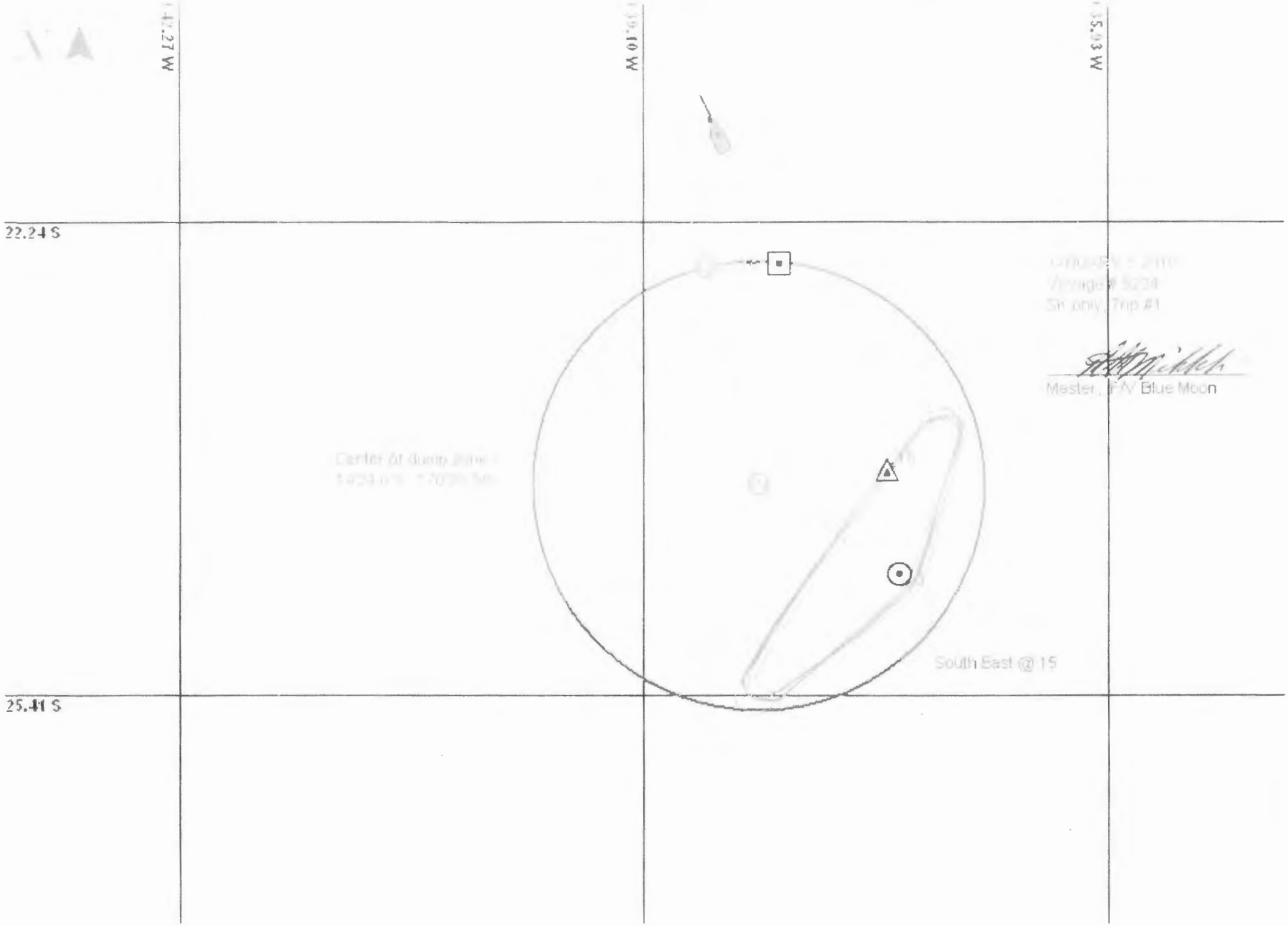

422.24 S
425.41 S
Wind:NEly East@ 10 to15
Center of slurry zone


22.24 S
25.41 S
#1
#2
#3
#4
#5
Center of dump zone
14°24.0'S 170°58.3'W
Wind: Northerly Easterly 10 to 15


42°27' W
41°49' W
41°33' W
4°S
1°S
Center of dump zone
14°40' S 170°38' W
16
South East @ 20
Voyage # 5237
Master, FAV Blue Moon


22.24 S
25.41 S
Master, FV Blue Moon
Center of dump zone
15
South East @ 15


42.27 W
19.10 W
15.93 W
22.24 S
25.41 S
South East @ 20
Master, F/V Blue Moon


142.27 W
139.10 W
135.93 W
22.24 S
25.41 S
Average 5224
Mester, F/V Blue Moon
South East @ 15

Date: 01/31/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5246

Permit # OD 93-01 & OD 93-02

Time		
1330	Begin Loading SK	
1530	Finish Loading SK	
1730	Begin Loading ~~SP~~ SK	
1730	Finish Loading ~~SP~~ SK	

Trip # 1

Trip # 2

Volume Loaded:

SK	70 000	Gallons
SP	0	Gallons
Total	70 000	Gallons

Time		WP#	GPS Position				Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0000	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.3			
0500	Arrive Edge of Zone	# 1	14*22.4	S	170*38.	W		20	29.3	1.5	10	164
0545	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		20	29.3	1.5	10	164
0705	Begin Discharge	# 3	14*2 4.6	S	170*3 7.6	W	SE 15	100	29.3	1.5 X	9.7	134
20		# 4	14*2 4.4	S	170*3 7.7	W	SE 20	100	29.3	1.5	10	223
30	Remarks:	# 5	14*2 4.7	S	170*3 7.5	W	SE 20	70	29.3	1.5	9.4	063
50		# 6	14*2 4.5	S	170*3 7.5	W	SE 20	70	29.3	1.5	10.1	326
0845		# 7	14*2 4.5	S	170*3 7.3	W	SE 20	70	29.3	1.5 5	9.3	026
20		# 8	14*2 4.5	S	170*3 8.0	W	SE 20	70	29.3	1.5	10	227
35		# 9	14*2 4.7	S	170*3 7.2	W	SE 20	70	29.3	1.5	10	035
50		# 10	14*2 4.7	S	170*3 8.2	W	SE 20	70	29.3	1.5	10	223
1005		# 11	14*2 4.6	S	170*3 [illegible]	W	SE 20	70	29.3	1.5	10.2	234
20		# 12	14*2 4.7	S	170*3 8.3	W	SE 20	70	29.3	10	10	225
		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1935	Finish Discharge	13	14*2 [illegible]	S	170*3 7.[illegible]	W	SE 20	70	29.3	1.5	10.5	224
1945	Exit Discharge Zone	14	14*2 [illegible]	S	170*3 7.7	W	SE 20	70	29.3	1.5	10.5	315
2000	Secure SK Dock		14*16.50'	S	170*41 2'	W						

Current Direction: At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins. Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made ASPA _____ USCGMSD _____ Master F/V Blue Moon _____

Date: 01/29/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5245

Permit # OD 93-01 & OD 93-02

Time	
1430	Begin Loading SK
1700	Finish Loading SK
1350	Begin Loading SP SK
1720	Finish Loading SP SK

Trip # 1

Trip # 2

Volume Loaded:		
SK	175000	Gallons
SP	0	Gallons
Total	175000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0500	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.4			
0553	Arrive Edge of Zone	# 1	14*22.4	S	170*38.[illegible]	W	LAV	70	29.4	2	9.7	166
0602	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	LAV	70	29.4	2	9.8	165
0610	Begin Discharge	# 3	14*2 5.6	S	170*3 8.2	W	S 10	70	29.4	2 X	9.8	177
25		# 4	14*2 4.7	S	170*3 8.1	W	S LAV	70	29.4	2	10	276
40	Remarks:	# 5	14*2 5.0	S	170*3 7.6	W	S W	70	29.4	2	9.5	274
55		# 6	14*2 4.8	S	170*3 7.0	W	S 15	70	29.4	2	10	272
0710		# 7	14*2 5.1	S	170*3 7.7	W	S 10	50	29.4	2 5	9.4	274
25		# 8	14*2 4.8	S	170*3 7.7	W	S 10	50	29.4	2	10.2	265
40		# 9	14*2 4.1	S	170*3 7.1	W	S 15	50	29.4	2	9.8	277
55		# 10	14*2 5.6	S	170*3 7.1	W	S 10	50	29.4	2	10	275
0710		# 11	14*2 4.7	S	170*3 7.1	W	S 15	50	29.4	2	10	285
25		# 12	14*2 4.7	S	170*3 7.1	W	S 15	50	29.4	2 10	9.8	285
40		# 13	14*2 4.7	S	170*3 7.1	W	S 10	50	29.4	2	10	281
55		# 14	14*2 5.6	S	170*3 7.6	W	S 15	50	29.4	2	10.1	279
0710		# 15	14*2 4.7	S	170*3 8.6	W	S 15	50	29.4	2	9.5	271
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0715	Finish Discharge	16	14*2 [illegible]	S	170*3 [illegible]	W	S 15	50	29.4	2	9.1	[illegible]
0727	Exit Discharge Zone	17	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	50	29.4	2	11	271
0[illegible]5	Secure SK Dock		14*16 50'	S	170*41.2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern Ellipse

Total Discharge Time 155 mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon _____

Date: 01/27/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5244

Permit # OD 93-01 & OD 93-02

Time	
1330	Begin Loading SK
1930	Finish Loading SK
	Begin Loading SP
	Finish Loading SP

Trip # 1

Trip # 2

Volume Loaded:

SK	1[illegible]	Gallons
SP	0	Gallons
Total	1[illegible]	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
0500	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.25	Metric		kts	True*
0550	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		100	29.25	2		10.3	161°
0600	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		100	29.25	2		10	166°
0610	Begin Discharge	# 3	14*2 3.9	S	170*3 9.2	W	WXN 25	100	29.25	2	X	8.8	252°
25		# 4	14*2 7.5	S	170*3 9.2	W	WXN 25	100	29.25	2		8.5	275°
40	Remarks:	# 5	14*2 1.2	S	170*3 8.4	W	WXN 25	100	29.25	2		7.5	277°
55		# 6	14*2 3.9	S	170*3 8.8	W	WXN 25	100	29.25	2		10.5	033°
0710		# 7	14*2 3.4	S	170*3 9.2	W	WXN 25	100	29.25	2	5	5.9	291°
25		# 8	14*2 4.2	S	170*3 8.9	W	WXN 25	100	29.3	2		5.2	280°
40		# 9	14*2 3.5	S	170*3 5.7	W	WXN 25	100	29.3	2		8.5	251°
55		# 10	14*2 [illegible]	S	170*3 [illegible]	W	WXN 25	100	29.3	2		10.5	[illegible]
0810		# 11	14*2 3.4	S	170*3 [illegible]	W	WXN 25	[illegible]	29.3	2		[illegible]	[illegible]
25		# 12	14*2 [illegible]	S	170*3 [illegible]	W	WXN 25	[illegible]	29.3	2	10	[illegible]	[illegible]
40		# 13	14*2 [illegible]	S	170*3 [illegible]	W	WXN 25	[illegible]	29.3	2		[illegible]	[illegible]
55		# 14	14*2 2.3	S	170*3 [illegible]	W	WXN 25	100	29.3	2		5.6	[illegible]
0910		# 15	14*2 1.3	S	170*3 5.4	W	WXN 25	100	29.3	2		8.9	276°
25		# 16	14*2 3.7	S	170*3 5.5	W	WXN 25	100	29.3	2		10.5	074°
		# 17	14*2	S	170*3	W					15		
		# 18	14*2	S	170*3	W							
		# 19	14*2	S	170*3	W							
		# 20	14*2	S	170*3	W							
			14*2	S	170*3	W							
			14*2	S	170*3	W					20		
			14*2	S	170*3	W							
0930	Finish Discharge	17	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
[illegible]	Exit Discharge Zone	19	14*2 [illegible]	S	170*3 [illegible]	W	WXN 25	[illegible]	[illegible]	2		[illegible]	[illegible]
1020	Secure SK Dock		14*16 50'	S	170*41.2'	W							

Current Direction At Center [illegible] End of Discharge [illegible] Discharge Pattern Fig 8

Total Discharge Time [illegible] mins Average Speed During Discharge: [illegible] kts Total Time Run [illegible] hr

Navigational Plot made [illegible] Presence of Plume? [illegible]

Time and position of any floating material [illegible] Discharge Rate [illegible] Gallons/min/kts

Unusual Occurrences? [illegible]

Notifications made A S P A [illegible] U S C G M S D [illegible] Master F/V Blue Moon [illegible]

Date: 01/25/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5243

Permit # OD 93-01 & OD 93-02

Time		
1400	Begin Loading SK	
2000	Finish Loading SK	Trip # 1
	Begin Loading SP	Trip # 2
	Finish Loading SP	

Volume Loaded:

SK	125000	Gallons
SP	0	Gallons
Total	125000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0600	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.5			
0633	Arrive Edge of Zone	# 1	14*22.4	S	170*38.2	W		100	29.5	1.5	10	169°
0700	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		100	29.5	1.5	10	027°
0715	Begin Discharge	# 3	14*2 3.2	S	170*3 2.5	W	NE 25	100	29.5	2 X	9.9	045°
30		# 4	14*2 1.1	S	170*3 7.5	W	NE 25	100	29.5	2	9.1	047°
45	Remarks:	# 5	14*2 3.7	S	170*3 5.4	W	NE 25	100	29.5	2	9	047°
0800		# 6	14*2 2.8	S	170*3 7.7	W	NE 25	100	29.5	2	10.5	212°
15		# 7	14*2 3.4	S	170*3 7.1	W	NE 25	100	29.5	2 5	10.7	[illegible]
30		# 8	14*2 3.2	S	170*3 7.45	W	NE 25	100	29.5	2	9.5	[illegible]
45		# 9	14*2 7.1	S	170*3 7.35	W	NE 25	100	29.5	2	9.6	[illegible]
900		# 10	14*2 [illegible]	S	170*3 [illegible]	W	NE 25	100	29.5	2	9.7	[illegible]
15		# 11	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	2	9.5	[illegible]
30		# 12	14*2 [illegible]	S	170*3 [illegible]	W	NE 25	[illegible]	[illegible]	2 10	[illegible]	[illegible]
[illegible]		# 13	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	2	[illegible]	[illegible]
1600		# 14	14*2 2.5	S	170*3 7.5	W	NE 25	[illegible]	29.5	2	10	058°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1600	Finish Discharge	14	14*2 [illegible]	S	170*3 [illegible]	W	NE 25	[illegible]	[illegible]	2	[illegible]	[illegible]
1612	Exit Discharge Zone	15	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]		2	[illegible]	[illegible]
[illegible]	Secure SK Dock		14*16 50'	S	170*41 2'	W						

Current Direction: At Center [illegible] End of Discharge [illegible] Discharge Pattern Fig 8.

Total Discharge Time: 115 mins Average Speed During Discharge [illegible] kts Total Time Run [illegible] hr

Navigational Plot made [illegible] Presence of Plume? [illegible]

Time and position of any floating material [illegible] Discharge Rate [illegible] Gallons/min/kts

Unusual Occurrences? [illegible]

Notifications made A S P A [illegible] U S C G M S D [illegible] Master F/V Blue Moon [illegible]

Date: 01/23/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5242

Permit # OD 93-01 & OD 93-02

Time	
1330	Begin Loading SK
1530	Finish Loading SK
1400	~~Begin Loading SP~~
1700	~~Finish Loading SP~~

Trip # 1

Trip # 2

Volume Loaded:		
SK	175000	Gallons
SP	0	Gallons
Total	175000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True°
1600	Depart Starkist		14°16.50'	S	170°41.2'	W		70	29.55			
0630	Arrive Edge of Zone	# 1	14°22.4	S	170°38	W	CALM	70	29.55	1	7.5	166
0700	Arrive Zone Center	# 2	14°24.0	S	170°38.3	W		70	29.55	1	7.3	160
0710	Begin Discharge	# 3	14°2 1.5	S	170°3 7.3	W	VAR 10	70	29.5	1 X	7.5	123
25		# 4	14°2 1.3	S	170°3 7.5	W	VAR 10	70	29.5	1.0	7.6	217
10	Remarks:	# 5	14°2 1.7	S	170°3 7.3	W	VAR 10	70	29.5	1.5	7.4	013
55		# 6	14°2 1.2	S	170°3 7.7	W	VAR 10	70	29.5	1.5	7.7	213
0510		# 7	14°2 1.9	S	170°3 7.6	W	VAR 10	70	29.5	1.5 5	7.5	034
25		# 8	14°2 1.1	S	170°3 7.7	W	VAR 10	70	29.5	1.5	7.3	213
10		# 9	14°2 1.7	S	170°3 7.3	W	VAR 10	70	29.5	1.5	7.4	032
25		# 10	14°2 1.1	S	170°3 7.5	W	VAR 10	70	29.5	1.5	7.5	216
10		# 11	14°2 5.6	S	170°3 7.7	W	VAR 10	70	29.5	1.5	7.7	034
25		# 12	14°2 1.3	S	170°3 7.7	W	VAR 10	70	29.5	1.5 10	7.5	213
25		# 13	14°2 6.6	S	170°3 7.7	W	VAR 10	70	29.5	1.5	7.5	033
55		# 14	14°2 1.2	S	170°3 7.7	W	VAR 10	70	29.5	1.5	7.5	213
1610		# 15	14°2 1.9	S	170°3 7.6	W	VAR 10	70	29.5	1.5	7.5	030
25		# 16	14°2 3.9	S	170°3 7.5	W	VAR 10	70	29.5	1.5	7.5	212
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
1710	Finish Discharge	17	14°2 5.6	S	170°3	W						
1753	Exit Discharge Zone	18	14°2	S	170°3	W						
1730	Secure SK Dock		14°16.50'	S	170°41 2'	W						

Current Direction At Center ____ End of Discharge ____ Discharge Pattern ____

Total Discharge Time 420 mins Average Speed During Discharge ____ kts Total Time Run ____ hr

Navigational Plot made ____ Presence of Plume? ____

Time and position of any floating material ____ Discharge Rate ____ Gallons/min/kts

Unusual Occurrences? ____

Notifications made A S P A ____ U S C G M S D ____ Master F/V Blue Moon ____

Date: 01/21/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5241

Permit # OD 93-01 & OD 93-02

Time		
1400	Begin Loading SK	
1530	Finish Loading SK	
1326	~~Begin Loading~~ SP	
1630	~~Finish Loading~~ SP	

Trip # 1

Trip # 2

Volume Loaded. SK [illegible] Gallons

SP [illegible] Gallons

Total 16[illegible] Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
1635	Depart Starkist		14*16.50'	S	170* 41.2'	W		66	29.5	Metric	kts	True*
1834	Arrive Edge of Zone	# 1	14*22.4	S	170*38	W		60	29.5	1.5	9.2	162
0242	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		60	29.5	1.5	9.	166
0750	Begin Discharge	# 3	14*2 4.7	S	170*3 7.6	W	SE26	66	29.5	1.5 X	9	66
0805		# 4	14*2 4.6	S	170*3 7.6	W	SE26	66	29.5	1.5	9.5	227
20	Remarks.	# 5	14*2 5.0	S	170*3 7.6	W	SE26	80	29.5	1.5	9.5	054
30		# 6	14*2 4.3	S	170*3 7.7	W	SE26	96	29.5	1.5	9.4	229
50		# 7	14*2 4.9	S	170*3 7.6	W	SE 26	76	29.5	1.5 5	9.5	064
0905		# 8	14*2 5.6	S	170*3 7.4	W	SE 26	96	29.5	1.5	16	226
10		# 9	14*2 4.5	S	170*3 7.2	W	SE 26	96	29.5	1.5	16	232
20		# 10	14*2 7.2	S	170*3 7.0	W	SE 26	96	29.5	1.5	16	227
1025		# 11	14*2 4.9	S	170*3 8.3	W	SE 26	96	29.5	1.5	16.2	229
		# 12	14*2	S	170*3	W				10		
		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1[illegible]	Finish Discharge	12	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1[illegible]6	Exit Discharge Zone	13	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1[illegible]	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time 1[illegible] mins Average Speed During Discharge [illegible] kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon _____

Date: 01/19/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5240

Permit # OD 93-01 & OD 93-02

Time		
1400	Begin Loading SK	
1900	Finish Loading SK	Trip # 1
	Begin Loading SP	Trip # 2
	Finish Loading SP	

Volume Loaded		
SK	120 000	Gallons
SP	0	Gallons
Total	120 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W		50	29.5			
0624	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		50	29.5	1.9	7.9	166
0630	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		50	29.5	1.5	7.5	164
0610	Begin Discharge	# 3	14*2 7.7	S	170*3 7.1	W	25 15	50	29.5	1.5	7.5	214
25		# 4	14*2 3.5	S	170*3 7.4	W	5E 20	50	29.5	1.5	7.6	216
40	Remarks:	# 5	14*2 4.8	S	170*3 2.5	W	5E 20	50	29.5	1.5	7.6	253
55		# 6	14*2 3.8	S	170*3 2.5	W	5E 20	50	29.5	1.5	7.6	211
0710		# 7	14*2 5.3	S	170*3 5.2	W	5E 20	50	29.5	1.5 5	7.4	261
25		# 8	14*2 7.7	S	170*3 7.0	W	5E 20	50	29.5	1.5	7.5	261
40		# 9	14*2 [illegible]	S	170*3 5.7	W	5E 20	50	29.5	1.5	7.6	211
55		# 10	14*2 [illegible]	S	170*3 7.[illegible]	W	5E 20	50	29.5	1.5	7.6	262
0810		# 11	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	29.5	1.5	7.6	262
25		# 12	14*2 4.6	S	170*3 7.1	W	5E 20	[illegible]	29.5	1.5 10	[illegible]	266
40		# 13	14*2 4.[illegible]	S	170*3 [illegible]	W	5E 20	[illegible]	29.5	1.5	7.3	262
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
[illegible]	Finish Discharge	[illegible]	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Exit Discharge Zone	[illegible]	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Secure SK Dock		14*16 50'	S	170*41 2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made ASPA _____ USCGMSD _____ Master, F/V Blue Moon _____

Date: 01/16/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5239

Permit # OD 93-01 & OD 93-02

Time	
16 [illegible]	Begin Loading SK
17 3.6	Finish Loading SK
1500	Begin Loading SP
1900	Finish Loading SP

Trip # 1

Trip # 2

Volume Loaded:

SK	60000	Gallons
SP	0	Gallons
Total	60000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True°
0616	Depart Starkist		14°16.50'	S	170° 41.2'	W						
0645	Arrive Edge of Zone	# 1	14°22.4	S	170°38.5	W	calm	50	29.55	1	9.4	162
0700	Arrive Zone Center	# 2	14°24.0	S	170°38.3	W	calm	50	29.55	1	9.6	165
0715	Begin Discharge	# 3	14°2[illegible]	S	170°3[illegible]	W	calm	50	[illegible]	1 X	9	[illegible]
30		# 4	14°2[illegible]	S	170°3[illegible]	W	NE 10	50	[illegible]	1	9.7	164
15	Remarks:	# 5	14°2[illegible]	S	170°3[illegible]	W	NE 15	50	[illegible]	1	9.2	[illegible]
0800		# 6	14°2[illegible]	S	170°3[illegible]	W	NE 15	50	[illegible]	1	9.5	163
15		# 7	14°2[illegible]	S	170°3[illegible]	W	NE 15	50	[illegible]	1 5	[illegible]	[illegible]
30		# 8	14°2[illegible]	S	170°3[illegible]	W	NE 15	50	[illegible]	1	[illegible]	[illegible]
15		# 9	14°2[illegible]	S	170°3[illegible]	W	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]
[illegible]		# 10	14°2[illegible]	S	170°3[illegible]	W	[illegible]	30	[illegible]	1	[illegible]	[illegible]
[illegible]		# 11	14°2[illegible]	S	170°3[illegible]	W	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
[illegible]		# 12	14°2[illegible]	S	170°3[illegible]	W	[illegible]	[illegible]	[illegible]	1 10	[illegible]	[illegible]
		# 13	14°2	S	170°3	W						
		# 14	14°2	S	170°3	W						
		# 15	14°2	S	170°3	W						
		# 16	14°2	S	170°3	W						
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
[illegible]	Finish Discharge		14°2	S	170°3	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Exit Discharge Zone		14°2	S	170°3	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Secure SK Dock		14°16.50'	S	170°41.2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material. _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon _____

Date: 01/14/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5238

Permit # OD 93-01 & OD 93-02

Time	
530	Begin Loading SK
1730	Finish Loading SK
[illegible]	Begin Loading SP
[illegible]	Finish Loading SP

Trip # 1

Trip # 2

Volume Loaded:

SK	187500	Gallons
SP	0	Gallons
Total	187500	Gallons

Time		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
										Metric		kts	True*
0516	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.5				
0556	Arrive Edge of Zone	# 1	14*22.4	S	170*38 [illegible]	W		100	29.5	1		9.5	163°
0558	Arrive Zone Center	# 2	14*24.0	S	170*38 3	W		[illegible]	[illegible]	1		9.8	166°
0615	Begin Discharge	# 3	14*2 [illegible]	S	170*3 [illegible]	W	NE 15	100	29.5	1	X	9	276°
30		# 4	14*2 [illegible]	S	170*3 [illegible]	W	NE 15	[illegible]	29.5	1		9.4	165°
45	Remarks:	# 5	14*2 [illegible]	S	170*3 [illegible]	W	NNE 15	100	29.5	1		9.6	289°
0700		# 6	14*2 [illegible]	S	170*3 [illegible]	W	NNE 15	100	29.5	1		9.4	165°
15	0616 water	# 7	14*2 [illegible]	S	170*3 [illegible]	W	NE 15	100	29.5	1	5	9.3	365°
30	20 mphs	# 8	14*2 [illegible]	S	170*3 [illegible]	W	NE 15	100	29.5	1		10.1	300°
45		# 9	14*2 [illegible]	S	170*3 [illegible]	W	NE 15	100	29.5	1		9.5	166°
[illegible]		# 10	14*2 [illegible]	S	170*3 [illegible]	W	NE 15	100	29.5	1		10.3	262°
[illegible]		# 11	14*2 [illegible]	S	170*3 [illegible]	W	NE 15	100	29.5	1		9.7	169°
[illegible]		# 12	14*2 [illegible]	S	170*3 [illegible]	W	NE 15	[illegible]	[illegible]	1	10	[illegible]	[illegible]
[illegible]		# 13	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
[illegible]		# 14	14*2 [illegible]	S	170*3 [illegible]	W	NE 15	50	29.5	[illegible]		10.1	[illegible]
		# 15	14*2	S	170*3	W							
		# 16	14*2	S	170*3	W							
		# 17	14*2	S	170*3	W					15		
		# 18	14*2	S	170*3	W							
		# 19	14*2	S	170*3	W							
		# 20	14*2	S	170*3	W							
			14*2	S	170*3	W							
			14*2	S	170*3	W					20		
			14*2	S	170*3	W							
[illegible]	Finish Discharge	16	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
[illegible]	Exit Discharge Zone	17	14*2 [illegible]	S	170*3 [illegible]	W	NE 15	50	29.5	[illegible]		10.1	[illegible]
[illegible]	Secure SK Dock		14*16 50'	S	170*41.2'	W							

Current Direction At Center [illegible] End of Discharge [illegible] Discharge Pattern [illegible]

Total Discharge Time [illegible] mins Average Speed During Discharge [illegible] kts Total Time Run [illegible] hr

Navigational Plot made [illegible] Presence of Plume? [illegible]

Time and position of any floating material [illegible] Discharge Rate [illegible] Gallons/min/kts

Unusual Occurrences? [illegible]

Notifications made A S P A [illegible] U S C G M S D [illegible] Master F/V Blue Moon [illegible]

Date: 01/12/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5237

Permit # OD 93-01 & OD 93-02

Time		
1500	Begin Loading SK	
2000	Finish Loading SK	
	Begin Loading SP	
	Finish Loading SP	

Trip # 1

Trip # 2

Volume Loaded		
SK	70 000	Gallons
SP	0	Gallons
Total	130 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0510	Depart Starkist		14*16.50'	S	170* 41 2'	W			29.45			
0555	Arrive Edge of Zone	# 1	14*22.4	S	170*38.	W		50	29.45	1.5	9.2	163
0607	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		50	29.45	1.5	8.5	164
0615	Begin Discharge	# 3	14*2 7.6	S	170*3 7.4	W	SE 15	50	29.45	1.5 X	9	164
30		# 4	14*2 1.2	S	170*3 7.7	W	SE 15	50	29.45	1.5	9.4	221
45	Remarks.	# 5	14*2 4.9	S	170*3 7.5	W	SE 15	50	29.45	1.5	8.8	56
0700		# 6	14*2 3.5	S	170*3 7.3	W	SE 15	50	29.45	1.5	9.5	231
15		# 7	14*2 5.0	S	170*3 7.5	W	SE 20	50	29.45	1.5 5	8.8	60
30		# 8	14*2 2.6	S	170*3 7.6	W	SE 20	50	29.45	1.5	8.8	226
45		# 9	14*2 5.9	S	170*3 8.2	W	SE 20	50	29.45	1.5	9.1	
0800		# 10	14*2	S	170*3	W						231
		# 11	14*2	S	170*3	W						
		# 12	14*2	S	170*3	W				10		
15		# 13	14*2	S	170*3	W						
0900		# 14	14*2 1.9	S	170*3 6.9	W	SE 20	50				
		# 15	14*2	S	170*3	W	SE 20					
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
	Finish Discharge		14*2	S	170*3	W						
	Exit Discharge Zone		14*2	S	170*3	W						
	Secure SK Dock		14*16 50'	S	170*41 2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material: _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon _____

Date: 01/09/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5236

Permit # OD 93-01 & OD 93-02

Time	
20	Begin Loading SK
1016	Finish Loading SK
1500	Begin Loading SP
2000	Finish Loading SP

Trip # 1
Trip # 2

Volume Loaded		
SK	172 500	Gallons
SP	0	Gallons
Total	172 500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
516	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.5	Metric	kts	True*
0543	Arrive Edge of Zone	# 1	14*22	S	170*38.	W			29.5	1.5	7.2	166°
0552	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 15	16	29.5	1.5	9	162°
0600	Begin Discharge	# 3	14*2 4.7	S	170*3 7.7	W	SE 15	20	29.5	1.5 X	9.1	142°
15		# 4	14*2 4.6	S	170*3 7.2	W	SE 15		29.5	1.5	9.5	231°
30	Remarks.	# 5	14*2 5.1	S	170*3 8.3	W	SE 15	20	29.5	1.5	9	237°
45		# 6	14*2 5.1	S	170*3 7.3	W	SE 15	20	29.5	1.5	9.8	236°
0700		# 7	14*2 5.2	S	170*3 5.5	W	SE 15	20	29.45	1.5 5	9	237°
15		# 8	14*2 3.9	S	170*3 7.1	W	SE 15	20	29.45	1.5	9.9	241°
30		# 9	14*2 3.2	S	170*3 5.6	W	SE 15	20	29.45	1.5	9.1	237°
45		# 10	14*2 1.6	S	170*3 7.1	W	SE 15	20	29.45	1.5	10.2	240°
0800		# 11	14*2 [illegible]	S	170*3 [illegible]	W	SE 15	20	29.45	1.5	9.2	237°
[illegible]		# 12	14*2 [illegible]	S	170*3 7.1	W	SE 15	20	29.45	1.5 10	10.4	241°
[illegible]		# 13	14*2 [illegible]	S	170*3 [illegible]	W	SE 15	20	29.45	1.5	9.5	237°
15		# 14	14*2 [illegible]	S	170*3 7.7	W	SE 15	20	29.45	1.5	10.3	235°
[illegible]		# 15	14*2 [illegible]	S	170*3 [illegible]	W	SE 15	20	29.45	1.5	9.5	237°
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
[illegible]	Finish Discharge	[illegible]	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Exit Discharge Zone	[illegible]	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Secure SK Dock		14*16 50'	S	170*41 2'	W						

Current Direction: At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S F A _____ U S C G M S D _____ Master F/V Blue Moon _____

Date: 01/07/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5235

Permit # OD 93-01 & OD 93-02

Time					
1410	Begin Loading SK	Volume Loaded	SK	150 000	Gallons
2010	Finish Loading SK	Trip # 1	SP	-	Gallons
	Begin Loading SP	Trip # 2	Total	150 000	Gallons
	Finish Loading SP				

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
516	Depart Starkist		14*16.50'	S	170* 41 2'	W			29.5			
545	Arrive Edge of Zone	# 1	14*22 4	S	170*38 7	W		50	29.5	1.5	8.1	165
600	Arrive Zone Center	# 2	14*24 0	S	170*38.3	W	SE 15	40	29.5	1.5	8.4	162
610	Begin Discharge	# 3	14*2 4.6	S	170*3 2.3	W	SE 20	50	29.5	1.5 X	9.1	027
25		# 4	14*2 4.6	S	170*3 2.7	W	SE 20	50	29.5	1.5	9.3	211
10	Remarks	# 5	14*2 5.0	S	170*3 3.4	W	SE 20	50	29.5	1.5	8.5	065
55		# 6	14*2 5.6	S	170*3 1.2	W	SE 20	50	29.5	1.5	9.2	225
516		# 7	14*2 5.2	S	170*3 5.4	W	SE 20	50	29.5	1.5 5	8.5	067
25		# 8	14*2 7.1	S	170*3 2.1	W	SE 20	50	29.5	1.5	9.2	225
10		# 9	14*2 4.7	S	170*3 3.2	W	SE 20	50	29.5	1.5	9.7	227
55		# 10	14*2 4.4	S	170*3 2.2	W	SE 20	50	29.5	1.5	9.1	225
516		# 11	14*2 4.1	S	170*3 2.7	W	SE 20	50	29.5	1.5	10.1	222
25		# 12	14*2 4.9	S	170*3 2.1	W	SE 20	50	29.5	1.5 10	9.6	225
10		# 13	14*2 [illegible]	S	170*3 2.4	W	SE 20	50	29.5	1.5	9.6	223
25		# 14	14*2 4.1	S	170*3 2.6	W	SE 20	50	29.5	1.5	9.1	221
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
705	Finish Discharge	5	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	5	[illegible]	[illegible]	[illegible]	175
[illegible]	Exit Discharge Zone	[illegible]	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Secure SK Dock		14*16 50'	S	170*41 2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made: A.S.P.A _____ U.S.C.G.M.S.D _____ Master F/V Blue Moon _____

Date: 01/05/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5234

Permit # OD 93-01 & OD 93-02

Time		
1500	Begin Loading SK	
2000	Finish Loading SK	Trip # 1
	Begin Loading SP	Trip # 2
	Finish Loading SP	

Volume Loaded		
SK	145 000	Gallons
SP	0	Gallons
Total	145 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True°
1500	Depart Starkist		14°16.50'	S	170° 41.2'	W			29.45			
0545	Arrive Edge of Zone	# 1	14°22.4	S	170°38.7	W		10	29.45	1.5	9.7	166°
0553	Arrive Zone Center	# 2	14°24.0	S	170°38.3	W		10	29.45	1.5	9.7	165°
0600	Begin Discharge	# 3	14°2 4.5	S	170°3 7.2	W	SE 15	70	29.45	1.5 X	5.5	025°
15		# 4	14°2 3.9	S	170°3 7.4	W	SE 15	70	29.45	1.5	10	214°
30	Remarks:	# 5	14°2 5.0	S	170°3 7.6	W	SE 15	70	29.45	1.5	9.1	049°
45		# 6	14°2 3.9	S	170°3 7.5	W	SE 15	50	29.45	1.5	10	215°
1700		# 7	14°2 5.2	S	170°3 7.4	W	SE 15	50	29.45	1.5 5	9.3	021°
		# 8	14°2 3.9	S	170°3 7.4	W	SE 15	50	29.45	1.5	10.2	229°
30		# 9	14°2 1.5	S	170°3 7.4	W	SE 15	50	29.45	1.5	9.2	219°
45		# 10	14°2 2.5	S	170°3 7.3	W	SE 15	70	29.45	1.5	10.5	226°
1800		# 11	14°2 [illegible]	S	170°3 7.6	W	SE 15	50	29.45	1.5	9.3	[illegible]
15		# 12	14°2 [illegible]	S	170°3 7.2	W	SE 15	50	29.45	10	[illegible]	226°
30		# 13	14°2 [illegible]	S	170°3 7.1	W	SE 15	70	29.45	1.5	9.5	215°
45		# 14	14°2 [illegible]	S	170°3 [illegible]	W	SE 15	50	29.45	[illegible]	10.5	219°
		# 15	14°2	S	170°3	W						
		# 16	14°2	S	170°3	W						
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
[illegible]	Finish Discharge	15	14°2 [illegible]	S	170°3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Exit Discharge Zone	[illegible]	14°2 [illegible]	S	170°3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Secure SK Dock		14°16 50'	S	170°41 2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made YES Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon _____

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON January ~~2009~~ 2010

NUMBER OF TRIPS	SK	SP	JOINT:	TOTAL
	13	0	0	13

GALLONS-FOR THE MONTH	SK	SP	JOINT:	TOTAL:
	2,062,500	0	0	2,062,500

GALLONS FOR SOLO TRIPS	SK	SP
	2,062,500	0

RUNNING TIME ON TRIPS.	65.6 hrs.
DISCHARGE TIME ON TRIPS	37.5 hrs.
AV. GPM DISCHARGE RATE	95.4 g/m/k
AV TRIP TIME	5.04 hrs.

AV PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK	COS
100 00%	0 00%

MASTER

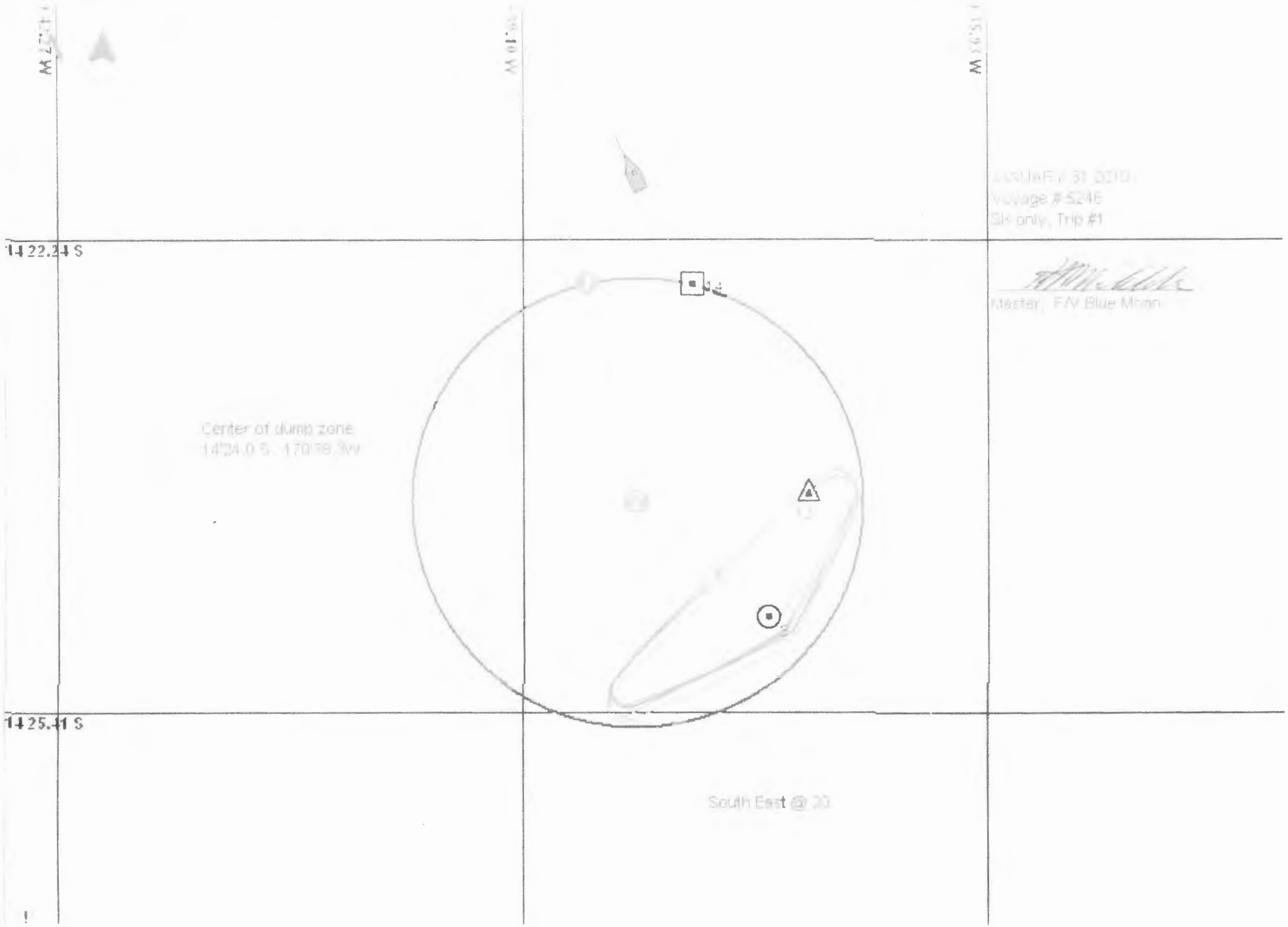
STAR KIST SAMOA CO
WATER TREATMENT DEPARTMENT

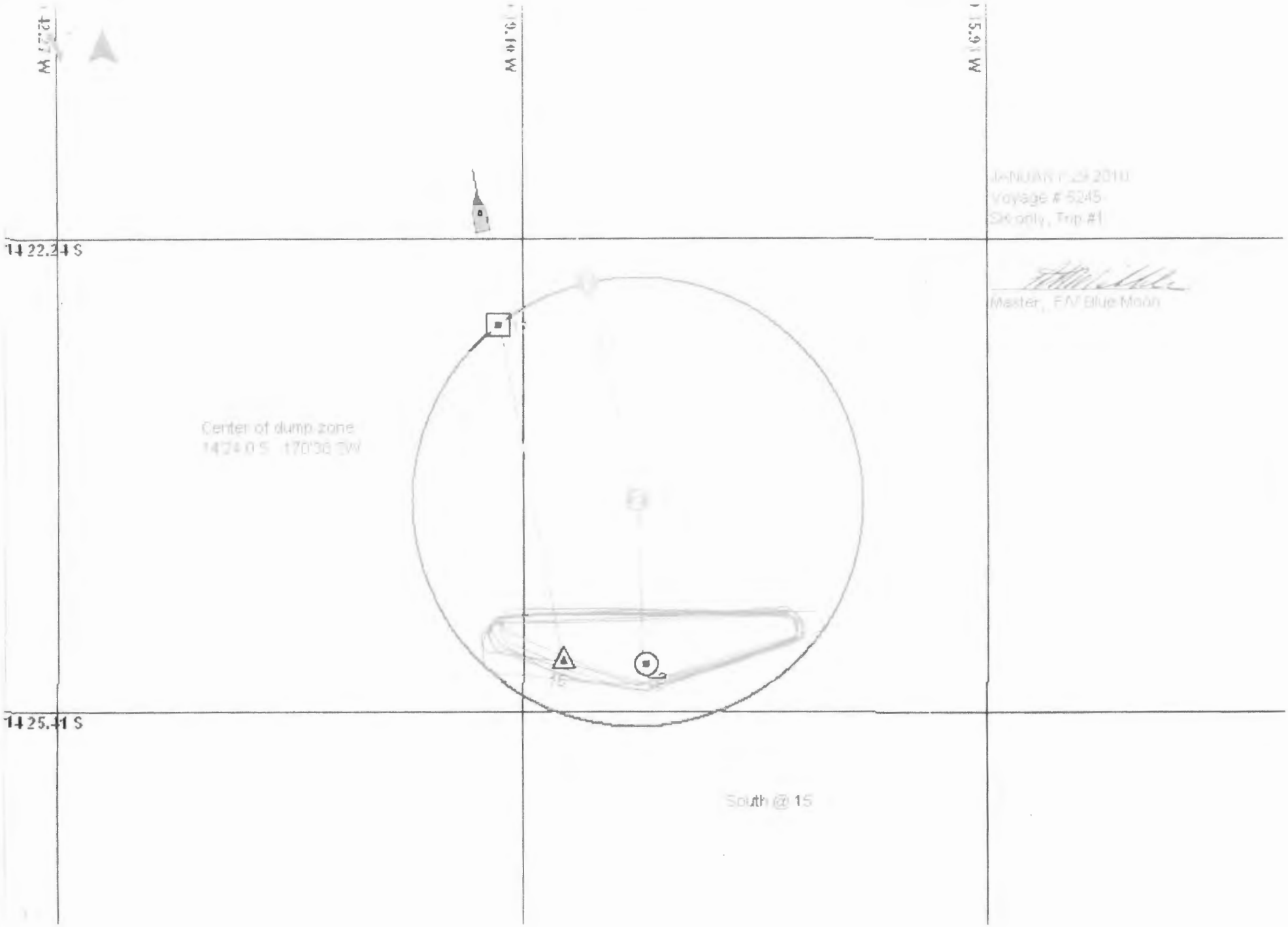
BLUE MOON - OCEAN DUMPING LOG

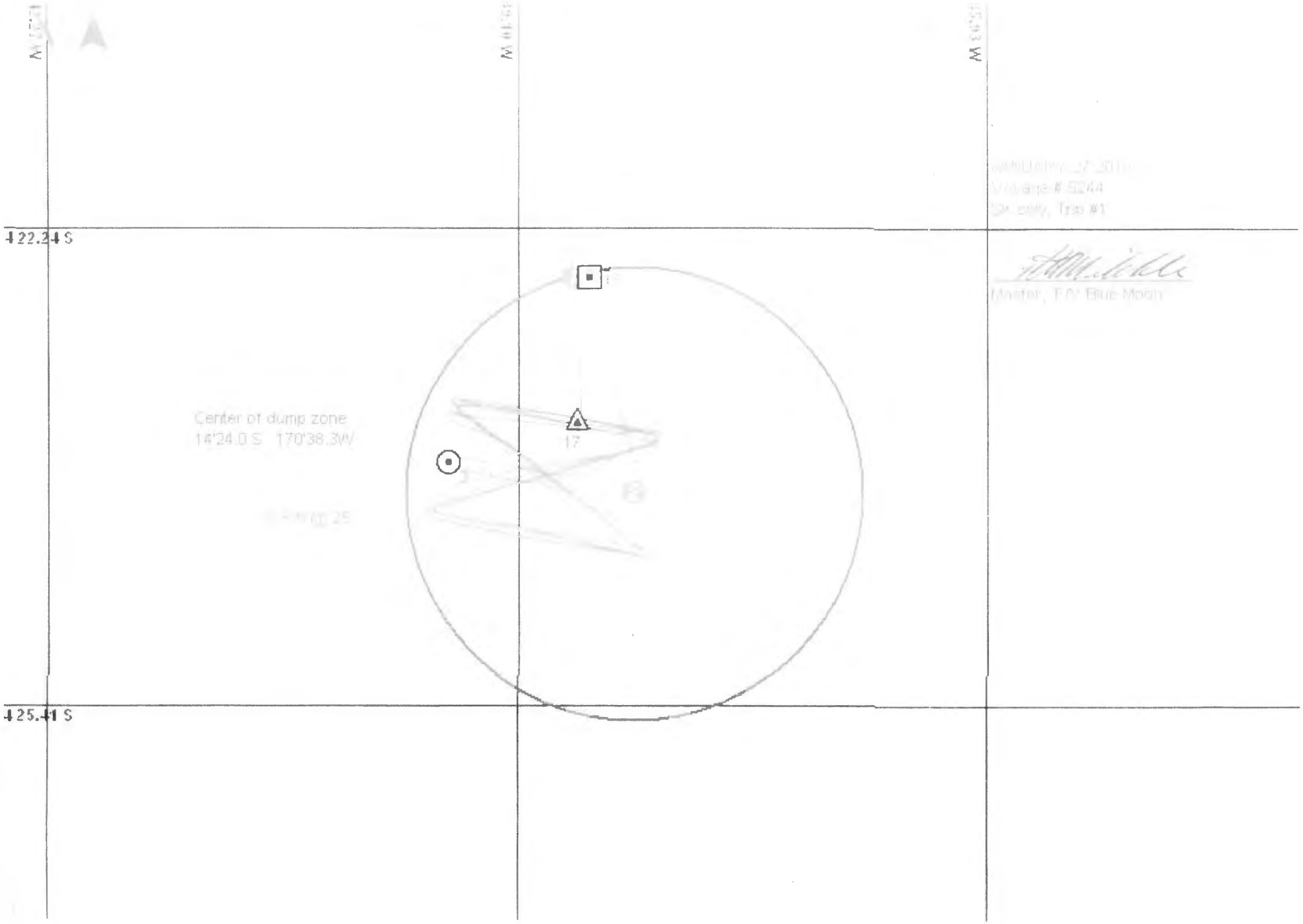
February 01, 2010

Trip Date	1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Total Volume
[illegible]	1st Trip	NONE	0	2nd Trip	NONE	0
[illegible]	1st Trip	NONE	0	2nd Trip	NONE	0
[illegible]	1st Trip	NONE	0	2nd Trip	NONE	0
[illegible]	1st Trip	1500 2000 (145000)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	145000	2nd Trip	NONE	0
[illegible]	1st Trip	1410 2010 (180000)		2nd Trip	NONE	0
[illegible]	1st Trip	1520 1640 (42500)	180000	2nd Trip	NONE	0
[illegible]	1st Trip	1500 2000 (130000)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	172500	2nd Trip	NONE	0
[illegible]	1st Trip	NONE	0	2nd Trip	NONE	0
[illegible]	1st Trip	1500 2000		2nd Trip	NONE	0
[illegible]	1st Trip	1530 1730 (52500)	130000	2nd Trip	NONE	0
[illegible]	1st Trip	1500 2000 (135000)		2nd Trip	NONE	0
[illegible]	1st Trip	1600 1730 (37500)	187500	2nd Trip	NONE	0
[illegible]	1st Trip	1500 1930 (122500)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	160000	2nd Trip	NONE	0
[illegible]	1st Trip	NONE	0	2nd Trip	NONE	0
[illegible]	1st Trip	1400 1600 (120000)		2nd Trip	NONE	0
[illegible]	1st Trip	1400 1530 (47500)	120000	2nd Trip	NONE	0
[illegible]	1st Trip	1330 1530 (115000)		2nd Trip	NONE	0
[illegible]	1st Trip	1330 1530 (60000)	162500	2nd Trip	NONE	0
[illegible]	1st Trip	1400 1700 (115000)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	175000	2nd Trip	NONE	0
[illegible]	1st Trip	1400 2000 (125000)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	125000	2nd Trip	NONE	0
[illegible]	1st Trip	1330 1930 (100000)		2nd Trip	NONE	0
[illegible]	1st Trip	1430 1700 (57500)	160000	2nd Trip	NONE	0
[illegible]	1st Trip	1330 1730 (117500)		2nd Trip	NONE	0
[illegible]	1st Trip	1330 1930 (60000)	175000	2nd Trip	NONE	0
[illegible]	1st Trip	1330 1730 (110000)		2nd Trip	NONE	0
[illegible]	1st Trip	NONE	170000	2nd Trip	NONE	0
TOTAL	1st Trip		2062500	2nd Trip		0
					Total 1st & 2nd	2,062,500

Prepared by: W W T

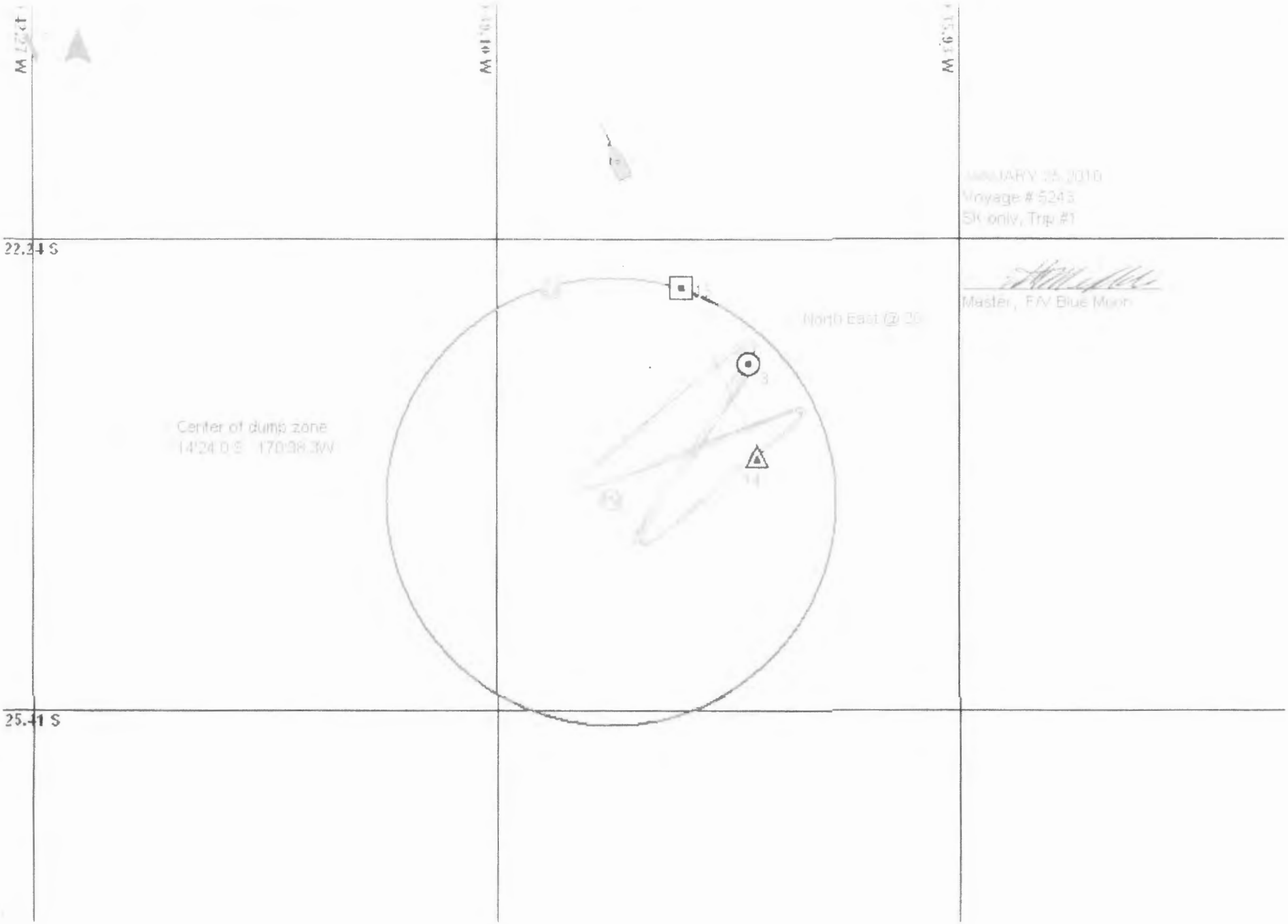

14 22.24 S
14 25.41 S
Center of dump zone
14°24.0 S, 170°38.3W
South East @ 20
Voyage # 5246
Sk only, Trip #1
Master, F/V Blue Moon


170 42.7 W
170 39.1 W
169 35.5 W
JANUARY 29 2010
Voyage # 5245
SK only, Trip #1
Master, F/V Blue Moon
14 22.24 S
Center of dump zone
14 24.0 S 170 38 SW
14 25.41 S
South @ 15



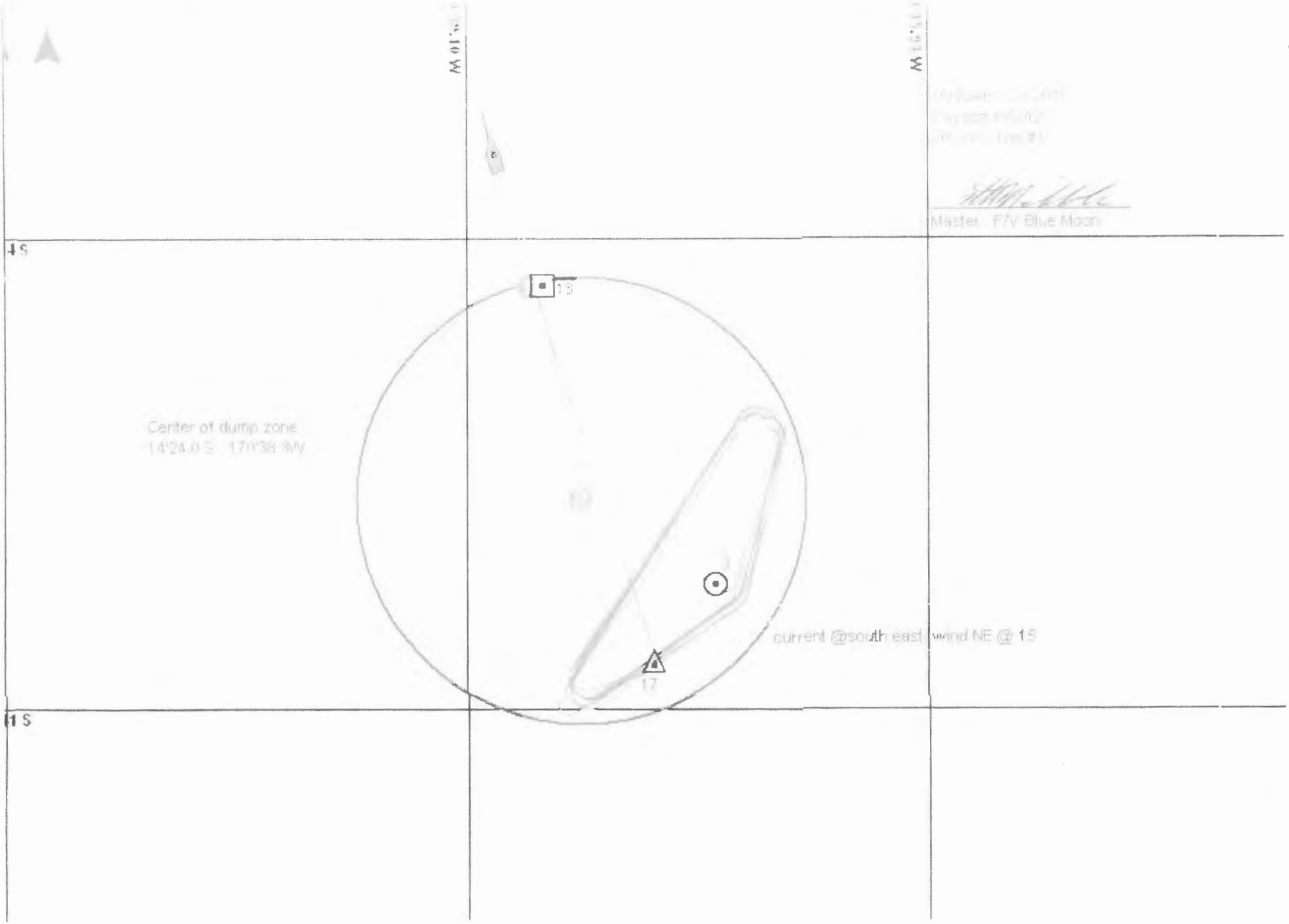
Voyage # 5244
Tow #1

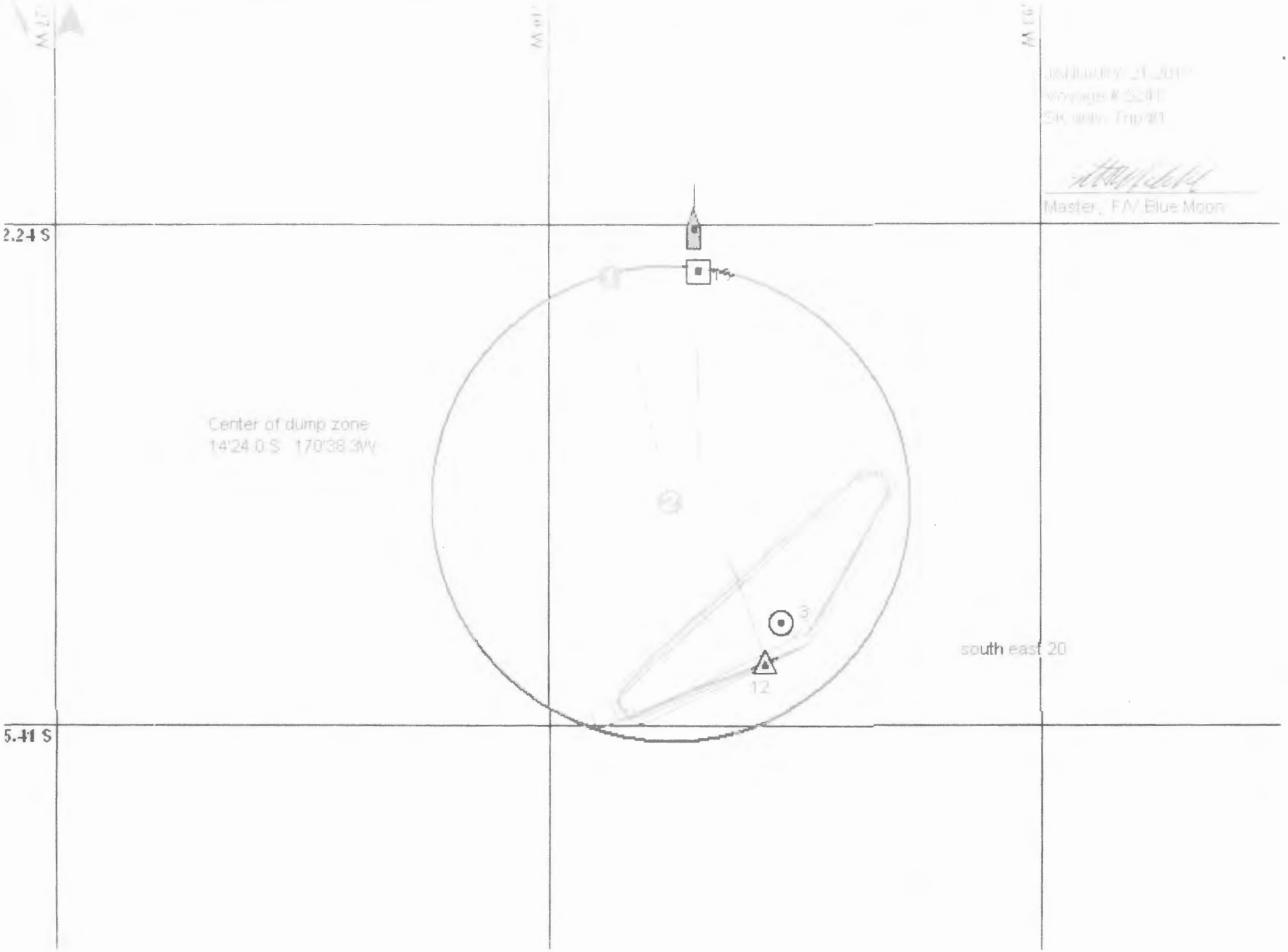
(Master, F/V Blue Moon)



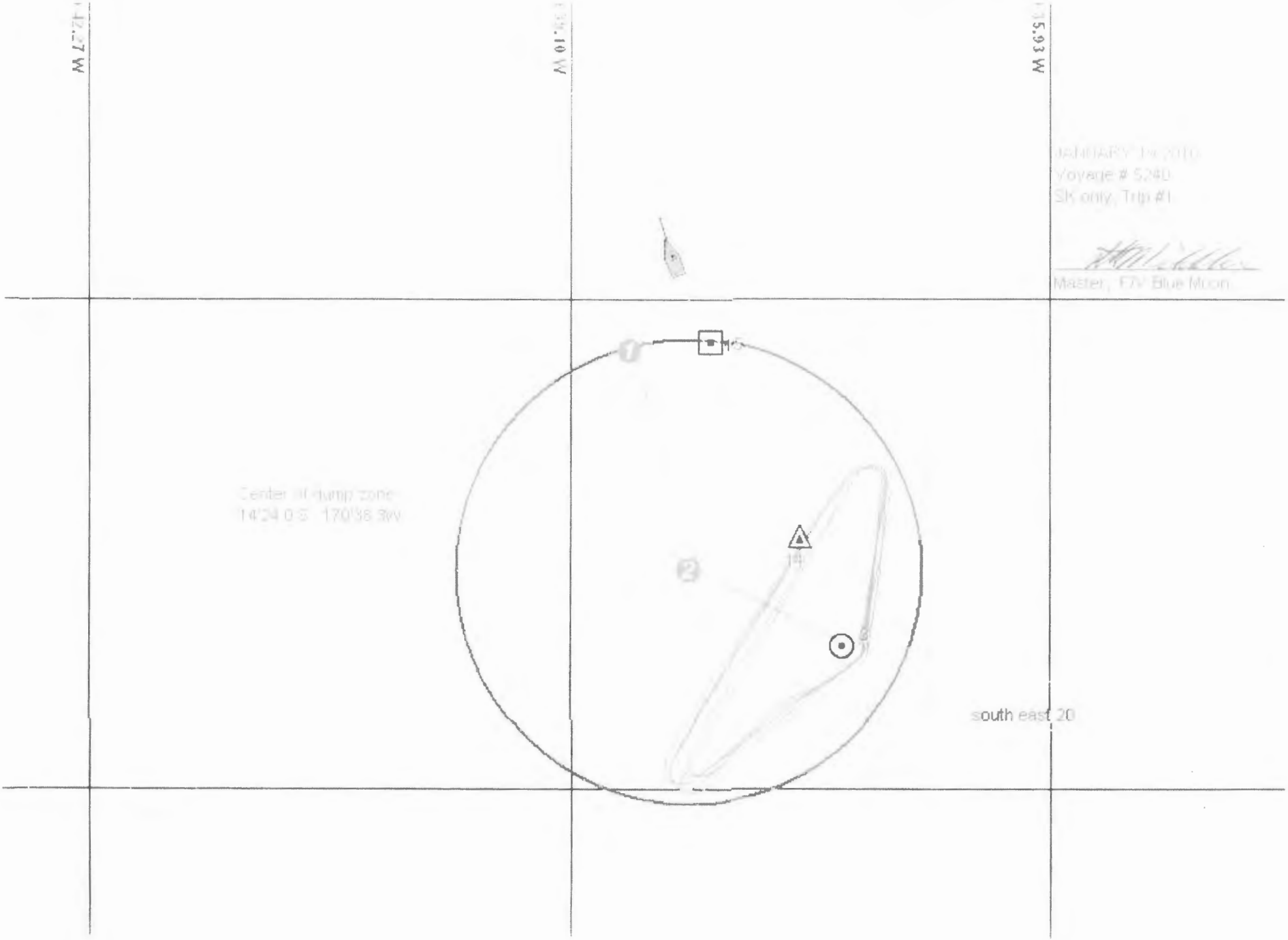
JANUARY 25, 2010
Voyage # 5243
SK only, Trip #1

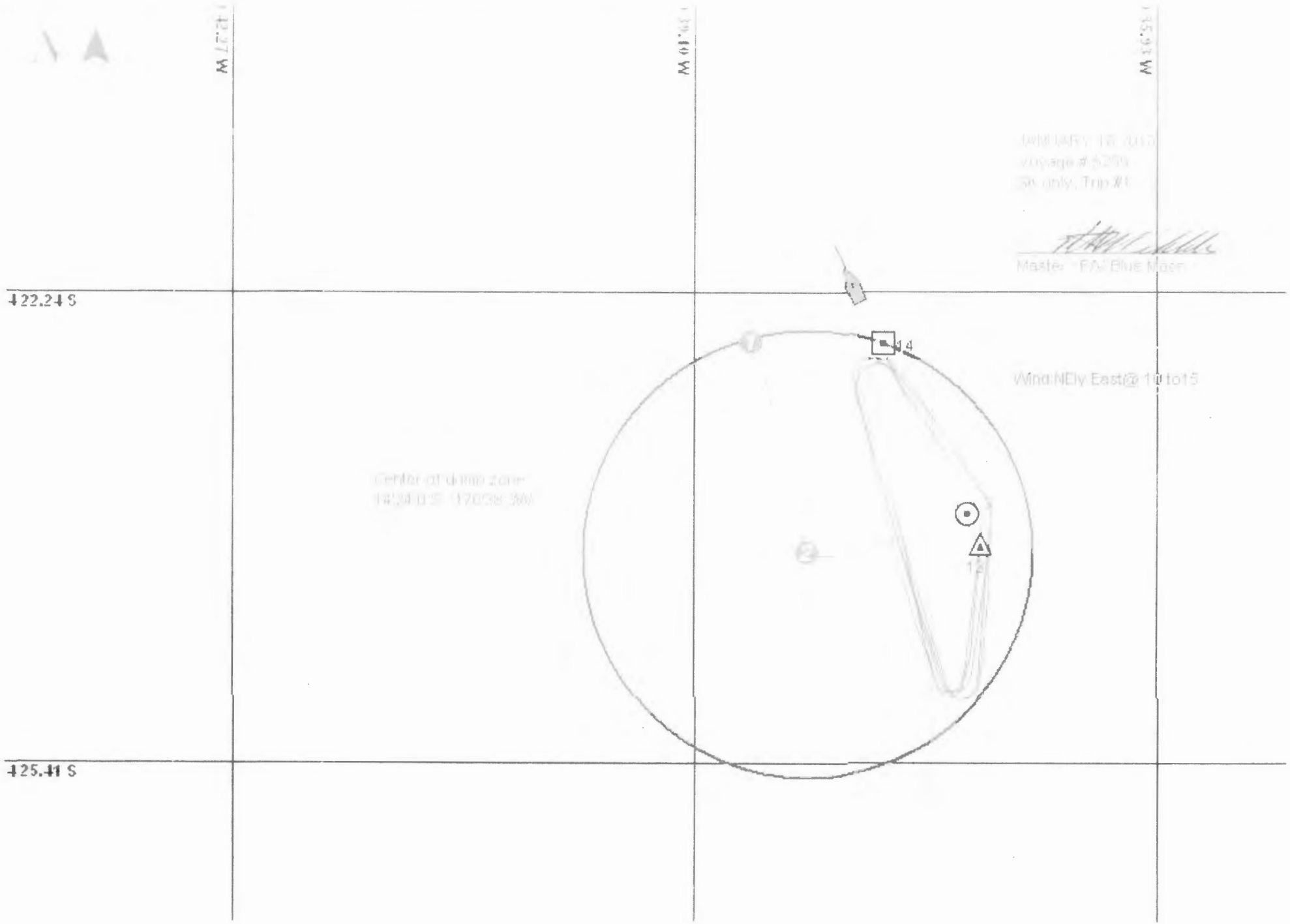
Master, F/V Blue Moon

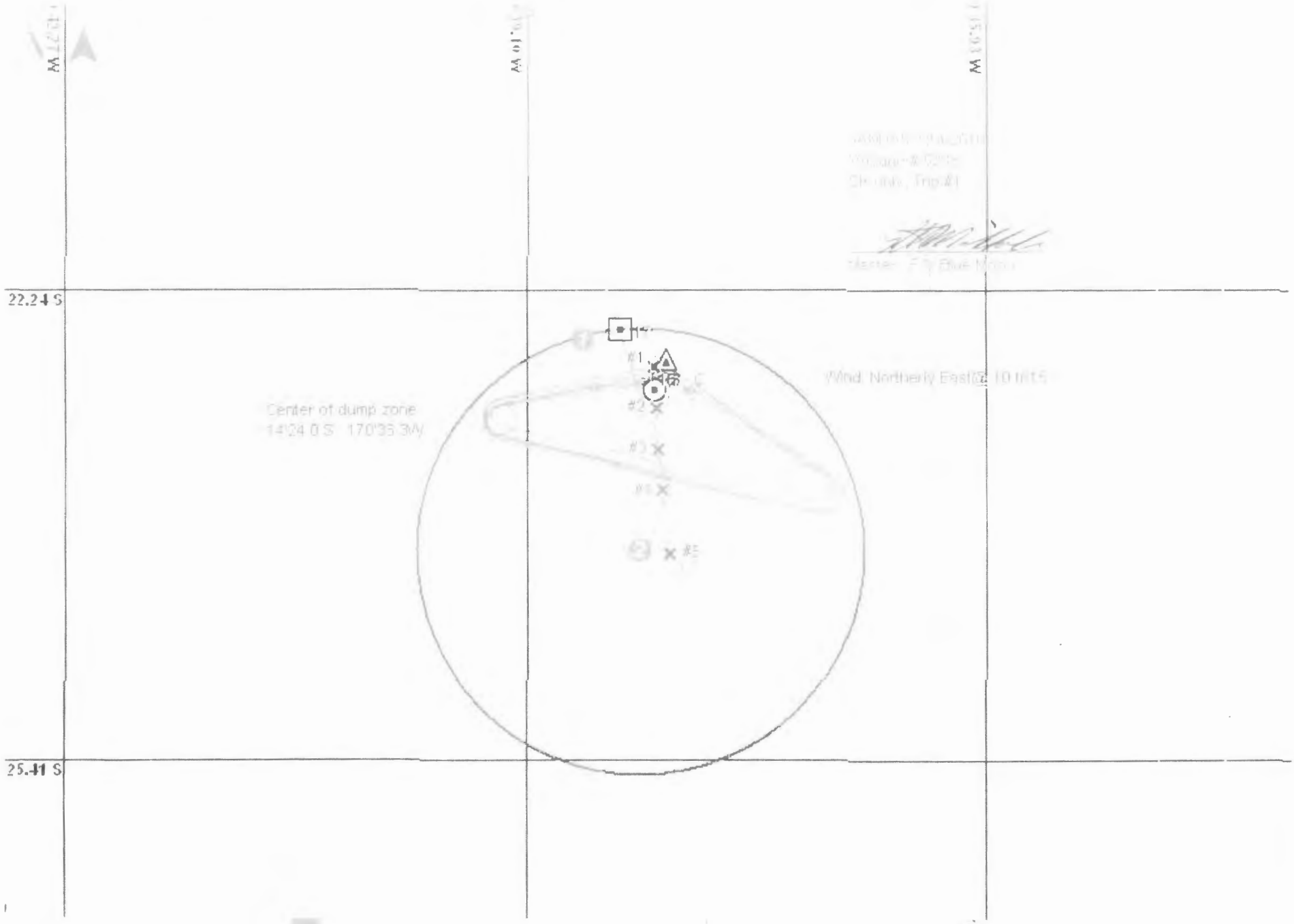

Master F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.8W
current @south east wind NE @ 15
13
17

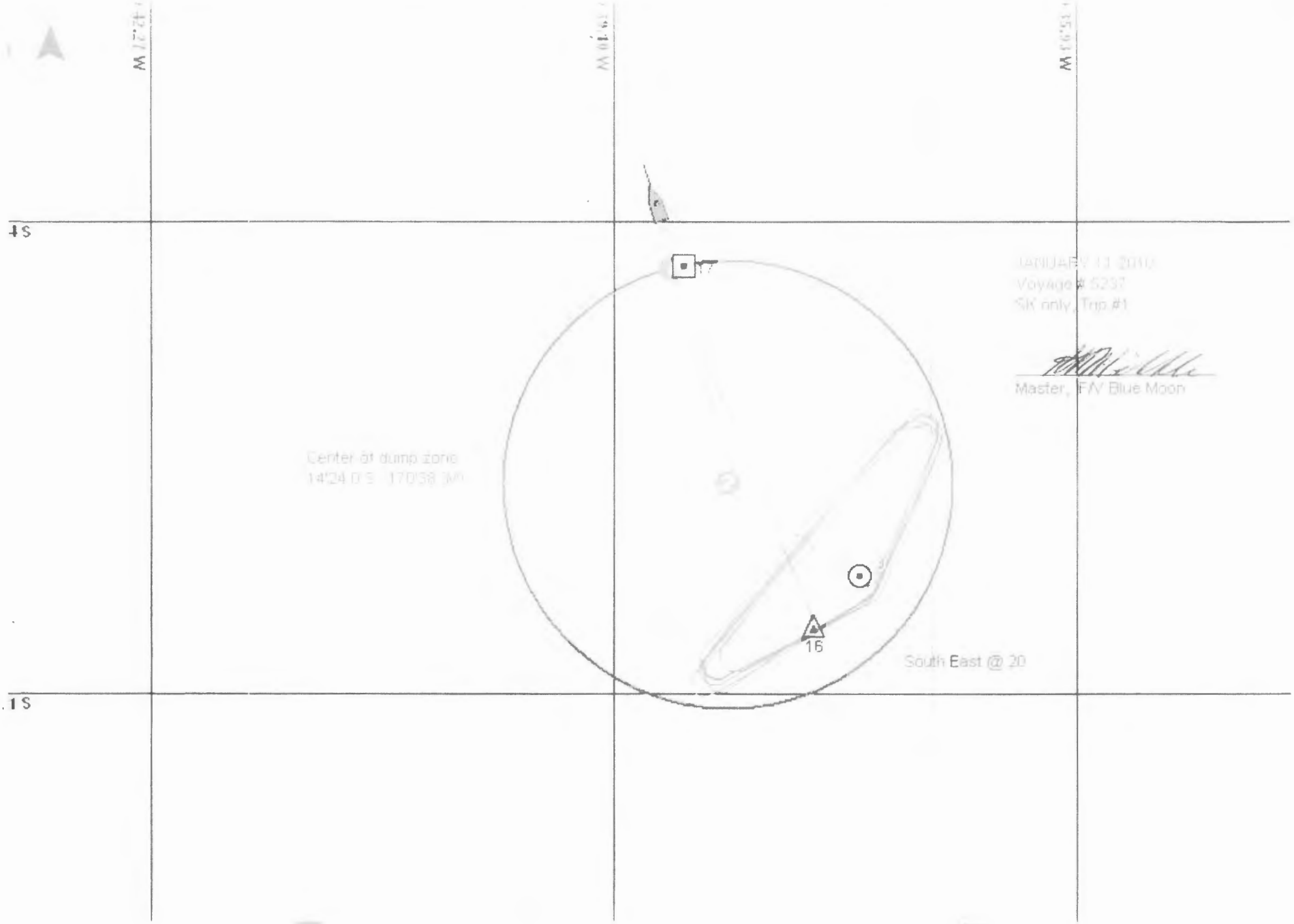


Master, F/V Blue Moon


JANUARY 1st 2010
Voyage # 5240
Sk only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0'S 170°38.3W
south east 20

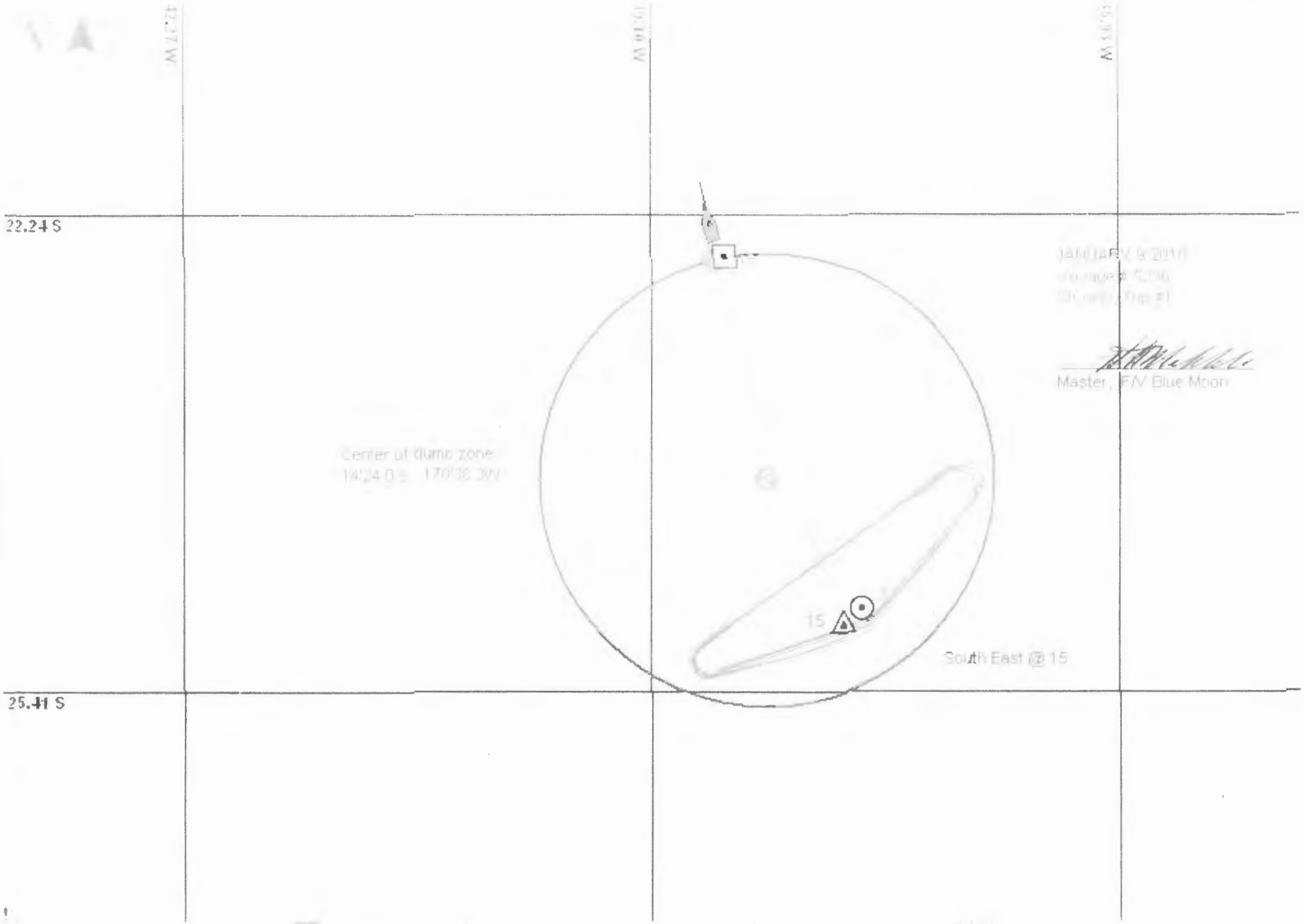

W 127.27 W
W 131.16 W
W 135.93 W
JANUARY 18, 2017
voyage # 5299
5K only, Trip #1
Master: FAV Blue Moon
422.24 S
425.41 S
Wind:NEly East@ 10 to15
Center of dump zone
14°34.0'S 170°38.3W
4
12

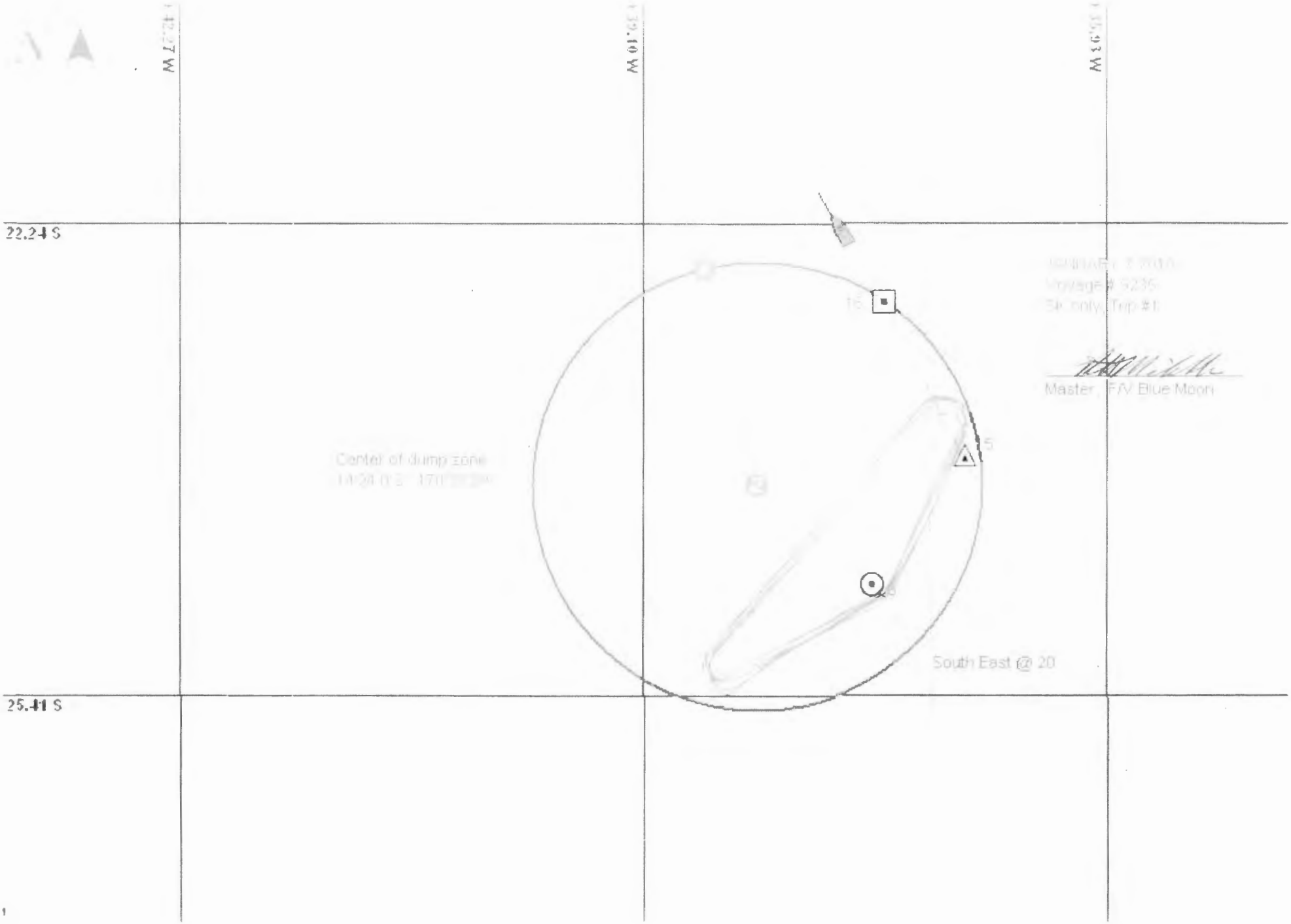

22.24 S
25.41 S
#1
#2
#3
#4
#5
Center of dump zone
14°24.0 S 170°35.3W
Wind: Northerly East@ 10 kt15

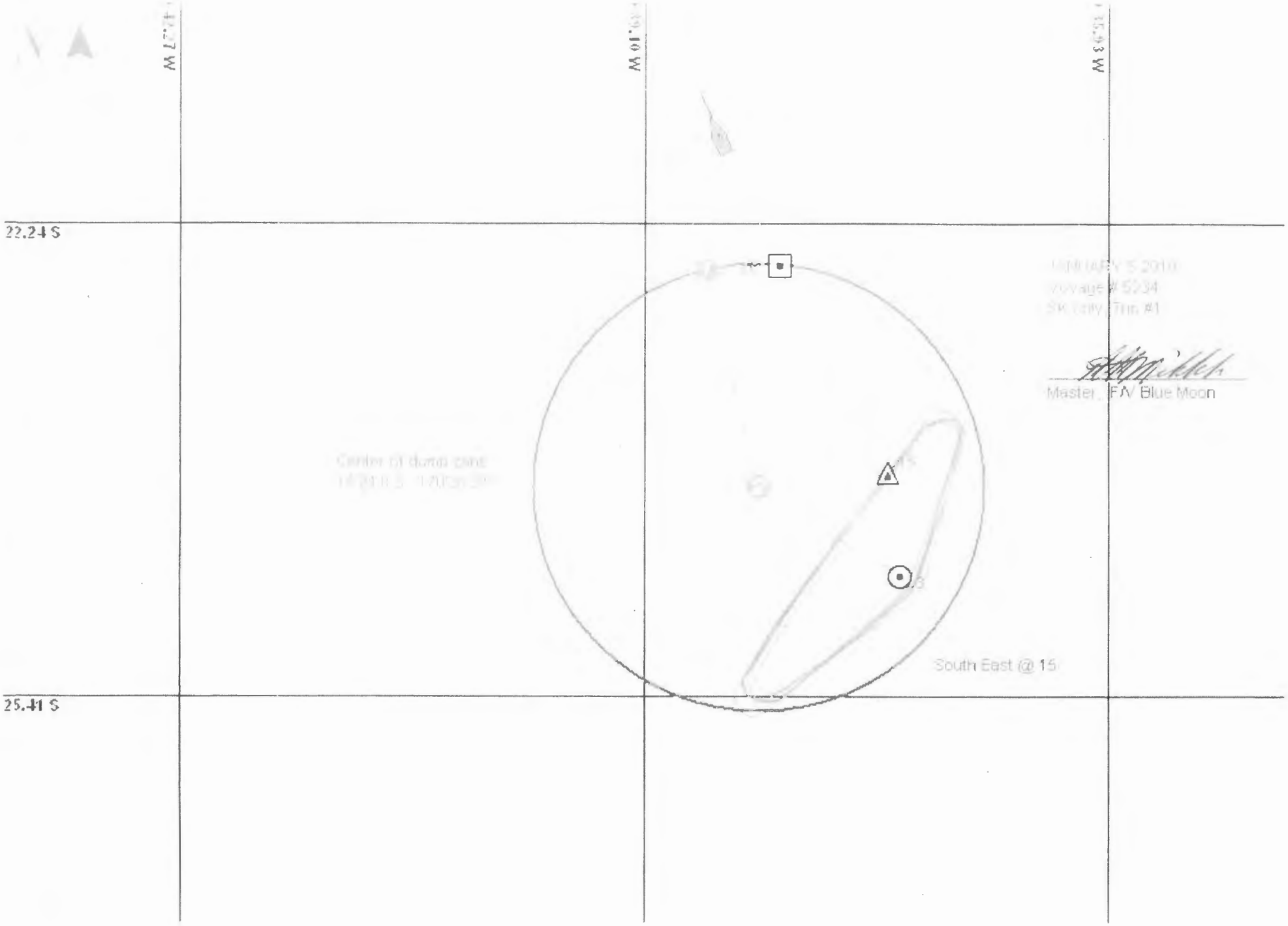


JANUARY 13 2010
Voyage # 5237
SK only, Trip #1

Master, F/V Blue Moon


22.24 S
25.41 S
Center of dump zone
14°24.0'S 170°38.3'W
15
South East @ 15
JANUARY 9 2010
Master, F/V Blue Moon


22.24 S
25.41 S
Center of dump zone
South East @ 20
Master, F/V Blue Moon


22.24 S
25.41 S
Center of dumb cane
South East @ 15
Voyage # 5234
Master, F/V Blue Moon

Date: 01/31/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5246

Permit # OD 93-01 & OD 93-02

Time	
1330	Begin Loading SK
1530	Finish Loading SK
1730	Begin Loading ~~SP~~ SK
1730	Finish Loading ~~SP~~ SK

Trip # 1

Trip # 2

Volume Loaded:		
SK	76 000	Gallons
SP	0	Gallons
Total	76 000	Gallons

Time		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0000	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.3			
0500	Arrive Edge of Zone	# 1	14*22.4	S	170*38.[illegible]	W		70	29.3	1.5	16	164°
0545	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		70	29.3	1.5	16	164°
0705	Begin Discharge	# 3	14*2[illegible].6	S	170*3[illegible].6	W	SE 15	70	29.3	1.5 X	9.7	134°
20		# 4	14*2[illegible].4	S	170*3[illegible].7	W	SE 20	70	29.3	1.5	16	223°
35	Remarks:	# 5	14*2[illegible].1	S	170*3[illegible].5	W	SE 20	70	29.3	1.5	9.4	263°
50		# 6	14*2[illegible].5	S	170*3[illegible].8	W	SE 20	70	29.3	1.5	10.1	324°
0705		# 7	14*2[illegible]	S	170*3[illegible].2	W	SE 20	70	29.3	1.5 5	7.2	36°
10		# 8	14*2[illegible]	S	170*3[illegible]	W	SE 20	70	29.3	1.5	16	227°
35		# 9	14*2[illegible]	S	170*3[illegible].2	W	SE 20	70	29.3	1.5	16	225°
50		# 10	14*2[illegible]	S	170*3[illegible]	W	SE 20	70	29.3	1.5	16	225°
0805		# 11	14*2[illegible]	S	170*3[illegible]	W	SE 20	70	29.3	1.5	16	224°
20		# 12	14*2[illegible]	S	170*3[illegible]	W	SE 20	70	29.3	1.5 10	16	225°
35		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1925	Finish Discharge	13	14*2[illegible]	S	170*3[illegible]	W	SE 20	70	29.3	1.5	16.5	264°
1945	Exit Discharge Zone	14	14*2[illegible]	S	170*3[illegible]	W	SE 20	70	29.3	1.5	16.5	313°
[illegible]	Secure SK Dock		14*16 50'	S	170*41 2'	W						

Current Direction: At Center _____ End of Discharge_____ Discharge Pattern_____

Total Discharge Time 150 mins. Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume?_____

Time and position of any floating material _____ Discharge Rate:_____ Gallons/min/kts

Unusual Occurrences?_____

Notifications made: A.S.P.A _____ U.S.C.G.M.S.D._____ Master F/V Blue Moon _____

Date: 01/29/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5245

Permit # OD 93-01 & OD 93-02

Time		
1430	Begin Loading SK	
1700	Finish Loading SK	Trip # 1
1350	Begin ~~Loading~~ SP SK	Trip # 2
1720	Finish ~~Loading~~ SP SK	

Volume Loaded.		
SK	175000	Gallons
SP	0	Gallons
Total	175000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0500	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.4	Metric	kts	True*
0553	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	LAV	20	29.4	2	9.7	166°
0602	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	LAV	20	29.4	2	9.5	165°
0610	Begin Discharge	# 3	14*2 5.6	S	170*3 9.2	W	S 15	10	29.4	2 X	9.8	177°
25		# 4	14*2 7.7	S	170*3 8.1	W	S LAV	20	29.4	2	10	276°
40	Remarks:	# 5	14*2 5.0	S	170*3 7.6	W	S W	20	29.4	2	9.5	274°
55		# 6	14*2 4.5	S	170*3 7.0	W	S 15	70	29.4	2	10	272°
0710		# 7	14*2 5.1	S	170*3 7.7	W	S 15	50	29.4	2 5	9.4	271°
25		# 8	14*2 4.5	S	170*3 9.7	W	S 15	50	29.4	2	10.2	265°
40		# 9	14*2 4.1	S	170*3 7.3	W	S 15	50	29.4	2	9.5	271°
55		# 10	14*2 5.6	S	170*3 9.1	W	S 15	50	29.4	2	10	275°
0810		# 11	14*2 7.7	S	170*3 9.1	W	S 15	50	29.4	2	10	281°
25		# 12	14*2 7.7	S	170*3 9.1	W	S 15	50	29.4	2 10	9.8	286°
40		# 13	14*2 7.7	S	170*3 9.1	W	S 15	50	29.4	2	10	271°
55		# 14	14*2 5.6	S	170*3 7.6	W	S 15	50	29.4	2	10.1	274°
0910		# 15	14*2 4.7	S	170*3 5.6	W	S 15	50	29.4	2	10.5	271°
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0915	Finish Discharge	16	14*2	S	170*3	W	S 15	50	29.4	2	9.9	270°
0927	Exit Discharge Zone	17	14*2	S	170*3	W		50	29.4	2	10	270°
1015	Secure SK Dock		14*16 50'	S	170*41.2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern Elliptic

Total Discharge Time 165 mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon _____

Date: 01/27/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5244

Permit # OD 93-01 & OD 93-02

Time		
1330	Begin Loading SK	
1930	Finish Loading SK	Trip # 1
	Begin Loading SP	Trip # 2
	Finish Loading SP	

Volume Loaded:		
SK	175 [illegible]	Gallons
SP	0	Gallons
Total	166 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
0500	Depart Starkist		14*16.50'	S	170* 41 2'	W			29.25	Metric		kts	True*
0550	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		100	29.25	2		10.3	161°
0600	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		100	29.25	2		10	166°
0610	Begin Discharge	# 3	14*2 3.4	S	170*3 4.2	W	WxN 25	100	29.25	2	X	5.5	252°
25		# 4	14*2 3.5	S	170*3 4.2	W	WxN 25	100	29.25	2		5.5	275°
30	Remarks:	# 5	14*2 4.2	S	170*3 8.4	W	WxN 25	100	29.25	2		7.5	277°
35		# 6	14*2 3.9	S	170*3 5.8	W	WxN 25	100	29.25	2		10.5	273°
0710		# 7	14*2 3.4	S	170*3 9.2	W	WxN 25	100	29.25	2	5	5.9	251°
25		# 8	14*2 4.2	S	170*3 8.9	W	WxN 25	100	29.3	2		5.2	250°
30		# 9	14*2 3.5	S	170*3 5.9	W	WxN 25	100	29.3	2		5.5	251°
35		# 10	14*2 3.4	S	170*3 [illegible]	W	WxN 25	100	29.3	2		10.5	128°
0810		# 11	14*2 3.9	S	170*3 5.8	W	WxN 25	100	29.3	2		11	270°
25		# 12	14*2 3.5	S	170*3 [illegible]	W	WxN 25	100	29.3	2	10	10.2	126°
30		# 13	14*2 [illegible]	S	170*3 [illegible]	W	WxN 25	100	29.3	2		9.5	254°
35		# 14	14*2 3.3	S	170*3 [illegible]	W	WxN 25	100	29.3	2		5.6	256°
0910		# 15	14*2 4.3	S	170*3 5.4	W	WxN 25	100	29.3	2		5.7	276°
25		# 16	14*2 3.7	S	170*3 5.8	W	WxN 25	100	29.3	2		10.5	274°
		# 17	14*2	S	170*3	W					15		
		# 18	14*2	S	170*3	W							
		# 19	14*2	S	170*3	W							
		# 20	14*2	S	170*3	W							
			14*2	S	170*3	W							
			14*2	S	170*3	W					20		
			14*2	S	170*3	W							
0930	Finish Discharge	17	14*2 3.4	S	170*3 5.8	W	WxN 25	100	29.3	2		10.9	248°
0933	Exit Discharge Zone	19	14*2 2.7	S	170*3 5.7	W	WxN 25	100	29.3	2		10.3	352°
1020	Secure SK Dock		14*16 50'	S	170*41 2'	W							

Current Direction At Center 25 End of Discharge 25 Discharge Pattern Fig 8

Total Discharge Time [illegible] mins Average Speed During Discharge [illegible] kts Total Time Run [illegible] hr

Navigational Plot made yes Presence of Plume? [illegible]

Time and position of any floating material [illegible] Discharge Rate 3.9 Gallons/min/kts

Unusual Occurrences? [illegible]

Notifications made A S P A [illegible] U S C G M S D [illegible] Master F/V Blue Moon [illegible]

Date: 01/25/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5243

Permit # OD 93-01 & OD 93-02

Time		
1400	Begin Loading SK	
2000	Finish Loading SK	Trip # 1
	Begin Loading SP	Trip # 2
	Finish Loading SP	

Volume Loaded:

SK	125000	Gallons
SP	0	Gallons
Total	125000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
										Metric		kts	True*
0600	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.5				
0653	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		100	29.5	1.5		10	169*
0700	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		100	29.5	1.5		10	029*
0715	Begin Discharge	# 3	14*2 3.2	S	170*3 7.5	W	NE 25	100	29.5	2	X	9.9	045*
20		# 4	14*2 3.4	S	170*3 7.5	W	NE 25	100	29.5	2		9.1	049*
45	Remarks:	# 5	14*2 3.7	S	170*3 5.4	W	NE 25	100	29.5	2		9	047*
0800		# 6	14*2 3.8	S	170*3 7.7	W	NE 25	100	29.5	2		10.5	312*
15		# 7	14*2 3.4	S	170*3 7.1	W	NE 25	100	29.5	2	5	10.4	259*
30		# 8	14*2 3.2	S	170*3 7.5	W	NE 25	100	29.5	2		9.5	051*
45		# 9	14*2 3.1	S	170*3 7.5	W	NE 25	100	29.5	2		9.6	022*
0900		# 10	14*2 3.0	S	170*3 8.0	W	NE 25	100	29.5	2		9.7	025*
15		# 11	14*2 3.0	S	170*3 7.7	W	NE 25	100	29.5	2		9.9	017*
30		# 12	14*2 3.0	S	170*3 7.8	W	NE 25	100	29.5	2	10	9.7	[illegible]
[illegible]		# 13	14*2 [illegible]	S	170*3 7.7	W	NE 25	100	[illegible]	2		9.7	[illegible]
1000		# 14	14*2 3.5	S	170*3 7.4	W	NE 25	100	29.5	2		10	055*
		# 15	14*2	S	170*3	W							
		# 16	14*2	S	170*3	W							
		# 17	14*2	S	170*3	W					15		
		# 18	14*2	S	170*3	W							
		# 19	14*2	S	170*3	W							
		# 20	14*2	S	170*3	W							
			14*2	S	170*3	W							
			14*2	S	170*3	W					20		
			14*2	S	170*3	W							
[illegible]	Finish Discharge	14	14*2 [illegible]	S	170*3 7.5	W	[illegible]	[illegible]	[illegible]	2		[illegible]	[illegible]
1012	Exit Discharge Zone	15	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
[illegible]	Secure SK Dock		14*16 50'	S	170*41 2'	W							

Current Direction At Center ____ End of Discharge Sw ____ Discharge Pattern ____

Total Discharge Time 15 mins Average Speed During Discharge ____ kts Total Time Run ____ hr

Navigational Plot made ____ Presence of Plume? ____

Time and position of any floating material: ____ Discharge Rate ____ Gallons/min/kts

Unusual Occurrences? ____

Notifications made A S P A ____ U S C G M S D ____ Master F/V Blue Moon ____

Date: 01/23/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5242

Permit # OD 93-01 & OD 93-02

Time		
1330	Begin Loading SK	
1530	Finish Loading SK	Trip # 1
1400	~~Begin Loading SP~~	Trip # 2
1700	~~Finish Loading SP~~	

Volume Loaded		
SK	175 000	Gallons
SP	0	Gallons
Total	175 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
1600	Depart Starkist		14*16.50'	S	170* 41.2'	W		70	29.95			
0650	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	CALM	70	29.95	1	7.5	166
0700	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		70	29.95	1	7.3	100
0710	Begin Discharge	# 3	14*2 [illegible]	S	170*3 [illegible]	W	VAR 10	70	29.95	1 X	7.2	125
25		# 4	14*2 [illegible]	S	170*3 [illegible]	W	VAR 10	70	29.95	1.0	7.6	217
10	Remarks:	# 5	14*2 [illegible]	S	170*3 [illegible]	W	VAR 10	70	29.95	1.0	7.4	253
55		# 6	14*2 [illegible]	S	170*3 [illegible]	W	VAR 10	70	29.95	1.0	7.7	213
0510		# 7	14*2 [illegible]	S	170*3 [illegible]	W	VAR 10	70	29.95	1.0 5	7.5	054
25		# 8	14*2 [illegible]	S	170*3 [illegible]	W	VAR 10	70	29.95	1.0	7.3	213
40		# 9	14*2 [illegible]	S	170*3 [illegible]	W	VAR 10	70	29.95	1.0	7.4	212
55		# 10	14*2 [illegible]	S	170*3 [illegible]	W	VAR 10	70	29.95	1.0	7.2	216
0610		# 11	14*2 [illegible]	S	170*3 [illegible]	W	VAR 10	70	29.95	1.0	7.7	[illegible]
25		# 12	14*2 [illegible]	S	170*3 [illegible]	W	VAR 10	70	29.95	1.0 10	7.2	213
40		# 13	14*2 [illegible]	S	170*3 [illegible]	W	NE 10	70	29.95	1.0	7.2	[illegible]
55		# 14	14*2 [illegible]	S	170*3 [illegible]	W	NE 10	70	29.95	1.0	7.2	213
0610		# 15	14*2 [illegible]	S	170*3 [illegible]	W	NE 10	70	29.95	1.0	7.2	229
25		# 16	14*2 [illegible]	S	170*3 [illegible]	W	NE 10	70	29.95	1.0	7.0	212
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0710	Finish Discharge	[illegible]	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Exit Discharge Zone	[illegible]	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Secure SK Dock		14*16 50'	S	170*41 2'	W						

Current Direction: At Center [illegible] End of Discharge [illegible] Discharge Pattern [illegible]

Total Discharge Time [illegible] mins Average Speed During Discharge [illegible] kts Total Time Run [illegible] hr

Navigational Plot made [illegible] Presence of Plume? [illegible]

Time and position of any floating material [illegible] Discharge Rate [illegible] Gallons/min/kts

Unusual Occurrences? [illegible]

Notifications made A S P A [illegible] U S C G M S D [illegible] Master F/V Blue Moon [illegible]

Date: 01/21/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5241

Permit # OD 93-01 & OD 93-02

Time		
1400	Begin Loading SK	
1530	Finish Loading SK	
1326	~~Begin Loading~~ SP	
1630	~~Finish Loading~~ SP	

Trip # 1

Trip # 2

Volume Loaded:

SK	[illegible]	Gallons
SP	[illegible]	Gallons
Total	162500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0635	Depart Starkist		14*16.50'	S	170* 41.2'	W		66	29.5			
0634	Arrive Edge of Zone	# 1	14*22.4	S	170*38	W		60	29.5	1.5	9.2	167°
0742	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		60	29.5	1.5	9.	166°
0750	Begin Discharge	# 3	14*2 4.7	S	170*3 7.6	W	SE 26	60	29.5	1.5 X	9	66°
0805		# 4	14*2 4.6	S	170*3 7.6	W	SE 26	60	29.5	1.5	9.5	227
20	Remarks:	# 5	14*2 5.0	S	170*3 7.6	W	SE 26	60	29.5	1.5	9.5	054°
35		# 6	14*2 4.3	S	170*3 7.7	W	SE 26	60	29.5	1.5	9.4	224°
50		# 7	14*2 4.4	S	170*3 7.6	W	SE 26	60	29.5	1.5 5	9.5	064°
1405		# 8	14*2 5.6	S	170*3 7.4	W	SE 26	60	29.5	1.5	10	226°
20		# 9	14*2 4.5	S	170*3 7.2	W	SE 26	60	29.5	1.5	10	233°
30		# 10	14*2 4.2	S	170*3 7.0	W	SE 26	60	29.5	1.5	10	227
1605		# 11	14*2 1.9	S	170*3 5.3	W	SE 26	50	29.5	1.5	10.2	227°
		# 12	14*2	S	170*3	W				10		
		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1615	Finish Discharge	12	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1616	Exit Discharge Zone	13	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	227
1635	Secure SK Dock		14*16 50'	S	170*41.2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time: _____ mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon _____

Date: 01/19/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5240

Permit # OD 93-01 & OD 93-02

Time		
1400	Begin Loading SK	
1900	Finish Loading SK	Trip # 1
	Begin Loading SP	Trip # 2
	Finish Loading SP	

Volume Loaded		
SK	126,000	Gallons
SP	0	Gallons
Total	126,000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
1610	Depart Starkist		14*16.50'	S	170* 41.2'	W		50	29.5			
0554	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		50	29.5	1.9	9.9	000
0600	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		50	29.5	1.5	9.5	164
0610	Begin Discharge	# 3	14*2 [illegible]	S	170*3 [illegible]	W	2E 15	50	29.5	1.5 X	9.5	[illegible]
25		# 4	14*2 [illegible]	S	170*3 [illegible]	W	5E 20	50	29.5	1.5	9.6	216
40	Remarks:	# 5	14*2 4.8	S	170*3 [illegible]	W	2E 20	50	29.5	1.5	9.6	003
55		# 6	14*2 3.5	S	170*3 [illegible]	W	5E 20	50	29.5	1.5	9.6	211
0710		# 7	14*2 5.3	S	170*3 [illegible]	W	5E 20	50	29.5	1.5 5	9.4	061
25		# 8	14*2 [illegible]	S	170*3 [illegible]	W	5E 20	50	29.5	1.5	9.9	000
40		# 9	14*2 [illegible]	S	170*3 [illegible]	W	5E 20	50	29.5	1.5	10	211
55		# 10	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	50	29.5	1.5	[illegible]	061
0810		# 11	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	29.5	1.5	10	212
25		# 12	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	29.5	1.5 10	[illegible]	016
40		# 13	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	212
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
[illegible]	Finish Discharge	[illegible]	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Exit Discharge Zone	[illegible]	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Secure SK Dock		14*16 50'	S	170*41.2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon _____

Date: 01/16/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5239

Permit # OD 93-01 & OD 93-02

Time	
16 [illegible]	Begin Loading SK
1736	Finish Loading SK
1900	Begin Loading SP
1900	Finish Loading SP

Trip # 1
Trip # 2

Volume Loaded:

SK	6000	Gallons
SP	0	Gallons
Total	6000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0616	Depart Starkist		14*16.50'	S	170* 41.2'	W						
0635	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	calm	30	29.55	1	9.4	162
0707	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	calm	50	29.55	1	9.6	165
0715	Begin Discharge	# 3	14*2 3.6	S	170*3 7.1	W	calm	[illegible]	[illegible]	1 X	9	341
30		# 4	14*2 4.6	S	170*3 7.7	W	NE 15	50	29.50	1	9.7	164
15	Remarks:	# 5	14*2 3.7	S	170*3 7.1	W	NE 15	50	29.5	1	9.2	163
0800		# 6	14*2 3.7	S	170*3 7.7	W	NE 15	50	29.5	1	9.5	163
15		# 7	14*2 4.4	S	170*3 7.2	W	NE 15	50	29.5	1 5	9.3	166
30		# 8	14*2 3.7	S	170*3 7.7	W	NE 15	50	29.5	1	9.4	172
15		# 9	14*2 4.2	S	170*3 7.6	W	NE 15	50	29.5	1	9.4	[illegible]
0745		# 10	14*2 3.7	S	170*3 7.4	W	NE 15	50	29.5	1	9.1	[illegible]
15		# 11	14*2 1.9	S	170*3 7.2	W	NE 15	50	29.5	1	9.6	[illegible]
30		# 12	14*2 [illegible]	S	170*3 7.5	W	[illegible]	[illegible]	[illegible]	1 10	[illegible]	[illegible]
		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
[illegible]	Finish Discharge	[illegible]	14*2 [illegible]	S	170*3 7.1	W	NE 15	75	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Exit Discharge Zone	[illegible]	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
0745	Secure SK Dock		14*16.50'	S	170*41 2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon _____

Date: 01/14/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5238

Permit # OD 93-01 & OD 93-02

Time	
0570	Begin Loading SK
1730	Finish Loading SK
1560	Begin Loading SP
2610	Finish Loading SP

Trip # 1

Trip # 2

Volume Loaded:

SK	187 500	Gallons
SP	0	Gallons
Total	187 500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
										Metric		kts	True*
0510	Depart Starkist		14*16 50'	S	170* 41.2'	W			29.5				
0550	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		100	29.5	1		9.5	165
0555	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		100	29.5	1		9.8	166
0615	Begin Discharge	# 3	14*2 2.9	S	170*3 5.0	W	NE 15	100	29.5	1	X	9	276
30		# 4	14*2 3.1	S	170*3 9.1	W	NNE 15		29.5	1		9.4	165
45	Remarks:	# 5	14*2 3.3	S	170*3 1.3	W	NNE 15	100	29.5	1		9.6	257
0700		# 6	14*2 3.2	S	170*3 9.2	W	NNE 15	100	29.5	1		9.4	165
15	0616 water	# 7	14*2 2.5	S	170*3 6.9	W	N 15	100	29.5	1	5	9.3	365
30	sample	# 8	14*2 3.9	S	170*3 5.2	W	N 15	100	29.5	1		10.1	261
45		# 9	14*2 3.6	S	170*3 3.4	W	N 15	100	29.5	1		9.5	166
0800		# 10	14*2 2.7	S	170*3 2.3	W	NE 15	100	29.5	1		10.3	262
15		# 11	14*2 1.4	S	170*3 5.2	W	NE 15	100	29.5	1		9.7	164
30		# 12	14*2 [illegible]	S	170*3 [illegible]	W	NE 15	[illegible]	29.5	1	10	[illegible]	[illegible]
45		# 13	14*2 [illegible]	S	170*3 [illegible]	W	NE 15		29.5	1		[illegible]	[illegible]
0900		# 14	14*2 1.2	S	170*3 2.3	W	NE 15	50	29.5	[illegible]		10.1	364
		# 15	14*2	S	170*3	W							
		# 16	14*2	S	170*3	W							
		# 17	14*2	S	170*3	W					15		
		# 18	14*2	S	170*3	W							
		# 19	14*2	S	170*3	W							
		# 20	14*2	S	170*3	W							
			14*2	S	170*3	W							
			14*2	S	170*3	W					20		
			14*2	S	170*3	W							
0905	Finish Discharge	16	14*2 2.1	S	170*3 7.1	W	NE 15	50	29.5	1		10.1	[illegible]
0915	Exit Discharge Zone	17	14*2 3	S	170*3 3.5	W	NE 15	50	29.5	1		10.1	[illegible]
1000	Secure SK Dock		14*16 50'	S	170*41 2'	W							

Current Direction At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins Average Speed During Discharge _____ kts Total Time Run 5.15 hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon _____

Date: 01/11/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5237

Permit # OD 93-01 & OD 93-02

Time	
[illegible]	Begin Loading SK
[illegible]	Finish Loading SK
	Begin Loading SP
	Finish Loading SP

Trip # 1

Trip # 2

Volume Loaded		
SK	[illegible]	Gallons
SP		Gallons
Total	[illegible]	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
[illegible]	Depart Starkist		14*16.50'	S	170* 41 2'	W			[illegible]	Metric		kts	True*
[illegible]	Arrive Edge of Zone	# 1	14*22.4	S	170*38.[illegible]	W		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
[illegible]	Arrive Zone Center	# 2	14*24 0	S	170*38.3	W		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
[illegible]	Begin Discharge	# 3	14*2[illegible]	S	170*3[illegible]	W	SE 15	[illegible]	[illegible]	[illegible]	X	[illegible]	[illegible]
[illegible]		# 4	14*2[illegible]	S	170*3[illegible]	W	SE 15	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
[illegible]	Remarks:	# 5	14*2[illegible]	S	170*3[illegible]	W	SE 15	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
[illegible]		# 6	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
[illegible]		# 7	14*2[illegible]	S	170*3[illegible]	W	SE 2[illegible]	[illegible]	[illegible]	[illegible]	5	[illegible]	[illegible]
[illegible]		# 8	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
[illegible]		# 9	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
[illegible]		# 10	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
		# 11	14*2[illegible]	S	170*3[illegible]	W	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]
[illegible]		# 12	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	10	[illegible]	[illegible]
[illegible]		# 13	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
[illegible]		# 14	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
		# 15	14*2[illegible]	S	170*3[illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
		# 16	14*2	S	170*3	W							
		# 17	14*2	S	170*3	W					15		
		# 18	14*2	S	170*3	W							
		# 19	14*2	S	170*3	W							
		# 20	14*2	S	170*3	W							
			14*2	S	170*3	W							
			14*2	S	170*3	W					20		
			14*2	S	170*3	W							
[illegible]	Finish Discharge	[illegible]	14*2[illegible]	S	170*3[illegible]	W	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]
[illegible]	Exit Discharge Zone	[illegible]	14*2[illegible]	S	170*3[illegible]	W	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]
[illegible]	Secure SK Dock		14*16 50'	S	170*41 2'	W							

Current Direction: At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins. Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon _____

Date: 01/09/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5236

Permit # OD 93-01 & OD 93-02

Time		
20	Begin Loading SK	
1646	Finish Loading SK	Trip # 1
1500	Begin Loading SP	Trip # 2
2000	Finish Loading SP	

Volume Loaded		
SK	172 500	Gallons
SP	0	Gallons
Total	172 500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
516	Depart Starkist		14*16.50'	S	170* 41 2'	W			29.5	Metric		kts	True*
0543	Arrive Edge of Zone	# 1	14*22 4	S	170*38.	W		40	29.5	1.5		12	166°
0552	Arrive Zone Center	# 2	14*24 0	S	170*38.3	W	15 15	16	29.5	1.5		9	16
0600	Begin Discharge	# 3	14*2 4.7	S	170*3 7.7	W	SE 15	40	29.5	1.5	X	7.1	142
5		# 4	14*2 4.6	S	170*3 1.2	W	SE 15	40	29.5	1.5		7.5	231
30	Remarks:	# 5	14*2 5.1	S	170*3 8.3	W	SE 15	20	29.5	1.5		7	174
45		# 6	14*2 1.1	S	170*3 7.3	W	SE 15	20	29.5	1.5		7.5	236
0700		# 7	14*2 5.2	S	170*3 5.5	W	SE 15	20	29.45	1.5	5	9	279
5		# 8	14*2 3.9	S	170*3 7.1	W	SE 15	20	29.45	1.5		7.9	241
30		# 9	14*2 5.2	S	170*3 5.6	W	SE 15	20	29.45	1.5		7.1	272°
45		# 10	14*2 [illegible]	S	170*3 1.1	W	SE 15	20	29.45	1.5		10.2	242
0800		# 11	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]		9.3	273
[illegible]		# 12	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	10	[illegible]	[illegible]
[illegible]		# 13	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
15		# 14	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
[illegible]		# 15	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	273
		# 16	14*2	S	170*3	W							
		# 17	14*2	S	170*3	W					15		
		# 18	14*2	S	170*3	W							
		# 19	14*2	S	170*3	W							
		# 20	14*2	S	170*3	W							
			14*2	S	170*3	W							
			14*2	S	170*3	W					20		
			14*2	S	170*3	W							
	Finish Discharge		14*2	S	170*3	W							
	Exit Discharge Zone		14*2	S	170*3	W							
	Secure SK Dock		14*16 50'	S	170*41 2'	W							

Current Direction: At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon _____

Date: 01/07/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5235

Permit # OD 93-01 & OD 93-02

Time	
1416	Begin Loading SK
2010	Finish Loading SK
	Begin Loading SP
	Finish Loading SP

Trip # 1

Trip # 2

Volume Loaded		
SK	150 000	Gallons
SP	-	Gallons
Total	150 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
516	Depart Starkist		14*16.50'	S	170* 41 2'	W			29.5			
545	Arrive Edge of Zone	# 1	14*22 4	S	170*38 7	W		50	29.5	1.5	8.1	164
600	Arrive Zone Center	# 2	14*24 0	S	170*38.3	W	SE15	30	29.5	1.5	8.9	162
610	Begin Discharge	# 3	14*2 4.6	S	170*3 2.3	W	SE26	50	29.5	1.5 X	7.1	227
25		# 4	14*2 4.6	S	170*3 2.7	W	SE26	50	29.5	1.5	7.3	211
40	Remarks	# 5	14*2 5.6	S	170*3 5.6	W	SE26	50	29.5	1.5	8.5	160
55		# 6	14*2 2.6	S	170*3 1.2	W	SE26	50	29.5	1.5	8.5	225
710		# 7	14*2 5.2	S	170*3 4.4	W	SE26	50	29.5	1.5 5	8.5	167
25		# 8	14*2 1.1	S	170*3 2.1	W	SE26	50	29.5	1.5	9.2	226
40		# 9	14*2 4.7	S	170*3 3.2	W	SE26	50	29.5	1.5	9.7	223
55		# 10	14*2 1.4	S	170*3 2.2	W	SE26	50	29.5	1.5	7.7	225
810		# 11	14*2 4.1	S	170*3 2.7	W	SE26	50	29.5	1.5	10.1	227
25		# 12	14*2 [illegible]	S	170*3 2.1	W	SE26	50	29.5	1.5 10	[illegible]	[illegible]
40		# 13	14*2 [illegible]	S	170*3 [illegible]	W	SE26	50	29.5	1.5	8.6	223
55		# 14	14*2 [illegible]	S	170*3 [illegible]	W	SE26	50	29.5	1.5	9.1	221
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
905	Finish Discharge	5	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	5	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Exit Discharge Zone		14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Secure SK Dock		14*16 50'	S	170*41 2'	W						

Current Direction At Center _____ End of Discharge _____ Discharge Pattern _____

Total Discharge Time _____ mins Average Speed During Discharge _____ kts Total Time Run _____ hr

Navigational Plot made _____ Presence of Plume? _____

Time and position of any floating material _____ Discharge Rate _____ Gallons/min/kts

Unusual Occurrences? _____

Notifications made A.S.P.A. _____ U.S.C.G. M.S.D. _____ Master F/V Blue Moon _____

Date: 01/05/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5234

Permit # OD 93-01 & OD 93-02

Time					
1500	Begin Loading SK	Volume Loaded	SK	145 000	Gallons
2000	Finish Loading SK	Trip # 1	SP	0	Gallons
	Begin Loading SP	Trip # 2	Total	145 000	Gallons
	Finish Loading SP				

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
500	Depart Starkist		14*16.50'	S	170* 41 2'	W			29.45	Metric	kts	True*
0545	Arrive Edge of Zone	# 1	14*22 4	S	170*38 1	W		10	29 45	1.5	9.7	166
0553	Arrive Zone Center	# 2	14*24 0	S	170*38.3	W		10	29.45	1.5	9.7	165°
0600	Begin Discharge	# 3	14*2 4.5	S	170*3 7.2	W	SE 15	70	29.45	1.5 X	9.8	025°
15		# 4	14*2 3.9	S	170*3 7.4	W	SE 15	70	29.45	1.5	10	214°
30	Remarks:	# 5	14*2 5.8	S	170*3 7.6	W	SE 15	70	29.45	1.5	9.1	048°
		# 6	14*2 3.9	S	170*3 7.5	W	SE 15	50	29.45	1.5	10	215°
700		# 7	14*2 5.2	S	170*3 7.4	W	SE 15	50	29.45	1.5 5	9.3	051°
		# 8	14*2 [illegible]	S	170*3 7.4	W	SE 15	50	29.45	1.5	10.2	229°
30		# 9	14*2 [illegible]	S	170*3 7.4	W	SE 15	50	29.45	1.5	9.2	218°
45		# 10	14*2 [illegible]	S	170*3 7.3	W	SE 15	50	29.45	1.5	10.3	226°
700		# 11	14*2 [illegible]	S	170*3 7.6	W	SE 15	50	29.45	1.5	9.3	[illegible]
15		# 12	14*2 [illegible]	S	170*3 7.2	W	SE 15	50	29.45	1.5 10	10.5	22[illegible]
30		# 13	14*2 [illegible]	S	170*3 7.1	W	SE 15	50	29.45	1.5	9.5	045
45		# 14	14*2 [illegible]	S	170*3 7.2	W	SE 15	50	29.45	1.5	10.5	219°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0850	Finish Discharge	16	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	9.7	227°
0857	Exit Discharge Zone	[illegible]	14*2 [illegible]	S	170*3 [illegible]	W	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Secure SK Dock		14*16 50'	S	170*41 2'	W						

Current Direction At Center [illegible] End of Discharge [illegible] Discharge Pattern [illegible]

Total Discharge Time [illegible] mins Average Speed During Discharge [illegible] kts Total Time Run [illegible] hr

Navigational Plot made YES Presence of Plume? [illegible]

Time and position of any floating material [illegible] Discharge Rate [illegible] Gallons/min/kts

Unusual Occurrences? [illegible]

Notifications made A S P A [illegible] U S C G M S D [illegible] Master F/V Blue Moon [illegible]

OCEAN DUMPSITE MONITORING REPORT

(OD 93-01 & OD 93-02)

14 January , 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling positions:	All positions obtained by Global Position Satellite Navigator (GPS)

Introduction

On January 14, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master, Principal Investigator, Chief and Mate onboard.

0550: The *Blue Moon* entered the dump/one circle *at* 14*22.6' S / 170*38.7' W.

0558: The *Blue Moon* arrived at the dump/one center, where observed northerly winds and very slight east southeasterly seas indicated disposal operations be conducted in the north dump-/one quadrant.

0610: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) upcurrent (North) of the dump/one center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were very slight with east southeast swells to 1 meter and northerly winds at 5 knots. Skies were partly cloudy with 5 miles visibility and the barometer reading 29.50. Current set and drift were to the south at 1.1 knots. No floating materials or sea life were observed here

0615: The *Blue Moon* began disposal operations in the north dump /one quadrant and continued discharging material with a generally, east to west reciprocal, elongated triangular pattern (see Plot 1) until 0905 hrs.

0915: Station One Monitoring. Discrete water samples were drawn from depths 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The northerly winds had increased to 15 knots w/ cloudy skies. The waste plume had moved/dissipated completely from this area and could only be seen some distance to the south as a narrow east to west oriented area of surface sheen about 2.5 NM long by 0.25 NM wide, moving to the south. No sealife or floatable materials were observed.

0925: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. The average drift rate of the ship with current and wind was GPS determined to be southerly at 1.3 knots between stations 1 & 2. No sea-life or floatable materials were noted at this position.

0932: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position still showed no sign of the waste plume in the clear blue seas. The drift rate of the ship between stations 2 & 3 was 1.5 knots to the south.

0943: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM south of Station #3, was the first station to show any sign of the waste plume with a few light and scattered streaks of surface sheen over natural clear blue water. There were no floating or suspended materials. The southerly current drift rate of the ship was again noted to be at 1.4 knots.

0952: Station Five monitoring. Sampling for this final station was conducted at the leading edge of the waste plume approximately 0.35 NM down current (south) from station #4 and was 0.18 miles east of the zone center. The waste plume was visually prominent at this location as a long, narrow, east to west track line of the typical surface sheen with natural, clear, blue ocean beyond to the south. No notable sea life was observed at this position other than a few seabirds flying by. The final barometer reading was 29.49 when monitoring activities were concluded at 0955 hrs. The *Blue Moon* exited the disposal zone at 1010 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa laboratory at 1100 hours.

Prepared by:

Mike Crook, Principal Investigator

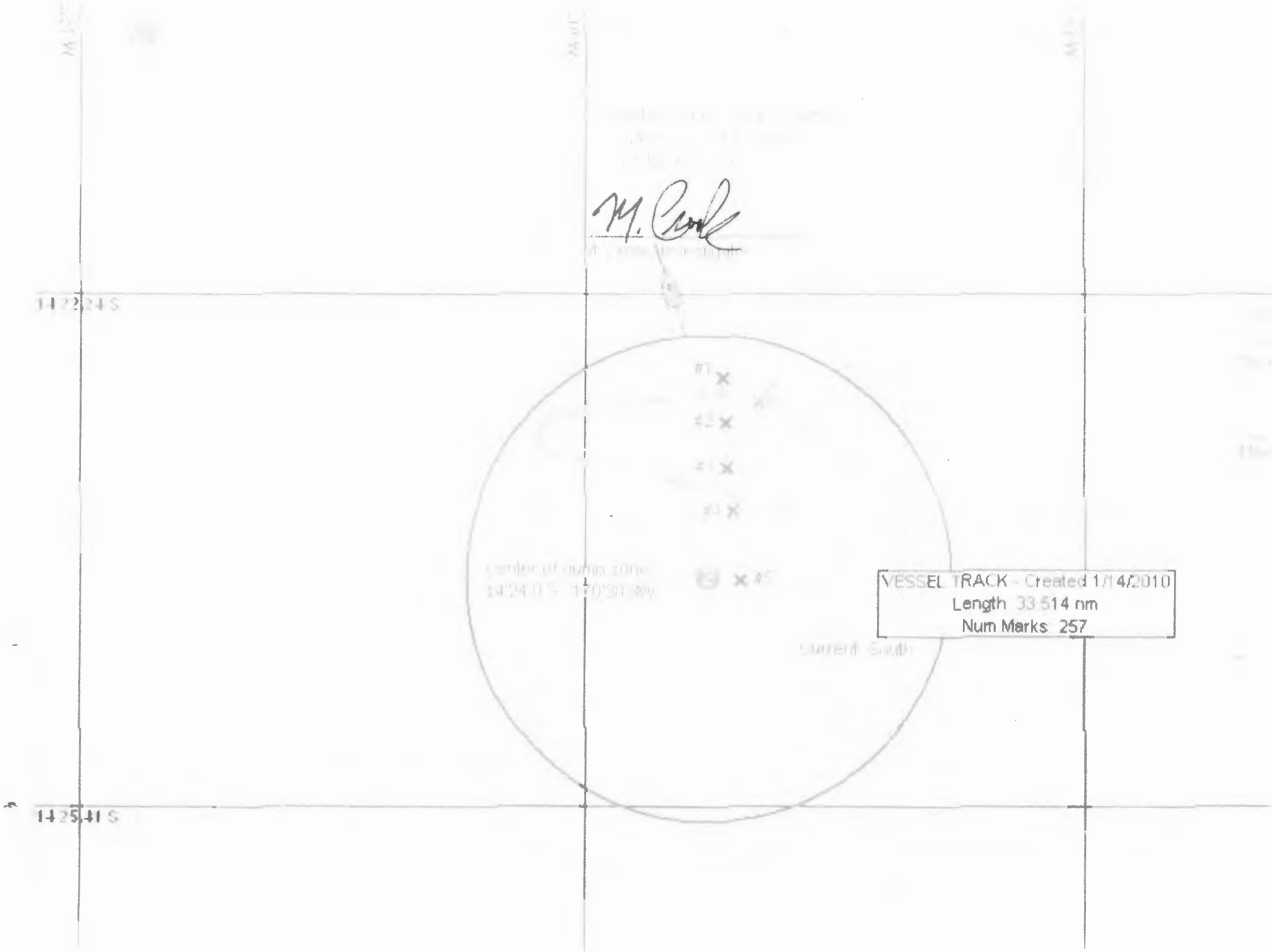
OCEAN DUMPING RESEARCH PERMIT: OD-93-02

Table 1

Date: 14 January, 2010	Sea Conditions: Slight w/ East & SE swells to 1.0 meters. Wind: Northerly @ 5 - 15 knots. Sky: Overcast w/ some light rain. Direction & Rate of Current: Southerly set @ 1.4 knot average. Visibility: 3-8 miles. Barometer: 29.50 – 29.49					
Time	Station	Depth (meters)	Temp. (°C)	pH	Odor	Color
0610	Control	1	27.2	8.0	None	Deep, clear and natural pelagic blue. No floatable or suspended particulate material present.
		3	27.2	8.0		
		10	26.7	8.0		
0915	Station 1	1	27.2	8.0	None	Same as Control Station
		3	27.2	8.0		
		10	27.2	8.0		
0925	Station 2	1	27.2	8.0	None	Same as Control & Station #1.
		3	27.2	8.0		
		10	27.2	8.0		
0932	Station 3	1	27.2	8.0	None	Same as Station #2.
		3	27.2	8.0		
		10	27.2	8.0		
0943	Station 4	1	27.2	8.0	Slightly Pungent	Only a few residual, very light & scattered streaks of glassy surface sheen over clear, blue water with no subsurface or floating particulate or other material.
		3	27.2	8.0		
		10	27.2	8.0		
0952	Station 5	1	27.8	8.0	Slightly Pungent	The leading edge of the waste plume consisted of an unbroken east to west track line of moderate, glassy surface sheen about 2 miles long and 0.25 mile wide over clear, blue subsurface water. No floating or suspended materials
		3	27.8	8.0		
		10	27.8	8.0		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 22.94'	South	170° 37.96'	West
Station 1	14° 22.73'	South	170° 38.22'	West
Station 2	14° 22.96'	South	170° 38.23	West
Station 3	14° 23.33'	South	170° 38.20'	West
Station 4	14° 23.56'	South	170° 38.17'	West
Station 5	14° 24.00'	South	170° 38.10'	West


M. Cook
14 22 24 S
14 25 41 S
#1
#2
#3
#4
#5
Center of dump zone
14°24'0 S 170°30'3W
Current South
VESSEL TRACK - Created 1/14/2010
Length 33.514 nm
Num Marks 257

OCEAN DUMPSITE MONITORING REPORT

(OD 93-01 & OD 93-02)

11 February, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling positions:	All positions obtained by Global Position Satellite Navigator (GPS)

Introduction

On February 11, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master/Principal Investigator, Chief and Mate onboard.

0535: The *Blue Moon* entered the dumpzone circle @ 14*22.5' S / 170*38.7' W.

0605: The *Blue Moon* arrived at the dumpzone center, where observed southeasterly winds and slight southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0615: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) upcurrent or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with SE swells to 1.5 meters and a southeast wind of 5 knots. Skies were cloudy with 8 miles visibility and the barometer reading 29.43. Current set and drift, of the ship, were to the northwest at 0.5 knots. No floating materials or sea life were observed here.

0625: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical pattern (see Plot 1) until 0940 hrs.

0945: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had increased to 12 knots with still cloudy skies. The waste plume appeared as a series of long glassy track lines and large patches of moderate surface sheen about 1.75 miles long, NE to SW by 1.4 miles wide, SE to NW and moving, generally, to the NW. The current/wind drift of the ship was now GPS determined to be northwesterly @ 1.0 knot. No sea life or floatable

materials were observed.

0955: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position was in an area of more glassy surface sheen. The average drift rate of the ship with current and wind was GPS determined to be north-northwest (NNW) at 1.1 knots between stations 1 & 2. No sea-life or floatable materials were noted at this position.

1005: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was again, in a large area of glassy surface sheen over clear blue water. The drift rate of the ship between stations 2 & 3 was 1.0 knots to the NW.

1015: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM northwest of Station #3, was visibly, the leading edge of the waste plume with just a few light and scattered streaks of surface sheen over natural clear blue water. There were no floating or suspended materials. The NW current/drift rate of the ship was noted here to be at 1.2 knots.

1025: Station Five monitoring. Sampling for this final station was conducted 0.25 NM down-current (NW) from Station #4 and approximately 0.32 miles SE of the zone center. The waste plume was not visually apparent at this location which had natural, clear blue ocean. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.47 when monitoring activities were concluded at 1030 hrs. The *Blue Moon* exited the disposal zone at 1040 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1130 hours.

Prepared by:

Mike Crook, Principal Investigator

Table 1

Date: 11 February 2010	Sea Conditions: Slight w/ Southeast swells to 1.5 meters. Wind: Southeast @ 5 – 12 knots. Sky: Cloudy - 80% Direction & Rate of Current: Northwest set @ 1.1 knot average. Visibility: 8 - 10 miles. Barometer: 29.43 – 29.47					
Time	Station	Depth (meters)	Temp. (°C)	pH	Odor	Color
0615	Control	1	26.7	8.2	None	Deep, clear and natural pelagic blue. No floatable or suspended particulate material present.
		3	26.7	8.2		
		10	26.7	8.2		
0945	Station 1	1	27.2	8.2	Slightly Pungent	Track lines & areas of moderate glassy surface sheen over deep, clear blue. No floating or suspended materials.
		3	27.2	8.2		
		10	27.2	8.2		
0955	Station 2	1	27.2	8.2	Slightly Pungent	More areas of glassy surface sheen present as at Station #1. No floating or suspended particulates etc.
		3	27.2	8.2		
		10	27.2	8.2		
1005	Station 3	1	27.8	8.2	Pungent	More areas of moderate glassy surface sheen. Again, no floatable or suspended materials.
		3	27.2	8.2		
		10	27.2	8.2		
1015	Station 4	1	27.8	8.2	Pungent	Visible leading edge of the waste plume. Only a few residual light & scattered streaks of glassy surface sheen with no subsurface or floating particulate or other material.
		3	27.8	8.2		
		10	27.8	8.2		
1025	Station 5	1	27.8	8.2	None	Same as Control Station.
		3	27.8	8.2		
		10	27.2	8.2		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.80'	South	170° 37.55'	West
Station 1	14° 24.96'	South	170° 37.25'	West
Station 2	14° 24.76'	South	170° 37.39	West
Station 3	14° 24.59'	South	170° 37.64'	West
Station 4	14° 24.43'	South	170° 37.78'	West
Station 5	14° 24.21'	South	170° 38.01'	West

43.09 W
9.90 W
36.71 W
1.30 S
4.49 S
PLOT #1
Ocean Monitoring Sample Stations
Control (C) & Stations #1 - #6
11 February, 2010
M. Cook, Investigator
#5
#4
#3
#2
#1
C
Current set: Northwest/NNW

14 21.30 S
14 24.49 S
16
Wind Southeast @ 5 - 12 kts
M. Crook, Master
M/V Blue Moon

OCEAN DUMPSITE MONITORING REPORT

(OD 93-01 & OD 93-02)

11 February, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling positions:	All positions obtained by Global Position Satellite Navigator (GPS)

Introduction

On February 11, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master/Principal Investigator, Chief and Mate onboard.

0535: The *Blue Moon* entered the dumpzone circle @ 14*22.5' S / 170*38.7' W.

0605: The *Blue Moon* arrived at the dumpzone center, where observed southeasterly winds and slight southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0615: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) upcurrent or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with SE swells to 1.5 meters and a southeast wind of 5 knots. Skies were cloudy with 8 miles visibility and the barometer reading 29.43. Current set and drift, of the ship, were to the northwest at 0.5 knots. No floating materials or sea life were observed here.

0625: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical pattern (see Plot 1) until 0940 hrs.

0945: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had increased to 12 knots with still cloudy skies. The waste plume appeared as a series of long glassy track lines and large patches of moderate surface sheen about 1.75 miles long, NE to SW by 1.4 miles wide, SE to NW and moving, generally, to the NW. The current/wind drift of the ship was now GPS determined to be northwesterly @ 1.0 knot. No sea life or floatable

materials were observed.

0955: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position was in an area of more glassy surface sheen. The average drift rate of the ship with current and wind was GPS determined to be north-northwest (NNW) at 1.1 knots between stations 1 & 2. No sea-life or floatable materials were noted at this position.

1005: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was again, in a large area of glassy surface sheen over clear blue water. The drift rate of the ship between stations 2 & 3 was 1.0 knots to the NW.

1015: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM northwest of Station #3, was visibly, the leading edge of the waste plume with just a few light and scattered streaks of surface sheen over natural clear blue water. There were no floating or suspended materials. The NW current/drift rate of the ship was noted here to be at 1.2 knots.

1025: Station Five monitoring. Sampling for this final station was conducted 0.25 NM down-current (NW) from Station #4 and approximately 0.32 miles SE of the zone center. The waste plume was not visually apparent at this location which had natural, clear blue ocean. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.47 when monitoring activities were concluded at 1030 hrs. The *Blue Moon* exited the disposal zone at 1040 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1130 hours.

Prepared by:

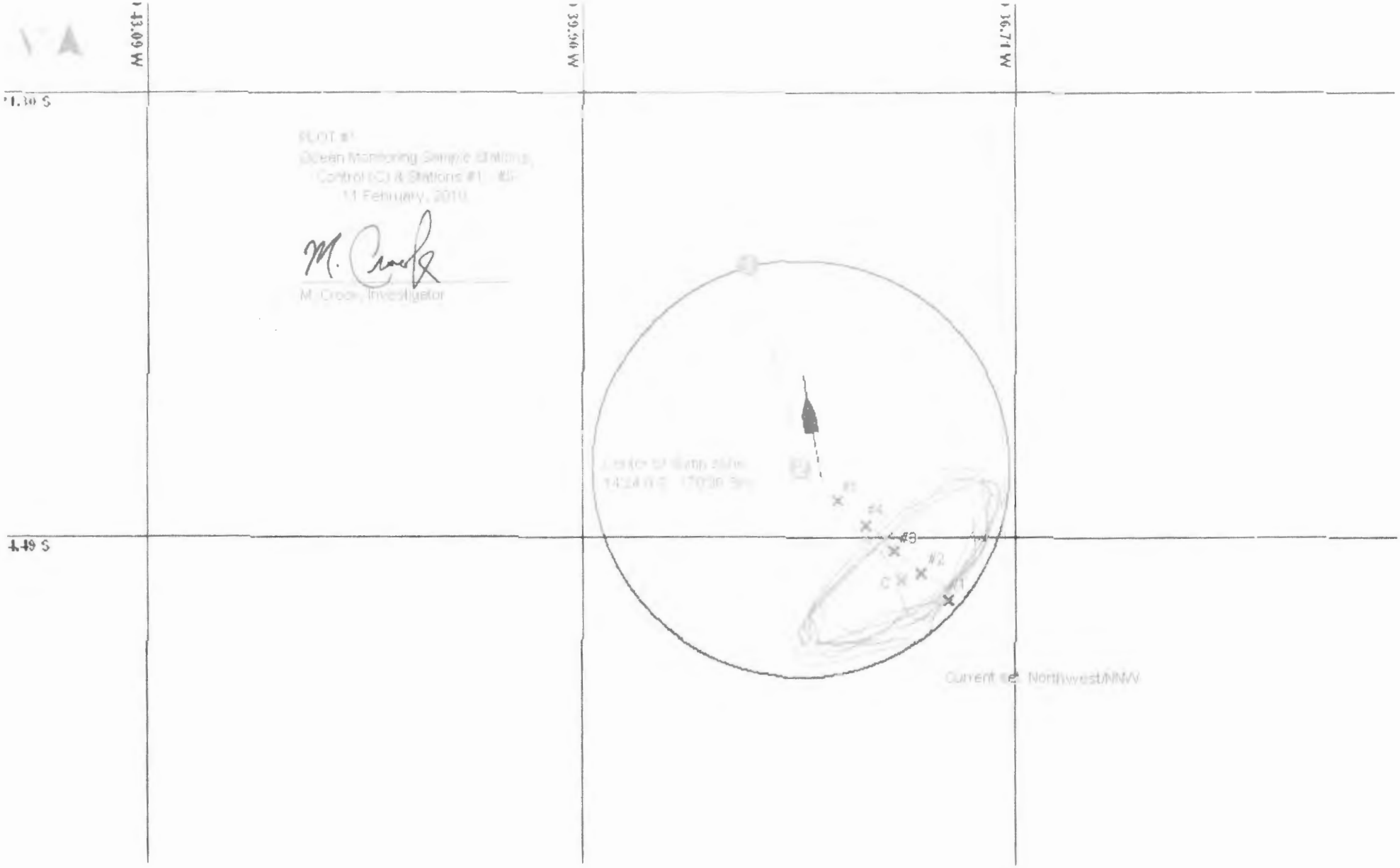
Mike Crook, Principal Investigator

Table 1

Date: 11 February 2010	Sea Conditions: Slight w/ Southeast swells to 1.5 meters. Wind: Southeast @ 5 – 12 knots. Sky: Cloudy - 80% Direction & Rate of Current: Northwest set @ 1.1 knot average. Visibility: 8 - 10 miles. Barometer: 29.43 – 29.47					
Time	Station	Depth (meters)	Temp. (°C)	pH	Odor	Color
0615	Control	1	26.7	8.2	None	Deep, clear and natural pelagic blue. No floatable or suspended particulate material present.
		3	26.7	8.2		
		10	26.7	8.2		
0945	Station 1	1	27.2	8.2	Slightly Pungent	Track lines & areas of moderate glassy surface sheen over deep, clear blue. No floating or suspended materials.
		3	27.2	8.2		
		10	27.2	8.2		
0955	Station 2	1	27.2	8.2	Slightly Pungent	More areas of glassy surface sheen present as at Station #1. No floating or suspended particulates etc.
		3	27.2	8.2		
		10	27.2	8.2		
1005	Station 3	1	27.8	8.2	Pungent	More areas of moderate glassy surface sheen. Again, no floatable or suspended materials.
		3	27.2	8.2		
		10	27.2	8.2		
1015	Station 4	1	27.8	8.2	Pungent	Visible leading edge of the waste plume. Only a few residual light & scattered streaks of glassy surface sheen with no subsurface or floating particulate or other material.
		3	27.8	8.2		
		10	27.8	8.2		
1025	Station 5	1	27.8	8.2	None	Same as Control Station.
		3	27.8	8.2		
		10	27.2	8.2		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.80'	South	170° 37.55'	West
Station 1	14° 24.96'	South	170° 37.25'	West
Station 2	14° 24.76'	South	170° 37.39	West
Station 3	14° 24.59'	South	170° 37.64'	West
Station 4	14° 24.43'	South	170° 37.78'	West
Station 5	14° 24.21'	South	170° 38.01'	West


43.09 W
39.96 W
16.71 W
1.30 S
4.49 S
PLOT #1
Ocean Monitoring Sample Stations,
Control (C) & Stations #1 - #5
11 February, 2010
M. Crook, Investigator
#1
#2
#3
#4
#5
C
Current is: Northwest/NNW

14 21.30 S
14 24.49 S
16
Wind: Southeast @ 5 - 12 kts
February, 2010
Voyage 5 6251
Only Trip #1
M. Cook, Master
M.V. Blue Moon

OCEAN DUMPSITE MONITORING REPORT

(OD 93-01 & OD 93-02)

11 February, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling positions:	All positions obtained by Global Position Satellite Navigator (GPS)

Introduction

On February 11, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master/Principal Investigator, Chief and Mate onboard.

0535: The *Blue Moon* entered the dumpzone circle @ 14*22.5' S / 170*38.7' W.

0605: The *Blue Moon* arrived at the dumpzone center, where observed southeasterly winds and slight southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0615: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) upcurrent or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with SE swells to 1.5 meters and a southeast wind of 5 knots. Skies were cloudy with 8 miles visibility and the barometer reading 29.43. Current set and drift, of the ship, were to the northwest at 0.5 knots. No floating materials or sea life were observed here.

0625: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical pattern (see Plot 1) until 0940 hrs.

0945: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had increased to 12 knots with still cloudy skies. The waste plume appeared as a series of long glassy track lines and large patches of moderate surface sheen about 1.75 miles long, NE to SW by 1.4 miles wide, SE to NW and moving, generally, to the NW. The current/wind drift of the ship was now GPS determined to be northwesterly @ 1.0 knot. No sea life or floatable

materials were observed.

0955: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position was in an area of more glassy surface sheen. The average drift rate of the ship with current and wind was GPS determined to be north-northwest (NNW) at 1.1 knots between stations 1 & 2. No sea-life or floatable materials were noted at this position.

1005: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was again, in a large area of glassy surface sheen over clear blue water. The drift rate of the ship between stations 2 & 3 was 1.0 knots to the NW.

1015: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM northwest of Station #3, was visibly, the leading edge of the waste plume with just a few light and scattered streaks of surface sheen over natural clear blue water. There were no floating or suspended materials. The NW current/drift rate of the ship was noted here to be at 1.2 knots.

1025: Station Five monitoring. Sampling for this final station was conducted 0.25 NM down-current (NW) from Station #4 and approximately 0.32 miles SE of the zone center. The waste plume was not visually apparent at this location which had natural, clear blue ocean. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.47 when monitoring activities were concluded at 1030 hrs. The *Blue Moon* exited the disposal zone at 1040 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1130 hours.

Prepared by:

Mike Crook, Principal Investigator

Table 1

Date: 11 February 2010	Sea Conditions: Slight w/ Southeast swells to 1.5 meters. Wind: Southeast @ 5 – 12 knots. Sky: Cloudy - 80% Direction & Rate of Current: Northwest set @ 1.1 knot average. Visibility: 8 - 10 miles. Barometer: 29.43 – 29.47					
Time	Station	Depth (meters)	Temp. (°C)	pH	Odor	Color
0615	Control	1	26.7	8.2	None	Deep, clear and natural pelagic blue. No floatable or suspended particulate material present.
		3	26.7	8.2		
		10	26.7	8.2		
0945	Station 1	1	27.2	8.2	Slightly Pungent	Track lines & areas of moderate glassy surface sheen over deep, clear blue. No floating or suspended materials.
		3	27.2	8.2		
		10	27.2	8.2		
0955	Station 2	1	27.2	8.2	Slightly Pungent	More areas of glassy surface sheen present as at Station #1. No floating or suspended particulates etc.
		3	27.2	8.2		
		10	27.2	8.2		
1005	Station 3	1	27.8	8.2	Pungent	More areas of moderate glassy surface sheen. Again, no floatable or suspended materials.
		3	27.2	8.2		
		10	27.2	8.2		
1015	Station 4	1	27.8	8.2	Pungent	Visible leading edge of the waste plume. Only a few residual light & scattered streaks of glassy surface sheen with no subsurface or floating particulate or other material.
		3	27.8	8.2		
		10	27.8	8.2		
1025	Station 5	1	27.8	8.2	None	Same as Control Station.
		3	27.8	8.2		
		10	27.2	8.2		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.80'	South	170° 37.55'	West
Station 1	14° 24.96'	South	170° 37.25'	West
Station 2	14° 24.76'	South	170° 37.39	West
Station 3	14° 24.59'	South	170° 37.64'	West
Station 4	14° 24.43'	South	170° 37.78'	West
Station 5	14° 24.21'	South	170° 38.01'	West

43.09 W
39.96 W
36.71 W
1.30 S
4.49 S
RLO1 #1
Ocean Monitoring Sample Stations,
Control (C) & Stations #1 - #5
11 February, 2010
M. Crook, Investigator
#5
#4
#3
#2
C
#1
Current set: Northwest/NNW

13.09 W
39.40 W
36.71 W
13.52 W
14 21.30 S
14 24.49 S
11 February, 2010
Voyage # 5251
Skeeby Trip #1
M. Crook, Master
FV Blue Moon
Wind: Southeast @ 5 - 12 kts

OCEAN DUMPING MONTHLY SUMMARY

Date: Feb., 2010

	SK:	TOTAL:
NUMBER OF TRIPS:	12	12
GALLONS FOR THE MONTH	2,053,750	2,053,750
GALLONS FOR SOLO TRIPS	2,053,750	

AV RUNNING TIME	5.38 hrs.
AV DISCHARGE TIME	3.02 hrs.
AV GPM DISCHARGE RATE	93 gpm
AV TRIP TIME	5.4 hrs.

AV PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK	COS
100 00%	NA

MASTER M. Crook

STAR KIST SAMOA CO
WATER TREATMENT DEPARTMENT

BLUE MOON - OCEAN DUMPING LOG

March 01 2010

Trip Date	1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Volume (gallons)
1-Feb-10	1st Trip	1400\1830 (147500)		2nd Trip	NONE	0
2-Feb-10	1st Trip	1400\1630 (62500)	147500	2nd Trip	NONE	0
3-Feb-10	1st Trip	1330\1730 (105000)		2nd Trip	NONE	0
4-Feb-10	1st Trip	1400\1700 (65000)	167500	2nd Trip	NONE	0
5-Feb-10	1st Trip	1400\1700 (100000)		2nd Trip	NONE	0
6-Feb-10	1st Trip	NONE	165000	2nd Trip	NONE	0
7-Feb-10	1st Trip	NONE		2nd Trip	NONE	0
8-Feb-10	1st Trip	1330\1700 (147500)		2nd Trip	NONE	0
9-Feb-10	1st Trip	1330\1500 (47500)	147500	2nd Trip	NONE	0
10-Feb-10	1st Trip	1300\1730 (127500)		2nd Trip	NONE	0
11-Feb-10	1st Trip	1430\1800 (112500)	175000	2nd Trip	NONE	0
12-Feb-10	1st Trip	NONE	112500	2nd Trip	NONE	0
13-Feb-10	1st Trip	NONE		2nd Trip	NONE	0
14-Feb-10	1st Trip	NONE		2nd Trip	NONE	0
15-Feb-10	1st Trip	NONE		2nd Trip	NONE	0
16-Feb-10	1st Trip	1300\1830 (162500)		2nd Trip	NONE	0
17-Feb-10	1st Trip	1400\1530 (40000)	162500	2nd Trip	NONE	0
18-Feb-10	1st Trip	1415\1915 (145000)		2nd Trip	NONE	0
19-Feb-10	1st Trip	1600\1730 (42500)	185000	2nd Trip	NONE	0
20-Feb-10	1st Trip	1400\1900 (135000)	135000	2nd Trip	NONE	0
21-Feb-10	1st Trip	NONE	177500	2nd Trip	NONE	0
22-Feb-10	1st Trip	1430\1930 (140000)		2nd Trip	NONE	0
23-Feb-10	1st Trip	1600\1730 (42500)	140000	2nd Trip	NONE	0
24-Feb-10	1st Trip	1800\2110 (121250)		2nd Trip	NONE	0
25-Feb-10	1st Trip	1630\1830 (50000)	163750	2nd Trip	NONE	0
26-Feb-10	1st Trip	1430\1930 (125000)		2nd Trip	NONE	0
27-Feb-10	1st Trip	NONE	175000	2nd Trip	NONE	0
28-Feb-10	1st Trip	NONE		2nd Trip	NONE	0
TOTAL	**1st Trip**		**2,053,750**	**2nd Trip**		**0**
					Total 1st & 2nd	**2,053,750**

Moses Captain

Date: 02/02/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5247

Permit # OD 93-01 & OD 93-02

Time	
1406	Begin Loading SK
1830	Finish Loading SK
—	Begin Loading SP
—	Finish Loading SP

Trip # 1

Trip # 2

Volume Loaded		
SK	147500	Gallons
SP	0	Gallons
Total	147500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True°
2500	Depart Starkist		14°16.50'	S	170° 41.2'	W			29.4			
0553	Arrive Edge of Zone	# 1	14°22.4	S	170°38.7	W		70	29.4	2	10	164°
0602	Arrive Zone Center	# 2	14°24.0	S	170°38.3	W		70	29.4	2	9.8	164°
0610	Begin Discharge	# 3	14°24.5	S	170°37.5	W		70	29.4	2 X	9.4	126°
25		# 4	14°24.3	S	170°35.5	W	SE 20	70	29.4	2	9.5	127°
40	Remarks:	# 5	14°24.0	S	170°37.4	W	SE 20	70	29.4	2	10.0	333°
55		# 6	14°24.4	S	170°37.7	W	SE 20	70	29.4	2	10.1	252°
0210		# 7	14°24.7	S	170°37.9	W	SE 20	50	29.4	2 5	10.1	127°
25		# 8	14°23.9	S	170°37.4	W	SE 20	50	29.4	2	9.8	124°
40		# 9	14°24.2	S	170°37.3	W	SE 20	50	29.4	2	10.3	271°
55		# 10	14°24.2	S	170°37.8	W	SE 20	50	29.4	2	10	334°
0810		# 11	14°24.2	S	170°37.2	W	SE 20	50	29.4	2	9.7	125°
25		# 12	14°24.5	S	170°37.9	W	SE 20	50	29.4	2 10	10	127°
40		# 13	14°24.1	S	170°37.5	W	SE 20	50	29.4	2	9.9	124°
55		# 14	14°24.2	S	170°37.5	W	SE 20	50	29.4	2	10	275°
		# 15	14°2	S	170°3	W						
		# 16	14°2	S	170°3	W						
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
0900	Finish Discharge	15	14°24.7	S	170°35.1	W	SE 20	70	29.4	2	10	165°
0915	Exit Discharge Zone	16	14°2[illegible]	S	170°3[illegible]	W	SE 20	50	29.4	2	10.1	345°
1000	Secure SK Dock		14°16.50'	S	170°41.2'	W						

Current Direction At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time 170 mins Average Speed During Discharge 10.4 kts Total Time Run 5 hr

Navigational Plot made yes Presence of Plume? NONE

Time and position of any floating material NONE Discharge Rate 29.6 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon [signature]

Date: 02/04/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5248

Permit # OD 93-01 & OD 93-02

Time	
1400	Begin Loading SK
1630	Finish Loading SK
1330	Begin Loading SP
1730	Finish Loading SP

Trip # 1

Trip # 2

Volume Loaded:

SK	16500	Gallons
SP	0	Gallons
Total	16500	Gallons

Time		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
0515	Depart Starkist		14°16.50'	S	170° 41 2'	W			29.4	Metric		kts	True°
0600	Arrive Edge of Zone	# 1	14°22.4	S	170°38.7	W		60	29.4	2		9.6	167°
0611	Arrive Zone Center	# 2	14°24.0	S	170°38.3	W		50	29.4	2		10	171°
0620	Begin Discharge	# 3	14°2 4.5	S	170°3 7.2	W	SE 20	50	29.4	2	X	9.3	031°
35		# 4	14°2 4.3	S	170°3 7.7	W	SE 20	50	29.45	2		10	217°
50	Remarks:	# 5	14°2 4.4	S	170°3 7.1	W	SE 20	50	29.45	2		9.8	021°
0700		# 6	14°2 4.5	S	170°3 7.9	W	SE 20	50	29.45	2		10.1	218°
20		# 7	14°2 4.6	S	170°3 8.0	W	SE 20	50	29.45	2	5	10	018°
35		# 8	14°2 4.7	S	170°3 8.1	W	SE 20	50	29.45	2		10.2	218°
50		# 9	14°2 4.2	S	170°3 7.1	W	SE 20	50	29.45	2		9.5	017°
0805		# 10	14°2 5.6	S	170°3 8.3	W	SE 20	50	29.45	2		9.7	212°
20		# 11	14°2 3.8	S	170°3 6.9	W	SE 20	50	29.45	2		9.8	011°
35		# 12	14°2 5.1	S	170°3 7.9	W	SE 20	50	29.45	2	10	10.3	001°
50		# 13	14°2 [illegible]	S	170°3 7.5	W	SE 20	50	29.45	2		10	225°
0905		# 14	14°2 4.9	S	170°3 7.6	W	SE 20	50	29.45	2		9.8	035°
		# 15	14°2	S	170°3	W							
		# 16	14°2	S	170°3	W							
		# 17	14°2	S	170°3	W					15		
		# 18	14°2	S	170°3	W							
		# 19	14°2	S	170°3	W							
		# 20	14°2	S	170°3	W							
			14°2	S	170°3	W							
			14°2	S	170°3	W					20		
			14°2	S	170°3	W							
0910	Finish Discharge	15	14°2 4.4	S	170°3 7.1	W	SE 20	50	29.45	2		9.5	350
0930	Exit Discharge Zone	16	14°2 2.7	S	170°3 7.9	W	SE 20	50	29.45	2		10.1	330°
1615	Secure SK Dock		14°16.50'	S	170°41 2'	W							

Current Direction: At Center NW End of Discharge [illegible] Discharge Pattern Ellipse

Total Discharge Time: 170 mins Average Speed During Discharge 9.8 kts Total Time Run 5 hr

Navigational Plot made yes Presence of Plume? [illegible]

Time and position of any floating material [illegible] Discharge Rate: [illegible] Gallons/min/kts

Unusual Occurrences? [illegible]

Notifications made A S P A. [illegible] U S C G M S D [illegible] Master F/V Blue Moon [illegible]

Date: 02/06/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5249

Permit # OD 93-01 & OD 93-02

	Time	
2/4	1900	Begin Loading SK
2/5	1700	Finish Loading SK
	/	Begin Loading SP
	/	Finish Loading SP

Trip # 1 ✓
Trip # 2

Volume Loaded:		
SK	165000	Gallons
SP	0	Gallons
Total	165,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0600	Depart Starkist		14*16.50' S	170* 41.2' W	SE-20	80%	29.51			
0647	Arrive Edge of Zone	# 1	14*22.58 S	170*38.65' W	SE-22	70		SE-3.0	9.2	163
0656	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	"		"	"	9.1	159
0705	Begin Discharge	# 3	14*24.55 S	170*37.37 W		80%	"	" X	8.8	110
20		# 4	14*25.24' S	170*37.75' W			"		8.6	115
35	Remarks:	# 5	14*24.26' S	170*37.68 W			29.52		8.5	116
50		# 6	14*24.74' S	170*38.07' W		70	"		8.7	111
0805		# 7	14*24.24' S	170*38.13 W			"	5	9.5	322
20		# 8	14*24.71' S	170*37.73' W	SE-25		29.51		9.8	26.8
35		# 9	14*24.83' S	170*37.85' W					9.9	323
50		# 10	14*24.51' S	170*37.75' W		80	"		8.9	105
0905		# 11	14*25.18' S	170*37.94 W					8.8	076
20		# 12	14*24.46 S	170*37.34' W				10	9.5	120
35		# 13	14*25.05' S	170*38.29' W					9.1	095
50		# 14	14*24.20' S	170*38.21' W		70			9.8	345
1005		# 15	14*24.76' S	170*38.22' W	SE-22		29.52		10.0	263
20		# 16	14*24.73 S	170*37.86 W	"	80			10.0	322
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1025	Finish Discharge	# 17	14*24.04 S	170*38.16' W	SE-22	80%	29.52	SE 3.0	7.8	343
1033	Exit Discharge Zone	18	14*22.64' S	170*38.50 W	"	"		" "	10.2	346
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure 8

Total Discharge Time 200 mins. Average Speed During Discharge 9.3 kts Total Time Run 5.33 hr.

Navigational Plot made yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 89 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P A ✓ U S C G M S D ✓ Master F/V Blue Moon M Cook

Date: 02/09/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5250

Permit # OD 93-01 & OD 93-02

Time	
1330	Begin Loading SK
1700	Finish Loading SK
N/A	Begin Loading SP
N/A	Finish Loading SP

Trip # 1 ✓
Trip # 2

Volume Loaded:		
SK	147,500	Gallons
SP	0	Gallons
Total	147,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True°
0500	Depart Starkist		14°16.50' S	170° 41.2' W	Calm	100-RAIN	29.48			
0548	Arrive Edge of Zone	# 1	14°22.56' S	170°38.65' W	East-5	100%	"	SE-1.5	9.7	162
0556	Arrive Zone Center	# 2	14°24.0 S	170°38.3 W	E-7	"	29.49	" "	9.6	159
0608	Begin Discharge	# 3	14°23.82' S	170°37.07' W	" "	"	"	" " X	8.9	003
23		# 4	14°24.17' S	170°37.64' W	E-10	"	"	" "	9.7	178
38	Remarks:	# 5	14°23.81' S	170°36.88' W			"		9.8	MG 9.8 359
53		# 6	14°24.97' S	170°37.54' W			29.48		9.7	176
0708		# 7	14°23.72' S	170°36.87' W			"	5	9.9	340
23		# 8	14°24.79' S	170°37.48' W			29.47		9.8	177
38		# 9	14°23.05' S	170°37.24' W			"		9.4	311
53		# 10	14°24.88' S	170°37.26' W			29.48		9.3	022
0808		# 11	14°23.15' S	170°37.21' W		90	29.49		9.7	296
23		# 12	14°24.84' S	170°37.15' W		"		10	9.1	045
38		# 13	14°23.35' S	170°37.68' W		"			9.2	181
53		# 14	14°2 S	170°3 W						
0908		# 15	14°2 S	170°3 W						
23		# 16	14°2 S	170°3 W						
38		# 17	14°2 S	170°3 W				15		
		# 18	14°2 S	170°3 W						
		# 19	14°2 S	170°3 W						
		# 20	14°2 S	170°3 W						
			14°2 S	170°3 W						
			14°2 S	170°3 W				20		
			14°2 S	170°3 W						
0853	Finish Discharge	#14	14°23.96' S	170°37.50' W	East-10	90%	29.49	SE-1.5	9.9	348
0906	Exit Discharge Zone	#15	14°22.56' S	170°38.07' W	" "	"	" "	" "	10.5	334
0950	Secure SK Dock		14°16.50' S	170°41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time 165 mins. Average Speed During Discharge 9.5 kts Total Time Run 4.8 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 94 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P A ✓ U S C G M S D. ✓ Master F/V Blue Moon M. Cook

Date: 02/11/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5251

Permit # OD 93-01 & OD 93-02

	Time	
2/9	1850	Begin Loading SK
2/10	1730	Finish Loading SK
	N/A	Begin Loading SP
	N/A	Finish Loading SP

Trip # 1 ✓

Trip # 2

Volume Loaded:		
SK	175,000	Gallons
SP	0	Gallons
Total	175,000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0510	Depart Starkist		14*16.50'	S	170* 41.2'	W	SE-5	50%	29.43			
0555	Arrive Edge of Zone	# 1	14*22.50	S	170*38.70	W	SE-7	"	"	SE-1.5	9.4	161
0605	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	"	"	"	" "	9.2	157
0625	Begin Discharge	# 3	14*24.87	S	170*37.56	W	SE-10	85	29.44	" " X	8.4	168
40		# 4	14*24.68	S	170*37.75	W		"	"	" "	9.5	221
55	Remarks:	# 5	14*24.57	S	170*37.61	W		90	29.45	" "	9.6	030
0710	Ocean Monitoring	# 6	14*24.76	S	170*37.88	W					9.4	222
25	Conducted.	# 7	14*24.57	S	170*36.94	W				5	9.9	018
40	Control Samples	# 8	14*25.25	S	170*37.78	W					9.6	087
55	departed 0615	# 9	14*24.24	S	170*37.57	W					9.5	221
0810	at 11 Nautical	# 10	14*25.02	S	170*37.43	W					9.4	055
25	waypoint (Clam	# 11	14*25.00	S	170*35.22	W	SE-12				9.3	201
40	N/A plot	# 12	14*24.22	S	170*37.30	W				10	9.1	254
55		# 13	14*25.01	S	170*37.31	W					9.7	041
0910		# 14	14*24.43	S	170*37.71	W			29.46		9.5	218
25		# 15	14*24.45	S	170*37.05	W			"		10.0	023
40		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0940	Finish Discharge	#16	14*25.06	S	170*37.81	W	SE-12	90%	29.47	SE-1.5	9.4	063
1040	Exit Discharge Zone	#17	14*22.99	S	170*38.32	W					10.7	346
1130	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NNW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 115 mins Average Speed During Discharge 9.5 kts Total Time Run 6.33 hr

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 9.5 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P A ✓ U S C G M S D ✓ Master F/V Blue Moon M Clark

Date: 02/12/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5252

Permit # OD 93-01 & OD 93-02

Time		
1430	Begin Loading SK	
1800	Finish Loading SK	Trip # 1 ✓
N/A	Begin Loading SP	Trip # 2
N/A	Finish Loading SP	

Volume Loaded:		
SK	112,500	Gallons
SP	0	Gallons
Total	112,500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0505	Depart Starkist		14*16.50'	S	170* 41.2'	W	SE-15	100	27.30			
0558	Arrive Edge of Zone	# 1	14*22.52'	S	170*38.66'	W	South 15	"		S. SW 20	8.6	168
0608	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W					8.4	158
0620	Begin Discharge	# 3	14*25.07'	S	170*37.95	W	S-20	"		SE-SW 2.5	8.3	053
35		# 4	14*24.63'	S	170*38.65	W	S-25	RAIN		" 2.5	9.5	270
50	Remarks:	# 5	14*25.26'	S	170*38.32	W	"	"		South 3.0	8.1	093
0705		# 6	14*24.35'	S	170*38.43'	W	S-30	100		"	8.5	50
20		# 7	14*25.11'	S	170*38.63'	W				5	8.7	049
35		# 8	14*24.29'	S	170*37.72'	W	S-35	RAIN	27.31		8.5	180
50		# 9	14*24.40'	S	170*38.56'	W		"	27.30		10.0	355
0805		# 10	14*25.14'	S	170*38.54'	W		100			9.6	043
20		# 11	14*24.69'	S	170*37.34'	W	S-30	"	27.30		8.7	165
35		# 12	14*24.22'	S	170*38.97'	W	"	"	27.31	10	8.1	172
		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0850	Finish Discharge	# 13	14*24.37'	S	170*38.39'	W	South 30	100%	27.32	South 30	10.0	343
0902	Exit Discharge Zone	# 14	14*24.67'	S	170*38.80'	W	" "			"	10.2	344
0950	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center North End of Discharge North Discharge Pattern Ellipse to Figure 8

Total Discharge Time 150 mins Average Speed During Discharge 7.0 kts Total Time Run 4.15 hr

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 83.3 Gallons/min/kts

Unusual Occurrences? Cyclone Rene

Notifications made A S P A ✓ U S C G M S D ✓ Master F/V Blue Moon [signature]

Date: 02/17/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5253

Permit # OD 93-01 & OD 93-02

	Time	
2/16	1300	Begin Loading SK
	1830	Finish Loading SK
	N/A	Begin Loading SP
	N/A	Finish Loading SP

Trip # 1 ✓
Trip # 2

Volume Loaded:		
SK	162,500	Gallons
SP	0	Gallons
Total	162,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0505	Depart Starkist		14*16.50' S	170* 41.2' W	SE-10	80	29.50			
0552	Arrive Edge of Zone	# 1	14*22.52' S	170*38.04' W	East-12	"	29.51	SE-1.5	9.0	164
0602	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	9.2	161
0613	Begin Discharge	# 3	14*24.01' S	170*37.04' W	" "	"	"	X	8.6	012
0628		# 4	14*24.09' S	170*37.56' W	East-15	"	"		9.4	183
" 43	Remarks:	# 5	14*23.85' S	170*36.94' W		75	"		9.5	357
" 58		# 6	14*24.49' S	170*37.58' W		"	"		9.7	185
0713		# 7	14*23.72' S	170*36.88' W		70	"	5	9.6	354
" 28		# 8	14*24.49' S	170*37.59' W		"	29.50		9.8	180
" 43		# 9	14*24.55' S	170*37.06' W		65			9.4	009
" 58		# 10	14*24.98' S	170*37.37' W		"			9.1	047
0813		# 11	14*23.21' S	170*37.10' W		"			9.9	320
" 28		# 12	14*24.86' S	170*37.56' W		"	29.51	10	10.0	179
" 43		# 13	14*23.12' S	170*37.23' W	East-18	60	29.52		9.9	308
" 58		# 14	14*24.87' S	170*37.36' W	" "	"	"		8.8	012
0913		# 15	14*23.10' S	170*37.16' W	" "	"	"		9.7	331
" 28		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0920	Finish Discharge	#16	14*23.78' S	170*37.46' W	East-18	60%	29.52	SE-1.5	9.3	181
0930	Exit Discharge Zone	#17	14*22.60' S	170*38.21' W	" "	"	"	" "	329 ⇄	10.1
1020	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center Unk End of Discharge West Discharge Pattern Ellipse

Total Discharge Time 187 mins. Average Speed During Discharge 9.5 kts Total Time Run 5.25 hr.

Navigational Plot made yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 9.5 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P.A ✓ U S C G M S D ✓ Master F/V Blue Moon M. Crook

Date: 02/19/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5254

Permit # OD 93-01 & OD 93-02

Time		
1400	Begin Loading SK	
1915	Finish Loading SK	
N/A	Begin Loading SP	
N/A	Finish Loading SP	

Trip # 1 ✓
Trip # 2

Volume Loaded:

SK	135,000	Gallons
SP	0	Gallons
Total	135,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0500	Depart Starkist		14*16.50' S	170*41.2' W	SE-7	60	29.58			
0547	Arrive Edge of Zone	# 1	14*22.56' S	170*38.70 W	SE-10	50	"	SE-1.5	7.4	165
0555	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W			29.59		7.5	160
0605	Begin Discharge	# 3	14*24.67' S	170*37.25 W			29.60	X	8.6	058
20		# 4	14*24.68' S	170*37.93' W					9.1	223
35	Remarks:	# 5	14*24.40 S	170*36.70 W		40			9.5	008
50		# 6	14*25.24' S	170*37.66 W					9.1	051
0705		# 7	14*24.20 S	170*37.24 W	SE-12			5	9.4	241
25		# 8	14*25.00 S	170*37.50 W			29.61		9.6	035
35		# 9	14*24.44' S	170*37.34' W					9.7	223
50		# 10	14*24.25' S	170*36.56' W					9.5	000
0805		# 11	14*25.21' S	170*37.85 W					8.7	064
20		# 12	14*24.34' S	170*37.81 W				10	10.0	222
35		# 13	14*24.34' S	170*36.02 W					7.6	024
50		# 14	14*25.15' S	170*37.78 W	SE-15				9.4	059
0905		# 15	14*24.21' S	170*37.36 W					9.9	218
20		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0910	Finish Discharge	#16	14*24.33 S	170*38.18 W	SE-15	40%	29.61	SE-1.5	9.5	336
0920	Exit Discharge Zone	#17	14*22.64' S	170*38.17 W			"		10.2	334
1010	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time 185 mins Average Speed During Discharge: 9.4 kts Total Time Run 5.2 hr

Navigational Plot made yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 106.4 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P.A — U S C G M S D — Master F/V Blue Moon

Date: 02/21/10 — **F/V Blue Moon Ocean Dumping Log** — **Voyage #: 5255**

Permit # OD 93-01 & OD 93-02

	Time	
2/19	1600	Begin Loading SK
2/20	1900	Finish Loading SK
	N/A	Begin Loading SP
	N/A	Finish Loading SP

Trip # 1 - X
Trip # 2

Volume Loaded:		
SK	177,500	Gallons
SP	0	Gallons
Total		Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0645	Depart Starkist		14*16.50'	S	170* 41.2'	W	SE-15	80%	29.59			
0638	Arrive Edge of Zone	# 1	14*22.55'	S	170*38.60	W	SE-15	70		SE-2.0	7.0	161
0747	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	"	"	"	"	8.8	163
0755	Begin Discharge	# 3	14*24.68'	S	170*37.28'	W		60		" X	8.4	058
0810		# 4	14*24.56'	S	170*37.71'	W			29.57		9.5	219
25	Remarks:	# 5	14*24.53'	S	170*36.98'	W					9.2	016
40		# 6	14*25.08'	S	170*38.15'	W	SE-18		29.56		8.9	185
55		# 7	14*24.24'	S	170*37.42'	W				5	9.5	221
0910		# 8	14*25.00	S	170*37.44	W					9.1	043
25		# 9	14*24.81'	S	170*37.98'	W					10.0	212
40		# 10	14*24.26'	S	170*36.37'	W		50			9.3	357
55		# 11	14*25.07'	S	170*37.37'	W					9.2	046
1010		# 12	14*24.05	S	170*37.31'	W		40	29.57	10	9.9	227
25		# 13	14*24.64'	S	170*37.15'	W	SE-20				9.3	036
40		# 14	14*25.15'	S	170*37.95'	W		50			8.6	030
55		# 15	14*24.59'	S	170*37.68'	W			29.56		10.0	224
1110		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1110	Finish Discharge	# 16	14*24.57'	S	170*37.85'	W	SE-20	50	29.56	SE-2.0	9.7	346
1120	Exit Discharge Zone	# 17	14*22.56'	S	170*38.33'	W	"		29.55		10.4	340
1205	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 195 mins Average Speed During Discharge 9.3 kts Total Time Run 5.33 hr

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate 98 Gallons/min./kts

Unusual Occurrences? None

Notifications made A.S.P.A. ____ U.S.C.G.M.S.D. ____ Master F/V Blue Moon [signature]

Date: 02/23/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5256

Permit # OD 93-01 & OD 93-02

Time		
2/22 1430	Begin Loading SK	
1930	Finish Loading SK	
N/A	Begin Loading SP	
N/A	Finish Loading SP	

Trip # 1 - X

Trip # 2

Volume Loaded		
SK	140,000	Gallons
SP	0	Gallons
Total	140,000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0505	Depart Starkist		14*16.50'	S	170* 41.2'	W	SE-5	60	29.52			
0550	Arrive Edge of Zone	# 1	14*22.50'	S	170*38.63'	W	" "	"	29.51	SE-1.5	9.7	162
0557	Arrive Zone Center	# 2	14*24.0	S	170*38 3	W	" "	"	"	" "	9.3	157
0610	Begin Discharge	# 3	14*24.71'	S	170*37.27'	W	SE-7	70	29.52	" " X	8.8	037
25		# 4	14*24.82'	S	170*37.79'	W	" "	"	"		8.0	222
40	Remarks:	# 5	14*24.23'	S	170*37.57'	W	" "	80	"	" "	9.6	000
55		# 6	14*24.04'	S	170*37.54'	W	" "	"	"	" "	9.5	056
0710		# 7	14*24.34'	S	170*37.55'	W	" "		29.53	5	9.2	230
25		# 8	14*24.45'	S	170*37.58'	W	" "	"	"		8.8	358
40		# 9	14*25.23'	S	170*37.82'	W	SE-10	"	"	" "	9.3	051
55		# 10	14*24.50'	S	170*37.62'	W		"	"		9.6	226
0810		# 11	14*24.97'	S	170*37.16'	W		"	"		9.9	043
25		# 12	14*24.54'	S	170*37.88'	W		90	29.54	10	10.0	218
40		# 13	14*24.01'	S	170*37.03'	W					8.7	245
55		# 14	14*24.91'	S	170*37.26'	W					9.1	034
0910		# 15	14*24.60'	S	170*37.36'	W					10.0	231
25		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0915	Finish Discharge	#16	14*24.90	S	170*37.77	W	SE-10	100	29.55	SE-1.5	9.5	350
0928	Exit Discharge Zone	#17	14*22.58	S	170*38.39	W	" "	"	29.54	" "	10.3	335
1025	Secure SK Dock		14*16.50'	S	170*41 2'	W						

Current Direction At Center NW End of Discharge NW Discharge Pattern Elliptical

Total Discharge Time: 185 mins Average Speed During Discharge 9.4 kts Total Time Run 5 25 hr

Navigational Plot made Yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 30.5 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P A ____ U S C G M.S D ____ Master F/V Blue Moon [signature]

Date: 02/25/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5257

Permit # OD 93-01 & OD 93-02

	Time	
2/23	1600	Begin Loading SK
2/24	2110	Finish Loading SK
	N/A	Begin Loading SP
	N/A	Finish Loading SP

Trip # 1 - X

Trip # 2

Volume Loaded:		
SK	163,750	Gallons
SP	0	Gallons
Total	163,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0500	Depart Starkist		14*16.50' S	170* 41.2' W	SE-7	80	27.50			
0545	Arrive Edge of Zone	# 1	14*22.52 S	170*38.65' W	" "	"	27.49	5/SE-15	7.2	164
0555	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	70	27.50		7.0	147
0605	Begin Discharge	# 3	14*24.73' S	170*37.70 W	" "	"	" "	" X	8.6	047
20		# 4	14*24.90' S	170*37.96' W	SE-8	75	29.51	"	9.4	220
35	Remarks:	# 5	14*24.06 S	170*37.06' W	" "	70	"	" "	8.1	273
50		# 6	14*24.59' S	170*37.25 W	"	60	"	" "	9.7	041
0705		# 7	14*24.58 S	170*37.66 W	SE-10	"	"	" 5	9.5	213
20		# 8	14*24.22 S	170*36.21 W	" "	50	"	" "	10.0	007
35		# 9	14*24.92' S	170*37.24' W	" "	40	"	" "	9.9	042
50		# 10	14*25.06 S	170*37.72' W	" "	"	27.52		9.6	211
0805		# 11	14*24.03 S	170*37.08 W	" "	50	"		8.8	302
20		# 12	14*24.72 S	170*37.14' W	SE-8		27.53	10	10.0	030
35		# 13	14*24.78 S	170*37.10 W	SE-7	TO RAIN	"		9.3	216
50		# 14	14*24.32' S	170*37.43' W	" "	80	27.53		9.8	221
0905		# 15	14*25.06 S	170*37.78 W	"	85	"		9.5	050
20		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0910	Finish Discharge	# 16	14*24.40' S	170*37.35' W	SE-7	90%	27.54	S/SE-15	10.0	344
0918	Exit Discharge Zone	# 17	14*22.58' S	170*37.58' W	" "				10.5	337
1010	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time 185 mins Average Speed During Discharge 9.5 kts Total Time Run 5.2 hr

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate 93 Gallons/min/kts

Unusual Occurrences? None

Notifications made. A S P A ✓ U S C G M S D. ✓

Master F/V Blue Moon

Date: 02/27/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5258

Permit # OD 93-01 & OD 93-02

	Time	
25	1630	Begin Loading SK
	1830	Finish Loading SK
26th	1430	Begin Loading SK #2
	1930	Finish Loading SK #2

Trip # 1 - X

Trip # 2 ____

Volume Loaded:		
SK	175,000	Gallons
SP	0	Gallons
Total	175,000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0600	Depart Starkist		14*16.50'	S	170* 41.2'	W	Calm	70	29.51			
0645	Arrive Edge of Zone	# 1	14*22.53	S	170*38 59'	W	SE-3	80	29.52	SE-1.5	9.9	161
0655	Arrive Zone Center	# 2	14*24.0	S	170*38 3	W	"	"	29.51	"	9.8	162
0725	Begin Discharge	# 3	14*24.50	S	170*37.24	W	"	"	"	X	8.9	026
40		# 4	14*24.80'	S	170*38 05	W	"	"	"	"	9.4	217
55	Remarks.	# 5	14*24.27'	S	170*37.30	W		75%	29.52	"	9.5	240
0810		# 6	14*25.35'	S	170*37.15	W	SE-5	"	"	"	9.2	051
25		# 7	14*24.40	S	170*37.26	W				5	9.4	217
40		# 8	14*24.74'	S	170*37.16	W					10.0	024
55		# 9	14*25.3	S	170*37.31	W					9.1	036
0910		# 10	14*24.[illegible]	S	170*37.24	W			29.52		9.5	235
25		# 11	14*24.76'	S	170*37.27	W					10.0	042
40		# 12	14*25.00	S	170*35.9	W		50%		10	9.5	187
55		# 13	14*21.27	S	170*37.38	W			29.53		9.5	216
1010		# 14	14*25.35	S	170*37.16	W					9.9	054
25		# 15	14*24.73'	S	170*37.30	W		75%			9.8	213
40		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1032	Finish Discharge	#16	14*24.76	S	170*37.39	W	SE-5	75%	29.53	SE-1.5	10.0	344
1045	Exit Discharge Zone	#17	14*22.61'	S	170*38 48'	W		"	"		7.8	339
1155	Secure SK Dock		14*16 50'	S	170*41 2'	W						

Current Direction: At Center N/W End of Discharge N/W Discharge Pattern Ellipse

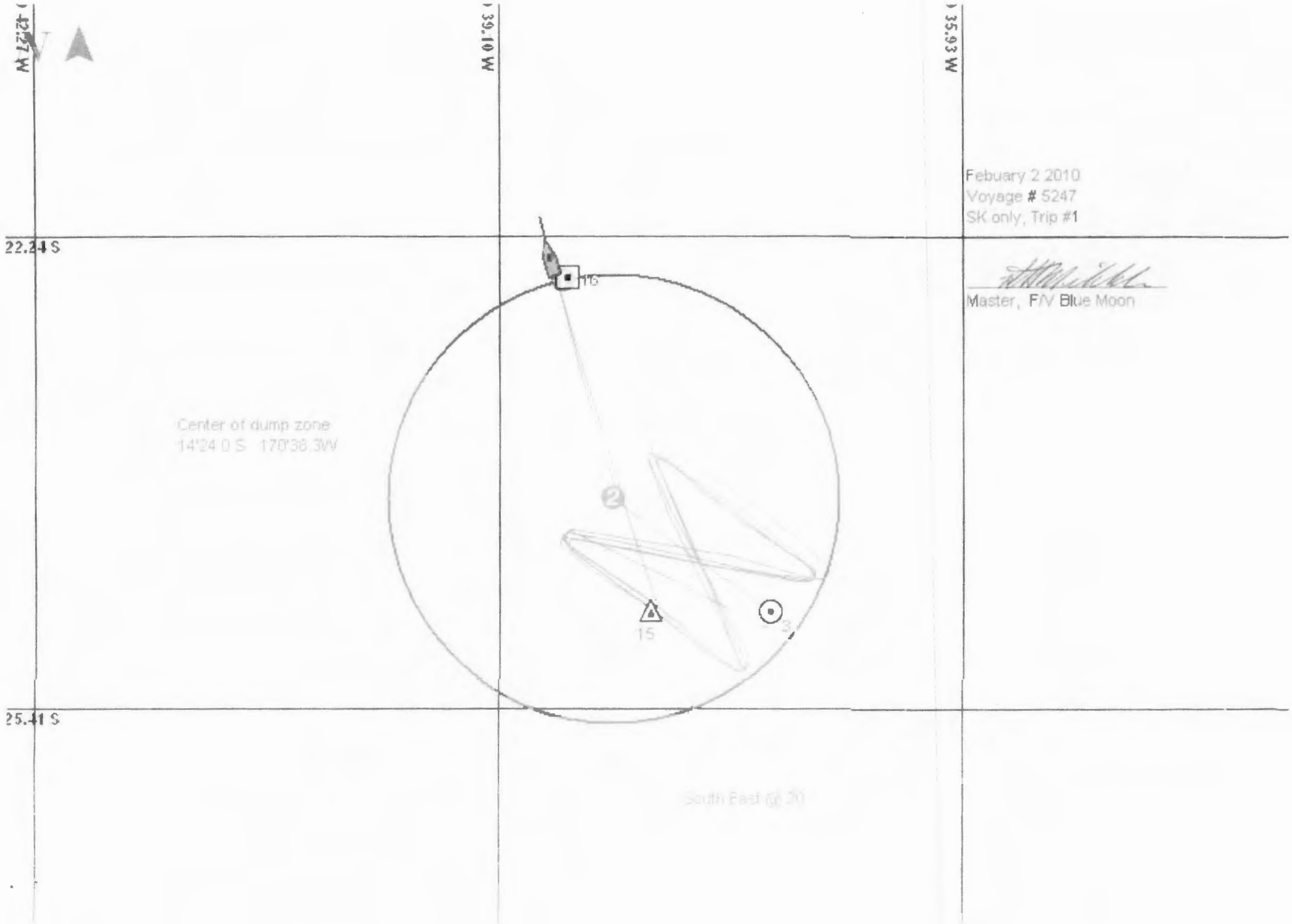
Total Discharge Time 187 mins Average Speed During Discharge 9.5 kts Total Time Run 6.7 hr

Navigational Plot made Y Presence of Plume? N

Time and position of any floating material None Discharge Rate 78.5 Gallons/min/kts

Unusual Occurrences? 0700 Engine [illegible] Steering [illegible] Back up at 72c

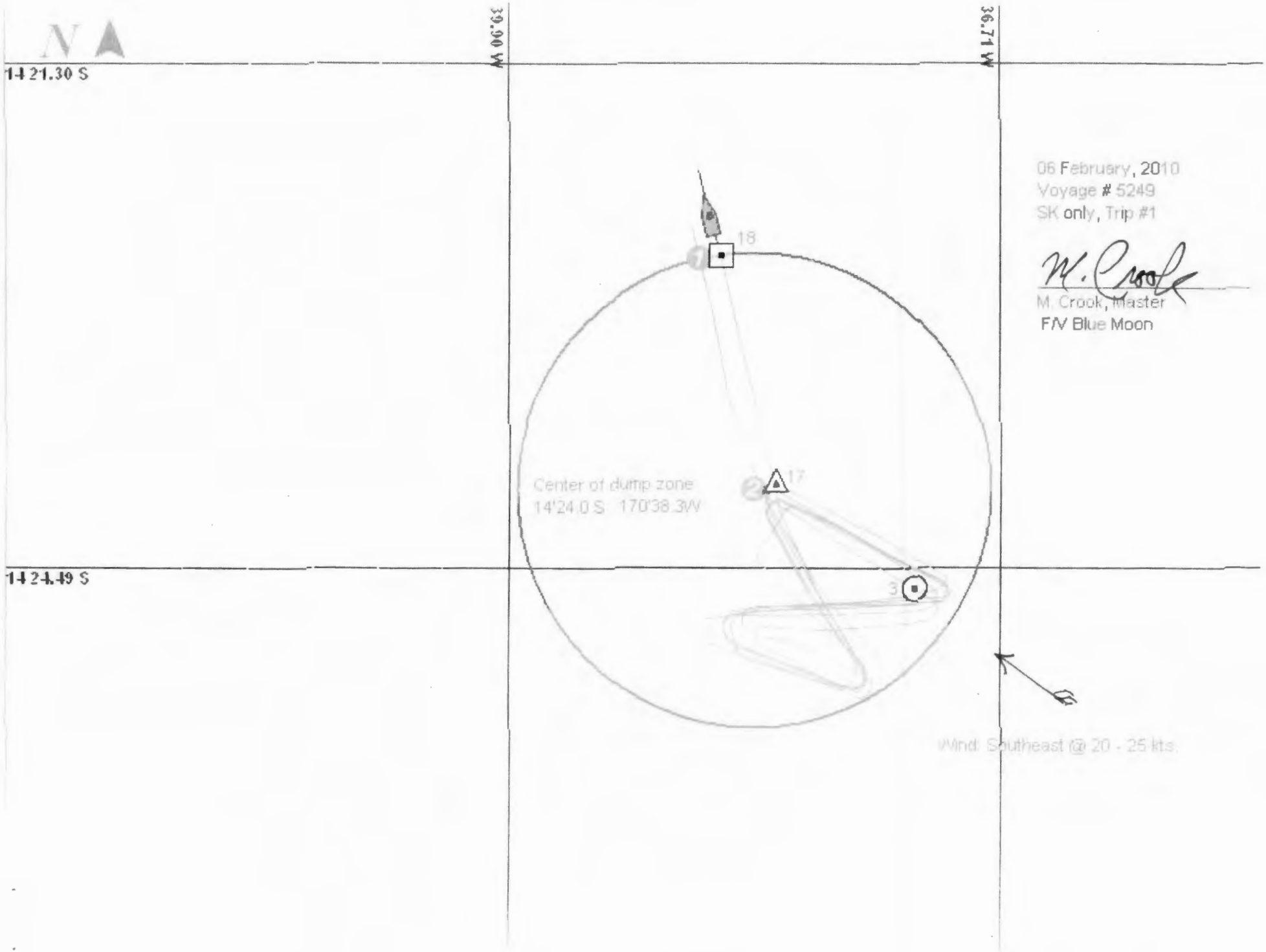
Notifications made A S P A ____ U S C G M S D ____ Master F/V Blue Moon [signature]

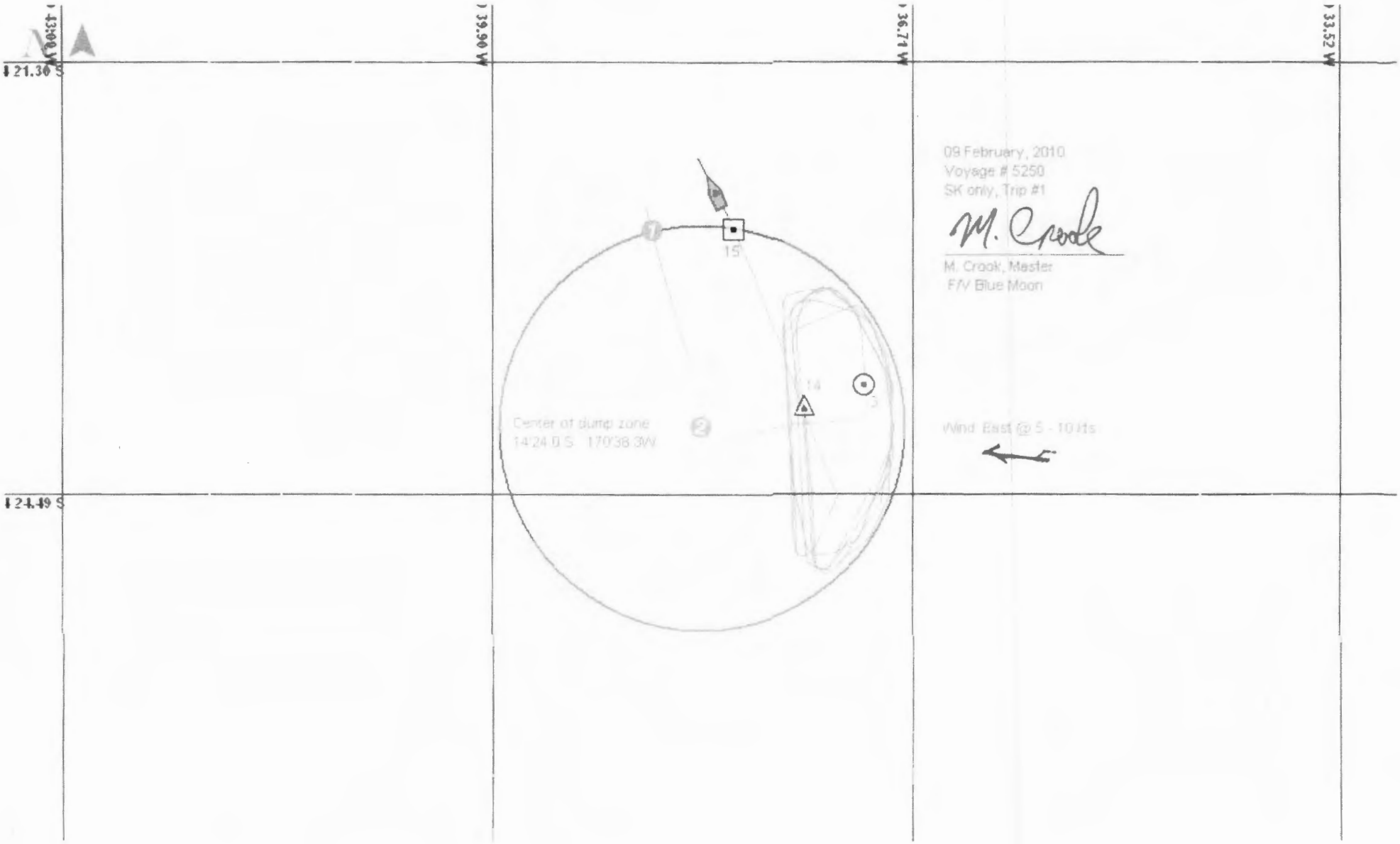


Febuary 2 2010
Voyage # 5247
SK only, Trip #1

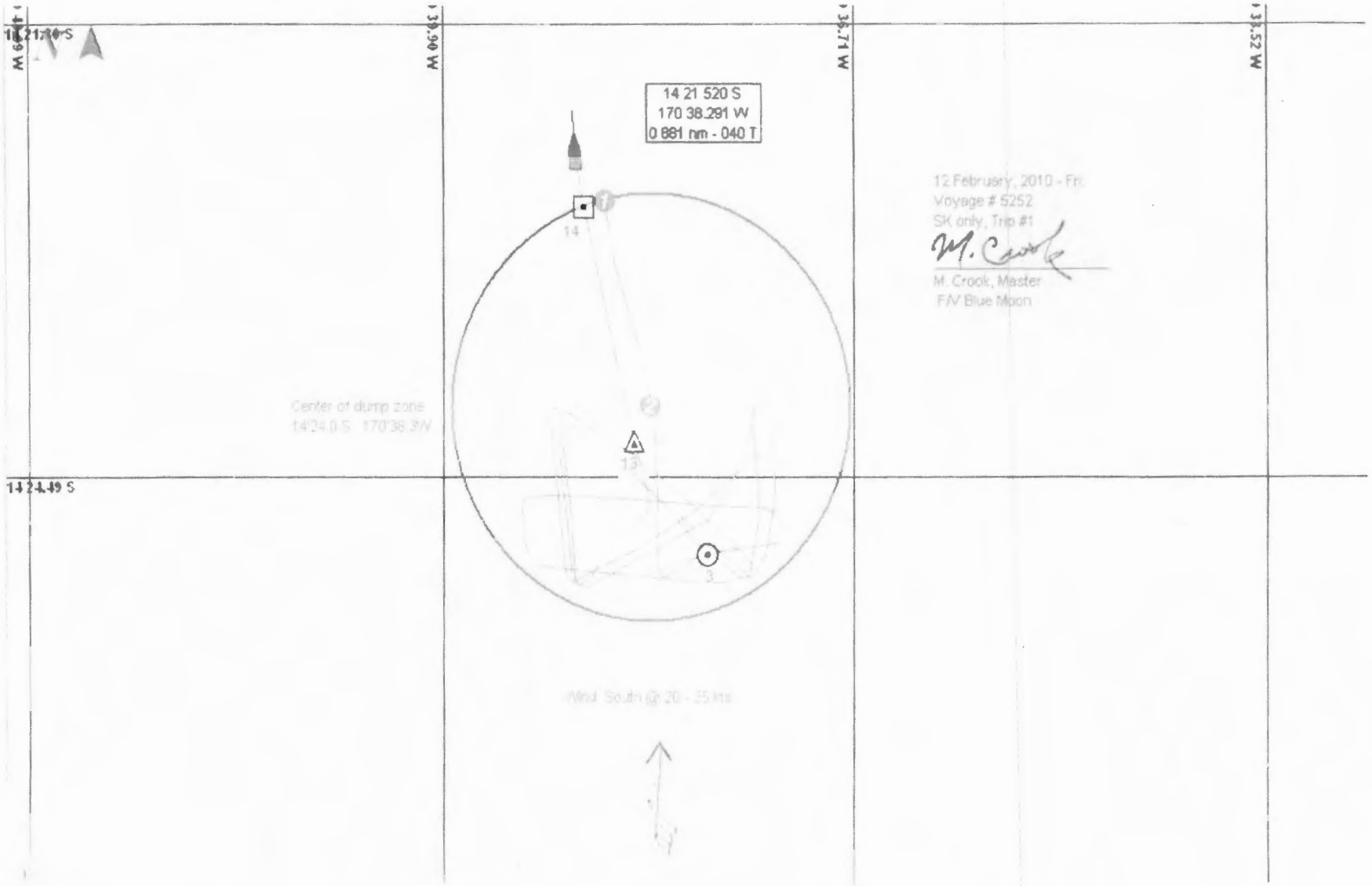
Master, F/V Blue Moon

42.27 W
39.10 W
35.93 W
22.24 S
25.41 S
Center of dump zone
14°24.0 S 170°38.3W
1
2
16
15
Febuary 4 2010
Voyage # 5248
SK only, Trip #1
Master, F/V Blue Moon

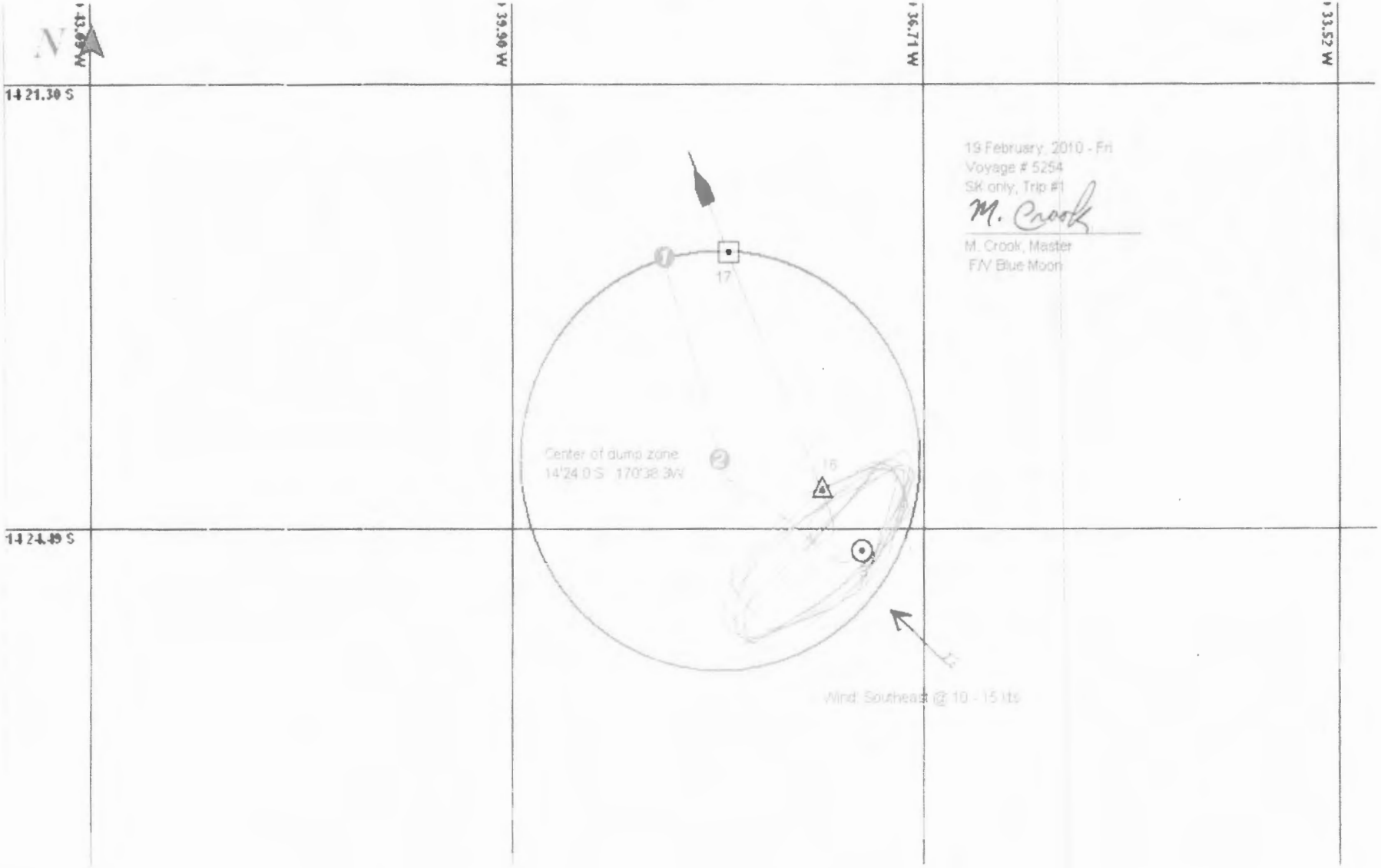

N
39.90 W
36.71 W
14 21.30 S
14 24.49 S
18
17
3
Center of dump zone
14°24.0 S 170°38.3W
06 February, 2010
Voyage # 5249
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: Southeast @ 20 - 25 kts.

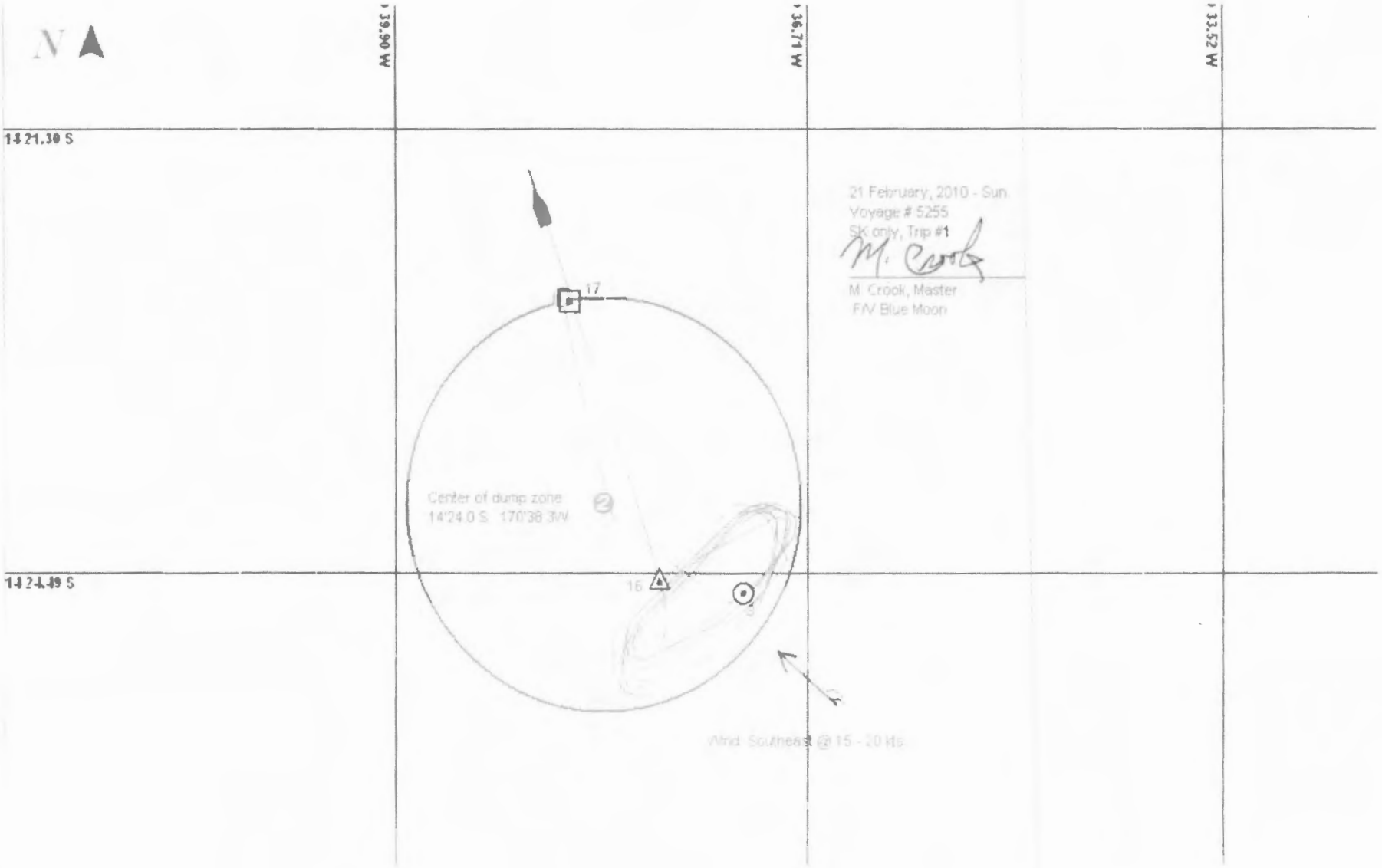

43.00 W
39.90 W
36.71 W
33.52 W
21.30 S
24.49 S
15
14
Center of dump zone
14°24.0 S 170°38.3W
09 February, 2010
Voyage # 5250
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: East @ 5 - 10 kts

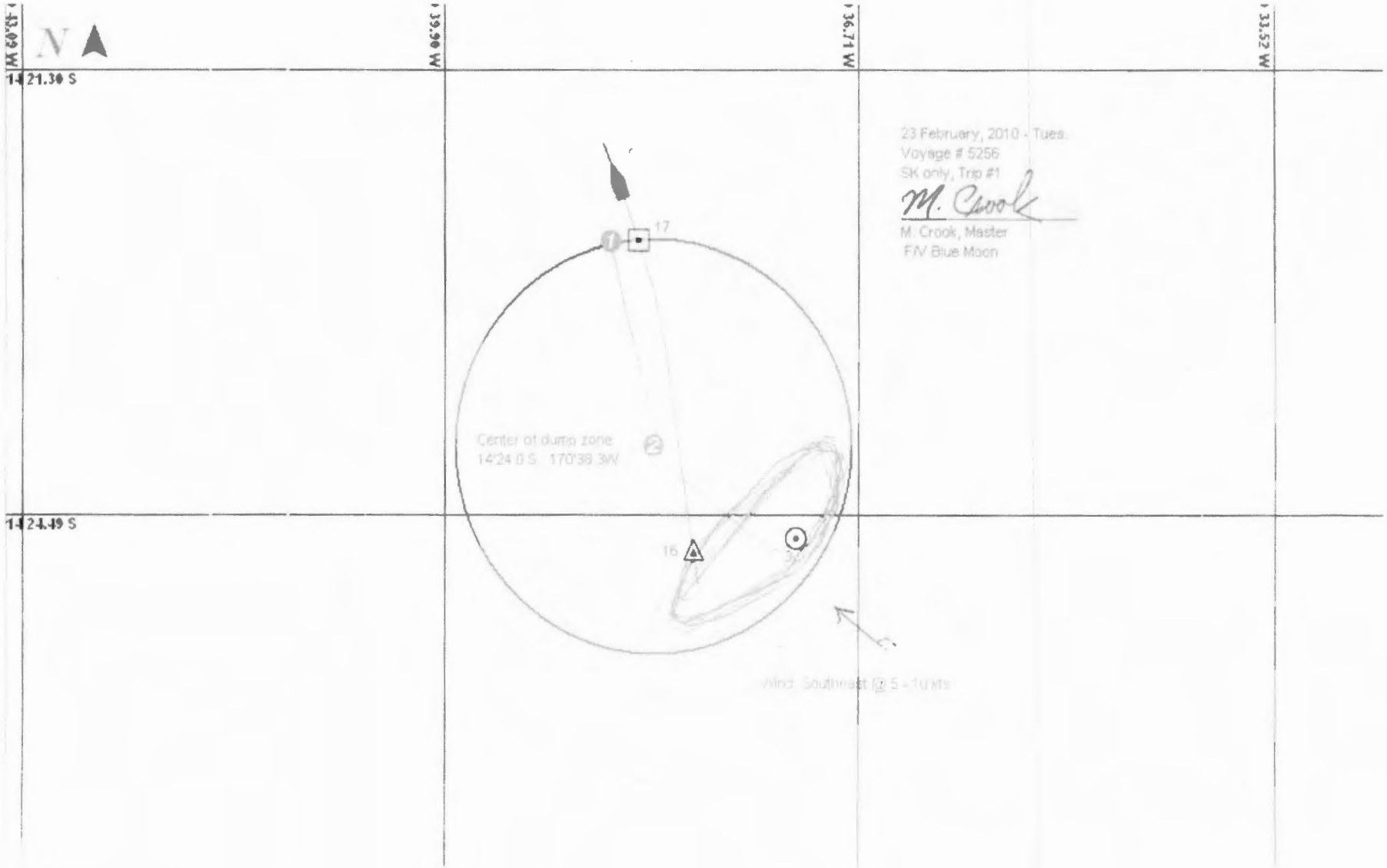
43.09 W
39.90 W
36.71 W
33.52 W
14 21.30 S
14 24.49 S
N
11 February, 2010
Voyage # 5251
SK only, Trip #1
*Ocean Monitoring Conducted
M. Crook, Master
F/V Blue Moon
17
Center of dump zone
14°24.0 S 170°38.3W
C
K
16
3
Wind: Southeast @ 5 - 12 kts

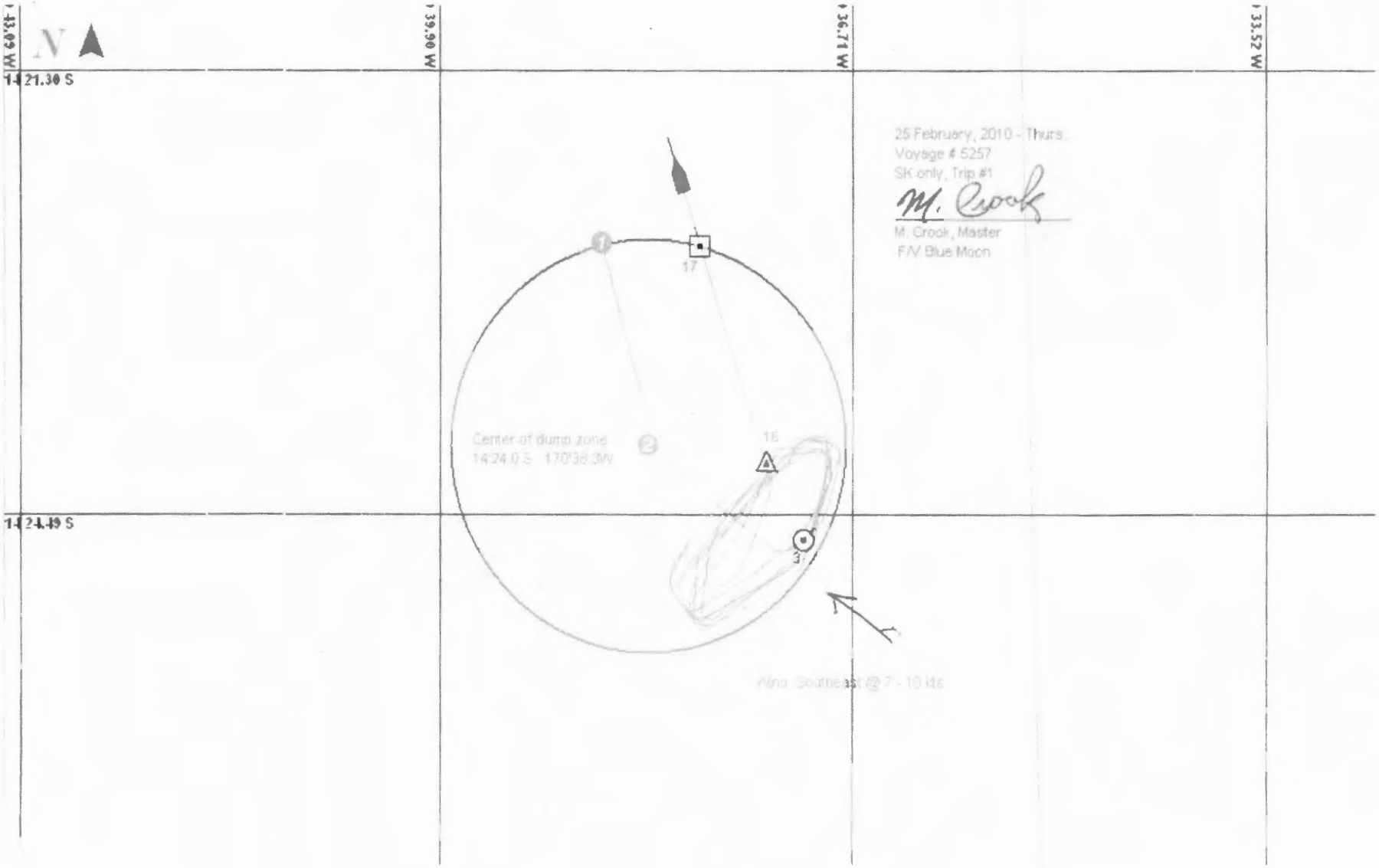

14 21 520 S
170 38.291 W
0.881 nm - 040 T
14
13
3
Center of dump zone
14°24.0 S 170°36.3W
Wind: South @ 20 - 25 kts
12 February, 2010 - Fri.
Voyage # 5252
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
14 24.49 S
36.71 W
36.52 W

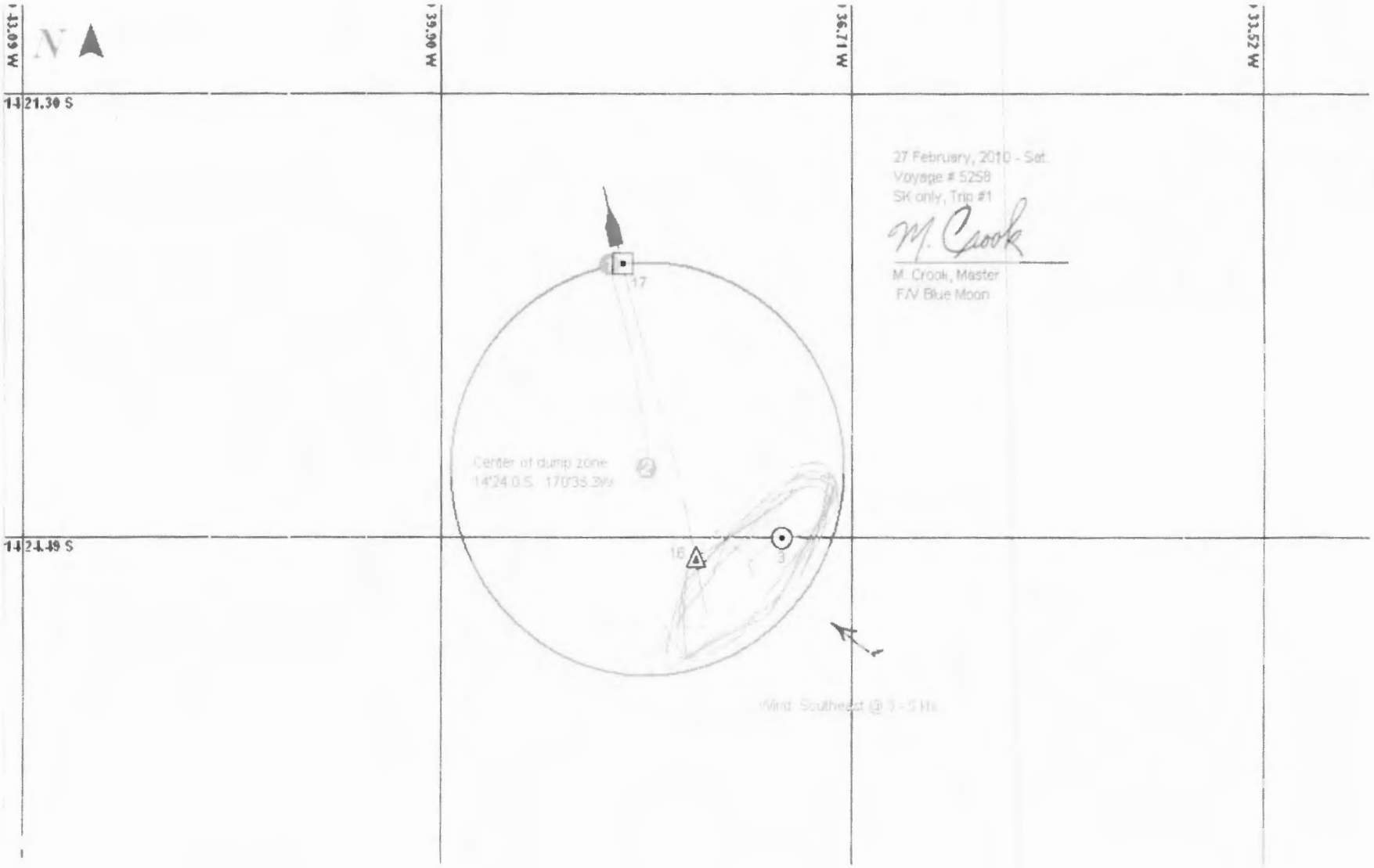
N
39.90 W
36.71 W
33.52 W
14 21.30 S
14 23.49 S
17 February, 2010 - Weds.
Voyage # 5253
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
Wind: East @ 12 - 18 kts
17
16


N
13.90 W
36.71 W
33.52 W
14 21.30 S
14 24.49 S
17
16
Center of dump zone
14°24.0'S 170°38.3'W
19 February, 2010 - Fri
Voyage # 5254
SK only, Trip #1
M. Crook
M. Crook, Master
F/V Blue Moon
Wind: Southeast @ 10 - 15 kts


N
139.90 W
136.71 W
133.52 W
14 21.30 S
14 24.49 S
17
16
Center of dump zone
14°24.0 S 170°38.3W
21 February, 2010 - Sun
Voyage # 5255
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind Southeast @ 15 - 20 Kts


N
14 21.30 S
14 24.49 S
36.71 W
33.52 W
17
16
Center of dump zone
14°24.0 S, 170°38.3W
Wind: Southwest @ 5 - 10 kts
23 February, 2010 - Tues.
Voyage # 5256
SK only, Trip #1
M. Crook, Master
F/V Blue Moon


N
39.90 W
36.71 W
33.52 W
14 21.30 S
14 24.49 S
25 February, 2010 - Thurs.
Voyage # 5257
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
17
16
Center of dump zone
14°24.0 S 170°38.3W
Wind Southeast @ 7 - 10 kts


N
13.09 W
39.90 W
36.71 W
33.52 W
14 21.30 S
14 24.49 S
17
16
3
Center of dump zone
14°24.0 S 170°35.3W
Wind: Southeast @ 3 - 5 Kts
27 February, 2010 - Sat.
Voyage # 5258
SK only, Trip #1
M. Crook
M. Crook, Master
F/V Blue Moon

OCEAN DUMPING MONTHLY SUMMARY

Date: , Feb., 2010

NUMBER OF TRIPS	SK: 12	TOTAL: 12
GALLONS-FOR THE MONTH	SK: 2,053,750	TOTAL: 2,053,750
GALLONS FOR SOLO TRIPS	SK: 2,053,750	

AV RUNNING TIME	5.38 hrs.
AV DISCHARGE TIME	3.02 hrs.
AV GPM DISCHARGE RATE	93 gpm
AV TRIP TIME	5.4 hrs.

AV PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK	COS
100 00%	NA

MASTER M. Crook

STAR KIST SAMOA CO
WATER TREATMENT DEPARTMENT

BLUE MOON - OCEAN DUMPING LOG

March 01, 2010

Trip Date	1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Volume (gallons)
1-Feb-10	1st Trip	1400\1830 (147500)		2nd Trip	NONE	0
2-Feb-10	1st Trip	1400\1630 (62500)	147500	2nd Trip	NONE	0
3-Feb-10	1st Trip	1330\1730 (105000)		2nd Trip	NONE	0
4-Feb-10	1st Trip	1400\1700 (65000)	167500	2nd Trip	NONE	0
5-Feb-10	1st Trip	1400\1700 (100000)		2nd Trip	NONE	0
6-Feb-10	1st Trip	NONE	165000	2nd Trip	NONE	0
7-Feb-10	1st Trip	NONE		2nd Trip	NONE	0
8-Feb-10	1st Trip	1330\1730 (147500)		2nd Trip	NONE	0
9-Feb-10	1st Trip	1330\1500 (47500)	147500	2nd Trip	NONE	0
10-Feb-10	1st Trip	1300\1730 (127500)		2nd Trip	NONE	0
11-Feb-10	1st Trip	1430\1800 (112500)	175000	2nd Trip	NONE	0
12-Feb-10	1st Trip	NONE	112500	2nd Trip	NONE	0
13-Feb-10	1st Trip	NONE		2nd Trip	NONE	0
14-Feb-10	1st Trip	NONE		2nd Trip	NONE	0
15-Feb-10	1st Trip	NONE		2nd Trip	NONE	0
16-Feb-10	1st Trip	1300\1830 (162500)		2nd Trip	NONE	0
17-Feb-10	1st Trip	1400\1530 (40000)	162500	2nd Trip	NONE	0
18-Feb-10	1st Trip	1415\1915 (145000)		2nd Trip	NONE	0
19-Feb-10	1st Trip	1600\1730 (42500)	185000	2nd Trip	NONE	0
20-Feb-10	1st Trip	1400\1900 (135000)	135000	2nd Trip	NONE	0
21-Feb-10	1st Trip	NONE	177500	2nd Trip	NONE	0
22-Feb-10	1st Trip	1430\1930 (140000)		2nd Trip	NONE	0
23-Feb-10	1st Trip	1600\1730 (42500)	140000	2nd Trip	NONE	0
24-Feb-10	1st Trip	1800\2110 (121250)		2nd Trip	NONE	0
25-Feb-10	1st Trip	1630\1830 (50000)	163750	2nd Trip	NONE	0
26-Feb-10	1st Trip	1430\1930 (125000)		2nd Trip	NONE	0
27-Feb-10	1st Trip	NONE	175000	2nd Trip	NONE	0
28-Feb-10	1st Trip	NONE		2nd Trip	NONE	0
TOTAL	**1st Trip**		**2,053,750**	**2nd Trip**		**0**
					Total 1st & 2nd	**2,053,750**

Blue Moon - Captain
Date

Date: 02/02/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5247

Permit # OD 93-01 & OD 93-02

Time	
1406	Begin Loading SK
1836	Finish Loading SK
—	Begin Loading SP
—	Finish Loading SP

Trip # 1

Trip # 2

Volume Loaded:

SK	147500	Gallons
SP	0	Gallons
Total	147500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
										Metric		kts	True°
0500	Depart Starkist		14°16.50'	S	170° 41.2'	W			29.4				
0553	Arrive Edge of Zone	# 1	14°22.4	S	170°38.7	W		70	29.4	2		10	164°
0602	Arrive Zone Center	# 2	14°24.0	S	170°38.3	W		70	29.4	2		9.8	164°
0610	Begin Discharge	# 3	14°24.5	S	170°37.5	W		70	29.4	2	X	7.4	126°
25		# 4	14°24.3	S	170°36.5	W	SE 20	70	29.4	2		9.5	127°
40	Remarks:	# 5	14°24.6	S	170°37.4	W	SE 20	70	29.4	2		10.5	333°
55		# 6	14°24.4	S	170°37.7	W	SE 20	70	29.4	2		10.1	282°
0710		# 7	14°24.7	S	170°37.9	W	SE 20	50	29.4	2	5	10.1	129°
25		# 8	14°24.9	S	170°37.4	W	SE 20	50	29.4	2		9.8	124°
40		# 9	14°24.2	S	170°37.2	W	SE 20	50	29.4	2		10.3	279°
55		# 10	14°24.2	S	170°37.8	W	SE 20	50	29.4	2		10	334°
0810		# 11	14°24.2	S	170°37.2	W	SE 20	50	29.4	2		9.7	125°
25		# 12	14°24.5	S	170°37.7	W	SE 20	50	29.4	2	10	10	127°
40		# 13	14°24.1	S	170°37.5	W	SE 20	50	29.4	2		9.9	124°
55		# 14	14°24.2	S	170°37.5	W	SE 20	50	29.4	2		10	279°
		# 15	14°2	S	170°3	W							
		# 16	14°2	S	170°3	W							
		# 17	14°2	S	170°3	W					15		
		# 18	14°2	S	170°3	W							
		# 19	14°2	S	170°3	W							
		# 20	14°2	S	170°3	W							
			14°2	S	170°3	W							
			14°2	S	170°3	W					20		
			14°2	S	170°3	W							
0900	Finish Discharge	15	14°24.7	S	170°35.1	W	SE 20	20	29.4	2		10	165°
0915	Exit Discharge Zone	16	14°2[illegible]	S	170°3[illegible]	W	SE 20	50	29.4	2		10.1	345°
1600	Secure SK Dock		14°16.50'	S	170°41.2'	W							

Current Direction At Center NW End of Discharge NW Discharge Pattern Fig 5

Total Discharge Time 170 mins. Average Speed During Discharge 1.94 kts Total Time Run 5 hr

Navigational Plot made yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate 872 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P A _____ U S C G M S.D _____ Master F/V Blue Moon [signature]

Date: 02/04/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5248

Permit # OD 93-01 & OD 93-02

Time	
1400	Begin Loading SK
1630	Finish Loading SK
1320	Begin Loading SP
1730	Finish Loading SP

Trip # 1

Trip # 2

Volume Loaded:		
SK	167500	Gallons
SP	0	Gallons
Total	167500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
			14*16.50'	S	170* 41.2'	W			29.4	Metric		kts	True*
0515	Depart Starkist												
0602	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		60	29.4	2		9.6	167°
0611	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		50	29.4	2		10	171°
0620	Begin Discharge	# 3	14*2 4.5	S	170*3 7.2	W	SE 20	50	29.4	2	X	9.3	031°
35		# 4	14*2 4.3	S	170*3 7.7	W	SE 20	50	29.45	2		10	217°
50	Remarks:	# 5	14*2 4.4	S	170*3 7.1	W	SE 20	50	29.45	2		9.8	021°
0705		# 6	14*2 4.5	S	170*3 7.9	W	SE 20	50	29.45	2		10.1	218°
20		# 7	14*2 4.6	S	170*3 8.0	W	SE 20	50	29.45	2	5	10	018°
35		# 8	14*2 4.7	S	170*3 8.1	W	SE 20	50	29.45	2		10.2	218°
50		# 9	14*2 4.2	S	170*3 7.1	W	SE 20	50	29.45	2		9.5	017°
0845		# 10	14*2 5.0	S	170*3 5.3	W	SE 20	50	29.45	2		9.7	212°
20		# 11	14*2 3.5	S	170*3 6.9	W	SE 20	50	29.45	2		9.8	211°
35		# 12	14*2 5.1	S	170*3 7.9	W	SE 20	50	29.45	2	10	10.3	061°
50		# 13	14*2 7.0	S	170*3 2.5	W	SE 20	50	29.45	2		10	225°
0945		# 14	14*2 4.9	S	170*3 7.6	W	SE 20	50	29.45	2		9.5	056°
		# 15	14*2	S	170*3	W							
		# 16	14*2	S	170*3	W							
		# 17	14*2	S	170*3	W					15		
		# 18	14*2	S	170*3	W							
		# 19	14*2	S	170*3	W							
		# 20	14*2	S	170*3	W							
			14*2	S	170*3	W							
			14*2	S	170*3	W					20		
			14*2	S	170*3	W							
0910	Finish Discharge	15	14*2 4.4	S	170*3 7.1	W	SE 20	50	29.45	2		9.5	350
0930	Exit Discharge Zone	16	14*2 2.7	S	170*3 7.9	W	SE 20	50	29.45	2		10.1	[illegible]
1615	Secure SK Dock		14*16.50'	S	170*41.2'	W							

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time 170 mins Average Speed During Discharge 9.8 kts Total Time Run 5 hr

Navigational Plot made yes Presence of Plume? None

Time and position of any floating material [illegible] Discharge Rate: 60 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P A [illegible] U S C G M S D [illegible] Master F/V Blue Moon [illegible]

Date: 02/06/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5249

Permit # OD 93-01 & OD 93-02

	Time	
2/4	1900	Begin Loading SK
2/5	1700	Finish Loading SK
	/	Begin Loading SP
	/	Finish Loading SP

Trip # 1 ✓
Trip # 2

Volume Loaded		
SK	165000	Gallons
SP	0	Gallons
Total	165,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0600	Depart Starkist		14*16.50' S	170* 41.2' W	SE-20	80%	29.51			
0647	Arrive Edge of Zone	# 1	14*22.52 S	170*38.65' W	SE-22	70	"	SE-3.0	9.2	163
0656	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	"	"	"	" "	9.1	159
0705	Begin Discharge	# 3	14*24.55 S	170*37.37 W	"	80%	"	" " X	8.8	110
20		# 4	14*25.24' S	170*37.75' W			"		8.6	115
35	Remarks:	# 5	14*24.26' S	170*37.68 W			29.52		8.5	116
50		# 6	14*24.94' S	170*38.07' W		70	"		8.7	111
0805		# 7	14*24.24' S	170*38.13 W			"	5	9.5	322
20		# 8	14*24.71' S	170*37.73' W	SE-25		29.51		9.8	268
35		# 9	14*24.83' S	170*37.85 W					9.9	323
50		# 10	14*24.51' S	170*37.75' W		80			8.9	105
0905		# 11	14*25.18' S	170*37.94 W					8.8	096
20		# 12	14*24.46' S	170*37.34' W				10	9.5	120
35		# 13	14*25.05 S	170*38.29' W					9.9	098
50		# 14	14*24.20' S	170*38.21 W		70			9.8	345
1005		# 15	14*24.76' S	170*38.22 W	SE-22		29.52		10.0	263
20		# 16	14*24.73 S	170*37.86 W	"	80			10.0	322
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1025	Finish Discharge	# 17	14*24.04 S	170*38.16' W	SE-22	80%	29.52	SE-3.0	9.8	343
1033	Ext Discharge Zone	18	14*22.64' S	170*38.50 W	" "	"		" "	10.2	346
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure 8

Total Discharge Time 200 mins. Average Speed During Discharge 9.3 kts Total Time Run 5.33 hr.

Navigational Plot made yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 89 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P A ✓ U S C G M S.D ✓ Master F/V Blue Moon M. Brook

Date: 02/09/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5250

Permit # OD 93-01 & OD 93-02

Time		
1330	Begin Loading SK	
1700	Finish Loading SK	Trip # 1 ✓
N/A	Begin Loading SP	Trip # 2
N/A	Finish Loading SP	

Volume Loaded:		
SK	147,500	Gallons
SP	0	Gallons
Total	147,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0500	Depart Starkist		14°16.50' S	170° 41.2' W	Calm	100-RAIN	29.48			
0548	Arrive Edge of Zone	# 1	14°22.56' S	170°38.65' W	East-5	100%	"	SE-1.5	9.7	162
0556	Arrive Zone Center	# 2	14°24.0 S	170°38.3 W	E-7	"	29.49	" "	9.6	159
0608	Begin Discharge	# 3	14°23.82' S	170°37.07' W	" "	"	"	" " X	8.9	003
23		# 4	14°24.17' S	170°37.64' W	E-10	"	"	" "	9.7	178
38	Remarks:	# 5	14°23.81' S	170°36.88' W			"		9.8	MG 9.8 359
53		# 6	14°24.47' S	170°37.54' W			29.48		9.7	176
0708		# 7	14°23.72' S	170°36.87' W			"	5	9.9	340
23		# 8	14°24.79' S	170°37.48' W			29.47		9.8	177
38		# 9	14°23.05' S	170°37.24' W			"		9.4	311
53		# 10	14°24.88' S	170°37.26' W			29.48		9.3	022
0808		# 11	14°23.15' S	170°37.21' W		90	29.49		9.7	296
23		# 12	14°24.84' S	170°37.15' W		"		10	9.1	045
38		# 13	14°23.35' S	170°37.68' W		"			9.2	181
53		# 14	14°2 S	170°3 W						
0908		# 15	14°2 S	170°3 W						
23		# 16	14°2 S	170°3 W						
38		# 17	14°2 S	170°3 W				15		
		# 18	14°2 S	170°3 W						
		# 19	14°2 S	170°3 W						
		# 20	14°2 S	170°3 W						
			14°2 S	170°3 W						
			14°2 S	170°3 W				20		
			14°2 S	170°3 W						
0853	Finish Discharge	#14	14°23.96' S	170°37.50' W	East-10	90%	29.49	SE-1.5	9.9	348
0906	Exit Discharge Zone	#15	14°22.56' S	170°38.07' W	" "	"	"	" "	10.5	334
0950	Secure SK Dock		14°16.50' S	170°41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time 165 mins. Average Speed During Discharge 9.5 kts Total Time Run 4.8 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 94 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P A ✓ U S C G M S D. ✓ Master F/V Blue Moon M Cook

Date: 02/11/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5251

Permit # OD 93-01 & OD 93-02

Time		
2/9 1820	Begin Loading SK	
2/10 1730	Finish Loading SK	
N/A	Begin Loading SP	
N/A	Finish Loading SP	

Trip # 1 ✓
Trip # 2

Volume Loaded:		
SK	175,000	Gallons
SP	0	Gallons
Total	175,000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0510	Depart Starkist		14*16.50'	S	170* 41.2'	W	SE-5	50%	29.43			
0555	Arrive Edge of Zone	# 1	14*22.50	S	170*38.70	W	SE-7	"	"	SE 1.5	9.4	161
0605	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	" "	"	"	" "	9.2	157
0625	Begin Discharge	# 3	14*24.87	S	170*37.56	W	SE-10	85	29.44	" " X	8.4	168
40		# 4	14*24.68	S	170*37.75	W		"	"	" "	9.5	221
55	Remarks:	# 5	14*24.57'	S	170*37.61'	W		90	29.45	" "	9.6	030
0710	Ocean Monitoring	# 6	14*24.76'	S	170*37.78	W					9.4	222
25	Conducted.	# 7	14*24.57'	S	170*36.94'	W				5	9.7	018
40	Control Samples	# 8	14*25.25'	S	170*37.78	W					9.6	087
55	deployed 0615	# 9	14*24.24'	S	170*37.57'	W					9.5	221
0810	at //N waypoint	# 10	14*25.02	S	170*37.43'	W					9.2	255
25	waypoint (C) on	# 11	14*25.00	S	170*35.22	W	SE-12				9.3	207
40	NAV plot	# 12	14*24.22	S	170*37.30	W				10	9.1	251
55		# 13	14*25.61	S	170*37.31	W					9.7	049
0910		# 14	14*24.43'	S	170*37.71	W			29.46		9.8	218
25		# 15	14*24.45	S	170*37.05	W			"		10.0	023
40		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0940	Finish Discharge	#16	14*25.06'	S	170*37.81	W	SE-12	90%	29.47	SE-1.5	9.4	063
1040	Exit Discharge Zone	#17	14*22.49	S	170*38.32	W					10.7	346
1130	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NNW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 195 mins Average Speed During Discharge 9.5 kts Total Time Run 6.33 hr

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 9.5 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P A ✓ U S C G M S D ✓ Master F/V Blue Moon M Cook

Date: 02/12/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5252

Permit # OD 93-01 & OD 93-02

Time		
1430	Begin Loading SK	
1800	Finish Loading SK	Trip # 1 ✓
N/A	Begin Loading SP	Trip # 2
N/A	Finish Loading SP	

Volume Loaded		
SK	112,500	Gallons
SP	0	Gallons
Total	112,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0505	Depart Starkist		14*16.50' S	170* 41.2' W	SE-15	100	27.30			
0558	Arrive Edge of Zone	# 1	14*22.52' S	170*38.66' W	South 15	"		SE-SW 2.0	8.6	168
0608	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	"				8.4	168
0620	Begin Discharge	# 3	14*25.07' S	170*37.95' W	S-20		"	SE-SW 2.5	8.3	083
35		# 4	14*24.63' S	170*38.65' W	S-25	RAIN		" 2.5	9.5	270
50	Remarks:	# 5	14*25.26' S	170*38.32' W	"	"		South 3.0	8.2	093
0705		# 6	14*24.33' S	170*38.43' W	S-30	100			9.5	302
20		# 7	14*25.11' S	170*38.63' W				5	8.7	049
35		# 8	14*24.99' S	170*37.48' W	S-35	RAIN	29.31		8.5	180
50		# 9	14*24.40' S	170*38.56' W		"	29.32		10.0	305
0805		# 10	14*25.14' S	170*38.54' W		100			9.6	048
20		# 11	14*24.69' S	170*37.73' W	S-30		29.30		9.2	155
35		# 12	14*24.21' S	170*38.97' W	" "		29.31	10	8.1	178
		# 13	14*2 S	170*3 W						
		# 14	14*2 S	170*3 W						
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0850	Finish Discharge	# 13	14*24.37' S	170*38.39' W	South 30	100%	29.32	South 3.0	10.0	343
0902	Exit Discharge Zone	# 14	14*24.67' S	170*38.50' W	" "			"	10.2	344
0950	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center North End of Discharge North Discharge Pattern Ellipse to Figure 8

Total Discharge Time: 150 mins. Average Speed During Discharge 7.0 kts Total Time Run 4.75 hr

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material None Discharge Rate: 83.3 Gallons/min/kts

Unusual Occurrences? Cyclone Rene

Notifications made A S P A ✓ U.S.C.G M S D ✓ Master F/V Blue Moon [signature]

Date: 02/17/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5253

Permit # OD 93-01 & OD 93-02

Time		
2/16 1300	Begin Loading SK	
1830	Finish Loading SK	
N/A	Begin Loading SP	
N/A	Finish Loading SP	

Trip # 1 ✓
Trip # 2

Volume Loaded:		
SK	162,500	Gallons
SP	0	Gallons
Total	162,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0505	Depart Starkist		14°16.50' S	170° 41.2' W	SE-10	80	29.50			
0552	Arrive Edge of Zone	# 1	14°22.52' S	170°38.64' W	East-12	"	29.51	SE-1.5	9.0	164
0602	Arrive Zone Center	# 2	14°24.0 S	170°38.3 W	" "	"	"	" "	9.2	161
0613	Begin Discharge	# 3	14°24.01' S	170°37.04' W	" "	"	"	X	8.6	012
0628		# 4	14°24.09' S	170°37.56' W	East-15	"	"		9.4	183
" 43	Remarks:	# 5	14°23.85' S	170°36.94' W		75	"		9.5	357
" 58		# 6	14°24.49' S	170°37.55' W		"	"		9.7	185
0713		# 7	14°23.72' S	170°36.88' W		70	"	5	9.6	354
" 28		# 8	14°24.49' S	170°37.59' W		"	29.50		9.8	180
" 43		# 9	14°24.55' S	170°37.06' W		65			9.4	009
" 58		# 10	14°24.98' S	170°37.37' W		"			9.1	047
0813		# 11	14°23.21' S	170°37.10' W		"			9.9	320
" 28		# 12	14°24.86' S	170°37.56' W		"	29.51	10	10.0	179
" 43		# 13	14°23.12' S	170°37.23' W	East-18	60	29.52		9.9	308
" 58		# 14	14°24.87' S	170°37.36' W	" "	"	"		8.8	012
0913		# 15	14°23.10' S	170°37.16' W	" "	"	"		9.7	331
" 28		# 16	14°2 S	170°3 W						
		# 17	14°2 S	170°3 W				15		
		# 18	14°2 S	170°3 W						
		# 19	14°2 S	170°3 W						
		# 20	14°2 S	170°3 W						
			14°2 S	170°3 W						
			14°2 S	170°3 W				20		
			14°2 S	170°3 W						
0920	Finish Discharge	#16	14°23.78' S	170°37.46' W	East-18	60%	29.52	SE-1.5	~~15~~ 9.3	~~8.3~~ 181
0930	Exit Discharge Zone	#17	14°22.60' S	170°38.21' W	" "	"	"	" "	329 ⇄	10.1
1020	Secure SK Dock		14°16.50' S	170°41.2' W						

Current Direction: At Center Ubst End of Discharge West Discharge Pattern Ellipse

Total Discharge Time 187 mins Average Speed During Discharge 9.5 kts Total Time Run 5.25 hr

Navigational Plot made yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 9.5 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P.A ✓ U S C G M S D ✓ Master F/V Blue Moon M. Cook

Date: 02/19/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5254

Permit # OD 93-01 & OD 93-02

Time		
1400	Begin Loading SK	
1915	Finish Loading SK	
N/A	Begin Loading SP	
N/A	Finish Loading SP	

Trip # 1 ✓
Trip # 2

Volume Loaded:		
SK	135,000	Gallons
SP	0	Gallons
Total	135,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True°
0500	Depart Starkist		14°16.50' S	170°41.2' W	SE-7	60	29.58			
0547	Arrive Edge of Zone	# 1	14°22.56' S	170°38.70' W	SE-10	50	"	SE-1.5	7.4	165
0555	Arrive Zone Center	# 2	14°24.0 S	170°38.3 W	"	"	29.59	"	7.5	160
0605	Begin Discharge	# 3	14°24.67' S	170°37.25' W	"	"	29.60	" X	8.6	058
20		# 4	14°24.69' S	170°37.93' W	"	"	"	"	9.1	223
35	Remarks:	# 5	14°24.40' S	170°36.95' W		40	"	"	9.5	008
50		# 6	14°25.24' S	170°37.66' W					9.1	051
0705		# 7	14°24.20' S	170°37.24' W	SE-12			5	9.4	241
25		# 8	14°25.00 S	170°37.50 W			29.61		9.6	035
35		# 9	14°24.44' S	170°37.84' W					9.7	223
50		# 10	14°24.25' S	170°36.56' W					9.5	000
0805		# 11	14°25.21' S	170°37.85' W					8.7	062
20		# 12	14°24.84' S	170°37.80' W				10	10.6	222
35		# 13	14°24.37' S	170°36.92' W					9.6	024
50		# 14	14°25.15' S	170°37.78' W	SE-15				9.4	059
0905		# 15	14°24.21' S	170°37.36' W					9.9	218
20		# 16	14°2 S	170°3 W						
		# 17	14°2 S	170°3 W				15		
		# 18	14°2 S	170°3 W						
		# 19	14°2 S	170°3 W						
		# 20	14°2 S	170°3 W						
			14°2 S	170°3 W						
			14°2 S	170°3 W				20		
			14°2 S	170°3 W						
0910	Finish Discharge	#16	14°24.93' S	170°37.98' W	SE-15	40%	29.61	SE-1.5	9.5	336
0920	Exit Discharge Zone	#17	14°22.64' S	170°38.17' W	"	"	"	"	10.2	334
1010	Secure SK Dock		14°16.50' S	170°41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time 185 mins Average Speed During Discharge 9.4 kts. Total Time Run 5.2 hr

Navigational Plot made yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 106.4 Gallons/min/kts

Unusual Occurrences? None

Notifications made A.S.P.A ✓ U.S.C.G.M.S.D ✓ Master F/V Blue Moon [signature]

Date: 02/21/10 — **F/V Blue Moon Ocean Dumping Log** — **Voyage #: 5255**

Permit # OD 93-01 & OD 93-02

	Time	
2/19	1600	Begin Loading SK
2/20	1900	Finish Loading SK
	N/A	Begin Loading SP
	N/A	Finish Loading SP

Trip # 1 - X
Trip # 2

Volume Loaded:		
SK	177,500	Gallons
SP	0	Gallons
Total		Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0645	Depart Starkist		14*16.50' S	170* 41.2' W	SE - 15	80%	27.57			
0738 ~~0638~~	Arrive Edge of Zone	# 1	14*22.55' S	170*38.60 W	SE - 15	70		SE - 2.0	7.0	161
0747	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W		"	"	"	8.8	163
0755	Begin Discharge	# 3	14*24.68 S	170*37.28 W		60		" X	8.4	058
0810		# 4	14*24.50 S	170*37.71 W			29.57		9.2	217
25	Remarks:	# 5	14*24.53 S	170*36.98' W					9.2	016
40		# 6	14*25.08 S	170*38.15 W	SE - 18		29.56		8.7	185
55		# 7	14*24.24' S	170*37.42 W				5	7.5	221
0910		# 8	14*25.00 S	170*37.44 W					9.1	043
25		# 9	14*24.81 S	170*37.78 W					10.0	212
40		# 10	14*24.26' S	170*36.87 W		50			9.3	357
55		# 11	14*25.09' S	170*37.37' W					9.2	046
1010		# 12	14*24.05 S	170*37.31' W		40	29.57	10	9.4	227
25		# 13	14*24.64 S	170*37.15 W	SE - 20				9.3	036
40		# 14	14*25.15 S	170*37.95 W		50			8.6	080
55		# 15	14*24.59 S	170*37.68 W			29.56		10.0	224
1110		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1110	Finish Discharge	# 16	14*24.57 S	170*37.35 W	SE - 20	50	29.56	SE 2.0	9.7	346
1120	Exit Discharge Zone	# 17	14*22.56' S	170*38.53' W	"		29.55		10.4	340
1205	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW — End of Discharge NW — Discharge Pattern Ellipse

Total Discharge Time: 195 mins — Average Speed During Discharge 9.3 kts — Total Time Run 5.33 hr

Navigational Plot made: yes — Presence of Plume? No

Time and position of any floating material: None — Discharge Rate 98 Gallons/min/kts

Unusual Occurrences? None

Notifications made. A S P.A _____ U S C G M S D _____ — Master F/V Blue Moon M Cook

Date: 02/23/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5256

Permit # OD 93-01 & OD 93-02

Time		
2/22 1430	Begin Loading SK	
1930	Finish Loading SK	
N/A	Begin Loading SP	
N/A	Finish Loading SP	

Trip # 1 - X

Trip # 2

Volume Loaded:		
SK	140,000	Gallons
SP	0	Gallons
Total	140,000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0505	Depart Starkist		14*16.50'	S	170* 41.2'	W	SE-5	60	29.52			
0550	Arrive Edge of Zone	# 1	14*22.50'	S	170*38.63'	W	" "	"	27.51	SE-1.5	9.7	162
0559	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	" "	"	"	" "	9.3	157
0610	Begin Discharge	# 3	14*24.71'	S	170*37.27'	W	SE-7	70	29.52	" " X	8.8	037
25		# 4	14*24.82'	S	170*37.79'	W	" "	"	"	" "	8.0	222
40	Remarks:	# 5	14*24.23'	S	170*37.37'	W	" "	80	"	" "	9.6	000
55		# 6	14*24.04'	S	170*37.54'	W	" "	"	"	" "	9.5	056
0710		# 7	14*24.34'	S	170*37.55'	W	" "		29.53	5	9.2	230
25		# 8	14*24.45'	S	170*37.88'	W	" "	"	"	" "	8.8	358
40		# 9	14*25.23'	S	170*37.82'	W	SE-10	"	"	" "	9.3	051
55		# 10	14*24.50'	S	170*37.62'	W		"	"		9.6	226
0810		# 11	14*24.77'	S	170*37.16'	W		"	"		9.1	043
25		# 12	14*24.84'	S	170*37.88'	W		90	29.54	10	10.0	218
40		# 13	14*24.01'	S	170*37.63'	W		"			8.7	245
55		# 14	14*24.21'	S	170*37.26'	W		"			9.8	034
0910		# 15	14*24.60'	S	170*37.36'	W		"			10.0	231
25		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0915	Finish Discharge	#16	14*24.90'	S	170*37.77'	W	SE-10	70%	29.55	SE-1.5	9.5	350
0928	Exit Discharge Zone	#17	14*23.58'	S	170*38.39'	W	" "	"	29.54	" "	10.3	335
1020	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 185 mins. Average Speed During Discharge: 9.4 kts Total Time Run 5.25 hr

Navigational Plot made yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 80.5 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A S P.A ✓ U S C G M S D ✓ Master F/V Blue Moon M. Cook

Date: 02/25/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5257

Permit # OD 93-01 & OD 93-02

	Time	
2/23	1600	Begin Loading SK
2/24	2110	Finish Loading SK
	N/A	Begin Loading SP
	N/A	Finish Loading SP

Trip # 1 - X
Trip # 2

Volume Loaded:		
SK	163,750	Gallons
SP	0	Gallons
Total	163,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
0500	Depart Starkist		14*16.50' S	170* 41 2' W	SE-7	80	27.50	Metric	kts	True*
0545	Arrive Edge of Zone	# 1	14*22.52 S	170*38.65' W	"	"	27.49	S/SE-15	7.2	164
0555	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	"	70	27.50	"	7.0	149
0605	Begin Discharge	# 3	14*24.73' S	170*37.70 W	"	"	" "	" X	8.6	049
20		# 4	14*24.90' S	170*37.96' W	SE-8	75	29.51	"	9.4	220
35	Remarks:	# 5	14*24.06 S	170*37.06' W	" "	70	"	" "	8.1	273
50		# 6	14*24.59' S	170*37.25 W	" "	60	"	" "	7.7	041
0705		# 7	14*24.58 S	170*37.66' W	SE-10	"	"	" " 5	7.5	213
20		# 8	14*24.22' S	170*36.81' W	" "	50	"	" "	10.0	007
35		# 9	14*24.92' S	170*37.04' W	" "	40	"	" "	9.9	042
50		# 10	14*25.06 S	170*37.72' W	" "	"	27.52		7.6	211
0805		# 11	14*24.03 S	170*37.13 W	" "	50			8.8	302
20		# 12	14*24.72 S	170*37.14' W	SE-8		27.53	10	10.0	030
35		# 13	14*24.78 S	170*38.10 W	SE-7	70-RAIN	"		7.3	216
50		# 14	14*24.32' S	170*37.43' W	" "	80	27.53		7.8	221
0905		# 15	14*25.06' S	170*37.78 W	" "	85			7.5	050
20		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0910	Finish Discharge	# 16	14*24.40' S	170*37.35' W	SE-7	90%	27.54	S/SE 1.5	10.0	344
0913	Exit Discharge Zone	# 17	14*22.58' S	170*37.88' W	" "	"	"	"	10.5	337
1010	Secure SK Dock		14*16.50' S	170*41 2' W						

Current Direction At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time 185 mins. Average Speed During Discharge 9.5 kts Total Time Run 5.2 hr

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 93 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P A ____ U.S.C.G M S D ____ Master F/V Blue Moon [signature]

Date: 02/27/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5258

Permit # OD 93-01 & OD 93-02

	Time	
25th	1630	Begin Loading SK
	1830	Finish Loading SK
26th	1430	Begin Loading SK #2
	1930	Finish Loading SK #2

Trip # 1 - X
Trip # 2

Volume Loaded:		
SK	175,000	Gallons
SP	0	Gallons
Total	175,000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0600	Depart Starkist		14*16.50'	S	170* 41.2'	W	Calm	70	29.51			
0545	Arrive Edge of Zone	# 1	14*22.53	S	170*38 59'	W	SE-3	80	29.52	SE-1.5	7.0	161
0655	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	"	"	29.51	"	8.8	162
0725	Begin Discharge	# 3	14*24.50	S	170*37.24	W	"	"	"	X	8.9	026
40		# 4	14*24.80	S	170*38.05	W	"	"	"	"	9.4	217
55	Remarks:	# 5	14*24.27	S	170*37.30	W		75%	29.52	"	9.5	240
0810		# 6	14*25.35	S	170*37.15	W	SE-5	"	"	"	7.2	051
25		# 7	14*24.40	S	170*37.36	W				5	9.4	219
40		# 8	14*24.74	S	170*37.16	W					10.0	024
55		# 9	14*25.30	S	170*37.31	W					7.1	056
0910		# 10	14*24.[illegible]	S	170*37.34	W			29.52		9.5	232
25		# 11	14*24.76	S	170*37.27	W					10.0	043
40		# 12	14*25.00	S	170*37.[illegible]	W		80%		10	9.6	187
55		# 13	14*2[illegible]	S	170*37.38	W			29.50		8.5	[illegible]
1010		# 14	14*25.35	S	170*37.16	W					7.7	054
25		# 15	14*24.73	S	170*37.30	W		75%			9.8	213
40		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1052	Finish Discharge	#16	14*2[illegible]	S	170*37.39	W	SE-5	75%	29.53	SE-1.5	10.0	344
1045	Exit Discharge Zone	#17	14*22.61	S	170*38.48	W	"	"	"	"	7.8	339
1255	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

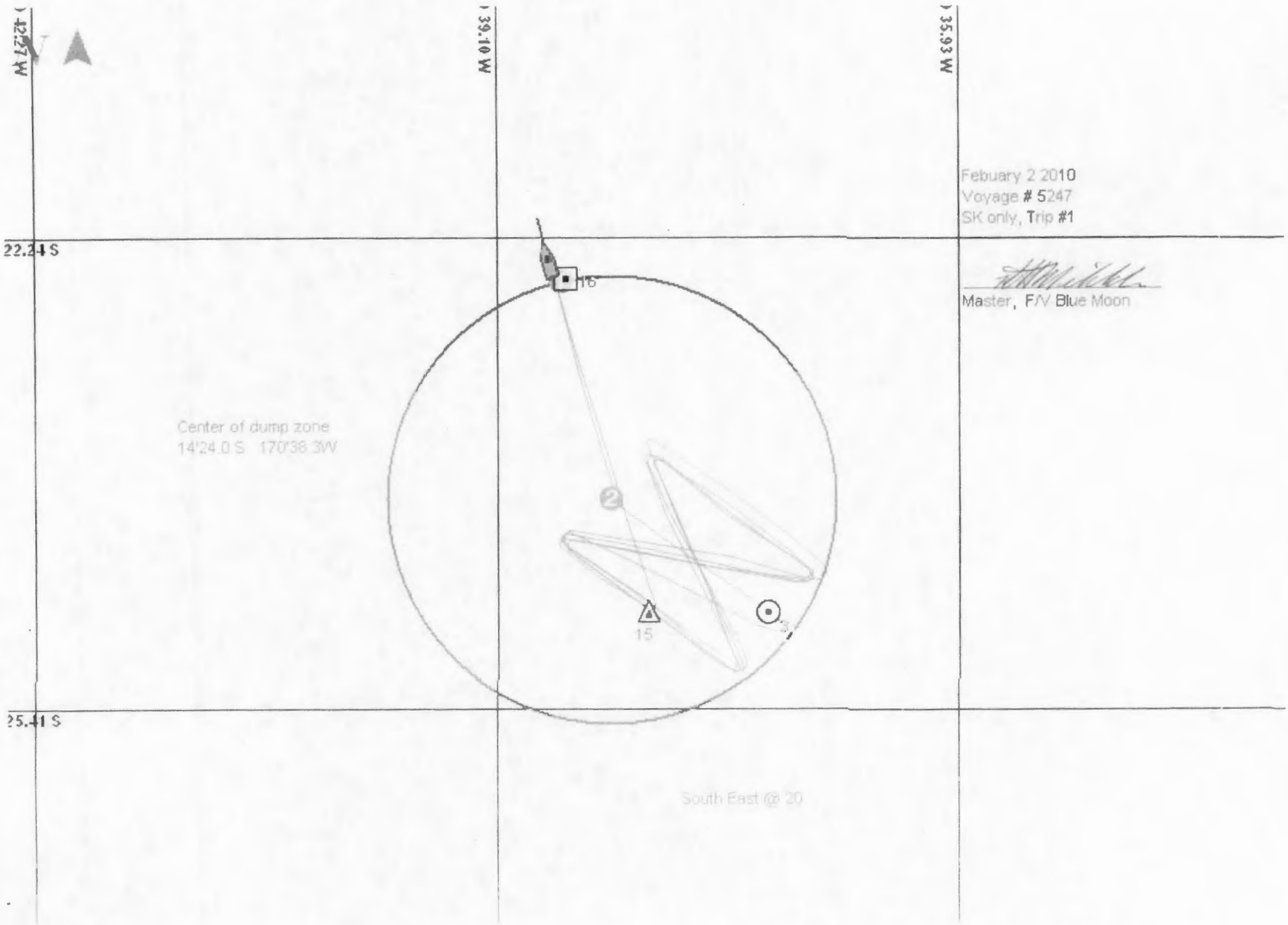
Total Discharge Time 187 mins. Average Speed During Discharge 7.5 kts Total Time Run 6.7 hr

Navigational Plot made yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 98.5 Gallons/min/kts

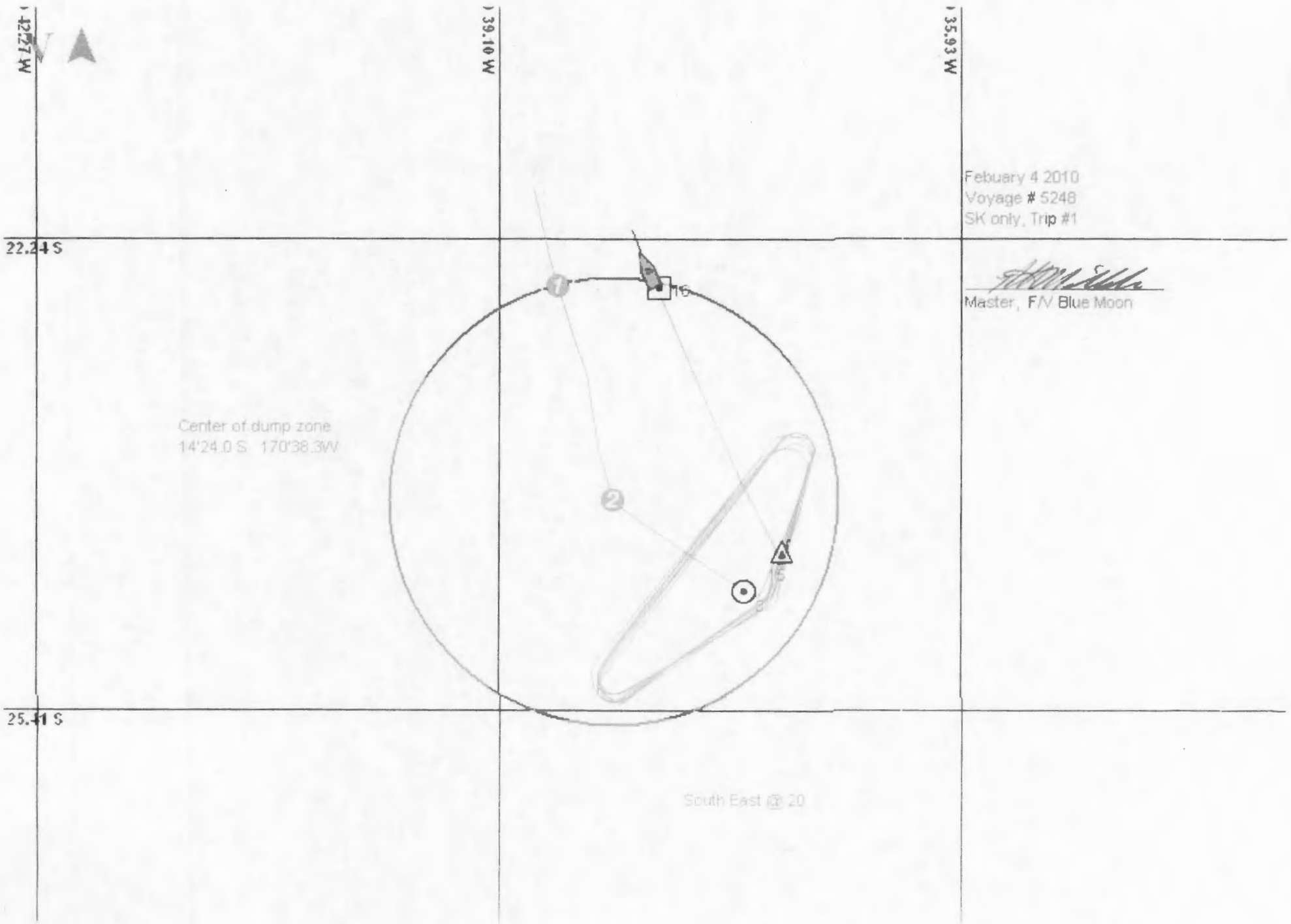
Unusual Occurrences? 1305 - Some [illegible] - shutdown to fix [illegible] 1312.0

Notifications made A S P A ✓ U S C G M S D ✓ Master F/V Blue Moon [signature]



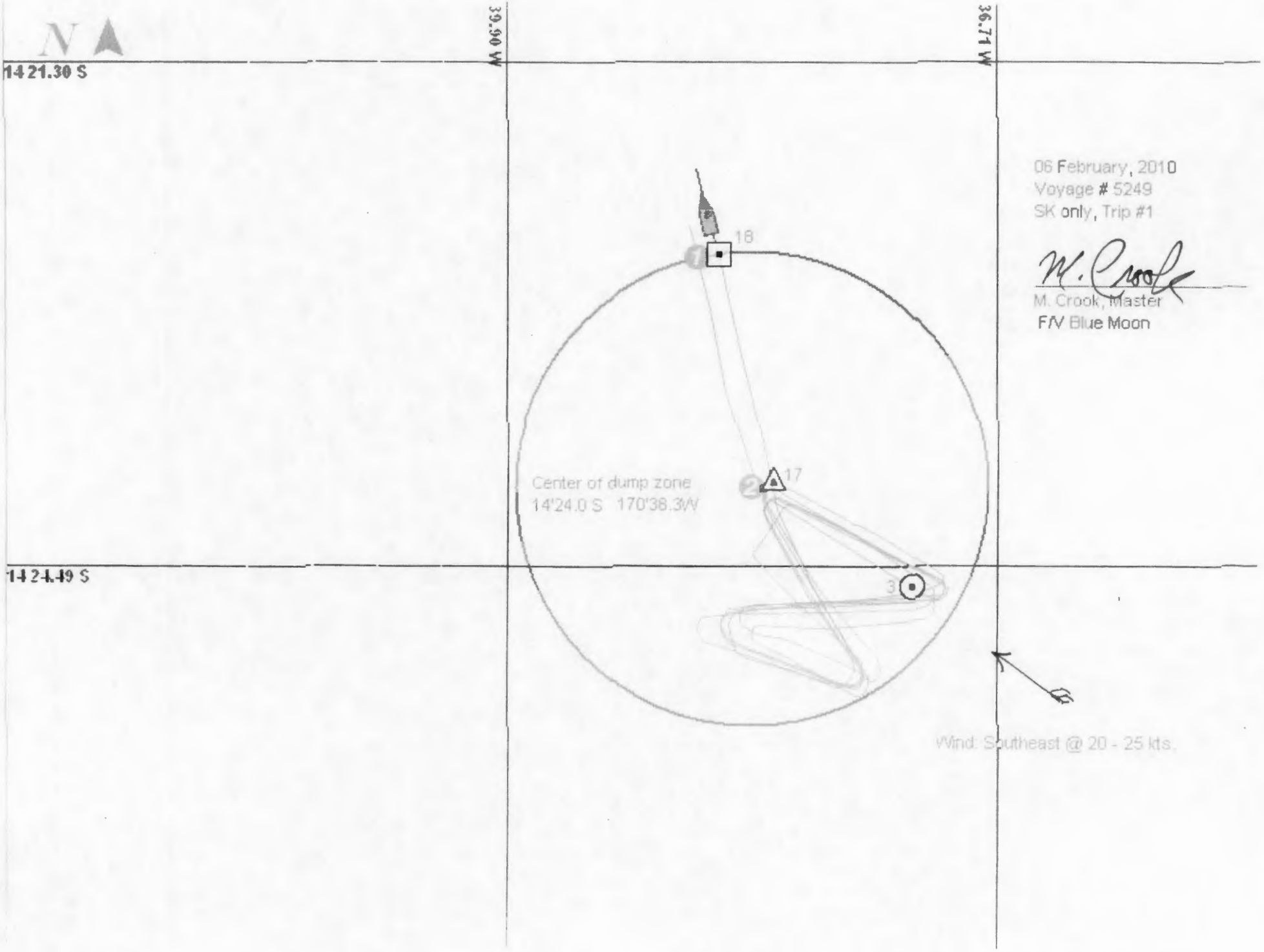
Febuary 2 2010
Voyage # 5247
SK only, Trip #1

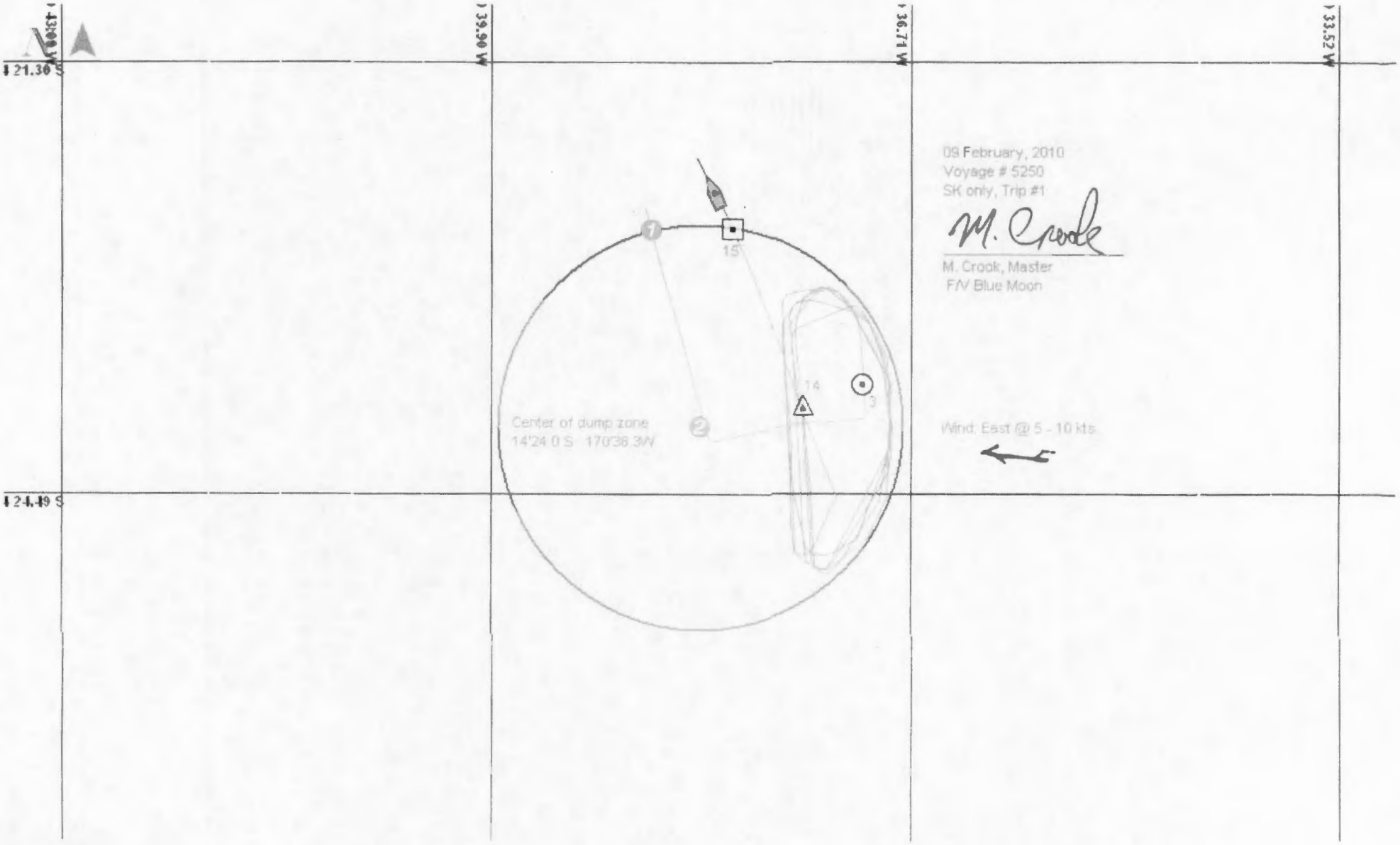
Master, F/V Blue Moon

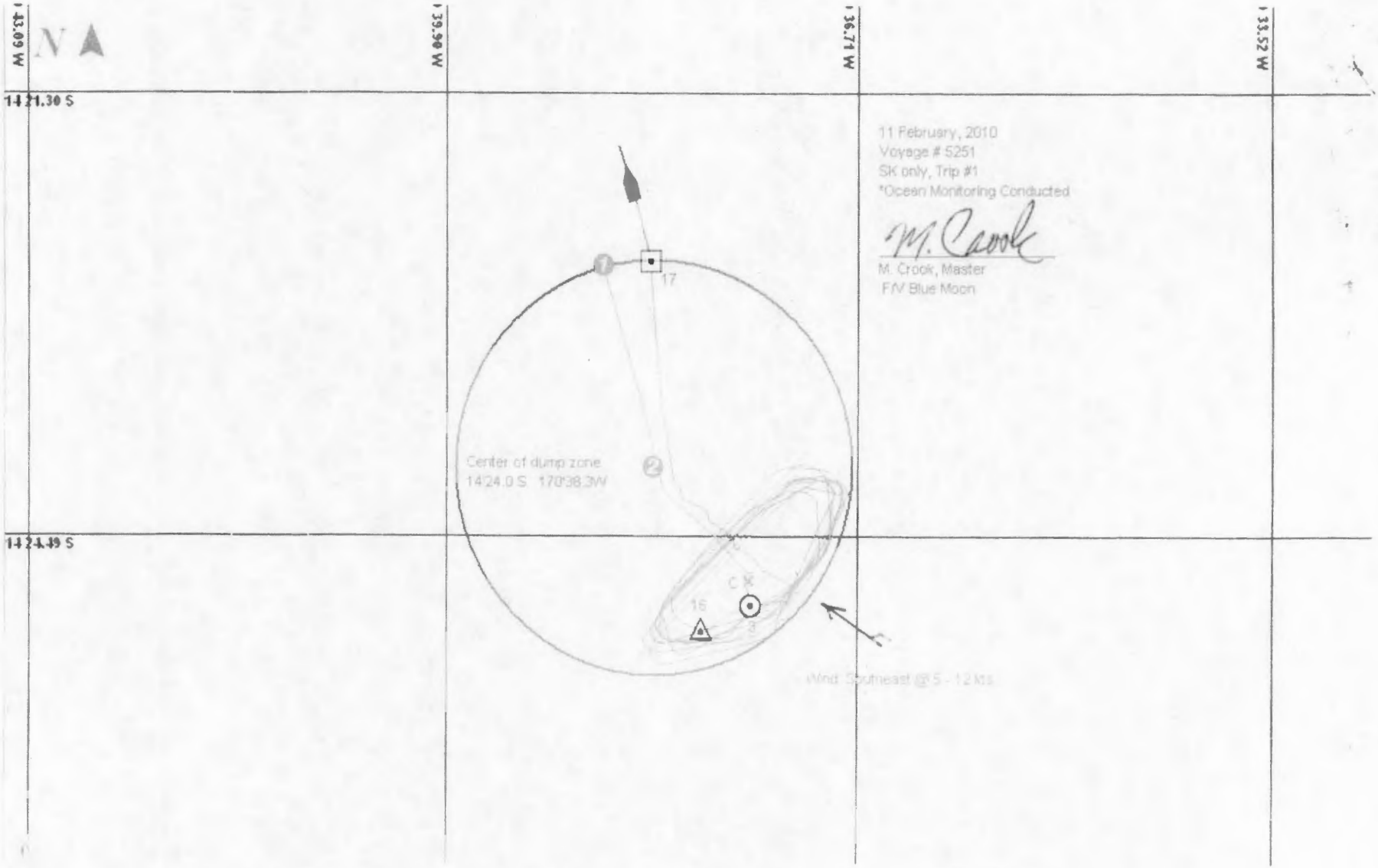


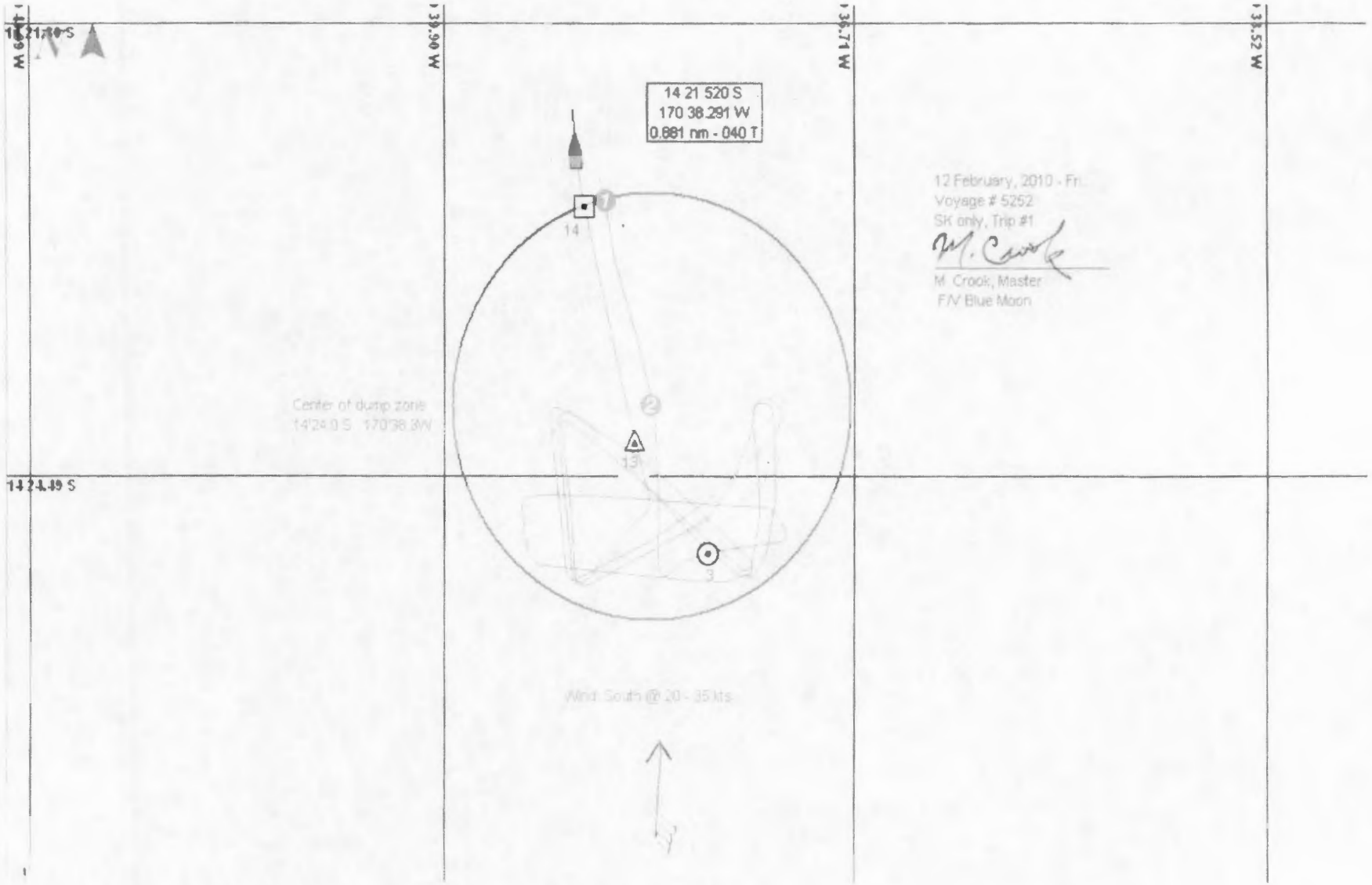
Febuary 4 2010
Voyage # 5248
SK only, Trip #1

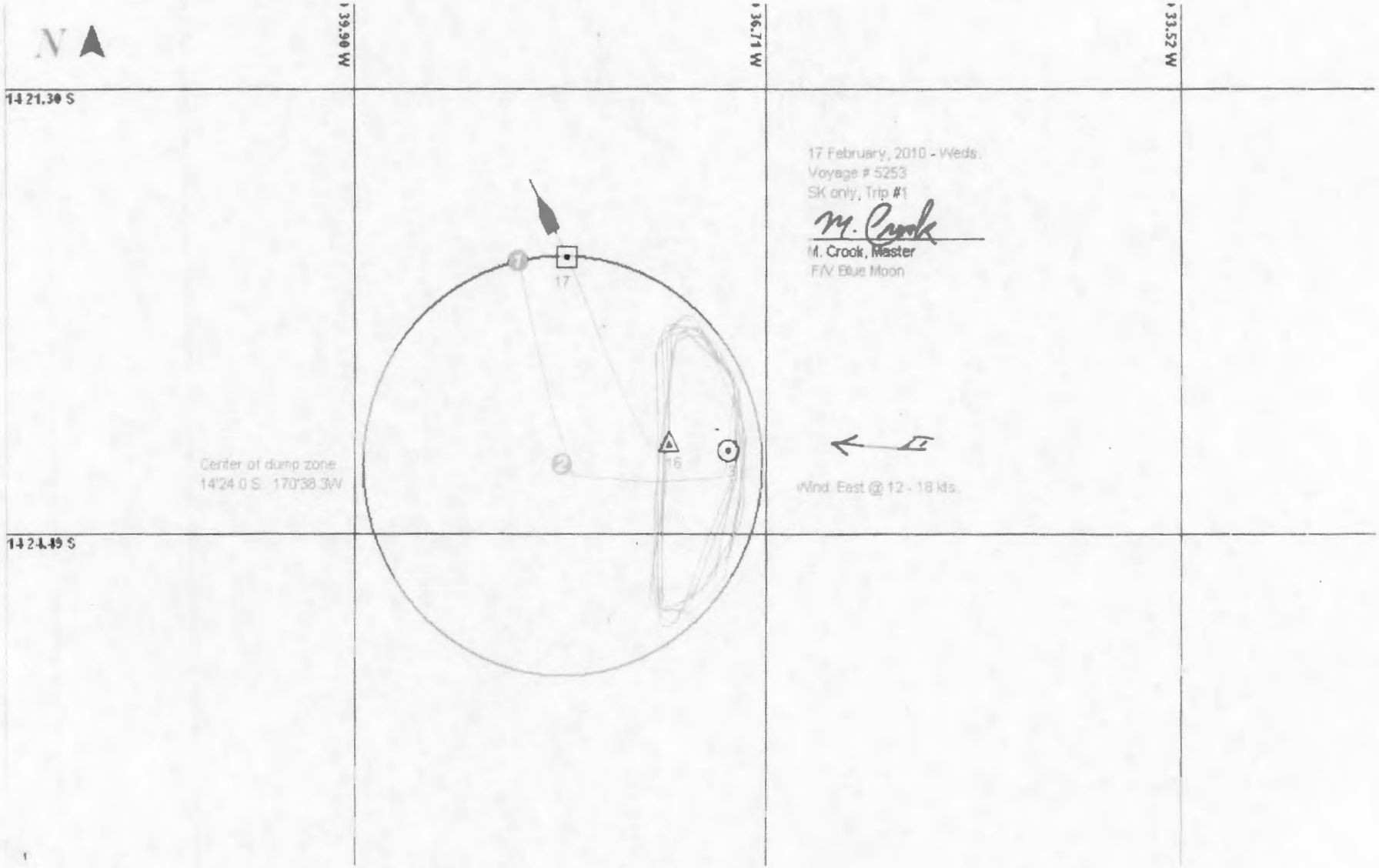
Master, F/V Blue Moon

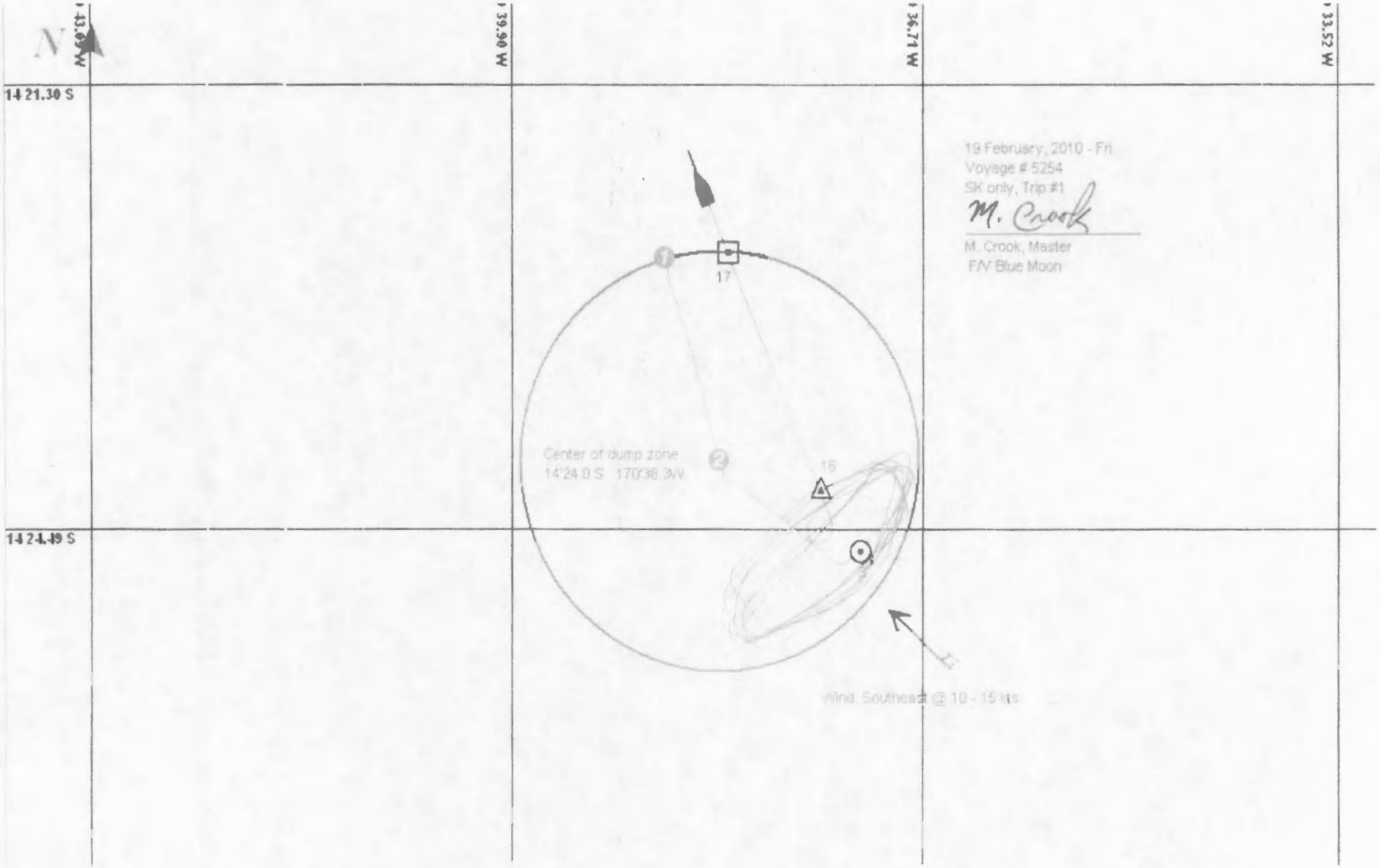

N
14 21.30 S
14 24.49 S
39.90 W
36.71 W
18
17
3
Center of dump zone
14'24.0 S 170'38.3W
06 February, 2010
Voyage # 5249
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: Southeast @ 20 - 25 kts.

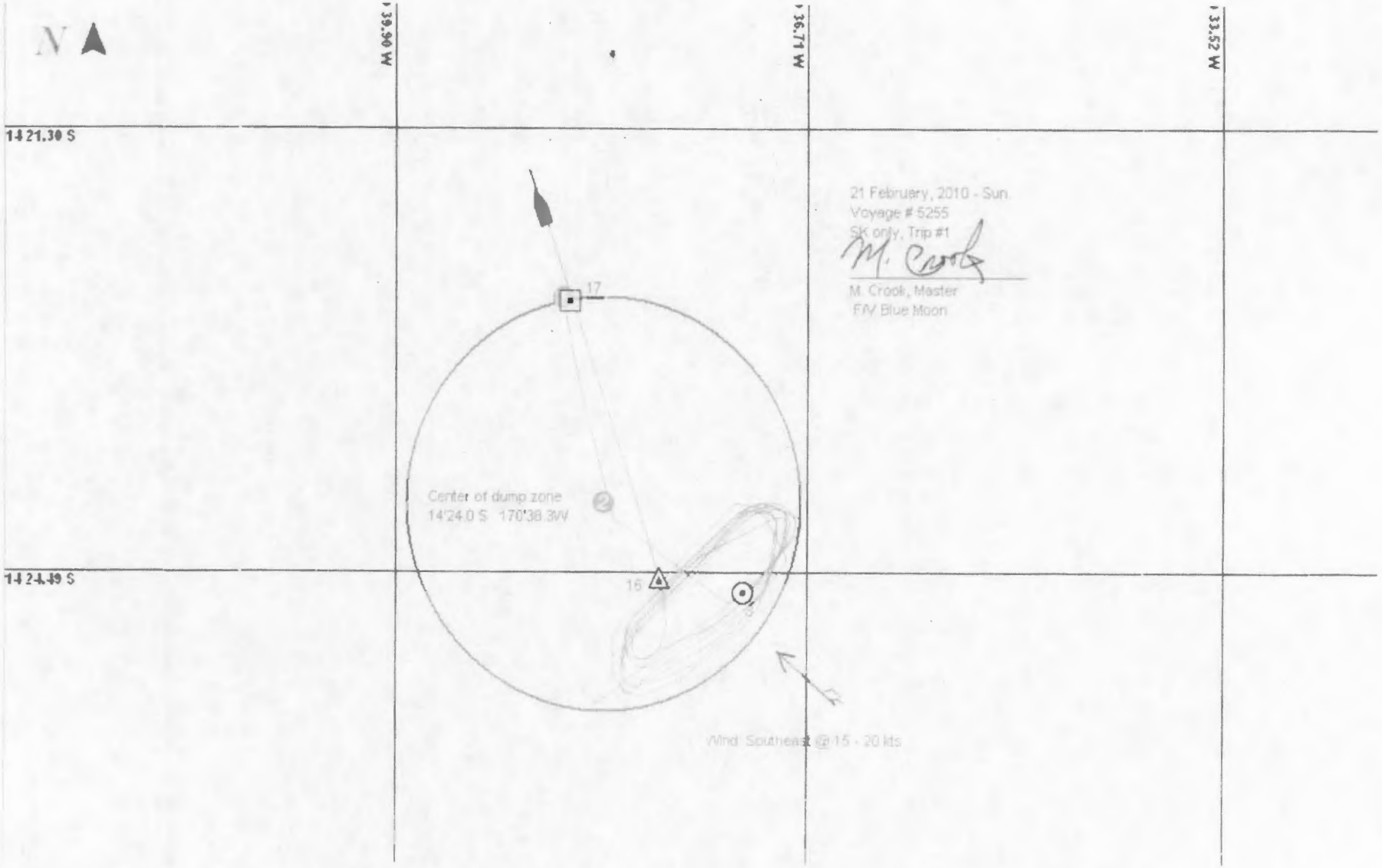

43.08 W
39.90 W
36.71 W
33.52 W
21.30 S
24.49 S
1
2
15
14
3
Center of dump zone
14°24.0 S 170°36.3W
09 February, 2010
Voyage # 5250
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: East @ 5 - 10 kts

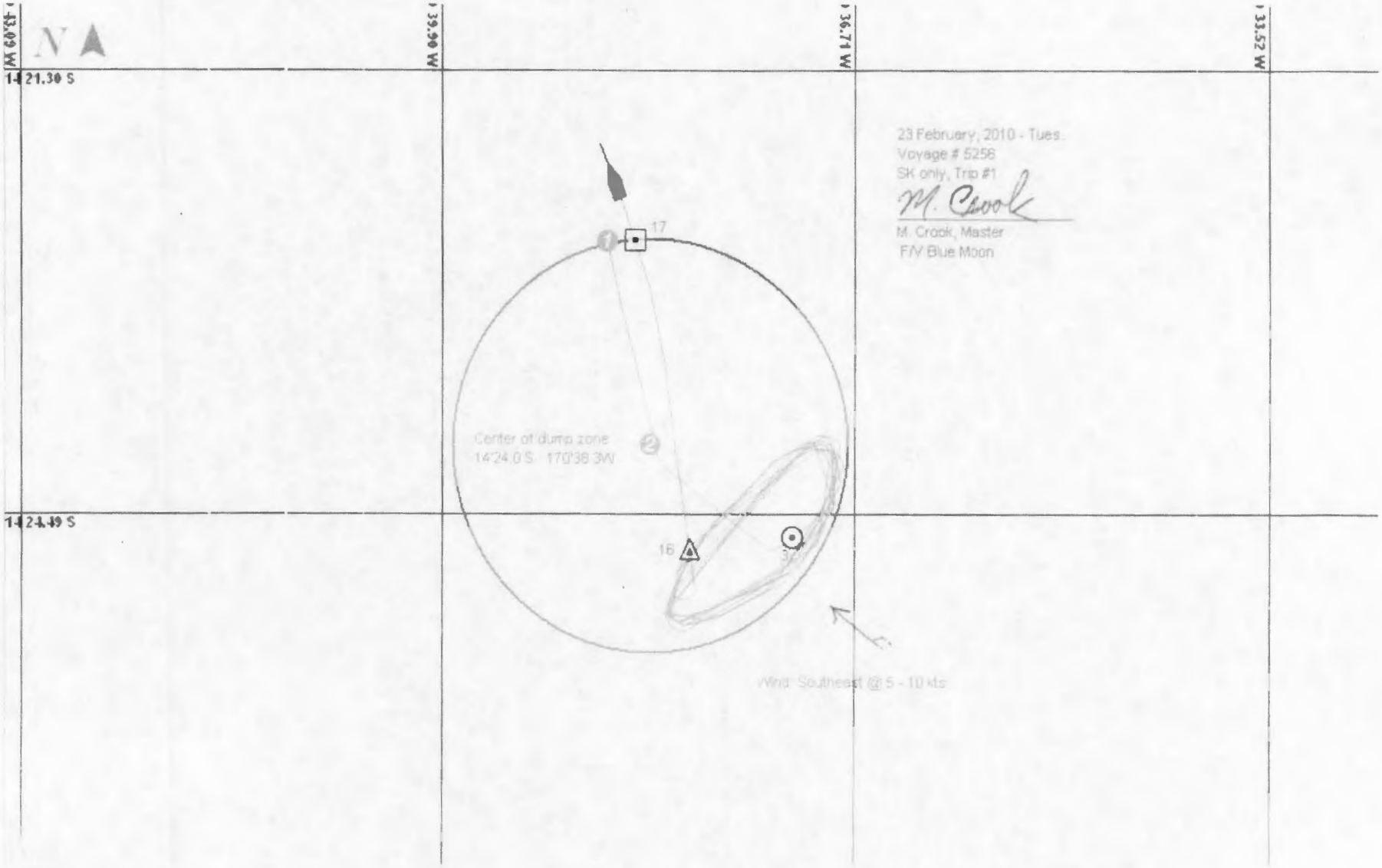

43.09 W
39.98 W
36.71 W
33.52 W
14 21.30 S
14 24.49 S
N
11 February, 2010
Voyage # 5251
SK only, Trip #1
*Ocean Monitoring Conducted
M. Crook, Master
F/V Blue Moon
17
Center of dump zone
14°24.0 S 170°38.3W
16
3
Wind: Southeast @ 5 - 12 kts

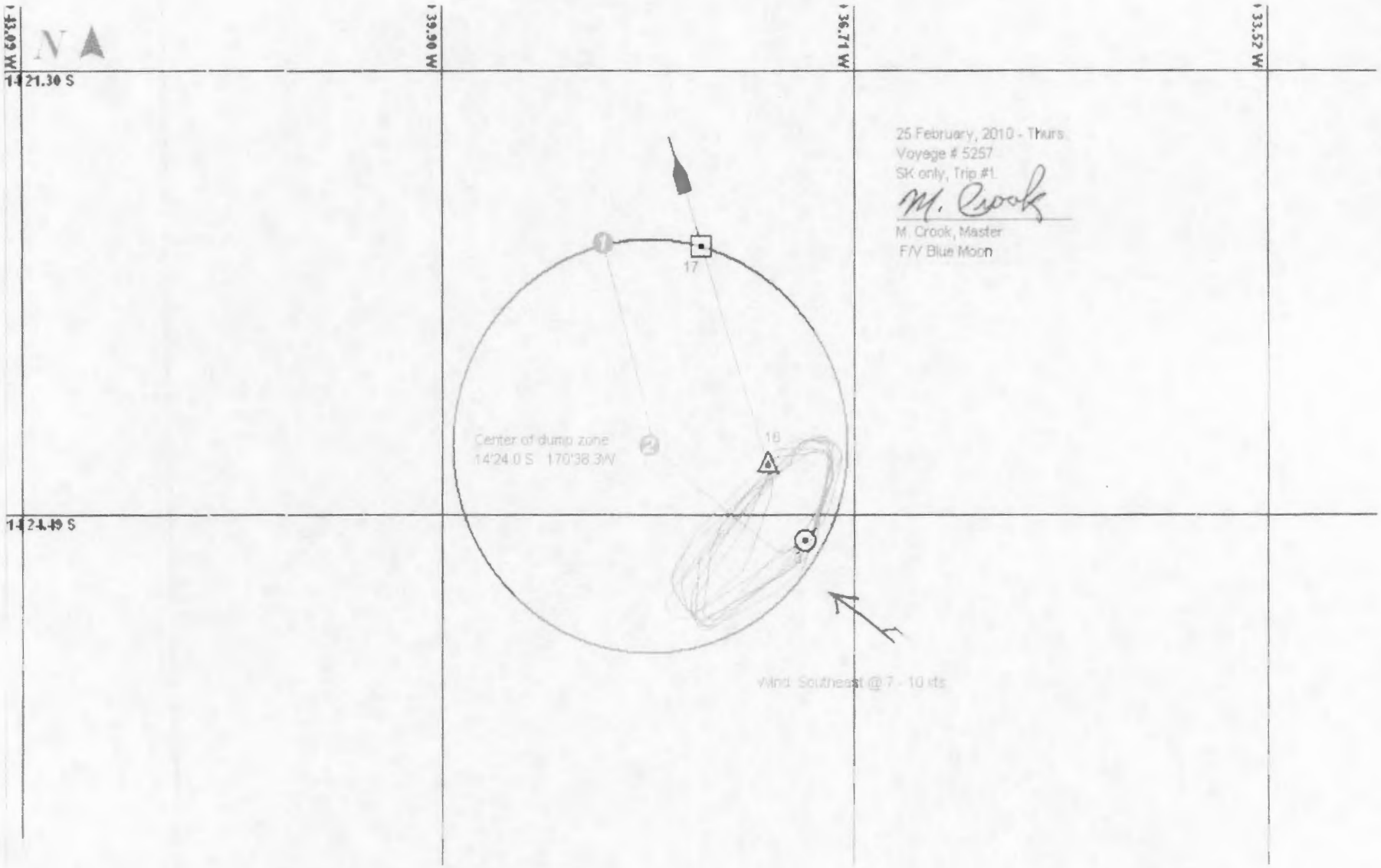

14 21 520 S
170 38.291 W
0.881 nm - 040 T
12 February, 2010 - Fri
Voyage # 5252
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
Wind: South @ 20 - 35 kts
14
13
3

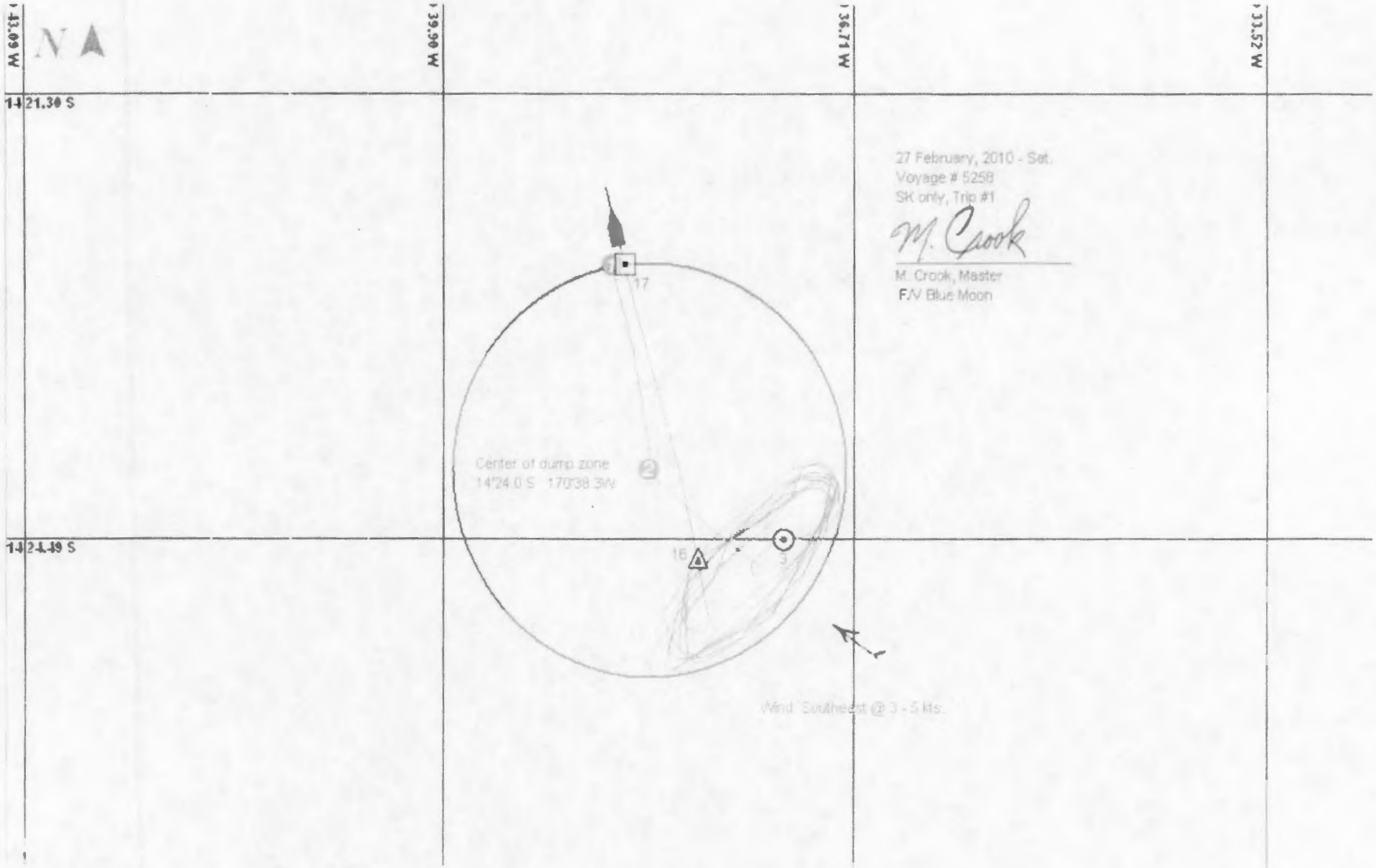

N
39.90 W
36.71 W
33.52 W
14 21.30 S
14 24.49 S
17 February, 2010 - Weds.
Voyage # 5253
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
17
16
3
Center of dump zone
14°24.0 S 170°38.3W
Wind: East @ 12 - 18 kts.


N
43.0 W
39.90 W
36.71 W
33.52 W
14 21.30 S
14 24.49 S
19 February, 2010 - Fri.
Voyage # 5254
SK only, Trip #1
M. Crook
M. Crook, Master
F/V Blue Moon
17
16
Center of dump zone
14°24.0'S 170°36.3'W
Wind: Southeast @ 10 - 15 kts


N
14 21.30 S
14 24.49 S
17
16
Center of dump zone
14°24.0 S 170°38.3W
21 February, 2010 - Sun
Voyage # 5255
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: Southeast @ 15 - 20 kts


N
W 60'57
W 55.90 W
W 41.71 W
W 33.52 W
14 21.30 S
14 24.49 S
23 February, 2010 - Tues.
Voyage # 5258
SK only, Trip #1
M. Crook
M. Crook, Master
F/V Blue Moon
17
Center of dump zone
14°24.0 S 170°38.3W
16
Wind: Southeast @ 5 - 10 kts


N
M 60.90 W
M 36.71 W
M 33.52 W
14 21.30 S
14 24.49 S
25 February, 2010 - Thurs.
Voyage # 5257
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
1
2
17
18
Center of dump zone
14°24.0 S 170°38.3W
Wind: Southeast @ 7 - 10 kts


N
39.96 W
36.71 W
33.52 W
14 21.30 S
14 24.49 S
27 February, 2010 - Set.
Voyage # 5258
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
17
16
3
Wind Southeast @ 3 - 5 kts.

OCEAN DUMPING MONTHLY SUMMARY

Date: , Feb., 2010

NUMBER OF TRIPS:	SK: 12	TOTAL: 12
GALLONS-FOR THE MONTH	SK: 2,053,750	TOTAL: 2,053,750
GALLONS FOR SOLO TRIPS	SK: 2,053,750	

AV RUNNING TIME	5.38 hrs.
AV DISCHARGE TIME	3.02 hrs.
AV. GPM DISCHARGE RATE.	93 gpm
AV TRIP TIME	5.4 hrs.

AV PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK	COS
100 00%	NA

MASTER M. Cook

STAR KIST SAMOA CO
WATER TREATMENT DEPARTMENT

BLUE MOON - OCEAN DUMPING LOG

March 01, 2010

Trip Date	1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Volume (gallons)
1-Feb-10	1st Trip	1400\1830 (147500)		2nd Trip	NONE	0
2-Feb-10	1st Trip	1400 1630 (62500)	147500	2nd Trip	NONE	0
3-Feb-10	1st Trip	1330\1730 (105000)		2nd Trip	NONE	0
4-Feb-10	1st Trip	1400\1700 (65000)	167500	2nd Trip	NONE	0
5-Feb-10	1st Trip	1400\1700 (100000)		2nd Trip	NONE	0
6-Feb-10	1st Trip	NONE	165000	2nd Trip	NONE	0
7-Feb-10	1st Trip	NONE		2nd Trip	NONE	0
8-Feb-10	1st Trip	1330\1700 (147500)		2nd Trip	NONE	0
9-Feb-10	1st Trip	1330\1500 (47500)	147500	2nd Trip	NONE	0
10-Feb-10	1st Trip	1300\1730 (127500)		2nd Trip	NONE	0
11-Feb-10	1st Trip	1430\1800 (112500)	175000	2nd Trip	NONE	0
12-Feb-10	1st Trip	NONE	112500	2nd Trip	NONE	0
13-Feb-10	1st Trip	NONE		2nd Trip	NONE	0
14-Feb-10	1st Trip	NONE		2nd Trip	NONE	0
15-Feb-10	1st Trip	NONE		2nd Trip	NONE	0
16-Feb-10	1st Trip	1300\1830 (162500)		2nd Trip	NONE	0
17-Feb-10	1st Trip	1400\1530 (40000)	162500	2nd Trip	NONE	0
18-Feb-10	1st Trip	1415\1915 (145000)		2nd Trip	NONE	0
19-Feb-10	1st Trip	1600\1730 (42500)	185000	2nd Trip	NONE	0
20-Feb-10	1st Trip	1400\1900 (135000)	135000	2nd Trip	NONE	0
21-Feb-10	1st Trip	NONE	177500	2nd Trip	NONE	0
22-Feb-10	1st Trip	1430\1930 (140000)		2nd Trip	NONE	0
23-Feb-10	1st Trip	1600\1730 (42500)	140000	2nd Trip	NONE	0
24-Feb-10	1st Trip	1800\2110 (121250)		2nd Trip	NONE	0
25-Feb-10	1st Trip	1630\1830 (50000)	163750	2nd Trip	NONE	0
26-Feb-10	1st Trip	1430\1930 (125000)		2nd Trip	NONE	0
27-Feb-10	1st Trip	NONE	175000	2nd Trip	NONE	0
28-Feb-10	1st Trip	NONE		2nd Trip	NONE	0
TOTAL	1st Trip		2,053,750	2nd Trip		0
					Total 1st & 2nd	2,053,750

Blue Moon- Captain
Filo

Date: 02/02/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5247

Permit # OD 93-01 & OD 93-02

Time	
1400	Begin Loading SK
1830	Finish Loading SK
—	Begin Loading SP
—	Finish Loading SP

Trip # 1

Trip # 2

Volume Loaded		
SK	147500	Gallons
SP	0	Gallons
Total	147500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
2500	Depart Starkist		14*16.50'	S	170* 41 2'	W			29.4	Metric	kts	True*
0553	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		70	29.4	2	10	164°
0602	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		70	29.4	2	9.8	164°
0610	Begin Discharge	# 3	14*2 4.5	S	170*3 7.5	W		70	29.4	2 X	9.4	126°
25		# 4	14*2 4.3	S	170*3 5.5	W	SE 20	70	29.4	2	9.5	127°
40	Remarks:	# 5	14*2 4.0	S	170*3 7.4	W	SE 20	70	29.4	2	10.5	333°
55		# 6	14*2 4.4	S	170*3 7.7	W	SE 20	70	29.4	2	10.1	252°
0710		# 7	14*2 4.7	S	170*3 7.9	W	SE 20	50	29.4	2 5	10.1	129°
25		# 8	14*2 3.9	S	170*3 7.4	W	SE 20	50	29.4	2	9.5	124°
40		# 9	14*2 4.2	S	170*3 8.2	W	SE 20	50	29.4	2	10.3	279°
55		# 10	14*2 4.2	S	170*3 7.8	W	SE 20	50	29.4	2	10	334°
0810		# 11	14*2 4.2	S	170*3 7.2	W	SE 20	50	29.4	2	9.7	128°
25		# 12	14*2 4.5	S	170*3 7.7	W	SE 20	50	29.4	2 10	10	127°
40		# 13	14*2 4.1	S	170*3 7.5	W	SE 20	50	29.4	2	9.7	124°
55		# 14	14*2 4.2	S	170*3 8.5	W	SE 20	50	29.4	2	10	275°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0900	Finish Discharge	15	14*2 4.7	S	170*3 8.1	W	SE 20	50	29.4	2	10	166°
0915	Exit Discharge Zone	16	14*2 2.5	S	170*3 [illegible]	W	SE 20	50	29.4	2	6.1	340°
1600	Secure SK Dock		14*16.50'	S	170*41 2'	W						

Current Direction At Center NW End of Discharge N/A Discharge Pattern Fig 8

Total Discharge Time 170 mins. Average Speed During Discharge 7.94 kts Total Time Run 5 hr

Navigational Plot made yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate 27.2 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P A _____ U S C G M S D _____ Master F/V Blue Moon [signature]

Date: 02/04/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5248

Permit # OD 93-01 & OD 93-02

Time		
1400	Begin Loading SK	
1630	Finish Loading SK	Trip # 1
1320	Begin Loading ~~SP~~ SK	Trip # 2
1730	Finish Loading ~~SP~~ SK	

Volume Loaded:		
SK	16500	Gallons
SP	0	Gallons
Total	16500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
										Metric		kts	True*
0515	Depart Starkist		14*16 50'	S	170* 41.2'	W			29.4				
0600	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		10	29.4	2		9.6	167°
0611	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		50	29.4	2		10	171°
0620	Begin Discharge	# 3	14*2 4.5	S	170*3 7.2	W	SE 20	50	29.4	2	X	9.3	031°
35		# 4	14*2 4.3	S	170*3 7.7	W	SE 20	50	29.45	2		10	217°
50	Remarks:	# 5	14*2 4.4	S	170*3 7.1	W	SE 20	50	29.45	2		9.8	071°
0700		# 6	14*2 4.5	S	170*3 7.9	W	SE 20	50	29.45	2		10.1	215°
20		# 7	14*2 4.0	S	170*3 7.0	W	SE 20	50	29.45	2	5	10	018°
35		# 8	14*2 4.7	S	170*3 8.1	W	SE 20	50	29.45	2		10.2	215°
50		# 9	14*2 4.2	S	170*3 7.1	W	SE 20	50	29.45	2		9.5	017°
0805		# 10	14*2 5.6	S	170*3 8.3	W	SE 20	50	29.45	2		9.7	212°
20		# 11	14*2 3.8	S	170*3 6.9	W	SE 20	50	29.45	2		9.5	011°
35		# 12	14*2 5.1	S	170*3 7.9	W	SE 20	50	29.45	2	10	10.3	001°
50		# 13	14*2 [illegible]	S	170*3 [illegible]	W	SE 20	50	29.45	2		10	225°
0905		# 14	14*2 4.9	S	170*3 7.6	W	SE 20	50	29.45	2		9.5	056°
		# 15	14*2	S	170*3	W							
		# 16	14*2	S	170*3	W							
		# 17	14*2	S	170*3	W					15		
		# 18	14*2	S	170*3	W							
		# 19	14*2	S	170*3	W							
		# 20	14*2	S	170*3	W							
			14*2	S	170*3	W							
			14*2	S	170*3	W					20		
			14*2	S	170*3	W							
0910	Finish Discharge	15	14*2 4.4	S	170*3 7.1	W	SE 20	50	29.45	2		9.5	350
0950	Exit Discharge Zone	16	14*2 2.7	S	170*3 7.9	W	SE 20	50	29.45	2		10.7	33[illegible]
1015	Secure SK Dock		14*16.50'	S	170*41 2'	W							

Current Direction At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time 170 mins Average Speed During Discharge 9.8 kts Total Time Run 5 hr

Navigational Plot made yes Presence of Plume? none

Time and position of any floating material none Discharge Rate: 100 Gallons/min/kts

Unusual Occurrences? none

Notifications made A S P A — U S C G M S D — Master F/V Blue Moon

Date: 02/06/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5249

Permit # OD 93-01 & OD 93-02

	Time	
2/4	1900	Begin Loading SK
2/5	1700	Finish Loading SK
	/	Begin Loading SP
	/	Finish Loading SP

Trip # 1 ✓
Trip # 2

Volume Loaded		
SK	165000	Gallons
SP	0	Gallons
Total	165,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0600	Depart Starkist		14*16.50' S	170* 41.2' W	SE-20	80%	29.51			
0647	Arrive Edge of Zone	# 1	14*22.52' S	170*38.65' W	SE-22	70	"	SE 3.0	9.2	163
0656	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	"	"	"	"	9.1	159
0705	Begin Discharge	# 3	14*24.55 S	170*37.37 W	"	80%	"	" X	8.8	110
20		# 4	14*25.24' S	170*37.75' W			"		8.6	115
35	Remarks:	# 5	14*24.26' S	170*37.68 W			29.52		8.5	116
50		# 6	14*24.24' S	170*38.07' W		70	"		8.7	111
0805		# 7	14*24.24' S	170*38.13' W			"	5	9.5	322
20		# 8	14*24.71' S	170*37.73' W	SE-25	"	29.51		9.8	268
35		# 9	14*24.83' S	170*37.85' W					9.9	323
50		# 10	14*24.51' S	170*37.25' W		80			8.9	105
0905		# 11	14*25.18' S	170*37.94 W					8.8	096
20		# 12	14*24.46' S	170*37.34' W				10	9.5	120
35		# 13	14*25.05' S	170*38.29' W					9.9	095
50		# 14	14*24.20' S	170*38.21' W		70			9.8	345
1005		# 15	14*24.76' S	170*38.22' W	SE-22		29.52		10.0	263
20		# 16	14*24.73 S	170*37.86 W	"	80			10.0	322
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1025	Finish Discharge	# 17	14*24.04' S	170*38.16' W	SE-22	80%	29.52	SE 3.0	9.8	343
1033	Exit Discharge Zone	13	14*22.64' S	170*38.50 W	"	"		"	10.2	346
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure 8

Total Discharge Time 200 mins. Average Speed During Discharge 9.3 kts Total Time Run 5.33 hr.

Navigational Plot made yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 89 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A S P A ✓ U S C G M S.D. ✓ Master F/V Blue Moon M. Cook

Date: 02/09/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5250

Permit # OD 93-01 & OD 93-02

Time	
1330	Begin Loading SK
1700	Finish Loading SK
N/A	Begin Loading SP
N/A	Finish Loading SP

Trip # 1 ✓
Trip # 2

Volume Loaded:		
SK	147,500	Gallons
SP	0	Gallons
Total	147,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0500	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	100- Rain	29.48			
0548	Arrive Edge of Zone	# 1	14*22.56' S	170*38.65' W	East-5	100%	"	SE-1.5	9.7	162
0556	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	E-7	"	29.49	" "	9.6	159
0608	Begin Discharge	# 3	14*23.82' S	170*37.07' W	" "	"	"	" " X	8.9	003
23		# 4	14*24.17' S	170*37.64' W	E-10	"	"	" "	9.7	178
38	Remarks:	# 5	14*23.81' S	170*36.88' W			"		9.8	MG 9.8 359
53		# 6	14*24.47' S	170*37.54' W			29.48		9.7	176
0708		# 7	14*23.72' S	170*36.87' W			"	5	9.9	340
23		# 8	14*24.79' S	170*37.48' W			29.47		9.8	177
38		# 9	14*23.05' S	170*37.24' W			"		9.4	311
53		# 10	14*24.88' S	170*37.26' W			29.48		9.3	022
0808		# 11	14*23.15' S	170*37.21' W		90	29.49		9.7	296
23		# 12	14*24.84' S	170*37.15' W		"		10	9.1	045
38		# 13	14*23.35' S	170*37.68' W		"			9.2	181
53		# 14	14*2 S	170*3 W						
0908		# 15	14*2 S	170*3 W						
23		# 16	14*2 S	170*3 W						
38		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0853	Finish Discharge	#14	14*23.96' S	170*37.50' W	East-10	90%	29.49	SE-1.5	9.9	348
0906	Exit Discharge Zone	#15	14*22.56' S	170*38.07' W	" "	"	" "	" "	10.5	334
0950	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time 165 mins. Average Speed During Discharge 9.5 kts Total Time Run 4.8 hr

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 94 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P A ✓ U S C G M S D ✓ Master F/V Blue Moon M Cook

Date: 02/11/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5251

Permit # OD 93-01 & OD 93-02

	Time	
2/9	1850	Begin Loading SK
2/10	1730	Finish Loading SK
	N/A	Begin Loading SP
	N/A	Finish Loading SP

Trip # 1 ✓

Trip # 2

Volume Loaded:		
SK	175,000	Gallons
SP	0	Gallons
Total	175,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0510	Depart Starkist		14°16.50' S	170° 41.2' W	SE-5	50%	29.43			
0535	Arrive Edge of Zone	# 1	14°22.50 S	170°38.70 W	SE-7	"	"	SE-1.5	9.4	161
0605	Arrive Zone Center	# 2	14°24.0 S	170°38.3 W	" "	"	"	" "	9.2	157
0625	Begin Discharge	# 3	14°24.87 S	170°37.56 W	SE-10	85	29.44	" " X	8.4	168
40		# 4	14°24.68 S	170°37.75 W		"	"	" "	9.5	221
55	Remarks:	# 5	14°24.57' S	170°37.61 W		90	29.45	" "	9.6	030
0710	Ocean Monitoring	# 6	14°24.76' S	170°37.98 W					9.4	222
25	Conducted.	# 7	14°24.57' S	170°36.94' W				5	9.7	018
40	Control Samples	# 8	14°25.25' S	170°37.78' W					9.6	087
55	drawn at 0615	# 9	14°24.34' S	170°37.57' W					9.5	221
0810	at // N waypoint	# 10	14°25.02 S	170°37.43' W					9.3	255
25	waypoint (C) on	# 11	14°25.00 S	170°35.22 W	SE-12				9.3	207
40	NAV plot	# 12	14°24.20 S	170°37.30 W				10	9.1	254
55		# 13	14°25.01 S	170°37.31 W					9.7	049
0910		# 14	14°24.43' S	170°37.71 W			29.46		9.5	218
25		# 15	14°24.45 S	170°37.[illegible] W			"		10.0	023
40		# 16	14°2 S	170°3 W						
		# 17	14°2 S	170°3 W				15		
		# 18	14°2 S	170°3 W						
		# 19	14°2 S	170°3 W						
		# 20	14°2 S	170°3 W						
			14°2 S	170°3 W						
			14°2 S	170°3 W				20		
			14°2 S	170°3 W						
0940	Finish Discharge	# 16	14°2 5.06' S	170°37.81 W	SE-12	90%	29.47	SE-1.5	9.4	063
1040	Exit Discharge Zone	# 17	14°2 2.49 S	170°38.32 W					10.7	346
1130	Secure SK Dock		14°16.50' S	170°41.2' W						

Current Direction: At Center NNW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time 175 mins Average Speed During Discharge: 9.5 kts Total Time Run 6.33 hr

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 94.5 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P A. ✓ U S C G M S D ✓ Master F/V Blue Moon M Cook

Date: 02/12/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5252

Permit # OD 93-01 & OD 93-02

Time	
1430	Begin Loading SK
1800	Finish Loading SK
N/A	Begin Loading SP
N/A	Finish Loading SP

Trip # 1 ✓
Trip # 2

Volume Loaded:		
SK	112,500	Gallons
SP	0	Gallons
Total	112,500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0505	Depart Starkist		14*16.50'	S	170* 41.2'	W	SE-15	100	27.30			
0558	Arrive Edge of Zone	# 1	14*22.52'	S	170*38.66'	W	South 15			SE-SW 2.0	8.6	168
0608	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W					8.4	165
0620	Begin Discharge	# 3	14*25.07	S	170*37.95	W	S-20			SE-SW 2.5	8.3	083
35		# 4	14*24.63	S	170*38.65	W	S-25	RAIN		" 2.5	9.5	270
50	Remarks:	# 5	14*25.20	S	170*38.32	W				South 3.0	8.2	073
0705		# 6	14*24.33	S	170*38.43'	W	S-30	100			9.5	302
20		# 7	14*25.11	S	170*38.63	W				5	8.7	049
35		# 8	14*24.09	S	170*37.12	W	S-35	RAIN	29.31		8.5	150
50		# 9	14*24.40'	S	170*38.56'	W			29.30		10.0	305
0805		# 10	14*25.14'	S	170*38.54	W		100			9.6	048
20		# 11	14*24.69	S	170*37.34	W	S-30		29.30		9.2	155
35		# 12	14*24.21	S	170*38.97	W			29.31	10	8.1	178
		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0850	Finish Discharge	# 13	14*24.37'	S	170*38.39'	W	South 30	100%	29.32	South 30	10.0	343
0902	Exit Discharge Zone	# 14	14*22.61'	S	170*38.50	W	"			" "	10.2	344
0958	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center North End of Discharge North Discharge Pattern Ellipse to Figure 8

Total Discharge Time 150 mins. Average Speed During Discharge _____ kts Total Time Run 4.15 hr

Navigational Plot made yes Presence of Plume? no

Time and position of any floating material None Discharge Rate 83.3 Gallons/min/kts

Unusual Occurrences? Cyclone Rene

Notifications made A S P A ✓ U S C G M S D ✓ Master F/V Blue Moon M. Cook

Date: 02/17/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5253

Permit # OD 93-01 & OD 93-02

	Time	
2/16	1300	Begin Loading SK
	1830	Finish Loading SK
	N/A	Begin Loading SP
	N/A	Finish Loading SP

Trip # 1 ✓
Trip # 2

Volume Loaded:		
SK	162,500	Gallons
SP	0	Gallons
Total	162,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0505	Depart Starkist		14*16.50' S	170* 41.2' W	SE-10	80	29.50			
0552	Arrive Edge of Zone	# 1	14*22 52' S	170*38.64' W	East-12	"	29.51	SE-1.5	9.0	164
0602	Arrive Zone Center	# 2	14*24.0 S	170*38.3' W	" "	"	"	" "	9.2	161
0613	Begin Discharge	# 3	14*24.01' S	170*37.04' W	" "	"	"	X	8.6	012
0628		# 4	14*24.09' S	170*37.56' W	East-15	"	"		9.4	183
" 43	Remarks:	# 5	14*23.85' S	170*36.94' W		75	"		9.5	357
" 58		# 6	14*24.49' S	170*37.58' W		"	"		9.7	185
0713		# 7	14*23.72' S	170*36.88' W		70	"	5	9.6	354
" 28		# 8	14*24.49' S	170*37.59' W		"	29.50		9.8	180
" 43		# 9	14*24.55' S	170*37.06' W		65			9.4	009
" 58		# 10	14*24.98' S	170*37.37' W		"			9.1	047
0813		# 11	14*23.21' S	170*37.10' W		"			9.9	320
" 28		# 12	14*24.86' S	170*37.56' W		"	29.51	10	10.0	179
" 43		# 13	14*23.12' S	170*37.23' W	East-18	60	29.52		9.9	308
" 58		# 14	14*24.87' S	170*37.36' W	" "	"	"		8.8	012
0913		# 15	14*23.10' S	170*37.16' W	" "	"	"		9.7	331
" 28		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0920	Finish Discharge	#16	14*23.78' S	170*37.46' W	East-18	60%	29.52	SE-1.5	~~187~~ 9.3	~~2.3~~ 181
0930	Exit Discharge Zone	#17	14*22.60' S	170*38.21' W	" "	"	"	" "	329 ⇄	10.1
1020	Secure SK Dock		14*16 50' S	170*41.2' W						

Current Direction: At Center Ubst End of Discharge West Discharge Pattern Ellipse

Total Discharge Time 187 mins Average Speed During Discharge 9.5 kts Total Time Run 5.25 hr

Navigational Plot made yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 9.5 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P.A ✓ U S C G M S D ✓ Master F/V Blue Moon M. Crole

Date: 02/19/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5254

Permit # OD 93-01 & OD 93-02

Time		
1400	Begin Loading SK	
1915	Finish Loading SK	
N/A	Begin Loading SP	
N/A	Finish Loading SP	

Trip # 1 ✓
Trip # 2

Volume Loaded: SK 185,500 Gallons
SP 0 Gallons
Total 185,000 Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0500	Depart Starkist		14*16.50' S	170*41.2' W	SE-7	60	27.58			
0547	Arrive Edge of Zone	# 1	14*22.56' S	170*38.70 W	SE-15	50	"	SE-1.5	7.4	165
0555	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	"	"	27.59	"	7.5	160
0605	Begin Discharge	# 3	14*24.67 S	170*37.25 W	"	"	27.60	" X	8.6	055
20		# 4	14*24.69 S	170*37.93 W	"	"	"	"	9.1	223
35	Remarks:	# 5	14*24.40 S	170*36.90 W		40	"	"	9.5	008
50		# 6	14*25.24' S	170*37.66' W					9.1	051
0705		# 7	14*24.20 S	170*37.24 W	SE-12			5	9.4	241
25		# 8	14*25.00 S	170*37.50 W			27.61		9.6	035
35		# 9	14*24.44' S	170*37.84' W					9.7	223
50		# 10	14*24.25' S	170*36.86' W					9.5	000
0805		# 11	14*25.21' S	170*37.85 W					8.7	062
20		# 12	14*24.81' S	170*37.71 W				10	10.2	222
35		# 13	14*24.34' S	170*36.92 W					9.6	054
50		# 14	14*25.15' S	170*37.75 W	SE-15				9.4	059
0905		# 15	14*24.21' S	170*37.38 W					9.9	218
20		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0910	Finish Discharge	#16	14*24.33 S	170*37.48 W	SE-15	40%	27.61	SE-1.5	9.5	336
0920	Exit Discharge Zone	#17	14*22.64' S	170*38.17' W			"		10.2	334
1010	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time 185 mins Average Speed During Discharge 9.4 kts Total Time Run 5.2 hr.

Navigational Plot made yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 106.4 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P.A ✓ U S C G M S D _____ Master F/V Blue Moon [signature]

Date: 02/21/10 — F/V Blue Moon Ocean Dumping Log — Voyage #: 5255

Permit # OD 93-01 & OD 93-02

	Time	
2/19	1600	Begin Loading SK
2/20	1900	Finish Loading SK
	N/A	Begin Loading SP
	N/A	Finish Loading SP

Trip # 1 - X
Trip # 2

Volume Loaded:		
SK	177,500	Gallons
SP	0	Gallons
Total		Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0645	Depart Starkist		14°16.50'	S	170° 41.2'	W	SE-15	80%	29.59			
0735 ~~0638~~	Arrive Edge of Zone	# 1	14°22.55'	S	170°38.60	W	SE-15	70	"	SE-2.0	7.0	161
0747	Arrive Zone Center	# 2	14°24.0	S	170°38.3	W	"	"	"	"	8.8	163
0755	Begin Discharge	# 3	14°24.68	S	170°37.28	W		60	"	" X	8.4	058
0810		# 4	14°24.56	S	170°37.71	W			29.57		9.2	217
25	Remarks:	# 5	14°24.53	S	170°36.98	W			"		9.2	016
40		# 6	14°25.08	S	170°38.15	W	SE-18		29.56		8.7	185
55		# 7	14°24.24	S	170°37.42	W				5	9.5	281
0910		# 8	14°25.00	S	170°37.44	W					9.1	043
25		# 9	14°24.81	S	170°37.38	W					10.0	212
40		# 10	14°24.26	S	170°36.87	W		50			9.3	359
55		# 11	14°25.09	S	170°37.37	W					9.2	046
1010		# 12	14°24.05	S	170°37.31	W		40	29.57	10	9.4	227
25		# 13	14°24.64	S	170°37.15	W	SE-20		"		9.3	036
40		# 14	14°25.15	S	170°37.95	W		50	"		8.6	080
55		# 15	14°24.59	S	170°37.68	W			29.56		10.0	224
1110		# 16	14°2	S	170°3	W						
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
1110	Finish Discharge	# 16	14°24.57'	S	170°37.35	W	SE-20	50	29.56	SE-2.0	9.7	316
1120	Exit Discharge Zone	# 17	14°22.56'	S	170°38.53'	W	"		29.55		10.4	340
1205	Secure SK Dock		14°16.50'	S	170°41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 195 mins Average Speed During Discharge 9.3 kts Total Time Run 5.33 hr

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate 98 Gallons/min/kts

Unusual Occurrences? None

Notifications made A.S.P.A. _____ U.S.C.G.M.S.D. _____ Master F/V Blue Moon M Cook

Date: 02/23/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5256

Permit # OD 93-01 & OD 93-02

Time		
2/22 1930	Begin Loading SK	
1930	Finish Loading SK	
N/A	Begin Loading SP	
N/A	Finish Loading SP	

Trip # 1 - X
Trip # 2

Volume Loaded:		
SK	140,000	Gallons
SP	0	Gallons
Total	140,000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0505	Depart Starkist		14*16.50'	S	170* 41.2'	W	SE-5	60	29.52			
0550	Arrive Edge of Zone	# 1	14*22.50'	S	170*38.63'	W	" "	"	29.51	SE-1.5	9.7	162
0559	Arrive Zone Center	# 2	14*24.0	S	170*38 3	W	" "	"	"	" "	9.3	157
0610	Begin Discharge	# 3	14*24.71'	S	170*37.27'	W	SE-7	70	29.52	" " X	8.8	037
25		# 4	14*24.82'	S	170*37.79'	W	" "	"	"	" "	9.0	222
40	Remarks:	# 5	14*24.23'	S	170*36.87'	W	" "	80	"	" "	9.6	000
55		# 6	14*24.64'	S	170*37.54'	W	" "	"	"	" "	9.5	056
0710		# 7	14*24.34'	S	170*37.55'	W	" "		29.53	5	9.2	220
25		# 8	14*24.45'	S	170*36.88'	W	" "	"	"	"	8.8	358
40		# 9	14*25.23'	S	170*37.82'	W	SE-10	"	"	" "	9.3	061
55		# 10	14*24.50'	S	170*37.62	W		"	"		9.6	220
0810		# 11	14*24.77'	S	170*37.16'	W		"	"		9.9	043
25		# 12	14*24.84'	S	170*37.88'	W		90	29.54	10	10.0	215
40		# 13	14*24.01'	S	170*37.63'	W					8.7	205
55		# 14	14*24.31'	S	170*37.26'	W		"			9.1	234
0710		# 15	14*24.60'	S	170*37.36'	W		"			10.0	231
25		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0915	Finish Discharge	#16	14*24.70	S	170*37.77	W	SE-10	10%	29.55	SE-1.5	9.5	350
0928	Exit Discharge Zone	#17	14*22.58	S	170*38.39	W	" "	"	29.54	" "	10.3	335
1025	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 185 mins Average Speed During Discharge 9.4 kts Total Time Run 5.25 hr

Navigational Plot made Yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 80.5 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P A ✓ U S C G M S D ✓ Master F/V Blue Moon M. Cook

Date: 02/25/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5257

Permit # OD 93-01 & OD 93-02

	Time		
2/23	1600	Begin Loading SK	
2/24	2110	Finish Loading SK	
	N/A	Begin Loading SP	
	N/A	Finish Loading SP	

Trip # 1 - X
Trip # 2

Volume Loaded		
SK	163,750	Gallons
SP	0	Gallons
Total	163,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0500	Depart Starkist		14*16 50' S	170* 41 2' W	SE-7	80	27.50			
0545	Arrive Edge of Zone	# 1	14*22.52 S	170*38.65' W	"	"	27.49	S/SE-1.5	7.2	164
0555	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	"	70	27.50		9.0	149
0605	Begin Discharge	# 3	14*24.73' S	170*37.70 W	"	"	" "	" X	8.6	079
20		# 4	14*24.90' S	170*37.96' W	SE-8	75	29.51	"	9.4	220
35	Remarks:	# 5	14*24.06 S	170*37.06' W	" "	70	"	" "	8.1	273
50		# 6	14*24.59' S	170*37.25 W	"	60	"	" "	9.7	041
0705		# 7	14*24.58 S	170*37.66' W	SE-10	"	"	" " 5	9.5	213
20		# 8	14*24.22 S	170*36.21' W	" "	50	"	" "	10.0	007
35		# 9	14*24.92' S	170*37.24' W	" "	40	"	" "	9.7	042
50		# 10	14*25.06 S	170*37.92' W	" "	"	27.52		9.6	211
0805		# 11	14*24.03 S	170*37.18 W	" "	50	"		8.8	302
20		# 12	14*24.72 S	170*37.14' W	SE-8	"	27.53	10	10.0	030
35		# 13	14*24.78 S	170*37.10' W	SE-7	70 Rain	"		9.3	216
50		# 14	14*24.32' S	170*37.43' W	" "	80	27.53		9.8	227
0905		# 15	14*25.06 S	170*37.78 W	"	85			9.5	050
20		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0910	Finish Discharge	# 16	14*24.40' S	170*37.35' W	SE-7	90%	27.54	S/SE-1.5	10.0	344
0918	Exit Discharge Zone	# 17	14*22.58' S	170*37.58' W	" "		"	"	10.5	337
1010	Secure SK Dock		14*16 50' S	170*41 2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time 185 mins Average Speed During Discharge 9.5 kts Total Time Run 5.2 hr

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material. None Discharge Rate 93 Gallons/min/kts

Unusual Occurrences? None

Notifications made A S P A _____ U S C G M.S D _____ Master F/V Blue Moon [signature]

Date: 02/27/10 — F/V Blue Moon Ocean Dumping Log — Voyage #: 5258

Permit # OD 93-01 & OD 93-02

	Time	
25	1630	Begin Loading SK
	1830	Finish Loading SK
26th	1430	Begin Loading SK #2
	1930	Finish Loading SK #2

Trip # 1 - X
Trip # 2

Volume Loaded:		
SK	175,000	Gallons
SP	0	Gallons
Total	175,000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0600	Depart Starkist		14*16.50'	S	170* 41.2'	W	Calm	70	29.51			
0645	Arrive Edge of Zone	# 1	14*22.53	S	170*38.59	W	SE-3	50	29.52	SE-1.5	9.8	161
0655	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W			29.51		8.8	162
0725	Begin Discharge	# 3	14*24.50	S	170*37.24	W				X	8.9	026
40		# 4	14*24.80	S	170*38.05	W					9.4	217
55	Remarks:	# 5	14*24.27	S	170*37.30	W		75%	29.52		9.5	248
0810		# 6	14*25.35	S	170*37.75	W	SE-5				9.2	051
25		# 7	14*24.40	S	170*37.36	W				5	9.9	217
40		# 8	14*24.74	S	170*37.16	W					10.0	024
55		# 9	14*25.30	S	170*37.38	W					9.1	056
0910		# 10	14*24.25	S	170*37.24	W			29.52		9.5	232
25		# 11	14*24.76	S	170*37.27	W					10.0	013
40		# 12	14*25.00	S	170*38.01	W		50%		10	9.6	187
55		# 13	14*24.27	S	170*37.38	W			29.50		9.5	316
1010		# 14	14*25.35	S	170*37.16	W					9.9	054
25		# 15	14*24.73	S	170*37.30	W		75%			9.8	213
40		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1032	Finish Discharge	# 16	14*24.76	S	170*37.39	W	SE-5	75%	29.53	SE-1.5	10.0	344
1045	Exit Discharge Zone	# 17	14*22.61	S	170*38.48	W					7.8	339
1155	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction At Center NW End of Discharge NW Discharge Pattern Ellipse

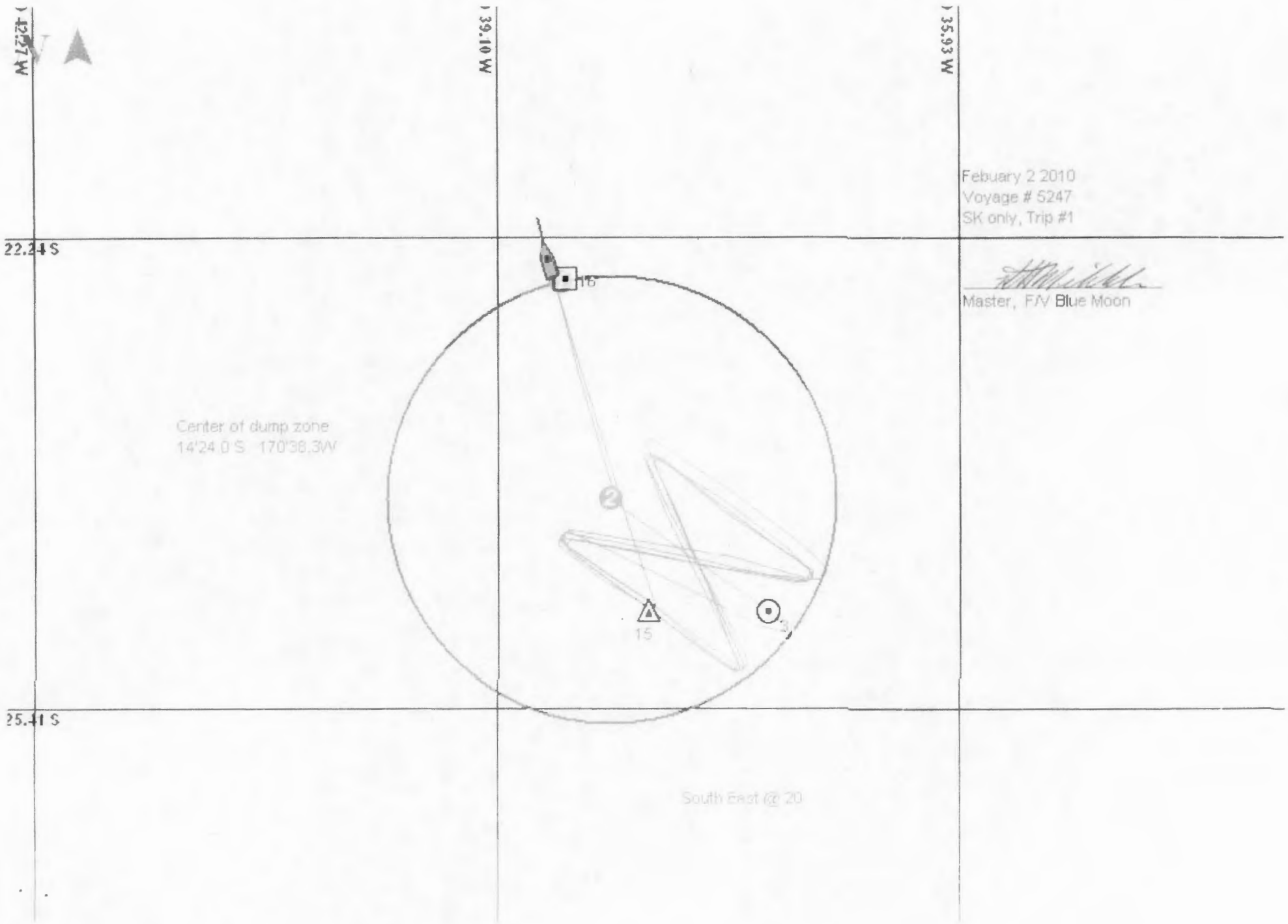
Total Discharge Time 187 mins Average Speed During Discharge 9.5 kts Total Time Run 6.7 hr

Navigational Plot made yes Presence of Plume? No

Time and position of any floating material None Discharge Rate 98.5 Gallons/min/kts

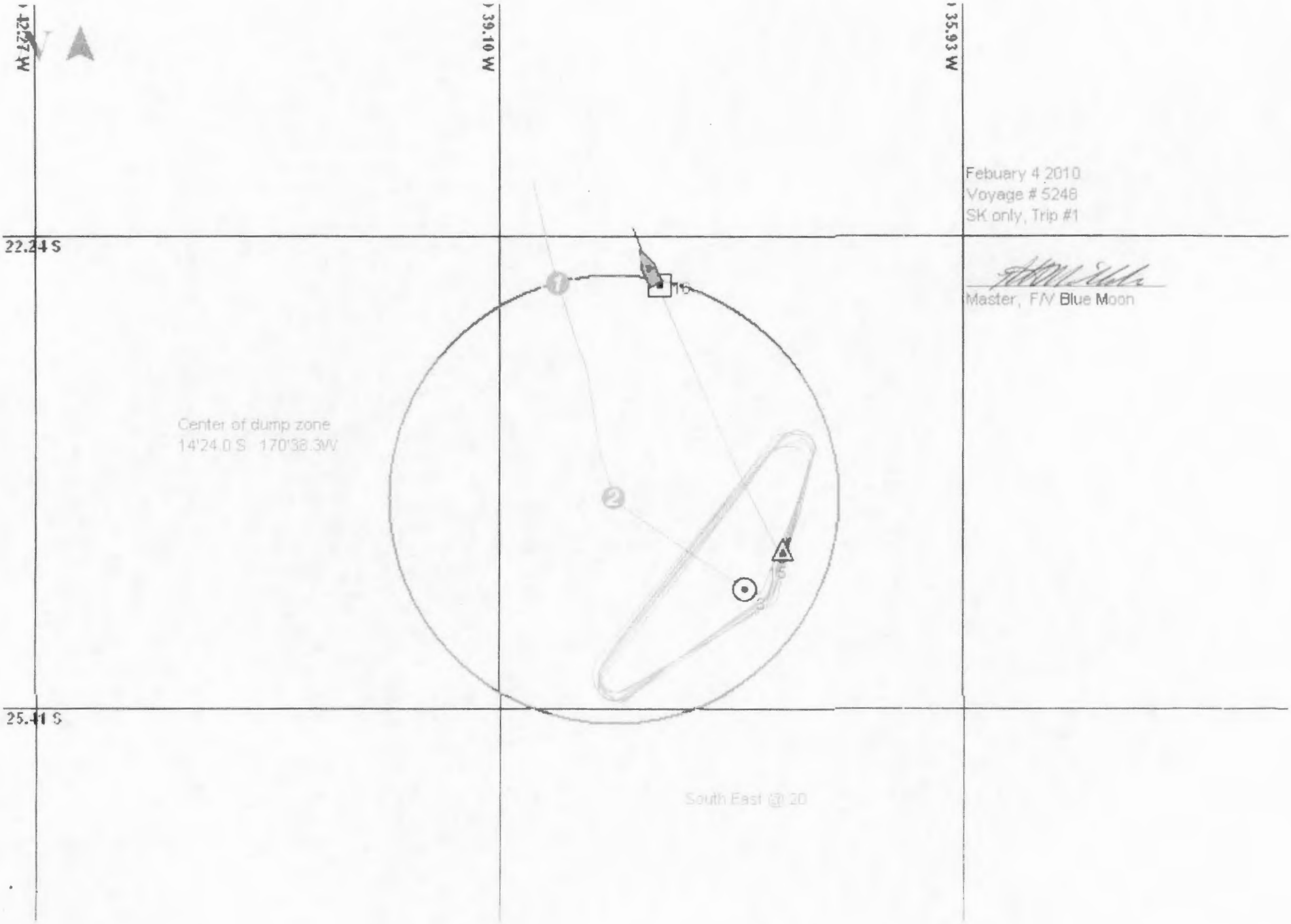
Unusual Occurrences? 0705 Engine speed shut down to 7½ Back up at 0720

Notifications made ASPA ✓ USCGMSD Master F/V Blue Moon [signature]



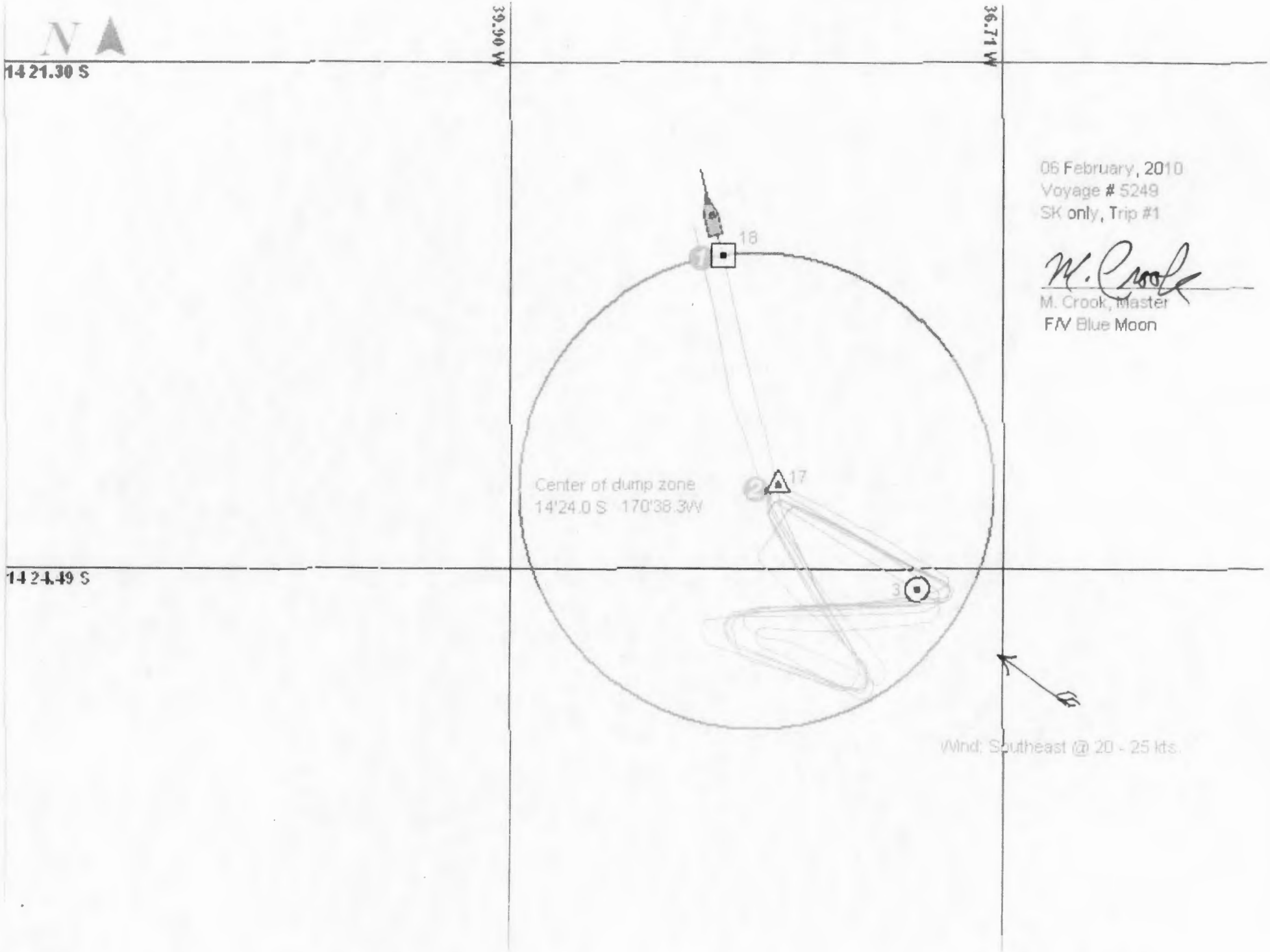
Febuary 2 2010
Voyage # 5247
SK only, Trip #1

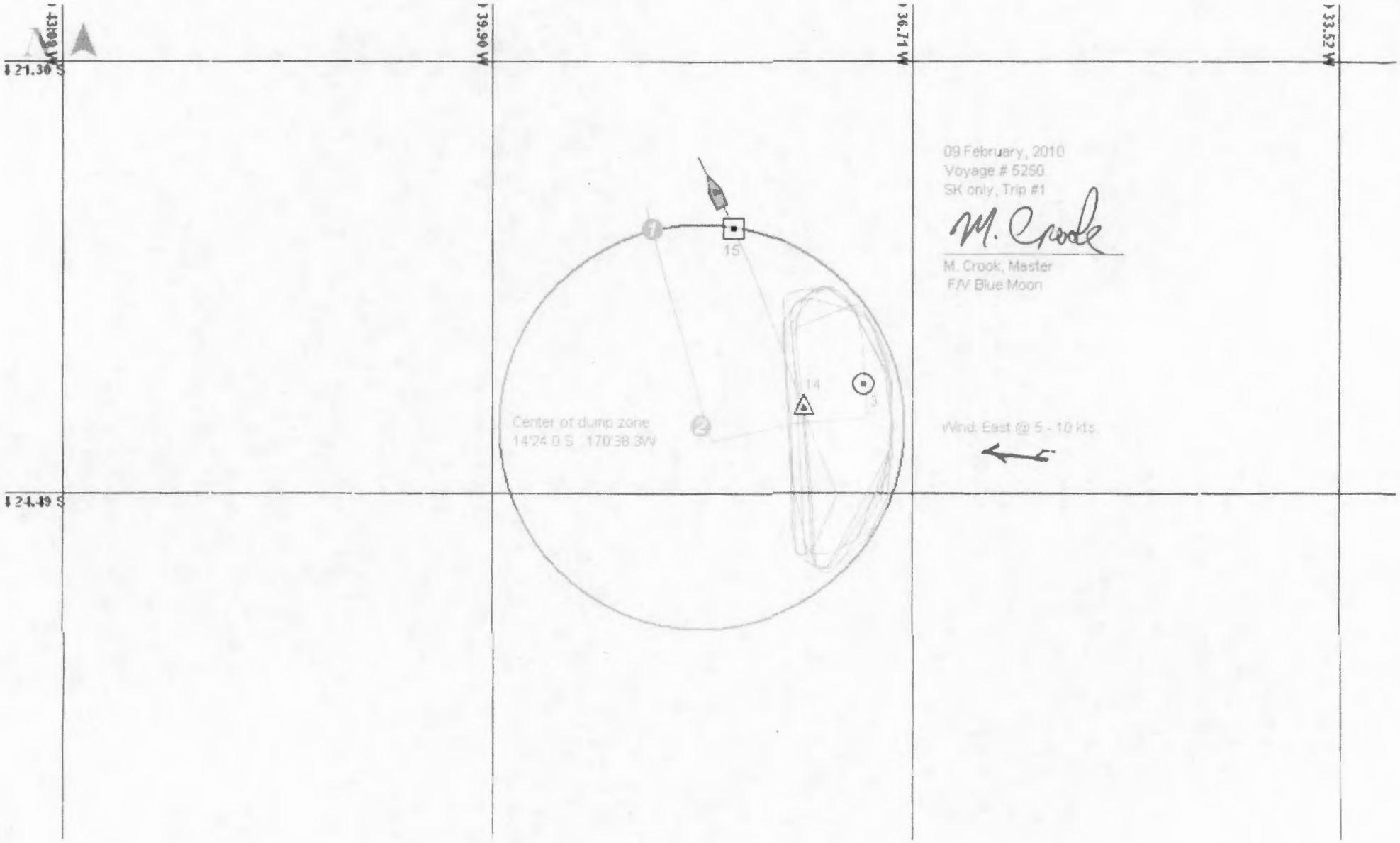
Master, F/V Blue Moon

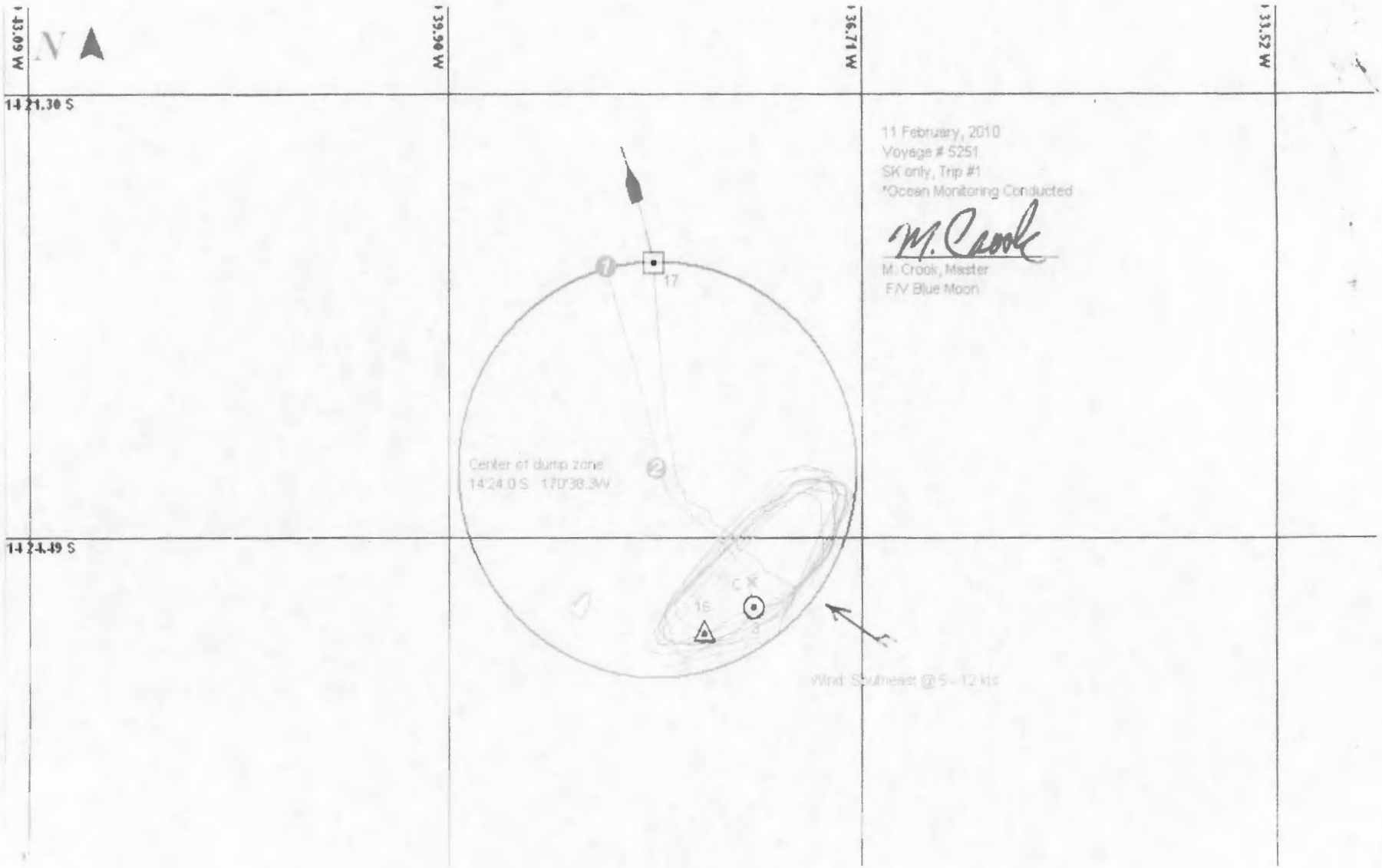


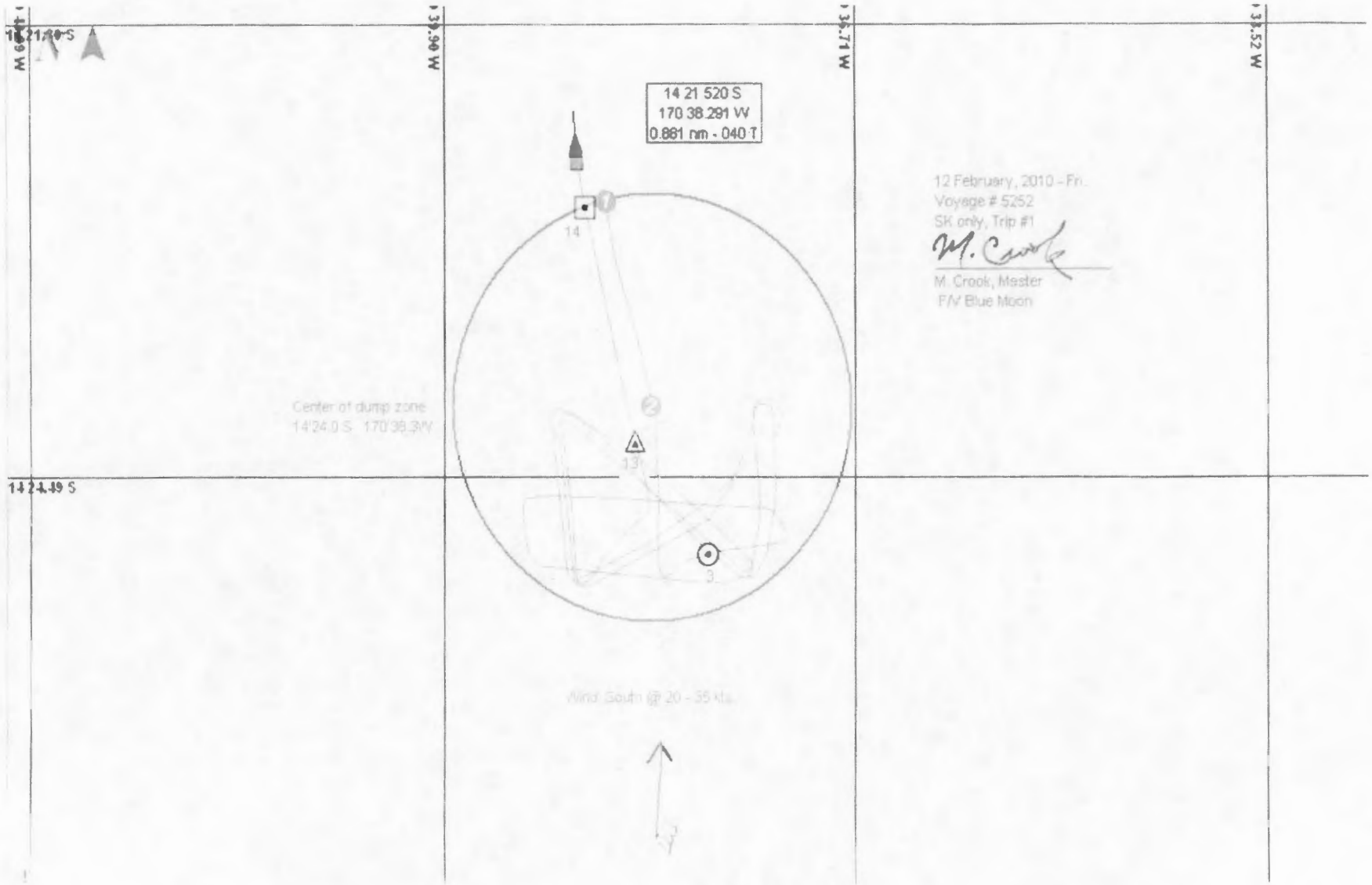
Febuary 4 2010
Voyage # 5248
SK only, Trip #1

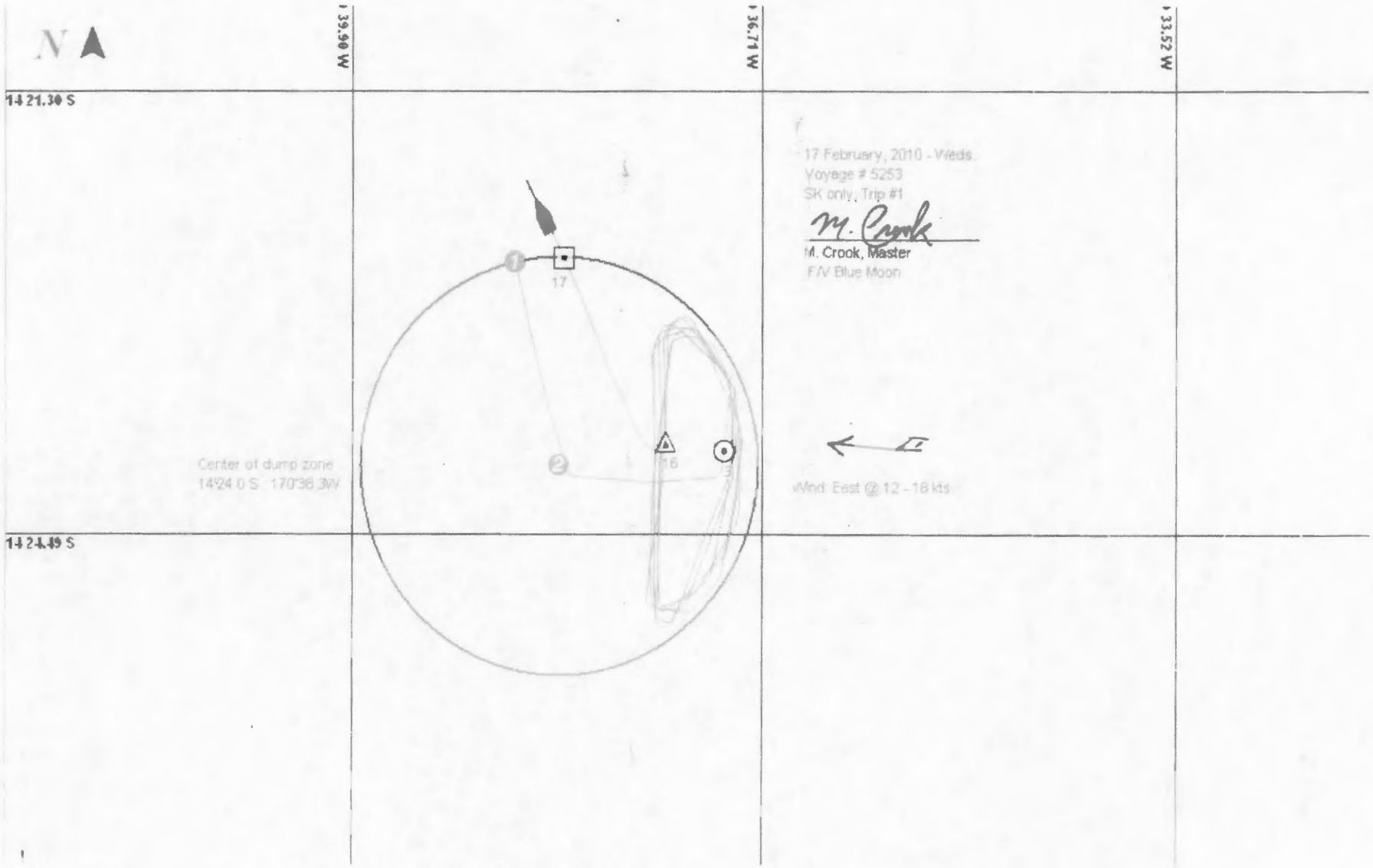
Master, F/V Blue Moon

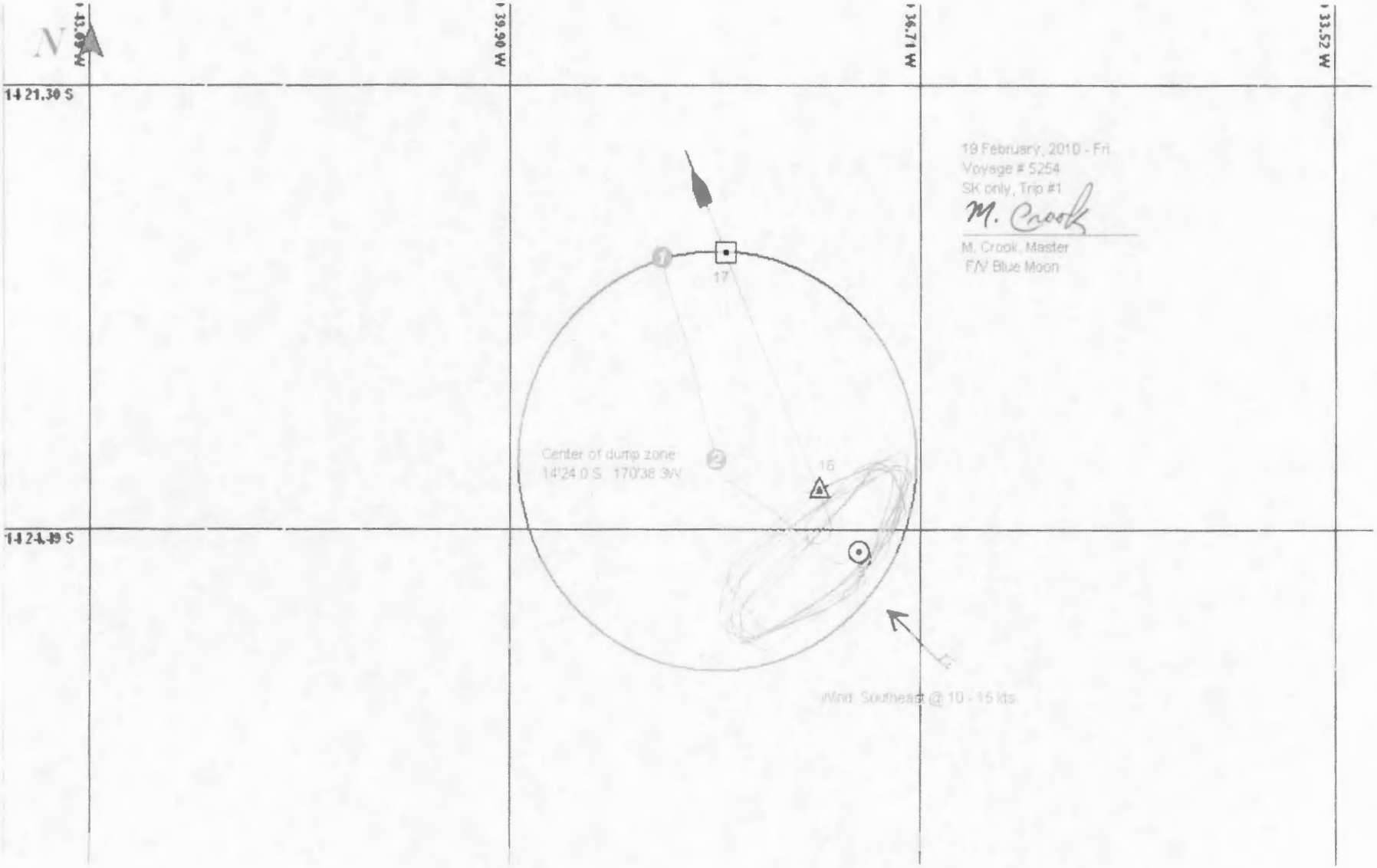

N
14 21.30 S
14 24.49 S
39.90 W
36.71 W
18
17
Center of dump zone
14'24.0 S 170'38.3W
06 February, 2010
Voyage # 5249
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: Southeast @ 20 - 25 kts.

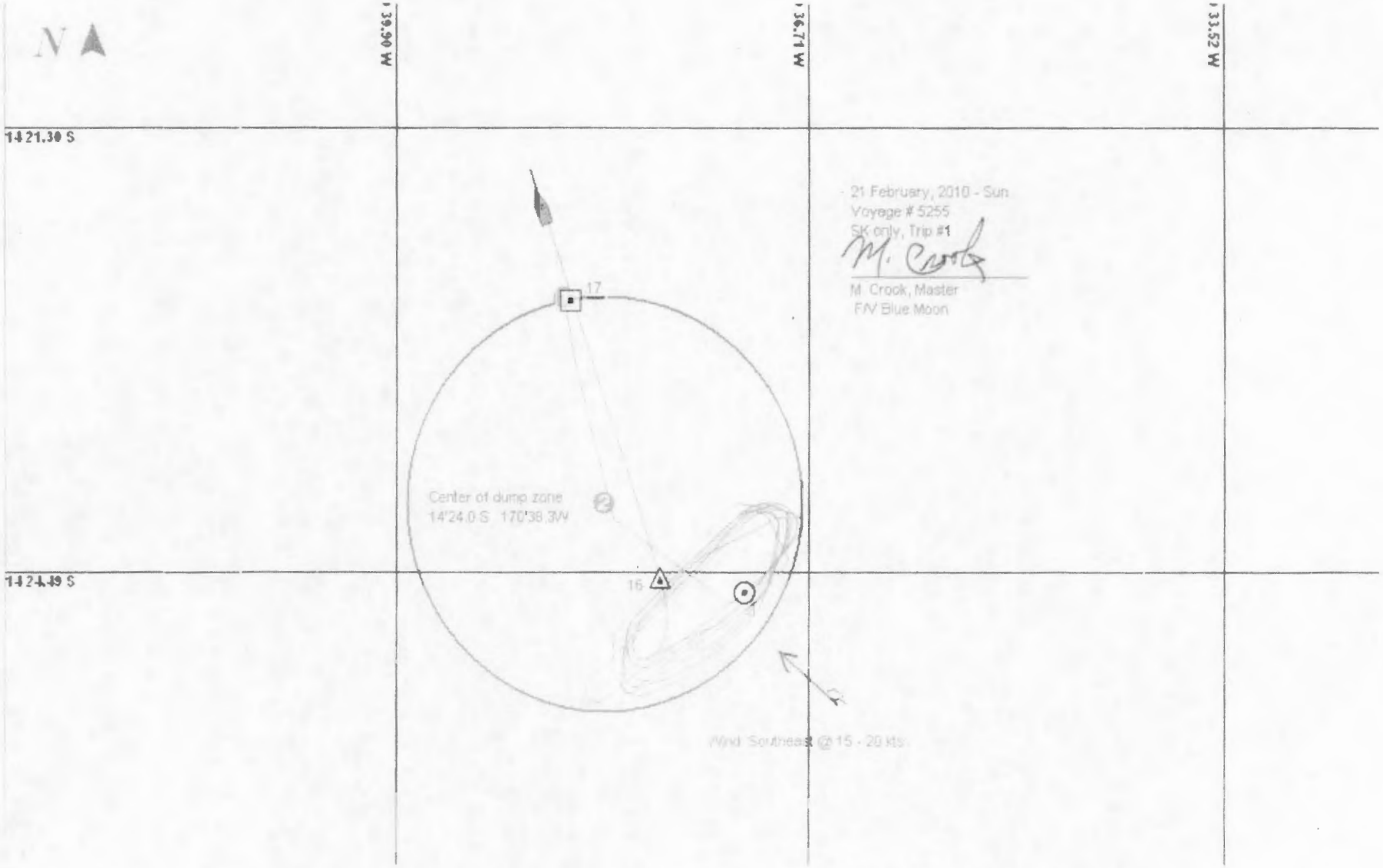

43.09 W
39.90 W
36.71 W
33.52 W
21.30 S
24.49 S
1
2
3
14
15
Center of dump zone
14°24.0 S 170°38.3W
09 February, 2010
Voyage # 5250
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: East @ 5 - 10 kts

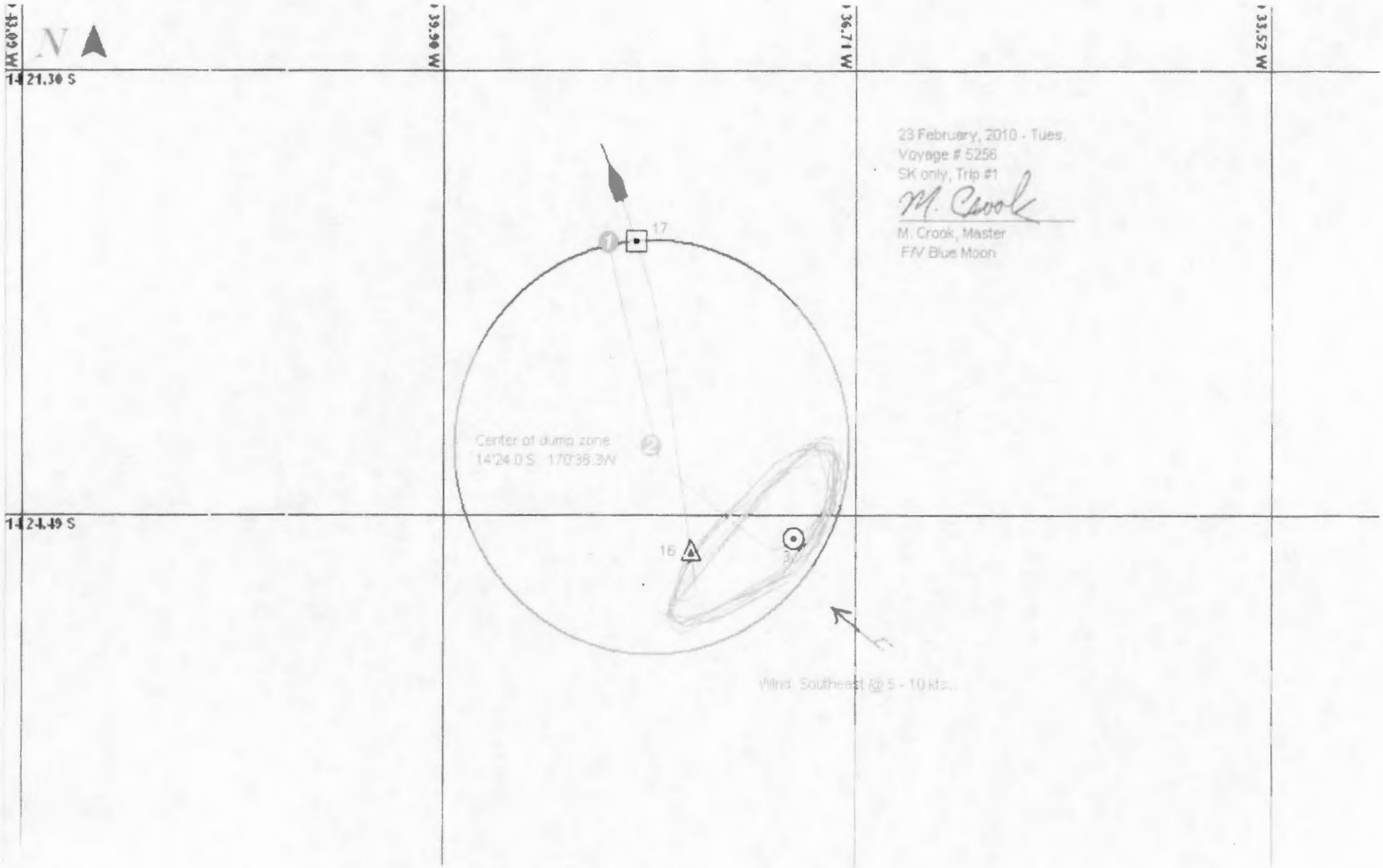

N
M 60'43.09 W
M 39.96 W
M 17.71 W
M 33.52 W
14 21.30 S
14 24.49 S
11 February, 2010
Voyage # 5251
SK only, Trip #1
*Ocean Monitoring Conducted
M. Crook, Master
F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
1
2
17
16
C
Wind: Southeast @ 5 - 12 kts

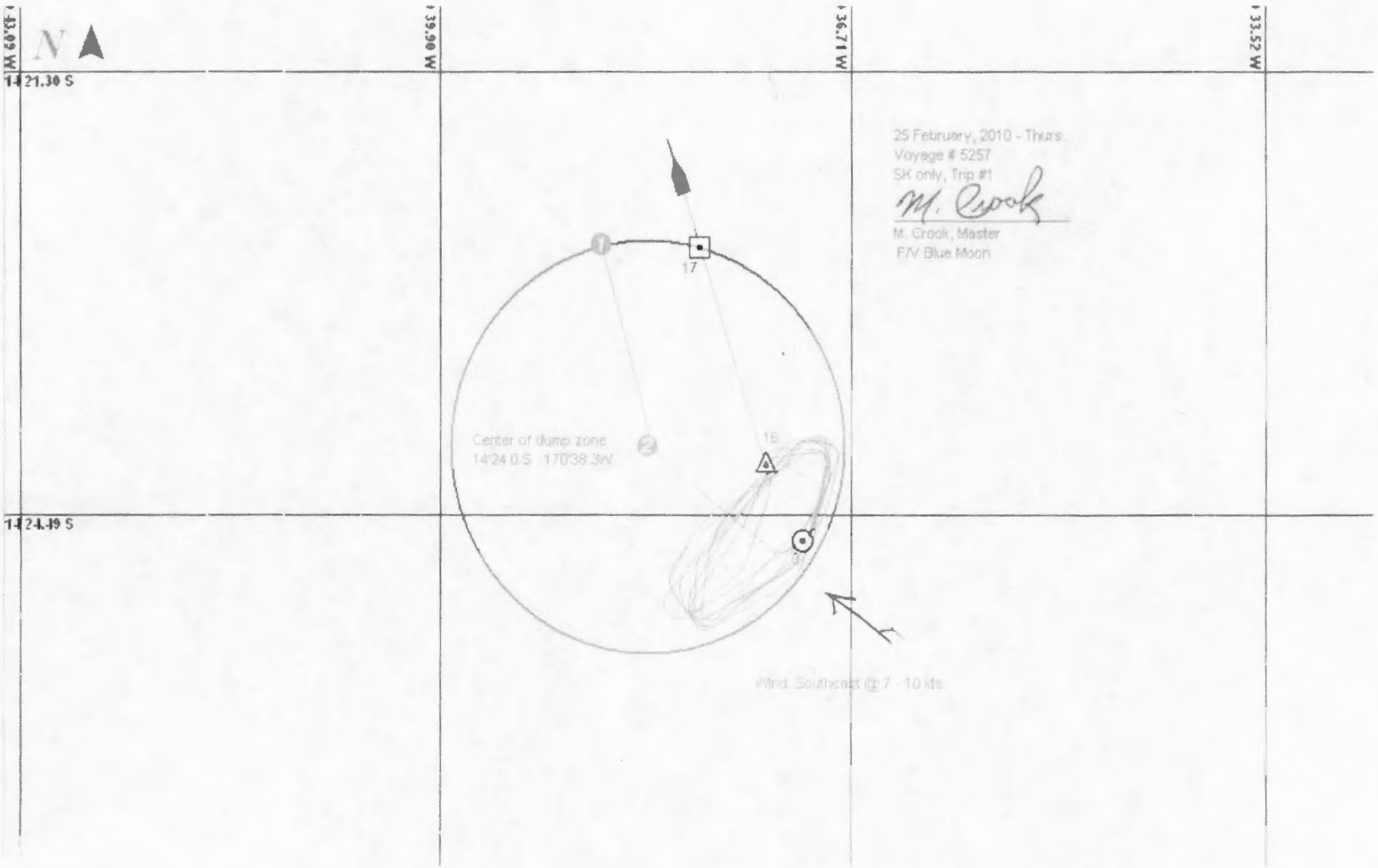

14 21 520 S
170 38.291 W
0.861 nm - 040 T
14
13
3
Center of dump zone
14°24.0 S 170°38.3W
Wind South @ 20 - 35 kts
12 February, 2010 - Fri.
Voyage # 5252
SK only, Trip #1
M. Crook, Master
F/V Blue Moon

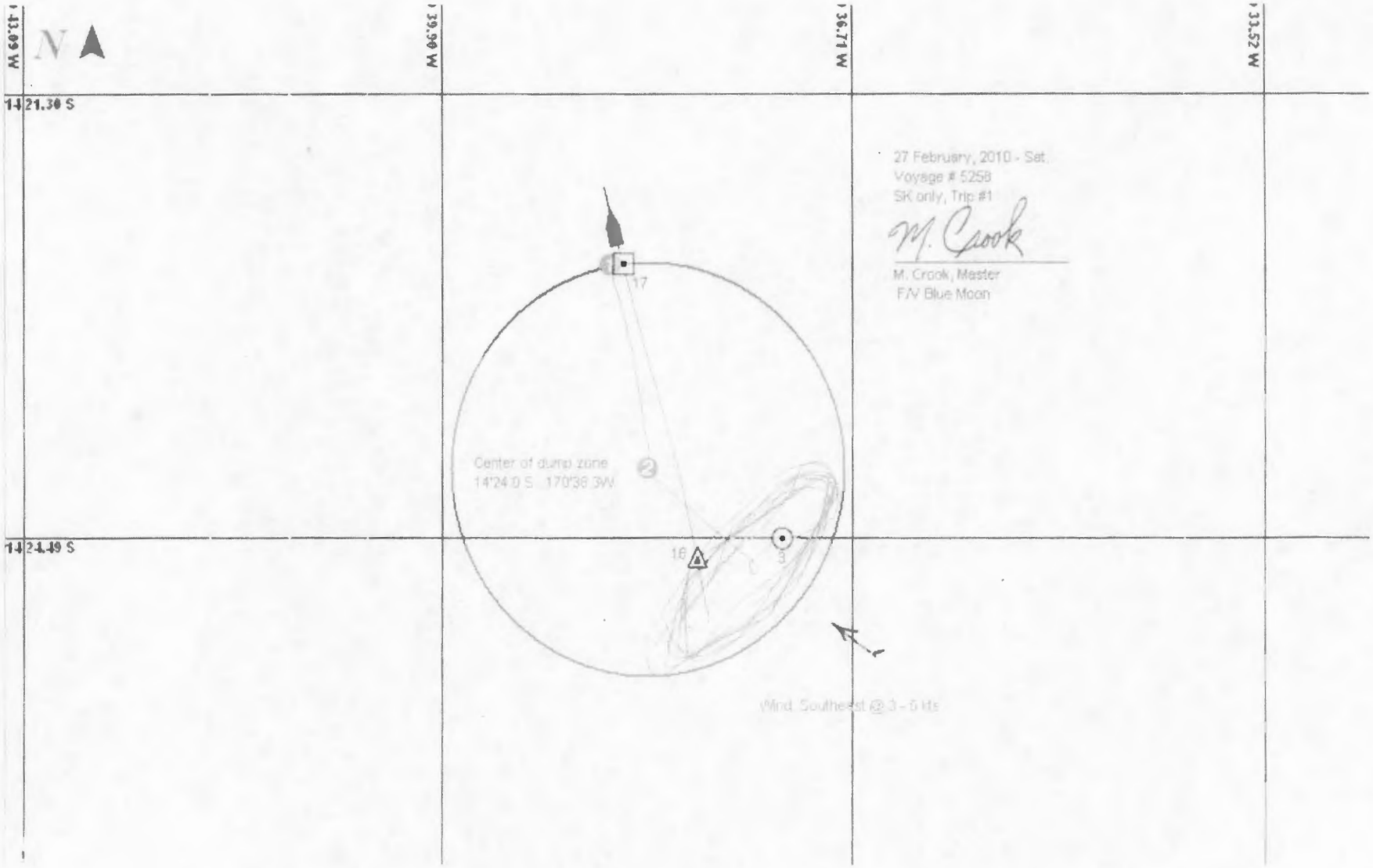

N
170 39.90 W
170 36.71 W
170 33.52 W
14 21.30 S
14 24.49 S
17 February, 2010 - Weds.
Voyage # 5253
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14°24.0 S 170°36.3W
Wind: East @ 12 - 18 kts
17
16
3


N
14 21.30 S
14 24.49 S
59.90 W
34.71 W
33.52 W
19 February, 2010 - Fri
Voyage # 5254
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
17
16
Center of dump zone
14°24.0 S 170°38.3W
Wind: Southeast @ 10 - 15 kts


N
170 39.90 W
170 36.71 W
170 33.52 W
14 21.30 S
14 24.49 S
21 February, 2010 - Sun
Voyage # 5255
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
17
16
Center of dump zone
14°24.0 S 170°38.3W
Wind Southeast @ 15 - 20 kts


N
43.09 W
39.90 W
36.71 W
33.52 W
14 21.30 S
14 24.49 S
17
16
Center of dump zone
14°24.0'S 170°38.3'W
23 February, 2010 - Tues.
Voyage # 5256
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: Southeast @ 5 - 10 kts.


N
43.69 W
39.90 W
36.71 W
33.52 W
14 21.30 S
14 24.49 S
25 February, 2010 - Thurs.
Voyage # 5257
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
17
16
Center of dump zone
14°24.0 S 170°38.3W
Wind Southeast @ 7 - 10 kts


N
13.09 W
39.96 W
36.71 W
33.52 W
14 21.30 S
14 24.49 S
27 February, 2010 - Sat.
Voyage # 5258
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
17
Center of dump zone
14°24.0 S 170°36.3W
2
16
3
Wind: Southeast @ 3 - 5 kts

OCEAN DUMPSITE MONITORING REPORT
(OD 93-01 & OD 93-02)

11 March, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling positions:	All positions obtained by GPS (Global Position Satellite) Navigation

Introduction

On March 11, 2010 the tank-ship *Blue Moon* departed *Starkist Samoa* dock bound for the designated ocean dump site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dump site location with Master/Principal Investigator, Chief and Mate on board.

0600: The *Blue Moon* entered the dump-zone circle at 14*22.5' S - 170*38.6' W.

0612: The *Blue Moon* arrived at the dump-zone center, where observed brisk easterly winds and easterly seas initially indicated disposal operations be conducted in the eastern dump-zone quadrant.

0620: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up current or east (E) of the dump-zone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were moderate with east swells to 1.5 meters and an east wind of 15 knots. Skies were cloudy with 8 miles visibility and the barometer reading 29.55. Current set and drift of the ship were to the west at 0.9 knots. No floating materials or sea life were observed here.

0635: The *Blue Moon* began disposal operations in the east dump-zone quadrant and continued discharging material with a north to south reciprocal, elongated elliptical pattern (see Plot 1) until 09:35 hrs.

0940: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The east winds had increased to 25 knots with still cloudy skies and some brief, passing rain. Although there was no sign of the plume at this exact position, just down-current the plume appeared as a series of short, broken-up glassy track lines and small patches of light surface sheen about 1.75 miles long, N to S by about 1.2 miles wide, E to W and moving to the west. The current/wind drift of the ship was now GPS determined to be westerly *a*

1.1 knots. No sea life or floatable materials were observed.

0950: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position was in an area of light glassy surface sheen. The average drift rate of the ship with current and wind was GPS determined to be westerly at 1.0 knots between stations 1 & 2. No sea-life or floatable materials were noted at this position.

1000: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was again, in a small area of glassy surface sheen over clear blue water. The drift rate of the ship between stations 2 & 3 was 0.9 knots to the west.

1010: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM west of Station #3, was visibly, the leading edge of the waste plume with just a few light and scattered streaks of surface sheen over natural clear blue water. There were no floating or suspended materials. The westerly current/drift rate of the ship was noted here to be 1.2 knots.

1020: Station Five monitoring. Sampling for this final station was conducted 0.25 NM down-current (W) from Station #4 and approximately 0.30 miles ESE of the zone center (Plot #1). The waste plume was not visually apparent at this location which had natural, clear blue ocean. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.58 when monitoring activities were concluded at 10:30 hrs and the wind held steady at about 25 knots. The final current & drift rate of the ship was checked to be 1.1 knots. The *Blue Moon* exited the disposal zone at 10:42 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the *Starkist Samoa Co.* laboratory at 11:25 hours.

Prepared by:

M. Crook

Mike Crook, Principal Investigator

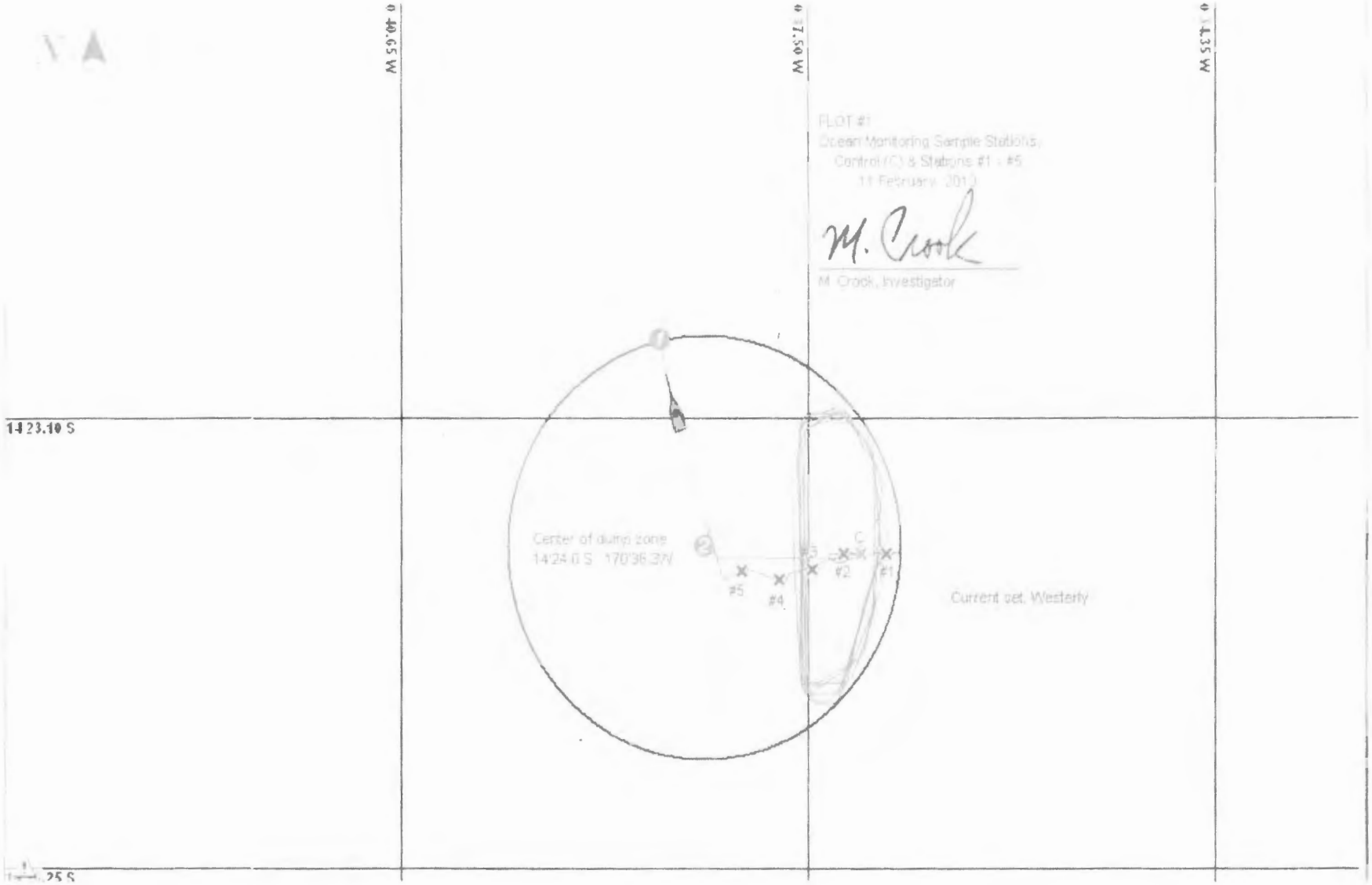
OCEAN DUMPING RESEARCH PERMIT: OD-93-02

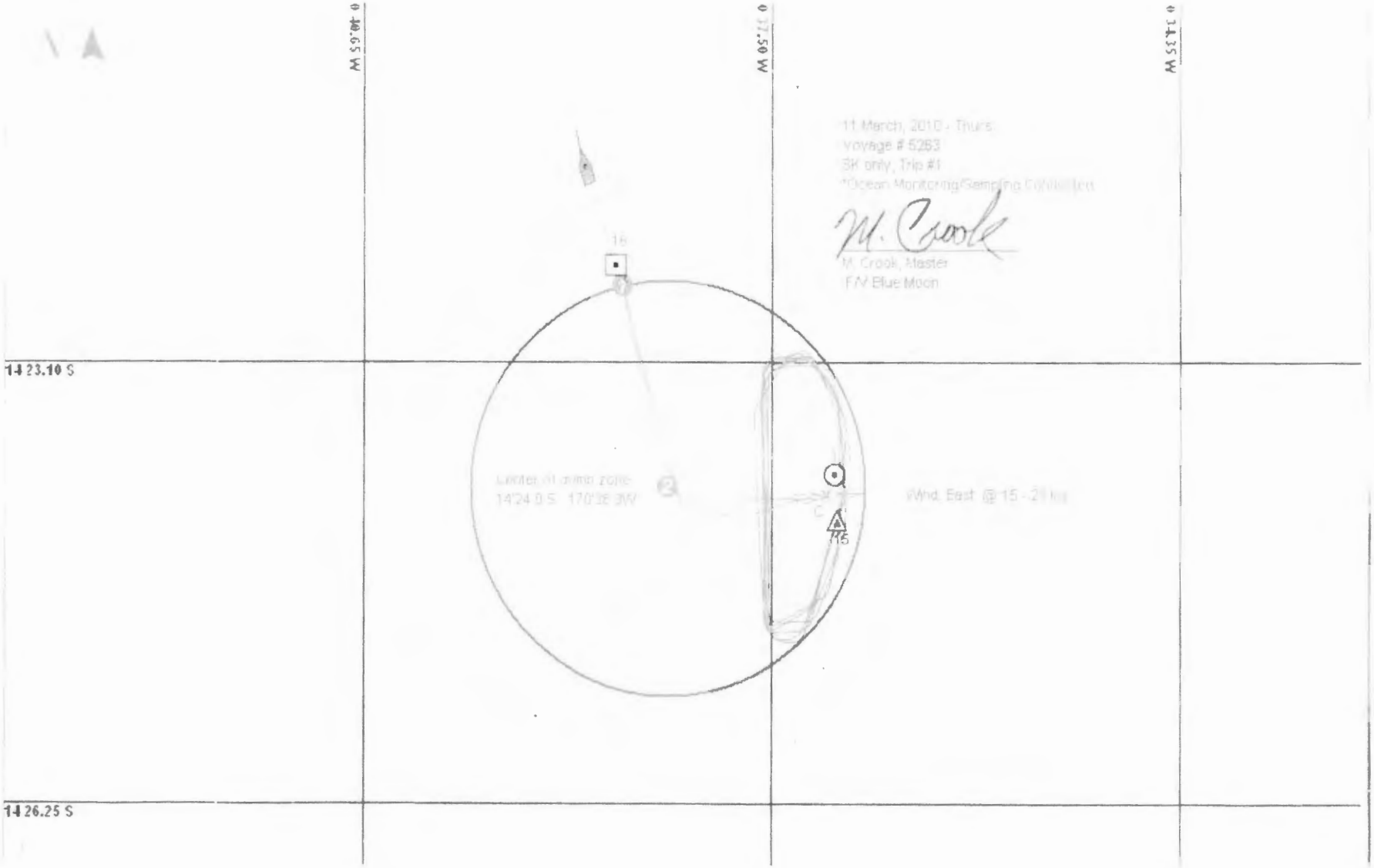
Table 1

Date: 11 March, 2010	Sea Conditions: Moderate w/ East swells to 2.0 meters. Wind: East @ 15 - 25 knots. Sky: Cloudy w/ some light rain. Direction & Rate of Current: Westerly set @ 1.0 knot average. Visibility: 6 - 8 miles. Barometer: 29.51 – 29.58					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0620	Control	1	27.2	8.4	None	Deep, clear and natural pelagic blue. No floatable or suspended particulate material present.
		3	27.2	8.4		
		10	27.2	8.4		
0940	Station 1	1	27.8	8.4	None	Same as Control Station
		3	27.8	8.4		
		10	27.2	8.4		
0950	Station 2	1	27.8	8.4	Slightly Pungent	A few scattered patches and broken track lines of moderate, glassy surface sheen. No floating or suspended particulate materials.
		3	27.8	8.4		
		10	27.2	8.4		
1000	Station 3	1	27.8	8.4	Slightly Pungent	Same as Station #2.
		3	27.8	8.4		
		10	27.2	8.4		
1010	Station 4	1	27.8	8.4	Slightly Pungent	Only a few residual, light & scattered streaks of glassy surface sheen over clear, blue water with no subsurface or floating particulate or other material. The apparent/visual leading edge of the waste plume
		3	27.8	8.4		
		10	27.8	8.4		
1020	Station 5	1	27.8	8.4	None	Sampled 0.25 NM down-current (West) from Station #4 and had the same water color/qualities as the Control Station w/ no floating or suspended materials
		3	27.8	8.4		
		10	27.8	8.4		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.05'	South	170° 37.09'	West
Station 1	14° 24.00'	South	170° 36.91'	West
Station 2	14° 24.07'	South	170° 37.11	West
Station 3	14° 24.08'	South	170° 37.46'	West
Station 4	14° 24.20'	South	170° 37.70'	West
Station 5	14° 24.16'	South	170° 37.97'	West


PLOT #1
Ocean Monitoring Sample Stations,
Control (C) & Stations #1 - #5
11 February 2012
M. Crook
M. Crook, Investigator
Center of dump zone
14°24.0 S 170°36.3'W
#5
#4
#3
#2
#1
C
Current set: Westerly
14°23.10 S
170°40.65 W
170°37.50 W
170°34.35 W


0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
14 26.25 S
11 March, 2010 - Thurs
Voyage # 5283
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: East @ 15 - 20 kts
C
715

OCEAN DUMPSITE MONITORING REPORT

(OD 93-01 & OD 93-02)

11 March, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling positions:	All positions obtained by GPS (Global Position Satellite) Navigation

Introduction

On March 11, 2010 the tank-ship *Blue Moon* departed *Starkist Samoa* dock bound for the designated ocean dump site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dump site location with Master/Principal Investigator, Chief and Mate on board.

0600: The *Blue Moon* entered the dump-zone circle at 14*22.5' S 170*38.6' W.

0612: The *Blue Moon* arrived at the dump-zone center, where observed brisk easterly winds and easterly seas initially indicated disposal operations be conducted in the eastern dump-zone quadrant.

0620: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up current or east (E) of the dump-zone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were moderate with east swells to 1.5 meters and an east wind of 15 knots. Skies were cloudy with 8 miles visibility and the barometer reading 29.55. Current set and drift of the ship were to the west at 0.9 knots. No floating materials or sea life were observed here.

0635: The *Blue Moon* began disposal operations in the east dump-zone quadrant and continued discharging material with a north to south reciprocal, elongated elliptical pattern (see Plot 1) until 09:35 hrs.

0940: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The east winds had increased to 25 knots with still cloudy skies and some brief, passing rain. Although there was no sign of the plume at this exact position, just down-current the plume appeared as a series of short, broken-up glassy track lines and small patches of light surface sheen about 1.75 miles long, N to S by about 1.2 miles wide, E to W and moving to the west. The current wind drift of the ship was now GPS determined to be westerly *a*

1.1 knots. No sea life or floatable materials were observed.

0950: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position was in an area of light glassy surface sheen. The average drift rate of the ship with current and wind was GPS determined to be westerly at 1.0 knots between stations 1 & 2. No sea-life or floatable materials were noted at this position.

1000: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was again, in a small area of glassy surface sheen over clear blue water. The drift rate of the ship between stations 2 & 3 was 0.9 knots to the west.

1010: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM west of Station #3, was visibly, the leading edge of the waste plume with just a few light and scattered streaks of surface sheen over natural clear blue water. There were no floating or suspended materials. The westerly current/drift rate of the ship was noted here to be 1.2 knots.

1020: Station Five monitoring. Sampling for this final station was conducted 0.25 NM down-current (W) from Station #4 and approximately 0.30 miles ESE of the zone center (Plot #1). The waste plume was not visually apparent at this location which had natural, clear blue ocean. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.58 when monitoring activities were concluded at 10:30 hrs and the wind held steady at about 25 knots. The final current & drift rate of the ship was checked to be 1.1 knots. The *Blue Moon* exited the disposal zone at 10:42 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the *Starkist Samoa Co.* laboratory at 11:25 hours.

Prepared by:

M. Crook

Mike Crook, Principal Investigator

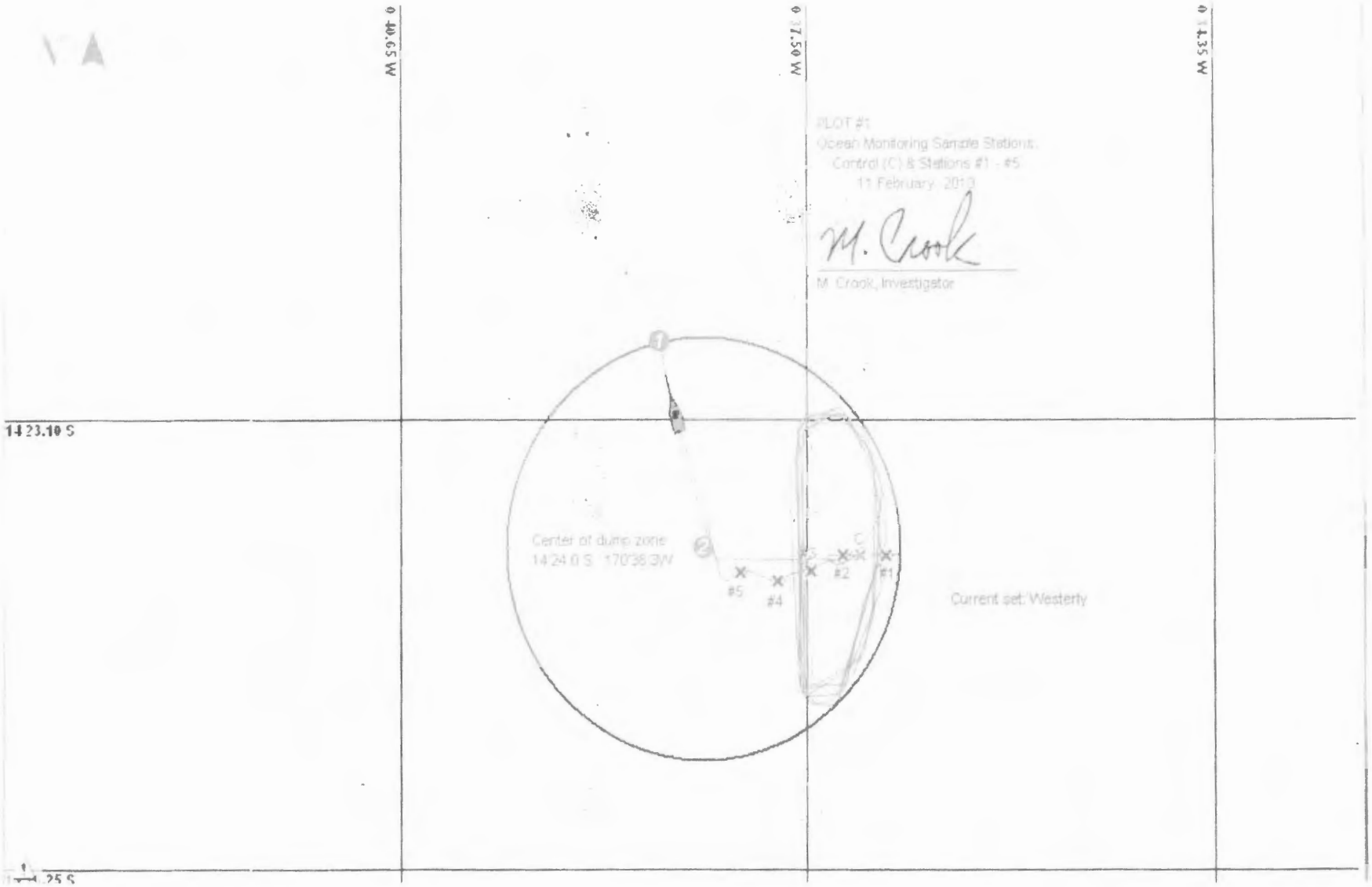
OCEAN DUMPING RESEARCH PERMIT: OD-93-02

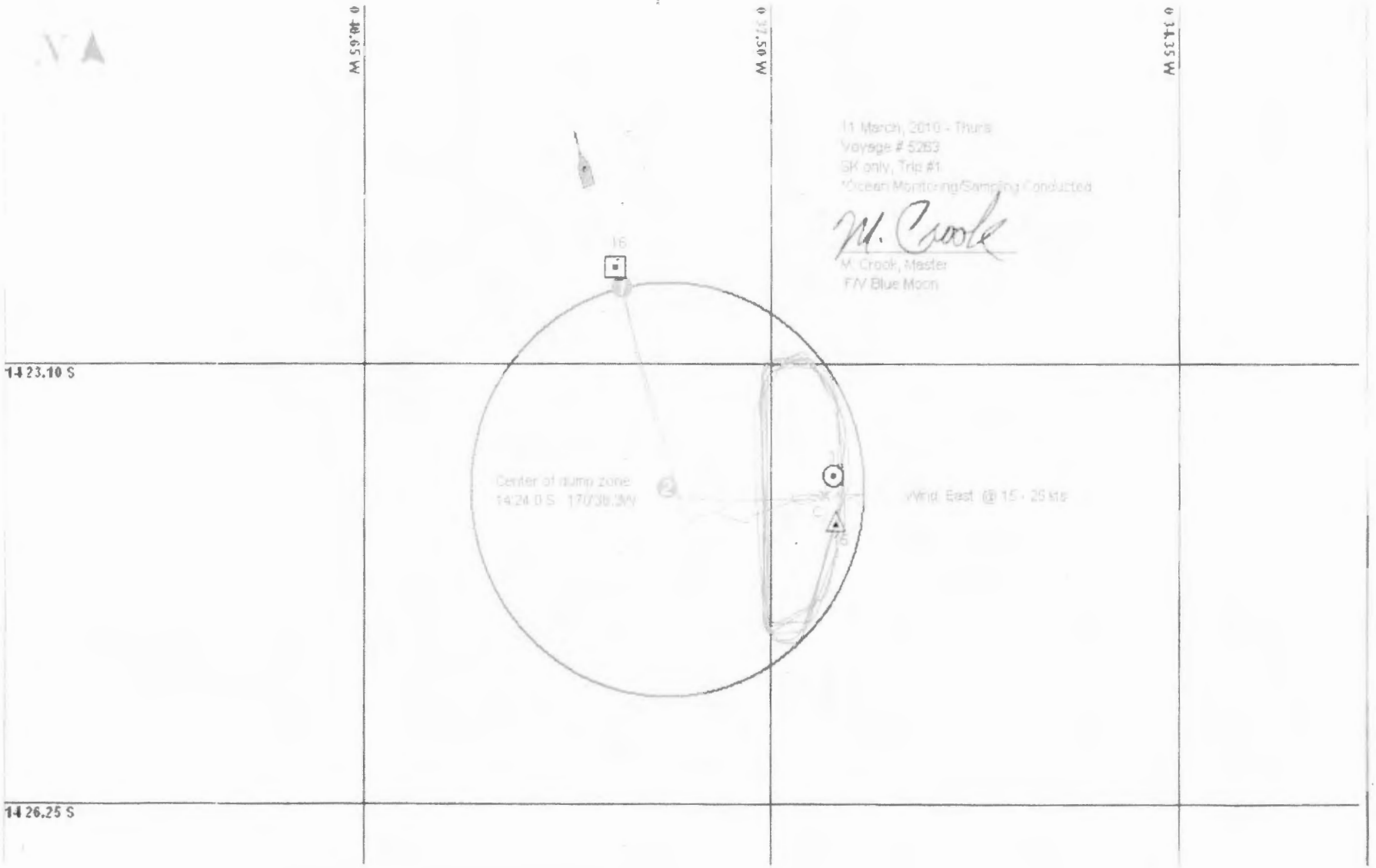
Table 1

Date: 11 March, 2010	Sea Conditions: Moderate w/ East swells to 2.0 meters. Wind: East @ 15 - 25 knots. Sky: Cloudy w/ some light rain. Direction & Rate of Current: Westerly set @ 1.0 knot average. Visibility: 6 - 8 miles. Barometer: 29.51 – 29.58					
Time	Station	Depth (meters)	Temp. (°C)	pH	Odor	Color
0620	Control	1	27.2	8.4	None	Deep, clear and natural pelagic blue. No floatable or suspended particulate material present.
		3	27.2	8.4		
		10	27.2	8.4		
0940	Station 1	1	27.8	8.4	None	Same as Control Station
		3	27.8	8.4		
		10	27.2	8.4		
0950	Station 2	1	27.8	8.4	Slightly Pungent	A few scattered patches and broken track lines of moderate, glassy surface sheen. No floating or suspended particulate materials.
		3	27.8	8.4		
		10	27.2	8.4		
1000	Station 3	1	27.8	8.4	Slightly Pungent	Same as Station #2.
		3	27.8	8.4		
		10	27.2	8.4		
1010	Station 4	1	27.8	8.4	Slightly Pungent	Only a few residual, light & scattered streaks of glassy surface sheen over clear, blue water with no subsurface or floating particulate or other material. The apparent/visual leading edge of the waste plume
		3	27.8	8.4		
		10	27.8	8.4		
1020	Station 5	1	27.8	8.4	None	Sampled 0.25 NM down-current (West) from Station #4 and had the same water color/qualities as the Control Station w/ no floating or suspended materials
		3	27.8	8.4		
		10	27.8	8.4		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.05'	South	170° 37.09'	West
Station 1	14° 24.00'	South	170° 36.91'	West
Station 2	14° 24.07'	South	170° 37.11	West
Station 3	14° 24.08'	South	170° 37.46'	West
Station 4	14° 24.20'	South	170° 37.70'	West
Station 5	14° 24.16'	South	170° 37.97'	West


PLOT #1
Ocean Monitoring Sample Stations:
Control (C) & Stations #1 - #5
11 February 2013
M. Crook, Investigator
Center of dump zone
14°24.0'S 170°38.3'W
C
#1
#2
#4
#5
Current set: Westerly
14°23.10'S
170°40.65'W
170°37.50'W
170°34.35'W


11 March, 2010 - Thurs
Voyage # 5263
SK only, Trip #1
*Ocean Monitoring/Sampling Conducted
M. Crook, Master
F/V Blue Moon
16
Center of dump zone:
14:24.0 S 170:39.3W
Wind: East @ 15 - 25 kts
14 23.10 S
14 26.25 S

OCEAN DUMPSITE MONITORING REPORT
(OD 93-01 & OD 93-02)

11 March, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling positions:	All positions obtained by GPS (Global Position Satellite) Navigation

Introduction

On March 11, 2010 the tank-ship *Blue Moon* departed *Starkist Samoa* dock bound for the designated ocean dump site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dump site location with Master/Principal Investigator, Chief and Mate on board.

0600: The *Blue Moon* entered the dump-zone circle at 14*22.5' S – 170*38.6' W.

0612: The *Blue Moon* arrived at the dump-zone center, where observed brisk easterly winds and easterly seas initially indicated disposal operations be conducted in the eastern dump-zone quadrant.

0620: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up current or east (E) of the dump-zone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were moderate with east swells to 1.5 meters and an east wind of 15 knots. Skies were cloudy with 8 miles visibility and the barometer reading 29.55. Current set and drift of the ship were to the west at 0.9 knots. No floating materials or sea life were observed here.

0635: The *Blue Moon* began disposal operations in the east dump-zone quadrant and continued discharging material with a north to south reciprocal, elongated elliptical pattern (see Plot 1) until 09:35 hrs.

0940: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The east winds had increased to 25 knots with still cloudy skies and some brief, passing rain. Although there was no sign of the plume at this exact position, just down-current the plume appeared as a series of short, broken-up glassy track lines and small patches of light surface sheen about 1.75 miles long, N to S by about 1.2 miles wide, E to W and moving to the west. The current wind drift of the ship was now GPS determined to be westerly *a*

1.1 knots. No sea life or floatable materials were observed.

0950: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position was in an area of light glassy surface sheen. The average drift rate of the ship with current and wind was GPS determined to be westerly at 1.0 knots between stations 1 & 2. No sea-life or floatable materials were noted at this position.

1000: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was again, in a small area of glassy surface sheen over clear blue water. The drift rate of the ship between stations 2 & 3 was 0.9 knots to the west.

1010: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM west of Station #3, was visibly, the leading edge of the waste plume with just a few light and scattered streaks of surface sheen over natural clear blue water. There were no floating or suspended materials. The westerly current/drift rate of the ship was noted here to be 1.2 knots.

1020: Station Five monitoring. Sampling for this final station was conducted 0.25 NM down-current (W) from Station #4 and approximately 0.30 miles ESE of the zone center (Plot #1). The waste plume was not visually apparent at this location which had natural, clear blue ocean. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.58 when monitoring activities were concluded at 10:30 hrs and the wind held steady at about 25 knots. The final current & drift rate of the ship was checked to be 1.1 knots. The *Blue Moon* exited the disposal zone at 10:42 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the *Starkist Samoa Co.* laboratory at 11:25 hours.

Prepared by:

M. Crook

Mike Crook, Principal Investigator

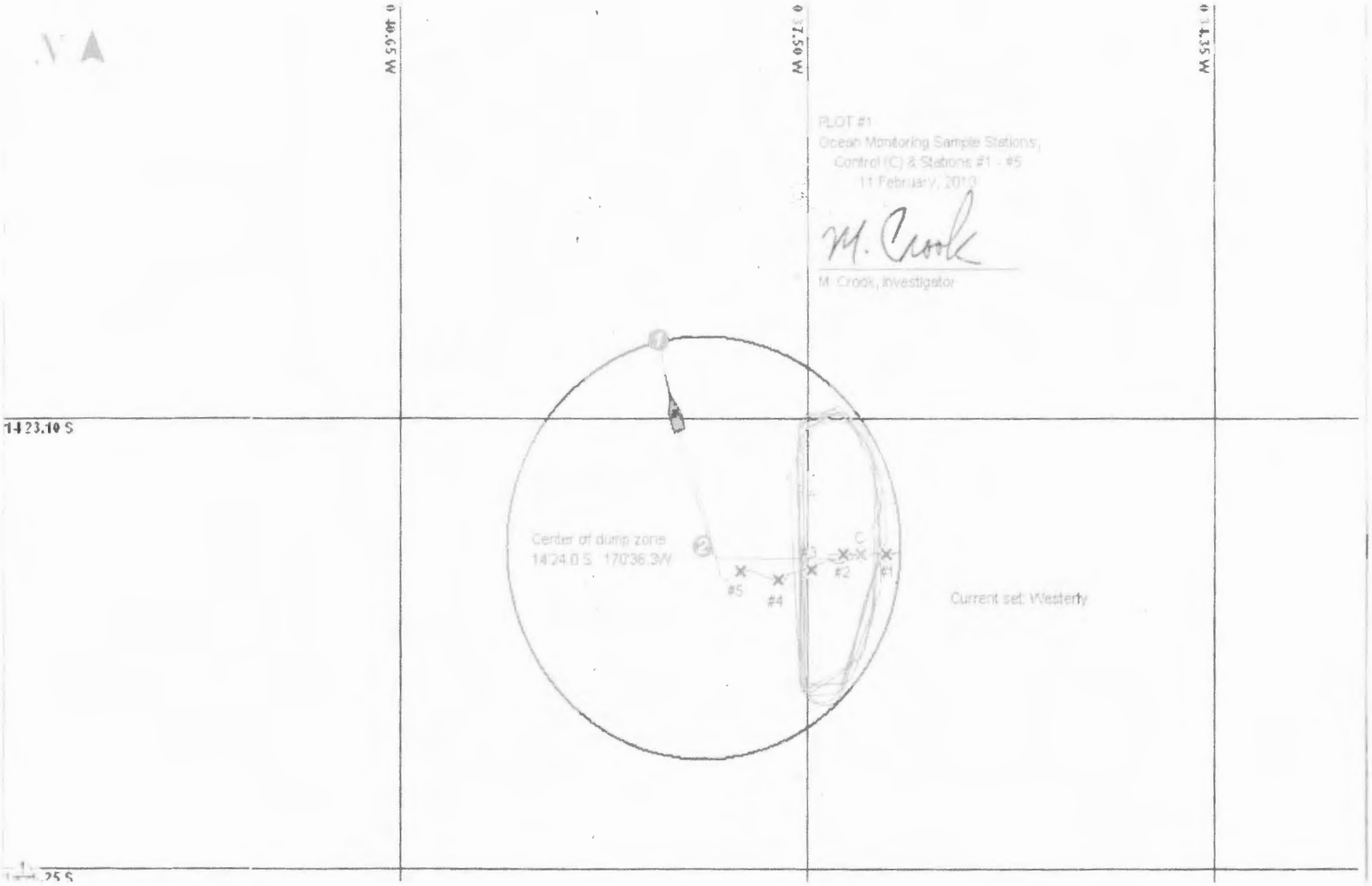
OCEAN DUMPING RESEARCH PERMIT: OD-93-02

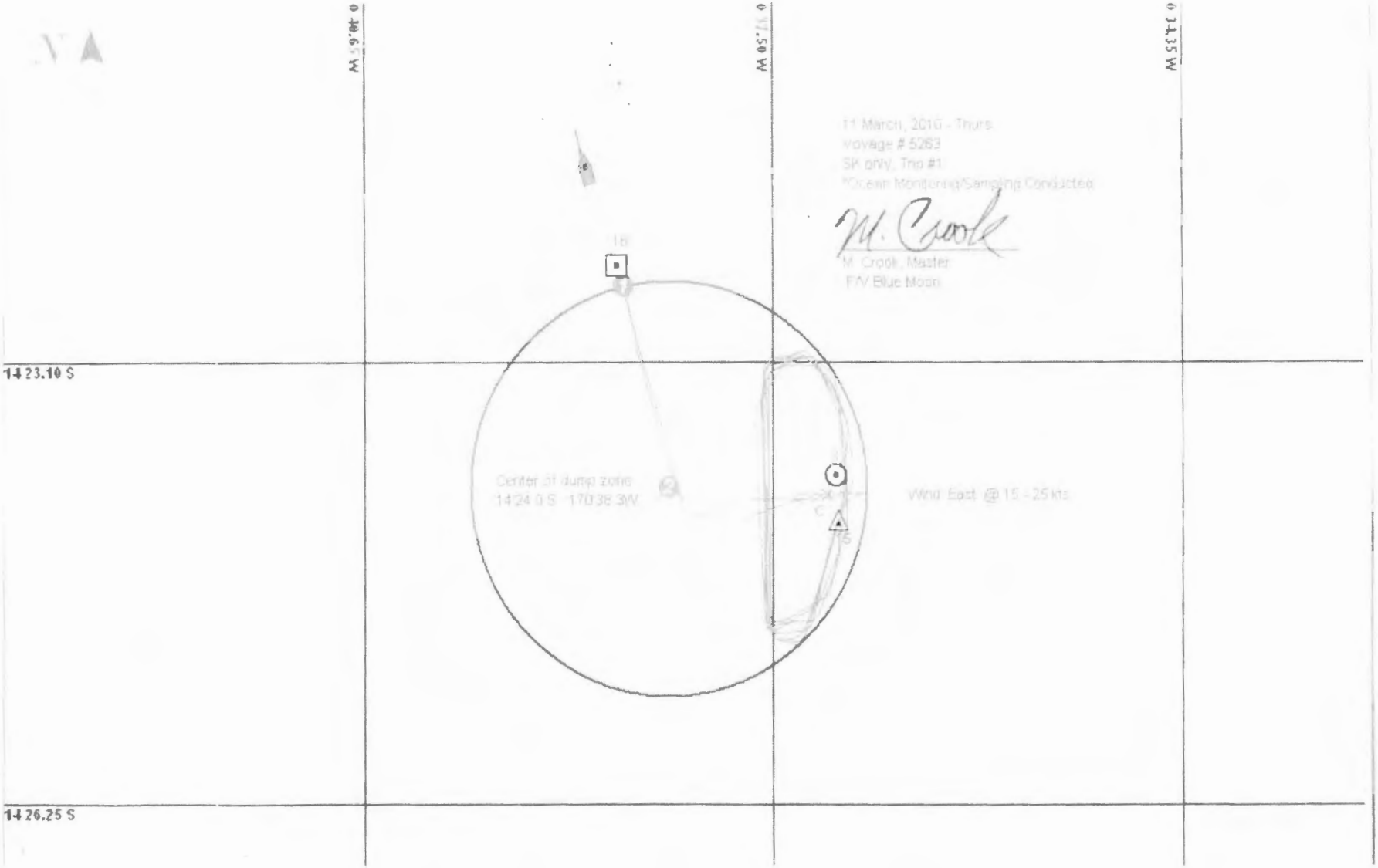
Table 1

Date: 11 March, 2010	Sea Conditions: Moderate w/ East swells to 2.0 meters. Wind: East @ 15 - 25 knots. Sky: Cloudy w/ some light rain. Direction & Rate of Current: Westerly set @ 1.0 knot average. Visibility: 6 - 8 miles. Barometer: 29.51 – 29.58					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0620	Control	1	27.2	8.4	None	Deep, clear and natural pelagic blue. No floatable or suspended particulate material present.
		3	27.2	8.4		
		10	27.2	8.4		
0940	Station 1	1	27.8	8.4	None	Same as Control Station
		3	27.8	8.4		
		10	27.2	8.4		
0950	Station 2	1	27.8	8.4	Slightly Pungent	A few scattered patches and broken track lines of moderate, glassy surface sheen. No floating or suspended particulate materials.
		3	27.8	8.4		
		10	27.2	8.4		
1000	Station 3	1	27.8	8.4	Slightly Pungent	Same as Station #2.
		3	27.8	8.4		
		10	27.2	8.4		
1010	Station 4	1	27.8	8.4	Slightly Pungent	Only a few residual, light & scattered streaks of glassy surface sheen over clear, blue water with no subsurface or floating particulate or other material. The apparent/visual leading edge of the waste plume
		3	27.8	8.4		
		10	27.8	8.4		
1020	Station 5	1	27.8	8.4	None	Sampled 0.25 NM down-current (West) from Station #4 and had the same water color/qualities as the Control Station w/ no floating or suspended materials
		3	27.8	8.4		
		10	27.8	8.4		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.05'	South	170° 37.09'	West
Station 1	14° 24.00'	South	170° 36.91'	West
Station 2	14° 24.07'	South	170° 37.11	West
Station 3	14° 24.08'	South	170° 37.46'	West
Station 4	14° 24.20'	South	170° 37.70'	West
Station 5	14° 24.16'	South	170° 37.97'	West


PLOT #1
Ocean Monitoring Sample Stations,
Control (C) & Stations #1 - #5
11 February, 2010
M. Crook, Investigator
Center of dump zone
14°24.0 S 170°36.3W
#5
#4
#3
#2
#1
C
Current set: Westerly
14°23.10 S


0 48.9 W
0 47.50 W
0 14.35 W
11 March, 2010 - Thurs
Voyage # 5263
SK pWy, Trip #1
*Ocean Monitoring/Sampling Conducted
M. Crook
M. Crook, Master
F/V Blue Moon
18
14 23.10 S
Center of dump zone
14°24.0 S 170°38.3W
Wind: East @ 15 - 25 kts
14 26.25 S

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON March ~~2009~~ 2010

NUMBER OF TRIPS:	SK:	SP	JOINT:	TOTAL:
	13	0	0	13

GALLONS-FOR THE MONTH:	SK:	SP	JOINT:	TOTAL:
	2,268,750	0	0	2,268,750

GALLONS FOR SOLO TRIPS:	SK:	SP:
	2,268,750	0

RUNNING TIME ON TRIPS: 66.46 hrs.

DISCHARGE TIME ON TRIPS: 38.63 hrs.

AV GPM DISCHARGE RATE: 102.1 g/m/k

AV TRIP TIME: 5.11 hrs.

AV PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK:	COS:
100.00%	0.00%

MASTER

STAR KIST SAMOA CO
WATER TREATMENT DEPARTMENT

BLUE MOON - OCEAN DUMPING LOG

Reporting Date April 01, 2010

1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Volume
1st Trip	1200/1930 (172500)		2nd Trip	NONE	0
1st Trip	1400/1530 (37500)	172500	2nd Trip	NONE	0
1st Trip	1300/1800 (135000)		2nd Trip	NONE	0
1st Trip	1400/1530 (37500)	172500	2nd Trip	NONE	0
1st Trip	1300/1730 (132500)		2nd Trip	NONE	0
1st Trip	NONE	170000	2nd Trip	NONE	0
1st Trip	NONE		2nd Trip	NONE	0
1st Trip	0830/1440 (181250)		2nd Trip	NONE	0
1st Trip	1500/1600 (40000)	181250	2nd Trip	NONE	0
1st Trip	0730/1230 (152500)		2nd Trip	NONE	
1st Trip	1300/1500 (62500)	192500	2nd Trip	NONE	0
1st Trip	1000/1230 (125000)		2nd Trip	NONE	0
1st Trip	1000/1030 (1010/1155)	187500	2nd Trip	NONE	0
1st Trip	NONE	135000	2nd Trip	NONE	0
1st Trip	1330/1430 (40000)		2nd Trip	NONE	0
1st Trip	1300/1700 (130000)		2nd Trip	NONE	0
1st Trip	1330/1630 (60000)	170000	2nd Trip	NONE	0
1st Trip	1300/1700 (130000)		2nd Trip	NONE	0
1st Trip	1330/1445 (53750)	180000	2nd Trip	NONE	
1st Trip	1400/1030 (130000)		2nd Trip	NONE	0
1st Trip	NONE	183750	2nd Trip	NONE	0
1st Trip	1600/1630 (37500)		2nd Trip	NONE	0
1st Trip	1830/2000 (147500)		2nd Trip	NONE	0
1st Trip	1600/1745 (53750)	185000	2nd Trip	NONE	0
1st Trip	1[illegible] (116250)		2nd Trip	NONE	0
1st Trip	1400/1545 (43750)	170000	2nd Trip	NONE	0
1st Trip	1540/2400 (125000)		2nd Trip	NONE	0
1st Trip	NONE	168750	2nd Trip	NONE	0
1st Trip	NONE		2nd Trip	NONE	0
1st Trip	1[illegible]/1420 (36250)		2nd Trip	NONE	0
1st Trip	[illegible]/1015 (147500)		2nd Trip	NONE	0
1st Trip		2,268,750	2nd Trip		0
				Total 1st & 2nd	2,268,750

Date: 03/02/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5259

Permit # OD 93-01 & OD 93-02

Time						
1200	Begin Loading SK		Volume Loaded	SK	172,500	Gallons
1920	Finish Loading SK	Trip # 1 X		SP	0	Gallons
	Begin Loading SK #2	Trip # 2		Total	172,500	Gallons
	Finish Loading SK #2					

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0500	Depart Starkist		14*16.50'	S	170* 41.2'	W				Metric	kts	True*
0548	Arrive Edge of Zone	# 1	14*22.52	S	170*38.66	W	W 4-5	70	29.45	S/SE-1.0	9.1	162
0555	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	" - 10	"	"	S/SE-1.5	7.0	155
0605	Begin Discharge	# 3	14*24.21	S	170*39.51	W		100-Rain	29.44	X	8.6	159
23		# 4	14*24.21	S	170*39.75	W		70			1.5	000
35	Remarks.	# 5	14*24.07	S	170*39.61	W			29.45		9.6	181
53		# 6	14*23.90	S	170*39.62	W	W-7	100	29.46		9.6	002
0703		# 7	14*23.81	S	170*39.48	W	"		29.47	5	9.7	180
23		# 8	14*23.82	S	170*39.77	W	"		29.46		9.6	000
35		# 9	14*24.81	S	170*39.45	W	"	"	29.47		9.3	141
53		# 10	14*23.30	S	170*38.87	W			"		9.5	350
0808		# 11	14*24.94	S	170*39.22	W			"		8.8	087
23		# 12	14*23.12	S	170*39.31	W			"	10	9.6	210
35		# 13	14*24.27	S	170*38.94	W	W-5		"		9.9	354
53		# 14	14*23.79	S	170*39.51	W			29.45		10.0	176
0908		# 15	14*24.36	S	170*38.75	W					7.6	358
23		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0915	Finish Discharge	#16	14*23.05	S	170*39.28	W	W-5	100	29.46	S/SE-1.5	9.7	000
0917	Exit Discharge Zone	#17	14*22.93	S	170*39.29	W	" "	"	" "	" "	9.8	358
1005	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center East End of Discharge East Discharge Pattern Ellipse

Total Discharge Time: 187 mins. Average Speed During Discharge: 9.5 kts. Total Time Run 5.1 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 97 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 03/04/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5260

Permit # OD 93-01 & OD 93-02

	Time	
3/2	1400	Begin Loading SK
"	1530	Finish Loading SK
3/3	1300	Begin Loading SK #2
"	1800	Finish Loading SK #2

Trip # 1 - X
Trip # 2

Volume Loaded		
SK	172,500	Gallons
SP	0	Gallons
Total		Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0515	Depart Starkist		14*16 50' S	170* 41 2' W	NW-10	100	29.40			
0603	Arrive Edge of Zone	# 1	14*22 54' S	170*38 62 W	" "	90	29.42	mixed-1.5	9.1	159
0613	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	NW-7	"	" "	" "	8.7	186
0622	Begin Discharge	# 3	14*24.32' S	170*39 52 W	WNW-10	"		" " X	9.1	188
37		# 4	14*24.24' S	170*38 83' W	" "	"		" "	9.6	347
52	Remarks	# 5	14*2 4.19' S	170*39.65' W	" "		"		9.5	173
0707		# 6	14*2 4.20 S	170*38.82' W	"		"		9.7	354
22		# 7	14*2 3.76' S	170*39.66' W	WNW-7		29.41	5	9.9	187
37		# 8	14*2 4.37 S	170*38.82' W	" "		29.42		9.8	002
52		# 9	14*23.78' S	170*39.64' W	" "				10.0	181
0807		# 10	14*24.50' S	170*38.90' W	" "				9.8	001
" 22		# 11	14*23.80' S	170*39.61' W	WNW-10				10.0	180
" 37		# 12	14*23.64' S	170*38.68' W	" "			10	9.6	353
" 52		# 13	14*24.31' S	170*39.57' W	" "				10.0	182
0907		# 14	14*2 4.12 S	170*38.82' W			29.41		9.8	003
22		# 15	14*24.43 S	170*39.54' W			"		10.0	181
37		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0935	Finish Discharge	# 16	14*23.89' S	170*38.94' W	WNW-10	90%	29.41	Mixed-1.5	10.0	347
0944	Exit Discharge Zone	# 17	14*22.78' S	170*39.11' W	" "	"	"	" "	10.4	345
1035	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center East End of Discharge East (slow) Discharge Pattern Ellipse

Total Discharge Time: 193 mins. Average Speed During Discharge: 9.77 kts. Total Time Run 5.33 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 91.5 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 03/06/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5261

Permit # OD 93-01 & OD 93-02

	Time	
3/4	1500	Begin Loading SK
	1530	Finish Loading SK
3/5	1330	Begin Loading SK #2
	1730	Finish Loading SK #2

Trip # 1 X
Trip # 2

Volume Loaded		
SK	170,000	Gallons
SP	0	Gallons
Total	170,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16 50' S	170* 41 2' W	Calm	30	29.47			
0705	Arrive Edge of Zone	# 1	14*22 51' S	170*38 68' W	VAR-5	40	29 49	S/SE-2.0	9.3	156
0715	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	SW-5	"	"	" "	9.5	163
0725	Begin Discharge	# 3	14*2 4.21' S	170*39.51' W	Calm	50	"	" " X	8.8	180
40		# 4	14*2 3.71' S	170*38.88 W	"	"	"		9.7	355
55	Remarks	# 5	14*2 4.59' S	170*39.50' W	"	"	"		9.5	161
0810		# 6	14*2 3.75' S	170*38.81' W			"		9.4	356
25		# 7	14*2 5.02' S	170*39.31' W			"	5	9.6	164
40		# 8	14*2 3.27 S	170*38.53' W			"		9.9	343
55		# 9	14*2 4.80' S	170*38.52' W			"		9.2	011
0910		# 10	14*2 3.09' S	170*38.91' W			29.50		9.0	266
25		# 11	14*2 4.39 S	170*38.96 W					9.7	009
40		# 12	14*2 3.66' S	170*39.42' W				10	10.0	179
55		# 13	14*2 3.79' S	170*38.85' W		60			10.0	002
1010		# 14	14*2 4.64' S	170*39.36 W					9.3	325
25		# 15	14*2 4.00 S	170*39.45 W	East-3				9.9	184
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1040	Finish Discharge	#16	14*2 4.13' S	170*38.88' W	East-2	60	29.50	S/SE-2.0	10.0	357
1050	Exit Discharge Zone	#17	14*2 2.75' S	170*38.96' W	" "	"	"	" "	10.4	351
1140	Secure SK Dock		14*16.50' S	170*41 2' W						

Current Direction: At Center East End of Discharge Stationary Discharge Pattern Ellipse

Total Discharge Time: 195 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 5.5 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 91 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M Crook

Date: 03/09/10 F/V Blue Moon Ocean Dumping Log Voyage # 5262

Permit # OD 93-01 & OD 93-02

Time					
08	Begin Loading SK		Volume Loaded	SK	181,250 Gallons
1990	Finish Loading SK	Trip # 1 - X		SP	0 Gallons
	Begin Loading SK #2	Trip # 2		Total	181,250 Gallons
	Finish Loading SK #2				

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
0505	Depart Starkist		14*16.50' S	170*41.2' W	Calm	80	29.49	Metric	kts	True*
0550	Arrive Edge of Zone	# 1	14*22.51' S	170*38.67' W	East-7	"	"	S/SE-1.5	9.8	163
0620	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	9.6	158
0610	Begin Discharge	# 3	14*24.00' S	170*37.05' W	" "	75	"	X	9.1	024
25		# 4	14*24.13' S	170*37.51' W	" "	"	29.50		9.5	183
40	Remarks	# 5	14*23.62' S	170*37.94' W	" "	"	"		9.4	346
55		# 6	14*24.78' S	170*37.63' W	" "	70	29.49		9.6	184
0710		# 7	14*23.56' S	170*36.97' W	" "	"	"	" 5	9.7	348
25		# 8	14*24.44' S	170*37.48' W	" "	75	"		9.9	180
40		# 9	14*23.21' S	170*37.11' W	"	"	29.50		10.0	309
55		# 10	14*24.67' S	170*37.17' W	" "	80	"		9.7	025
0810		# 11	14*23.38' S	170*37.60' W	" "	"	29.51		9.3	188
25		# 12	14*24.78' S	170*37.17' W	East-5	90	"	10	9.5	021
40		# 13	14*23.41' S	170*37.60' W	" "	"	"		9.4	182
55		# 14	14*23.95' S	170*36.87' W		"			9.7	354
0910		# 15	14*2 S	170*3 W						
25		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0908	Finish Discharge	#15	14*23.35' S	170*37.59' W	East-5	90%	29.51	S/SE-1.5	9.6	184
0915	Exit Discharge Zone	#16	14*22.55' S	170*38.20' W	East-7	90-RAIN	"	" "	10.2	335
1000	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West (slow) Discharge Pattern Ellipse

Total Discharge Time: 178 mins. Average Speed During Discharge: 9.57 kts. Total Time Run 4.9 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 106 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Brook

Date. 03/11/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5263

Permit # OD 93-01 & OD 93-02

Time					
1300	Begin Loading SK	Volume Loaded	SK	193,500	Gallons
1500	Finish Loading SK	Trip # 1 X	SP	0	Gallons
0230	Begin Loading SK #2	Trip # 2	Total	193,500	Gallons
1300	Finish Loading SK #2				

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0510	Depart Starkist		14*16.50' S	170*41.2' W	East-15	90	29.51			
0600	Arrive Edge of Zone	# 1	14*22.53' S	170*38.64' W	East-15	"	29.53	East-1.5	9.1	164
0612	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	East-15	"	29.55		8.9	157
0635	Begin Discharge	# 3	14*23.91 S	170*37.03' W	East-18	80	29.56	East-2.0 X	8.5	014
50		# 4	14*24.20 S	170*37.54 W	East-20	90	"	" "	9.6	183
0705	Remarks Ocean	# 5	14*24.02 S	170*36.95' W	" "		"		9.0	356
20	Monitoring	# 6	14*23.94 S	170*37.56 W	East-22	80	29.57		9.3	177
35	Control Samples	# 7	14*24.28 S	170*37.00 W	" "	"	"	5	9.4	000
50	drawn at 0620	# 8	14*24.23' S	170*37.60' W	" "	"	"		9.4	179
0805	WPt 'C' on Plot	# 9	14*24.28 S	170*36.93 W	East-25	"	"		9.6	358
20		# 10	14*24.33' S	170*37.55 W	" "	"	29.58		9.5	180
35		# 11	14*23.97' S	170*37.00 W			"		9.7	357
50		# 12	14*24.55' S	170*37.56' W			"	10	9.6	178
0905		# 13	14*23.26' S	170*37.07' W			"		9.3	341
20		# 14	14*24.67 S	170*37.52 W			"		9.9	180
35		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0935	Finish Discharge	# 15	14*24.26' S	170*37.01' W	East-25	80	29.58	East-2.0	9.8	359
1042	Exit Discharge Zone	# 16	14*22.59' S	170*38.66' W	" "	10% RAIN	"	" "	10.3	344
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.4 kts. Total Time Run 6.25 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 113.7 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 03/13/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5264

Permit # OD 93-01 & OD 93-02

Time					
	Begin Loading SK		Volume Loaded	SK	Gallons
	Finish Loading SK	Trip # 1 - X		SP 0	Gallons
	Begin Loading SK #2	Trip # 2		Total 187500	Gallons
	Finish Loading SK #2				

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
0605	Depart Starkist		14*16 50' S	170* 41 2 W	East-10	75%	29.51	Metric	kts	True*
0652	Arrive Edge of Zone	# 1	14*22 53' S	170*38 08' W	East-15	90	29.53	East-1.0	8.7	163
0703	Arrive Zone Center	# 2	14*24 0 S	170*38.3 W	" "	"	29.54	" "	9.3	158
0712	Begin Discharge	# 3	14*24.05 S	170*37.19 W	" "	"	"	" " X	9.3	090
7		# 4	14*23.90' S	170*37.56 W	" "	"	29.56	" "	9.6	179
42	Remarks	# 5	14*23.93' S	170*36.95 W	" "	"	)	" "	9.5	358
57		# 6	14*24.14' S	170*37.65' W	East-15	90-Rain		" "	9.8	176
0812		# 7	14*24.11' S	170*36.91 W	" "	85	29.57	5	9.6	000
27		# 8	14*24.20' S	170*37.60 W		80		))	9.7	177
" 42		# 9	14*23.80' S	170*36.94' W	East-20	75	29.55		9.8	359
" 57		# 10	14*24.06' S	170*37.57' W	))	80	"		10.0	174
0912		# 11	14*23.92' S	170*36.95' W		85	29.56		9.6	001
" 27		# 12	14*24.30' S	170*37.59' W		)	"	10	9.8	182
" 42		# 13	14*23.31' S	170*37.07' W	ENE-18		29.57		9.7	305
" 57		# 14	14*24.50' S	170*37.58' W	East-15	80			9.7	179
1012		# 15	14*2 S	170*3 W						
" 27		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1012	Finish Discharge	#15	14*23.22' S	170*37.18' W	East-20	80%	29.57	East-1.0	9.9	331
1014	Exit Discharge Zone	#16	14*22.88' S	170*37.36' W	" "	"	"		10.1	333
1105	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.66 kts. Total Time Run 5.0 hr

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 107.8 Gallons/min/kts

Unusual Occurrences? None

Notifications made A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 03/14/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5265

Permit # OD 93-01 & OD 93-02

Time		
1815	Begin Loading SK	
1930	Finish Loading SK	Trip # 1 X
	Begin Loading SK #2	Trip # 2
	Finish Loading SK #2	

Volume Loaded

SK	[illegible]	Gallons
SP	0	Gallons
Total	[illegible]	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16 50' S	170* 41.2 W	East-15	50	29.53			
0655	Arrive Edge of Zone	# 1	14*22 53 S	170*38 67 W	NE-15	"	29.56	East-1	9.9	161
0705	Arrive Zone Center	# 2	14*24.0 S	170*38 3 W	" "	"	"	" "	10.0	160
0713	Begin Discharge	# 3	14*23.49' S	170*37.34' W	" "	60	"	" " X	9.2	095
" 28		# 4	14*23.58' S	170*37.55 W		"	"		8.8	135
43	Remarks	# 5	14*22.85' S	170*37.53' W	NE-18	40	"		9.5	304
58		# 6	14*24.39' S	170*37.07 W	" "	"	"		9.4	136
0813		# 7	14*22.75' S	170*37.83' W	" "	"	29.57	5	9.9	283
" 28		# 8	14*24.03' S	170*36.91' W	" "	50	"		9.3	349
" 43		# 9	14*23.24' S	170*37.99' W	NE-20	"	"		9.7	140
" 58		# 10	14*23.45' S	170*37.03' W	" "	60	29.58		9.7	338
0913		# 11	14*23.42' S	170*37.84' W	" "	"	29.59		10.0	139
" 28		# 12	14*23.34' S	170*37.04' W	" "	"	"	10	9.4	324
" 43		# 13	14*23.52' S	170*37.77 W	" "	50	"		9.8	137
" 58		# 14	14*2 S	170*3 W						
1013		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0948	Finish Discharge	#14	14*22.73' S	170*37.78' W	NE-20	50%	29.59	East-1	9.9	332
0949	Exit Discharge Zone	#15	14*22.60' S	170*37.84' W	" "	"	"	" "	10.0	333
1040	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center Southwest End of Discharge SW Discharge Pattern Ellipse

Total Discharge Time: 155 mins. Average Speed During Discharge: 9.55 kts Total Time Run 4.5 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 91.2 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A S P A. ✓ U.S C.G.M.S.D. ✓ Master: F/V Blue Moon M. Brook

Date: 03/17/10 F/V Blue Moon Ocean Dumping Log Voyage # 526X 6

Permit # OD 93-01 & OD 93-02

Time					
1330	Begin Loading SK		Volume Loaded	SK	170 000 Gallons
1430	Finish Loading SK	Trip # 1		SP	— Gallons
1500	Begin Loading SK	Trip # 2		Total	170 000 Gallons
1700	Finish Loading SK				

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True°
0360	Depart Starkist		14°16 50'	S	170° 41.2'	W			29.55			
0555	Arrive Edge of Zone	# 1	14°22 4	S	170°38 7	W		70	29.55	1.5	10	167°
0605	Arrive Zone Center	# 2	14°24.0	S	170°38 3	W	ELY 10	70	29.55	1.5	10.5	165°
0615	Begin Discharge	# 3	14°2 4.0	S	170°3 7.1	W	ELY 10	70	29.55	1.5 X	9.4	346
0630		# 4	14°2 3.8	S	170°3 7.7	W	E 10	70	29.55	1.5	10	180
45	Remarks	# 5	14°2 4.0	S	170°3 7.8	W	E 15	70	29.55	1.5	9.4	349
0700		# 6	14°2 3.7	S	170°3 7.7	W	E 15	70	29.55	1.5	10.1	179°
15		# 7	14°2 4.7	S	170°3 7.3	W	E 15	60	29.55	1.5 5	9.3	025°
30		# 8	14°2 2.9	S	170°3 7.7	W	E 15	60	29.55	1.5	9.2	181°
45		# 9	14°2 4.5	S	170°3 7.1	W	E 15	50	29.55	1.5	9.5	026°
0800		# 10	14°2 3.1	S	170°3 7.7	W	E 15	50	29.55	1.5	10.1	186°
15		# 11	14°2 5.2	S	170°3 7.5	W	E 15	50	29.6	1.5	9.7	031°
30		# 12	14°2 3.2	S	170°3 7.3	W	E 15	50	29.6	1.5 10	9.7	340°
45		# 13	14°2 5.2	S	170°3 7.5	W	E 15	50	29.6	1.5	9.6	035°
0900		# 14	14°2 5.3	S	170°3 7.2	W	E 15	50	29.65	1.5	10.2	348°
		# 15	14°2	S	170°3	W						
		# 16	14°2	S	170°3	W						
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
0905	Finish Discharge	15	14°2 2.8	S	170°3 7.7	W	E 15	50	29.65	1.5	9.5	219°
0910	Exit Discharge Zone	16	14°2 2.4	S	170°3 8.1	W	E 15	50	29.65	1.5	10.7	336°
0955	Secure SK Dock		14°16.50'	S	170°41.2'	W						

Current Direction: At Center W End of Discharge W Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.68 kts. Total Time Run 4.9 hr.

Navigational Plot made: yes Presence of Plume? none

Time and position of any floating material: none Discharge Rate: 103.3 Gallons/min/kts

Unusual Occurrences? none

Notifications made: A.S.P.A. ✓ U.S.C.G.M S.D. ✓ Master. F/V Blue Moon [signature]

Date 03/19/10 — F/V Blue Moon Ocean Dumping Log — Voyage #: 5267

Permit # OD 93-01 & OD 93-02

Time					
1320	Begin Loading SK		Volume Loaded	SK	186000 Gallons
1530	Finish Loading SK	Trip # 1		SP	Gallons
1300	Begin Loading SK	Trip # 2		Total	186000 Gallons
1700	Finish Loading SK				

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True°
0515	Depart Starkist		14°16.50'	S	170°41.2'	W						
0620	Arrive Edge of Zone	# 1	14°22.4	S	170°38.1	W		50	29.6	2.4	9.7	168°
0613	Arrive Zone Center	# 2	14°24.0	S	170°38.3	W	SE 20	50	29.6	1.5	9.5	151°
0625	Begin Discharge	# 3	14°24.8	S	170°37.2	W	SE 20	50	29.6	1.5 X	9.5	130
25		# 4	14°24.1	S	170°37.4	W	SE 20	50	29.6	1.5	10	146°
50	Remarks	# 5	14°24.50	S	170°37.4	W	SE 20	50	29.6	1.5	8.9	035°
0705		# 6	14°23.9	S	170°37.4	W	SE 20	50	29.6	1.5	10	226°
20		# 7	14°25.2	S	170°37.9	W	SE 20	50	29.6	1.5 5	8.8	033°
35		# 8	14°22.7	S	170°37.2	W	SE 20	50	29.6	1.5	10.3	224°
50		# 9	14°23.6	S	170°37.6	W	SE 20	50	29.6	1.5	8.9	039°
0805		# 10	14°23.6	S	170°37.8	W	SE 20	50	29.6	1.5	9.9	227°
20		# 11	14°25.2	S	170°37.8	W	SE 20	50	29.6	1.5	9.5	061°
35		# 12	14°23.6	S	170°37.1	W	SE 20	50	29.6	1.5 10	9.8	220°
50		# 13	14°25.2	S	170°35.6	W	SE 20	50	29.6	1.5	7.3	063°
0905		# 14	14°23.7	S	170°37.1	W	SE 20	50	29.6	1.5	10	222°
20		# 15	14°25.1	S	170°38.6	W	SE 20	50	29.6	1.5	9.5	012°
		# 16	14°2	S	170°3	W						
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
0925	Finish Discharge	16	14°24.9	S	170°37.7	W	SE 20	50	29.6	1.5	10	062°
0940	Exit Discharge Zone	17	14°22.7	S	170°38.5	W	SE 20	50	29.6	1.5	10.2	345°
1025	Secure SK Dock		14°16.50'	S	170°41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 185 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 5.16 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 1013 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master. F/V Blue Moon [signature]

Date 03/21/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5268

Permit # OD 93-01 & OD 93-02

Time					
1300	Begin Loading SK		Volume Loaded	SK	153750 Gallons
1440	Finish Loading SK	Trip # 1		SP	Gallons
1400	Begin Loading SK	Trip # 2		Total	153750 Gallons
1930	Finish Loading SK				

		WP#	GPS Position				Wind	Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True°
0650	Depart Starkist		14°16 50'	S	170° 41 2	W		30	29.55			
0737	Arrive Edge of Zone	# 1	14°22	S	170°38.7	W	SE 15	20	29.55	1.5	9.2	164°
0745	Arrive Zone Center	# 2	14°24 0	S	170°38 3	W	SE15	30	29.55	1.5	9	163°
0750	Begin Discharge	# 3	14°2 4.2	S	170°3 7.3	W	SE15	30	29.55	1.5 X	9.9	163°
0805		# 4	14°2 3.3	S	170°3 7.6	W	SE15	30	29.55	1.5	9.8	153°
10	Remarks.	# 5	14°2 5.1	S	170°3 7.6	W	SE15	30	29.55	1.5	9.9	027°
25		# 6	14°2 3.1	S	170°3 7.2	W	SE15	30	29.55	1.5	9	348°
50		# 7	14°2 4.7	S	170°3 7.8	W	SE20	30	29.55	1.5 5	10	167°
0905		# 8	14°2 3.7	S	170°3 7.1	W	SE20	30	29.55	1.5	9.5	352°
20		# 9	14°2 4.3	S	170°3 7.7	W	SE20	30	29.55	1.5	10.1	187°
35		# 10	14°2 4.1	S	170°3 7.1	W	SE20	50	29.55	1.5	9.8	356°
50		# 11	14°2 4.3	S	170°3 7.7	W	SE20	50	29.55	1.5	10.5	158°
1005		# 12	14°2 3.8	S	170°3 7.1	W	SE20	50	29.55	1.5 10	9.4	352°
20		# 13	14°2 4.2	S	170°3 7.7	W	SE20	50	29.55	1.5	10.1	188°
35		# 14	14°2 3.7	S	170°3 7.1	W	SE20	50	29.55	1.5	10.1	356°
		# 15	14°2	S	170°3	W						
		# 16	14°2	S	170°3	W						
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
1050	Finish Discharge	15	14°2 3.2	S	170°3 7.2	W	SE20	50	29.55	1.5	9.7	357°
1050	Exit Discharge Zone	16	14°2 3.2	S	170°3 7.2	W	SE20	20	29.55	1.5	9.8	330°
1140	Secure SK Dock		14°16.50'	S	170°41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.7 kts. Total Time Run 4.83 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 105.2 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master F/V Blue Moon

Date: 03/24/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5269

Permit # OD 93-01 & OD 93-02

Time					
	Begin Loading SK		Volume Loaded	SK	185 000 Gallons
	Finish Loading SK	Trip # 1		SP	Gallons
	Begin Loading SK	Trip # 2		Total	185 000 Gallons
	Finish Loading SK				

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True°
1230	Depart Starkist		14°16 50'	S	170° 41 2	W	SE 15	30	29.55			
1325	Arrive Edge of Zone	# 1	14°22 4	S	170°38 7	W	SE15	30	29.55	1.5	9	167°
1325	Arrive Zone Center	# 2	14°24 0	S	170°38 3	W	SE15	30	29.65	1.5	8.8	141°
1345	Begin Discharge	# 3	14°2 4.4	S	170°3 7.3	W	SE15	30	29.55	1.5 X	8.9	115°
1400		# 4	14°2 3.6	S	170°3 7.3	W	SE 15	30	29.55	1.5	9.1	222°
15	Remarks	# 5	14°2 5.3	S	170°3 7.9	W	SE15	30	29.55	1.5	9.7	208°
30		# 6	14°2 4.1	S	170°3 7.0	W	SE15	30	29.55	1.5	9.4	001°
45		# 7	14°2 4.1	S	170°3 7.6	W	SE 15	30	29.55	1.5 5	9.8	206°
1500		# 8	14°2 5.3	S	170°3 7.8	W	SE15	30	29.55	1.5	9	055°
15		# 9	14°2 4.1	S	170°3 7.5	W	SE15	30	29.55	1.5	9.6	206°
30		# 10	14°2 4.8	S	170°3 7.9	W	SE15	50	29.55	1.5	9.4	209°
45		# 11	14°2 4.5	S	170°3 7.1	W	SE 15	50	29.55	1.5	9.2	015°
1600		# 12	14°2 3.9	S	170°3 7.5	W	SE 15	50	29.55	1.5 10	9.9	206°
15		# 13	14°2 5.0	S	170°3 7.5	W	SE 15	50	29.55	1.5	9.7	044°
30		# 14	14°2 4.4	S	170°3 7.0	W	SE 15	50	29.55	1.5	10	015°
		# 15	14°2	S	170°3	W						
		# 16	14°2	S	170°3	W						
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
1635	Finish Discharge	15	14°2 4.0	S	170°3 7.1	W	SE 15	50	29.55	1.5	10	022°
1645	Exit Discharge Zone	16	14°2 2.7	S	170°3 7.7	W	SE15	50	29.55	1.5	10	334°
1735	Secure SK Dock		14°16.50'	S	170°41.2'	W						

Current Direction: At Center HW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.5 kts. Total Time Run 5.08 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 114 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made A.S.P.A ✓ U.S.C.G.M.S.D. ✓ Master F/V Blue Moon

Date: 03/26/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5270

Permit # OD 93-01 & OD 93-02

Time	
1800	Begin Loading SK
1945	Finish Loading SK
1300	Begin Loading SK
1710	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded		
SK	170000	Gallons
SP		Gallons
Total	170000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6	Metric	kts	True*
0605	Arrive Edge of Zone	# 1	14*22 4	S	170*38.7	W	SE 15	50	29.6	1	9.4	166°
0614	Arrive Zone Center	# 2	14*24 0	S	170*38.3	W	SE 15	50	29.6	1	9.4	162°
0620	Begin Discharge	# 3	14*2 4.4	S	170*3 7.5	W	SE 15	50	29.6	1 X	9.2	114°
35		# 4	14*2 3.8	S	170*3 7.5	W	SE 15	50	29.6	1	9.9	289°
50	Remarks	# 5	14*2 4.8	S	170*3 7.5	W	SE 15	50	29.6	1	8.8	090°
0905		# 6	14*2 3.2	S	170*3 7.3	W	SE 15	50	29.6	1	9.8	219°
20		# 7	14*2 5.4	S	170*3 8.5	W	SE 15	50	29.6	1 5	9.8	198°
35		# 8	14*2 4.4	S	170*3 7.2	W	SE 15	50	29.6	1	9.7	015°
50		# 9	14*2 4.5	S	170*3 8.0	W	SE 15	50	29.6	1	10	210°
0805		# 10	14*2 4.8	S	170*3 7.4	W	SE 15	40	29.6	1	9.5	046°
20		# 11	14*2 3.8	S	170*3 7.5	W	SE 15	40	29.6	1	10	218°
35		# 12	14*2 4.5	S	170*3 7.3	W	SE 15	40	29.6	1 10	9.5	021°
50		# 13	14*2 3.9	S	170*3 7.8	W	SE 15	40	29.6	1	10	210°
0905		# 14	14*2 4.9	S	170*3 7.6	W	SE 15	40	29.6	1	9.6	047°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0920	Finish Discharge	15	14*2 3.7	S	170*3 7.4	W	SE 15	40	29.6	1	9.8	239°
0930	Exit Discharge Zone	16	14*2 2.7	S	170*3 8.0	W	SE 15	40	29.6	1	10.1	338°
1020	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 5.08 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 98.3 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon [signature]

Date: 03/28/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5271

Permit # OD 93-01 & OD 93-02

Time	
1400	Begin Loading SK
1545	Finish Loading SK
1545	Begin Loading SK
2040	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded		
SK		Gallons
SP		Gallons
Total	168 750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True°
0600	Depart Starkist		14°16 50'	S	170° 41 2'	W						
0650	Arrive Edge of Zone	# 1	14°22	S	170°38	W						
0700	Arrive Zone Center	# 2	14°24.0	S	170°38 3	W						
0710	Begin Discharge	# 3	14°2 4.5	S	170°3 7.5	W	SE 15	70	29.55	1.5 X	9.5	084°
25		# 4	14°2 3.6	S	170°3 6.7	W	SE15	70	29.55	1.5	9.3	216°
40	Remarks	# 5	14°2 3.9	S	170°3 7.5	W	SE15	70	29.55	1.5	9.7	214°
55		# 6	14°2 4.6	S	170°3 7.2	W	SE 15	70	29.55	1.5	9	020°
0810		# 7	14°2 5.0	S	170°3 7.8	W	SE15	70	29.55	1.5 5	8.8	056°
25		# 8	14°2 4.1	S	170°3 7.3	W	SE 15	70	29.55	1.5	10.2	216°
40		# 9	14°2 3.6	S	170°3 6.8	W	SE15	70	29.55	1.5	9.4	110°
55		# 10	14°2 4.8	S	170°3 8.1	W	SE15	70	29.55	1.5	10.5	215°
0910		# 11	14°2 5.0	S	170°3 7.7	W	SE15	70	29.60	1.5	9.3	054°
25		# 12	14°2 3.7	S	170°3 7.2	W	SE15	70	29.6	1.5 10	10.2	220°
40		# 13	14°2 5.1	S	170°3 7.9	W	SE15	70	29.6	1.5	9.6	055°
		# 14	14°2	S	170°3	W						
		# 15	14°2	S	170°3	W						
		# 16	14°2	S	170°3	W						
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
0955	Finish Discharge	14	14°2 3.7	S	170°3 6.8	W	SE15	70	29.6	1.5	9.3	013°
0958	Exit Discharge Zone	15	14°2 2.7	S	170°3 7.5	W	SE15	70	29.6	1.5	10	328°
1050	Secure SK Dock		14°16.50'	S	170°41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

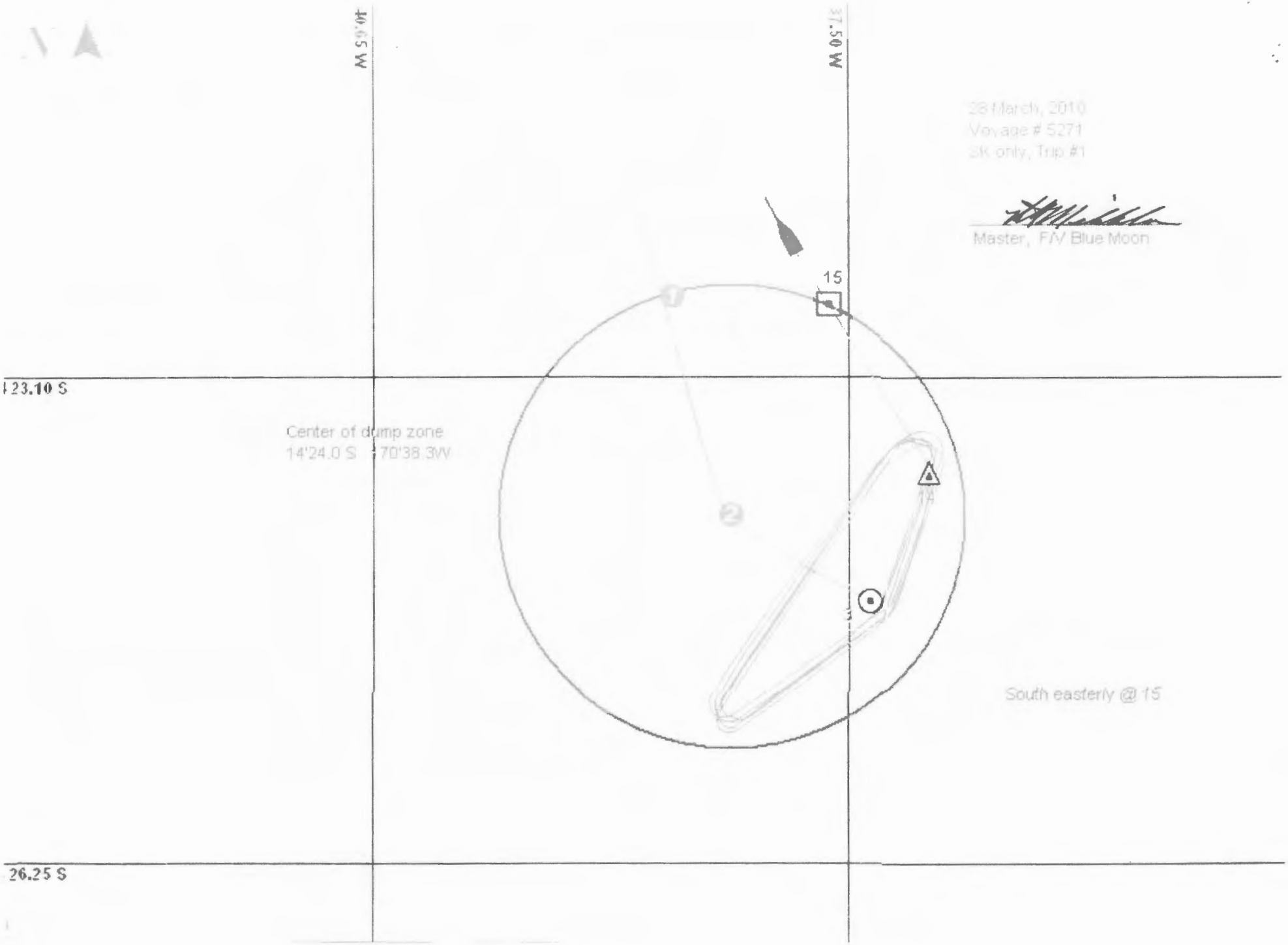
Total Discharge Time: 165 mins. Average Speed During Discharge: 9.5 kts. Total Time Run 9.83 hr.

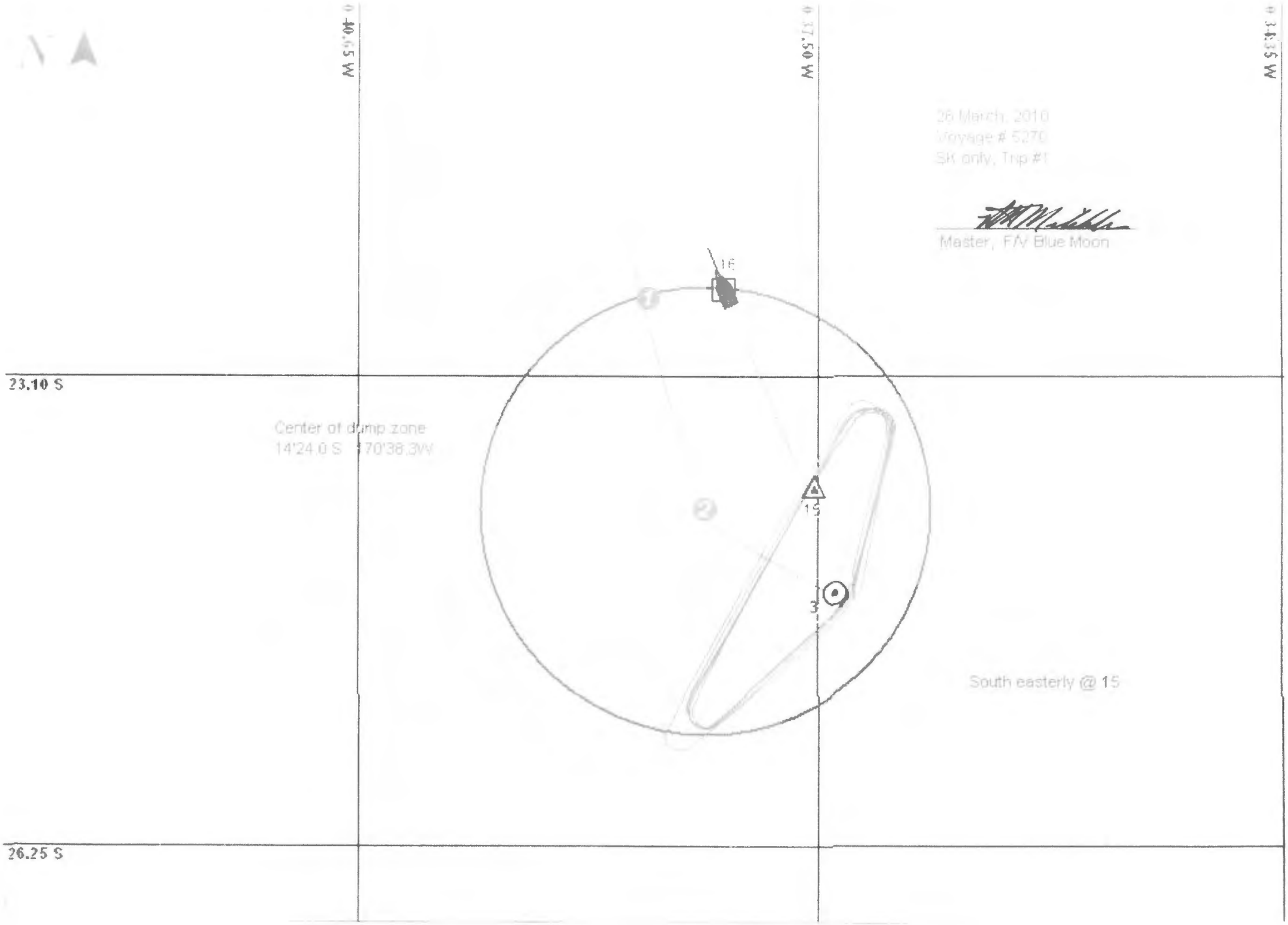
Navigational Plot made: yes Presence of Plume? NONE

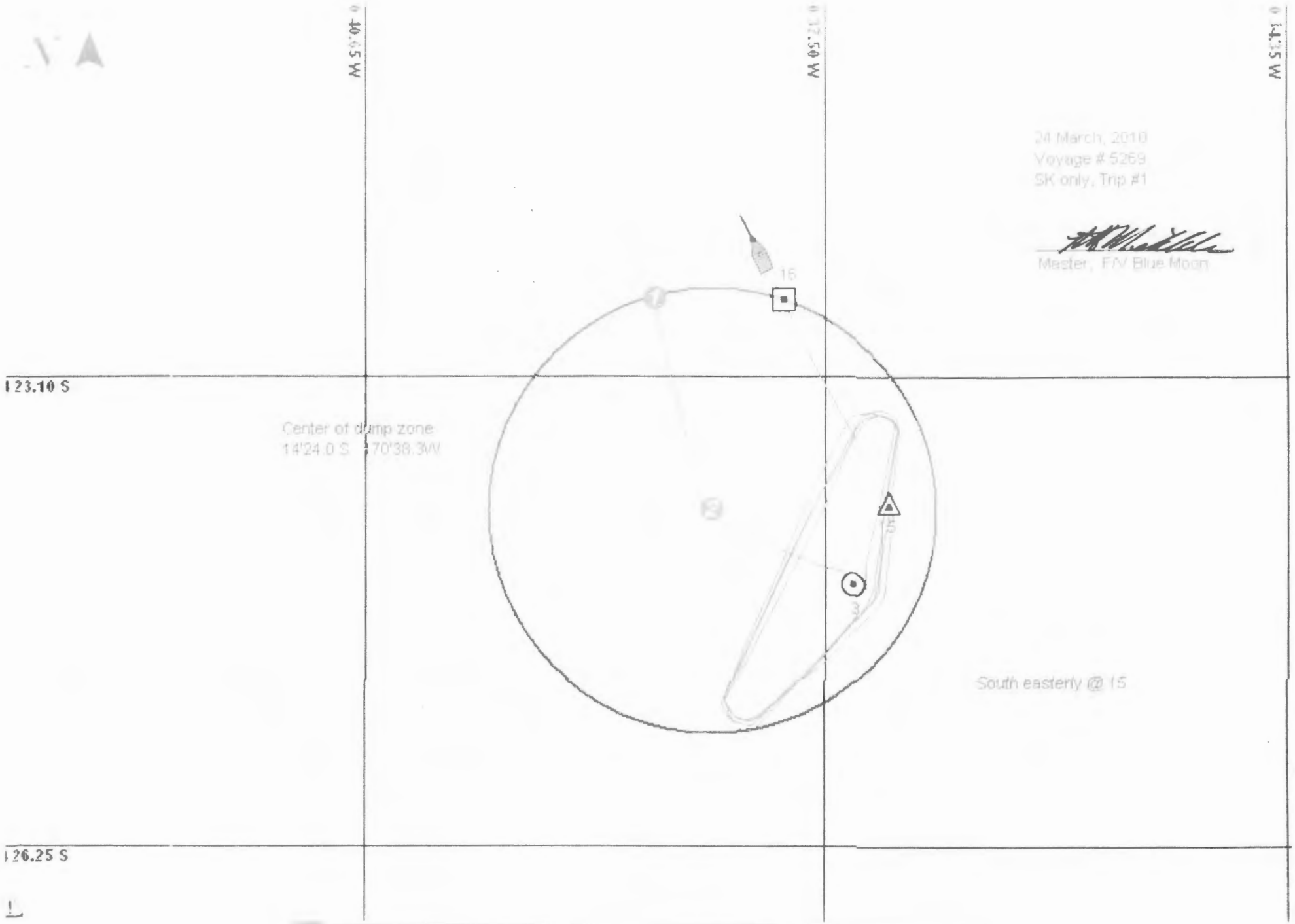
Time and position of any floating material: NONE Discharge Rate: 107 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A ✓ U.S.C.G.M.S.D. ✓ Master F/V Blue Moon [signature]

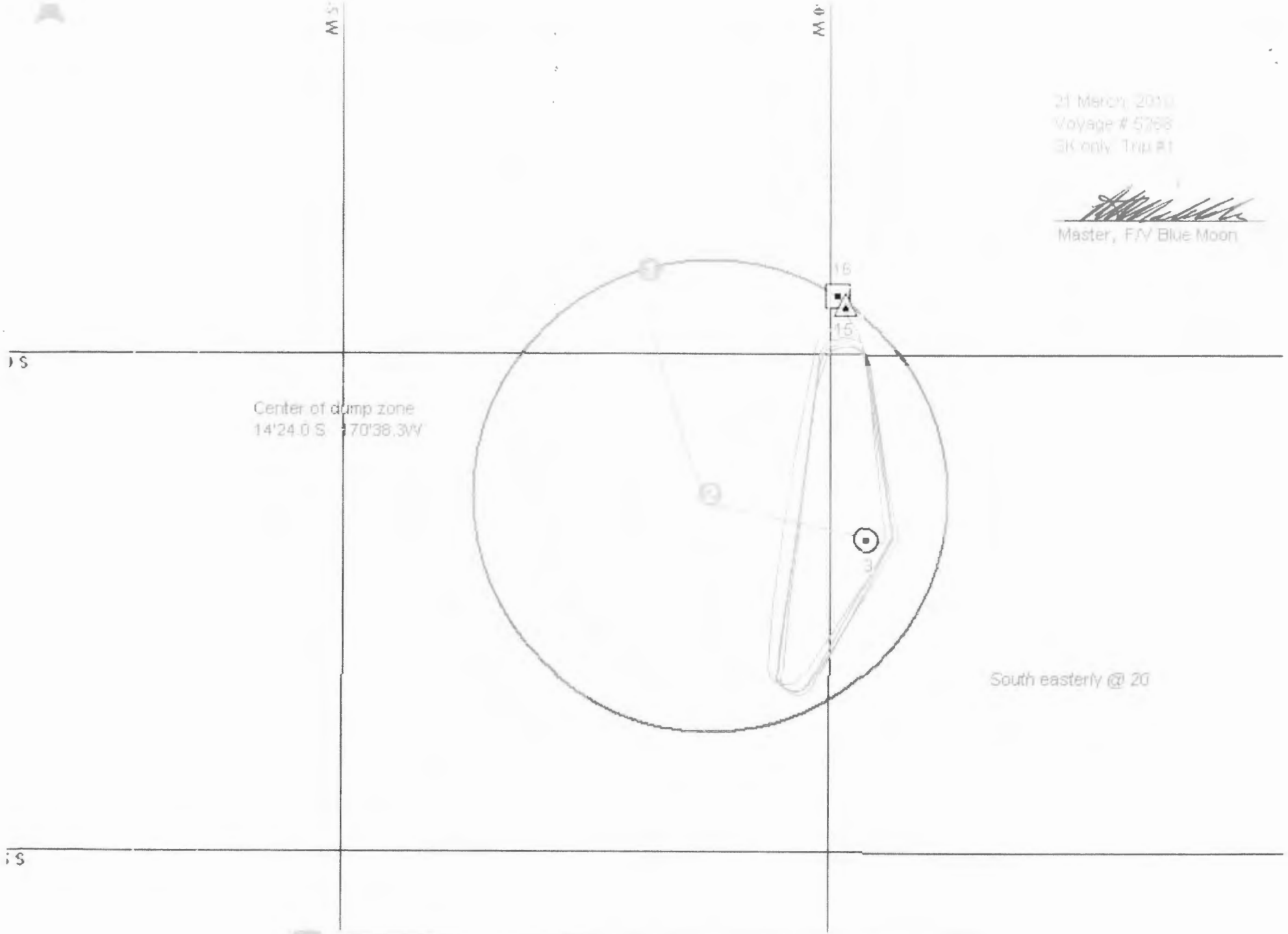

40.65 W
37.50 W
28 March, 2010
Voyage # 5271
SK only, Trip #1
Master, F/V Blue Moon
15
23.10 S
Center of dump zone
14°24.0 S 70°38.3W
South easterly @ 15
26.25 S

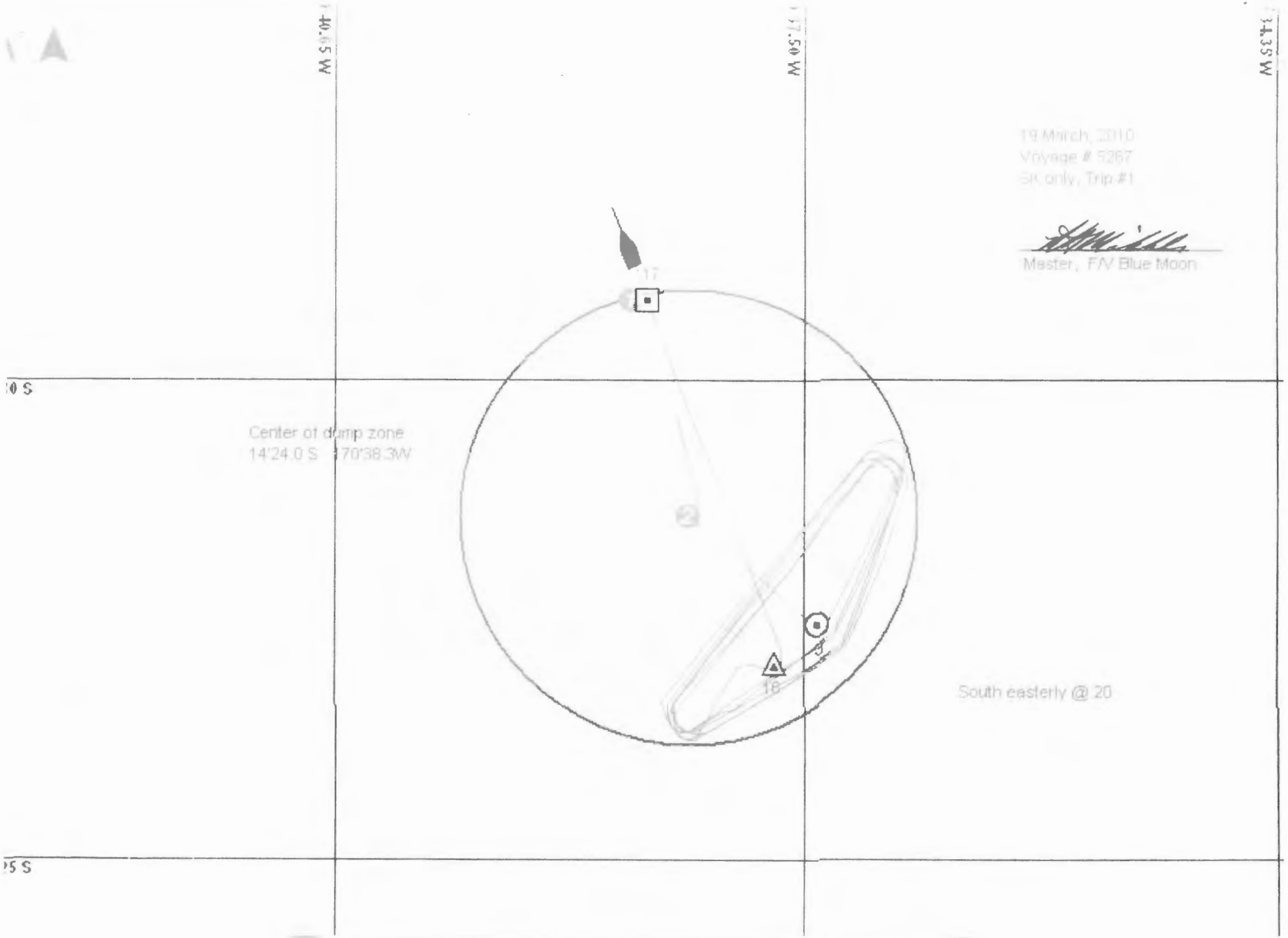

0 40.65 W
0 37.50 W
0 34.35 W
23.10 S
26.25 S
26 March, 2010
Voyage # 5270
SK only, Trip #1
Master, F/V Blue Moon
1E
1
2
3
Center of dump zone
14°24.0 S 170°38.3W
South easterly @ 15

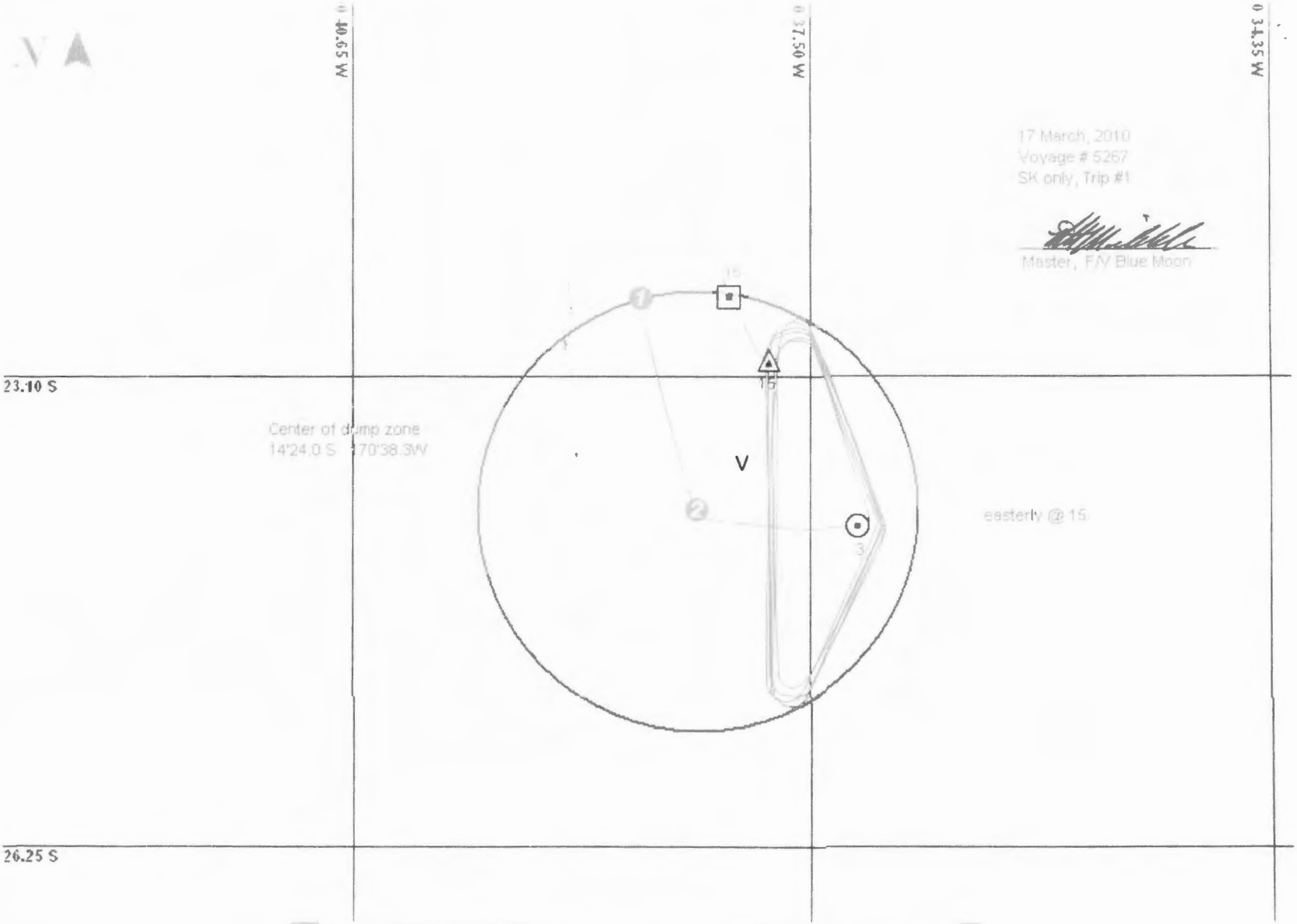

24 March, 2010
Voyage # 5269
SK only, Trip #1
Master, F/V Blue Moon
16
Center of dump zone
14'24.0 S 170'38.3W
South easterly @ 15
123.10 S
126.25 S

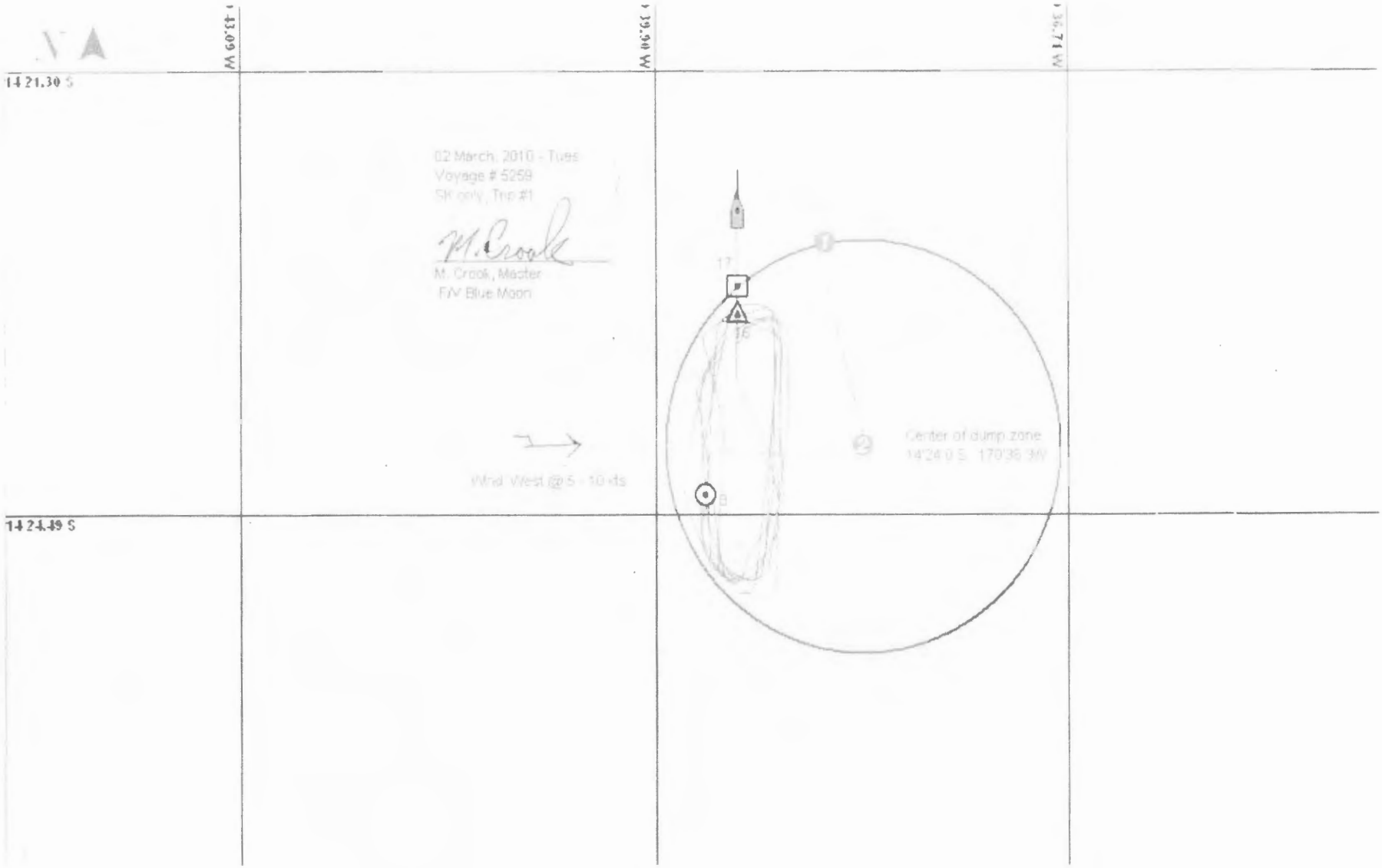
21 March 2010
Voyage # 5268
3K only Trip #1

Master, F/V Blue Moon




40.5 W
37.50 W
34.35 W
0 S
5 S
17
2
18
Center of dump zone
14°24.0 S 70°38.3W
South easterly @ 20
19 March, 2010
Voyage # 5267
SK only, Trip #1
Master, F/V Blue Moon

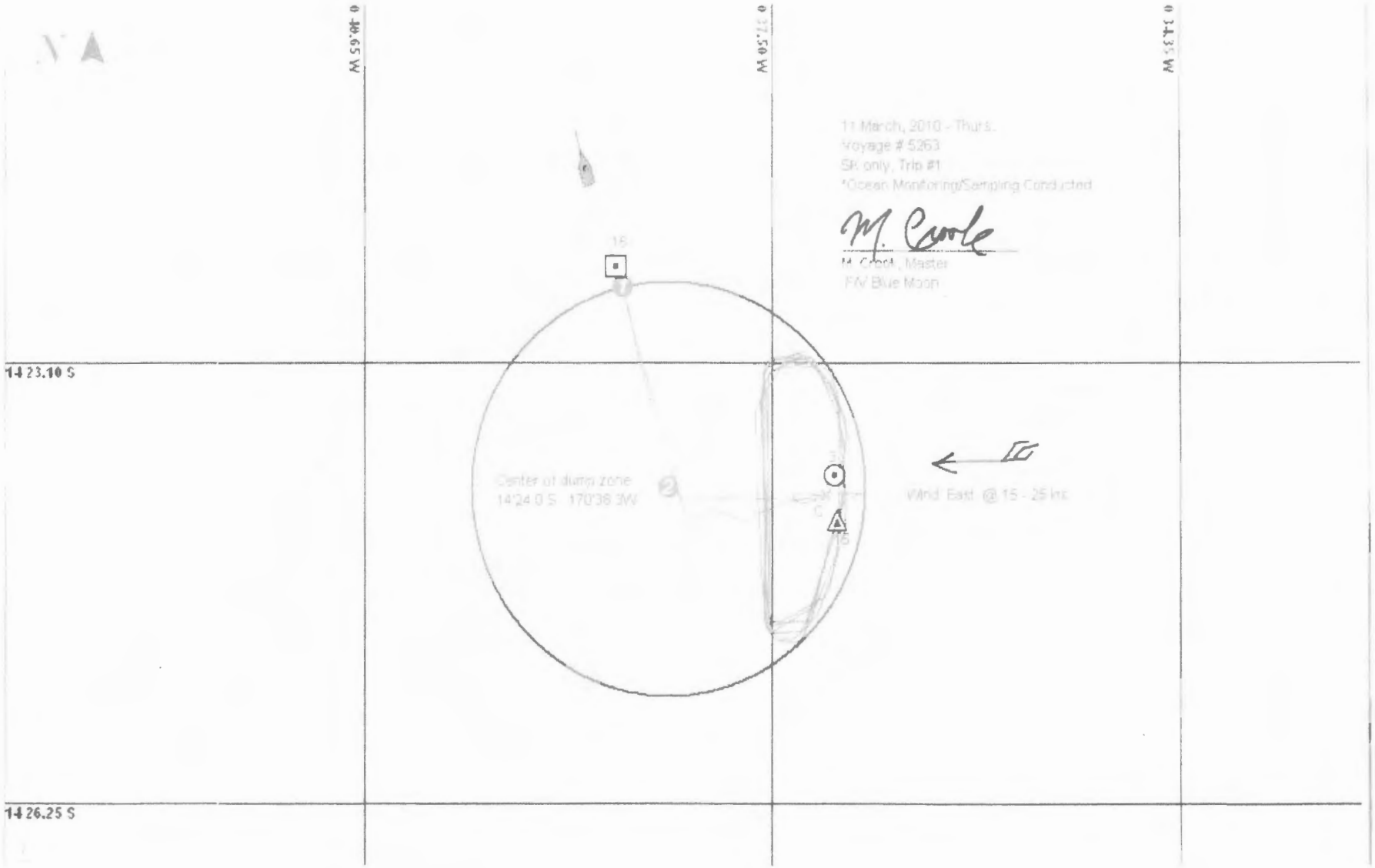

0 40.65 W
0 37.50 W
0 34.35 W
23.10 S
26.25 S
17 March, 2010
Voyage # 5267
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
V
easterly @ 15
15
1
2
3


14 21.30 S
14 24.49 S
02 March, 2010 - Tues
Voyage # 5259
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind West @ 5 - 10 kts
17
16
8
Center of dump zone
14°24.0 S 170°36.3W

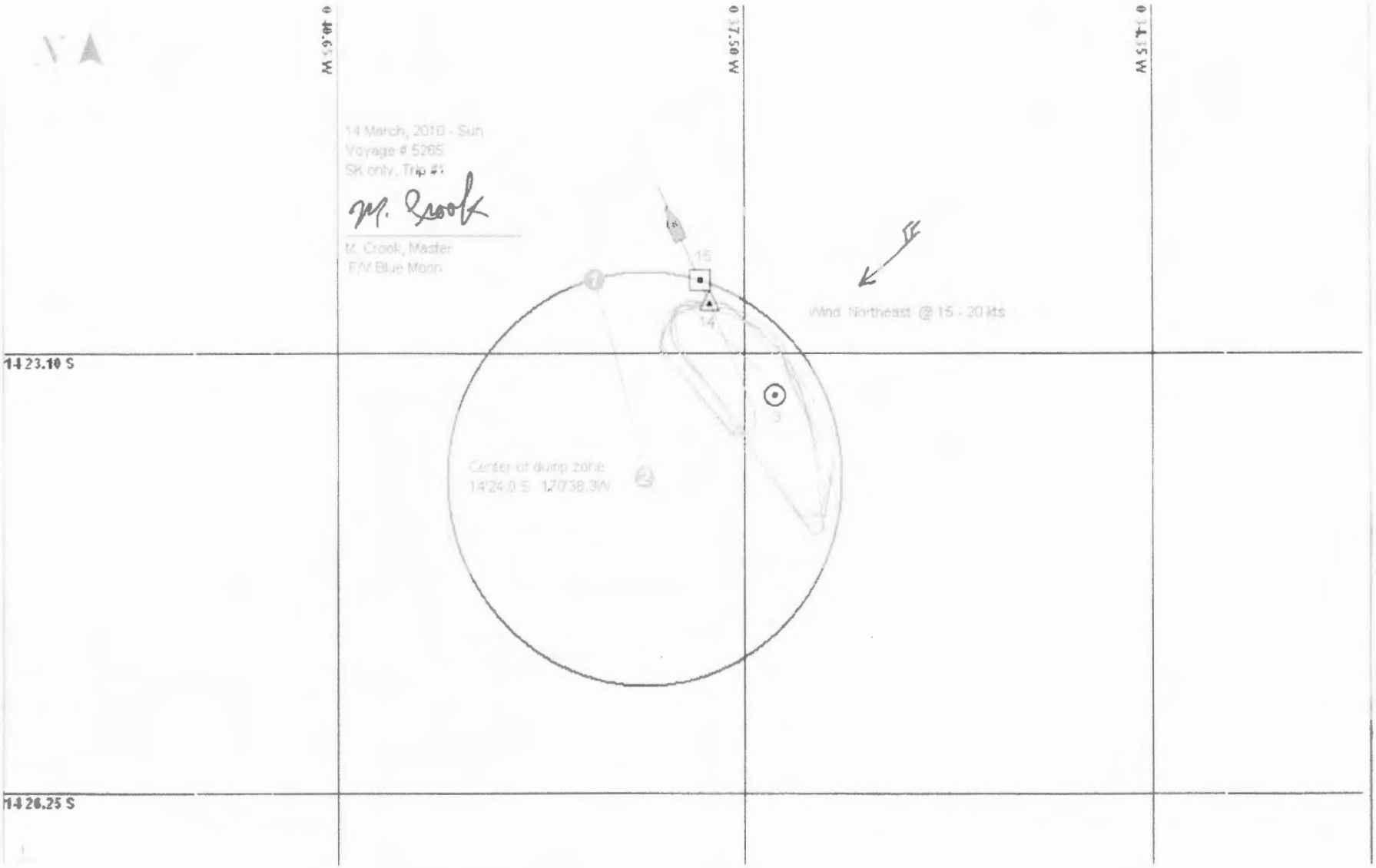
0 43.09 W
0 39.90 W
0 36.71 W
0 33.52 W
14 21.30 S
14 24.49 S
Wind WNW @ 7 - 10 Kts
17
16
1
2
Center of dump zone
14°24.0'S 170°38.3'W
04 March, 2010 - Thurs.
Voyage # 5260
Sk only. Trip #1
M. Crook
M. Crook, Master
F/V Blue Moon

0 13.09 W
0 33.90 W
0 36.71 W
0 33.52 W
14 21.30 S
14 24.49 S
06 March, 2010 - Sat
Voyage # 5261
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
Wind: Calm or variable to 5 kts
1
2
3
15
17

0 14.09 W
0 33.90 W
0 34.71 W
0 33.52 W
14 21.30 S
14 24.49 S
08 March, 2010 - Tues.
Voyage # 5252
Sk only Trip #1
M. Crook, Master
F/V Blue Moon
16
15
Center of dump zone
14°24.0 S 170°38.3W
Wind: East @ 5 - 7 kts


11 March, 2010 - Thurs.
Voyage # 5263
SK only, Trip #1
*Ocean Monitoring/Sampling Conducted
M. Cook, Master
F/V Blue Moon
Center of dump zone
14°24.0 S 170°36.3W
Wind: East @ 15 - 25 kts
14 23.10 S
14 26.25 S

0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
14 26.25 S
13 March, 2010 - Sat
Voyage # 5264
SK only Trip #1
M. Crook, Master
F/V Blue Moon
1B
1A
3
Center of dump zone
14°24.0 S 170°38.3W
Wind East @ 15 - 20 kts


14 March, 2010 - Sun
Voyage # 5285
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind Northeast @ 15 - 20 kts
Center of dump zone
14°24.0'S 170°38.3'W
14 23.10 S
14 26.25 S

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON March ~~2009~~ 2010

NUMBER OF TRIPS	SK	SP	JOINT	TOTAL
	13	0	0	13

GALLONS FOR THE MONTH	SK	SP	JOINT	TOTAL
	2,268,750	0	0	2,268,750

GALLONS FOR SOLO TRIPS	SK	SP
	2,268,750	0

RUNNING TIME ON TRIPS	66.46 hrs
DISCHARGE TIME ON TRIPS	38.63 hrs
AVG GPM DISCHARGE RATE	102.1 g/m/k
AVG TRIP TIME	5.11 hrs

AVG PERCENTAGE OF VESSEL USED BY EACH CANNERY BY GALLONAGE

SK	COS
[illegible]	0.00%

MASTER [signature]

STAR KIST SAMOA CO
WATER TREATMENT DEPARTMENT

BLUE MOON - OCEAN DUMPING LOG

Reporting Date April 01, 2010

1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Volume
1st Trip	1230 1930 (172500)		2nd Trip	NONE	0
1st Trip	1400 1530 (37500)	172500	2nd Trip	NONE	0
1st Trip	1300 1800 (135000)		2nd Trip	NONE	0
1st Trip	1400 1530 (37500)	172500	2nd Trip	NONE	0
1st Trip	1300 1730 (132500)		2nd Trip	NONE	0
1st Trip	NONE	170000	2nd Trip	NONE	0
1st Trip	NONE		2nd Trip	NONE	0
1st Trip	1330 1440 (181250)		2nd Trip	NONE	0
1st Trip	1300 1500 (40000)	181250	2nd Trip	NONE	0
1st Trip	0730 1330 (152500)		2nd Trip	NONE	0
1st Trip	1300 1500 (62500)	192500	2nd Trip	NONE	0
1st Trip	1630 1930 (125000)		2nd Trip	NONE	0
1st Trip	1015 1230 (1010 1155)	187500	2nd Trip	NONE	0
1st Trip	NONE	135000	2nd Trip	NONE	0
1st Trip	1330 1430 (40000)		2nd Trip	NONE	0
1st Trip	1300 1700 (130000)		2nd Trip	NONE	0
1st Trip	1300 1630 (60000)	170000	2nd Trip	NONE	0
1st Trip	1300 1700 (120000)		2nd Trip	NONE	0
1st Trip	1330 1445 (53750)	180000	2nd Trip	NONE	0
1st Trip	1300 1930 (130000)		2nd Trip	NONE	0
1st Trip	NONE	183750	2nd Trip	NONE	0
1st Trip	1330 1530 (37500)		2nd Trip	NONE	0
1st Trip	1830 2300 (147500)		2nd Trip	NONE	0
1st Trip	1530 1645 (53750)	185000	2nd Trip	NONE	0
1st Trip	1330 1730 (116250)		2nd Trip	NONE	0
1st Trip	1530 1645 (43750)	170000	2nd Trip	NONE	0
1st Trip	1545 2040 (125000)		2nd Trip	NONE	0
1st Trip	NONE	188750	2nd Trip	NONE	0
1st Trip	NONE		2nd Trip	NONE	0
1st Trip	1330 1430 (36250)		2nd Trip	NONE	0
1st Trip	1930 2015 (147500)		2nd Trip	NONE	0
1st Trip		2,268,750	2nd Trip		0
				Total 1st & 2nd	2,268,750

Date: 03/02/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5259

Permit # OD 93-01 & OD 93-02

Time					
1200	Begin Loading SK		Volume Loaded	SK	172,500 Gallons
1920	Finish Loading SK	Trip # 1 X		SP	0 Gallons
	Begin Loading SK #2	Trip # 2		Total	172,500 Gallons
	Finish Loading SK #2				

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0500	Depart Starkist		14*16.50'	S	170* 41 2'	W	Calm	80	29.46			
0548	Arrive Edge of Zone	# 1	14*22 52	S	170*38 66	W	W 4-5	70	29.45	S/SE-1.0	9.1	162
0558	Arrive Zone Center	# 2	14*24 0	S	170*38.3	W	" - 10			S/SE-1.5	9.0	155
0608	Begin Discharge	# 3	14*2 4.21	S	170*3 9.51	W		100 Rain	29.45	X	9.6	159
23		# 4	14*2 4.24	S	170*3 9.55	W		70			9.5	000
33	Remarks.	# 5	14*2 4.07	S	170*3 9.67	W			29.45		9.6	181
53		# 6	14*2 3.90	S	170*3 9.02	W	W-7	100	29.46		9.2	002
0703		# 7	14*2 3.81	S	170*3 9.48	W			29.47	5	9.7	180
23		# 8	14*2 3.82	S	170*3 8.77	W			29.46		9.6	000
35		# 9	14*24.81	S	170*3 9.45	W			29.47		9.3	141
53		# 10	14*23.30	S	170*3 8.87	W			"		9.5	350
0808		# 11	14*2 4.94	S	170*3 9.22	W			"		8.8	087
23		# 12	14*2 3.12	S	170*3 9.31	W			"	10	9.6	210
35		# 13	14*24.27	S	170*3 8.94	W	W-5		"		9.9	354
53		# 14	14*2 3.79	S	170*3 9.01	W			29.45		10.0	176
0908		# 15	14*24.36	S	170*3 8.96	W					9.6	358
23		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0915	Finish Discharge	#16	14*2 3.05	S	170*3 9.28	W	W-5	100	29.46	S/SE-1.5	9.7	000
0917	Exit Discharge Zone	#17	14*2 2.93	S	170*3 9.29	W	"	"	" "	" "	9.8	358
1005	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center East End of Discharge East Discharge Pattern Ellipse

Total Discharge Time: 187 mins. Average Speed During Discharge: 9.5 kts. Total Time Run 5.1 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 97 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A S P.A ✓ U.S.C.G M.S.D ✓ Master: F/V Blue Moon M. Crook

Date: 03/04/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5260

Permit # OD 93-01 & OD 93-02

	Time					
3/2	1400	Begin Loading SK	Volume Loaded	SK	172,500	Gallons
"	1530	Finish Loading SK	Trip # 1 X	SP	0	Gallons
3/3	1300	Begin Loading SK #2	Trip # 2	Total		Gallons
"	1800	Finish Loading SK #2				

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0515	Depart Starkist		14*16.50' S	170*41.2' W	NW-10	100	29.40			
0603	Arrive Edge of Zone	# 1	14*22.54' S	170*38.62 W	" "	90	29.42	mixed-1.5	9.1	159
0613	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	NW-7	"	" "	" "	8.7	186
0622	Begin Discharge	# 3	14*24.32' S	170*39.52' W	WNW-10	"	" "	" " X	9.1	188
37		# 4	14*24.24' S	170*38.83' W	" "	"	" "	" "	9.6	347
52	Remarks	# 5	14*24.19' S	170*39.65' W	" "		"		9.5	173
0707		# 6	14*24.20' S	170*38.82' W	" "		"		9.7	354
22		# 7	14*23.76' S	170*39.66' W	WNW-7		29.41	5	9.9	187
37		# 8	14*24.37' S	170*38.82' W	" "		29.42		9.8	002
52		# 9	14*23.78' S	170*39.64' W	" "				10.0	181
0807		# 10	14*24.50' S	170*38.90' W	" "				9.8	001
" 22		# 11	14*23.80' S	170*39.61' W	WNW-10				10.0	180
" 37		# 12	14*23.64' S	170*38.68' W	" "			10	9.6	353
52		# 13	14*24.31' S	170*39.57' W	" "				10.0	182
0907		# 14	14*24.12' S	170*38.82' W			29.41		9.8	003
22		# 15	14*24.45' S	170*39.54' W			"		10.0	181
37		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0935	Finish Discharge	# 16	14*23.89' S	170*38.94' W	WNW-10	90%	29.41	Mixed-1.5	10.0	347
0944	Exit Discharge Zone	# 17	14*22.78' S	170*39.11' W	" "	"	"	" "	10.4	345
1035	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center East End of Discharge East (slow) Discharge Pattern Ellipse

Total Discharge Time: 193 mins. Average Speed During Discharge: 9.77 kts. Total Time Run 5.33 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 91.5 Gallons/min/kts

Unusuall Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M Crook

Date: 03/06/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5261

Permit # OD 93-01 & OD 93-02

	Time					
3/4	1400	Begin Loading SK		Volume Loaded	SK	170,000 Gallons
	1530	Finish Loading SK	Trip # 1 X		SP	0 Gallons
3/5	1300	Begin Loading SK #2	Trip # 2		Total	170,000 Gallons
	1730	Finish Loading SK #2				

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True°
0610	Depart Starkist		14°16.50' S	170°41.2' W	Calm	30	29.47			
0705	Arrive Edge of Zone	# 1	14°22.51' S	170°38.68' W	VAR-5	40	29.49	S/SE-2.0	9.3	156
0715	Arrive Zone Center	# 2	14°24.0 S	170°38.3 W	SW-5	"	"	" "	9.5	163
0725	Begin Discharge	# 3	14°24.21' S	170°39.51' W	Calm	50	"	" " X	8.8	180
40		# 4	14°23.71' S	170°38.88' W	"	"	"		9.7	355
55	Remarks	# 5	14°24.59' S	170°39.50' W	"	"	"		9.5	161
0810		# 6	14°23.75' S	170°38.81' W			"		9.4	356
25		# 7	14°25.02' S	170°39.31' W			"	5	9.6	164
40		# 8	14°23.27 S	170°38.53' W			"		9.9	343
55		# 9	14°24.80' S	170°38.92' W			"		9.2	011
0910		# 10	14°23.09' S	170°38.91' W			29.50		9.0	266
25		# 11	14°24.39 S	170°38.96 W					9.7	009
40		# 12	14°23.26' S	170°39.42' W				10	10.0	179
55		# 13	14°23.79' S	170°38.85' W		60			10.0	002
1010		# 14	14°24.64' S	170°39.36' W					9.3	325
25		# 15	14°24.00' S	170°39.45' W	East-3				9.9	184
		# 16	14°2 S	170°3 W						
		# 17	14°2 S	170°3 W				15		
		# 18	14°2 S	170°3 W						
		# 19	14°2 S	170°3 W						
		# 20	14°2 S	170°3 W						
			14°2 S	170°3 W						
			14°2 S	170°3 W				20		
			14°2 S	170°3 W						
1040	Finish Discharge	#16	14°24.13' S	170°38.88' W	East-2	60	29.50	S/SE-2.0	10.0	357
1050	Exit Discharge Zone	#17	14°22.75' S	170°38.96' W	" "	"	"	" "	10.4	351
1140	Secure SK Dock		14°16.50' S	170°41.2' W						

Current Direction: At Center East End of Discharge Stationary Discharge Pattern Ellipse

Total Discharge Time: 195 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 5.5 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 91 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A ✓ U.S.C.G.M S.D ✓ Master: F/V Blue Moon M Crook

Date: 03/09/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5262

Permit # OD 93-01 & OD 93-02

Time					
0800	Begin Loading SK		Volume Loaded	SK	181,250 Gallons
1400	Finish Loading SK	Trip # 1 - X		SP	0 Gallons
	Begin Loading SK #2	Trip # 2		Total	181,250 Gallons
	Finish Loading SK #2				

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True°
0505	Depart Starkist		14°16.50' S	170°41.2' W	Calm	50	29.49			
0550	Arrive Edge of Zone	# 1	14°22.51' S	170°38.67' W	East-7	"	"	S/SE-1.5	9.8	163
0620	Arrive Zone Center	# 2	14°24.0 S	170°38.3 W	"	"	"	" "	9.6	158
0610	Begin Discharge	# 3	14°24.02 S	170°37.05' W	"	75	"	X	9.1	024
25		# 4	14°21.13 S	170°37.51' W	"	"	29.50		9.5	183
40	Remarks	# 5	14°23.62 S	170°36.74' W		"			9.4	356
55		# 6	14°24.78' S	170°37.69' W	"	70	29.49		9.6	184
0710		# 7	14°23.56 S	170°36.97 W	"	"	"	" 5	9.7	348
25		# 8	14°24.44' S	170°37.48' W	"	75	"		9.9	180
40		# 9	14°23.21' S	170°37.11' W	"	"	29.50		10.0	309
55		# 10	14°24.67' S	170°37.17 W	"	80	"		9.7	026
0810		# 11	14°23.38' S	170°37.60' W	"	"	29.51		9.3	188
25		# 12	14°24.78' S	170°37.17 W	East-5	90	"	10	9.5	021
40		# 13	14°23.41' S	170°37.60 W	"	"			9.4	182
55		# 14	14°23.95' S	170°36.87 W		"			9.7	354
0910		# 15	14°2 S	170°3 W						
25		# 16	14°2 S	170°3 W						
		# 17	14°2 S	170°3 W				15		
		# 18	14°2 S	170°3 W						
		# 19	14°2 S	170°3 W						
		# 20	14°2 S	170°3 W						
			14°2 S	170°3 W						
			14°2 S	170°3 W				20		
			14°2 S	170°3 W						
0903	Finish Discharge	#15	14°23.35' S	170°37.59' W	East-5	90%	29.51	S/SE-1.5	9.6	184
0915	Exit Discharge Zone	#16	14°22.55' S	170°38.20' W	East-7	90-RAIN	"	" "	10.2	335
1000	Secure SK Dock		14°16.50' S	170°41.2' W						

Current Direction: At Center West End of Discharge West (slow) Discharge Pattern Ellipse

Total Discharge Time: 178 mins. Average Speed During Discharge: 9.57 kts. Total Time Run 4.9 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 106 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 03/11/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5263

Permit # OD 93-01 & OD 93-02

Time					
1300	Begin Loading SK	Volume Loaded	SK	192,500	Gallons
1500	Finish Loading SK	Trip # 1 X	SP	0	Gallons
0730	Begin Loading SK #2	Trip # 2	Total	192,500	Gallons
1300	Finish Loading SK #2				

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0510	Depart Starkist		14*16 50' S	170* 41.2' W	East-15	90	29.51			
0600	Arrive Edge of Zone	# 1	14*22 53' S	170*38. 64' W	East-15	"	29.53	East-1.5	9.1	164
0612	Arrive Zone Center	# 2	14*24 0 S	170*38.3 W	East-15	"	29.55		8.9	157
0635	Begin Discharge	# 3	14*23.91 S	170*37.03' W	East-18	80	29.56	East-2.0 X	8.5	014
50		# 4	14*24.20 S	170*37.54' W	East-20	90	"	" "	9.4	183
0705	Remarks Ocean	# 5	14*24.02 S	170*36.95' W	"	"	"		9.0	356
20	Monitoring	# 6	14*23.94 S	170*37.56' W	East-22	80	29.57		9.3	177
35	Control Samples	# 7	14*24.28 S	170*37.00 W	"	"	"	5	9.4	000
50	drawn at 0620	# 8	14*25.23' S	170*37.60' W	"	"	"		9.4	179
0805	WPt: 'C' on Plot	# 9	14*24.28 S	170*36.93' W	East-25	"	"		9.6	358
20		# 10	14*24.33' S	170*37.55 W	" "	"	29.58		9.5	180
35		# 11	14*23.97' S	170*37.00 W			"		9.7	357
50		# 12	14*24.55' S	170*37.56' W			"	10	9.6	178
0905		# 13	14*23.36 S	170*37.07' W			"		9.3	341
20		# 14	14*24.67 S	170*37.52 W			"		9.9	150
35		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0935	Finish Discharge	#15	14*24.26' S	170*37.01' W	East-25	80	29.58	East-2.0	9.8	359
1042	Exit Discharge Zone	#16	14*23.59' S	170*38.66' W	" "	10% RAIN	"	" "	10.3	344
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.4 kts. Total Time Run 6.25 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 113.7 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crooke

Date: 03/13/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5264

Permit # OD 93-01 & OD 93-02

Time					
	Begin Loading SK		Volume Loaded	SK	Gallons
	Finish Loading SK	Trip # 1 - X		SP 0	Gallons
	Begin Loading SK #2	Trip # 2		Total 187500	Gallons
	Finish Loading SK #2				

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True°
0625	Depart Starkist		14°16 50' S	170° 41.2' W	East-10	75%	29.51			
0652	Arrive Edge of Zone	# 1	14°22 53' S	170°38 65' W	East-15	90	29.53	East-1.0	8.7	163
0703	Arrive Zone Center	# 2	14°24 0 S	170°38.3 W	" "	"	29.54	" "	9.3	158
0712	Begin Discharge	# 3	14°24.05 S	170°37.19 W	" "	"	"	" " X	9.3	090
7		# 4	14°23.90' S	170°3 756 W	" "	"	29.55	" "	9.1	179
12	Remarks	# 5	14°23.93' S	170°36.95 W	" "	"		" "	9.5	358
57		# 6	14°24.14' S	170°37.65' W	East-18	90-Rain			9.8	176
0812		# 7	14°24.11' S	170°36.91 W	" "	80	29.54	5	9.6	000
27		# 8	14°24.20' S	170°37.60 W		80			9.9	177
" 42		# 9	14°23.80' S	170°36.94' W	East-20	75	29.55		9.8	359
" 57		# 10	14°24.06' S	170°37.57' W		80	"		10.0	174
0912		# 11	14°23.92' S	170°36.95' W		85	29.56		9.6	001
" 27		# 12	14°24.30' S	170°37.59' W			"	10	9.8	182
" 42		# 13	14°23.31' S	170°37.07' W	ENE-18		29.57		9.7	308
" 57		# 14	14°24.80' S	170°37.58' W	East-18	80			9.7	179
1012		# 15	14°2 S	170°3 W						
" 27		# 16	14°2 S	170°3 W						
		# 17	14°2 S	170°3 W				15		
		# 18	14°2 S	170°3 W						
		# 19	14°2 S	170°3 W						
		# 20	14°2 S	170°3 W						
			14°2 S	170°3 W						
			14°2 S	170°3 W				20		
			14°2 S	170°3 W						
1012	Finish Discharge	#15	14°23.22' S	170°37.18' W	East-20	85%	29.57	East-1.0	9.9	331
1014	Exit Discharge Zone	#16	14°22.88' S	170°37.36' W	" "	"	"		10.1	333
1105	Secure SK Dock		14°16.50' S	170°41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.66 kts. Total Time Run 5.0 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 107.8 Gallons/min/kts

Unusual Occurrences? None

Notifications made A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 03/14/10

F/V Blue Moon Ocean Dumping Log

Voyage # 5265

Permit # OD 93-01 & OD 93-02

Time		
1315	Begin Loading SK	
1335	Finish Loading SK	
	Begin Loading SK #2	
	Finish Loading SK #2	

Trip # 1 X
Trip # 2

Volume Loaded		
SK		Gallons
SP	0	Gallons
Total		Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14°16.50' S	170°41.2' W	East-15	50	29.53			
0655	Arrive Edge of Zone	# 1	14°22.53' S	170°38.67 W	NE-15	"	29.56	East-1	9.9	161
0705	Arrive Zone Center	# 2	14°24.0 S	170°38.3 W	" "	"	"	" "	10.8	160
0713	Begin Discharge	# 3	14°23.49' S	170°37.34' W	" "	60	"	" " X	9.2	045
" 28		# 4	14°23.58 S	170°37.55 W	" "	"	"		8.8	138
" 43	Remarks	# 5	14°22.85' S	170°37.53' W	NE-18	40	"		9.5	309
" 58		# 6	14°24.29' S	170°37.07 W	" "	"	"		9.4	136
0813		# 7	14°22.75' S	170°37.03' W	" "	"	29.57	5	9.9	283
" 28		# 8	14°24.03' S	170°36.91' W	" "	50	"		9.3	349
" 43		# 9	14°23.24' S	170°37.99' W	NE-20	"	"		9.7	140
" 58		# 10	14°23.45' S	170°37.03' W	" "	60	29.58		9.7	338
0913		# 11	14°23.42' S	170°37.84' W	" "	"	29.59		10.0	139
" 28		# 12	14°23.34' S	170°37.04' W	" "	"	"	10	9.4	324
" 43		# 13	14°23.52' S	170°37.77 W	" "	50	"		9.8	137
" 58		# 14	14°2 S	170°3 W						
1013		# 15	14°2 S	170°3 W						
		# 16	14°2 S	170°3 W						
		# 17	14°2 S	170°3 W				15		
		# 18	14°2 S	170°3 W						
		# 19	14°2 S	170°3 W						
		# 20	14°2 S	170°3 W						
			14°2 S	170°3 W						
			14°2 S	170°3 W				20		
			14°2 S	170°3 W						
0948	Finish Discharge	#14	14°22.73' S	170°37.78' W	NE-20	50%	29.59	East-1	9.9	332
0949	Exit Discharge Zone	#15	14°22.60' S	170°37.84' W	" "	"	"	" "	10.0	333
1040	Secure SK Dock		14°16.50' S	170°41.2' W						

Current Direction: At Center Southwest End of Discharge SW Discharge Pattern Ellipse

Total Discharge Time: 155 mins. Average Speed During Discharge: 9.55 kts. Total Time Run 4.5 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 91.2 Gallons/min/kts

Unusuall Occurrences? None

Notifications made: A S P A. ✓ U.S C G.M.S.D. ✓ Master. F/V Blue Moon M. Rook

Date: 03/17/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 526X 6

Permit # OD 93-01 & OD 93-02

Time		
1330	Begin Loading SK	
1430	Finish Loading SK	Trip # 1
1700	Begin Loading SK	Trip # 2
1700	Finish Loading SK	

Volume Loaded		
SK	170 000	Gallons
SP	—	Gallons
Total	170 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True°
0500	Depart Starkist		14°16.50'	S	170° 41.2'	W			29.55			
0555	Arrive Edge of Zone	# 1	14°22.4	S	170°38.7	W		70	29.55	1.5	10	167°
0605	Arrive Zone Center	# 2	14°24.0	S	170°38.3	W	E Ly 10	70	29.55	1.5	10.5	165°
0615	Begin Discharge	# 3	14°24.0	S	170°37.1	W	E Ly 10	70	29.55	1.5 X	9.4	346
0630		# 4	14°23.5	S	170°37.7	W	E 10	70	29.55	1.5	10	180
45	Remarks	# 5	14°24.0	S	170°37.0	W	E 15	70	29.55	1.5	9.4	349
0700		# 6	14°23.7	S	170°37.7	W	E 15	70	29.55	1.5	10.1	179
15		# 7	14°24.7	S	170°37.3	W	E 15	60	29.55	1.5 5	9.3	025°
30		# 8	14°24.9	S	170°37.7	W	E 15	60	29.55	1.5	9.2	181°
45		# 9	14°24.5	S	170°37.1	W	E 15	50	29.55	1.5	9.5	026°
0800		# 10	14°23.1	S	170°37.7	W	E 15	50	29.55	1.5	10.1	186°
15		# 11	14°25.2	S	170°37.5	W	E 15	50	29.6	1.5	9.7	031°
30		# 12	14°23.2	S	170°37.3	W	E 15	50	29.6	1.5 10	9.7	340
45		# 13	14°25.2	S	170°37.5	W	E 15	50	29.6	1.5	9.6	035
0900		# 14	14°25.3	S	170°37.2	W	E 15	50	29.65	1.5	10.2	340
		# 15	14°2	S	170°3	W						
		# 16	14°2	S	170°3	W						
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
0905	Finish Discharge	15	14°2 2.8	S	170°3 7.7	W	E 15	50	29.65	1.5	9.5	219°
0910	Exit Discharge Zone	16	14°2 2.4	S	170°3 8.1	W	E 15	50	29.65	1.5	10.7	336°
0955	Secure SK Dock		14°16.50'	S	170°41.2'	W						

Current Direction: At Center W End of Discharge W Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.68 kts. Total Time Run 4.9 hr.

Navigational Plot made: yes Presence of Plume? none

Time and position of any floating material: none Discharge Rate: 103.3 Gallons/min./kts

Unusuall Occurrences? none

Notifications made: A.S.P.A. ✓ U.S.C.G.M S.D. ✓ Master. F/V Blue Moon

Date: 03/19/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5267

Permit # OD 93-01 & OD 93-02

Time	
1320	Begin Loading SK
1530	Finish Loading SK
1320	Begin Loading SK
1760	Finish Loading SK

Trip # 1
Trip # 2

Volume Loaded		
SK	180000	Gallons
SP		Gallons
Total	150000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True°
0515	Depart Starkist		14°16.50'	S	170°41.2'	W						
0620	Arrive Edge of Zone	# 1	14°22.4	S	170°38.[illegible]	W		50	29.6	29	9.7	168°
0613	Arrive Zone Center	# 2	14°24.0	S	170°38.3	W	SE20	50	29.6	1.5	9.5	151°
0625	Begin Discharge	# 3	14°24.8	S	170°37.2	W	SE20	50	29.65	1.5 X	9.5	130
25		# 4	14°24.1	S	170°37.4	W	SE20	50	29.6	1.5	10	146°
50	Remarks	# 5	14°25.6	S	170°37.4	W	SE20	50	29.6	1.5	9.9	055°
0705		# 6	14°23.9	S	170°37.4	W	SE20	50	29.6	1.5	10	225°
20		# 7	14°25.2	S	170°37.9	W	SE20	50	29.6	1.5 5	9.8	033°
35		# 8	14°23.7	S	170°37.2	W	SE20	50	29.6	1.5	10.3	224°
50		# 9	14°23.8	S	170°37.6	W	SE20	50	29.6	1.5	9.9	059°
0805		# 10	14°23.6	S	170°37.8	W	SE20	50	29.6	1.5	9.9	227°
20		# 11	14°25.2	S	170°37.8	W	SE20	50	29.6	1.5	9.5	061°
35		# 12	14°23.6	S	170°37.1	W	SE20	50	29.6	1.5 10	9.8	220°
50		# 13	14°25.2	S	170°38.6	W	SE20	50	29.6	1.5	9.3	063°
0905		# 14	14°23.7	S	170°37.1	W	SE20	50	29.6	1.5	10	222°
20		# 15	14°25.1	S	170°38.0	W	SE20	50	29.6	1.5	9.5	032°
		# 16	14°2	S	170°3	W						
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
0925	Finish Discharge	16	14°24.9	S	170°37.7	W	SE20	50	29.6	1.5	10	062°
0940	Exit Discharge Zone	17	14°22.7	S	170°38.5	W	SE20	50	29.6	1.5	10.2	345°
1025	Secure SK Dock		14°16.50'	S	170°41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 185 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 5.16 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 101.3 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master. F/V Blue Moon [signature]

Date: 03/21/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5268

Permit # OD 93-01 & OD 93-02

Time					
1300	Begin Loading SK		Volume Loaded	SK	15375 Gallons
1440	Finish Loading SK	Trip # 1		SP	Gallons
1400	Begin Loading SK	Trip # 2		Total	13375 Gallons
1930	Finish Loading SK				

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True°
0650	Depart Starkist		14°16.50'	S	170°41.2	W		30	29.55			
0737	Arrive Edge of Zone	# 1	14°22	S	170°38.7	W	SE 15	30	29.55	1.5	9.2	164°
0745	Arrive Zone Center	# 2	14°24.0	S	170°38.3	W	SE 15	30	29.55	1.5	9	163°
0750	Begin Discharge	# 3	14°2 4.2	S	170°3 7.3	W	SE 15	30	29.55	1.5 X	9.9	163°
0855		# 4	14°2 3.3	S	170°3 7.6	W	SE 15	30	29.55	1.5	9.5	163°
20	Remarks.	# 5	14°2 5.1	S	170°3 7.6	W	SE 15	30	29.55	1.5	9.9	321°
25		# 6	14°2 3.1	S	170°3 7.2	W	SE 15	30	29.55	1.5	9	348°
50		# 7	14°2 4.7	S	170°3 7.8	W	SE 20	30	29.55	1.6 5	10	167°
0905		# 8	14°2 3.7	S	170°3 7.1	W	SE 20	30	29.55	1.5	9.5	352°
20		# 9	14°2 4.3	S	170°3 7.7	W	SE 20	30	29.55	1.5	10.1	187°
35		# 10	14°2 4.1	S	170°3 7.1	W	SE 20	50	29.55	1.5	9.8	356°
50		# 11	14°2 4.3	S	170°3 7.7	W	SE 20	50	29.55	1.5	10.5	188°
1005		# 12	14°2 3.8	S	170°3 7.1	W	SE 20	50	29.55	1.5 10	9.9	352°
20		# 13	14°2 4.2	S	170°3 7.7	W	SE 20	50	29.55	1.5	10.1	188°
35		# 14	14°2 3.7	S	170°3 7.1	W	SE 20	50	29.55	1.5	10.1	356°
		# 15	14°2	S	170°3	W						
		# 16	14°2	S	170°3	W						
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
1050	Finish Discharge	15	14°2 3.2	S	170°3 7.2	W	SE 20	50	29.55	1.5	9.7	351°
1050	Exit Discharge Zone	16	14°2 3.2	S	170°3 7.2	W	SE 20	50	29.55	1.5	9.8	330°
1140	Secure SK Dock		14°16.50'	S	170°41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.7 kts. Total Time Run 4.83 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 105.2 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A S P A ✓ U.S.C.G.M.S.D. ✓ Master F/V Blue Moon

Date: 03/24/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5269

Permit # OD 93-01 & OD 93-02

Time					
	Begin Loading SK		Volume Loaded	SK	185 000 Gallons
	Finish Loading SK	Trip # 1 -		SP	Gallons
	Begin Loading SK	Trip # 2		Total	185 000 Gallons
	Finish Loading SK				

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
1230	Depart Starkist		14°16.50'	S	170°41.2	W	SE 15	30	29.55			
1325	Arrive Edge of Zone	# 1	14°22.4	S	170°38.7	W	SE15	30	29.55	1.5	9	167°
1325	Arrive Zone Center	# 2	14°24.0	S	170°38.3	W	SE15	30	29.65	1.5	8.8	141°
1345	Begin Discharge	# 3	14°24.4	S	170°37.3	W	SE15	30	29.55	1.5 X	8.9	115°
1400		# 4	14°23.6	S	170°37.3	W	SE15	30	29.55	1.5	9.1	223°
15	Remarks	# 5	14°25.3	S	170°37.9	W	SE15	30	29.55	1.5	9.7	208°
30		# 6	14°24.1	S	170°37.0	W	SE15	30	29.55	1.5	9.4	001°
45		# 7	14°24.1	S	170°37.6	W	SE15	30	29.55	1.5 5	9.8	206°
1500		# 8	14°25.3	S	170°37.8	W	SE15	30	29.55	1.5	9	055°
15		# 9	14°24.1	S	170°37.5	W	SE15	50	29.55	1.5	9.6	206°
30		# 10	14°24.8	S	170°37.9	W	SE15	50	29.55	1.5	9.4	209°
45		# 11	14°24.5	S	170°37.1	W	SE15	50	29.55	1.5	9.2	015°
1600		# 12	14°23.9	S	170°37.5	W	SE 15	50	29.56	1.5 10	9.9	206°
15		# 13	14°25.0	S	170°37.5	W	SE 15	50	29.55	1.5	9.7	044°
30		# 14	14°24.4	S	170°37.0	W	SE 15	50	29.55	1.5	10	015°
		# 15	14°	S	170°	W						
		# 16	14°	S	170°	W						
		# 17	14°	S	170°	W				15		
		# 18	14°	S	170°	W						
		# 19	14°	S	170°	W						
		# 20	14°	S	170°	W						
			14°	S	170°	W						
			14°	S	170°	W				20		
			14°	S	170°	W						
1635	Finish Discharge	15	14°24.0	S	170°37.1	W	SE 15	50	29.55	1.5	10	022°
1645	Exit Discharge Zone	16	14°22.7	S	170°37.7	W	SE15	50	29.55	1.5	10	334°
1735	Secure SK Dock		14°16.50'	S	170°41.2'	W						

Current Direction: At Center HW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.5 kts. Total Time Run 5.08 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 114 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made A S P A ✓ U.S C G.M.S D. ✓ Master F/V Blue Moon

Date: 03/26/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5270

Permit # OD 93-01 & OD 93-02

Time	
1800	Begin Loading SK
1945	Finish Loading SK
1300	Begin Loading SK
1710	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded		
SK	170000	Gallons
SP		Gallons
Total	170000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6	Metric		kts	True*
0605	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE15	50	29.6	1		9.4	166°
0614	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE15	50	29.6	1		9.4	162°
0620	Begin Discharge	# 3	14*2 4.4	S	170*3 7.5	W	SE15	50	29.6	1	X	9.2	114°
35		# 4	14*2 3.8	S	170*3 7.5	W	SE 15	50	29.6	1		9.9	289°
50	Remarks	# 5	14*2 4.8	S	170*3 7.5	W	SE15	50	29.6	1		8.8	640°
0905		# 6	14*2 3.7	S	170*3 7.3	W	SE15	50	29.6	1		9.8	214°
20		# 7	14*2 5.4	S	170*3 8.5	W	SE15	50	29.6	1	5	9.8	198°
35		# 8	14*2 4.4	S	170*3 7.2	W	SE 15	50	29.6	1		9.7	015°
50		# 9	14*2 4.5	S	170*3 8.0	W	SE 15	50	29.6	1		10	210°
0805		# 10	14*2 4.8	S	170*3 7.4	W	SE15	40	29.6	1		9.5	046°
20		# 11	14*2 3.8	S	170*3 7.5	W	SE15	40	29.6	1		10	218°
35		# 12	14*2 4.5	S	170*3 7.3	W	SE 15	40	29.6	1	10	9.5	021°
50		# 13	14*2 3.9	S	170*3 7.8	W	SE15	40	29.6	1		10	210°
0905		# 14	14*2 4.9	S	170*3 7.6	W	SE15	40	29.6	1		9.6	042°
		# 15	14*2	S	170*3	W							
		# 16	14*2	S	170*3	W							
		# 17	14*2	S	170*3	W					15		
		# 18	14*2	S	170*3	W							
		# 19	14*2	S	170*3	W							
		# 20	14*2	S	170*3	W							
			14*2	S	170*3	W							
			14*2	S	170*3	W					20		
			14*2	S	170*3	W							
0920	Finish Discharge	15	14*2 3.7	S	170*3 7.4	W	SE 15	40	29.6	1		9.8	239°
0930	Exit Discharge Zone	16	14*2 2.7	S	170*3 8.0	W	SE 15	40	29.6	1		10.1	338°
1020	Secure SK Dock		14*16.50'	S	170*41.2'	W							

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 5.08 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 98.3 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon [signature]

Date. 03/28/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5271

Permit # OD 93-01 & OD 93-02

Time	
1400	Begin Loading SK
1545	Finish Loading SK
1545	Begin Loading SK
2040	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded SK _____ Gallons
SP _____ Gallons
Total 168750 Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
										Metric		kts	True°
0600	Depart Starkist		14°16.50'	S	170°41.2'	W							
0650	Arrive Edge of Zone	#1	14°22	S	170°38	W							
0700	Arrive Zone Center	#2	14°24.0	S	170°38.3	W							
0710	Begin Discharge	#3	14°24.5	S	170°37.5	W	SE15	70	29.55	1.5	X	9.5	084°
25		#4	14°23.6	S	170°36.7	W	SE15	70	29.55	1.5		9.3	216°
40	Remarks	#5	14°23.9	S	170°37.5	W	SE15	70	29.55	1.5		9.7	214°
55		#6	14°24.6	S	170°37.2	W	SE15	70	29.55	1.5		9	053°
0800		#7	14°25.0	S	170°37.8	W	SE15	70	29.55	1.5	5	8.8	056°
25		#8	14°24.4	S	170°37.3	W	SE15	70	29.55	1.5		10.2	216°
40		#9	14°23.6	S	170°36.8	W	SE15	70	29.55	1.5		9.4	110°
55		#10	14°24.8	S	170°38.1	W	SE15	70	29.55	1.5		10.5	215°
0910		#11	14°25.0	S	170°37.7	W	SE15	70	29.60	1.5		9.3	054°
25		#12	14°23.7	S	170°37.2	W	SE15	70	29.6	1.5	10	10.2	220°
40		#13	14°25.1	S	170°37.9	W	SE15	70	29.6	1.5		9.6	055°
		#14	14°2	S	170°3	W							
		#15	14°2	S	170°3	W							
		#16	14°2	S	170°3	W							
		#17	14°2	S	170°3	W					15		
		#18	14°2	S	170°3	W							
		#19	14°2	S	170°3	W							
		#20	14°2	S	170°3	W							
			14°2	S	170°3	W							
			14°2	S	170°3	W					20		
			14°2	S	170°3	W							
0955	Finish Discharge	14	14°23.7	S	170°36.8	W	SE15	70	29.6	1.5		9.3	013°
0958	Exit Discharge Zone	15	14°22.7	S	170°37.5	W	SE15	70	29.6	1.5		10	328°
1050	Secure SK Dock		14°16.50'	S	170°41.2'	W							

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

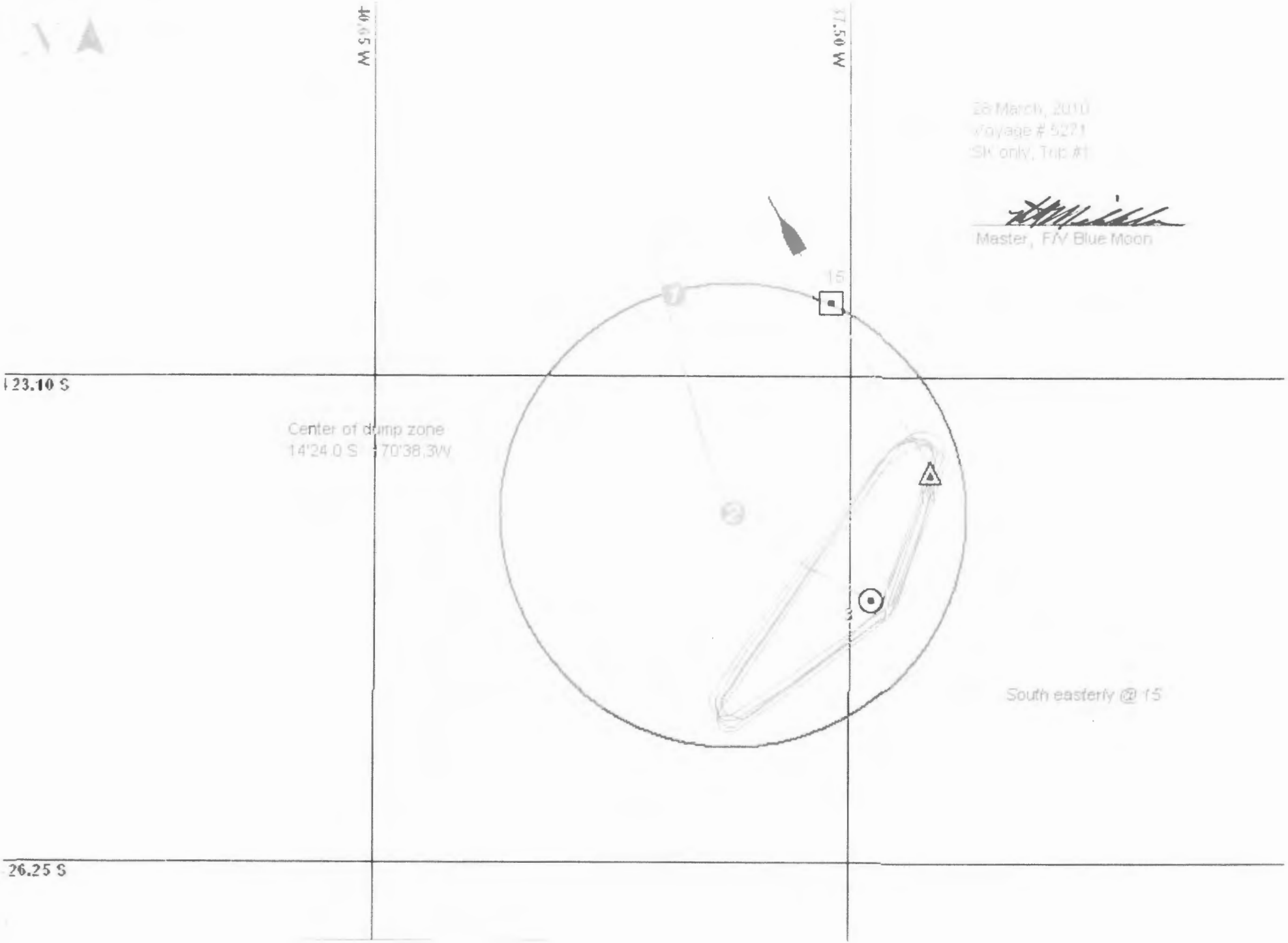
Total Discharge Time: 165 mins. Average Speed During Discharge: 9.5 kts. Total Time Run 4.83 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 107 Gallons/min/kts

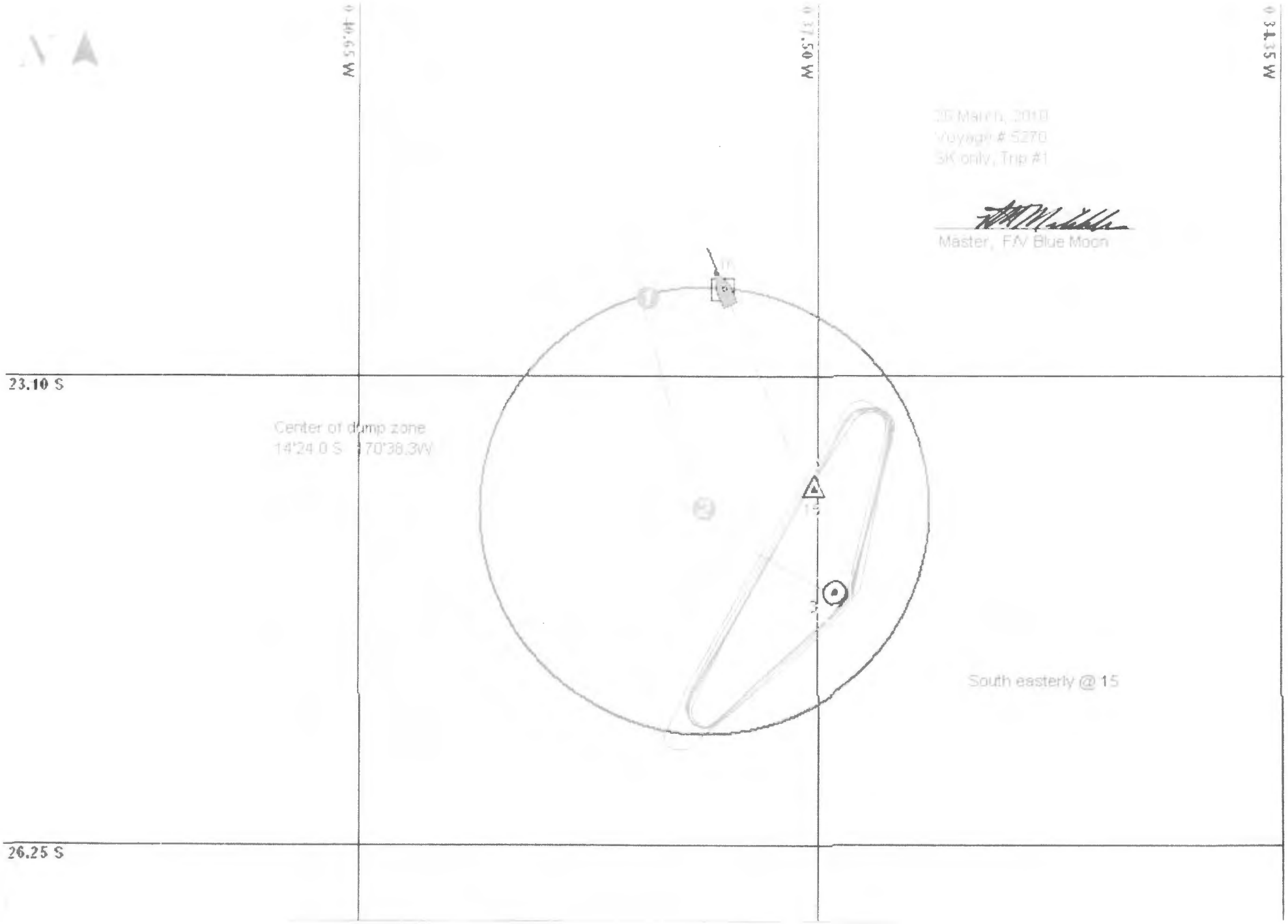
Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master F/V Blue Moon [signature]



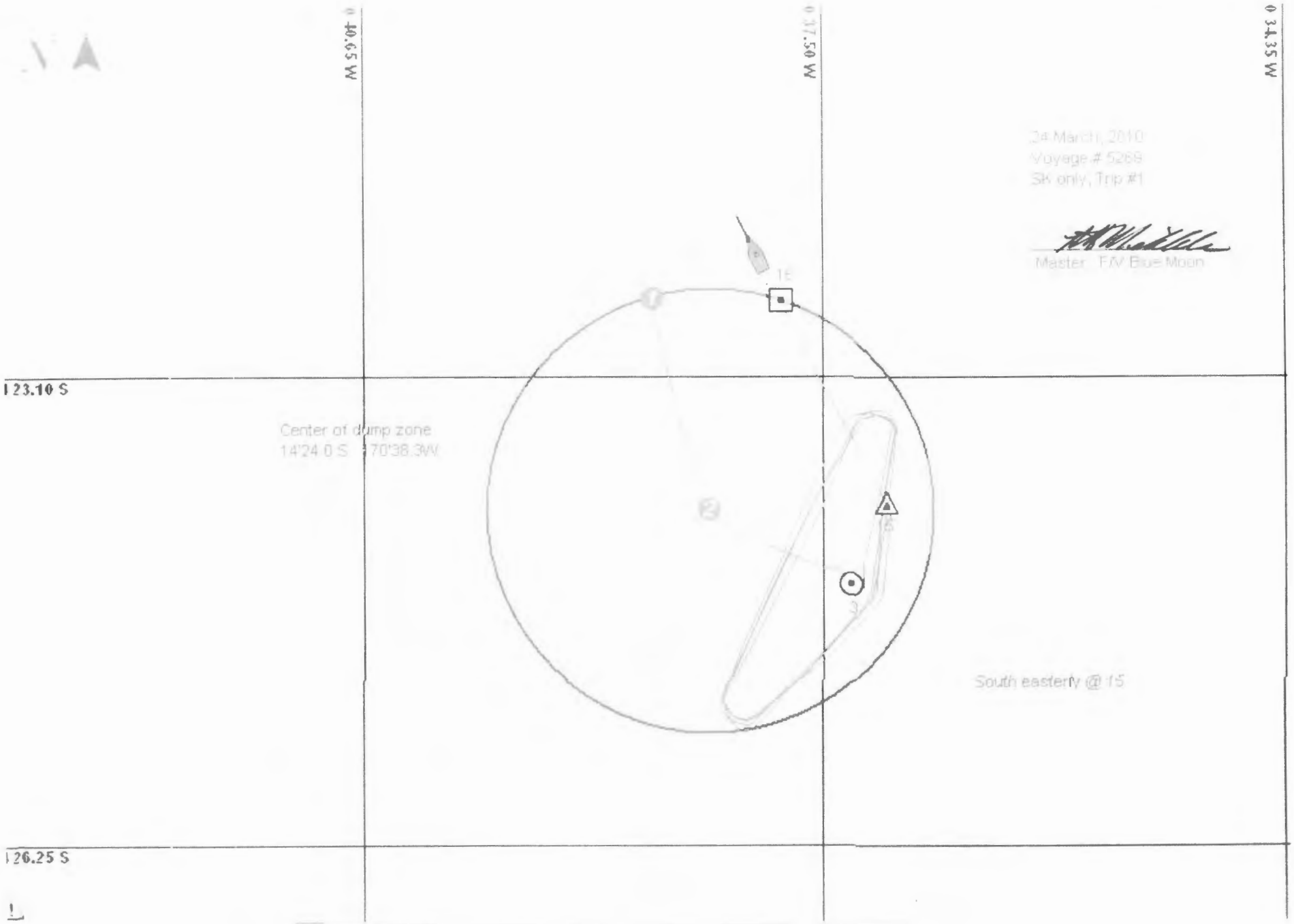
28 March, 2010
Voyage # 5271
SK only, Trip #1

Master, F/V Blue Moon



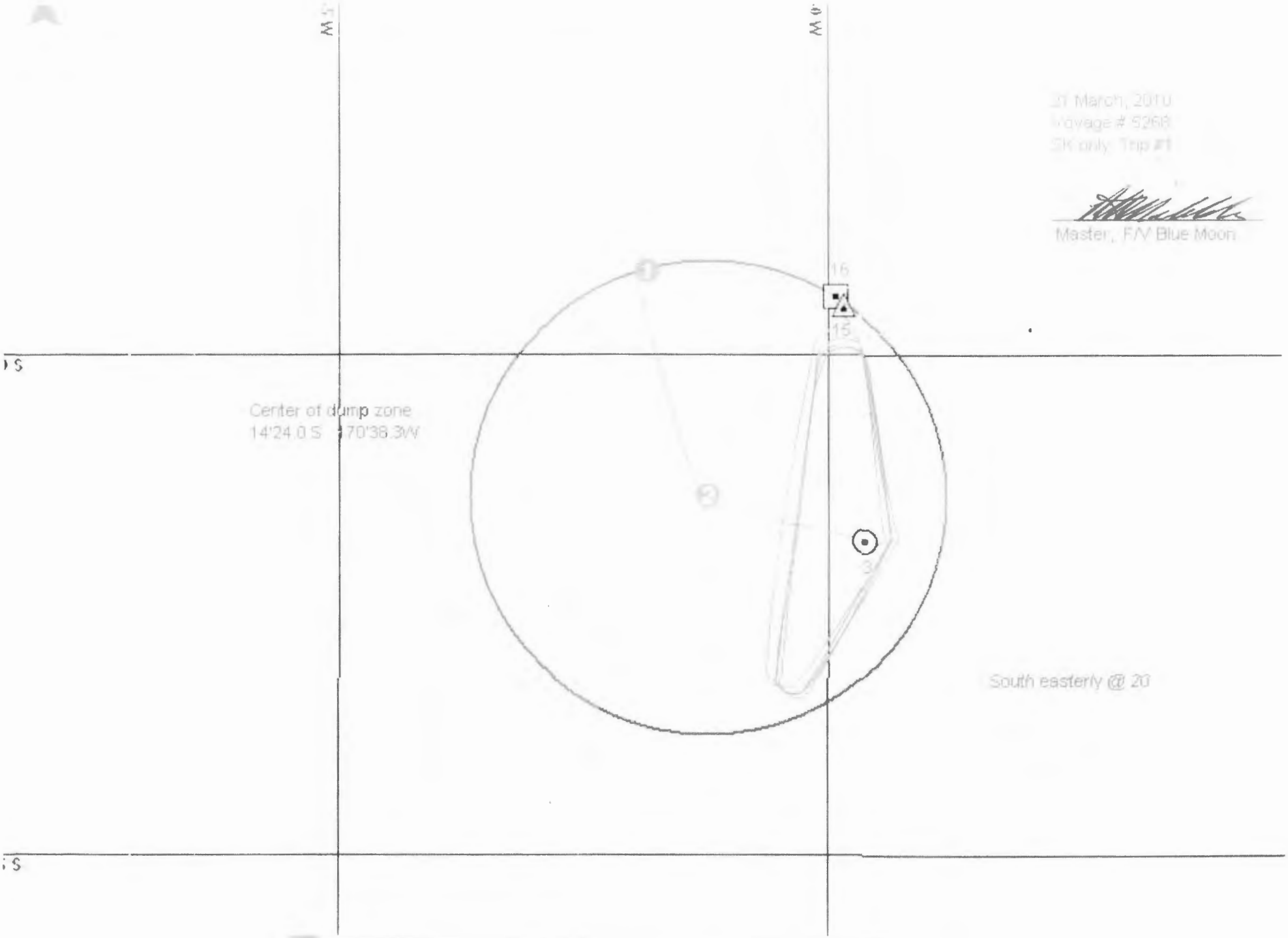
25 March, 2010
Voyage # 5270
SK only, Trip #1

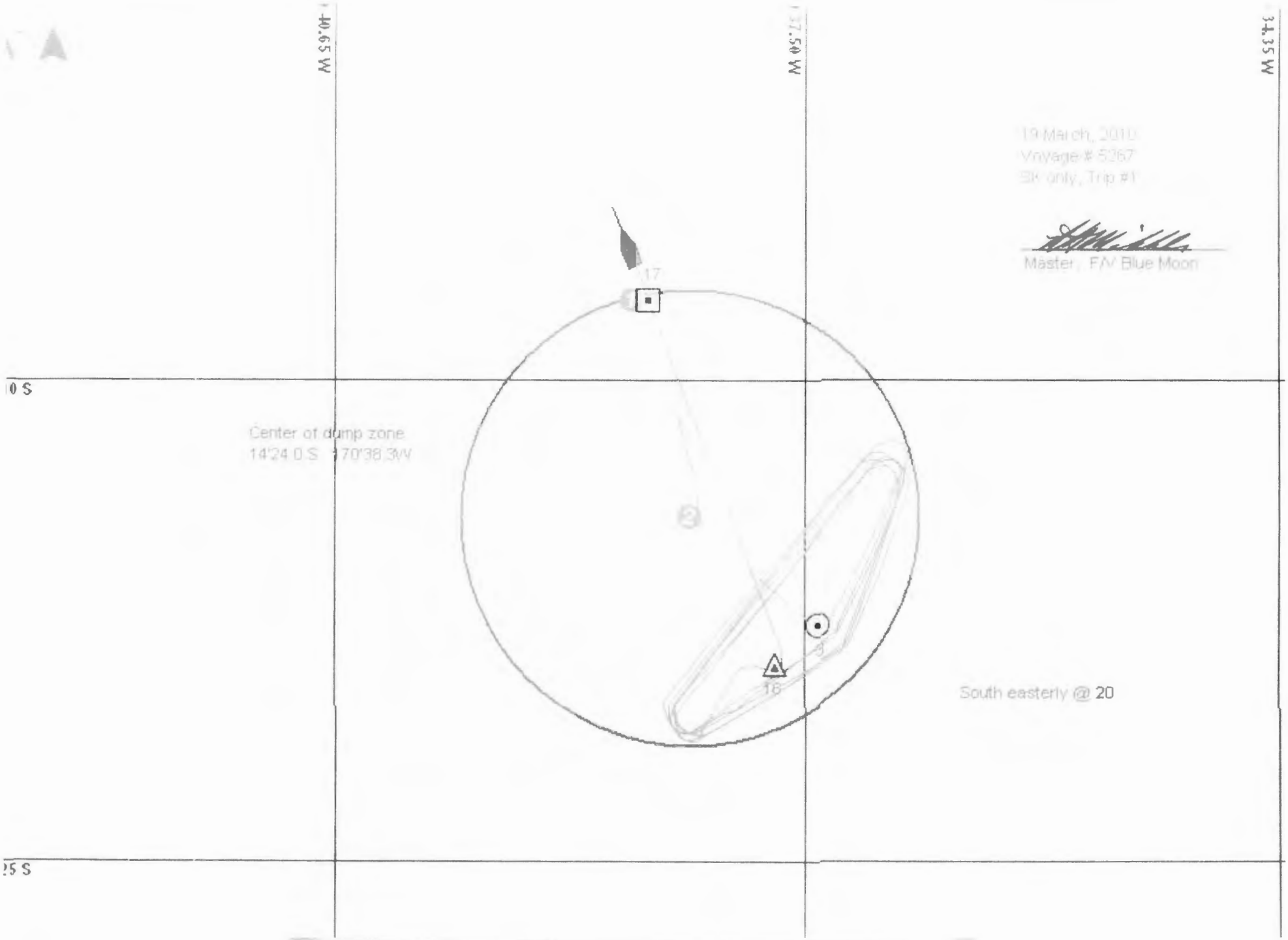
Master, F/V Blue Moon

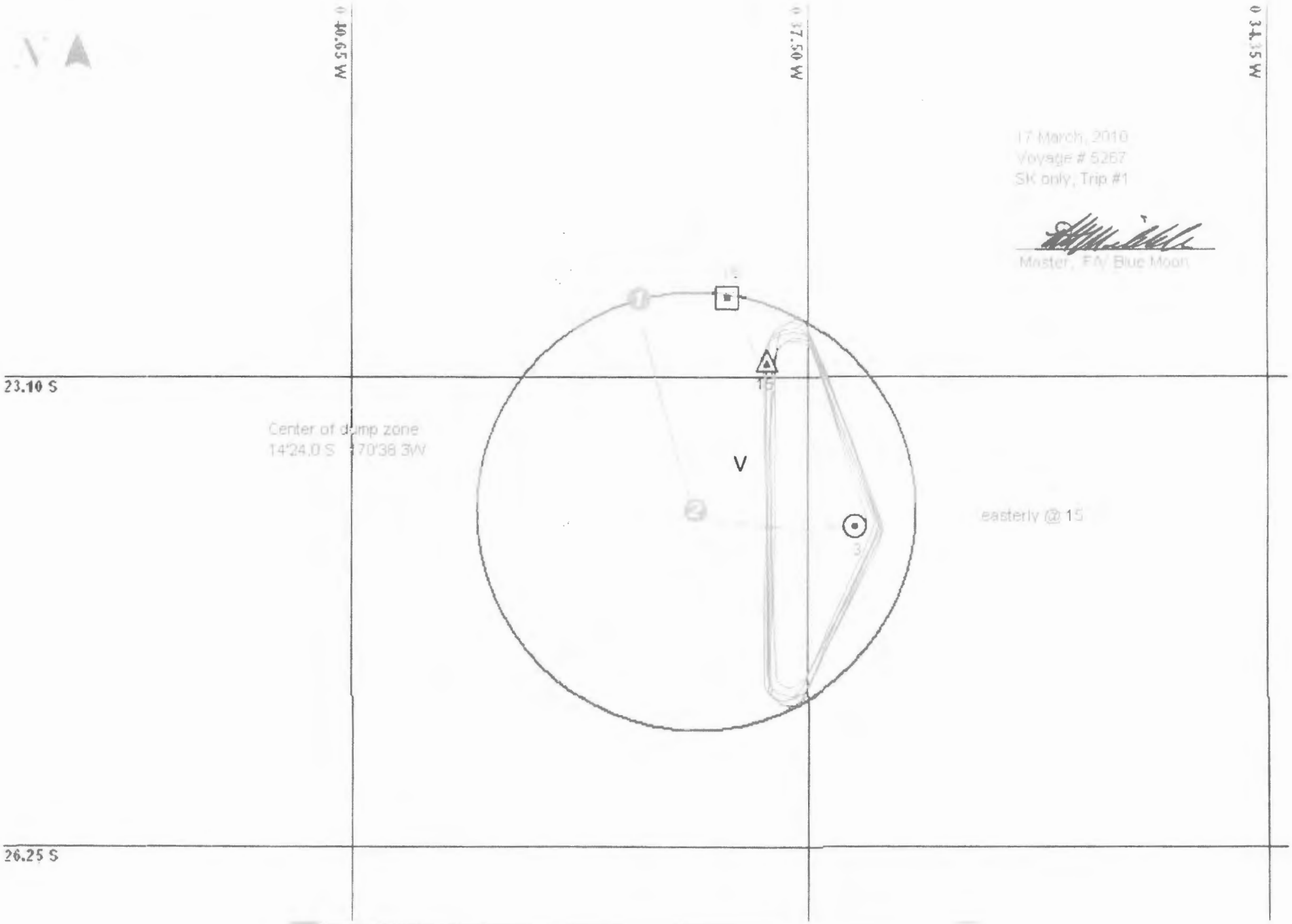

0 40.65 W
0 37.50 W
0 34.35 W
123.10 S
126.25 S
24 March, 2010
Voyage # 5269
Sk only, Trip #1
Master F/V Blue Moon
Center of dump zone
14°24.0 S 70°38.3W
South easterly @ 15

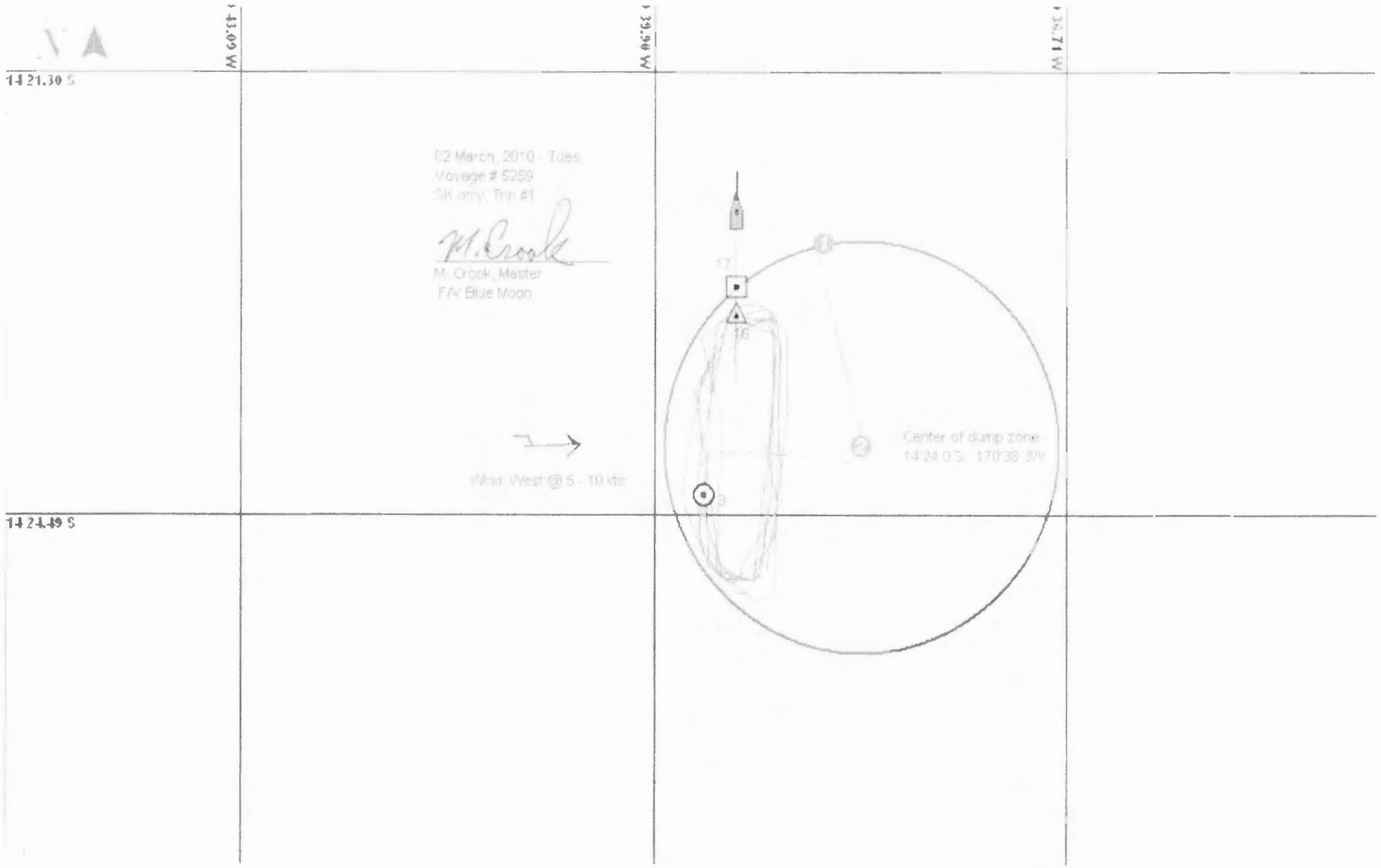
21 March, 2010
Voyage # 5268
Sk only Trip #1

Master, F/V Blue Moon




40.65 W
37.50 W
34.35 W
0 S
25 S
19 March, 2010
Voyage # 5267
Bk only, Trip #1
Master, F/V Blue Moon
17
Center of dump zone
14°24.0'S 170°38.3'W
3
16
South easterly @ 20

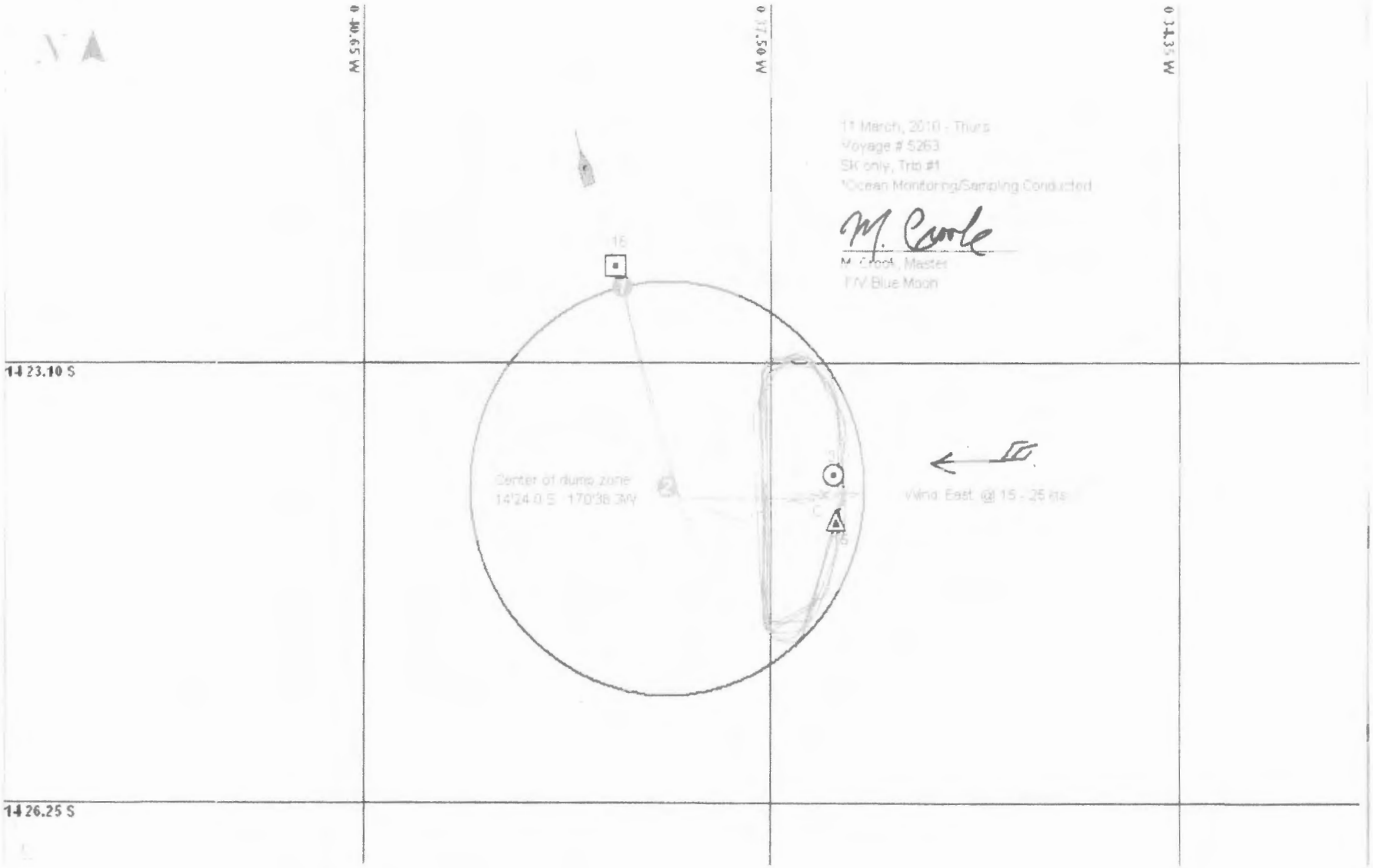

0 40.65 W
0 37.50 W
0 34.35 W
17 March, 2010
Voyage # 5267
SK only; Trip #1
Master, FA/ Blue Moon
23.10 S
26.25 S
Center of dump zone
14°24.0 S 170°38.3W
V
easterly @ 15

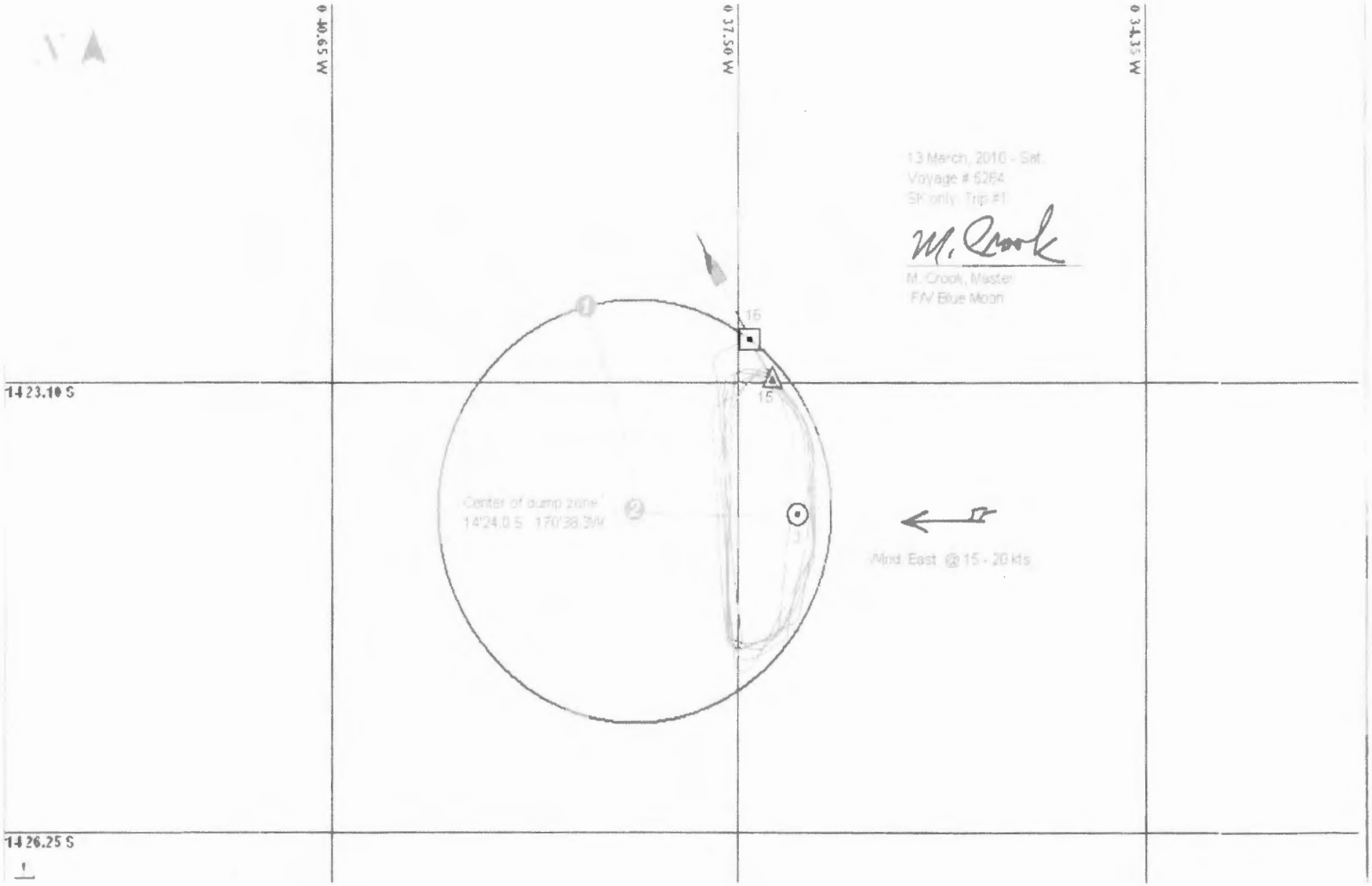

14 21.30 S
14 24.49 S
02 March, 2010 - Tues
Voyage # 5259
SK amy, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: West @ 5 - 10 kts
17
16
Center of dump zone
14°24.0'S - 170°38.3'W

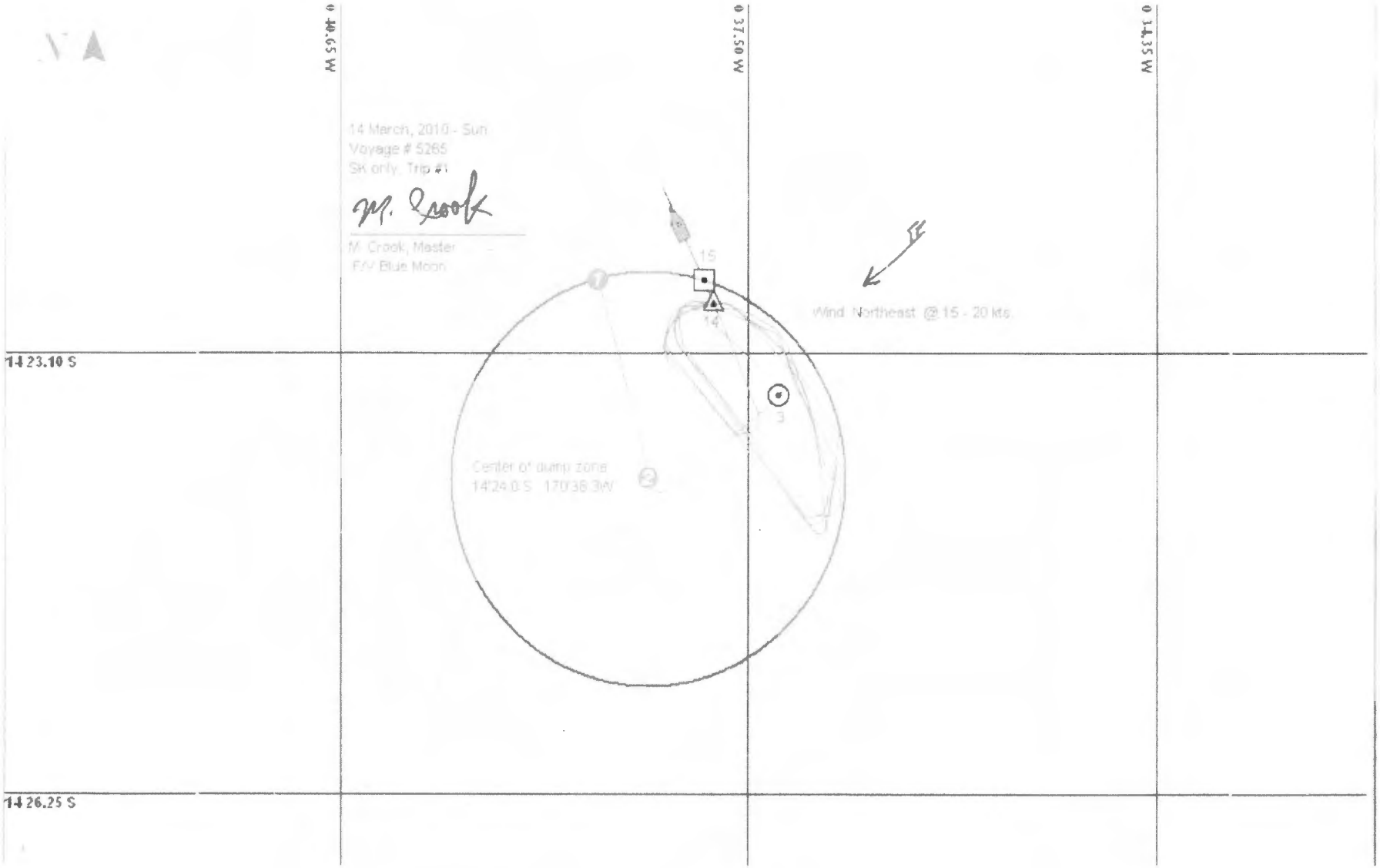
0 43.09 W
0 39.90 W
0 36.71 W
0 33.52 W
14 21.30 S
14 24.49 S
Wind WNW @ 7 - 10 kts
17
16
Center of dump zone
14°24.0'S 170°38.3'W
04 March, 2010 - Thurs.
Voyage # 5260
Sk only, Trip #1
M. Crook, Master
F/V Blue Moon

0 43.09 W
0 19.90 W
0 36.71 W
0 33.52 W
14 21.30 S
14 24.49 S
06 March, 2010 - Sat
Voyage # S261
Sh only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: Calm or variable to 5 kts
Center of dump zone
14°24.0 S 170°38.3W
17
16
3

43.09 W
39.90 W
36.71 W
33.52 W
14 21.30 S
14 24.49 S
09 March, 2010 - Tues
Voyage # 5262
3K only Trip #1
M. Crook, Master
F/V Blue Moon
Wind East @ 5 - 7 kts
Center of dump zone
14°24.0 S 170°38.3W
16
15


170 59.00 W
170 57.50 W
170 56.35 W
14 23.10 S
14 26.25 S
11 March, 2010 - Thurs
Voyage # 5263
SK only, Trip #1
*Ocean Monitoring/Sampling Conducted
M. Cook, Master
F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
Wind: East @ 15 - 25 kts


0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
14 26.25 S
13 March, 2010 - Sat.
Voyage # 52R4
SK only. Trip #1
M. Crook, Master
F/V Blue Moon
16
15
Center of dump zone
14°24.0 S 170°38.3W
Mod. East @ 15 - 20 kts


14 March, 2010 - Sun
Voyage # 5265
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: Northeast @ 15 - 20 kts.
Center of dump zone
14°24.0'S 170°36.3'W
1
2
3
14
15
14 23.10 S
14 26.25 S

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON March ~~2009~~ 2010

NUMBER OF TRIPS	SK	SP	JOINT.	TOTAL
	13	0	0	13

GALLONS-FOR THE MONTH	SK	SP	JOINT:	TOTAL
	2,268,750	0	0	2,268,750

GALLONS FOR SOLO TRIPS:	SK	SP
	2,268,750	0

RUNNING TIME ON TRIPS	66.46 hrs
DISCHARGE TIME ON TRIPS	38.63 hrs.
AV GPM DISCHARGE RATE	102.1 g/m/k
AV TRIP TIME	5.11 hrs

AV PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE

SK	COS
100.00%	0.00%

MASTER

STAR KIST SAMOA CO
WATER TREATMENT DEPARTMENT

BLUE MOON - OCEAN DUMPING LOG

Reporting Date April 01, 2010

1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Volume
1st Trip	1230 1900 (172500)		2nd Trip	NONE	0
1st Trip	1400 1530 (37500)	172500	2nd Trip	NONE	0
1st Trip	1800 1900 (135000)		2nd Trip	NONE	0
1st Trip	1400 1530 (37500)	172500	2nd Trip	NONE	0
1st Trip	1330 1730 (132500)		2nd Trip	NONE	0
1st Trip	NONE	170000	2nd Trip	NONE	0
1st Trip	NONE		2nd Trip	NONE	0
1st Trip	0830 1440 (181250)		2nd Trip	NONE	0
1st Trip	1000 1600 (140000)	181250	2nd Trip	NONE	0
1st Trip	0730 1000 (152500)		2nd Trip	NONE	0
1st Trip	1330 1600 (152500)	192500	2nd Trip	NONE	0
1st Trip	1300 1500 (125000)		2nd Trip	NONE	0
1st Trip	0830 1530 (1019/1155)	187500	2nd Trip	NONE	0
1st Trip	NONE	135000	2nd Trip	NONE	0
1st Trip	1330 1430 (40000)		2nd Trip	NONE	0
1st Trip	1300 1500 (230000)		2nd Trip	NONE	0
1st Trip	1400 1530 (160000)	170000	2nd Trip	NONE	0
1st Trip	1330 1700 (260000)		2nd Trip	NONE	0
1st Trip	1030 1445 (53750)	180000	2nd Trip	NONE	0
1st Trip	1400 1530 (130000)		2nd Trip	NONE	0
1st Trip	NONE	183750	2nd Trip	NONE	0
1st Trip	1400 1530 (37500)		2nd Trip	NONE	0
1st Trip	1830 2000 (147500)		2nd Trip	NONE	0
1st Trip	1530 1945 (53750)	185000	2nd Trip	NONE	0
1st Trip	1330 1730 (162500)		2nd Trip	NONE	0
1st Trip	1400 1845 (143750)	175000	2nd Trip	NONE	0
1st Trip	1530 2330 (125000)		2nd Trip	NONE	0
1st Trip	NONE	168750	2nd Trip	NONE	0
1st Trip	NONE		2nd Trip	NONE	0
1st Trip	1400 1430 (36250)		2nd Trip	NONE	0
1st Trip	1845 2045 (147500)		2nd Trip	NONE	0
1st Trip		2,268,750	2nd Trip		0
				Total 1st & 2nd	2,268,750

Date: 03/02/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5259

Permit # OD 93-01 & OD 93-02

Time		
1500	Begin Loading SK	
1920	Finish Loading SK	
	Begin Loading SK #2	
	Finish Loading SK #2	

Trip # 1 X

Trip # 2

Volume Loaded		
SK	172,500	Gallons
SP	0	Gallons
Total	172,500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0500	Depart Starkist		14*16.50'	S	170* 41.2'	W	Sw 4	80	29.46			
0548	Arrive Edge of Zone	# 1	14*22.52	S	170*38.66	W	W 7-5	70	29.45	S/SE-1.0	9.1	162
0552	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	" - 10	"	"	S/SE-1.5	7.0	158
0605	Begin Discharge	# 3	14*24.21	S	170*39.5	W		100-Rain	29.45	X	6.6	154
23		# 4	14*24.2	S	170*3	W		70			8.3	000
33	Remarks:	# 5	14*2 4.07	S	170*39.61	W			29.45		9.6	159
53		# 6	14*23.90	S	170*39.02	W	W - 7	100	29.46		9.6	002
0705		# 7	14*23.81	S	170*39.48	W			29.47	5	9.7	163
23		# 8	14*23.8	S	170*3	W			29.46		9.6	000
35		# 9	14*24.81	S	170*39.45	W			29.47		9.3	141
53		# 10	14*23.30	S	170*38.37	W			"		9.5	350
0800		# 11	14*24.94	S	170*39.22	W			"		8.8	087
23		# 12	14*23.12	S	170*39.31	W			"	10	9.6	210
35		# 13	14*24.27	S	170*38.94	W	W - 5				9.9	354
53		# 14	14*23.79	S	170*39.31	W			29.45		10.0	176
0900		# 15	14*24.36	S	170*38.96	W					7.6	358
23		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0915	Finish Discharge	#16	14*23.05	S	170*39.28	W	W - 5	100	29.46	S/SE-1.5	9.7	000
0917	Exit Discharge Zone	#17	14*22.93	S	170*39.29	W	"	"	" "	" "	9.8	358
1005	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center East End of Discharge East Discharge Pattern Ellipse

Total Discharge Time: 187 mins. Average Speed During Discharge: 9.5 kts. Total Time Run 5.1 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 97 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date 03/04/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5260

Permit # OD 93-01 & OD 93-02

	Time	
3/2	1400	Begin Loading SK
"	1530	Finish Loading SK
3/3	1300	Begin Loading SK #2
"	1800	Finish Loading SK #2

Trip # 1 X
Trip # 2

Volume Loaded		
SK	172,500	Gallons
SP	0	Gallons
Total		Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0515	Depart Starkist		14°16.50' S	170°41.2' W	NW-10	100	29.40			
0603	Arrive Edge of Zone	# 1	14°22.54' S	170°38.62 W	" "	90	29.42	mixed-1.5	9.1	159
0613	Arrive Zone Center	# 2	14°24.0 S	170°38.3 W	NW-7	"	" "	" "	8.7	186
0622	Begin Discharge	# 3	14°24.32' S	170°39.52' W	WNW-10	"	"	" " X	9.1	188
37		# 4	14°24.24' S	170°38.83' W	" "	"		" "	9.6	347
52	Remarks	# 5	14°24.19' S	170°39.65' W	"		"		9.5	173
0707		# 6	14°24.20 S	170°38.81' W	"		"		9.7	354
22		# 7	14°23.76' S	170°39.66' W	WNW-7		29.41	5	9.9	187
37		# 8	14°24.37 S	170°38.82' W	" "		29.42		9.8	002
52		# 9	14°23.78' S	170°39.64' W	" "				10.0	181
0807		# 10	14°24.50' S	170°38.90' W	" "				9.8	001
" 22		# 11	14°23.80' S	170°39.61' W	WNW-10				10.0	180
" 37		# 12	14°23.64' S	170°38.68' W	" "			10	9.6	353
52		# 13	14°24.31' S	170°39.57' W	" "				10.0	182
0907		# 14	14°24.12 S	170°38.82' W			29.41		9.8	003
22		# 15	14°24.45 S	170°39.54' W			"		10.0	181
37		# 16	14°2 S	170°3 W						
		# 17	14°2 S	170°3 W				15		
		# 18	14°2 S	170°3 W						
		# 19	14°2 S	170°3 W						
		# 20	14°2 S	170°3 W						
			14°2 S	170°3 W						
			14°2 S	170°3 W				20		
			14°2 S	170°3 W						
0935	Finish Discharge	# 16	14°23.89' S	170°38.94' W	WNW-10	90%	29.41	Mixed-1.5	10.0	347
0944	Exit Discharge Zone	# 17	14°22.78' S	170°39.11' W	" "	"	"	" "	10.4	345
1035	Secure SK Dock		14°16.50' S	170°41.2' W						

Current Direction: At Center East End of Discharge East (slow) Discharge Pattern Ellipse

Total Discharge Time: 193 mins. Average Speed During Discharge: 9.77 kts. Total Time Run 5.33 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 91.5 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 03/06/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5261

Permit # OD 93-01 & OD 93-02

	Time					
3/4	1800	Begin Loading SK		Volume Loaded	SK	170,000 Gallons
	1530	Finish Loading SK	Trip # 1 X		SP	0 Gallons
	1500	Begin Loading SK #2	Trip # 2		Total	170,000 Gallons
3/5	1730	Finish Loading SK #2				

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16 50' S	170* 41 2' W	Calm	30	29.47			
0705	Arrive Edge of Zone	# 1	14*22 51' S	170*38.68' W	VAR-5	40	29 49	S/SE-2.0	9.3	156
0715	Arrive Zone Center	# 2	14*24 0 S	170*38.3 W	SW-5	"	"	" "	9.5	163
0725	Begin Discharge	# 3	14*24.21' S	170*39.51' W	Calm	50	"	" " X	8.8	180
40		# 4	14*23.71' S	170*38 88 W	"	"	"		9.7	355
55	Remarks	# 5	14*24.59' S	170*39.50' W	"	"	"		9.5	161
0810		# 6	14*23.75' S	170*38.81' W			"		9.4	356
25		# 7	14*25.02' S	170*39.31' W			"	5	9.6	164
40		# 8	14*23.27 S	170*38.83' W			"		9.9	343
55		# 9	14*24.80 S	170*38.92' W			"		9.2	011
0910		# 10	14*23.09' S	170*38 91' W			29.50		9.0	266
25		# 11	14*24.39 S	170*38.96 W					9.7	009
40		# 12	14*23.66' S	170*39.42 W				10	10.0	179
55		# 13	14*23.79' S	170*38.85' W		60			10.0	002
1010		# 14	14*24 64' S	170*39 36' W					9.3	325
25		# 15	14*24 00 S	170*39.45' W	East-3				9.9	184
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1040	Finish Discharge	#16	14*24.13' S	170*38.88' W	East-2	60	29.50	S/SE-2.0	10.0	357
1050	Exit Discharge Zone	#17	14*22.75' S	170*38.96' W	" "	"	"	" "	10.4	351
1140	Secure SK Dock		14*16.50' S	170*41 2' W						

Current Direction: At Center East End of Discharge Stationary Discharge Pattern Ellipse

Total Discharge Time: 195 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 5.5 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 91 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M Cook

Date: 03/09/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5262

Permit # OD 93-01 & OD 93-02

Time		
0800	Begin Loading SK	
1440	Finish Loading SK	
	Begin Loading SK #2	
	Finish Loading SK #2	

Trip # 1 - X
Trip # 2

Volume Loaded:		
SK	181,350	Gallons
SP	0	Gallons
Total	181,350	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0505	Depart Starkist		14*16 50'	S	170* 41 2	W	Calm	80	29.49			
0550	Arrive Edge of Zone	# 1	14*22 51	S	170*38 67	W	East-7	"	"	S/SE-1.5	9.8	163
0620	Arrive Zone Center	# 2	14*24.0	S	170*38 3	W	" "	"	"	" "	9.6	158
0610	Begin Discharge	# 3	14*2 4.00	S	170*3 7.05'	W	" "	75	"	X	9.1	024
25		# 4	14*2 4.13	S	170*3 7.51	W	" "	"	29.50		9.5	183
40	Remarks	# 5	14*2 3.62	S	170*3 6.94	W		"	"		9.4	346
55		# 6	14*2 4.78'	S	170*3 7.49	W	" "	70	29.49		9.6	184
0710		# 7	14*2 3.56	S	170*3 6.97	W	" "	"	"	" " 5	9.7	348
25		# 8	14*2 4.44	S	170*3 7.48'	W	" "	75	"		9.9	180
40		# 9	14*2 3.21	S	170*3 7.11	W	"	"	29.50		10.0	309
55		# 10	14*2 4.67	S	170*3 7.17	W	" "	80	"		9.7	026
0810		# 11	14*2 3.38	S	170*3 7.60'	W	"	"	29.51		9.3	188
25		# 12	14*2 4.78	S	170*3 7.17	W	East-5	90	"	10	9.5	021
40		# 13	14*2 3.41	S	170*3 7.60	W	" "	"	"		9.4	182
55		# 14	14*2 3.95	S	170*3 6.87	W		"	"		9.7	354
0910		# 15	14*2	S	170*3	W						
25		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0908	Finish Discharge	#15	14*2 3.35'	S	170*3 7.59'	W	East-5	90%	29.51	S/SE-1.5	9.6	184
0915	Exit Discharge Zone	#16	14*2 2.55'	S	170*38.20'	W	East-7	90-RAIN	"	" "	10.2	335
1000	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center West End of Discharge West (slow) Discharge Pattern Ellipse

Total Discharge Time: 178 mins. Average Speed During Discharge: 9.57 kts. Total Time Run 4.9 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 106 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Brook

Date: 03/11/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5263

Permit # OD 93-01 & OD 93-02

Time					
[illegible]	Begin Loading SK		Volume Loaded SK	192,500	Gallons
[illegible]	Finish Loading SK	Trip # 1 X	SP	0	Gallons
10 [illegible]	Begin Loading SK #2	Trip # 2	Total	192,500	Gallons
[illegible]	Finish Loading SK #2				

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
0510	Depart Starkist		14°16.50' S	170°41.2' W	East-15	90	29.51	Metric	kts	True°
0600	Arrive Edge of Zone	# 1	14°22.53' S	170°38.64' W	East-15	"	29.53	East-1.5	9.1	164
0612	Arrive Zone Center	# 2	14°24.0 S	170°38.3 W	East-15	"	29.55		8.9	157
0635	Begin Discharge	# 3	14°23.91 S	170°37.03 W	East-18	80	29.56	East-2.0 X	8.5	014
50		# 4	14°24.20 S	170°37.54 W	East-20	90	"	" "	9.8	183
0705	Remarks Ocean	# 5	14°24.02 S	170°36.95 W	"	"	"		9.0	356
20	Monitoring	# 6	14°23.94 S	170°37.56 W	East-22	80	29.57		9.3	177
35	Control Samples	# 7	14°24.28 S	170°37.00 W	"	"	"	5	9.8	000
50	drawn at 0620	# 8	14°24.33 S	170°37.60 W	"	"	"		9.4	179
0805	WPt: 'C' on Plot	# 9	14°24.08 S	170°36.93 W	East-25	"	"		9.6	358
20		# 10	14°24.33 S	170°37.55 W	"	"	29.58		9.5	180
35		# 11	14°23.97 S	170°37.00 W			"		9.7	357
50		# 12	14°24.55 S	170°37.56 W			"	10	9.6	178
0905		# 13	14°23.26 S	170°37.07 W			"		9.3	341
20		# 14	14°24.62 S	170°37.52 W			"		9.9	180
35		# 15	14°2 S	170°3 W						
		# 16	14°2 S	170°3 W						
		# 17	14°2 S	170°3 W				15		
		# 18	14°2 S	170°3 W						
		# 19	14°2 S	170°3 W						
		# 20	14°2 S	170°3 W						
			14°2 S	170°3 W						
			14°2 S	170°3 W				20		
			14°2 S	170°3 W						
0935	Finish Discharge	#15	14°24.26' S	170°37.01' W	East-25	80	29.58	East-2.0	9.8	359
1042	Exit Discharge Zone	#16	14°22.59' S	170°38.66' W	" "	10% RAIN	"	" "	10.3	344
1125	Secure SK Dock		14°16.50' S	170°41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.4 kts. Total Time Run 6.25 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 113.7 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D ✓ Master: F/V Blue Moon M. Cook

Date: 03/13/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5264

Permit # OD 93-01 & OD 93-02

Time					
	Begin Loading SK		Volume Loaded	SK	Gallons
	Finish Loading SK	Trip # 1 - X		SP 0	Gallons
	Begin Loading SK #2	Trip # 2		Total 187500	Gallons
	Finish Loading SK #2				

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
0605	Depart Starkist		14*16 50' S	170* 41 2 W	East-10	75%	29.51	Metric	kts	True*
0652	Arrive Edge of Zone	# 1	14*22 53' S	170*38 68' W	East-15	90	29.53	East-1.0	9.9	163
0703	Arrive Zone Center	# 2	14*24 0 S	170*38.3 W	" "	"	29.54	" "	9.3	158
0712	Begin Discharge	# 3	14*24.05 S	170*37.19 W	" "	"	"	" " X	9.3	070
27		# 4	14*23.90' S	170*3 7.56 W	" "	"	29.55	" "	9.1	179
42	Remarks	# 5	14*23.93' S	170*36.95' W				" "	9.5	358
57		# 6	14*24.14' S	170*37.65' W	East-15	90-Rain		" "	9.8	176
0812		# 7	14*24.11' S	170*36.91' W	" "	80	29.54	5	9.6	000
27		# 8	14*24.20' S	170*37.60 W		80			9.9	177
" 42		# 9	14*23.80' S	170*36.94' W	East-20	75	29.55		9.8	359
" 57		# 10	14*24.06 S	170*37.57' W		80	"		10.0	174
0912		# 11	14*23.92' S	170*36.95' W		85	29.56		9.6	001
" 27		# 12	14*24.30' S	170*37.59' W			"	10	9.8	182
" 42		# 13	14*23.31 S	170*37.07' W	ENE-18		29.57		9.7	308
" 57		# 14	14*24.50' S	170*37.58' W	East-15	80			9.7	179
1012		# 15	14*2 S	170*3 W						
" 27		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1012	Finish Discharge	#15	14*23.22' S	170*37.18' W	East-20	50%	29.57	East-1.0	9.9	331
1014	Exit Discharge Zone	#16	14*22.88 S	170*37.36' W	" "	"	"		10.1	333
1105	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.66 kts. Total Time Run 5.0 hr.

Navigational Plot made: yes Presence of Plume? NO

Time and position of any floating material None Discharge Rate: 107.8 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D ✓ Master: F/V Blue Moon

Date: 03/14/10

F/V Blue Moon Ocean Dumping Log

Voyage # 5265

Permit # OD 93-01 & OD 93-02

Time		
1615	Begin Loading SK	
1730	Finish Loading SK	Trip # 1 X
	Begin Loading SK #2	Trip # 2
	Finish Loading SK #2	

Volume Loaded

SK	135,000	Gallons
SP	0	Gallons
Total	135,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14°16.50' S	170°41.2' W	East-15	50	29.53			
0655	Arrive Edge of Zone	# 1	14°22.53' S	170°38.67 W	NE-15	"	29.56	East-1	9.9	161
0705	Arrive Zone Center	# 2	14°24.0 S	170°38.3 W	" "	"	"	" "	10.8	160
0713	Begin Discharge	# 3	14°23.49' S	170°37.34' W	" "	60	"	" " X	9.2	095
" 28		# 4	14°23.58' S	170°37.53 W	" "	"	"		8.8	138
" 43	Remarks	# 5	14°22.85' S	170°37.55 W	NE-18	40	"		9.5	304
" 58		# 6	14°24.39' S	170°37.07 W	" "	"	"		9.4	136
0813		# 7	14°22.75' S	170°37.83' W	" "	"	29.57	5	9.9	283
" 28		# 8	14°24.03' S	170°36.94' W	" "	50	"		9.3	349
" 43		# 9	14°23.24' S	170°37.99' W	NE-20	"	"		9.7	140
" 58		# 10	14°23.45' S	170°37.03' W	" "	60	29.58		9.7	338
0913		# 11	14°23.42' S	170°37.84' W	" "	"	29.59		10.0	139
" 28		# 12	14°23.34' S	170°37.04' W	" "	"	"	10	9.4	324
" 43		# 13	14°23.52' S	170°37.77 W	" "	50	"		9.8	137
" 58		# 14	14°2 S	170°3 W						
1013		# 15	14°2 S	170°3 W						
		# 16	14°2 S	170°3 W						
		# 17	14°2 S	170°3 W				15		
		# 18	14°2 S	170°3 W						
		# 19	14°2 S	170°3 W						
		# 20	14°2 S	170°3 W						
			14°2 S	170°3 W						
			14°2 S	170°3 W				20		
			14°2 S	170°3 W						
0948	Finish Discharge	#14	14°22.73' S	170°37.78' W	NE-20	50%	29.59	East-1	9.9	332
0949	Exit Discharge Zone	#15	14°22.60' S	170°37.84' W	" "	"	"	" "	10.0	333
1040	Secure SK Dock		14°16.50' S	170°41.2' W						

Current Direction: At Center Southwest End of Discharge SW Discharge Pattern Ellipse

Total Discharge Time: 155 mins. Average Speed During Discharge: 9.55 kts. Total Time Run 4.5 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 91.2 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master, F/V Blue Moon M. Rook

Date: 03/17/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 526~~7~~ 6

Permit # OD 93-01 & OD 93-02

Time	
1330	Begin Loading SK
1430	Finish Loading SK
1700	Begin Loading SK
1700	Finish Loading SK

Trip # 1
Trip # 2

Volume Loaded		
SK	170 000	Gallons
SP		Gallons
Total	170 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True°
0360	Depart Starkist		14°16.50'	S	170° 41.2'	W			29.55			
0555	Arrive Edge of Zone	# 1	14°22.4	S	170°38.7	W		70	29.55	1.5	10	167°
0605	Arrive Zone Center	# 2	14°24.0	S	170°38.3	W	E4-10	70	29.55	1.5	10.5	165°
0615	Begin Discharge	# 3	14°24.10	S	170°37.1	W	E4-10	70	29.55	1.5 X	9.4	346°
0630		# 4	14°25.5	S	170°37.7	W	E 10	70	29.55	1.5	10	180°
45	Remarks	# 5	14°24.0	S	170°37.8	W	E 15	70	29.55	1.5	9.4	349
0700		# 6	14°23.7	S	170°37.7	W	E15	70	29.55	1.5	10.1	179°
15		# 7	14°24.7	S	170°37.3	W	E15	60	29.55	1.5 5	9.3	025°
30		# 8	14°24.9	S	170°37.7	W	E15	60	29.55	1.5	9.2	181°
45		# 9	14°24.5	S	170°37.1	W	E15	50	29.55	1.5	9.5	026°
0800		# 10	14°23.1	S	170°37.7	W	E15	50	29.55	1.5	10.1	186°
15		# 11	14°25.2	S	170°37.5	W	E15	50	29.6	1.5	9.7	051°
30		# 12	14°23.2	S	170°37.3	W	E15	50	29.6	1.5 10	9.4	340°
45		# 13	14°25.2	S	170°37.5	W	E15	50	29.6	1.5	9.6	035°
0900		# 14	14°25.3	S	170°37.2	W	E15	50	29.65	1.5	10.2	340°
		# 15	14°2	S	170°3	W						
		# 16	14°2	S	170°3	W						
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
0905	Finish Discharge	15	14°2 2.8	S	170°3 7.7	W	E15	50	29.65	1.5	9.5	219°
0910	Exit Discharge Zone	16	14°2 2.4	S	170°3 8.1	W	E15	50	29.65	1.5	10.7	336°
0955	Secure SK Dock		14°16.50'	S	170°41.2'	W						

Current Direction: At Center W End of Discharge W Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.68 kts. Total Time Run 4.9 hr.

Navigational Plot made: yes Presence of Plume? none

Time and position of any floating material: none Discharge Rate: 103.3 Gallons/min/kts

Unusual Occurrences? none

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master, F/V Blue Moon

Date 03/19/10 F/V Blue Moon Ocean Dumping Log Voyage # 5267

Permit # OD 93-01 & OD 93-02

Time					
1300	Begin Loading SK		Volume Loaded	SK	150000 Gallons
1510	Finish Loading SK	Trip # 1		SP	Gallons
1300	Begin Loading SK	Trip # 2		Total	150000 Gallons
1700	Finish Loading SK				

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0515	Depart Starkist		14*16 50'	S	170* 41 2'	W						
0620	Arrive Edge of Zone	# 1	14*22 4	S	170*38	W		50	29.6	24	9.7	168°
0613	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 20	50	29.6	1.5	9.5	151°
0625	Begin Discharge	# 3	14*2 4.8	S	170*3 7.2	W	SE 20	50	29.6.5	1.5 X	9.5	130
25		# 4	14*2 7.1	S	170*3 7.4	W	SE 20	50	29.6	1.5	10	46°
50	Remarks:	# 5	14*2 5.6	S	170*3 7.4	W	SE 20	50	29.6	1.5	9.9	055°
0705		# 6	14*2 3.9	S	170*3 7.4	W	SE 20	50	29.6	1.5	10	228°
20		# 7	14*2 5.2	S	170*3 7.9	W	SE 20	50	29.6	1.5 5	8.8	053°
35		# 8	14*2 3.7	S	170*3 7.2	W	SE 20	50	29.6	1.5	10.3	224°
50		# 9	14*2 3.4	S	170*3 7.6	W	SE 20	50	29.6	1.5	9.9	059°
0805		# 10	14*2 3.6	S	170*3 7.8	W	SE 20	50	29.6	1.5	9.9	227°
20		# 11	14*2 5.2	S	170*3 7.8	W	SE 20	50	29.6	1.5	9.5	061°
35		# 12	14*2 3.6	S	170*3 7.1	W	SE 20	50	29.6	1.5 10	9.8	220°
50		# 13	14*2 5.2	S	170*3 8.0	W	SE 20	50	29.6	1.5	7.3	063°
0905		# 14	14*2 3.7	S	170*3 7.1	W	SE 20	50	29.6	1.5	10	222°
20		# 15	14*2 2.1	S	170*3 5.0	W	SE 20	50	29.6	1.5	9.5	062°
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0925	Finish Discharge	16	14*2 4.9	S	170*3 7.7	W	SE 20	50	29.6	1.5	10	062°
0940	Exit Discharge Zone	17	14*2 2.7	S	170*3 8.5	W	SE 20	50	29.6	1.5	10.2	345°
1025	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 185 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 5.16 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 101.3 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A S P.A. ✓ U.S C.G M.S D. ____ Master. F/V Blue Moon [signature]

Date: 03/21/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5268

Permit # OD 93-01 & OD 93-02

Time		
1300	Begin Loading SK	
1440	Finish Loading SK	Trip # 1
1400	Begin Loading SK	Trip # 2
1930	Finish Loading SK	

Volume Loaded

SK	153750	Gallons
SP		Gallons
Total	153750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True°
0656	Depart Starkist		14°16.50'	S	170°41.2	W		30	29.55			
0737	Arrive Edge of Zone	# 1	14°22	S	170°38.7	W	SE 15	20	29.55	1.5	9.2	164°
0745	Arrive Zone Center	# 2	14°24.0	S	170°38.3	W	SE15	30	29.55	1.5	9	163°
0750	Begin Discharge	# 3	14°2 1.2	S	170°3 7.3	W	SE15	30	29.55	1.5 X	9.9	182°
0805		# 4	14°2 3.3	S	170°3 7.6	W	SE15	30	29.55	1.5	9.8	183°
20	Remarks:	# 5	14°2 5.1	S	170°3 7.6	W	SE15	30	29.55	1.5	9.9	182°
25		# 6	14°2 3.1	S	170°3 7.2	W	SE15	20	29.55	1.5	9	345°
50		# 7	14°2 4.7	S	170°3 7.5	W	SE20	30	29.55	1.5 5	10	167°
0905		# 8	14°2 3.7	S	170°3 7.1	W	SE20	30	29.55	1.5	9.5	352°
20		# 9	14°2 4.3	S	170°3 7.7	W	SE20	50	29.55	1.5	10.1	187°
35		# 10	14°2 4.1	S	170°3 7.1	W	SE20	50	29.55	1.5	9.8	356°
50		# 11	14°2 4.3	S	170°3 7.7	W	SE20	50	29.55	1.5	10.5	188°
1005		# 12	14°2 3.8	S	170°3 7.1	W	SE20	50	29.55	1.5 10	9.9	352°
20		# 13	14°2 4.2	S	170°3 7.7	W	SE20	50	29.55	1.5	10.1	188°
35		# 14	14°2 3.7	S	170°3 7.1	W	SE20	50	29.55	1.5	10.1	356°
		# 15	14°2	S	170°3	W						
		# 16	14°2	S	170°3	W						
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
1050	Finish Discharge	15	14°2 3.2	S	170°3 7.2	W	SE20	50	29.55	1.5	9.7	351°
1050	Exit Discharge Zone	16	14°2 3.2	S	170°3 7.2	W	SE20	50	29.55	1.5	9.8	330°
1140	Secure SK Dock		14°16.50'	S	170°41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.7 kts. Total Time Run 4.83 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material NONE Discharge Rate: 105.2 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 03/24/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5269

Permit # OD 93-01 & OD 93-02

Time					
	Begin Loading SK		Volume Loaded	SK	150,000 Gallons
	Finish Loading SK	Trip # 1		SP	Gallons
	Begin Loading SK	Trip # 2		Total	150,000 Gallons
	Finish Loading SK				

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
										Metric		kts	True°
1230	Depart Starkist		14°16.50'	S	170°41.2'	W	SE 15	30	29.55				
1325	Arrive Edge of Zone	#1	14°22.4	S	170°38.7	W	SE15	30	29.55	1.5		9	167°
1335	Arrive Zone Center	#2	14°24.0	S	170°38.3	W	SE15	30	29.65	1.5		8.8	141°
1345	Begin Discharge	#3	14°24.4	S	170°37.3	W	SE15	30	29.55	1.5	X	8.9	115°
1400		#4	14°23.6	S	170°37.3	W	SE15	30	29.55	1.5		9.1	223°
15	Remarks	#5	14°25.3	S	170°37.9	W	SE15	30	29.55	1.5		9.7	208°
30		#6	14°24.1	S	170°37.0	W	SE15	30	29.55	1.5		9.4	001°
45		#7	14°24.1	S	170°37.6	W	SE15	30	29.55	1.5	5	9.8	206°
1500		#8	14°25.3	S	170°37.8	W	SE15	30	29.55	1.5		9	055°
15		#9	14°24.1	S	170°37.5	W	SE15	50	29.55	1.5		9.6	206°
30		#10	14°24.8	S	170°37.9	W	SE15	50	29.55	1.5		9.4	209°
45		#11	14°24.5	S	170°37.1	W	SE15	50	29.55	1.5		9.2	015°
1600		#12	14°23.9	S	170°37.5	W	SE 15	50	29.55	1.5	10	9.9	206°
15		#13	14°25.0	S	170°37.5	W	SE 15	50	29.55	1.5		9.7	044°
30		#14	14°24.4	S	170°37.0	W	SE 15	50	29.55	1.5		10	015°
		#15	14°2	S	170°3	W							
		#16	14°2	S	170°3	W							
		#17	14°2	S	170°3	W					15		
		#18	14°2	S	170°3	W							
		#19	14°2	S	170°3	W							
		#20	14°2	S	170°3	W							
			14°2	S	170°3	W							
			14°2	S	170°3	W					20		
			14°2	S	170°3	W							
1635	Finish Discharge	15	14°24.0	S	170°37.1	W	SE 15	50	29.55	1.5		10	002°
1645	Exit Discharge Zone	16	14°22.7	S	170°37.7	W	SE15	50	29.55	1.5		10	334°
1735	Secure SK Dock		14°16.50'	S	170°41.2'	W							

Current Direction: At Center HW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.5 kts. Total Time Run 5.08 hr

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 114 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master F/V Blue Moon [signature]

Date: 03/26/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5270

Permit # OD 93-01 & OD 93-02

Time	
1800	Begin Loading SK
1945	Finish Loading SK
1300	Begin Loading SK
1710	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded		
SK	170000	Gallons
SP		Gallons
Total	170000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
0615	Depart Starkist		14*16 50'	S	170* 41 2'	W			29.6	Metric		kts	True*
0605	Arrive Edge of Zone	# 1	14*22 4	S	170*38. 7	W	SE15	50	29.6	1		9.4	166°
0614	Arrive Zone Center	# 2	14*24 0	S	170*38.3	W	SE15	50	29.6	1		9.4	162°
0620	Begin Discharge	# 3	14*2 4.4	S	170*3 7.5	W	SE15	50	29.6	1	X	9.2	114°
35		# 4	14*2 3.8	S	170*3 7.5	W	SE 15	50	29.6	1		9.9	289°
50	Remarks	# 5	14*2 4.8	S	170*3 7.5	W	SE15	50	29.6	1		8.8	040°
0905		# 6	14*2 3.7	S	170*3 7.3	W	SE15	50	29.6	1		9.8	219°
20		# 7	14*2 5.4	S	170*3 8.5	W	SE15	50	29.6	1	5	9.8	198°
35		# 8	14*2 4.4	S	170*3 7.4	W	SE 15	50	29.6	1		9.7	015°
50		# 9	14*2 4.5	S	170*3 8.0	W	SE 15	50	29.6	1		10	210°
0805		# 10	14*2 4.8	S	170*3 7.4	W	SE15	40	29.6	1		9.5	046°
20		# 11	14*2 3.8	S	170*3 7.5	W	SE15	40	29.6	1		10	218°
35		# 12	14*2 4.5	S	170*3 7.3	W	SE 15	40	29.6	1	10	9.5	021°
50		# 13	14*2 3.9	S	170*3 7.8	W	SE15	40	29.6	1		10	210°
0905		# 14	14*2 4.9	S	170*3 7.6	W	SE 15	40	29.6	1		9.6	042°
		# 15	14*2	S	170*3	W							
		# 16	14*2	S	170*3	W							
		# 17	14*2	S	170*3	W					15		
		# 18	14*2	S	170*3	W							
		# 19	14*2	S	170*3	W							
		# 20	14*2	S	170*3	W							
			14*2	S	170*3	W							
			14*2	S	170*3	W					20		
			14*2	S	170*3	W							
0920	Finish Discharge	15	14*2 3.7	S	170*3 7.4	W	SE 15	40	29.6	1		9.8	239°
0930	Exit Discharge Zone	16	14*2 2.7	S	170*3 8.0	W	SE 15	40	29.6	1		10.1	338°
1020	Secure SK Dock		14*16.50'	S	170*41.2'	W							

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 5.08 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 98.3 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A ✓ U.S.C.G.M.S.D ✓ Master: F/V Blue Moon

Date: 03/28/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5271

Permit # OD 93-01 & OD 93-02

Time	
1400	Begin Loading SK
1545	Finish Loading SK
1545	Begin Loading SK
2040	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded

SK		Gallons
SP		Gallons
Total	168750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True°
0600	Depart Starkist		14°16.50'	S	170°41.2'	W						
0650	Arrive Edge of Zone	# 1	14°22	S	170°38	W						
0700	Arrive Zone Center	# 2	14°24.0	S	170°38.3	W						
0710	Begin Discharge	# 3	14°24.5	S	170°37.5	W	SE15	70	29.55	1.5 X	9.5	084°
25		# 4	14°23.6	S	170°36.7	W	SE15	70	29.55	1.5	9.3	216°
40	Remarks	# 5	14°23.9	S	170°37.5	W	SE15	70	29.55	1.5	9.7	214°
55		# 6	14°24.6	S	170°37.2	W	SE15	70	29.55	1.5	9	0[illegible]
0810		# 7	14°25.0	S	170°37.8	W	SE15	70	29.55	1.5 5	8.8	056°
25		# 8	14°24.[illegible]	S	170°37.3	W	SE15	70	29.55	1.5	10.2	216°
40		# 9	14°23.6	S	170°36.8	W	SE15	70	29.55	1.5	9.4	110°
55		# 10	14°24.8	S	170°38.1	W	SE15	70	29.55	1.5	10.5	215°
0910		# 11	14°25.0	S	170°37.7	W	SE15	70	29.60	1.5	9.3	054°
25		# 12	14°23.7	S	170°37.2	W	SE15	70	29.6	1.5 10	10.2	220°
40		# 13	14°25.1	S	170°37.9	W	SE15	70	29.6	1.5	9.6	055°
		# 14	14°2	S	170°3	W						
		# 15	14°2	S	170°3	W						
		# 16	14°2	S	170°3	W						
		# 17	14°2	S	170°3	W				15		
		# 18	14°2	S	170°3	W						
		# 19	14°2	S	170°3	W						
		# 20	14°2	S	170°3	W						
			14°2	S	170°3	W						
			14°2	S	170°3	W				20		
			14°2	S	170°3	W						
0955	Finish Discharge	14	14°23.7	S	170°36.8	W	SE15	70	29.6	1.5	9.3	013°
0958	Exit Discharge Zone	15	14°22.7	S	170°37.5	W	SE15	70	29.6	1.5	10	328°
1050	Secure SK Dock		14°16.50'	S	170°41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 9.5 kts. Total Time Run 4.83 hr.

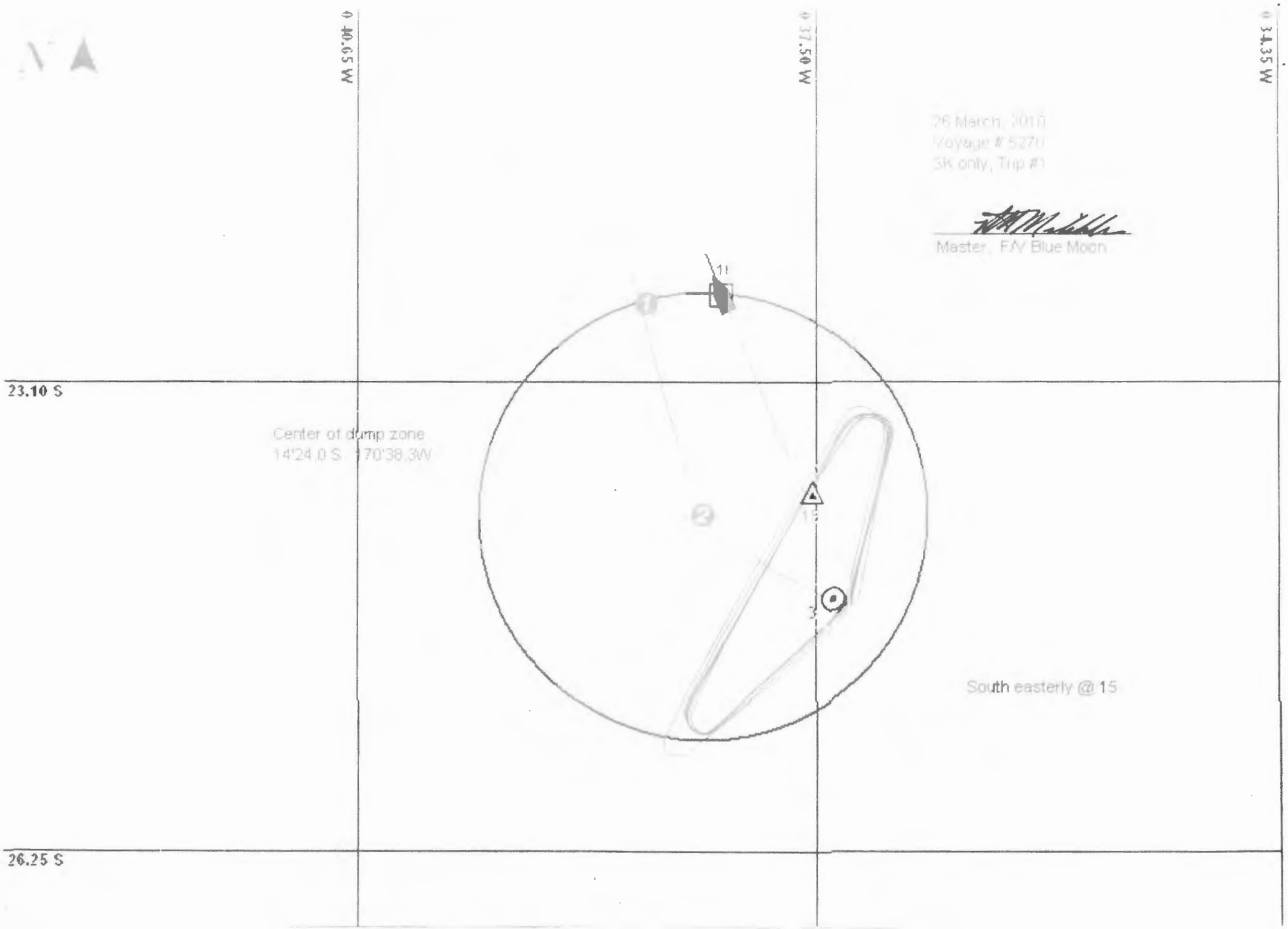
Navigational Plot made: yes Presence of Plume? None

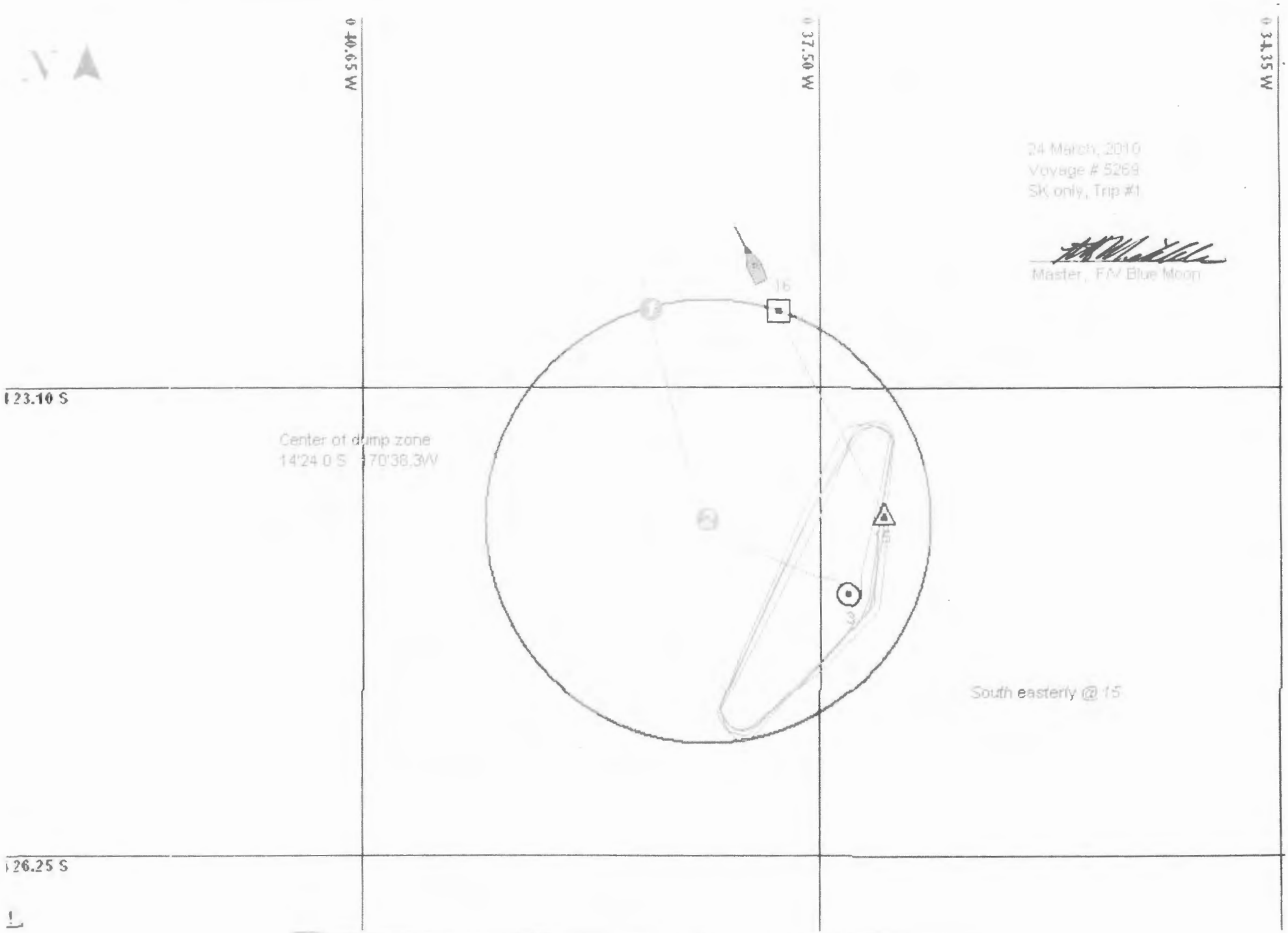
Time and position of any floating material: None Discharge Rate: 107 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G. M.S.D. ✓ Master F/V Blue Moon [signature]

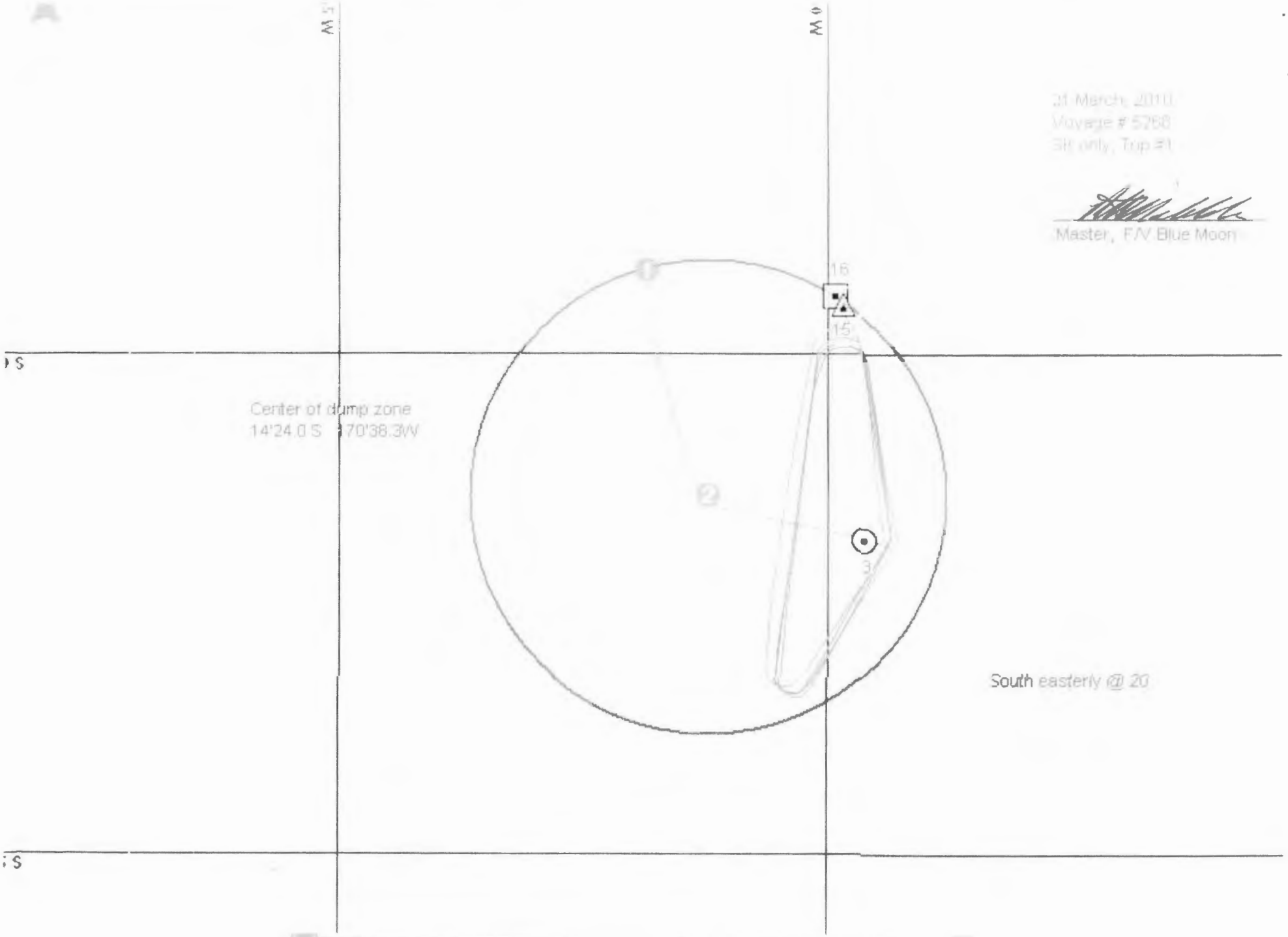
28 March, 2010
Voyage # 5271
Sk only, Trip #1
Master, F/V Blue Moon
15
23.10 S
Center of dump zone
14°24.0 S 170°38.3W
South easterly @ 15
26.25 S

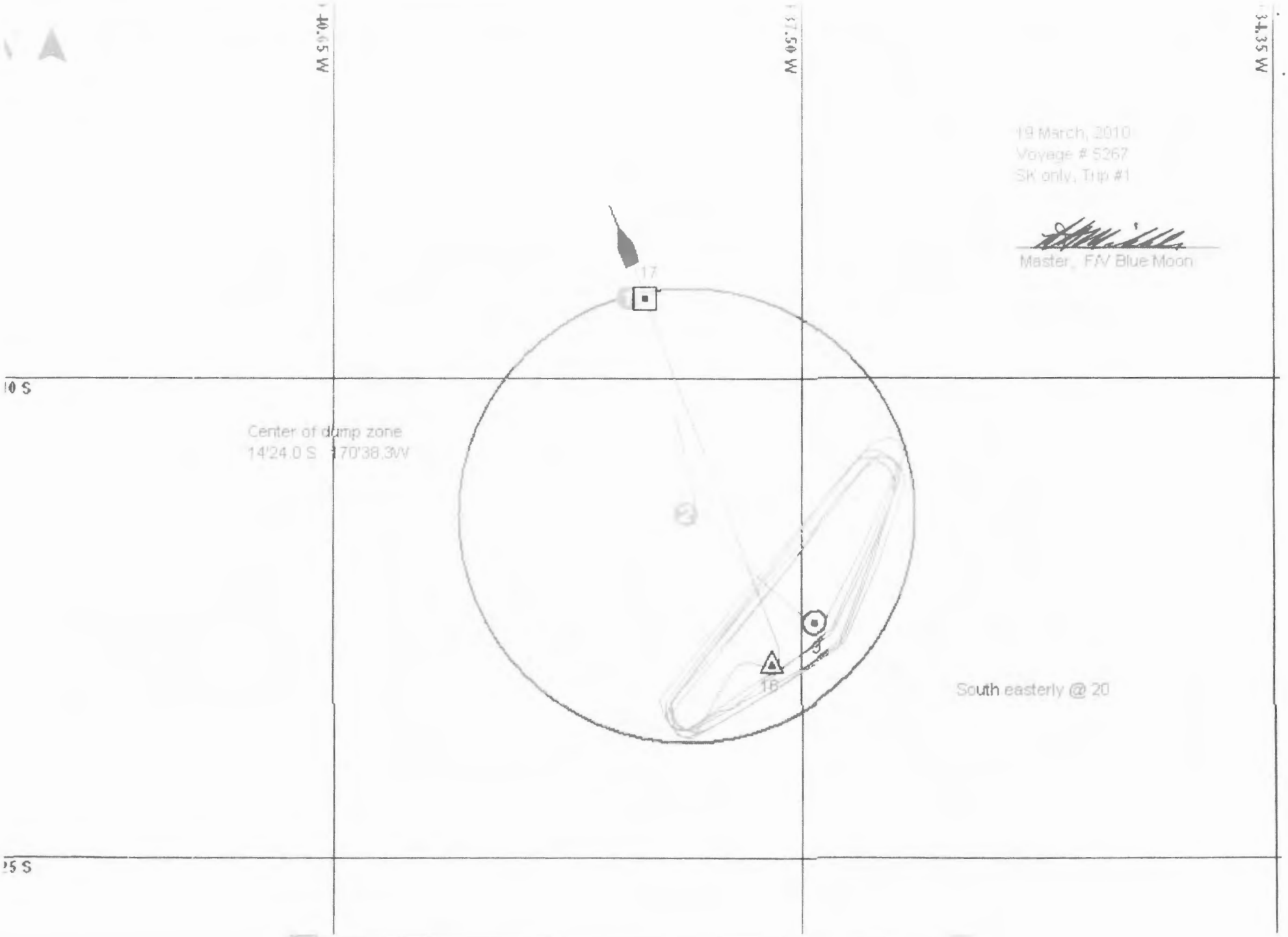

40.65 W
37.50 W
34.35 W
26 March, 2010
Voyage # 5270
SK only, Trip #1
Master, F/V Blue Moon
23.10 S
Center of dump zone
14°24.0 S 170°38.3W
South easterly @ 15
26.25 S

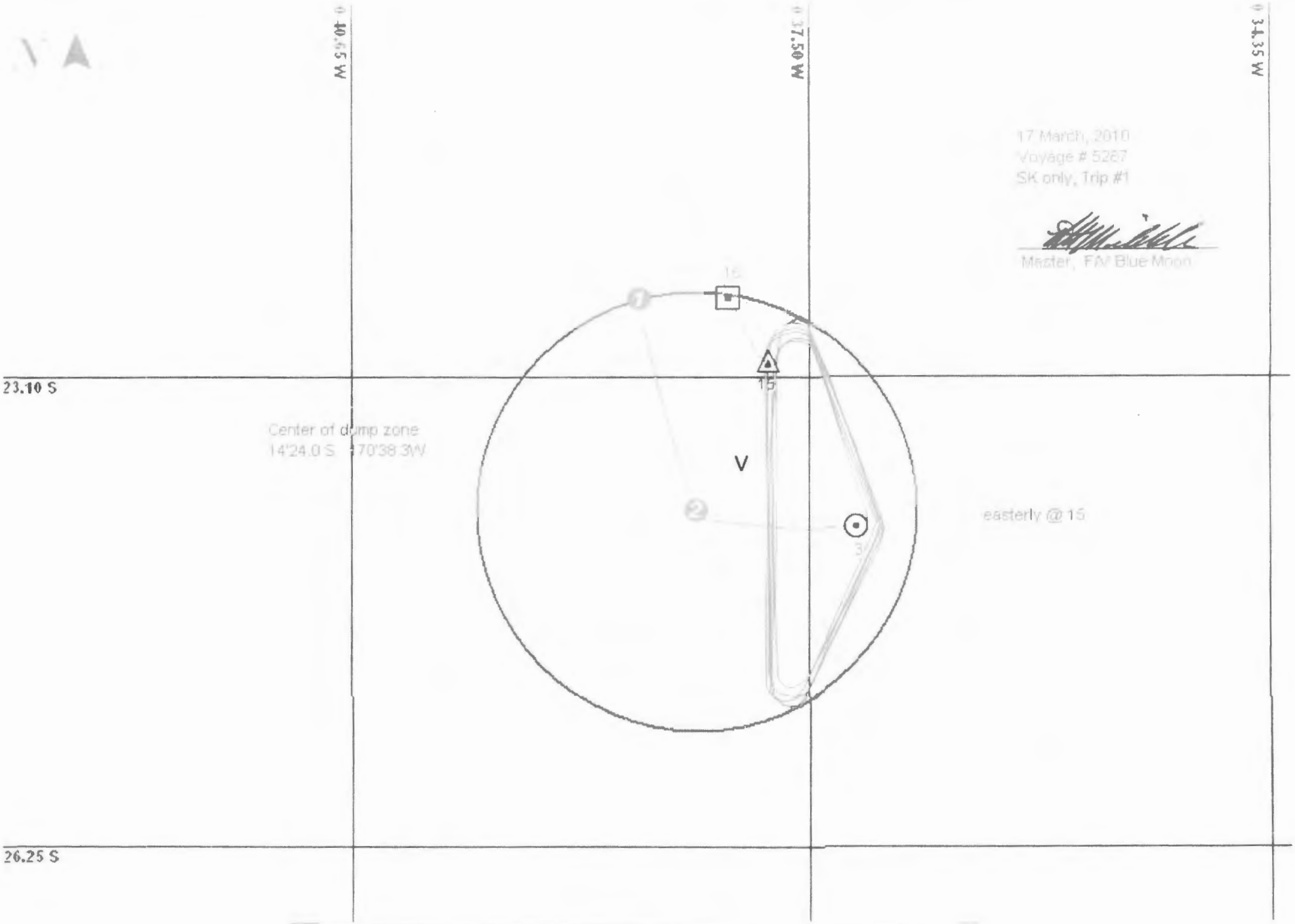

0 40.65 W
0 37.50 W
0 34.35 W
23.10 S
26.25 S
24 March, 2010
Voyage # 5269
SK only, Trip #1
Master, F/V Blue Moon
16
Center of dump zone
14°24.0'S 70°38.3'W
South easterly @ 15

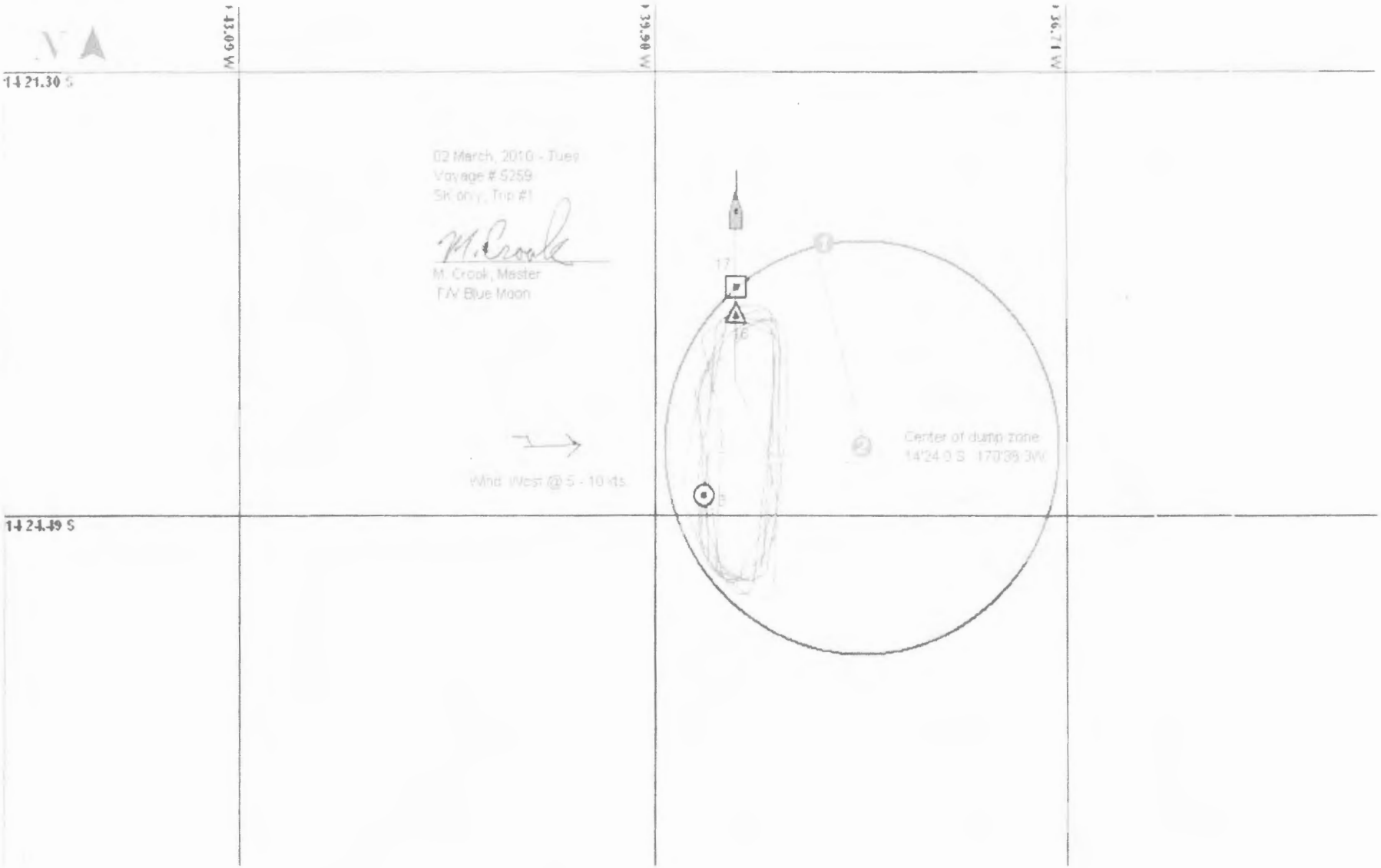
31 March, 2010
Voyage # 5268
Sit only, Trip #1

Master, F/V Blue Moon




40.65 W
37.50 W
34.35 W
10 S
25 S
19 March, 2010
Voyage # 5267
SK only, Trip #1
Master, F/V Blue Moon
17
Center of dump zone
14°24.0 S 170°38.3W
16
South easterly @ 20

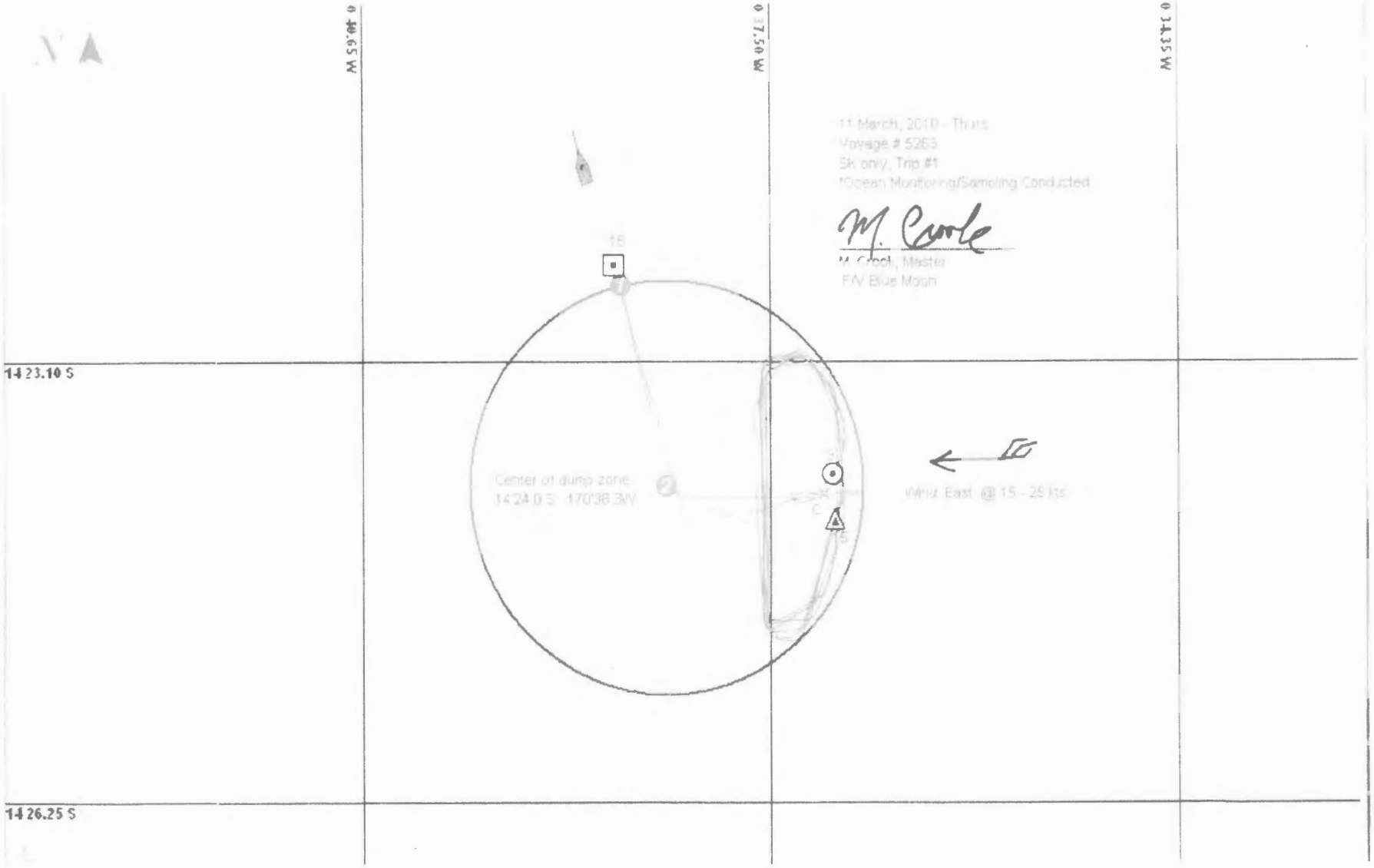

40.65 W
37.50 W
34.35 W
23.10 S
26.25 S
17 March, 2010
Voyage # 5267
SK only, Trip #1
Master, FAV Blue Moon
Center of dump zone
14°24.0'S 170°38.3'W
V
easterly @ 15
15
1
2
3


14 21.30 S
14 24.49 S
02 March, 2010 - Tues
Voyage # 5259
Sk only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: West @ 5 - 10 kts
17
16
Center of dump zone
14°24.0 S 170°39.3W

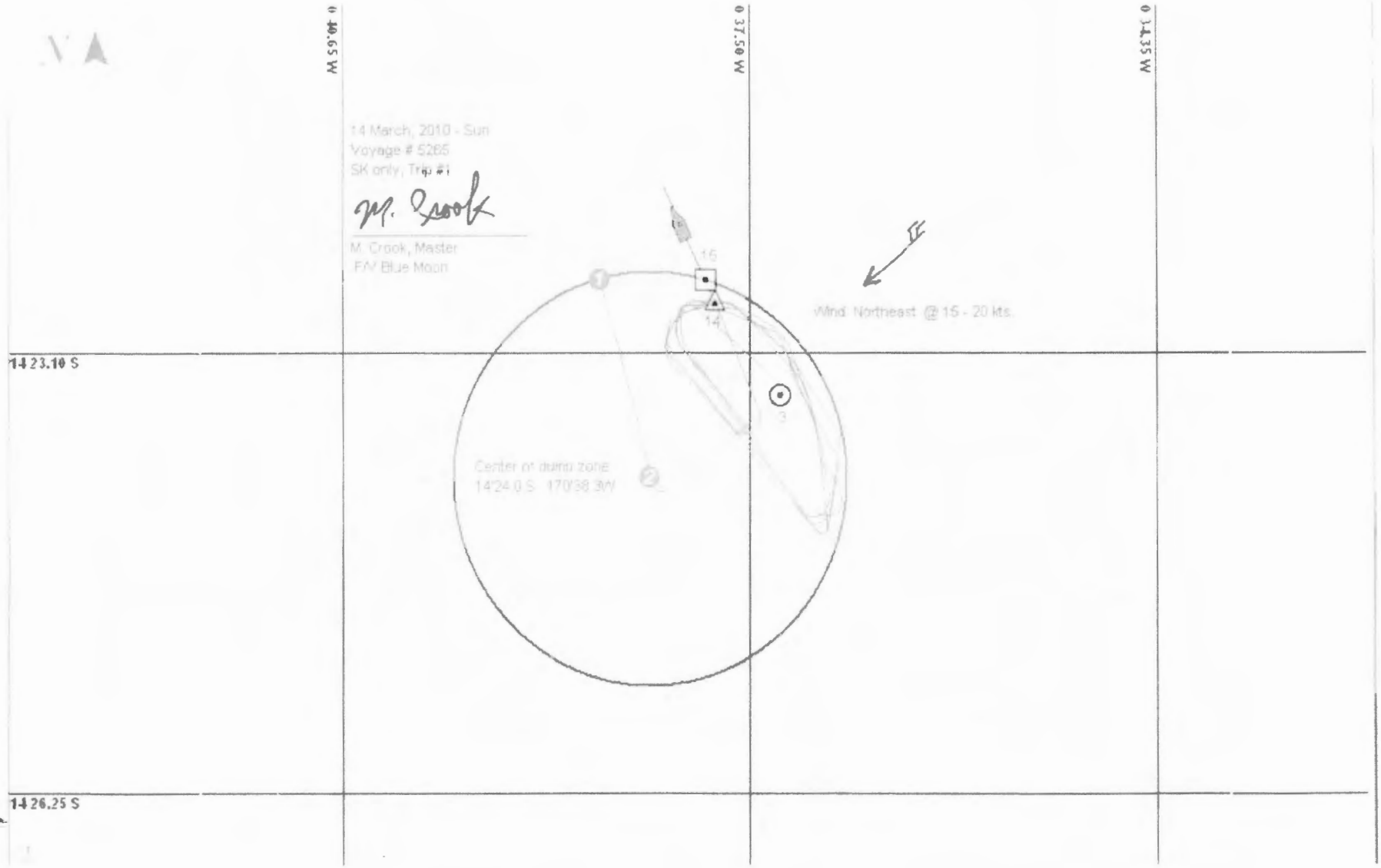
0 43.09 W
0 39.90 W
0 36.71 W
0 33.52 W
14 21.30 S
14 24.49 S
Wind WNW @ 7 - 10 kts
17
16
13
1
2
Center of dump zone
14°24.0'S 170°38.3'W
04 March, 2010 - Thurs
Voyage # 5260
SK only, Trip #1
M. Crook
M. Crook, Master
F/V Blue Moon

0 43.09 W
0 39.90 W
0 36.71 W
0 33.52 W
14 21.30 S
14 24.49 S
06 March, 2010 - Sat
Voyage # 5261
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: Calm or variable to 5 kts
Center of dump zone
14°24.0'S 170°38.3'W
17
16
3
1
2

0 43.09 W
0 39.90 W
0 36.71 W
0 33.52 W
14 21.30 S
14 24.49 S
09 March, 2010 - Tues.
Voyage # 5262
SK only. Trip #1
M. Crook, Master
F/V Blue Moon
16
15
1
2
3
Center of dump zone
14°24.0'S 170°38.3'W
Wind East @ 6 - 7 kts


170°59.65 W
170°57.50 W
170°55.35 W
14°23.10 S
14°26.25 S
11 March, 2010 - Thurs
Voyage # 5263
Sk only, Trip #1
Ocean Monitoring/Sampling Conducted
M. Cook, Master
F/V Blue Moon
Center of dump zone
14°24.0 S 170°36.3W
Wind: East @ 15 - 25 kts

0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
14 26.25 S
13 March, 2010 - Sat.
Voyage # 5264
Sh only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3 W
Wind: East @ 15 - 20 kts
1
2
3
15
16


0 40.65 W
0 37.50 W
0 1.35 W
14 March, 2010 - Sun
Voyage # 5265
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
16
14
Wind: Northeast @ 15 - 20 kts.
14 23.10 S
Center of dump zone
14°24.0 S 170°38.3W
14 26.25 S

2010

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

21 April, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue moon
Chief investigator:	Mike Crook
Starkist Samoa Co. Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling Positions:	All positions obtained by Global Positioning Satellite Navigator (GPS)

Mike Crook
P.O. Box 4933 Pago Pago, AS
4/29/10

Introduction

On April 21, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0505: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master, Principal Investigator, Chief and Mate onboard.

0617: The *Blue Moon* entered the dumpzone circle @ 14*22.5' S / 170*38.7' W.

0632: The *Blue Moon* arrived at the dump-zone center, where observed southeasterly winds and slight southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0640: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with SE swells to 1.5 meters and a southeast wind of 10 knots. Skies were partly cloudy with unlimited visibility and the barometer reading 29.61 Current set and drift, of the ship, were to the northwest at 0.5 knots. No floating materials or sea life were observed here.

0650: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical pattern (see Plot 1) until 1020 hrs.

1025: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had increased to 15 knots with still partly cloudy skies. The waste plume had already dissipated and/or moved off this position to the west/northwest. The current/wind drift of the ship was now GPS determined to be northwesterly @ 1.3 knot. No sea life or floatable materials were observed.

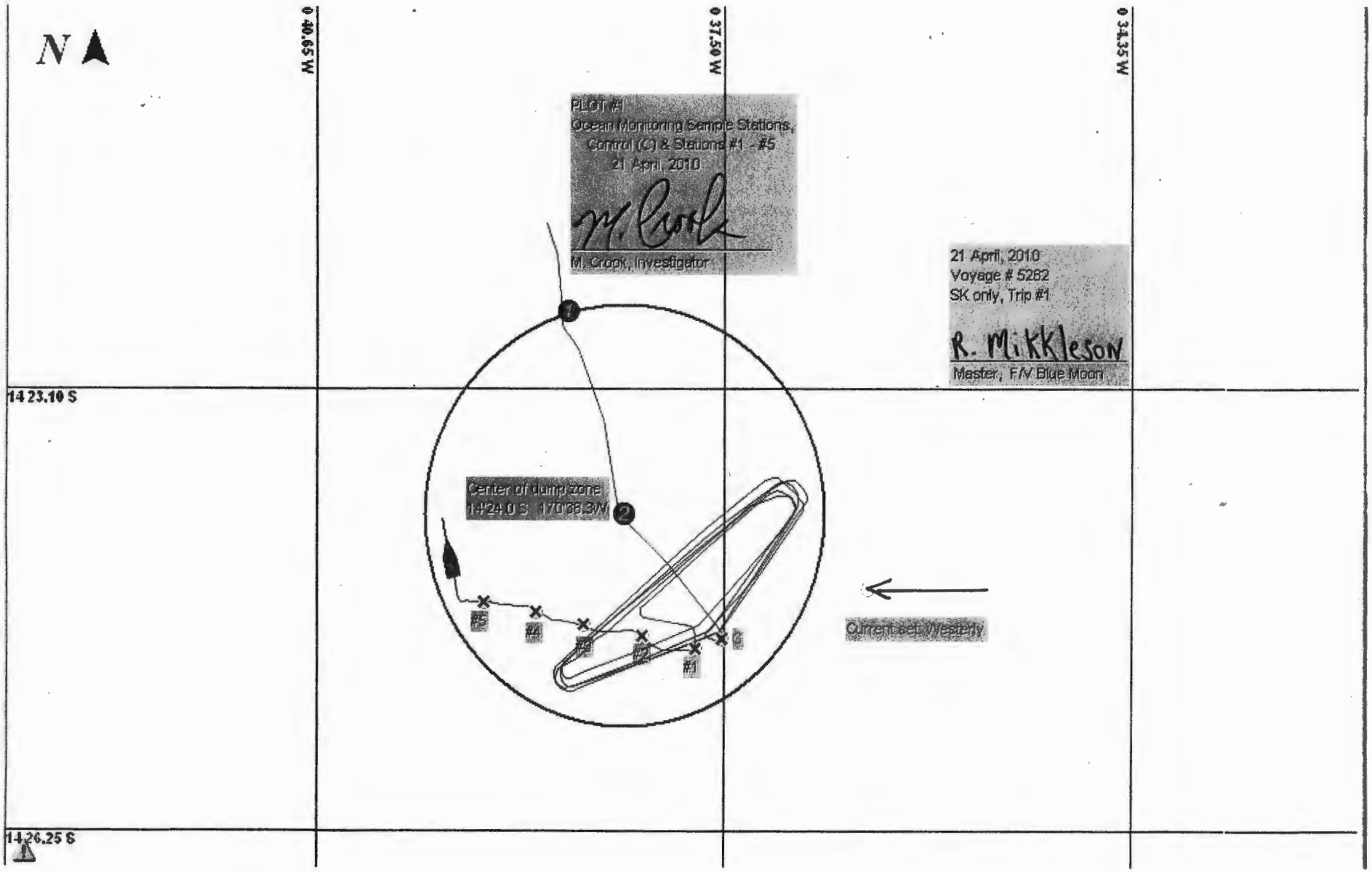
1035: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position again, had no visual sign (i.e. the typical glassy surface sheen) of the waste plume. The average drift rate of the ship with current and wind was GPS determined to be westerly (W) at 1.3 knots between stations 2 & 3. No sea-life or floatable materials were noted at this position.

1045: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was in an area of broken up patches of glassy surface sheen over clear blue water. The drift rate of the ship between stations 3 & 4 was 1.3 knots to the west, indicating a shift from the northwesterly set noted earlier by the ship's captain.

1055: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM west of Station #3, was visibly, the leading edge of the waste plume with just a few light and scattered streaks of surface sheen over natural clear blue water. There were no floating or suspended materials. The westerly current/drift rate of the ship was again noted here to be at 1.3 knots.

1105: Station Five monitoring. Sampling for this final station was conducted 0.25 NM down-current (West) from Station #4 and approximately 1.2 NM miles WSW of the zone center. The waste plume was not visually apparent at this location which had natural, clear blue ocean. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.63 when monitoring activities were concluded at 1115 hrs. The *Blue Moon* exited the disposal zone at 1125 hours and *arrived* back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1240 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator


N
0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
14 26.25 S
PLOT #1
Ocean Monitoring Sample Stations,
Control (C) & Stations #1 - #5
21 April, 2010
M. Crook, Investigator
21 April, 2010
Voyage # 5282
SK only, Trip #1
R. Mikkleson
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3 W
#5
#4
#3
#2
#1
C
Current set Westerly

2010

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

21 April, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue moon
Chief investigator:	Mike Crook
Starkist Samoa Co. Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling Positions:	All positions obtained by Global Positioning Satellite Navigator (GPS)

Mike Crook
P.O. Box 4933 Pago Pago, AS
4/29/10

Introduction

On April 21, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0505: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master, Principal Investigator, Chief and Mate onboard.

0617: The *Blue Moon* entered the dumpzone circle @ 14*22.5' S / 170*38.7' W.

0632: The *Blue Moon* arrived at the dump-zone center, where observed southeasterly winds and slight southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0640: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with SE swells to 1.5 meters and a southeast wind of 10 knots. Skies were partly cloudy with unlimited visibility and the barometer reading 29.61 Current set and drift, of the ship, were to the northwest at 0.5 knots. No floating materials or sea life were observed here.

0650: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical pattern (see Plot 1) until 1020 hrs.

1025: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had increased to 15 knots with still partly cloudy skies. The waste plume had already dissipated and/or moved off this position to the west/northwest. The current/wind drift of the ship was now GPS determined to be northwesterly @ 1.3 knot. No sea life or floatable materials were observed.

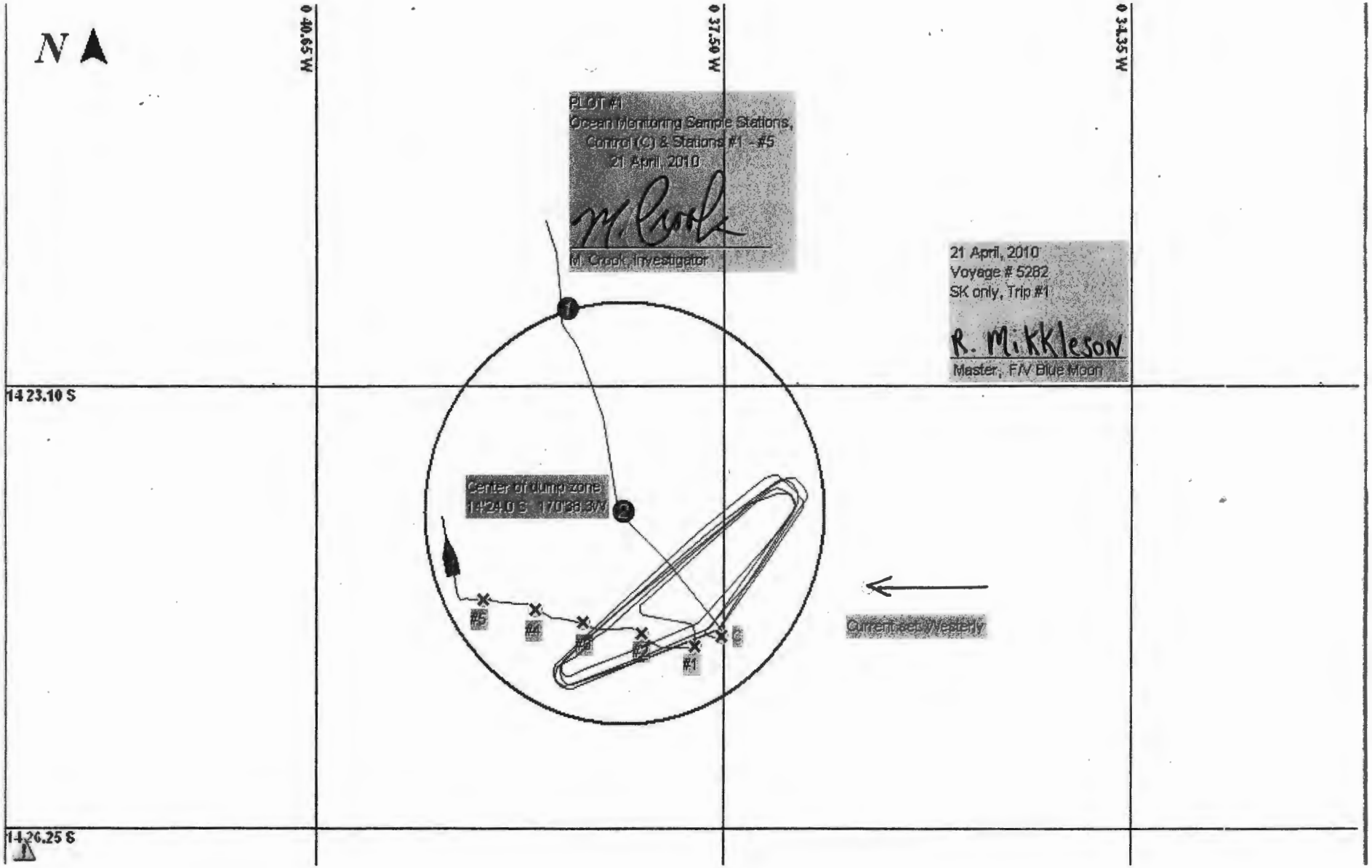
1035: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position again, had no visual sign (i.e. the typical glassy surface sheen) of the waste plume. The average drift rate of the ship with current and wind was GPS determined to be westerly (W) at 1.3 knots between stations 2 & 3. No sea-life or floatable materials were noted at this position.

1045: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was in an area of broken up patches of glassy surface sheen over clear blue water. The drift rate of the ship between stations 3 & 4 was 1.3 knots to the west, indicating a shift from the northwesterly set noted earlier by the ship's captain.

1055: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM west of Station #3, was visibly, the leading edge of the waste plume with just a few light and scattered streaks of surface sheen over natural clear blue water. There were no floating or suspended materials. The westerly current/drift rate of the ship was again noted here to be at 1.3 knots.

1105: Station Five monitoring. Sampling for this final station was conducted 0.25 NM down-current (West) from Station #4 and approximately 1.2 NM miles WSW of the zone center. The waste plume was not visually apparent at this location which had natural, clear blue ocean. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.63 when monitoring activities were concluded at 1115 hrs. The *Blue Moon* exited the disposal zone at 1125 hours and *arrived* back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1240 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator


N
0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
14 26.25 S
PLOT #1
Ocean Monitoring Sample Stations,
Control (C) & Stations #1 - #5
21 April, 2010
M. Crook, Investigator
21 April, 2010
Voyage # 5282
SK only, Trip #1
R. Mikkleson
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3 W
1
2
#5
#4
#3
#2
#1
C
Current set Westerly

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON April 2010

NUMBER OF TRIPS:	SK:	SP:	JOINT:	TOTAL:
	15	0	0	15

GALLONS-FOR THE MONTH:	SK:	SP:	JOINT:	TOTAL:
	2,641,250	0	0	2,641,250

GALLONS FOR SOLO TRIPS:	SK:	SP:
	2,641,250	0

RUNNING TIME ON TRIPS: 60.32 hrs.

DISCHARGE TIME ON TRIPS: 42.9 hrs.

AV. GPM DISCHARGE RATE: 109.74 g/m/k

AV. TRIP TIME: 5.35 hrs.

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK:	COS:
100.00%	0.00%

MASTER :

STAR KIST SAMOA, CO
WATER TREATMENT DEPARTMENT

BLUE MOON -OCEAN DUMPING LOG

Reporting Date: May 01, 2010

Trip Date	1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Volume
01-Apr-10	1st Trip	1325\1500 (51250)	183750	2nd Trip	NONE	0
02-Apr-10	1st Trip	1405\1800 (111250)		2nd Trip	NONE	0
03-Apr-10	1st Trip	1400\0020 (160000)	162500	2nd Trip	NONE	0
04-Apr-10	1st Trip		160000	2nd Trip	NONE	0
05-Apr-10	1st Trip	1330\1500 (42500)		2nd Trip	NONE	0
06-Apr-10	1st Trip	1300\1730 (122500)		2nd Trip	NONE	0
07-Apr-10	1st Trip	1300\1430 (47500)	165000	2nd Trip	NONE	0
08-Apr-10	1st Trip	(100\200)(810\910)(100\330)		2nd Trip	NONE	0
09-Apr-10	1st Trip	1300\1930 (177500)	190000	2nd Trip	NONE	0
10-Apr-10	1st Trip		177500	2nd Trip	NONE	0
11-Apr-10	1st Trip	1530\2000 (115000)		2nd Trip	NONE	0
12-Apr-10	1st Trip		115000	2nd Trip	NONE	0
13-Apr-10	1st Trip	1230\1830 (175000)		2nd Trip	NONE	0
14-Apr-10	1st Trip		175000	2nd Trip	NONE	0
15-Apr-10	1st Trip	0900\1616 (181250)		2nd Trip	NONE	0
16-Apr-10	1st Trip	1300\1430 (42500)	181250	2nd Trip	NONE	0
17-Apr-10	1st Trip	1300\1830 (147500)		2nd Trip	NONE	0
18-Apr-10	1st Trip		190000	2nd Trip	NONE	0
19-Apr-10	1st Trip	1300\1600 (55000)		2nd Trip	NONE	0
20-Apr-10	1st Trip	1300\18000 (125000)		2nd Trip	NONE	0
21-Apr-10	1st Trip	1300\1500 (45000)	180000	2nd Trip	NONE	0
22-Apr-10	1st Trip	1200\1730 (137500)		2nd Trip	NONE	0
23-Apr-10	1st Trip	1430\1600 (57500)	182500	2nd Trip	NONE	0
24-Apr-10	1st Trip	1300\1800 (140000)		2nd Trip	NONE	0
25-Apr-10	1st Trip		197500	2nd Trip	NONE	0
26-Apr-10	1st Trip	1230\1500 (62500)		2nd Trip	NONE	0
27-Apr-10	1st Trip	1300\1730 (127500)		2nd Trip	NONE	0
28-Apr-10	1st Trip	1330\1530 (60000)	190000	2nd Trip	NONE	0
29-Apr-10	1st Trip	1345\1800 (131250)		2nd Trip	NONE	0
30-Apr-10	1st Trip	1630\1830 (55000)	191250	2nd Trip	NONE	0
TOTAL	**1st Trip**		**2,641,250**	**2nd Trip**		**0**
					Total 1st & 2nd	**2,457,500**

cc:
Blue Moon- Captain
File

Prepared by: W.W.T

Date: 04/01/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5272

Permit # OD 93-01 & OD 93-02

Time	
1300	Begin Loading SK
1420	Finish Loading SK
0515	Begin Loading SK
1015	Finish Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:		
SK	183750	Gallons
SP		Gallons
Total	183750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0515	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.55			
0607	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 5	50	29.55	1.5	9.2	167°
0615	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 5-10	50	29.55	1.5	9.3	165°
0920	Begin Discharge	# 3	14*2 4.5	S	170*3 7.5	W	SE 5-10	50	29.55	1.5 X	8.8	123°
35		# 4	14*2 3.7	S	170*3 7.2	W	SE 5-10	50	29.55	1.5	9.6	217°
50	Remarks:	# 5	14*2 4.9	S	170*3 7.6	W	SE 5-10	50	29.55	1.5	9	052°
0705		# 6	14*2 3.6	S	170*3 7.1	W	SE 5-10	50	29.55	1.5	10	217°
20		# 7	14*2 5.0	S	170*3 7.8	W	SE 5-10	50	29.55	1.5 5	9.4	052°
35		# 8	14*2 4.3	S	170*3 7.6	W	SE 5-10	50	29.55	1.5	10.4	215°
50		# 9	14*2 3.9	S	170*3 6.8	W	SE 5-10	50	29.55	1.5	9.4	023°
0805		# 10	14*2 4.2	S	170*3 7.6	W	SE 5-10	50	29.55	1.5	10.3	215°
20		# 11	14*2 5.3	S	170*3 8.2	W	SE 5-10	50	29.55	1.5	9.8	057°
35		# 12	14*2 3.7	S	170*3 6.9	W	SE 5-10	50	29.55	1.5 10	10	063°
50		# 13	14*2 5.0	S	170*3 7.8	W	SE 5-10	50	29.55	1.5	9.4	050°
0905		# 14	14*2 3.9	S	170*3 6.9	W	SE 5-10	50	29.55	1.5	9.9	025°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0915	Finish Discharge	15	14*2 4.2	S	170*3 7.6	W	SE 5-10	50	29.55	1.5	10	218°
0925	Exit Discharge Zone	16	14*2 2.7	S	170*3 8.5	W	SE 5-10	30	29.55	1.5	10.1	341°
1055	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Eclipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 5.6 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 109 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/03/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5273

Permit # OD 93-01 & OD 93-02

Time	
1325	Begin Loading SK
1500	Finish Loading SK
1405	Begin Loading SK
1800	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	162 500	Gallons
SP	—	Gallons
Total	162 500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6			
0708	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 20	80	29.6	1.5	9.2	167°
0717	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 20	80	29.6	1.5	9.3	165°
0725	Begin Discharge	# 3	14*2 4.5	S	170*3 7.4	W	SE 20	80	29.6	1.5 X	9.2	052°
40		# 4	14*2 3.9	S	170*3 7.5	W	SE 20	80	29.6	1.5	10	210°
55	Remarks:	# 5	14*2 4.8	S	170*3 7.5	W	SE 20	80	29.6	1.5	9.4	059°
0810		# 6	14*2 3.4	S	170*3 7.1	W	SE 20	80	29.6	1.5	10.2	231°
25		# 7	14*2 5.2	S	170*3 8.4	W	SE 20	80	29.6	1.5 5	9.7	066°
40		# 8	14*2 3.6	S	170*3 8.9	W	SE 20	80	29.6	1.5	10	354°
55		# 9	14*2 5.0	S	170*3 8.4	W	SE 20	80	29.6	1.5	10.2	202°
0910		# 10	14*2 3.5	S	170*3 7.0	W	SE 20	80	29.6	1.5	10.4	316°
25		# 11	14*2 4.5	S	170*3 8.1	W	SE 20	80	29.6	1.5	10	216°
40		# 12	14*2 4.2	S	170*3 7.2	W	SE 20	80	29.6	1.5 10	9.4	024°
55		# 13	14*2 4.7	S	170*3 8.2	W	SE 20	80	29.6	1.5	9.9	218°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1000	Finish Discharge	14	14*2 50	S	170*3 8.5	W	SE 20	80	29.6	1.5	10.1	312°
1013	Exit Discharge Zone	15	14*2 3.1	S	170*3 9.1	W	SE 20	80	29.6	1.5	9.5	346°
1050	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 155 mins. Average Speed During Discharge: 9.8 kts. Total Time Run 4.6 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 106 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/04/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5274

Permit # OD 93-01 & OD 93-02

Time		
1420	Begin Loading SK	
0020	Finish Loading SK	Trip # 1 -
	Begin Loading SK	Trip # 2
	Finish Loading SK	

Volume Loaded:		
SK	160 000	Gallons
SP		Gallons
Total	160 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0600	Depart Starkist		14*16.50'	S	170* 41.2'	W		30	29.6	Metric	kts	True*
0649	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 15	30	29.6	1.5	9.2	166°
0700	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE15	30	29.6	1.5	9.4	164°
0705	Begin Discharge	# 3	14*2 4.3	S	170*3 7.6	W	SE15	30	29.6	1.5 X	9.8	117°
20		# 4	14*2 3.6	S	170*3 7.2	W	SE15	30	29.6	1.5	9.9	218°
35	Remarks:	# 5	14*2 4.7	S	170*3 7.4	W	SE15	30	29.6	1.5	8.9	054°
50		# 6	14*2 4.3	S	170*3 21.6	W	SE15	30	29.6	1.5	9.8	216°
0805		# 7	14*2 4.8	S	170*3 7.5	W	SE15	30	29.6	1.5 5	10	055
20		# 8	14*2 3.9	S	170*3 7.2	W	SE15	30	29.6	1.5	10.3	217°
35		# 9	14*2 4.7	S	170*3 7.3	W	SE15	30	29.6	1.5	10	053°
50		# 10	14*2 4.3	S	170*3 7.6	W	SE15	30	29.6	1.5	10.3	214°
0905		# 11	14*2 4.5	S	170*3 7.1	W	SE15	30	29.6	1.5	9.8	023°
20		# 12	14*2 4.0	S	170*3 7.4	W	SE15	30	29.6	1.5 10	10	214°
		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0925	Finish Discharge	13	14*2 4.5	S	170*3 7.8	W	SE15	30	29.6	1.5	10	214°
0938	Exit Discharge Zone	14	14*2 2.6	S	170*3 8.6	W	SE15	30	29.6	1.5	10.3	345°
1045	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern _____

Total Discharge Time: 140 mins. Average Speed During Discharge: 9.8 kts. Total Time Run 4.75 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 116.6 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon [signature]

Date: 04/07/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5275

Permit # OD 93-01 & OD 93-02

Time	
1330	Begin Loading SK
1530	Finish Loading SK
1700	Begin Loading SK
1730	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	165000	Gallons
SP		Gallons
Total	165000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0500	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6	Metric	kts	True*
0540	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		50	29.6	1.5	8.5	166°
0550	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		50	29.6	1.5	8.3	168°
0600	Begin Discharge	# 3	14*2 4.4	S	170*3 7.4	W	SE 15	50	29.6	1.5 X	9	129°
15		# 4	14*2 4.6	S	170*3 8.0	W	SE 15	50	29.6	1.5	9.7	218°
30	Remarks:	# 5	14*2 4.7	S	170*3 4.5	W	SE 20	50	29.6	1.5	10.1	082°
45		# 6	14*2 4.0	S	170*3 7.5	W	SE 20	50	29.6	1.5	10	213°
0700		# 7	14*2 4.9	S	170*3 7.7	W	SE 20	50	29.6	1.5 5	10.2	055°
15		# 8	14*2 3.4	S	170*3 7.1	W	SE 20	50	29.6	1.5	9.8	221°
30		# 9	14*2 5.1	S	170*3 8.0	W	SE 20	50	29.6	1.5	9.5	055°
45		# 10	14*2 3.5	S	170*3 7.2	W	SE 20	50	29.6	1.5	9.4	220°
0800		# 11	14*2 5.3	S	170*3 8.1	W	SE 20	50	29.6	1.5	10	069°
15		# 12	14*2 3.7	S	170*3 6.9	W	SE 20	50	29.6	1.5 10	9.8	013°
30		# 13	14*2 5.1	S	170*3 8.1	W	SE 20	50	29.6	1.5	9.9	066°
45		# 14	14*2 3.9	S	170*3 7.0	W	SE 20	50	29.6	1.5	9.8	023°
0900		# 15	14*2 5.0	S	170*3 8.2	W	SE 20	50	29.6	1.5	9.8	202°
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0910	Finish Discharge	16	14*2 4.8	S	170*3 7.6	W	SE 20	50	29.6	1.5	9.7	054°
0920	Exit Discharge Zone	17	14*2 2.6	S	170*3 8.3	W	SE 20	50	29.6	1.5	10	337°
1010	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 190 mins. Average Speed During Discharge: 9.7 kts. Total Time Run 3.16 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 89.5 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/09/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5276

Permit # OD 93-01 & OD 93-02

Time		
1300	Begin Loading SK	13000
1430	Finish Loading SK	1530
0100	Begin Loading SK	810
0200	Finish Loading SK	0900

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	190 000	Gallons
SP		Gallons
Total	190 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0500	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.5			
0600	Arrive Edge of Zone	# 1	14*22.4	S	170*38. 7	W		70	29.5	1.5	8.9	165°
0610	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	E 15	70	29.5	1.5	9	089°
0615	Begin Discharge	# 3	14*2 4.0	S	170*3 7.3	W	E15	70	29.5	1.5 X	9.1	091°
30		# 4	14*2 3.1	S	170*3 7.6	W	E20	70	29.55	1.5	9.3	185°
45	Remarks:	# 5	14*2 4.4	S	170*3 7.2	W	E 20	70	29.55	1.5	8.9	020°
0700		# 6	14*2 3.0	S	170*3 7.5	W	E 20	50	29.55	1.5	9.2	190°
15		# 7	14*2 5.0	S	170*3 7.7	W	E 20	50	29.55	1.5 5	10	167°
30		# 8	14*2 7.5	S	170*3 7.3	W	E20	50	29.55	2	7.2	089°
45		# 9	14*2 4.1	S	170*3 7.9	W	E20	50	29.55	2	10.4	237°
0800		# 10	14*2 4.4	S	170*3 7.0	W	E20	50	29.55	2	10.2	310°
15		# 11	14*2 3.4	S	170*3 7.4	W	E 20	50	29.55	2	10	089°
30		# 12	14*2 4.2	S	170*3 7.9	W	E 20	50	29.55	2 10	10.1	235°
45		# 13	14*2 4.3	S	170*3 7.1	W	E 20	50	29.55	2	9.4	356°
0900		# 14	14*2 3.5	S	170*3 7.0	W	E 20	50	29.55	2	9.6	223°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
0915		X	14*2 4.5	S	170*3 7.9	W	E20	50	29.55	2	10	091°
0915	Finish Discharge	15	14*2 4.5	S	170*3 7.9	W	E 20	50	29.55	2	10	091°
0927	Exit Discharge Zone	16	14*2	S	170*3	W	E20	50	29.55	2	10	337°
1025	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center w End of Discharge w Discharge Pattern Ellipse + Fig 8

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 5.25 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 109.9 Gallons/min/kts

Unusuall Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/10/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5277

Permit # OD 93-01 & OD 93-02

Time		
	Begin Loading SK	
	Finish Loading SK	
	Begin Loading SK	
	Finish Loading SK	

Trip # 1 -

Trip # 2

Volume Loaded:			
SK	177500	Gallons
SP	—	Gallons
Total	177500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0745	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6	Metric	kts	True*
0840	Arrive Edge of Zone	# 1	14*22.5	S	170*38.7	W	SE15	30	29.6	1.5	8.5	166°
0850	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE15	30	29.6	1.5	8	167°
0900	Begin Discharge	# 3	14*24.2	S	170*37.3	W	SE15	30	29.6	1.5 X	9.1	188°
15		# 4	14*23.5	S	170*37.3	W	SE15	30	29.6	1.5	9	191°
30	Remarks:	# 5	14*24.7	S	170*37.6	W	SE15	30	29.6	1.5	9.4	136°
45		# 6	14*24.1	S	170*38.9	W	SE15	30	29.6	1.5	9.2	002°
1000		# 7	14*23.9	S	170*37.4	W	SE15	30	29.6	1.5 5	9.4	281°
15		# 8	14*26.0	S	170*37.5	W	SE15	30	29.6	1.5	9.4	036°
30		# 9	14*23.3	S	170*37.2	W	SE15	50	29.6	1.5	9.1	206°
45		# 10	14*24.7	S	170*37.0	W	SE15	50	29.6	1.5	9.6	156°
1100		# 11	14*24.3	S	170*37.0	W	SE15	50	29.6	1.5	9.1	012°
15		# 12	14*23.1	S	170*36.9	W	SE15	50	29.6	1.5 10	9.7	368°
30		# 13	14*24.7	S	170*37.6	W	SE15	50	29.6	1.5	9.5	136°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1145	Finish Discharge	13	14*23.5	S	170*37.2	W	SE15	50	29.6	1.5	9.7	195°
1155	Exit Discharge Zone	14	14*22.4	S	170*37.8	W	SE15	50	29.6	1.5	8.5	341°
1245	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 9.35 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 115 Gallons/min/kts

Unusuall Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/12/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5278

Permit # OD 93-01 & OD 93-02

Time		
	Begin Loading SK	
	Finish Loading SK	
	Begin Loading SK	
	Finish Loading SK	

Trip # 1 -
Trip # 2

Volume Loaded: SK ____ Gallons; SP ____ Gallons; Total 115000 Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0530	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6	Metric	kts	True*
0630	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE15	50	29.6	1.5	8	166°
0642	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE15	50	29.6	1.5	8.3	164°
0650	Begin Discharge	# 3	14*2 4.3	S	170*3 7.4	W	SE15	50	29.6	1.5 X	8.9	116°
0705		# 4	14*2 3.1	S	170*3 7.3	W	SE 15	50	29.6	1.5	8.8	276°
20	Remarks:	# 5	14*2 4.2	S	170*3 7.8	W	SE15	50	29.6	1.5	9.4	190°
25		# 6	14*2 4.8	S	170*3 7.5	W	SE15	50	29.6	1.5	9.1	043
50		# 7	14*2 3.5	S	170*3 7.4	W	SE15	50	29.6	1.5 5	9.8	206°
0805		# 8	14*2 4.5	S	170*3 7.8	W	SE15	50	29.6	1.5	9.4	203°
20		# 9	14*2 4.5	S	170*3 7.3	W	SE15	50	29.6	1.0	9.5	043°
35		# 10	14*2 4.2	S	170*3 7.7	W	SE15	50	29.6	1.0	9.3	206
		# 11	14*2	S	170*3	W						
		# 12	14*2	S	170*3	W				10		
		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0850	Finish Discharge	11	14*2 5.1	S	170*3 8.1	W	SE15	50	29.6	1.0	9.5	101°
0910	Exit Discharge Zone	12	14*2 2.7	S	170*3 8.9	W	SE15	50	29.6	1.2	9.5	343°
1030	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 110 mins. Average Speed During Discharge: 9.3 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 112.4 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon [signature]

Date: 04/14/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5279

Permit # OD 93-01 & OD 93-02

Time		
1230	Begin Loading SK	
1630	Finish Loading SK	Trip # 1 -
	Begin Loading SK	Trip # 2
	Finish Loading SK	

Volume Loaded:			
	SK	175 000	Gallons
	SP		Gallons
	Total	175 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0535	Depart Starkist		14*16.50'	S	170* 41.2'	W						
0635	Arrive Edge of Zone	# 1	14*22.5	S	170*38.7	W		100	29.6	1.5	7.5	162°
0645	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE20	100	29.6	1.5	8	165°
0655	Begin Discharge	# 3	14*24.4	S	170*36.5	W	SE20	100	29.6	1.5 X	9.1	126°
0710		# 4	14*25.7	S	170*37.1	W	SE20	100	29.6	1.5	9.9	234°
25	Remarks:	# 5	14*24.8	S	170*38.2	W	SE20	100	29.6	1.5	9	219°
40		# 6	14*24.8	S	170*37.5	W	SE20	100	29.6	1.5	9.2	158°
55		# 7	14*24.2	S	170*37.6	W	SE20	100	29.6	1.5 5	9.3	226°
0810		# 8	14*25.1	S	170*38.4	W	SE20	100	29.6	1.5	9	194°
25		# 9	14*24.2	S	170*37.1	W	SE20	100	29.6	1.5	8.9	024°
40		# 10	14*24.3	S	170*37.6	W	SE20	100	29.6	1.5	9.6	234°
55		# 11	14*25.0	S	170*38.0	W	SE20	100	29.6	1.5	9.4	066°
0910		# 12	14*24.4	S	170*37.2	W	SE20	100	29.6	1.5 10	9.2	024°
25		# 13	14*24.1	S	170*37.6	W	SE20	100	29.6	1.5	9.6	223°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0940	Finish Discharge	14	14*24.9	S	170*38.3	W	SE20	100	29.6	1.5	9.3	317°
0955	Exit Discharge Zone	15	14*22.7	S	170*38.9	W	SE20	100	29.6	1.5	8.6	349°
1105	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 9.2 kts. Total Time Run 5.5 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 108 Gallons/min/kts

Unusuall Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/16/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5280

Permit # OD 93-01 & OD 93-02

Time	
0900	Begin Loading SK
1615	Finish Loading SK
1300	Begin Loading SK
1830	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	181 250	Gallons
SP		Gallons
Total	181 250	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0510	Depart Starkist		14*16.50'	S	170* 41.2'	W						
0610	Arrive Edge of Zone	# 1	14*22.5	S	170*38.7	W		80	29.6	1	7.5	158°
0627	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 15	80	29.6	1	8.9	166°
0635	Begin Discharge	# 3	14*2 4.4	S	170*3 7.6	W	SE 15	80	29.6	1.5 X	9.3	121°
50		# 4	14*2 7.8	S	170*3 7.4	W	SE 15	80	29.6	1.5	9	227°
0705	Remarks:	# 5	14*2 4.5	S	170*3 8.0	W	SE 15	80	29.6	1.5	9.1	218°
20		# 6	14*2 4.8	S	170*3 7.7	W	SE 15	80	29.6	1.5	8.9	055°
35		# 7	14*2 3.3	S	170*3 7.2	W	SE 15	80	27.6	1.5 5	9	234°
50		# 8	14*2 4.6	S	170*3 8.2	W	SE 15	80	29.6	1.5	9.	213°
0805		# 9	14*2 4.5	S	170*3 7.2	W	SE 15	80	29.6	1.5	9.4	026°
20		# 10	14*2 3.4	S	170*3 7.2	W	SE 15	80	29.6	1.5	9.2	222°
35		# 11	14*2 4.9	S	170*3 8.4	W	SE 15	80	29.6	1.5	9.3	215°
50		# 12	14*2 4.4	S	170*3 7.2	W	SE 15	80	29.6	1.5 10	9.2	023°
0905		# 13	14*2 3.4	S	170*3 7.3	W	SE 15	80	29.6	1.5	9.7	222°
20		# 14	14*2 4.9	S	170*3 8.4	W	SE 15	80	29.6	1.5	9.5	220°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0925	Finish Discharge	15	14*2 4.5	S	170*3 8.6	W	SE 15	80	29.6	1.5	9.5	348°
0942	Exit Discharge Zone	16	14*2 2.9	S	170*3 9.0	W	SE 15	80	29.6	1.5	7.6	345°
1050	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.2 kts. Total Time Run 5.6 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 115.8 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon [signature]

Date: 04/18/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5281

Permit # OD 93-01 & OD 93-02

Time	
1300	Begin Loading SK
1430	Finish Loading SK
1300	Begin Loading SK
1800	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	190 000	Gallons
SP	—	Gallons
Total	190 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0640	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6			
0632	Arrive Edge of Zone	# 1	14*22.5	S	170*38.7	W		100	29.6	1.5	8	166°
0742	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		100	29.6	1.5	8.3	169°
0750	Begin Discharge	# 3	14*24.3	S	170*37.3	W	SE 20	100	29.6	1.5 X	9.4	114°
0805		# 4	14*23.6	S	170*37.0	W	SE 20	100	29.6	1.5	9.3	017°
20	Remarks:	# 5	14*24.5	S	170*37.8	W	SE 20	100	29.6	1.5	9.5	206°
35		# 6	14*24.7	S	170*37.4	W	SE 20	100	29.6	1.5	9.3	44°
50		# 7	14*23.4	S	170*37.1	W	SE 20	100	29.6	1.5 5	9.7	224°
0905		# 8	14*24.7	S	170*38.0	W	SE 20	100	29.6	1.5	9.7	207°
20		# 9	14*23.9	S	170*37.0	W	SE 20	100	29.6	1.5	9.4	010°
35		# 10	14*24.5	S	170*38.0	W	SE 20	100	29.6	1.5	9.3	213°
50		# 11	14*24.7	S	170*37.4	W	SE 20	100	29.6	1.5	9.5	056°
1005		# 12	14*24.0	S	170*37.0	W	SE 20	100	29.6	1.5 10	9.2	009°
20		# 13	14*24.2	S	170*37.7	W	SE 20	100	29.6	1.5	9.3	213°
35		# 14	14*25.0	S	170*37.8	W	SE 20	100	29.6	1.5	9.7	054°
50		# 15	14*24.1	S	170*37.1	W	SE 20	100	29.6	1.5	9.4	015°
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1054	Finish Discharge	16	14*23.6	S	170*37.2	W	SE 20	100	29.6	1.5	9.5	336°
1105	Exit Discharge Zone	17	14*22.7	S	170*37.8	W	SE 20	100	29.6	1.5	7.8	356°
1215	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 184 mins. Average Speed During Discharge: 9.44 kts. Total Time Run 5.41 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 109 Gallons/min/kts

Unusuall Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/21/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5282

Permit # OD 93-01 & OD 93-02

Time	
1300	Begin Loading SK
1600	Finish Loading SK
1300	Begin Loading SK
1800	Finish Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:		
SK	180 000	Gallons
SP	—	Gallons
Total	180 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
										Metric		kts	True*
0505	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6				
0615	Arrive Edge of Zone	# 1	14*22.5	S	170*38.7	W		50	29.6	1		6.8	160°
0632	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		50	29.6	1		6.6	176°
0650	Begin Discharge	# 3	14*2 4.6	S	170*3 7.5	W	SE 15	50	29.6	1	X	7.2	004°
0705		# 4	14*2 3.8	S	170*3 6.8	W	SE 15	30	29.6	1		6.9	313°
20	Remarks:	# 5	14*2 4.8	S	170*3 8.3	W	SE 15	30	29.6	1		7.1	234°
35		# 6	14*2 4.9	S	170*3 7.6	W	SE 15	20	29.6	1		6.8	069°
50	0643	# 7	14*2 3.8	S	170*3 7.3	W	SE 15	20	29.6	1	5	7.5	237°
0805	water	# 8	14*2 4.7	S	170*3 8.4	W	SE 15	20	29.6	1		7.4	229°
20	sample	# 9	14*2 4.9	S	170*3 7.9	W	SE 15	20	29.6	1		7.1	069°
35		# 10	14*2 3.8	S	170*3 7.2	W	SE 15	20	29.6	1		7.4	237°
50		# 11	14*2 4.6	S	170*3 8.4	W	SE 15	20	29.6	1		7.9	231°
0950		# 12	14*2 4.8	S	170*3 7.5	W	SE 20	20	29.6	1	10	7.6	042°
20		# 13	14*2 4.3	S	170*3 7.8	W	SE 20	40	29.6	1		7.5	231°
35		# 14	14*2 4.8	S	170*3 8.5	W	SE 20	50	29.6	1		7.4	232°
50		# 15	14*2 4.7	S	170*3 7.6	W	SE 20	50	29.6	1		6.9	044°
1005		# 16	14*2 3.9	S	170*3 7.2	W	SE 20	50	29.6	1		7.3	237°
		# 17	14*2	S	170*3	W					15		
		# 18	14*2	S	170*3	W							
		# 19	14*2	S	170*3	W							
	water	# 20	14*2	S	170*3	W							
	sample		14*2	S	170*3	W							
	Today		14*2	S	170*3	W					20		
			14*2	S	170*3	W							
1020	Finish Discharge	17	14*2 4.6	S	170*3 8.1	W	SE 20	50	29.6	1		7.2	215°
1125	Exit Discharge Zone	18	14*2 3.5	S	170*3 9.6	W	SE 20	50	29.6	1		6.8	356°
1245	Secure SK Dock		14*16.50'	S	170*41.2'	W							

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 210 mins. Average Speed During Discharge: 7.28 kts. Total Time Run 7.66 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 117.7 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/23/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5283

Permit # OD 93-01 & OD 93-02

Time		
	Begin Loading SK	
	Finish Loading SK	
	Begin Loading SK	
	Finish Loading SK	

Trip # 1 -
Trip # 2

Volume Loaded:			
SK	182500	Gallons
SP		Gallons
Total	182500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0525	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.55			
0632	Arrive Edge of Zone	# 1	14*22.5	S	170*38.7	W		100	29.55	1.5	7.5	167°
0645	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		100	29.65	1.5	8	168°
0655	Begin Discharge	# 3	14*2 4.8	S	170*3 7.9	W	SLY 15	100	27.6	2.0 X	9.2	164°
0710		# 4	14*2 4.6	S	170*3 8.2	W	SLY 15	100	29.6	2.0	9.1	325°
25	Remarks:	# 5	14*2 4.9	S	170*3 8.3	W	SLY 15	100	29.6	2.0	9.4	164°
40		# 6	14*2 4.0	S	170*3 8.0	W	SLY 15	100	29.6	2.0	9.4	017°
55		# 7	14*2 4.7	S	170*3 7.6	W	SLY 15	100	29.6	2.0 5	9.1	166°
0810		# 8	14*2 4.2	S	170*3 8.6	W	SLY 15	100	29.6	2.0	9.7	164°
25		# 9	14*2 5.1	S	170*3 8.3	W	SLY 15	100	29.6	2.0	9.5	961°
40		# 10	14*2 3.9	S	170*3 7.9	W	SE 15	100	29.6	1.5	9.6	152°
55		# 11	14*2 4.6	S	170*3 8.0	W	SE 15	100	29.6	1.5	9.4	314°
0910		# 12	14*2 4.6	S	170*3 8.4	W	SE15	100	29.6	1.5 10	9.5	163°
25		# 13	14*2 4.7	S	170*3 8.1	W	SE15	100	29.6	1.5	9.4	005°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0940	Finish Discharge	14	14*2 3.9	S	170*3 8.0	W	SE15	100	29.6	1.5	9.6	001°
0950	Exit Discharge Zone	15	14*2 2.6	S	170*3 3.3	W	SE15	100	29.6	1.5	8	294°
1105	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 9.4 kts. Total Time Run 5.33 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 117 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/25/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5284

Permit # OD 93-01 & OD 93-02

Time	
1430	Begin Loading SK
1600	Finish Loading SK
1700	Begin Loading SK
1800	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	197 500	Gallons
SP	—	Gallons
Total	197 500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0510	Depart Starkist		14*16.50'	S	170* 41.2'	W		80	29.65			
0703	Arrive Edge of Zone	# 1	14*22.5	S	170*38.7	W		80	29.65	1.5	9.6	166°
0713	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		80	29.65	1.5	9.7	167°
0718	Begin Discharge	# 3	14*2 4.4	S	170*3 7.3	W	SE 10	80	29.65	1.5 X	9.8	110°
33		# 4	14*2 3.7	S	170*3 7.5	W	SE 10	80	29.65	1.5	9.6	262°
48	Remarks:	# 5	14*2 4.8	S	170*3 7.3	W	SE 15	80	29.65	1.5	9.9	042°
0803		# 6	14*2 4.2	S	170*3 7.6	W	SE15	80	29.65	1.5	9.7	285°
18		# 7	14*2 5.1	S	170*3 7.6	W	SE15	60	29.65	1.5 5	9.9	045°
33		# 8	14*2 3.6	S	170*3 7.4	W	SE15	60	29.65	1.5	9.8	202°
48		# 9	14*2 4.7	S	170*3 7.3	W	SE 15	60	29.65	1.5	10	041°
0903		# 10	14*2 3.5	S	170*3 7.3	W	SE 15	50	29.65	1.5	9.8	202°
18		# 11	14*2 4.9	S	170*3 7.5	W	SE 15	50	29.65	1.5	10.1	040°
33		# 12	14*2 3.5	S	170*3 7.3	W	SE15	50	29.65	1.5 10	9.8	205°
48		# 13	14*2 5.10	S	170*3 7.6	W	SE15	50	29.65	1.5	9.7	093°
1003		# 14	14*2 3.6	S	170*3 7.4	W	SE15	50	29.65	1.5	9.8	205°
18		# 15	14*2 5.2	S	170*3 8.1	W	SE 15	50	29.65	1.5	9.8	124°
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1033	Finish Discharge	16	14*2 4.5	S	170*3 7.3	W	SE15	50	29.65	1.5	9.5	218°
1042	Exit Discharge Zone	17	14*2 2.6	S	170*3 8.6	W	SE 15	50	29.65	1.5	9.9	345°
1130	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 195 mins. Average Speed During Discharge: 9.8 kts. Total Time Run 5.3 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 103.3 Gallons/min/kts

Unusuall Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/28/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5285

Permit # OD 93-01 & OD 93-02

Time	
1230	Begin Loading SK
1500	Finish Loading SK
1300	Begin Loading SK
1730	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	190 000	Gallons
SP		Gallons
Total	190 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0520	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6			
0612	Arrive Edge of Zone	# 1	14*22.5	S	170*38.7	W	VAR	50	29.6	1.5	9.4	166°
0620	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	NE10	50	29.6	1.5	9.6	164°
0625	Begin Discharge	# 3	14*2 2.9	S	170*3 7.9	W	NE15	50	29.6	1.5 X	9.2	283°
40		# 4	14*2 3.2	S	170*3 8.9	W	NE15	50	29.6	1.5	9.6	114°
55	Remarks:	# 5	14*2 3.6	S	170*3 6.9	W	NE15	50	29.6	1.5	9.2	324°
0710		# 6	14*2 2.8	S	170*3 8.8	W	NE15	50	29.6	1.5	9.7	272°
25		# 7	14*2 3.7	S	170*3 7.6	W	NE15	50	29.6	1.5 5	9.7	118°
40		# 8	14*2 2.8	S	170*3 8.7	W	NE15	50	29.6	1.5	9.8	270°
55		# 9	14*2 3.7	S	170*3 7.5	W	NE15	50	29.6	1.5	10	117°
0810		# 10	14*2 2.8	S	170*3 8.9	W	NE15	50	29.6	1.5	9.5	264°
25		# 11	14*2 3.9	S	170*3 7.2	W	NE15	50	29.6	1.5	9.8	112°
40		# 12	14*2 2.9	S	170*3 8.0	W	NE15	50	29.6	1.5 10	9.9	273°
55		# 13	14*2 3.8	S	170*3 7.4	W	NE15	50	29.6	1.5	9.5	111°
0910		# 14	14*2 2.9	S	170*3 8.0	W	NE15	50	29.6	1.5	9.7	276°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0925	Finish Discharge	16	14*2 3.5	S	170*3 8.0	W	NE15	50	29.6	1.5	9.7	090°
0930	Exit Discharge Zone	17	14*2 ~~8.07~~	S	170*3 8.1	W	NE15	50	29.6	1.5	9.9	342°
1020	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center SW End of Discharge SW Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 109.9 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/30/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5286

Permit # OD 93-01 & OD 93-02

Time	
	Begin Loading SK
	Finish Loading SK
	Begin Loading SK
	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:

SK	171250	Gallons
SP		Gallons
Total	171250	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0515	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.65			
0605	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	VAR	20	29.65	1.5	9.3	166°
0615	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	VAR	20	29.65	1.5	9.2	164°
0620	Begin Discharge	# 3	14*2 4.0	S	170*3 9.3	W	VAR	20	29.65	1.5 X	9.2	189°
35		# 4	14*2 4.6	S	170*3 8.9	W	WLY 10	20	29.65	1.5	9.6	000°
50	Remarks:	# 5	14*2 3.4	S	170*3 9.3	W	W 10	20	29.65	1.5	9.6	196°
0705		# 6	14*2 4.9	S	170*3 9.0	W	W 10	20	29.65	1.5	9.3	009°
20		# 7	14*2 3.2	S	170*3 9.2	W	W 10	20	29.65	1.5 5	9.7	196°
35		# 8	14*2 4.9	S	170*3 9.0	W	W 10	20	29.65	1.5	9.7	007°
50		# 9	14*2 3.2	S	170*3 9.2	W	W 10	20	29.65	1.5	9.9	200°
0805		# 10	14*2 4.7	S	170*3 9.0	W	W 10	20	29.65	1.5	9.7	003°
20		# 11	14*2 3.3	S	170*3 9.3	W	[illegible]	20	29.65	1.5	9.9	199°
35		# 12	14*2 4.6	S	170*3 8.9	W	W 10	20	29.65	1.5 10	9.7	004°
50		# 13	14*2 4.3	S	170*3 9.4	W	W 10	20	29.65	1.5	10	166°
0905		# 14	14*2 5.0	S	170*3 8.9	W	W 10	20	29.65	1.5	9.9	015°
20		# 15	14*2 3.4	S	170*3 9.2	W	W 10	20	29.65	1.5	9.9	196°
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0924	Finish Discharge	16	14*2 3.9	S	170*3 9.4	W	W 10	20	29.65	1.5	9.8	221°
0928	Exit Discharge Zone	17	14*2 3.3	S	170*3 9.5	W	W 10	20	29.65	1.5	10.3	358°
1020	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center E End of Discharge E Discharge Pattern Ellipse

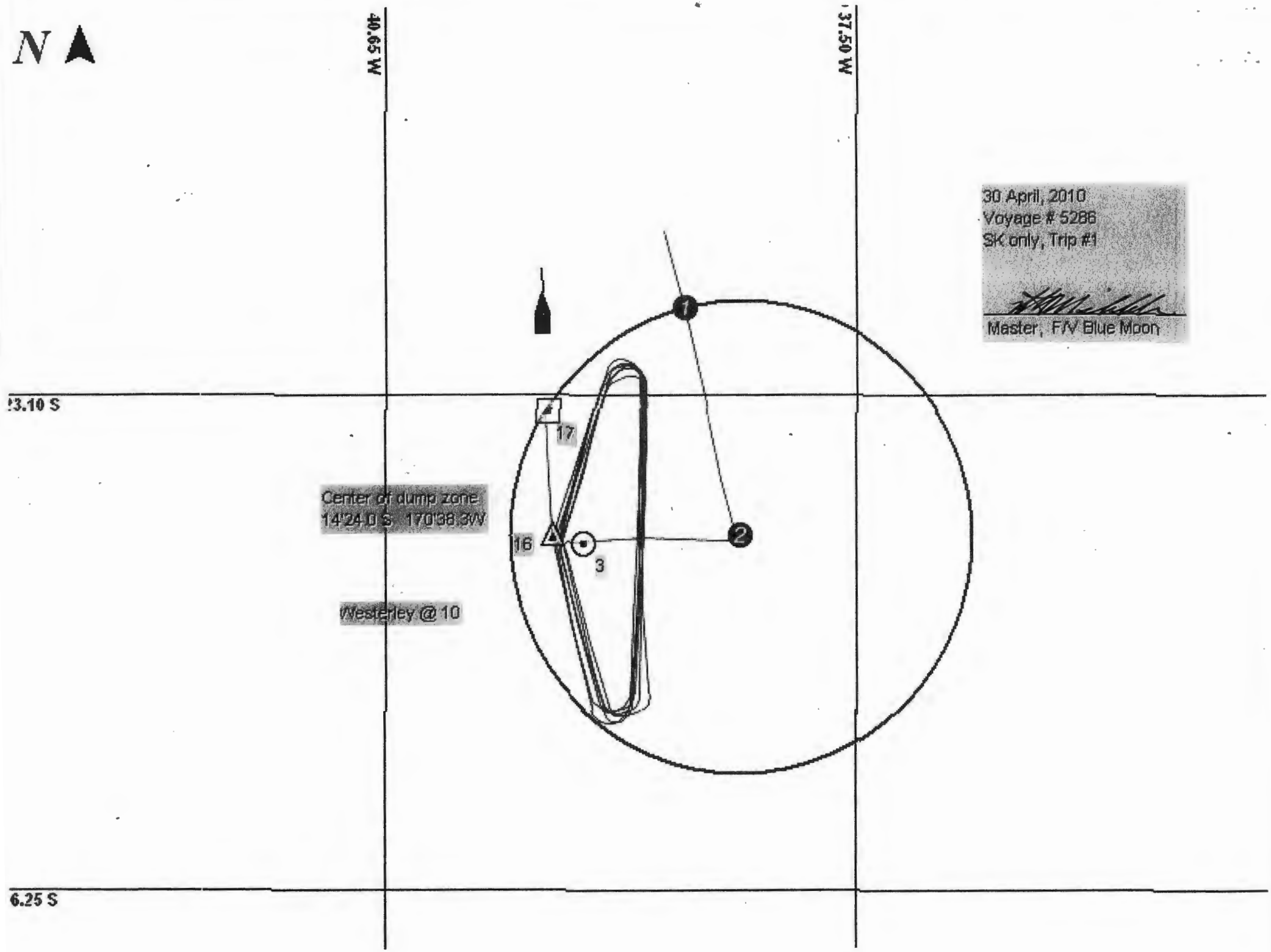
Total Discharge Time: 184 mins. Average Speed During Discharge: 9.7 kts. Total Time Run 5.16 hr.

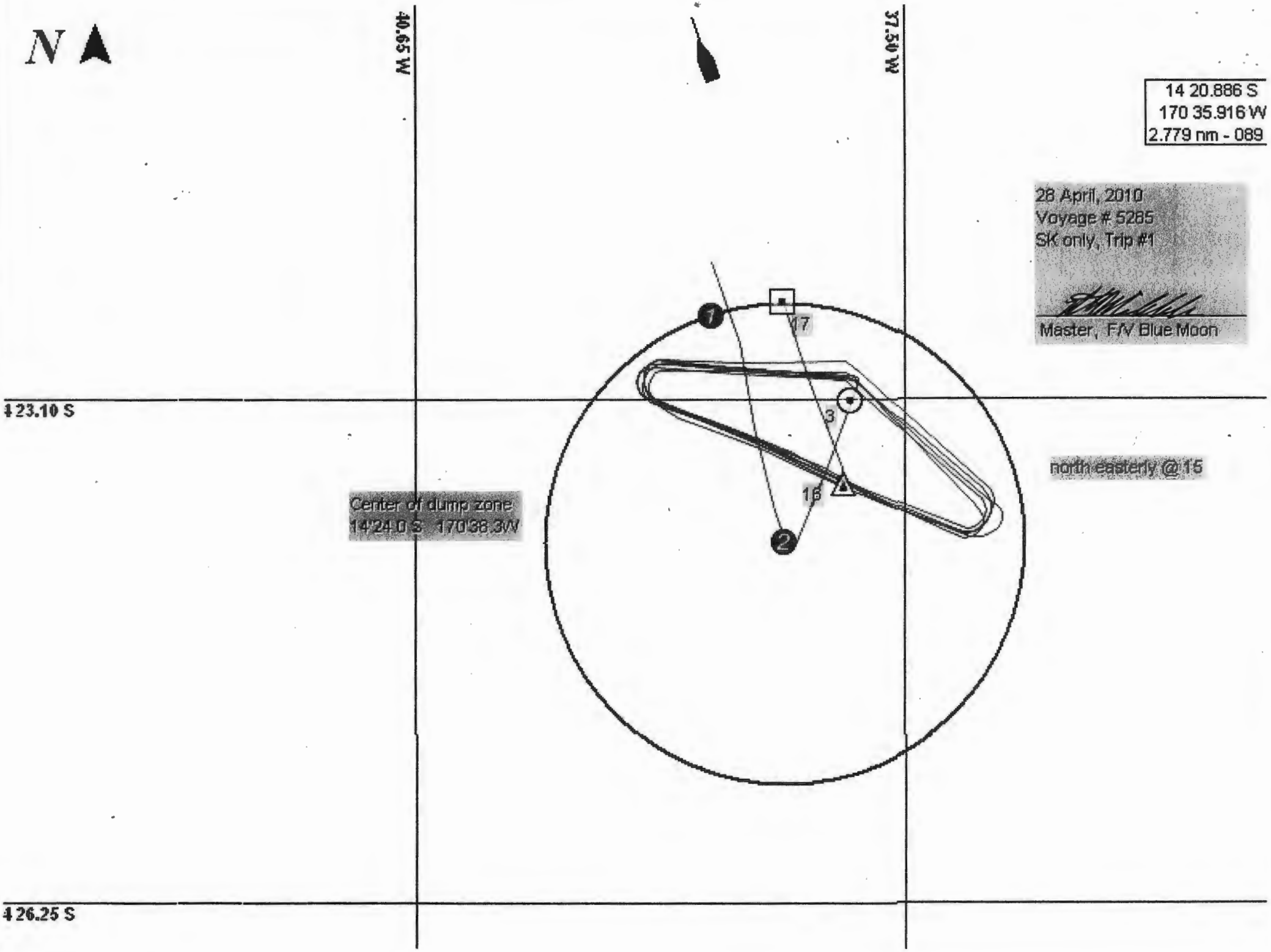
Navigational Plot made: yes Presence of Plume? None

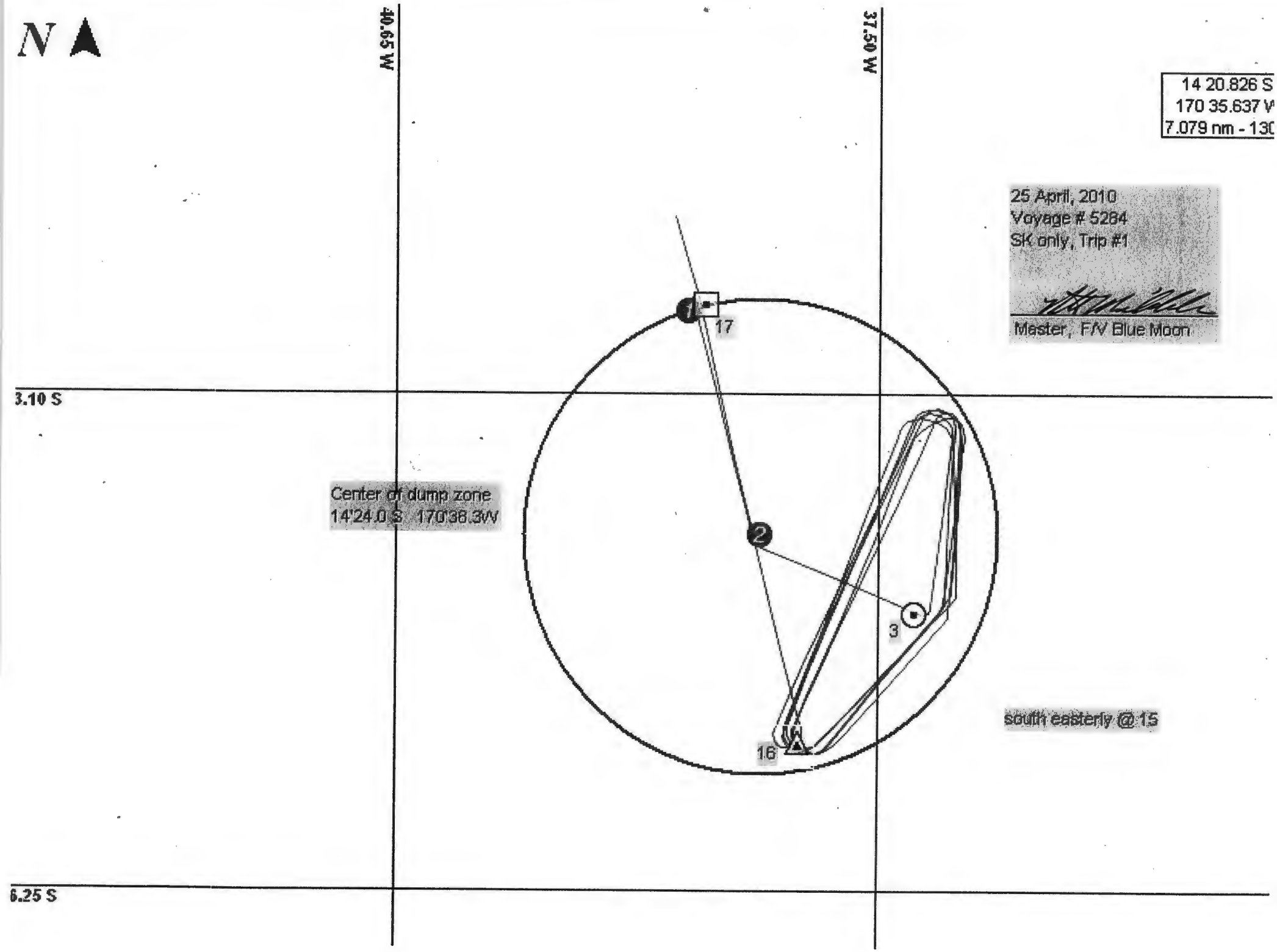
Time and position of any floating material: None Discharge Rate: 107.1 Gallons/min/kts

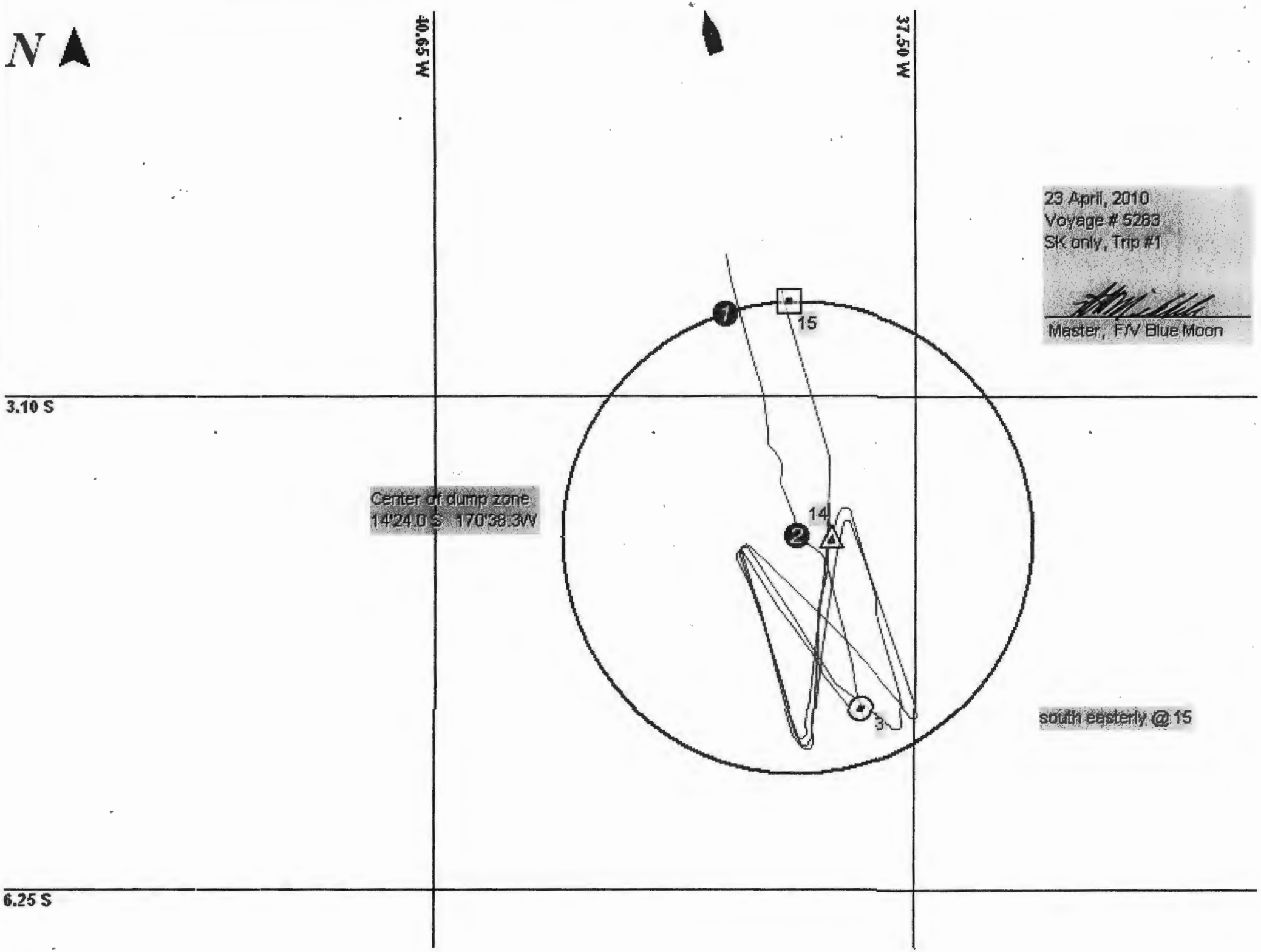
Unusuall Occurrences? None

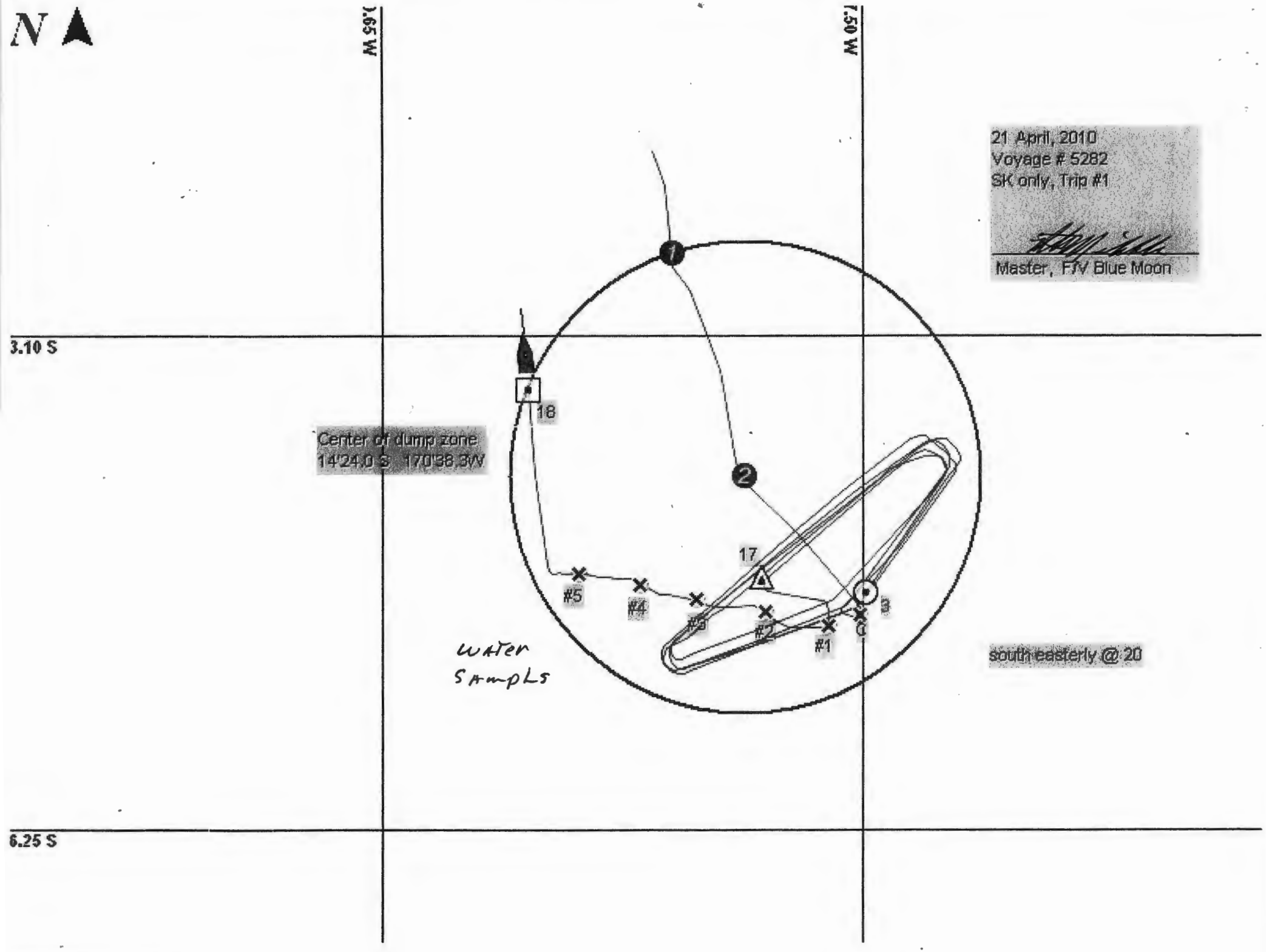
Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

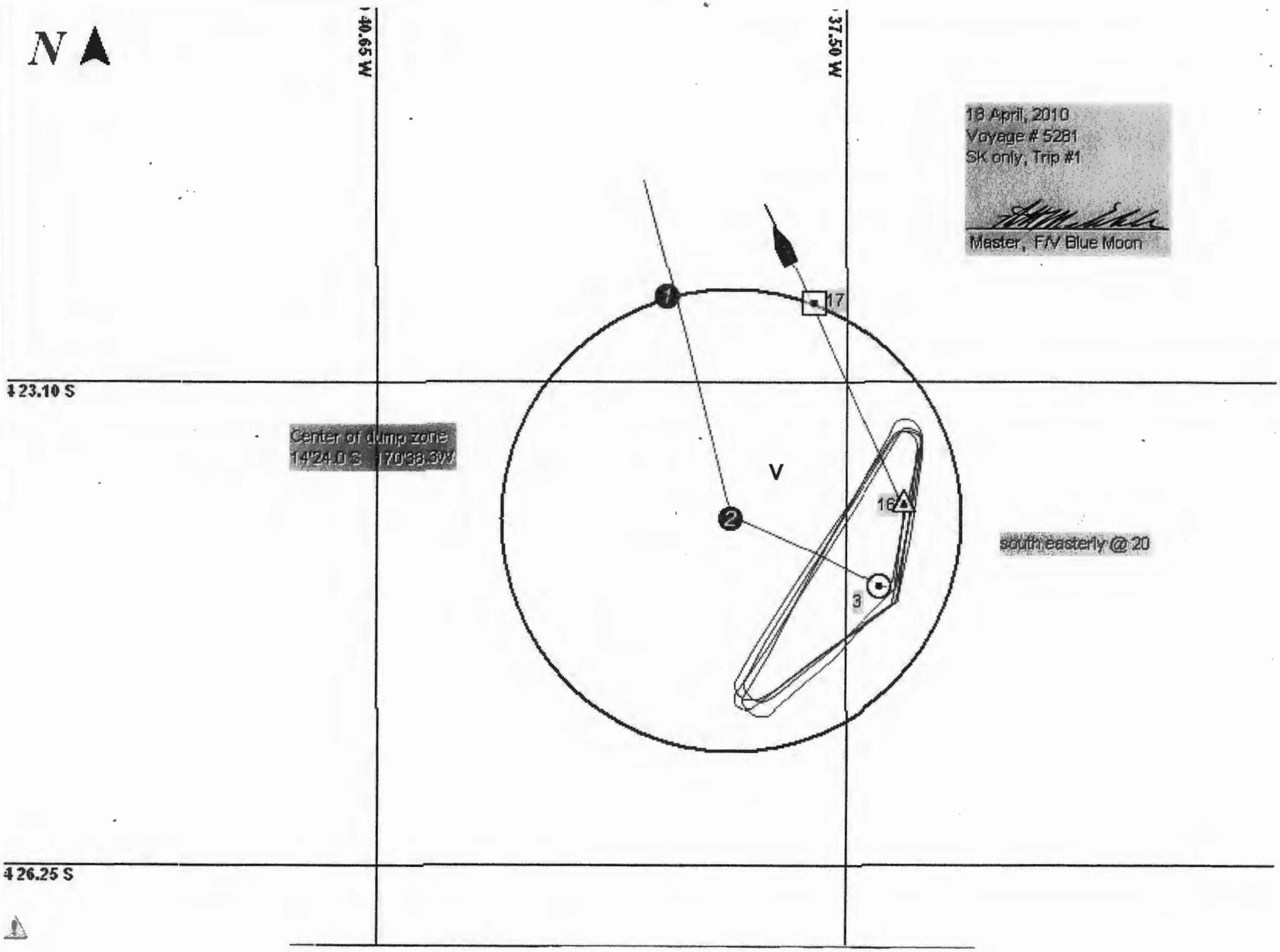

N
40.65 W
37.50 W
3.10 S
6.25 S
30 April, 2010
Voyage # 5286
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0'S 170°38.3'W
Westerley @ 10
1
2
3
16
17

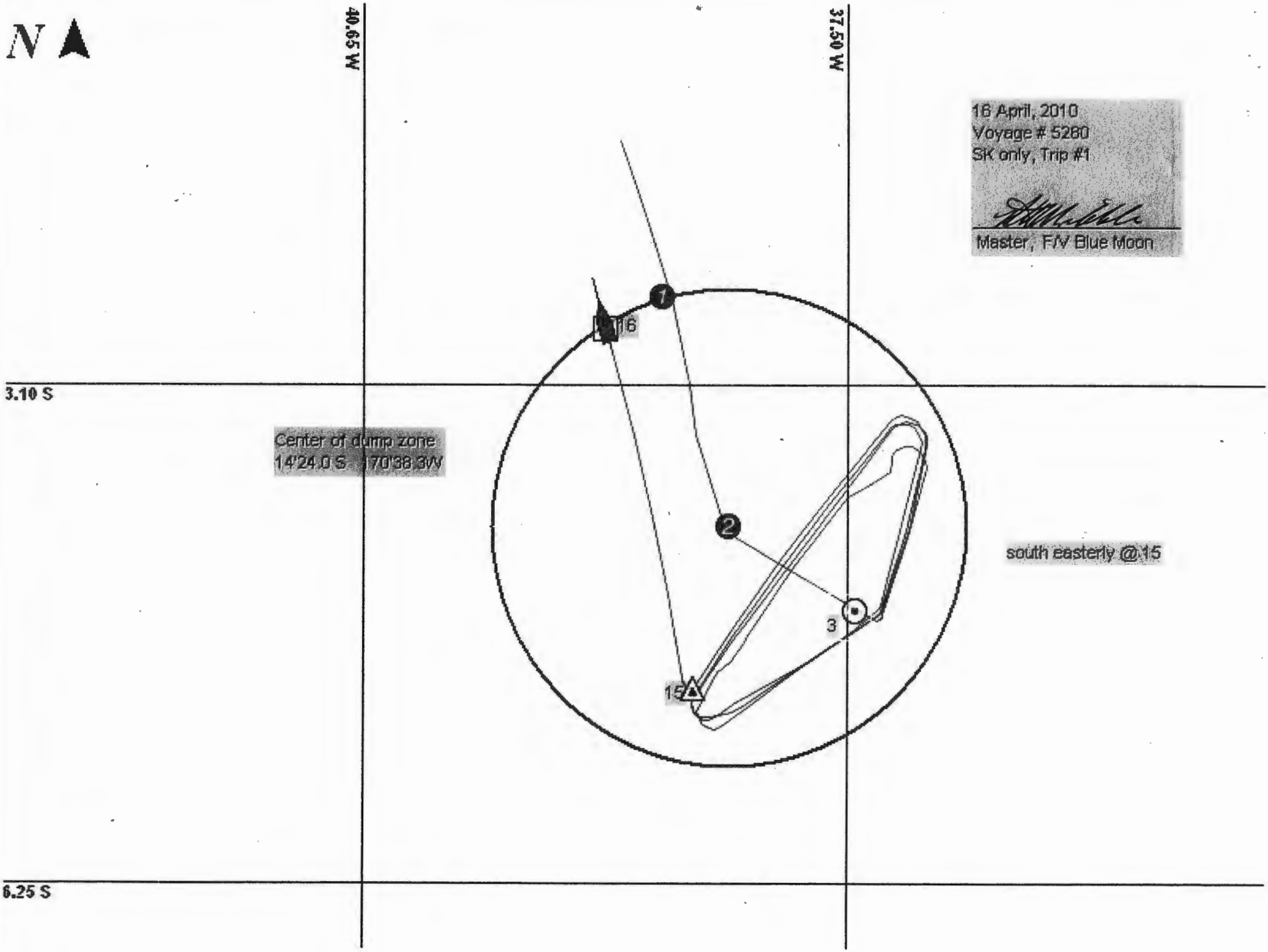

N
40.65 W
37.50 W
14 20.886 S
170 35.916 W
2.779 nm - 089
28 April, 2010
Voyage # 5285
SK only, Trip #1
Master, F/V Blue Moon
1
2
3
16
17
north easterly @ 15
Center of dump zone
14 24.0 S 170 38.3W
23.10 S
26.25 S

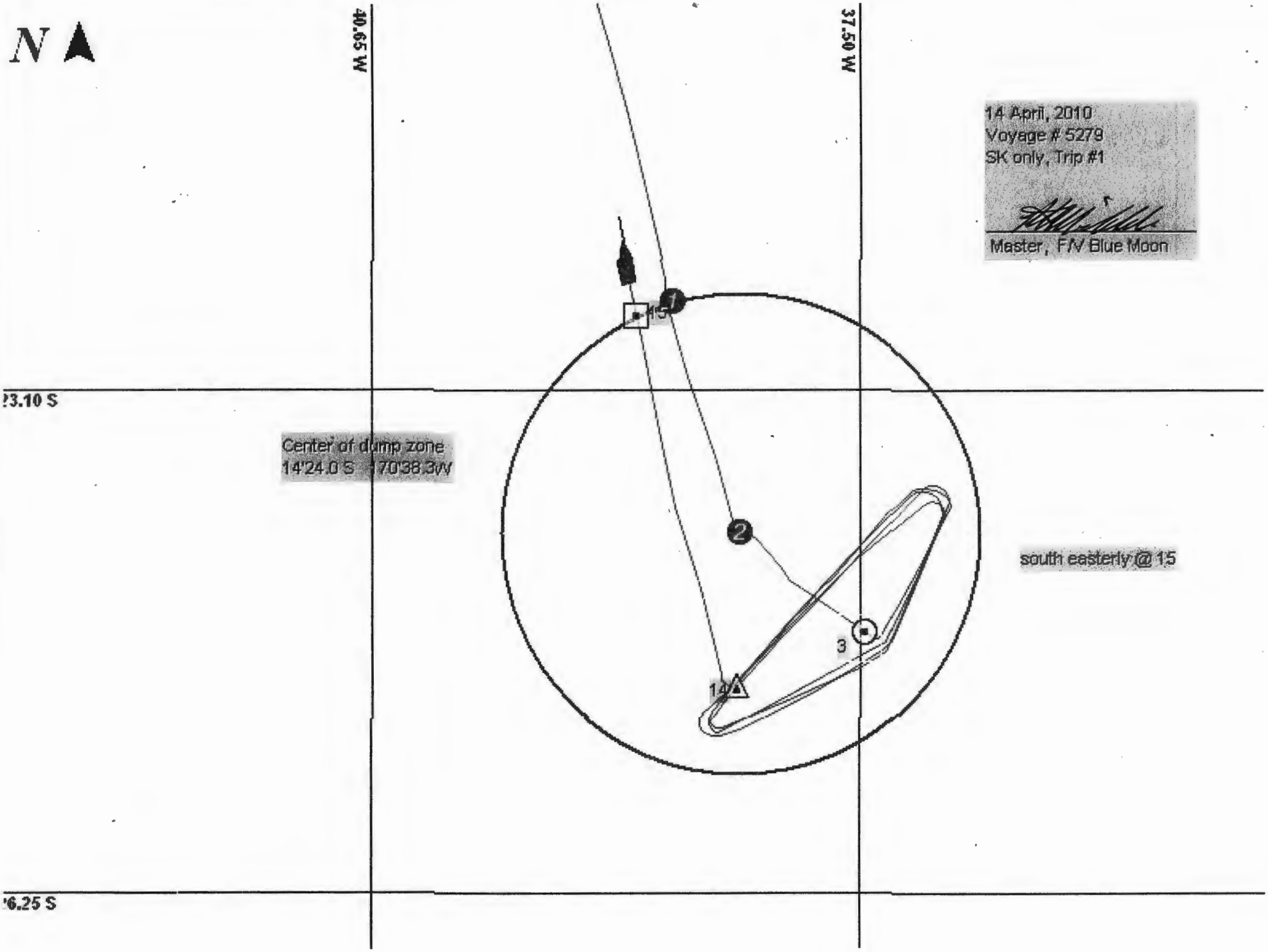

N
40.65 W
37.50 W
14 20.826 S
170 35.637 W
7.079 nm - 130
25 April, 2010
Voyage # 5284
SK only, Trip #1
Master, F/V Blue Moon
3.10 S
Center of dump zone
14°24.0 S 170°36.3W
1
2
3
16
17
south easterly @ 15
6.25 S

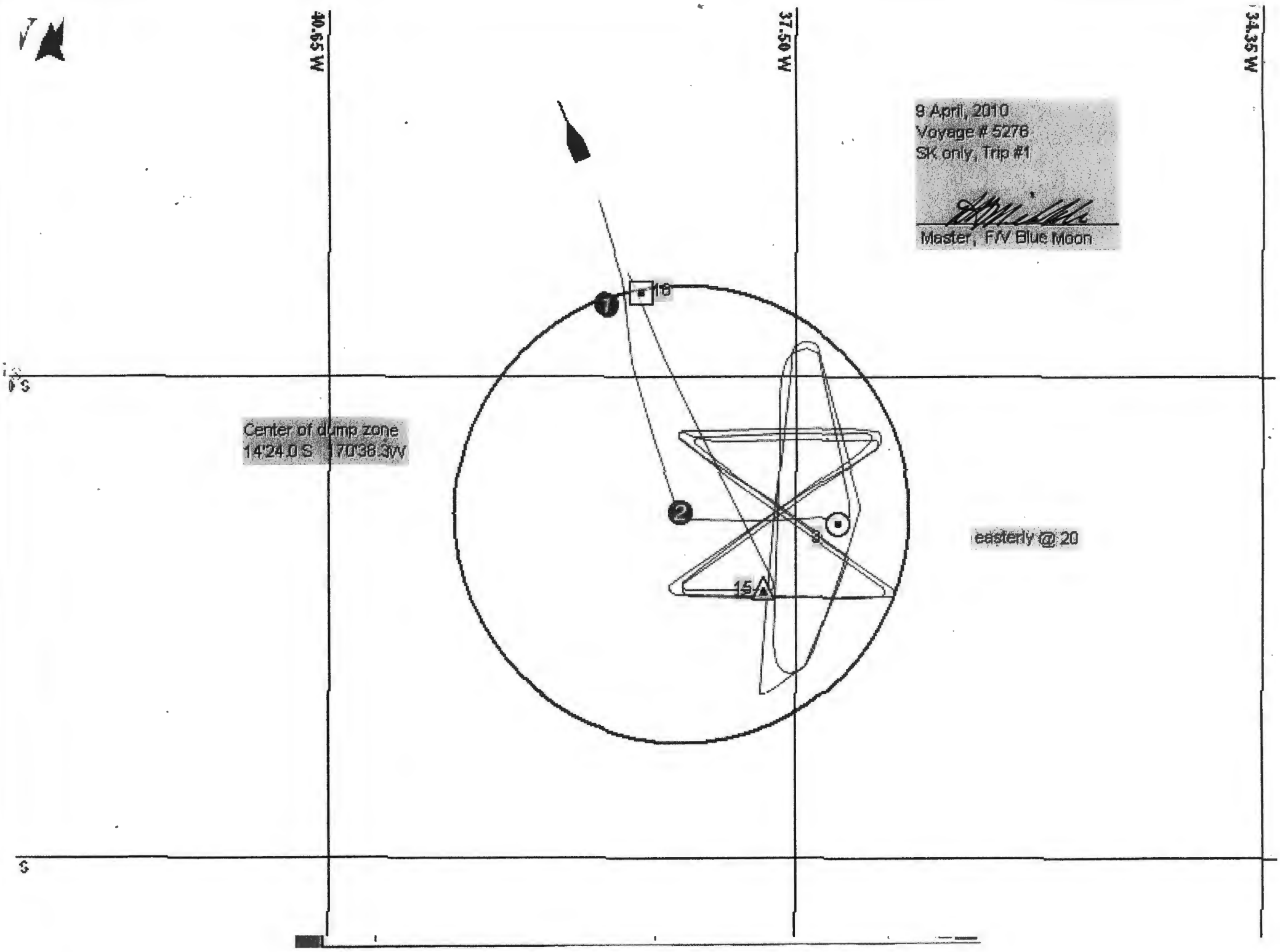

N
40.65 W
37.50 W
3.10 S
6.25 S
23 April, 2010
Voyage # 5283
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
15
14
3
south easterly @ 15

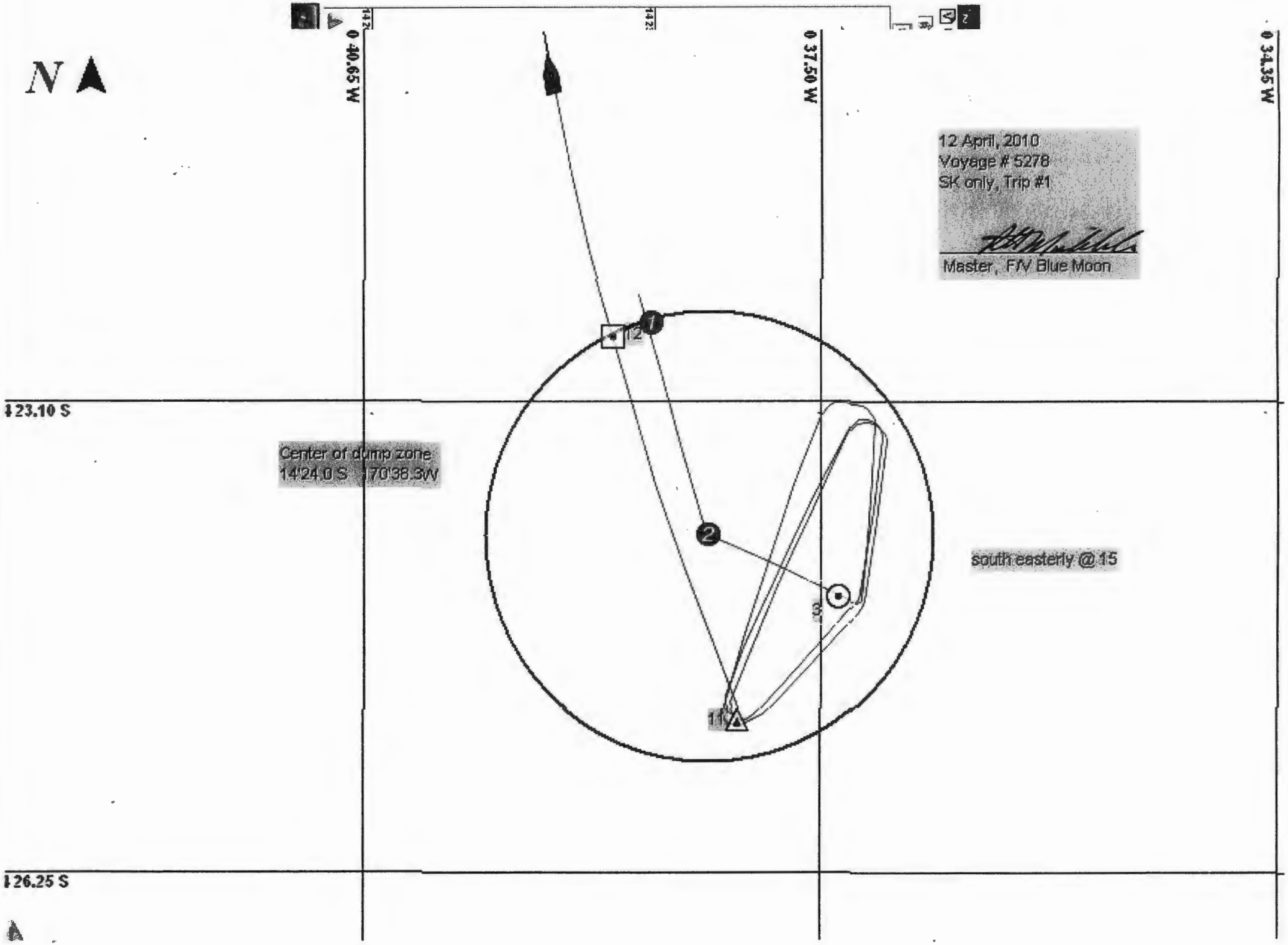

N
1.65 W
1.50 W
3.10 S
6.25 S
21 April, 2010
Voyage # 5282
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
18
17
#5
#4
#3
#2
#1
0
3
south easterly @ 20
water
samples

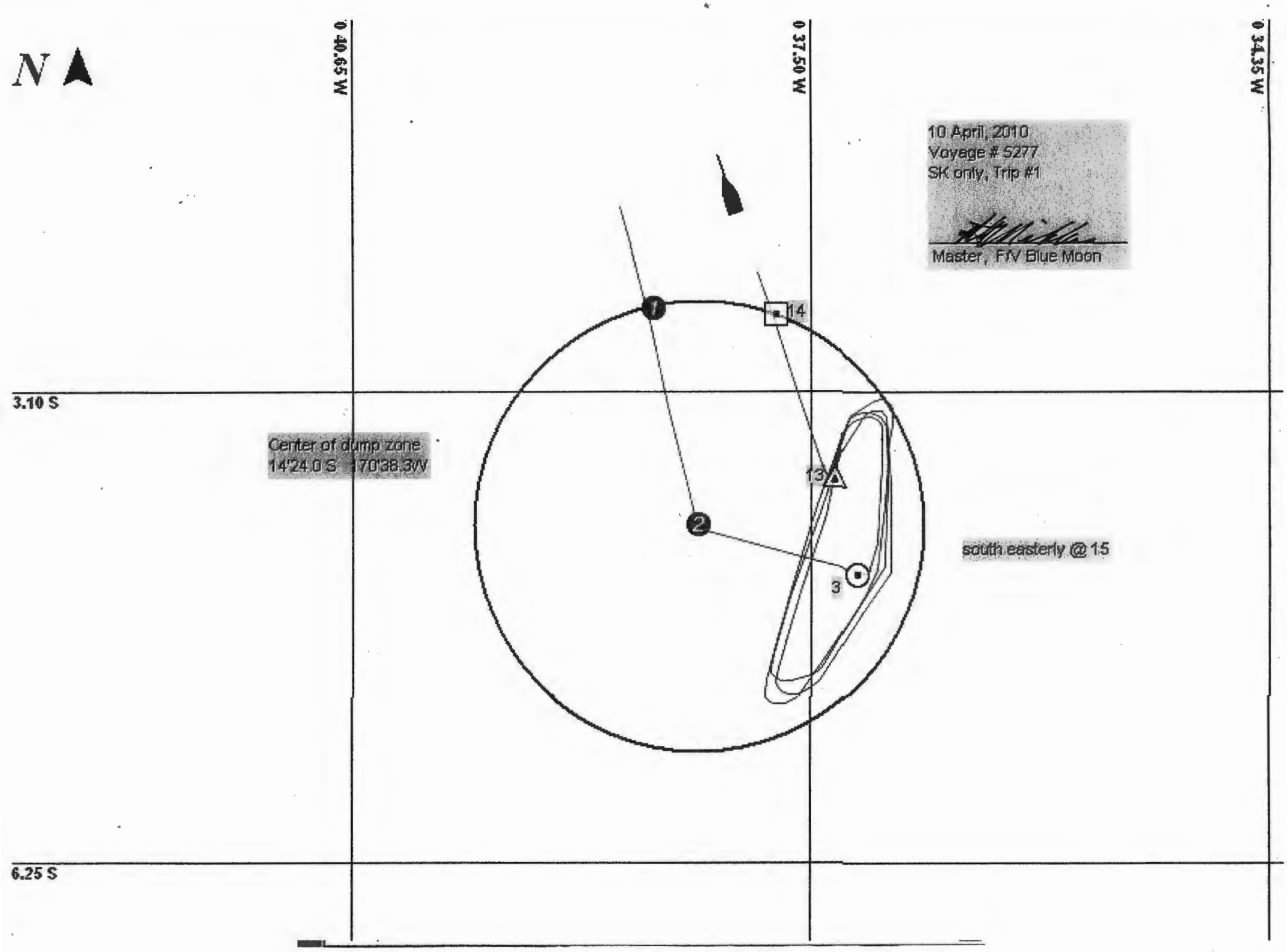

N
40.65 W
37.50 W
18 April, 2010
Voyage # 5281
SK only, Trip #1
Master, F/V Blue Moon
23.10 S
Center of dump zone
14°24.0 S 170°38.3W
V
1
2
3
16
17
south easterly @ 20
26.25 S

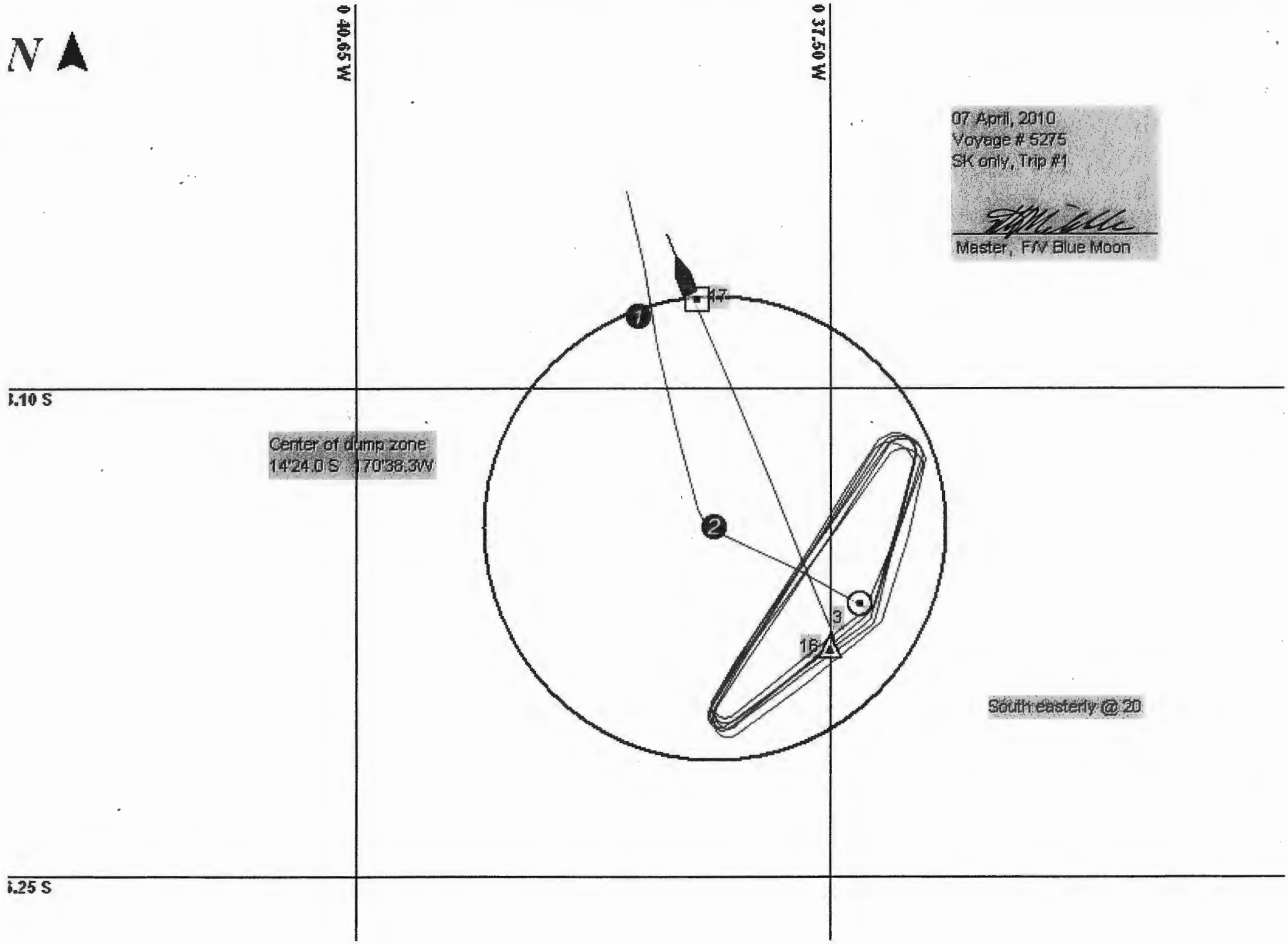

N
40.65 W
37.50 W
3.10 S
6.25 S
16 April, 2010
Voyage # 5280
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
south easterly @15
1
2
3
15
16

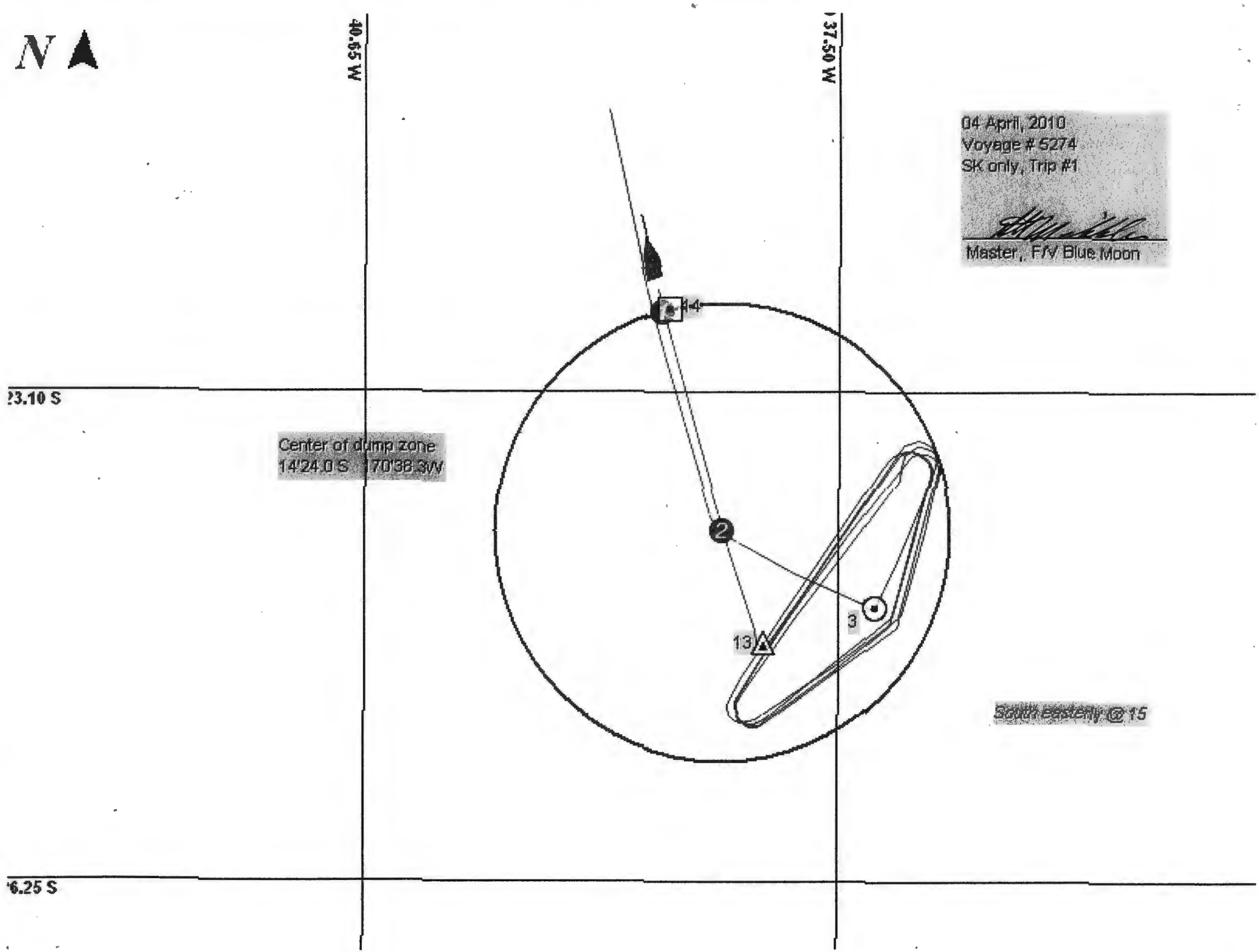

N
40.65 W
37.50 W
?3.10 S
'6.25 S
14 April, 2010
Voyage # 5279
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
south easterly @ 15
1
2
3
14
15

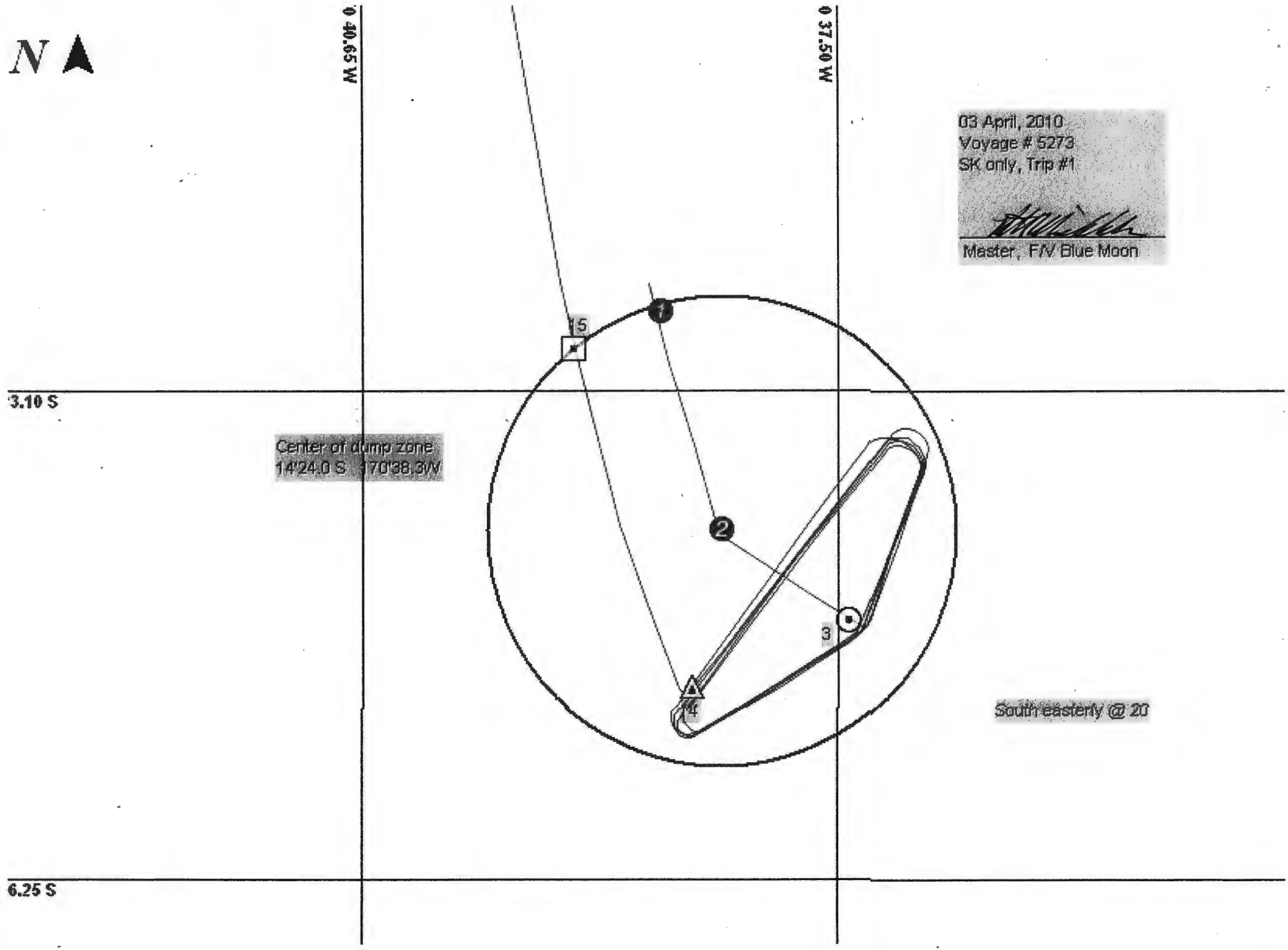

40.65 W
37.50 W
34.35 W
9 April, 2010
Voyage # 5276
SK only, Trip #1
Master, F/V Blue Moon
1
2
3
15
16
Center of dump zone
14°24.0 S 170°38.3W
easterly @ 20

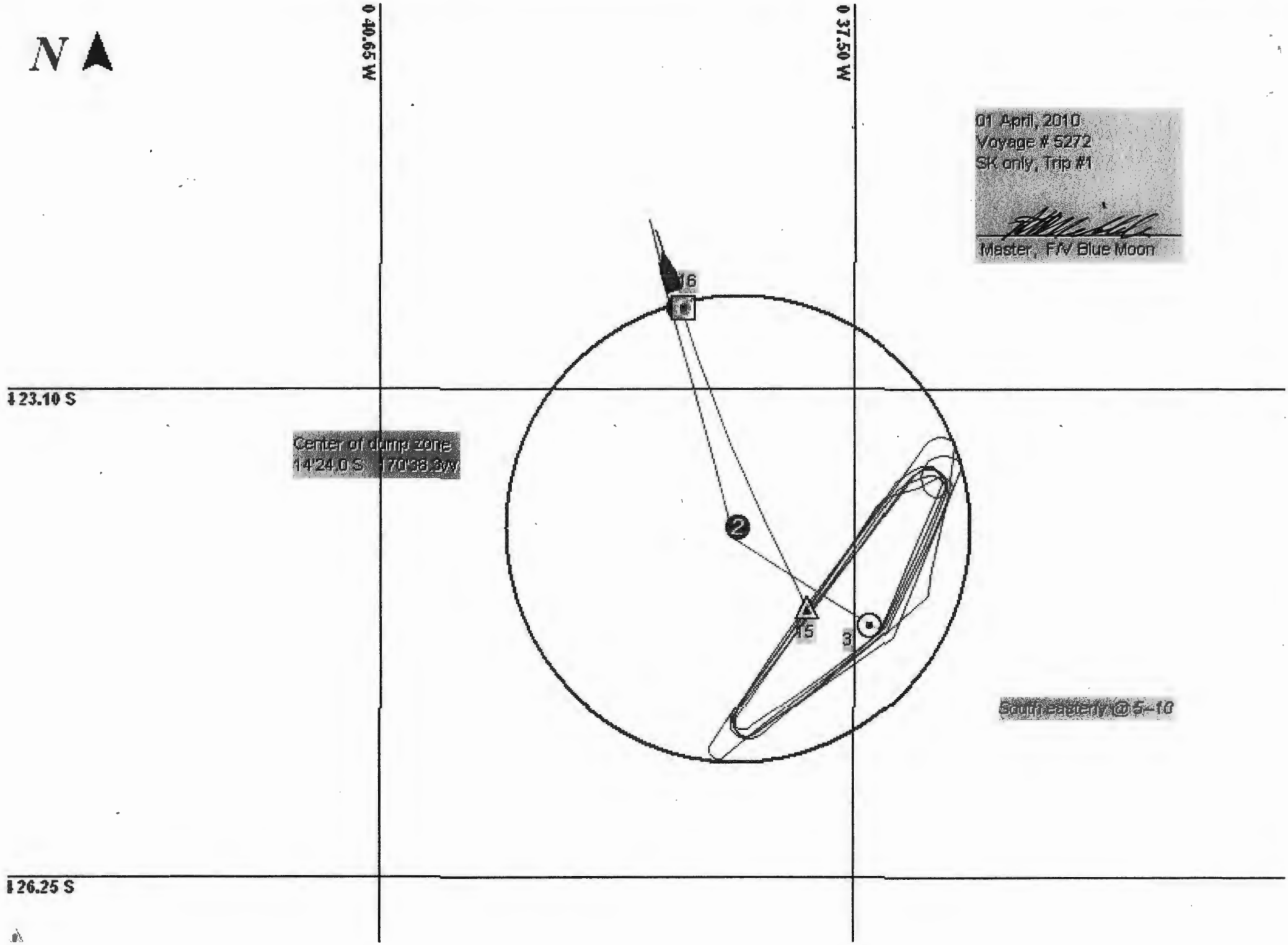

N
0 40.65 W
0 37.50 W
0 34.35 W
123.10 S
126.25 S
12 April, 2010
Voyage # 5278
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
south easterly @ 15
1
2
3
11
12


N
0 40.65 W
0 37.50 W
0 34.35 W
3.10 S
6.25 S
10 April, 2010
Voyage # 5277
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
1
2
3
13
14
south easterly @ 1.5


N
0 40.65 W
0 37.50 W
.10 S
.25 S
07 April, 2010
Voyage # 5275
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
South easterly @ 20
1
2
3
16
17


N
40.55 W
37.50 W
23.10 S
26.25 S
04 April, 2010
Voyage # 5274
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
4
2
3
13
South easterly @ 15


N
0 40.65 W
0 37.50 W
03 April, 2010
Voyage # 5273
SK only, Trip #1
Master, F/V Blue Moon
3.10 S
6.25 S
Center of dump zone
14°24.0 S 170°38.3W
South easterly @ 20
1
2
3
4
5


N
0 40.65 W
0 37.50 W
01 April, 2010
Voyage # 5272
SK only, Trip #1
Master, F/V Blue Moon
16
23.10 S
Center of dump zone
14°24.0 S 170°38.3W
2
15
3
South easterly @ 5-10
26.25 S

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON April 2010

NUMBER OF TRIPS:	SK:	SP:	JOINT:	TOTAL:
	15	0	0	15

GALLONS-FOR THE MONTH:	SK:	SP:	JOINT:	TOTAL:
	2,641,250	0	0	2,641,250

GALLONS FOR SOLO TRIPS:	SK:	SP:
	2,641,250	0

RUNNING TIME ON TRIPS: 60.32 hrs.

DISCHARGE TIME ON TRIPS: 42.9 hrs.

AV. GPM DISCHARGE RATE: 109.74 g/m/k

AV. TRIP TIME: 5.35 hrs.

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK:	COS:
100.00%	0.00%

MASTER :

STAR KIST SAMOA, CO
WATER TREATMENT DEPARTMENT

BLUE MOON -OCEAN DUMPING LOG

Reporting Date: May 01, 2010

Trip Date	1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Volume
01-Apr-10	1st Trip	1325\1500 (51250)	183750	2nd Trip	NONE	0
02-Apr-10	1st Trip	1405\1800 (111250)		2nd Trip	NONE	0
03-Apr-10	1st Trip	1400\0020 (160000)	162500	2nd Trip	NONE	0
04-Apr-10	1st Trip		160000	2nd Trip	NONE	0
05-Apr-10	1st Trip	1330\1500 (42500)		2nd Trip	NONE	0
06-Apr-10	1st Trip	1300\1730 (122500)		2nd Trip	NONE	0
07-Apr-10	1st Trip	1300\1430 (47500)	165000	2nd Trip	NONE	0
08-Apr-10	1st Trip	(100\200)(810\910)(100\330)		2nd Trip	NONE	0
09-Apr-10	1st Trip	1300\1930 (177500)	190000	2nd Trip	NONE	0
10-Apr-10	1st Trip		177500	2nd Trip	NONE	0
11-Apr-10	1st Trip	1530\2000 (115000)		2nd Trip	NONE	0
12-Apr-10	1st Trip		115000	2nd Trip	NONE	0
13-Apr-10	1st Trip	1230\1830 (175000)		2nd Trip	NONE	0
14-Apr-10	1st Trip		175000	2nd Trip	NONE	0
15-Apr-10	1st Trip	0900\1616 (181250)		2nd Trip	NONE	0
16-Apr-10	1st Trip	1300\1430 (42500)	181250	2nd Trip	NONE	0
17-Apr-10	1st Trip	1300\1830 (147500)		2nd Trip	NONE	0
18-Apr-10	1st Trip		190000	2nd Trip	NONE	0
19-Apr-10	1st Trip	1300\1600 (55000)		2nd Trip	NONE	0
20-Apr-10	1st Trip	1300\18000 (125000)		2nd Trip	NONE	0
21-Apr-10	1st Trip	1300\1500 (45000)	180000	2nd Trip	NONE	0
22-Apr-10	1st Trip	1200\1730 (137500)		2nd Trip	NONE	0
23-Apr-10	1st Trip	1430\1600 (57500)	182500	2nd Trip	NONE	0
24-Apr-10	1st Trip	1300\1800 (140000)		2nd Trip	NONE	0
25-Apr-10	1st Trip		197500	2nd Trip	NONE	0
26-Apr-10	1st Trip	1230\1500 (62500)		2nd Trip	NONE	0
27-Apr-10	1st Trip	1300\1730 (127500)		2nd Trip	NONE	0
28-Apr-10	1st Trip	1330\1530 (60000)	190000	2nd Trip	NONE	0
29-Apr-10	1st Trip	1345\1800 (131250)		2nd Trip	NONE	0
30-Apr-10	1st Trip	1630\1830 (55000)	191250	2nd Trip	NONE	0
TOTAL	**1st Trip**		**2,641,250**	**2nd Trip**		**0**
					Total 1st & 2nd	**2,457,500**

cc:
Blue Moon- Captain
File

Prepared by: W.W.T

Date: 04/01/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5272

Permit # OD 93-01 & OD 93-02

Time	
1300	Begin Loading SK
1420	Finish Loading SK
0515	Begin Loading SK
1015	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	183750	Gallons
SP		Gallons
Total	183750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0515	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.55	Metric	kts	True*
0607	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 5	50	29.55	1.5	9.2	167°
0615	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 5-10	50	29.55	1.5	9.3	165°
0920	Begin Discharge	# 3	14*2 4.5	S	170*3 7.5	W	SE 5-10	50	29.55	1.5 X	8.8	123°
35		# 4	14*2 3.7	S	170*3 7.2	W	SE 5-10	50	29.55	1.5	9.6	217°
50	Remarks:	# 5	14*2 4.9	S	170*3 7.6	W	SE 5-10	50	29.55	1.5	9	052°
0705		# 6	14*2 3.6	S	170*3 7.1	W	SE 5-10	50	29.55	1.5	10	217°
20		# 7	14*2 5.0	S	170*3 7.8	W	SE 5-10	50	29.55	1.5 5	9.4	052°
35		# 8	14*2 4.3	S	170*3 7.6	W	SE 5-10	50	29.55	1.5	10.4	215°
50		# 9	14*2 3.9	S	170*3 6.8	W	SE 5-10	50	29.55	1.5	7.4	023°
0805		# 10	14*2 4.2	S	170*3 7.6	W	SE 5-10	50	29.55	1.5	10.3	215°
20		# 11	14*2 5.3	S	170*3 8.2	W	SE 5-10	50	29.55	1.5	9.8	057°
35		# 12	14*2 3.7	S	170*3 6.9	W	SE 5-10	50	29.55	1.5 10	10	063°
50		# 13	14*2 5.0	S	170*3 7.8	W	SE 5-10	50	29.55	1.5	9.4	050°
0905		# 14	14*2 3.9	S	170*3 6.9	W	SE 5-10	50	29.55	1.5	9.9	025°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0915	Finish Discharge	15	14*2 4.2	S	170*3 7.6	W	SE 5-10	50	29.55	1.5	10	218°
0925	Exit Discharge Zone	16	14*2 2.7	S	170*3 8.5	W	SE 5-10	30	29.55	1.5	10.1	341°
1055	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 5.6 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 109 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/03/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5273

Permit # OD 93-01 & OD 93-02

Time	
1325	Begin Loading SK
1500	Finish Loading SK
1405	Begin Loading SK
1800	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	162 500	Gallons
SP	—	Gallons
Total	162 500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6			
0708	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 20	80	29.6	1.5	9.2	163°
0717	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 20	80	29.6	1.5	9.3	165°
0725	Begin Discharge	# 3	14*2 4.5	S	170*3 7.4	W	SE 20	80	29.6	1.5 X	9.2	052°
40		# 4	14*2 3.9	S	170*3 7.5	W	SE 20	80	29.6	1.5	10	210°
55	Remarks:	# 5	14*2 4.8	S	170*3 7.5	W	SE 20	80	29.6	1.5	9.4	059°
0810		# 6	14*2 3.4	S	170*3 7.1	W	SE 20	80	29.6	1.5	10.2	231°
25		# 7	14*2 5.2	S	170*3 8.4	W	SE 20	80	29.6	1.5 5	9.7	066°
40		# 8	14*2 3.6	S	170*3 8.9	W	SE 20	80	29.6	1.5	10	354°
55		# 9	14*2 5.0	S	170*3 8.4	W	SE 20	80	29.6	1.5	10.2	202°
0910		# 10	14*2 3.5	S	170*3 7.0	W	SE 20	80	29.6	1.5	10.4	316°
25		# 11	14*2 4.5	S	170*3 8.1	W	SE 20	80	29.6	1.5	10	216°
40		# 12	14*2 4.2	S	170*3 7.2	W	SE 20	80	29.6	1.5 10	9.4	024°
55		# 13	14*2 4.7	S	170*3 8.2	W	SE 20	80	29.6	1.5	9.9	218°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1000	Finish Discharge	14	14*2 50	S	170*3 8.5	W	SE20	80	29.6	1.5	10.1	312°
1013	Exit Discharge Zone	15	14*2 3.1	S	170*3 9.1	W	SE20	80	29.6	1.5	9.5	316°
1050	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 155 mins. Average Speed During Discharge: 9.8 kts. Total Time Run 4.6 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 106 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/04/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5274

Permit # OD 93-01 & OD 93-02

Time	
1420	Begin Loading SK
0020	Finish Loading SK
	Begin Loading SK
	Finish Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:		
SK	160 000	Gallons
SP		Gallons
Total	160 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0600	Depart Starkist		14*16.50'	S	170* 41.2'	W		30	29.6	Metric	kts	True*
0649	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 15	30	29.6	1.5	9.2	166°
0700	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE15	30	29.6	1.5	9.4	164°
0705	Begin Discharge	# 3	14*2 4.3	S	170*3 7.6	W	SE15	30	29.6	1.5 X	9.8	117°
20		# 4	14*2 3.6	S	170*3 7.2	W	SE15	30	29.6	1.5	9.9	218°
35	Remarks:	# 5	14*2 4.7	S	170*3 7.4	W	SE15	30	29.6	1.5	8.9	054°
50		# 6	14*2 4.3	S	170*3 21.6	W	SE15	30	29.6	1.5	9.8	216°
0805		# 7	14*2 4.8	S	170*3 7.5	W	SE15	30	29.6	1.5 5	10	055
20		# 8	14*2 3.9	S	170*3 7.2	W	SE15	30	29.6	1.5	10.3	217°
35		# 9	14*2 4.7	S	170*3 7.3	W	SE15	30	29.6	1.5	10	053°
50		# 10	14*2 4.3	S	170*3 7.6	W	SE15	30	29.6	1.5	10.3	214°
0905		# 11	14*2 4.5	S	170*3 7.1	W	SE15	30	29.6	1.5	9.8	023°
20		# 12	14*2 4.0	S	170*3 7.4	W	SE15	30	29.6	1.5 10	10	214°
		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0925	Finish Discharge	13	14*2 4.5	S	170*3 7.8	W	SE15	30	29.6	1.5	10	214°
0938	Exit Discharge Zone	14	14*2 2.6	S	170*3 8.6	W	SE15	30	29.6	1.5	10.3	345°
1045	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern _____

Total Discharge Time: 140 mins. Average Speed During Discharge: 9.8 kts. Total Time Run 4.75 hr.

Navigational Plot made: Yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 116.6 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon [signature]

Date: 04/07/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5275

Permit # OD 93-01 & OD 93-02

Time	
1330	Begin Loading SK
1530	Finish Loading SK
1700	Begin Loading SK
1730	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	165 000	Gallons
SP		Gallons
Total	165 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0500	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6	Metric	kts	True*
0540	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		50	29.6	1.5	8.5	166°
0550	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		50	29.6	1.5	8.3	168°
0600	Begin Discharge	# 3	14*2 4.4	S	170*3 7.4	W	SE 15	50	29.6	1.5 X	9	129°
15		# 4	14*2 4.6	S	170*3 8.0	W	SE 15	50	29.6	1.5	9.7	218°
30	Remarks:	# 5	14*2 4.7	S	170*3 4.5	W	SE 20	50	29.6	1.5	10.1	082°
45		# 6	14*2 4.0	S	170*3 7.5	W	SE 20	50	29.6	1.5	10	217°
0700		# 7	14*2 4.9	S	170*3 7.7	W	SE 20	50	29.6	1.5 5	10.2	055°
15		# 8	14*2 3.4	S	170*3 7.1	W	SE 20	50	29.6	1.5	9.8	221°
30		# 9	14*2 5.1	S	170*3 8.0	W	SE 20	50	29.6	1.5	9.5	055°
45		# 10	14*2 3.5	S	170*3 7.2	W	SE 20	50	29.6	1.5	9.7	220°
0800		# 11	14*2 5.3	S	170*3 8.1	W	SE 20	50	29.6	1.5	10	069°
15		# 12	14*2 3.7	S	170*3 6.9	W	SE 20	50	29.6	1.5 10	9.8	013°
30		# 13	14*2 5.1	S	170*3 8.1	W	SE 20	50	29.6	1.5	9.9	066°
45		# 14	14*2 3.9	S	170*3 7.0	W	SE 20	50	29.6	1.5	9.8	023°
0900		# 15	14*2 5.0	S	170*3 8.2	W	SE 20	50	29.6	1.5	9.8	202°
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0910	Finish Discharge	16	14*2 4.8	S	170*3 7.6	W	SE20	50	29.6	1.5	9.7	054°
0920	Exit Discharge Zone	17	14*2 2.6	S	170*3 8.3	W	SE20	50	29.6	1.5	10	337°
1010	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 190 mins. Average Speed During Discharge: 9.7 kts. Total Time Run 3.16 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: NONE Discharge Rate: 89.5 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/09/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5276

Permit # OD 93-01 & OD 93-02

Time		
1300	Begin Loading SK	13000
1430	Finish Loading SK	1530
0100	Begin Loading SK	810
0200	Finish Loading SK	0910

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	190 000	Gallons
SP		Gallons
Total	190 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0500	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.5	Metric	kts	True*
0600	Arrive Edge of Zone	# 1	14*22.4	S	170*38. 7	W		70	29.5	1.5	8.9	165°
0610	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	E 15	70	29.5	1.5	9	089°
0615	Begin Discharge	# 3	14*2 4.0	S	170*3 7.3	W	E15	70	29.5	1.5 X	9.1	091°
30		# 4	14*2 3.1	S	170*3 7.6	W	E20	70	29.55	1.5	9.3	185°
45	Remarks:	# 5	14*2 4.4	S	170*3 7.2	W	E 20	70	29.55	1.5	8.9	020°
0700		# 6	14*2 3.0	S	170*3 7.5	W	E 20	50	29.55	1.5	9.2	190°
15		# 7	14*2 5.0	S	170*3 7.7	W	E 20	50	29.55	1.5 5	10	167°
30		# 8	14*2 7.5	S	170*3 7.3	W	E20	50	29.55	2	9.2	089°
45		# 9	14*2 4.1	S	170*3 7.9	W	E20	50	29.55	2	10.4	237°
0800		# 10	14*2 4.4	S	170*3 7.0	W	E20	50	29.55	2	10.2	310°
15		# 11	14*2 3.4	S	170*3 7.4	W	E 20	50	29.55	2	10	089°
30		# 12	14*2 4.2	S	170*3 7.9	W	E 20	50	29.55	2 10	10.1	235°
45		# 13	14*2 4.3	S	170*3 7.1	W	E 20	50	29.55	2	9.4	356°
0900		# 14	14*2 3.5	S	170*3 7.0	W	E 20	50	29.55	2	9.6	223°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
0915		X	14*2 4.5	S	170*3 7.9	W	E20	50	29.55	2	10	091°
0915	Finish Discharge	15	14*2 4.5	S	170*3 7.9	W	E 20	50	29.55	2	10	091°
0927	Exit Discharge Zone	16	14*2	S	170*3	W	E20	50	29.55	2	10	337°
1025	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center w End of Discharge w Discharge Pattern Ellipse + Fig 8

Total Discharge Time: 150 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 5.25 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 109.9 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/10/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5277

Permit # OD 93-01 & OD 93-02

Time		
	Begin Loading SK	
	Finish Loading SK	Trip # 1 -
	Begin Loading SK	Trip # 2
	Finish Loading SK	

Volume Loaded: SK 177500 Gallons; SP — Gallons; Total 177500 Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0745	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6			
0840	Arrive Edge of Zone	# 1	14*22.5	S	170*38.7	W	SE15	30	29.6	1.5	8.5	166°
0850	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE15	30	29.6	1.5	8	167°
0900	Begin Discharge	# 3	14*24.2	S	170*37.3	W	SE15	30	29.6	1.5 X	9.1	188°
15		# 4	14*23.5	S	170*37.3	W	SE15	30	29.6	1.5	9	191°
30	Remarks:	# 5	14*24.7	S	170*37.6	W	SE15	30	29.6	1.5	9.4	136°
45		# 6	14*24.1	S	170*38.9	W	SE15	30	29.6	1.5	9.2	002°
1000		# 7	14*23.9	S	170*37.4	W	SE15	30	29.6	1.5 5	9.4	281°
15		# 8	14*26.0	S	170*37.5	W	SE15	30	29.6	1.5	9.4	036°
30		# 9	14*23.3	S	170*37.2	W	SE15	50	29.6	1.5	9.1	206°
45		# 10	14*24.3	S	170*37.0	W	SE15	50	29.6	1.5	9.6	156°
1100		# 11	14*24.3	S	170*37.0	W	SE15	50	29.6	1.5	9.1	012°
15		# 12	14*23.1	S	170*36.9	W	SE15	50	29.6	1.5 10	9.7	368°
30		# 13	14*24.7	S	170*37.6	W	SE15	50	29.6	1.5	9.5	136°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1145	Finish Discharge	13	14*23.5	S	170*37.2	W	SE15	50	29.6	1.5	9.7	195°
1155	Exit Discharge Zone	14	14*22.4	S	170*37.8	W	SE15	50	29.6	1.5	8.5	341°
1245	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 9.35 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 115 Gallons/min/kts

Unusuall Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/12/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5278

Permit # OD 93-01 & OD 93-02

Time					
	Begin Loading SK		Volume Loaded:	SK	Gallons
	Finish Loading SK	Trip # 1 -		SP	Gallons
	Begin Loading SK	Trip # 2		Total	115000 Gallons
	Finish Loading SK				

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0530	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6	Metric	kts	True*
0630	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE15	50	29.6	1.5	8	166°
0642	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE15	50	29.6	1.5	8.3	164°
0650	Begin Discharge	# 3	14*2 4.3	S	170*3 7.4	W	SE15	50	29.6	1.5 X	8.9	116°
0705		# 4	14*2 3.1	S	170*3 7.3	W	SE 15	50	29.6	1.5	8.8	276°
20	Remarks:	# 5	14*2 4.2	S	170*3 7.8	W	SE15	50	29.6	1.5	9.4	190°
25		# 6	14*2 4.8	S	170*3 7.5	W	SE15	50	29.6	1.5	9.1	043
50		# 7	14*2 3.5	S	170*3 7.4	W	SE15	50	29.6	1.5 5	9.8	206°
0805		# 8	14*2 4.5	S	170*3 7.8	W	SE15	50	29.6	1.5	9.4	203°
20		# 9	14*2 4.5	S	170*3 7.3	W	SE15	50	29.6	1.0	9.5	043°
35		# 10	14*2 4.2	S	170*3 7.7	W	SE15	50	29.6	1.0	9.3	206
		# 11	14*2	S	170*3	W						
		# 12	14*2	S	170*3	W				10		
		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0850	Finish Discharge	11	14*2 5.1	S	170*3 8.1	W	SE15	50	29.6	1.0	9.5	101°
0910	Exit Discharge Zone	12	14*2 2.7	S	170*3 8.9	W	SE15	50	29.6	1.2	9.5	343°
1030	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 110 mins. Average Speed During Discharge: 9.3 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 112.4 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/14/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5279

Permit # OD 93-01 & OD 93-02

Time		
1230	Begin Loading SK	
1630	Finish Loading SK	Trip # 1 -
	Begin Loading SK	Trip # 2
	Finish Loading SK	

Volume Loaded:		
SK	175 000	Gallons
SP		Gallons
Total	175 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0535	Depart Starkist		14*16.50'	S	170* 41.2'	W						
0635	Arrive Edge of Zone	# 1	14*22.5	S	170*38.7	W		100	29.6	1.5	7.5	162°
0645	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 20	100	29.6	1.5	8	165°
0655	Begin Discharge	# 3	14*2 4.4	S	170*3 6.5	W	SE 20	100	29.6	1.5 X	9.1	126°
0710		# 4	14*2 3.7	S	170*3 7.1	W	SE20	100	29.6	1.5	4.9	234°
25	Remarks:	# 5	14*2 4.8	S	170*3 8.2	W	SE 20	100	29.6	1.5	9	219°
40		# 6	14*2 4.8	S	170*3 7.5	W	SE 20	100	29.6	1.5	9.2	158°
55		# 7	14*2 4.2	S	170*3 7.6	W	SE20	100	29.6	1.5 5	9.3	226°
0810		# 8	14*2 5.1	S	170*3 8.4	W	SE20	100	29.6	1.5	9	194°
25		# 9	14*2 4.2	S	170*3 7.1	W	SE20	100	29.6	1.5	8.9	024°
40		# 10	14*2 4.3	S	170*3 7.6	W	SE20	100	29.6	1.5	9.6	234°
55		# 11	14*2 5.0	S	170*3 8.0	W	SE 20	100	29.6	1.5	9.4	066°
0910		# 12	14*2 4.4	S	170*3 7.2	W	SE 20	100	29.6	1.5 10	9.2	024°
25		# 13	14*2 4.1	S	170*3 7.6	W	SE20	100	29.6	1.5	9.6	223°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0940	Finish Discharge	14	14*2 4.9	S	170*3 8.3	W	SE20	100	29.6	1.5	9.3	317°
0955	Exit Discharge Zone	15	14*2 2.7	S	170*3 8.9	W	SE 20	100	29.6	1.5	8.6	349°
1105	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 9.2 kts. Total Time Run 5.5 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 108 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/16/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5280

Permit # OD 93-01 & OD 93-02

Time	
0900	Begin Loading SK
1615	Finish Loading SK
1300	Begin Loading SK
1830	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	181 250	Gallons
SP		Gallons
Total	181 250	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0510	Depart Starkist		14*16.50'	S	170* 41.2'	W						
0515	Arrive Edge of Zone	# 1	14*22.5	S	170*38.7	W		80	29.6	1	7.5	158°
0627	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 15	80	29.6	1	8.9	166°
0635	Begin Discharge	# 3	14*2 4.4	S	170*3 7.6	W	SE 15	80	29.6	1.5 X	9.3	121°
50		# 4	14*2 7.8	S	170*3 7.4	W	SE 15	80	29.6	1.5	9	227°
0705	Remarks:	# 5	14*2 4.5	S	170*3 8.0	W	SE 15	80	29.6	1.5	9.1	218°
20		# 6	14*2 4.8	S	170*3 7.7	W	SE 15	80	29.6	1.5	8.9	055°
35		# 7	14*2 3.3	S	170*3 7.2	W	SE 15	80	29.6	1.5 5	9	234°
50		# 8	14*2 4.6	S	170*3 8.2	W	SE 15	80	29.6	1.5	9.	213°
0805		# 9	14*2 4.5	S	170*3 7.2	W	SE 15	80	29.6	1.5	9.4	026°
20		# 10	14*2 3.4	S	170*3 7.2	W	SE 15	80	29.6	1.5	9.2	222°
35		# 11	14*2 4.9	S	170*3 8.4	W	SE 15	80	29.6	1.5	9.3	215°
50		# 12	14*2 4.4	S	170*3 7.2	W	SE 15	80	29.6	1.5 10	9.2	023°
0905		# 13	14*2 3.4	S	170*3 7.3	W	SE 15	80	29.6	1.5	9.7	222°
20		# 14	14*2 4.9	S	170*3 8.4	W	SE 15	80	29.6	1.5	9.5	220°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0925	Finish Discharge	15	14*2 4.5	S	170*3 8.6	W	SE 15	80	29.6	1.5	9.5	348°
0942	Exit Discharge Zone	16	14*2 2.9	S	170*3 9.0	W	SE 15	80	29.6	1.5	7.6	345°
1050	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.2 kts. Total Time Run 5.6 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 115.8 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/18/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5281

Permit # OD 93-01 & OD 93-02

Time	
1300	Begin Loading SK
1430	Finish Loading SK
1300	Begin Loading SK
1800	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	190 000	Gallons
SP	—	Gallons
Total	190 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0640	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6			
0632	Arrive Edge of Zone	# 1	14*22.5	S	170*38.7	W		100	29.6	1.5	8	166°
0742	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		100	29.6	1.5	8.3	169°
0750	Begin Discharge	# 3	14*2 4.3	S	170*3 7.3	W	SE 20	100	29.6	1.5 X	9.4	114°
0805		# 4	14*2 3.6	S	170*3 7.0	W	SE 20	100	29.6	1.5	9.3	017°
20	Remarks:	# 5	14*2 4.5	S	170*3 7.8	W	SE 20	100	29.6	1.5	9.5	206°
35		# 6	14*2 4.7	S	170*3 7.4	W	SE 20	100	29.6	1.5	9.3	44°
50		# 7	14*2 3.4	S	170*3 7.1	W	SE 20	100	29.6	1.5 5	9.7	224°
0905		# 8	14*2 4.7	S	170*3 8.0	W	SE 20	100	29.6	1.5	9.7	207°
20		# 9	14*2 3.9	S	170*3 7.0	W	SE 20	100	29.6	1.5	9.4	010°
35		# 10	14*2 4.9	S	170*3 8.0	W	SE 20	100	29.6	1.5	9.3	213°
50		# 11	14*2 4.7	S	170*3 7.4	W	SE 20	100	29.6	1.5	9.5	056°
1005		# 12	14*2 4.0	S	170*3 7.0	W	SE 20	100	29.6	1.5 10	9.2	009°
20		# 13	14*2 4.2	S	170*3 7.7	W	SE 20	100	29.6	1.5	9.3	213°
35		# 14	14*2 5.0	S	170*3 7.8	W	SE 20	100	29.6	1.5	9.7	054°
50		# 15	14*2 4.1	S	170*3 7.1	W	SE 20	100	29.6	1.5	9.4	015°
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1054	Finish Discharge	16	14*2 3.6	S	170*3 7.2	W	SE 20	100	29.6	1.5	9.5	336°
1105	Exit Discharge Zone	17	14*2 2.7	S	170*3 7.8	W	SE 20	100	29.6	1.5	7.8	356°
1215	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 184 mins. Average Speed During Discharge: 9.44 kts. Total Time Run 5.41 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 109 Gallons/min/kts

Unusuall Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/21/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5282

Permit # OD 93-01 & OD 93-02

Time	
1300	Begin Loading SK
1600	Finish Loading SK
1300	Begin Loading SK
1800	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	180 000	Gallons
SP	—	Gallons
Total	180 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0505	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6			
0615	Arrive Edge of Zone	# 1	14*22.5	S	170*38.7	W		50	29.6	1	6.8	160°
0632	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		50	29.6	1	6.6	176°
0650	Begin Discharge	# 3	14*2 4.5	S	170*3 7.5	W	SE 15	50	29.6	1 X	7.2	004°
0705		# 4	14*2 3.8	S	170*3 6.8	W	SE 15	30	29.6	1	6.9	313°
20	Remarks:	# 5	14*2 4.8	S	170*3 8.3	W	SE 15	30	29.6	1	7.1	234°
35		# 6	14*2 4.9	S	170*3 7.6	W	SE 15	20	29.6	1	6.8	069°
50	0643	# 7	14*2 3.8	S	170*3 7.3	W	SE 15	20	29.6	1 5	7.5	237°
0805	water	# 8	14*2 4.7	S	170*3 8.4	W	SE 15	20	29.6	1	7.4	229°
20	sample	# 9	14*2 4.9	S	170*3 7.9	W	SE 15	20	29.6	1	7.1	069°
35		# 10	14*2 3.8	S	170*3 7.2	W	SE 15	20	29.6	1	7.4	237°
50		# 11	14*2 4.6	S	170*3 8.4	W	SE 15	20	29.6	1	7.9	231°
0950		# 12	14*2 4.8	S	170*3 7.5	W	SE 20	20	29.6	1 10	7.6	042°
20		# 13	14*2 4.3	S	170*3 7.8	W	SE 20	40	29.6	1	7.5	231°
35		# 14	14*2 4.8	S	170*3 8.5	W	SE 20	50	29.6	1	7.4	232°
50		# 15	14*2 4.7	S	170*3 7.6	W	SE 20	50	29.6	1	6.9	044°
1005		# 16	14*2 3.9	S	170*3 7.2	W	SE 20	50	29.6	1	7.3	239°
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
	water	# 19	14*2	S	170*3	W						
	sample	# 20	14*2	S	170*3	W						
	today		14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1020	Finish Discharge	17	14*2 4.6	S	170*3 8.1	W	SE 20	50	29.6	1	7.2	215°
1125	Exit Discharge Zone	18	14*2 3.5	S	170*3 9.6	W	SE 20	50	29.6	1	6.8	356°
1245	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 210 mins. Average Speed During Discharge: 7.28 kts. Total Time Run 7.66 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 117.7 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/23/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5283

Permit # OD 93-01 & OD 93-02

Time	
	Begin Loading SK
	Finish Loading SK
	Begin Loading SK
	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	182500	Gallons
SP		Gallons
Total	182500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0525	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.55			
0632	Arrive Edge of Zone	# 1	14*22.5	S	170*38.7	W		100	29.55	1.5	7.5	167°
0645	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		100	29.65	1.5	8	168°
0655	Begin Discharge	# 3	14*2 4.8	S	170*3 7.9	W	SLY 15	100	27.6	2.0 X	9.2	164°
0710		# 4	14*2 4.6	S	170*3 8.2	W	SLY 15	100	29.6	2.0	9.1	325°
25	Remarks:	# 5	14*2 4.9	S	170*3 8.3	W	SLY 15	100	29.6	2.0	9.4	164°
40		# 6	14*2 4.0	S	170*3 8.0	W	SLY 15	100	29.6	2.0	9.4	017°
55		# 7	14*2 4.7	S	170*3 7.6	W	SLY 15	100	29.6	2.0 5	9.1	166°
0810		# 8	14*2 4.2	S	170*3 8.6	W	SLY 15	100	29.6	2.0	9.7	164°
25		# 9	14*2 5.1	S	170*3 8.3	W	SLY 15	100	29.6	2.0	9.5	961°
40		# 10	14*2 3.9	S	170*3 7.9	W	SE 15	100	29.6	1.5	9.6	152°
55		# 11	14*2 4.6	S	170*3 8.0	W	SE 15	100	29.6	1.5	9.4	314°
0910		# 12	14*2 4.6	S	170*3 8.4	W	SE15	100	25.6	1.5 10	9.5	163°
25		# 13	14*2 4.7	S	170*3 8.1	W	SE15	100	29.6	1.5	9.4	005°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0940	Finish Discharge	14	14*2 3.9	S	170*3 8.0	W	SE15	100	29.6	1.5	9.6	001°
0950	Exit Discharge Zone	15	14*2 2.6	S	170*3 3.3	W	SE15	100	29.6	1.5	8	294°
1105	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 9.4 kts. Total Time Run 5.33 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 117 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/25/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5284

Permit # OD 93-01 & OD 93-02

Time	
1430	Begin Loading SK
1600	Finish Loading SK
1700	Begin Loading SK
1800	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	197 500	Gallons
SP	—	Gallons
Total	197 500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0510	Depart Starkist		14*16.50'	S	170* 41.2'	W		80	29.65			
0703	Arrive Edge of Zone	# 1	14*22.5	S	170*38.7	W		80	29.65	1.5	9.6	166°
0713	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		80	29.65	1.5	9.7	167°
0718	Begin Discharge	# 3	14*2 4.4	S	170*3 7.3	W	SE 10	80	29.65	1.5 X	9.8	110°
33		# 4	14*2 3.7	S	170*3 7.5	W	SE 10	80	29.65	1.5	9.6	262°
48	Remarks:	# 5	14*2 4.8	S	170*3 7.3	W	SE 15	80	29.65	1.5	9.9	042°
0803		# 6	14*2 4.2	S	170*3 7.6	W	SE15	80	29.65	1.5	9.7	285°
18		# 7	14*2 5.1	S	170*3 7.6	W	SE15	60	29.65	1.5 5	9.9	045°
33		# 8	14*2 3.6	S	170*3 7.4	W	SE15	60	29.65	1.5	9.8	202°
48		# 9	14*2 4.7	S	170*3 7.3	W	SE 15	60	29.65	1.5	10	041°
0903		# 10	14*2 3.5	S	170*3 7.3	W	SE 15	50	29.65	1.5	9.8	202°
18		# 11	14*2 4.9	S	170*3 7.5	W	SE 15	50	29.65	1.5	10.1	040°
33		# 12	14*2 3.5	S	170*3 7.3	W	SE15	50	29.65	1.5 10	9.8	205°
48		# 13	14*2 5.0	S	170*3 7.6	W	SE15	50	29.65	1.5	9.7	043°
1003		# 14	14*2 3.6	S	170*3 7.4	W	SE15	50	29.65	1.5	9.8	205°
18		# 15	14*2 5.2	S	170*3 8.1	W	SE15	50	29.65	1.5	9.8	124°
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1033	Finish Discharge	16	14*2 4.5	S	170*3 7.3	W	SE15	50	29.65	1.5	9.5	218°
1042	Exit Discharge Zone	17	14*2 2.6	S	170*3 8.6	W	SE 15	50	29.65	1.5	9.9	345°
1130	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 195 mins. Average Speed During Discharge: 9.8 kts. Total Time Run 5.3 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 1033 Gallons/min/kts

Unusuall Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/28/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5285

Permit # OD 93-01 & OD 93-02

Time	
1230	Begin Loading SK
1500	Finish Loading SK
1300	Begin Loading SK
1730	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	190 000	Gallons
SP		Gallons
Total	190 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0520	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6			
0612	Arrive Edge of Zone	# 1	14*22.5	S	170*38.7	W	VAR	50	29.6	1.5	9.4	166°
0620	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	NE10	50	29.6	1.5	9.6	164°
0625	Begin Discharge	# 3	14*2 2.9	S	170*3 7.9	W	NE15	50	29.6	1.5 X	9.2	283°
40		# 4	14*2 3.2	S	170*3 8.9	W	NE15	50	29.6	1.5	9.6	114°
55	Remarks:	# 5	14*2 3.6	S	170*3 6.9	W	NE15	50	29.6	1.5	9.2	324°
0710		# 6	14*2 2.8	S	170*3 8.8	W	NE15	50	29.6	1.5	9.7	272°
25		# 7	14*2 3.7	S	170*3 7.6	W	NE15	50	29.6	1.5 5	9.7	118°
40		# 8	14*2 2.8	S	170*3 8.7	W	NE15	50	29.6	1.5	9.8	270°
55		# 9	14*2 3.7	S	170*3 7.5	W	NE15	50	29.6	1.5	10	117°
0810		# 10	14*2 2.8	S	170*3 8.9	W	NE15	50	29.6	1.5	9.5	264°
25		# 11	14*2 3.9	S	170*3 7.2	W	NE15	50	29.6	1.5	9.8	112°
40		# 12	14*2 2.9	S	170*3 8.0	W	NE15	50	29.6	1.5 10	9.9	273°
55		# 13	14*2 3.8	S	170*3 7.4	W	NE15	50	29.6	1.5	9.5	111°
0910		# 14	14*2 2.9	S	170*3 8.0	W	NE15	50	29.6	1.5	9.7	276°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0925	Finish Discharge	16	14*2 3.5	S	170*3 8.0	W	NE15	50	29.6	1.5	9.7	090°
0930	Exit Discharge Zone	17	14*2 8.07	S	170*3 8.1	W	NE15	50	29.6	1.5	9.9	342°
1020	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center SW End of Discharge SW Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 109.9 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 04/30/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5286

Permit # OD 93-01 & OD 93-02

Time		
	Begin Loading SK	
	Finish Loading SK	Trip # 1 -
	Begin Loading SK	Trip # 2
	Finish Loading SK	

Volume Loaded: SK 171250 Gallons; SP ____ Gallons; Total 171250 Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0515	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.65			
0605	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	VAR	20	29.65	1.5	9.3	166°
0615	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	VAR	20	29.65	1.5	9.2	164°
0620	Begin Discharge	# 3	14*2 4.0	S	170*3 9.3	W	VAR	20	29.65	1.5 X	9.2	189°
35		# 4	14*2 4.6	S	170*3 8.9	W	WLY 10	20	29.65	1.5	9.6	000°
50	Remarks:	# 5	14*2 3.4	S	170*3 9.3	W	W 10	20	29.65	1.5	9.6	196°
0705		# 6	14*2 4.9	S	170*3 9.0	W	W 10	20	29.65	1.5	9.3	009°
20		# 7	14*2 3.2	S	170*3 9.2	W	W 10	20	29.65	1.5 5	9.7	196°
35		# 8	14*2 4.9	S	170*3 9.0	W	W 10	20	29.65	1.5	9.7	007°
50		# 9	14*2 3.2	S	170*3 9.2	W	W 10	20	29.65	1.5	9.9	200°
0805		# 10	14*2 4.7	S	170*3 9.0	W	W 10	20	29.65	1.5	9.7	003°
20		# 11	14*2 3.3	S	170*3 9.3	W	[illegible]	20	29.65	1.5	9.9	199°
35		# 12	14*2 4.6	S	170*3 8.9	W	[illegible]	20	29.65	1.5 10	9.7	004°
50		# 13	14*2 4.3	S	170*3 9.4	W	W 10	20	29.65	1.5	10	166°
0905		# 14	14*2 5.0	S	170*3 8.9	W	W 10	20	29.65	1.5	9.9	015°
20		# 15	14*2 3.4	S	170*3 9.2	W	W 10	20	29.65	1.5	9.9	196°
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0924	Finish Discharge	16	14*2 3.9	S	170*3 9.4	W	W 10	20	29.65	1.5	9.8	221°
0928	Exit Discharge Zone	17	14*2 3.3	S	170*3 9.5	W	W 10	20	29.65	1.5	10.3	358°
1020	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center E End of Discharge E Discharge Pattern Ellipse

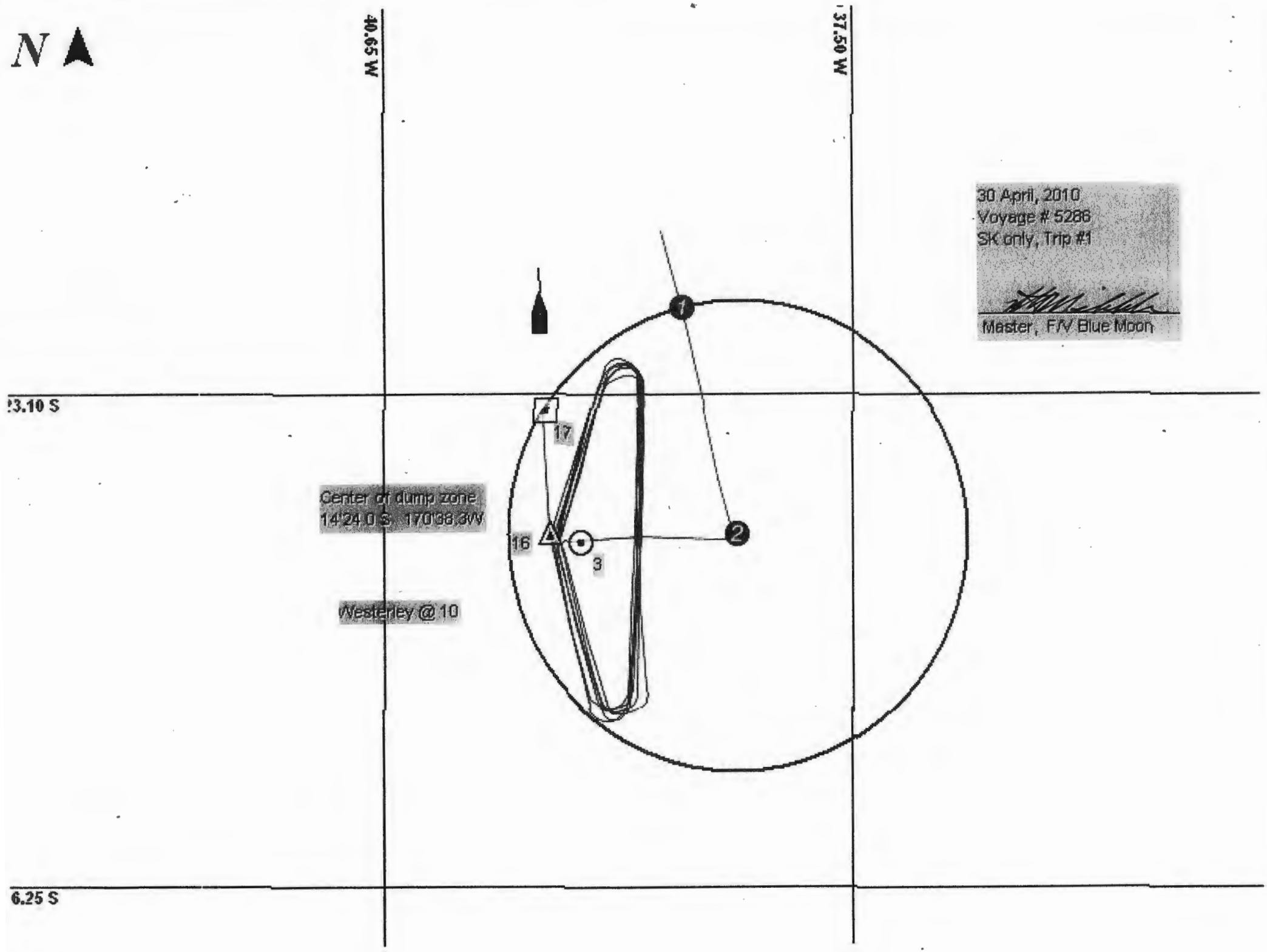
Total Discharge Time: 184 mins. Average Speed During Discharge: 9.7 kts. Total Time Run 5.16 hr.

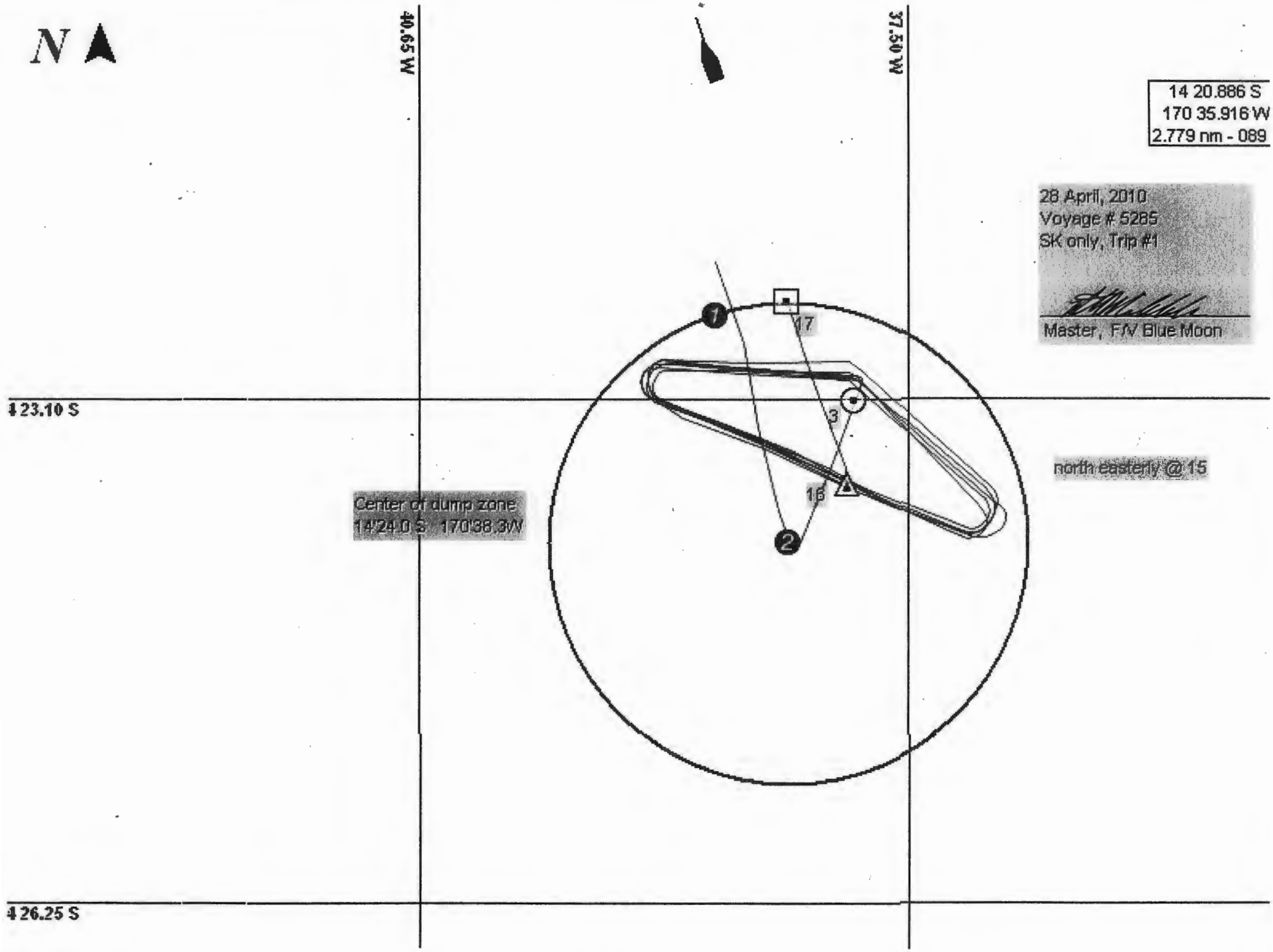
Navigational Plot made: yes Presence of Plume? None

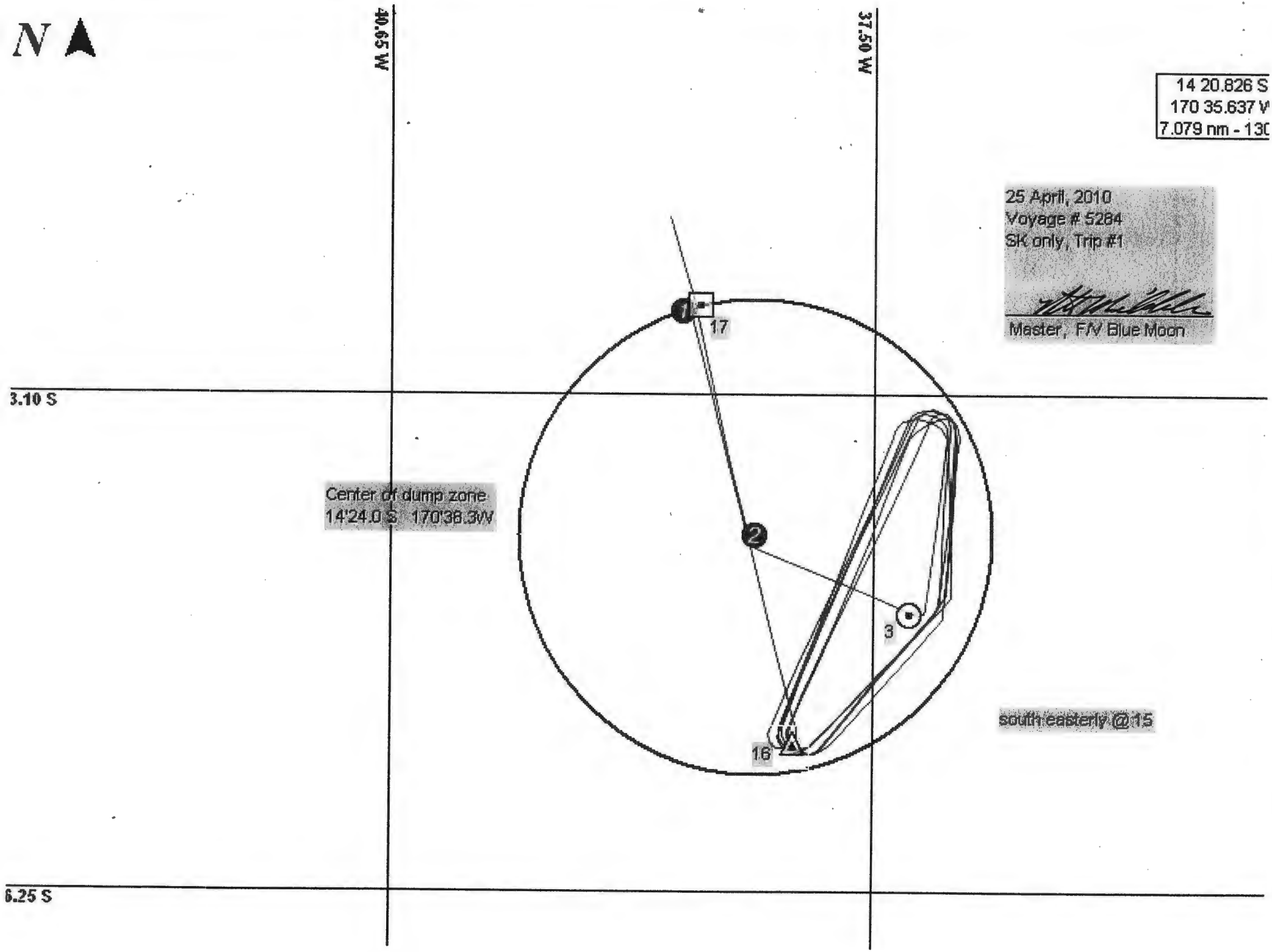
Time and position of any floating material: NONE Discharge Rate: 107.1 Gallons/min/kts

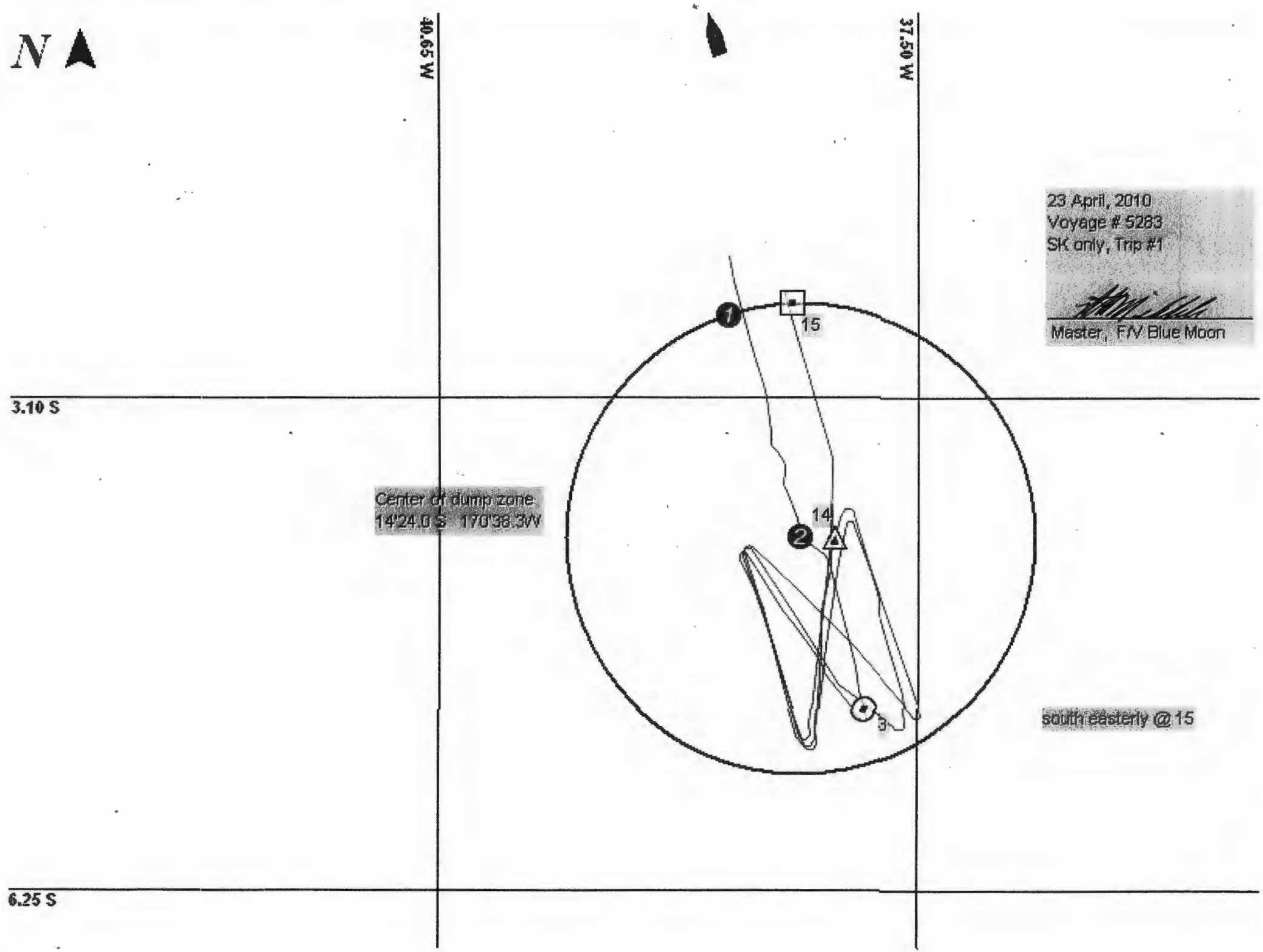
Unusual Occurrences? NONE

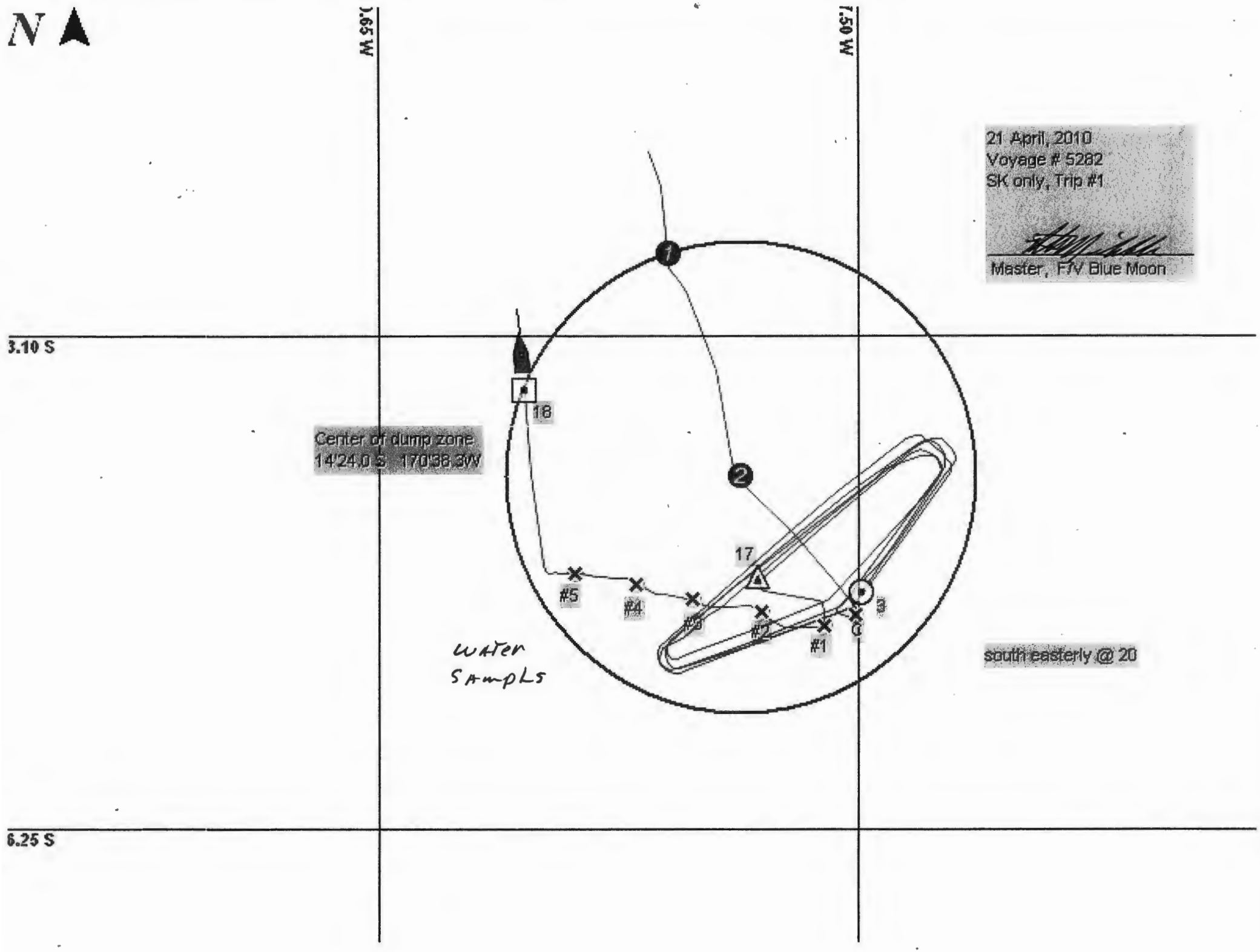
Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon [signature]

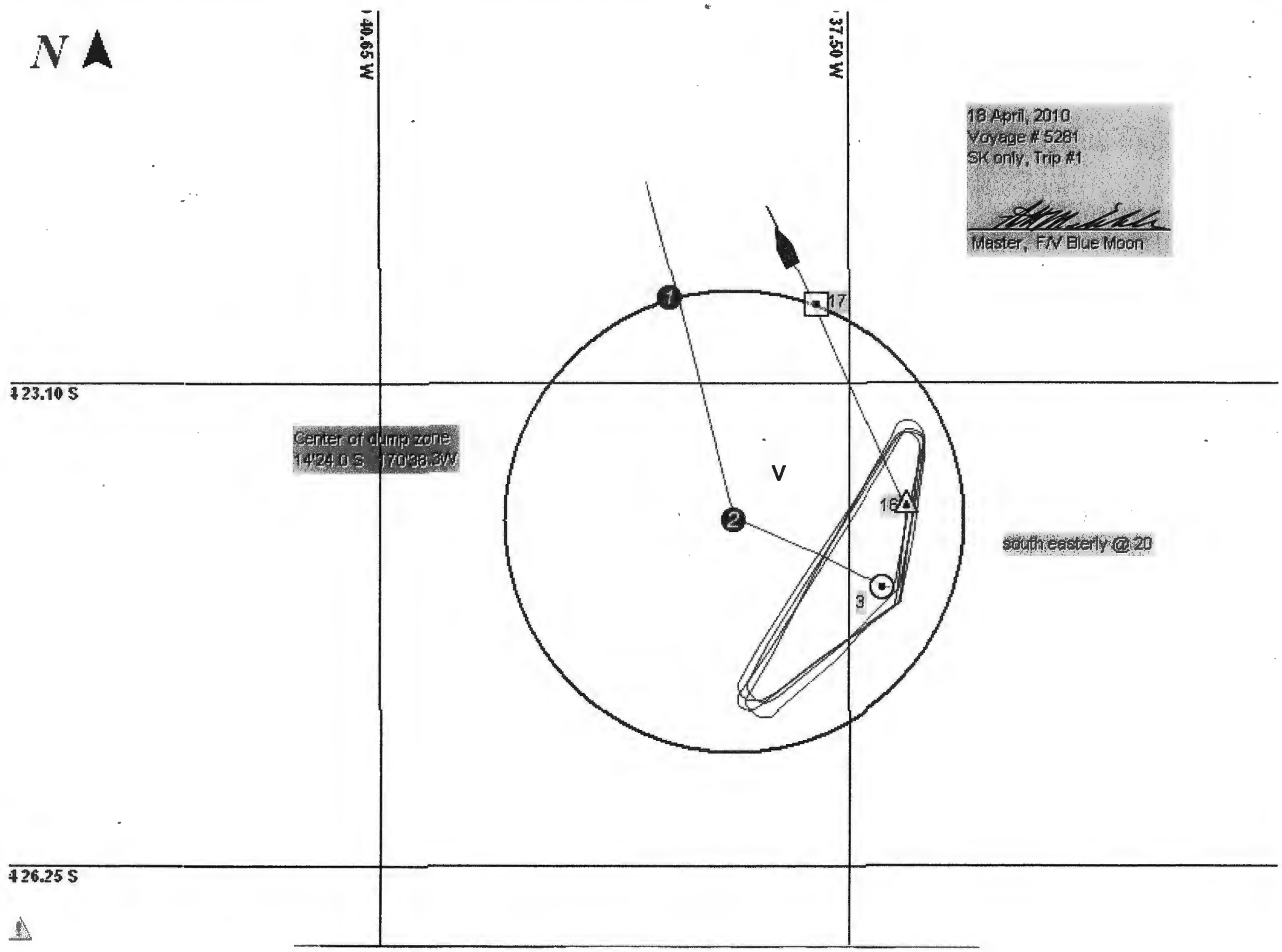

N
40.65 W
37.50 W
23.10 S
6.25 S
30 April, 2010
Voyage # 5286
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0'S 170°38.3'W
Westerley @ 10
1
2
3
16
17

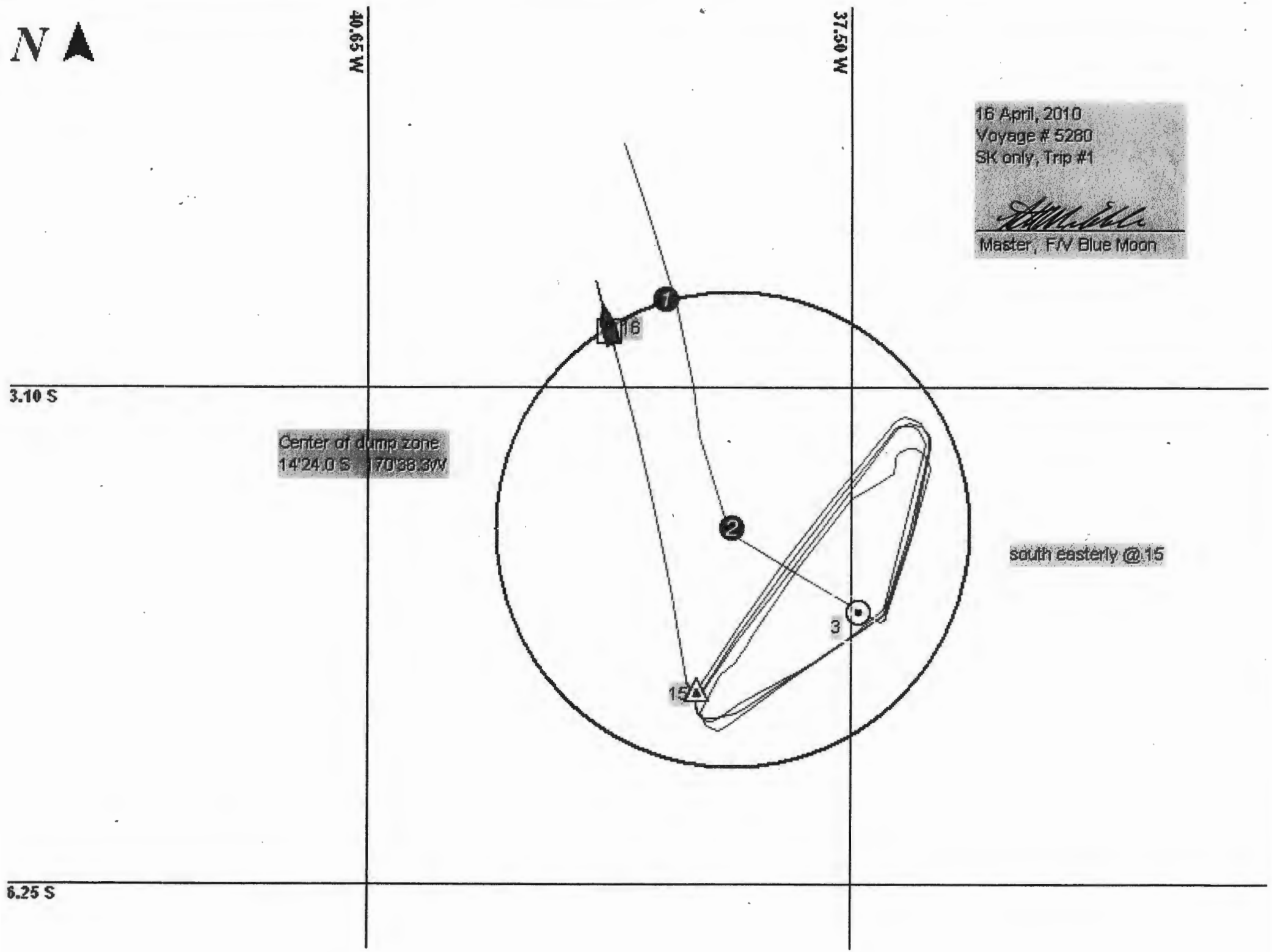

N
40.65 W
37.50 W
14 20.886 S
170 35.916 W
2.779 nm - 089
28 April, 2010
Voyage # 5285
SK only, Trip #1
Master, F/V Blue Moon
14 23.10 S
14 26.25 S
north easterly @ 15
Center of dump zone
14 24.0 S 170 38.3 W
1
2
3
16
17

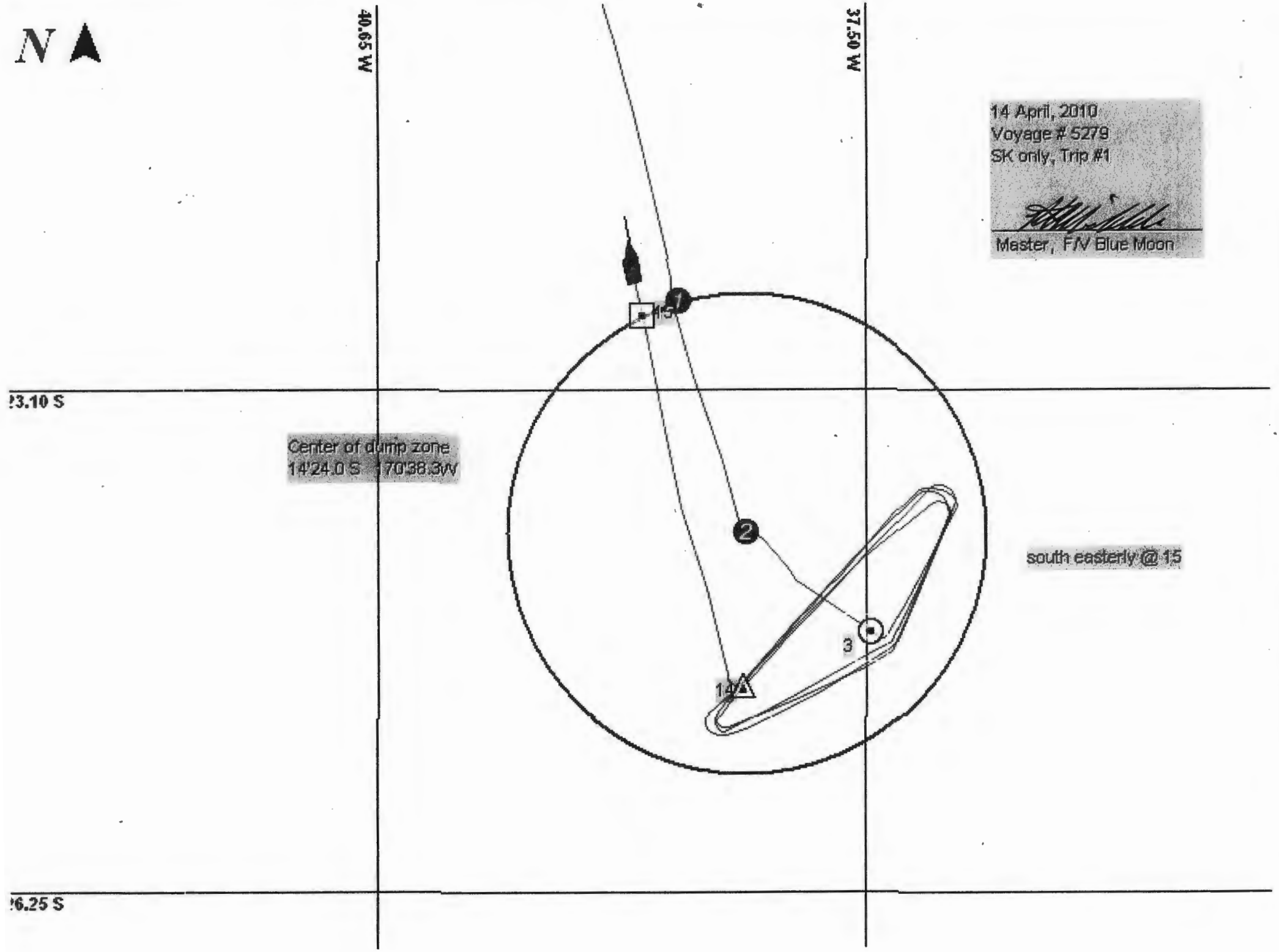

N
40.65 W
37.50 W
14 20.826 S
170 35.637 W
7.079 nm - 130
25 April, 2010
Voyage # 5284
SK only, Trip #1
Master, F/V Blue Moon
3.10 S
Center of dump zone
14°24.0 S 170°38.3W
17
2
3
16
south easterly @15
6.25 S

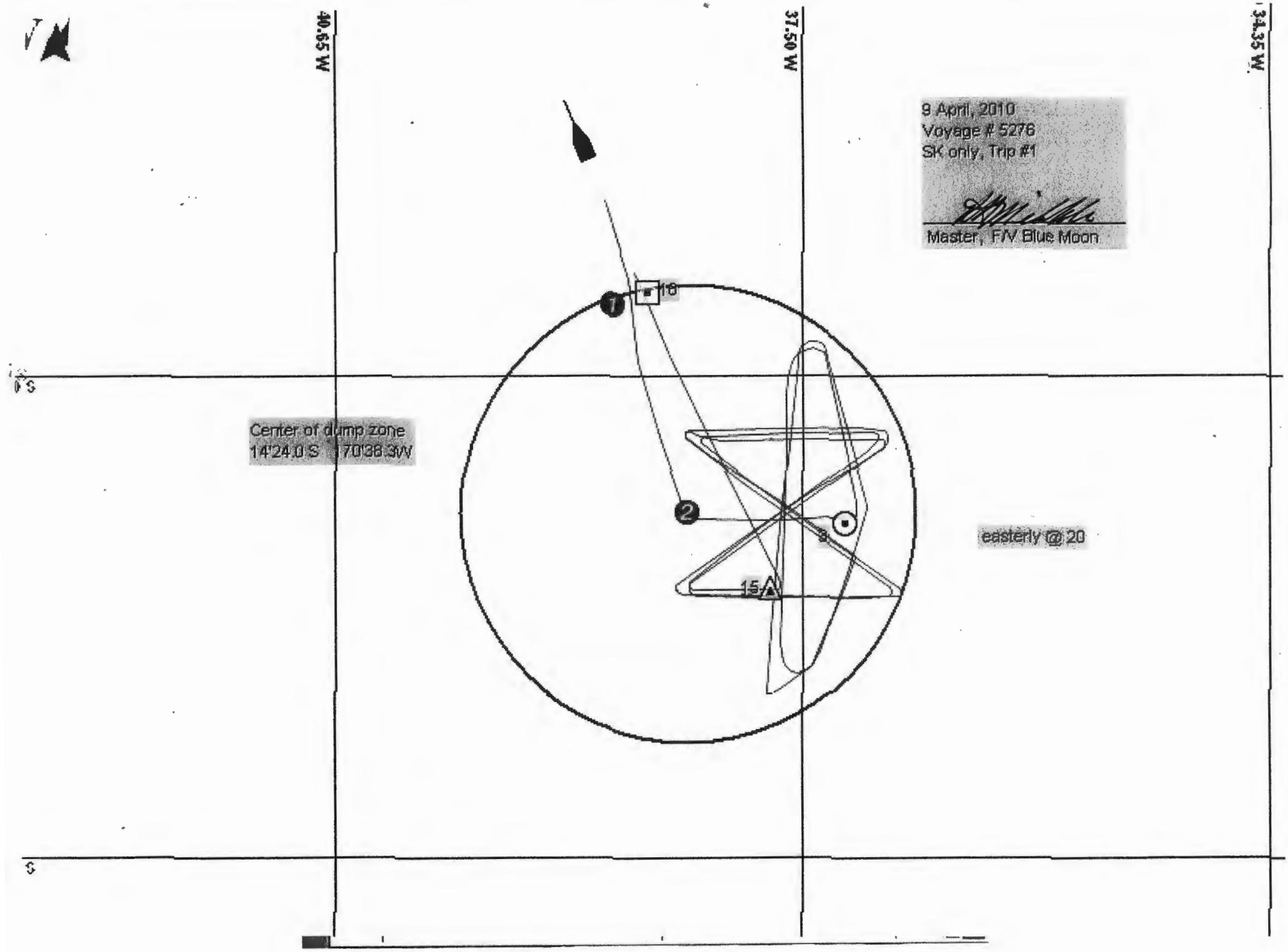

N
40.65 W
37.50 W
3.10 S
6.25 S
23 April, 2010
Voyage # 5283
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0'S 170°38.3'W
1
2
3
14
15
south easterly @ 15

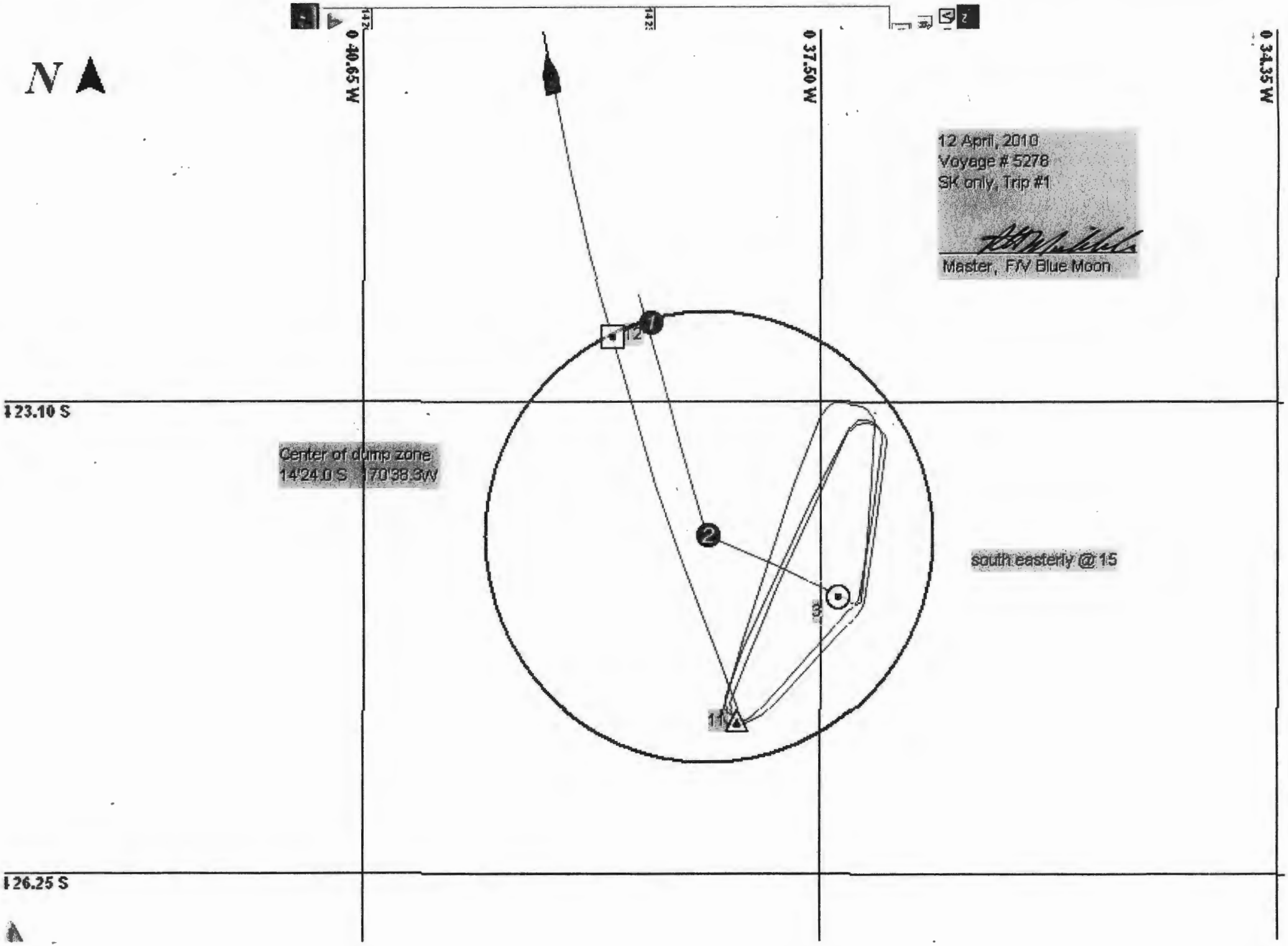

N
7.50 W
3.10 S
6.25 S
21 April, 2010
Voyage # 5282
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
18
17
3
#5
#4
#3
#2
#1
water samples
south easterly @ 20

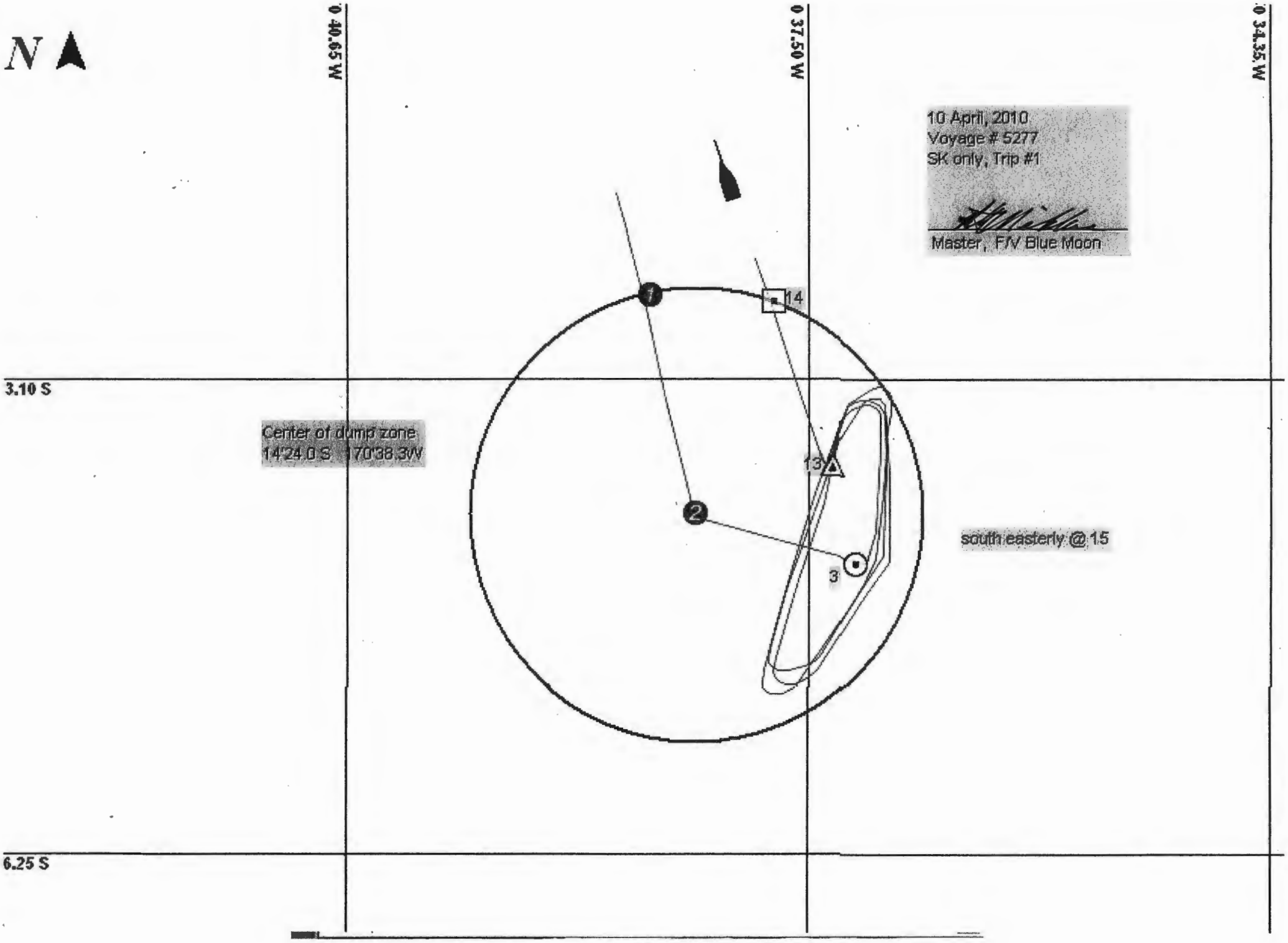

N
40.65 W
37.50 W
18 April, 2010
Voyage # 5281
SK only, Trip #1
Master, F/V Blue Moon
23.10 S
26.25 S
Center of dump zone
14°24.0 S 170°38.3W
V
1
2
3
16
17
south easterly @ 20

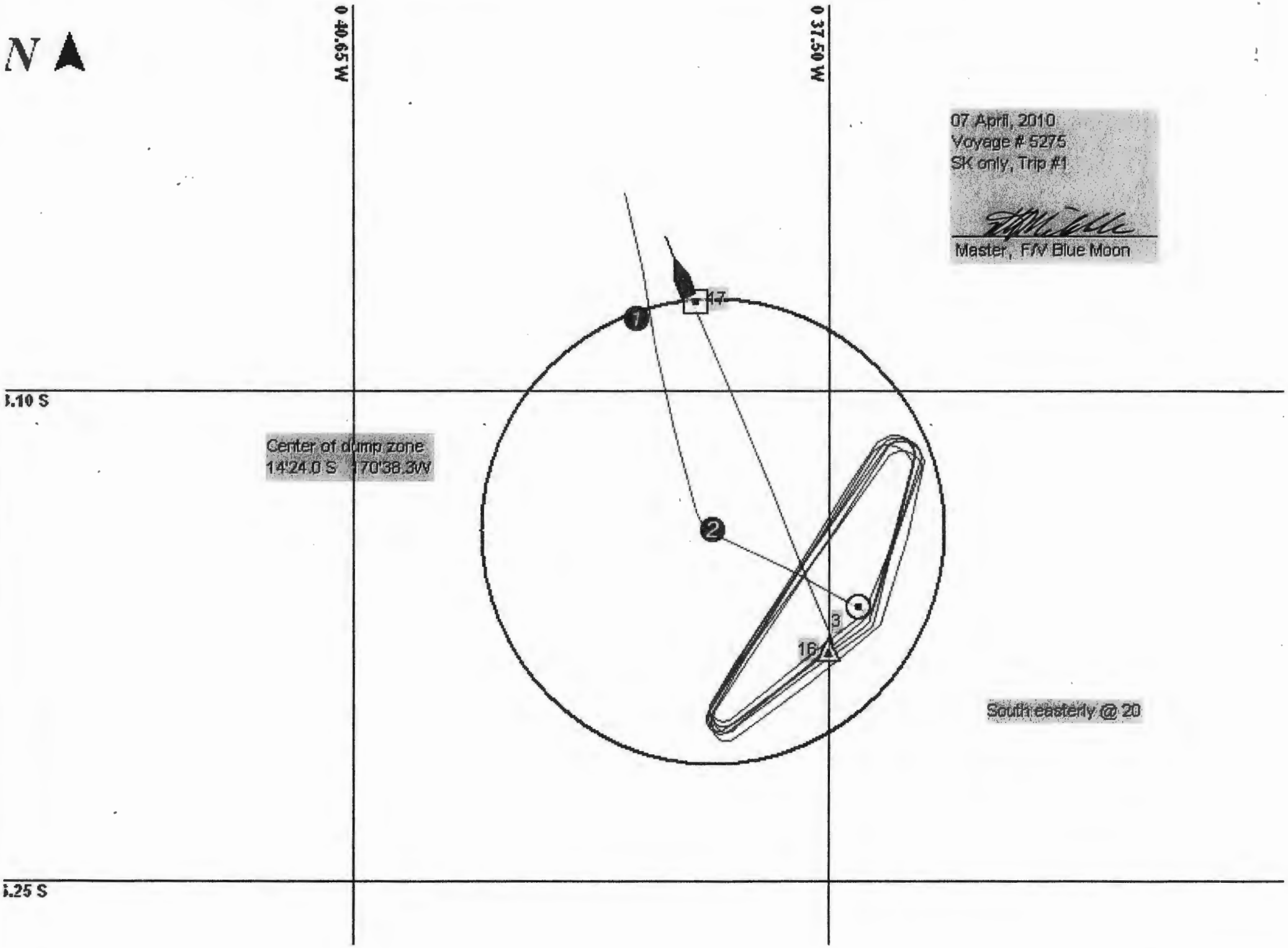

N
40.65 W
37.50 W
3.10 S
8.25 S
16 April, 2010
Voyage # 5280
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
south easterly @ 15
1
2
3
15
16

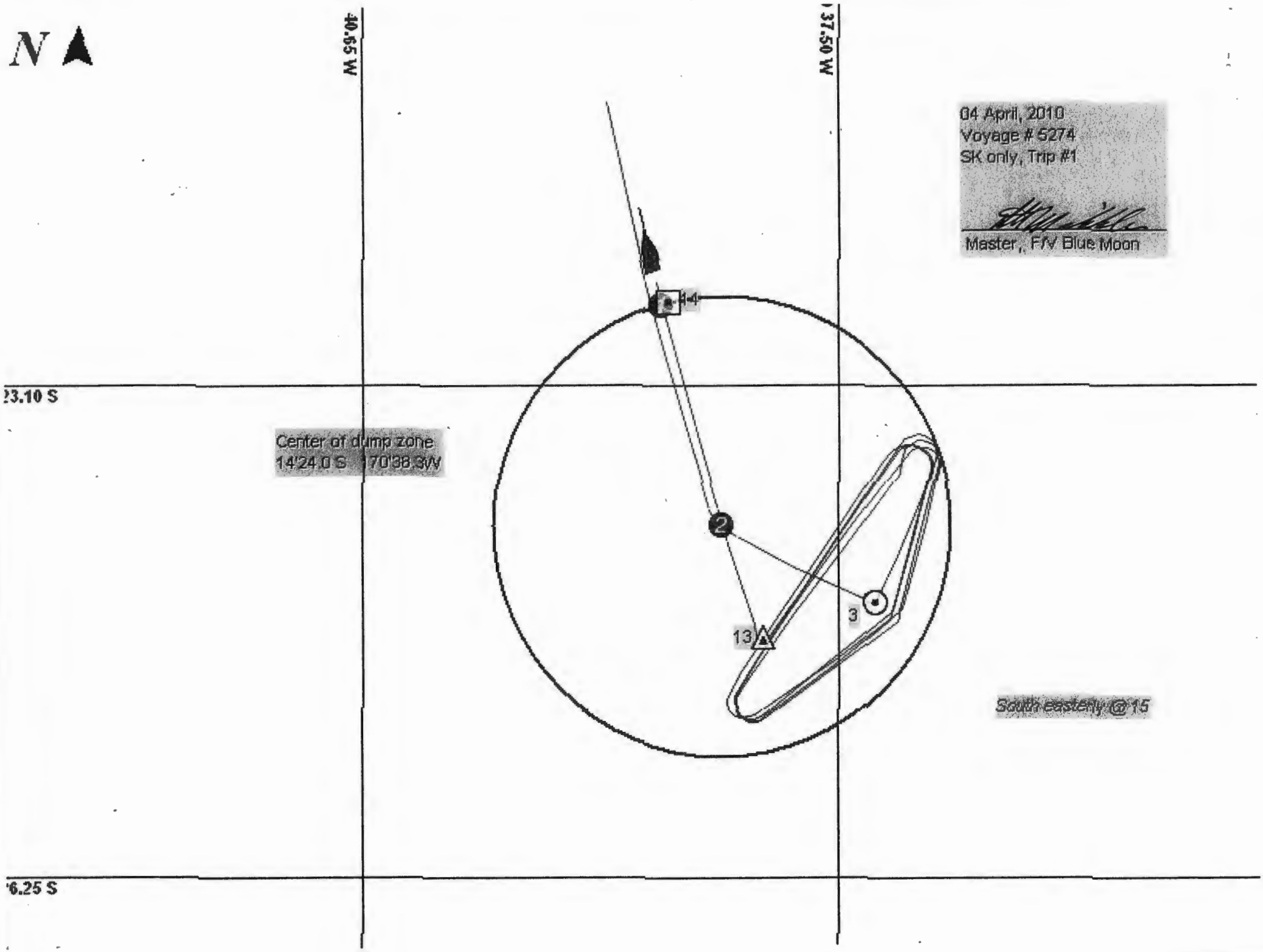

N
40.65 W
37.50 W
23.10 S
26.25 S
14 April, 2010
Voyage # 5279
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
south easterly @ 15
1
2
3
14
15

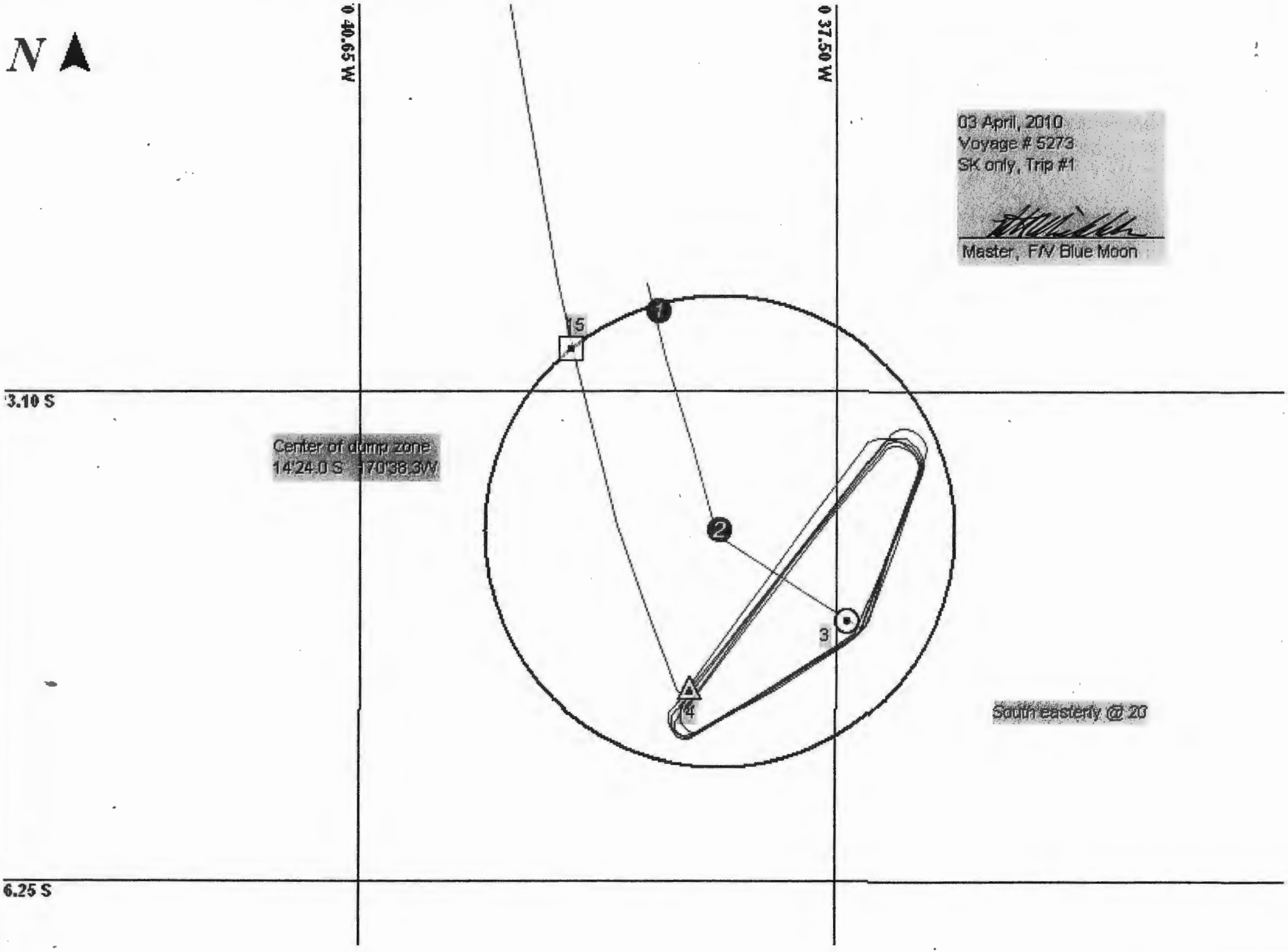

40.65 W
37.50 W
34.35 W
0 S
S
9 April, 2010
Voyage # 5276
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
easterly @ 20
1
2
3
15
16

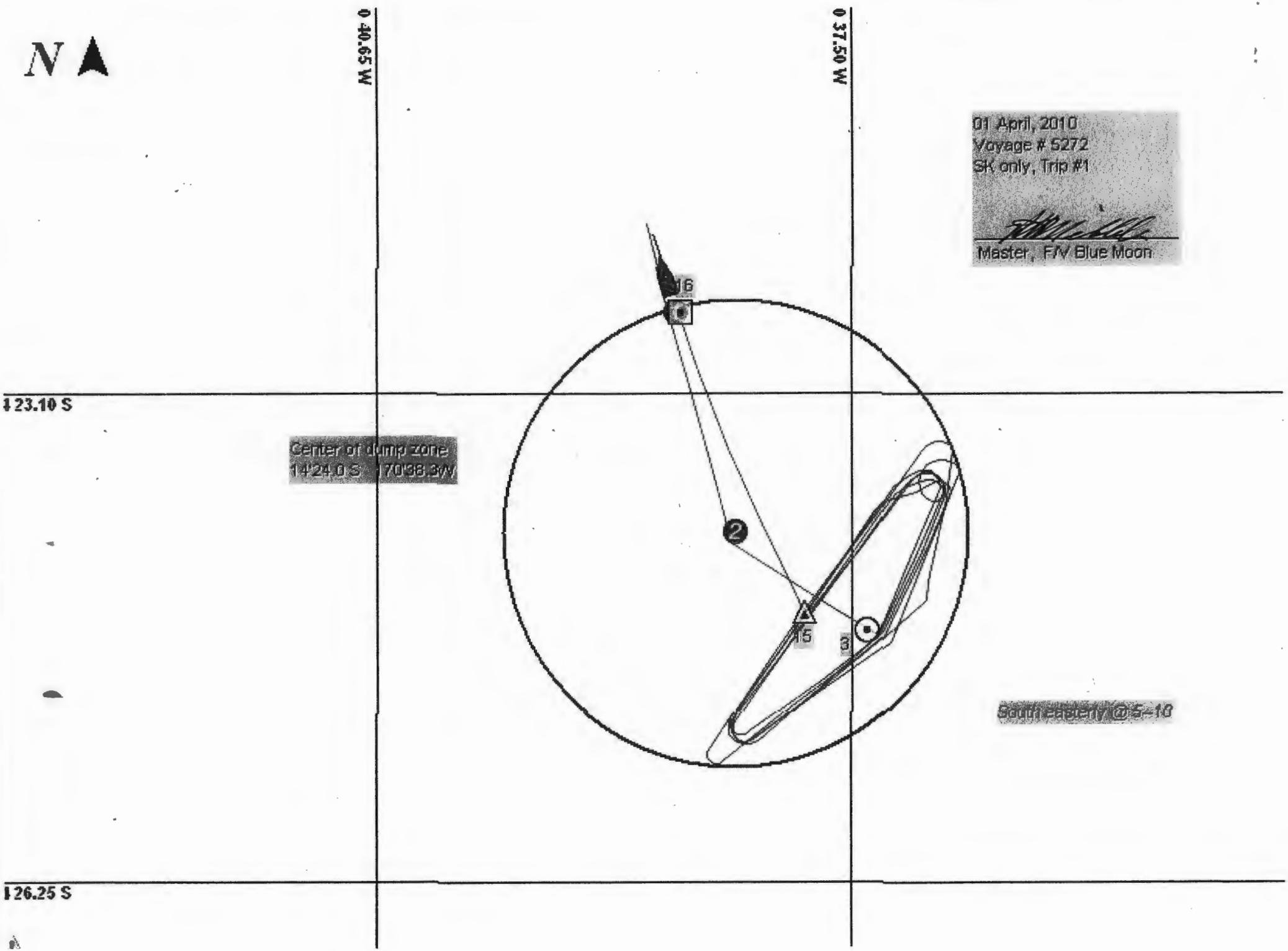

N
0 40.65 W
0 37.50 W
0 34.35 W
123.10 S
126.25 S
12 April, 2010
Voyage # 5278
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
south easterly @ 1.5
1
2
12
11


N
0 40.65 W
0 37.50 W
0 34.35 W
3.10 S
6.25 S
10 April, 2010
Voyage # 5277
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
1
2
3
13
14
south easterly @ 1.5


N
0 40.65 W
0 37.50 W
07 April, 2010
Voyage # 5275
SK only, Trip #1
Master, F/V Blue Moon
.10 S
Center of dump zone
14°24.0 S 170°38.3W
1
2
3
16
17
South easterly @ 20
.25 S


N
40.65 W
37.50 W
23.10 S
26.25 S
04 April, 2010
Voyage # 5274
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0'S 170°38.3'W
4
2
3
13
South easterly @ 15


N
0 40.65 W
0 37.50 W
3.10 S
6.25 S
03 April, 2010
Voyage # 5273
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
South easterly @ 20
1
2
3
4
5


N
0 40.65 W
0 37.50 W
01 April, 2010
Voyage # 5272
SK only, Trip #1
Master, F/V Blue Moon
16
23.10 S
Center of dump zone
14 24.0 S 170 38.3 W
2
15
3
South easterly @ 5-10
26.25 S

2010

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

07 May, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue moon
Chief investigator:	Mike Crook
Starkist Samoa Co. Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling Positions:	All positions obtained by Global Positioning Satellite Navigator (GPS)

Mike Crook
P.O. Box 4933 Pago Pago, AS
5/07/10

Introduction

On May 07, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0515: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master, Principal Investigator, Chief and Mate onboard.

0615: The *Blue Moon* entered the dumpzone circle @ 14*22.4' S / 170*38.7' W.

0625: The *Blue Moon* arrived at the dump-zone center, where observed southeasterly winds and slight southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0630: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with SE swells to 2.0 meters and a southeast wind of 15 knots. Skies were partly cloudy with unlimited visibility and the barometer reading 29.50 Current set and drift, of the ship, were to the northwest at 0.9 knots. No floating materials or sea life were observed here.

0640: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical/triangular pattern (see Plot 1) until 0920 hrs.

0930: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had increased to 20 knots with still partly cloudy skies. The waste plume was mostly dissipated here and/or moved off to the west/northwest with just a few streaks of light glassy surface sheen. The current/wind drift of the ship was now GPS determined to be west- northwesterly @ 1.2 knot. No sea life or floatable materials were observed.

0940: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position again, had only a few light streaks the typical glassy surface sheen of the waste plume. The average drift rate of the ship with current and wind was GPS determined to be west northwesterly (WNW) at 1.2 knots between stations 2 & 3 (See Plot #1). No sea-life or floatable materials were noted at this position.

0950: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was in another area of broken up patches of glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was 1.3 knots again, to the WNW, indicating a shift from the northwesterly set earlier noted at the zone center by the ship's captain.

1000: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM, WNW of Station #3, showed the same visual characteristics of the waste plume as Stations #1 & 2 with just a few light and scattered streaks of surface sheen over natural clear blue water. There were no floating or suspended materials. The WNW current/drift rate of the ship was again noted here to be at 1.2 knots.

1010: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.43 NM SW of the zone center. The waste plume was barely visible at this location which was mostly natural, clear blue ocean. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.52 when monitoring activities were concluded at 1020 hrs. The *Blue Moon* exited the disposal zone at 1033 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1130 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

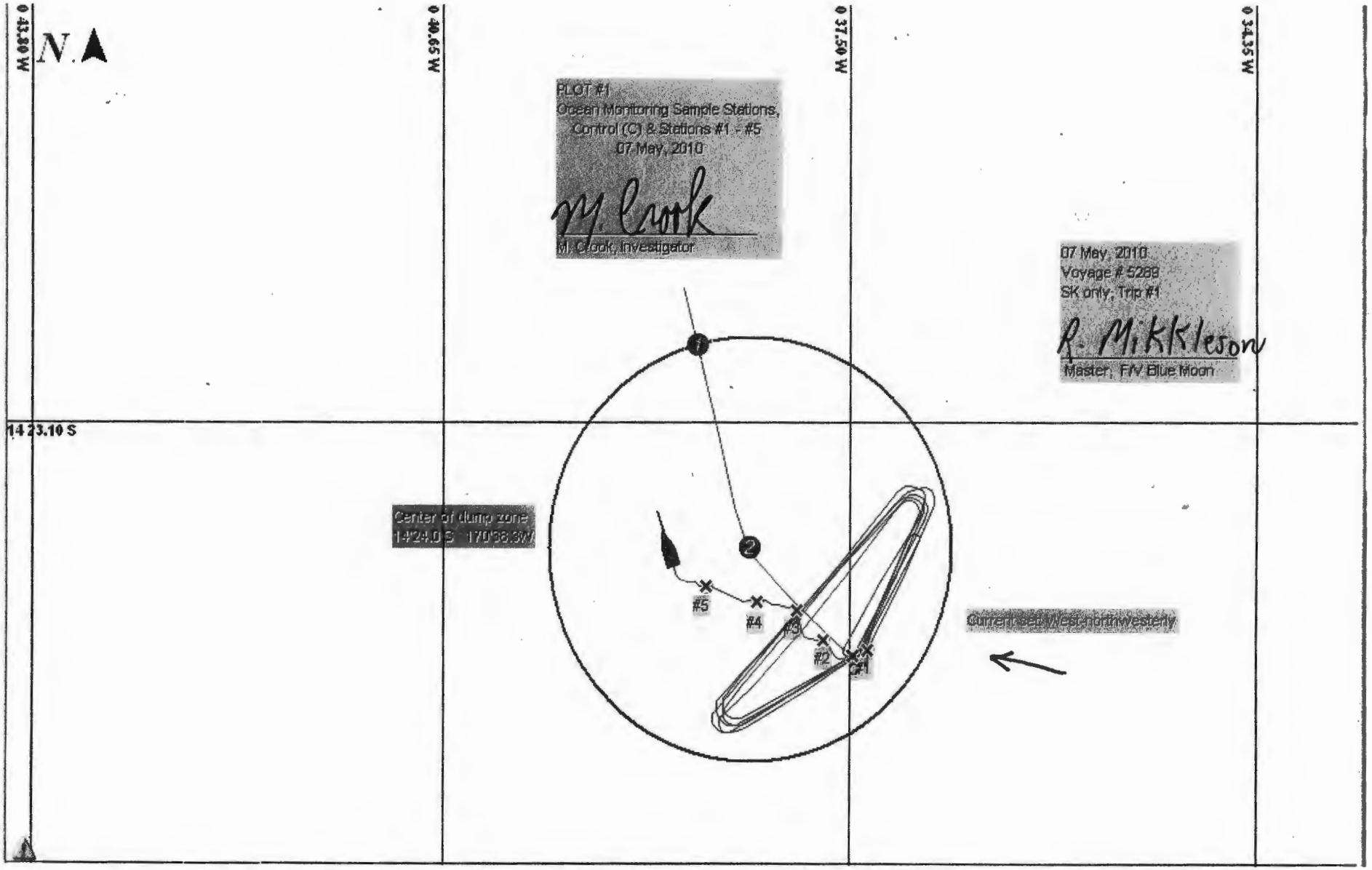
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 07 May, 2010	Sea Conditions: Moderate w/ Southeast (SE) swells to 2.0 meters. Wind: SE @ 15 - 20 knots Sky: Partly cloudy – 50% Barometer: 29.50 – 29.52 Current Set & Drift: Northwest shifted to WNW @ average 1.2 knots Visibility: Unlimited					
Time	Station	Depth (meters)	Temp. (°C)	pH	Odor	Color
0630	Control	1	28.3	8.5	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	28.3	8.5		
		10	28.3	8.5		
0930	Station 1	1	28.3	8.6	None	A few scattered patches and streaks of light glassy surface seen over deep clear blue. No floating or suspended particulate materials.
		3	28.3	8.6		
		10	28.3	8.5		
0940	Station 2	1	28.3	8.5	Slightly Pungent	Same as Station #1.
		3	28.3	8.5		
		10	27.8	8.5		
0950	Station 3	1	28.3	8.5	Slightly Pungent	Scattered and broken patches of light to moderate glassy surface sheen over deep, clear blue. No floating or suspended particulate materials.
		3	28.3	8.5		
		10	28.3	8.5		
1000	Station 4	1	28.3	8.5	Slightly Pungent	Same as Stations # 1 & 2.
		3	28.3	8.5		
		10	28.3	8.5		
1010	Station 5	1	28.3	8.5	None	Leading edge of the waste plume: Just a few very light and scattered streaks of surface sheen. No floating or suspended particulate materials.
		3	28.3	8.5		
		10	28.3	8.5		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.76'	South	170° 37.50'	West
Station 1	14° 24.73'	South	170° 37.36'	West
Station 2	14° 24.72'	South	170° 37.63'	West
Station 3	14° 24.43'	South	170° 37.92'	West
Station 4	14° 24.37'	South	170° 38.24'	West
Station 5	14° 24.27'	South	170° 38.62'	West


N
0 43.80 W
0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
PLOT #1
Ocean Monitoring Sample Stations,
Control (C) & Stations #1 - #5
07 May, 2010
M. Crook, Investigator
07 May, 2010
Voyage # 5289
SK only, Trip #1
R. Mikkleson
Master, F/V Blue Moon
Center of dump zone
14°24.0'S 170°38.3'W
1
2
#5
#4
#3
#2
#1
Current set West-northwesterly

2010

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

07 May, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue moon
Chief investigator:	Mike Crook
Starkist Samoa Co. Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling Positions:	All positions obtained by Global Positioning Satellite Navigator (GPS)

Mike Crook
P.O. Box 4933 Pago Pago, AS
5/07/10

Introduction

On May 07, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0515: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master, Principal Investigator, Chief and Mate onboard.

0615: The *Blue Moon* entered the dumpzone circle @ 14*22.4' S / 170*38.7' W.

0625: The *Blue Moon* arrived at the dump-zone center, where observed southeasterly winds and slight southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0630: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with SE swells to 2.0 meters and a southeast wind of 15 knots. Skies were partly cloudy with unlimited visibility and the barometer reading 29.50 Current set and drift, of the ship, were to the northwest at 0.9 knots. No floating materials or sea life were observed here.

0640: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical/triangular pattern (see Plot 1) until 0920 hrs.

0930: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had increased to 20 knots with still partly cloudy skies. The waste plume was mostly dissipated here and/or moved off to the west/northwest with just a few streaks of light glassy surface sheen. The current/wind drift of the ship was now GPS determined to be west- northwesterly @ 1.2 knot. No sea life or floatable materials were observed.

0940: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position again, had only a few light streaks the typical glassy surface sheen of the waste plume. The average drift rate of the ship with current and wind was GPS determined to be west northwesterly (WNW) at 1.2 knots between stations 2 & 3 (See Plot #1). No sea-life or floatable materials were noted at this position.

0950: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was in another area of broken up patches of glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was 1.3 knots again, to the WNW, indicating a shift from the northwesterly set earlier noted at the zone center by the ship's captain.

1000: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM, WNW of Station #3, showed the same visual characteristics of the waste plume as Stations #1 & 2 with just a few light and scattered streaks of surface sheen over natural clear blue water. There were no floating or suspended materials. The WNW current/drift rate of the ship was again noted here to be at 1.2 knots.

1010: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.43 NM SW of the zone center. The waste plume was barely visible at this location which was mostly natural, clear blue ocean. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.52 when monitoring activities were concluded at 1020 hrs. The *Blue Moon* exited the disposal zone at 1033 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1130 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

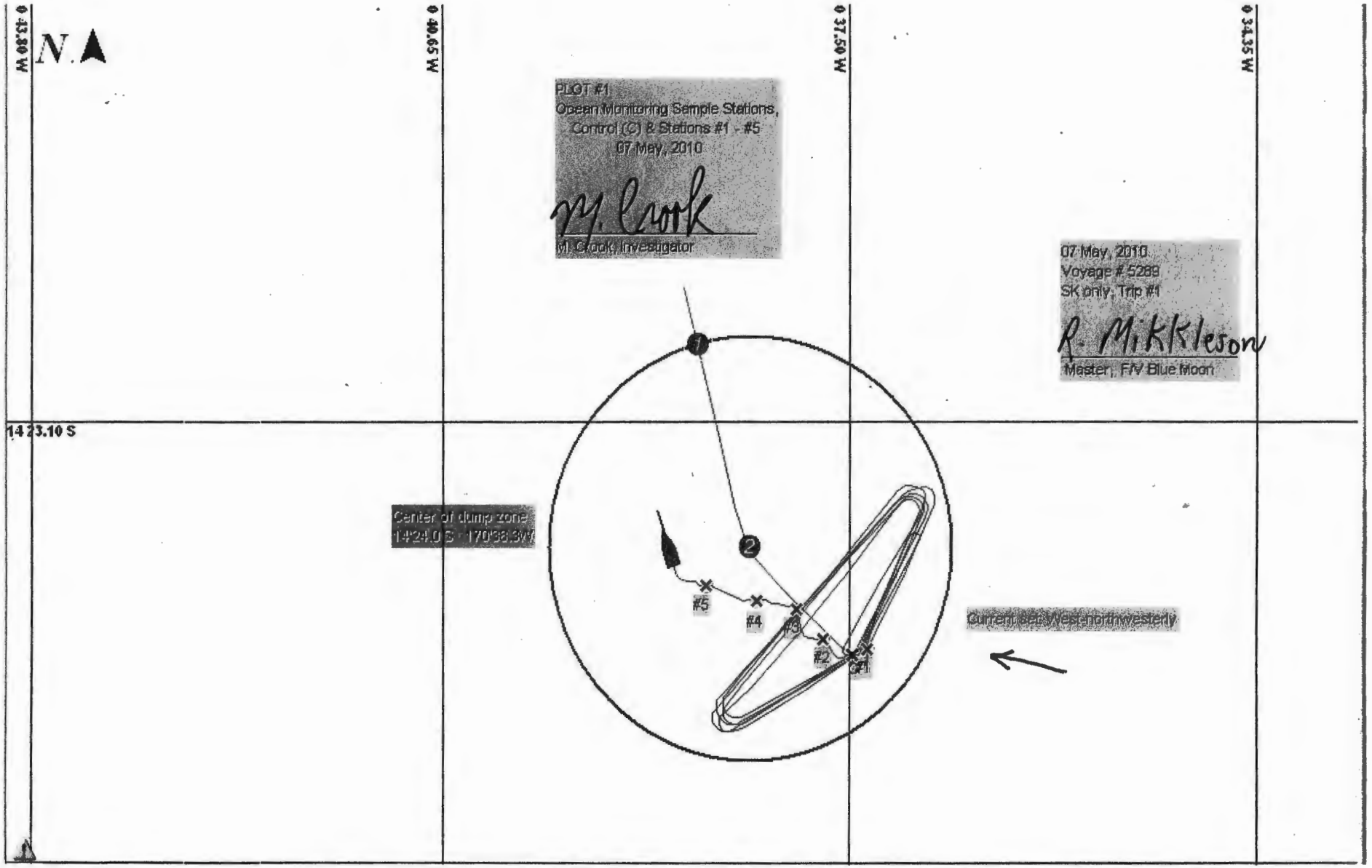
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 07 May, 2010	Sea Conditions: Moderate w/ Southeast (SE) swells to 2.0 meters. Wind: SE @ 15 - 20 knots Sky: Partly cloudy – 50% Barometer: 29.50 – 29.52 Current Set & Drift: Northwest shifted to WNW @ average 1.2 knots Visibility: Unlimited					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0630	Control	1	28.3	8.5	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	28.3	8.5		
		10	28.3	8.5		
0930	Station 1	1	28.3	8.6	None	A few scattered patches and streaks of light glassy surface seen over deep clear blue. No floating or suspended particulate materials.
		3	28.3	8.6		
		10	28.3	8.5		
0940	Station 2	1	28.3	8.5	Slightly Pungent	Same as Station #1.
		3	28.3	8.5		
		10	27.8	8.5		
0950	Station 3	1	28.3	8.5	Slightly Pungent	Scattered and broken patches of light to moderate glassy surface sheen over deep, clear blue. No floating or suspended particulate materials.
		3	28.3	8.5		
		10	28.3	8.5		
1000	Station 4	1	28.3	8.5	Slightly Pungent	Same as Stations # 1 & 2.
		3	28.3	8.5		
		10	28.3	8.5		
1010	Station 5	1	28.3	8.5	None	Leading edge of the waste plume: Just a few very light and scattered streaks of surface sheen. No floating or suspended particulate materials.
		3	28.3	8.5		
		10	28.3	8.5		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.76'	South	170° 37.50'	West
Station 1	14° 24.73'	South	170° 37.36'	West
Station 2	14° 24.72'	South	170° 37.63'	West
Station 3	14° 24.43'	South	170° 37.92'	West
Station 4	14° 24.37'	South	170° 38.24'	West
Station 5	14° 24.27'	South	170° 38.62'	West


N
0 43.80 W
0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
PLOT #1
Ocean Monitoring Sample Stations,
Control (C) & Stations #1 - #5
07 May, 2010
M. Crook, Investigator
07 May, 2010
Voyage # 5289
SK only, Trip #1
R. Mikkleson
Master, F/V Blue Moon
Center of dump zone
14°24.0'S - 170°38.3'W
1
2
#5
#4
#3
#2
#1
Current set West-northwesterly

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON May 2010

NUMBER OF TRIPS:	SK:	SP:	JOINT:	TOTAL:
	11	0	0	11

GALLONS-FOR THE MONTH:	SK:	SP:	JOINT:	TOTAL:
	1,906,250	0	0	1,906,250

GALLONS FOR SOLO TRIPS:	SK:	SP:
	1,906,250	0

RUNNING TIME ON TRIPS: 50 hrs.

DISCHARGE TIME ON TRIPS: 27.5 hrs.

AV. GPM DISCHARGE RATE: 99.68 g/m/k

AV. TRIP TIME: 4.54 hrs.

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK:	COS:
100.00%	0.00%

MASTER :

STAR KIST SAMOA CO
WATER TREATMENT DEPARTMENT

BLUE MOON - OCEAN DUMPING LOG

Reporting Date:June 01, 2010

Trip Date	1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Volume
01-May-10	1st Trip	1300\1700 (127000)		2nd Trip	NONE	0
02-May-10	1st Trip		182500	2nd Trip	NONE	0
03-May-10	1st Trip	1530\1725 (55000)		2nd Trip	NONE	0
04-May-10	1st Trip	1300\1700 (112500)		2nd Trip	NONE	0
05-May-10	1st Trip	1300\1530 (67500)	167500	2nd Trip	NONE	0
06-May-10	1st Trip	0945\0230 --- 0300\0400		2nd Trip	NONE	0
07-May-10	1st Trip	1120\1320 (35000)	178750	2nd Trip	NONE	0
08-May-10	1st Trip	1430\1830 (140000)		2nd Trip	NONE	0
09-May-10	1st Trip		175000	2nd Trip	NONE	0
10-May-10	1st Trip	1320\1520 (35000)		2nd Trip	NONE	0
11-May-10	1st Trip	1340\1900 (138750)		2nd Trip	NONE	0
12-May-10	1st Trip		173750	2nd Trip	NONE	0
13-May-10	1st Trip	1300\1900 (175000)		2nd Trip	NONE	0
14-May-10	1st Trip		175000	2nd Trip	NONE	0
15-May-10	1st Trip			2nd Trip	NONE	0
16-May-10	1st Trip			2nd Trip	NONE	0
17-May-10	1st Trip			2nd Trip	NONE	0
18-May-10	1st Trip	1430\1615 (50000)		2nd Trip	NONE	0
19-May-10	1st Trip	1300\1840 (113750)		2nd Trip	NONE	0
20-May-10	1st Trip	1650\1840 (55000)	163750	2nd Trip	NONE	0
21-May-10	1st Trip	1430\1930 (125000)		2nd Trip	NONE	0
22-May-10	1st Trip		180000	2nd Trip	NONE	0
23-May-10	1st Trip			2nd Trip	NONE	0
24-May-10	1st Trip			2nd Trip	NONE	0
25-May-10	1st Trip	1330\1800 (137500)		2nd Trip	NONE	0
26-May-10	1st Trip	0115\0310 (48250)	185750	2nd Trip	NONE	0
27-May-10	1st Trip	0100-/0600---0100/0230		2nd Trip	NONE	0
28-May-10	1st Trip	2345/0500 (138750)	185500	2nd Trip	NONE	0
29-May-10	1st Trip		138750	2nd Trip	NONE	0
30-May-10	1st Trip			2nd Trip	NONE	0
31-May-10	1st Trip	1530/2000--0700/1000		2nd Trip	NONE	0
TOTAL	**1st Trip**		1,906,250	**2nd Trip**		0
					Total 1st & 2nd	1,906,250

cc:
Blue Moon- Captain
File

Prepared by: W.W.T.

Date: 05/02/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5287

Permit # OD 93-01 & OD 93-02

Time	
1630	Begin Loading SK
1830	Finish Loading SK
1300	Begin Loading SK
1700	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded: SK ~~[illegible]~~ 182500 Gallons
SP [illegible] Gallons
Total ~~[illegible]~~ 182500 Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0510	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.65			
0600	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		30	29.65	1	8.9	165°
0607	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		30	29.65	1	9	162°
0615	Begin Discharge	# 3	14*2 4.6	S	170*3 7.4	W	SE 10	30	29.65	1 X	9.2	127°
30		# 4	14*2 4.2	S	170*3 7.5	W	SE 10	30	29.65	1	9.1	220°
45	Remarks:	# 5	14*2 5.4	S	170*3 8.5	W	SE 10	30	29.65	1	9.3	071°
0700		# 6	14*2 3.6	S	170*3 7.0	W	SE 15	20	29.65	1	9.4	234°
15		# 7	14*2 5.2	S	170*3 8.3	W	SE 15	20	29.65	1 5	9.2	169°
30		# 8	14*2 3.7	S	170*3 8.7	W	SE 15	20	29.65	1	9.7	022°
45		# 9	14*2 5.3	S	170*3 8.3	W	SE 15	20	29.65	1	9.4	070°
0800		# 10	14*2 3.6	S	170*3 6.9	W	SE 15	20	29.65	1	9.5	234°
15		# 11	14*2 5.0	S	170*3 8.2	W	SE 15	30	29.65	1	10	214°
30		# 12	14*2 4.1	S	170*3 6.9	W	SE 15	50	29.65	1 10	10	026°
45		# 13	14*2 5.2	S	170*3 8.1	W	SE 15	50	29.65	1	9.8	075°
0900		# 14	14*2 3.8	S	170*3 6.8	W	SE 15	50	29.65	1	10.2	028°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0900	Finish Discharge	14	14*2 3.8	S	170*3 6.8	W	SE 15	50	29.65	1	10.2	028
0900	Exit Discharge Zone	15	14*2 3.8	S	170*3 6.8	W	SE 15	50	29.65	1	10.2	028
0950	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 4.66 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 115.2 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon [signature]

Date: 05/05/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5288

Permit # OD 93-01 & OD 93-02

Time	
1700	Begin Loading SK
1700	Finish Loading SK
1520	Begin Loading SK
1725	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:			
SK	55 112500	167500	Gallons
SP	55	—	Gallons
Total	112300	167500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0515	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.55	Metric	kts	True*
0615	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		70	29.55	2	8.8	165°
0625	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		70	29.55	2	8.9	166°
0630	Begin Discharge	# 3	14*2 4.6	S	170*3 7.5	W	SE 15	70	29.55	2 X	8.6	128°
45		# 4	14*2 3.7	S	170*3 7.2	W	SE 15	70	29.55	1.5	8.9	215°
0700	Remarks:	# 5	14*2 5.1	S	170*3 7.9	W	SE 20	70	29.55	1.5	9.2	068°
15		# 6	14*2 3.7	S	170*3 7.2	W	SE 20	70	29.55	1.5	9.1	225°
30		# 7	14*2 5.1	S	170*3 8.0	W	SE 20	60	29.55	1.5 5	9.4	064°
45		# 8	14*2 3.9	S	170*3 7.3	W	SE 20	50	29.55	1.5	9.3	223°
0800		# 9	14*2 5.1	S	170*3 8.1	W	SE 20	50	29.55	1.5	9.7	056°
15		# 10	14*2 4.5	S	170*3 7.9	W	SE 20	50	29.55	1.5	9.6	220°
30		# 11	14*2 5.1	S	170*3 7.9	W	SE 20	50	29.55	1.5	9.3	059°
45		# 12	14*2 7.8	S	170*3 7.1	W	SE 20	50	29.55	1.5 10	9.5	227°
0900		# 13	14*2 5.2	S	170*3 8.2	W	SE 20	50	29.55	1.5	9.8	069°
15		# 14	14*2 7.9	S	170*3 7.3	W	SE 20	50	29.55	1.5	9.7	222°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0920	Finish Discharge	15	14*2 4.8	S	170*3 8.1	W	SE 20	50	29.55	1.5	9.7	244°
0935	Exit Discharge Zone	16	14*2 2.6	S	170*3 8.9	W	SE 20	50	29.55	1.5	10	343°
1030	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.36 kts. Total Time Run 5.25 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 105.2 Gallons/min/kts

Unusuall Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 05/07/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5289

Permit # OD 93-01 & OD 93-02

Time		
	Begin Loading SK	
	Finish Loading SK	
	Begin Loading SK	
	Finish Loading SK	

Trip # 1 -
Trip # 2

Volume Loaded: SK 178 750 Gallons
SP Gallons
Total 178 750 Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0515	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.5			
0615	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		80	29.5	1.5	8.9	165°
0625	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		80	29.5	1.5	9	165°
0640	Begin Discharge	# 3	14*2 4.7	S	170*3 7.4	W		80	29.5	1.5 X	8.8	029°
55		# 4	14*2 3.9	S	170*3 7.3	W		80	29.5	1.5	9.1	221°
0710	Remarks:	# 5	14*2 5.2	S	170*3 8.1	W	SE 20	80	29.5	1.5	9	061°
25		# 6	14*2 3.8	S	170*3 6.9	W	SE 20	80	29.5	1.5	9.2	023°
40	0634	# 7	14*2 4.9	S	170*3 3.3	W	SE 20	80	29.5	1.5 5	9.3	221°
55	water sample	# 8	14*2 3.7	S	170*3 7.2	W	SE 20	50	29.5	1.5	9.4	225°
0810		# 9	14*2 4.9	S	170*3 8.3	W	SE 20	50	29.5	1.5	9.5	225°
25		# 10	14*2 3.9	S	170*3 7.0	W	SE 20	50	29.5	1.5	9.5	029°
40		# 11	14*2 5.0	S	170*3 8.3	W	SE 20	50	29.5	1.5	9.4	230°
55		# 12	14*2 3.7	S	170*3 7.1	W	SE 20	50	29.5	1.5 10	9.8	230°
0910		# 13	14*2 4.9	S	170*3 8.4	W	SE 20	50	29.5	1.5	9.9	222°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0920	Finish Discharge	14	14*2 4.1	S	170*3 7.0	W	SE 20	50	29.5	1.5	9.7	038°
1028	Exit Discharge Zone	15	14*2 2.9	S	170*3 9.1	W	SE 20	50	29.5	1.5	9.8	340°
1120	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 160 mins. Average Speed During Discharge: 9.4 kts. Total Time Run 6.08 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 118.8 Gallons/min/kts

Unusuall Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 05/09/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5290

Permit # OD 93-01 & OD 93-02

Time	
1120	Begin Loading SK 1430 3 8TH
1330	Finish Loading SK 1830 5
1630	Begin Loading SK
1745	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	175 000	Gallons
SP	—	Gallons
Total	175 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0710	[illegible]		14[illegible]'	[illegible]	170*41.2'	W			29.55	[illegible]	kts	[illegible]
0700	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 15	50	29.55	1.5	9	166°
[illegible]	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	[illegible]	50	[illegible]	1.5	[illegible]	[illegible]
[illegible]	Begin [illegible]	# 3	[illegible]		[illegible]	W	[illegible]	50	[illegible]	1.5	9.9	[illegible]
30		# 4	14 2 [illegible]		170 3 7.2	W	[illegible]	[illegible]	[illegible]	1.5	9.2	215°
45	Remarks:	# 5	14 2 5.1	S	170*3 7.6	W	SE 20	50	29.55	1.5	9.2	052°
0800		# 6	14*2 4.0	S	170*3 7.3	W	SE 20	50	29.55	1.5	9.5	215°
15		# 7	14*2 4.1	S	170*3 7.7	W	SE 20	50	29.55	1.5	9.4	051°
30		# 8	14*2 4.6	S	170*3 7.7	W	SE 20	50	29.55	1.5	9.4	215°
45		# 9	14*2 4.8	S	170*3 7.4	W	SE 20	50	29.5	1.5	9.6	048°
0900		# 10	14*2 4.3	S	170*3 7.6	W	SE 20	50	29.5	1.5	9.7	215°
15		# 11	14*2 4.3	S	170*3 7.0	W	SE 20	50	29.5	1.5	10	016°
30		# 12	14*2 4.7	S	170*3 7.8	W	SE 20	50	29.5	1.5	10.1	216°
45		# 13	14*2 3.9	S	170*3 6.4	W	SE 20	50	29.5	1.5	9.8	017°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W						
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W						
0955	Finish Discharge	14	14*2 3.3	S	170*3 7.2	W	SE 20	50	29.5	1.5	10.5	329°
0959	Exit Discharge Zone	15	14*2 2.4	S	170*3 7.7	W	SE 20	50	29.5	1.5	10.3	343°
1045	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 160 mins. Average Speed During Discharge: 9.56 kts. Total Time Run 4.75 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 114.4 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon [signature]

Date: 05/12/10 — F/V Blue Moon Ocean Dumping Log — Voyage #: 5291

Permit # OD 93-01 & OD 93-02

Time	
1320	Begin Loading SK
1520	Finish Loading SK
1340	Begin Loading SK
1900	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK		Gallons
SP		Gallons
Total	173750	Gallons

173750

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0510	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.55	Metric	kts	True
0605	Arrive Edge of Zone	# 1	14*22.4	S	170 38.7	W		30	29.55	1.5	9.2	16°
[illegible]	[illegible]	[illegible]	[illegible]	S	170*[illegible]3	W		[illegible]	[illegible]	[illegible]	9.2	16°
620	[illegible]	# 3	14*2[illegible].4	S	170*3 7.4	W	SE 15	30	29.55	1.5 X	9.1	116°
35		# 4	14*2 3.1	S	170*3 7.3	W	SE 15	20	29.55	1.5	9.4	286°
50	Remarks:	# 5	14*2 4.8	S	170*3 7.5	W	SE 15	30	29.55	1.5	8.8	043°
0705		# 6	14*2 3.3	S	170*3 7.1	W	SE 15	30	29.55	1.5	9.3	214°
20		# 7	14*2 4.7	S	170*3 7.2	W	SE 15	40	23.55	1.5 5	9.4	042°
35		# 8	14*2 3.9	S	170*3 7.4	W	SE 15	50	29.55	1.5	10	206°
50		# 9	14*2 4.4	S	170*3 6.9	W	SE 15	50	29.65	1.5	9.8	014°
0805		# 10	14*2 3.5	S	170*3 7.2	W	SE 15	50	29.65	1.5	10.1	209°
20		# 11	14*2 4.7	S	170*3 7.2	W	SE 15	50	29.6	1.5	9.6	043°
35		# 12	14*2 3.9	S	170*3 7.4	W	SE 15	50	29.6	1.5 10	10	208°
50		# 13	14*2 4.6	S	170*3 7.2	W	SE 15	50	29.6	1.5	9.6	044°
0950		# 14	14*2 4.1	S	170*3 7.5	W	SE 15	50	29.6	1.5	9.9	218°
20		# 15	14*2 4.4	S	170*3 6.9	W	SE 15	50	29.6	1.5	9.8	017°
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0925	Finish Discharge	16	14*2 3.4	S	170*3 7.0	W	SE 15	50	29.6	1.5	9.8	287°
0930	Exit Discharge Zone	17	14*2 3.7	S	170*3 4.0	W	SE 15	50	29.6	1.5	9.7	334°
1020	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 185 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 5.25 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 97.8 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon [signature]

Date: 05/14/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5292

Permit # OD 93-01 & OD 93-02

Time	
1300	Begin Loading SK
1900	Finish Loading SK
	Begin Loading SK
	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	175000	Gallons
SP	—	Gallons
Total	175000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0515	Depart Starkist		14 16.50'	S	170* 41.2'	W			29.5			
0605	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		50	29.5	1.5	8.9	165°
0617	Arrive Zone Center	# 2	14 24.0	S	170*38.3	W	SE20	50	29.5	1.5	9.9	160°
0620	Begin Discharge	# 3	14*2 4.3	S	170*3 7.6	W	SE20	50	29.5	1.5 X	9.7	115°
35		# 4	14*2 3.7	S	170*3 7.3	W	SE20	50	29.5	1.5	9.3	236°
50	Remarks:	# 5	14*2 4.0	S	170*3 7.1	W	SE20	50	29.5	1.5	9.2	027°
0705		# 6	14*2 4.3	S	170*3 7.6	W	SE20	50	29.5	1.5	9.5	211°
20		# 7	14*2 4.7	S	170*3 7.2	W	SE20	50	29.5	1.5 5	9.3	047°
35		# 8	14*2 4.2	S	170*3 7.5	W	SE20	50	29.55	1.5	9.7	214°
50		# 9	14*2 4.7	S	170*3 7.2	W	SE20	50	29.55	1.5	9.1	047°
0805		# 10	14*2 4.4	S	170*3 7.7	W	SE20	50	29.55	1.5	9.7	216°
20		# 11	14*2 4.5	S	170*3 7.1	W	SE20	50	29.55	1.5	9.3	023°
35		# 12	14*2 4.6	S	170*3 7.8	W	SE20	50	29.55	1.5 10	10	214°
50		# 13	14*2 3.8	S	170*3 7.2	W	SE20	50	29.55	1.5	10	215°
0905		# 14	14*2 5.1	S	170*3 7.9	W	SE20	50	29.55	1.5	9.6	035°
20		# 15	14*2 3.9	S	170*3 7.3	W	SE20	50	29.55	1.5	9.9	213°
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0920	Finish Discharge	16	14*2 4.0	S	170*3 7.9	W	SE20	50	29.55	1.5	9.9	213°
0935	Exit Discharge Zone	17	14*2 2.6	S	170*3 8.2	W	SE20	50	29.55	1.5	9.7	343°
1025	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.51 kts. Total Time Run 5.16 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 102.2 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 05/20/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5293

Permit # OD 93-01 & OD 93-02

Time	
1430	Begin Loading SK
1615	Finish Loading SK
1300	Begin Loading SK
1840	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK		Gallons
SP		Gallons
Total	163 750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6	Metric	kts	True*
0658	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 25	40	29.6	2.5	8.8	169°
0704	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 25	40	29.6	2.5	8.4	167°
0710	Begin Discharge	# 3	14*2	S	170*3	W	SE 25	40	29.6	2.5 X	9.3	111°
25		# 4	14*2 4.0	S	170*3 8.5	W	SE 25	40	29.6	2.5	9.4	270°
40	Remarks:	# 5	14*2 4.8	S	170*3 7.2	W	SE 25	50	29.6	2.5	9.1	340°
65		# 6	14*2 3.8	S	170*3 7.4	W	SE 25	50	29.6	2.5	8.9	117°
0910		# 7	14*2 4.1	S	170*3 8.0	W	SE 25	5.0	29.6	2.5 5	9.4	122°
25		# 8	14*2 4.6	S	170*3 7.2	W	SE 25	5.0	29.6	2.5	9.5	327°
40		# 9	14*2 3.8	S	170*3 7.3	W	SE 25	50	29.6	2.5	9	119°
55		# 10	14*2 4.1	S	170*3 8.3	W	SE 25	50	29.6	2.5	10	275°
0910		# 11	14*2 4.8	S	170*3 7.2	W	SE 25	50	29.6	2.5	9.8	334°
25		# 12	14*2 3.9	S	170*3 7.4	W	SE 25	50	29.6	2.5 10	9.4	113°
40		# 13	14*2 4.4	S	170*3 8.2	W	SE 25	50	29.6	2.5	9.1	118°
55		# 14	14*2 4.3	S	170*3 7.6	W	SE 25	50	29.6	2.5	10.1	323°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0955	Finish Discharge	17	14*2 4.3	S	170*3 7.6	W	SE 25	50	29.6	2.5	10.1	323°
1010	Exit Discharge Zone	18	14*2 2.5	S	170*3 8.4	W	SE 25	50	29.6	2.5	9.5	341°
1100	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 155 mins. Average Speed During Discharge: 9.4 kts. Total Time Run 4.83 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: None Discharge Rate: 112.3 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 05/22/10 — F/V Blue Moon Ocean Dumping Log — Voyage #: 5294

Permit # OD 93-01 & OD 93-02

Time	
1650	Begin Loading SK
1810	Finish Loading SK
1430	Begin Loading SK
1900	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	180 000	Gallons
SP	—	Gallons
Total	180 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
			14*16.50'	S	170* 41.2'	W				Metric	kts	True*
0615	Depart Starkist								29.65			
0705	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 20	70	29.65	1.5	9	166°
0715	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 20	70	29.65	1.5	8.7	165°
0720	Begin Discharge	# 3	14*2 4.0	S	170*3 7.4	W	SE 20	70	29.65	1.5 X	9.8	106°
35		# 4	14*2 3.6	S	170*3 7.4	W	SE 20	70	29.6	1.5	9.1	204°
50	Remarks:	# 5	14*2 4.8	S	170*3 7.3	W	SE 20	70	29.6	1.5	9.3	040°
0805		# 6	14*2 3.5	S	170*3 7.3	W	SE 20	50	29.6	1.5	9	201°
20		# 7	14*2 4.8	S	170*3 7.4	W	SE 20	50	29.6	1.5 5	9.5	039°
35		# 8	14*2 4.9	S	170*3 7.5	W	SE 20	50	29.6	1.5	9.4	044°
50		# 9	14*2 4.3	S	170*3 7.0	W	SE 20	50	29.6	1.5	9.6	014°
0905		# 10	14*2 4.3	S	170*3 7.6	W	SE 20	50	29.6	1.5	9.4	202°
20		# 11	14*2 3.6	S	170*3 7.3	W	SE 20	50	29.6	1.5	9.5	207°
35		# 12	14*2 4.9	S	170*3 7.8	W	SE 20	50	29.6	1.5 10	9.6	192°
50		# 13	14*2 3.2	S	170*3 6.9	W	SE 20	50	29.6	1.5	10	001°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1000	Finish Discharge	14	14*2 4.1	S	170*3 7.5	W	SE 20	50	29.6	1.5	10	200°
1014	Exit Discharge Zone	15	14*2 2.7	S	170*3 8.3	W	SE 20	50	29.6	1.5	10.3	341°
1100	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 160 mins. Average Speed During Discharge: 9.5 kts. Total Time Run 4.75 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 118 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 05/26/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5295

Permit # OD 93-01 & OD 93-02

Time	
1320	Begin Loading SK
1500	Finish Loading SK
0115	Begin Loading SK
0310	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:

SK		Gallons
SP	—	Gallons
Total	185 750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.65			
0655	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	CALM	50	29.65	~~9.3~~ 1	9.3	165°
0706	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	CALM	50	29.65	1	9.3	164°
0715	Begin Discharge	# 3	14*2 3.9	S	170*3 9.2	W	CALM	50	29.65	1 X	9.2	272°
30		# 4	14*2 4.6	S	170*3 8.9	W	CALM	50	29.65	1	9.2	003°
45	Remarks:	# 5	14*2 3.5	S	170*3 9.3	W	CALM	50	29.65	1	9.3	202°
0800		# 6	14*2 4.1	S	170*3 8.9	W	CALM	50	29.65	1	9.3	001°
15		# 7	14*2 3.3	S	170*3 9.3	W	CALM	50	29.65	1 5	9.3	202°
30		# 8	14*2 4.9	S	170*3 9.0	W	CALM	50	29.65	1	9.5	010
45		# 9	14*2 3.1	S	170*3 9.2	W	CALM	50	29.65	1	9.7	201°
0900		# 10	14*2 4.8	S	170*3 9.0	W	CALM	50	29.65	1	9.9	006°
15		# 11	14*2 2.7	S	170*3 9.3	W	CALM	50	29.65	1	9.7	201°
30		# 12	14*2 4.5	S	170*3 9.0	W	CALM	50	29.65	1 10	10	005°
45		# 13	14*2 3.7	S	170*3 9.4	W	CALM	50	29.65	1	10	200°
10		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1000	Finish Discharge	14	14*2 3.0	S	170*3 8.9	W	CALM	50	29.65	1	10	006°
1005	Exit Discharge Zone	15	14*2 2.8	S	170*3 8.9	W	CALM	50	29.65	1	10.2	353°
1050	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center E End of Discharge E Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 9.5 kts. Total Time Run 4.75 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 118 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 05/28/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5296

Permit # OD 93-01 & OD 93-02

Time				
	Begin Loading SK		Volume Loaded: SK	Gallons
	Finish Loading SK	Trip # 1 -	SP	Gallons
	Begin Loading SK	Trip # 2	Total 185500	Gallons
	Finish Loading SK			

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0620	Depart Starkist		14*16.50'	S	170* 41.2'	W		70	29.7			
0705	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 20	70	29.7	1.5	8.9	165°
0715	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 25	70	29.7	2	8.5	163°
0720	Begin Discharge	# 3	14*2 4.2	S	170*3 7.3	W	SE 25	70	29.7	2 X	8.9	102°
35		# 4	14*2 4.2	S	170*3 8.3	W	SE 25	70	29.7	2	9.1	274°
50	Remarks:	# 5	14*2 4.0	S	170*3 7.6	W	SE 20	70	29.7	2	9.3	307°
0805		# 6	14*2 3.8	S	170*3 7.1	W	SE 20	70	29.7	2	9.1	107°
20		# 7	14*2 4.3	S	170*3 8.4	W	SE 20	70	29.7	2 5	9.4	108°
35		# 8	14*2 4.1	S	170*3 7.6	W	SE 20	70	29.7	2	9.5	314°
50		# 9	14*2 4.0	S	170*3 8.9	W	SE 20	60	29.7	2	9.8	253°
0905		# 10	14*2 4.5	S	170*3 9.7	W	SE 20	60	29.7	2	9.2	104°
20		# 11	14*2 3.8	S	170*3 7.8	W	SE 20	50	29.7	2	9.9	309°
35		# 12	14*2 4.1	S	170*3 7.6	W	SE 20	50	29.7	2 10	10.1	262°
50		# 13	14*2 4.6	S	170*3 7.0	W	SE 20	50	29.7	2	10.2	324°
1005		# 14	14*2 2.6	S	170*3 8.0	W	SE 20	50	29.7	2	10	095°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1010	Finish Discharge	15	14*2 3.8	S	170*3 7.7	W	SE 20	50	29.7	2	9.9	035°
1015	Exit Discharge Zone	16	14*2 2.6	S	170*3 7.9	W	SE 20	50	29.7	2	10	545°
1100	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.5 kts. Total Time Run 4.6 hr.

Navigational Plot made: yes Presence of Plume? none

Time and position of any floating material: none Discharge Rate: 114.5 Gallons/min/kts

Unusual Occurrences? none

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 05/29/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5297

Permit # OD 93-01 & OD 93-02

Time	
	Begin Loading SK
	Finish Loading SK
	Begin Loading SK
	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	138 750	Gallons
SP	—	Gallons
Total	138 750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0850	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.7	Metric	kts	True*
0939	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 20	100	29.7	1.5	9.4	160°
0947	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 20	100	29.7	1.5	9.3	162°
0950	Begin Discharge	# 3	14*2 4.1	S	170*3 7.5	W	SE 20	100	29.7	1.5 X	9.2	058°
1005		# 4	14*2 3.1	S	170*3 7.3	W	ESE 20	100	29.7	1.5	9	234°
20	Remarks:	# 5	14*2 5.0	S	170*3 7.4	W	ESE 20	100	29.7	1.5	9.1	031°
35		# 6	14*2 3.1	S	170*3 7.2	W	ESE 20	100	29.7	1.5	9.3	341°
50		# 7	14*2 5.1	S	170*3 7.4	W	ESE 20	100	29.7	1.5 5	9.1	029°
1105		# 8	14*2 3.3	S	170*3 7.2	W	ESE 20	100	29.7	1.5	9.5	348°
20		# 9	14*2 4.7	S	170*3 7.7	W	ESE 20	100	29.7	1.5	9.6	183°
35		# 10	14*2 3.1	S	170*3 7.2	W	ESE 25	100	29.7	1.5	9.7	327°
50		# 11	14*2 4.6	S	170*3 7.6	W	ESE 25	100	29.7	1.5	9.6	184°
1205		# 12	14*2 3.7	S	170*3 7.2	W	ESE 25	100	29.7	1.5 10	9.7	347°
20		# 13	14*2 4.8	S	170*3 7.7	W	ESE 25	100	29.7	1.5	9.5	174°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1225	Finish Discharge	14	14*2 4.5	S	170*3 7.3	W	ESE 25	100	29.7	1.5	9.9	347°
1237	Exit Discharge Zone	15	14*2 2.7	S	170*3 8.1	W	ESE 25	100	29.7	1.5	10	337°
1330	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

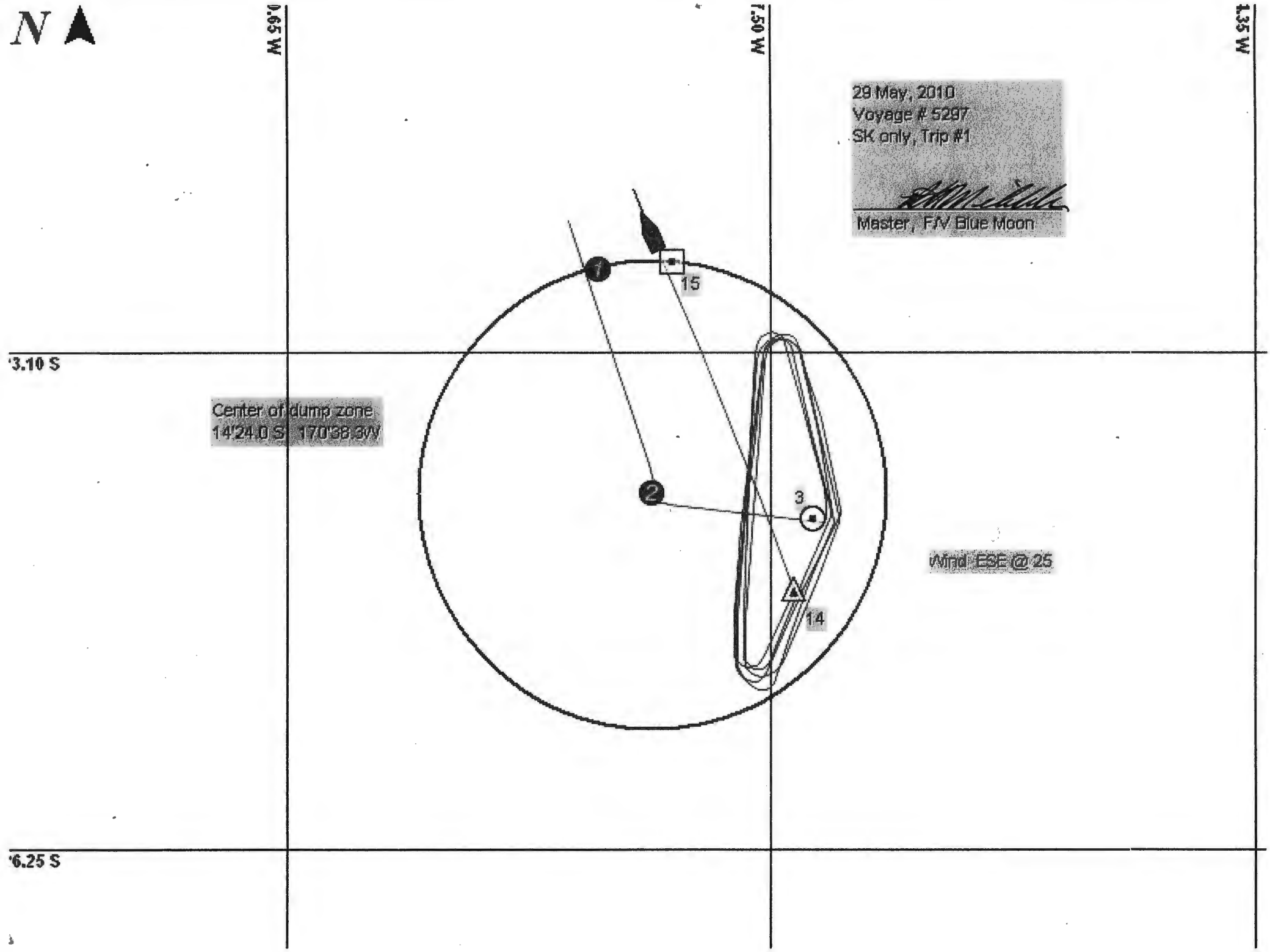
Total Discharge Time: 155 mins. Average Speed During Discharge: 9.4 kts. Total Time Run 4.66 hr.

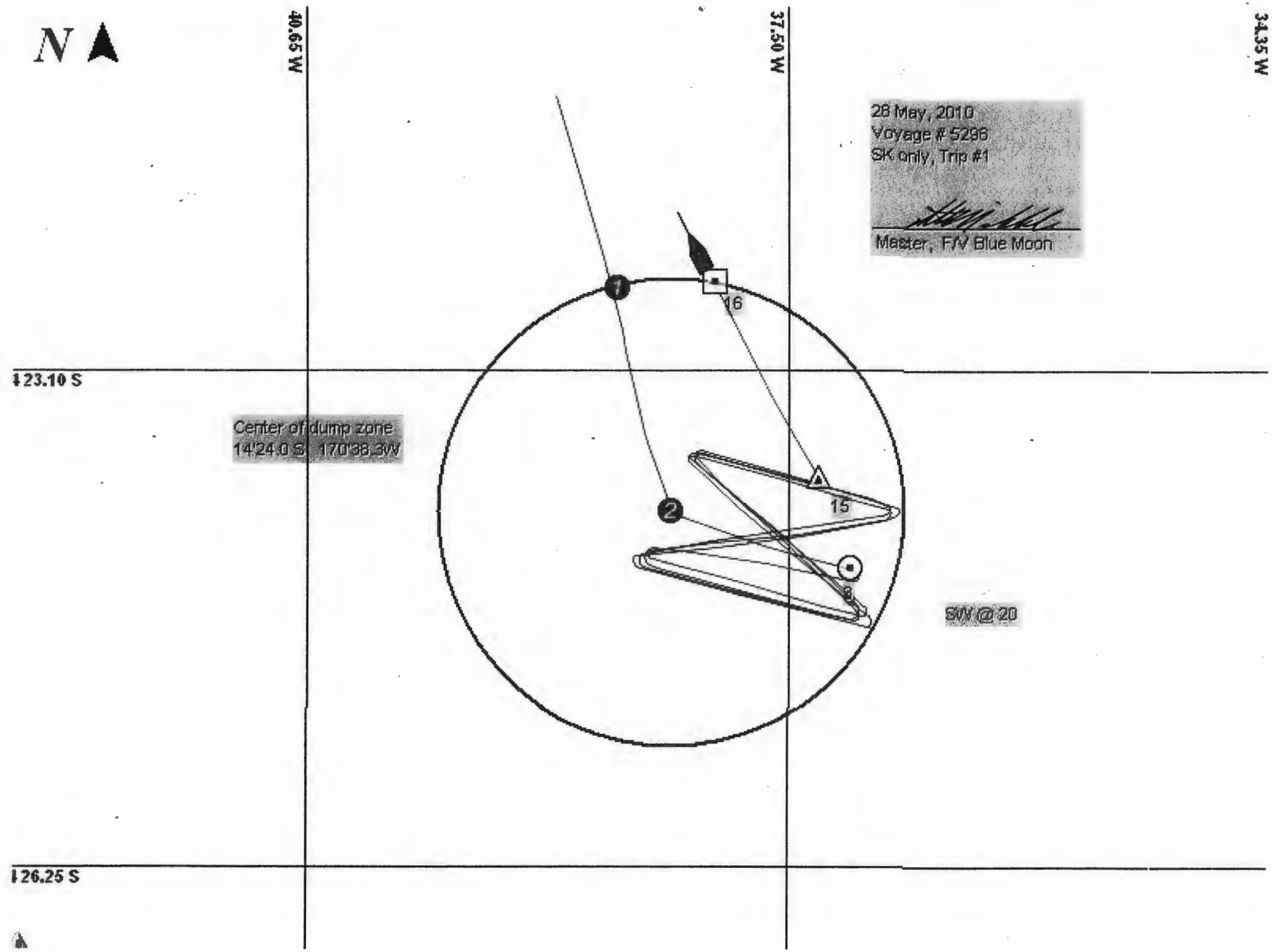
Navigational Plot made: yes Presence of Plume? NONE

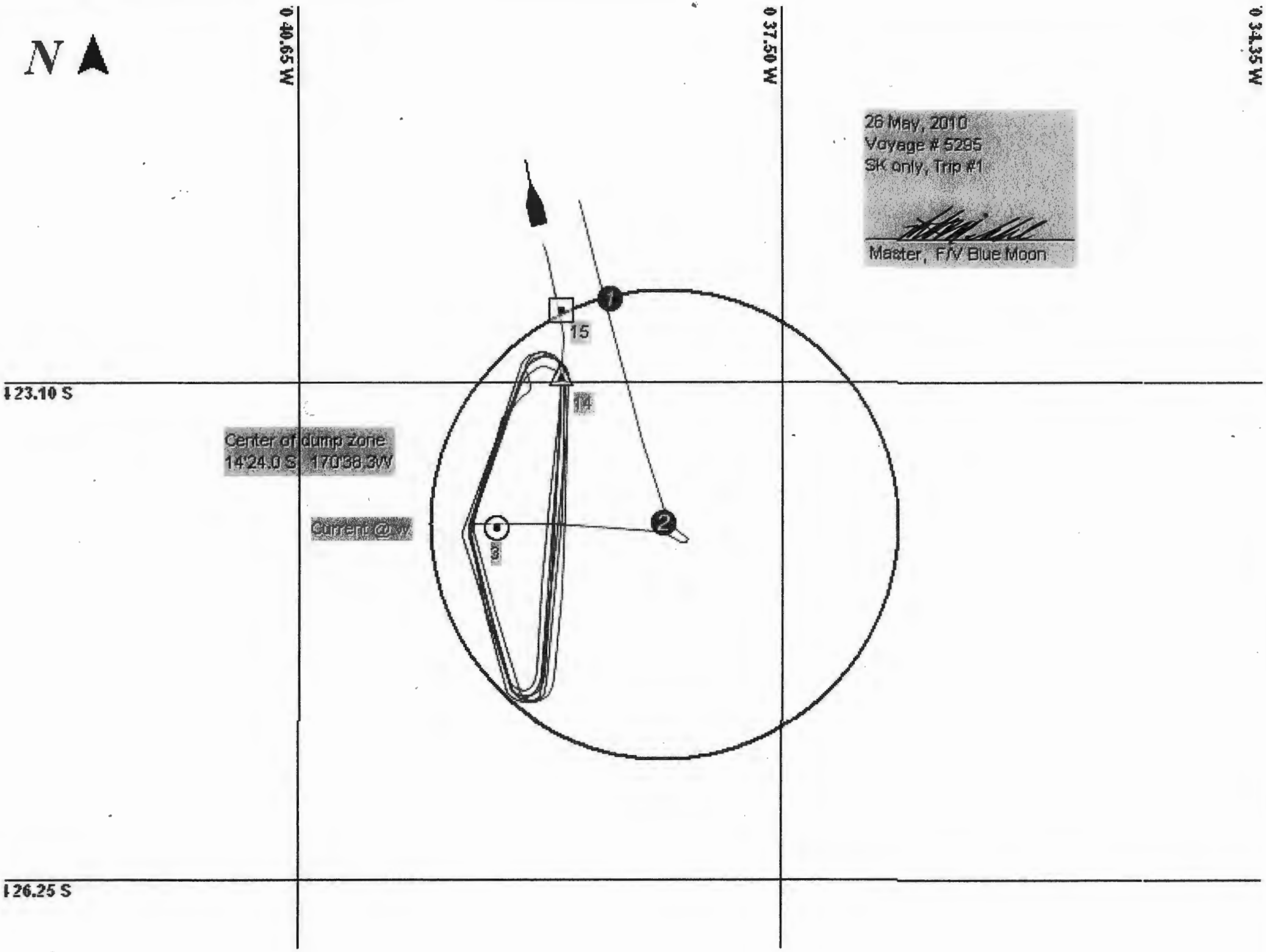
Time and position of any floating material: NONE Discharge Rate: 95.2 Gallons/min/kts

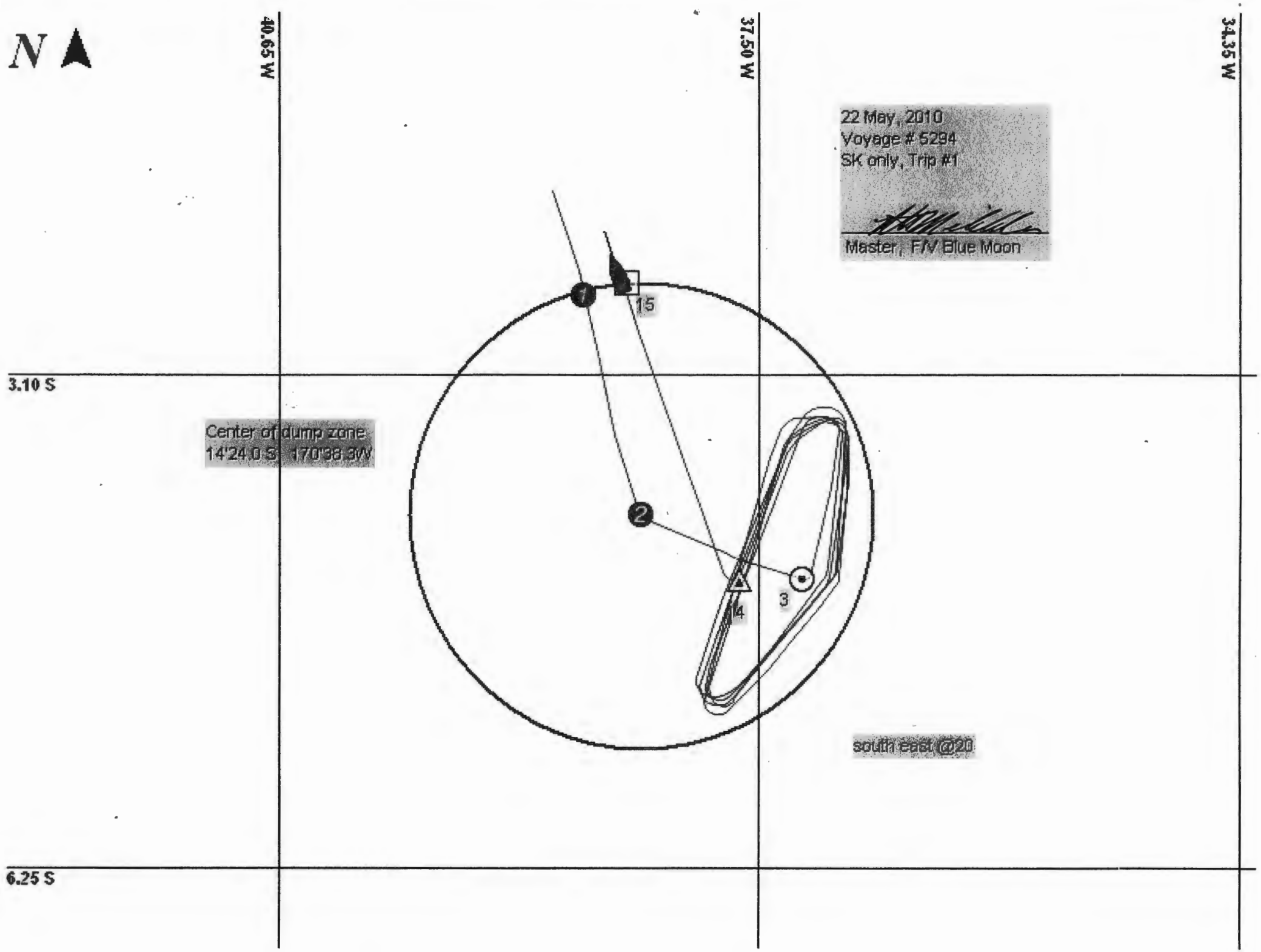
Unusual Occurrences? NONE

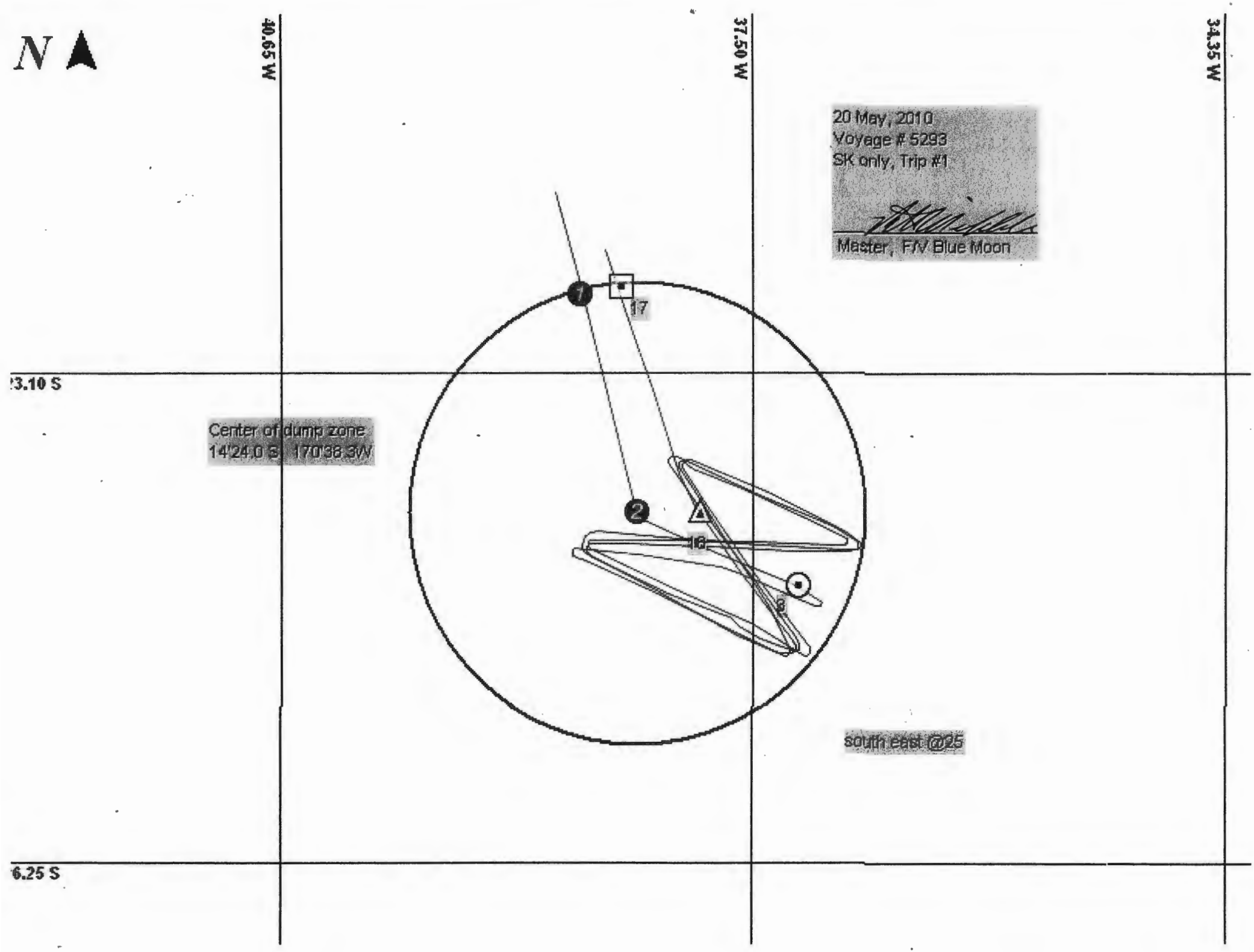
Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

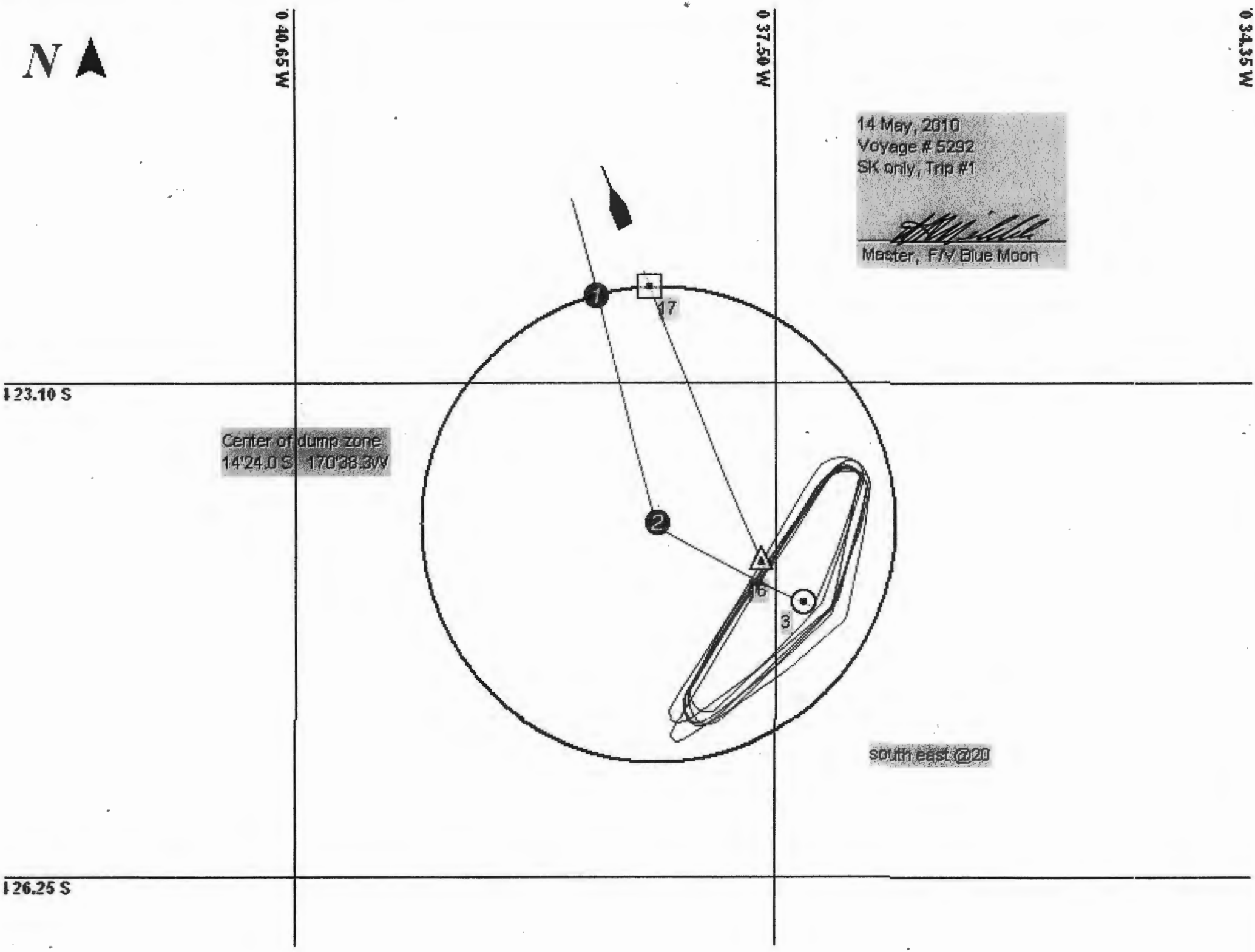

N
0.65 W
7.50 W
1.35 W
3.10 S
6.25 S
29 May, 2010
Voyage # 5297
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
1
2
3
14
15
Wind ESE @ 25

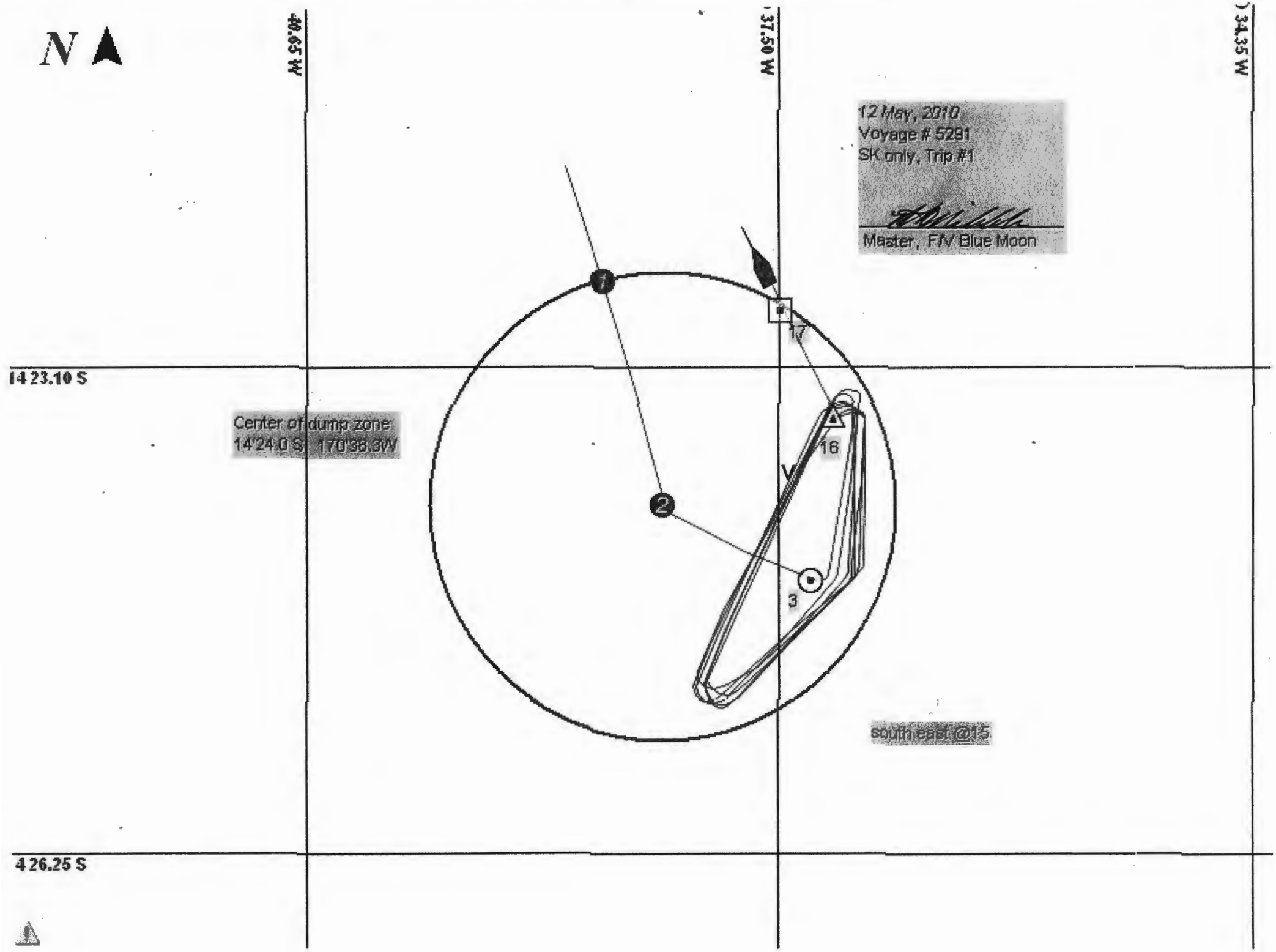

N
40.65 W
37.50 W
34.35 W
23.10 S
26.25 S
28 May, 2010
Voyage # 5296
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
1
2
16
15
3
SW @ 20

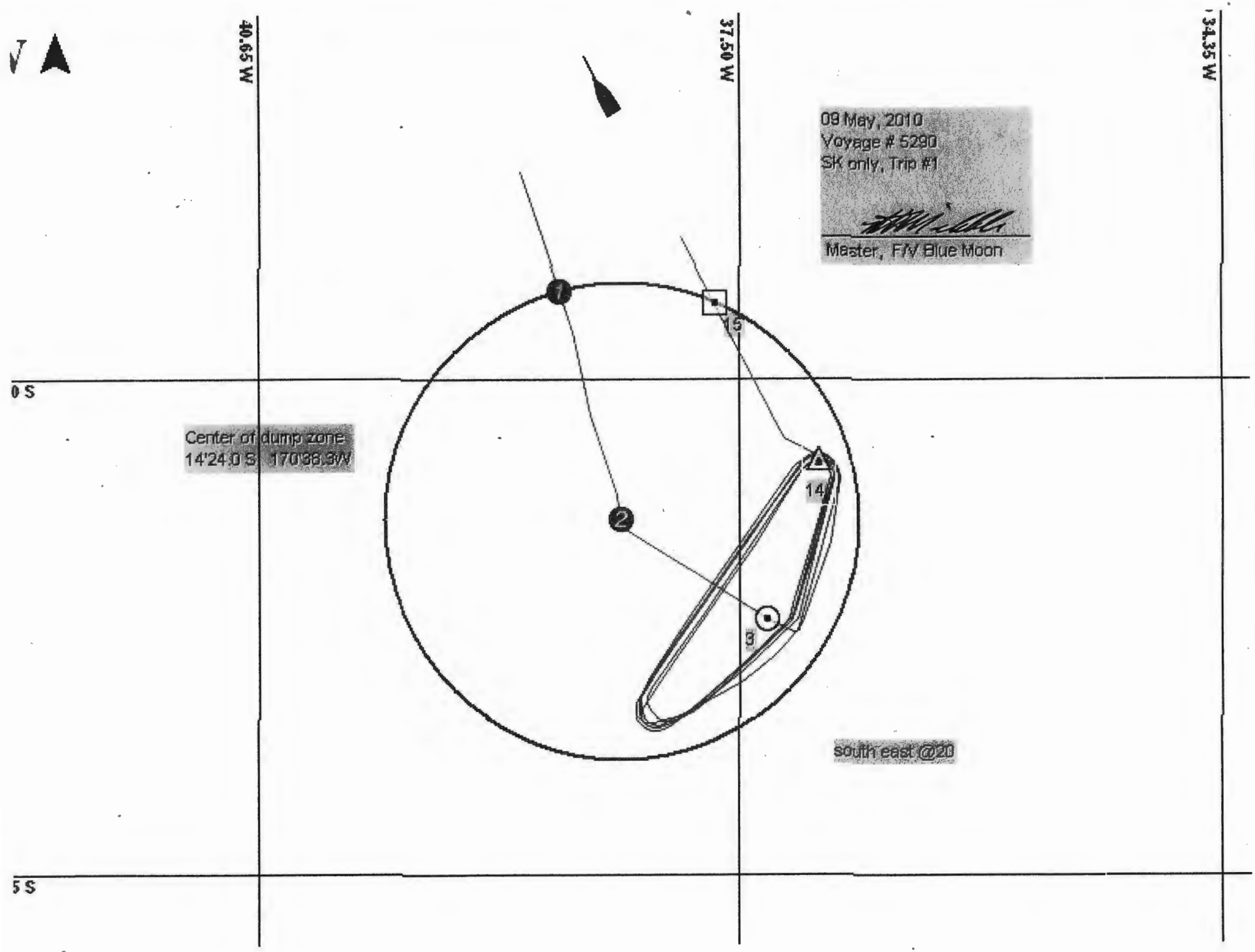

N
0 40.65 W
0 37.50 W
0 34.35 W
23.10 S
26.25 S
26 May, 2010
Voyage # 5295
SK only, Trip #1
Master, F/V Blue Moon
15
14
1
2
3
Center of dump zone
14°24.0 S 170°38.3W
Current @

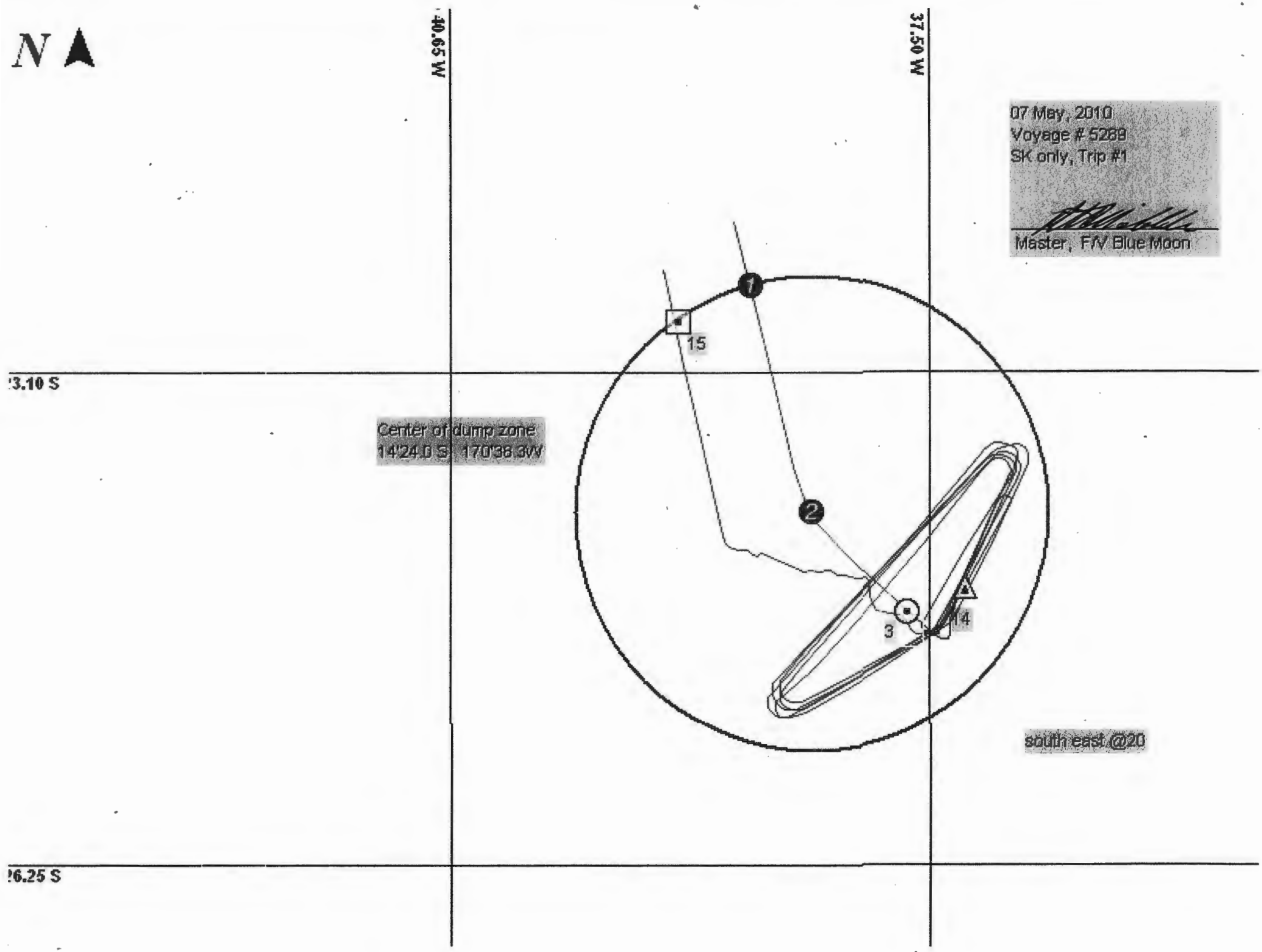

N
40.65 W
37.50 W
34.35 W
3.10 S
6.25 S
22 May, 2010
Voyage # 5294
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0'S 170°38.3'W
1
2
3
4
15
south east @20

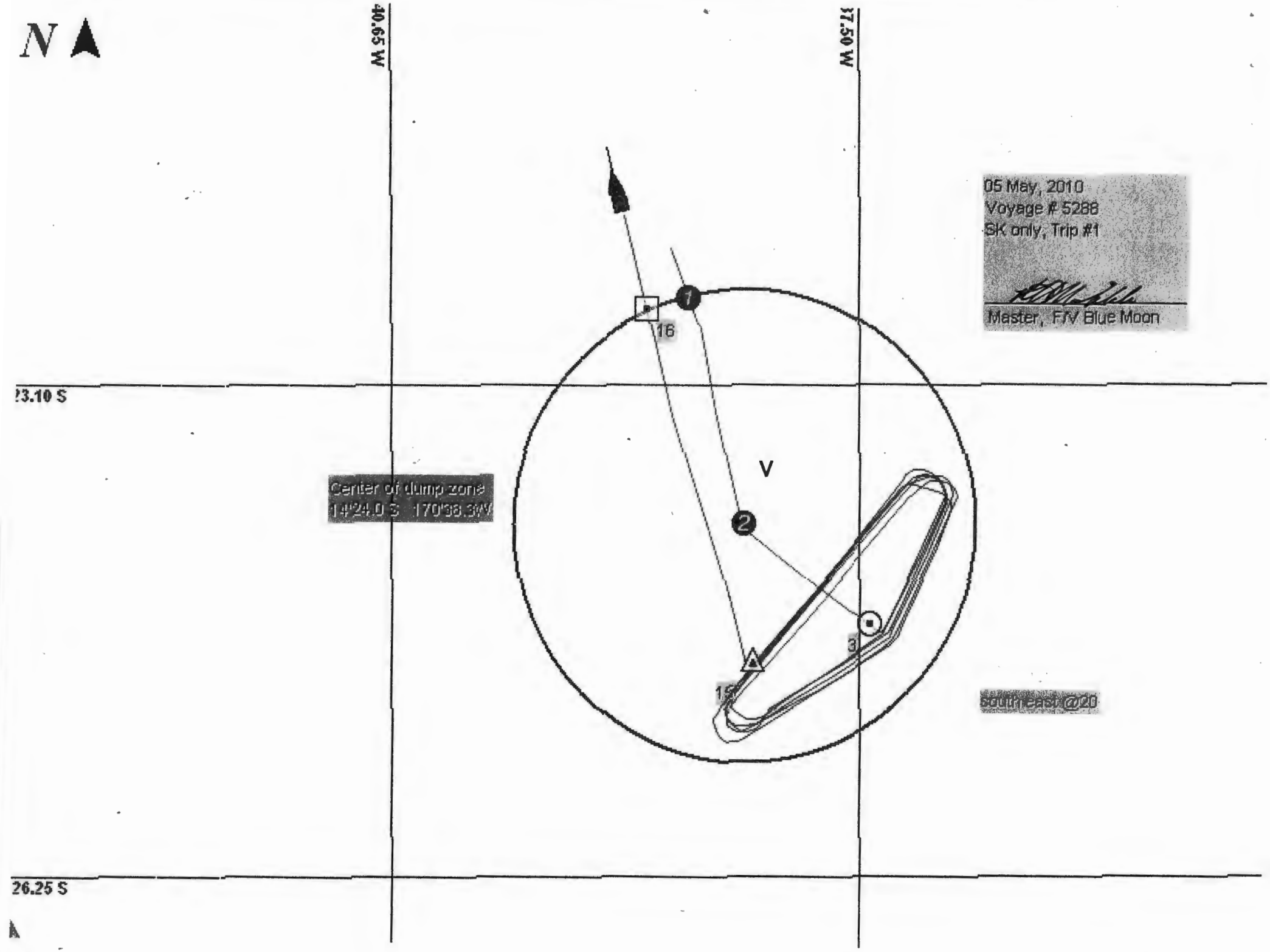

N
40.65 W
37.50 W
34.35 W
3.10 S
6.25 S
20 May, 2010
Voyage # 5293
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
1
2
17
16
3
south east @25

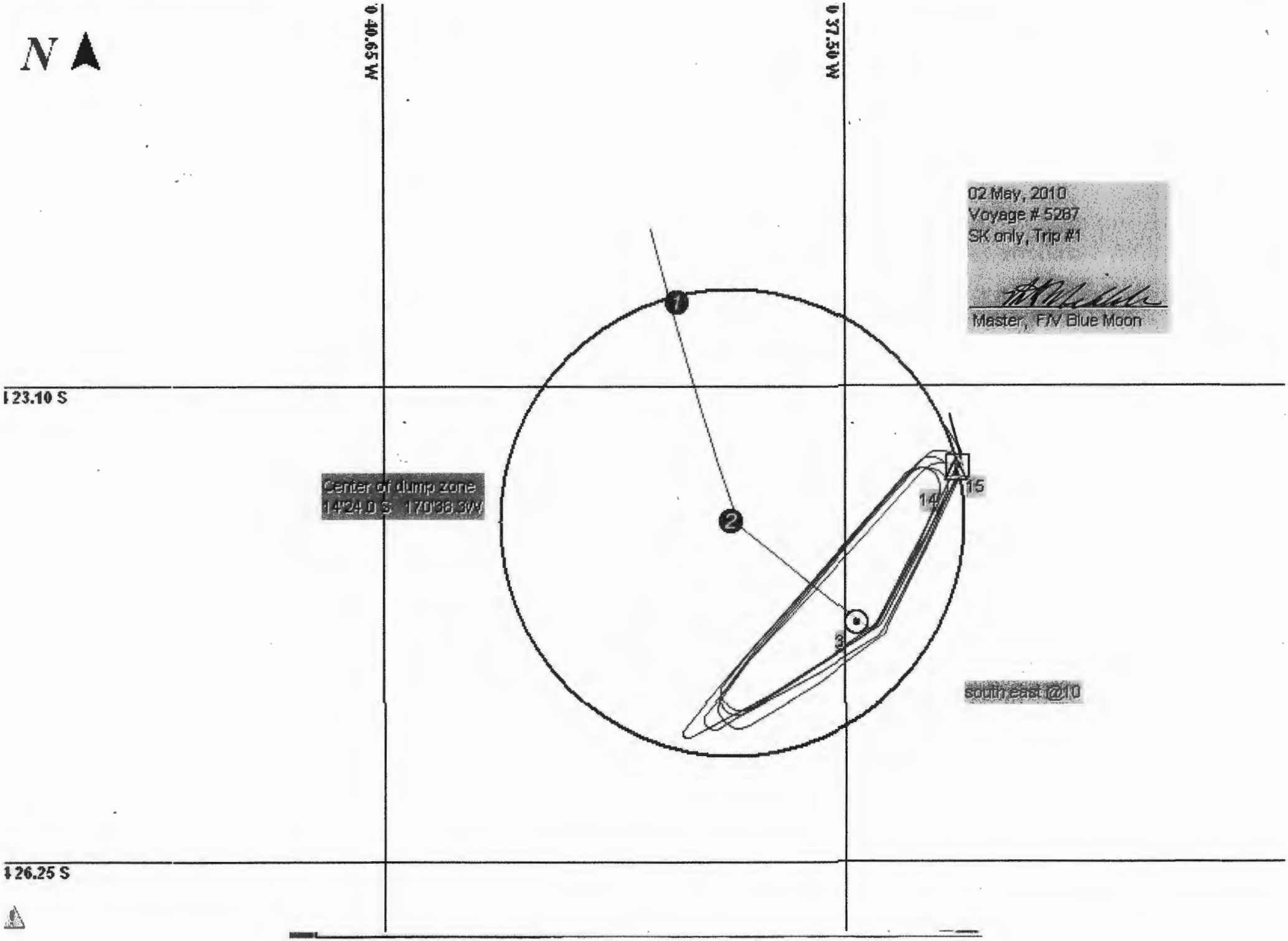

N
0 40.65 W
0 37.50 W
0 34.35 W
14 May, 2010
Voyage # 5292
SK only, Trip #1
Master, F/V Blue Moon
1
17
123.10 S
Center of dump zone
14°24.0 S 170°38.3W
2
16
3
south east @20
126.25 S


N
40.65 W
37.50 W
34.35 W
14 23.10 S
14 26.25 S
12 May, 2010
Voyage # 5291
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°36.3W
1
2
3
16
17
south east @15


40.65 W
37.50 W
34.35 W
0 S
5 S
09 May, 2010
Voyage # 5290
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°36.3W
south east @20
1
2
3
14
15


N
40.65 W
37.50 W
07 May, 2010
Voyage # 5289
SK only, Trip #1
Master, F/V Blue Moon
3.10 S
Center of dump zone
14°24.0 S 170°38.3W
1
2
3
14
15
south east @20
6.25 S


N
40.65 W
37.50 W
23.10 S
26.25 S
05 May, 2010
Voyage # 5288
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°36.3W
V
1
2
3
15
16
south east @20


N
0 40.65 W
0 37.50 W
23.10 S
26.25 S
02 May, 2010
Voyage # 5287
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
1
2
3
14
15
south east @10

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON May 2010

NUMBER OF TRIPS:	SK:	SP:	JOINT:	TOTAL:
	11	0	0	11

GALLONS-FOR THE MONTH:	SK:	SP:	JOINT:	TOTAL:
	1,906,250	0	0	1,906,250

GALLONS FOR SOLO TRIPS:	SK:	SP:
	1,906,250	0

RUNNING TIME ON TRIPS: 50 hrs.

DISCHARGE TIME ON TRIPS: 27.5 hrs.

AV. GPM DISCHARGE RATE: 99.68 g/m/k

AV. TRIP TIME: 4.54 hrs.

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK:	COS:
100.00%	0.00%

MASTER :

STAR KIST SAMOA CO
WATER TREATMENT DEPARTMENT

BLUE MOON - OCEAN DUMPING LOG

Reporting Date:June 01, 2010

Trip Date	1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Volume
01-May-10	1st Trip	1300\1700 (127000)		2nd Trip	NONE	0
02-May-10	1st Trip		182500	2nd Trip	NONE	0
03-May-10	1st Trip	1530\1725 (55000)		2nd Trip	NONE	0
04-May-10	1st Trip	1300\1700 (112500)		2nd Trip	NONE	0
05-May-10	1st Trip	1300\1530 (67500)	167500	2nd Trip	NONE	0
06-May-10	1st Trip	0945\0230 --- 0300\0400		2nd Trip	NONE	0
07-May-10	1st Trip	1120\1320 (35000)	178750	2nd Trip	NONE	0
08-May-10	1st Trip	1430\1830 (140000)		2nd Trip	NONE	0
09-May-10	1st Trip		175000	2nd Trip	NONE	0
10-May-10	1st Trip	1320\1520 (35000)		2nd Trip	NONE	0
11-May-10	1st Trip	1340\1900 (138750)		2nd Trip	NONE	0
12-May-10	1st Trip		173750	2nd Trip	NONE	0
13-May-10	1st Trip	1300\1900 (175000)		2nd Trip	NONE	0
14-May-10	1st Trip		175000	2nd Trip	NONE	0
15-May-10	1st Trip			2nd Trip	NONE	0
16-May-10	1st Trip			2nd Trip	NONE	0
17-May-10	1st Trip			2nd Trip	NONE	0
18-May-10	1st Trip	1430\1615 (50000)		2nd Trip	NONE	0
19-May-10	1st Trip	1300\1840 (113750)		2nd Trip	NONE	0
20-May-10	1st Trip	1650\1840 (55000)	163750	2nd Trip	NONE	0
21-May-10	1st Trip	1430\1930 (125000)		2nd Trip	NONE	0
22-May-10	1st Trip		180000	2nd Trip	NONE	0
23-May-10	1st Trip			2nd Trip	NONE	0
24-May-10	1st Trip			2nd Trip	NONE	0
25-May-10	1st Trip	1330\1800 (137500)		2nd Trip	NONE	0
26-May-10	1st Trip	0115\0310 (48250)	185750	2nd Trip	NONE	0
27-May-10	1st Trip	0100-/0600---0100/0230		2nd Trip	NONE	0
28-May-10	1st Trip	2345/0500 (138750)	185500	2nd Trip	NONE	0
29-May-10	1st Trip		138750	2nd Trip	NONE	0
30-May-10	1st Trip			2nd Trip	NONE	0
31-May-10	1st Trip	1530/2000--0700/1000		2nd Trip	NONE	0
TOTAL	**1st Trip**		1,906,250	**2nd Trip**		0
					Total 1st & 2nd	1,906,250

cc:
Blue Moon- Captain
File

Prepared by: W.W.T.

Date: 05/02/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5287

Permit # OD 93-01 & OD 93-02

Time	
1630	Begin Loading SK
1830	Finish Loading SK
1300	Begin Loading SK
1700	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded: SK ~~55,000~~ 182500 Gallons
SP Gallons
Total ~~55,000~~ 182500 Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0510	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.65			
0600	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		30	29.65	1	8.9	165°
0607	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		30	29.65	1	9	162°
0615	Begin Discharge	# 3	14*2 4.6	S	170*3 7.4	W	SE 10	30	29.65	1 X	9.2	127°
30		# 4	14*2 4.2	S	170*3 7.5	W	SE 10	30	29.65	1	9.1	220°
45	Remarks:	# 5	14*2 5.4	S	170*3 8.5	W	SE 10	30	29.65	1	9.3	071°
0700		# 6	14*2 3.6	S	170*3 7.0	W	SE 15	20	29.65	1	9.4	234°
15		# 7	14*2 5.2	S	170*3 8.3	W	SE 15	20	29.65	1 5	9.2	169°
30		# 8	14*2 3.7	S	170*3 8.7	W	SE 15	20	29.65	1	9.7	022°
45		# 9	14*2 5.3	S	170*3 8.3	W	SE 15	20	29.65	1	9.4	070°
0800		# 10	14*2 3.6	S	170*3 6.9	W	SE 15	20	29.65	1	9.5	234°
15		# 11	14*2 5.0	S	170*3 8.2	W	SE 15	30	29.65	1	10	214°
30		# 12	14*2 4.1	S	170*3 6.9	W	SE 15	50	29.65	1 10	10	026°
45		# 13	14*2 5.2	S	170*3 8.1	W	SE 15	50	29.65	1	9.8	075°
0900		# 14	14*2 3.8	S	170*3 6.8	W	SE 15	50	29.65	1	10.2	028°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0900	Finish Discharge	14	14*2 3.8	S	170*3 6.8	W	SE 15	50	29.65	1	10.2	028
0900	Exit Discharge Zone	15	14*2 3.8	S	170*3 6.8	W	SE 15	50	29.65	1	10.2	028
0950	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 4.66 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 115.2 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 05/05/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5288

Permit # OD 93-01 & OD 93-02

Time	
1700	Begin Loading SK
1700	Finish Loading SK
1520	Begin Loading SK
1725	Finish Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:

SK	112500	162500	Gallons
SP	55	—	Gallons
Total	112500	167500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0515	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.55			
0615	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		70	29.55	2	8.8	165°
0625	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		70	29.55	2	8.9	166°
0630	Begin Discharge	# 3	14*2 4.6	S	170*3 7.5	W	SE 15	70	29.55	2 X	8.6	128°
45		# 4	14*2 3.7	S	170*3 7.2	W	SE 15	70	29.55	1.5	8.9	215°
0700	Remarks:	# 5	14*2 5.1	S	170*3 7.9	W	SE 20	70	29.55	1.5	9.2	068°
15		# 6	14*2 3.7	S	170*3 7.2	W	SE 20	70	29.55	1.5	9.1	225°
30		# 7	14*2 5.1	S	170*3 8.0	W	SE 20	60	29.55	1.5 5	9.4	064°
45		# 8	14*2 3.9	S	170*3 7.3	W	SE 20	50	29.55	1.5	9.3	223°
0800		# 9	14*2 5.1	S	170*3 8.1	W	SE 20	50	29.55	1.5	9.7	056°
15		# 10	14*2 4.5	S	170*3 7.9	W	SE 20	50	29.55	1.5	9.6	220°
30		# 11	14*2 5.1	S	170*3 7.9	W	SE 20	50	29.55	1.5	9.3	059°
45		# 12	14*2 7.8	S	170*3 7.1	W	SE 20	50	29.55	1.5 10	9.5	227°
0900		# 13	14*2 5.2	S	170*3 8.2	W	SE 20	50	29.55	1.5	9.8	069°
15		# 14	14*2 3.9	S	170*3 7.3	W	SE 20	50	29.55	1.5	9.7	222°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0920	Finish Discharge	15	14*2 4.8	S	170*3 8.1	W	SE 20	50	29.55	1.5	9.7	244°
0935	Exit Discharge Zone	16	14*2 2.6	S	170*3 8.9	W	SE 20	50	29.55	1.5	10	343°
1030	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.36 kts. Total Time Run 5.25 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 105.2 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 05/07/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5289

Permit # OD 93-01 & OD 93-02

Time	
	Begin Loading SK
	Finish Loading SK
	Begin Loading SK
	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded: SK 178 750 Gallons
SP Gallons
Total 178 750 Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0515	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.5			
0615	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		80	29.5	1.5	8.9	165°
0625	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		80	29.5	1.5	9	165°
0640	Begin Discharge	# 3	14*2 4.7	S	170*3 7.4	W		80	29.5	1.5 X	8.8	029°
55		# 4	14*2 3.9	S	170*3 7.3	W		80	29.5	1.5	9.1	221°
0710	Remarks:	# 5	14*2 5.2	S	170*3 8.1	W	SE 20	80	29.5	1.5	9	061°
25		# 6	14*2 3.8	S	170*3 6.9	W	SE 20	80	29.5	1.5	9.2	023°
40	0634	# 7	14*2 4.9	S	170*3 3.3	W	SE 20	80	29.5	1.5 5	9.3	221°
55	water sample	# 8	14*2 3.7	S	170*3 7.2	W	SE 20	50	29.5	1.5	9.4	225°
0810		# 9	14*2 4.9	S	170*3 8.3	W	SE 20	50	29.5	1.5	9.5	225°
25		# 10	14*2 3.9	S	170*3 7.0	W	SE 20	50	29.5	1.5	9.5	029°
40		# 11	14*2 5.0	S	170*3 8.3	W	SE 20	50	29.5	1.5	9.7	230°
55		# 12	14*2 3.7	S	170*3 7.1	W	SE 20	50	29.5	1.5 10	9.8	230°
0910		# 13	14*2 4.9	S	170*3 8.4	W	SE 20	50	29.5	1.5	9.9	222°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0920	Finish Discharge	14	14*2 4.1	S	170*3 7.0	W	SE 20	50	29.5	1.5	9.7	038°
1028	Exit Discharge Zone	15	14*2 2.9	S	170*3 9.1	W	SE 20	50	29.5	1.5	9.8	340°
1120	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 160 mins. Average Speed During Discharge: 9.4 kts. Total Time Run 6.08 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 118.8 Gallons/min/kts

Unusuall Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 05/09/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5290

Permit # OD 93-01 & OD 93-02

Time	
1120	Begin Loading SK 1430 3 8TH
1330	Finish Loading SK 1830 5
1530	Begin Loading SK
1745	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	175 000	Gallons
SP	—	Gallons
Total	175 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0610	Depart Elkhist		14*16 [illegible]'	S	170* 41.2'	W			29.55	Mo[illegible]	kts	Tru*
0700	[illegible] of Zone	# 1	14*22 [illegible]	S	170*38.7	W	[illegible]	[illegible]	29.55	1.4	9	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Beg[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30		# 4	14*2 [illegible]	S	170*3 7.2	W	SE 20	50	[illegible]	1.5	9.2	215°
45	Remarks:	# 5	14*2 5.1	S	170*3 7.6	W	SE 20	50	29.55	1.5	9.2	052°
0800		# 6	14*2 4.9	S	170*3 7.3	W	SE 20	50	29.55	1.5	9.5	216°
15		# 7	14*2 6.1	S	170*3 7.7	W	SE 20	50	29.55	1.5	9.4	051°
30		# 8	14*2 4.6	S	170*3 7.7	W	SE 20	50	29.55	1.5	9.4	215°
45		# 9	14*2 4.8	S	170*3 7.4	W	SE 20	50	29.5	1.5	9.6	048°
0900		# 10	14*2 4.3	S	170*3 7.6	W	SE 20	50	29.5	1.5	9.7	215°
15		# 11	14*2 4.3	S	170*3 7.0	W	SE 20	50	29.5	1.5	10	016°
30		# 12	14*2 4.7	S	170*3 7.8	W	SE 20	50	29.5	1.5	10.1	216°
45		# 13	14*2 3.9	S	170*3 6.4	W	SE 20	50	29.5	1.5	9.8	017°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W						
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W						
0955	Finish Discharge	14	14*2 3.3	S	170*3 7.2	W	SE 20	50	29.5	1.5	10.5	329°
0959	Exit Discharge Zone	15	14*2 2.4	S	170*3 7.7	W	SE 20	50	29.5	1.5	10.3	343°
1045	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 160 mins. Average Speed During Discharge: 9.56 kts. Total Time Run 4.75 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 114.4 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon [signature]

Date: 05/12/10 — F/V Blue Moon Ocean Dumping Log — Voyage #: 5291

Permit # OD 93-01 & OD 93-02

Time	
1320	Begin Loading SK
1520	Finish Loading SK
1340	Begin Loading SK
1900	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK		Gallons
SP		Gallons
Total	173750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True°
0510	Depart Starkist		14*16.[illegible]0'	S	170[illegible]41.2'	W			29.55			
[illegible]5	[illegible]	1	14[illegible]	S	170[illegible]	W		[illegible]	29.55	1.5	9.2	164°
[illegible]0	[illegible]	2	[illegible]	S	[illegible]	W		[illegible]	[illegible]	[illegible]	9.2	[illegible]
[illegible]20	[illegible]	3	[illegible]	S	170*3 7.4	W	SE15	[illegible]	[illegible]	1.5	9.1	[illegible]
35		4	14*2 3.[illegible]	S	170*3 7.3	W	SE15	20	29.55	1.5	9.4	[illegible]
50	Remarks:	5	14*2 4.5	S	170*3 7.5	W	SE15	30	29.55	1.5	8.8	043°
0705		#6	14*2 3.0	S	170*3 7.1	W	SE15	30	29.55	1.5	9.3	214°
20		#7	14*2 4.7	S	170*3 7.2	W	SE15	40	29.55	1.5 5	9.4	047°
35		#8	14*2 3.9	S	170*3 7.4	W	SE15	50	29.55	1.5	10	206°
50		#9	14*2 4.4	S	170*3 6.9	W	SE15	50	29.65	1.5	9.6	014°
0805		#10	14*2 3.5	S	170*3 7.2	W	SE15	50	29.65	1.5	10.1	209°
20		#11	14*2 4.7	S	170*3 7.2	W	SE15	50	29.6	1.5	9.6	043°
35		#12	14*2 3.9	S	170*3 7.4	W	SE15	50	29.6	1.5 10	10	208°
50		#13	14*2 4.6	S	170*3 7.2	W	SE15	50	29.6	1.5	9.6	049°
0950		#14	14*2 4.1	S	170*3 7.5	W	SE15	50	29.6	1.5	9.2	218°
20		#15	14*2 4.4	S	170*3 6.9	W	SE15	50	29.6	1.5	9.8	017°
		#16	14*2	S	170*3	W						
		#17	14*2	S	170*3	W				15		
		#18	14*2	S	170*3	W						
		#19	14*2	S	170*3	W						
		#20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0925	Finish Discharge	16	14*2 3.4	S	170*3 7.0	W	SE15	50	29.6	1.5	9.8	287°
0930	Exit Discharge Zone	17	14*2 3.7	S	170*3 4.0	W	SE15	50	29.6	1.5	9.7	334°
1030	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 185 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 5.25 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 97.8 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon [signature]

Date: 05/14/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5292

Permit # OD 93-01 & OD 93-02

Time		
1300	Begin Loading SK	
1900	Finish Loading SK	
	Begin Loading SK	
	Finish Loading SK	

Trip # 1 -
Trip # 2

Volume Loaded:

SK	175000	Gallons
SP	—	Gallons
Total	175000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0515	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.5			
0605	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		50	29.5	1.5	8.9	165°
0614	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE20	50	29.5	1.5	8.9	160°
0620	Begin Discharge	# 3	14*2 4.3	S	170*3 7.6	W	SE20	50	29.5	1.5 X	8.7	115°
35		# 4	14*2 3.7	S	170*3 7.3	W	SE 20	50	29.5	1.5	9.3	236°
50	Remarks:	# 5	14*2 4.0	S	170*3 7.1	W	SE20	50	29.5	1.5	9.2	027°
0705		# 6	14*2 4.3	S	170*3 7.6	W	SE20	50	29.5	1.5	9.5	211°
20		# 7	14*2 4.7	S	170*3 7.2	W	SE20	50	29.5	1.5 5	9.3	047°
35		# 8	14*2 4.2	S	170*3 7.5	W	SE20	50	29.55	1.5	9.7	214°
50		# 9	14*2 4.7	S	170*3 7.2	W	SE20	50	29.55	1.5	9.1	047°
0805		# 10	14*2 4.4	S	170*3 7.7	W	SE20	50	29.55	1.5	9.7	216°
20		# 11	14*2 4.5	S	170*3 7.1	W	SE 20	50	29.55	1.5	9.3	023°
35		# 12	14*2 4.6	S	170*3 7.8	W	SE 20	50	29.55	1.5 10	10	214°
50		# 13	14*2 3.8	S	170*3 7.2	W	SE 20	50	29.55	1.5	10	215°
0905		# 14	14*2 5.1	S	170*3 7.9	W	SE 20	50	29.55	1.5	9.6	055°
20		# 15	14*2 3.9	S	170*3 7.3	W	SE 20	50	29.55	1.5	9.9	213°
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0920	Finish Discharge	16	14*2 4.0	S	170*3 7.9	W	SE20	50	29.55	1.5	9.9	213°
0935	Exit Discharge Zone	17	14*2 2.6	S	170*3 9.2	W	SE20	50	29.55	1.5	9.7	343°
1025	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.51 kts. Total Time Run 5.16 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 102.2 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 05/20/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5293

Permit # OD 93-01 & OD 93-02

Time	
1430	Begin Loading SK
1615	Finish Loading SK
1300	Begin Loading SK
1840	Finish Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:		
SK		Gallons
SP		Gallons
Total	163 750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.6			
0658	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 25	40	29.6	2.5	8.8	164°
0704	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 25	40	29.6	2.5	9.4	167°
0710	Begin Discharge	# 3	14*2	S	170*3	W	SE 25	40	29.6	2.5 X	9.3	111°
25		# 4	14*2 4.2	S	170*3 8.5	W	SE 25	40	29.6	2.5	9.4	276°
40	Remarks:	# 5	14*2 4.8	S	170*3 7.2	W	SE 25	50	29.6	2.5	9.1	340°
55		# 6	14*2 3.8	S	170*3 7.4	W	SE 25	50	29.6	2.5	8.9	117°
0810		# 7	14*2 4.1	S	170*3 8.0	W	SE 25	50	29.6	2.5 5	9.4	122°
25		# 8	14*2 4.6	S	170*3 7.2	W	SE 25	50	29.6	2.5	9.5	327°
40		# 9	14*2 3.8	S	170*3 7.3	W	SE 25	50	29.6	2.5	9	119°
55		# 10	14*2 4.1	S	170*3 8.3	W	SE 25	50	29.6	2.5	10	275°
0910		# 11	14*2 4.8	S	170*3 7.2	W	SE 25	50	29.6	2.5	9.8	334°
25		# 12	14*2 3.9	S	170*3 7.4	W	SE 25	50	29.6	2.5 10	9.4	113°
40		# 13	14*2 4.4	S	170*3 8.2	W	SE 25	50	29.6	2.5	9.1	118°
55		# 14	14*2 4.3	S	170*3 7.6	W	SE 25	50	29.6	2.5	10.1	323°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0955	Finish Discharge	17	14*2 4.3	S	170*3 7.6	W	SE 25	50	29.6	2.5	10.1	323°
1010	Exit Discharge Zone	18	14*2 2.5	S	170*3 8.4	W	SE 25	50	29.6	2.5	9.5	341°
1100	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 155 mins. Average Speed During Discharge: 9.4 kts. Total Time Run 4.83 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: None Discharge Rate: 112.3 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 05/22/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5294

Permit # OD 93-01 & OD 93-02

325000 SK

Time	
1650	Begin Loading SK
1840	Finish Loading SK
1430	Begin Loading SK
1900	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:

SK	180 000	Gallons
SP	—	Gallons
Total	180 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.65			
0705	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 20	70	29.65	1.5	9	166°
0715	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 20	70	29.65	1.5	8.7	165°
0720	Begin Discharge	# 3	14*2 4.0	S	170*3 7.4	W	SE 20	70	29.65	1.5 X	9.8	106°
35		# 4	14*2 3.6	S	170*3 7.4	W	SE 20	70	29.6	1.5	9.1	204°
50	Remarks:	# 5	14*2 4.8	S	170*3 7.3	W	SE 20	70	29.6	1.5	9.3	040°
0805		# 6	14*2 3.5	S	170*3 7.3	W	SE 20	50	29.6	1.5	9	201°
20		# 7	14*2 4.8	S	170*3 7.4	W	SE 20	50	29.6	1.5 5	9.5	039°
35		# 8	14*2 4.9	S	170*3 7.5	W	SE 20	50	29.6	1.5	9.4	044°
50		# 9	14*2 4.3	S	170*3 7.0	W	SE 20	50	29.6	1.5	9.6	014°
0905		# 10	14*2 4.3	S	170*3 7.6	W	SE 20	50	29.6	1.5	9.4	202°
20		# 11	14*2 3.6	S	170*3 7.3	W	SE 20	50	29.6	1.5	9.5	207°
35		# 12	14*2 4.9	S	170*3 7.8	W	SE 20	50	29.6	1.5 10	9.6	192°
50		# 13	14*2 3.4	S	170*3 6.9	W	SE 20	50	29.6	1.5	10	001°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1000	Finish Discharge	14	14*2 4.1	S	170*3 7.5	W	SE 20	50	29.6	1.5	10	200°
1014	Exit Discharge Zone	15	14*2 2.7	S	170*3 8.3	W	SE 20	50	29.6	1.5	10.3	341°
1100	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 160 mins. Average Speed During Discharge: 9.5 kts. Total Time Run 4.75 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 118 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 05/26/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5295

Permit # OD 93-01 & OD 93-02

Time	
1330	Begin Loading SK
1500	Finish Loading SK
0115	Begin Loading SK
0310	Finish Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK		Gallons
SP	—	Gallons
Total	185 750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.65			
0655	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	CALM	50	29.65	~~9.3~~ 1	9.3	165°
0706	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	CALM	50	29.65	1	9.3	164°
0715	Begin Discharge	# 3	14*2 3.9	S	170*3 9.2	W	CALM	50	29.65	1 X	9.2	272°
30		# 4	14*2 4.6	S	170*3 8.9	W	CALM	50	29.65	1	9.2	003°
45	Remarks:	# 5	14*2 3.5	S	170*3 9.3	W	CALM	50	29.65	1	9.3	202°
0800		# 6	14*2 4.1	S	170*3 8.9	W	CALM	50	29.65	1	9.3	001°
15		# 7	14*2 3.3	S	170*3 9.3	W	CALM	50	29.65	1 5	9.3	202°
30		# 8	14*2 4.9	S	170*3 9.0	W	CALM	50	29.65	1	9.5	010
45		# 9	14*2 3.1	S	170*3 9.2	W	CALM	50	29.65	1	9.7	201°
0900		# 10	14*2 4.5	S	170*3 9.0	W	CALM	50	29.65	1	9.9	006°
15		# 11	14*2 2.3	S	170*3 9.3	W	CALM	50	29.65	1	9.7	201°
30		# 12	14*2 4.5	S	170*3 9.0	W	CALM	50	29.65	1 10	10	005°
45		# 13	14*2 3.7	S	170*3 9.4	W	CALM	50	29.65	1	10	200°
10		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1000	Finish Discharge	14	14*2 3.0	S	170*3 8.9	W	CALM	50	29.65	1	10	006°
1005	Exit Discharge Zone	15	14*2 2.8	S	170*3 8.9	W	CALM	50	29.65	1	10.2	353°
1050	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center E End of Discharge E Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 9.5 kts. Total Time Run 4.75 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 118 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 05/28/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5296

Permit # OD 93-01 & OD 93-02

Time		
	Begin Loading SK	
	Finish Loading SK	
	Begin Loading SK	
	Finish Loading SK	

Trip # 1 -

Trip # 2

Volume Loaded: SK ____ Gallons; SP ____ Gallons; Total 185500 Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0620	Depart Starkist		14*16.50'	S	170* 41.2'	W		70	29.7	Metric	kts	True*
0705	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 20	70	29.7	1.5	8.9	175°
0715	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 25	70	29.7	2	8.5	163°
0720	Begin Discharge	# 3	14*2 4.2	S	170*3 7.3	W	SE 25	70	29.7	2 X	8.9	102°
35		# 4	14*2 4.2	S	170*3 8.3	W	SE 25	70	29.7	2	9.1	274°
50	Remarks:	# 5	14*2 4.0	S	170*3 7.6	W	SE 20	70	29.7	2	9.3	307°
0805		# 6	14*2 3.8	S	170*3 7.1	W	SE 20	70	29.7	2	9.1	107°
20		# 7	14*2 4.3	S	170*3 8.4	W	SE 20	70	29.7	2 5	9.4	108°
35		# 8	14*2 4.1	S	170*3 7.6	W	SE 20	70	29.7	2	9.5	316°
50		# 9	14*2 4.0	S	170*3 8.9	W	SE 20	60	29.7	2	9.8	253°
0905		# 10	14*2 4.5	S	170*3 9.7	W	SE 20	60	29.7	2	9.2	104°
20		# 11	14*2 3.8	S	170*3 7.8	W	SE 20	50	29.7	2	9.9	309°
35		# 12	14*2 4.1	S	170*3 7.6	W	SE 20	50	29.7	2 10	10.1	262°
50		# 13	14*2 4.6	S	170*3 7.0	W	SE 20	50	29.7	2	10.2	324°
1005		# 14	14*2 2.6	S	170*3 8.0	W	SE 20	50	29.7	2	10	095°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1010	Finish Discharge	15	14*2 3.8	S	170*3 7.7	W	SE 20	50	29.7	2	9.9	035°
1015	Exit Discharge Zone	16	14*2 2.6	S	170*3 7.9	W	SE 20	50	29.7	2	10	545°
1100	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.5 kts. Total Time Run 4.6 hr.

Navigational Plot made: yes Presence of Plume? none

Time and position of any floating material: none Discharge Rate: 114.5 Gallons/min/kts

Unusual Occurrences? none

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 05/29/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5297

Permit # OD 93-01 & OD 93-02

Time		
	Begin Loading SK	
	Finish Loading SK	
	Begin Loading SK	
	Finish Loading SK	

Trip # 1 -
Trip # 2

Volume Loaded:			
	SK	138 750	Gallons
	SP	—	Gallons
	Total	138 750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0850	Depart Starkist		14*16.50'	S	170* 41.2'	W			29.7			
0939	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 20	100	29.7	1.5	9.4	166°
0947	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 20	100	29.7	1.5	9.3	162°
0950	Begin Discharge	# 3	14*2 4.1	S	170*3 7.5	W	SE 20	100	29.7	1.5 X	9.2	055°
1005		# 4	14*2 3.1	S	170*3 7.3	W	ESE 20	100	29.7	1.5	9	234°
20	Remarks:	# 5	14*2 5.0	S	170*3 7.4	W	ESE 20	100	29.7	1.5	9.1	031°
35		# 6	14*2 3.1	S	170*3 7.2	W	ESE 20	100	29.7	1.5	9.3	341°
50		# 7	14*2 5.1	S	170*3 7.4	W	ESE 20	100	29.7	1.5 5	9.1	029°
1105		# 8	14*2 3.3	S	170*3 7.2	W	ESE 20	100	29.7	1.5	9.5	348°
20		# 9	14*2 4.7	S	170*3 7.7	W	ESE 20	100	29.7	1.5	9.6	183°
35		# 10	14*2 3.1	S	170*3 7.2	W	ESE 25	100	29.7	1.5	9.7	327°
50		# 11	14*2 4.6	S	170*3 7.6	W	ESE 25	100	29.7	1.5	9.6	184°
1205		# 12	14*2 3.3	S	170*3 7.2	W	ESE 25	100	29.7	1.5 10	9.7	347°
20		# 13	14*2 4.8	S	170*3 7.7	W	ESE 25	100	29.7	1.5	9.5	174°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1225	Finish Discharge	14	14*2 4.5	S	170*3 7.3	W	ESE 25	100	29.7	1.5	9.9	347°
1237	Exit Discharge Zone	15	14*2 2.7	S	170*3 8.1	W	ESE 25	100	29.7	1.5	10	337°
1330	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

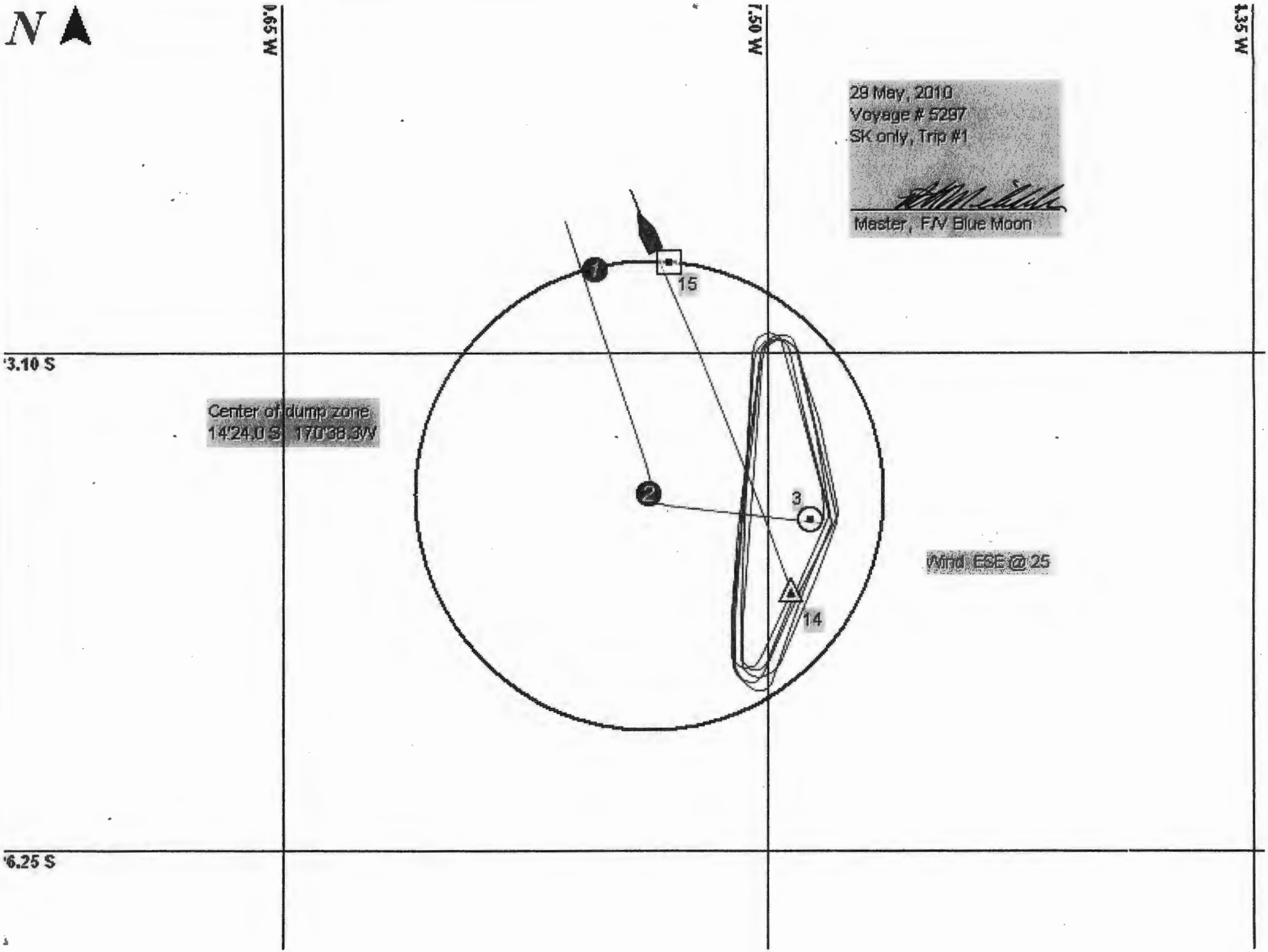
Total Discharge Time: 155 mins. Average Speed During Discharge: 9.4 kts. Total Time Run 4.66 hr.

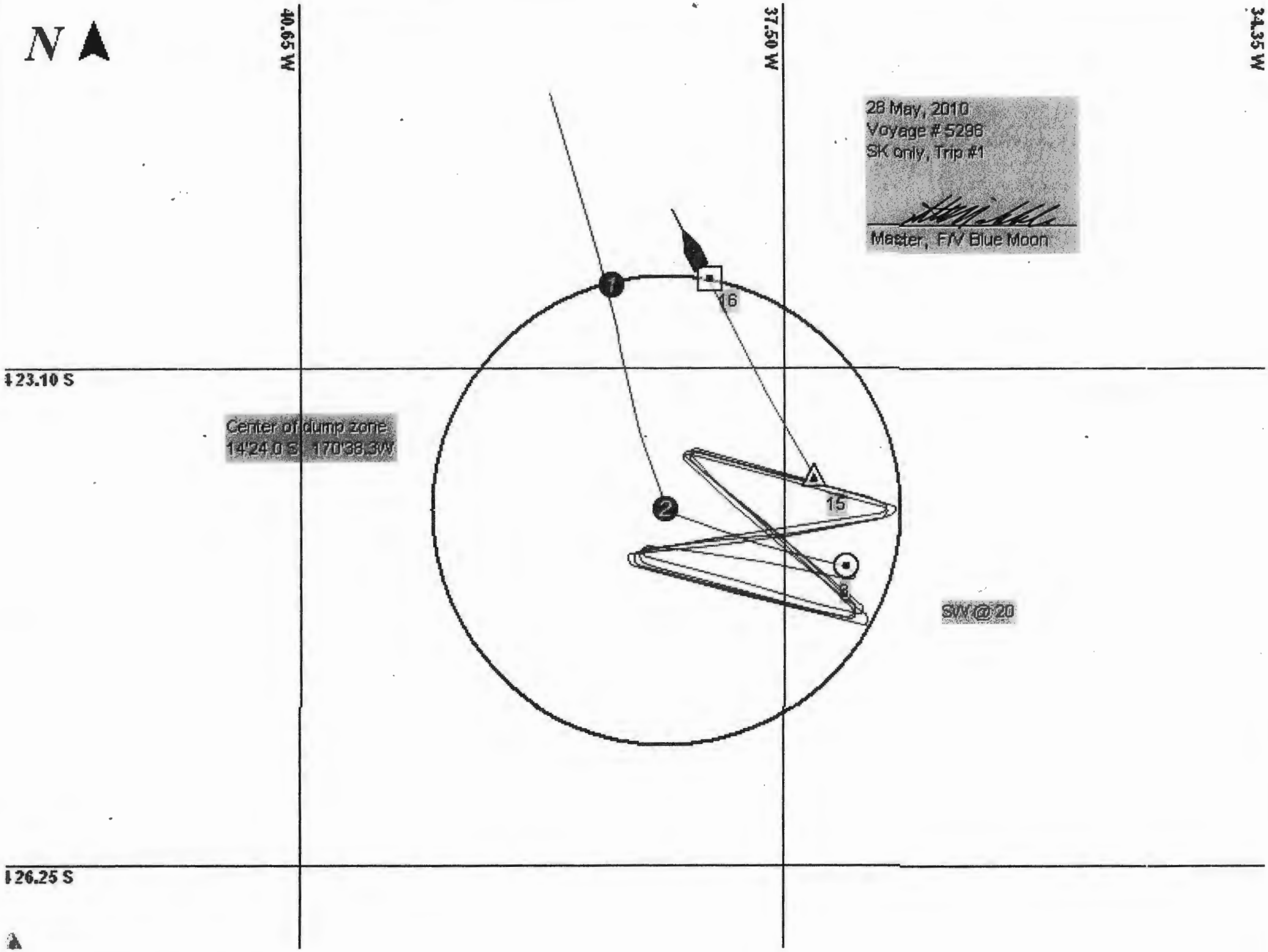
Navigational Plot made: yes Presence of Plume? none

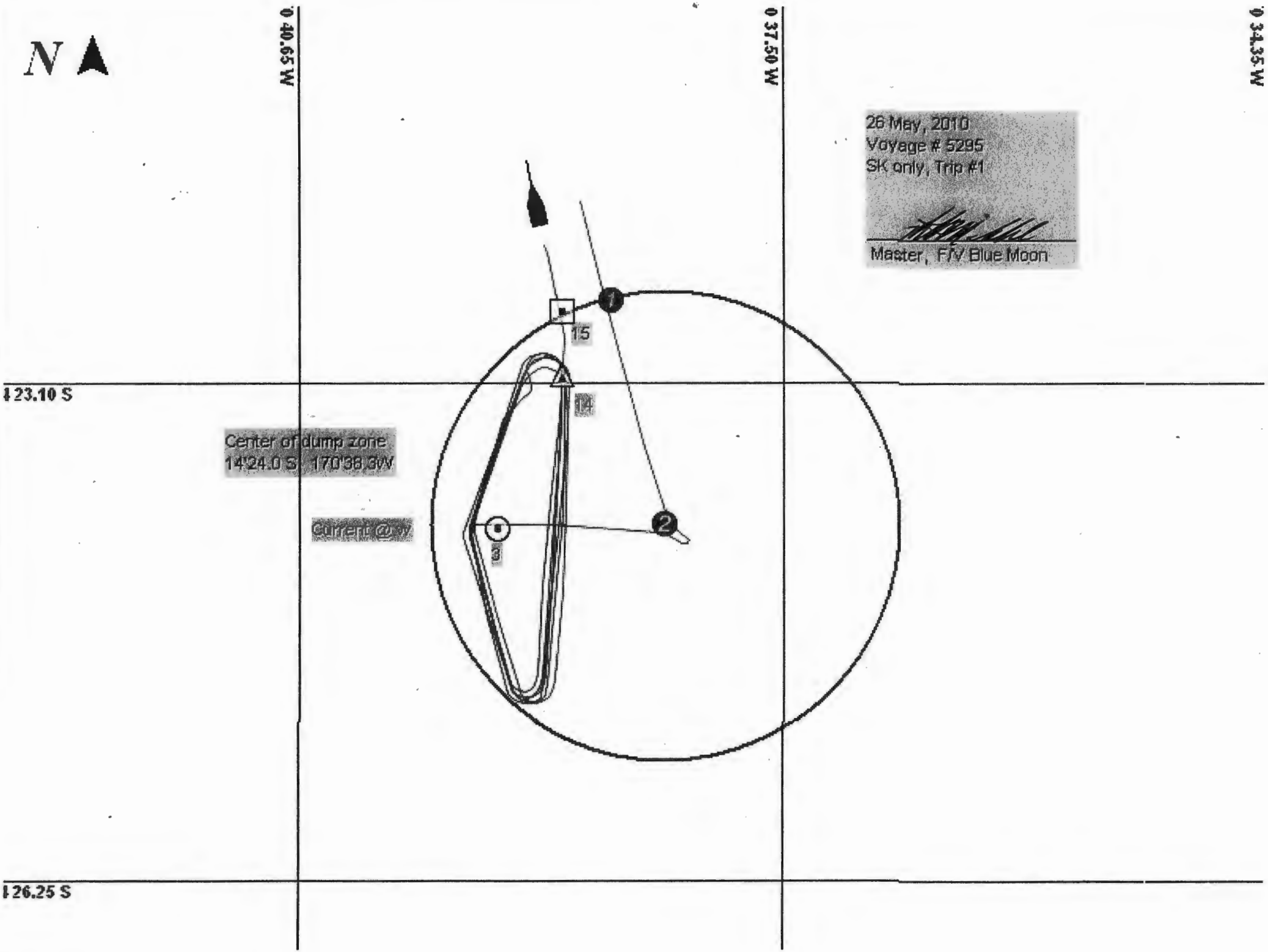
Time and position of any floating material: none Discharge Rate: 95.2 Gallons/min/kts

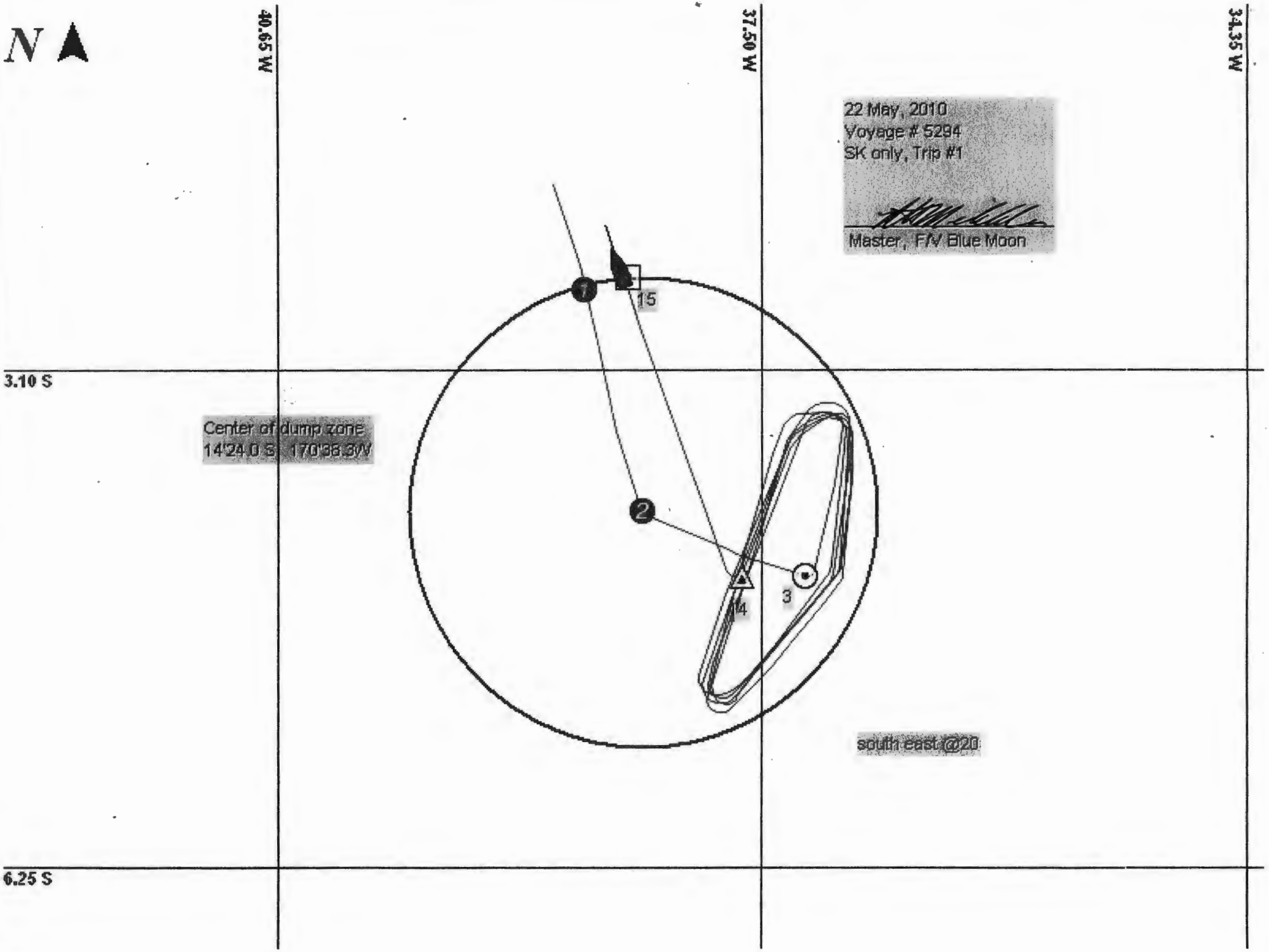
Unusual Occurrences? none

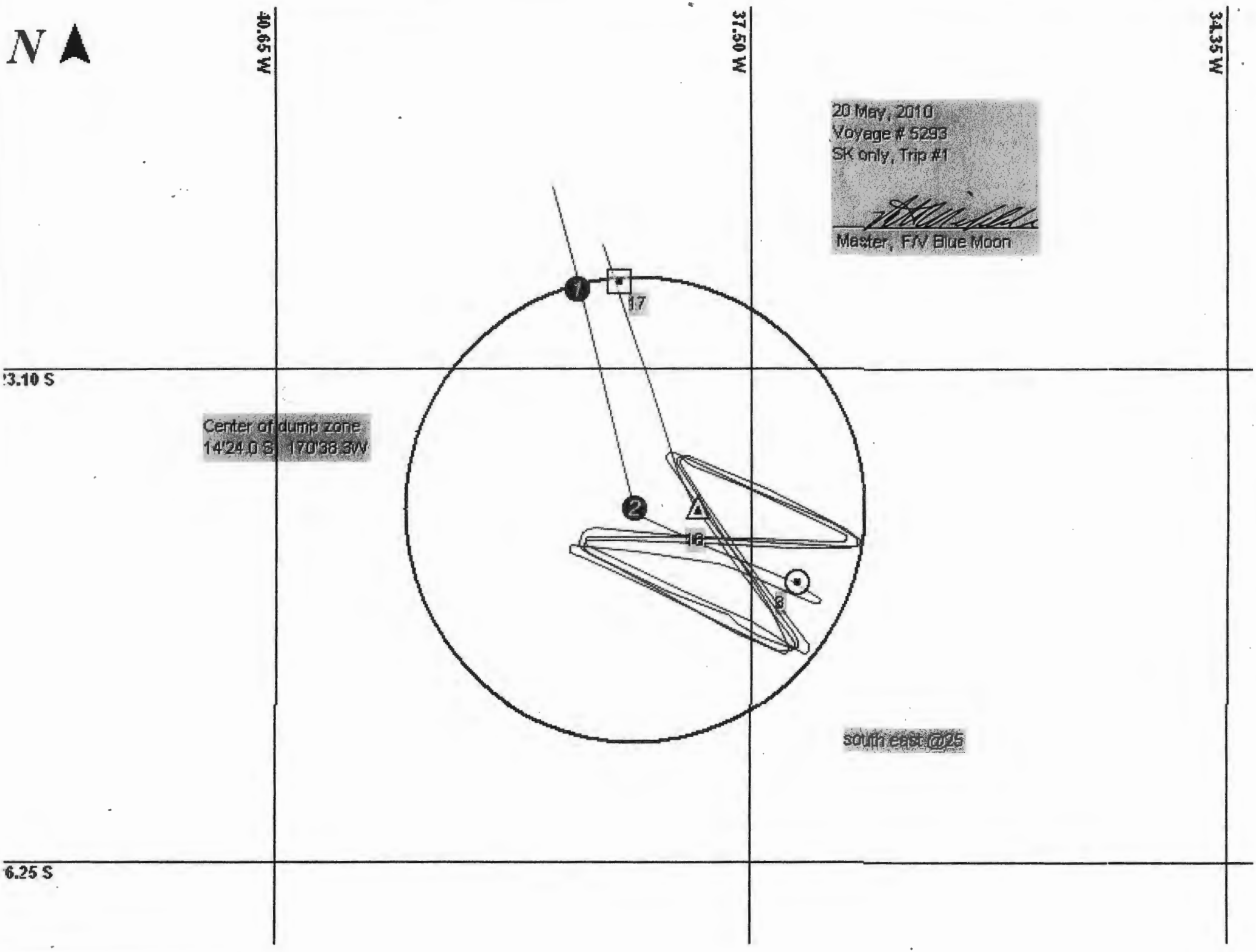
Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

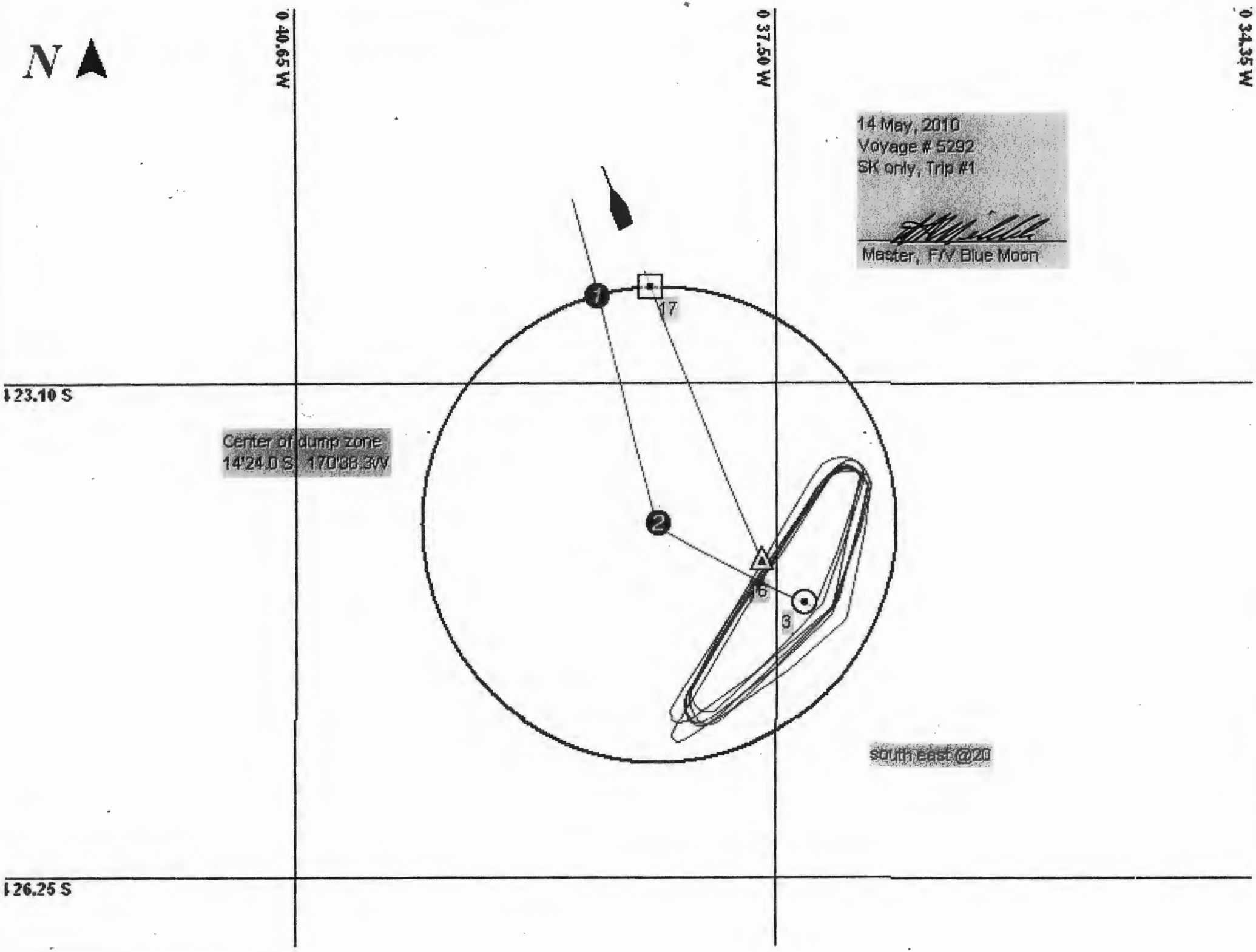

N
0.65 W
7.50 W
4.35 W
3.10 S
6.25 S
29 May, 2010
Voyage # 5297
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0'S 170°38.3'W
Wind ESE @ 25
1
2
3
14
15

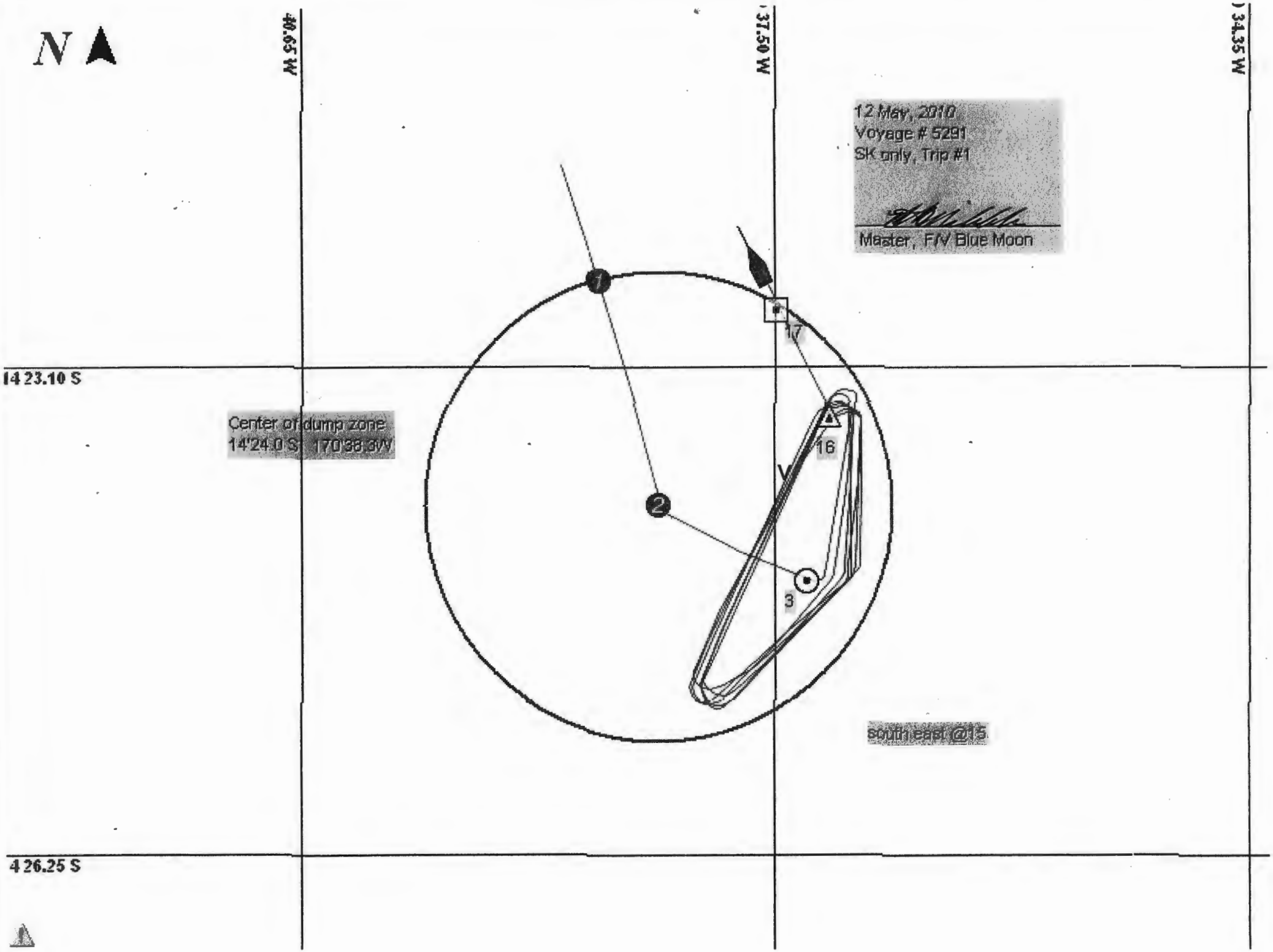

N
40.65 W
37.50 W
34.35 W
23.10 S
26.25 S
28 May, 2010
Voyage # 5296
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
1
2
3
15
16
SW @ 20

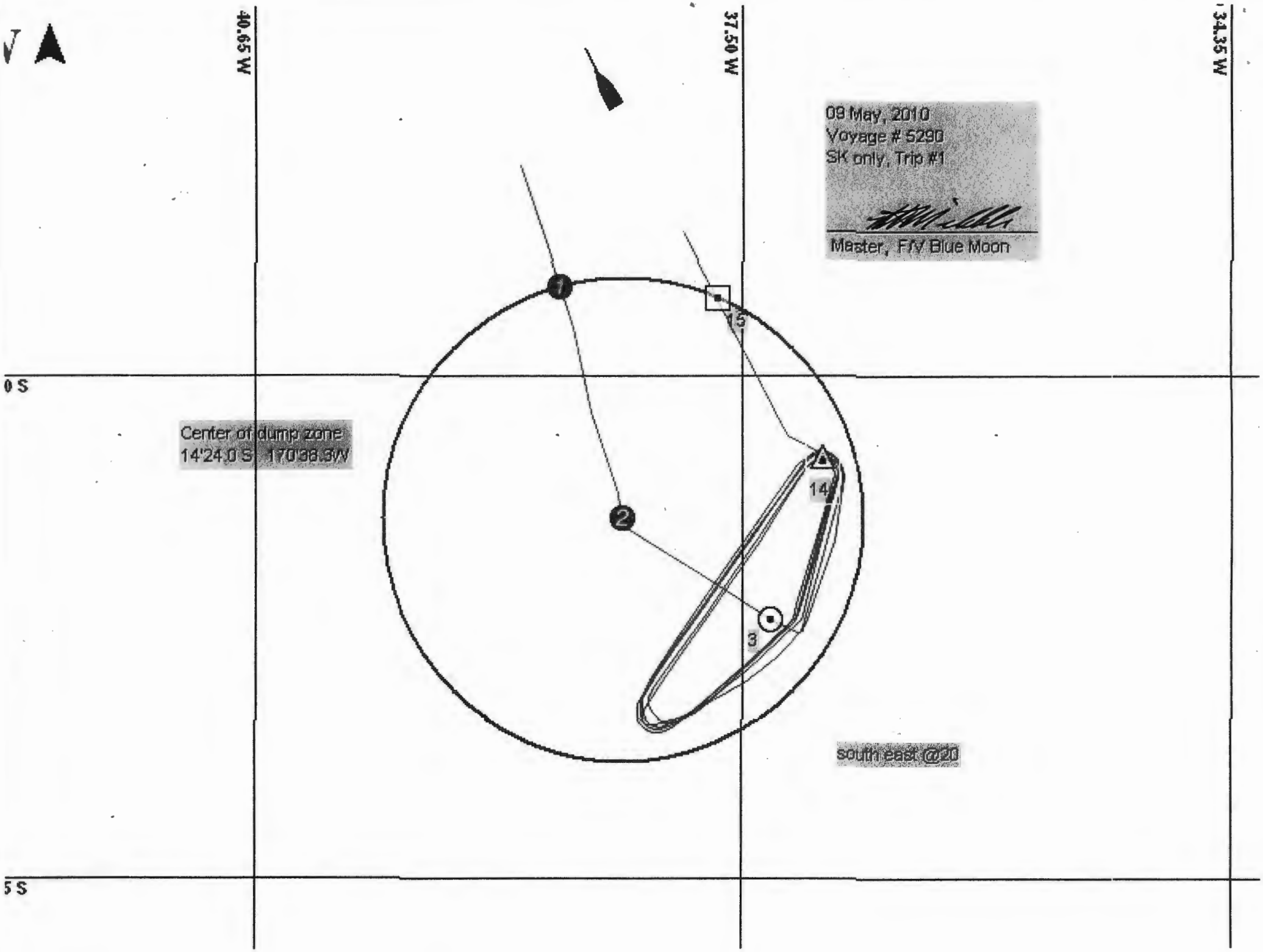

N
0 40.65 W
0 37.50 W
0 34.35 W
23.10 S
26.25 S
26 May, 2010
Voyage # 5295
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
Current @
1
2
3
14
15

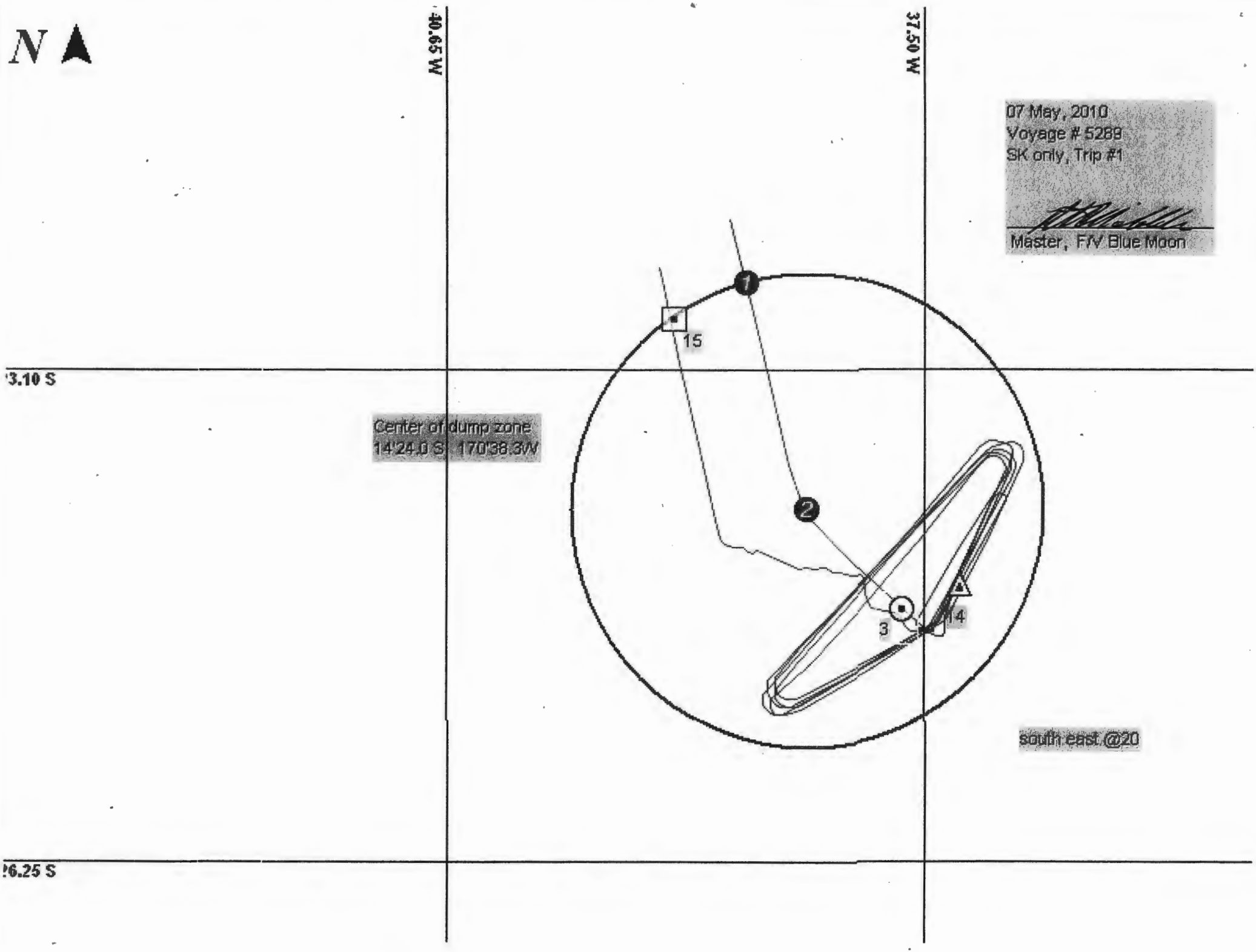

N
40.65 W
37.50 W
34.35 W
3.10 S
6.25 S
22 May, 2010
Voyage # 5294
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
south east @20
1
2
3
4
15

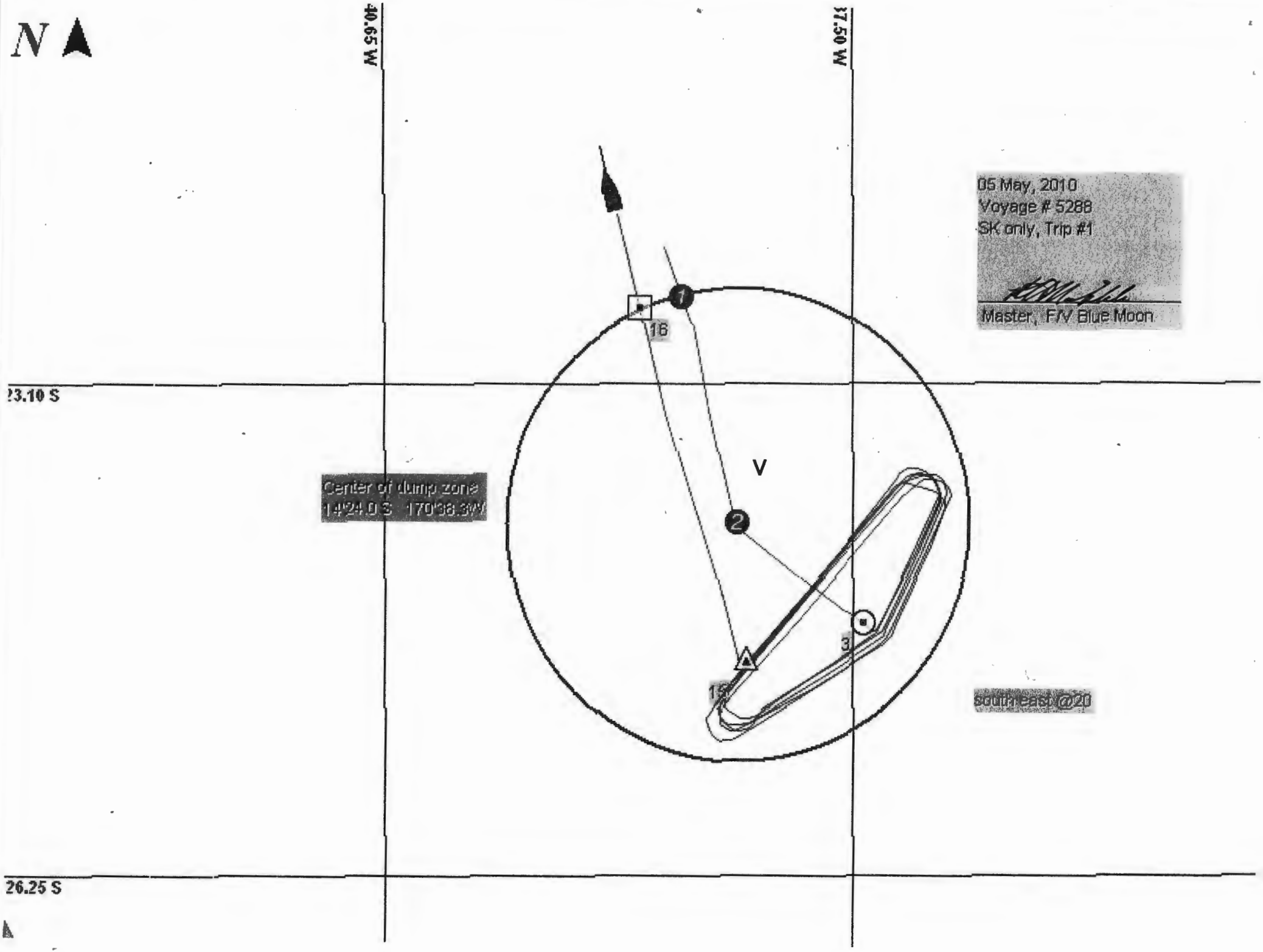

N
40.65 W
37.50 W
34.35 W
3.10 S
6.25 S
20 May, 2010
Voyage # 5293
SK only, Trip #1
Master, F/V Blue Moon
1
2
17
16
8
Center of dump zone
14°24.0 S 170°38.3W
south east @25

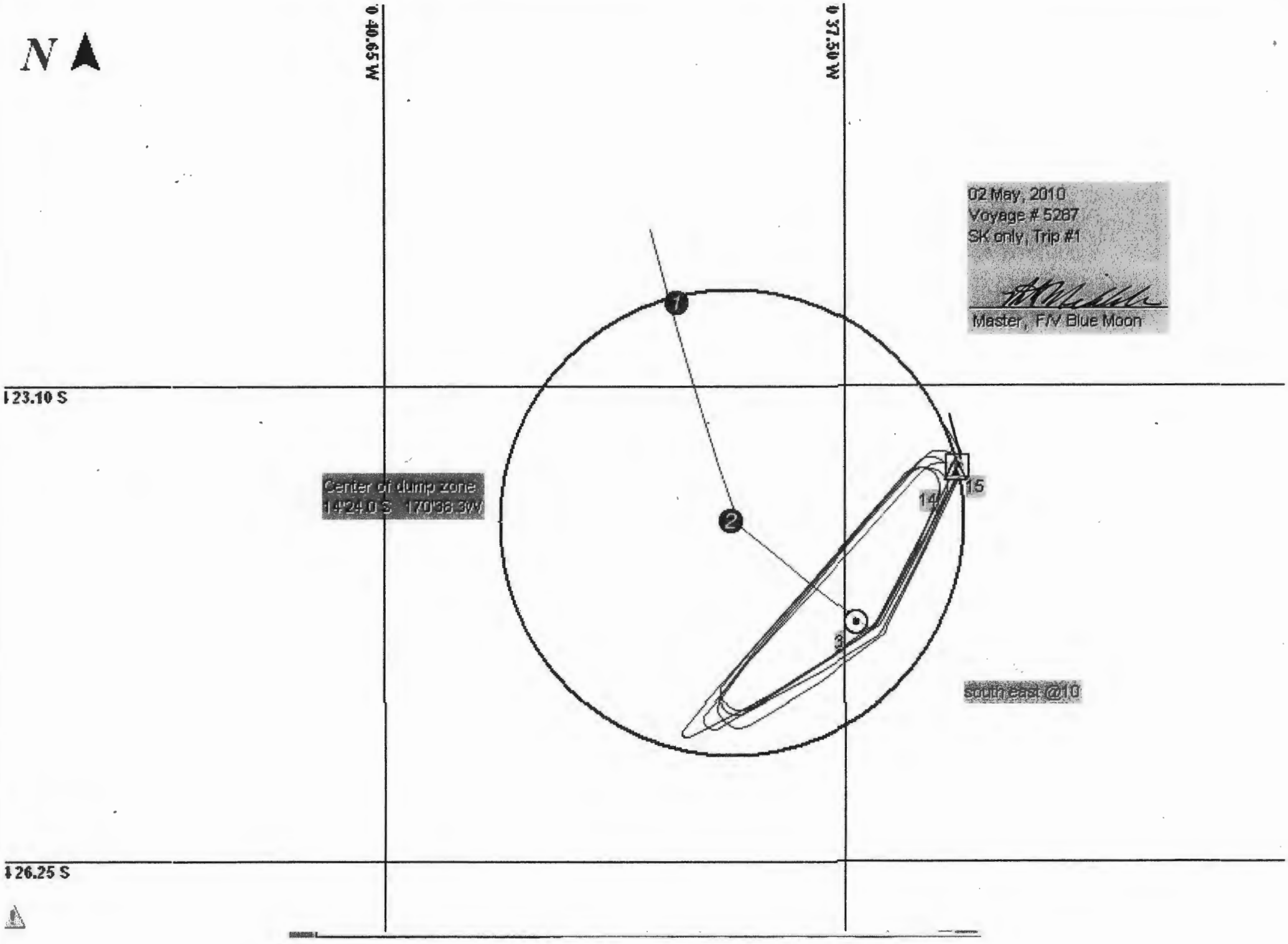

N
0 40.65 W
0 37.50 W
0 34.35 W
14 May, 2010
Voyage # 5292
SK only, Trip #1
Master, F/V Blue Moon
17
1
2
16
3
123.10 S
Center of dump zone
14°24.0 S 170°38.3W
south east @20
126.25 S


N
40.65 W
37.50 W
34.35 W
14 23.10 S
4 26.25 S
12 May, 2010
Voyage # 5291
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
1
2
3
16
17
south east @15


40.65 W
37.50 W
34.35 W
0 S
5 S
09 May, 2010
Voyage # 5290
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
south east @20
1
2
3
14
15


N
40.65 W
37.50 W
07 May, 2010
Voyage # 5288
SK only, Trip #1
Master, F/V Blue Moon
3.10 S
Center of dump zone
14 24.0 S 170 38.3W
1
2
3
14
15
south east @20
6.25 S


N
40.65 W
17.50 W
23.10 S
26.25 S
05 May, 2010
Voyage # 5288
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3 W
V
1
2
3
16
southeast @20


N
0 40.65 W
0 37.50 W
23.10 S
26.25 S
02 May, 2010
Voyage # 5287
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
1
2
3
14
15
south east @10

2010

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

10 June, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue moon
Chief investigator:	Mike Crook
Starkist Samoa Co. Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling Positions:	All positions obtained by Global Positioning Satellite Navigator (GPS)

Mike Crook
P.O. Box 4933 Pago Pago, AS
5/07/10

Introduction

On June 10, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0615: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master/Principal Investigator, Chief and Mate onboard.

0710: The *Blue Moon* entered the dumpzone circle @ 14*22.5' S / 170*38.7' W.

0720: The *Blue Moon* arrived at the dump-zone center, where observed southeasterly winds and moderate southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0730: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were moderate with SE swells to 2.0 meters and a southeast wind of 15 knots. Skies were cloudy with fair visibility and the barometer reading 29.66 Current set and drift, of the ship, were to the northwest at 1.2 knots. No floating materials or sea life were observed here.

0740: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical pattern (see Plot 1) until 1040 hrs.

1045: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had stayed steady at 15 knots with still cloudy skies. The waste plume had dissipated here and/or moved off to the northwest with no indication of the usual glassy surface sheen. The current/wind drift of the ship was now GPS determined to be northwesterly @ 1.5 knots. No sea life or floatable materials were observed.

1055: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position again, showed no sign of the typical glassy surface sheen of the waste plume, only clear natural blue appearing seawater. The average drift rate of the ship with current and wind was GPS determined to be northwesterly (NW) at 1.4 knots between stations 2 & 3 (See Plot #1). No sea-life or floatable materials were noted at this position.

1105: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was in the first area showing heavy glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was 1.25 knots again, to the NW.

1115: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM, NW of Station #3, showed the same visual characteristics of the waste plume as Station #3 with another extensive area of heavy surface sheen over natural clear blue water extending from NE to SW and roughly 2 miles long. There were no floating or suspended materials. The NW current/drift rate of the ship was again noted here to be at 1.35knots.

1120: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.25 NM southeast of the zone center. The leading edge of the waste plume was clearly visible at this location as a distinct line of demarcation between the heavy, glassy surface sheen and the clear, natural appearing blue waters further down-current to the NW. No notable sea life was observed at this position or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.67 when monitoring activities were concluded at 1130 hrs. The *Blue Moon* exited the disposal zone at 1140 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory (after fueling for 1.5 hours) at 1415 hours.

Prepared by _____
Mike Crook, Principal Investigator

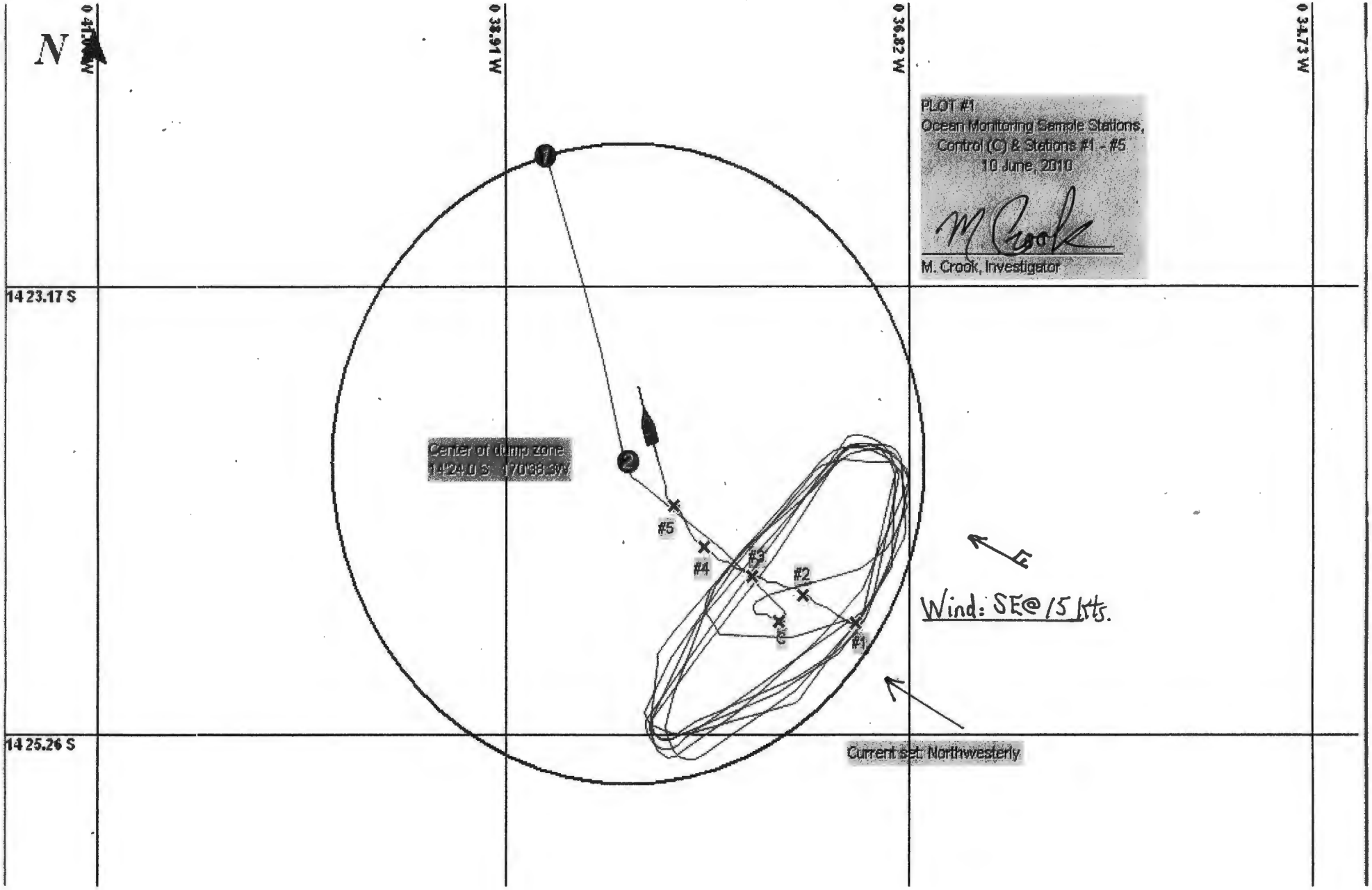
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 10 June, 2010	Sea Conditions: Moderate w/ Southeast (SE) swells to 2.0 meters. Wind: SE @ 15 knots Sky: Cloudy w/ passing rain Barometer: 29.65 – 2969. Current Set & Drift: Northwest @ average about 1.4 knots Visibility: Good to Poor in Rain					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0730	Control	1	27.2	8.5	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	27.2	8.5		
		10	27.2	8.5		
1045	Station 1	1	28.3	8.5	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	28.3	8.5		
		10	28.3	8.5		
1055	Station 2	1	28.3	8.5	None	Same as Control & Station #1.
		3	28.3	8.5		
		10	28.3	8.5		
1105	Station 3	1	28.3	8.6	Slightly Pungent	Heavy, glassy surface sheen over deep, clear blue. No floating or suspended particulate materials.
		3	28.3	8.6		
		10	27.8	8.6		
1115	Station 4	1	28.3	8.6	Pungent	Same as Station # 3.
		3	28.3	8.6		
		10	28.3	8.6		
1120	Station 5	1	28.3	8.6	Pungent	Leading edge of the waste plume: A clear demarcation line of moderate to heavy glassy surface sheen and clear blue water beyond down-current to NW. No floating or suspended particulate materials.
		3	28.3	8.6		
		10	28.3	8.6		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.73'	South	170° 37.48'	West
Station 1	14° 24.74'	South	170° 37.12'	West
Station 2	14° 24.62'	South	170° 37.34'	West
Station 3	14° 24.53'	South	170° 37.58'	West
Station 4	14° 24.42'	South	170° 37.84'	West
Station 5	14° 24.20'	South	170° 38.02'	West


N
0 41.00 W
0 38.91 W
0 36.82 W
0 34.73 W
14 23.17 S
14 25.26 S
PLOT #1
Ocean Monitoring Sample Stations,
Control (C) & Stations #1 - #5
10 June, 2010
M. Crook, Investigator
Center of dump zone
14°24.0 S 170°38.3W
#5
#4
#3
#2
C
#1
Wind: SE@15 kts.
Current set: Northwesterly

2010

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

10 June, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue moon
Chief investigator:	Mike Crook
Starkist Samoa Co. Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling Positions:	All positions obtained by Global Positioning Satellite Navigator (GPS)

Mike Crook
P.O. Box 4933 Pago Pago, AS
5/07/10

Introduction

On June 10, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0615: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master/Principal Investigator, Chief and Mate onboard.

0710: The *Blue Moon* entered the dumpzone circle @ 14*22.5' S / 170*38.7' W.

0720: The *Blue Moon* arrived at the dump-zone center, where observed southeasterly winds and moderate southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0730: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were moderate with SE swells to 2.0 meters and a southeast wind of 15 knots. Skies were cloudy with fair visibility and the barometer reading 29.66 Current set and drift, of the ship, were to the northwest at 1.2 knots. No floating materials or sea life were observed here.

0740: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical pattern (see Plot 1) until 1040 hrs.

1045: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had stayed steady at 15 knots with still cloudy skies. The waste plume had dissipated here and/or moved off to the northwest with no indication of the usual glassy surface sheen. The current/wind drift of the ship was now GPS determined to be northwesterly @ 1.5 knots. No sea life or floatable materials were observed.

1055: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position again, showed no sign of the typical glassy surface sheen of the waste plume, only clear natural blue appearing seawater. The average drift rate of the ship with current and wind was GPS determined to be northwesterly (NW) at 1.4 knots between stations 2 & 3 (See Plot #1). No sea-life or floatable materials were noted at this position.

1105: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was in the first area showing heavy glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was 1.25 knots again, to the NW.

1115: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM, NW of Station #3, showed the same visual characteristics of the waste plume as Station #3 with another extensive area of heavy surface sheen over natural clear blue water extending from NE to SW and roughly 2 miles long. There were no floating or suspended materials. The NW current/drift rate of the ship was again noted here to be at 1.35knots.

1120: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.25 NM southeast of the zone center. The leading edge of the waste plume was clearly visible at this location as a distinct line of demarcation between the heavy, glassy surface sheen and the clear, natural appearing blue waters further down-current to the NW. No notable sea life was observed at this position or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.67 when monitoring activities were concluded at 1130 hrs. The *Blue Moon* exited the disposal zone at 1140 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory (after fueling for 1.5 hours) at 1415 hours.

Prepared by _____
Mike Crook, Principal Investigator

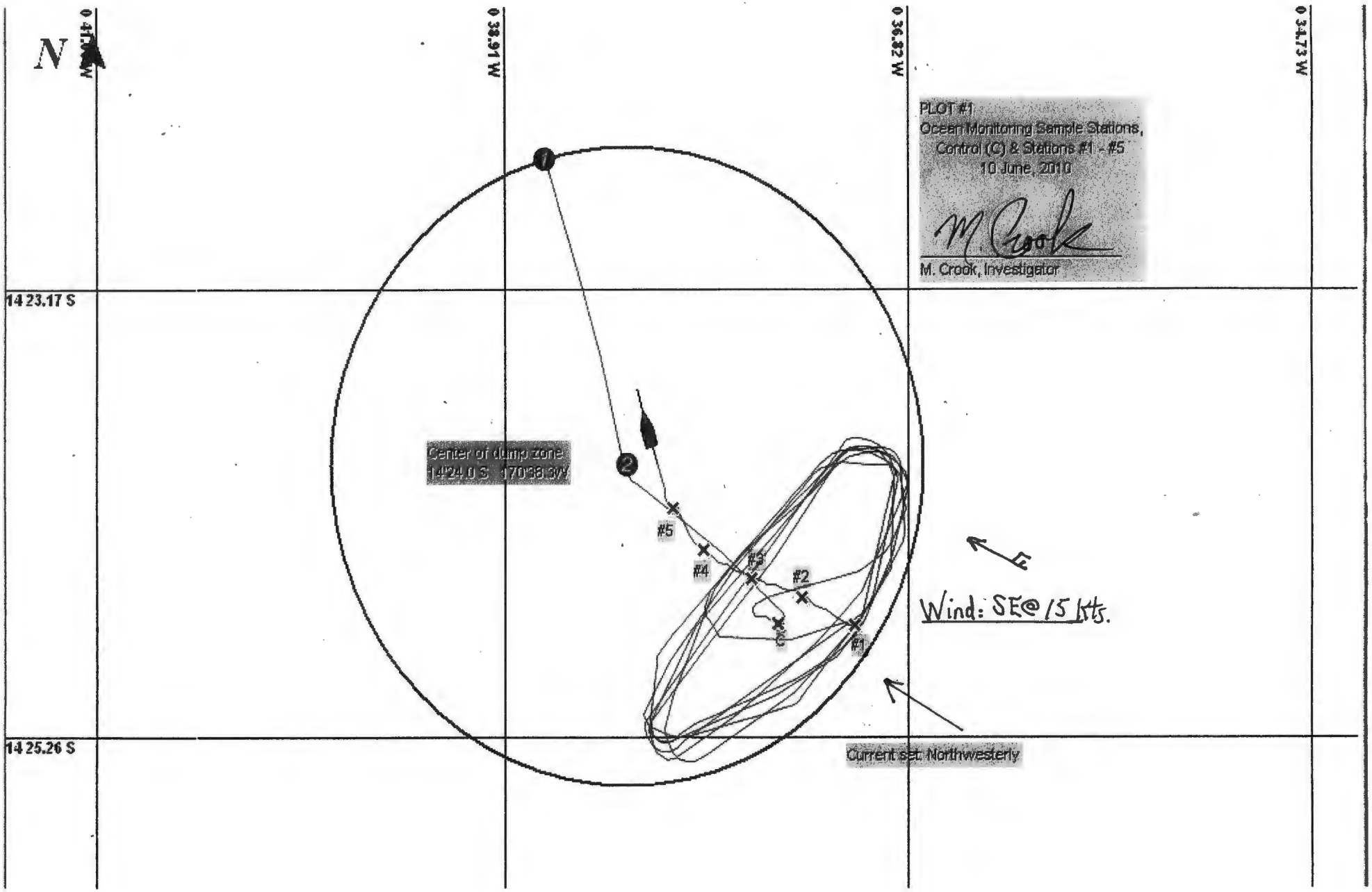
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 10 June, 2010	Sea Conditions: Moderate w/ Southeast (SE) swells to 2.0 meters. Wind: SE @ 15 knots Sky: Cloudy w/ passing rain Barometer: 29.65 – 2969. Current Set & Drift: Northwest @ average about 1.4 knots Visibility: Good to Poor in Rain					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0730	Control	1	27.2	8.5	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	27.2	8.5		
		10	27.2	8.5		
1045	Station 1	1	28.3	8.5	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	28.3	8.5		
		10	28.3	8.5		
1055	Station 2	1	28.3	8.5	None	Same as Control & Station #1.
		3	28.3	8.5		
		10	28.3	8.5		
1105	Station 3	1	28.3	8.6	Slightly Pungent	Heavy, glassy surface sheen over deep, clear blue. No floating or suspended particulate materials.
		3	28.3	8.6		
		10	27.8	8.6		
1115	Station 4	1	28.3	8.6	Pungent	Same as Station # 3.
		3	28.3	8.6		
		10	28.3	8.6		
1120	Station 5	1	28.3	8.6	Pungent	Leading edge of the waste plume: A clear demarcation line of moderate to heavy glassy surface sheen and clear blue water beyond down-current to NW. No floating or suspended particulate materials.
		3	28.3	8.6		
		10	28.3	8.6		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.73'	South	170° 37.48'	West
Station 1	14° 24.74'	South	170° 37.12'	West
Station 2	14° 24.62'	South	170° 37.34'	West
Station 3	14° 24.53'	South	170° 37.58'	West
Station 4	14° 24.42'	South	170° 37.84'	West
Station 5	14° 24.20'	South	170° 38.02'	West


N
0 41.[illegible] W
0 38.91 W
0 36.82 W
0 34.73 W
14 23.17 S
14 25.26 S
PLOT #1
Ocean Monitoring Sample Stations,
Control (C) & Stations #1 - #5
10 June, 2010
M. Crook, Investigator
Center of dump zone
14°24.0 S 170°38.3W
1
2
#5
#4
#3
#2
C
#1
Wind: SE@15 kts.
Current set: Northwesterly

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON June, 2010

NUMBER OF TRIPS:	SK:	SP:	JOINT:	TOTAL:
	13	0	0	**13**

GALLONS-FOR THE MONTH:	SK:	SP:	JOINT:	TOTAL:
	2,326,950	0	0	**2,326,950**

GALLONS FOR SOLO TRIPS:	SK:	SP:
	2,326,950	0

RUNNING TIME ON TRIPS: **67.9 hrs.**

DISCHARGE TIME ON TRIPS: **38.7 hrs.**

AV. GPM DISCHARGE RATE: **111 g/m/k**

AV. TRIP TIME: **5.22 hrs.**

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK:	COS:
100.00%	N/A

MASTER : ***M. Crook*** M. Crook

STAR KIST SAMOA CO
WATER TREATMENT DEPARTMENT

BLUE MOON - OCEAN DUMPING LOG

Reporting Date-July 01,2010

Trip Date	1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Volume
01-Jun-10	1st Trip	NONE	150000	2nd Trip	NONE	0
02-Jun-10	1st Trip	1530\2030 (153000)		2nd Trip	NONE	0
03-Jun-10	1st Trip	1205\0105 (27500)	180500	2nd Trip	NONE	0
04-Jun-10	1st Trip	1245\1815 (162500)		2nd Trip	NONE	0
05-Jun-10	1st Trip	2400\0100 (25000)	187500	2nd Trip	NONE	0
06-Jun-10	1st Trip	1530\1700 (40000)		2nd Trip	NONE	0
07-Jun-10	1st Trip	1300\1700 (115000)		2nd Trip	NONE	0
08-Jun-10	1st Trip	2415\0110 (15000)	170000	2nd Trip	NONE	0
09-Jun-10	1st Trip	1230\1800 (175000)		2nd Trip	NONE	0
10-Jun-10	1st Trip	2430\0130 (20000)	195000	2nd Trip	NONE	0
11-Jun-10	1st Trip	1445\2030 (186250)		2nd Trip	NONE	0
12-Jun-10	1st Trip	NONE	186250	2nd Trip	NONE	0
13-Jun-10	1st Trip	2345\0130 (50000)		2nd Trip	NONE	0
14-Jun-10	1st Trip	1215\1630 (126250)		2nd Trip	NONE	0
15-Jun-10	1st Trip	1830\2020 (59250)	176250	2nd Trip	NONE	0
16-Jun-10	1st Trip	1300\1915 (116250)		2nd Trip	NONE	0
17-Jun-10	1st Trip	1230\1430 (57500)	175500	2nd Trip	NONE	0
18-Jun-10	1st Trip	1230\1700 (132500)		2nd Trip	NONE	0
19-Jun-10	1st Trip	1415\1630 (64750)	190000	2nd Trip	NONE	0
20-Jun-10	1st Trip	1500\1845 (92500)		2nd Trip	NONE	0
21-Jun-10	1st Trip	0200\0300 (20000)		2nd Trip	NONE	0
22-Jun-10	1st Trip	1415\1715 (70000)	177250	2nd Trip	NONE	0
23-Jun-10	1st Trip	1415\1815 (117500)		2nd Trip	NONE	0
24-Jun-10	1st Trip	1420\1620 (60000)	187500	2nd Trip	NONE	0
25-Jun-10	1st Trip	1000\1445 (116200)		2nd Trip	NONE	0
26-Jun-10	1st Trip	1630\1830 (60000)	176200	2nd Trip	NONE	0
27-Jun-10	1st Trip	1500\1900 (115000)		2nd Trip	NONE	0
28-Jun-10	1st Trip	NONE		2nd Trip	NONE	0
29-Jun-10	1st Trip	1800\2015 (76250)	175000	2nd Trip	NONE	0
30-Jun-10	1st Trip	1540\1915 (116250)		2nd Trip	NONE	0
TOTAL	**1st Trip**		**2,326,950**	**2nd Trip**		**0**
					TOTAL 1st & 2nd Trip	**2,326,950**

cc:
Blue Moon- Captain

Date: 06/01/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5298

Permit # OD 93-01 & OD 93-02

Time		
	Begin Loading SK	
	Finish Loading SK	
	Begin Loading SK	
	Finish Loading SK	

Trip # 1 - X

Trip # 2

Volume Loaded:		
SK		Gallons
SP		Gallons
Total	150 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W		70	29.65	Metric	kts	True*
0703	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		70	29.65	1.5	9.1	166°
0712	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		70	29.65	1.5	9.1	164°
0720	Begin Discharge	# 3	14*2 4.4	S	170*3 7.5	W	SE 20	70	29.65	1.5 X	8.9	120°
35		# 4	14*2 4.3	S	170*3 8.4	W	SE 25	70	29.65	1.5	9.2	121°
50	Remarks:	# 5	14*2 3.9	S	170*3 7.9	W	SE 25	70	29.65	1.5	9.9	329°
0805		# 6	14*2 4.3	S	170*3 7.3	W	SE 25	60	29.65	1.5	10	277°
20		# 7	14*2 4.5	S	170*3 8.0	W	SE 25	60	29.65	1.5 5	9.2	120°
35		# 8	14*2 3.8	S	170*3 7.9	W	SE 25	50	29.65	1.5	9.9	328°
50		# 9	14*2 4.2	S	170*3 7.8	W	SE 25	50	29.65	15	10.2	277°
0905		# 10	14*2 4.4	S	170*3 7.6	W	SE 25	70	29.65	1.5	10.1	329°
20		# 11	14*2 4.2	S	170*3 7.6	W	SE 25	70	29.65	1.5	10.	279°
35		# 12	14*2 4.4	S	170*3 8.1	W	SE 25	70	29.65	1.5 10	9.6	123°
50		# 13	14*2 3.9	S	170*3 7.7	W	SE 25	70	29.65	1.5	9.8	121°
1005		# 14	14*2 4.7	S	170*3 7.5	W	SE 25	70	29.65	1.5	9.7	131°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1015	Finish Discharge	15	14*2 4.4	S	170*3 7.6	W	SE 25	70	29.65	1.5	10	340°
1030	Exit Discharge Zone	16	14*2 2.4	S	170*3 8.4	W	SE 25	70	29.65	1.5	10	393°
1115	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 175 mins. Average Speed During Discharge: 9.7 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 88.3 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 06/03/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5299

Permit # OD 93-01 & OD 93-02

Time		
	Begin Loading SK	
	Finish Loading SK	
	Begin Loading SK	
	Finish Loading SK	

Trip # 1 - X
Trip # 2

Volume Loaded: SK 185 500 Gallons
SP — Gallons
Total 185 500 Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W		80	29.65			
0705	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		80	29.65	2	8.9	169°
0715	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		80	29.65	2	8.8	164°
20	Begin Discharge	# 3	14*2 4.2	S	170*3 7.4	W	SE 20	80	29.65	2 X	8.7	105°
35		# 4	14*2 3.7	S	170*3 7.4	W	SE 20	80	29.65	2	9	195°
50	Remarks:	# 5	14*2 5.2	S	170*3 7.6	W	SE 20	80	29.65	2	8.9	045°
0805		# 6	14*2 3.2	S	170*3 7.3	W	SE 20	80	29.65	1.5	8.9	202°
20		# 7	14*2 5.0	S	170*3 7.8	W	SE 20	80	29.65	1.5 5	9	185°
35		# 8	14*2 3.2	S	170*3 7.0	W	SE 20	80	29.65	1.5	9.4	346°
50		# 9	14*2 4.8	S	170*3 7.8	W	SE20	80	29.65	1.5	9	195°
0905		# 10	14*2 3.4	S	170*3 7.6	W	SE20	80	29.65	1.5	9.5	256°
20		# 11	14*2 4.9	S	170*3 7.8	W	SE 20	80	29.65	1.5	9.7	189°
35		# 12	14*2 3.8	S	170*3 7.0	W	SE20	80	29.65	1.5 10	9.9	354°
50		# 13	14*2 4.8	S	170*3 7.8	W	SE20	80	29.65	1.5	9.9	196°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0955	Finish Discharge	14	14*2 4.6	S	170*3 7.7	W	SE20	80	29.65	1.5	10	344°
1010	Exit Discharge Zone.	15	14*2 2.6	S	170*3 8.4	W	SE20	80	29.65	1.5	10	343°
1050	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 155 mins. Average Speed During Discharge: 9.35 kts. Total Time Run 4.58 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 132.9 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 06/05/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5300

Permit # OD 93-01 & OD 93-02

	Time	
6/4	1245	Begin Loading SK
	1815	Finish Loading SK
6/5	000	Begin Loading SK
	0100	Finish Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	187,500	Gallons
SP	0	Gallons
Total	187,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	SE-12	100	29.65'			
0703	Arrive Edge of Zone	# 1	14*22.51' S	170*38.69' W	SE-15	75%	29.67'	SE-1.5	8.6	164
0713	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	60%	29.68'	" "	8.7	165
0722	Begin Discharge	# 3	14*24.72' S	170*37.43' W	" "	"	29.69	" " X	8.7	135
0737		# 4	14*24.53' S	170*37.82' W	" "	70	" "	" "	8.7	224
" 52	Remarks:	# 5	14*24.77' S	170*36.85' W		"	" "		9.6	358
0807		# 6	14*25.08' S	170*38.09' W		50	" "		9.0	186
22		# 7	14*24.17' S	170*37.28' W		"	" "	5	9.2	223
37		# 8	14*24.93' S	170*37.38' W		"	" "		9.4	059
52		# 9	14*24.58' S	170*37.69' W		60	" "		9.4	221
0907		# 10	14*24.50' S	170*36.93' W		70	" "		9.8	006
22		# 11	14*25.29' S	170*37.96' W		80	" "		8.2	120
37		# 12	14*23.90' S	170*37.09' W		"		10	8.9	251
52		# 13	14*24.75' S	170*37.13' W		90			9.2	008
1007		# 14	14*24.49 S	170*37.81' W		"	29.70		9.0	197
22		# 15	14*2 S	170*3 W						
37		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*24.58' S	170*37.88' W	SE-15	90%	29.70	SE-1.5	9.8	341
1032	Exit Discharge Zone	#16	14*22.52' S	170*38.46 W	" "	"	" "	" "	10.1	343
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 178 mins. Average Speed During Discharge: 9.15 kts. Total Time Run 5.15 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 115 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cooke

Date: 06/08/10 - Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5301

Permit # OD 93-01 & OD 93-02

	Time	
6/6	1530	Begin 1st Loading SK
	1700	Finish 1st Loading SK
6/7	1300	Begin 2nd Loading SK
	1700	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:

SK	170,000	Gallons
SP	0	Gallons
Total	170,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	SE-10	90%	29.60			
0654	Arrive Edge of Zone	# 1	14*22.55' S	170*38.65' W	SE-10	75	29.62	SE-1.5	9.1	162
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.61	" "	9.1	159
0714	Begin Discharge	# 3	14*24.66' S	170*37.47' W	" "	"	" "	" " X	9.0	135
" 29		# 4	14*24.59' S	170*37.84' W	" "	"	29.62	" "	8.8	227
" 44	Remarks:	# 5	14*24.51' S	170*36.93' W	" "	"			8.7	004
" 59		# 6	14*24.79' S	170*38.05' W	SE-12	80			9.0	221
0814		# 7	14*24.20' S	170*37.18' W	" "	"		5	9.0	224
" 29		# 8	14*24.93' S	170*37.41' W		"			9.5	049
" 44		# 9	14*24.70' S	170*37.92' W		75			8.9	206
" 59		# 10	14*23.95' S	170*36.89' W		"			8.5	302
0914		# 11	14*25.12' S	170*37.68' W	SE-15	70			8.9	048
" 29		# 12	14*24.25' S	170*37.34' W				10	8.8	207
" 44		# 13	14*24.20' S	170*36.89' W					9.2	003
" 59		# 14	14*24.99' S	170*38.07' W					9.4	222
1014		# 15	14*24.05' S	170*36.86' W			29.63		9.2	000
" 29		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1022	Finish Discharge	#16	14*24.02' S	170*37.15' W	SE-15	70%	29.63	SE-1.5	9.7	346
1031	Exit Discharge Zone.	#17	14*22.63' S	170*37.61' W	" "	"	"	" "	10.1	339
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 188 mins. Average Speed During Discharge: 9.04 kts. Total Time Run 5.3 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 100 Gallons/min/kts

Unusuall Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 06/10/10 - Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5302

Permit # OD 93-01 & OD 93-02

	Time	
6/9	1230	Begin 1st Loading SK
	1800	Finish 1st Loading SK
	0030	Begin 2nd Loading SK
6/10	0130	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
	SK	195,000	Gallons
	SP	0	Gallons
	Total	195,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	SE-12	100	29.65			
0710	Arrive Edge of Zone	# 1	14*22.52' S	170*38.67 W	SE-15	"	"	SE-1.5	8.5	166
0720	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.66	SE-2.0	8.6	164
0740	Begin Discharge	# 3	14*24.63' S	170*37.57 W	" "	"	"	" " X	7.4	053
55		# 4	14*24.64' S	170*37.86' W	" "	"	29.67	" "	8.6	218
0810	Remarks:	# 5	14*24.85' S	170*37.17' W					8.9	032
25	Ocean Monitoring	# 6	14*24.64' S	170*37.85' W					8.6	220
40	Conducted.	# 7	14*24.38' S	170*38.67 W				5	9.1	006
55	Control Samples	# 8	14*24.98' S	170*38.02 W			29.68		8.6	200
0910	drawn@0730	# 9	14*24.30' S	170*36.91' W		RAIN-100%			9.4	003
25	Posn: 14°24.73'S	# 10	14*25.06' S	170*38.07' W		" "	29.69		8.9	218
40	x 170°37.48' W	# 11	14*23.91' S	170*37.14' W		100%	"		8.5	226
55		# 12	14*24.97' S	170*37.31' W		"	"	10	9.3	028
1010		# 13	14*24.22' S	170*37.49' W		"	"		9.1	224
25		# 14	14*24.86' S	170*37.33' W		"	"		9.6	041
40		# 15	14*2 S	170*3 W						
55		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1040	Finish Discharge	#15	14*24.63' S	170*37.86' W	SE-15	100%	29.69	SE-2.0	9.8	223
1140	Exit Discharge Zone.	#16	14*22.57' S	170*38.57' W	" "	"	29.67	" "	10.2	358
1415	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 6.25 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 122 Gallons/min/kts

Unusual Occurrences? None (Fueling + Monitoring)

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 06/12/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5303

Permit # OD 93-01 & OD 93-02

	Time	
6/11	1445	Begin 1st Loading SK
	2030	Finish 1st Loading SK
		Begin 2nd Loading SK
		Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
	SK	186,250	Gallons
	SP	0	Gallons
	Total	186,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0600	Depart Starkist		14*16.50' S	170* 41.2' W	East-12	100	29.63			
0647	Arrive Edge of Zone	# 1	14*22.53' S	170*38.73 W	SE-12	"	"	SE-1.5	8.8	162
0656	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	9.0	164
0705	Begin Discharge	# 3	14*24.78' S	170*37.60' W			29.64	X	8.9	135
20		# 4	14*24.50' S	170*37.73' W			"		9.2	224
35	Remarks:	# 5	14*24.59' S	170*36.96' W			29.65		8.7	013
50		# 6	14*24.64' S	170*37.90' W			"		9.4	226
0805		# 7	14*24.76' S	170*37.09' W			"	5	9.0	035
20		# 8	14*24.81' S	170*38.10' W			29.67		8.9	212
35		# 9	14*24.12' S	170*36.85' W	SE-15	90	"		9.2	011
50		# 10	14*25.27' S	170*38.26' W	" "	"	29.68		8.7	174
0905		# 11	14*24.21' S	170*36.84' W	" "	"	29.69		9.5	016
20		# 12	14*24.92' S	170*37.67' W	" "	"	"	10	9.4	061
35		# 13	14*24.26' S	170*37.51' W	" "	100-Rain			9.6	224
50		# 14	14*24.84' S	170*37.17' W		100%			9.3	068
1005		# 15	14*2 S	170*3 W						
20		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0955	Finish Discharge	#15	14*24.06' S	170*37.21' W	SE-15	90%	29.69	SE-1.5	10.0	342
1005	Exit Discharge Zone	#16	14*22.71' S	170*37.66' W	" "	"	"	" "	10.1	336
1055	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.2 kts. Total Time Run 4.9 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 119 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Rooks

Date: 06/15/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5304

Permit # OD 93-01 & OD 93-02

	Time	
5/13	2345	Begin 1st Loading SK
	0130	Finish 1st Loading SK
	1215	Begin 2nd Loading SK
5/14	1630	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	176,250	Gallons
SP	0	Gallons
Total		Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	SE-3	90%	29.60			
0702	Arrive Edge of Zone	# 1	14*22. 54' S	170*38. 66' W	SE-10	80	29.61	SE-1.5	9.1	164
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.61	" "	9.1	160
0720	Begin Discharge	# 3	14*24.64' S	170*37.46' W	" "	"	"	" " X	9.0	135
35		# 4	14*24.69' S	170*37.89' W	" "	"	29.62	" "	9.4	221
50	Remarks:	# 5	14*24.51' S	170*36.98' W	" "	70	"	" "	9.1	029
0805		# 6	14*24.85' S	170*38.13' W	" "	"	"		9.6	228
20		# 7	14*24.42' S	170*36.94' W	" "	60	"	5	9.1	011
35		# 8	14*25.26' S	170*38.18' W	ESE-10	"	"		8.5	126
50		# 9	14*24.35' S	170*37.65' W		"	"		9.7	229
0905		# 10	14*25.09' S	170*37.86' W		50%	"		9.2	063
20		# 11	14*24.34' S	170*37.54' W		"			9.8	224
35		# 12	14*24.94' S	170*37.37' W		70		10	9.2	041
50		# 13	14*24.81' S	170*37.96' W	SE-10	"			9.7	217
1005		# 14	14*24.67' S	170*37.06' W	"	85			9.3	028
20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1015	Finish Discharge	#15	14*24.21' S	170*37.40' W	SE-10	85%	29.62	SE-1.5	9.4	230
1027	Exit Discharge Zone	#16	14*22.59' S	170*38.27' W	" "	"	"	" "	9.7	338
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 9.3 kts. Total Time Run 5.1 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 108 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

1/1-6

Date: 06/17/10 – Thurs. F/V Blue Moon Ocean Dumping Log Voyage #: 5305

Permit # OD 93-01 & OD 93-02

	Time	
1/15	1830	Begin 1st Loading SK
	2020	Finish 1st Loading SK
1/16	1300	Begin 2nd Loading SK
	1915	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:		
SK	175,500	Gallons
SP	0	Gallons
Total	175,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	SE-15	100%	29.71			
0700	Arrive Edge of Zone	# 1	14*22.55' S	170*38.64' W	SE-20	"	"	SE-2.5	8.5	165
0711	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.72	" "	8.1	142
0720	Begin Discharge	# 3	14*24.43' S	170*37.30' W	" "	"	"	" " X	8.0	115
35		# 4	14*25.17' S	170*37.98' W	SE-22	90	29.73	" "	7.4	109
50	Remarks:	# 5	14*24.22' S	170*38.02' W	" "	95	"	" "	9.5	320°
0805		# 6	14*24.61' S	170*37.42' W	" "	100	29.74	" "	9.7	253°
20		# 7	14*25.02' S	170*37.44' W	SE-25	Light Rain	"	" " 5	8.6	312
35		# 8	14*24.31' S	170*37.20' W	" "	" "	"		7.9	110
50		# 9	14*27.80' S	170*38.28' W	" "	RAIN-100	"	" "	9.8	251
0905		# 10	14*24.19' S	170*38.04' W	" "	85%	"	" "	9.7	324
20		# 11	14*24.61' S	170*37.92' W		"		SE-3.0	10.0	297
35		# 12	14*24.92' S	170*37.58' W		90		10	9.3	329
50		# 13	14*24.36' S	170*37.09' W		"			8.0	115
1005		# 14	14*25.28' S	170*37.81' W		100%			8.3	088
20		# 15	14*24.34' S	170*37.29' W					9.9	291
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1023	Finish Discharge	#16	14*24.13' S	170*37.63' W	SE-25	100%	29.74	SE-3.0	10.0	277
1034	Exit Discharge Zone.	#17	14*22.54' S	170*38.42' W	" "	"	"	" "	10.2	341
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure 8

Total Discharge Time: 183 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.25 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 107 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 06/19/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5306

Permit # OD 93-01 & OD 93-02

	Time	
	1230	Begin 1st Loading SK
117	1430	Finish 1st Loading SK
	1230	Begin 2nd Loading SK
5/18	1700	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:		
SK	190,000	Gallons
SP	0	Gallons
Total	190,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	SE-15	100	29.70			
0701	Arrive Edge of Zone	# 1	14*22. 56' S	170*38. 68' W	SE-20	100-Rain	"	SE-2.5	8.1	163
0711	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	90	29.72	" "	8.0	158
0721	Begin Discharge	# 3	14*2 4.47' S	170*37.29' W	SE-22	80	29.71	" " X	7.8	115
36		# 4	14*2 5.13' S	170*3 8.11' W	" "	"	" "	" "	8.0	115
51	Remarks:	# 5	14*2 4.12' S	170*3 7.97' W		"			8.1	110
0806		# 6	14*2 4.71' S	170*3 7.43' W		75			9.4	258
21		# 7	14*2 5.00' S	170*3 7.64' W	SE-25	80		5	9.8	320
36		# 8	14*2 4.25' S	170*3 7.63' W	" "	"			8.0	113
51		# 9	14*2 4.86' S	170*3 8.36' W	SE-22	90			9.7	261
0906		# 10	14*2 4.47' S	170*3 8.03' W	" "	"			9.8	320
21		# 11	14*2 4.66' S	170*3 7.50' W	" "	80	29.72		9.8	260
36		# 12	14*2 5.62' S	170*3 7.70' W	SE-25	70	"	10	10.0	327
51		# 13	14*2 4.30' S	170*3 7.39' W	" "	60	"		7.9	105
1006		# 14	14*2 5.00' S	170*3 3.28' W		50			8.3	098
21		# 15	14*2 S	170*3 . W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*2 4.18' S	170*3 8.14' W	SE-25	50 %	29.72	SE-2.5	9.8	344
1031	Exit Discharge Zone.	#16	14*2 2.51' S	170*3 8.64' W	" "	"	"	" "	10.1	341
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure 8

Total Discharge Time: 179 mins. Average Speed During Discharge: 8.95 kts. Total Time Run 5.15 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 118.6 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 06/22/10 – Tues. F/V Blue Moon Ocean Dumping Log Voyage #: 5307

Permit # OD 93-01 & OD 93-02

	Time	
5/19	1415	Begin 1st Loading SK
	1630	Finish 1st Loading SK
5/20	1500	Begin 2nd Loading SK
	1845	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:		
SK	177,250	Gallons
SP	0	Gallons
Total	177,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0600	Depart Starkist		14*16.50' S	170*41.2' W	SE-15+	100	29.57			
0655	Arrive Edge of Zone	#1	14*22.51' S	170*38.67' W	SE-20	90	"	SE-3+	8.1	164
0707	Arrive Zone Center	#2	14*24.0 S	170*38.3 W	" "	100	"	" "	7.9	162
0715	Begin Discharge	#3	14*24.39' S	170*37.27' W	" "	"	29.59	" " X	7.7	115
30		#4	14*25.11' S	170*37.82' W	" "	Rain 100	"		8.0	110
45	Remarks:	#5	14*24.20' S	170*38.04 W	" "	"	"		7.9	111
0800		#6	14*24.69' S	170*37.57' W	" "	100%			9.1	256
15		#7	14*24.88' S	170*37.51' W	" "			5	9.2	312
30		#8	14*24.17' S	170*37.47' W	SE-25				8.1	112
45		#9	14*24.74' S	170*38.22' W	" "				9.4	248
0900		#10	14*24.33' S	170*38.05' W	" "	90			9.6	309
15		#11	14*24.45' S	170*37.07' W	" "				8.3	125
30		#12	14*25.11' S	170*37.86' W	" "		29.58	10	8.0	102
45		#13	14*24.01' S	170*37.91' W					8.2	107
1000		#14	14*24.65' S	170*37.90' W				SE-3	9.8	251
15		#15	14*24.89' S	170*37.58' W				" "	9.6	321
30		#16	14*2 S	170*3 W						
		#17	14*2 S	170*3 W				15		
		#18	14*2 S	170*3 W						
		#19	14*2 S	170*3 W						
		#20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#16	14*24.15' S	170*38.08' W	SE-25	90%	29.58	SE-3	9.9	326
1030	Exit Discharge Zone	#17	14*22.58' S	170*38.60' W	" "	"	"	" "	9.9	341
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure 8

Total Discharge Time: 185 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 5.33 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 109 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 06/24/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5308

Permit # OD 93-01 & OD 93-02

Time		
1415	Begin 1st Loading SK	
1715	Finish 1st Loading SK	122
1415	Begin 2nd Loading SK	
1815	Finish 2nd Loading SK	123

Trip # 1 -

Trip # 2

Volume Loaded:		
SK	187,500	Gallons
SP	0	Gallons
Total	187,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	SE - 3	90%	29.62			
0705	Arrive Edge of Zone	# 1	14*22.52' S	170*38.69' W	ESE - 10	80	29.63	SE - 2.5	8.9	161
0715	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	SE - 10	"	29.64	" "	8.6	194
0723	Begin Discharge	# 3	14*24.63' S	170*37.11' W	" "	"	"	" " X	8.8	046
38		# 4	14*24.70' S	170*37.82' W					8.4	219
53	Remarks:	# 5	14*24.51' S	170*36.93' W					9.5	004
0808		# 6	14*24.83' S	170*37.91' W		90%			8.5	221
23		# 7	14*24.29' S	170*36.90' W				5	9.7	002
38		# 8	14*25.28' S	170*38.02' W			29.65		8.6	094
53		# 9	14*24.36' S	170*37.41' W			"		8.6	222
0908		# 10	14*24.81' S	170*37.13' W	SE-12		29.66		9.9	027
23		# 11	14*24.79' S	170*37.86' W			"	SE-2.0	9.0	218
38		# 12	14*24.33' S	170*36.89' W			"	" " 10	10.0	009
53		# 13	14*25.27' S	170*37.81' W		100% - RAIN	29.67	" "	9.7	041
1008		# 14	14*24.08' S	170*37.17' W		100	"		8.5	223
23		# 15	14*25.15' S	170*37.70' W		90	29.65		9.8	042
38		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1025	Finish Discharge	#16	14*24.61' S	170*37.56' W	SE - 12	90%	29.65	SE - 2.0	9.9	337
1036	Exit Discharge Zone	#17	14*28.60' S	170*38.25' W	" "	"	"	" "	10.2	341
1130	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 182 mins. Average Speed During Discharge: 9.2 kts. Total Time Run 5.25 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 112 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cuoole

Date: 06/26/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5309

Permit # OD 93-01 & OD 93-02

	Time	
124	1720	Begin 1st Loading SK
	1620	Finish 1st Loading SK
	1000	Begin 2nd Loading SK
125	1445	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	176,200	Gallons
SP	0	Gallons
Total	176,200	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0715	Depart Starkist		14*16.50' S	170* 41.2' W	SE-10	80	29.60			
0810	Arrive Edge of Zone	# 1	14*22.57' S	170*38.66' W	ESE-15	90-RAIN	29.62	ESE-2.5	8.1	162
0821	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	ESE-18	90	" "	" "	8.0	157
0830	Begin Discharge	# 3	14*24.39' S	170*37.05' W	ESE-20	80	" "	" " X	8.4	095
45		# 4	14*24.78' S	170*38.18' W	" "	"	" "		8.0	094
0900	Remarks:	# 5	14*24.32' S	170*37.74' W	ESE-25	70	" "		8.7	295
15		# 6	14*24.34' S	170*37.08' W	" "	60	29.63		8.6	258
30		# 7	14*24.76' S	170*37.91' W	" "			5	8.1	100
45		# 8	14*24.20' S	170*38.00' W					8.9	304
1000		# 9	14*24.46' S	170*37.80' W					9.1	260
15		# 10	14*24.82' S	170*37.75' W					8.4	097
30		# 11	14*24.15' S	170*38.00' W			29.62		9.3	294
45		# 12	14*24.37' S	170*37.71' W				10	9.4	263
1100		# 13	14*24.54' S	170*37.48' W					9.6	303
15		# 14	14*24.12' S	170*37.45' W		50	29.61		8.2	107
30		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1130	Finish Discharge	#15	14*24.01' S	170*37.98' W	ESE-25	50%	29.60	ESE-2.5	9.8	332
1140	Exit Discharge Zone.	#16	14*22.57' S	170*38.52' W	" "	"	"	" "	10.0	336
1230	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center WNW End of Discharge WNW Discharge Pattern Figure 8

Total Discharge Time: 180 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 5.25 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 111 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cwok

Date: 06/29/10 – Tues. F/V Blue Moon Ocean Dumping Log Voyage #: 5310

Permit # OD 93-01 & OD 93-02

	Time	
6/26	1630	Begin 1st Loading SK
	1830	Finish 1st Loading SK
	1500	Begin 2nd Loading SK
6/27	1900	Finish 2nd Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:			
	SK	175,000	Gallons
	SP	0	Gallons
	Total	175,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0555	Depart Starkist		14*16.50' S	170* 41.2' W	calm	10	29.60			
0645	Arrive Edge of Zone	# 1	14*22.55' S	170*38.64' W	SE-10	25	29.63	SE-2.0	8.8	165
0655	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.8	158
0705	Begin Discharge	# 3	14*24.68' S	170*37.41' W	" "	20	29.64	" " X	8.6	135
" 20		# 4	14*24.40' S	170*37.65' W	" "	"	"	" "	8.7	223
" 35	Remarks:	# 5	14*24.78' S	170*37.06' W	" "	"	"		8.6	024
" 50		# 6	14*24.52' S	170*37.75' W	SE-12	25	29.65		9.0	219
0805		# 7	14*24.78' S	170*37.20' W			"	5	8.7	034
" 20		# 8	14*24.89' S	170*38.06' W			"		9.1	216
" 35		# 9	14*24.33' S	170*36.96' W					8.8	002
" 50		# 10	14*25.20' S	170*38.16' W	SE-15				9.1	193
0905		# 11	14*24.17' S	170*36.96' W		20			9.3	310
" 20		# 12	14*25.26' S	170*37.71' W		"		10	9.0	045
" 35		# 13	14*24.18' S	170*37.40' W		"			8.9	226
" 50		# 14	14*25.15' S	170*37.88' W		"			9.5	057
1005		# 15	14*24.23' S	170*37.50' W		"			9.2	229
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1015	Finish Discharge	# 16	14*24.46' S	170*37.73' W	SE-15	20%	29.65	SE-2.0	9.5	347
1028	Exit Discharge Zone	# 17	14*22.57' S	170*38.24' W	" "	"	"	" "	9.6	340
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

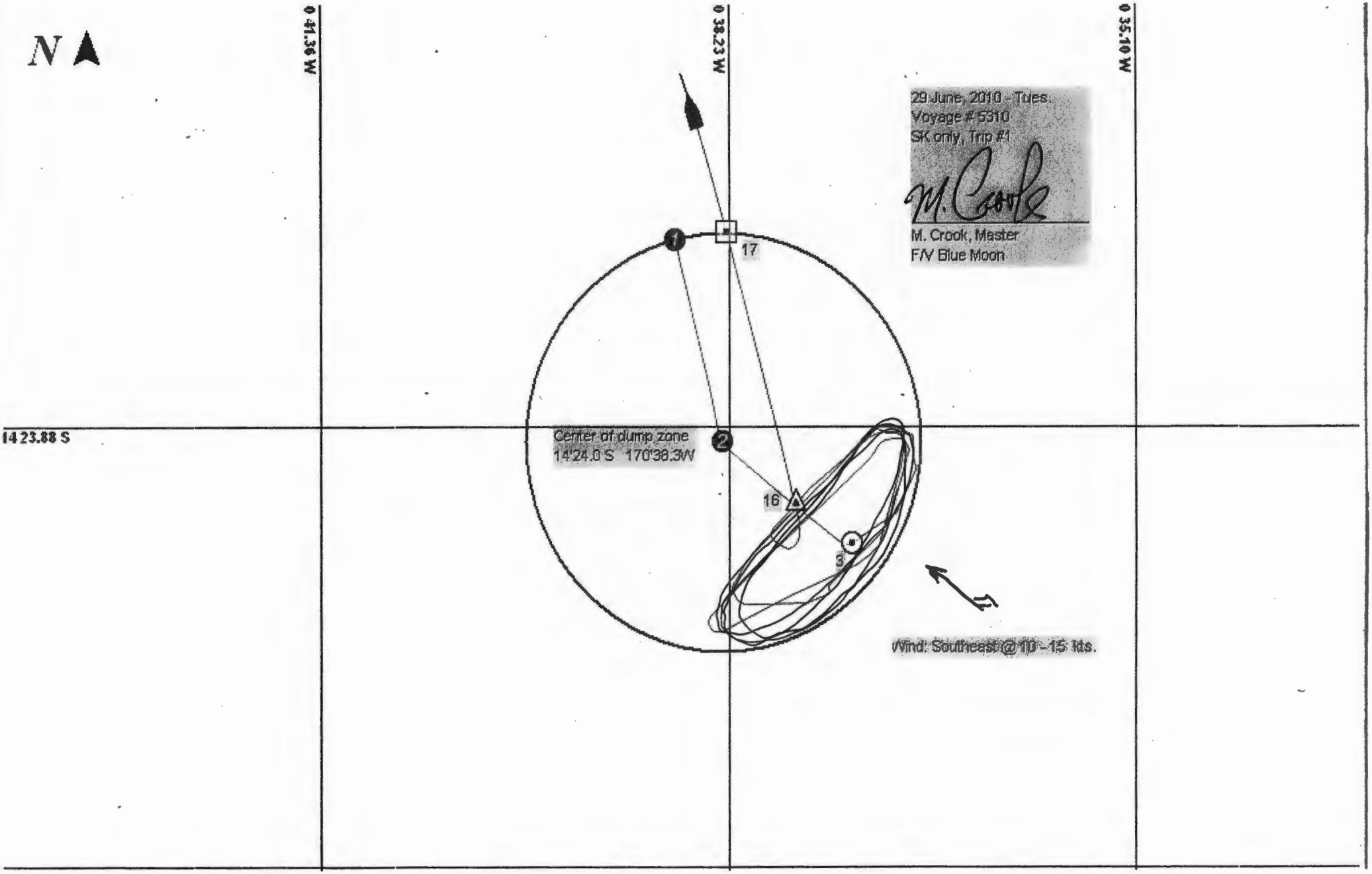
Total Discharge Time: 190 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.4 hr.

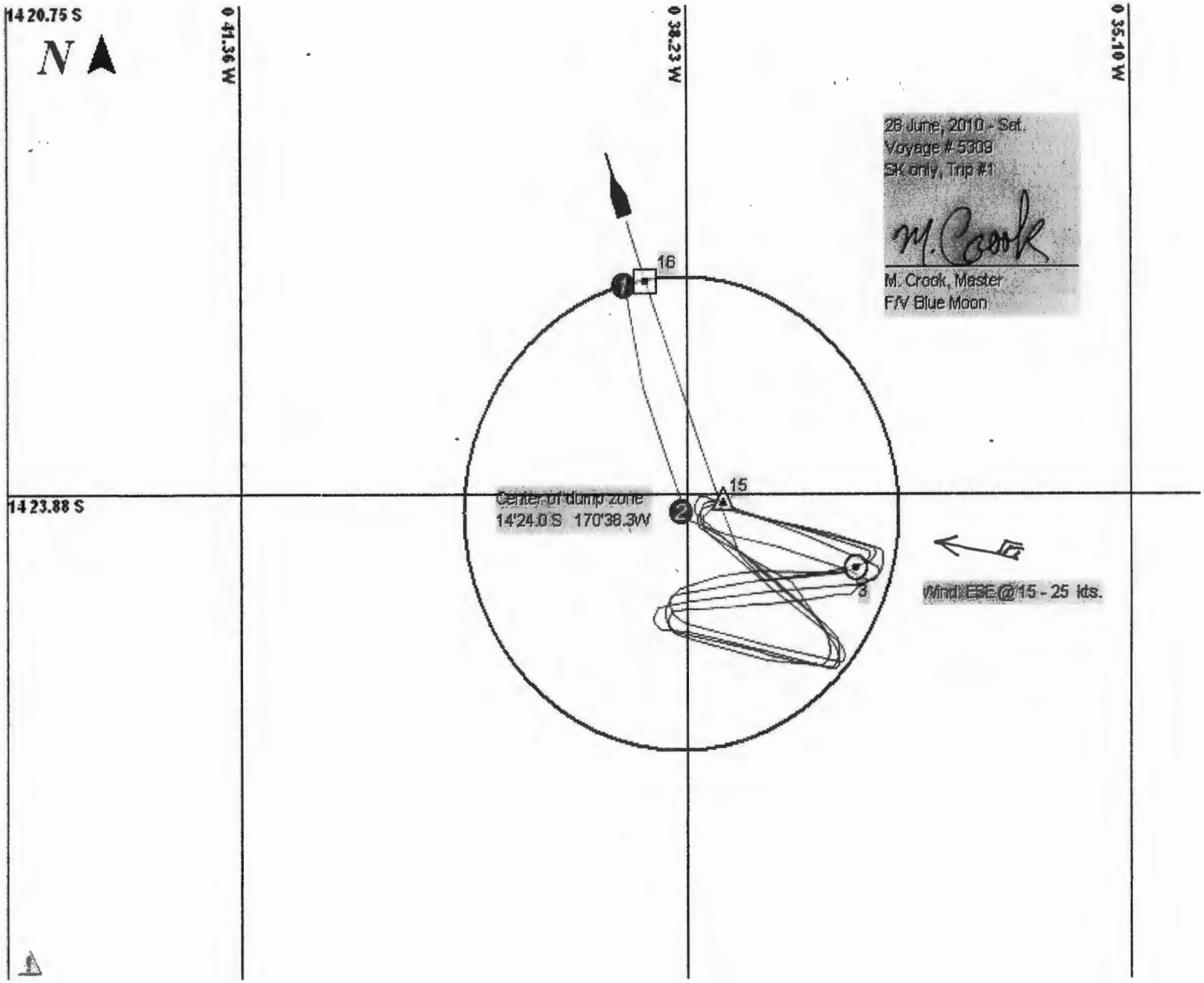
Navigational Plot made: yes Presence of Plume? No

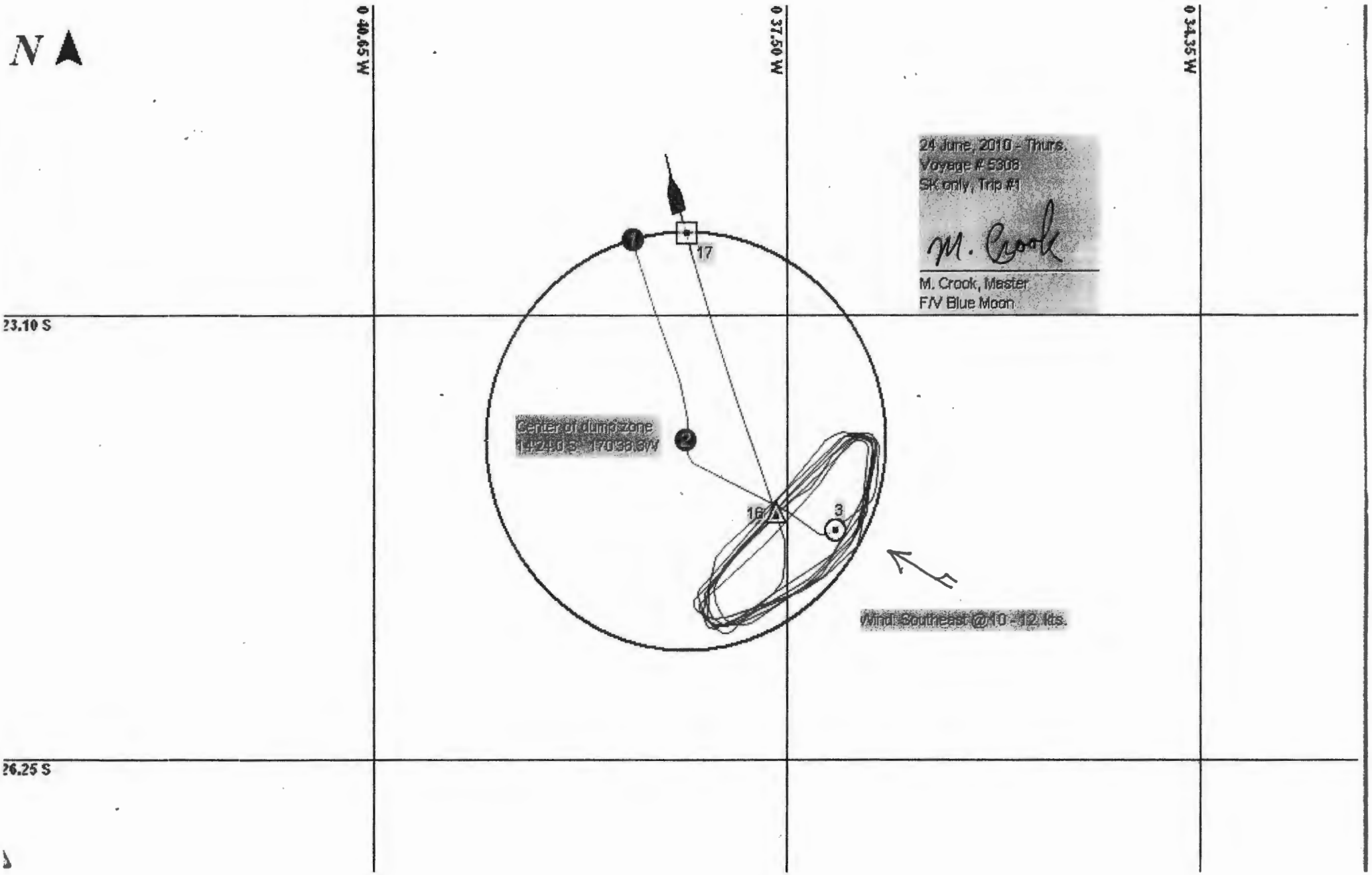
Time and position of any floating material: None Discharge Rate: 102 Gallons/min/kts

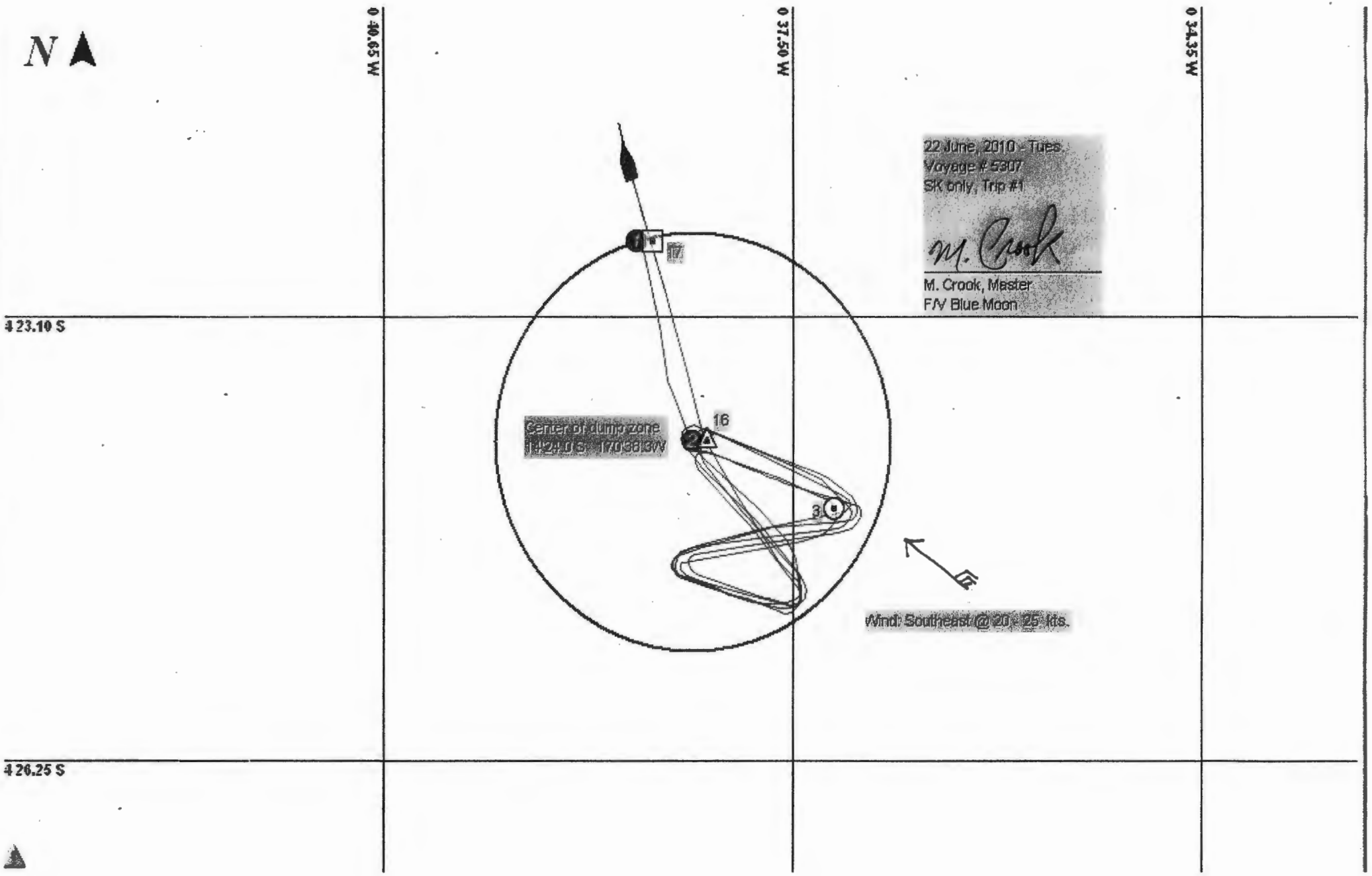
Unusuall Occurrences? Nav Plot completed (partial) by hand due to GPS malfunction.

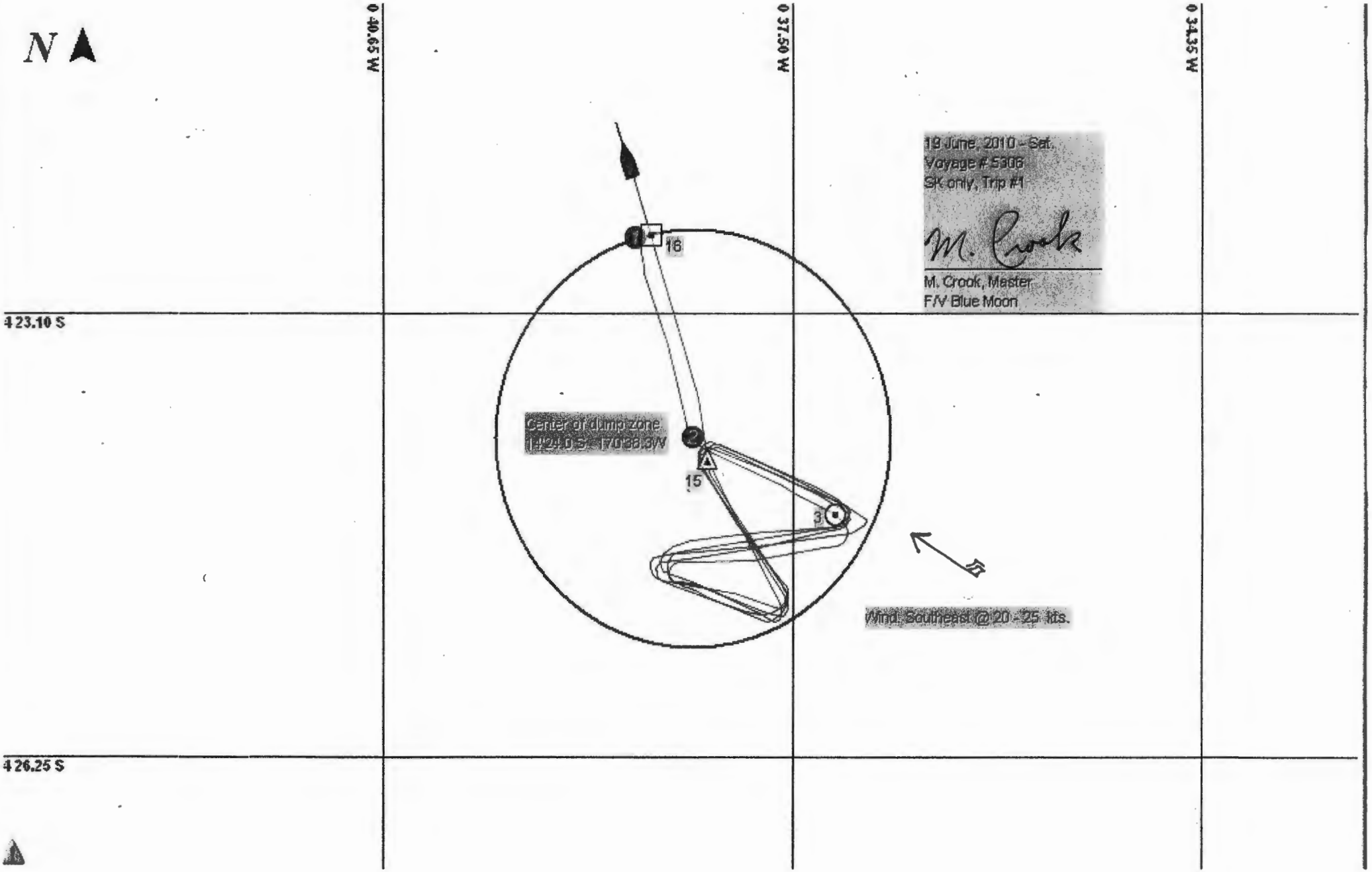
Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

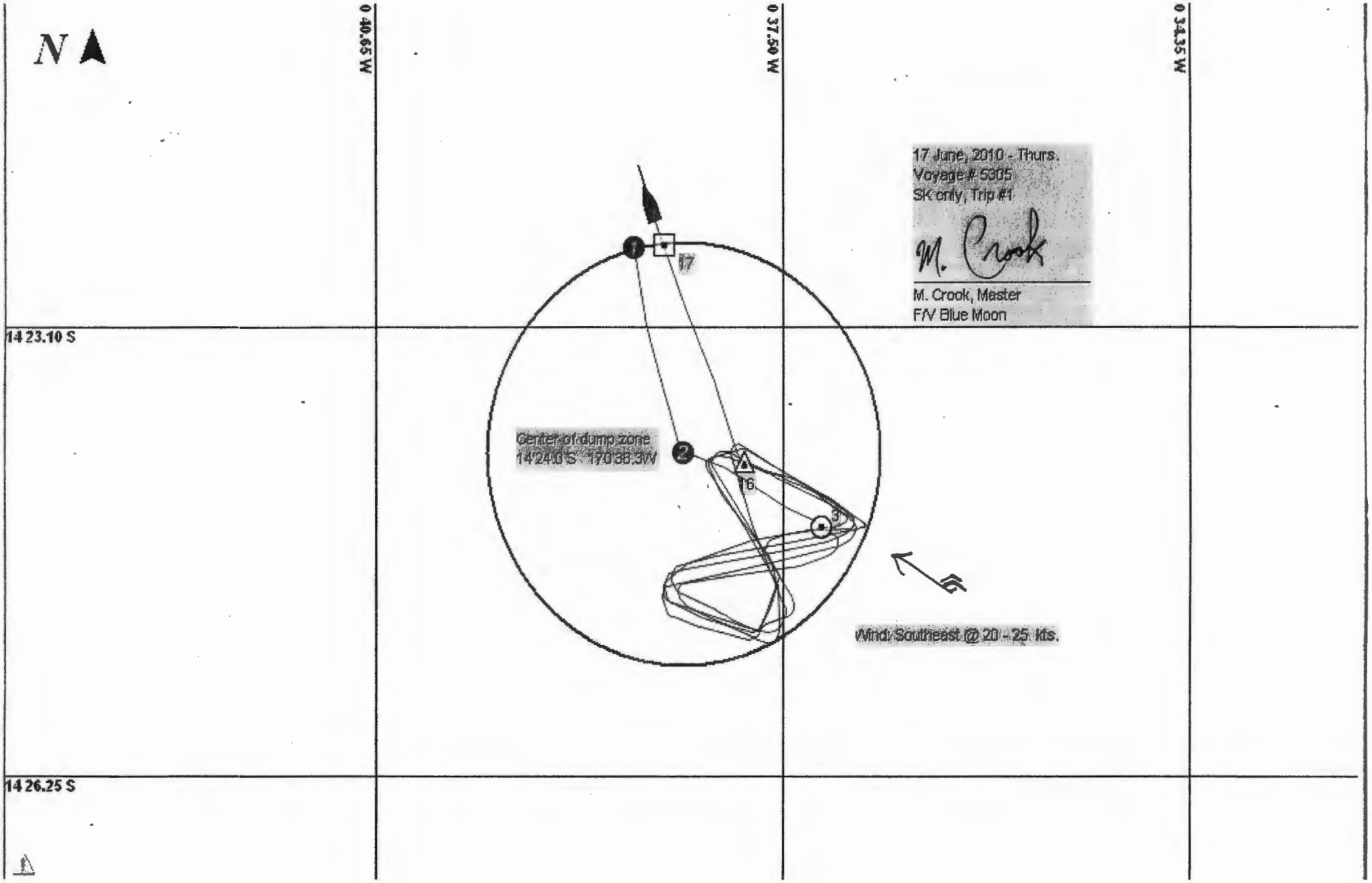

N
0 41.36 W
0 38.23 W
0 35.10 W
14 23.88 S
29 June, 2010 - Tues.
Voyage # 5310
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
17
1
2
16
3
Center of dump zone
14°24.0 S 170°38.3W
Wind: Southeast @ 10 - 15 kts.

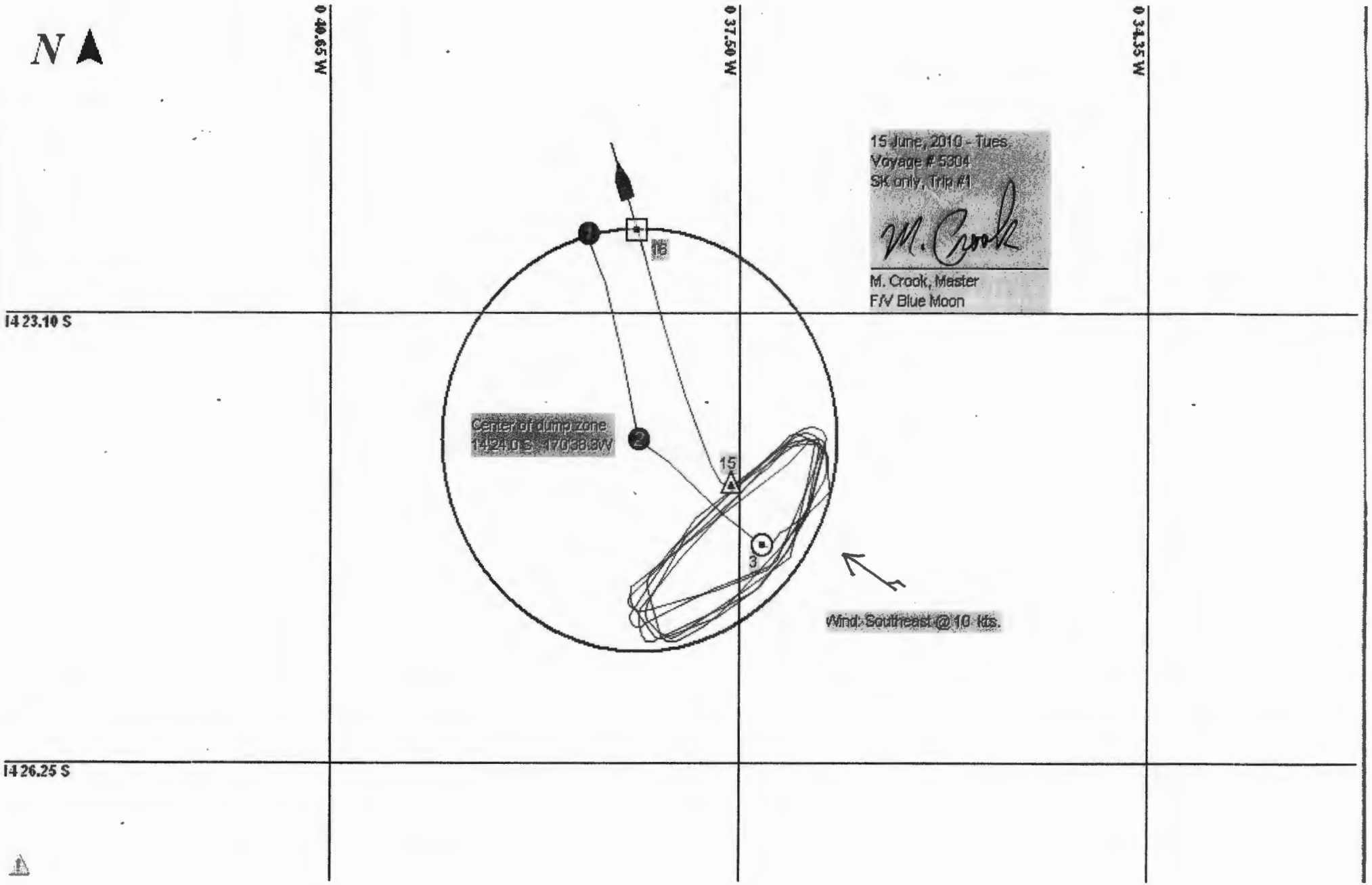

14 20.75 S
N
0 41.36 W
0 38.23 W
0 35.10 W
14 23.88 S
28 June, 2010 - Sat.
Voyage # 5309
Sk only, Trip #1
M. Crook, Master
F/V Blue Moon
16
15
1
2
3
Center of dump zone
14°24.0 S 170°38.3W
Wind: ESE @ 15 - 25 kts.

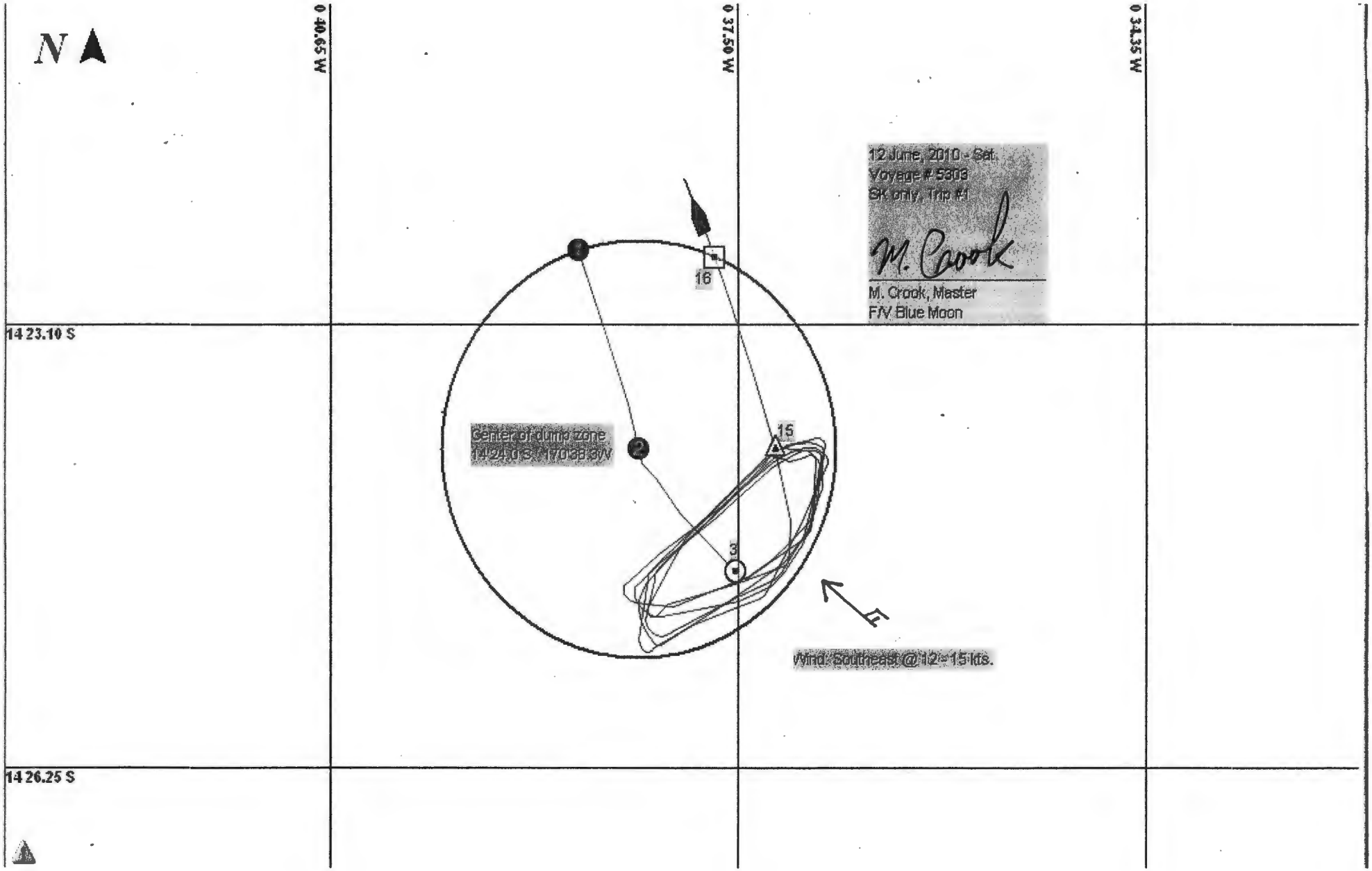

N
0 40.65 W
0 37.50 W
0 34.35 W
23.10 S
26.25 S
24 June, 2010 - Thurs.
Voyage # 5308
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14°24.0' S 170°38.3'W
1
2
3
16
17
Wind: Southeast @ 10 - 12 kts.

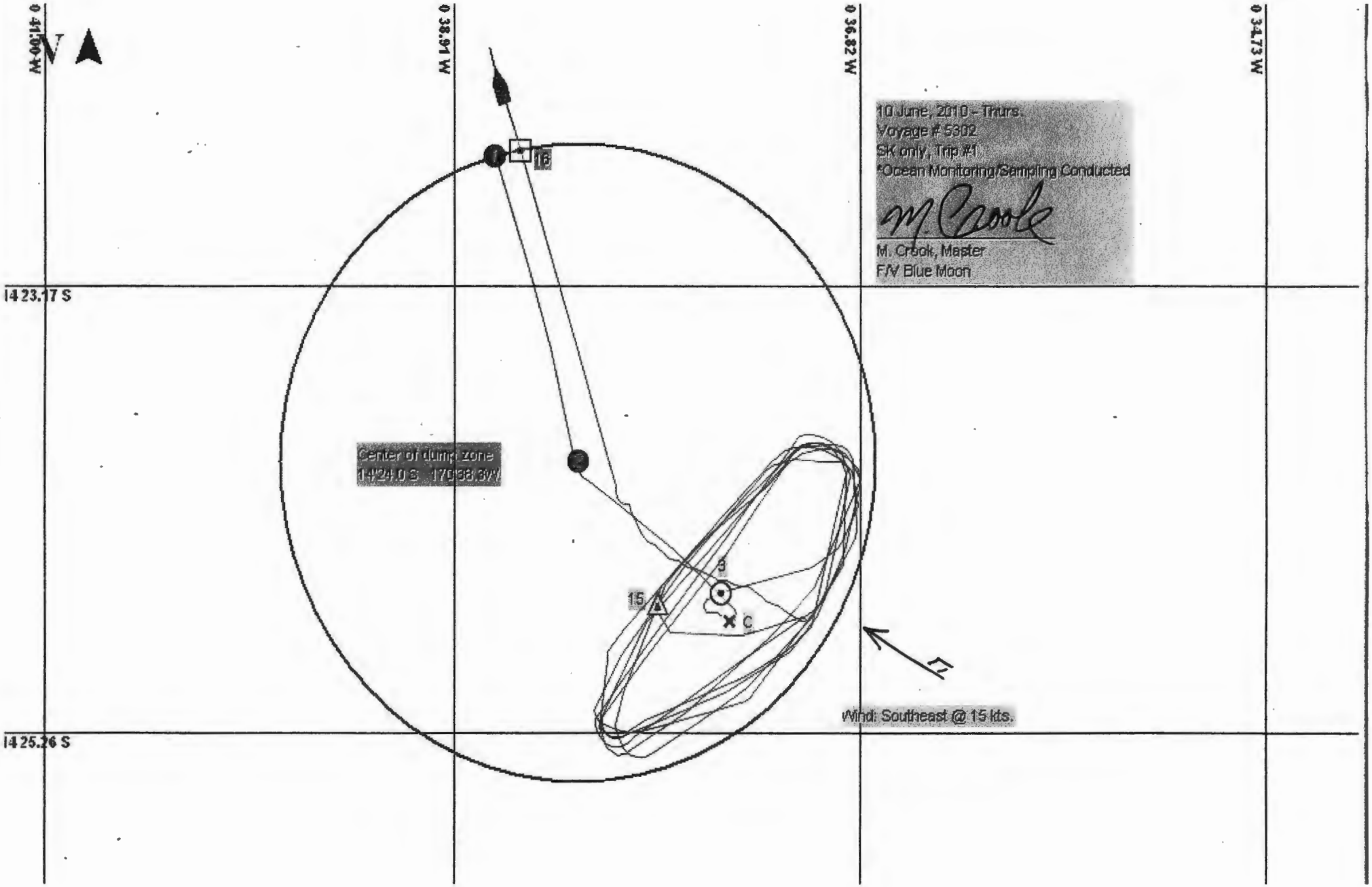

N
0 40.65 W
0 37.50 W
0 34.35 W
4 23.10 S
4 26.25 S
22 June, 2010 - Tues.
Voyage # 5307
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
1
2
3
16
17
Wind: Southeast @ 20 - 25 kts.

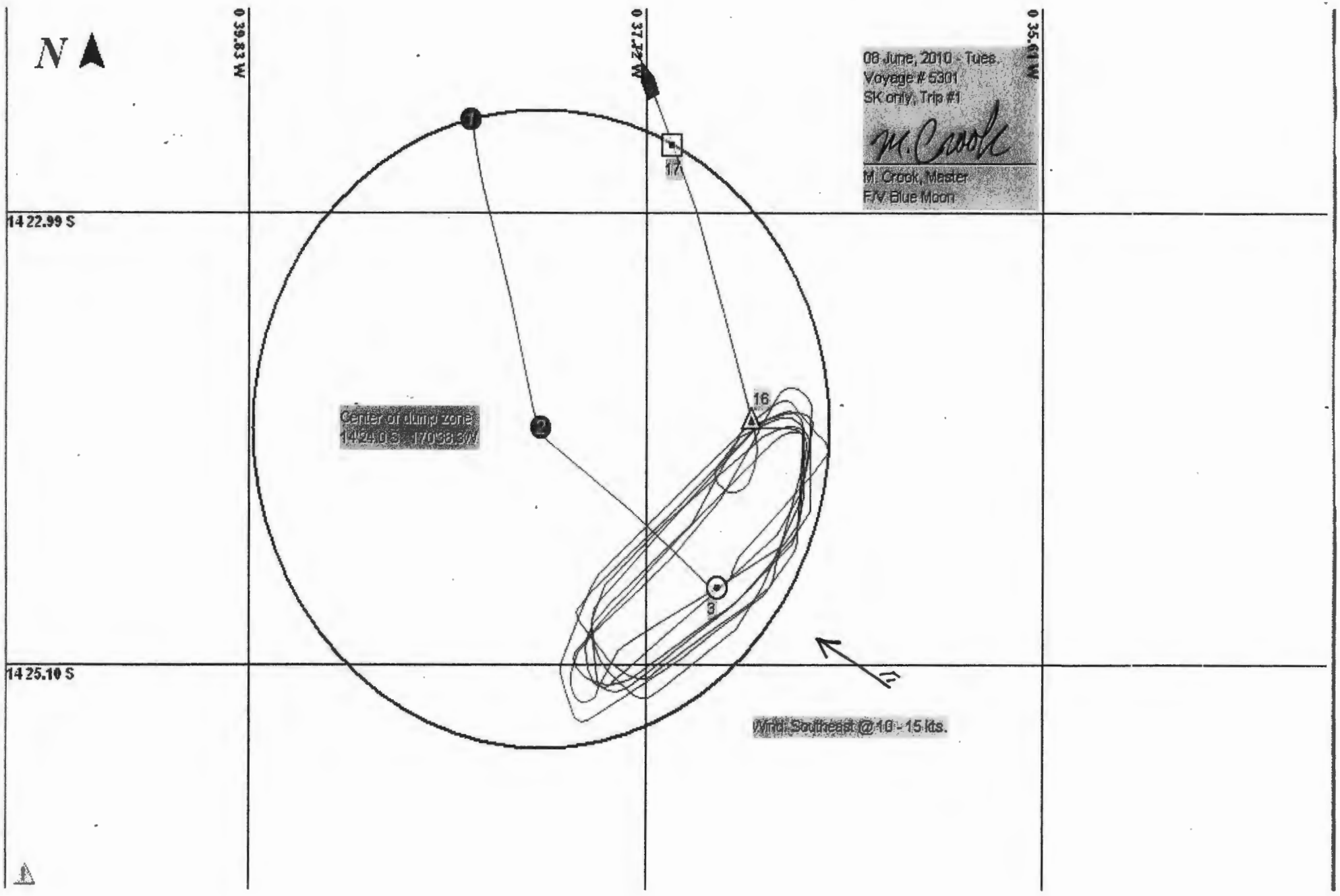

N
0 40.65 W
0 37.50 W
0 34.35 W
4 23.10 S
4 26.25 S
19 June, 2010 - Sat.
Voyage # 5306
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14:24.0 S 170:38.3W
16
15
3
Wind Southeast @ 20 - 25 kts.

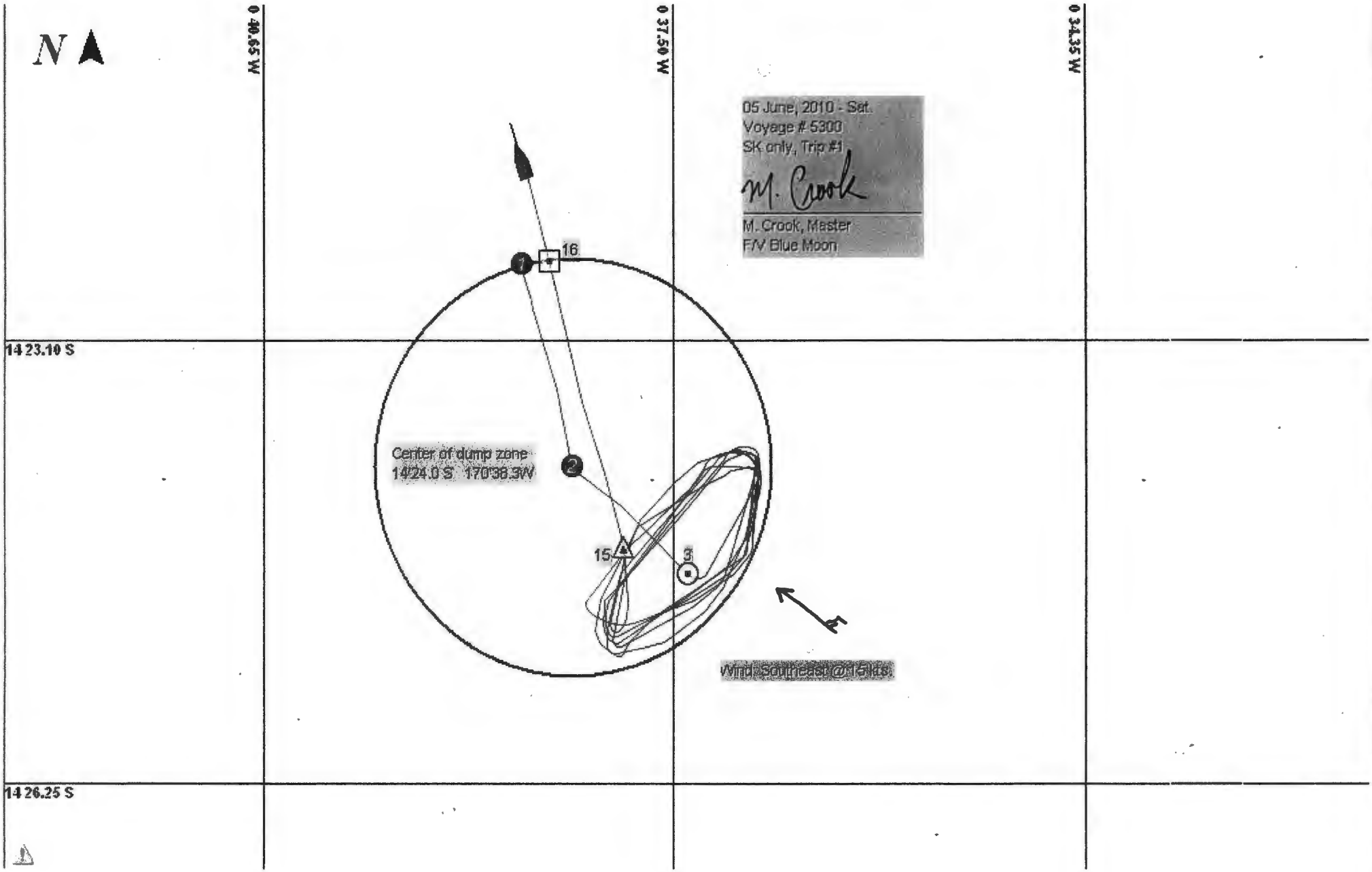

N
0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
14 26.25 S
17 June, 2010 - Thurs.
Voyage # 5305
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14°24.0'S 170°38.3'W
1
2
3
16
17
Wind: Southeast @ 20 - 25 kts.

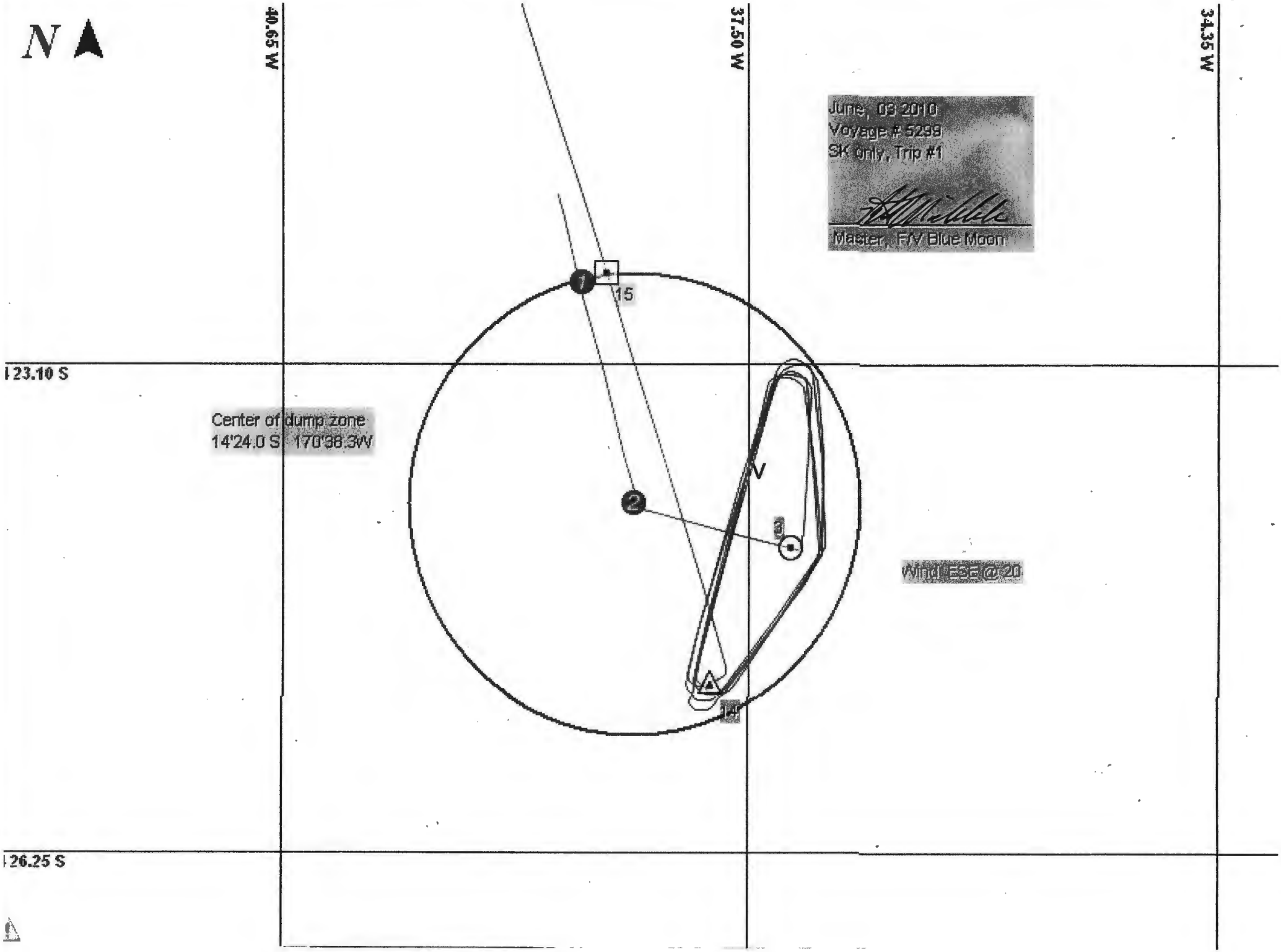

N
0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
14 26.25 S
15 June, 2010 - Tues.
Voyage # 5304
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone:
14 24.0 S 170 38.8W
1
2
3
15
16
Wind: Southeast @ 10 kts.

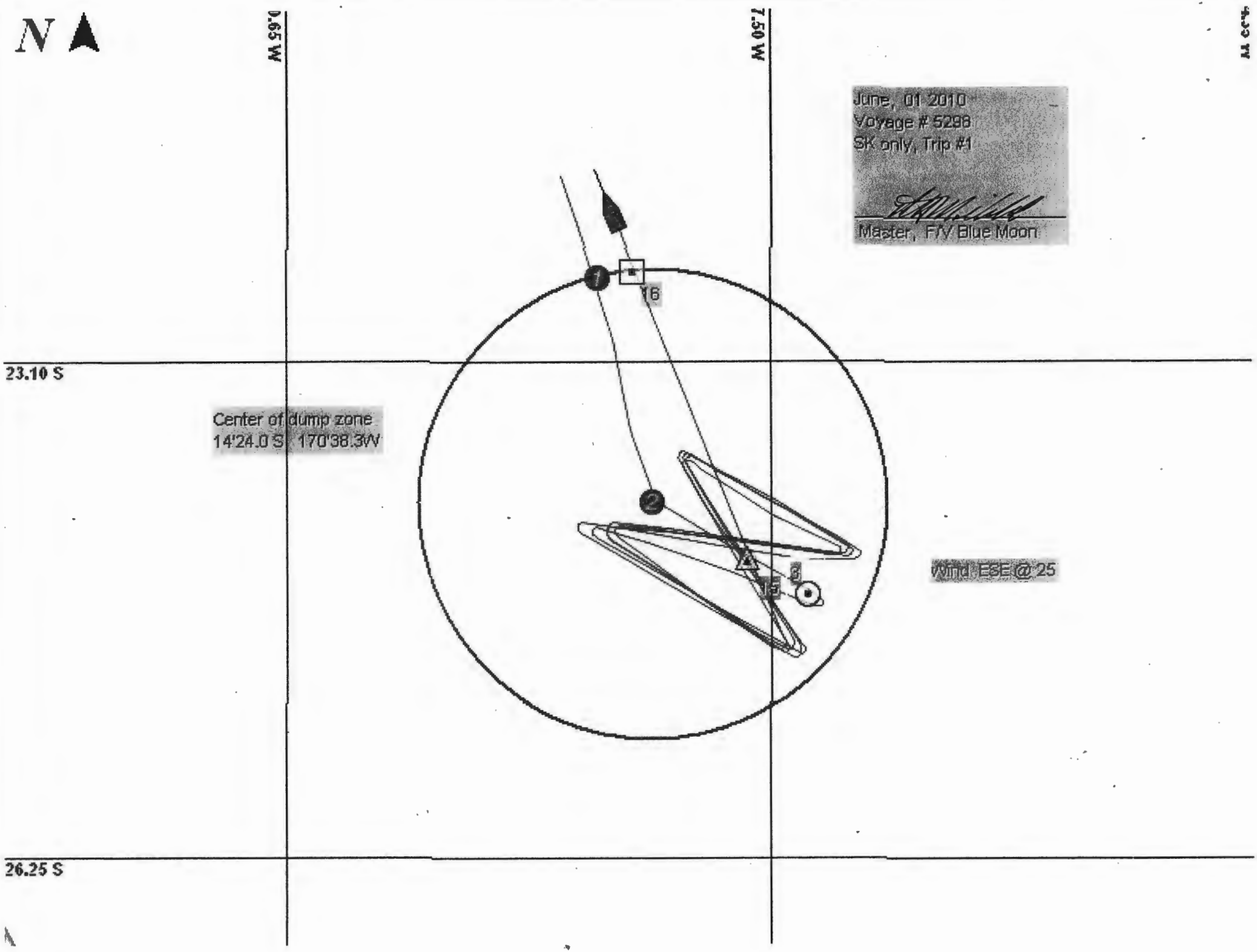

N
0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
14 26.25 S
12 June, 2010 - Sat.
Voyage # 5303
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14 24.01 S - 170 38.3 W
16
15
3
2
Wind: Southeast @ 12 - 15 kts.


0 41.00 W
0 38.91 W
0 36.82 W
0 34.73 W
14 23.17 S
14 25.26 S
N
10 June, 2010 - Thurs.
Voyage # 5302
SK only, Trip #1
*Ocean Monitoring/Sampling Conducted
M. Crook, Master
F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.6W
16
3
15
C
Wind: Southeast @ 15 kts.


N
0 39.83 W
0 37.72 W
0 35.61 W
14 22.99 S
14 25.10 S
08 June, 2010 - Tues.
Voyage # 5301
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14 24.0 S - 170 38.3 W
1
2
3
16
17
Wind: Southeast @ 10 - 15 kts.


N
0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
14 26.25 S
05 June, 2010 - Sat.
Voyage # 5300
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
16
1
2
15
3
Center of dump zone
14°24.0'S 170°38.3'W
Wind: southeast @ 15 kts


N
40.65 W
37.50 W
34.35 W
23.10 S
26.25 S
June, 03 2010
Voyage # 5299
SK only, Trip #1
Master, F/V Blue Moon
15
Center of dump zone
14'24.0 S 170'38.3W
Wind ESE @ 20


N
June, 01 2010
Voyage # 5298
SK only, Trip #1
Master, F/V Blue Moon
Center of dump zone
14'24.0 S 170'38.3W
Wind ESE @ 25
23.10 S
26.25 S
1
2
16
15
3

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON June, 2010

NUMBER OF TRIPS:	SK:	SP:	JOINT:	TOTAL:
	13	0	0	**13**

GALLONS-FOR THE MONTH:	SK:	SP:	JOINT:	TOTAL:
	2,326,950	0	0	**2,326,950**

GALLONS FOR SOLO TRIPS:	SK:	SP:
	2,326,950	0

RUNNING TIME ON TRIPS: **67.9 hrs.**

DISCHARGE TIME ON TRIPS: **38.7 hrs.**

AV. GPM DISCHARGE RATE: **111 g/m/k**

AV. TRIP TIME: **5.22 hrs.**

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK:	COS:
100.00%	N/A

MASTER : ***M. Crook*** M. Crook

STAR KIST SAMOA CO
WATER TREATMENT DEPARTMENT

BLUE MOON - OCEAN DUMPING LOG

Reporting Date-July 01,2010

Trip Date	1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Volume
01-Jun-10	1st Trip	NONE	150000	2nd Trip	NONE	0
02-Jun-10	1st Trip	1530\2030 (153000)		2nd Trip	NONE	0
03-Jun-10	1st Trip	1205\0105 (27500)	180500	2nd Trip	NONE	0
04-Jun-10	1st Trip	1245\1815 (162500)		2nd Trip	NONE	0
05-Jun-10	1st Trip	2400\0100 (25000)	187500	2nd Trip	NONE	0
06-Jun-10	1st Trip	1530\1700 (40000)		2nd Trip	NONE	0
07-Jun-10	1st Trip	1300\1700 (115000)		2nd Trip	NONE	0
08-Jun-10	1st Trip	2415\0110 (15000)	170000	2nd Trip	NONE	0
09-Jun-10	1st Trip	1230\1800 (175000)		2nd Trip	NONE	0
10-Jun-10	1st Trip	2430\0130 (20000)	195000	2nd Trip	NONE	0
11-Jun-10	1st Trip	1445\2030 (186250)		2nd Trip	NONE	0
12-Jun-10	1st Trip	NONE	186250	2nd Trip	NONE	0
13-Jun-10	1st Trip	2345\0130 (50000)		2nd Trip	NONE	0
14-Jun-10	1st Trip	1215\1630 (126250)		2nd Trip	NONE	0
15-Jun-10	1st Trip	1830\2020 (59250)	176250	2nd Trip	NONE	0
16-Jun-10	1st Trip	1300\1915 (116250)		2nd Trip	NONE	0
17-Jun-10	1st Trip	1230\1430 (57500)	175500	2nd Trip	NONE	0
18-Jun-10	1st Trip	1230\1700 (132500)		2nd Trip	NONE	0
19-Jun-10	1st Trip	1415\1630 (64750)	190000	2nd Trip	NONE	0
20-Jun-10	1st Trip	1500\1845 (92500)		2nd Trip	NONE	0
21-Jun-10	1st Trip	0200\0300 (20000)		2nd Trip	NONE	0
22-Jun-10	1st Trip	1415\1715 (70000)	177250	2nd Trip	NONE	0
23-Jun-10	1st Trip	1415\1815 (117500)		2nd Trip	NONE	0
24-Jun-10	1st Trip	1420\1620 (60000)	187500	2nd Trip	NONE	0
25-Jun-10	1st Trip	1000\1445 (116200)		2nd Trip	NONE	0
26-Jun-10	1st Trip	1630\1830 (60000)	176200	2nd Trip	NONE	0
27-Jun-10	1st Trip	1500\1900 (115000)		2nd Trip	NONE	0
28-Jun-10	1st Trip	NONE		2nd Trip	NONE	0
29-Jun-10	1st Trip	1800\2015 (76250)	175000	2nd Trip	NONE	0
30-Jun-10	1st Trip	1540\1915 (116250)		2nd Trip	NONE	0
TOTAL	**1st Trip**		**2,326,950**	**2nd Trip**		**0**
					TOTAL 1st & 2nd Trip	**2,326,950**

cc:
Blue Moon- Captain

Date: 06/01/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5298

Permit # OD 93-01 & OD 93-02

Time		
	Begin Loading SK	
	Finish Loading SK	
	Begin Loading SK	
	Finish Loading SK	

Trip # 1 - X

Trip # 2

Volume Loaded: SK _____ Gallons; SP _____ Gallons; Total 150 000 Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W		70	29.65			
0703	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		70	29.65	1.5	9.1	166°
0712	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		70	29.65	1.5	9.1	164°
0720	Begin Discharge	# 3	14*2 4.4	S	170*3 7.5	W	SE 20	70	29.65	1.5 X	8.9	120°
35		# 4	14*2 4.3	S	170*3 8.4	W	SE 25	70	29.65	1.5	9.2	121°
50	Remarks:	# 5	14*2 3.9	S	170*3 7.9	W	SE 25	70	29.65	1.5	9.9	329°
0805		# 6	14*2 4.3	S	170*3 7.3	W	SE 25	60	29.65	1.5	10	277°
20		# 7	14*2 4.5	S	170*3 8.0	W	SE 25	60	29.65	1.5 5	9.2	120°
35		# 8	14*2 3.8	S	170*3 7.9	W	SE 25	50	29.65	1.5	9.9	328°
50		# 9	14*2 4.2	S	170*3 7.8	W	SE 25	50	29.65	15	10.2	277°
0905		# 10	14*2 4.4	S	170*3 7.6	W	SE 25	70	29.65	1.5	10.1	329°
20		# 11	14*2 4.2	S	170*3 7.6	W	SE 25	70	29.65	1.5	10.	279°
35		# 12	14*2 4.4	S	170*3 8.1	W	SE 25	70	29.65	1.5 10	9.6	123°
50		# 13	14*2 3.9	S	170*3 7.7	W	SE 25	70	29.65	1.5	9.8	121°
1005		# 14	14*2 4.7	S	170*3 7.5	W	SE 25	70	29.65	1.5	9.7	131°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1015	Finish Discharge	15	14*2 4.4	S	170*3 7.6	W	SE 25	70	29.65	1.5	10	340°
1030	Exit Discharge Zone	16	14*2 7.4	S	170*3 8.4	W	SE 25	70	29.65	1.5	10	393°
1115	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 175 mins. Average Speed During Discharge: 9.7 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 88.3 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon [signature]

Date: 06/03/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5299

Permit # OD 93-01 & OD 93-02

Time	
	Begin Loading SK
	Finish Loading SK
	Begin Loading SK
	Finish Loading SK

Trip # 1 - X
Trip # 2

Volume Loaded:		
SK	185 500	Gallons
SP	—	Gallons
Total	185 500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W		80	29.65			
0705	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W		80	29.65	2	8.9	169°
0715	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W		80	29.65	2	8.8	164°
20	Begin Discharge	# 3	14*2 4.2	S	170*3 7.4	W	SE 20	80	29.65	2 X	8.7	105°
35		# 4	14*2 3.7	S	170*3 7.4	W	SE 20	80	29.65	2	9	195°
50	Remarks:	# 5	14*2 5.2	S	170*3 7.6	W	SE 20	80	29.65	2	8.9	045°
0805		# 6	14*2 3.2	S	170*3 7.3	W	SE 20	80	29.65	1.5	8.9	202°
20		# 7	14*2 5.0	S	170*3 7.8	W	SE 20	80	29.65	1.5 5	9	185°
35		# 8	14*2 3.2	S	170*3 7.0	W	SE 20	80	29.65	1.5	9.4	346°
50		# 9	14*2 4.8	S	170*3 7.8	W	SE20	80	29.65	1.5	9	195°
0935		# 10	14*2 3.4	S	170*3 7.6	W	SE 20	80	29.65	1.5	9.8	356°
20		# 11	14*2 4.9	S	170*3 7.8	W	SE 20	80	29.65	1.5	9.7	189°
35		# 12	14*2 3.8	S	170*3 7.0	W	SE20	80	29.65	1.5 10	9.9	354°
50		# 13	14*2 4.8	S	170*3 7.8	W	SE20	80	29.65	1.5	9.9	196°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0955	Finish Discharge	14	14*2 4.6	S	170*3 7.7	W	SE20	80	29.65	1.5	10	344°
1010	Exit Discharge Zone.	15	14*2 2.6	S	170*3 8.4	W	SE20	80	29.65	1.5	10	343°
1050	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center N/a End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 155 mins. Average Speed During Discharge: 9.35 kts. Total Time Run 4.58 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 132.9 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 06/05/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5300

Permit # OD 93-01 & OD 93-02

	Time	
6/4	1245	Begin Loading SK
	1815	Finish Loading SK
6/5	000	Begin Loading SK
	0100	Finish Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	187,500	Gallons
SP	0	Gallons
Total	187,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	SE-12	100	29.65'			
0703	Arrive Edge of Zone	# 1	14*22.51' S	170*38.69' W	SE-15	75%	29.67'	SE-1.5	8.6	164
0713	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	60%	29.68'	" "	8.7	165
0722	Begin Discharge	# 3	14*24.72' S	170*37.43' W	" "	"	29.69	" " X	8.7	135
0737		# 4	14*24.53' S	170*37.82' W	" "	70	" "	" "	8.7	224
" 52	Remarks:	# 5	14*24.77' S	170*36.85' W		"	" "		9.6	358
0807		# 6	14*25.08' S	170*38.09' W		50	" "		9.0	186
22		# 7	14*24.17' S	170*37.28' W		"	" "	5	9.2	223
37		# 8	14*24.93' S	170*37.38' W		"	" "		9.4	059
52		# 9	14*24.58' S	170*37.69' W		60	" "		9.4	221
0907		# 10	14*24.50' S	170*36.93' W		70	" "		9.8	006
22		# 11	14*25.29' S	170*37.96' W		80	" "		8.2	120
37		# 12	14*23.90' S	170*37.09' W		"		10	8.9	251
52		# 13	14*24.75' S	170*37.13' W		90			9.2	008
1007		# 14	14*24.49 S	170*37.81' W		"	29.70		9.0	197
22		# 15	14*2 S	170*3 W						
37		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*24.58' S	170*37.88' W	SE-15	90%	29.70	SE-1.5	9.8	341
1032	Exit Discharge Zone	#16	14*22.52' S	170*38.46 W	" "	"	" "	" "	10.1	343
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 178 mins. Average Speed During Discharge: 9.15 kts. Total Time Run 5.15 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 115 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 06/08/10 - Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5301

Permit # OD 93-01 & OD 93-02

	Time	
6/6	1530	Begin 1st Loading SK
	1700	Finish 1st Loading SK
6/7	1300	Begin 2nd Loading SK
	1700	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:		
SK	170,000	Gallons
SP	0	Gallons
Total	170,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	SE-10	90%	29.60			
0654	Arrive Edge of Zone	# 1	14*22.55' S	170*38.65' W	SE-10	75	29.62	SE-1.5	9.1	162
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.61	" "	9.1	159
0714	Begin Discharge	# 3	14*24.66' S	170*37.47' W	" "	"	" "	" " X	9.0	135
" 29		# 4	14*24.59' S	170*37.84' W	" "	"	29.62	" "	8.8	227
" 44	Remarks:	# 5	14*24.51' S	170*36.93' W	" "	"			8.7	004
" 59		# 6	14*24.79' S	170*38.05' W	SE-12	80			9.0	221
0814		# 7	14*24.20' S	170*37.18' W	" "	"		5	9.0	224
" 29		# 8	14*24.93' S	170*37.41' W		"			9.5	049
" 44		# 9	14*24.70' S	170*37.92' W		75			8.9	206
" 59		# 10	14*23.95' S	170*36.89' W		"			8.5	302
0914		# 11	14*25.12' S	170*37.68' W	SE-15	70			8.9	048
" 29		# 12	14*24.25' S	170*37.34' W				10	8.8	207
" 44		# 13	14*24.20' S	170*36.89' W					9.2	003
" 59		# 14	14*24.99' S	170*38.07' W					9.4	222
1014		# 15	14*24.05' S	170*36.86' W			29.63		9.2	000
" 29		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1022	Finish Discharge	#16	14*24.02' S	170*37.15' W	SE-15	70%	29.63	SE-1.5	9.7	346
1031	Exit Discharge Zone.	#17	14*22.63' S	170*37.61' W	" "	"	"	" "	10.1	339
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 188 mins. Average Speed During Discharge: 9.04 kts. Total Time Run 5.3 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 100 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 06/10/10 - Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5302

Permit # OD 93-01 & OD 93-02

	Time	
6/9	1230	Begin 1st Loading SK
	1800	Finish 1st Loading SK
	0030	Begin 2nd Loading SK
6/10	0130	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	195,000	Gallons
SP	0	Gallons
Total	195,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	SE-12	100	29.65			
0710	Arrive Edge of Zone	# 1	14*22.52' S	170*38.67 W	SE-15	"	"	SE-1.5	8.5	166
0720	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.66	SE-2.0	8.6	164
0740	Begin Discharge	# 3	14*24.63' S	170*37.57 W	" "	"	"	" " X	7.4	053
55		# 4	14*24.64' S	170*37.86' W	" "	"	29.67	" "	8.6	218
0810	Remarks:	# 5	14*24.85' S	170*37.17' W					8.9	032
25	Ocean Monitoring	# 6	14*24.64' S	170*37.85' W					8.6	220
40	Conducted	# 7	14*24.38' S	170*38.67 W				5	9.1	006
55	Control Samples	# 8	14*24.98' S	170*38.02 W			29.68		8.6	200
0910	Drawn @ 0730	# 9	14*24.30' S	170*36.91' W		Rain-100%			9.4	003
25	Posn: 14°24.73'S	# 10	14*25.06' S	170*38.07' W		" "	29.69		8.9	218
40	x 170°37.48' W	# 11	14*23.91' S	170*37.14' W		100%	"		8.5	226
55		# 12	14*24.97' S	170*37.31' W		"	"	10	9.3	028
1010		# 13	14*24.22' S	170*37.49' W		"	"		9.1	224
25		# 14	14*24.86' S	170*37.33' W		"	"		9.6	041
40		# 15	14*2 S	170*3 W						
55		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1040	Finish Discharge	#15	14*24.63' S	170*37.86' W	SE-15	100%	29.69	SE-2.0	9.8	223
1140	Exit Discharge Zone.	#16	14*22.57' S	170*38.57 W	" "	"	29.67	" "	10.2	358
1415	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 6.25 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 122 Gallons/min/kts

Unusual Occurrences? None (Fueling + Monitoring)

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 06/12/10 – Sat. F/V Blue Moon Ocean Dumping Log Voyage #: 5303

Permit # OD 93-01 & OD 93-02

Time		
1445	Begin 1st Loading SK	
2030	Finish 1st Loading SK	
	Begin 2nd Loading SK	
	Finish 2nd Loading SK	

Trip # 1 - ✓
Trip # 2

Volume Loaded:			
SK	186,250	Gallons
SP	0	Gallons
Total	186,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0600	Depart Starkist		14*16.50' S	170* 41.2' W	East-12	100	29.63			
0647	Arrive Edge of Zone	#1	14*22.53' S	170*38.73 W	SE-12	"	"	SE-1.5	8.8	162
0656	Arrive Zone Center	#2	14*24.0 S	170*38.3 W	" "	"	"	" "	9.0	164
0705	Begin Discharge	#3	14*24.78' S	170*37.60' W			29.64	X	8.9	135
20		#4	14*24.50' S	170*37.73' W			"		9.2	224
35	Remarks:	#5	14*24.59' S	170*36.96' W			29.65		8.7	013
50		#6	14*24.64' S	170*37.90' W			"		9.4	226
0805		#7	14*24.76' S	170*37.09' W			"	5	9.0	035
20		#8	14*24.81' S	170*38.10 W			29.67		8.9	212
35		#9	14*24.12' S	170*36.85' W	SE-15	90	"		9.2	011
50		#10	14*25.27' S	170*38.26' W	" "	"	29.68		8.7	174
0905		#11	14*24.21' S	170*36.84' W	" "	"	29.69		9.5	016
20		#12	14*24.92' S	170*37.67' W	" "	"	"	10	9.4	061
35		#13	14*24.26' S	170*37.51' W	" "	100-Rain			9.6	224
50		#14	14*24.84' S	170*37.17' W		100%			9.3	068
1005		#15	14*2 S	170*3 W						
20		#16	14*2 S	170*3 W						
		#17	14*2 S	170*3 W				15		
		#18	14*2 S	170*3 W						
		#19	14*2 S	170*3 W						
		#20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0955	Finish Discharge	#15	14*24.06' S	170*37.21' W	SE-15	90%	29.69	SE-1.5	10.0	342
1005	Exit Discharge Zone	#16	14*22.71' S	170*37.66' W	" "	"	"	" "	10.1	336
1055	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.2 kts. Total Time Run 4.9 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 119 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Rook

Date: 06/15/10 – Tues. F/V Blue Moon Ocean Dumping Log Voyage #: 5304

Permit # OD 93-01 & OD 93-02

	Time	
6/13	2345	Begin 1st Loading SK
	0130	Finish 1st Loading SK
6/14	1215	Begin 2nd Loading SK
	1630	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:		
SK	176,250	Gallons
SP	0	Gallons
Total		Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	SE-3	90%	29.60			
0702	Arrive Edge of Zone	# 1	14*22.54' S	170*38.66' W	SE-10	80	29.61	SE-1.5	9.1	164
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.61	" "	9.1	160
0720	Begin Discharge	# 3	14*24.64' S	170*37.46' W	" "	"	"	" " X	9.0	135
35		# 4	14*24.69' S	170*37.89' W	" "	"	29.62	" "	9.4	221
50	Remarks:	# 5	14*24.51' S	170*36.98' W	" "	70	"	" "	9.1	029
0805		# 6	14*24.85' S	170*38.13' W	" "	"	"		9.6	228
20		# 7	14*24.42' S	170*36.94' W	" "	60	"	5	9.1	011
35		# 8	14*25.26' S	170*38.18' W	ESE-10	"	"		8.5	126
50		# 9	14*24.35' S	170*37.65' W		"	"		9.7	229
0905		# 10	14*25.09' S	170*37.86' W		50%	"		9.2	063
20		# 11	14*24.34' S	170*37.54' W		"			9.8	224
35		# 12	14*24.94' S	170*37.37' W		70		10	9.2	041
50		# 13	14*24.81' S	170*37.96' W	SE-10	"			9.7	217
1005		# 14	14*24.67' S	170*37.06' W	"	85			9.3	028
20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1015	Finish Discharge	#15	14*24.21' S	170*37.40' W	SE-10	85%	29.62	SE-1.5	9.4	230
1027	Exit Discharge Zone	#16	14*22.59' S	170*38.27' W	" "	"	"	" "	9.7	338
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 9.3 kts. Total Time Run 5.1 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 108 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

1/1-6

Date: 06/17/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5305

Permit # OD 93-01 & OD 93-02

	Time	
1/15	1830	Begin 1st Loading SK
	2020	Finish 1st Loading SK
1/16	1300	Begin 2nd Loading SK
	1915	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	175,500	Gallons
SP	0	Gallons
Total	175,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	SE-15	100%	29.71			
0700	Arrive Edge of Zone	# 1	14*22.55' S	170*38.64' W	SE-20	"	"	SE-2.5	8.5	165
0711	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.72	" "	8.1	142
0720	Begin Discharge	# 3	14*24.43' S	170*37.30' W	" "	"	"	" " X	8.0	115
35		# 4	14*25.17' S	170*37.98' W	SE-22	90	29.73	" "	7.4	109
50	Remarks:	# 5	14*24.22' S	170*38.02' W	" "	95	"	" "	9.5	320°
0805		# 6	14*24.61' S	170*37.42' W	" "	100	29.74	" "	9.7	253°
20		# 7	14*25.02' S	170*37.44' W	SE-25	Light Rain	"	" " 5	8.6	312
35		# 8	14*24.31' S	170*37.20' W	" "	" "	"		7.9	110
50		# 9	14*27.80' S	170*38.28' W	" "	RAIN-100	"	" "	9.8	251
0905		# 10	14*24.19' S	170*38.04' W	" "	85%	"	" "	9.7	324
20		# 11	14*24.61' S	170*37.92' W		"		SE-3.0	10.0	247
35		# 12	14*24.92' S	170*37.58' W		90		10	9.3	329
50		# 13	14*24.36' S	170*37.09' W		"			8.0	115
1005		# 14	14*25.28' S	170*37.81' W		100%			8.3	088
20		# 15	14*24.34' S	170*37.29' W					9.9	291
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1023	Finish Discharge	#16	14*24.13' S	170*37.63' W	SE-25	100%	29.74	SE-3.0	10.0	277
1034	Exit Discharge Zone.	#17	14*22.54' S	170*38.42' W	" "	"	"	" "	10.2	341
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure 8

Total Discharge Time: 183 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.25 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 107 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 06/19/10 – Sat. F/V Blue Moon Ocean Dumping Log Voyage #: 5306

Permit # OD 93-01 & OD 93-02

	Time	
117	1230	Begin 1st Loading SK
	1430	Finish 1st Loading SK
	1230	Begin 2nd Loading SK
5/18	1700	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:		
SK	190,000	Gallons
SP	0	Gallons
Total	190,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	SE-15	100	29.70			
0701	Arrive Edge of Zone	# 1	14*22. 56' S	170*38. 68' W	SE-20	100-Rain	"	SE-2.5	8.1	163
0711	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	90	29.72	" "	8.6	158
0721	Begin Discharge	# 3	14*2 4.47' S	170*37.29' W	SE-22	80	29.71	" " X	7.8	115
36		# 4	14*2 5.13' S	170*3 8.11' W	" "	"	" "	" "	8.0	115
51	Remarks:	# 5	14*2 4.12' S	170*3 7.97' W		"			8.1	110
0806		# 6	14*2 4.71' S	170*3 7.43' W		75			9.4	258
21		# 7	14*2 5.00' S	170*3 7.64' W	SE-25	80		5	9.8	320
36		# 8	14*2 4.25' S	170*3 7.63' W	" "	"			8.0	113
51		# 9	14*2 4.86' S	170*3 8.36' W	SE-22	90			9.7	261
0906		# 10	14*2 4.47' S	170*3 8.03' W	" "	"			9.8	320
21		# 11	14*2 4.66' S	170*3 7.50' W	" "	80	29.72		9.8	260
36		# 12	14*2 5.62' S	170*3 7.70' W	SE-25	70	"	10	10.0	327
51		# 13	14*2 4.30' S	170*3 7.39' W	" "	60	"		7.9	105
1006		# 14	14*2 5.00' S	170*3 3.28' W		50			8.3	098
21		# 15	14*2 . S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*2 4.18' S	170*3 8.14' W	SE-25	50 %	29.72	SE-2.5	9.8	344
1031	Exit Discharge Zone.	#16	14*2 2.51' S	170*3 8.64' W	" "	"	"	" "	10.1	341
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure 8

Total Discharge Time: 179 mins. Average Speed During Discharge: 8.95 kts. Total Time Run 5.15 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 118.6 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 06/22/10 – Tues. F/V Blue Moon Ocean Dumping Log Voyage #: 5307

Permit # OD 93-01 & OD 93-02

	Time	
5/19	1415	Begin 1st Loading SK
	1630	Finish 1st Loading SK
6/20	1500	Begin 2nd Loading SK
	1845	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:		
SK	177,250	Gallons
SP	0	Gallons
Total	177,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0600	Depart Starkist		14*16.50' S	170* 41.2' W	SE-15+	100	29.57			
0655	Arrive Edge of Zone	# 1	14*22.51' S	170*38.67' W	SE-20	90	"	SE-3+	8.1	164
0707	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	100	"	" "	7.9	162
0715	Begin Discharge	# 3	14*24.39' S	170*37.27' W	" "	"	29.59	" " X	7.7	115
30		# 4	14*25.11' S	170*37.82' W	" "	Rain 100	"		8.0	110
45	Remarks:	# 5	14*24.20' S	170*38.04 W	" "	"	"		7.9	111
0800		# 6	14*24.69' S	170*37.57' W	" "	100%			9.1	256
15		# 7	14*24.88' S	170*37.51' W	" "			5	9.2	312
30		# 8	14*24.17' S	170*37.47' W	SE-25				8.1	112
45		# 9	14*24.74' S	170*38.22' W	" "				9.4	248
0900		# 10	14*24.33' S	170*38.05' W	" "	90			9.6	309
15		# 11	14*24.45' S	170*37.07' W	" "				8.3	125
30		# 12	14*25.11' S	170*37.86' W	" "		29.58	10	8.0	102
45		# 13	14*24.01' S	170*37.91' W					8.2	107
1000		# 14	14*24.65' S	170*37.90' W				SE-3	9.8	251
15		# 15	14*24.89' S	170*37.58' W				" "	9.6	321
30		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#16	14*24.15' S	170*38.08' W	SE-25	90%	29.58	SE-3	9.9	326
1030	Exit Discharge Zone	#17	14*22.58' S	170*38.60' W	" "	"	"	" "	9.9	341
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure 8

Total Discharge Time: 185 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 5.33 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 109 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 06/24/10 – Thurs. F/V Blue Moon Ocean Dumping Log Voyage #: 5308

Permit # OD 93-01 & OD 93-02

	Time	
	1415	Begin 1st Loading SK
122	1715	Finish 1st Loading SK
	1415	Begin 2nd Loading SK
123	1815	Finish 2nd Loading SK

Trip # 1 -
Trip # 2

Volume Loaded:		
SK	187,500	Gallons
SP	0	Gallons
Total	187,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	SE-3	90%	29.62			
0705	Arrive Edge of Zone	# 1	14*22.52' S	170*38.69' W	ESE-10	80	29.63	SE-2.5	8.9	161
0715	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	SE-10	"	29.64	" "	8.6	194
0723	Begin Discharge	# 3	14*24.63' S	170*37.11' W	" "	"	"	" " X	8.8	046
38		# 4	14*24.76' S	170*37.82' W					8.4	219
53	Remarks:	# 5	14*24.51' S	170*36.93' W					9.5	004
0808		# 6	14*24.83' S	170*37.91' W		90%			8.5	221
23		# 7	14*24.29' S	170*36.90' W				5	9.7	002
38		# 8	14*25.28' S	170*38.02' W			29.65		8.6	094
53		# 9	14*24.36' S	170*37.41' W			"		8.6	222
0908		# 10	14*24.81' S	170*37.13' W	SE-12		29.66		9.9	027
23		# 11	14*24.79' S	170*37.86' W			"	SE-2.0	9.0	218
38		# 12	14*24.33' S	170*36.89' W			"	" " 10	10.0	009
53		# 13	14*25.27' S	170*37.81' W		100%-RAIN	29.67	" "	9.7	041
1008		# 14	14*24.08' S	170*37.17' W		100	"		8.5	223
23		# 15	14*25.15' S	170*37.70' W		90	29.65		9.8	042
38		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1025	Finish Discharge	#16	14*24.61' S	170*37.56' W	SE-12	90%	29.65	SE-2.0	9.9	337
1036	Exit Discharge Zone	#17	14*22.60' S	170*38.25' W	" "	"	"	" "	10.2	341
1130	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 182 mins. Average Speed During Discharge: 9.2 kts. Total Time Run 5.25 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 112 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crooke

Date: 06/26/10 – Sat. F/V Blue Moon Ocean Dumping Log Voyage #: 5309

Permit # OD 93-01 & OD 93-02

	Time	
124	1420	Begin 1st Loading SK
	1620	Finish 1st Loading SK
	1000	Begin 2nd Loading SK
125	1445	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:		
SK	176,200	Gallons
SP	0	Gallons
Total	176,200	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0715	Depart Starkist		14*16.50' S	170* 41.2' W	SE-10	80	29.60			
0810	Arrive Edge of Zone	# 1	14*22.57' S	170*38.66' W	ESE-15	90-RAIN	29.62	ESE-2.5	8.1	162
0821	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	ESE-18	90	" "	" "	8.0	157
0830	Begin Discharge	# 3	14*24.39' S	170*37.05' W	ESE-20	80	" "	" " X	8.4	095
45		# 4	14*24.78' S	170*38.18' W	" "	"	" "		8.0	094
0900	Remarks:	# 5	14*24.32' S	170*37.74' W	ESE-25	70	" "		8.7	295
15		# 6	14*24.34' S	170*37.08' W	" "	60	29.63		8.6	258
30		# 7	14*24.76' S	170*37.91' W	" "			5	8.1	100
45		# 8	14*24.20' S	170*38.00' W					8.9	304
1000		# 9	14*24.46' S	170*37.80' W					9.1	260
15		# 10	14*24.82' S	170*37.75' W					8.4	097
30		# 11	14*24.15' S	170*38.00' W			29.62		9.3	294
45		# 12	14*24.37' S	170*37.71' W				10	9.4	263
1100		# 13	14*24.54' S	170*37.48' W					9.6	303
15		# 14	14*24.12' S	170*37.45' W		50	29.61		8.2	107
30		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1130	Finish Discharge	#15	14*24.01' S	170*37.98' W	ESE-25	50%	29.60	ESE-2.5	9.8	332
1140	Exit Discharge Zone.	#16	14*22.57' S	170*38.52' W	" "	"	"	" "	10.0	336
1230	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center WNW End of Discharge WNW Discharge Pattern Figure 8

Total Discharge Time: 180 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 5.25 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 111 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cwole

Date: 06/29/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5310

Permit # OD 93-01 & OD 93-02

	Time	
6/26	1630	Begin 1st Loading SK
	1830	Finish 1st Loading SK
	1500	Begin 2nd Loading SK
6/27	1900	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:			
SK	175,000	Gallons
SP	0	Gallons
Total	175,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0555	Depart Starkist		14*16.50' S	170* 41.2' W	calm	10	29.60			
0645	Arrive Edge of Zone	# 1	14*22.55' S	170*38.64' W	SE-10	25	29.63	SE-2.0	8.8	165
0655	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.8	158
0705	Begin Discharge	# 3	14*24.68' S	170*37.41' W	" "	20	29.64	" " X	8.6	135
" 20		# 4	14*24.40' S	170*37.65' W	" "	"	"	" "	8.7	223
" 35	Remarks:	# 5	14*24.78' S	170*37.06' W	" "	"	"		8.6	024
" 50		# 6	14*24.52' S	170*37.75' W	SE-12	25	29.65		9.0	219
0805		# 7	14*24.78' S	170*37.20' W			"	5	8.7	034
" 20		# 8	14*24.89' S	170*38.06' W			"		9.1	216
" 35		# 9	14*24.33' S	170*36.96' W					8.8	002
" 50		# 10	14*25.20' S	170*38.16' W	SE-15				9.1	193
0905		# 11	14*24.17' S	170*36.96' W		20			9.3	310
" 20		# 12	14*25.26' S	170*37.71' W		"		10	9.6	045
" 35		# 13	14*24.18' S	170*37.40' W		"			8.9	226
" 50		# 14	14*25.15' S	170*37.88' W		"			9.5	057
1005		# 15	14*24.23' S	170*37.50' W					9.2	229
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1015	Finish Discharge	# 16	14*24.46' S	170*37.73' W	SE-15	20%	29.65	SE-2.0	9.5	347
1028	Exit Discharge Zone	#17	14*22.57' S	170*38.24' W	" "	"	"	" "	9.6	340
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

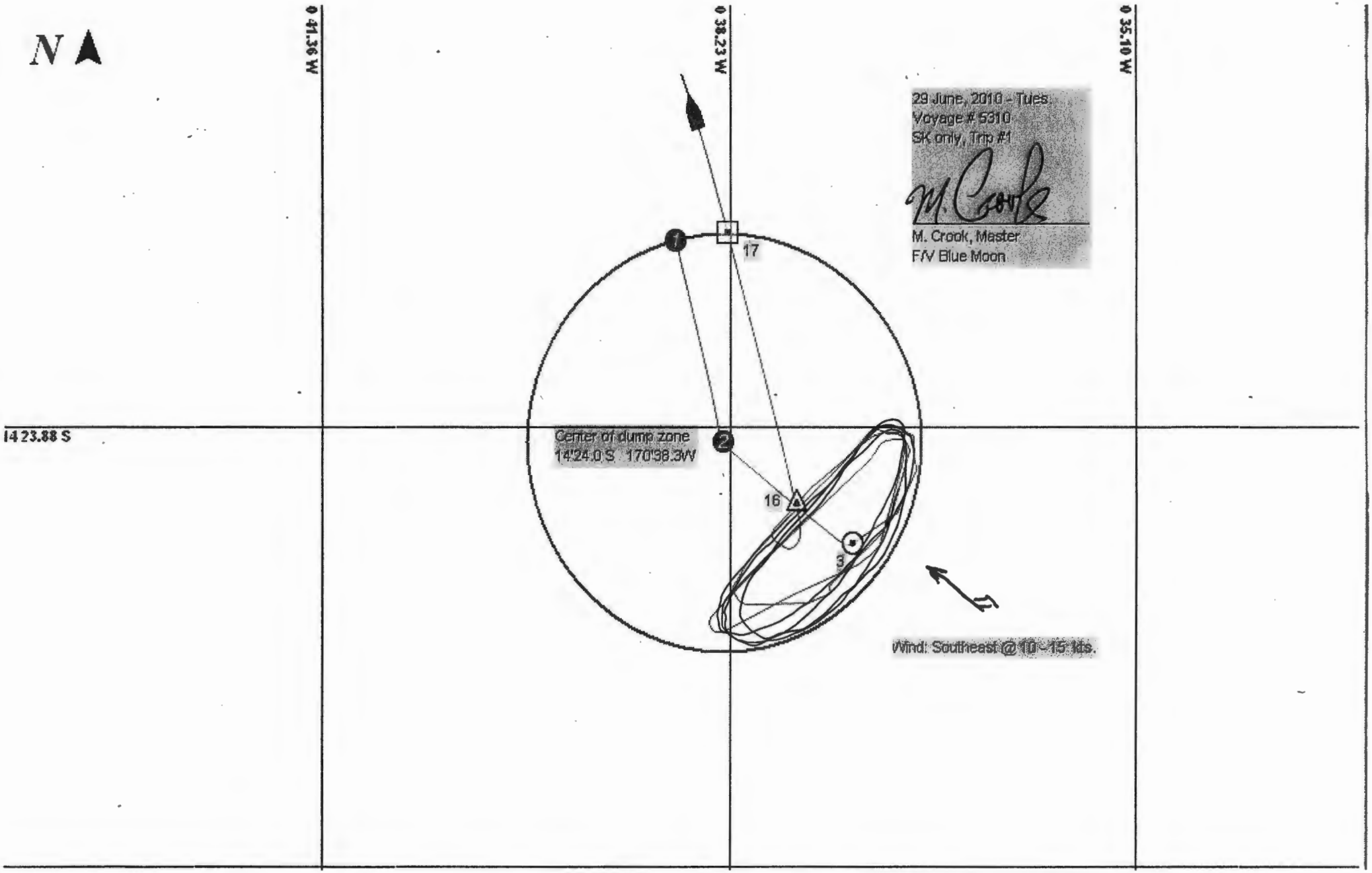
Total Discharge Time: 190 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.4 hr.

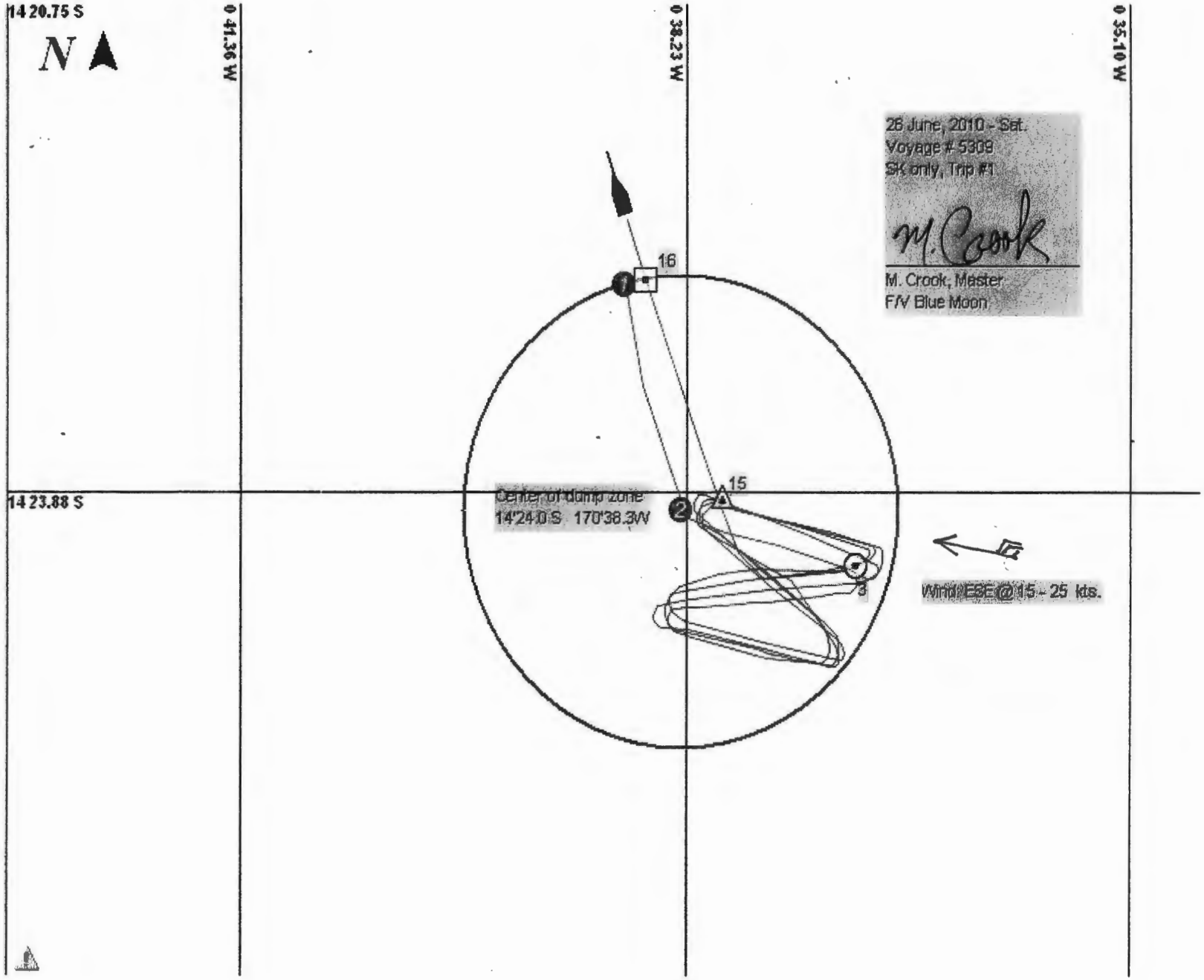
Navigational Plot made: yes Presence of Plume? No

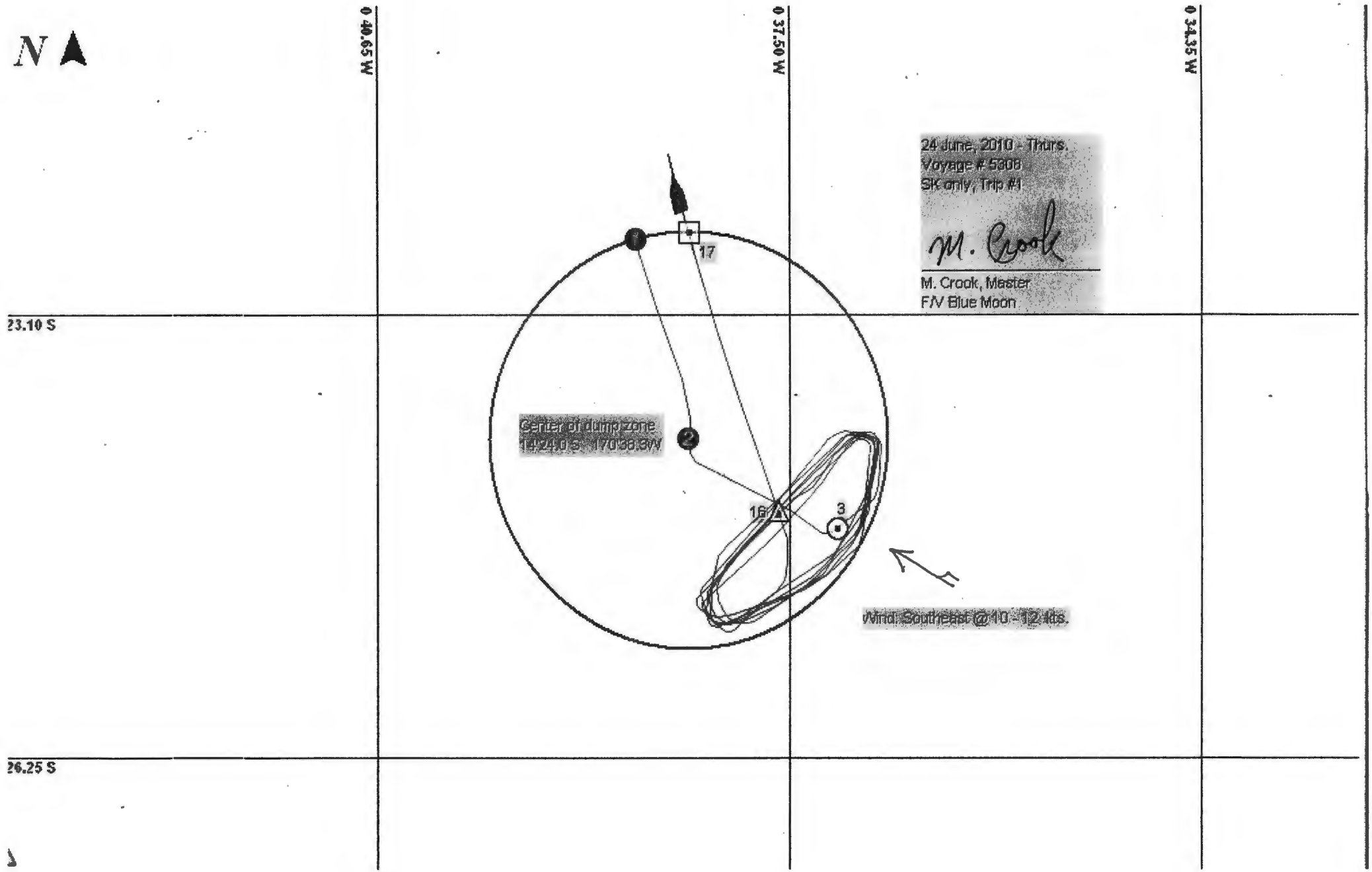
Time and position of any floating material: None Discharge Rate: 102 Gallons/min/kts

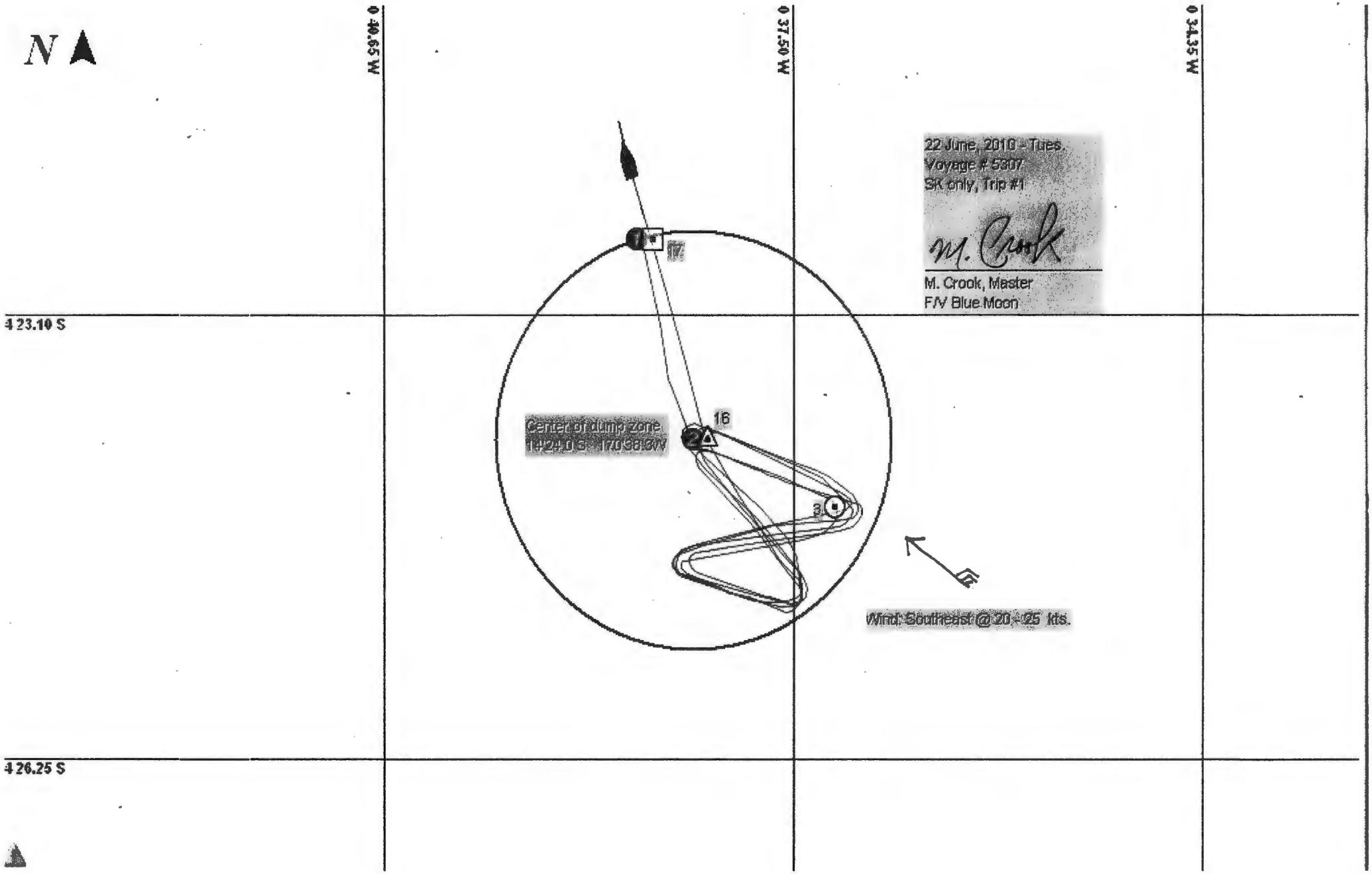
Unusuall Occurrences? Nav Plot completed (partial) by hand due to GPS malfunction.

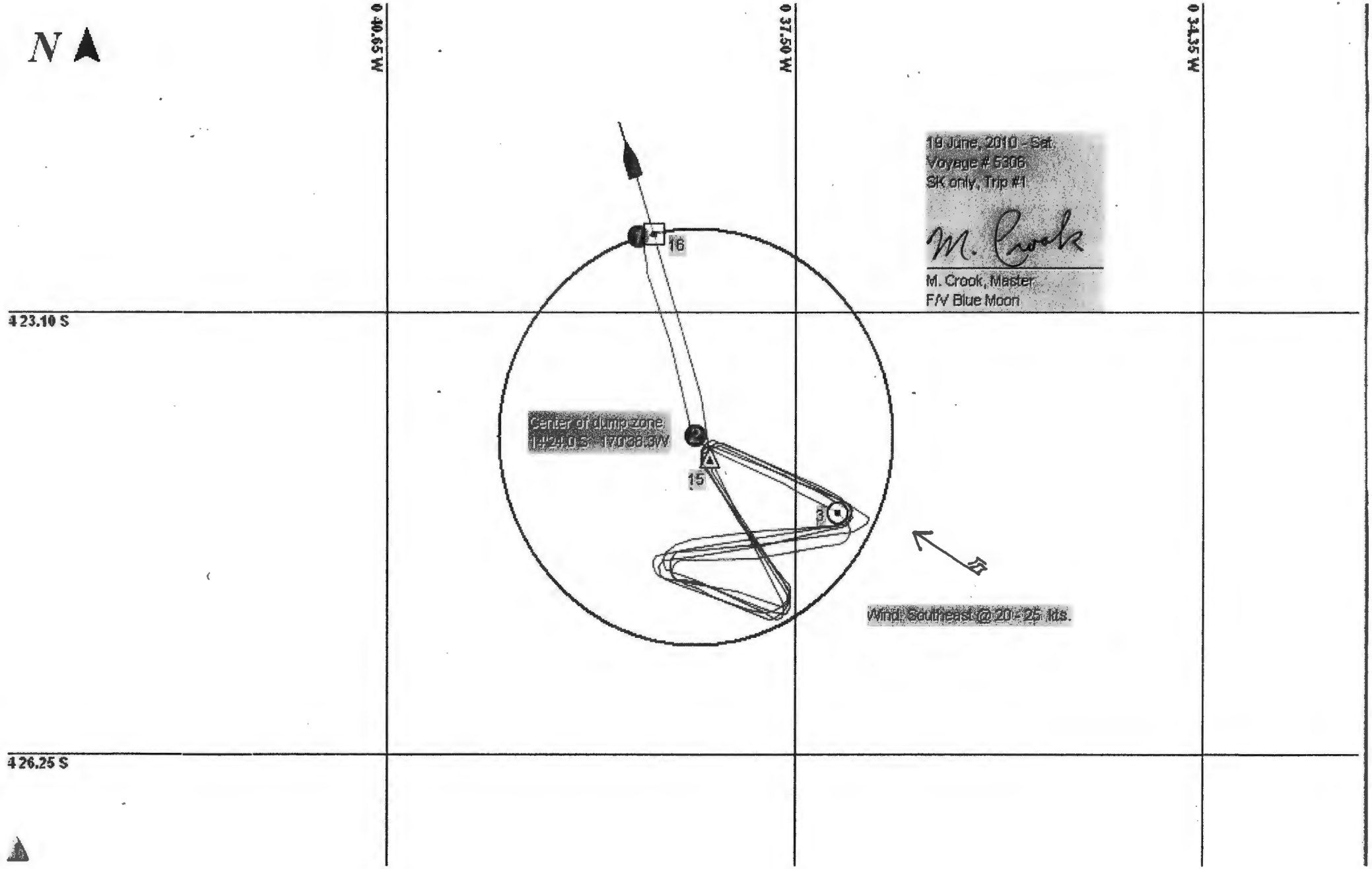
Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

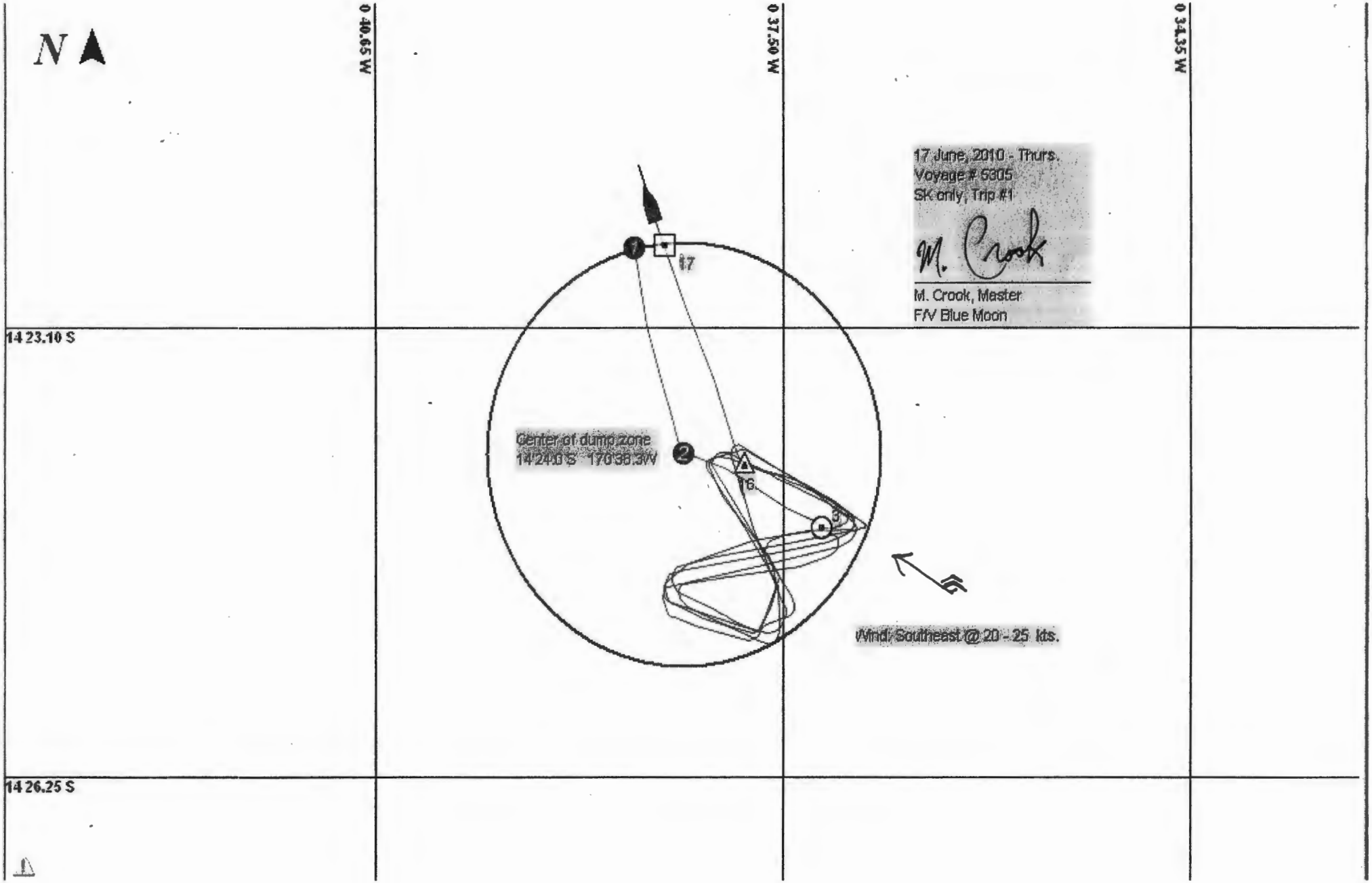

N
0 41.36 W
0 38.23 W
0 35.10 W
14 23.88 S
29 June, 2010 - Tues.
Voyage # 5310
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
17
1
2
Center of dump zone
14°24.0'S 170°38.3'W
16
3
Wind: Southeast @ 10 - 15 kts.

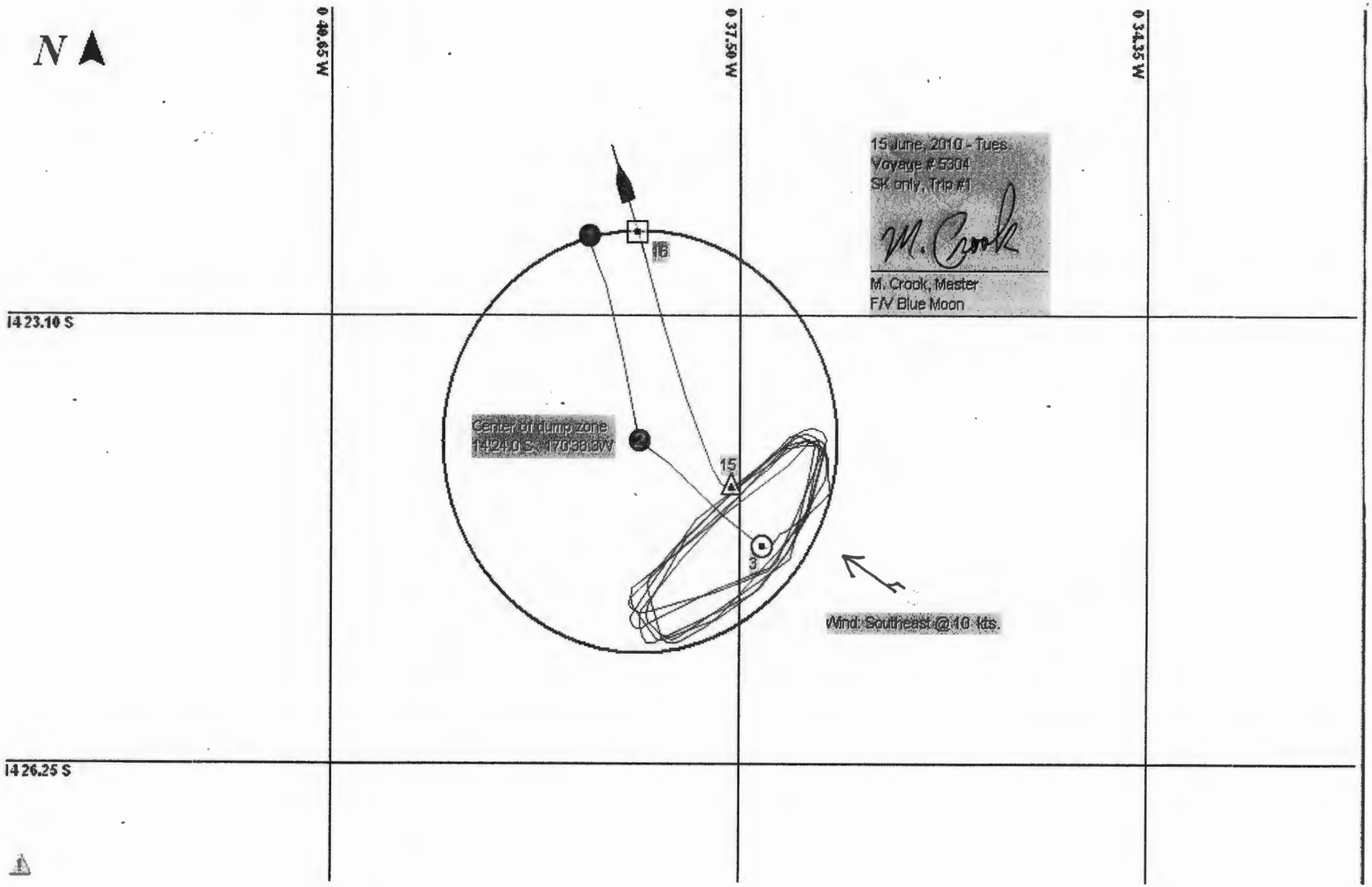

14 20.75 S
N
0 41.36 W
0 38.23 W
0 35.10 W
14 23.88 S
26 June, 2010 - Sat.
Voyage # 5309
Sk only, Trip #1
M. Crook, Master
F/V Blue Moon
16
15
1
2
3
Center of dump zone
14°24.0'S 170°38.3'W
Wind: ESE @ 15 - 25 kts.

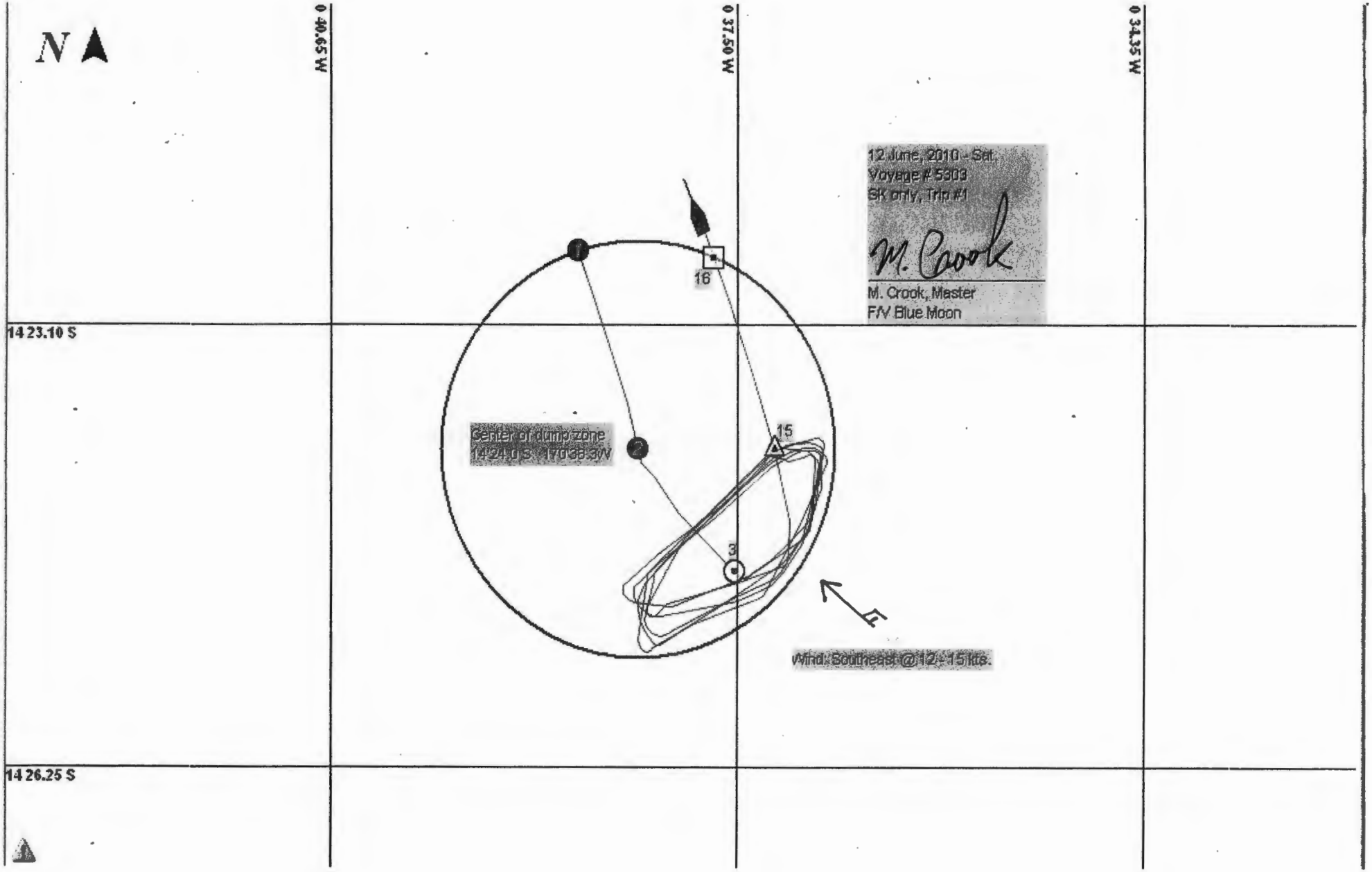

N
0 40.65 W
0 37.50 W
0 34.35 W
23.10 S
26.25 S
24 June, 2010 - Thurs.
Voyage # 5808
SK only, Trip #1
M. Crook
M. Crook, Master
F/V Blue Moon
17
1
2
16
3
Center of dump zone
14 24.0 S 170 38.3W
Wind: Southeast @ 10 - 12 kts.

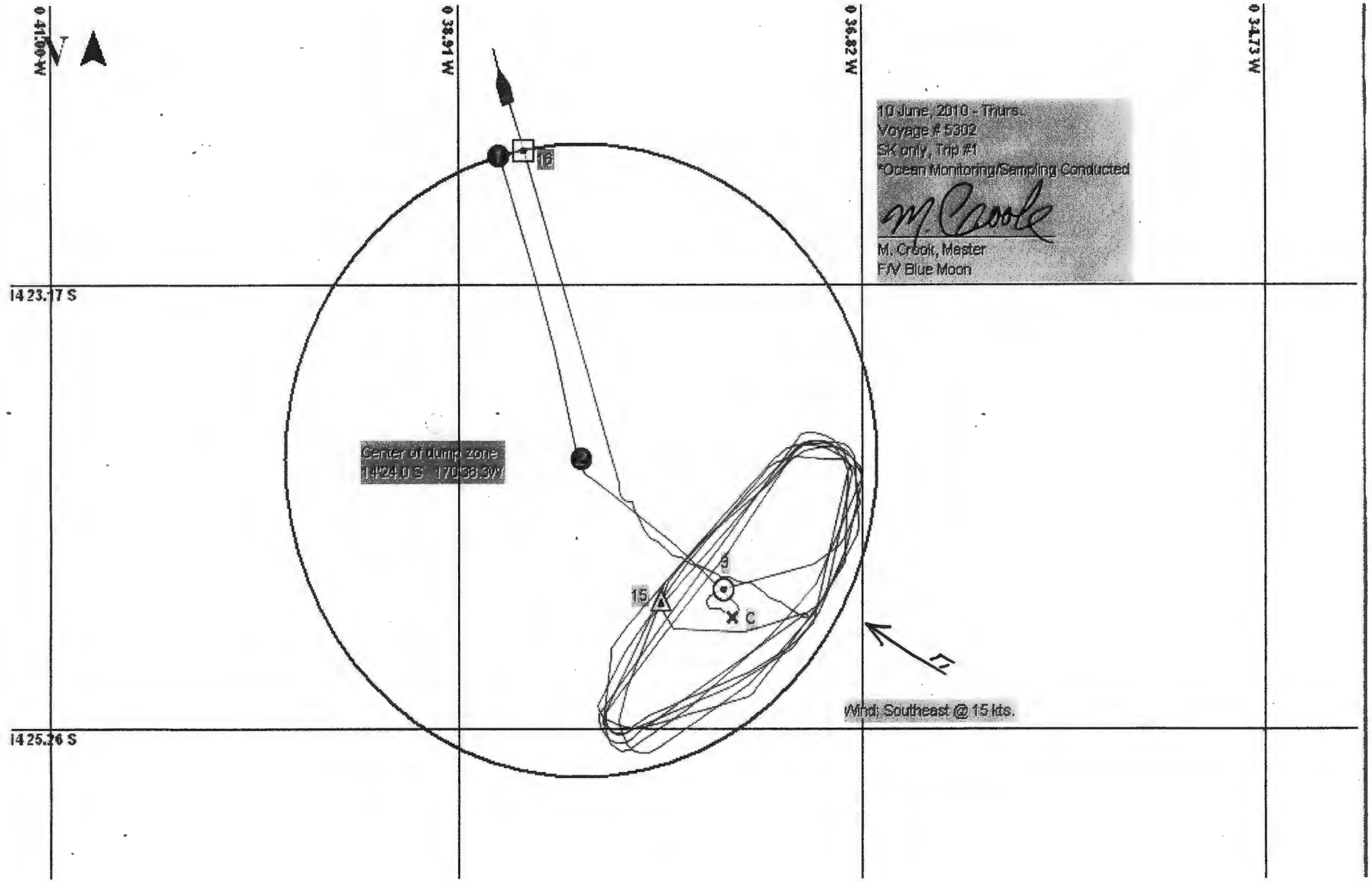

N
0 40.65 W
0 37.50 W
0 34.35 W
4 23.10 S
4 26.25 S
22 June, 2010 - Tues.
Voyage # 5307
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
17
16
3
Center of dump zone
14°24.0'S - 170°38.3'W
Wind: Southeast @ 20 - 25 kts.

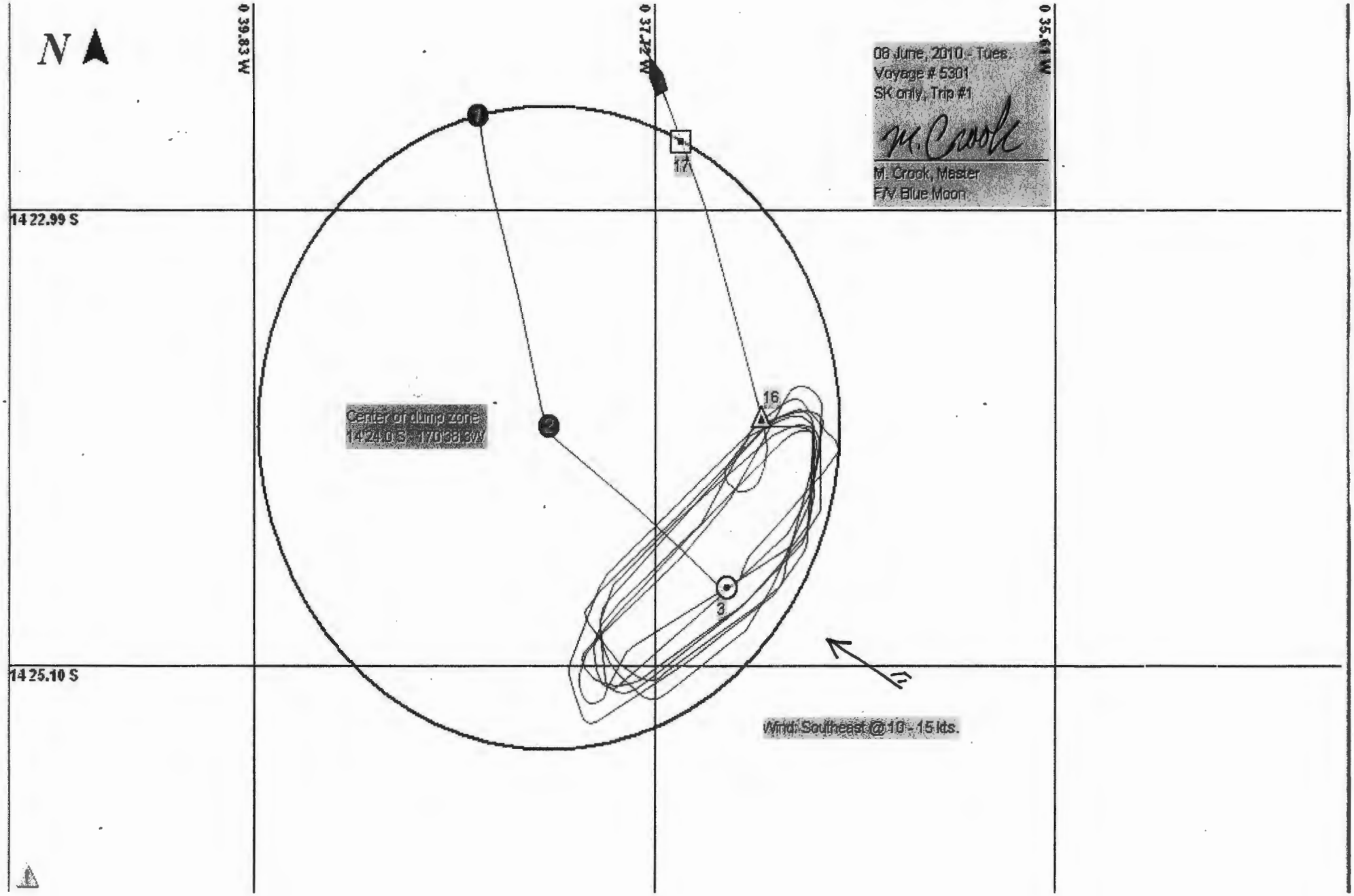

N
0 40.65 W
0 37.50 W
0 34.35 W
4 23.10 S
4 26.25 S
19 June, 2010 - Sat.
Voyage # 5306
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14°24.0'S 170°38.3'W
16
15
3
Wind: Southeast @ 20 - 25 kts.

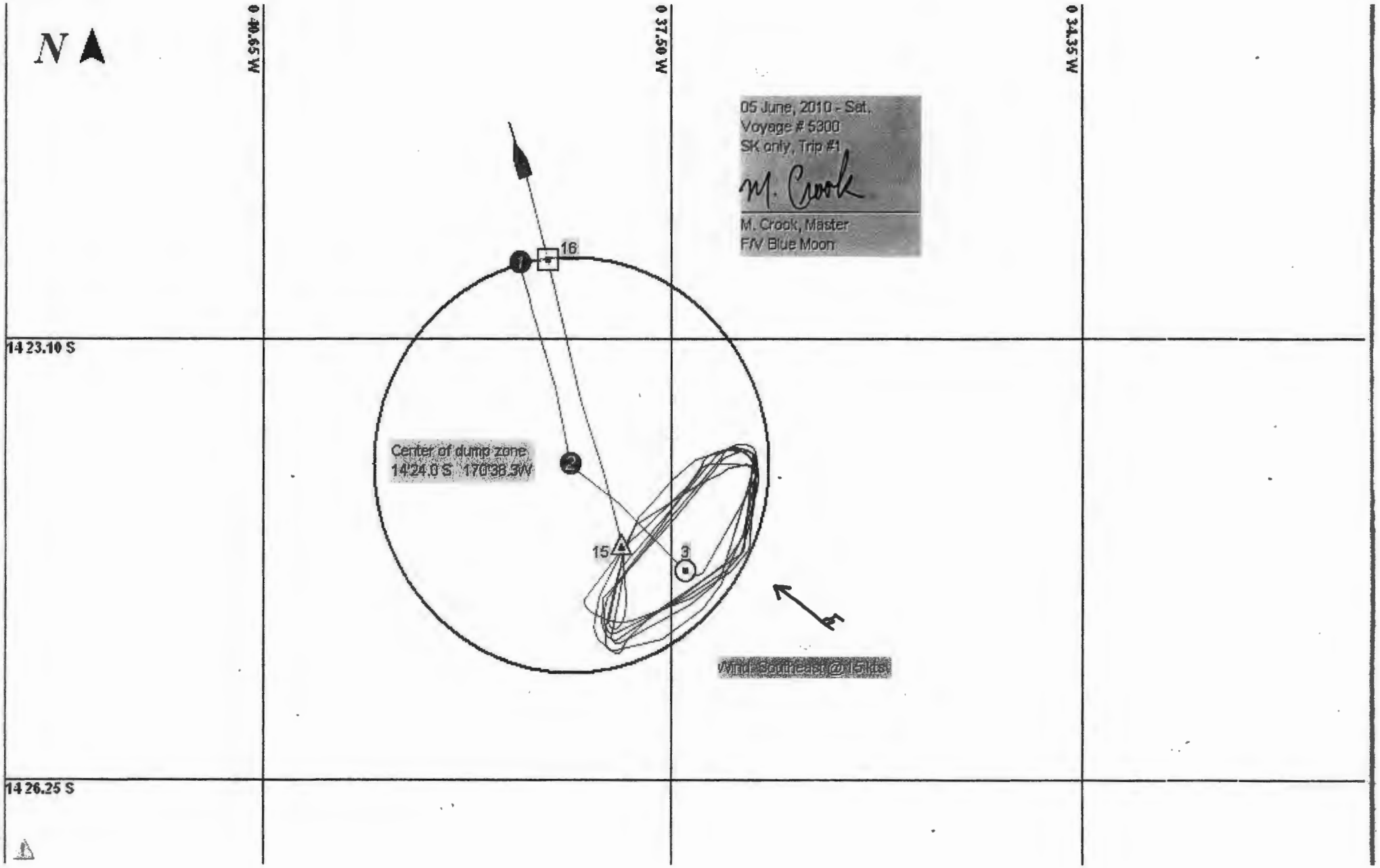

N
0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
14 26.25 S
17 June, 2010 - Thurs.
Voyage # 5305
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14 24.0 S 170 38.3W
1
2
3
16
17
Wind: Southeast @ 20 - 25 kts.

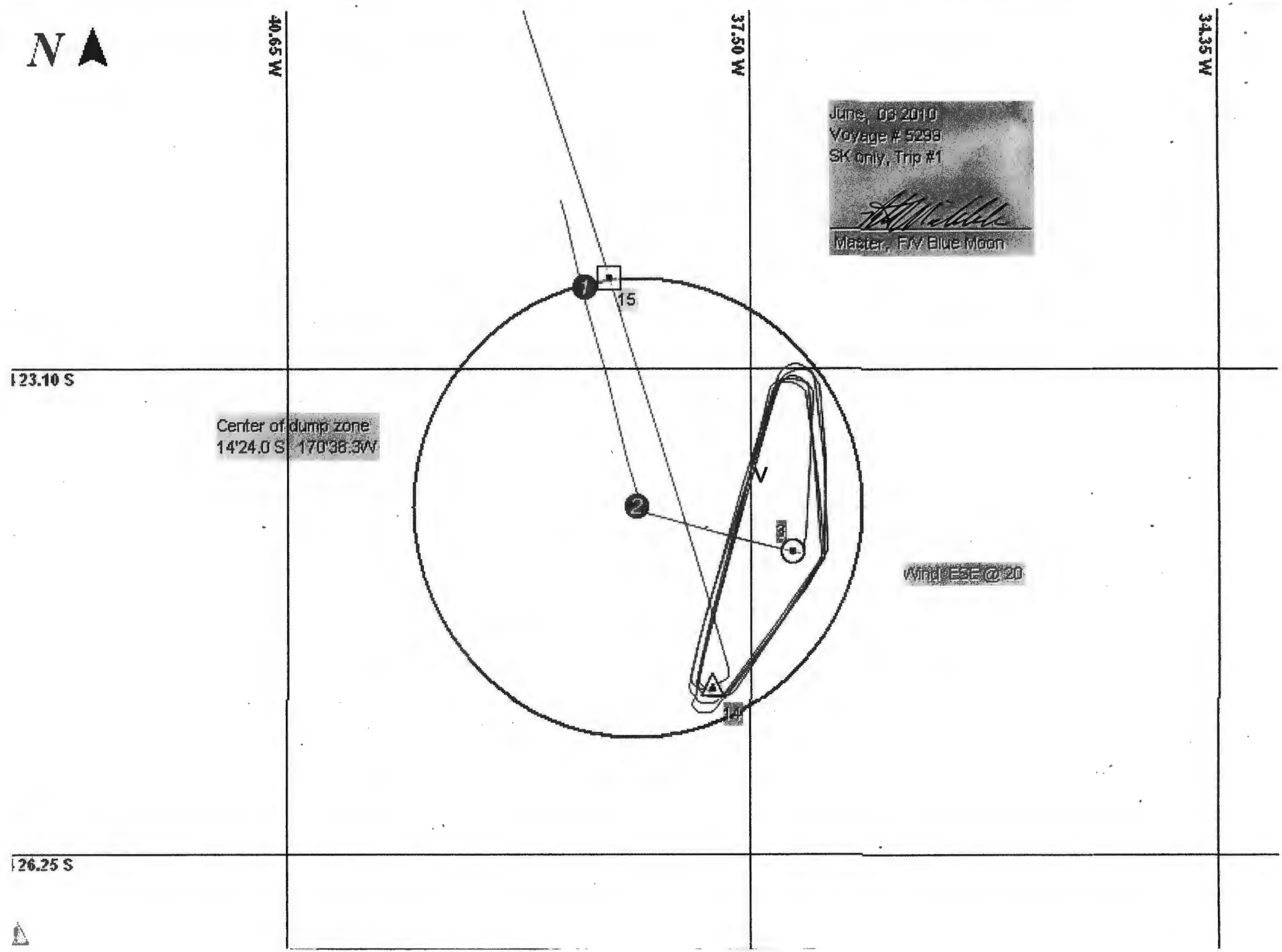

N
0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
14 26.25 S
15 June, 2010 - Tues.
Voyage # 5304
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
16
2
15
3
Center of dump zone
14 24.0 S 170 38.3W
Wind: Southeast @ 10 kts.

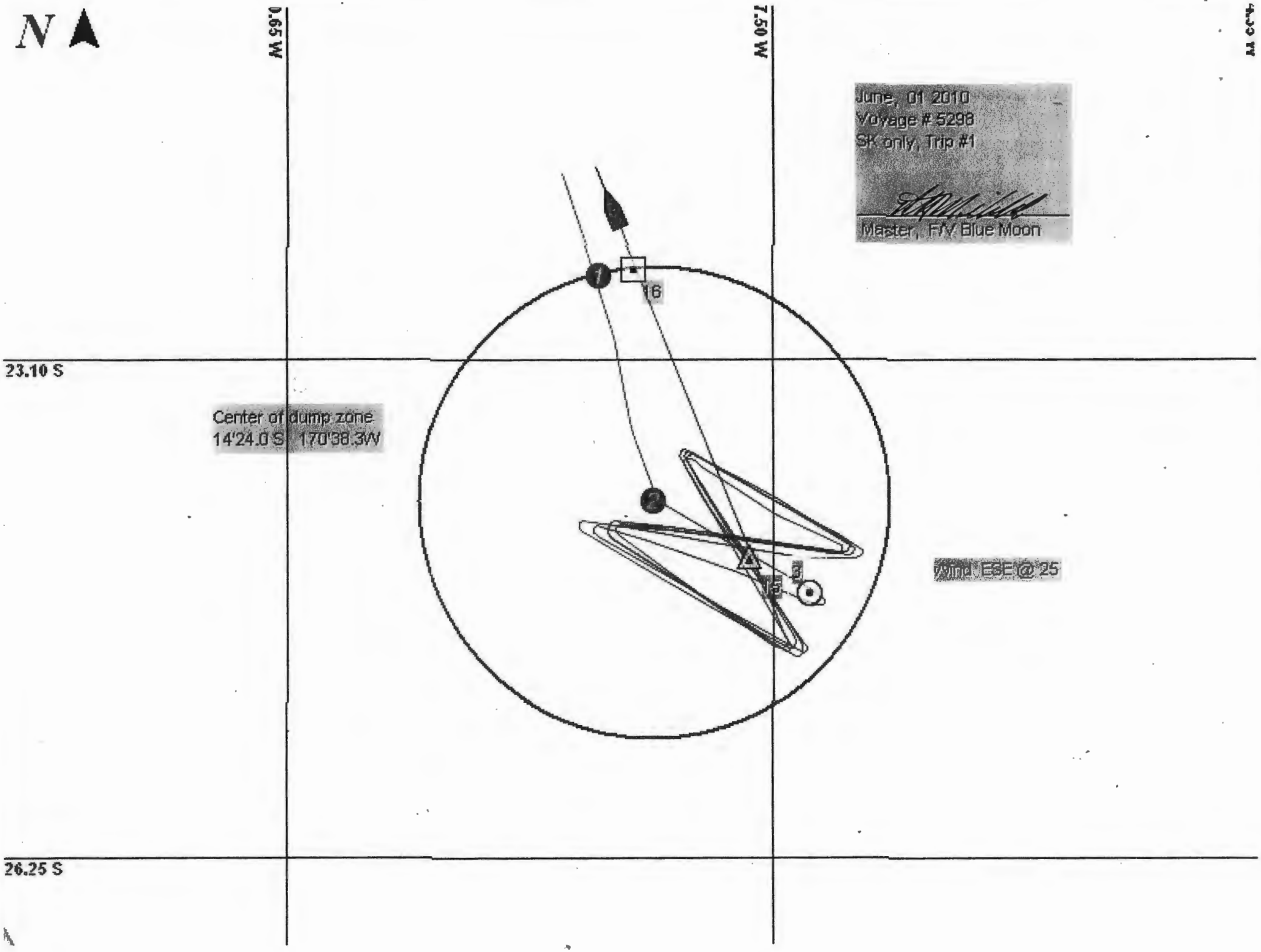

N
0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
14 26.25 S
12 June, 2010 - Sat.
Voyage # 5303
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14°24.0'S 170°38.3'W
1
2
3
15
16
Wind: Southeast @12 - 15 kts.


0 41.00 W
0 38.91 W
0 36.82 W
0 34.73 W
14 23.17 S
14 25.26 S
N
10 June, 2010 - Thurs.
Voyage # 5302
SK only, Trip #1
*Ocean Monitoring/Sampling Conducted
M. Crook, Master
F/V Blue Moon
Center of dump zone
14°24.0 S 170°38.3W
1
2
3
15
16
C
Wind: Southeast @ 15 kts.


N
0 39.83 W
0 37.22 W
0 35.61 W
14 22.99 S
14 25.10 S
08 June, 2010 - Tues.
Voyage # 5301
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14 24.0 S - 170 38.3 W
1
2
3
16
17
Wind: Southeast @ 10 - 15 kts.


N
0 40.65 W
0 37.50 W
0 34.35 W
14 23.10 S
14 26.25 S
05 June, 2010 - Sat.
Voyage # 5300
SK only, Trip #1
M. Crook
M. Crook, Master
F/V Blue Moon
16
1
2
15
3
Center of dump zone
14 24.0 S 170 38.3W
Wind: Southeast @ 15 kts


N
40.65 W
37.50 W
34.35 W
23.10 S
26.25 S
June, 03 2010
Voyage # 5298
SK only, Trip #1
Master, F/V Blue Moon
1
2
15
Center of dump zone
14'24.0 S 170'38.3W
Wind ESE @ 20


N
0.65 W
7.50 W
23.10 S
26.25 S
June, 01 2010
Voyage # 5298
SK only, Trip #1
Master, F/V Blue Moon
16
Center of dump zone
14'24.0 S 170'38.3W
Wind ESE @ 25

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

01 July, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS/Samoa Packing	Sam Augspurger
Determination of Sampling Positions:	All positions obtained by GPS Satellite Navigation

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
07 July. 2010

Introduction

On July 1, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master/Principal Investigator, Chief and Mate on board.

0600: The *Blue Moon* entered the dumpzone circle @ 14*22.5' S / 170*38.7' W.

0610: The *Blue Moon* arrived at the dump-zone center, where observed light southeasterly winds and slight southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0622: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with SE swells to 1.5 meters and a light SE breeze of 5 knots and the barometer reading 29.66. Current set and drift, of the ship, were to the northwest at 0.4 knots. No floating materials or sea life were observed here.

0635: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical pattern, approximately 2.2 miles long (see Plot 1) until 0927 hrs.

0935: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had increased slightly to 7 knots with still, partly cloudy skies. The waste plume appeared here as elongate streaks of moderate glassy surface sheen extending in a NE to southwesterly direction and moving, generally, to the northwest. The current/wind drift of the ship was now GPS determined to be northwesterly @ 0.5 knots. No sea life or floatable materials were observed.

0945: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position showed a lighter glassy surface sheen than at Station #1, over clear natural blue appearing seawater. The average drift rate of the ship with current and wind was GPS determined to be northwesterly (NW) at 0.4 knots between stations 2 & 3 (See Plot #1). No sea-life or floatable materials were noted at this position.

0955: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position showed only some very light glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was 0.5 knots, again, to the NW.

1005: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM, NW of Station #3, showed the same visual characteristics of the waste plume as Station #1 with another large area of moderate to heavy surface sheen over natural clear blue water extending from NE to SW and roughly 2 miles long. There were no floating or suspended materials. The NW current/drift rate of the ship was again noted here to be at 0.4 knots.

1015: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.35 NM southeast of the zone center. The leading edge of the waste plume was clearly visible at this location as an area of both heavy and light streaks of glassy surface sheen with clear, natural appearing blue waters further down-current to the NW. No notable sea life was observed at this position or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.67 when monitoring activities were concluded at 1022 hrs. The *Blue Moon* exited the disposal zone at 1035 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1130 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

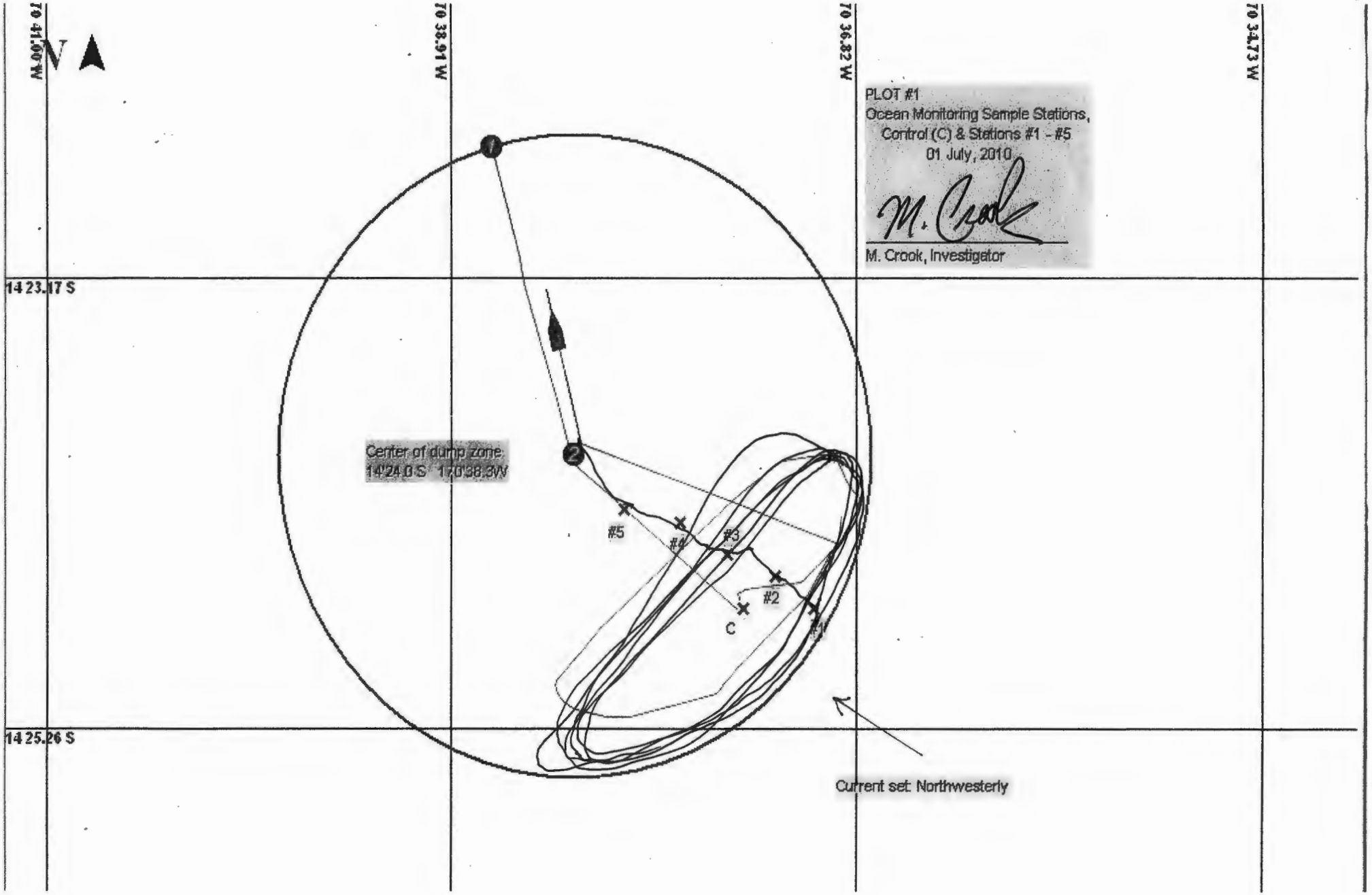
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 01 July, 2010	Sea Conditions: Slight w/ Southeast (SE) swells to 1.5 meters. Wind: SE @ 5 - 7 knots Sky: Partly Cloudy, 20 - 40% Barometer: 29.63 – 29.67 Current Set & Drift: Northwest @ average 0.45 knots Visibility: Unlimited					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0622	Control	1	27.8	8.8	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	27.8	8.8		
		10	27.8	8.8		
0935	Station 1	1	28.3	8.7	Slightly Pungent	Moderate glassy surface sheen over deep pelagic blue w/ no floating or suspended materials.
		3	28.3	8.7		
		10	28.3	8.7		
0945	Station 2	1	28.3	8.8	Slightly Pungent	Light, glassy surface sheen over deep, clear blue. No floating or suspended materials.
		3	28.3	8.7		
		10	28.3	8.7		
0955	Station 3	1	28.3	8.7	Slightly Pungent	Very light, glassy surface sheen over deep, clear blue. No floating or suspended particulate materials.
		3	28.3	8.7		
		10	28.3	8.8		
1005	Station 4	1	28.3	8.7	Pungent	Moderate to heavy oily surface sheen over clear blue w/ no suspended or floating particulates or scum etc..
		3	28.3	8.7		
		10	28.3	8.8		
1015	Station 5	1	28.3	8.7	Slightly Pungent	Leading edge of the waste plume: A mix of both both heavy and very light streaks of glassy surface sheen with clear blue water beyond down-current to NW. No floating or suspended particulate materials
		3	28.3	8.8		
		10	27.8	8.8		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.71'	South	170° 37.44'	West
Station 1	14° 24.39'	South	170° 36.96'	West
Station 2	14° 24.45'	South	170° 37.21'	West
Station 3	14° 24.38'	South	170° 37.47'	West
Station 4	14° 24.27'	South	170° 37.68'	West
Station 5	14° 24.26'	South	170° 38.00'	West


70 41.00 W
70 38.91 W
70 36.82 W
70 34.73 W
14 23.17 S
14 25.26 S
N
PLOT #1
Ocean Monitoring Sample Stations,
Control (C) & Stations #1 - #5
01 July, 2010
M. Crook, Investigator
Center of dump zone:
14°24.0'S 170°38.3'W
1
2
#5
#4
#3
#2
#1
C
Current set: Northwesterly

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

01 July, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS/Samoa Packing	Sam Augspurger
Determination of Sampling Positions:	All positions obtained by GPS Satellite Navigation

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
07 July. 2010

Introduction

On July 1, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master/Principal Investigator, Chief and Mate on board.

0600: The *Blue Moon* entered the dumpzone circle @ 14*22.5' S / 170*38.7' W.

0610: The *Blue Moon* arrived at the dump-zone center, where observed light southeasterly winds and slight southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0622: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with SE swells to 1.5 meters and a light SE breeze of 5 knots and the barometer reading 29.66. Current set and drift, of the ship, were to the northwest at 0.4 knots. No floating materials or sea life were observed here.

0635: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical pattern, approximately 2.2 miles long (see Plot 1) until 0927 hrs.

0935: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had increased slightly to 7 knots with still, partly cloudy skies. The waste plume appeared here as elongate streaks of moderate glassy surface sheen extending in a NE to southwesterly direction and moving, generally, to the northwest. The current/wind drift of the ship was now GPS determined to be northwesterly @ 0.5 knots. No sea life or floatable materials were observed.

0945: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position showed a lighter glassy surface sheen than at Station #1, over clear natural blue appearing seawater. The average drift rate of the ship with current and wind was GPS determined to be northwesterly (NW) at 0.4 knots between stations 2 & 3 (See Plot #1). No sea-life or floatable materials were noted at this position.

0955: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position showed only some very light glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was 0.5 knots, again, to the NW.

1005: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM, NW of Station #3, showed the same visual characteristics of the waste plume as Station #1 with another large area of moderate to heavy surface sheen over natural clear blue water extending from NE to SW and roughly 2 miles long. There were no floating or suspended materials. The NW current/drift rate of the ship was again noted here to be at 0.4 knots.

1015: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.35 NM southeast of the zone center. The leading edge of the waste plume was clearly visible at this location as an area of both heavy and light streaks of glassy surface sheen with clear, natural appearing blue waters further down-current to the NW. No notable sea life was observed at this position or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.67 when monitoring activities were concluded at 1022 hrs. The *Blue Moon* exited the disposal zone at 1035 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1130 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

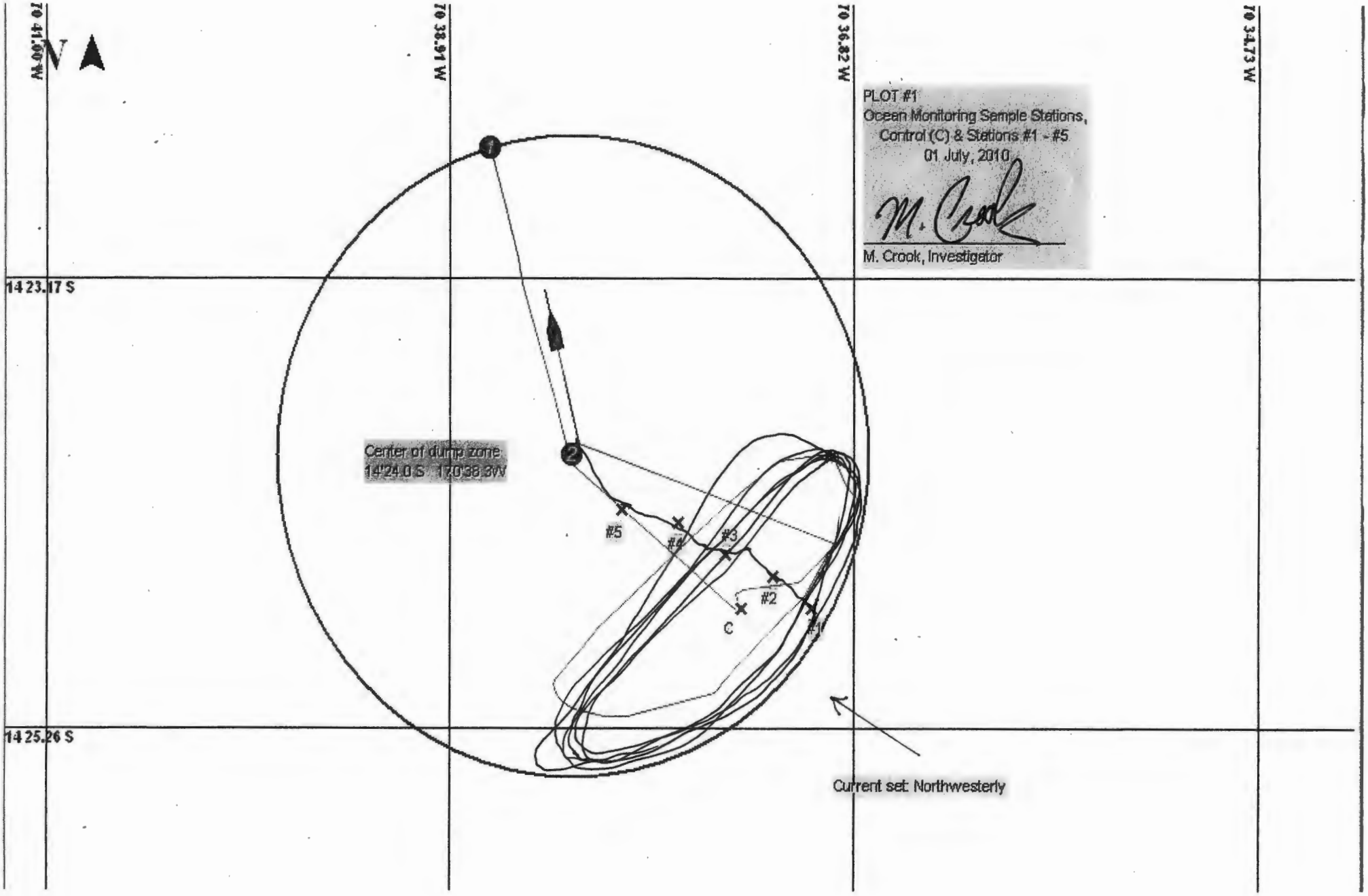
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 01 July, 2010	Sea Conditions: Slight w/ Southeast (SE) swells to 1.5 meters. Wind: SE @ 5 - 7 knots Sky: Partly Cloudy, 20 - 40% Barometer: 29.63 – 29.67 Current Set & Drift: Northwest @ average 0.45 knots Visibility: Unlimited					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0622	Control	1	27.8	8.8	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	27.8	8.8		
		10	27.8	8.8		
0935	Station 1	1	28.3	8.7	Slightly Pungent	Moderate glassy surface sheen over deep pelagic blue w/ no floating or suspended materials.
		3	28.3	8.7		
		10	28.3	8.7		
0945	Station 2	1	28.3	8.8	Slightly Pungent	Light, glassy surface sheen over deep, clear blue. No floating or suspended materials.
		3	28.3	8.7		
		10	28.3	8.7		
0955	Station 3	1	28.3	8.7	Slightly Pungent	Very light, glassy surface sheen over deep, clear blue. No floating or suspended particulate materials.
		3	28.3	8.7		
		10	28.3	8.8		
1005	Station 4	1	28.3	8.7	Pungent	Moderate to heavy oily surface sheen over clear blue w/ no suspended or floating particulates or scum etc..
		3	28.3	8.7		
		10	28.3	8.8		
1015	Station 5	1	28.3	8.7	Slightly Pungent	Leading edge of the waste plume: A mix of both both heavy and very light streaks of glassy surface sheen with clear blue water beyond down-current to NW. No floating or suspended particulate materials
		3	28.3	8.8		
		10	27.8	8.8		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.71'	South	170° 37.44'	West
Station 1	14° 24.39'	South	170° 36.96'	West
Station 2	14° 24.45'	South	170° 37.21'	West
Station 3	14° 24.38'	South	170° 37.47'	West
Station 4	14° 24.27'	South	170° 37.68'	West
Station 5	14° 24.26'	South	170° 38.00'	West


70 41.00 W
70 38.91 W
70 36.82 W
70 34.73 W
14 23.17 S
14 25.26 S
N
PLOT #1
Ocean Monitoring Sample Stations,
Control (C) & Stations #1 - #5
01 July, 2010
M. Crook, Investigator
Center of dump zone
14°24.0 S 170°38.3W
1
2
#5
#4
#3
#2
#1
C
Current set: Northwesterly

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

01 July, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS/Samoa Packing	Sam Augspurger
Determination of Sampling Positions:	All positions obtained by GPS Satellite Navigation

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
07 July. 2010

Introduction

On July 1, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master/Principal Investigator, Chief and Mate on board.

0600: The *Blue Moon* entered the dumpzone circle @ 14*22.5' S / 170*38.7' W.

0610: The *Blue Moon* arrived at the dump-zone center, where observed light southeasterly winds and slight southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0622: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with SE swells to 1.5 meters and a light SE breeze of 5 knots and the barometer reading 29.66. Current set and drift, of the ship, were to the northwest at 0.4 knots. No floating materials or sea life were observed here.

0635: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical pattern, approximately 2.2 miles long (see Plot 1) until 0927 hrs.

0935: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had increased slightly to 7 knots with still, partly cloudy skies. The waste plume appeared here as elongate streaks of moderate glassy surface sheen extending in a NE to southwesterly direction and moving, generally, to the northwest. The current/wind drift of the ship was now GPS determined to be northwesterly @ 0.5 knots. No sea life or floatable materials were observed.

0945: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position showed a lighter glassy surface sheen than at Station #1, over clear natural blue appearing seawater. The average drift rate of the ship with current and wind was GPS determined to be northwesterly (NW) at 0.4 knots between stations 2 & 3 (See Plot #1). No sea-life or floatable materials were noted at this position.

0955: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position showed only some very light glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was 0.5 knots, again, to the NW.

1005: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM, NW of Station #3, showed the same visual characteristics of the waste plume as Station #1 with another large area of moderate to heavy surface sheen over natural clear blue water extending from NE to SW and roughly 2 miles long. There were no floating or suspended materials. The NW current/drift rate of the ship was again noted here to be at 0.4 knots.

1015: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.35 NM southeast of the zone center. The leading edge of the waste plume was clearly visible at this location as an area of both heavy and light streaks of glassy surface sheen with clear, natural appearing blue waters further down-current to the NW. No notable sea life was observed at this position or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.67 when monitoring activities were concluded at 1022 hrs. The *Blue Moon* exited the disposal zone at 1035 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1130 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

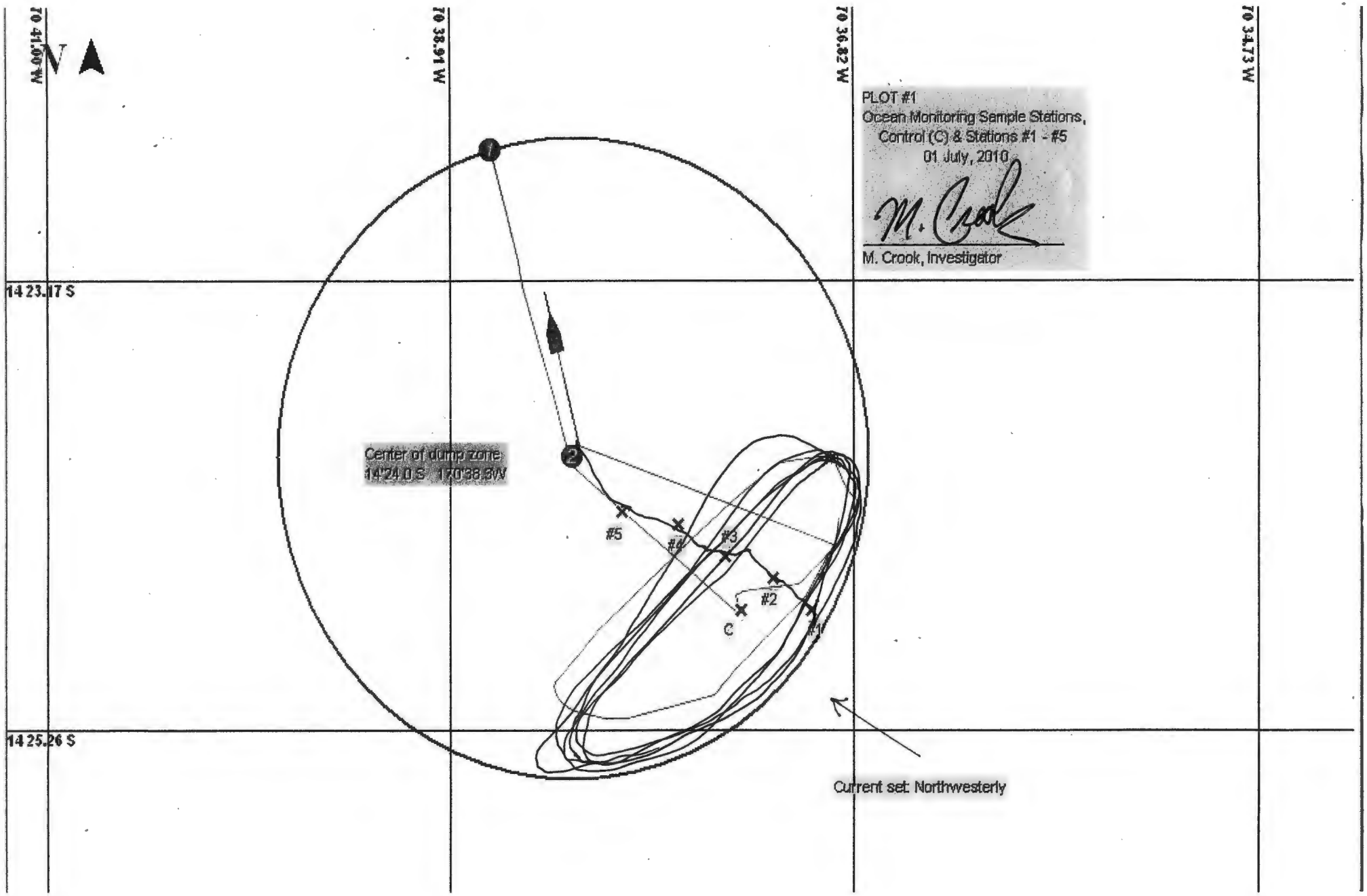
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 01 July, 2010	Sea Conditions: Slight w/ Southeast (SE) swells to 1.5 meters. Wind: SE @ 5 - 7 knots Sky: Partly Cloudy, 20 - 40% Barometer: 29.63 – 29.67 Current Set & Drift: Northwest @ average 0.45 knots Visibility: Unlimited					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0622	Control	1	27.8	8.8	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	27.8	8.8		
		10	27.8	8.8		
0935	Station 1	1	28.3	8.7	Slightly Pungent	Moderate glassy surface sheen over deep pelagic blue w/ no floating or suspended materials.
		3	28.3	8.7		
		10	28.3	8.7		
0945	Station 2	1	28.3	8.8	Slightly Pungent	Light, glassy surface sheen over deep, clear blue. No floating or suspended materials.
		3	28.3	8.7		
		10	28.3	8.7		
0955	Station 3	1	28.3	8.7	Slightly Pungent	Very light, glassy surface sheen over deep, clear blue. No floating or suspended particulate materials.
		3	28.3	8.7		
		10	28.3	8.8		
1005	Station 4	1	28.3	8.7	Pungent	Moderate to heavy oily surface sheen over clear blue w/ no suspended or floating particulates or scum etc..
		3	28.3	8.7		
		10	28.3	8.8		
1015	Station 5	1	28.3	8.7	Slightly Pungent	Leading edge of the waste plume: A mix of both both heavy and very light streaks of glassy surface sheen with clear blue water beyond down-current to NW. No floating or suspended particulate materials
		3	28.3	8.8		
		10	27.8	8.8		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.71'	South	170° 37.44'	West
Station 1	14° 24.39'	South	170° 36.96'	West
Station 2	14° 24.45'	South	170° 37.21'	West
Station 3	14° 24.38'	South	170° 37.47'	West
Station 4	14° 24.27'	South	170° 37.68'	West
Station 5	14° 24.26'	South	170° 38.00'	West


70 41.00 W
70 38.91 W
70 36.82 W
70 34.73 W
14 23.17 S
14 25.26 S
N
PLOT #1
Ocean Monitoring Sample Stations,
Control (C) & Stations #1 - #5
01 July, 2010
M. Crook, Investigator
Center of dump zone
14°24.0 S 170°38.3W
1
2
#5
#4
#3
#2
#1
C
Current set: Northwesterly

OCEAN DUMPING MONTHLY SUMMARY

Month: July, 2010

	SK:	TOTAL:
NUMBER OF TRIPS:	12	**12**
GALLONS-FOR THE MONTH:	2,096,750	**2,096,750**
GALLONS FOR SOLO TRIPS:	2,096,750	

RUNNING TIME 62.9 hrs.

AVERAGE DISCHARGE TIME 174 mins.

AVERAGE GPM DISCHARGE RATE: 113.3 gallons/minute/knot

AVERAGE TRIP TIME: 5.24 hrs.

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK:
100.00%

MASTER : M. Cook

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : July 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Jul-10	5875	23500	29375	58750	192500
2-Jul-10	7750	31000	38750	77500	
3-Jul-10	1000	4000	5000	10000	199750
4-Jul-10	0	0	0	0	
5-Jul-10	0	0	0	0	
6-Jul-10	0	0	0	0	80000
7-Jul-10	0	0	0	0	
8-Jul-10	0	0	0	0	
9-Jul-10	0	0	0	0	
10-Jul-10	0	0	0	0	
11-Jul-10	4750	19000	23750	47500	
12-Jul-10	4625	18500	23125	46250	
13-Jul-10	2250	9000	11250	22500	136250
14-Jul-10	16500	66000	82500	165000	
15-Jul-10	3000	12000	15000	30000	190000
16-Jul-10	16375	65500	81875	163750	
17-Jul-10	7500	30000	37500	75000	198750
18-Jul-10	750	3000	3750	7500	
19-Jul-10	6375	25500	31875	63750	
20-Jul-10	8125	32500	40625	81250	176250
21-Jul-10	9375	37500	46875	93750	
22-Jul-10	7250	29000	36250	72500	180000
23-Jul-10	8700	34800	43500	87000	152000
24-Jul-10	8500	34000	42500	85000	
25-Jul-10	2000	8000	10000	20000	
26-Jul-10	6000	24000	30000	60000	
27-Jul-10	9625	38500	48125	96250	200000
28-Jul-10	8625	34500	43125	86250	
29-Jul-10	8375	33500	41875	83750	192500
30-Jul-10	6750	27000	33750	67500	
31-Jul-10	7250	29000	36250	72500	198750
Monthly Totals	167325	669300	836625	1673250	2096750

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.

The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 14898.3 Pounds/Month
Coagulant Polymer : 383.5 Pounds/Month

Date: 07/01/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5311

Permit # OD 93-01 & OD 93-02

	Time	
6/29	1800	Begin 1st Loading SK
	2015	Finish 1st Loading SK
6/30	1540	Begin 2nd Loading SK
	1915	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
	SK	192,500	Gallons
	SP	0	Gallons
	Total	192,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0510	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	30	29.63			
0600	Arrive Edge of Zone	# 1	14*22.53' S	170*38.71' W	SE-5	20	29.65	SE-1.5	8.7	160
0610	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	25	29.67	" "	8.5	163
0635	Begin Discharge	# 3	14*24.62 S	170*37.23 W	" "	"	29.68	" " X	8.0	051
" 50		# 4	14*24.76' S	170*38.11' W	" "	"	"	" "	8.7	218
0705	Remarks: Ocean	# 5	14*24.32' S	170*36.88' W	SE-7	35%	29.66	" "	8.9	011
" 20	Monitoring	# 6	14*25.11' S	170*38.41' W	" "	"	"		8.8	187
" 35	Control Samples	# 7	14*24.43' S	170*36.92' W	" "	"	29.67	5	9.1	008
50	DRAWN @ 0622	# 8	14*25.20' S	170*38.27 W	SE-5	"	"		8.6	131
0805	Posn: 14°24.71'S x	# 9	14*24.23' S	170*36.85' W	" "	40%	"		9.2	000
20	170°37.44' W	# 10	14*24.98' S	170*38.33' W	SE-7	"	"		9.4	216
" 35		# 11	14*24.21' S	170*36.86' W					9.4	008
50		# 12	14*25.19' S	170*37.90' W				10	9.5	036
0905		# 13	14*23.95' S	170*37.15' W		30%			8.8	224
" 20		# 14	14*25.16' S	170*37.82' W		"			9.3	062
" 35		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0927	Finish Discharge	# 15	14*24.82' S	170*37.11' W	SE-7	30%	29.67	SE-1.5	9.0	029
1035	Exit Discharge Zone	# 16	14*22.56' S	170*38.57' W					9.7	342
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 172 mins. Average Speed During Discharge: 8.98 kts. Total Time Run 6.25 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 125 Gallons/min/kts

Unusual Occurrences? Computer Crash - loss of plot tracks. Hand drawn from back-up plotter

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 07/03/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5312

Permit # OD 93-01 & OD 93-02

	Time	
7/1	1645	Begin 1st Loading SK
	1915	Finish 1st Loading SK
7/2	1545	Begin 2nd Loading SK
	1930	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:		
SK	199,750	Gallons
SP	0	Gallons
Total	199,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0550	Depart Starkist		14*16.50' S	170* 41.2' W	SE-7	40%	29.63			
0645	Arrive Edge of Zone	# 1	14*22.55' S	170*38.73' W	SE-15	60	29.65	SE-2.0	8.4	162
0655	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	70	29.67	SE-2.5	8.1	154
0705	Begin Discharge	# 3	14*24.62' S	170*37.39' W	" "	"	"	S+SE-2.5X	8.0	115
20		# 4	14*25.23' S	170*38.03' W	" "	"	29.68	" "	7.8	110
35	Remarks:	# 5	14*24.27' S	170*38.01' W	" "	"		" "	8.1	111
50		# 6	14*24.74' S	170*37.79' W	SE-18	80	29.69	" "	9.2	256
0805		# 7	14*25.18' S	170*37.68' W	" "	"	"	" " 5	8.3	105
20		# 8	14*24.22' S	170*38.16 W	" "	70	"	" "	9.5	315
35		# 9	14*24.67' S	170*38.25' W		"	"		9.4	258
50		# 10	14*24.39' S	170*38.06' W		50	"		9.8	321
0905		# 11	14*24.33' S	170*37.25' W		"	"		8.5	109
20		# 12	14*24.92' S	170*38.50' W		40%	"	10	8.6	108
35		# 13	14*24.19' S	170*38.17' W			"		9.8	317
50		# 14	14*24.78' S	170*37.95' W			"		9.7	260
1005		# 15	14*24.96' S	170*37.62' W			29.68		9.3	316
20		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1010	Finish Discharge	# 16	14*24.37' S	170*38.02' W	SE-18	40%	29.68	SE+S-2.5	9.8	328
1023	Exit Discharge Zone.	# 17	14*22.62' S	170*38.66' W	"	"	"	" "	9.6	341
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure-8

Total Discharge Time: 185 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.4 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 120 Gallons/min/kts

Unusual Occurrences? Nav. Computer crash + lost track - Re-drawn by hand from Plotter.

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 07/06/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5313

Permit # OD 93-01 & OD 93-02

	Time	
2/5	1700	Begin 1st Loading SK
	2030	Finish 1st Loading SK
	/	Begin 2nd Loading SK
	/	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:		
SK	80,000	Gallons
SP	0	Gallons
Total	80,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	70	29.59			
0650	Arrive Edge of Zone	# 1	14*22.53' S	170*38.71 W	East-7	60	"	SE-1.0	9.0	164
0701	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W		"	"		8.8	159
0710	Begin Discharge	# 3	14*24.08' S	170*37.20' W		50	"	X	9.0	090
25		# 4	14*23.61' S	170*37.53' W		"	29.60		8.6	177
40	Remarks:	# 5	14*24.34' S	170*36.95' W			"		9.5	013
55		# 6	14*23.47' S	170*37.56' W			"		8.9	179
0810		# 7	14*24.89' S	170*37.16' W			"	5	8.8	056
25		# 8	14*23.07' S	170*37.58' W			"		9.0	178
40		# 9	14*24.75' S	170*37.17' W			"		9.4	061
55		# 10	14*22.97' S	170*37.44' W		60%	"		9.8	312
0910		# 11	14*24.64' S	170*37.52' W			"		8.5	180
25		# 12	14*2 S	170*3 W				10		
40		# 13	14*2 S	170*3 W						
55		# 14	14*2 S	170*3 W						
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0920	Finish Discharge	#12	14*23.40' S	170*37.15' W	East-7	50%	29.60	SE-1.0	9.7	338
0927	Exit Discharge Zone.	#13	14*22.93' S	170*37.31' W	" "	"	" "	" "	9.8	336
1025	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 130 mins. Average Speed During Discharge: 9.1 kts. Total Time Run 4.33 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 67.6 Gallons/min/kts

Unusuall Occurrences? NAV. computer down. Plot track lines hand drawn from back-up Plotter.

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 07/13/10 – Tues. F/V Blue Moon Ocean Dumping Log Voyage #: 5314

Permit # OD 93-01 & OD 93-02

	Time	
7/12	1650	Begin 1st Loading SK
	2000	Finish 1st Loading SK
7/13	0200	Begin 2nd Loading SK
	0430	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:			
	SK	136,250	Gallons
	SP	0	Gallons
	Total	136,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	90	29.60			
0705	Arrive Edge of Zone	# 1	14*22.53' S	170*38.64' W	East-10	80	29.59	SE-1.5	8.9	155
0713	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.8	163
0722	Begin Discharge	# 3	14*24.05' S	170*37.15' W	" "	"	"	" " X	8.4	090
" 37		# 4	14*23.63' S	170*37.60' W	" "	"	29.60	" "	8.8	178
" 52	Remarks:	# 5	14*24.24' S	170*36.91' W	" "	"			8.5	002
0807		# 6	14*23.36' S	170*37.67' W	East-12	"			8.8	181
" 22		# 7	14*24.53' S	170*37.05' W	" "	70		5	8.4	015
" 37		# 8	14*23.39' S	170*37.71' W					9.1	178
" 52		# 9	14*24.16' S	170*36.92' W					9.0	006
0907		# 10	14*23.64' S	170*37.66' W					9.3	179
" 22		# 11	14*23.91' S	170*36.90' W					9.4	001
" 37		# 12	14*24.04' S	170*37.62' W		75		10	9.3	180
" 52		# 13	14*23.71' S	170*36.90' W		"			9.4	327
1007		# 14	14*24.02' S	170*37.65' W		"			9.3	181
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*23.27' S	170*37.15' W	East-12	75%	29.60	SE-1.5	9.5	329
1023	Exit Discharge Zone	#16	14*22.93' S	170*37.31' W	" "	"	"	" "	9.6	333
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 178 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.16 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 85 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crooks

Date: 07/15/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5315

Permit # OD 93-01 & OD 93-02

	Time	
7/14	~~20~~ 1500	Begin 1st Loading SK
	2100	Finish 1st Loading SK
7/15	0145	Begin 2nd Loading SK
	0245	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:

SK	190,000	Gallons
SP	0	Gallons
Total	190,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	50	29.62			
0700	Arrive Edge of Zone	# 1	14*22.54' S	170*38.71' W	"	60	29.64	S+SE-1.5	8.7	160
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	"	"	"	mix E,SE+S	8.3	154
0720	Begin Discharge	# 3	14*24.00' S	170*37.15' W	"	65	"	to 1.5 m.X	8.5	090
35		# 4	14*23.88' S	170*37.51' W		"	29.66		8.7	181
50	Remarks:	# 5	14*23.89' S	170*36.91' W	"	"	"		8.6	347
0805		# 6	14*23.75' S	170*37.55' W	ESE-3	60	29.64		8.8	181
20		# 7	14*24.16' S	170*36.91' W	" "	"	"	5	8.9	003
35		# 8	14*23.57' S	170*37.55' W	ESE-5	70	29.65		9.1	177
50		# 9	14*24.11' S	170*36.91' W		"	"		9.0	000
0905		# 10	14*23.54' S	170*37.57' W		"	"		8.9	179
20		# 11	14*24.27' S	170*36.89' W		"	29.66		9.2	358
35		# 12	14*23.59' S	170*37.63' W	ESE-7	80		10	9.5	181
50		# 13	14*24.21' S	170*36.86' W		"	29.65		9.3	007
1005		# 14	14*2 S	170*3 W						
20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1005	Finish Discharge	#14	14*23.60' S	170*37.47' W	ESE-7	90%	29.66	S,SE,E-1.5	9.2	180
1015	Exit Discharge Zone	#15	14*22.61' S	170*38.01' W	" "	"	29.67	" "	9.6	339
1110	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.0 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 128 Gallons/min/kts

Unusuall Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 07/17/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5316

Permit # OD 93-01 & OD 93-02

	Time	
7/16	1530	Begin 1st Loading SK
	2140	Finish 1st Loading SK
	0130	Begin 2nd Loading SK
7/17	0330	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
	SK	198,750	Gallons
	SP	0	Gallons
	Total	198,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0600	Depart Starkist		14*16.50' S	170*41.2' W	East - 10	100	29.68			
0650	Arrive Edge of Zone	# 1	14*22.57' S	170*38.63 W	SE - 15	90	29.65	SE-2	8.5	158
0702	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.66	" "	8.2	153
0712	Begin Discharge	# 3	14*24.81' S	170*37.39' W	" "	95	"	" " X	8.0	135
" 27		# 4	14*24.43' S	170*37.73' W	" "	"	"	" "	8.8	221
" 42	Remarks:	# 5	14*24.70' S	170*37.22' W	" "	100	"	" "	8.2	039
" 57		# 6	14*24.47' S	170*37.82' W	" "	100 - Rain	"	" "	9.0	224
0812		# 7	14*25.08' S	170*37.59' W		100	"	5	8.4	035
" 27		# 8	14*24.09' S	170*37.28' W		"	"		9.1	228
" 42		# 9	14*25.25' S	170*37.78' W	SE-18	90	"		8.2	056
" 57		# 10	14*24.15' S	170*37.46' W		"	29.67		9.0	221
0912		# 11	14*25.18' S	170*37.91' W		80	"		8.2	052
" 27		# 12	14*24.16' S	170*37.37' W		"	"	10	9.3	226
" 42		# 13	14*24.77' S	170*37.35' W		90	29.69		8.5	062
" 57		# 14	14*24.53' S	170*37.87' W		"	"		9.8	220
1012		# 15	14*25.04' S	170*37.53' W			29.68		8.4	050
" 27		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1015	Finish Discharge	#16	14*24.22' S	170*37.38' W	SE-18	90%	29.67	SE-2	9.5	332
1027	Exit Discharge Zone	#17	14*22.59' S	170*38.09' W	" "	"	" "	" "	9.6	330
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 183 mins. Average Speed During Discharge: 8.74 kts. Total Time Run 5.33 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 124 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 07/20/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5317

Permit # OD 93-01 & OD 93-02

	Time	
7/18	1430	Begin 1st Loading SK
	1600	Finish 1st Loading SK
7/19	1595	Begin 2nd Loading SK
	2020	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	176,250	Gallons
SP	0	Gallons
Total	176,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0630	Depart Starkist		14*16.50' S	170* 41.2' W	SE-12	90	29.61			
0722	Arrive Edge of Zone	# 1	14*22.55' S	170*38.68' W	SE-20	70	29.66	SE-2+	8.1	158
0732	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.67	SE-2.5	7.7	149
0740	Begin Discharge	# 3	14*24.70' S	170*37.50' W	" "		"	X	7.8	135
" 55		# 4	14*24.23' S	170*37.77' W	" "		"		8.6	216
0810	Remarks:	# 5	14*24.76' S	170*37.14' W	" "		"		8.2	019
" 25		# 6	14*24.30' S	170*37.67' W	SE-18	80	29.68		8.8	218
" 40		# 7	14*25.05' S	170*37.44' W	" "	"	"	5	8.0	050
" 55		# 8	14*24.46' S	170*37.79' W	" "	70	29.69		8.7	212
0910		# 9	14*24.71' S	170*37.08' W	" "		"		8.9	009
" 25		# 10	14*24.63' S	170*37.79' W	SE-20	60	29.68		9.1	213
" 40		# 11	14*24.40' S	170*36.93' W		"			9.1	014
" 55		# 12	14*25.01' S	170*38.16' W		50		10	8.8	211
1010		# 13	14*24.63' S	170*37.07' W		"			8.9	016
" 25		# 14	14*2 S	170*3 W						
" 40		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1025	Finish Discharge	#14	14*24.50' S	170*37.87' W	SE-20	50%	29.68	SE-2.5	9.3	225
1037	Exit Discharge Zone	#15	14*22.67' S	170*38.72' W	" "	"	"	" "	9.4	337
1130	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 8.7 kts. Total Time Run 5.0 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 123 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 07/22/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5318

Permit # OD 93-01 & OD 93-02

	Time	
7/20	1600	Begin 1st Loading SK
	1745	Finish 1st Loading SK
7/21	1430	Begin 2nd Loading SK
	1945	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	180,000	Gallons
SP	0	Gallons
Total	180,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	ESE -10	100%	29.60			
0705	Arrive Edge of Zone	# 1	14*22.51' S	170*38.70' W	ESE-15	"	29.64	SE-2.5	8.4	162
0715	Arrive Zone Center	# 2	14*24.0' S	170*38.3 W	SE-12	100-RAIN	29.66	" "	8.2	158
0725	Begin Discharge	# 3	14*24.74' S	170*37.53' W	" "	" "	29.67	" " X	8.0	135
" 40		# 4	14*24.32' S	170*37.76' W	" "	100	"	" "	8.5	214
" 55	Remarks:	# 5	14*24.94' S	170*37.27' W	" "	100-Lt. RAIN	"		8.4	035
0810		# 6	14*24.28' S	170*37.56' W	" "	100	29.68		8.8	219
" 25		# 7	14*24.93' S	170*37.25 W	East-12	"	"	5	8.6	028
" 40		# 8	14*24.66' S	170*37.89' W	ESE-12	"	"		9.1	202
" 55		# 9	14*24.53' S	170*36.98' W	East-12	100 Rain	"	SE-2.0	9.0	019
0910		# 10	14*24.91' S	170*38.02' W	" "	100	"	" "	9.2	200
" 25		# 11	14*24.20' S	170*36.91' W	" "	" "	29.69	" "	9.3	001
" 40		# 12	14*25.17' S	170*37.74' W			"	10	9.1	042
" 55		# 13	14*24.51' S	170*37.71' W			"		9.7	221
1010		# 14	14*2 S	170*3 W						
" 25		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1005	Finish Discharge	#14	14*24.46' S	170*37.78' W	East-12	100	29.69	SE-2.0	9.1	006
1018	Exit Discharge Zone.	#15	14*22.60' S	170*38.33' W	" "	"	"	" "	9.4	335
1110	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 160 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 5.0 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 126.4 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 07/24/10 – Sat. F/V Blue Moon Ocean Dumping Log Voyage #: 5319

Permit # OD 93-01 & OD 93-02

	Time	
7/22	1530	Begin 1st Loading SK
	1730	Finish 1st Loading SK
7/23	1500	Begin 2nd Loading SK
	2000	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:		
SK	152,000	Gallons
SP	0	Gallons
Total		Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	ESE-10	90%	29.65			
0705	Arrive Edge of Zone	# 1	14*22. 50' S	170*38. 67' W	East-15	"	29.70	E/SE-2.0	8.4	162
0714	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.5	164
0723	Begin Discharge	# 3	14*24.04 S	170*37.17 W	" "	"	29.69	" " X	8.1	090
" 38		# 4	14*23.09' S	170*37.47' W	" "		"		8.8	183
" 53	Remarks:	# 5	14*23.97' S	170*36.92' W	" "		"		8.3	000
0808		# 6	14*23.46' S	170*37.55' W	" "		"		8.8	184
" 23		# 7	14*24.75' S	170*37.04' W	" "		"	5	8.1	356
" 38		# 8	14*23.41' S	170*37.48' W	East-18		"		8.9	182
" 53		# 9	14*24.50' S	170*36.96' W	" "		29.68		8.6	353
0908		# 10	14*23.07 S	170*37.50' W	" "		"		8.2	181
" 23		# 11	14*24.38 S	170*36.97' W	" "	80%	29.67		9.1	003
" 38		# 12	14*23.77' S	170*37.59' W		"	29.65	10	9.4	181
" 53		# 13	14*24.62' S	170*37.18' W		75%	29.66		9.2	017
1008		# 14	14*2 S	170*3 W						
"23		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1008	Finish Discharge	#14	14*23.04' S	170*37.30' W	East-18	75%	29.66	E/SE-2.0	9.8	306
1012	Exit Discharge Zone	#15	14*22.64' S	170*37.71' W	" "	"	" "	" "	9.7	328
1100	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge WEST Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 4.75 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 105 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 07/27/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5320

Permit # OD 93-01 & OD 93-02

	Time	
7/25	1800	Begin 1st Loading SK
	1920	Finish 1st Loading SK
7/26	1530	Begin 2nd Loading SK
	1930	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	200,000	Gallons
SP	0	Gallons
Total	200,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	East-12	75%	29.65			
0700	Arrive Edge of Zone	# 1	14*22.53' S	170*38.71' W	East-15	"	29.66	E+SE-2.0	8.2	160
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	" "	" "	8.0	162
0720	Begin Discharge	# 3	14*24.02' S	170*37.18' W	" "	"	29.68	" " X	7.8	090
" 35		# 4	14*23.68' S	170*37.57' W	" "		29.69		8.4	180
" 50	Remarks:	# 5	14*24.56' S	170*36.97' W	" "				8.2	011
0805		# 6	14*23.28' S	170*37.50' W	East-18				8.3	185
" 20		# 7	14*24.56' S	170*37.12' W	" "			5	8.5	013
" 35		# 8	14*23.35' S	170*37.45' W	" "				8.4	181
" 50		# 9	14*24.68' S	170*37.07' W	" "				8.7	020
0905		# 10	14*23.17' S	170*37.20' W	East-20				9.2	311
" 20		# 11	14*24.83' S	170*37.19' W	" "	80%			8.7	025
" 35		# 12	14*23.15' S	170*37.48' W	" "	"		10	8.3	184
" 50		# 13	14*24.74' S	170*37.23' W	" "	70%			8.8	015
1005		# 14	14*23.30' S	170*37.05' W		60			9.6	306
" 20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*23.54' S	170*37.01' W	East-20	60%	29.69	E+SE-2.0	9.3	329
1028	Exit Discharge Zone.	#16	14*22.83' S	170*37.39' W	" "	"	" "	" "	9.6	326
1122	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 8.6 kts. Total Time Run 5.2 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 129 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 07/29/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5321

Permit # OD 93-01 & OD 93-02

	Time	
7/27	1700	Begin 1st Loading SK
	1915	Finish 1st Loading SK
7/28	1715	Begin 2nd Loading SK
	2130	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	192,500	Gallons
SP	0	Gallons
Total	192,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	East-15	50%	29.68			
0706	Arrive Edge of Zone	# 1	14*22.59' S	170*38.68' W	ESE-20	60	"	SE-2.5	8.1	158
0717	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	7.7	162
0728	Begin Discharge	# 3	14*24.66' S	170*37.39' W	SE-20	"	29.69	" " X	7.8	135
" 43		# 4	14*24.50' S	170*37.77' W		"	"		8.6	228
" 58	Remarks:	# 5	14*25.23' S	170*37.61' W		"	29.70		8.3	062
0813		# 6	14*24.00' S	170*37.34' W		50			8.0	231
" 28		# 7	14*25.28' S	170*38.25' W	SE-22	"		5	8.2	064
" 43		# 8	14*24.25' S	170*36.87' W	" "	60			8.6	359
" 58		# 9	14*25.06' S	170*38.45' W		"			8.8	227
0913		# 10	14*24.71' S	170*37.10' W		70			8.7	026
" 28		# 11	14*24.92' S	170*38.28' W	SE-20	90-Lt. Rain		SE-2.0	9.1	225
" 43		# 12	14*24.47' S	170*36.96' W	" "	80	29.69	" " 10	9.3	012
" 58		# 13	14*24.96' S	170*38.32' W	SE-22	"		" "	9.3	219
1013		# 14	14*24.69' S	170*37.03' W	" "	70		" "	8.9	031
" 28		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*23.92' S	170*37.02' W	SE-22	60 %	29.69	SE-2.0	9.5	289
1030	Exit Discharge Zone	#16	14*22.68' S	170*37.78' W	" "	"	"	" "	9.6	334
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 172 mins. Average Speed During Discharge: 8.7 kts. Total Time Run 5.2 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 129 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 07/31/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5322

Permit # OD 93-01 & OD 93-02

	Time	
7/29	1700	Begin 1st Loading SK
	1920	Finish 1st Loading SK
1/30	1540	Begin 2nd Loading SK
	2015	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:		
SK	198,750	Gallons
SP	0	Gallons
Total	198,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	East-12	100%	29.60			
0703	Arrive Edge of Zone	# 1	14*22.59' S	170*38.65' W	SE-18	"	29.61	ESE-2.5	8.3	164
0713	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.62	" "	8.0	168
0722	Begin Discharge	# 3	14*24.62' S	170*37.36' W	" "	"	29.63	" " X	8.0	135
" 37		# 4	14*24.55' S	170*37.76' W	" "	"	"	" "	8.4	220
" 52	Remarks:	# 5	14*25.00' S	170*37.21' W			"		8.1	037
0807		# 6	14*24.13' S	170*37.44' W			"		8.5	222
" 22		# 7	14*25.25' S	170*37.68' W			"	5	8.4	059
" 37		# 8	14*23.88' S	170*37.21' W	SE-20		29.64		8.2	224
" 52		# 9	14*25.27' S	170*37.95' W	" "		"		8.3	061
0907		# 10	14*24.15' S	170*36.87' W	SE-15		29.65		8.8	007
" 22		# 11	14*25.07' S	170*38.42' W					8.7	226
" 37		# 12	14*24.11' S	170*36.85' W				10	8.9	000
" 52		# 13	14*24.93' S	170*38.18' W					8.6	217
1007		# 14	14*24.09' S	170*36.85' W					9.1	003
" 22		# 15	14*24.93' S	170*38.24' W					8.7	198
" 37		# 16	14*24.45' S	170*36.93' W					9.3	016
" 52		# 17	14*24.94' S	170*38.22' W		RAIN		15	8.7	197
1107		# 18	14*24.11' S	170*36.84' W	SE-18	100%	29.63		9.2	001
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1117	Finish Discharge	#19	14*24.45' S	170*37.72' W	SE-18	100%	29.62	ESE-2.5	8.9	229
1132	Exit Discharge Zone.	#20	14*22.54' S	170*38.49' W	" "	"	29.60	" "	9.5	337
1225	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

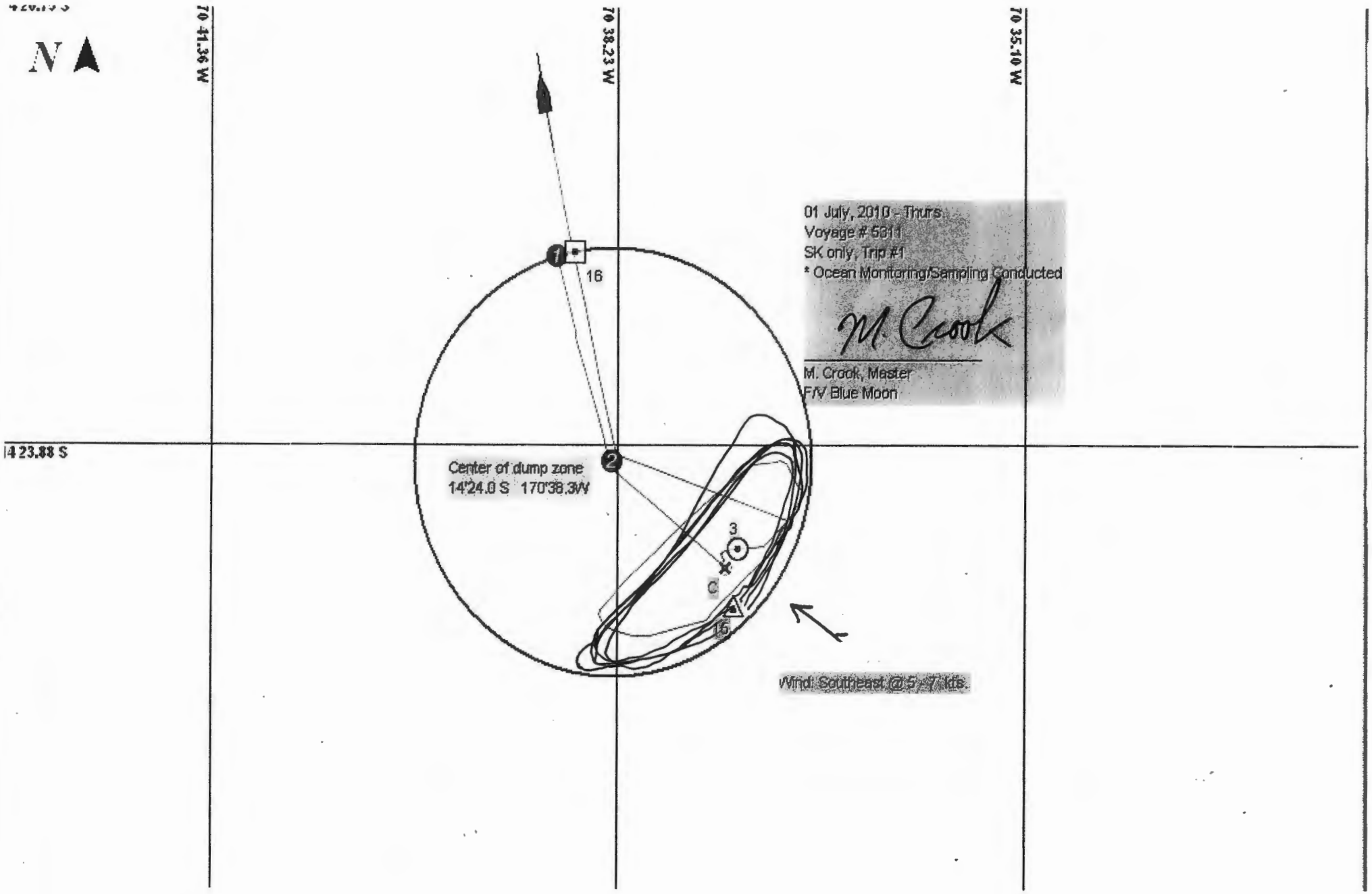
Total Discharge Time: 235 mins. Average Speed During Discharge: 8.6 kts. Total Time Run 6.25 hr.

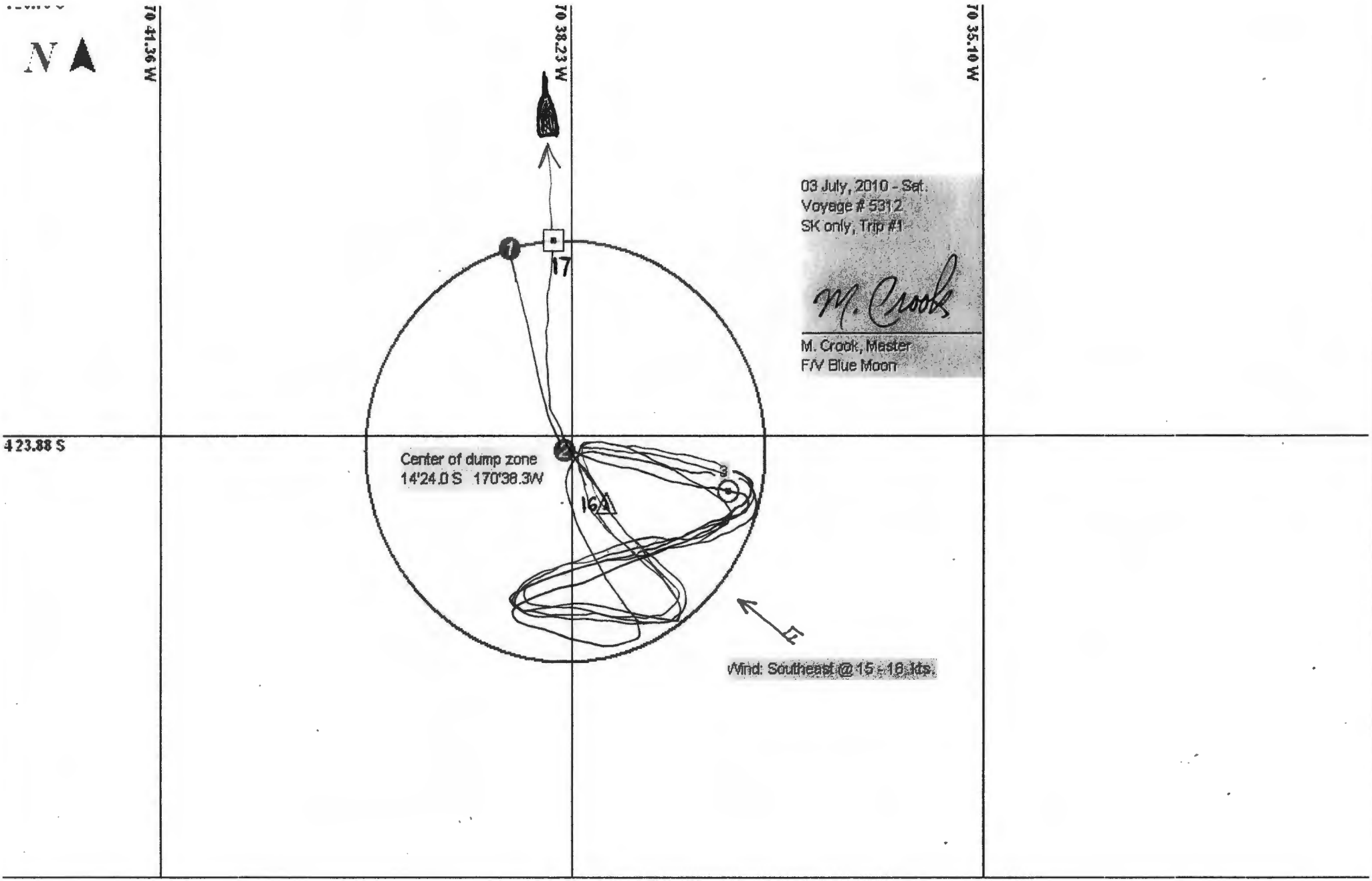
Navigational Plot made: Yes Presence of Plume? No

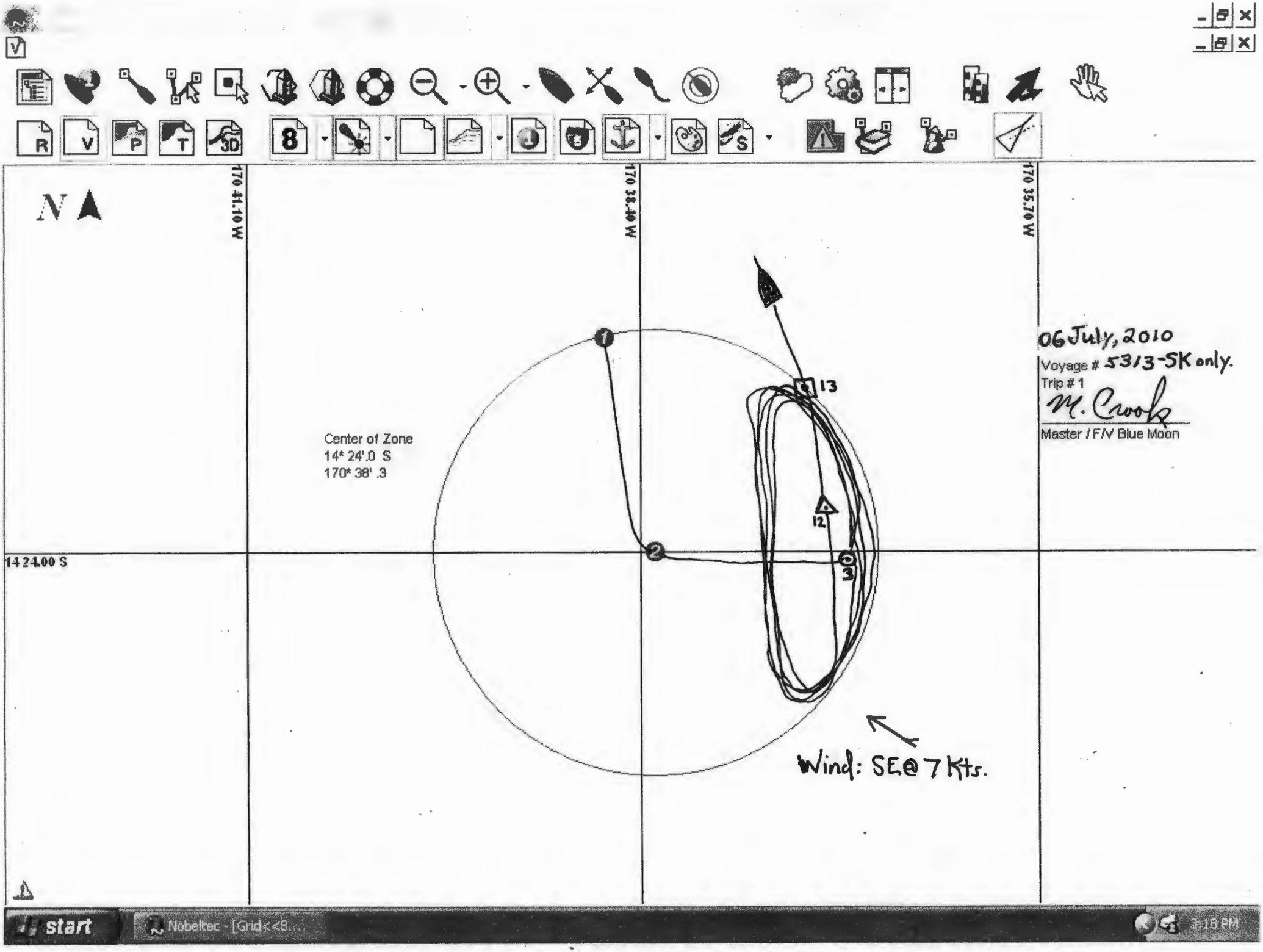
Time and position of any floating material: None Discharge Rate: 98 Gallons/min/kts

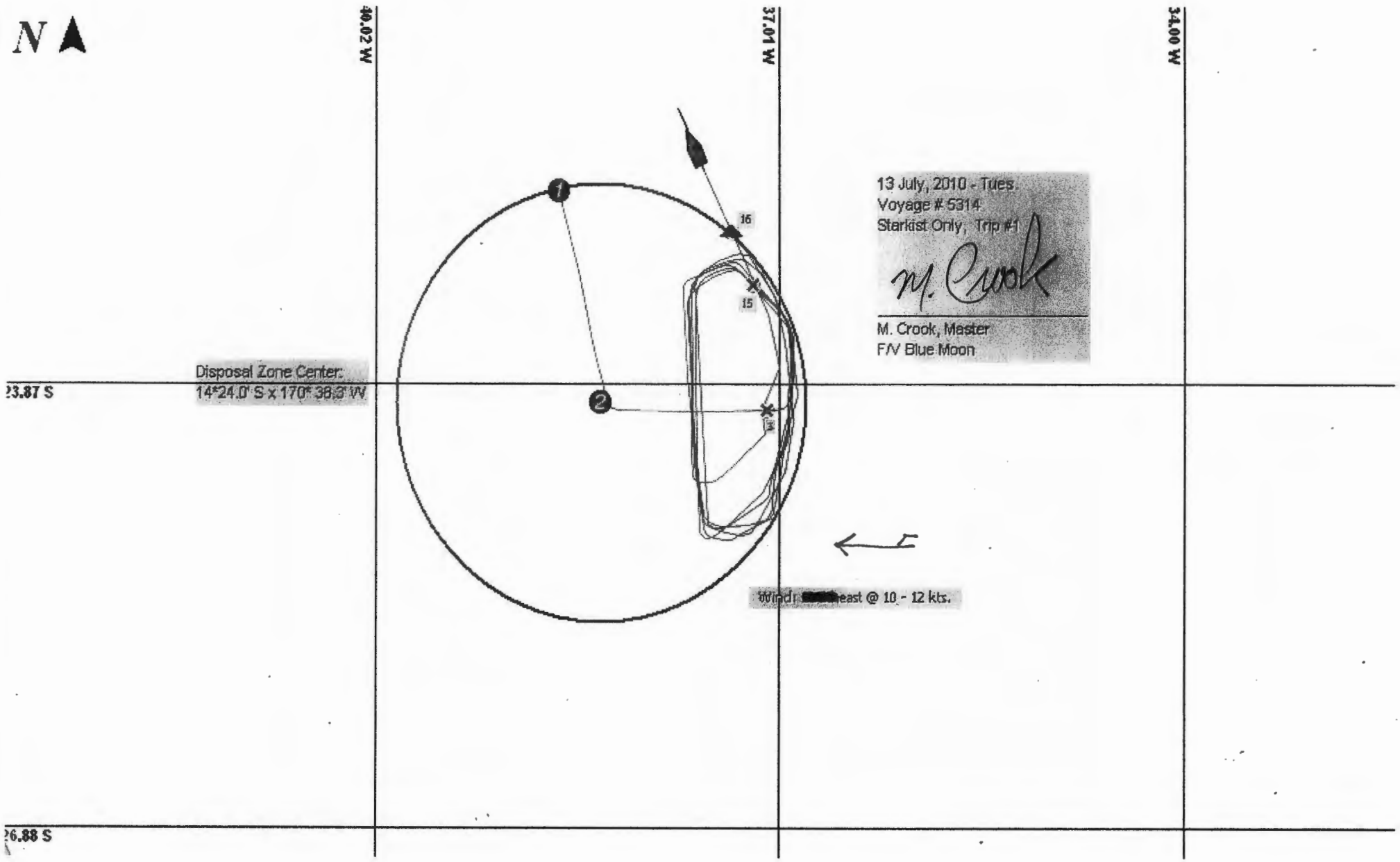
Unusual Occurrences? One pump only - long discharge.

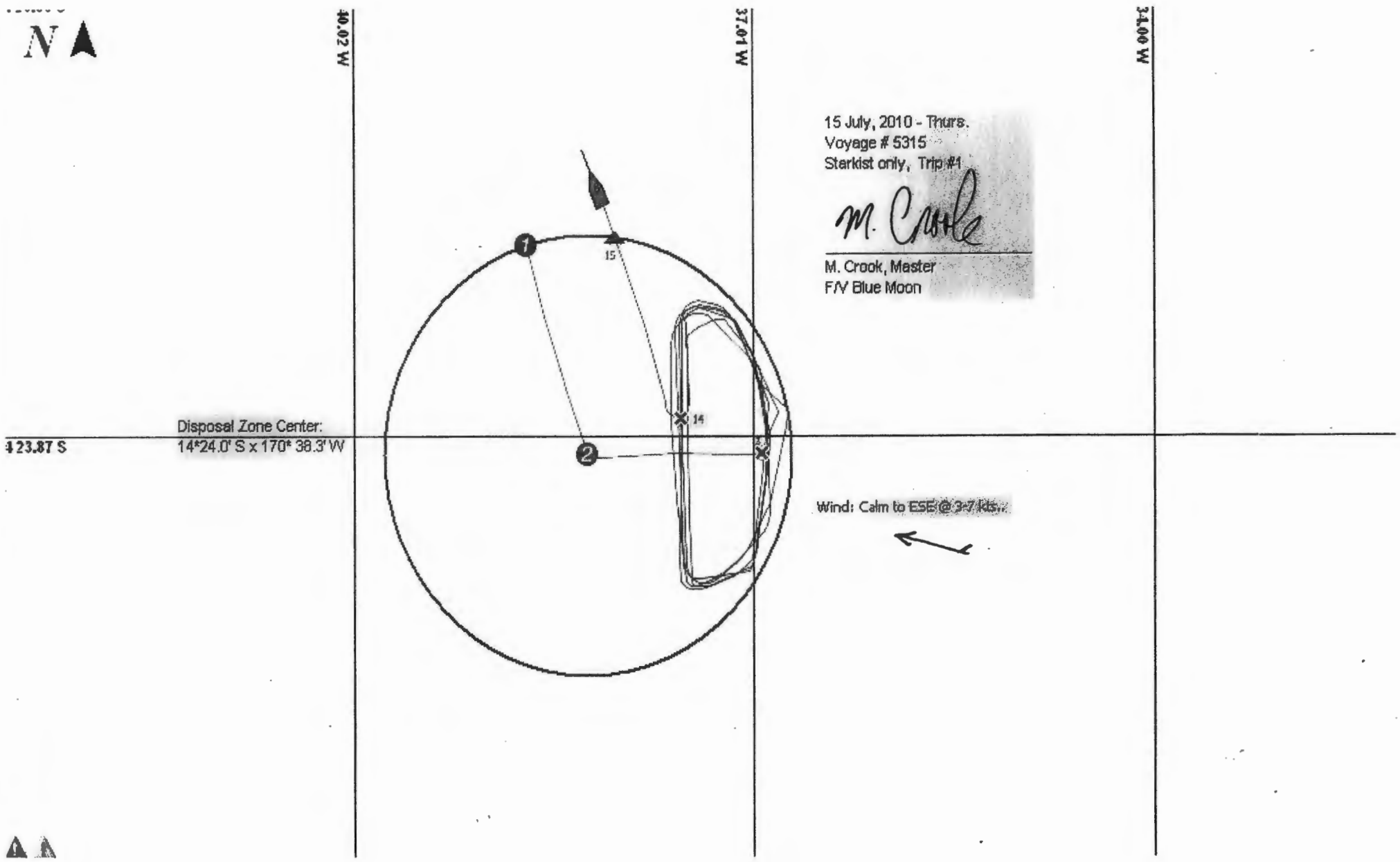
Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

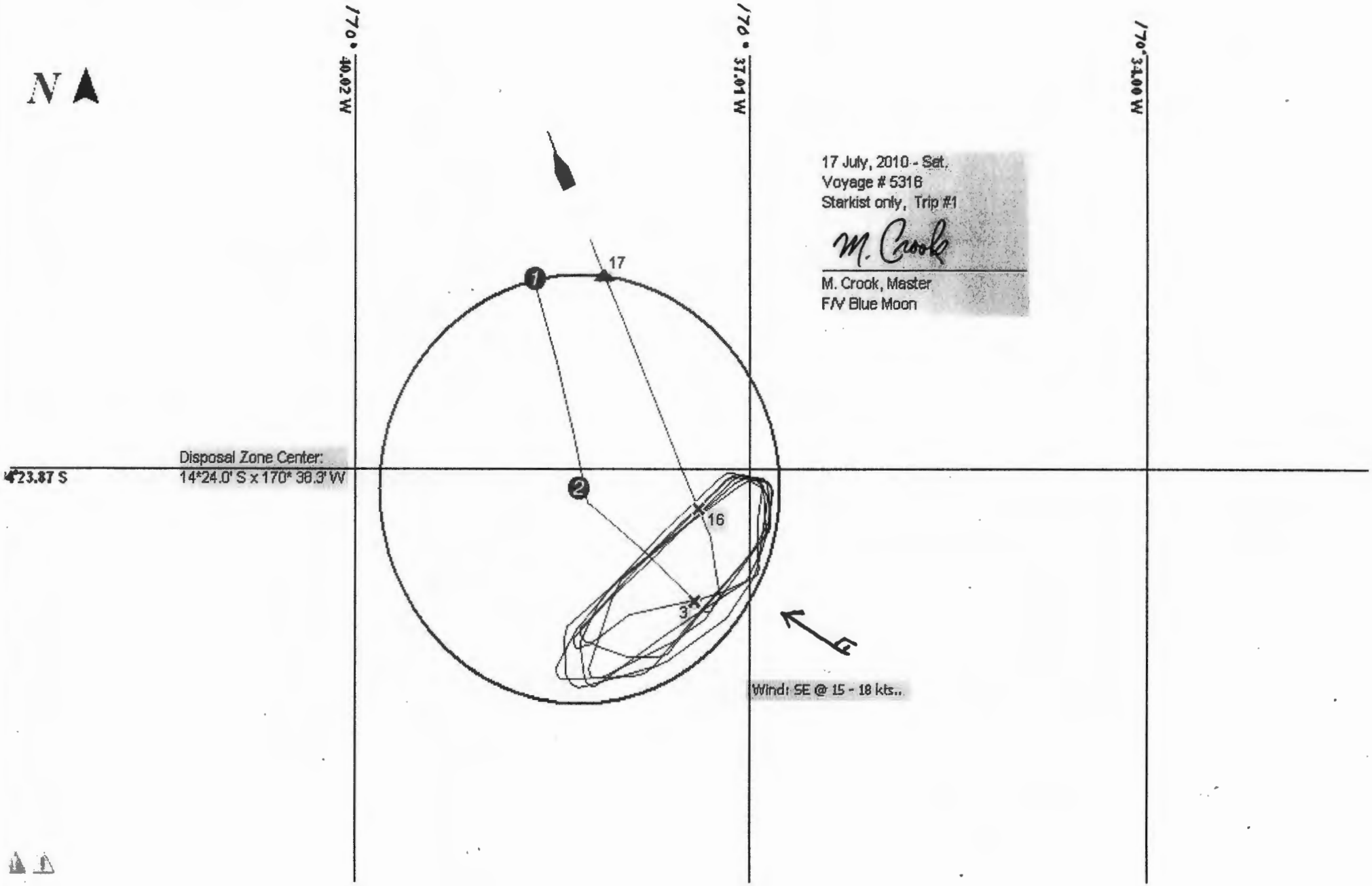

N
70 41.36 W
70 38.23 W
70 35.10 W
14 23.88 S
1
16
2
Center of dump zone
14°24.0 S 170°38.3W
3
C
15
01 July, 2010 - Thurs
Voyage # 5311
SK only, Trip #1
* Ocean Monitoring/Sampling Conducted
M. Crook, Master
F/V Blue Moon
Wind: Southeast @ 5 - 7 kts.

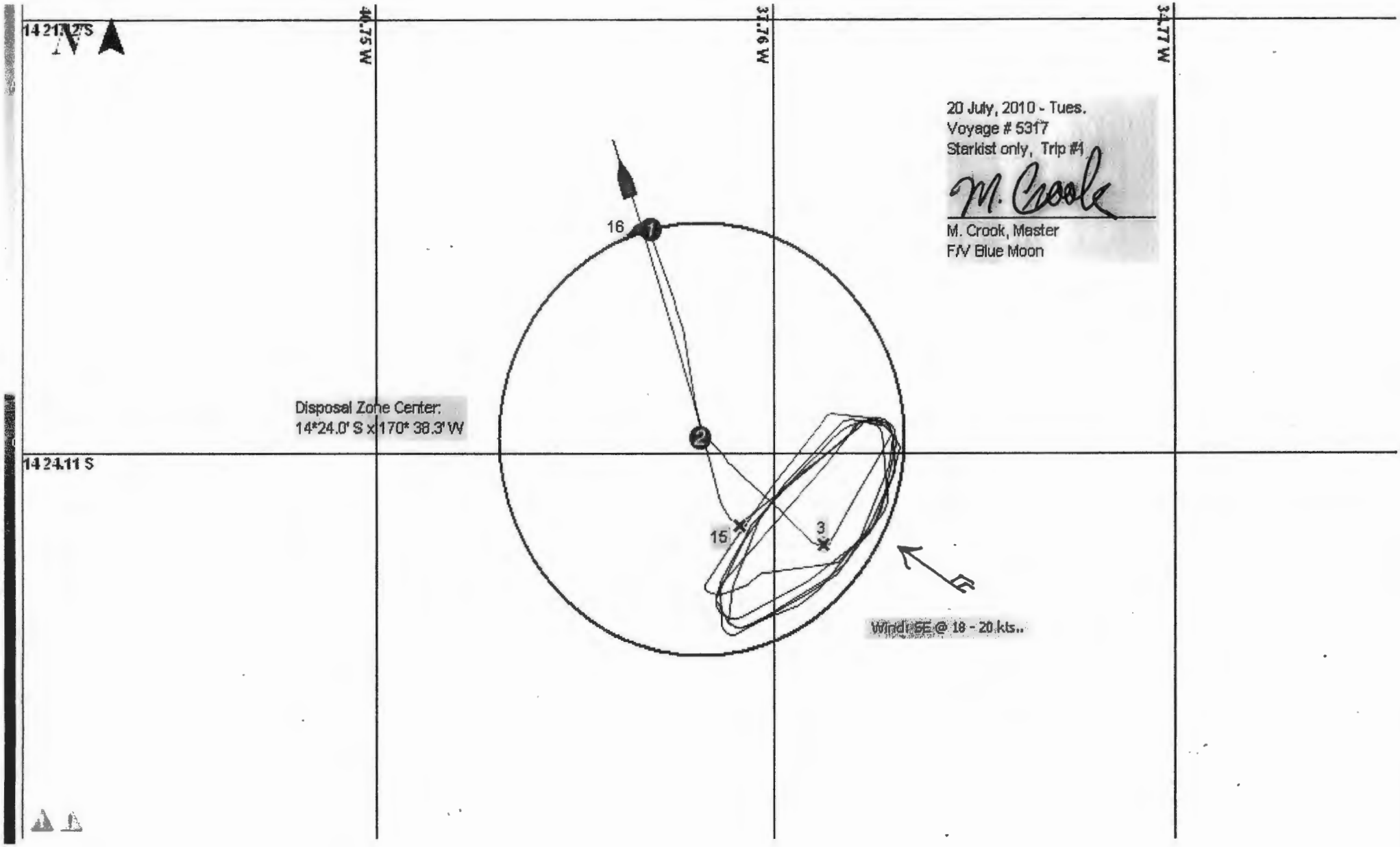

N
70 41.36 W
70 38.23 W
70 35.10 W
4 23.88 S
03 July, 2010 - Sat.
Voyage # 5312
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14'24.0 S 170'38.3W
1
2
3
17
16
Wind: Southeast @ 15 - 18 kts.

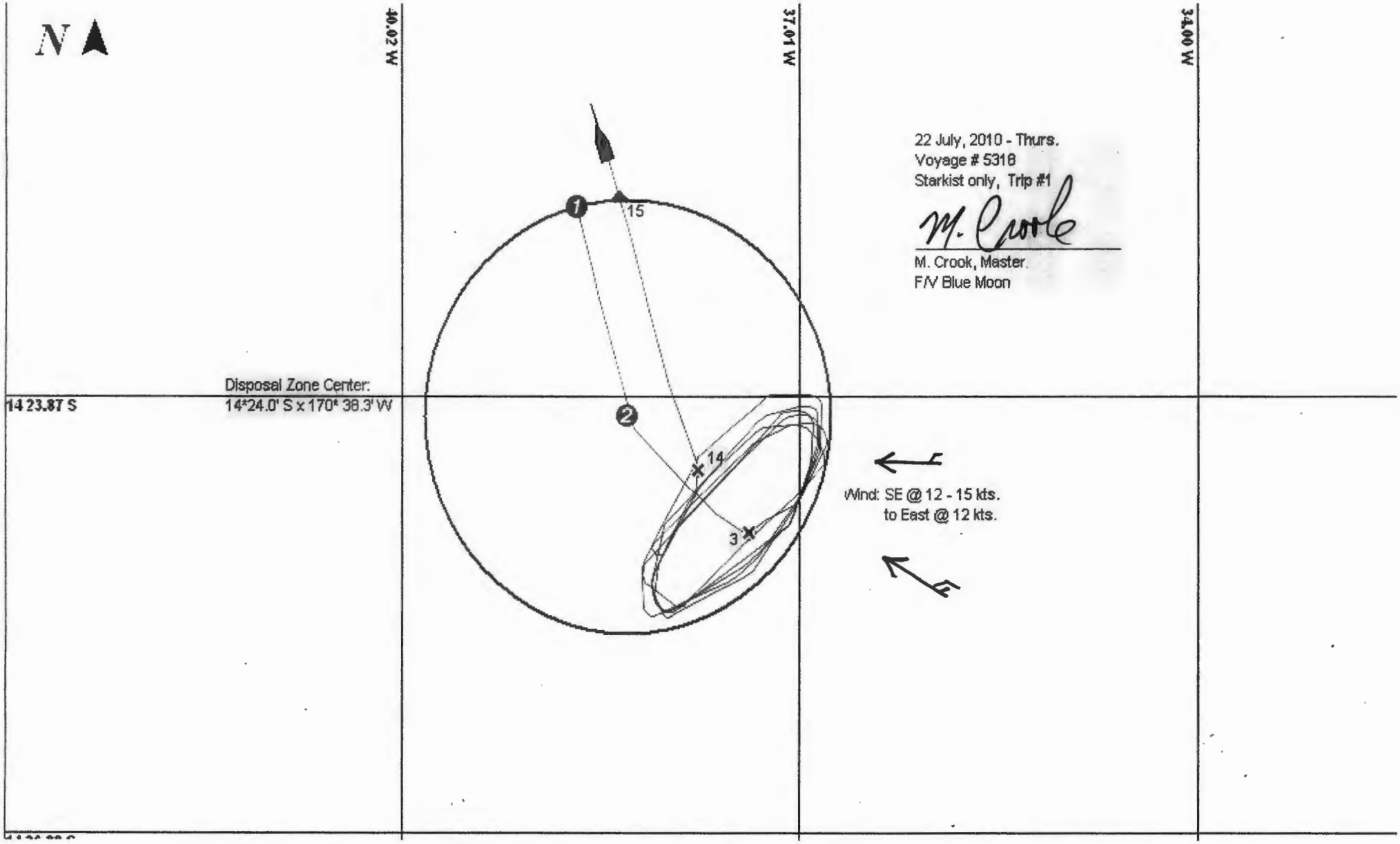

N
170 41.10 W
170 38.40 W
170 35.70 W
14 24.00 S
Center of Zone
14° 24'.0 S
170° 38' .3
1
2
3
12
13
06 July, 2010
Voyage # 5313-SK only.
Trip # 1
M. Crooks
Master / F/V Blue Moon
Wind: SE@7 Kts.
start
Nobeltec - [Grid<<8...
3:18 PM

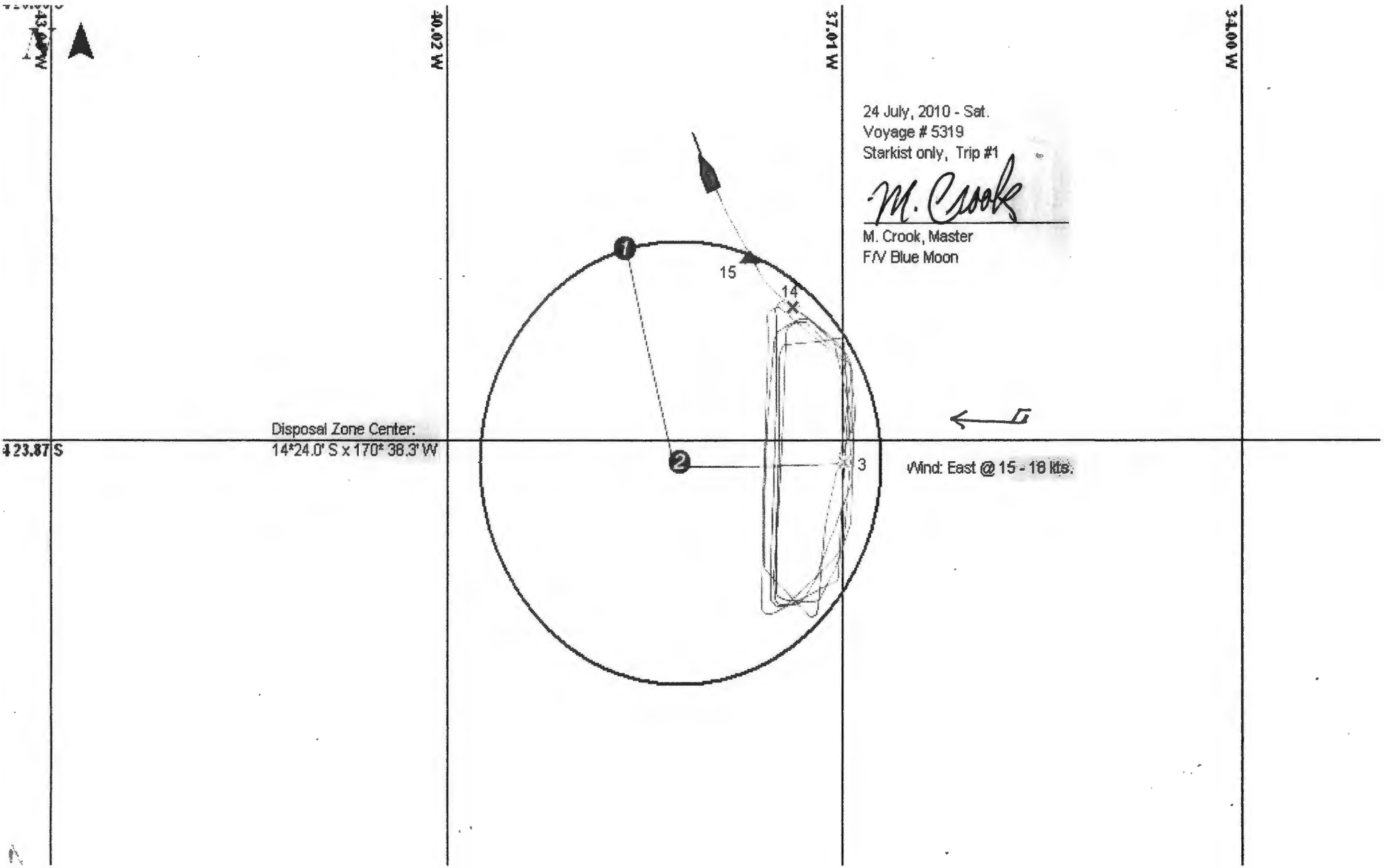

N
40.02 W
37.01 W
34.00 W
23.87 S
26.88 S
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
15
16
13 July, 2010 - Tues.
Voyage # 5314
Starlist Only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: [redacted]east @ 10 - 12 kts.

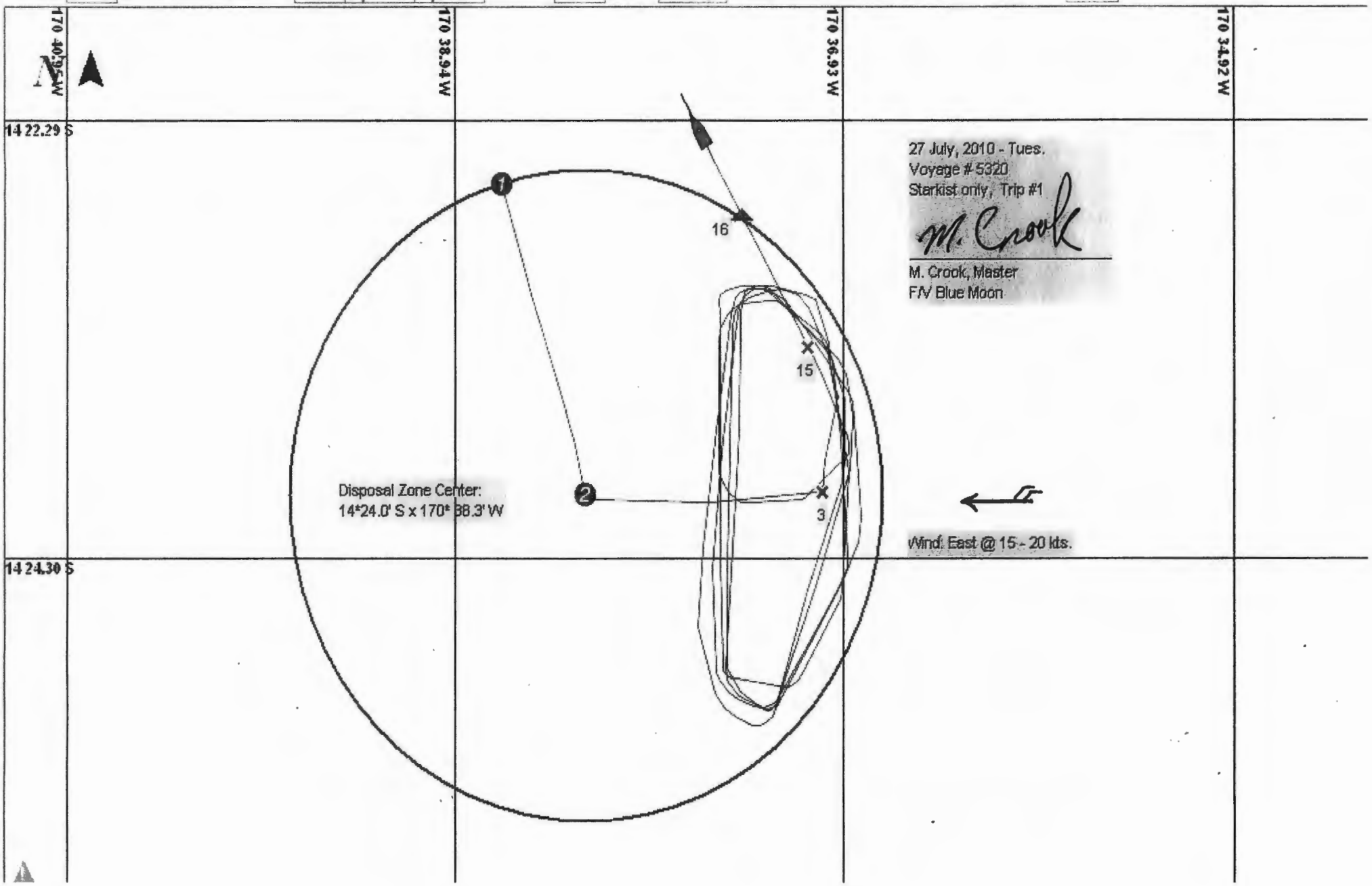

N
40.02 W
37.01 W
34.00 W
4 23.87 S
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
15 July, 2010 - Thurs.
Voyage # 5315
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: Calm to ESE @ 3-7 kts.
1
2
15
14

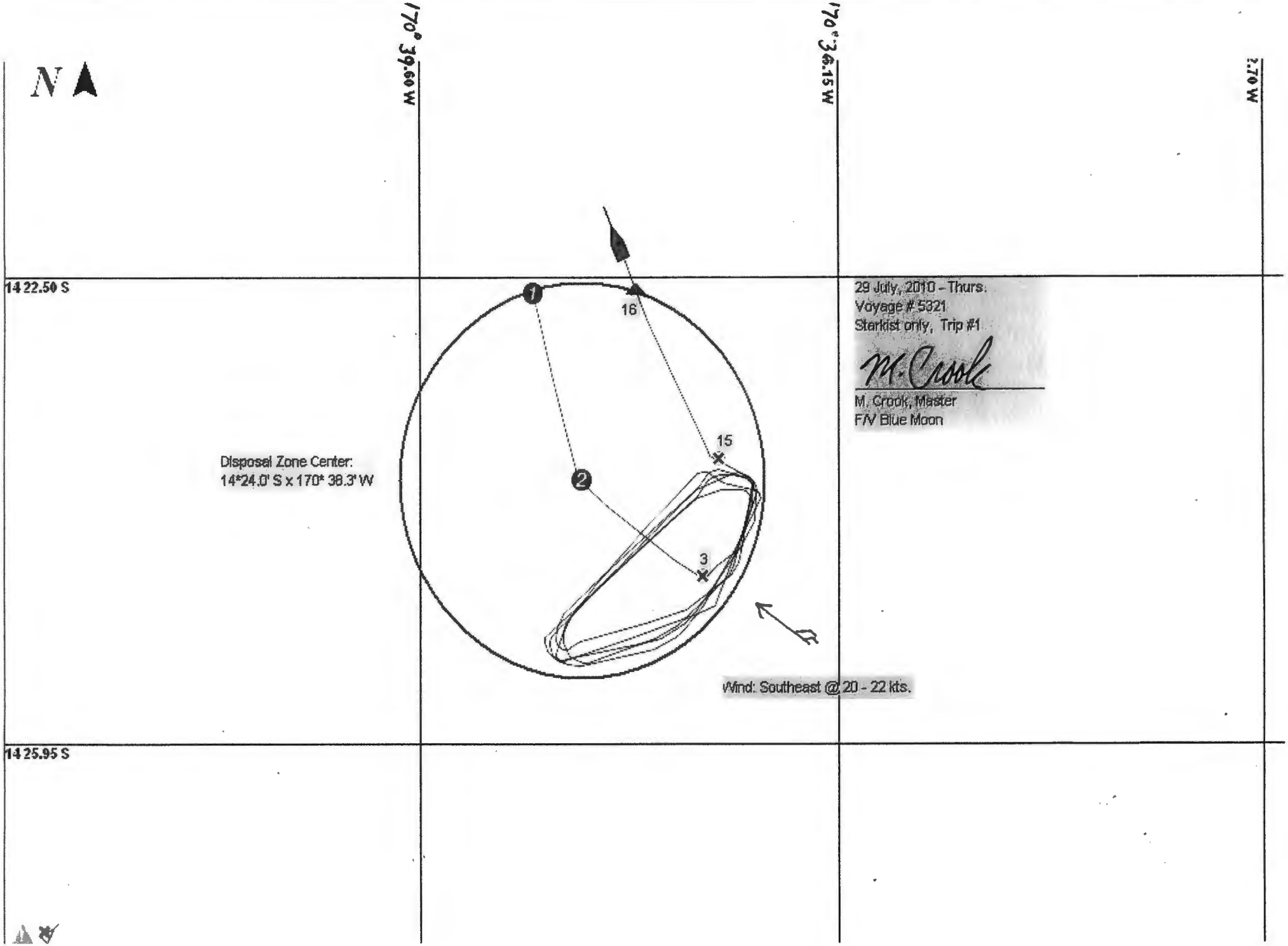

N
170° 40.02' W
170° 37.01' W
170° 34.00' W
4°23.87' S
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
17 July, 2010 - Set.
Voyage # 5316
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
1
2
3
16
17
Wind: SE @ 15 - 18 kts..

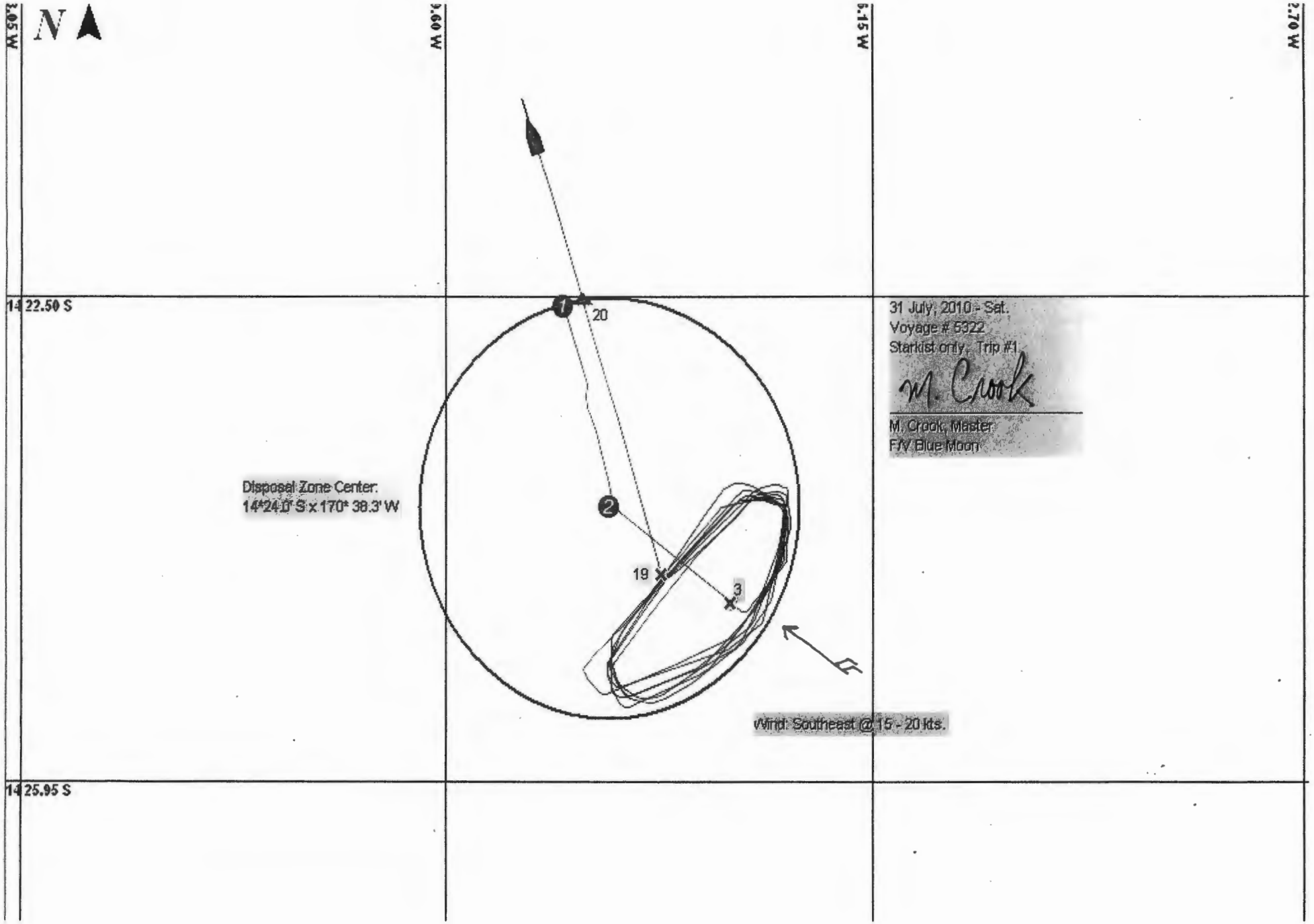

14 21.12 S
40.75 W
37.76 W
34.77 W
20 July, 2010 - Tues.
Voyage # 5317
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
16
1
2
15
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
14 24.11 S
Wind: SE @ 18 - 20 kts..


N
40.02 W
37.01 W
34.00 W
14 23.87 S
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
1
2
3
14
15
22 July, 2010 - Thurs.
Voyage # 5318
Starkist only, Trip #1
M. Crook, Master.
F/V Blue Moon
Wind: SE @ 12 - 15 kts.
to East @ 12 kts.


43.00 W
40.02 W
37.01 W
34.00 W
24 July, 2010 - Sat.
Voyage # 5319
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
15
14
3
1
2
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
4 23.87 S
Wind: East @ 15 - 18 kts.


170 40.95 W
170 38.94 W
170 36.93 W
170 34.92 W
14 22.29 S
14 24.30 S
N
1
2
3
15
16
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
27 July, 2010 - Tues.
Voyage # 5320
Starkist only, Trip #1
M. Crook
M. Crook, Master
F/V Blue Moon
Wind: East @ 15 - 20 kts.


N
170° 39.60 W
170° 36.15 W
170 W
14 22.50 S
14 25.95 S
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
3
15
16
29 July, 2010 - Thurs.
Voyage # 5321
Starkist only, Trip #1
M. Crook
M. Crook, Master
F/V Blue Moon
Wind: Southeast @ 20 - 22 kts.


N
2.05 W
9.60 W
5.15 W
2.70 W
14 22.50 S
14 25.95 S
1
20
2
19
3
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: Southeast @ 15 - 20 kts.
31 July, 2010 - Sat.
Voyage # 5322
Starkist only, Trip #1
M. Crook
M. Crook, Master
F/V Blue Moon

OCEAN DUMPING MONTHLY SUMMARY

Month: July, 2010

	SK:	TOTAL:
NUMBER OF TRIPS:	12	**12**
GALLONS-FOR THE MONTH:	2,096,750	**2,096,750**

GALLONS FOR SOLO TRIPS: SK: 2,096,750

RUNNING TIME 62.9 hrs.

AVERAGE DISCHARGE TIME 174 mins.

AVERAGE GPM DISCHARGE RATE: 113.3 gallons/minute/knot

AVERAGE TRIP TIME: 5.24 hrs.

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK:
100.00%

MASTER : M. Cook

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : July 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Jul-10	5875	23500	29375	58750	192500
2-Jul-10	7750	31000	38750	77500	
3-Jul-10	1000	4000	5000	10000	199750
4-Jul-10	0	0	0	0	
5-Jul-10	0	0	0	0	
6-Jul-10	0	0	0	0	80000
7-Jul-10	0	0	0	0	
8-Jul-10	0	0	0	0	
9-Jul-10	0	0	0	0	
10-Jul-10	0	0	0	0	
11-Jul-10	4750	19000	23750	47500	
12-Jul-10	4625	18500	23125	46250	
13-Jul-10	2250	9000	11250	22500	136250
14-Jul-10	16500	66000	82500	165000	
15-Jul-10	3000	12000	15000	30000	190000
16-Jul-10	16375	65500	81875	163750	
17-Jul-10	7500	30000	37500	75000	198750
18-Jul-10	750	3000	3750	7500	
19-Jul-10	6375	25500	31875	63750	
20-Jul-10	8125	32500	40625	81250	176250
21-Jul-10	9375	37500	46875	93750	
22-Jul-10	7250	29000	36250	72500	180000
23-Jul-10	8700	34800	43500	87000	152000
24-Jul-10	8500	34000	42500	85000	
25-Jul-10	2000	8000	10000	20000	
26-Jul-10	6000	24000	30000	60000	
27-Jul-10	9625	38500	48125	96250	200000
28-Jul-10	8625	34500	43125	86250	
29-Jul-10	8375	33500	41875	83750	192500
30-Jul-10	6750	27000	33750	67500	
31-Jul-10	7250	29000	36250	72500	198750
Monthly Totals	167325	669300	836625	1673250	2096750

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.

The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 14898.3 Pounds/Month

Coagulant Polymer : 383.5 Pounds/Month

Date: 07/01/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5311

Permit # OD 93-01 & OD 93-02

	Time	
4/29	1800	Begin 1st Loading SK
	2015	Finish 1st Loading SK
4/30	1540	Begin 2nd Loading SK
	1915	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	192,500	Gallons
SP	0	Gallons
Total	192,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0510	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	30	29.63			
0600	Arrive Edge of Zone	# 1	14*22.53' S	170*38.71' W	SE-5	20	29.65	SE-1.5	8.7	160
0610	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	25	29.67	" "	8.5	163
0635	Begin Discharge	# 3	14*24.62 S	170*37.23 W	" "	"	29.68	" " X	8.0	051
" 50		# 4	14*24.76' S	170*38.11' W	" "	"	"	" "	8.7	218
0705	Remarks: Ocean	# 5	14*24.32' S	170*36.88' W	SE-7	35%	29.66	" "	8.9	011
" 20	Monitoring	# 6	14*25.11' S	170*38.41' W	" "	"	"		8.8	187
" 35	Control Samples	# 7	14*24.43' S	170*36.92' W	" "	"	29.67	5	9.1	008
" 50	DRAWN @ 0622	# 8	14*25.20' S	170*38.27 W	SE-5	"	"		8.6	131
0805	Posn: 14°24.71'S x	# 9	14*24.23' S	170*36.85' W	" "	40%	"		9.2	000
" 20	170°37.44' W	# 10	14*24.98' S	170*38.33' W	SE-7	"	"		9.4	216
" 35		# 11	14*24.21' S	170*36.86' W					9.4	008
" 50		# 12	14*25.19' S	170*37.90' W				10	9.5	036
0905		# 13	14*23.95' S	170*37.15' W		30%			8.8	224
" 20		# 14	14*25.16' S	170*37.82' W		"			9.3	062
" 35		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0927	Finish Discharge	# 15	14*24.82' S	170*37.11' W	SE-7	30%	29.67	SE-1.5	9.0	029
1035	Exit Discharge Zone	# 16	14*22.56' S	170*38.57 W					9.7	342
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 172 mins. Average Speed During Discharge: 8.98 kts. Total Time Run 6.25 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 125 Gallons/min/kts

Unusual Occurrences? Computer Crash - loss of plot track. Hand drawn from back-up plotter

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 07/03/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5312

Permit # OD 93-01 & OD 93-02

	Time	
7/1	1645	Begin 1st Loading SK
	1915	Finish 1st Loading SK
7/2	1545	Begin 2nd Loading SK
	1930	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:		
SK	199,750	Gallons
SP	0	Gallons
Total	199,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0550	Depart Starkist		14*16.50' S	170* 41.2' W	SE-7	40%	29.63			
0645	Arrive Edge of Zone	# 1	14*22.55' S	170*38.73' W	SE-15	60	29.65	SE-2.0	8.4	162
0655	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	70	29.67	SE-2.5	8.1	154
0705	Begin Discharge	# 3	14*24.62' S	170*37.39' W	" "	"	"	S+SE-2.5X	8.0	115
20		# 4	14*25.23' S	170*38.03' W	" "	"	29.68	" "	7.8	110
35	Remarks:	# 5	14*24.27' S	170*38.01' W	" "	"		" "	8.1	111
50		# 6	14*24.74' S	170*37.79' W	SE-18	80	29.69	" "	9.2	256
0805		# 7	14*25.18' S	170*37.68' W	" "	"	"	" " 5	8.3	105
20		# 8	14*24.22' S	170*38.16 W	" "	70	"	" "	9.5	315
35		# 9	14*24.67' S	170*38.25' W		"	"		9.4	258
50		# 10	14*24.39' S	170*38.06' W		50	"		9.8	321
0905		# 11	14*24.33' S	170*37.25' W		"	"		8.5	109
20		# 12	14*24.92' S	170*38.50' W		40%	"	10	8.6	108
35		# 13	14*24.19' S	170*38.17' W			"		9.8	317
50		# 14	14*24.76' S	170*37.95' W			"		9.7	260
1005		# 15	14*24.96' S	170*37.62' W			29.68		9.3	316
20		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1010	Finish Discharge	# 16	14*24.37' S	170*38.02' W	SE-18	40%	29.68	SE+S-2.5	9.8	328
1023	Exit Discharge Zone.	# 17	14*22.62' S	170*38.66' W	"	"	"	" "	9.6	341
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure-8

Total Discharge Time: 185 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.4 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 120 Gallons/min/kts

Unusual Occurrences? Nav. Computer crash + lost track - Re-drawn by hand from Plotter.

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 07/06/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5313

Permit # OD 93-01 & OD 93-02

Time		
2/5 1700	Begin 1st Loading SK	
2030	Finish 1st Loading SK	
/	Begin 2nd Loading SK	
/	Finish 2nd Loading SK	

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	80,000	Gallons
SP	0	Gallons
Total	80,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0605	Depart Starkist		14*16.50' S	170*41.2' W	Calm	70	29.59			
0650	Arrive Edge of Zone	#1	14*22.53' S	170*38.71 W	East-7	60	"	SE-1.0	9.0	164
0701	Arrive Zone Center	#2	14*24.0 S	170*38.3 W		"	"		8.8	159
0710	Begin Discharge	#3	14*24.08' S	170*37.20' W		50	"	X	9.0	090
25		#4	14*23.61' S	170*37.53' W		"	29.60		8.6	177
40	Remarks:	#5	14*24.34' S	170*36.95' W			"		9.5	013
55		#6	14*23.47' S	170*37.56' W			"		8.9	179
0810		#7	14*24.89' S	170*37.16' W			"	5	8.8	056
25		#8	14*23.07' S	170*37.58' W			"		9.0	178
40		#9	14*24.75' S	170*37.17' W			"		9.4	061
55		#10	14*22.97' S	170*37.44' W		60%	"		9.8	312
0910		#11	14*24.64' S	170*37.52' W			"		8.5	180
25		#12	14*2 S	170*3 W				10		
40		#13	14*2 S	170*3 W						
55		#14	14*2 S	170*3 W						
		#15	14*2 S	170*3 W						
		#16	14*2 S	170*3 W						
		#17	14*2 S	170*3 W				15		
		#18	14*2 S	170*3 W						
		#19	14*2 S	170*3 W						
		#20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0920	Finish Discharge	#12	14*23.40' S	170*37.15' W	East-7	50%	29.60	SE-1.0	9.7	338
0927	Exit Discharge Zone.	#13	14*22.93' S	170*37.31' W	" "	"	" "	" "	9.8	336
1025	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 130 mins. Average Speed During Discharge: 9.1 kts. Total Time Run 4.33 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 67.6 Gallons/min/kts

Unusual Occurrences? NAV. computer down. Plot track lines hand drawn from back-up Plotter.

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crooke

Date: 07/13/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5314

Permit # OD 93-01 & OD 93-02

	Time	
7/12	1650	Begin 1st Loading SK
	2000	Finish 1st Loading SK
7/13	0200	Begin 2nd Loading SK
	0430	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
	SK	136,250	Gallons
	SP	0	Gallons
	Total	136,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	90	29.60			
0705	Arrive Edge of Zone	# 1	14*22.53' S	170*38.64' W	East-10	80	29.59	SE-1.5	8.9	155
0713	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.8	163
0722	Begin Discharge	# 3	14*24.05' S	170*37.15' W	" "	"	"	" " X	8.4	090
" 37		# 4	14*23.63' S	170*37.60' W	" "	"	29.60	" "	8.8	178
" 52	Remarks:	# 5	14*24.24' S	170*36.91' W	" "	"			8.5	002
0807		# 6	14*23.36' S	170*37.67' W	East-12	"			8.8	181
" 22		# 7	14*24.53' S	170*37.05' W	" "	70		5	8.4	015
" 37		# 8	14*23.39' S	170*37.71' W					9.1	178
" 52		# 9	14*24.16' S	170*36.92' W					9.0	006
0907		# 10	14*23.64' S	170*37.66' W					9.3	179
" 22		# 11	14*23.91' S	170*36.90' W					9.4	001
" 37		# 12	14*24.04' S	170*37.62' W		75		10	9.3	180
" 52		# 13	14*23.71' S	170*36.90' W		"			9.4	327
1007		# 14	14*24.02' S	170*37.65' W		"			9.3	181
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*23.27' S	170*37.15' W	East-12	75%	29.60	SE-1.5	9.5	329
1023	Exit Discharge Zone	#16	14*22.93' S	170*37.31' W	" "	"	"	" "	9.6	333
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 178 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.16 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 85 Gallons/min/kts

Unusuall Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crooks

Date: 07/15/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5315

Permit # OD 93-01 & OD 93-02

	Time	
7/14	~~20~~ 1500	Begin 1st Loading SK
	2100	Finish 1st Loading SK
7/15	0145	Begin 2nd Loading SK
	0245	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
	SK	190,000	Gallons
	SP	0	Gallons
	Total	190,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170*41.2' W	Calm	50	29.62			
0700	Arrive Edge of Zone	#1	14*22.54' S	170*38.71' W	"	60	29.64	S+SE-1.5	8.7	160
0710	Arrive Zone Center	#2	14*24.0 S	170*38.3 W	"	"	"	mix E,SE+S	8.3	154
0720	Begin Discharge	#3	14*24.00' S	170*37.15' W	"	65	"	to 1.5 m.X	8.5	090
35		#4	14*23.88' S	170*37.51' W		"	29.66		8.7	181
50	Remarks:	#5	14*23.89' S	170*36.91' W	"	"	"		8.6	347
0805		#6	14*23.75' S	170*37.55' W	ESE-3	60	29.64		8.8	181
20		#7	14*24.16' S	170*36.91' W	" "	"	"	5	8.9	003
35		#8	14*23.57' S	170*37.55' W	ESE-5	70	29.65		9.1	177
50		#9	14*24.11' S	170*36.91' W		"	"		9.0	000
0905		#10	14*23.54' S	170*37.57' W		"	"		8.9	179
20		#11	14*24.27' S	170*36.89' W		"	29.66		9.2	358
35		#12	14*23.59' S	170*37.63' W	ESE-7	80		10	9.5	181
50		#13	14*24.21' S	170*36.86' W		"	29.65		9.3	007
1005		#14	14*2 S	170*3 W						
20		#15	14*2 S	170*3 W						
		#16	14*2 S	170*3 W						
		#17	14*2 S	170*3 W				15		
		#18	14*2 S	170*3 W						
		#19	14*2 S	170*3 W						
		#20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1005	Finish Discharge	#14	14*23.60' S	170*37.47' W	ESE-7	90%	29.66	S,SE,E-1.5	9.2	180
1015	Exit Discharge Zone	#15	14*22.61' S	170*38.01' W	" "	"	29.67	" "	9.6	339
1110	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.0 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 128 Gallons/min/kts

Unusuall Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 07/17/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5316

Permit # OD 93-01 & OD 93-02

	Time	
7/16	1530	Begin 1st Loading SK
	2140	Finish 1st Loading SK
	0130	Begin 2nd Loading SK
7/17	0330	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
	SK	198,750	Gallons
	SP	0	Gallons
	Total	198,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0600	Depart Starkist		14*16.50' S	170*41.2' W	East - 10	100	29.68			
0650	Arrive Edge of Zone	# 1	14*22.57' S	170*38.63 W	SE - 15	90	29.65	SE-2	8.5	158
0702	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.66	" "	8.2	153
0712	Begin Discharge	# 3	14*24.81' S	170*37.39' W	" "	95	"	" " X	8.0	135
" 27		# 4	14*24.43' S	170*37.73' W	" "	"	"	" "	8.8	221
" 42	Remarks:	# 5	14*24.70' S	170*37.22' W	" "	100	"	" "	8.2	039
" 57		# 6	14*24.47' S	170*37.82' W	" "	100-Rain	"	" "	9.0	224
0812		# 7	14*25.08' S	170*37.59' W		100	"	5	8.4	035
" 27		# 8	14*24.09' S	170*37.28' W		"	"		9.1	228
" 42		# 9	14*25.25' S	170*37.78' W	SE-18	90	"		8.2	056
" 57		# 10	14*24.15' S	170*37.46' W		"	29.67		9.0	221
0912		# 11	14*25.18' S	170*37.91' W		80	"		8.2	052
" 27		# 12	14*24.16' S	170*37.37' W		"	"	10	9.3	226
" 42		# 13	14*24.77' S	170*37.35' W		90	29.69		8.5	062
" 57		# 14	14*24.53' S	170*37.87' W		"	"		9.8	220
1012		# 15	14*25.04' S	170*37.53' W			29.68		8.4	050
" 27		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1015	Finish Discharge	#16	14*24.22' S	170*37.38' W	SE-18	90%	29.67	SE-2	9.5	332
1027	Exit Discharge Zone	#17	14*22.59' S	170*38.09' W	" "	"	" "	" "	9.6	330
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 183 mins. Average Speed During Discharge: 8.74 kts. Total Time Run 5.33 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 124 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 07/20/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5317

Permit # OD 93-01 & OD 93-02

	Time	
7/18	1430	Begin 1st Loading SK
	1600	Finish 1st Loading SK
7/19	1595	Begin 2nd Loading SK
	2020	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	176,250	Gallons
SP	0	Gallons
Total	176,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0630	Depart Starkist		14*16.50' S	170* 41.2' W	SE-12	90	29.61			
0722	Arrive Edge of Zone	# 1	14*22.55' S	170*38.68' W	SE-20	70	29.66	SE-2+	8.1	158
0732	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.67	SE-2.5	7.7	149
0740	Begin Discharge	# 3	14*24.70' S	170*37.50' W	" "		"	X	7.8	135
" 55		# 4	14*24.33' S	170*37.77' W	" "		"		8.6	216
0810	Remarks:	# 5	14*24.76' S	170*37.14' W	" "		"		8.2	019
" 25		# 6	14*24.30' S	170*37.67' W	SE-18	80	29.68		8.8	218
" 40		# 7	14*25.05' S	170*37.44' W	" "	"	"	5	8.0	050
" 55		# 8	14*24.46' S	170*37.79' W	" "	70	29.69		8.7	212
0910		# 9	14*24.71' S	170*37.08' W	" "		"		8.9	009
" 25		# 10	14*24.63' S	170*37.79' W	SE-20	60	29.68		9.1	213
" 40		# 11	14*24.40' S	170*36.93' W		"			9.1	014
" 55		# 12	14*25.01' S	170*38.16' W		50		10	8.8	211
1010		# 13	14*24.63' S	170*37.07' W		"			8.9	016
" 25		# 14	14*2 S	170*3 W						
" 40		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1025	Finish Discharge	#14	14*24.50' S	170*37.87' W	SE-20	50%	29.68	SE-2.5	9.3	225
1037	Exit Discharge Zone	#15	14*22.67' S	170*38.72' W	" "	"	"	" "	9.4	337
1130	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 8.7 kts. Total Time Run 5.0 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 123 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 07/22/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5318

Permit # OD 93-01 & OD 93-02

	Time	
7/20	1600	Begin 1st Loading SK
	1745	Finish 1st Loading SK
7/21	1430	Begin 2nd Loading SK
	1945	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	180,000	Gallons
SP	0	Gallons
Total	180,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	ESE -10	100%	29.60			
0705	Arrive Edge of Zone	# 1	14*22.51' S	170*38.70' W	ESE-15	"	29.64	SE-2.5	8.4	162
0715	Arrive Zone Center	# 2	14*24.0' S	170*38.3 W	SE-12	100-RAIN	29.66	" "	8.2	158
0725	Begin Discharge	# 3	14*24.74' S	170*37.53' W	" "	" "	29.67	" " X	8.0	135
" 40		# 4	14*24.32' S	170*37.76' W	" "	100	"	" "	8.5	214
" 55	Remarks:	# 5	14*24.94' S	170*37.27' W	" "	100-Lt. RAIN	"		8.4	035
0810		# 6	14*24.28' S	170*37.56' W	" "	100	29.68		8.8	219
" 25		# 7	14*24.93' S	170*37.25 W	East-12	"	"	5	8.6	028
" 40		# 8	14*24.66' S	170*37.89' W	ESE-12	"	"		9.1	202
" 55		# 9	14*24.53' S	170*36.98' W	East-12	100 Rain	"	SE-2.0	9.0	019
0910		# 10	14*24.91' S	170*38.02' W	" "	100	"	" "	9.2	200
" 25		# 11	14*24.20' S	170*36.91' W	" "	"	29.69	" "	9.3	001
" 40		# 12	14*25.17' S	170*37.74' W			"	10	9.1	042
" 55		# 13	14*24.51' S	170*37.71' W			"		9.7	221
1010		# 14	14*2 S	170*3 W						
" 25		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1005	Finish Discharge	#14	14*24.46' S	170*37.78' W	East-12	100	29.69	SE-2.0	9.1	006
1018	Exit Discharge Zone.	#15	14*22.60' S	170*38.33' W	" "	"	"	" "	9.4	335
1110	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 160 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 5.0 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 126.4 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 07/24/10 – Sat. F/V Blue Moon Ocean Dumping Log Voyage #: 5319

Permit # OD 93-01 & OD 93-02

	Time	
1/22	1530	Begin 1st Loading SK
	1730	Finish 1st Loading SK
1/23	1500	Begin 2nd Loading SK
	2000	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:		
SK	152,000	Gallons
SP	0	Gallons
Total		Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	ESE-10	90%	29.65			
0705	Arrive Edge of Zone	# 1	14*22. 50' S	170*38. 67' W	East-15	"	29.70	E/SE-2.0	8.4	162
0714	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.5	164
0723	Begin Discharge	# 3	14*24.04 S	170*37.17 W	" "	"	29.69	" " X	8.1	090
" 38		# 4	14*23.09' S	170*37.47' W	" "		"		8.8	183
" 53	Remarks:	# 5	14*23.97' S	170*36.92' W	" "		"		8.3	000
0808		# 6	14*23.46' S	170*37.55' W	" "		"		8.8	184
" 23		# 7	14*24.75' S	170*37.04' W	" "		"	5	8.1	356
" 38		# 8	14*23.41' S	170*37.48' W	East-18		"		8.9	182
" 53		# 9	14*24.50' S	170*36.96' W	" "		29.68		8.6	353
0908		# 10	14*23.07 S	170*37.50' W	" "		"		8.2	181
" 23		# 11	14*24.38 S	170*36.97' W	" "	80%	29.67		9.1	003
" 38		# 12	14*23.77' S	170*37.59' W		"	29.65	10	9.4	181
" 53		# 13	14*24.62' S	170*37.18' W		75%	29.66		9.2	017
1008		# 14	14*2 S	170*3 W						
"23		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1008	Finish Discharge	#14	14*23.04' S	170*37.30' W	East-18	75%	29.66	E/SE-2.0	9.8	306
1012	Exit Discharge Zone	#15	14*22.64' S	170*37.71' W	" "	"	" "	" "	9.7	328
1100	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge WEST Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 4.75 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 105 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 07/27/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5320

Permit # OD 93-01 & OD 93-02

	Time	
7/25	1800	Begin 1st Loading SK
	1920	Finish 1st Loading SK
7/26	1530	Begin 2nd Loading SK
	1930	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	200,000	Gallons
SP	0	Gallons
Total	200,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	East-12	75%	29.65			
0700	Arrive Edge of Zone	# 1	14*22.53' S	170*38.71' W	East-15	"	29.66	E+SE-2.0	8.2	160
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	" "	" "	8.0	162
0720	Begin Discharge	# 3	14*24.02' S	170*37.18' W	" "	"	29.68	" " X	7.8	090
" 35		# 4	14*23.68' S	170*37.57' W	" "		29.69		8.4	180
" 50	Remarks:	# 5	14*24.56' S	170*36.97' W	" "				8.2	011
0805		# 6	14*23.28' S	170*37.50' W	East-18				8.3	185
" 20		# 7	14*24.56' S	170*37.12' W	" "			5	8.5	013
" 35		# 8	14*23.35' S	170*37.45' W	" "				8.4	181
" 50		# 9	14*24.68' S	170*37.07' W	" "				8.7	020
0905		# 10	14*23.17' S	170*37.20' W	East-20				9.2	311
" 20		# 11	14*24.83' S	170*37.19' W	" "	80%			8.7	025
" 35		# 12	14*23.15' S	170*37.48' W	" "	"		10	8.3	184
" 50		# 13	14*24.74' S	170*37.23' W	" "	70%			8.8	025
1005		# 14	14*23.30' S	170*37.05' W		60			9.6	306
" 20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	# 15	14*23.54' S	170*37.01' W	East-20	60 %	29.69	E+SE-2.0	9.3	329
1028	Exit Discharge Zone.	# 16	14*22.83' S	170*37.39' W	" "	"	" "	" "	9.6	326
1122	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 8.6 kts. Total Time Run 5.2 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 129 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 07/29/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5321

Permit # OD 93-01 & OD 93-02

	Time	
7/27	1700	Begin 1st Loading SK
	1915	Finish 1st Loading SK
7/28	1715	Begin 2nd Loading SK
	2130	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	192,500	Gallons
SP	0	Gallons
Total	192,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	East-15	50%	29.68			
0706	Arrive Edge of Zone	# 1	14*22.59' S	170*38.68' W	ESE-20	60	"	SE-2.5	8.1	158
0717	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	7.7	162
0728	Begin Discharge	# 3	14*24.66' S	170*37.39' W	SE-20	"	29.69	" " X	7.8	185
" 43		# 4	14*24.50' S	170*37.77' W		"	"		8.6	228
" 58	Remarks:	# 5	14*25.23' S	170*37.61' W		"	29.70		8.3	062
0813		# 6	14*24.00' S	170*37.34' W		50			8.0	231
" 28		# 7	14*25.28' S	170*38.25' W	SE-22	"		5	8.2	064
" 43		# 8	14*24.25' S	170*36.87' W	" "	60			8.6	359
" 58		# 9	14*25.06' S	170*38.45' W		"			8.8	227
0913		# 10	14*24.71' S	170*37.10' W		70			8.7	026
" 28		# 11	14*24.92' S	170*38.28' W	SE-20	90 Lt. Rain		SE-2.0	9.1	225
" 43		# 12	14*24.47' S	170*36.96' W	" "	80	29.69	" " 10	9.3	012
" 58		# 13	14*24.96' S	170*38.32' W	SE-22	"		" "	9.3	219
1013		# 14	14*24.69' S	170*37.03' W	" "	70		" "	8.9	031
" 28		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*23.92' S	170*37.02' W	SE-22	60 %	29.69	SE-2.0	9.5	289
1030	Exit Discharge Zone	#16	14*22.68' S	170*37.78' W	" "	"	"	" "	9.6	334
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 172 mins. Average Speed During Discharge: 8.7 kts. Total Time Run 5.2 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 129 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 07/31/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5322

Permit # OD 93-01 & OD 93-02

	Time	
7/29	1700	Begin 1st Loading SK
	1920	Finish 1st Loading SK
7/30	1540	Begin 2nd Loading SK
	2015	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	198,750	Gallons
SP	0	Gallons
Total	198,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	East-12	100%	29.60			
0703	Arrive Edge of Zone	# 1	14*22.59' S	170*38.65' W	SE-18	"	29.61	ESE-2.5	8.3	164
0713	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.62	" "	8.0	168
0722	Begin Discharge	# 3	14*24.62' S	170*37.36' W	" "	"	29.63	" " X	8.0	135
" 37		# 4	14*24.55' S	170*37.76' W	" "	"	"	" "	8.4	220
" 52	Remarks:	# 5	14*25.00' S	170*37.21' W			"		8.1	037
0807		# 6	14*24.13' S	170*37.44' W			"		8.5	222
" 22		# 7	14*25.25' S	170*37.68' W			"	5	8.4	059
" 37		# 8	14*23.88' S	170*37.21 W	SE-20		29.64		8.2	224
" 52		# 9	14*25.27' S	170*37.95' W	" "		"		8.3	061
0907		# 10	14*24.15' S	170*36.87' W	SE-15		29.65		8.8	007
" 22		# 11	14*25.07' S	170*38.42' W					8.7	226
" 37		# 12	14*24.11' S	170*36.85' W				10	8.9	000
" 52		# 13	14*24.93' S	170*38.18' W					8.6	217
1007		# 14	14*24.09' S	170*36.85' W					9.1	003
" 22		# 15	14*24.93' S	170*38.24' W					8.7	198
" 37		# 16	14*24.45' S	170*36.93' W					9.3	016
" 52		# 17	14*24.94' S	170*38.22' W		RAIN		15	8.7	197
1107		# 18	14*24.11' S	170*36.84' W	SE-18	100%	29.63		9.2	001
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1117	Finish Discharge	#19	14*24.45' S	170*37.72' W	SE-18	100%	29.62	ESE-2.5	8.9	229
1132	Exit Discharge Zone.	#20	14*22.54' S	170*38.49' W	" "	"	29.60	" "	9.5	337
1225	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

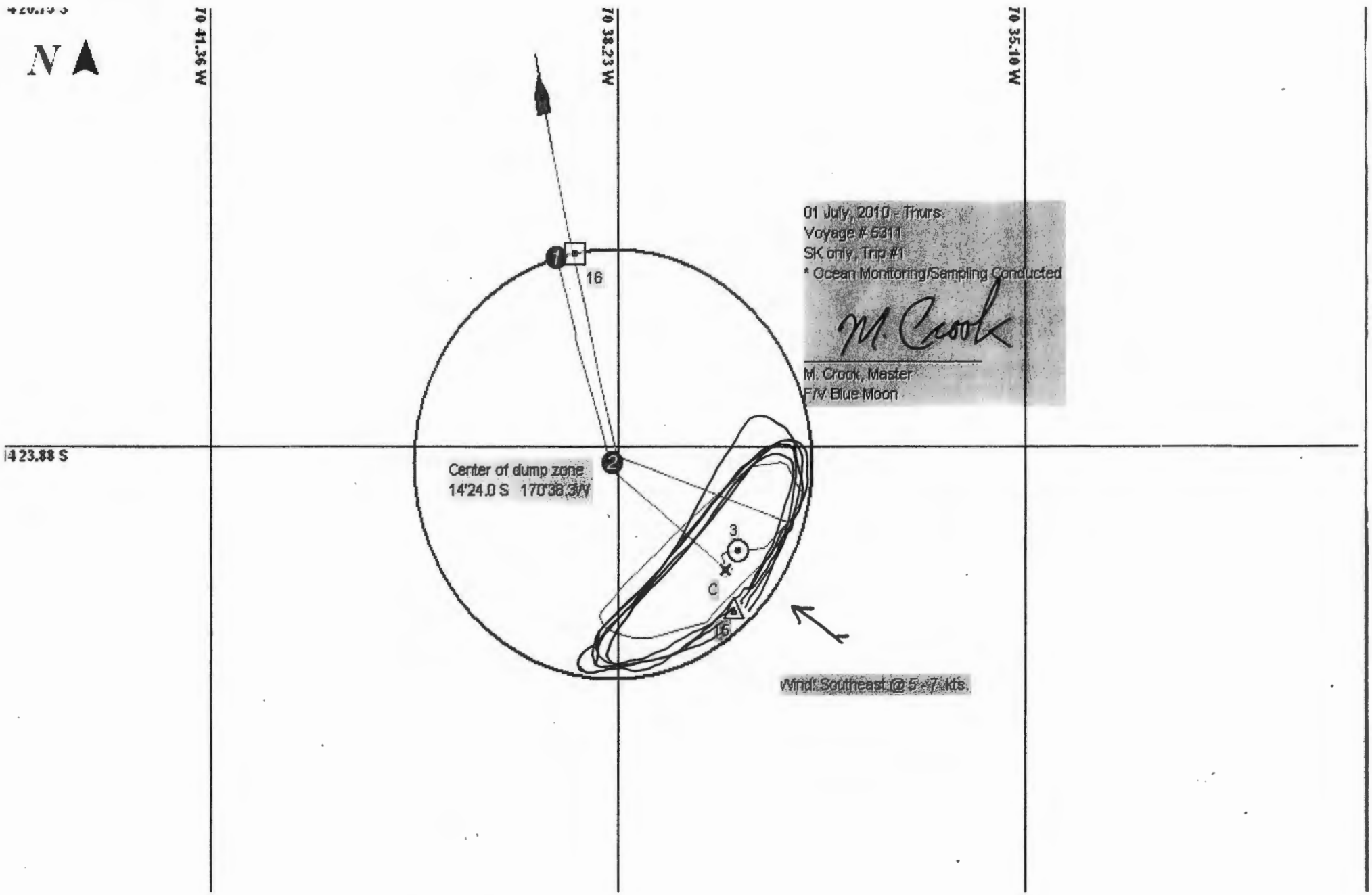
Total Discharge Time: 235 mins. Average Speed During Discharge: 8.6 kts. Total Time Run 6.25 hr.

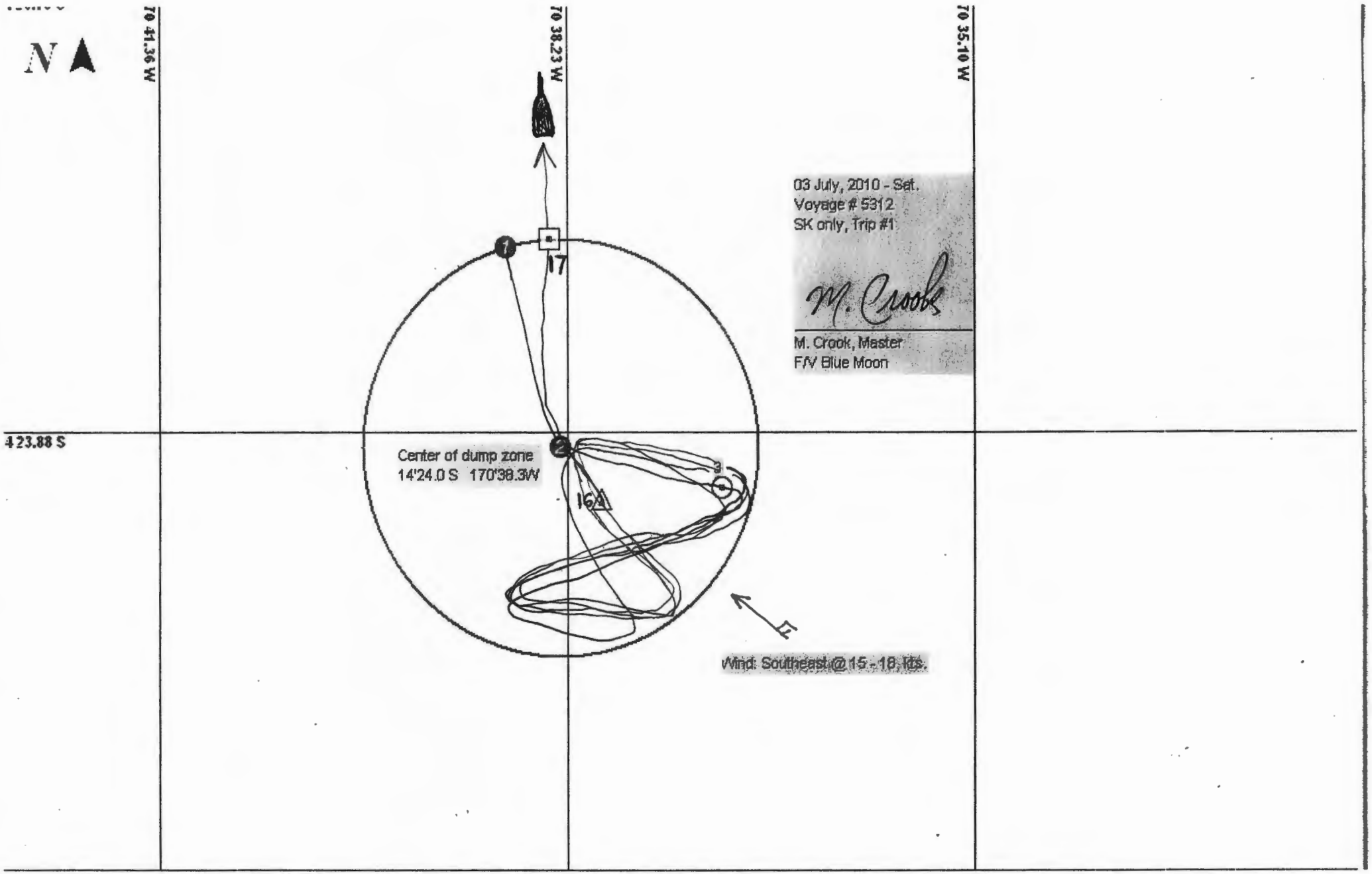
Navigational Plot made: Yes Presence of Plume? No

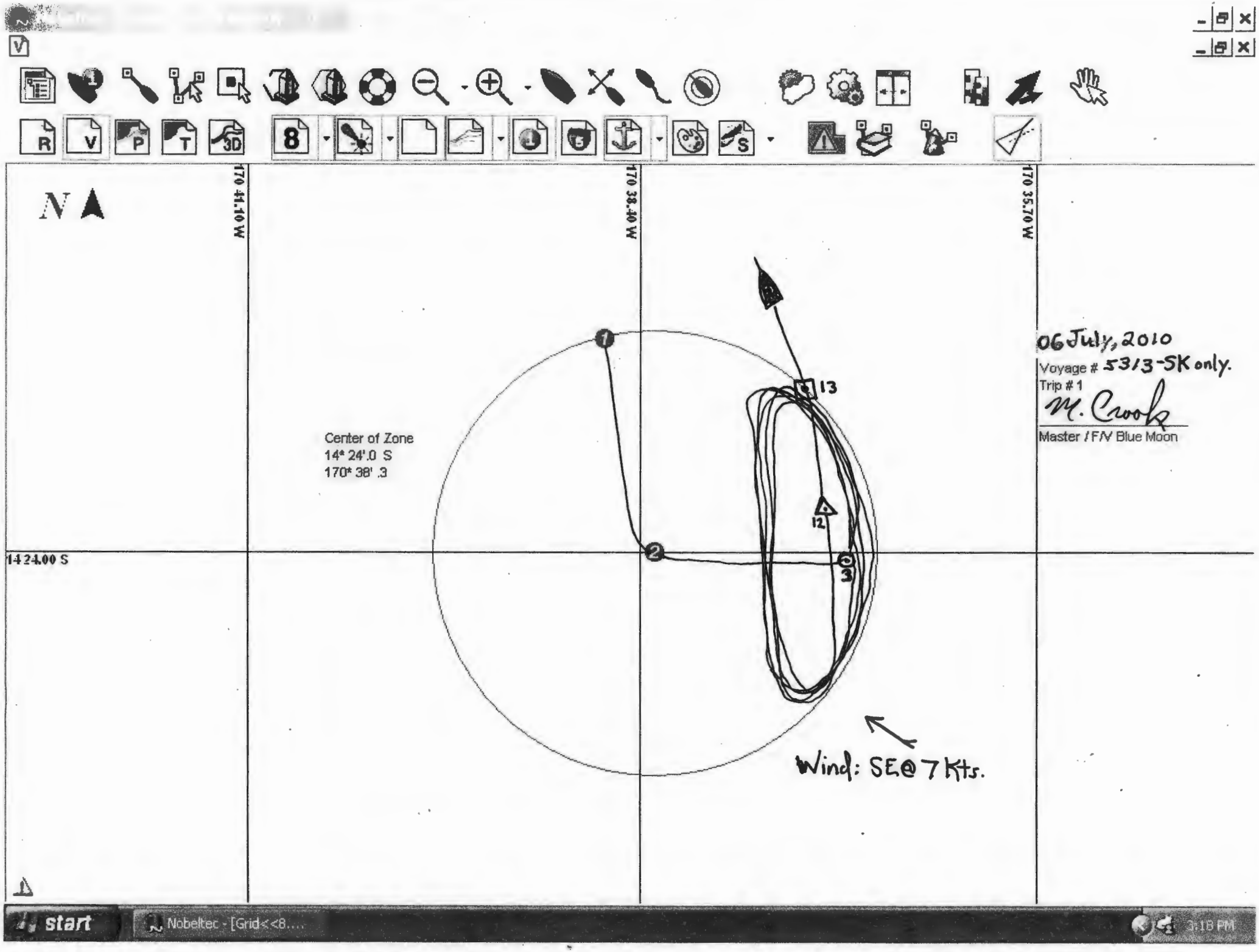
Time and position of any floating material: None Discharge Rate: 98 Gallons/min/kts

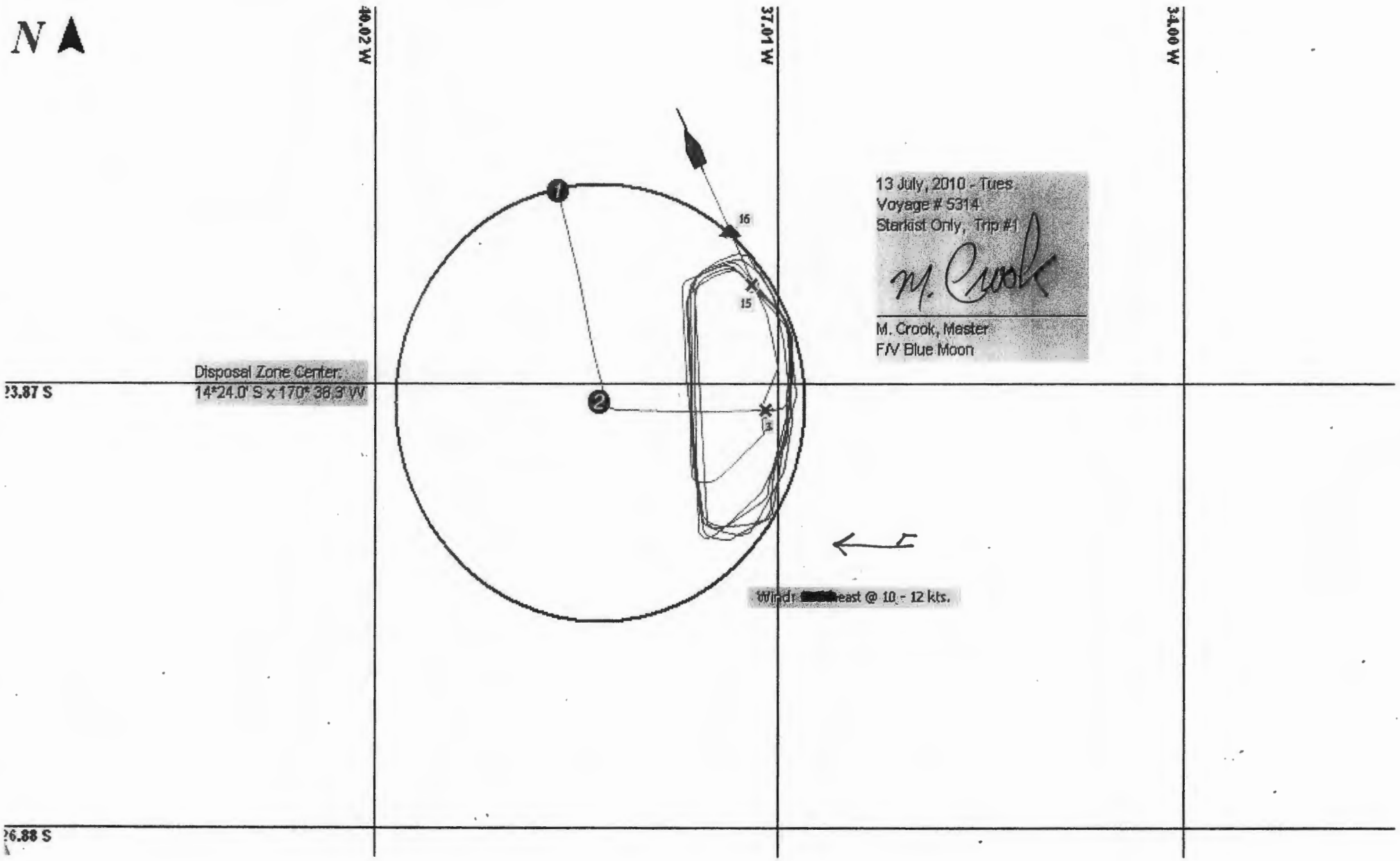
Unusual Occurrences? One pump only - long discharge.

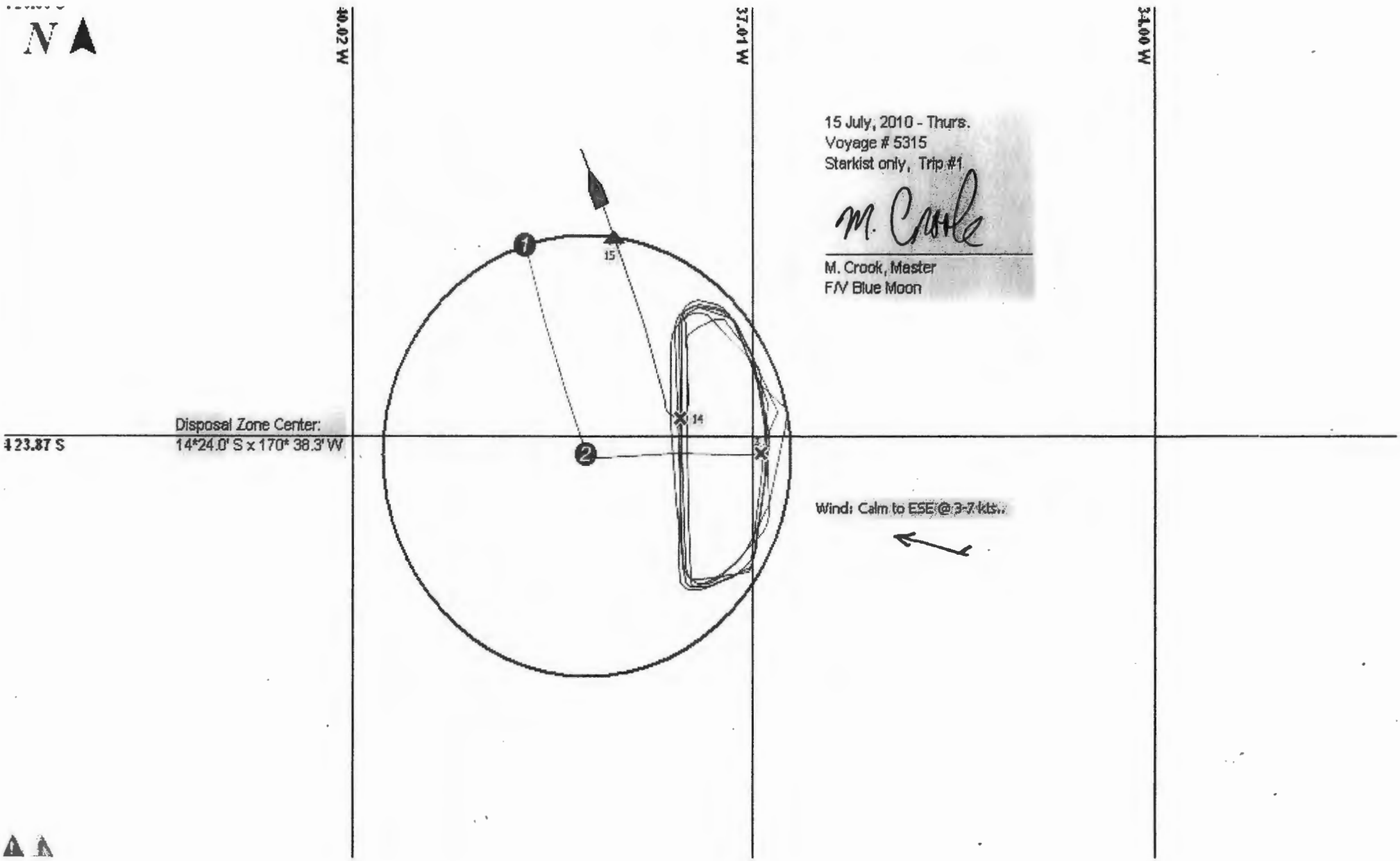
Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

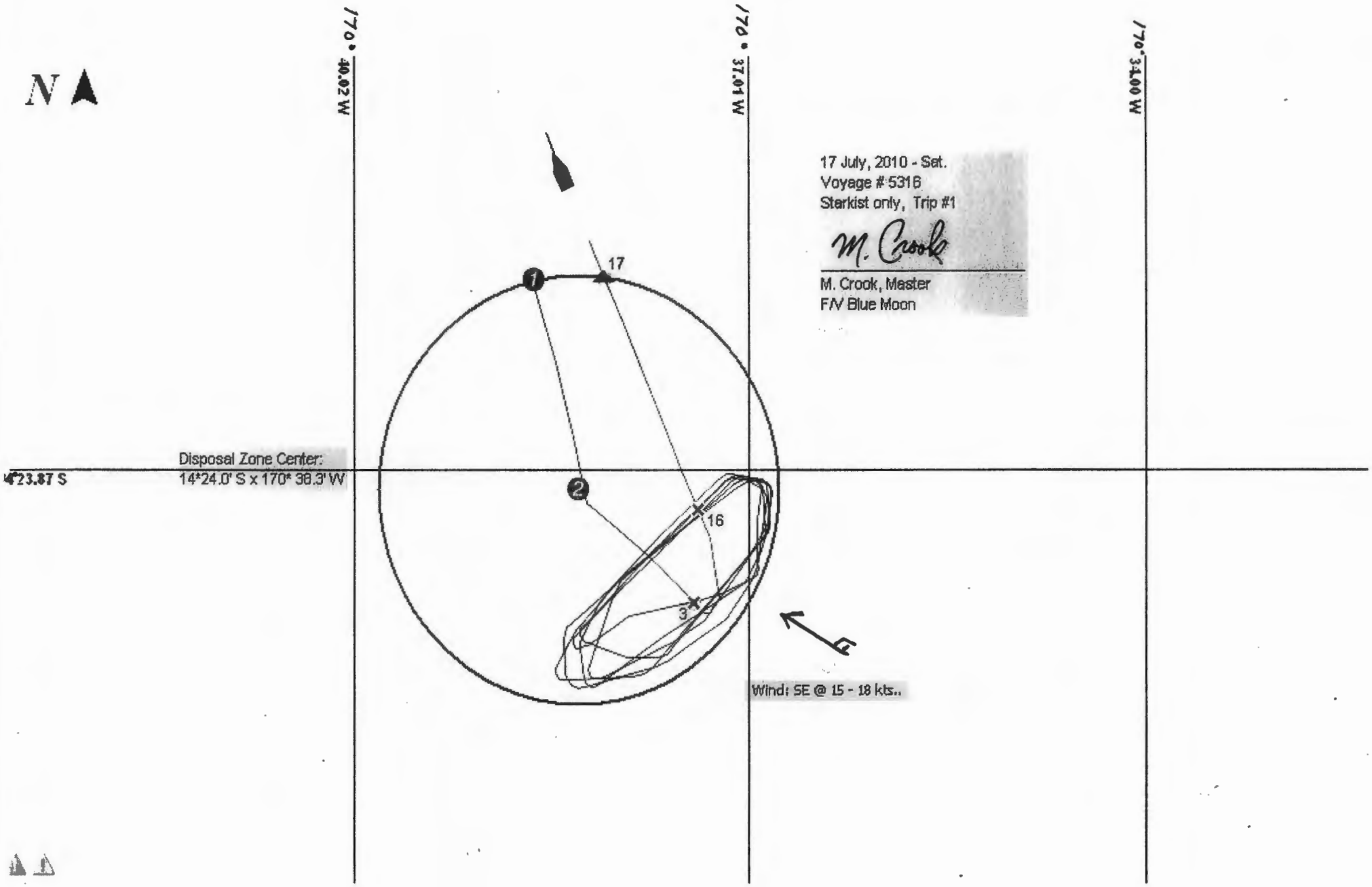

N
70 41.36 W
70 38.23 W
70 35.10 W
14 23.88 S
1
16
2
Center of dump zone
14'24.0 S 170'38.3W
3
C
15
01 July, 2010 - Thurs.
Voyage # 5311
SK only, Trip #1
* Ocean Monitoring/Sampling Conducted
M. Crook, Master
F/V Blue Moon
Wind: Southeast @ 5 - 7 kts.

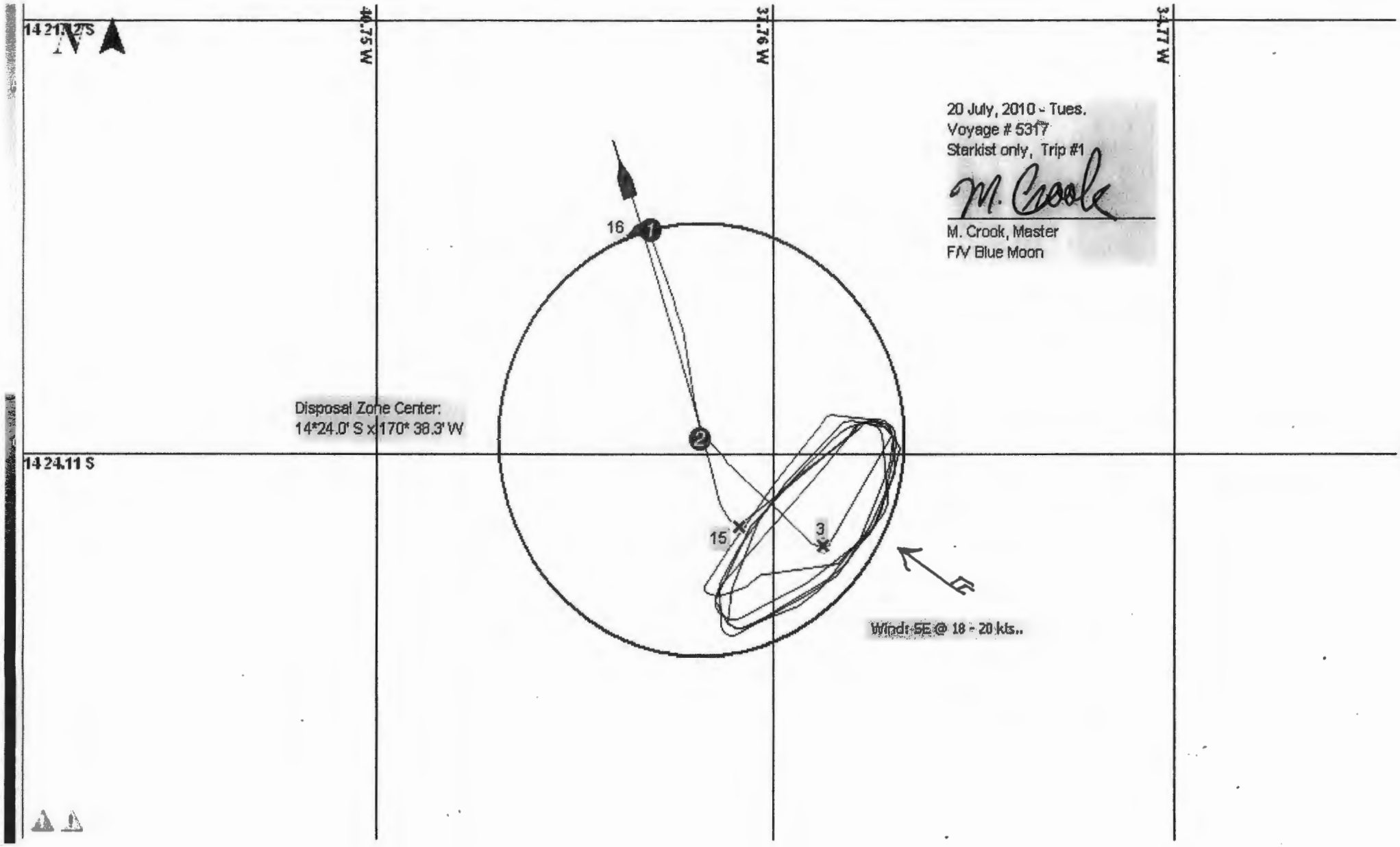

N
70 41.36 W
70 38.23 W
70 35.10 W
4 23.88 S
03 July, 2010 - Sat.
Voyage # 5312
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14'24.0 S 170'38.3W
1
2
3
17
164
Wind: Southeast @ 15 - 18 kts.

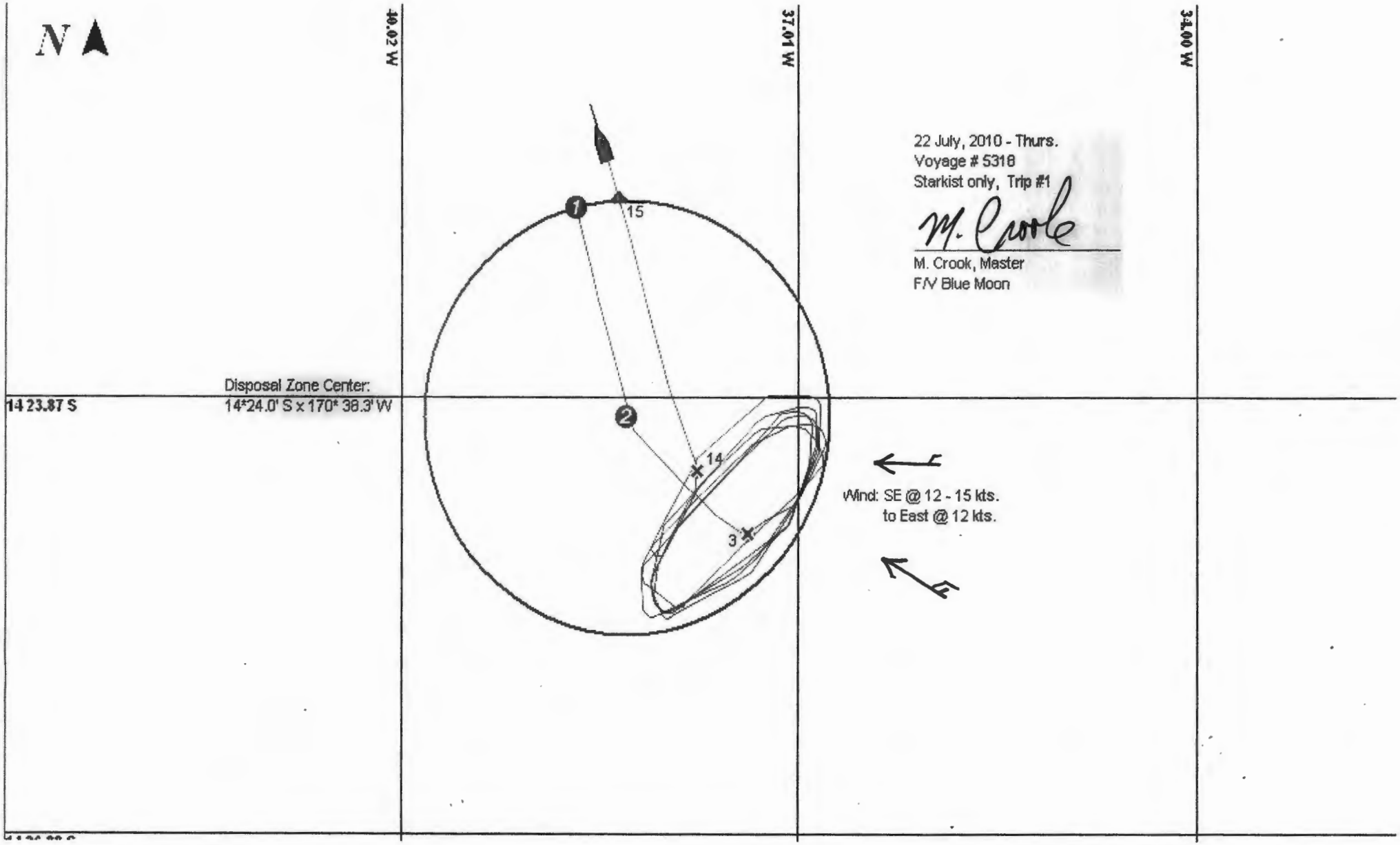

N
170 41.10 W
170 38.40 W
170 35.70 W
14 24.00 S
Center of Zone
14* 24'.0 S
170* 38' .3
1
2
3
12
13
06 July, 2010
Voyage # 5313-SK only.
Trip # 1
M. Crook
Master / F/V Blue Moon
Wind: SE@7 Kts.
start
Nobeltec - [Grid<<8....
3:18 PM

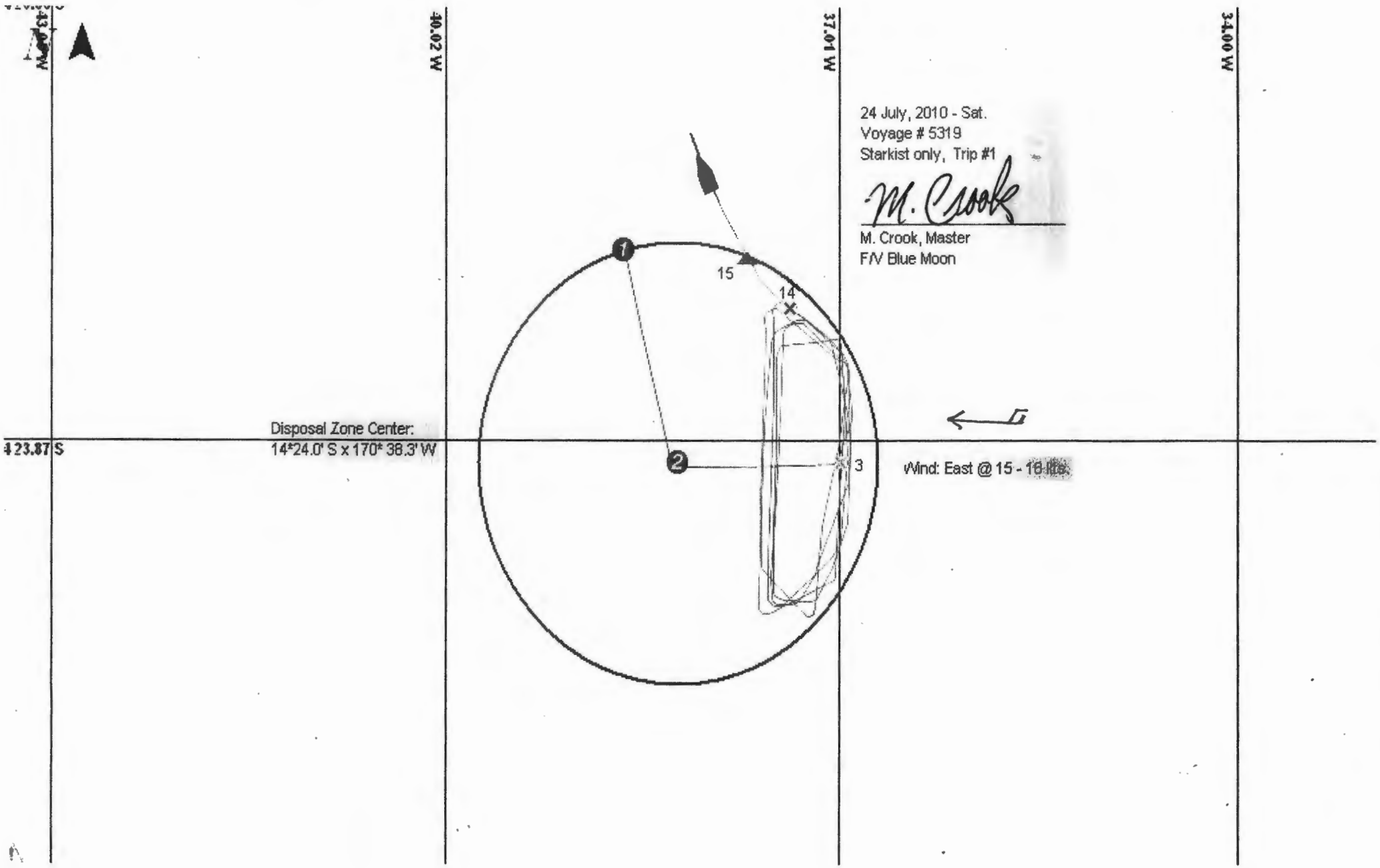

N
40.02 W
37.01 W
34.00 W
23.87 S
26.88 S
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
16
15
13 July, 2010 - Tues.
Voyage # 5314
Starkist Only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: [redacted]east @ 10 - 12 kts.

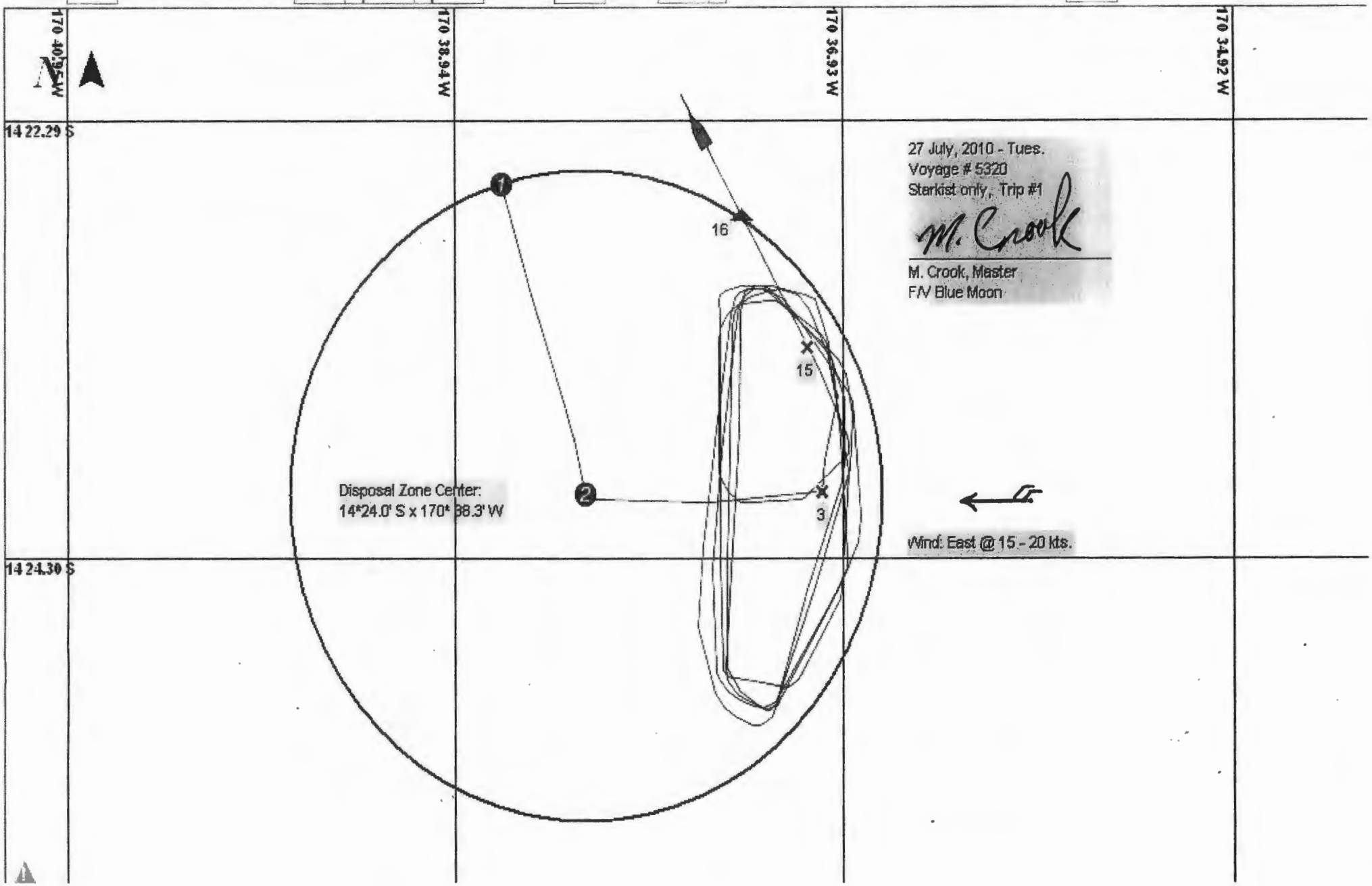

N
40.02 W
37.01 W
34.00 W
15 July, 2010 - Thurs.
Voyage # 5315
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
423.87 S
1
2
15
14
Wind: Calm to ESE @ 3-7 kts.

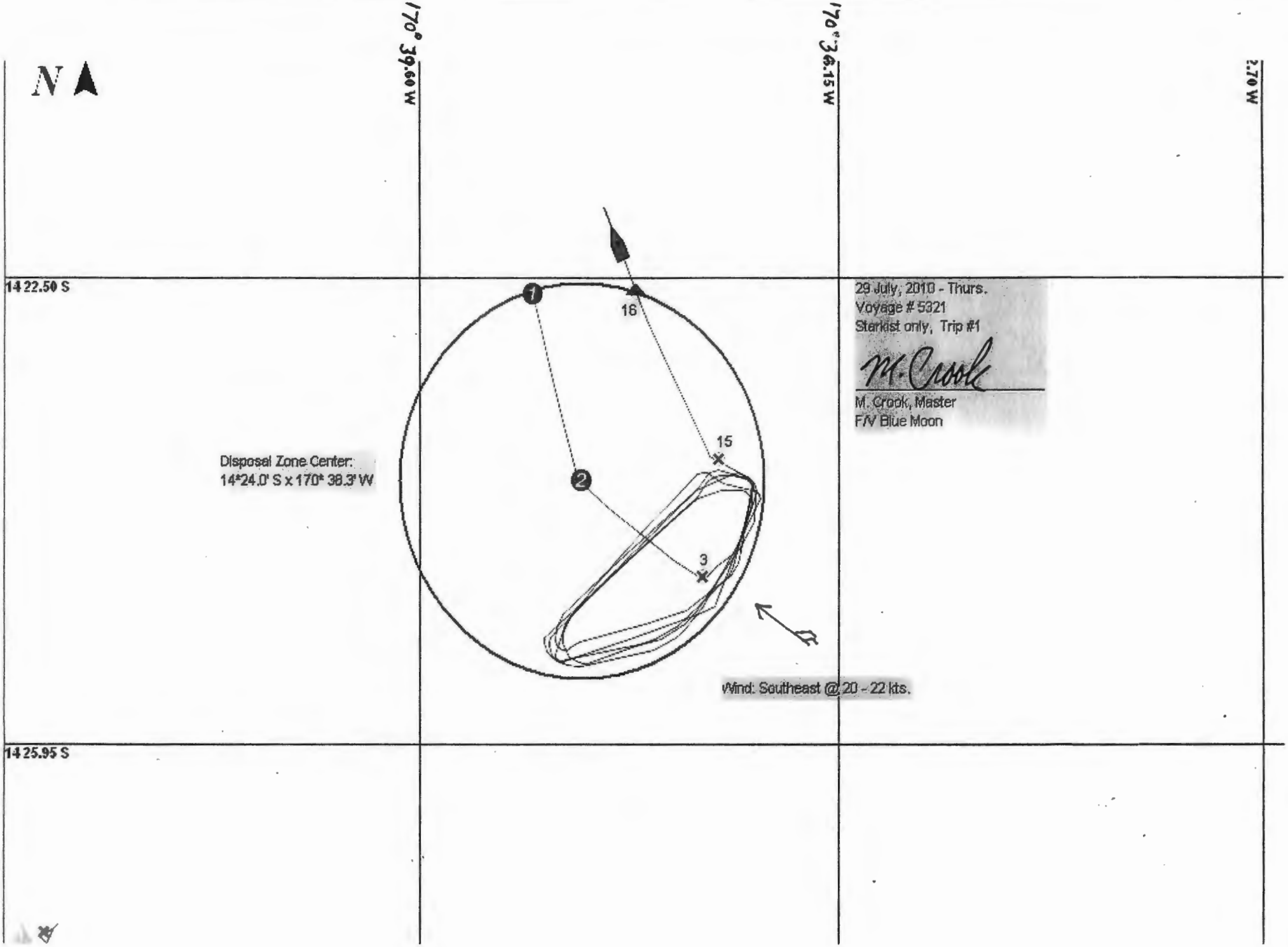

N
170° 40.02' W
170° 37.01' W
170° 34.00' W
4°23.87' S
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
17 July, 2010 - Sat.
Voyage # 5316
Starkist only, Trip #1
M. Crook
M. Crook, Master
F/V Blue Moon
1
2
3
16
17
Wind: SE @ 15 - 18 kts..

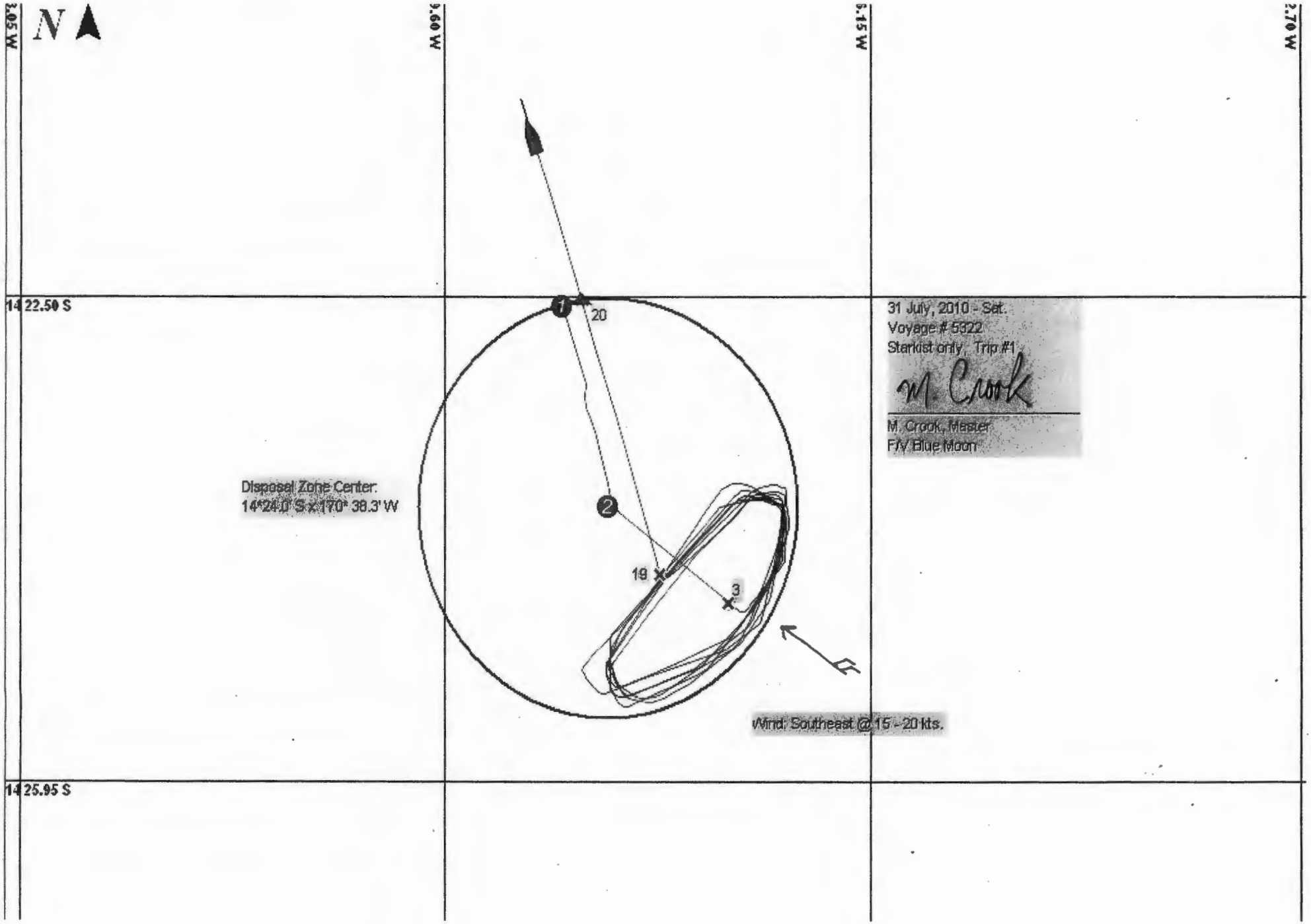

14 21.12 S
N
40.75 W
37.76 W
34.77 W
20 July, 2010 - Tues.
Voyage # 5317
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
16
1
2
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
14 24.11 S
15
3
Wind: SE @ 18 - 20 kts..


N
40.02 W
37.01 W
34.00 W
14 23.87 S
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
1
2
3
14
15
22 July, 2010 - Thurs.
Voyage # 5318
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: SE @ 12 - 15 kts.
to East @ 12 kts.


43.00 W
40.02 W
37.01 W
34.00 W
23.87 S
24 July, 2010 - Sat.
Voyage # 5319
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
Wind: East @ 15 - 16 kts.
1
2
3
14
15


170 40.95 W
170 38.94 W
170 36.93 W
170 34.92 W
14 22.29 S
14 24.30 S
27 July, 2010 - Tues.
Voyage # 5320
Sterkist only, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
Wind: East @ 15 - 20 kts.
1
2
3
15
16


N
170° 39.60 W
170° 39.15 W
170 W
14 22.50 S
14 25.95 S
1
2
3
15
16
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
Wind: Southeast @ 20 - 22 kts.
29 July, 2010 - Thurs.
Voyage # 5321
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon


N
3.05 W
3.60 W
3.15 W
2.70 W
14 22.50 S
14 25.95 S
1
20
2
19
3
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
31 July, 2010 - Set.
Voyage # 5322
Starkist only, Trip #1
M. Crook
M. Crook, Master
F/v Blue Moon
Wind: Southeast @ 15 - 20 kts.

OCEAN DUMPING MONTHLY SUMMARY

Month: July, 2010

	SK:	TOTAL:
NUMBER OF TRIPS:	12	**12**
GALLONS-FOR THE MONTH:	2,096,750	**2,096,750**
GALLONS FOR SOLO TRIPS:	2,096,750	

RUNNING TIME 62.9 hrs.

AVERAGE DISCHARGE TIME 174 mins.

AVERAGE GPM DISCHARGE RATE: 113.3 gallons/minute/knot

AVERAGE TRIP TIME: 5.24 hrs.

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK:
100.00%

MASTER : M. Cook

APPENDIX B - REPORT FORM 1

Monthly Volumes of StarKist Samoa Fish Processing Wastes Generated Per Day and Volumes of Fish Processing Wastes Disposed at the Ocean Site

Month : July 2010

0D 93-01	DAF Sludge Generated (gallons/day)	Cooker Water Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)
Permit Limits	30,000	70,000	100,000	

Date	DAF Sludge Generated (gallons/day)	Cooker Juice Generated (gallons/day)	Press Liquor Generated (gallons/day)	Total Generated (gallons/day)	Volume Ocean Disposed (gallons/day)
1-Jul-10	5875	23500	29375	58750	192500
2-Jul-10	7750	31000	38750	77500	
3-Jul-10	1000	4000	5000	10000	199750
4-Jul-10	0	0	0	0	
5-Jul-10	0	0	0	0	
6-Jul-10	0	0	0	0	80000
7-Jul-10	0	0	0	0	
8-Jul-10	0	0	0	0	
9-Jul-10	0	0	0	0	
10-Jul-10	0	0	0	0	
11-Jul-10	4750	19000	23750	47500	
12-Jul-10	4625	18500	23125	46250	
13-Jul-10	2250	9000	11250	22500	136250
14-Jul-10	16500	66000	82500	165000	
15-Jul-10	3000	12000	15000	30000	190000
16-Jul-10	16375	65500	81875	163750	
17-Jul-10	7500	30000	37500	75000	198750
18-Jul-10	750	3000	3750	7500	
19-Jul-10	6375	25500	31875	63750	
20-Jul-10	8125	32500	40625	81250	176250
21-Jul-10	9375	37500	46875	93750	
22-Jul-10	7250	29000	36250	72500	180000
23-Jul-10	8700	34800	43500	87000	152000
24-Jul-10	8500	34000	42500	85000	
25-Jul-10	2000	8000	10000	20000	
26-Jul-10	6000	24000	30000	60000	
27-Jul-10	9625	38500	48125	96250	200000
28-Jul-10	8625	34500	43125	86250	
29-Jul-10	8375	33500	41875	83750	192500
30-Jul-10	6750	27000	33750	67500	
31-Jul-10	7250	29000	36250	72500	198750
Monthly Totals	167325	669300	836625	1673250	2096750

NOTE: An asterisk (*) to the right of the fish processing waste volume signifies that a violation of the permit limit has occurred.

The number of violations are shown in the Monthly Totals row.

Monthly quantities of alum (aluminum sulfate) and coagulant polymer added to the fish processing waste streams:

Aluminum Sulfate : 14898.3 Pounds/Month

Coagulant Polymer : 383.5 Pounds/Month

Date: 07/01/10 – Thurs. F/V Blue Moon Ocean Dumping Log Voyage #: 5311

Permit # OD 93-01 & OD 93-02

	Time	
6/29	1800	Begin 1st Loading SK
	2015	Finish 1st Loading SK
6/30	1540	Begin 2nd Loading SK
	1915	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:			
	SK	192,500	Gallons
	SP	0	Gallons
	Total	192,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0510	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	30	29.63			
0600	Arrive Edge of Zone	# 1	14*22.53' S	170*38.71' W	SE-5	20	29.65	SE-1.5	8.7	160
0610	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	25	29.67	" "	8.5	163
0635	Begin Discharge	# 3	14*24.62 S	170*37.23 W	" "	"	29.68	" " X	8.0	051
" 50		# 4	14*24.76' S	170*38.11' W	" "	"	"	" "	8.7	218
0705	Remarks: Ocean	# 5	14*24.32' S	170*36.88' W	SE-7	35%	29.66	" "	8.9	011
" 20	Monitoring	# 6	14*25.11' S	170*38.41' W	" "	"	"		8.8	187
" 35	Control Samples	# 7	14*24.43' S	170*36.92' W	" "	"	29.67	5	9.1	008
" 50	DRAWN @ 0622	# 8	14*25.20' S	170*38.27 W	SE-5	"	"		8.6	131
0805	POSN: 14°24.71'S x	# 9	14*24.23' S	170*36.85' W	" "	40%	"		9.2	000
" 20	170°37.44' W	# 10	14*24.98' S	170*38.33' W	SE-7	"	"		9.4	216
" 35		# 11	14*24.21' S	170*36.86' W					9.4	008
" 50		# 12	14*25.19' S	170*37.90' W				10	9.5	036
0905		# 13	14*23.95' S	170*37.15' W		30%			8.8	224
" 20		# 14	14*25.16' S	170*37.82' W		"			9.3	062
" 35		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0927	Finish Discharge	# 15	14*24.82' S	170*37.11' W	SE-7	30%	29.67	SE-1.5	9.0	029
1035	Exit Discharge Zone	# 16	14*22.56' S	170*38.57' W					9.7	342
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 172 mins. Average Speed During Discharge: 8.98 kts. Total Time Run 6.25 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 125 Gallons/min/kts

Unusual Occurrences? Computer Crash - loss of plot track. Hand drawn from back-up plotter

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M Crook

Date: 07/03/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5312

Permit # OD 93-01 & OD 93-02

	Time	
7/1	1645	Begin 1st Loading SK
	1913	Finish 1st Loading SK
7/2	1545	Begin 2nd Loading SK
	1930	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	199,750	Gallons
SP	0	Gallons
Total	199,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0550	Depart Starkist		14*16.50' S	170* 41.2' W	SE-7	40%	29.63			
0645	Arrive Edge of Zone	# 1	14*22.55' S	170*38.73' W	SE-15	60	29.65	SE-2.0	8.4	162
0655	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	70	29.67	SE-2.5	8.1	154
0705	Begin Discharge	# 3	14*24.62' S	170*37.39' W	" "	"	"	S+SE-2.5X	8.0	115
20		# 4	14*25.23' S	170*38.03' W	" "	"	29.68	" "	7.8	110
35	Remarks:	# 5	14*24.27' S	170*38.01' W	" "	"		" "	8.1	111
50		# 6	14*24.74' S	170*37.79' W	SE-18	80	29.69	" "	9.2	256
0805		# 7	14*25.18' S	170*37.68' W	" "	"	"	" " 5	8.3	105
20		# 8	14*24.22' S	170*38.16 W	" "	70	"	" "	9.5	315
35		# 9	14*24.67' S	170*38.25' W		"	"		9.4	258
50		# 10	14*24.39' S	170*38.06' W		50	"		9.8	321
0905		# 11	14*24.33' S	170*37.25' W		"	"		8.5	109
20		# 12	14*24.92' S	170*38.50' W		40%	"	10	8.6	108
35		# 13	14*24.19' S	170*38.17' W			"		9.8	317
50		# 14	14*24.76' S	170*37.95' W			"		9.7	260
1005		# 15	14*24.96' S	170*37.62' W			29.68		9.3	316
20		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1010	Finish Discharge	# 16	14*24.37' S	170*38.02' W	SE-18	40%	29.68	SE+S-2.5	9.8	328
1023	Exit Discharge Zone.	# 17	14*22.62' S	170*38.66' W	"	"	"	" "	9.6	341
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure-8

Total Discharge Time: 185 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.4 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 120 Gallons/min/kts

Unusual Occurrences? Nav. Computer crash + lost track - Re-drawn by hand from Plotter.

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Croft

Date: 07/06/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5313

Permit # OD 93-01 & OD 93-02

Time		
1700	Begin 1st Loading SK	
2030	Finish 1st Loading SK	
/	Begin 2nd Loading SK	
/	Finish 2nd Loading SK	

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	80,000	Gallons
SP	0	Gallons
Total	80,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0605	Depart Starkist		14*16.50' S	170*41.2' W	Calm	70	29.59			
0650	Arrive Edge of Zone	#1	14*22.53' S	170*38.71 W	East-7	60	"	SE-1.0	9.0	164
0701	Arrive Zone Center	#2	14*24.0 S	170*38.3 W		"	"		8.8	159
0710	Begin Discharge	#3	14*24.08' S	170*37.20' W		50	"	X	9.0	090
25		#4	14*23.61' S	170*37.53' W		"	29.60		8.6	177
40	Remarks:	#5	14*24.34' S	170*36.95' W			"		9.5	013
55		#6	14*23.47' S	170*37.56' W			"		8.9	179
0810		#7	14*24.89' S	170*37.16' W			"	5	8.8	056
25		#8	14*23.07' S	170*37.58' W			"		9.0	178
40		#9	14*24.75' S	170*37.17' W			"		9.4	061
55		#10	14*22.97' S	170*37.44' W		60%	"		9.8	312
0910		#11	14*24.64' S	170*37.52' W			"		8.5	180
25		#12	14*2 S	170*3 W				10		
40		#13	14*2 S	170*3 W						
55		#14	14*2 S	170*3 W						
		#15	14*2 S	170*3 W						
		#16	14*2 S	170*3 W						
		#17	14*2 S	170*3 W				15		
		#18	14*2 S	170*3 W						
		#19	14*2 S	170*3 W						
		#20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0920	Finish Discharge	#12	14*23.40' S	170*37.15' W	East-7	50%	29.60	SE-1.0	9.7	338
0927	Exit Discharge Zone	#13	14*22.93' S	170*37.31' W	" "	"	" "	" "	9.8	336
1025	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 130 mins. Average Speed During Discharge: 9.1 kts. Total Time Run 4.33 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 67.6 Gallons/min/kts

Unusual Occurrences? NAV. computer down. Plot track lines hand drawn from back-up Plotter.

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crooke

Date: 07/13/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5314

Permit # OD 93-01 & OD 93-02

	Time	
7/12	1650	Begin 1st Loading SK
	2000	Finish 1st Loading SK
7/13	0200	Begin 2nd Loading SK
	0430	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
	SK	136,250	Gallons
	SP	0	Gallons
	Total	136,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	90	29.60			
0705	Arrive Edge of Zone	# 1	14*22.53' S	170*38.64' W	East-10	80	29.59	SE-1.5	8.9	155
0713	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.8	163
0722	Begin Discharge	# 3	14*24.05' S	170*37.15' W	" "	"	"	" " X	8.4	090
" 37		# 4	14*23.63' S	170*37.60' W	" "	"	29.60	" "	8.8	178
" 52	Remarks:	# 5	14*24.24' S	170*36.91' W	" "	"			8.5	002
0807		# 6	14*23.36' S	170*37.67' W	East-12	"			8.8	181
" 22		# 7	14*24.53' S	170*37.05' W	" "	70		5	8.4	015
" 37		# 8	14*23.39' S	170*37.71' W					9.1	178
" 52		# 9	14*24.16' S	170*36.92' W					9.0	006
0907		# 10	14*23.64' S	170*37.66' W					9.3	179
" 22		# 11	14*23.91' S	170*36.90' W					9.4	001
" 37		# 12	14*24.04' S	170*37.62' W		75		10	9.3	180
" 52		# 13	14*23.71' S	170*36.90' W		"			9.4	327
1007		# 14	14*24.02' S	170*37.65' W		"			9.3	181
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*23.27' S	170*37.15' W	East-12	75%	29.60	SE-1.5	9.5	329
1023	Exit Discharge Zone	#16	14*22.93' S	170*37.31' W	" "	"	"	" "	9.6	333
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 178 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.16 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 85 Gallons/min/kts

Unusuall Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crooks

Date: 07/15/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5315

Permit # OD 93-01 & OD 93-02

	Time	
7/14	~~20~~ 1500	Begin 1st Loading SK
	2100	Finish 1st Loading SK
7/15	0145	Begin 2nd Loading SK
	0245	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	190,000	Gallons
SP	0	Gallons
Total	190,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	50	29.62			
0700	Arrive Edge of Zone	# 1	14*22.54' S	170*38.71' W	"	60	29.64	S+SE-1.5	8.7	160
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	"	"	"	mix E,SE+S	8.3	154
0720	Begin Discharge	# 3	14*24.00' S	170*37.15' W	"	65	"	to 1.5 m.X	8.5	090
35		# 4	14*23.88' S	170*37.51' W		"	29.66		8.7	181
50	Remarks:	# 5	14*23.89' S	170*36.91' W	"	"	"		8.6	347
0805		# 6	14*23.75' S	170*37.55' W	ESE-3	60	29.64		8.8	181
20		# 7	14*24.16' S	170*36.91' W	" "	"	"	5	8.9	003
35		# 8	14*23.57' S	170*37.55' W	ESE-5	70	29.65		9.1	177
50		# 9	14*24.11' S	170*36.91' W		"	"		9.0	000
0905		# 10	14*23.54' S	170*37.57' W		"	"		8.9	179
20		# 11	14*24.27' S	170*36.89' W		"	29.66		9.2	358
35		# 12	14*23.59' S	170*37.63' W	ESE-7	80		10	9.5	181
50		# 13	14*24.21' S	170*36.86' W		"	29.65		9.3	007
1005		# 14	14*2 S	170*3 W						
20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1005	Finish Discharge	#14	14*23.60' S	170*37.49' W	ESE-7	90%	29.66	S,SE,E-1.5	9.2	180
1015	Exit Discharge Zone	# 15	14*22.61' S	170*38.01' W	" "	"	29.67	" "	9.6	339
1110	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.0 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 128 Gallons/min/kts

Unusuall Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 07/17/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5316

Permit # OD 93-01 & OD 93-02

	Time	
7/16	1530	Begin 1st Loading SK
	2140	Finish 1st Loading SK
	0130	Begin 2nd Loading SK
7/17	0330	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	198,750	Gallons
SP	0	Gallons
Total	198,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0600	Depart Starkist		14*16.50' S	170*41.2' W	East - 10	100	29.68			
0650	Arrive Edge of Zone	# 1	14*22.57' S	170*38.63 W	SE - 15	90	29.65	SE-2	8.5	158
0702	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.66	" "	8.2	153
0712	Begin Discharge	# 3	14*24.81' S	170*37.39' W	" "	95	"	" " X	8.0	135
" 27		# 4	14*24.43' S	170*37.73' W	" "	"	"	" "	8.8	221
" 42	Remarks:	# 5	14*24.70' S	170*37.22' W	" "	100	"	" "	8.2	039
" 57		# 6	14*24.47' S	170*37.82' W	" "	100-Rain	"	" "	9.0	224
0812		# 7	14*25.08' S	170*37.59' W		100	"	5	8.4	035
" 27		# 8	14*24.09' S	170*37.28' W		"	"		9.1	228
" 42		# 9	14*25.25' S	170*37.78' W	SE-18	90	"		8.2	056
" 57		# 10	14*24.15' S	170*37.46' W		"	29.67		9.0	221
0912		# 11	14*25.18' S	170*37.91' W		80	"		8.2	052
" 27		# 12	14*24.16' S	170*37.37' W		"	"	10	9.3	226
" 42		# 13	14*24.77' S	170*37.35' W		90	29.69		8.5	062
" 57		# 14	14*24.53' S	170*37.87' W		"	"		9.8	220
1012		# 15	14*25.04' S	170*37.53' W			29.68		8.4	050
" 27		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1015	Finish Discharge	#16	14*24.22' S	170*37.38' W	SE-18	90%	29.67	SE-2	9.5	332
1027	Exit Discharge Zone	#17	14*22.59' S	170*38.09' W	" "	"	" "	" "	9.6	330
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 183 mins. Average Speed During Discharge: 8.74 kts. Total Time Run 5.33 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 124 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 07/20/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5317

Permit # OD 93-01 & OD 93-02

	Time	
7/18	1430	Begin 1st Loading SK
	1600	Finish 1st Loading SK
7/18	1595	Begin 2nd Loading SK
	2020	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	176,250	Gallons
SP	0	Gallons
Total	176,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0630	Depart Starkist		14*16.50' S	170* 41.2' W	SE-12	90	29.61			
0722	Arrive Edge of Zone	# 1	14*22.55' S	170*38.68' W	SE-20	70	29.66	SE-2+	8.1	158
0732	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.67	SE-2.5	7.7	149
0740	Begin Discharge	# 3	14*24.70' S	170*37.50' W	" "		"	X	7.8	135
" 55		# 4	14*24.33' S	170*37.77' W	" "		"		8.6	216
0810	Remarks:	# 5	14*24.76' S	170*37.14' W	" "		"		8.2	019
" 25		# 6	14*24.30' S	170*37.67' W	SE-18	80	29.68		8.8	218
" 40		# 7	14*25.05' S	170*37.44' W	" "	"	"	5	8.0	050
" 55		# 8	14*24.46' S	170*37.79' W	" "	70	29.69		8.7	212
0910		# 9	14*24.71' S	170*37.08' W	" "		"		8.9	009
" 25		# 10	14*24.63' S	170*37.79' W	SE-20	60	29.68		9.1	213
" 40		# 11	14*24.40' S	170*36.93' W		"			9.1	014
" 55		# 12	14*25.01' S	170*38.16' W		50		10	8.8	211
1010		# 13	14*24.63' S	170*37.07' W		"			8.9	016
" 25		# 14	14*2 S	170*3 W						
" 40		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1025	Finish Discharge	#14	14*24.50' S	170*37.87' W	SE-20	50%	29.68	SE-2.5	9.3	225
1037	Exit Discharge Zone	#15	14*22.67' S	170*38.72' W	" "	"	"	" "	9.4	337
1130	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 8.7 kts. Total Time Run 5.0 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 123 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 07/22/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5318

Permit # OD 93-01 & OD 93-02

	Time	
7/20	1600	Begin 1st Loading SK
	1745	Finish 1st Loading SK
7/21	1430	Begin 2nd Loading SK
	1945	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	180,000	Gallons
SP	0	Gallons
Total	180,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	ESE -10	100%	29.60			
0705	Arrive Edge of Zone	# 1	14*22.51' S	170*38.70' W	ESE-15	"	29.64	SE-2.5	8.4	162
0715	Arrive Zone Center	# 2	14*24.0' S	170*38.3 W	SE-12	100-RAIN	29.66	" "	8.2	158
0725	Begin Discharge	# 3	14*24.74' S	170*37.53' W	" "	" "	29.67	" " X	8.0	135
" 40		# 4	14*24.32' S	170*37.76' W	" "	100	"	" "	8.5	214
" 55	Remarks:	# 5	14*24.94' S	170*37.27' W	" "	100-Lt. RAIN	"		8.4	035
0810		# 6	14*24.28' S	170*37.56' W	" "	100	29.68		8.8	219
" 25		# 7	14*24.93' S	170*37.25' W	East-12	"	"	5	8.6	028
" 40		# 8	14*24.66' S	170*37.89' W	ESE-12	"	"		9.1	202
55		# 9	14*24.53' S	170*36.98' W	East-12	100 Rain	"	SE-2.0	9.0	019
0910		# 10	14*24.91' S	170*38.02' W	" "	100	"	" "	9.2	200
" 25		# 11	14*24.20' S	170*36.91' W	" "	" "	29.69	" "	9.3	001
" 40		# 12	14*25.17' S	170*37.74' W			"	10	9.1	042
" 55		# 13	14*24.51' S	170*37.71' W			"		9.7	221
1010		# 14	14*2 S	170*3 W						
" 25		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1005	Finish Discharge	#14	14*24.46' S	170*37.78' W	East-12	100	29.69	SE-2.0	9.1	006
1018	Exit Discharge Zone.	#15	14*22.60' S	170*38.33' W	" "	"	"	" "	9.4	335
1110	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 160 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 5.0 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 126.4 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 07/24/10 – Sat. F/V Blue Moon Ocean Dumping Log Voyage #: 5319

Permit # OD 93-01 & OD 93-02

	Time	
11/22	1530	Begin 1st Loading SK
	1730	Finish 1st Loading SK
11/23	1500	Begin 2nd Loading SK
	2000	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:			
	SK	152,000	Gallons
	SP	0	Gallons
	Total		Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	ESE-10	90%	29.65			
0705	Arrive Edge of Zone	# 1	14*22. 50' S	170*38. 67' W	East-15	"	29.70	E/SE-2.0	8.4	162
0714	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.5	164
0723	Begin Discharge	# 3	14*24.04 S	170*37.17 W	" "	"	29.69	" " X	8.1	090
" 38		# 4	14*23.89' S	170*37.47' W	" "		"		8.8	183
" 53	Remarks:	# 5	14*23.97' S	170*36.92' W	" "		"		8.3	000
0808		# 6	14*23.46' S	170*37.55' W	" "		"		8.8	184
" 23		# 7	14*24.75' S	170*37.04' W	" "		"	5	8.1	356
" 38		# 8	14*23.41' S	170*37.48' W	East-18		"		8.9	182
" 53		# 9	14*24.50' S	170*36.96' W	" "		29.68		8.6	353
0908		# 10	14*23.07 S	170*37.50' W	" "		"		8.2	181
" 23		# 11	14*24.38 S	170*36.97' W	" "	80%	29.67		9.1	003
" 38		# 12	14*23.77' S	170*37.59' W		"	29.65	10	9.4	181
" 53		# 13	14*24.62' S	170*37.18' W		75%	29.66		9.2	017
1008		# 14	14*2 S	170*3 W						
"23		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1008	Finish Discharge	#14	14*23.04' S	170*37.30' W	East-18	75%	29.66	E/SE-2.0	9.8	306
1012	Exit Discharge Zone	#15	14*22.64' S	170*37.71' W	" "	"	" "	" "	9.7	328
1100	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge WEST Discharge Pattern Ellipse

Total Discharge Time: 165 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 4.75 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 105 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 07/27/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5320

Permit # OD 93-01 & OD 93-02

	Time	
7/25	1800	Begin 1st Loading SK
	1920	Finish 1st Loading SK
7/26	1530	Begin 2nd Loading SK
	1930	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	200,000	Gallons
SP	0	Gallons
Total	200,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170*41.2' W	East-12	75%	29.65			
0700	Arrive Edge of Zone	# 1	14*22.53' S	170*38.71' W	East-15	"	29.66	E+SE-2.0	8.2	160
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	" "	" "	8.0	162
0720	Begin Discharge	# 3	14*24.02' S	170*37.18' W	" "	"	29.68	" " X	7.8	090
" 35		# 4	14*23.68' S	170*37.57' W	" "		29.69		8.4	180
" 50	Remarks:	# 5	14*24.56' S	170*36.97' W	" "				8.2	011
0805		# 6	14*23.28' S	170*37.50' W	East-18				8.3	185
" 20		# 7	14*24.56' S	170*37.12' W	" "			5	8.5	013
" 35		# 8	14*23.35' S	170*37.45' W	" "				8.4	181
" 50		# 9	14*24.68' S	170*37.07' W	" "				8.7	020
0905		# 10	14*23.17' S	170*37.20' W	East-20				9.2	311
" 20		# 11	14*24.83' S	170*37.19' W	" "	80%			8.7	025
" 35		# 12	14*23.15' S	170*37.48' W	" "	"		10	8.3	184
" 50		# 13	14*24.74' S	170*37.23' W	" "	70%			8.8	015
1005		# 14	14*23.30' S	170*37.05' W		60			9.6	306
" 20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	# 15	14*23.54' S	170*37.01' W	East-20	60%	29.69	E+SE-2.0	9.3	329
1028	Exit Discharge Zone	# 16	14*22.83' S	170*37.39' W	" "	"	" "	" "	9.6	326
1122	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 8.6 kts. Total Time Run 5.2 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 129 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 07/29/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5321

Permit # OD 93-01 & OD 93-02

	Time	
7/27	1700	Begin 1st Loading SK
	1915	Finish 1st Loading SK
7/28	1715	Begin 2nd Loading SK
	2130	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	192,500	Gallons
SP	0	Gallons
Total	192,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	East-15	50%	29.68			
0706	Arrive Edge of Zone	# 1	14*22.59' S	170*38.68' W	ESE-20	60	"	SE-2.5	8.1	158
0717	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	7.7	162
0728	Begin Discharge	# 3	14*24.66' S	170*37.39' W	SE-20	"	29.69	" " X	7.8	185
" 43		# 4	14*24.50' S	170*37.77' W		"	"		8.6	228
" 58	Remarks:	# 5	14*25.23' S	170*37.61' W		"	29.70		8.3	062
0813		# 6	14*24.00' S	170*37.34' W		50			8.0	231
" 28		# 7	14*25.28' S	170*38.25' W	SE-22	"		5	8.2	064
" 43		# 8	14*24.25 S	170*36.87' W	" "	60			8.6	359
" 58		# 9	14*25.06' S	170*38.45' W		"			8.8	227
0913		# 10	14*24.71' S	170*37.10' W		70			8.7	026
" 28		# 11	14*24.92' S	170*38.28' W	SE-20	90 Lt. Rain		SE-2.0	9.1	225
" 43		# 12	14*24.47' S	170*36.96' W	" "	80	29.69	" " 10	9.3	012
" 58		# 13	14*24.96' S	170*38.32' W	SE-22	"		" "	9.3	219
1013		# 14	14*24.69' S	170*37.03' W	" "	70		" "	8.9	031
" 28		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*23.92' S	170*37.02' W	SE-22	60 %	29.69	SE-2.0	9.5	289
1030	Exit Discharge Zone	#16	14*22.68' S	170*37.78' W	" "	"	"	" "	9.6	334
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 172 mins. Average Speed During Discharge: 8.7 kts. Total Time Run 5.2 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 129 Gallons/min/kts

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 07/31/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5322

Permit # OD 93-01 & OD 93-02

	Time	
7/29	1700	Begin 1st Loading SK
	1920	Finish 1st Loading SK
7/30	1540	Begin 2nd Loading SK
	2015	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
	SK	198,750	Gallons
	SP	0	Gallons
	Total	198,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	East-12	100%	29.60			
0703	Arrive Edge of Zone	# 1	14*22.59' S	170*38.65' W	SE-18	"	29.61	ESE-2.5	8.3	164
0713	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.62	" "	8.0	168
0722	Begin Discharge	# 3	14*24.62' S	170*37.36' W	" "	"	29.63	" " X	8.0	135
" 37		# 4	14*24.55' S	170*37.76' W	" "	"	"	" "	8.4	220
" 52	Remarks:	# 5	14*25.00' S	170*37.21' W			"		8.1	037
0807		# 6	14*24.13' S	170*37.44' W			"		8.5	222
" 22		# 7	14*25.25' S	170*37.68' W			"	5	8.4	059
" 37		# 8	14*23.88' S	170*37.21' W	SE-20		29.64		8.2	224
" 52		# 9	14*25.27' S	170*37.95' W	" "		"		8.3	061
0907		# 10	14*24.15' S	170*36.87' W	SE-15		29.65		8.8	007
" 22		# 11	14*25.07' S	170*38.42' W					8.7	226
" 37		# 12	14*24.11' S	170*36.85' W				10	8.9	000
" 52		# 13	14*24.93' S	170*38.18' W					8.6	217
1007		# 14	14*24.09' S	170*36.85' W					9.1	003
" 22		# 15	14*24.93' S	170*38.24' W					8.7	198
" 37		# 16	14*24.45' S	170*36.93' W					9.3	016
" 52		# 17	14*24.94' S	170*38.22' W		RAIN		15	8.7	197
1107		# 18	14*24.11' S	170*36.84' W	SE-18	100%	29.63		9.2	001
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1117	Finish Discharge	#19	14*24.45' S	170*37.72' W	SE-18	100%	29.62	ESE-2.5	8.9	229
1132	Exit Discharge Zone.	#20	14*22.54' S	170*38.49' W	" "	"	29.60	" "	9.5	337
1225	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

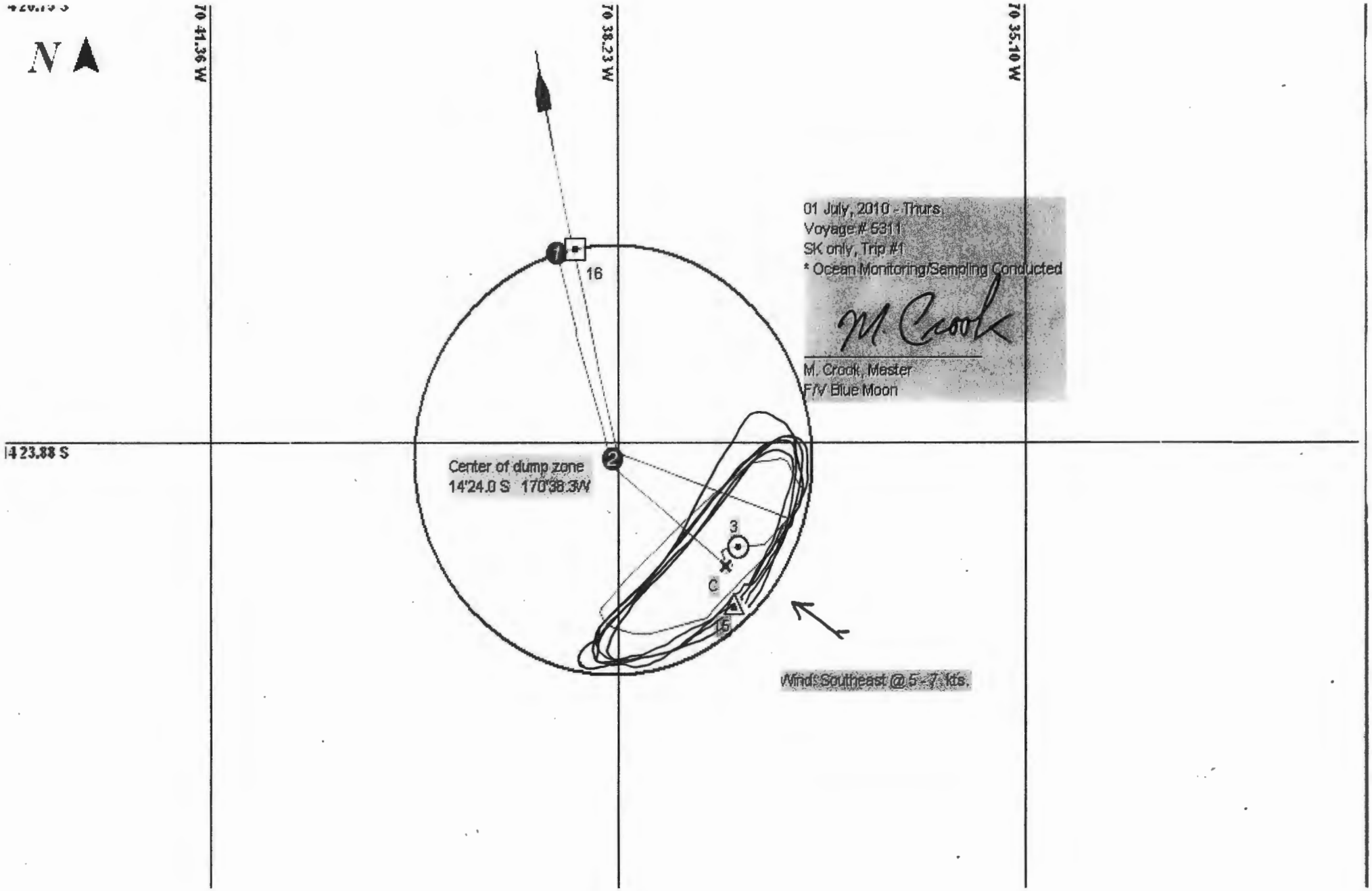
Total Discharge Time: 235 mins. Average Speed During Discharge: 8.6 kts. Total Time Run 6.25 hr.

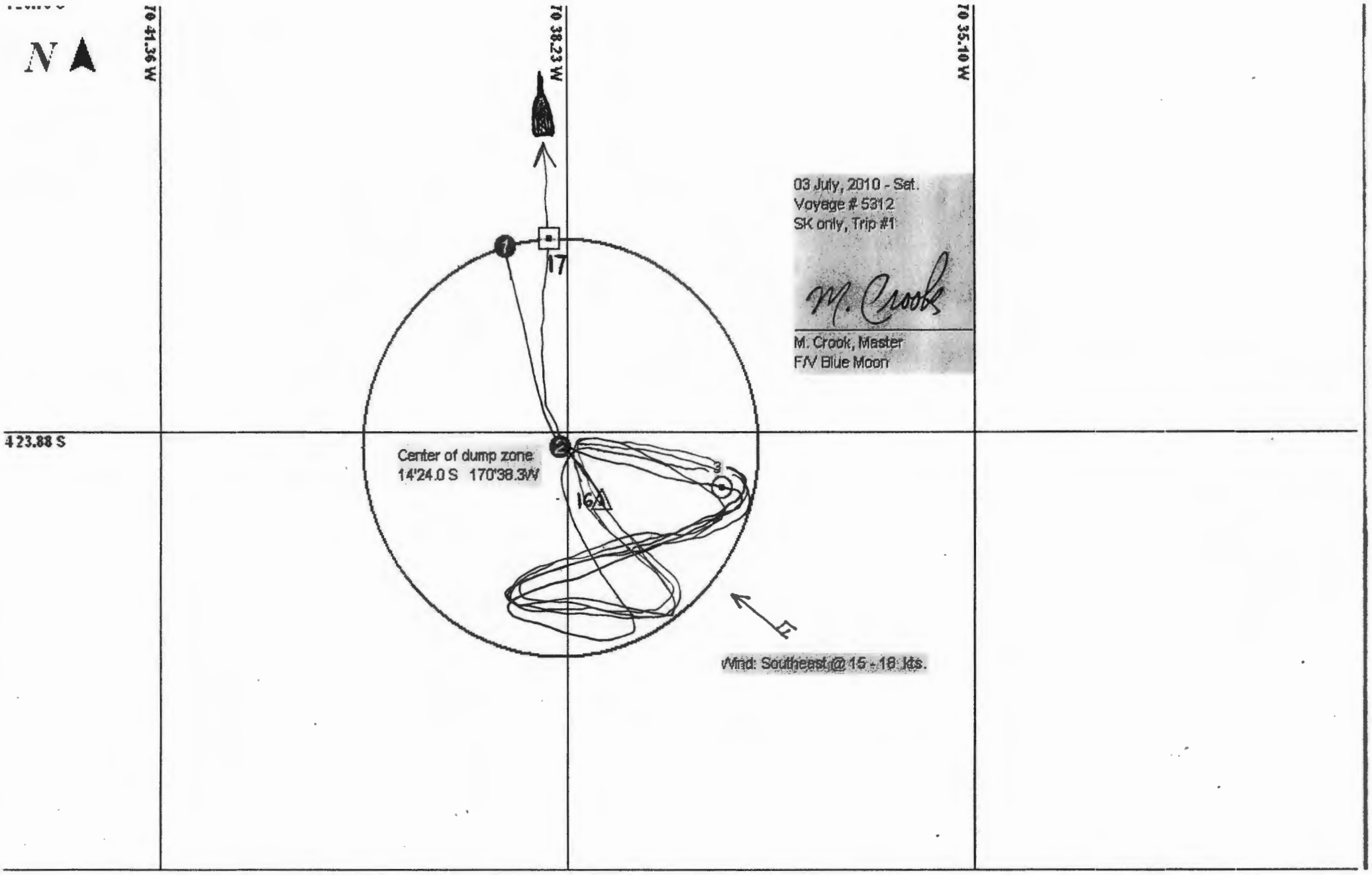
Navigational Plot made: Yes Presence of Plume? No

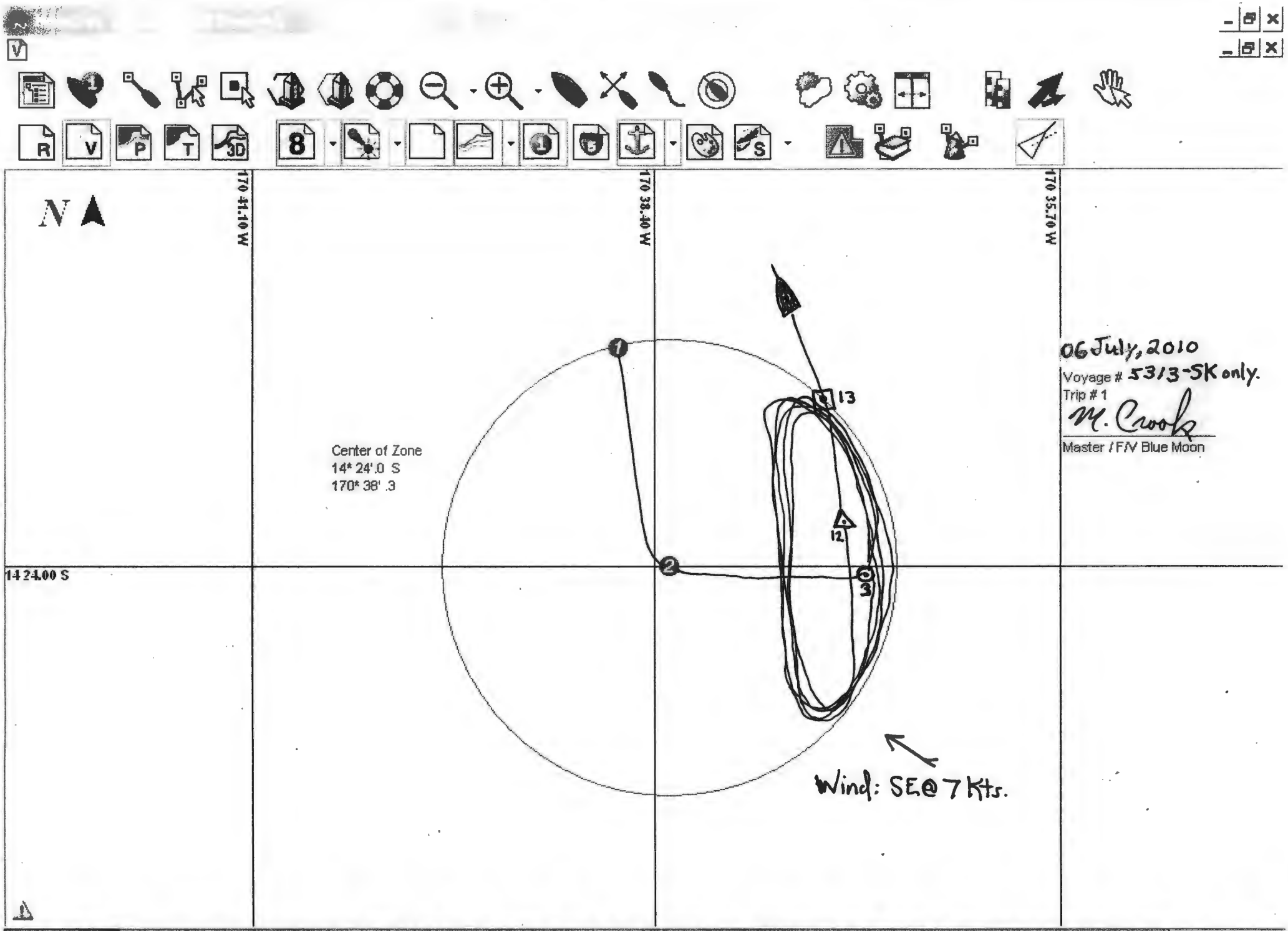
Time and position of any floating material: None Discharge Rate: 98 Gallons/min/kts

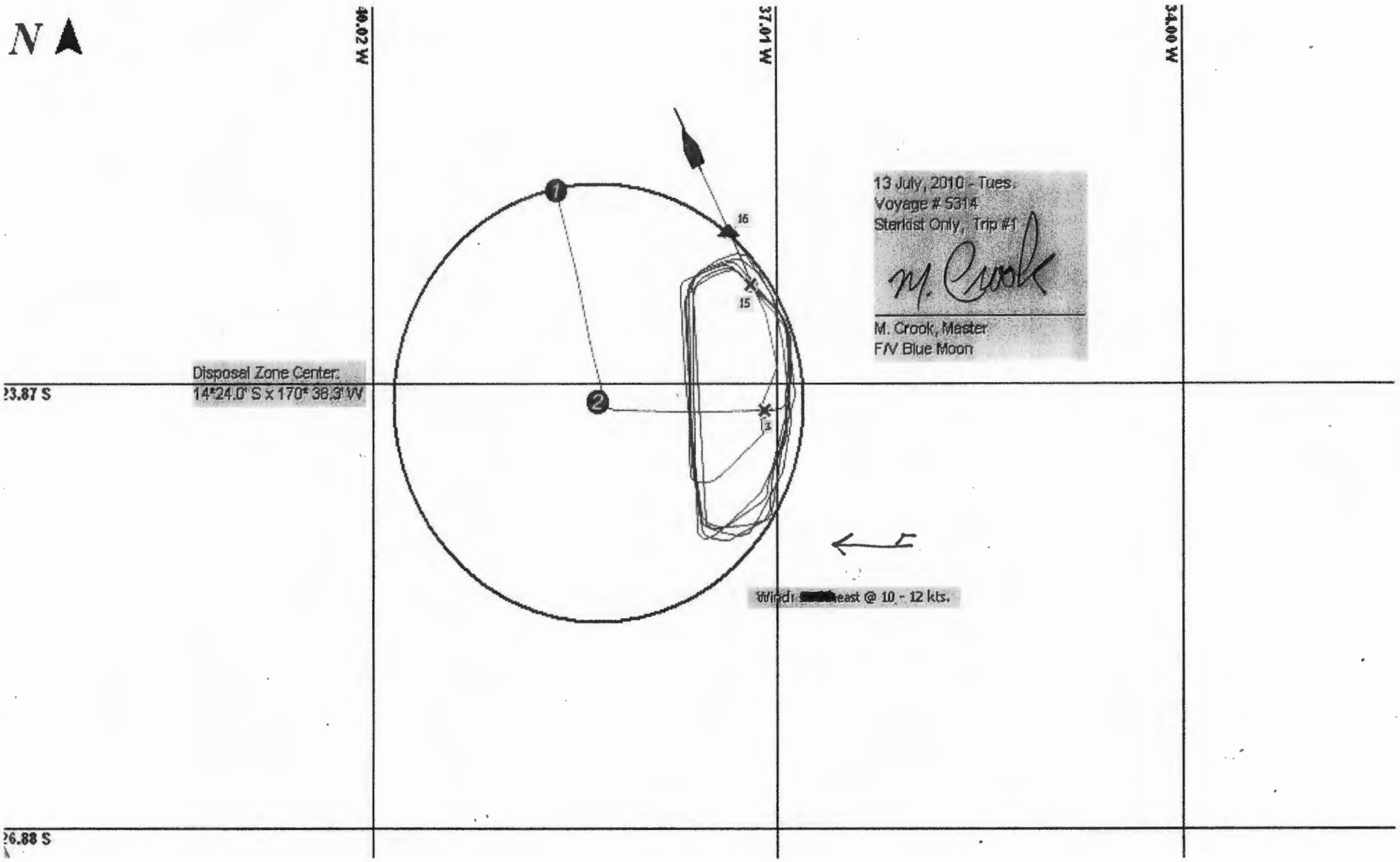
Unusual Occurrences? One pump only - long discharge.

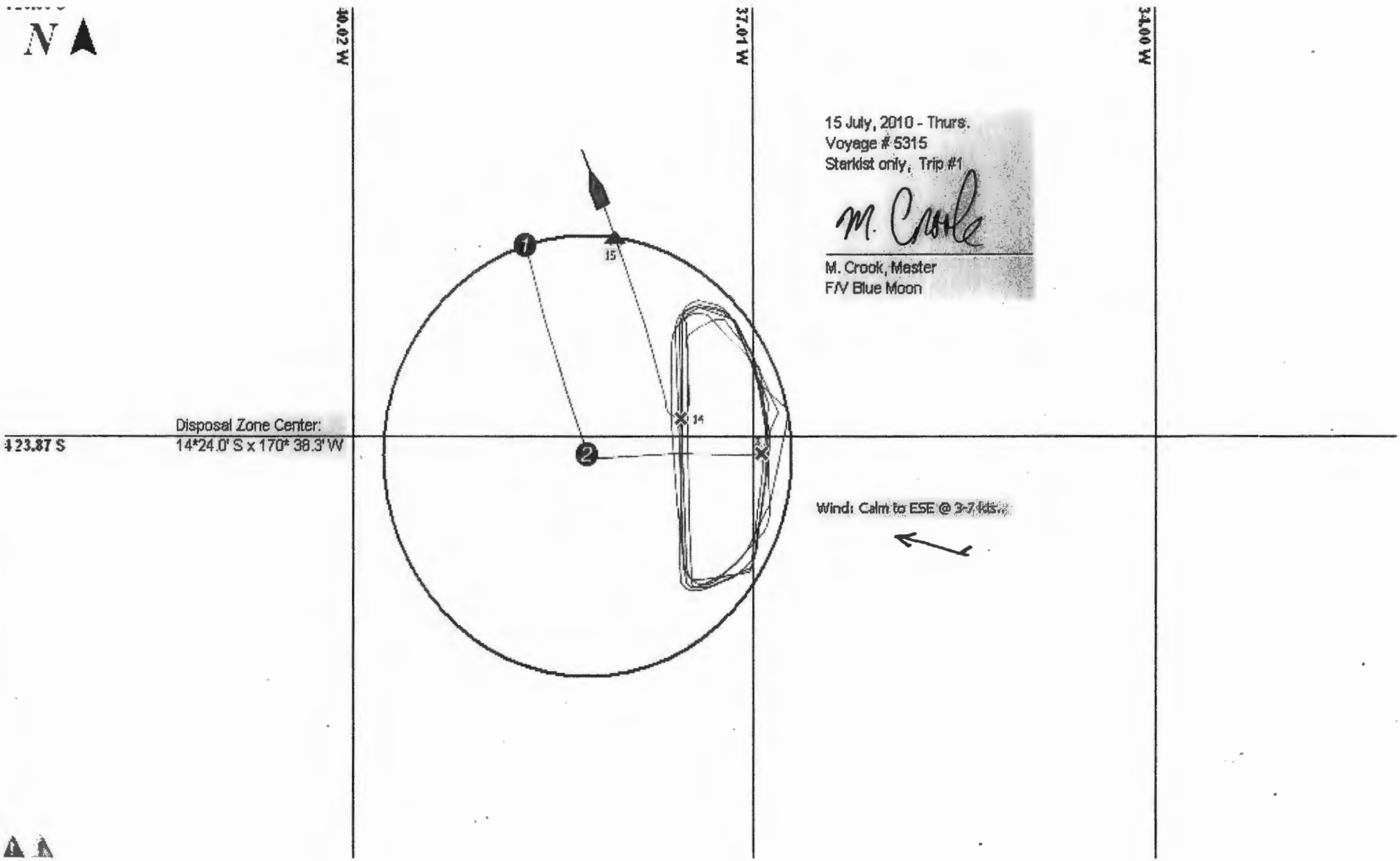
Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

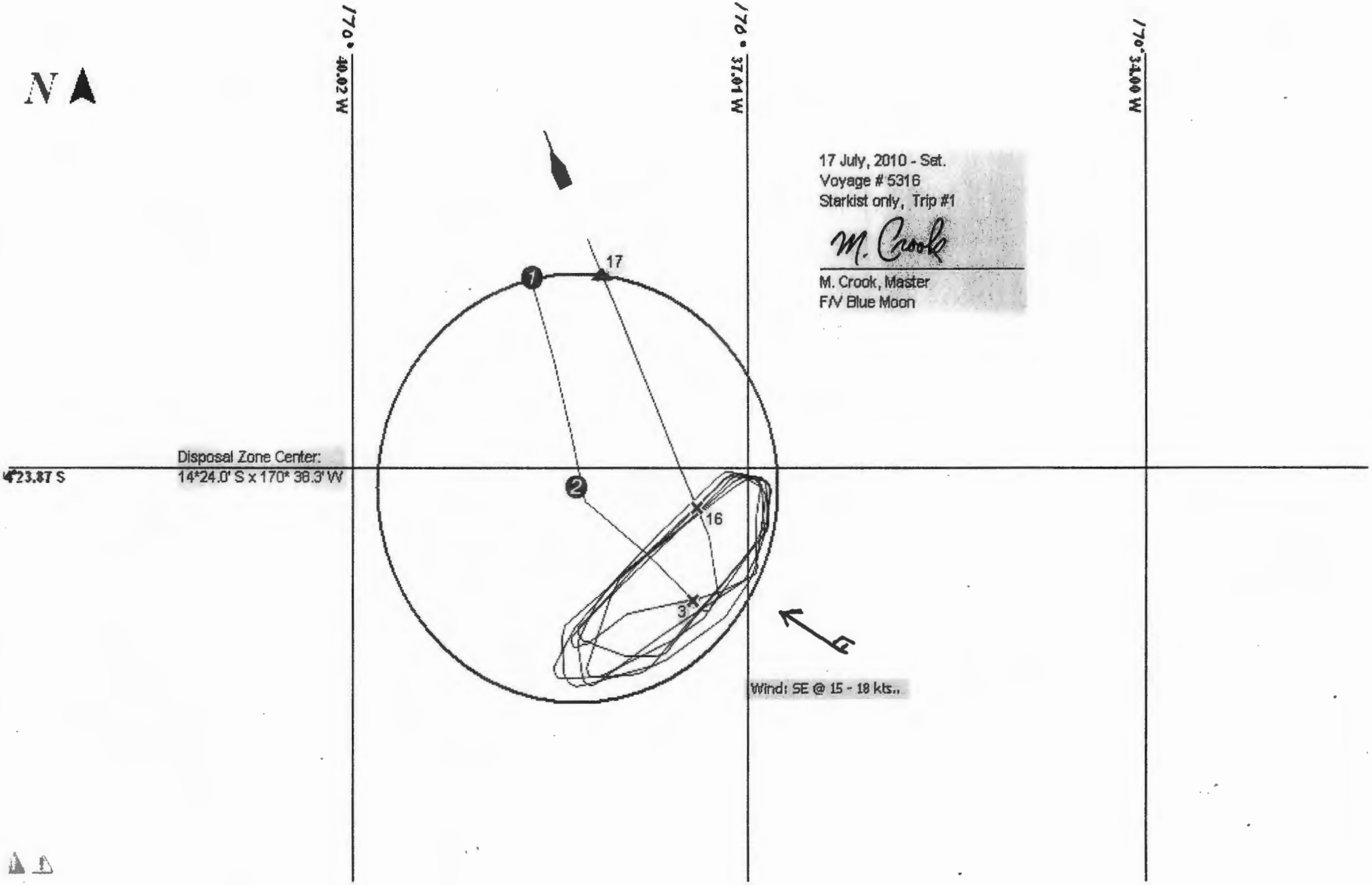

N
70 41.36 W
70 38.23 W
70 35.10 W
14 23.88 S
1
16
2
Center of dump zone
14'24.0 S 170'38.3W
3
C
5
01 July, 2010 - Thurs.
Voyage # 5311
SK only, Trip #1
* Ocean Monitoring/Sampling Conducted
M. Crook
M. Crook, Master
F/V Blue Moon
Wind: Southeast @ 5 - 7 kts.

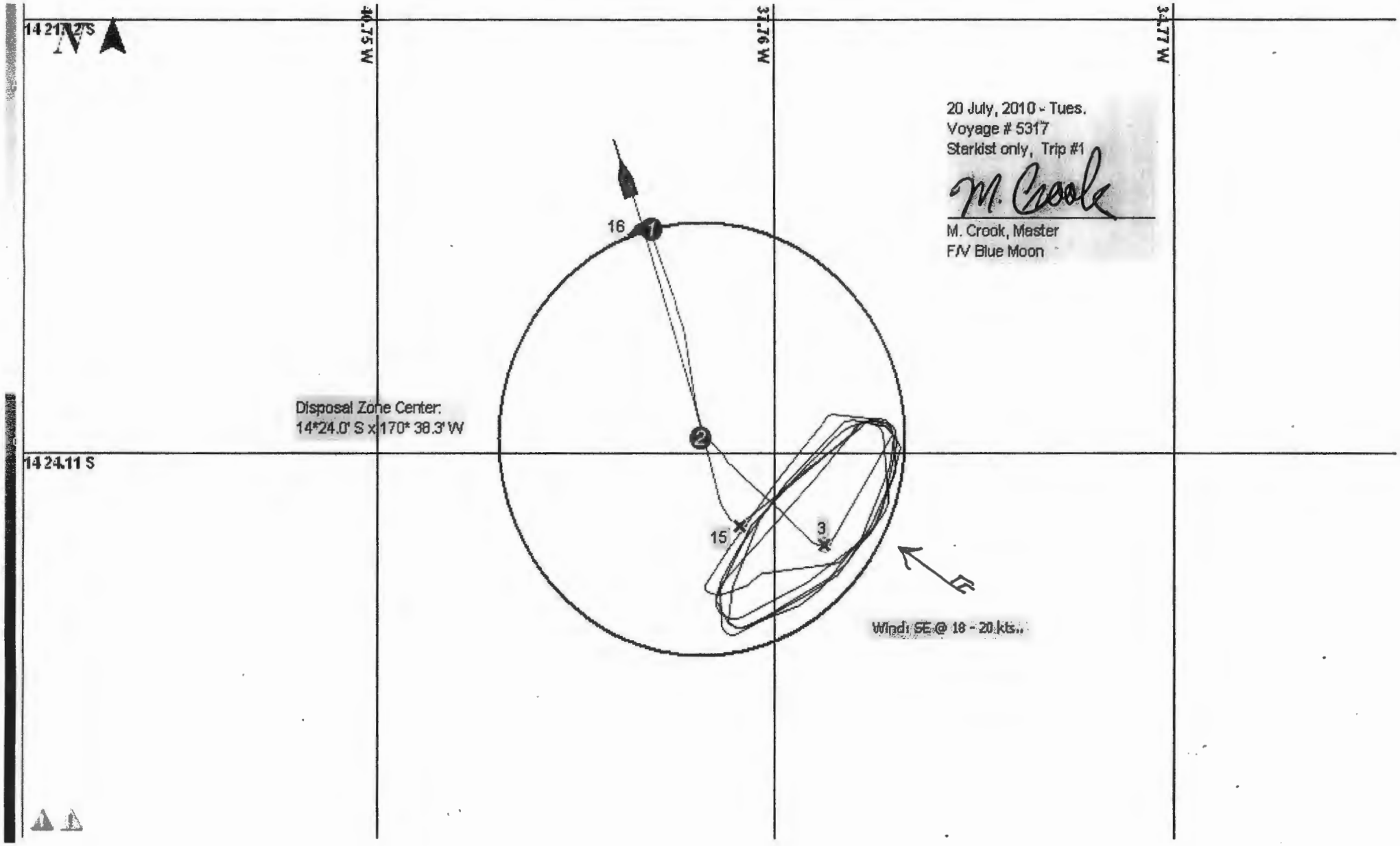

N
70 41.36 W
70 38.23 W
70 35.10 W
4 23.88 S
03 July, 2010 - Sat.
Voyage # 5312
SK only, Trip #1
M. Crook, Master
F/V Blue Moon
Center of dump zone
14'24.0 S 170'38.3W
1
2
3
17
16
E
Wind: Southeast @ 15 - 18 kts.

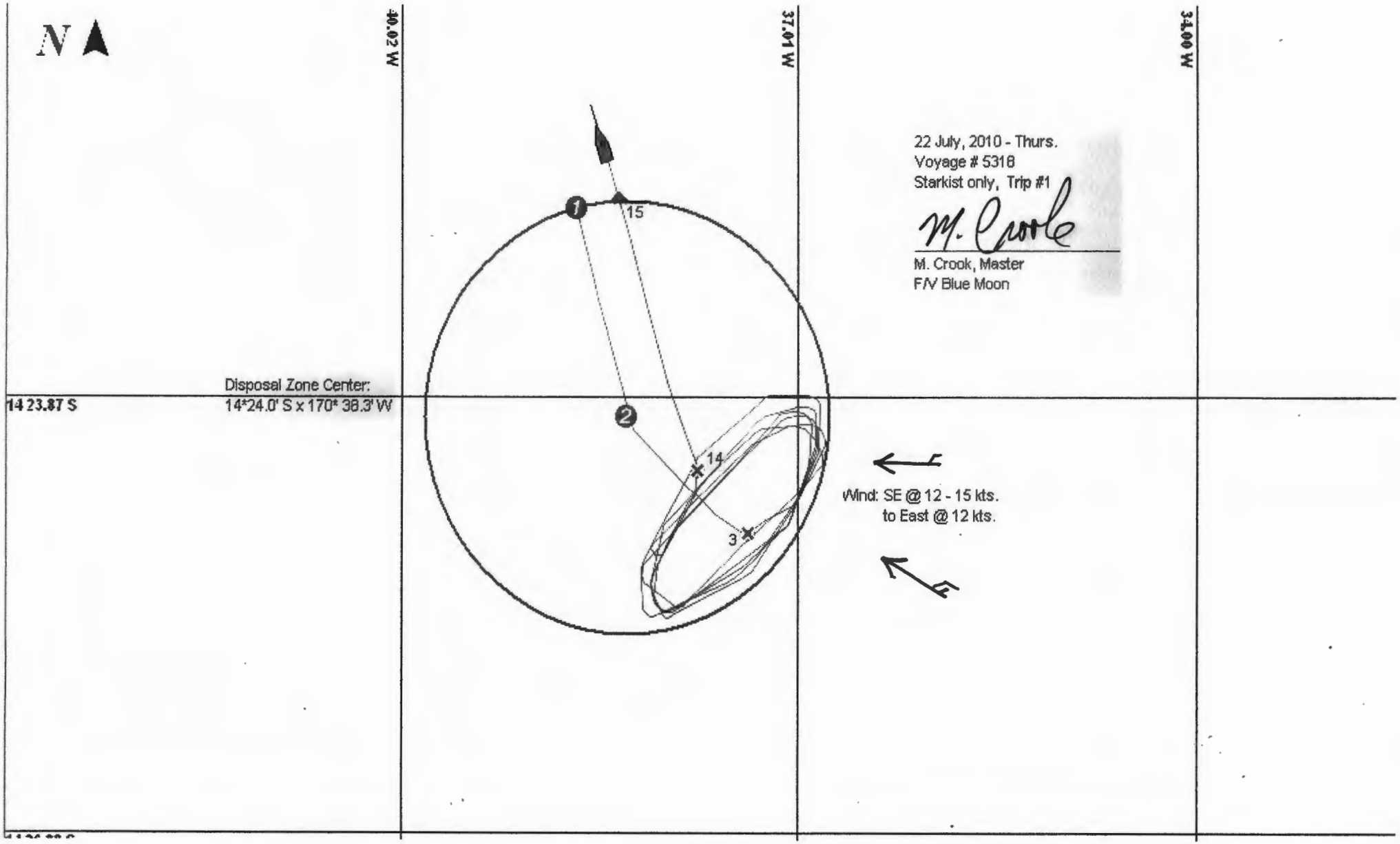

N
170 41.10 W
170 38.40 W
170 35.70 W
14 24.00 S
Center of Zone
14* 24'.0 S
170* 38' .3
1
2
3
12
13
06 July, 2010
Voyage # 5313-SK only.
Trip # 1
M. Crook
Master / F/V Blue Moon
Wind: SE@7 Kts.
start
Nobeltec - [Grid<<8....
3:18 PM

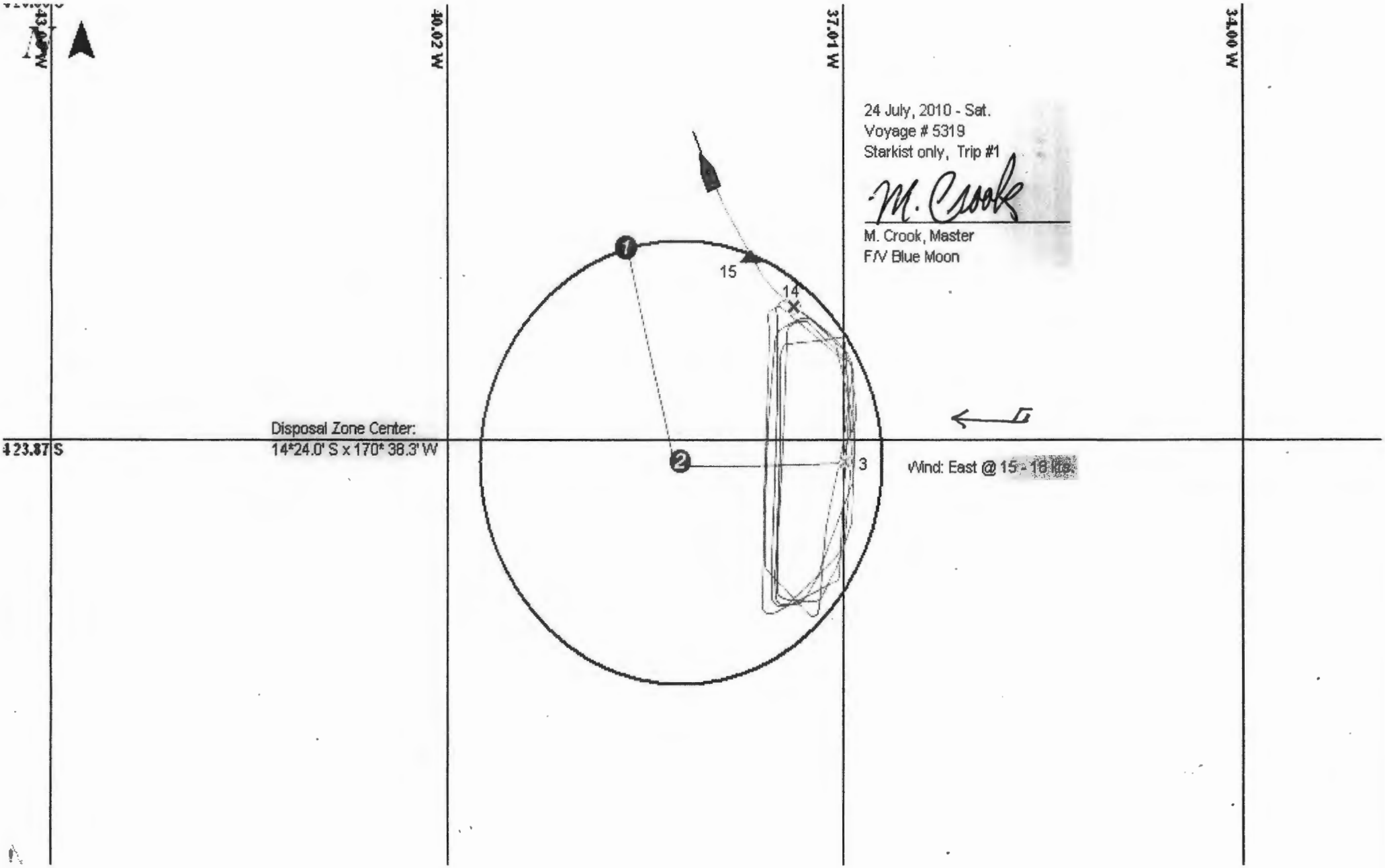

N
40.02 W
37.01 W
34.00 W
23.87 S
26.88 S
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
3
15
16
13 July, 2010 - Tues.
Voyage # 5314
Starlist Only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: [redacted]east @ 10 - 12 kts.

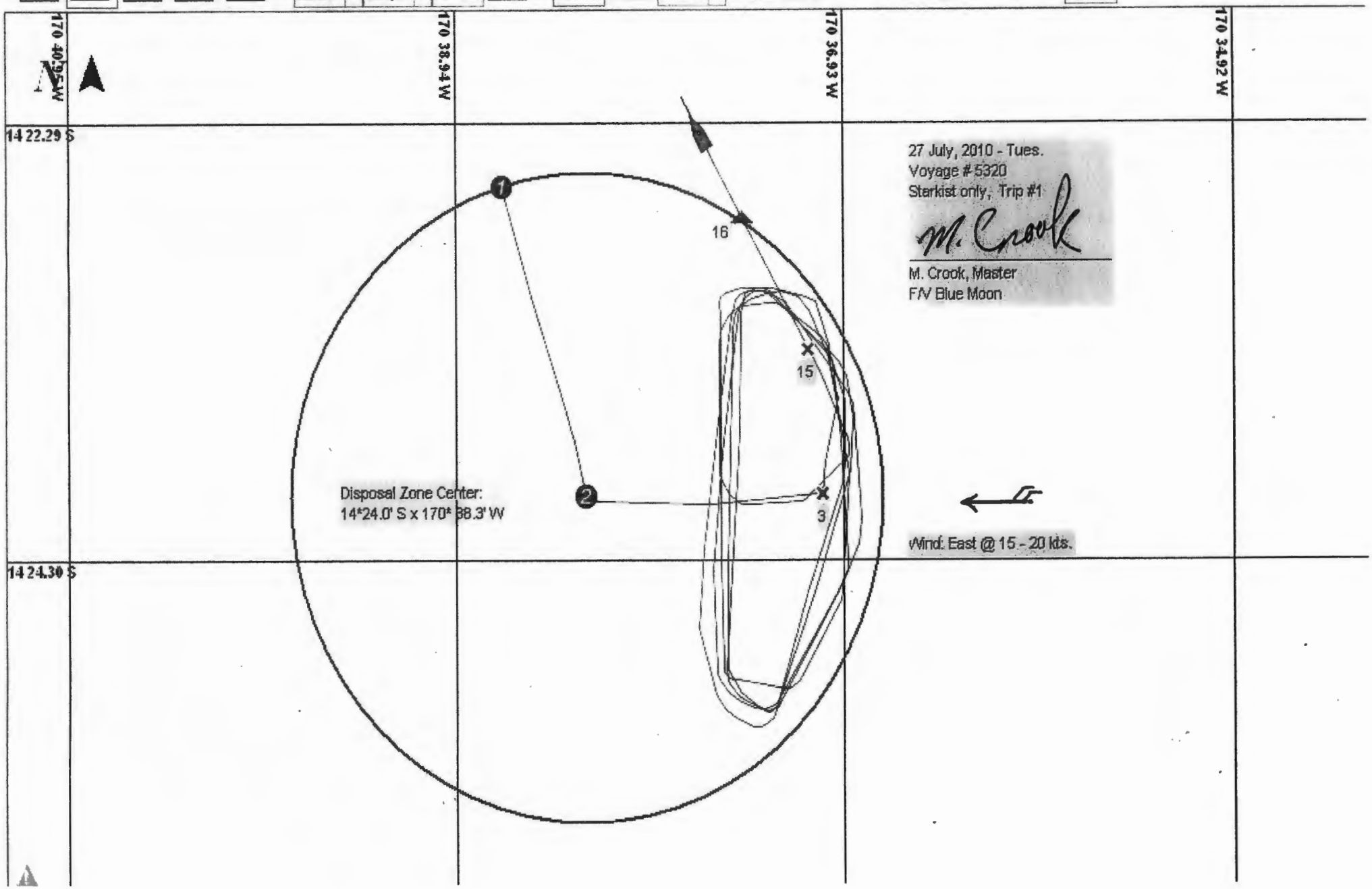

N
40.02 W
37.01 W
34.00 W
15 July, 2010 - Thurs.
Voyage # 5315
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
423.87 S
1
2
14
15
Wind: Calm to ESE @ 3-7 kts.

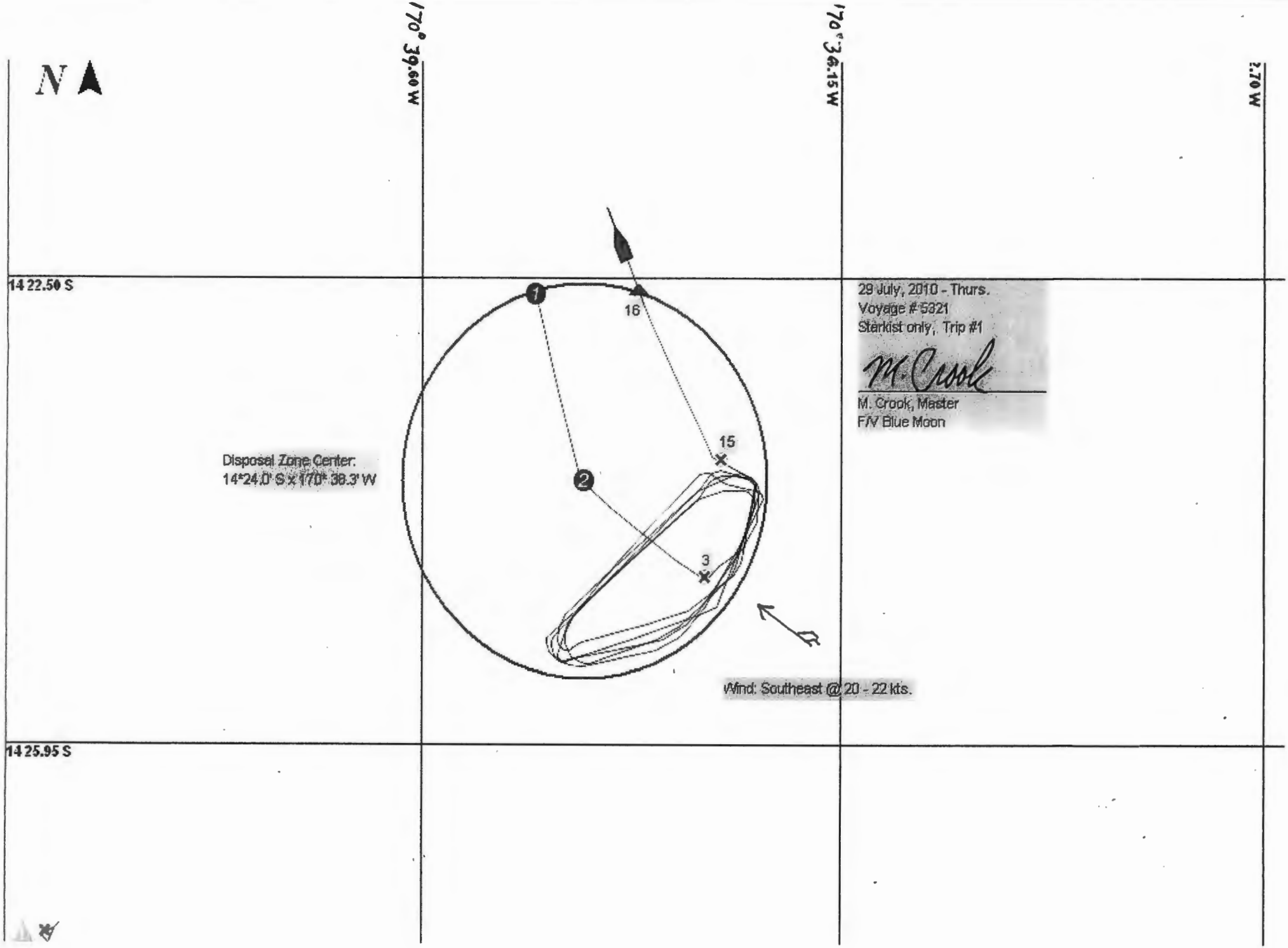

N
170° 40.02' W
170° 37.01' W
170° 34.00' W
17 July, 2010 - Sat.
Voyage # 5316
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
14°23.87' S
1
2
3
16
17
Wind: SE @ 15 - 18 kts..

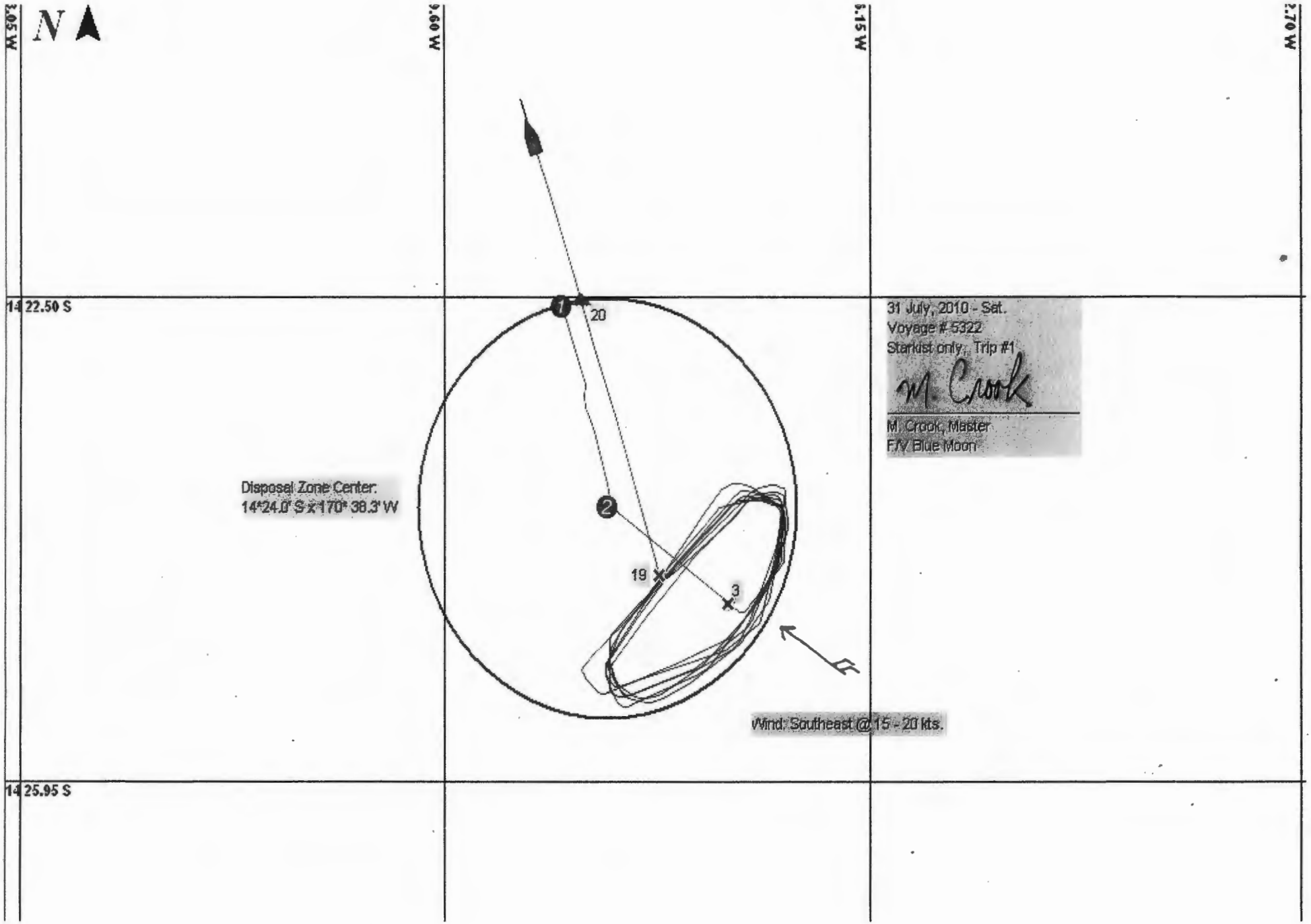

14 21.12 S
N
40.75 W
37.76 W
34.77 W
20 July, 2010 - Tues.
Voyage # 5317
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
16
1
2
15
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
14 24.11 S
Wind: SE @ 18 - 20 kts.


N
40.02 W
37.01 W
34.00 W
14 23.87 S
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
3
14
15
22 July, 2010 - Thurs.
Voyage # 5318
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: SE @ 12 - 15 kts.
to East @ 12 kts.


43.00 W
40.02 W
37.01 W
34.00 W
23.87 S
24 July, 2010 - Sat.
Voyage # 5319
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
Wind: East @ 15 - 18 kts.
1
2
3
14
15


170 40.95 W
170 38.94 W
170 36.93 W
170 34.92 W
14 22.29 S
14 24.30 S
27 July, 2010 - Tues.
Voyage # 5320
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
1
2
3
15
16
Wind: East @ 15 - 20 kts.


N
170° 39.60 W
170° 36.15 W
2.70 W
14 22.50 S
14 25.95 S
1
2
3
15
16
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: Southeast @ 20 - 22 kts.
29 July, 2010 - Thurs.
Voyage # 5321
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon


N
W 60 W
W 15 W
W 70 W
14 22.50 S
14 25.95 S
1
20
2
19
3
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
31 July, 2010 - Sat.
Voyage # 5322
Starkist only, Trip #1
M. Crook
M. Crook, Master
F/V Blue Moon
Wind: Southeast @ 15 - 20 kts.

10

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

05 August, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS/Samoa Packing	Sam Augspurger
Determination of Sampling Positions:	All positions & drift rates obtained by GPS Satellite Navigation.

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
10 August. 2010

Introduction

On August 05, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dump-site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dump-site location with Master/Principal Investigator, Chief and Mate on-board.

0602: The *Blue Moon* entered the dumpzone circle @ 14*22.6' S / 170*38.7' W.

0613: The *Blue Moon* arrived at the dump-zone center, where observed easterly winds and slight to moderate east/southeasterly seas indicated disposal operations be conducted in the east dump-zone quadrant.

0625: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or east of the dump-zone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight to moderate with east & SE swells to 1.5 meters and an east wind of 15 knots. Skies were partly cloudy with unlimited visibility and the barometer was at 29.69. Current set and drift of the ship were to the west at 0.9 knots. No floating materials or sea life were observed here.

0635: The *Blue Moon* began disposal operations in the eastern dump zone quadrant and continued discharging material with a roughly, north to south, reciprocal, elliptical pattern (see Plot 1) until 0925 hrs.

0935: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The east winds had increased to 18 knots with still partly cloudy skies. The waste plume in this area was very prominent as a heavy glassy surface sheen. The current/ wind drift of the ship was now GPS determined to be westerly @ 1.1 knots. No sea life or floatable materials were observed.

0945: Station Two Monitoring. Station two was sampled with the same

procedures as Station #1 with measurements and observations being recorded in Table 1. This position had no sign of the waste plume, including the typical glassy surface sheen, and appeared to be in the center space of the discharge pattern between the north and south running track lines as the plume moved, with it's elliptical shape roughly intact, to the west (See Plot #1). The average drift rate of the ship with current and wind was GPS determined to be westerly at 1.1 knots between stations 2 & 3 (See Plot #1). No sea-life or floatable materials were noted at this position.

0955: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was in another clear area between the glassy track lines of the plume's elliptical pattern. The drift rate of the ship between Stations #3 & 4 was noted at 1.1 knots, again, to the west.

1005: Station Four Monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM west of Station #3, showed the same visual characteristics of the waste plume as Station #1 and was, visually, the leading edge of the plume. Also noted was the presence of several patches of floating brownish surface scum of 5-7 square meters or less. In addition, suspended brownish particulate materials that appeared to be 0.5 cm or less in size, were observed extending down to the limit of visibility (about 3-4 meters) . The westerly current/drift rate of the ship was again noted here to be at 1.0 knots.

1015: Station Five monitoring. Sampling for this final station was conducted 0.25 NM down-current (west) of Station #4 and approximately 0.35 NM east of the zone center (Plot #1). The waste plume was not visually present at this location which showed natural, clear blue ocean comparable to the color qualities of the Control Station. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.70 when monitoring activities were concluded at 1015 hrs. The *Blue Moon* exited the disposal zone at 1025 hours and arrived back in Pago Pago Harbor to deliver the collected seawater samples to the Starkist Samoa Co. laboratory at 1120 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

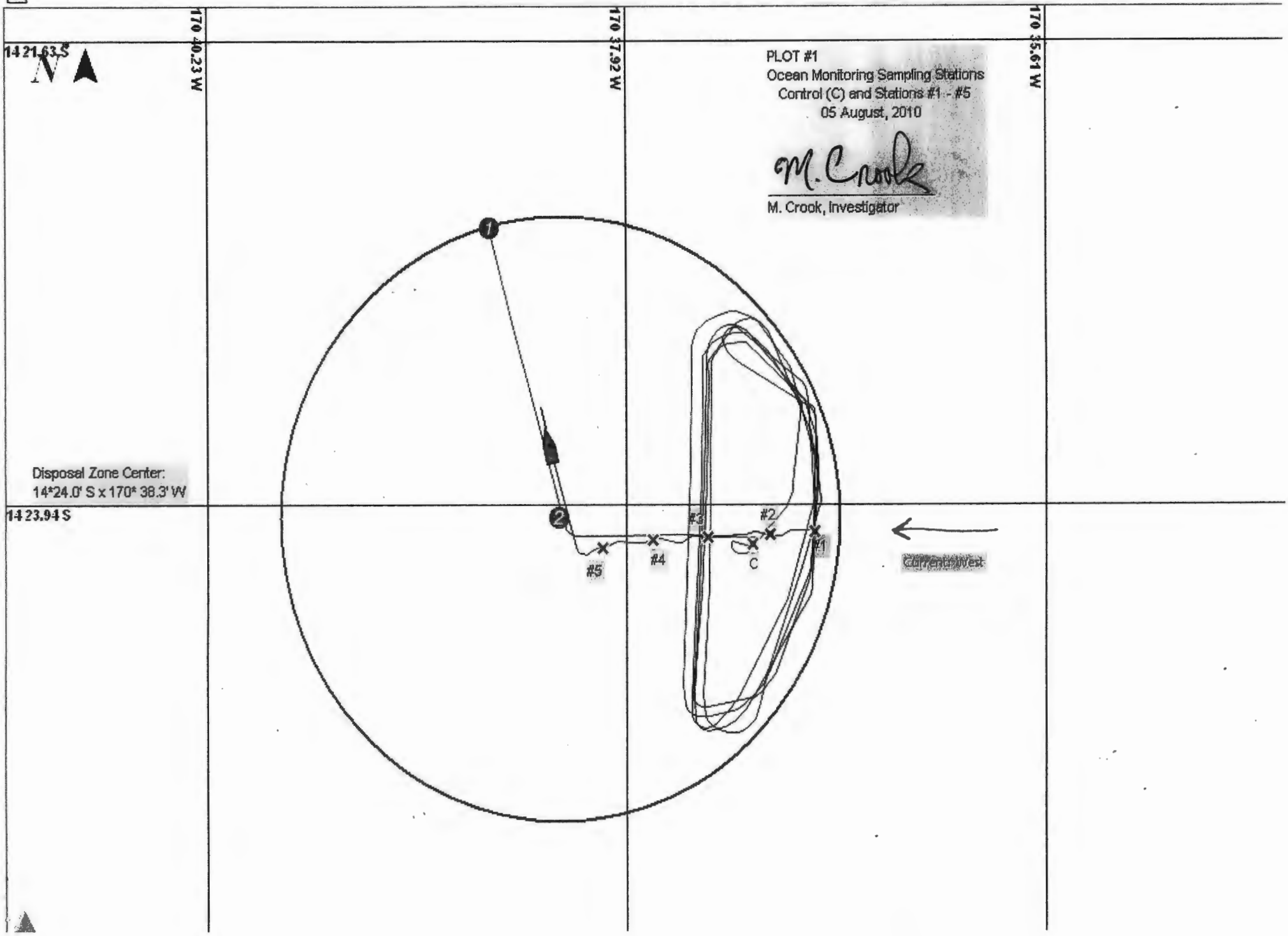
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 05 August, 2010	Sea Conditions: Slight-Moderate w/ East/Southeast swells to 1.5 meters. Wind: East @ 15 - 18 knots Visibility: Unlimited Barometer: 29.68 – 29.70 Current Set & Drift: West @ average 1.1 knots Sky: Partly Cloudy; 30 – 40%					
Time	Station	Depth (meters)	Temp. (°C)	pH	Odor	Color
0625	Control	1	26.1	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	26.1	7.3		
		10	26.1	7.3		
0935	Station 1	1	26.7	7.3	Pungent	Heavy glassy surface sheen over deep pelagic blue w/ no floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
0945	Station 2	1	26.7	7.3	Slightly Pungent	In the center of the plume ellipse, deep, clear blue water but surrounded by glassy track lines to the east and west of this position.. No floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
0955	Station 3	1	26.7	7.3	Slightly Pungent	Same situation as Station#2. No floating or suspended particulate materials.
		3	26.7	7.3		
		10	26.7	7.3		
1005	Station 4	1	26.7	7.3	Pungent	Heavy oily surface sheen over clear blue w/ some occasional patches of floating brownish scum along with some suspended brownish particulate materials. The visible leading edge of the waste plume.
		3	26.7	7.3		
		10	26.7	7.3		
1015	Station 5	1	26.7	7.3	Slightly Pungent	Same as Control Station
		3	26.7	7.3		
		10	26.7	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.11'	South	170° 37.21'	West
Station 1	14° 24.05'	South	170° 36.89'	West
Station 2	14° 24.07'	South	170° 37.20'	West
Station 3	14° 24.10'	South	170° 37.44'	West
Station 4	14° 24.11'	South	170° 37.75'	West
Station 5	14° 24.12'	South	170° 37.96'	West


170 40.23 W
170 37.92 W
170 35.61 W
14 21.63 S
14 23.94 S
N
PLOT #1
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
05 August, 2010
M. Crook, Investigator
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
#1
#2
#3
#4
#5
C
Current West

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

05 August, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS/Samoa Packing	Sam Augspurger
Determination of Sampling Positions:	All positions & drift rates obtained by GPS Satellite Navigation.

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
10 August. 2010

Introduction

On August 05, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dump-site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dump-site location with Master/Principal Investigator, Chief and Mate on-board.

0602: The *Blue Moon* entered the dumpzone circle @ 14*22.6' S / 170*38.7' W.

0613: The *Blue Moon* arrived at the dump-zone center, where observed easterly winds and slight to moderate east/southeasterly seas indicated disposal operations be conducted in the east dump-zone quadrant.

0625: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or east of the dump-zone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight to moderate with east & SE swells to 1.5 meters and an east wind of 15 knots. Skies were partly cloudy with unlimited visibility and the barometer was at 29.69. Current set and drift of the ship were to the west at 0.9 knots. No floating materials or sea life were observed here.

0635: The *Blue Moon* began disposal operations in the eastern dump zone quadrant and continued discharging material with a roughly, north to south, reciprocal, elliptical pattern (see Plot 1) until 0925 hrs.

0935: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The east winds had increased to 18 knots with still partly cloudy skies. The waste plume in this area was very prominent as a heavy glassy surface sheen. The current/ wind drift of the ship was now GPS determined to be westerly @ 1.1 knots. No sea life or floatable materials were observed.

0945: Station Two Monitoring. Station two was sampled with the same

procedures as Station #1 with measurements and observations being recorded in Table 1. This position had no sign of the waste plume, including the typical glassy surface sheen, and appeared to be in the center space of the discharge pattern between the north and south running track lines as the plume moved, with it's elliptical shape roughly intact, to the west (See Plot #1). The average drift rate of the ship with current and wind was GPS determined to be westerly at 1.1 knots between stations 2 & 3 (See Plot #1). No sea-life or floatable materials were noted at this position.

0955: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was in another clear area between the glassy track lines of the plume's elliptical pattern. The drift rate of the ship between Stations #3 & 4 was noted at 1.1 knots, again, to the west.

1005: Station Four Monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM west of Station #3, showed the same visual characteristics of the waste plume as Station #1 and was, visually, the leading edge of the plume. Also noted was the presence of several patches of floating brownish surface scum of 5-7 square meters or less. In addition, suspended brownish particulate materials that appeared to be 0.5 cm or less in size, were observed extending down to the limit of visibility (about 3-4 meters) . The westerly current/drift rate of the ship was again noted here to be at 1.0 knots.

1015: Station Five monitoring. Sampling for this final station was conducted 0.25 NM down-current (west) of Station #4 and approximately 0.35 NM east of the zone center (Plot #1). The waste plume was not visually present at this location which showed natural, clear blue ocean comparable to the color qualities of the Control Station. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.70 when monitoring activities were concluded at 1015 hrs. The *Blue Moon* exited the disposal zone at 1025 hours and arrived back in Pago Pago Harbor to deliver the collected seawater samples to the Starkist Samoa Co. laboratory at 1120 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

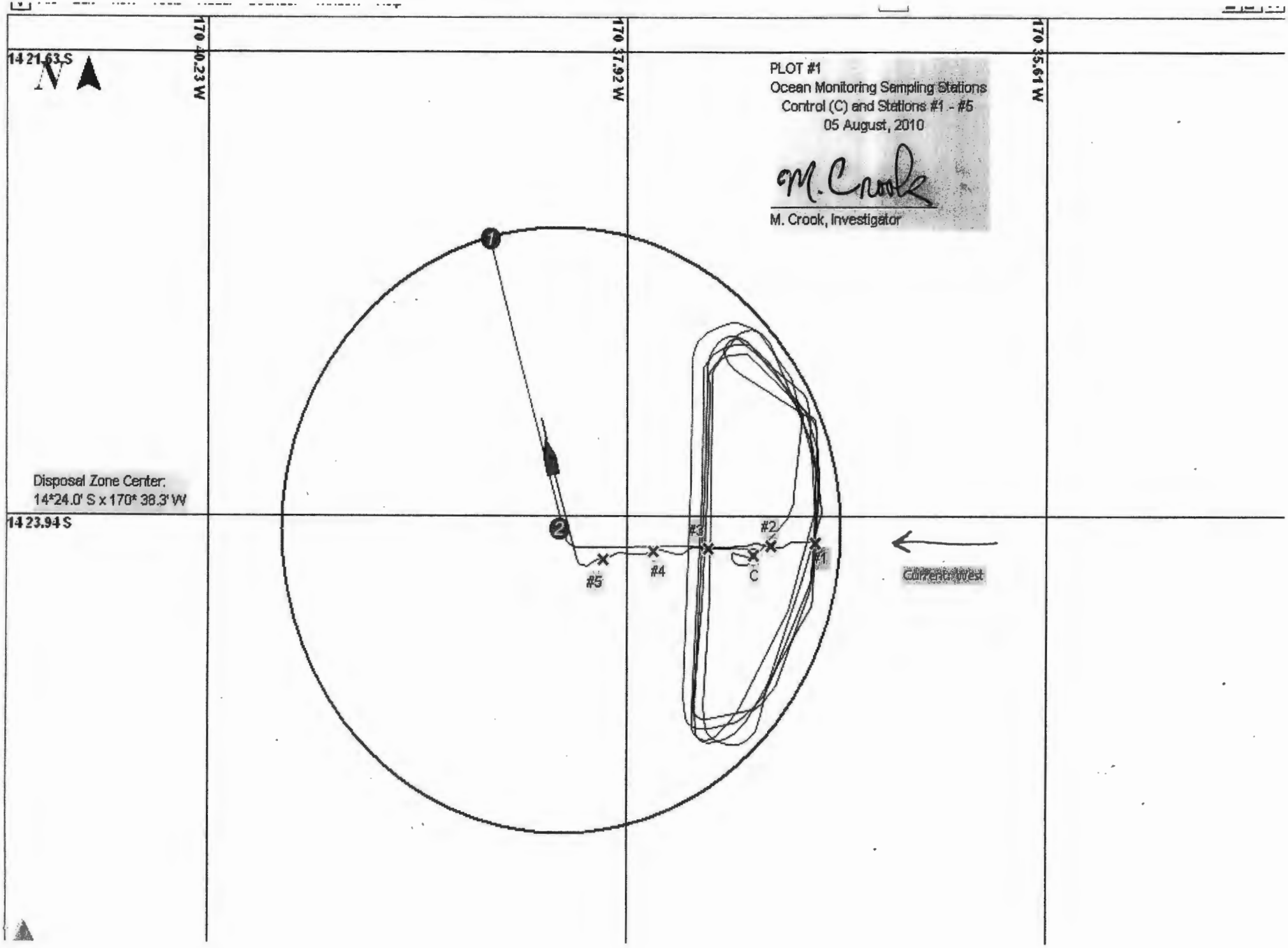
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 05 August, 2010	Sea Conditions: Slight-Moderate w/ East/Southeast swells to 1.5 meters. Wind: East @ 15 - 18 knots Visibility: Unlimited Barometer: 29.68 – 29.70 Current Set & Drift: West @ average 1.1 knots Sky: Partly Cloudy; 30 – 40%					
Time	Station	Depth (meters)	Temp. (°C)	pH	Odor	Color
0625	Control	1	26.1	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	26.1	7.3		
		10	26.1	7.3		
0935	Station 1	1	26.7	7.3	Pungent	Heavy glassy surface sheen over deep pelagic blue w/ no floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
0945	Station 2	1	26.7	7.3	Slightly Pungent	In the center of the plume ellipse, deep, clear blue water but surrounded by glassy track lines to the east and west of this position.. No floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
0955	Station 3	1	26.7	7.3	Slightly Pungent	Same situation as Station#2. No floating or suspended particulate materials.
		3	26.7	7.3		
		10	26.7	7.3		
1005	Station 4	1	26.7	7.3	Pungent	Heavy oily surface sheen over clear blue w/ some occasional patches of floating brownish scum along with some suspended brownish particulate materials. The visible leading edge of the waste plume.
		3	26.7	7.3		
		10	26.7	7.3		
1015	Station 5	1	26.7	7.3	Slightly Pungent	Same as Control Station
		3	26.7	7.3		
		10	26.7	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.11'	South	170° 37.21'	West
Station 1	14° 24.05'	South	170° 36.89'	West
Station 2	14° 24.07'	South	170° 37.20'	West
Station 3	14° 24.10'	South	170° 37.44'	West
Station 4	14° 24.11'	South	170° 37.75'	West
Station 5	14° 24.12'	South	170° 37.96'	West


170 40.23 W
170 37.92 W
170 35.61 W
14 21.63 S
14 23.94 S
N
PLOT #1
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
05 August, 2010
M. Crook, Investigator
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
#5
#4
#3
C
#2
#1
Current West

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

05 August, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS/Samoa Packing	Sam Augspurger
Determination of Sampling Positions:	All positions & drift rates obtained by GPS Satellite Navigation.

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
10 August. 2010

Introduction

On August 05, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dump-site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0510: The *Blue Moon* departed Pago Pago Harbor bound for the dump-site location with Master/Principal Investigator, Chief and Mate on-board.

0602: The *Blue Moon* entered the dumpzone circle @ 14*22.6' S / 170*38.7' W.

0613: The *Blue Moon* arrived at the dump-zone center, where observed easterly winds and slight to moderate east/southeasterly seas indicated disposal operations be conducted in the east dump-zone quadrant.

0625: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or east of the dump-zone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight to moderate with east & SE swells to 1.5 meters and an east wind of 15 knots. Skies were partly cloudy with unlimited visibility and the barometer was at 29.69. Current set and drift of the ship were to the west at 0.9 knots. No floating materials or sea life were observed here.

0635: The *Blue Moon* began disposal operations in the eastern dump zone quadrant and continued discharging material with a roughly, north to south, reciprocal, elliptical pattern (see Plot 1) until 0925 hrs.

0935: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The east winds had increased to 18 knots with still partly cloudy skies. The waste plume in this area was very prominent as a heavy glassy surface sheen. The current/ wind drift of the ship was now GPS determined to be westerly @ 1.1 knots. No sea life or floatable materials were observed.

0945: Station Two Monitoring. Station two was sampled with the same

procedures as Station #1 with measurements and observations being recorded in Table 1. This position had no sign of the waste plume, including the typical glassy surface sheen, and appeared to be in the center space of the discharge pattern between the north and south running track lines as the plume moved, with it's elliptical shape roughly intact, to the west (See Plot #1). The average drift rate of the ship with current and wind was GPS determined to be westerly at 1.1 knots between stations 2 & 3 (See Plot #1). No sea-life or floatable materials were noted at this position.

0955: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was in another clear area between the glassy track lines of the plume's elliptical pattern. The drift rate of the ship between Stations #3 & 4 was noted at 1.1 knots, again, to the west.

1005: Station Four Monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM west of Station #3, showed the same visual characteristics of the waste plume as Station #1 and was, visually, the leading edge of the plume. Also noted was the presence of several patches of floating brownish surface scum of 5-7 square meters or less. In addition, suspended brownish particulate materials that appeared to be 0.5 cm or less in size, were observed extending down to the limit of visibility (about 3-4 meters) . The westerly current/drift rate of the ship was again noted here to be at 1.0 knots.

1015: Station Five monitoring. Sampling for this final station was conducted 0.25 NM down-current (west) of Station #4 and approximately 0.35 NM east of the zone center (Plot #1). The waste plume was not visually present at this location which showed natural, clear blue ocean comparable to the color qualities of the Control Station. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.70 when monitoring activities were concluded at 1015 hrs. The *Blue Moon* exited the disposal zone at 1025 hours and arrived back in Pago Pago Harbor to deliver the collected seawater samples to the Starkist Samoa Co. laboratory at 1120 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

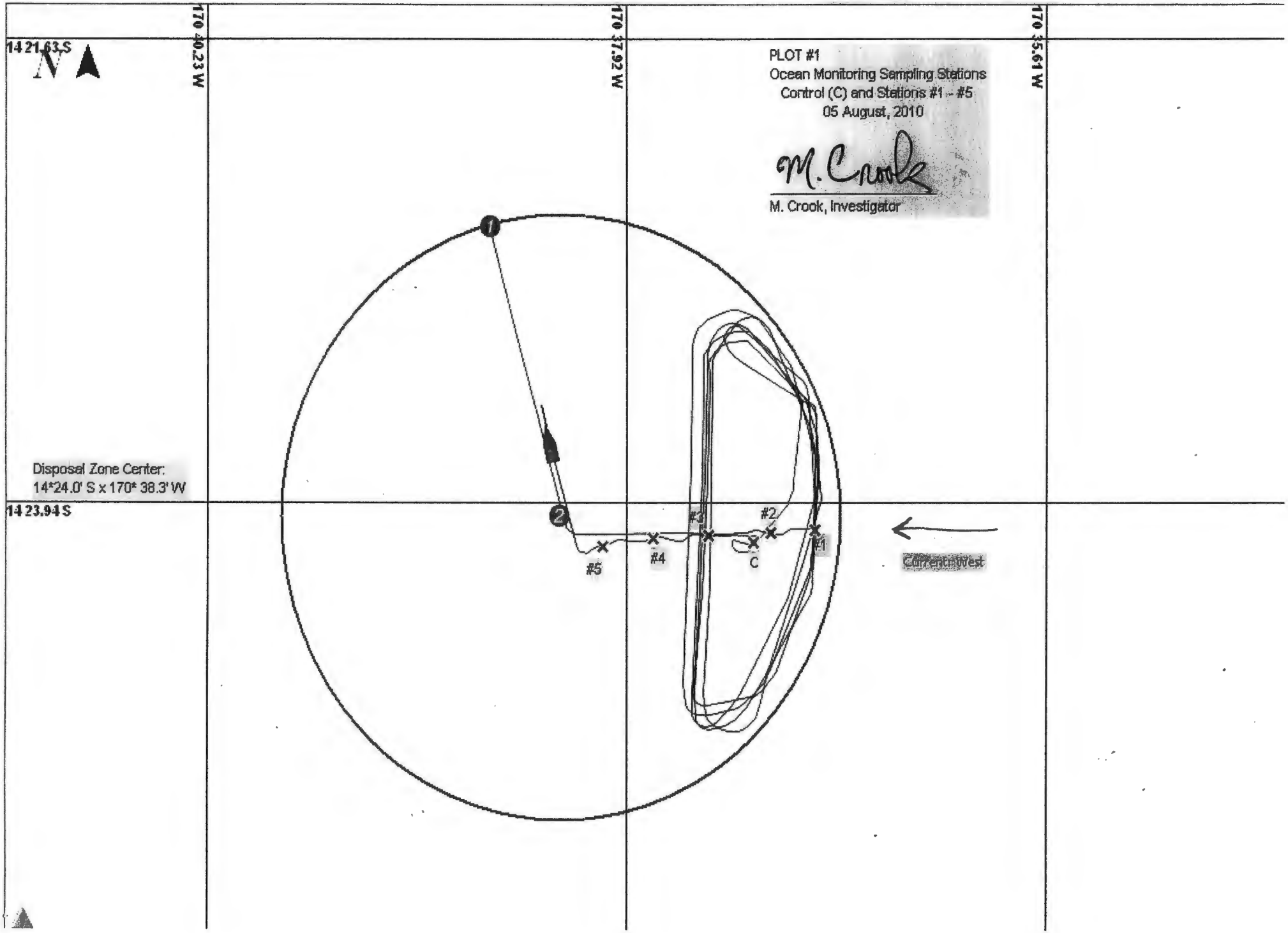
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 05 August, 2010	Sea Conditions: Slight-Moderate w/ East/Southeast swells to 1.5 meters. Wind: East @ 15 - 18 knots Visibility: Unlimited Barometer: 29.68 – 29.70 Current Set & Drift: West @ average 1.1 knots Sky: Partly Cloudy; 30 – 40%					
Time	Station	Depth (meters)	Temp. (°C)	pH	Odor	Color
0625	Control	1	26.1	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	26.1	7.3		
		10	26.1	7.3		
0935	Station 1	1	26.7	7.3	Pungent	Heavy glassy surface sheen over deep pelagic blue w/ no floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
0945	Station 2	1	26.7	7.3	Slightly Pungent	In the center of the plume ellipse, deep, clear blue water but surrounded by glassy track lines to the east and west of this position.. No floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
0955	Station 3	1	26.7	7.3	Slightly Pungent	Same situation as Station#2. No floating or suspended particulate materials.
		3	26.7	7.3		
		10	26.7	7.3		
1005	Station 4	1	26.7	7.3	Pungent	Heavy oily surface sheen over clear blue w/ some occasional patches of floating brownish scum along with some suspended brownish particulate materials. The visible leading edge of the waste plume.
		3	26.7	7.3		
		10	26.7	7.3		
1015	Station 5	1	26.7	7.3	Slightly Pungent	Same as Control Station
		3	26.7	7.3		
		10	26.7	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.11'	South	170° 37.21'	West
Station 1	14° 24.05'	South	170° 36.89'	West
Station 2	14° 24.07'	South	170° 37.20'	West
Station 3	14° 24.10'	South	170° 37.44'	West
Station 4	14° 24.11'	South	170° 37.75'	West
Station 5	14° 24.12'	South	170° 37.96'	West


PLOT #1
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
05 August, 2010
M. Crook, Investigator
170 40.23 W
170 37.92 W
170 35.61 W
14 21.63 S
14 23.94 S
N
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
#1
#2
#3
#4
#5
C
Current: West

OCEAN DUMPING MONTHLY SUMMARY

Month: AUG, 2010

	SK:	TOTAL:
NUMBER OF TRIPS:	13	**13**
GALLONS-FOR THE MONTH:	2,316,000	**2,316,000**
GALLONS FOR SOLO TRIPS:	2,316,000	

RUNNING TIME 68 hrs.

AVERAGE DISCHARGE TIME 2.85 hrs.

AVERAGE GPM DISCHARGE RATE: 108.7 gallons/minute/knot

AVERAGE TRIP TIME: 5.23 hrs.

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK:
100.00%
100

MASTER :

STAR KIST SAMOA CO
WATER TREATMENT DEPARTMENT

BLUE MOON - OCEAN DUMPING LOG

Reporting Date Sep 01,2010

Date	1st Trip	Loading Time	Volume	2nd Trip	Loading Time	Volume
1-Aug-10	1st Trip	1500\1610	40000	2nd Trip	NONE	0
2-Aug-10	1st Trip	1500\1900	97500	2nd Trip	NONE	0
3-Aug-10	1st Trip	1600\1730	42500	2nd Trip	NONE	0
4-Aug-10	1st Trip	1500\1945	141250	2nd Trip	NONE	0
5-Aug-10	1st Trip	1500\1715	58750	2nd Trip	NONE	0
6-Aug-10	1st Trip	1500\2000	135000	2nd Trip	NONE	0
7-Aug-10	1st Trip	NONE	0	2nd Trip	NONE	0
8-Aug-10	1st Trip	1620\1915	87500	2nd Trip	NONE	0
9-Aug-10	1st Trip	1545\1930	101250	2nd Trip	NONE	0
10-Aug-10	1st Trip	1640\1830	61250	2nd Trip	NONE	0
11-Aug-10	1st Trip	1520\2020	127000	2nd Trip	NONE	0
12-Aug-10	1st Trip	1630\1900	77500	2nd Trip	NONE	0
13-Aug-10	1st Trip	1515\1915	95000	2nd Trip	NONE	0
14-Aug-10	1st Trip	NONE	0	2nd Trip	NONE	0
15-Aug-10	1st Trip	1515\1645	52500	2nd Trip	NONE	0
16-Aug-10	1st Trip	1600\2030	130500	2nd Trip	NONE	0
17-Aug-10	1st Trip	1630\1745	36250	2nd Trip	NONE	0
18-Aug-10	1st Trip	1600\2100	135000	2nd Trip	NONE	0
19-Aug-10	1st Trip	1530\1700	52500	2nd Trip	NONE	0
20-Aug-10	1st Trip	1530\2045	121250	2nd Trip	NONE	0
21-Aug-10	1st Trip	NONE	0	2nd Trip	NONE	0
22-Aug-10	1st Trip	1500\1640	50000	2nd Trip	NONE	0
23-Aug-10	1st Trip	1515\1930	146250	2nd Trip	NONE	0
24-Aug-10	1st Trip	1545\1745	75000	2nd Trip	NONE	0
25-Aug-10	1st Trip	1530\1930	122000	2nd Trip	NONE	0
26-Aug-10	1st Trip	1630\1830	70000	2nd Trip	NONE	0
27-Aug-10	1st Trip	1610\2000	121250	2nd Trip	NONE	0
28-Aug-10	1st Trip	NONE	0	2nd Trip	NONE	0
29-Aug-10	1st Trip	NONE	0	2nd Trip	NONE	0
30-Aug-10	1st Trip	1430\1700	80000	2nd Trip	NONE	0
31-Aug-10	1st Trip	1500\1900	117500	2nd Trip	NONE	0
TOTAL	**1st Trip**		**2,374,500**	**2nd Trip**		**0**
					Total 1st & 2nd	**2,374,500**

cc:
Blue Moon- Captain
File

Prepared by W.W.T

Date: 08/03/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5323

Permit # OD 93-01 & OD 93-02

	Time	
7/31	1600	Begin 1st Loading SK
	1800	Finish 1st Loading SK
8/1	1500	Begin 2nd Loading SK
	1900	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	196,500	Gallons
SP	0	Gallons
Total	196,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	5%	29.62			
0655	Arrive Edge of Zone	# 1	14*22.57' S	170*38.64 W	SE-5		29.64	S+SE-1.5	8.4	158
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "		29.65	" "	8.3	164
0715	Begin Discharge	# 3	14*24.65' S	170*37.45' W	" "		"	" " X	8.5	135
" 30		# 4	14*24.74' S	170*37.96' W	" "		"	" "	8.4	228
" 45	Remarks:	# 5	14*24.62' S	170*37.01' W	" "	10%	29.63		9.2	021
0800		# 6	14*24.73' S	170*38.06' W	" "	"	"		8.6	194
" 15		# 7	14*24.36' S	170*37.00' W	" "	15	29.62	5	9.3	013
" 30		# 8	14*25.27' S	170*37.78' W	SE-7	"	29.64		8.5	176
" 45		# 9	14*24.20' S	170*37.22 W	" "	"	"		9.0	224
0900		# 10	14*25.00 S	170*37.27' W		20	"		9.4	032
" 15		# 11	14*24.39' S	170*37.43' W		30	29.65		9.1	217
" 30		# 12	14*24.66' S	170*37.05' W		40		10	9.6	014
" 45		# 13	14*24.97' S	170*38.00' W		"			9.1	219
1000		# 14	14*24.48' S	170*36.91' W		"			9.6	006
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1005	Finish Discharge	#15	14*23.88' S	170*36.98' W	SE-7	40%	29.64	S+SE-1.5	8.9	274
1015	Exit Discharge Zone	#16	14*22.65' S	170*37.78' W	" "	"	"	" " "	9.8	333
1105	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.0 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 128.4 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

98.7

Date: 08/05/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5324

Permit # OD 93-01 & OD 93-02

	Time	
8/3	1600	Begin 1st Loading SK
	1730	Finish 1st Loading SK
8/4	1500	Begin 2nd Loading SK
	1945	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	183,750	Gallons
SP	0	Gallons
Total	183,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0510	Depart Starkist		14*16.50' S	170* 41.2' W	East-12	30	29.68			
0602	Arrive Edge of Zone	# 1	14*22.58' S	170*38.66' W	East-15	"	29.69	E/SE-1.5	8.4	161
0613	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"		8.1	159
0635	Begin Discharge	# 3	14*2 4.20' S	170*37.24' W	" "	35	29.70	X	7.7	042
" 50		# 4	14*2 3.97' S	170*37.51' W	" "	"	"		8.3	181
0705	Remarks: Ocean	# 5	14*2 4.58' S	170*37.00 W	" "	"	"		8.4	017
" 20	Monitoring +	# 6	14*2 3.53' S	170*37.45' W	" "	"	"		8.4	183
" 35	sampling	# 7	14*2 4.58' S	170*37.06' W	" "	40	"	5	8.6	009
" 50	Control Samples	# 8	14*2 3.59' S	170*37.57' W	" "	"	"		8.7	181
0805	drawn at:	# 9	14*2 4.84' S	170*37.19' W	" "	"	"		8.5	037
" 20	0625 hrs. @	# 10	14*2 3.26' S	170*37.45' W	East-18	"			8.8	182
" 35	Pos'n: 14°24.11'S	# 11	14*2 4.85 S	170*37.26 W		"			8.6	028
" 50	× 170°37.21'W	# 12	14*2 3.10 S	170*37.23 W		"		10	9.4	310
0905		# 13	14*2 4.84 S	170*37.54 W		30			9.1	179
" 20		# 14	14*2 3.16' S	170*37.17' W					9.4	308
" 35		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0925	Finish Discharge	#15	14*2 3.35' S	170*37.02' W	East-18	30%	29.70	E/SE-1.5	8.7	147
1025	Exit Discharge Zone	#16	14*2 2.57' S	170*38.63 W	" "	"	"	" "	9.2	338
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 8.66 kts. Total Time Run 6.15 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 125 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crooks

Date: 08/07/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5325

Permit # OD 93-01 & OD 93-02

	Time	
8/5	1500	Begin 1st Loading SK
	1715	Finish 1st Loading SK
8/6	1500	Begin 2nd Loading SK
	2000	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	193,750	Gallons
SP	0	Gallons
Total	193,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	East-12	75	29.63			
0705	Arrive Edge of Zone	# 1	14*22.57' S	170*38.69' W	East-18	80	29.65	SE-2.5	8.4	163
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"		ESE-3.0	8.1	160
0720	Begin Discharge	# 3	14*24.08' S	170*37.22' W	East-20	"		X	7.8	090
" 35		# 4	14*23.27' S	170*37.19' W	" "	75			7.6	091
" 50	Remarks:	# 5	14*24.36' S	170*38.01' W					8.7	201
0805		# 6	14*23.96' S	170*37.31' W			29.66		8.8	304
20		# 7	14*23.47' S	170*36.55' W		70	29.67	5	8.3	220
35		# 8	14*24.85' S	170*37.90' W	East-25	"	"		7.9	087
50		# 9	14*23.87' S	170*37.70' W	" "	"	"		9.2	314
0905		# 10	14*23.19' S	170*37.21' W		"	29.68		7.8	086
20		# 11	14*24.52' S	170*38.12' W		80	"		9.0	191
35		# 12	14*23.74' S	170*37.83' W	East-20	90-Rain	29.69	10	9.5	304
50		# 13	14*23.71' S	170*37.31' W	E-25	75			9.4	218
1005		# 14	14*24.66' S	170*37.25 W	" "	85-Rain			8.6	073
20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*23.35' S	170*38.11 W	East-25	90%	29.69	ESE-3.0	9.7	332
1028	Exit Discharge Zone	#16	14*22.59' S	170*38.45 W	" "	"	"	" "	9.6	336
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Figure 8

Total Discharge Time: 180 mins. Average Speed During Discharge: 8.6 kts. Total Time Run 5.16 hr.

Navigational Plot made: YES Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 125 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 08/10/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5326

Permit # OD 93-01 & OD 93-02

	Time	
8/8	1620	Begin 1st Loading SK
	1915	Finish 1st Loading SK
	1545	Begin 2nd Loading SK
8/9	1930	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	188,750	Gallons
SP	0	Gallons
Total	188,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	SE-5	100-RAIN	29.64			
0705	Arrive Edge of Zone	# 1	14*22.56' S	170*38.72' W	SSE-7	100%	"	SE-1.5	8.4	163
0715	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.3	158
0725	Begin Discharge	# 3	14*24.77' S	170*37.53' W	" "	"	29.66	" " X	8.1	135
40		# 4	14*24.45' S	170*37.74' W	SE-10	"	29.67	" "	8.7	226
55	Remarks:	# 5	14*24.77' S	170*37.06' W	" "	"	29.68	" "	8.5	013
0810		# 6	14*24.43' S	170*37.70' W	SE-8	95%	29.69	" "	9.0	224
25		# 7	14*25.02' S	170*37.34' W	SE-10	"	"	" " 5	8.6	046
40		# 8	14*24.80' S	170*37.82' W	" "	"	29.68		8.9	223
55		# 9	14*24.76' S	170*37.03 W	" "	100	29.67		8.7	028
0910		# 10	14*24.66' S	170*37.86' W	" "	90	29.68		9.3	220
25		# 11	14*24.72' S	170*37.07' W	" "	"	"		9.0	023
40		# 12	14*24.80' S	170*38.08 W	" "	"	"	10	9.1	217
55		# 13	14*24.57' S	170*36.96' W	SE-12	80	"		9.3	026
1010		# 14	14*24.72' S	170*37.87 W	" "	75	"		8.9	221
25		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*24.49' S	170*37.68' W	SE-12	70%	29.68	SE-1.5	9.2	025
1035	Exit Discharge Zone	#16	14*22.56' S	170*38.31' W	" "	"	29.67	" "	9.6	336
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 8.87 kts. Total Time Run 5.25 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 121.6 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 08/12/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5327

Permit # OD 93-01 & OD 93-02

	Time	
8/10	1640	Begin 1st Loading SK
	1830	Finish 1st Loading SK
8/11	1520	Begin 2nd Loading SK
	2020	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	188,250	Gallons
SP	0	Gallons
Total	188,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0600	Depart Starkist		14*16.50' S	170* 41.2' W	SE 20	100	29.68			
0700	Arrive Edge of Zone	# 1	14*22.53' S	170*38.69 W	" "	"	29.67	SE-2.5+	8.0	161
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.68	" "	7.8	164
0720	Begin Discharge	# 3	14*24.48' S	170*37.32' W	SE-22	"	29.69	" " X	7.7	110
35		# 4	14*25.08' S	170*38.00' W	" "	"	"	" "	7.5	112
50	Remarks:	# 5	14*24.19' S	170*38.25' W	" "		"	" "	8.8	315
0805		# 6	14*24.66' S	170*37.55' W			"	"	8.7	272
20		# 7	14*25.05' S	170*37.69' W			29.68	5	7.6	115
35		# 8	14*24.15' S	170*38.20' W			"		8.5	330
50		# 9	14*24.60' S	170*37.92' W					9.0	267
0905		# 10	14*25.02' S	170*37.58' W	SE-25				8.9	316
20		# 11	14*24.36' S	170*37.46' W	" "				8.4	110
35		# 12	14*24.74' S	170*38.32' W				10	9.2	253
50		# 13	14*24.16' S	170*38.20' W		100-Lt. Rain			9.1	313
1005		# 14	14*24.59' S	170*37.27' W		100%			9.3	264
20		# 15	14*2 S	170*3 W						
35		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1015	Finish Discharge	#15	14*23.97' S	170*38.26' W	SE-25	100%	29.69	SE-2.5+	9.2	334°
1023	Exit Discharge Zone	#16	14*22.63' S	170*38.63 W	" "	"	"	" "	9.5	333°
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure 8

Total Discharge Time: 175 mins. Average Speed During Discharge: 8.6 kts. Total Time Run 5.25 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 125 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Clark

Date: 08/14/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5328

Permit # OD 93-01 & OD 93-02

	Time	
8/12	1630	Begin 1st Loading SK
	1900	Finish 1st Loading SK
8/13	1515	Begin 2nd Loading SK
	1915	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	172,500	Gallons
SP	0	Gallons
Total	172,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	SE-26	25	29.69			
0658	Arrive Edge of Zone	# 1	14*22.57' S	170*38.78' W	SE-22	"	"	SE-3.0	8.2	161
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"		8.0	168
0720	Begin Discharge	# 3	14*24.47' S	170*37.31' W	" "	"	"	" " X	7.8	115
" 35		# 4	14*25.68' S	170*37.85' W		"			7.5	116
" 50	Remarks:	# 5	14*24.20' S	170*38.17' W		"			8.8	320
0805		# 6	14*24.69' S	170*37.85' W		"			9.1	264
" 20		# 7	14*25.21' S	170*37.75' W		30		5	8.0	115
" 35		# 8	14*24.09' S	170*38.03' W		"		SE-2.5	7.7	163
" 50		# 9	14*24.73' S	170*38.21' W		40		" "	9.6	264
0905		# 10	14*24.54' S	170*37.95' W	SE-25	60		" "	9.2	322
" 20		# 11	14*24.46' S	170*37.16' W	" "	"		" "	8.1	114
" 35		# 12	14*25.18 S	170*37.78 W	" "		29.68	10	8.4	112
" 50		# 13	14*24.23' S	170*38.21' W	" "				9.2	334
1005		# 14	14*24.76' S	170*37.70' W	" "	70%			9.8	267
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1010	Finish Discharge	#15	14*24.18' S	170*38.27' W	SE-25	70%	29.68	SE-2.5	9.1	339
1021	Exit Discharge Zone	#16	14*22.60' S	170*38.63' W	" "	"	"	" "	9.3	340
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure 8

Total Discharge Time: 170 mins. Average Speed During Discharge: 8.64 kts. Total Time Run 5.15 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 117 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 08/17/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5329

Permit # OD 93-01 & OD 93-02

Trip # 1 - ✓

Trip # 2

	Time	
8/15	1515	Begin 1st Loading SK
	1645	Finish 1st Loading SK
8/16	1600	Begin 2nd Loading SK
	2030	Finish 2nd Loading SK

Volume Loaded: SK 183,000 Gallons; Gallons; Total 183,000 Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	East-7	60	29.69			
0658	Arrive Edge of Zone	# 1	14*22.54' S	170*38.67' W	East-12	"	"	E+SE-2.0	8.7	166
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"		8.3	161
0718	Begin Discharge	# 3	14*24.08' S	170*37.21' W	" "	"	"	X	8.5	090
" 33		# 4	14*24.17' S	170*37.54' W	" "	"	"		8.3	181
" 48	Remarks:	# 5	14*23.98' S	170*36.87' W	East-15	"	"		8.6	003
0803		# 6	14*23.64' S	170*37.42' W	" "	70	"		8.5	184
" 18		# 7	14*24.02' S	170*36.95' W	" "	80	"	5	8.8	001
" 33		# 8	14*23.80' S	170*37.47' W		90	←	29.70	8.7	182
" 48		# 9	14*24.27' S	170*36.92' W		80	29.70		8.8	359
0903		# 10	14*23.76' S	170*37.54' W		90	"		9.0	181
" 18		# 11	14*24.40' S	170*37.01' W		" RAIN	29.69		8.8	023
" 33		# 12	14*24.06' S	170*37.60' W		90	"	10	9.2	179
" 48		# 13	14*24.45' S	170*37.05' W		80	"		9.0	029
1003		# 14	14*23.54' S	170*37.57' W		75			9.1	182
" 18		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1013	Finish Discharge	#15	14*23.27' S	170*37.53' W	East-15	70%	29.69	E+SE-2.0	9.2	356
1018	Exit Discharge Zone	#16	14*22.68' S	170*37.75' W	" "	"	"	" "	9.4	341
1110	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 5.0 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 119 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 08/19/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5330

Permit # OD 93-01 & OD 93-02

	Time	
8/17	1630	Begin 1st Loading SK
	1745	Finish 1st Loading SK
	1600	Begin 2nd Loading SK
8/18	2100	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	171,250	Gallons	
		Gallons	
Total	171,250	Gallons	

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	East-5	70	29.65			
0653	Arrive Edge of Zone	# 1	14*22.52' S	170*38.65' W	SE-7	"	29.66	SE-1.5	8.8	162
0703	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W			29.67		8.6	163
0712	Begin Discharge	# 3	14*24.71' S	170*37.46' W			29.68	X	8.5	135
" 27		# 4	14*24.52' S	170*37.73' W			"		8.7	219
" 42	Remarks:	# 5	14*24.64' S	170*37.08' W		60%	"		8.6	006
" 57		# 6	14*25.08' S	170*38.02' W		"	29.67		8.3	174
0812		# 7	14*24.17' S	170*36.89' W		50%	29.66	5	8.9	359
" 27		# 8	14*25.14' S	170*38.19' W	SE-10	40	29.65		8.8	207
" 42		# 9	14*24.13' S	170*37.04' W	" "		29.67		8.6	242
" 57		# 10	14*24.91' S	170*37.34' W			"		9.0	051
0912		# 11	14*24.62' S	170*37.79' W			29.68		9.1	204
" 27		# 12	14*24.80' S	170*37.26 W				10	9.3	048
" 42		# 13	14*24.92' S	170*38.10' W		50%	29.69		9.5	219
" 57		# 14	14*24.33' S	170*36.92' W		"	29.68		9.3	002
1012		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1000	Finish Discharge	#15	14*24.01' S	170*37.08' W	SE-10	60%	29.67	SE-1.5	8.9	283
1010	Exit Discharge Zone	#16	14*22.65' S	170*37.90' W	" "	"	"	" "	9.7	330
1210	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 168 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 6.1 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 114.5 Gallons/min/kt.

Unusual Occurrences? None (Fueling @ 1100 - 1200 hrs.)

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 08/21/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5331

Permit # OD 93-01 & OD 93-02

	Time	
8/19	1530	Begin 1st Loading SK
	1700	Finish 1st Loading SK
	1530	Begin 2nd Loading SK
8/20	2045	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	173,750	Gallons	
		Gallons	
Total	173,750	Gallons	

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	SE-7	30%	29.62			
0655	Arrive Edge of Zone	# 1	14*22.52' S	170*38.67 W	SE-10	"	29.64	SE-2.0	8.6	160
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.65	" "	8.2	158
0713	Begin Discharge	# 3	14*24.74' S	170*37.53' W	" "	40	"	" " X	8.4	135
" 28		# 4	14*24.50' S	170*37.71' W	" "		"		9.0	225
" 43	Remarks:	# 5	14*24.74' S	170*37.05' W	" "		"		8.3	022
" 58		# 6	14*24.65' S	170*37.88' W	SE-12		29.66		8.9	217
0813		# 7	14*24.84' S	170*37.20' W	" "	50	"	5	9.0	040
" 28		# 8	14*24.86' S	170*37.91' W	SE-15	70	"		9.2	223
" 43		# 9	14*24.05' S	170*36.96 W		"	"		8.4	264
" 58		# 10	14*25.16' S	170*37.61' W		60	29.65		8.6	049
0913		# 11	14*24.11' S	170*37.28' W		50	"		8.9	226
" 28		# 12	14*25.05' S	170*37.47' W		40	29.64	10	8.7	658
" 43		# 13	14*24.23' S	170*37.52' W		"	29.65		9.4	225
" 58		# 14	14*25.12' S	170*37.64' W		30	29.67		8.8	064
1013		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1005	Finish Discharge	#15	14*24.57' S	170*37.07' W	SE-15	25 %	29.66	SE-2.0	8.9	028
1018	Exit Discharge Zone	#16	14*22.61' S	170*37.87' W	" "	"	"	" "	9.2	329
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 172 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 5.2 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 115 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Croft

Date: 08/24/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5332

Permit # OD 93-01 & OD 93-02

	Time	
8/22	1500	Begin 1st Loading SK
	1640	Finish 1st Loading SK
8/23	1515	Begin 2nd Loading SK
	1730	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	196,250	Gallons
	—	Gallons
Total	196,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	East-5	75	29.67			
0700	Arrive Edge of Zone	# 1	14*22.51' S	170*38.68' W	East-15	85	"	E+SE- 2.0	8.4	161
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	80	"	" "	8.4	165
0720	Begin Discharge	# 3	14*24.11' S	170*37.23 W	" "	80	29.68	" " X	8.1	090
" 35		# 4	14*23.74' S	170*37.56' W	" "	70	"		8.5	184
" 50	Remarks:	# 5	14*24.12' S	170*36.37' W	" "	"	"		8.2	000
0805		# 6	14*23.84' S	170*37.55' W	" "	60%	"		8.6	182
20		# 7	14*24.23' S	170*36.98' W	East-18	"	"	5	8.1	013
" 35		# 8	14*23.84' S	170*37.57' W	" "	50%	"		8.8	185
" 50		# 9	14*24.13' S	170*36.94' W	" "	"	"		8.3	004
0905		# 10	14*23.32' S	170*37.56 W		40%	"		9.1	183
" 20		# 11	14*24.63' S	170*37.12' W		"	29.67		8.4	032
" 35		# 12	14*23.32' S	170*37.61' W		30%	"	10	9.0	181
" 50		# 13	14*24.51' S	170*37.00' W		20%	29.65		8.7	006
1005		# 14	14*23.25' S	170*37.52' W		10%	"		8.9	180
" 20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*23.46' S	170*37.52' W	East-18	10%	29.65	E+SE-2.0	9.1	339
1027	Exit Discharge Zone.	#16	14*22.67' S	170*37.78' W	" "	"	29.66	" "	9.3	336
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 8.6 kts. Total Time Run 5.15 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 127 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crooke

Date: 08/26/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5333

Permit # OD 93-01 & OD 93-02

	Time	
8/24	1545	Begin 1st Loading SK
	1745	Finish 1st Loading SK
8/25	1530	Begin 2nd Loading SK
	1930	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded: SK 197,000 Gallons

Gallons

Total 197,000 Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	East-12	50%	29.66			
0655	Arrive Edge of Zone	# 1	14*22.53' S	170*38.72' W	East-20	"	29.68	E+SE-2.5+	8.3	162
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.1	156
0715	Begin Discharge	# 3	14*24.16' S	170*37.23' W	" "	40%	"	" " X	7.7	090
30		# 4	14*24.05' S	170*37.60' W			"		8.6	181
45	Remarks:	# 5	14*24.42' S	170*37.00' W			"		8.3	357
0800		# 6	14*23.31' S	170*37.60' W					8.5	183
15		# 7	14*24.96' S	170*37.05 W		50		5	8.3	002
30		# 8	14*23.21' S	170*37.70 W		70			8.4	180
45		# 9	14*24.98' S	170*37.20 W		80-RAIN			8.6	011
0900		# 10	14*23.46 S	170*37.12' W		80 –			9.1	326
15		# 11	14*24.79' S	170*37.70' W		"	29.69		9.0	181
30		# 12	14*23.54' S	170*37.00 W		75	"	10	9.1	322
45		# 13	14*24.61' S	170*37.68' W		"	"		9.3	178
1000		# 14	14*24.17' S	170*37.05 W			29.70		9.0	356
15		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1010	Finish Discharge	#15	14*23.08' S	170*37.24' W	East-20	75%	29.69	E+SE-2.5	9.3	320
1013	Exit Discharge Zone	#16	14*22.78' S	170*37.48' W	" "	"	"	" "	9.5	318
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 8.7 kts. Total Time Run 5.15 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 129.4 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 08/28/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5334

Permit # OD 93-01 & OD 93-02

Time	
1630	Begin 1st Loading SK
1632	Finish 1st Loading SK
1610	Begin 2nd Loading SK
2000	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
	SK	198 250	Gallons
			Gallons
	Total		Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	70	29.67			
0702	Arrive Edge of Zone	# 1	14*22.54' S	170*38.66' W	East-12	60	29.69	E+SE-1.5	8.5	162
0712	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	" "	" "	8.3	164
0720	Begin Discharge	# 3	14*24.10' S	170*37.18' W	" "		" "	X	8.1	090
" 35		# 4	14*23.98' S	170*37.72' W	" "		" "		8.8	184
" 50	Remarks:	# 5	14*24.57' S	170*37.01' W	" "		" "		8.4	007
0805		# 6	14*23.06' S	170*37.30 W	" "	"			8.8	321
" 20		# 7	14*24.90' S	170*37.69' W	" "	70		5	8.6	181
" 35		# 8	14*23.63' S	170*36.76' W	" "	"			8.9	349
" 50		# 9	14*24.52' S	170*37.66' W	East-15	75			9.1	180
0905		# 10	14*23.98' S	170*36.95' W	" "	"			8.8	358
" 20		# 11	14*24.06' S	170*37.58' W	" "	70			9.4	182
" 35		# 12	14*24.24' S	170*37.01 W			29.70	10	8.8	356
" 50		# 13	14*23.79' S	170*37.65' W					9.4	180
1005		# 14	14*24.97' S	170*37.12' W					8.5	013
" 20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*23.04' S	170*37.28' W	East-15	70%	29.70	E+SE-1.5	9.3	311
1022	Exit Discharge Zone	#16	14*22.74' S	170*37.49' W	" "	"	"	" "	9.3	330
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 5.15 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 120 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 08/31/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5335

Permit # OD 93-01 & OD 93-02

Time	
1430	Begin 1st Loading SK
1700	Finish 1st Loading SK
1500	Begin 2nd Loading SK
1900	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK 80000 Gallons

Gallons

Total Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W						
0654	Arrive Edge of Zone	# 1	14*22.	S	170*38.	W	NE 10	50	29.72	1.5	9.5	160°
0705	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	NE 10	50	29.72	1.5	9	75°
0714	Begin Discharge	# 3	14*23.4	S	170*37.3	W	NE 10	50	29.75	1 X	9.7	322°
29		# 4	14*23.6	S	170*37.8	W	NE 15	50	29.75	1	9.5	165°
44	Remarks:	# 5	14*24.2	S	170*37.1	W	NE 15	50	29.75	1	9.6	359°
0759		# 6	14*23.5	S	170*37.8	W	NE 15	50	29.75	1	9.5	165°
0814		# 7	14*24.8	S	170*37.2	W	NE 15	50	29.75	1 5	9.5	008°
29		# 8	14*22.6	S	170*37.8	W	NE 15	50	29.75	1	9.6	300°
44		# 9	14*24.9	S	170*37.4	W	NE 15	50	29.75	1	9.7	133°
59		# 10	14*23.2	S	170*37.4	W	NE 15	50	29.75	1	10	325°
0914		# 11	14*24.8	S	170*37.4	W	NE 15	50	29.75	1	9.9	331°
29		# 12	14*23.3	S	170*37.3	W	NE 15	50	29.75	1 10	9.8	331°
		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0934	Finish Discharge	13	14*2 2.8	S	170*3 7.6	W	NE 15	50	29.75	1	9.8	330°
0935	Exit Discharge Zone	14	14*2 2.7	S	170*3 7.7	W	NE 15	50	29.75	1	9.8	331°
1030	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center SW End of Discharge SW Discharge Pattern Ellipse

Total Discharge Time: 139 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 4.3 hr.

Navigational Plot made: yes Presence of Plume? NON

Time and position of any floating material: NON Discharge Rate: 59.9 Gallons/min/kt.

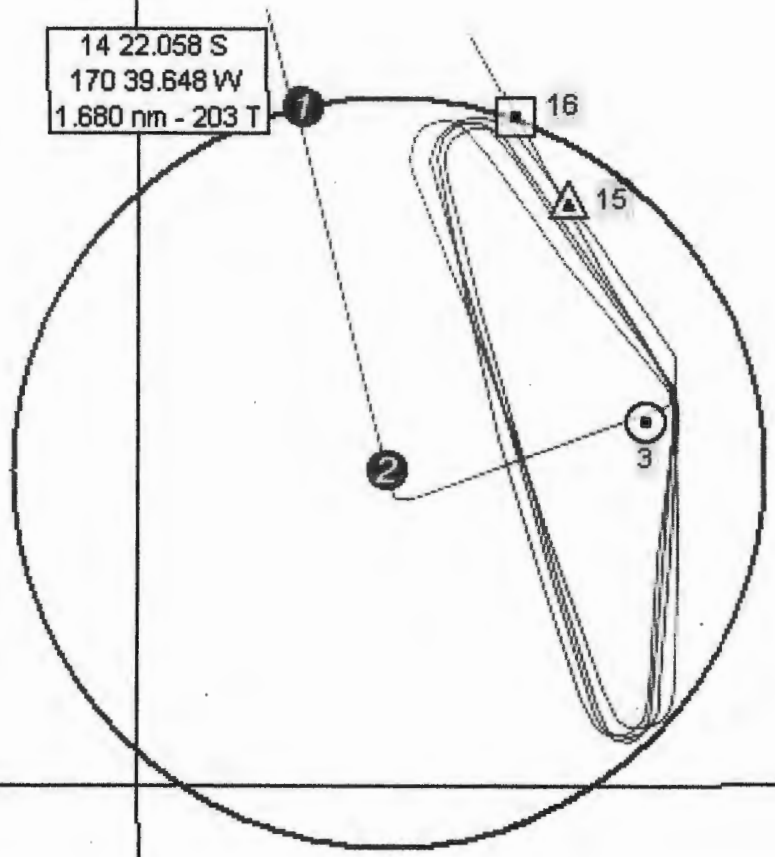
Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

14 21.36 S

31 August, 2010
Voyage # 5335
Starkist, Trip #1

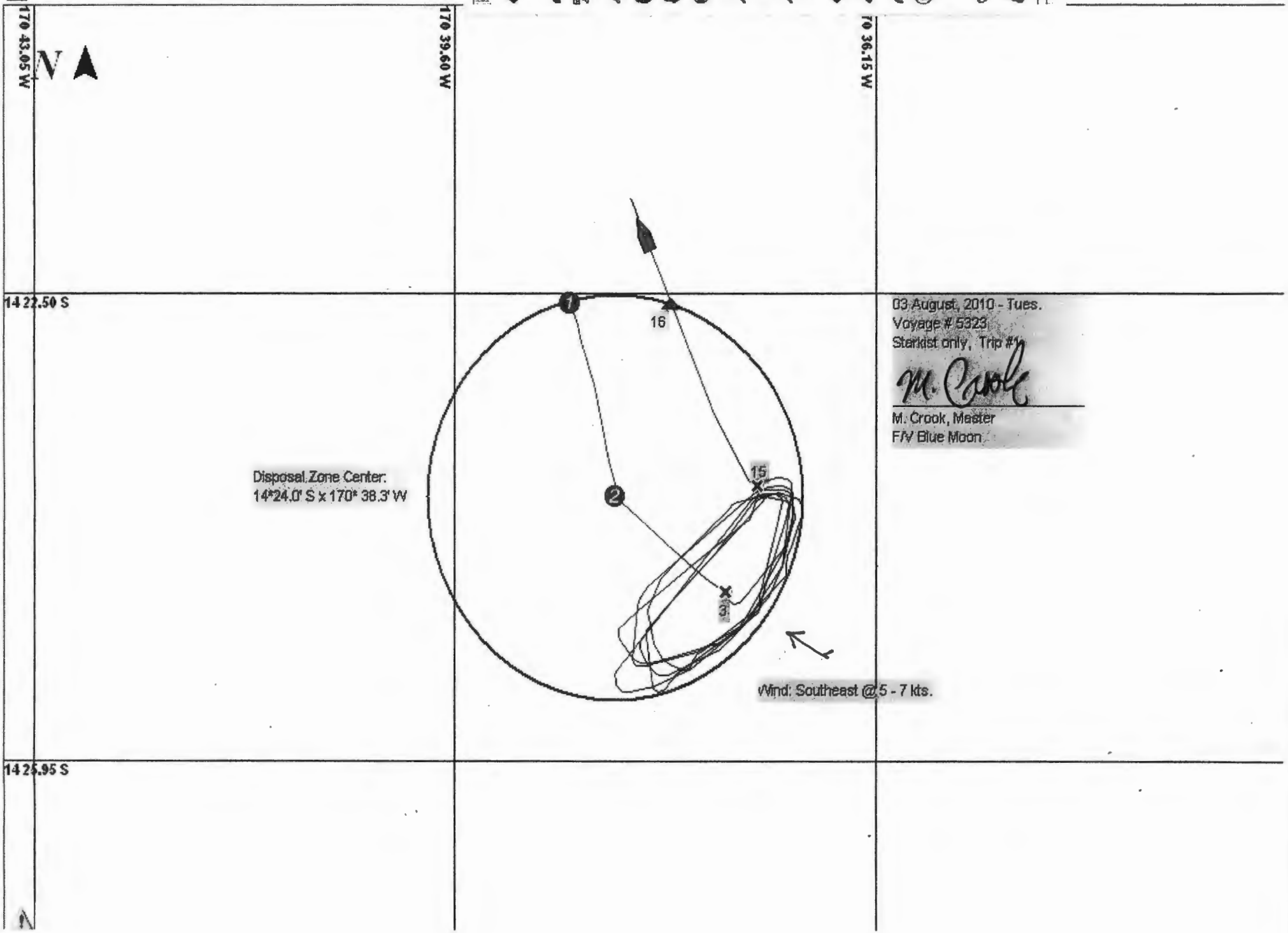
Master, F/V Blue Moon

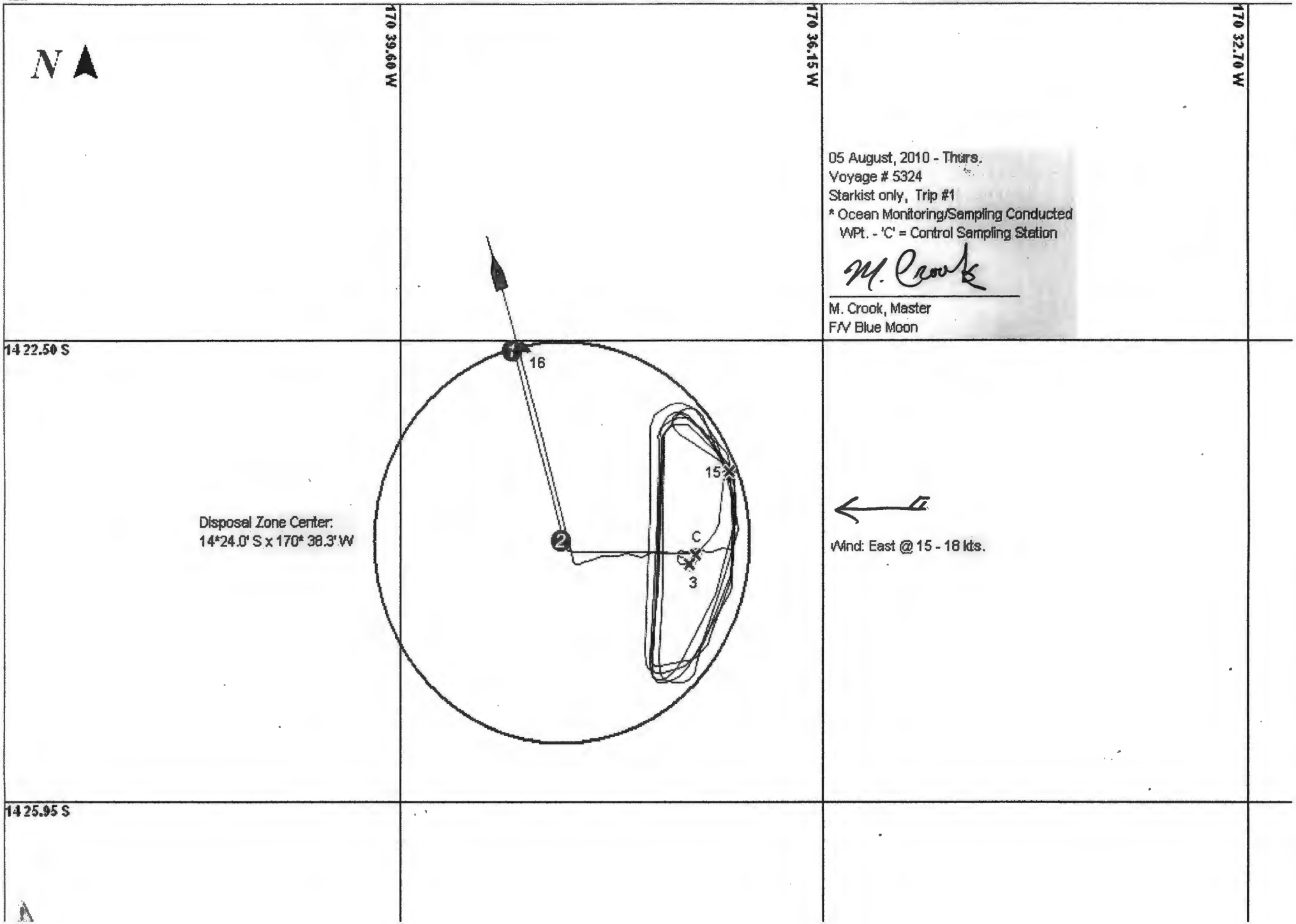


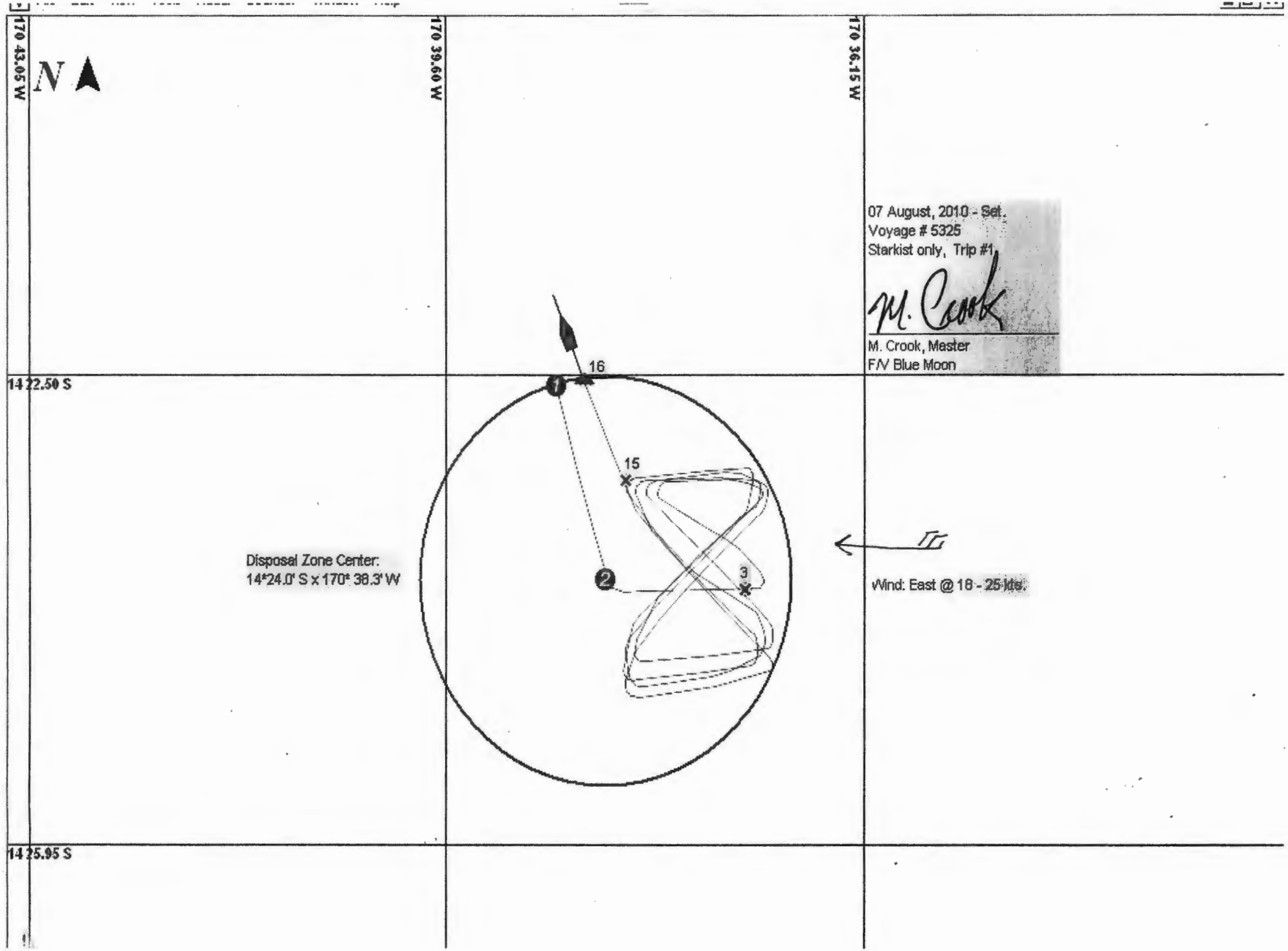
N E East @ 15

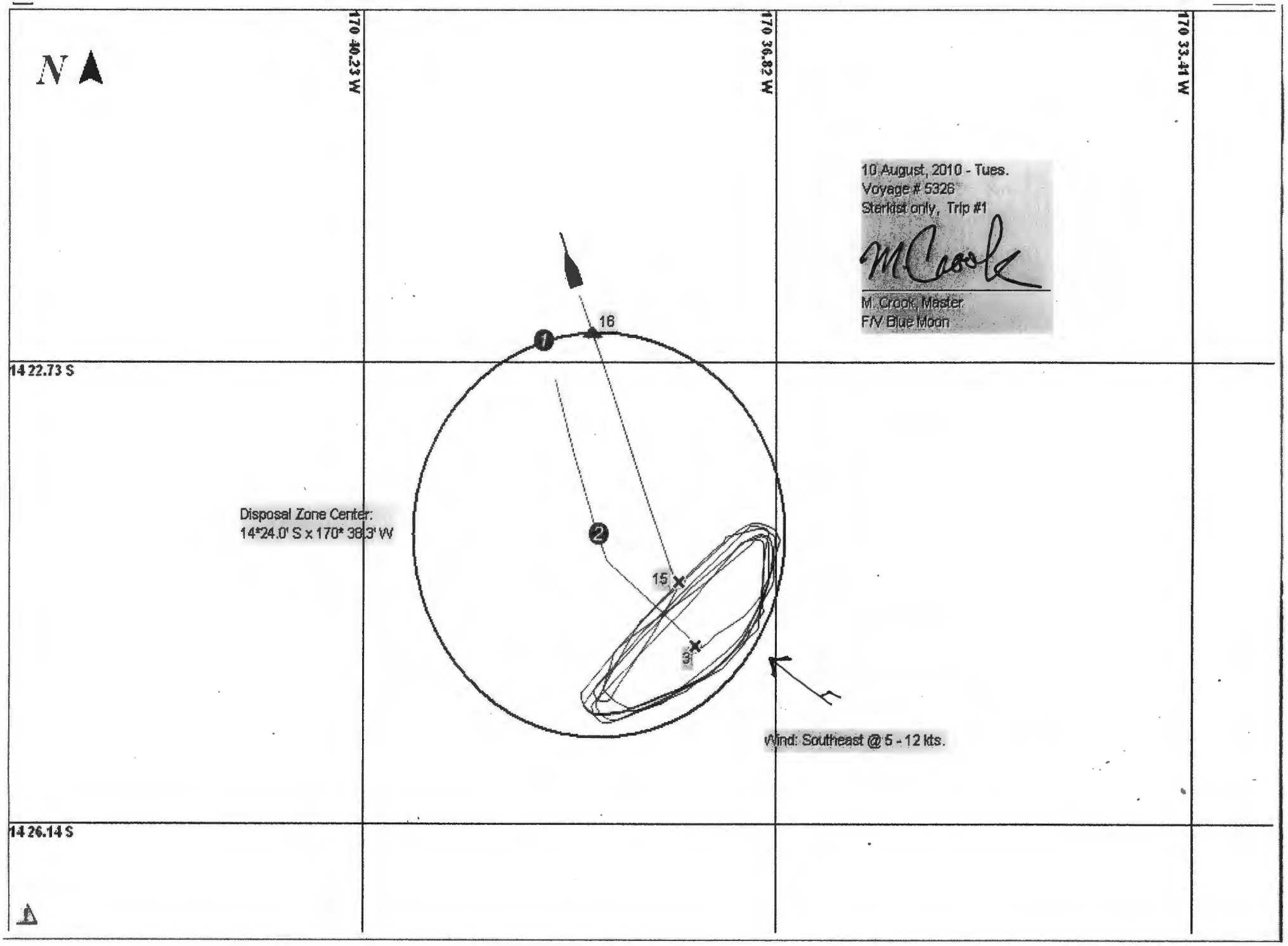
Disposal Zone Center:
14*24.0' S x 170* 38.3' W

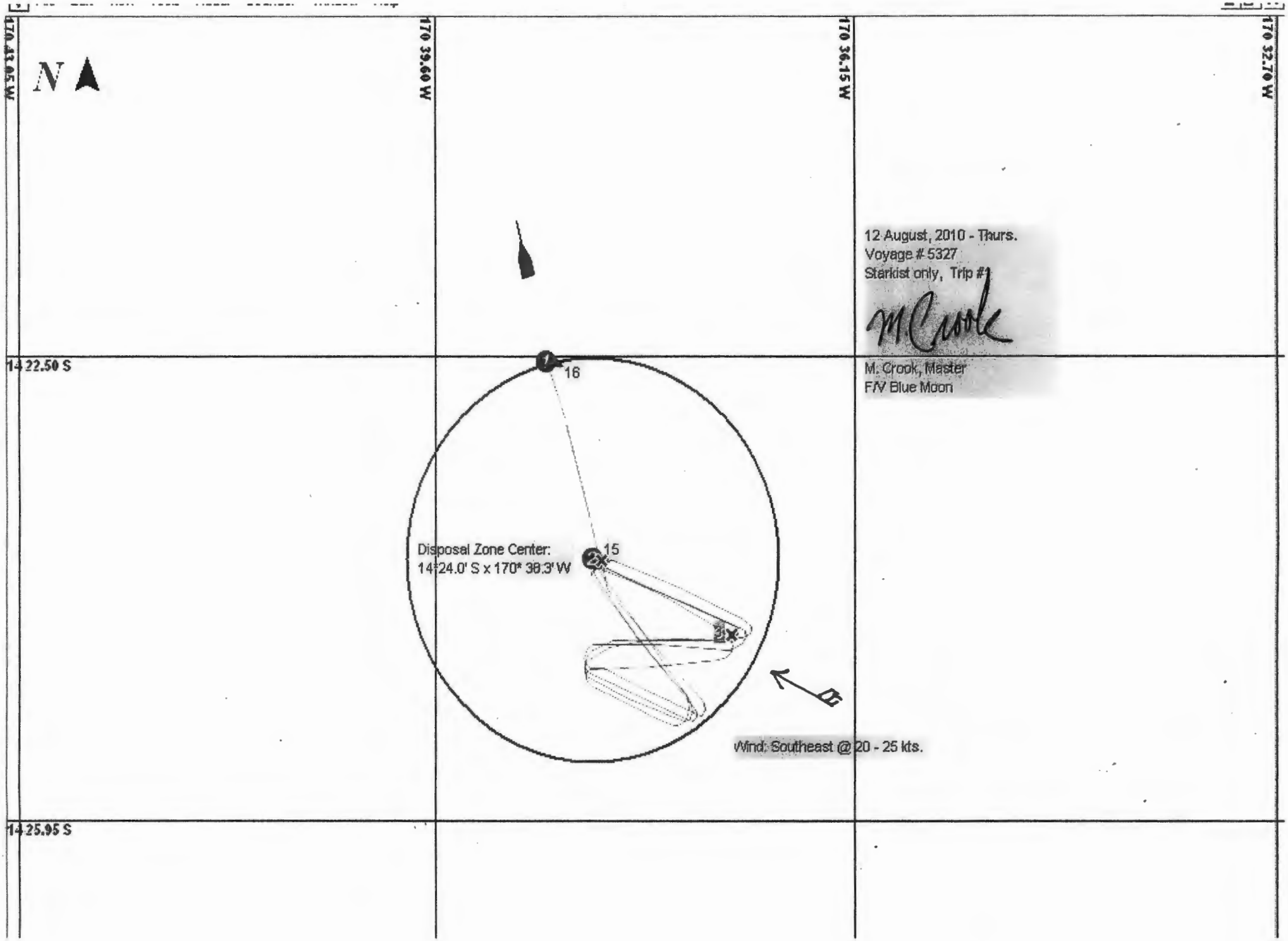
14 25.24 S

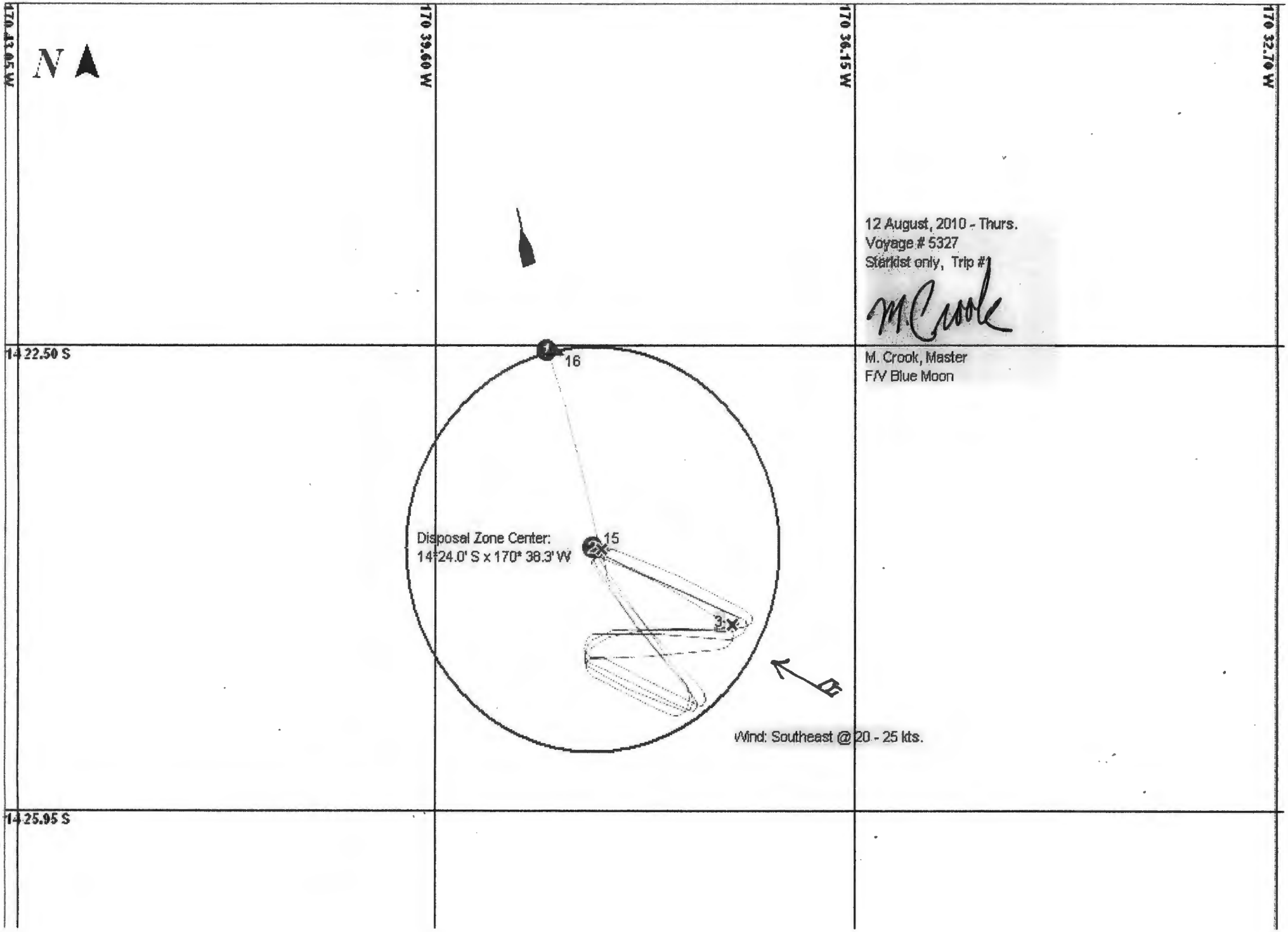

170 43.05 W
170 39.60 W
170 36.15 W
N
14 22.50 S
14 25.95 S
1
2
3
15
16
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: Southeast @ 5 - 7 kts.
03 August, 2010 - Tues.
Voyage # 5323
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon


N
170 39.60 W
170 36.15 W
170 32.70 W
14 22.50 S
14 25.95 S
05 August, 2010 - Thurs.
Voyage # 5324
Starkist only, Trip #1
* Ocean Monitoring/Sampling Conducted
WPt. - 'C' = Control Sampling Station
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
16
15
C
3
Wind: East @ 15 - 18 kts.


170 43.05 W
170 39.60 W
170 36.15 W
N
14 22.50 S
14 25.95 S
16
15
3
1
2
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: East @ 18 - 25 kts.
07 August, 2010 - Sat.
Voyage # 5325
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon


N
170 40.23 W
170 36.82 W
170 33.41 W
14 22.73 S
14 26.14 S
10 August, 2010 - Tues.
Voyage # 5326
Sterkist only, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
16
15
3
Wind: Southeast @ 5 - 12 kts.

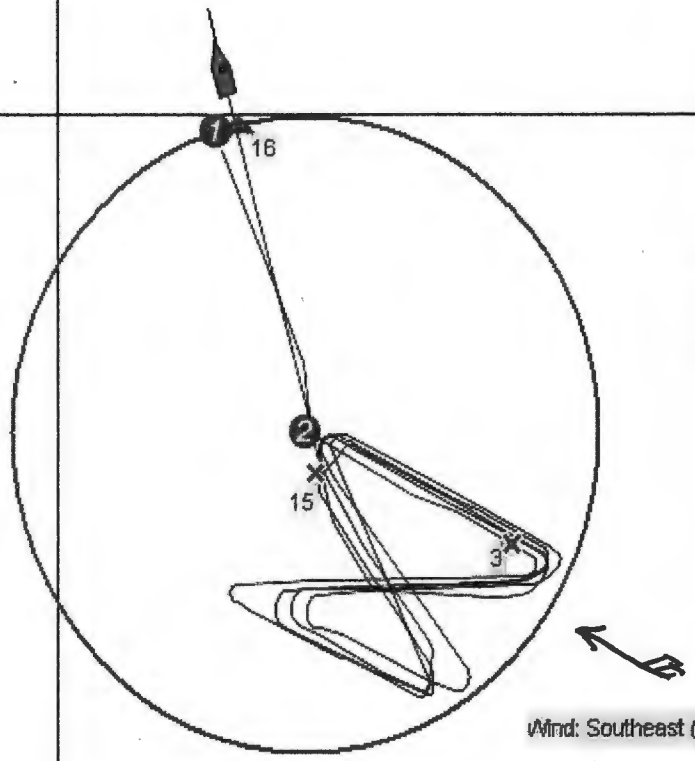

170 43.05 W
170 39.60 W
170 36.15 W
170 32.70 W
N
14 22.50 S
14 25.95 S
12 August, 2010 - Thurs.
Voyage # 5327
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
16
15
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: Southeast @ 20 - 25 kts.


170 43.05 W
170 39.60 W
170 36.15 W
170 32.70 W
N
14 22.50 S
14 25.95 S
12 August, 2010 - Thurs.
Voyage # 5327
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
1
16
2
15
3
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: Southeast @ 20 - 25 kts.

170 42.05 W | 170 39.60 W | 170 36.15 W | 170 32.70 W

N

14 22.50 S



Disposal Zone Center:
14*24.0' S x 170* 38.3' W

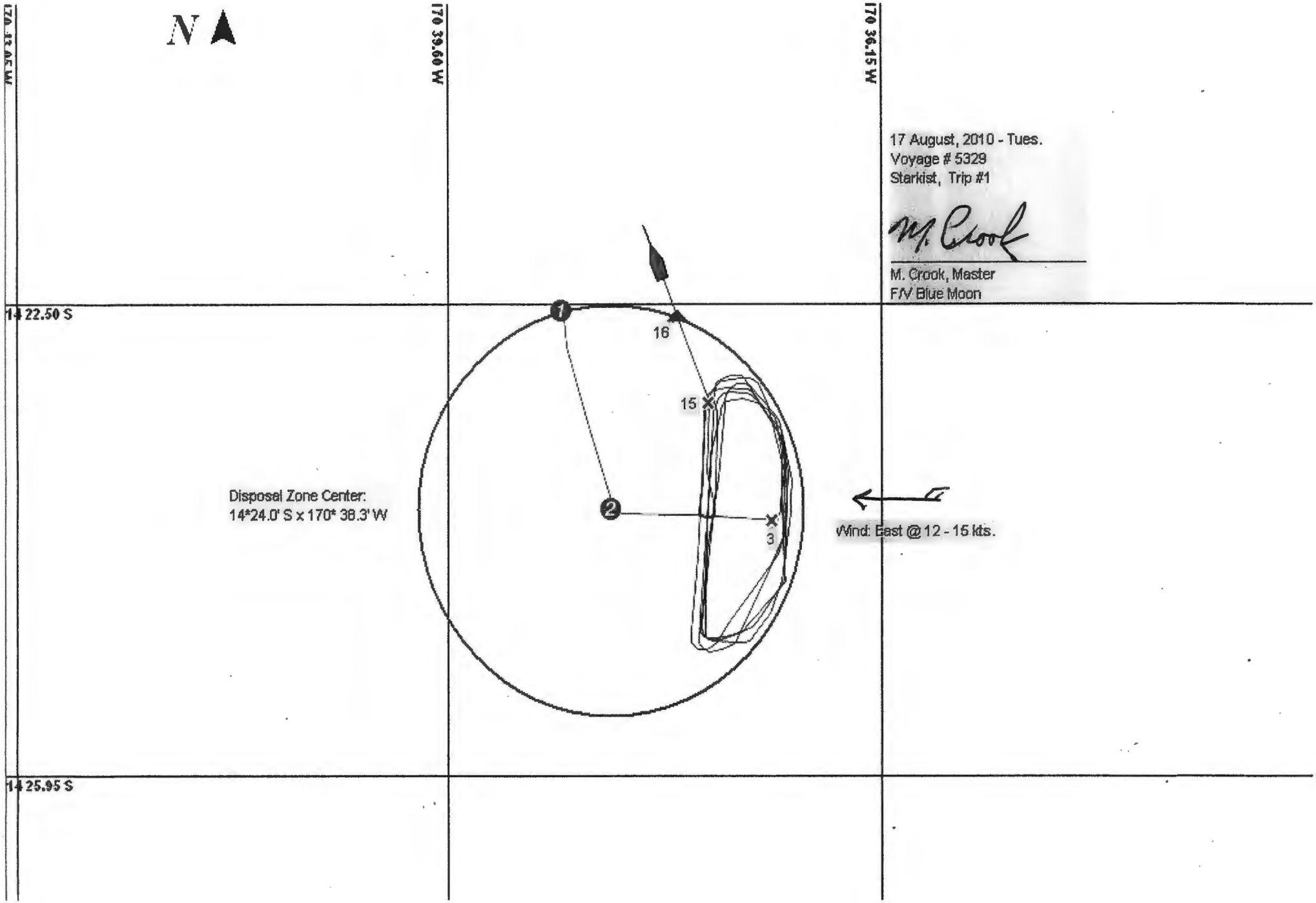
Wind: Southeast @ 20 - 25 kts.

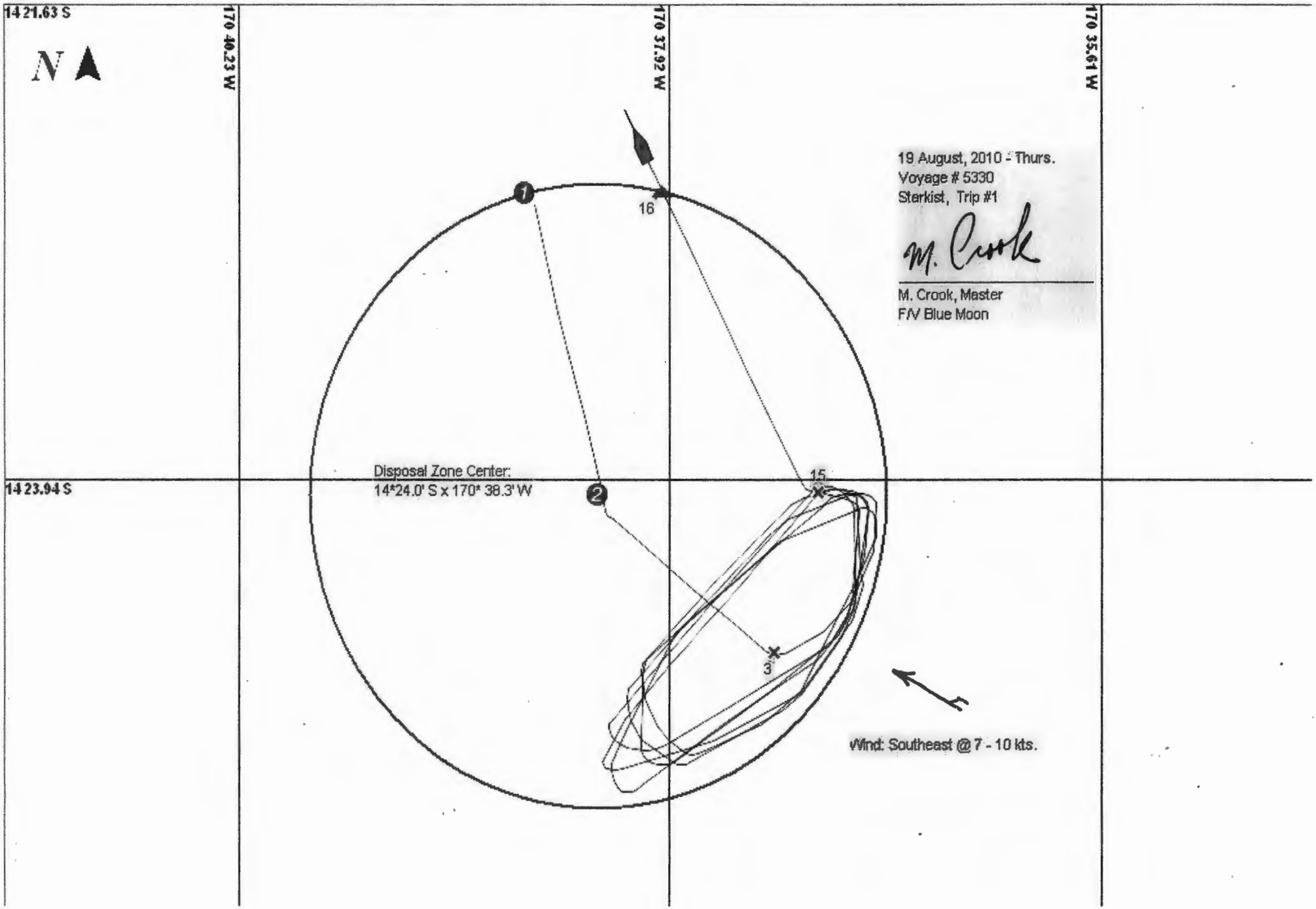
14 August, 2010 - Sat.
Voyage # 5328
Starkist, Trip #1

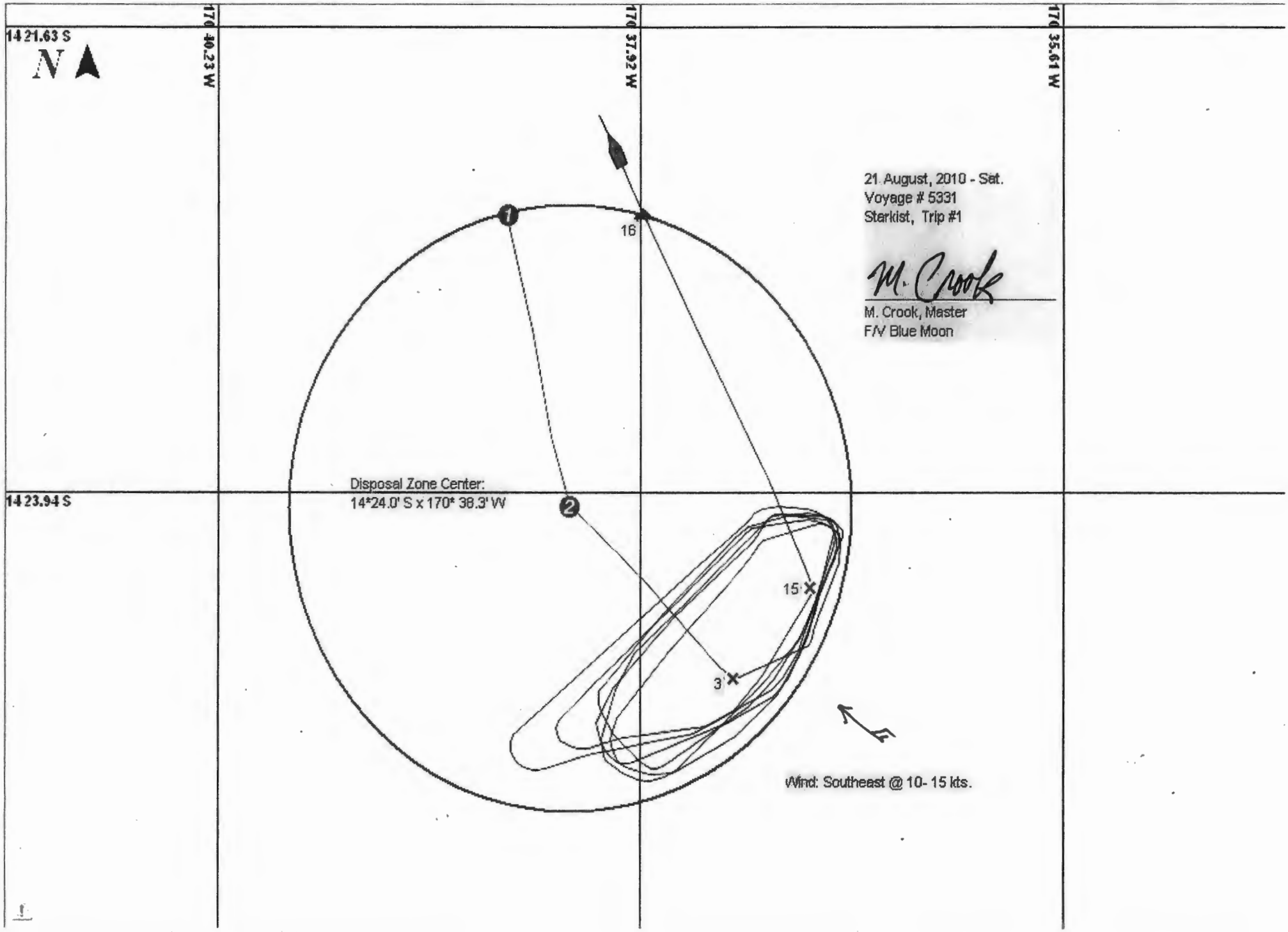
M. Crook

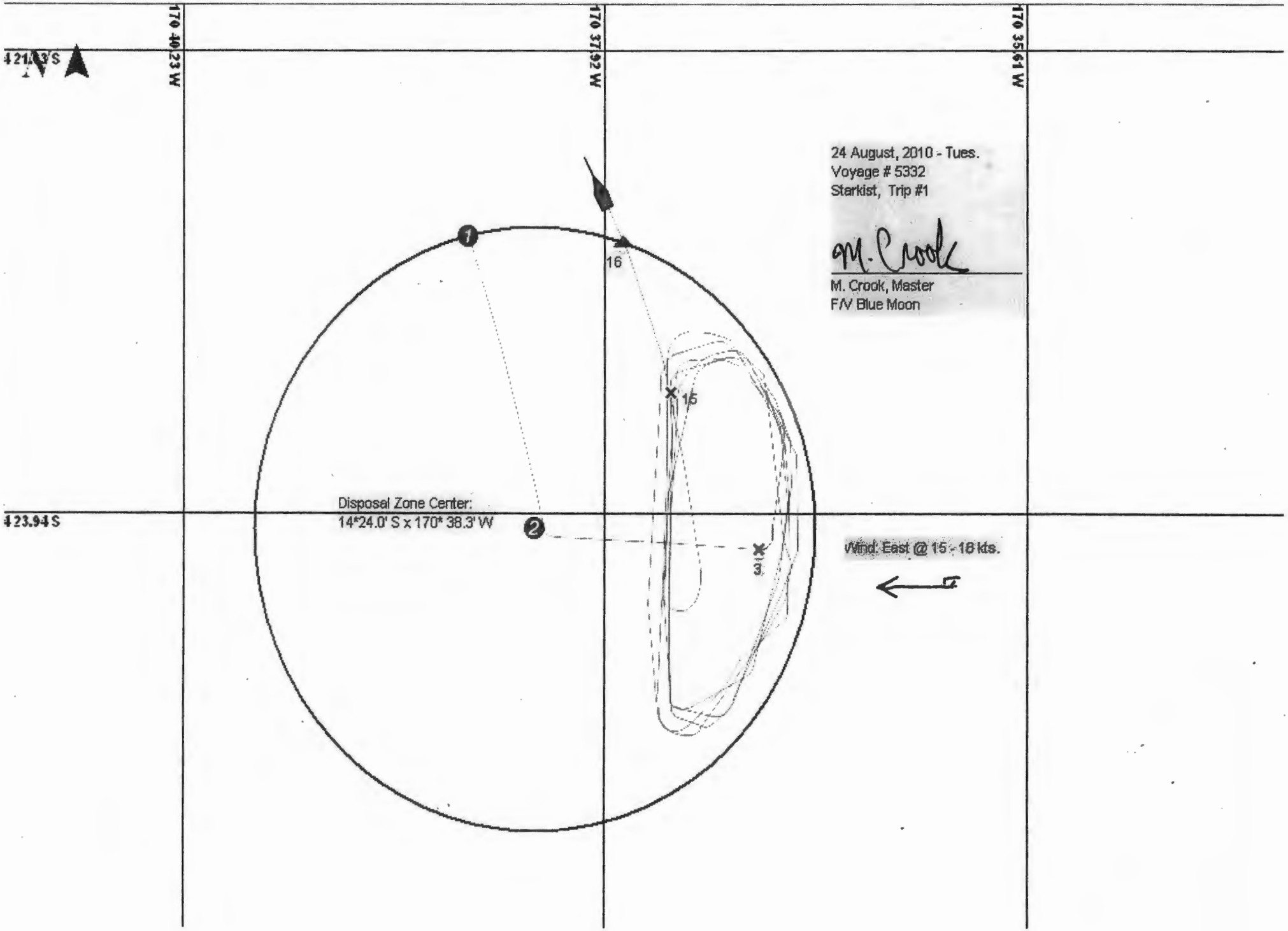
M. Crook, Master
F/V Blue Moon

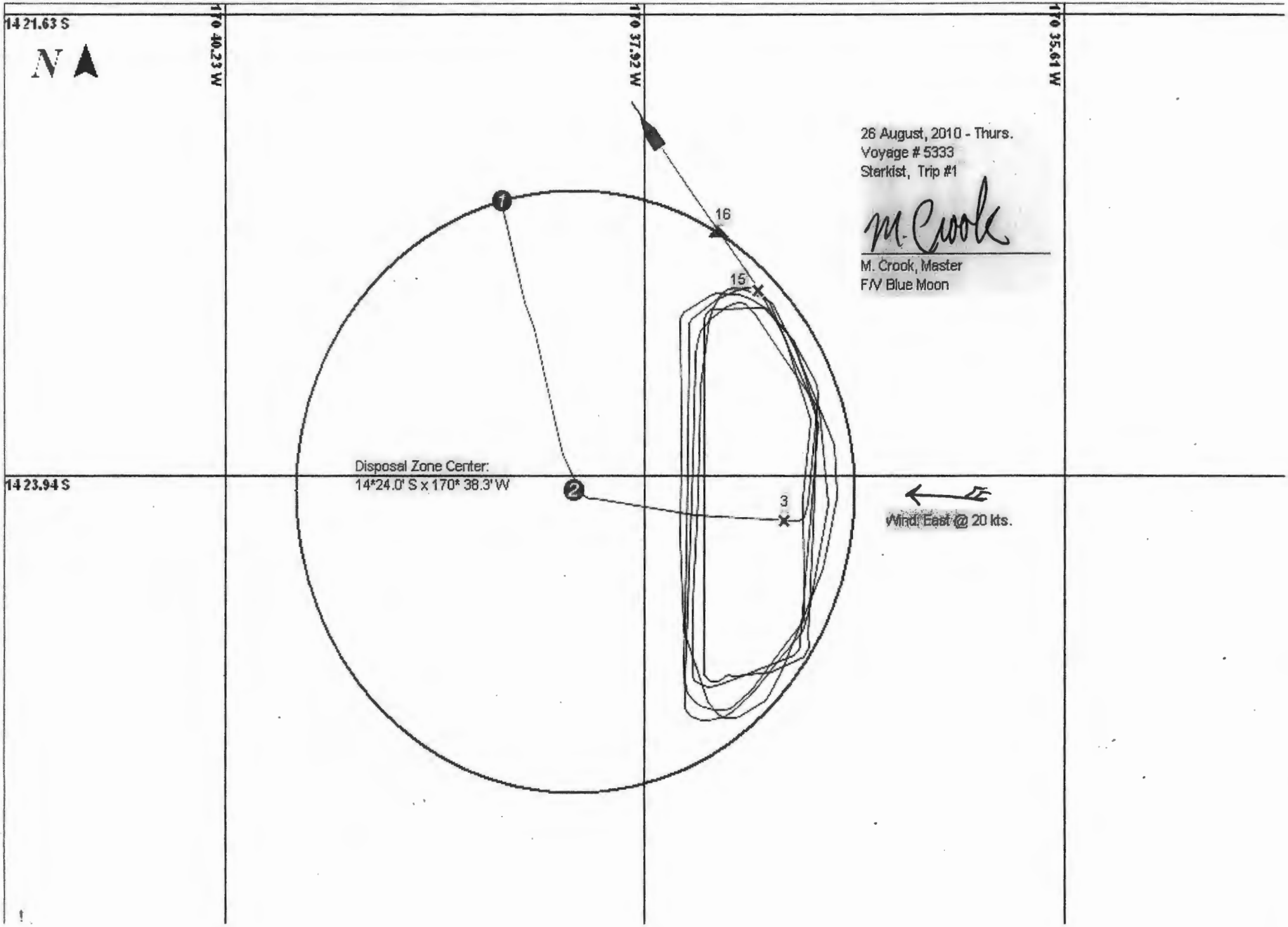
14 25.95 S

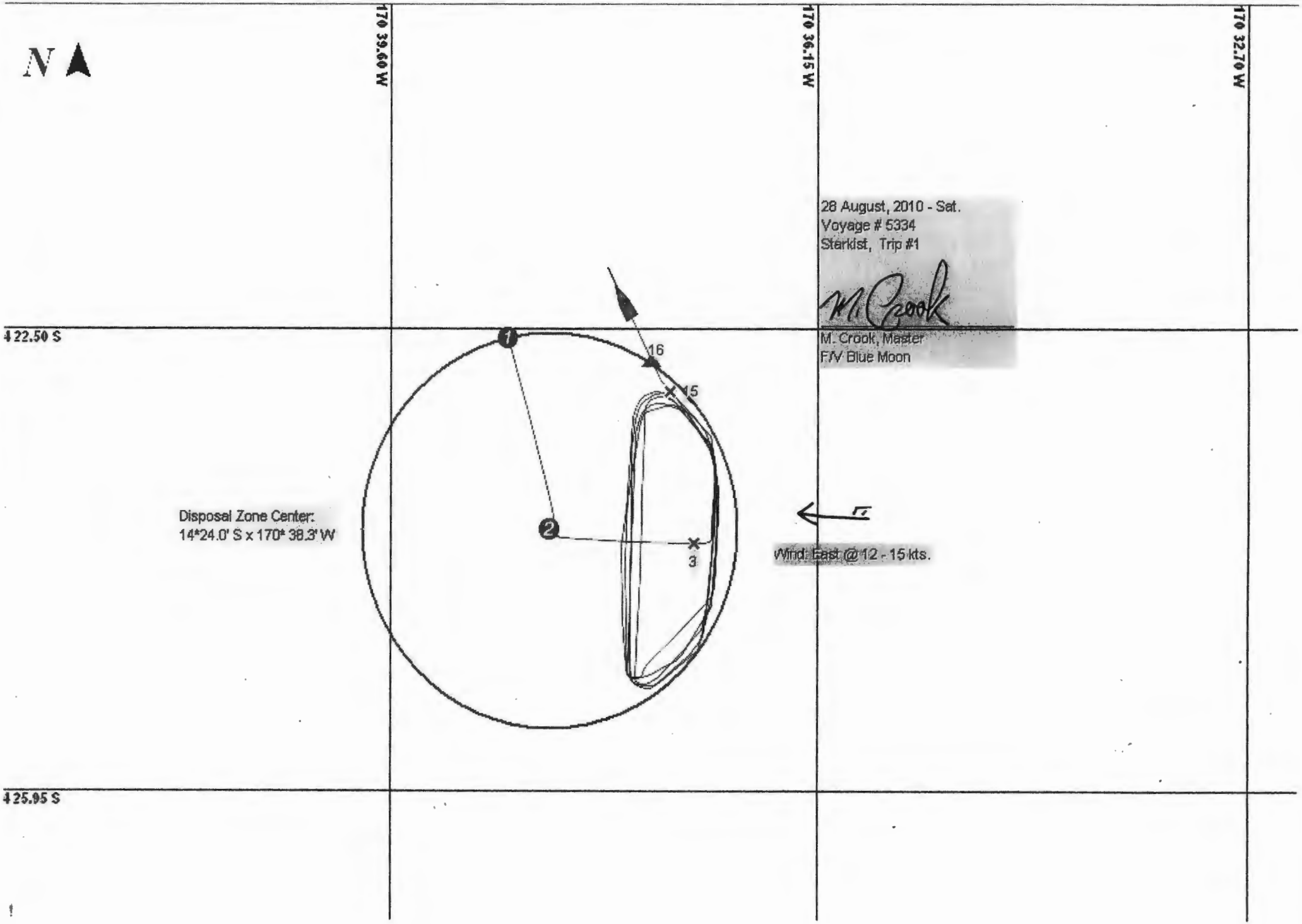

N
170 33.45 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
17 August, 2010 - Tues.
Voyage # 5329
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
3
15
16
Wind: East @ 12 - 15 kts.


14 21.63 S
N
170 40.23 W
170 37.92 W
170 35.61 W
14 23.94 S
19 August, 2010 - Thurs.
Voyage # 5330
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
1
2
3
15
16
Wind: Southeast @ 7 - 10 kts.


14 21.63 S
N
170 40.23 W
170 37.92 W
170 35.61 W
14 23.94 S
1
2
16
15
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
21 August, 2010 - Sat.
Voyage # 5331
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: Southeast @ 10- 15 kts.


170 40.23 W
170 37.92 W
170 35.61 W
421.83 S
423.94 S
24 August, 2010 - Tues.
Voyage # 5332
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
16
15
31
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
Wind: East @ 15 - 18 kts.


14 21.63 S
N
170 40.23 W
170 37.92 W
170 35.61 W
26 August, 2010 - Thurs.
Voyage # 5333
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
16
15
1
2
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
14 23.94 S
Wind: East @ 20 kts.


N
170 39.60 W
170 36.15 W
170 32.70 W
4 22.50 S
4 25.95 S
28 August, 2010 - Sat.
Voyage # 5334
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
3
15
16
Wind: East @ 12 - 15 kts.

OCEAN DUMPING MONTHLY SUMMARY

Month: AUG, 2010

	SK:	TOTAL:
NUMBER OF TRIPS:	13	**13**
GALLONS-FOR THE MONTH:	2,316,000	**2,316,000**
GALLONS FOR SOLO TRIPS:	2,316,000	

RUNNING TIME 68 hrs.

AVERAGE DISCHARGE TIME 2.85 hrs.

AVERAGE GPM DISCHARGE RATE: 108.7 gallons/minute/knot

AVERAGE TRIP TIME: 5.23 hrs.

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK:
100.00%
100

MASTER :

STAR KIST SAMOA CO
WATER TREATMENT DEPARTMENT

BLUE MOON - OCEAN DUMPING LOG

Reporting Date Sep 01,2010

Date	1st Trip	Loading Time	Volume	2nd Trip	Loading Time	Volume
1-Aug-10	1st Trip	1500\1610	40000	2nd Trip	NONE	0
2-Aug-10	1st Trip	1500\1900	97500	2nd Trip	NONE	0
3-Aug-10	1st Trip	1600\1730	42500	2nd Trip	NONE	0
4-Aug-10	1st Trip	1500\1945	141250	2nd Trip	NONE	0
5-Aug-10	1st Trip	1500\1715	58750	2nd Trip	NONE	0
6-Aug-10	1st Trip	1500\2000	135000	2nd Trip	NONE	0
7-Aug-10	1st Trip	NONE	0	2nd Trip	NONE	0
8-Aug-10	1st Trip	1620\1915	87500	2nd Trip	NONE	0
9-Aug-10	1st Trip	1545\1930	101250	2nd Trip	NONE	0
10-Aug-10	1st Trip	1640\1830	61250	2nd Trip	NONE	0
11-Aug-10	1st Trip	1520\2020	127000	2nd Trip	NONE	0
12-Aug-10	1st Trip	1630\1900	77500	2nd Trip	NONE	0
13-Aug-10	1st Trip	1515\1915	95000	2nd Trip	NONE	0
14-Aug-10	1st Trip	NONE	0	2nd Trip	NONE	0
15-Aug-10	1st Trip	1515\1645	52500	2nd Trip	NONE	0
16-Aug-10	1st Trip	1600\2030	130500	2nd Trip	NONE	0
17-Aug-10	1st Trip	1630\1745	36250	2nd Trip	NONE	0
18-Aug-10	1st Trip	1600\2100	135000	2nd Trip	NONE	0
19-Aug-10	1st Trip	1530\1700	52500	2nd Trip	NONE	0
20-Aug-10	1st Trip	1530\2045	121250	2nd Trip	NONE	0
21-Aug-10	1st Trip	NONE	0	2nd Trip	NONE	0
22-Aug-10	1st Trip	1500\1640	50000	2nd Trip	NONE	0
23-Aug-10	1st Trip	1515\1930	146250	2nd Trip	NONE	0
24-Aug-10	1st Trip	1545\1745	75000	2nd Trip	NONE	0
25-Aug-10	1st Trip	1530\1930	122000	2nd Trip	NONE	0
26-Aug-10	1st Trip	1630\1830	70000	2nd Trip	NONE	0
27-Aug-10	1st Trip	1610\2000	121250	2nd Trip	NONE	0
28-Aug-10	1st Trip	NONE	0	2nd Trip	NONE	0
29-Aug-10	1st Trip	NONE	0	2nd Trip	NONE	0
30-Aug-10	1st Trip	1430\1700	80000	2nd Trip	NONE	0
31-Aug-10	1st Trip	1500\1900	117500	2nd Trip	NONE	0
TOTAL	**1st Trip**		**2,374,500**	**2nd Trip**		**0**
					Total 1st & 2nd	2,374,500

cc:
Blue Moon- Captain
File

Prepared by W.W.T

Date: 08/03/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5323

Permit # OD 93-01 & OD 93-02

	Time	
7/31	1600	Begin 1st Loading SK
	1800	Finish 1st Loading SK
8/1	1500	Begin 2nd Loading SK
	1900	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	196,500	Gallons
SP	0	Gallons
Total	196,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
0605	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	5%	29.62	Metric	kts	True*
0655	Arrive Edge of Zone	# 1	14*22.57' S	170*38.64 W	SE-5		29.64	S+SE-1.5	8.4	158
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "		29.65	" "	8.3	164
0715	Begin Discharge	# 3	14*24.65' S	170*37.45' W	" "		"	" " X	8.5	135
" 30		# 4	14*24.74' S	170*37.96' W	" "		"	" "	8.4	228
" 45	Remarks:	# 5	14*24.62' S	170*37.01' W	" "	10%	29.63		9.2	021
0800		# 6	14*24.73' S	170*38.06' W	" "	"	"		8.6	194
" 15		# 7	14*24.36' S	170*37.00' W	" "	15	29.62	5	9.3	013
" 30		# 8	14*25.27' S	170*37.78' W	SE-7	"	29.64		8.5	176
" 45		# 9	14*24.20' S	170*37.22 W	" "	"	"		9.0	224
0900		# 10	14*25.00 S	170*37.27' W		20	"		9.4	032
" 15		# 11	14*24.39' S	170*37.43' W		30	29.65		9.1	217
" 30		# 12	14*24.66' S	170*37.05' W		40		10	9.6	014
" 45		# 13	14*24.97' S	170*38.00' W		"			9.1	219
1000		# 14	14*24.48' S	170*36.91' W		"			9.6	006
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1005	Finish Discharge	#15	14*23.88' S	170*36.98' W	SE-7	40%	29.64	S+SE-1.5	8.9	274
1015	Exit Discharge Zone	#16	14*22.65' S	170*37.78' W	" "	"	"	" " "	9.8	333
1105	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.0 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 128.4 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

98-7

Date: 08/05/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5324

Permit # OD 93-01 & OD 93-02

	Time	
8/3	1600	Begin 1st Loading SK
	1730	Finish 1st Loading SK
8/4	1500	Begin 2nd Loading SK
	1945	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:		
SK	183,750	Gallons
SP	0	Gallons
Total	183,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0510	Depart Starkist		14*16.50' S	170* 41.2' W	East-12	30	29.68			
0602	Arrive Edge of Zone	# 1	14*22.58' S	170*38.66' W	East-15	"	29.69	E/SE-1.5	8.4	161
0613	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"		8.1	159
0635	Begin Discharge	# 3	14*24.20' S	170*37.24' W	" "	35	29.70	X	7.7	042
" 50		# 4	14*23.97' S	170*37.51' W	" "	"	"		8.3	181
0705	Remarks: Ocean	# 5	14*24.58' S	170*37.00 W	" "	"	"		8.4	017
" 20	Monitoring +	# 6	14*23.53' S	170*37.45' W	" "	"	"		8.4	183
" 35	Sampling	# 7	14*24.58' S	170*37.06' W	" "	40	"	5	8.6	009
" 50	Control Samples	# 8	14*23.59' S	170*37.57' W	" "	"	"		8.7	181
0805	drawn at:	# 9	14*24.84' S	170*37.19' W	" "	"	"		8.5	037
" 20	0625 hrs. @	# 10	14*23.26' S	170*37.45' W	East-18	"			8.8	182
" 35	Pos: 14°24.11'S	# 11	14*24.85 S	170*37.26 W		"			8.6	028
" 50	× 170°37.21'W	# 12	14*23.10 S	170*37.23 W		"		10	9.4	310
0905		# 13	14*24.84 S	170*37.54' W		30			9.1	179
" 20		# 14	14*23.16' S	170*37.17' W					9.4	308
" 35		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0925	Finish Discharge	#15	14*23.35' S	170*37.02' W	East-18	30%	29.70	E/SE-1.5	8.7	147
1025	Exit Discharge Zone	#16	14*22.57' S	170*38.63 W	" "	"	"	" "	9.2	338
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 8.66 kts. Total Time Run 6.15 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 125 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cools

Date: 08/07/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5325

Permit # OD 93-01 & OD 93-02

	Time	
8/5	1500	Begin 1st Loading SK
	1715	Finish 1st Loading SK
8/6	1500	Begin 2nd Loading SK
	2000	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	193,750	Gallons
SP	0	Gallons
Total	193,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	East-12	75	29.63			
0705	Arrive Edge of Zone	# 1	14*22.57' S	170*38.69' W	EAST-18	80	29.65	SE-2.5	8.4	163
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"		ESE-3.0	8.1	160
0720	Begin Discharge	# 3	14*24.08' S	170*37.22' W	EAST-20	"		X	7.8	090
" 35		# 4	14*23.27' S	170*37.19' W	" "	75			7.6	091
" 50	Remarks:	# 5	14*24.36' S	170*38.01' W					8.7	201
0805		# 6	14*23.96' S	170*37.31' W			29.66		8.8	304
20		# 7	14*23.47' S	170*36.85' W		70	29.67	5	8.3	220
35		# 8	14*24.85' S	170*37.90' W	East-25	"	"		7.9	087
50		# 9	14*23.87' S	170*37.70' W	" "	"	"		9.2	314
0905		# 10	14*23.19' S	170*37.21' W		"	29.68		7.8	086
20		# 11	14*24.52' S	170*38.12' W		80	"		9.0	191
35		# 12	14*23.74' S	170*37.83' W	East-20	90-Rain	29.69	10	9.5	304
50		# 13	14*23.71' S	170*37.31' W	E-25	75			9.4	278
1005		# 14	14*24.66' S	170*37.25 W	" "	85-Rain			8.6	073
20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*23.35' S	170*38.11 W	East-25	90%	29.69	ESE-3.0	9.7	332
1028	Exit Discharge Zone	#16	14*22.59' S	170*38.45 W	" "	"	"	" "	9.6	336
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Figure 8

Total Discharge Time: 180 mins. Average Speed During Discharge: 8.6 kts. Total Time Run 5.16 hr.

Navigational Plot made: YES Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 125 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 08/10/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5326

Permit # OD 93-01 & OD 93-02

	Time	
8/8	1620	Begin 1st Loading SK
	1915	Finish 1st Loading SK
	1545	Begin 2nd Loading SK
8/9	1930	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
	SK	188,750	Gallons
	SP	0	Gallons
	Total	188,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	SE-5	100-RAIN	29.64			
0705	Arrive Edge of Zone	# 1	14*22.56' S	170*38.72' W	SSE-7	100%	"	SE-1.5	8.4	163
0715	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.3	158
0725	Begin Discharge	# 3	14*24.77' S	170*37.53' W	" "	"	29.66	" " X	8.1	135
40		# 4	14*24.45' S	170*37.74' W	SE-10	"	29.67	" "	8.7	226
55	Remarks:	# 5	14*24.77' S	170*37.06' W	" "	"	29.68	" "	8.5	013
0810		# 6	14*24.43' S	170*37.70' W	SE-8	95%	29.69	" "	9.0	224
25		# 7	14*25.02' S	170*37.34' W	SE-10	"	"	" " 5	8.6	046
40		# 8	14*24.80' S	170*37.82' W	" "	"	29.68		8.9	223
55		# 9	14*24.76' S	170*37.03 W	" "	100	29.67		8.7	028
0910		# 10	14*24.66' S	170*37.86' W	" "	90	29.68		9.3	220
25		# 11	14*24.72' S	170*37.07' W	" "	"	"		9.9	023
40		# 12	14*24.80' S	170*38.08 W	" "	"	"	10	9.1	217
55		# 13	14*24.57' S	170*36.76' W	SE-12	80	"		9.3	026
1010		# 14	14*24.72' S	170*37.87 W	" "	75	"		8.9	221
25		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*24.49' S	170*37.68' W	SE-12	70%	29.68	SE-1.5	9.2	025
1035	Exit Discharge Zone	#16	14*22.56' S	170*38.31' W	" "	"	29.67	" "	9.6	336
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 8.87 kts. Total Time Run 5.25 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 121.6 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 08/12/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5327

Permit # OD 93-01 & OD 93-02

	Time	
8/10	1640	Begin 1st Loading SK
	1830	Finish 1st Loading SK
8/11	1520	Begin 2nd Loading SK
	2020	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	188,250	Gallons
SP	0	Gallons
Total	188,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0600	Depart Starkist		14*16.50' S	170*41.2' W	SE 20	100	29.68			
0700	Arrive Edge of Zone	# 1	14*22.53' S	170*38.69 W	" "	"	29.67	SE-2.5+	8.0	161
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.68	" "	7.8	164
0720	Begin Discharge	# 3	14*24.48' S	170*37.32' W	SE-22	"	29.69	" " X	7.7	110
35		# 4	14*25.08' S	170*38.00' W	" "	"	"	" "	7.5	112
50	Remarks:	# 5	14*24.19' S	170*38.25' W	" "		"	" "	8.8	315
0805		# 6	14*24.66' S	170*37.55' W			"	"	8.7	272
20		# 7	14*25.05' S	170*37.69' W			29.68	5	7.6	115
35		# 8	14*24.15' S	170*38.20' W			"		8.5	330
50		# 9	14*24.60' S	170*37.92' W					9.0	267
0905		# 10	14*25.02' S	170*37.58' W	SE-25				8.9	316
20		# 11	14*24.36' S	170*37.46' W	" "				8.4	110
35		# 12	14*24.74' S	170*38.32' W				10	9.2	253
50		# 13	14*24.16' S	170*38.20' W		100-Lt. Rain			9.1	313
1005		# 14	14*24.59' S	170*37.27' W		100%			9.3	264
20		# 15	14*2 S	170*3 W						
35		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1015	Finish Discharge	#15	14*23.97' S	170*38.26' W	SE-25	100%	29.69	SE-2.5+	9.2	334°
1023	Exit Discharge Zone	#16	14*22.63' S	170*38.63' W	" "	"	"	" "	9.5	333°
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure 8

Total Discharge Time: 175 mins. Average Speed During Discharge: 8.6 kts. Total Time Run 5.25 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 125 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 08/14/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5328

Permit # OD 93-01 & OD 93-02

	Time	
8/12	1630	Begin 1st Loading SK
	1900	Finish 1st Loading SK
	1515	Begin 2nd Loading SK
8/13	1915	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	172,500	Gallons
SP	0	Gallons
Total	172,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	SE-26	25	29.69			
0658	Arrive Edge of Zone	# 1	14*22.57' S	170*38.78' W	SE-22	"	"	SE-3.0	8.2	161
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"		8.0	168
0720	Begin Discharge	# 3	14*24.47' S	170*37.31' W	" "	"	"	" " X	7.8	115
" 35		# 4	14*25.08' S	170*37.85' W		"			7.5	116
" 50	Remarks:	# 5	14*24.20' S	170*38.17' W		"			8.8	320
0805		# 6	14*24.69' S	170*37.85' W		"			9.1	264
" 20		# 7	14*25.21' S	170*37.75' W		30		5	8.0	115
" 35		# 8	14*24.09' S	170*38.03' W		"		SE-2.5	7.7	163
" 50		# 9	14*24.73' S	170*38.21' W		40		" "	9.6	264
0905		# 10	14*24.54' S	170*37.95' W	SE-25	60		" "	9.2	322
" 20		# 11	14*24.46' S	170*37.16' W	" "	"		" "	8.1	114
" 35		# 12	14*25.18 S	170*37.78 W	" "		29.68	10	8.4	112
" 50		# 13	14*24.23' S	170*38.21' W	" "				9.2	334
1005		# 14	14*24.76' S	170*37.70' W	" "	70%			9.8	267
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1010	Finish Discharge	#15	14*24.18' S	170*38.27' W	SE-25	70%	29.68	SE-2.5	9.1	339
1021	Exit Discharge Zone	#16	14*22.60' S	170*38.63' W	" "	"	"	" "	9.3	340
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure 8

Total Discharge Time: 170 mins. Average Speed During Discharge: 8.64 kts. Total Time Run 5.15 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 117 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 08/17/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5329

Permit # OD 93-01 & OD 93-02

Trip # 1 - ✓

Trip # 2

	Time	
8/15	1515	Begin 1st Loading SK
	1645	Finish 1st Loading SK
8/16	1600	Begin 2nd Loading SK
	2030	Finish 2nd Loading SK

Volume Loaded: SK 183,000 Gallons; Gallons; Total 183,000 Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	East-7	60	29.69			
0658	Arrive Edge of Zone	# 1	14*22.54' S	170*38.67' W	East-12	"	"	E+SE-2.0	8.7	166
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"		8.3	161
0718	Begin Discharge	# 3	14*24.08' S	170*37.21' W	" "	"	"	X	8.5	090
" 33		# 4	14*24.17' S	170*37.54' W	" "	"	"		8.3	181
" 48	Remarks:	# 5	14*23.98' S	170*36.87' W	East-15	"	"		8.6	003
0803		# 6	14*23.64' S	170*37.42' W	" "	70	"		8.5	184
" 18		# 7	14*24.02' S	170*36.95' W	" "	80	"	5	8.8	001
" 33		# 8	14*23.80' S	170*37.47' W		90	←	29.70	8.7	182
" 48		# 9	14*24.27' S	170*36.92' W		80	29.70		8.8	359
0903		# 10	14*23.76' S	170*37.54' W		90	"		9.0	181
" 18		# 11	14*24.40' S	170*37.01' W		" RAIN	29.69		8.8	023
" 33		# 12	14*24.66' S	170*37.60' W		90	"	10	9.2	179
" 48		# 13	14*24.45' S	170*37.05' W		80	"		9.0	029
1003		# 14	14*23.54' S	170*37.57' W		75			9.1	182
" 18		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1013	Finish Discharge	#15	14*23.27' S	170*37.53' W	East-15	70%	29.69	E+SE-2.0	9.2	356
1018	Exit Discharge Zone	#16	14*22.68' S	170*37.75' W	" "	"	"	" "	9.4	341
1110	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 5.0 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 119 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 08/19/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5330

Permit # OD 93-01 & OD 93-02

	Time	
8/17	1630	Begin 1st Loading SK
	1745	Finish 1st Loading SK
	1600	Begin 2nd Loading SK
8/18	2100	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	171,250	Gallons	
		Gallons	
Total	171,250	Gallons	

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	East-5	70	29.65			
0653	Arrive Edge of Zone	# 1	14*22.52' S	170*38.65' W	SE-7	"	29.66	SE-1.5	8.8	162
0703	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W			29.67		8.6	163
0712	Begin Discharge	# 3	14*24.71' S	170*37.46' W			29.68	X	8.5	135
" 27		# 4	14*24.52' S	170*37.73' W			"		8.7	219
" 42	Remarks:	# 5	14*24.64' S	170*37.08' W		60%	"		8.6	006
" 57		# 6	14*25.08' S	170*38.02' W		"	29.67		8.3	174
0812		# 7	14*24.17' S	170*36.89' W		50%	29.66	5	8.9	359
" 27		# 8	14*25.14' S	170*38.19' W	SE-10	40	29.65		8.8	207
" 42		# 9	14*24.13' S	170*37.04' W	" "		29.67		8.6	247
" 57		# 10	14*24.91' S	170*37.34' W			"		9.0	051
0912		# 11	14*24.62' S	170*37.79' W			29.68		9.1	204
" 27		# 12	14*24.80' S	170*37.26 W				10	9.3	048
" 42		# 13	14*24.92' S	170*38.10' W		50%	29.69		9.5	219
" 57		# 14	14*24.33' S	170*36.92' W		"	29.68		9.3	002
1012		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1000	Finish Discharge	#15	14*24.01' S	170*37.08' W	SE-10	60%	29.67	SE-1.5	8.9	283
1010	Exit Discharge Zone	#16	14*22.65' S	170*37.90' W	" "	"	"	" "	9.7	330
1210	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 168 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 6.1 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 114.5 Gallons/min/kt.

Unusual Occurrences? None (Fueling @ 1100 - 1200 hrs.)

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 08/21/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5331

Permit # OD 93-01 & OD 93-02

	Time	
8/19	1530	Begin 1st Loading SK
	1700	Finish 1st Loading SK
	1530	Begin 2nd Loading SK
8/20	2045	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	173,750	Gallons	
		Gallons	
Total	173,750	Gallons	

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	SE-7	30%	29.62			
0655	Arrive Edge of Zone	# 1	14*22.52' S	170*38.67 W	SE-10	"	29.64	SE-2.0	8.6	160
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.65	" "	8.2	158
0713	Begin Discharge	# 3	14*24.74' S	170*37.53' W	" "	40	"	" " X	8.4	135
" 28		# 4	14*24.50' S	170*37.71' W	" "		"		9.0	225
" 43	Remarks:	# 5	14*24.74' S	170*37.05' W	" "		"		8.3	022
" 58		# 6	14*24.65' S	170*37.88' W	SE-12		29.66		8.9	217
0813		# 7	14*24.84' S	170*37.20' W	" "	50	"	5	9.0	040
" 28		# 8	14*24.86' S	170*37.91' W	SE-15	70	"		9.2	223
" 43		# 9	14*24.05' S	170*36.96 W		"	"		8.4	264
" 58		# 10	14*25.16' S	170*37.61' W		60	29.65		8.6	049
0913		# 11	14*24.11' S	170*37.28' W		50	"		8.9	226
" 28		# 12	14*25.05' S	170*37.47' W		40	29.64	10	8.7	658
" 43		# 13	14*24.23' S	170*37.52' W		"	29.65		9.4	225
" 58		# 14	14*25.12' S	170*37.64' W		30	29.67		8.8	064
1013		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1005	Finish Discharge	#15	14*24.57' S	170*37.07' W	SE-15	25 %	29.66	SE-2.0	8.9	028
1018	Exit Discharge Zone	#16	14*22.61' S	170*37.87' W	" "	"	"	" "	9.2	339
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 172 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 5.2 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 115 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Croft

Date: 08/24/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5332

Permit # OD 93-01 & OD 93-02

	Time	
8/22	1500	Begin 1st Loading SK
	1640	Finish 1st Loading SK
8/23	1515	Begin 2nd Loading SK
	1730	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:			
SK	196,250	Gallons	
	—	Gallons	
Total	196,250	Gallons	

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	East-5	75	29.67			
0700	Arrive Edge of Zone	# 1	14*22.51' S	170*38.68' W	East-15	85	"	E+SE- 2.0	8.4	161
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	80	"	" "	8.4	165
0720	Begin Discharge	# 3	14*24.11' S	170*37.23 W	" "	80	29.68	" " X	8.1	090
" 35		# 4	14*23.74' S	170*37.56' W	" "	70	"		8.5	184
" 50	Remarks:	# 5	14*24.12' S	170*36.87' W	" "	"	"		8.2	000
0805		# 6	14*23.84' S	170*37.55' W	" "	60%	"		8.6	182
" 20		# 7	14*24.23' S	170*36.78' W	East-18	"	"	5	8.1	013
" 35		# 8	14*23.84' S	170*37.57' W	" "	50%	"		8.8	185
" 50		# 9	14*24.13' S	170*36.94' W	" "	"	"		8.3	004
0905		# 10	14*23.32' S	170*37.56 W		40%	"		9.1	183
" 20		# 11	14*24.63' S	170*37.12 W		"	29.67		8.4	032
" 35		# 12	14*23.32' S	170*37.61' W		30%	"	10	9.0	181
" 50		# 13	14*24.51' S	170*37.00' W		20%	29.65		8.7	006
1005		# 14	14*23.25' S	170*37.52' W		10%	"		8.9	180
" 20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*23.46' S	170*37.52' W	East-18	10%	29.65	E+SE-2.0	9.1	339
1027	Exit Discharge Zone.	#16	14*22.67' S	170*37.78' W	" "	"	29.66	" "	9.3	336
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 8.6 kts. Total Time Run 5.15 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 127 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crooke

Date: 08/26/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5333

Permit # OD 93-01 & OD 93-02

	Time	
8/24	1545	Begin 1st Loading SK
	1745	Finish 1st Loading SK
8/25	1530	Begin 2nd Loading SK
	1930	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	197,000	Gallons	
		Gallons	
Total	197,000	Gallons	

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	East-12	50%	29.66			
0655	Arrive Edge of Zone	# 1	14*22.53' S	170*38.72' W	East-20	"	29.68	E+SE-2.5+	8.3	162
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.1	156
0715	Begin Discharge	# 3	14*24.16' S	170*37.23' W	" "	40%	"	" " X	7.7	090
30		# 4	14*24.05' S	170*37.60' W			"		8.6	181
45	Remarks:	# 5	14*24.42' S	170*37.00' W			"		8.3	357
0800		# 6	14*23.31' S	170*37.60' W					8.5	183
15		# 7	14*24.96' S	170*37.05 W		50		5	8.3	002
30		# 8	14*23.21' S	170*37.70 W		70			8.4	180
45		# 9	14*24.98' S	170*37.20 W		80-RAIN			8.6	011
0900		# 10	14*23.46 S	170*37.12' W		80 –			9.1	326
15		# 11	14*24.79' S	170*37.70' W		"	29.69		9.0	181
30		# 12	14*23.54' S	170*37.00 W		75	"	10	9.1	322
45		# 13	14*24.61' S	170*37.68' W		"	"		9.3	178
1000		# 14	14*24.17' S	170*37.05 W			29.70		9.0	356
15		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1010	Finish Discharge	#15	14*23.08' S	170*37.24' W	East-20	75%	29.69	E+SE-2.5	9.3	320
1013	Exit Discharge Zone	#16	14*22.78' S	170*37.48' W	" "	"	"	" "	9.5	318
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 8.7 kts. Total Time Run 5.15 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 129.4 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 08/28/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5334

Permit # OD 93-01 & OD 93-02

Time	
1630	Begin 1st Loading SK
1530	Finish 1st Loading SK
1610	Begin 2nd Loading SK
2000	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
	SK	191 250	Gallons
			Gallons
	Total		Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	70	29.67			
0702	Arrive Edge of Zone	# 1	14*22.54' S	170*38.66' W	East-12	60	29.69	E+SE-1.5	8.5	162
0712	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	" "	" "	8.3	164
0720	Begin Discharge	# 3	14*24.10' S	170*37.18' W	" "		" "		8.1	090
" 35		# 4	14*23.98' S	170*37.72' W	" "		" "	X	8.8	184
" 50	Remarks:	# 5	14*24.57' S	170*37.01' W	" "		" "		8.4	007
0805		# 6	14*23.06' S	170*37.30 W	" "	"			8.8	321
" 20		# 7	14*24.90' S	170*37.69' W	" "	70		5	8.6	181
" 35		# 8	14*23.63' S	170*36.96' W	" "	"			8.9	349
" 50		# 9	14*24.52' S	170*37.66' W	East-15	75			9.1	180
0905		# 10	14*23.98' S	170*36.95' W	" "	"			8.8	358
" 20		# 11	14*24.06' S	170*37.58' W	" "	70			9.4	182
" 35		# 12	14*24.24' S	170*37.01 W			29.70	10	8.8	356
" 50		# 13	14*23.79' S	170*37.65' W					9.4	180
1005		# 14	14*24.97' S	170*37.12' W					8.5	013
" 20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*23.04' S	170*37.28' W	East-15	70%	29.70	E+SE-1.5	9.3	311
1022	Exit Discharge Zone	#16	14*22.74' S	170*37.49' W	" "	"	"	" "	9.3	330
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge WEST Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 5.15 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 120 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 08/31/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5335

Permit # OD 93-01 & OD 93-02

Time	
1430	Begin 1st Loading SK
1700	Finish 1st Loading SK
1500	Begin 2nd Loading SK
1900	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:			
	SK	80000	Gallons
			Gallons
	Total		Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W						
0654	Arrive Edge of Zone	# 1	14*22.	S	170*38.	W	NE 10	50	29.72	1.5	9.5	160°
0705	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	NE 10	50	29.72	1.5	9	75°
0714	Begin Discharge	# 3	14*23.4	S	170*37.3	W	NE 10	50	29.75	1 X	9.7	322°
29		# 4	14*23.6	S	170*37.8	W	NE 15	50	29.75	1	9.5	165°
44	Remarks:	# 5	14*24.2	S	170*37.1	W	NE 15	50	29.75	1	9.6	359°
0759		# 6	14*23.5	S	170*37.8	W	NE 15	50	29.75	1	9.5	165°
0814		# 7	14*24.8	S	170*37.2	W	NE 15	50	29.75	1 5	9.5	008°
29		# 8	14*22.6	S	170*37.8	W	NE 15	50	29.75	1	9.6	300°
44		# 9	14*24.9	S	170*37.4	W	NE 15	50	29.75	1	9.7	133°
59		# 10	14*23.2	S	170*37.4	W	NE 15	50	29.75	1	10	325°
0914		# 11	14*24.8	S	170*37.4	W	NE 15	50	29.75	1	9.9	331°
29		# 12	14*23.3	S	170*37.3	W	NE 15	50	29.75	1 10	9.8	331°
		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0934	Finish Discharge	13	14*2 2.8	S	170*3 7.6	W	NE 15	50	29.75	1	9.8	330°
0975	Exit Discharge Zone	14	14*2 2.7	S	170*3 7.7	W	NE 15	50	29.75	1	9.8	331°
1030	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center SW End of Discharge SW Discharge Pattern Ellipse

Total Discharge Time: 139 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 4.3 hr.

Navigational Plot made: yes Presence of Plume? NON

Time and position of any floating material: NON Discharge Rate: 59.9 Gallons/min/kt.

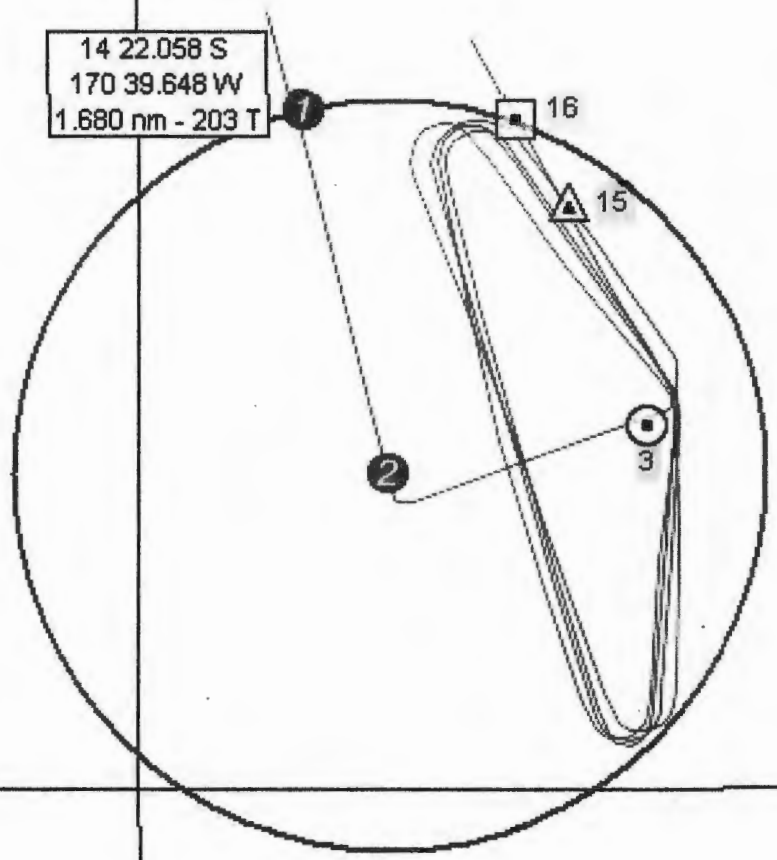
Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

14 21.36 S

31 August, 2010
Voyage # 5335
Starkist, Trip #1

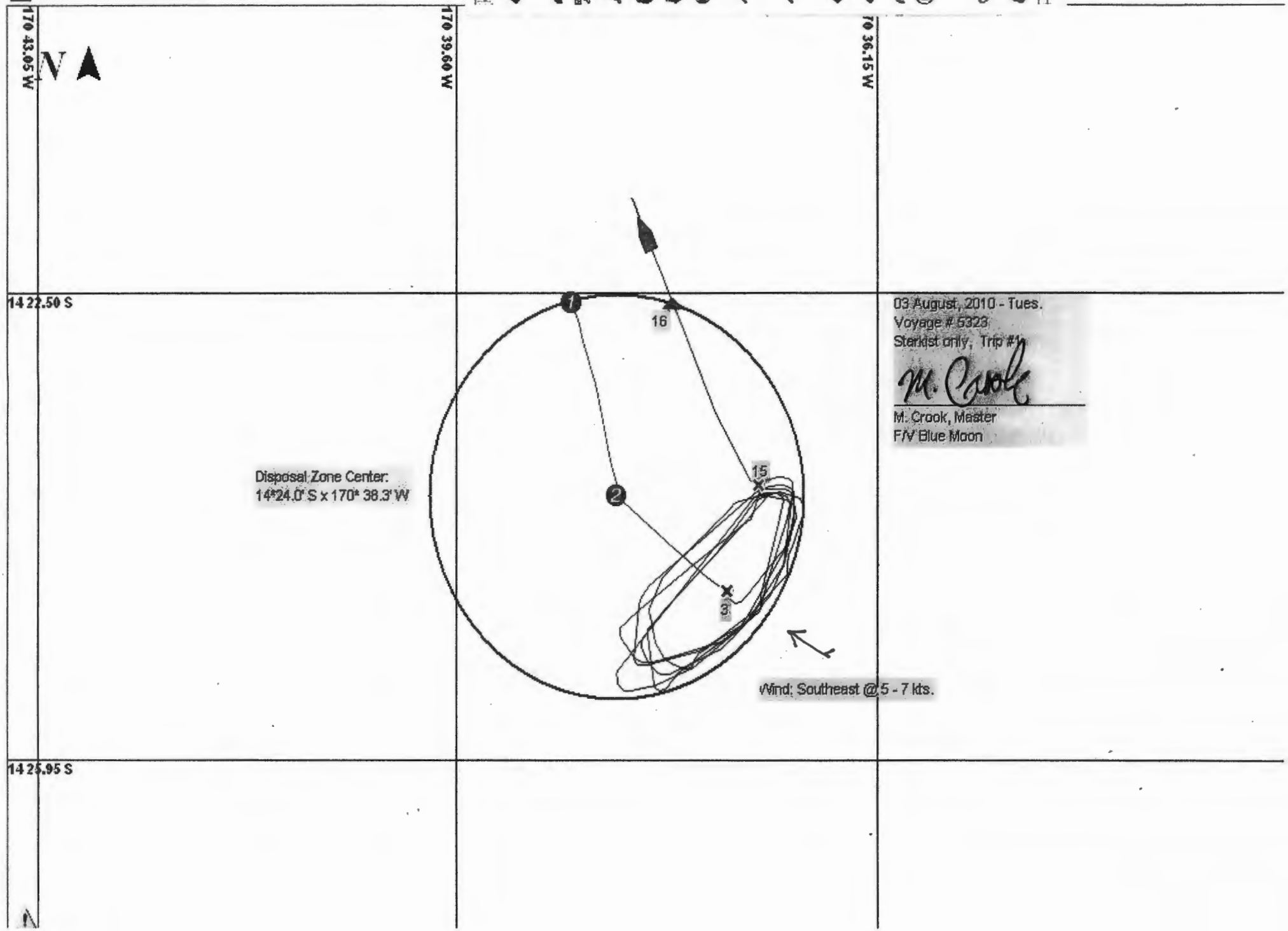
Master, F/V Blue Moon

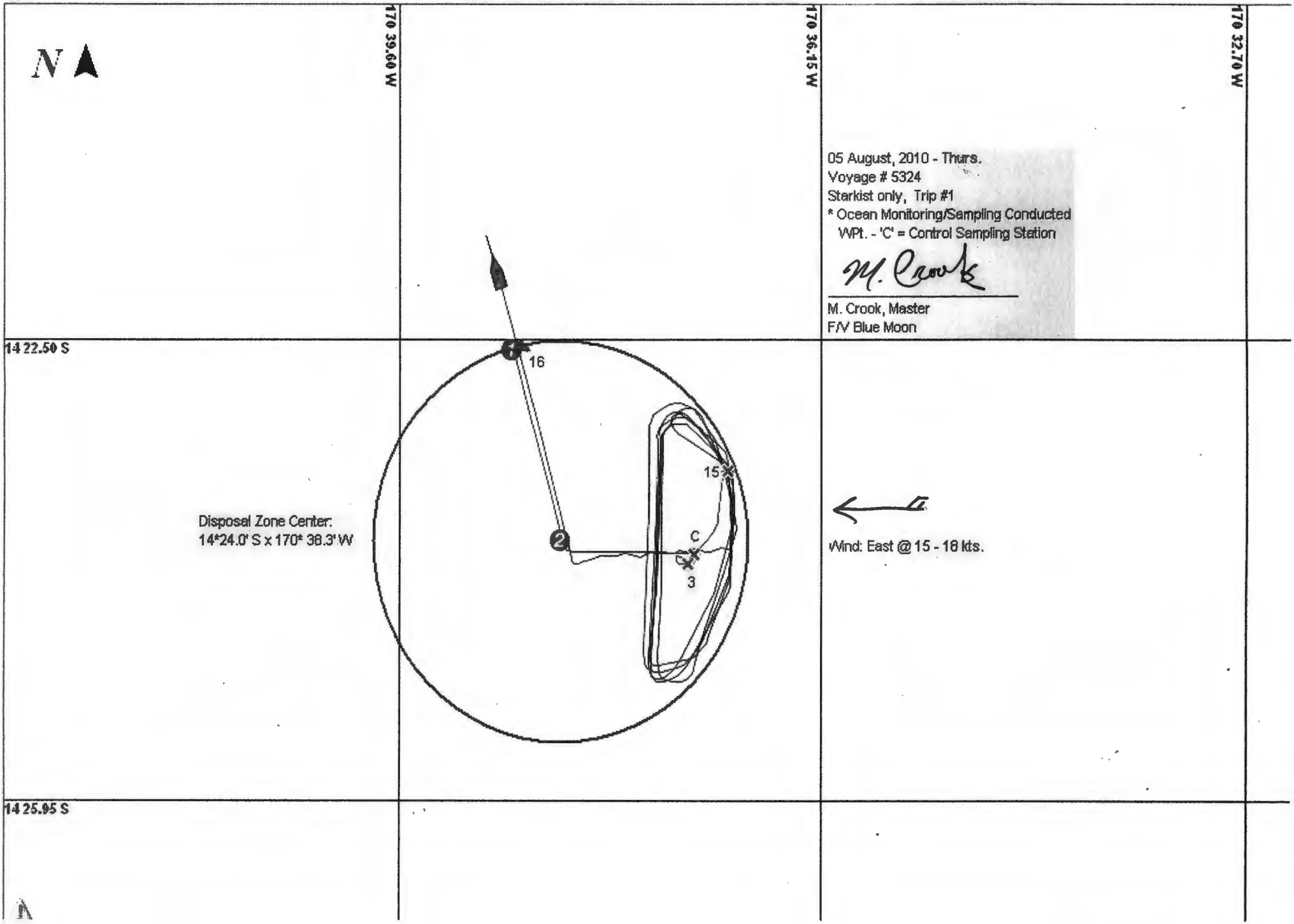


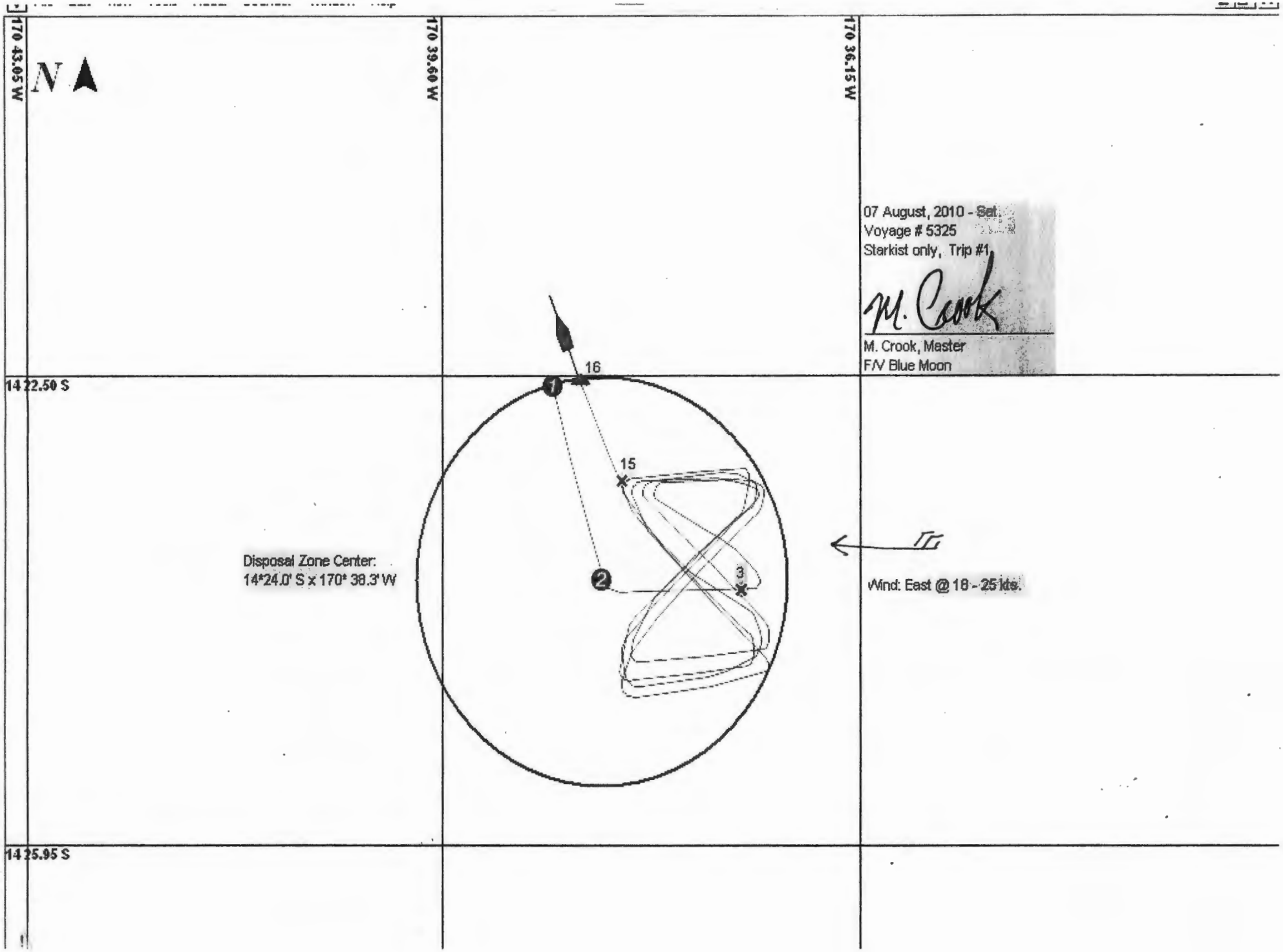
N E East @ 15

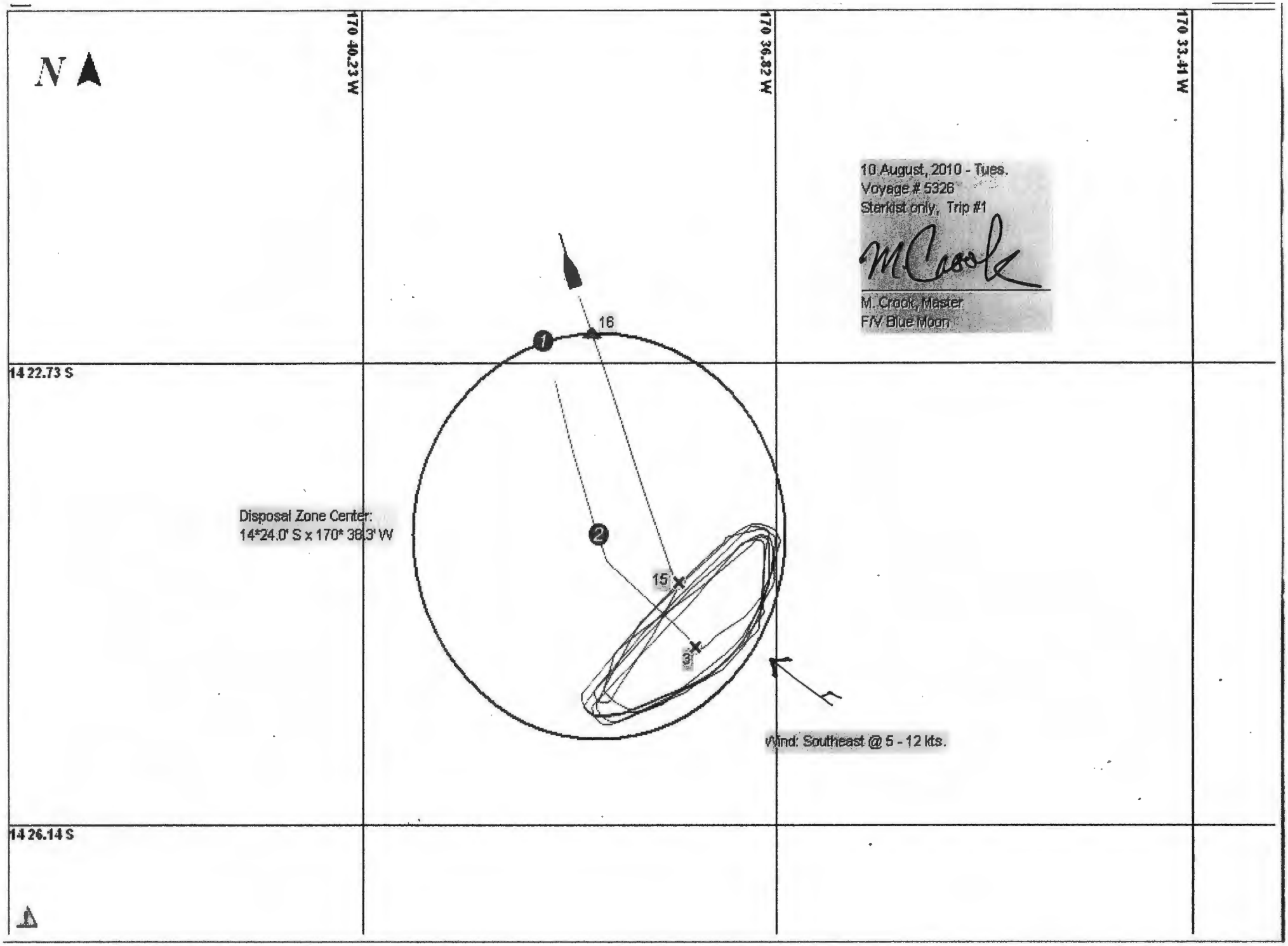
Disposal Zone Center:
14*24.0' S x 170* 38.3' W

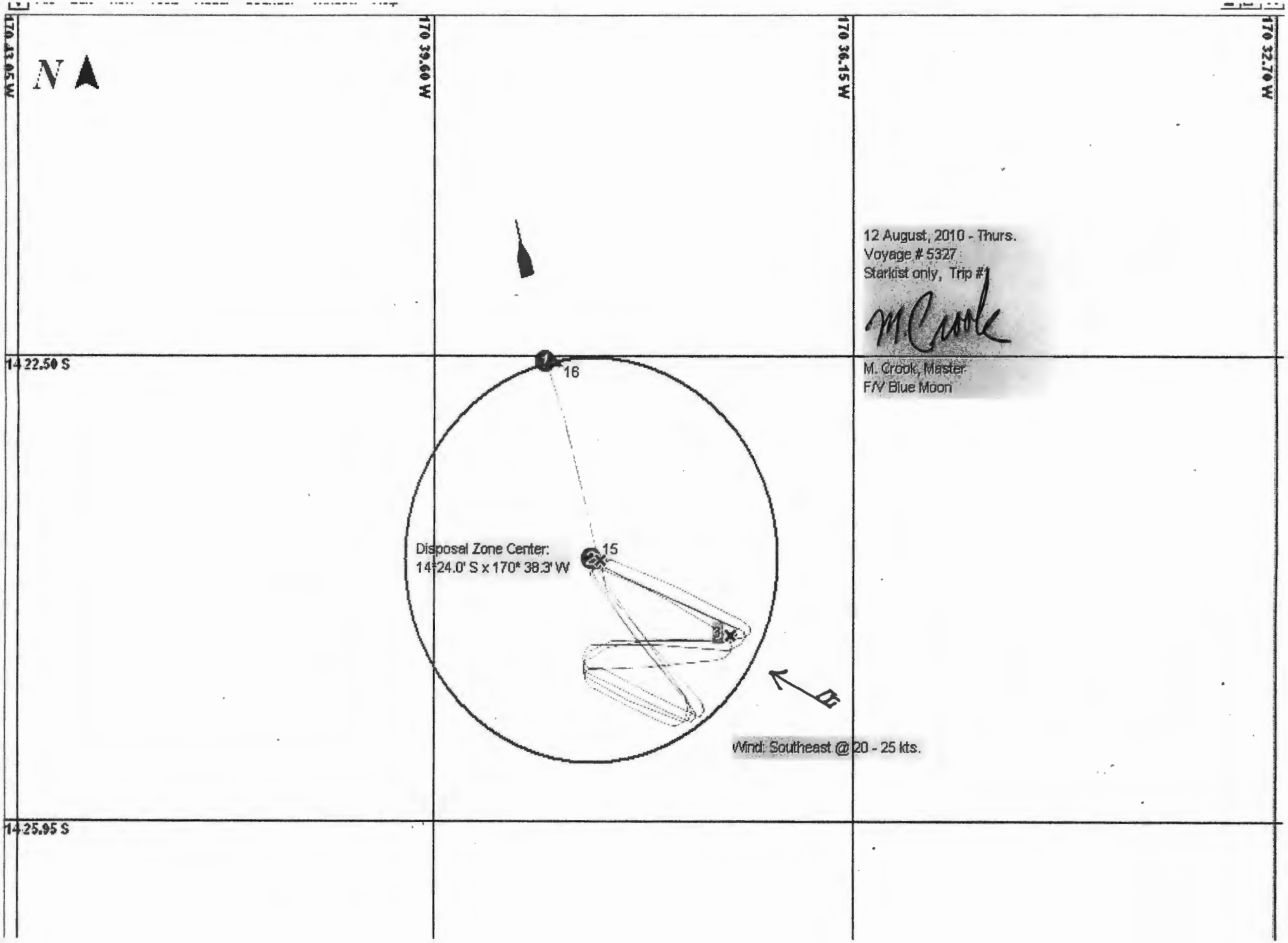
14 25.24 S


170 43.05 W
170 39.60 W
170 36.15 W
N
14 22.50 S
14 25.95 S
1
2
3
15
16
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: Southeast @ 5 - 7 kts.
03 August, 2010 - Tues.
Voyage # 5323
Sterkjst only, Trip #1
M. Crook, Master
F/V Blue Moon


N
170 39.60 W
170 36.15 W
170 32.70 W
14 22.50 S
14 25.95 S
05 August, 2010 - Thurs.
Voyage # 5324
Starkist only, Trip #1
* Ocean Monitoring/Sampling Conducted
WPt. - 'C' = Control Sampling Station
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
1
2
16
15
C
3
Wind: East @ 15 - 18 kts.


170 43.05 W
170 39.60 W
170 36.15 W
N
14 22.50 S
14 25.95 S
07 August, 2010 - Sat.
Voyage # 5325
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
16
15
3
1
2
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: East @ 18 - 25 kts.


N
170 40.23 W
170 36.82 W
170 33.41 W
14 22.73 S
14 26.14 S
10 August, 2010 - Tues.
Voyage # 5326
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
1
2
15
16
Wind: Southeast @ 5 - 12 kts.


170 43.05 W
170 39.60 W
170 36.15 W
170 32.70 W
N
14 22.50 S
14 25.95 S
12 August, 2010 - Thurs.
Voyage # 5327
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
16
15
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: Southeast @ 20 - 25 kts.

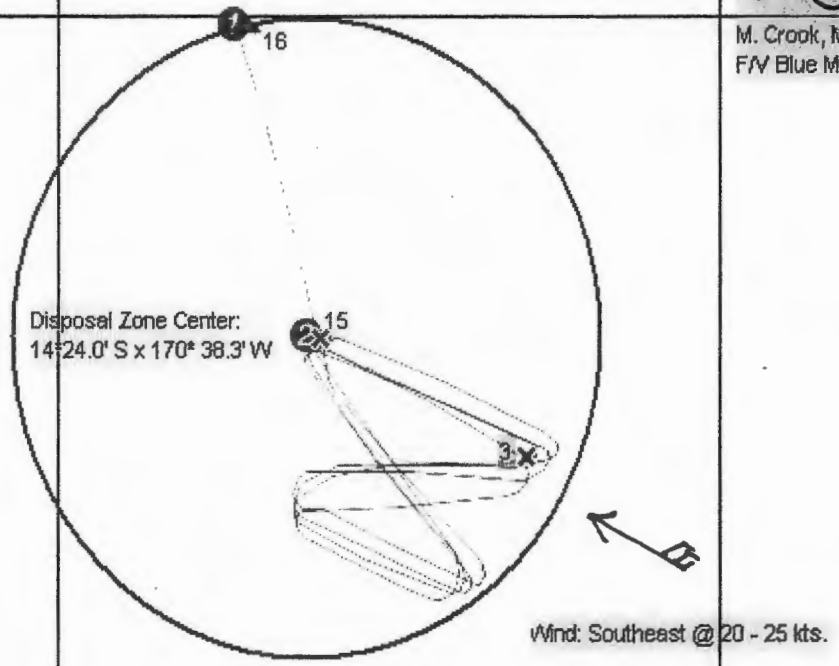
170 43.05 W | 170 39.60 W | 170 36.15 W | 170 32.70 W

N

12 August, 2010 - Thurs.
Voyage # 5327
Starkist only, Trip #1

M. Crook, Master
F/V Blue Moon

14 22.50 S



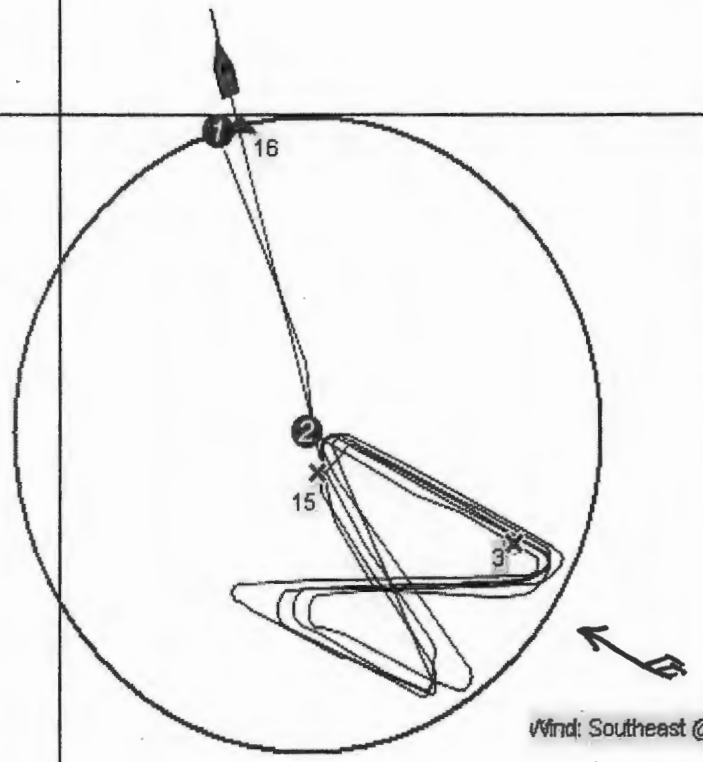
14 25.95 S

170 42.05 W | 170 39.60 W | 170 36.15 W | 170 32.70 W

N

14 22.50 S

Disposal Zone Center:
14*24.0' S x 170* 38.3' W



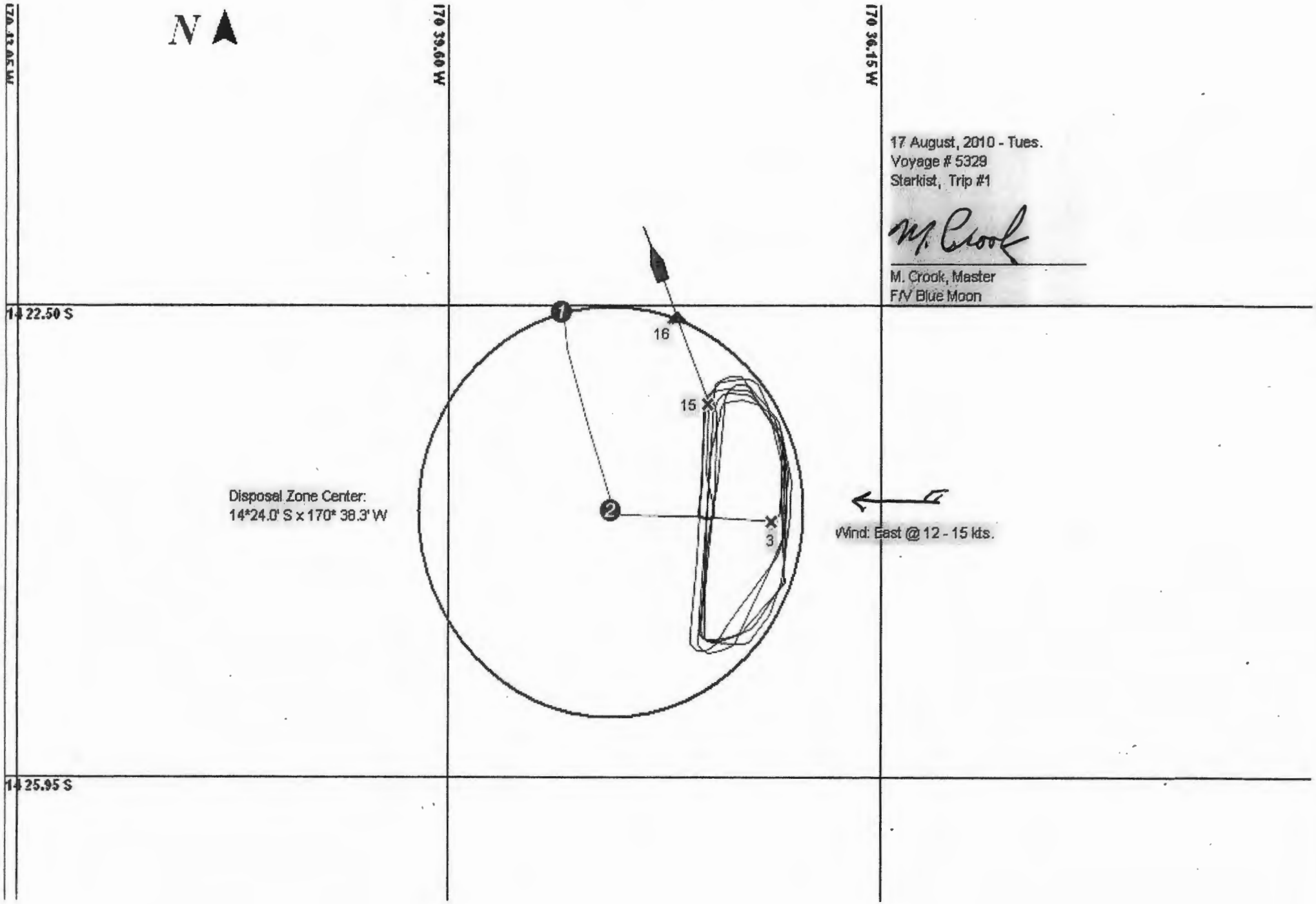
Wind: Southeast @ 20 - 25 kts.

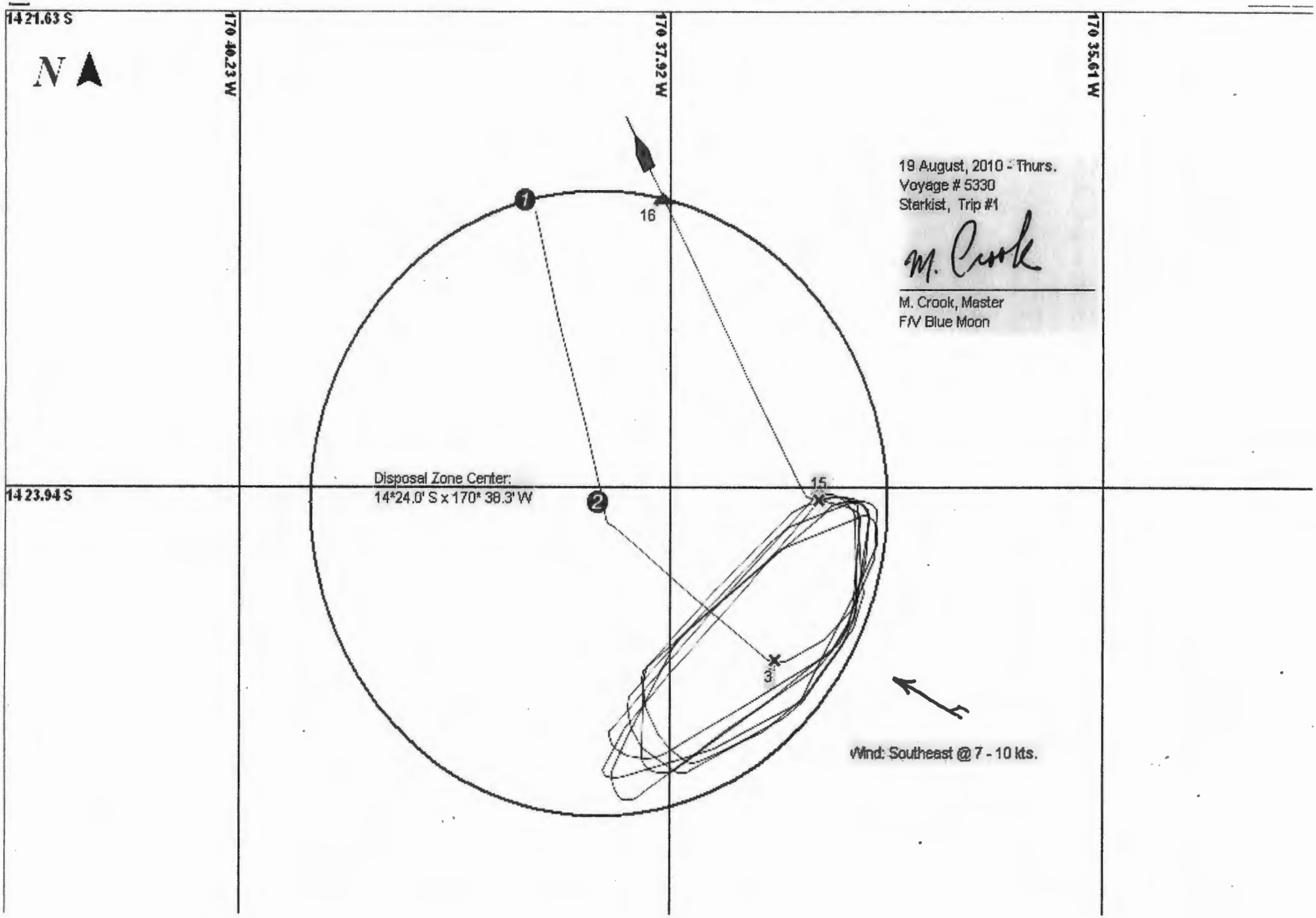
14 August, 2010 - Sat.
Voyage # 5328
Starkist, Trip #1

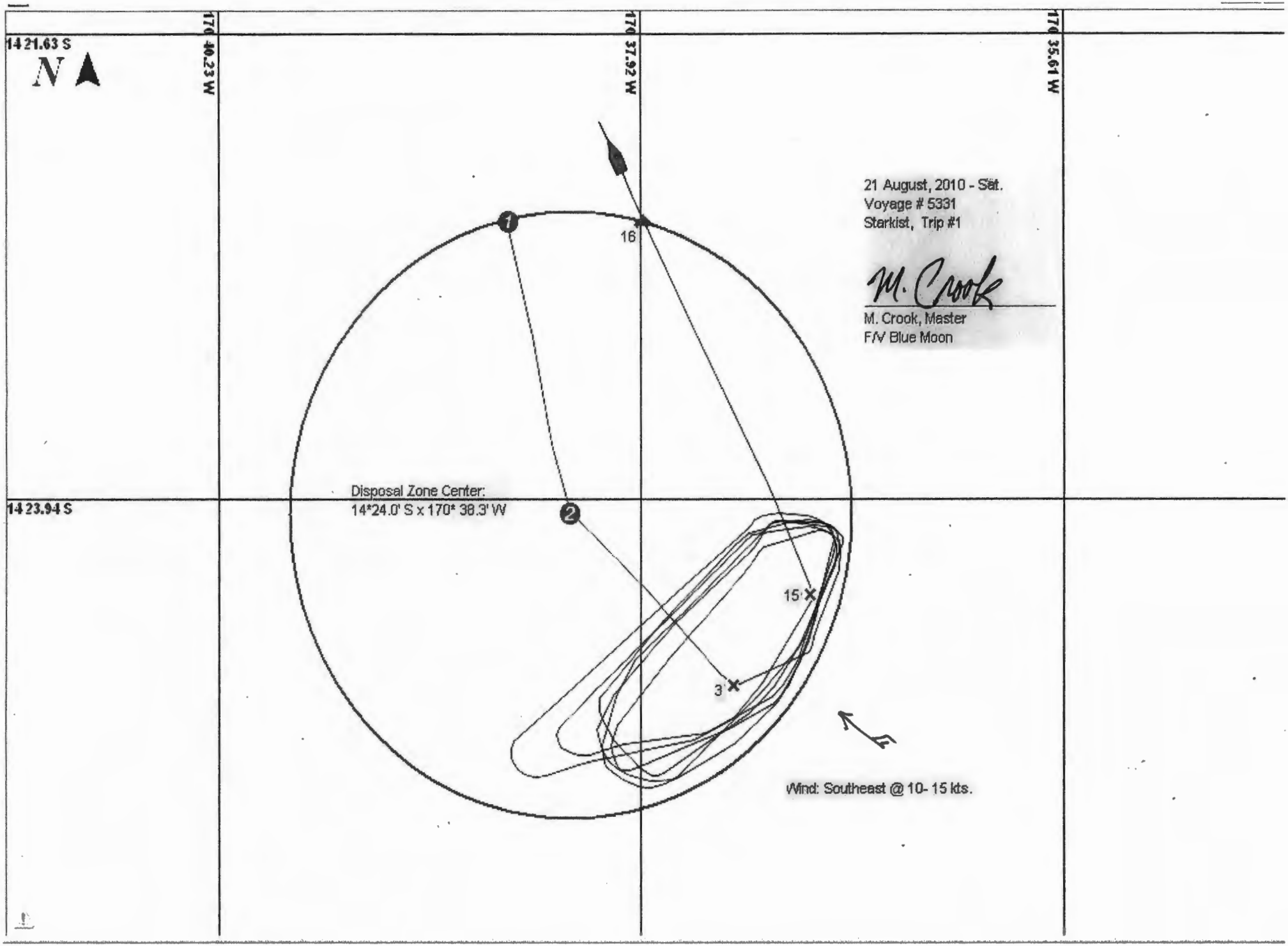
M. Crook

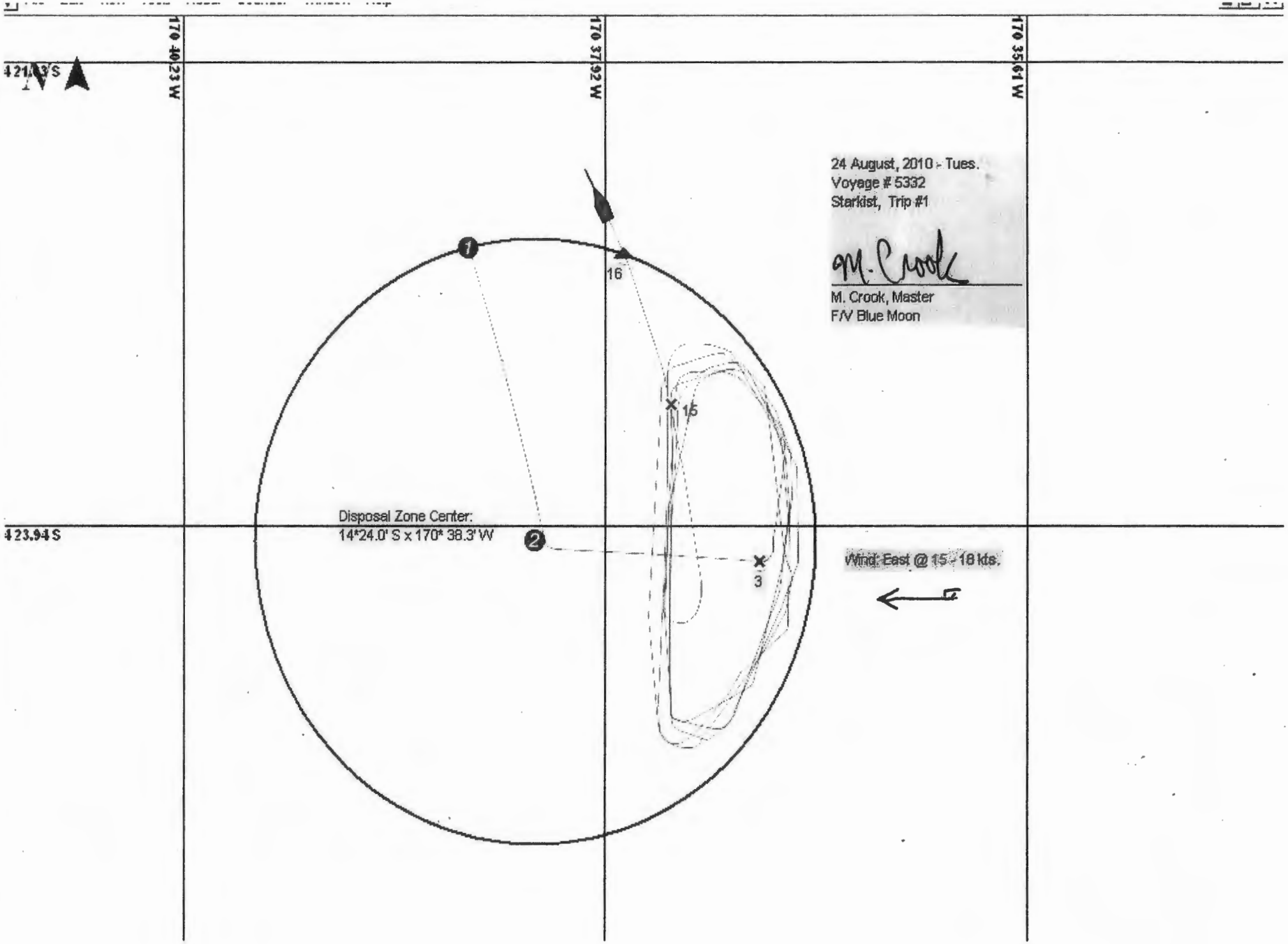
M. Crook, Master
F/V Blue Moon

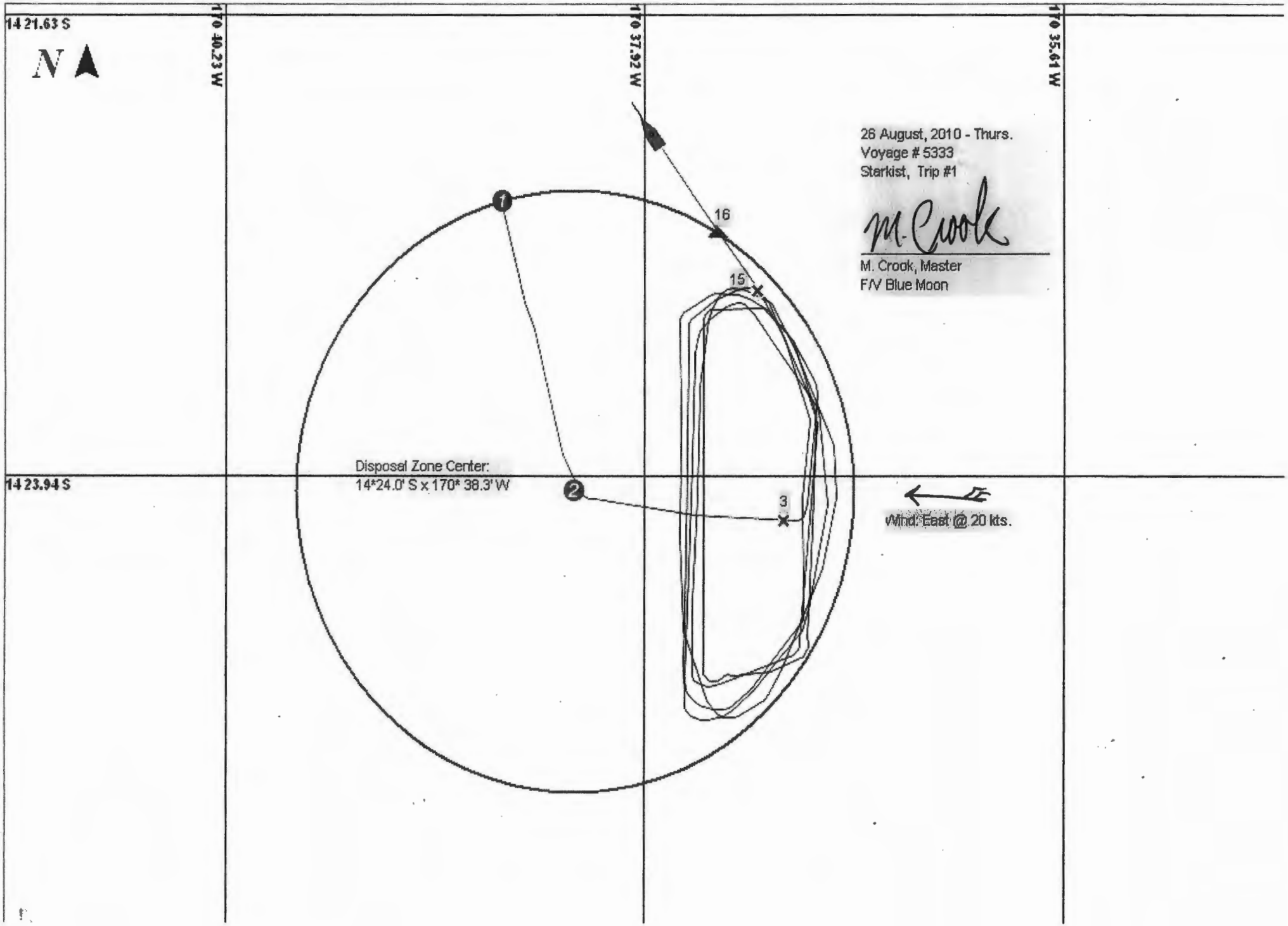
14 25.95 S

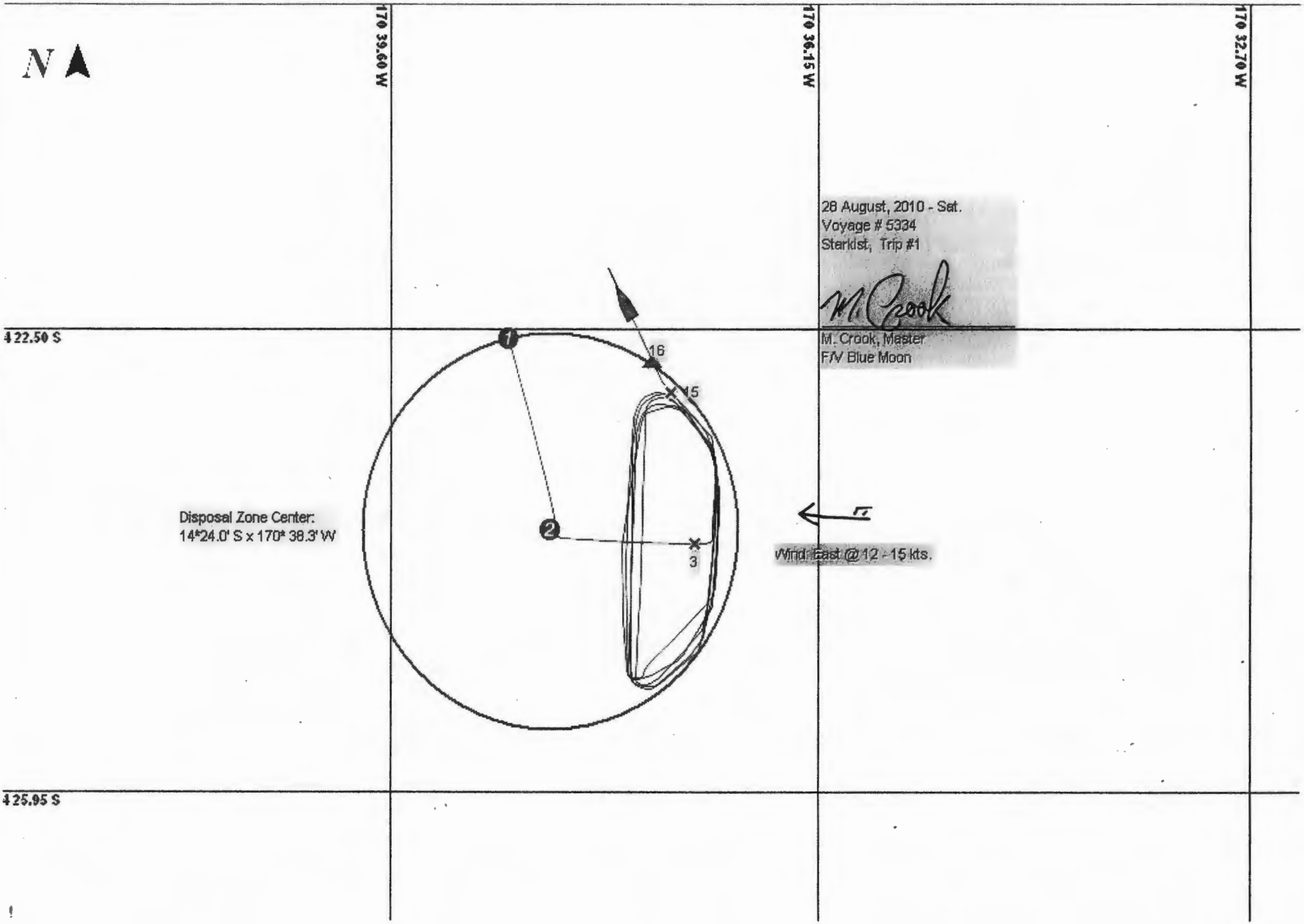

N
170 42.25 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
17 August, 2010 - Tues.
Voyage # 5329
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
3
15
16
Wind: East @ 12 - 15 kts.


14 21.63 S
N
170 40.23 W
170 37.92 W
170 35.61 W
14 23.94 S
1
2
16
15
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
19 August, 2010 - Thurs.
Voyage # 5330
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: Southeast @ 7 - 10 kts.


170 40.23 W
170 37.92 W
170 35.61 W
14 21.63 S
14 23.94 S
N
21 August, 2010 - Sat.
Voyage # 5331
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
16
15
3
Wind: Southeast @ 10- 15 kts.


170 40.23 W
170 37.92 W
170 35.61 W
421.13 S
423.94 S
N
24 August, 2010 - Tues.
Voyage # 5332
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
1
2
16
15
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
Wind: East @ 15 - 18 kts.


14 21.63 S
N
170 40.23 W
170 37.92 W
170 35.61 W
26 August, 2010 - Thurs.
Voyage # 5333
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
16
15
1
2
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
14 23.94 S
Wind: East @ 20 kts.


N
170 39.60 W
170 36.15 W
170 32.70 W
4 22.50 S
4 25.95 S
28 August, 2010 - Sat.
Voyage # 5334
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
3
15
16
Wind: East @ 12 - 15 kts.

OCEAN DUMPING MONTHLY SUMMARY

Month: AUG, 2010

	SK:	TOTAL:
NUMBER OF TRIPS:	13	**13**
GALLONS-FOR THE MONTH:	2,316,000	**2,316,000**

GALLONS FOR SOLO TRIPS: SK: 2,316,000

RUNNING TIME 68 hrs.

AVERAGE DISCHARGE TIME 2.85 hrs.

AVERAGE GPM DISCHARGE RATE: 108.7 gallons/minute/knot

AVERAGE TRIP TIME: 5.23 hrs.

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK:
100.00%
100

MASTER :

STAR KIST SAMOA CO
WATER TREATMENT DEPARTMENT

BLUE MOON - OCEAN DUMPING LOG

Reporting Date Sep 01,2010

Date	1st Trip	Loading Time	Volume	2nd Trip	Loading Time	Volume
1-Aug-10	1st Trip	1500\1610	40000	2nd Trip	NONE	0
2-Aug-10	1st Trip	1500\1900	97500	2nd Trip	NONE	0
3-Aug-10	1st Trip	1600\1730	42500	2nd Trip	NONE	0
4-Aug-10	1st Trip	1500\1945	141250	2nd Trip	NONE	0
5-Aug-10	1st Trip	1500\1715	58750	2nd Trip	NONE	0
6-Aug-10	1st Trip	1500\2000	135000	2nd Trip	NONE	0
7-Aug-10	1st Trip	NONE	0	2nd Trip	NONE	0
8-Aug-10	1st Trip	1620\1915	87500	2nd Trip	NONE	0
9-Aug-10	1st Trip	1545\1930	101250	2nd Trip	NONE	0
10-Aug-10	1st Trip	1640\1830	61250	2nd Trip	NONE	0
11-Aug-10	1st Trip	1520\2020	127000	2nd Trip	NONE	0
12-Aug-10	1st Trip	1630\1900	77500	2nd Trip	NONE	0
13-Aug-10	1st Trip	1515\1915	95000	2nd Trip	NONE	0
14-Aug-10	1st Trip	NONE	0	2nd Trip	NONE	0
15-Aug-10	1st Trip	1515\1645	52500	2nd Trip	NONE	0
16-Aug-10	1st Trip	1600\2030	130500	2nd Trip	NONE	0
17-Aug-10	1st Trip	1630\1745	36250	2nd Trip	NONE	0
18-Aug-10	1st Trip	1600\2100	135000	2nd Trip	NONE	0
19-Aug-10	1st Trip	1530\1700	52500	2nd Trip	NONE	0
20-Aug-10	1st Trip	1530\2045	121250	2nd Trip	NONE	0
21-Aug-10	1st Trip	NONE	0	2nd Trip	NONE	0
22-Aug-10	1st Trip	1500\1640	50000	2nd Trip	NONE	0
23-Aug-10	1st Trip	1515\1930	146250	2nd Trip	NONE	0
24-Aug-10	1st Trip	1545\1745	75000	2nd Trip	NONE	0
25-Aug-10	1st Trip	1530\1930	122000	2nd Trip	NONE	0
26-Aug-10	1st Trip	1630\1830	70000	2nd Trip	NONE	0
27-Aug-10	1st Trip	1610\2000	121250	2nd Trip	NONE	0
28-Aug-10	1st Trip	NONE	0	2nd Trip	NONE	0
29-Aug-10	1st Trip	NONE	0	2nd Trip	NONE	0
30-Aug-10	1st Trip	1430\1700	80000	2nd Trip	NONE	0
31-Aug-10	1st Trip	1500\1900	117500	2nd Trip	NONE	0
TOTAL	**1st Trip**		**2,374,500**	**2nd Trip**		**0**
					Total 1st & 2nd	2,374,500

cc:
Blue Moon- Captain
File

Prepared by W.W.T

Date: 08/03/10 – Tues. F/V Blue Moon Ocean Dumping Log Voyage #: 5323

Permit # OD 93-01 & OD 93-02

	Time	
7/31	1600	Begin 1st Loading SK
	1800	Finish 1st Loading SK
	1500	Begin 2nd Loading SK
8/1	1900	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:			
	SK	196,500	Gallons
	SP	0	Gallons
	Total	196,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	5%	29.62			
0655	Arrive Edge of Zone	# 1	14*22.57' S	170*38.64 W	SE-5		29.64	S+SE-1.5	8.4	158
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "		29.65	" "	8.3	164
0715	Begin Discharge	# 3	14*24.65' S	170*37.45' W	" "		"	" " X	8.5	135
" 30		# 4	14*24.74' S	170*37.96' W	" "		"	" "	8.4	228
" 45	Remarks:	# 5	14*24.62' S	170*37.01' W	" "	10%	29.63		9.2	021
0800		# 6	14*24.73' S	170*38.06' W	" "	"	"		8.6	194
" 15		# 7	14*24.36' S	170*37.00' W	" "	15	29.62	5	9.3	013
" 30		# 8	14*25.27' S	170*37.78' W	SE-7	"	29.64		8.5	176
" 45		# 9	14*24.20' S	170*37.22 W	" "	"	"		9.0	224
0900		# 10	14*25.00 S	170*37.27' W		20	"		9.4	032
" 15		# 11	14*24.39' S	170*37.43' W		30	29.65		9.1	217
" 30		# 12	14*24.66' S	170*37.05' W		40		10	9.6	014
" 45		# 13	14*24.97' S	170*38.00' W		"			9.1	219
1000		# 14	14*24.48' S	170*36.91' W		"			9.6	006
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1005	Finish Discharge	#15	14*23.88' S	170*36.98' W	SE-7	40%	29.64	S+SE-1.5	8.9	274
1015	Exit Discharge Zone	#16	14*22.65' S	170*37.78' W	" "	"	"	" " "	9.8	333
1105	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.0 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 128.4 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

98-7

Date: 08/05/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5324

Permit # OD 93-01 & OD 93-02

	Time	
8/3	1600	Begin 1st Loading SK
	1730	Finish 1st Loading SK
8/4	1500	Begin 2nd Loading SK
	1945	Finish 2nd Loading SK

Trip # 1 - ✓
Trip # 2

Volume Loaded:		
SK	183,750	Gallons
SP	0	Gallons
Total	183,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0510	Depart Starkist		14*16.50' S	170* 41.2' W	East-12	30	29.68			
0607	Arrive Edge of Zone	# 1	14*22.58' S	170*38.66' W	East-15	"	29.69	E/SE-1.5	8.4	161
0613	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"		8.1	159
0635	Begin Discharge	# 3	14*24.20' S	170*37.24' W	" "	35	29.70	X	9.7	042
" 50		# 4	14*23.97' S	170*37.51' W	" "	"	"		8.3	181
0705	Remarks: Ocean	# 5	14*24.58' S	170*37.00 W	" "	"	"		8.4	017
" 20	Monitoring +	# 6	14*23.53' S	170*37.45' W	" "	"	"		8.4	183
" 35	sampling	# 7	14*24.58' S	170*37.06' W	" "	40	"	5	8.6	009
" 50	Control Samples	# 8	14*23.59' S	170*37.57' W	" "	"	"		8.7	181
0805	drawn at:	# 9	14*24.84' S	170*37.19' W	" "	"	"		8.5	037
" 20	0625 hrs. @	# 10	14*23.26' S	170*37.45' W	East-18	"			8.8	182
" 35	Pos N: 14°24.11'S	# 11	14*24.85 S	170*37.26 W		"			8.6	028
" 50	× 170°37.21' W	# 12	14*23.10 S	170*37.23 W		"		10	9.4	310
0905		# 13	14*24.84 S	170*37.54 W		30			9.1	179
" 20		# 14	14*23.16' S	170*37.17' W					9.4	308
" 35		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0925	Finish Discharge	#15	14*23.35' S	170*37.02' W	East-18	30%	29.70	E/SE-1.5	8.7	147
1025	Exit Discharge Zone	#16	14*22.57' S	170*38.63 W	" "	"	"	" "	9.2	338
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 8.66 kts. Total Time Run 6.15 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 125 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cools

Date: 08/07/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5325

Permit # OD 93-01 & OD 93-02

	Time	
8/5	1500	Begin 1st Loading SK
	1715	Finish 1st Loading SK
8/6	1500	Begin 2nd Loading SK
	2000	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	193,750	Gallons
SP	0	Gallons
Total	193,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	East-12	75	29.63			
0705	Arrive Edge of Zone	# 1	14*22.57' S	170*38.69' W	EAST-18	80	29.65	SE-2.5	8.4	163
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"		ESE-3.0	8.1	160
0720	Begin Discharge	# 3	14*24.08' S	170*37.22' W	EAST-20	"		X	7.8	090
" 35		# 4	14*23.27' S	170*37.19' W	" "	75			7.6	091
" 50	Remarks:	# 5	14*24.36' S	170*38.01' W					8.7	201
0805		# 6	14*23.96' S	170*37.31' W			29.66		8.8	304
20		# 7	14*23.47' S	170*36.55' W		70	29.67	5	8.3	220
35		# 8	14*24.85' S	170*37.90' W	East-25	"	"		7.9	087
50		# 9	14*28.87' S	170*37.70' W	" "	"	"		9.2	314
0905		# 10	14*23.19' S	170*37.21' W		"	29.68		7.8	086
20		# 11	14*24.52' S	170*38.12' W		80	"		9.0	191
35		# 12	14*23.74' S	170*37.83' W	East-20	90-Rain	29.69	10	9.5	304
50		# 13	14*23.71' S	170*37.31' W	E-25	75			9.4	218
1005		# 14	14*24.66' S	170*37.25' W	" "	85-Rain			8.6	073
20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*23.35' S	170*38.11 W	East-25	90%	29.69	ESE-3.0	9.7	332
1028	Exit Discharge Zone	#16	14*22.59' S	170*38.45 W	" "	"	"	" "	9.6	336
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Figure 8

Total Discharge Time: 180 mins. Average Speed During Discharge: 8.6 kts. Total Time Run 5.16 hr.

Navigational Plot made: YES Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 125 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 08/10/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5326

Permit # OD 93-01 & OD 93-02

	Time	
8/8	1620	Begin 1st Loading SK
	1915	Finish 1st Loading SK
	1545	Begin 2nd Loading SK
8/9	1930	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	188,750	Gallons
SP	0	Gallons
Total	188,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	SE-5	100-RAIN	29.64			
0705	Arrive Edge of Zone	# 1	14*22.56' S	170*38.72' W	SSE-7	100%	"	SE-1.5	8.4	163
0715	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.3	158
0725	Begin Discharge	# 3	14*24.77' S	170*37.53' W	" "	"	29.66	" " X	8.1	135
40		# 4	14*24.45' S	170*37.74' W	SE-10	"	29.67	" "	8.7	226
55	Remarks:	# 5	14*24.77' S	170*37.06' W	" "	"	29.68	" "	8.5	013
0810		# 6	14*24.43' S	170*37.70' W	SE-8	95%	29.69	" "	9.0	224
25		# 7	14*25.02' S	170*37.34' W	SE-10	"	"	" " 5	8.6	046
40		# 8	14*24.80' S	170*37.82' W	" "	"	29.68		8.9	223
55		# 9	14*24.76' S	170*37.03 W	" "	100	29.67		8.7	028
0910		# 10	14*24.66' S	170*37.86' W	" "	90	29.68		9.3	220
25		# 11	14*24.72' S	170*37.07' W	" "	"	"		9.0	023
40		# 12	14*24.80' S	170*38.08 W	" "	"	"	10	9.1	217
55		# 13	14*24.57' S	170*36.96' W	SE-12	80	"		9.3	026
1010		# 14	14*24.72' S	170*37.87 W	" "	75	"		8.9	221
25		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*24.49' S	170*37.68' W	SE-12	70%	29.68	SE-1.5	9.2	025
1035	Exit Discharge Zone	#16	14*22.56' S	170*38.31' W	" "	"	29.67	" "	9.6	336
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 8.87 kts. Total Time Run 5.25 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 121.6 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 08/12/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5327

Permit # OD 93-01 & OD 93-02

	Time	
8/10	1640	Begin 1st Loading SK
	1830	Finish 1st Loading SK
8/11	1520	Begin 2nd Loading SK
	2020	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:		
SK	188,250	Gallons
SP	0	Gallons
Total	188,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0600	Depart Starkist		14*16.50' S	170* 41.2' W	SE 20	100	29.68			
0700	Arrive Edge of Zone	# 1	14*22.53' S	170*38.69 W	" "	"	29.67	SE-2.5+	8.0	161
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.68	" "	7.8	164
0720	Begin Discharge	# 3	14*24.48' S	170*37.32' W	SE-22	"	29.69	" " X	7.7	110
35		# 4	14*25.08' S	170*38.00' W	" "	"	"	" "	7.5	112
50	Remarks:	# 5	14*24.19' S	170*38.25' W	" "		"	" "	8.8	315
0805		# 6	14*24.66' S	170*37.55' W			"		8.7	272
20		# 7	14*25.05' S	170*37.69' W			29.68	5	7.6	115
35		# 8	14*24.15' S	170*38.20' W			"		8.5	330
50		# 9	14*24.60' S	170*37.92' W					9.0	267
0905		# 10	14*25.02' S	170*37.58' W	SE-25				8.9	316
20		# 11	14*24.36' S	170*37.46' W	" "				8.4	110
35		# 12	14*24.74' S	170*38.32' W				10	9.2	253
50		# 13	14*24.16' S	170*38.20' W		100-Lt. RAIN			9.1	313
1005		# 14	14*24.59' S	170*37.27' W		100%			9.3	264
20		# 15	14*2 S	170*3 W						
35		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1015	Finish Discharge	#15	14*23.97' S	170*38.26' W	SE-25	100%	29.69	SE-2.5+	9.2	334°
1023	Exit Discharge Zone	#16	14*22.63' S	170*38.63' W	" "	"	"	" "	9.5	333°
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure 8

Total Discharge Time: 175 mins. Average Speed During Discharge: 8.6 kts. Total Time Run 5.25 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 125 Gallons/min/kts

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 08/14/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5328

Permit # OD 93-01 & OD 93-02

	Time	
8/12	1630	Begin 1st Loading SK
	1900	Finish 1st Loading SK
8/13	1515	Begin 2nd Loading SK
	1915	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
	SK	172,500	Gallons
	SP	0	Gallons
	Total	172,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	SE-20	25	29.69			
0658	Arrive Edge of Zone	# 1	14*22.57' S	170*38.78' W	SE-22	"	"	SE-3.0	8.2	161
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"		8.0	168
0720	Begin Discharge	# 3	14*24.47' S	170*37.31' W	" "	"	"	" " X	7.8	115
" 35		# 4	14*25.68' S	170*37.85' W		"			7.5	116
" 50	Remarks:	# 5	14*24.20' S	170*38.17' W		"			8.8	320
0805		# 6	14*24.69' S	170*37.85' W		"			9.1	264
" 20		# 7	14*25.21' S	170*37.75' W		30		5	8.0	115
" 35		# 8	14*24.09' S	170*38.03' W		"		SE-2.5	7.7	163
" 50		# 9	14*24.73' S	170*38.21' W		40		" "	9.6	264
0905		# 10	14*24.54' S	170*37.95' W	SE-25	60		" "	9.2	322
" 20		# 11	14*24.46' S	170*37.16' W	" "	"		" "	8.1	114
" 35		# 12	14*25.18 S	170*37.78 W	" "		29.68	10	8.4	112
" 50		# 13	14*24.23' S	170*38.21' W	" "				9.2	334
1005		# 14	14*24.76' S	170*37.70' W	" "	70%			9.8	267
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1010	Finish Discharge	#15	14*24.18' S	170*38.27' W	SE-25	70%	29.68	SE-2.5	9.1	339
1021	Exit Discharge Zone	#16	14*22.60' S	170*38.63' W	" "	"	"	" "	9.3	340
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure 8

Total Discharge Time: 170 mins. Average Speed During Discharge: 8.64 kts. Total Time Run 5.15 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 117 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 08/17/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5329

Permit # OD 93-01 & OD 93-02

	Time	
8/15	1515	Begin 1st Loading SK
	1645	Finish 1st Loading SK
8/16	1600	Begin 2nd Loading SK
	2030	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	183,000	Gallons	
		Gallons	
Total	183,000	Gallons	

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	East-7	60	29.69			
0658	Arrive Edge of Zone	# 1	14*22.54' S	170*38.67' W	East-12	"	"	E+SE-2.0	8.7	166
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"		8.3	161
0718	Begin Discharge	# 3	14*24.08' S	170*37.21' W	" "	"	"	X	8.5	010
" 33		# 4	14*24.17' S	170*37.54' W	" "	"	"		8.3	181
" 48	Remarks:	# 5	14*23.98' S	170*36.87' W	East-15	"	"		8.6	003
0803		# 6	14*23.64' S	170*37.42' W	" "	70	"		8.5	184
" 18		# 7	14*24.02' S	170*36.95' W	" "	80	"	5	8.8	001
" 33		# 8	14*23.80' S	170*37.47' W		90	←	29.70	8.7	182
" 48		# 9	14*24.27' S	170*36.92' W		80	29.70		8.8	359
0903		# 10	14*23.76' S	170*37.54' W		90	"		9.0	181
" 18		# 11	14*24.40' S	170*37.01' W		" RAIN	29.69		8.8	023
" 33		# 12	14*24.06' S	170*37.60' W		90	"	10	9.2	179
" 48		# 13	14*24.45' S	170*37.05' W		80	"		9.0	029
1003		# 14	14*23.54' S	170*37.57' W		75			9.1	182
" 18		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1013	Finish Discharge	#15	14*23.27' S	170*37.53' W	East-15	70%	29.69	E+SE-2.0	9.2	356
1018	Exit Discharge Zone	#16	14*22.68' S	170*37.75' W	" "	"	"	" "	9.4	341
1110	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 5.0 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 119 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 08/19/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5330

Permit # OD 93-01 & OD 93-02

	Time	
8/17	1630	Begin 1st Loading SK
	1745	Finish 1st Loading SK
	1600	Begin 2nd Loading SK
8/18	2100	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	171,250	Gallons	
		Gallons	
Total	171,250	Gallons	

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	East-5	70	29.65			
0653	Arrive Edge of Zone	# 1	14*22.52' S	170*38.65' W	SE-7	"	29.66	SE-1.5	8.8	162
0703	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W			29.67		8.6	163
0712	Begin Discharge	# 3	14*24.71' S	170*37.46' W			29.68	X	8.5	135
" 27		# 4	14*24.52' S	170*37.73' W			"		8.7	219
" 42	Remarks:	# 5	14*24.64' S	170*37.08' W		60%	"		8.6	006
" 57		# 6	14*25.08' S	170*38.02' W		"	29.67		8.3	174
0812		# 7	14*24.17' S	170*36.89' W		50%	29.66	5	8.9	359
" 27		# 8	14*25.14' S	170*38.19' W	SE-10	40	29.65		8.8	207
" 42		# 9	14*24.13' S	170*37.04' W	" "		29.67		8.6	247
" 57		# 10	14*24.91' S	170*37.34' W			"		9.0	051
0912		# 11	14*24.62' S	170*37.79' W			29.68		9.1	204
" 27		# 12	14*24.80' S	170*37.26 W				10	9.3	048
" 42		# 13	14*24.92' S	170*38.10' W		50%	29.69		9.5	219
" 57		# 14	14*24.33' S	170*36.92' W		"	29.68		9.3	002
1012		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1000	Finish Discharge	#15	14*24.01' S	170*37.08' W	SE-10	60%	29.67	SE-1.5	8.9	283
1010	Exit Discharge Zone	#16	14*22.65' S	170*37.90' W	" "	"	"	" "	9.7	330
1210	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 168 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 6.1 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 114.5 Gallons/min/kt.

Unusual Occurrences? None (Fueling @ 1100 - 1200 hrs.)

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 08/21/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5331

Permit # OD 93-01 & OD 93-02

	Time	
8/19	1530	Begin 1st Loading SK
	1700	Finish 1st Loading SK
8/20	1530	Begin 2nd Loading SK
	2045	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	173,750	Gallons	
		Gallons	
Total	173,750	Gallons	

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	SE-7	30%	29.62			
0655	Arrive Edge of Zone	# 1	14*22.52' S	170*38.67 W	SE-10	"	29.64	SE-2.0	8.6	160
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.65	" "	8.2	158
0713	Begin Discharge	# 3	14*24.74' S	170*37.53 W	" "	40	"	" " X	8.4	135
" 28		# 4	14*24.50' S	170*37.71' W	" "		"		9.0	225
" 43	Remarks:	# 5	14*24.74' S	170*37.05' W	" "		"		8.3	022
" 58		# 6	14*24.65' S	170*37.88' W	SE-12		29.66		8.9	217
0813		# 7	14*24.84' S	170*37.20' W	" "	50	"	5	9.0	040
" 28		# 8	14*24.86' S	170*37.91' W	SE-15	70	"		9.2	223
" 43		# 9	14*24.05' S	170*36.96 W		"	"		8.4	264
" 58		# 10	14*25.16' S	170*37.61' W		60	29.65		8.6	049
0913		# 11	14*24.11' S	170*37.28' W		50	"		8.9	226
" 28		# 12	14*25.05' S	170*37.47' W		40	29.64	10	8.7	658
" 43		# 13	14*24.23' S	170*37.52' W		"	29.65		9.4	225
" 58		# 14	14*25.12' S	170*37.64' W		30	29.67		8.8	064
1013		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1005	Finish Discharge	#15	14*24.57' S	170*37.07' W	SE-15	25 %	29.66	SE-2.0	8.9	028
1018	Exit Discharge Zone	#16	14*22.61' S	170*37.87' W	" "	"	"	" "	9.2	329
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 172 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 5.2 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 115 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Croft

Date: 08/24/10 – Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5332

Permit # OD 93-01 & OD 93-02

	Time	
8/22	1500	Begin 1st Loading SK
	1640	Finish 1st Loading SK
8/23	1515	Begin 2nd Loading SK
	1730	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	196,250	Gallons
	—	Gallons
Total	196,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	East-5	75	29.67			
0700	Arrive Edge of Zone	# 1	14*22.51' S	170*38.68' W	East-15	85	"	E+SE- 2.0	8.4	161
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	80	"	" "	8.4	165
0720	Begin Discharge	# 3	14*24.11' S	170*37.23 W	" "	80	29.68	" " X	8.1	090
" 35		# 4	14*23.74' S	170*37.56' W	" "	70	"		8.5	184
" 50	Remarks:	# 5	14*24.12' S	170*36.87' W	" "	"	"		8.2	000
0805		# 6	14*23.84' S	170*37.55' W	" "	60%	"		8.6	182
" 20		# 7	14*24.23' S	170*36.98' W	East-18	"	"	5	8.1	013
" 35		# 8	14*23.84' S	170*37.57' W	" "	50%	"		8.8	185
" 50		# 9	14*24.13' S	170*36.94' W	" "	"	"		8.3	004
0905		# 10	14*23.32' S	170*37.56 W		40%	"		9.1	183
" 20		# 11	14*24.63' S	170*37.12' W		"	29.67		8.4	032
" 35		# 12	14*23.32' S	170*37.61' W		30%	"	10	9.0	181
" 50		# 13	14*24.51' S	170*37.00' W		20%	29.65		8.7	006
1005		# 14	14*23.25' S	170*37.52' W		10%	"		8.9	180
" 20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*23.46' S	170*37.52' W	East-18	10%	29.65	E+SE-2.0	9.1	339
1027	Exit Discharge Zone	#16	14*22.67' S	170*37.78' W	" "	"	29.66	" "	9.3	336
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 8.6 kts. Total Time Run 5.15 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 127 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crooke

Date: 08/26/10 – Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5333

Permit # OD 93-01 & OD 93-02

	Time	
8/24	1545	Begin 1st Loading SK
	1745	Finish 1st Loading SK
8/25	1530	Begin 2nd Loading SK
	1930	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded: SK 197,000 Gallons

Gallons

Total 197,000 Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	East-12	50%	29.66			
0655	Arrive Edge of Zone	# 1	14*22.53' S	170*38.72' W	East-20	"	29.68	E+SE-2.5+	8.3	162
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.1	156
0715	Begin Discharge	# 3	14*24.16' S	170*37.23' W	" "	40%	"	" " X	7.7	090
30		# 4	14*24.05' S	170*37.60' W			"		8.6	181
45	Remarks:	# 5	14*24.42' S	170*37.00' W			"		8.3	357
0800		# 6	14*23.31' S	170*37.60' W					8.5	183
15		# 7	14*24.96' S	170*37.05' W		50		5	8.3	002
30		# 8	14*23.21' S	170*37.70' W		70			8.4	180
45		# 9	14*24.98' S	170*37.20' W		80-RAIN			8.6	011
0900		# 10	14*23.46 S	170*37.12' W		80 –			9.1	326
15		# 11	14*24.79' S	170*37.70' W		"	29.69		9.0	181
30		# 12	14*23.54' S	170*37.00 W		75	"	10	9.1	322
45		# 13	14*24.61' S	170*37.68' W		"	"		9.3	178
1000		# 14	14*24.17' S	170*37.05 W			29.70		9.0	356
15		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1010	Finish Discharge	#15	14*23.08' S	170*37.24' W	East-20	75%	29.69	E+SE-2.5	9.3	320
1013	Exit Discharge Zone	#16	14*22.78' S	170*37.48' W	" "	"	"	" "	9.5	318
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 8.7 kts. Total Time Run 5.15 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 129.4 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 08/28/10 – Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5334

Permit # OD 93-01 & OD 93-02

Time	
1630	Begin 1st Loading SK
1630	Finish 1st Loading SK
1610	Begin 2nd Loading SK
2000	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	190 250	Gallons
		Gallons
Total		Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	70	29.67			
0702	Arrive Edge of Zone	# 1	14*22.54' S	170*38.66' W	East-12	60	29.69	E+SE-1.5	8.5	162
0712	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	" "	" "	8.3	164
0720	Begin Discharge	# 3	14*24.10' S	170*37.18' W	" "		" "	X	8.1	090
" 35		# 4	14*23.98' S	170*37.72' W	" "		" "		8.8	184
" 50	Remarks:	# 5	14*24.57' S	170*37.01' W	" "		" "		8.4	007
0805		# 6	14*23.06' S	170*37.30 W	" "	"			8.8	321
" 20		# 7	14*24.90' S	170*37.69' W	" "	70		5	8.6	181
" 35		# 8	14*23.63' S	170*36.76' W	" "	"			8.9	349
" 50		# 9	14*24.52' S	170*37.66' W	East-15	75			9.1	180
0905		# 10	14*23.98' S	170*36.95' W	" "	"			8.8	358
" 20		# 11	14*24.06' S	170*37.58' W	" "	70			9.4	182
" 35		# 12	14*24.24' S	170*37.01 W			29.70	10	8.8	356
" 50		# 13	14*23.79' S	170*37.65' W					9.4	180
1005		# 14	14*24.97' S	170*37.12' W					8.5	013
" 20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*23.04' S	170*37.28' W	East-15	70%	29.70	E+SE-1.5	9.3	311
1022	Exit Discharge Zone	#16	14*22.74' S	170*37.49' W	" "	"	"	" "	9.3	330
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 5.15 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 120 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 08/31/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5335

Permit # OD 93-01 & OD 93-02

Time	
1430	Begin 1st Loading SK
1700	Finish 1st Loading SK
1500	Begin 2nd Loading SK
1900	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK 80000 Gallons

Gallons

Total Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W						
0654	Arrive Edge of Zone	# 1	14*22.	S	170*38.	W	NE 10	50	29.72	1.5	9.5	160°
0705	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	NE 10	50	29.72	1.5	9	75°
0714	Begin Discharge	# 3	14*23.4	S	170*37.3	W	NE 10	50	29.75	1 X	9.7	322°
29		# 4	14*23.6	S	170*37.8	W	NE 15	50	29.75	1	9.5	165°
44	Remarks:	# 5	14*24.2	S	170*37.1	W	NE 15	50	29.75	1	9.6	359°
0759		# 6	14*23.5	S	170*37.8	W	NE 15	50	29.75	1	9.5	165°
0814		# 7	14*24.8	S	170*37.2	W	NE 15	50	29.75	1 5	9.5	008°
29		# 8	14*22.6	S	170*37.8	W	NE 15	50	29.75	1	9.6	300°
44		# 9	14*24.9	S	170*37.4	W	NE 15	50	29.75	1	9.7	133°
59		# 10	14*23.2	S	170*37.4	W	NE 15	50	29.75	1	10	325°
0914		# 11	14*24.8	S	170*37.4	W	NE 15	50	29.75	1	9.9	331°
29		# 12	14*23.3	S	170*37.3	W	NE 15	50	29.75	1 10	9.8	331°
		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0934	Finish Discharge	13	14*22.8	S	170*37.6	W	NE 15	50	29.75	1	9.8	330°
0975	Exit Discharge Zone	14	14*22.7	S	170*37.7	W	NE 15	50	29.75	1	9.8	331°
1030	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center SW End of Discharge SW Discharge Pattern Ellipse

Total Discharge Time: 139 mins. Average Speed During Discharge: 9.6 kts. Total Time Run 4.3 hr.

Navigational Plot made: yes Presence of Plume? NON

Time and position of any floating material: NON Discharge Rate: 59.9 Gallons/min/kt.

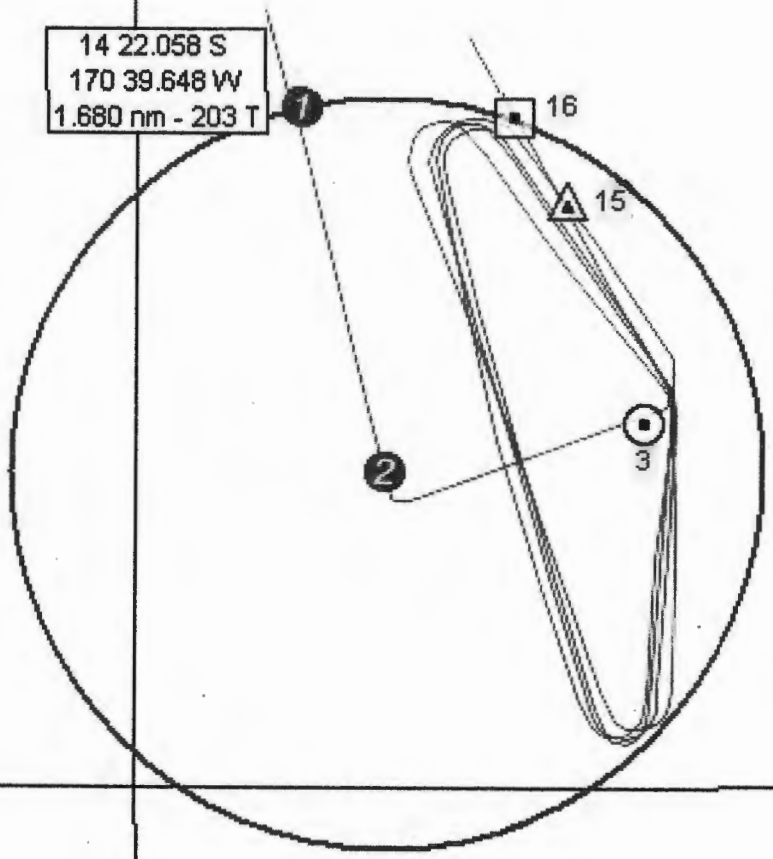
Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

14 21.36 S

31 August, 2010
Voyage # 5335
Starkist, Trip #1

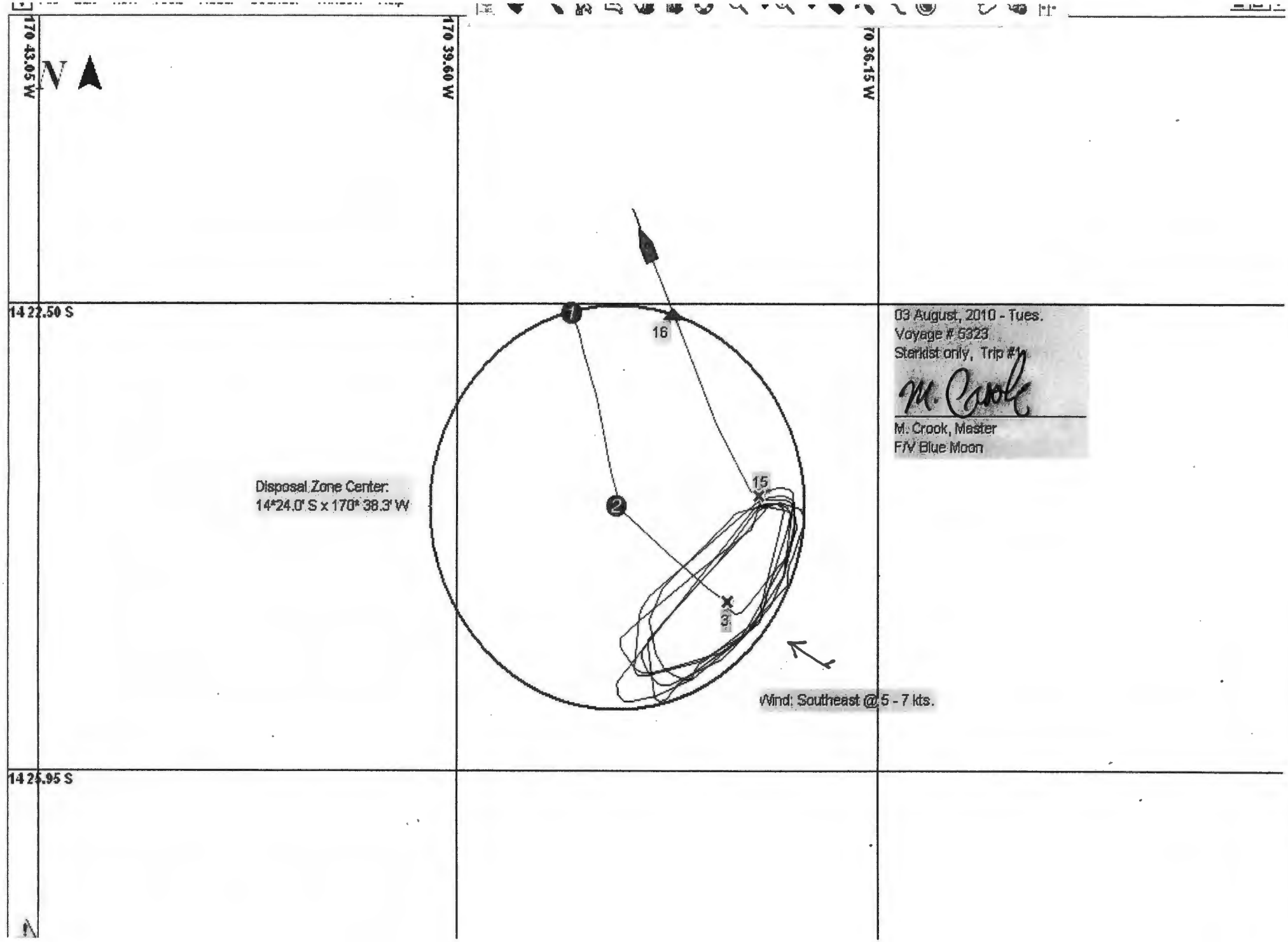
Master, F/V Blue Moon

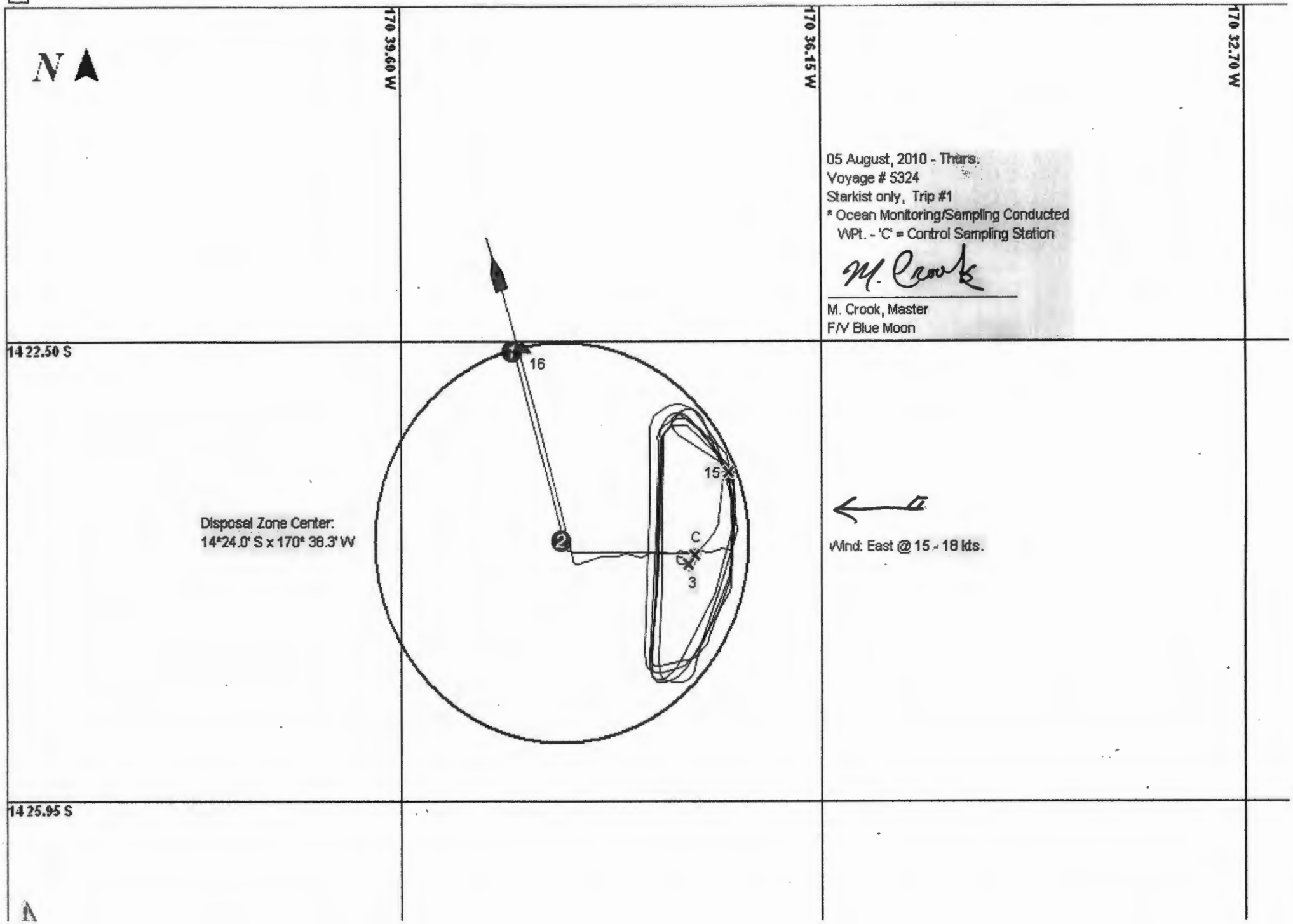


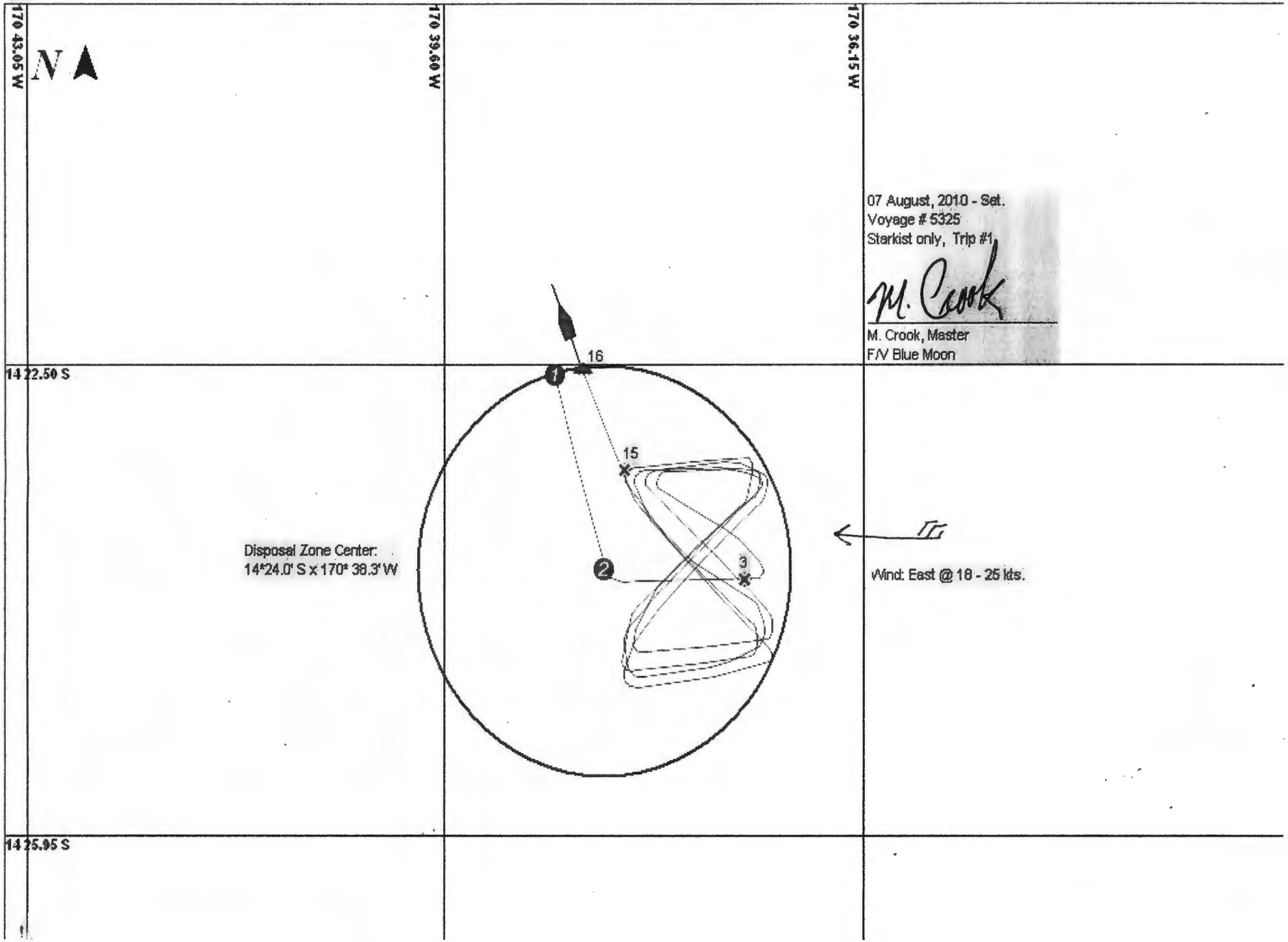
Disposal Zone Center:
14*24.0' S x 170* 38.3' W

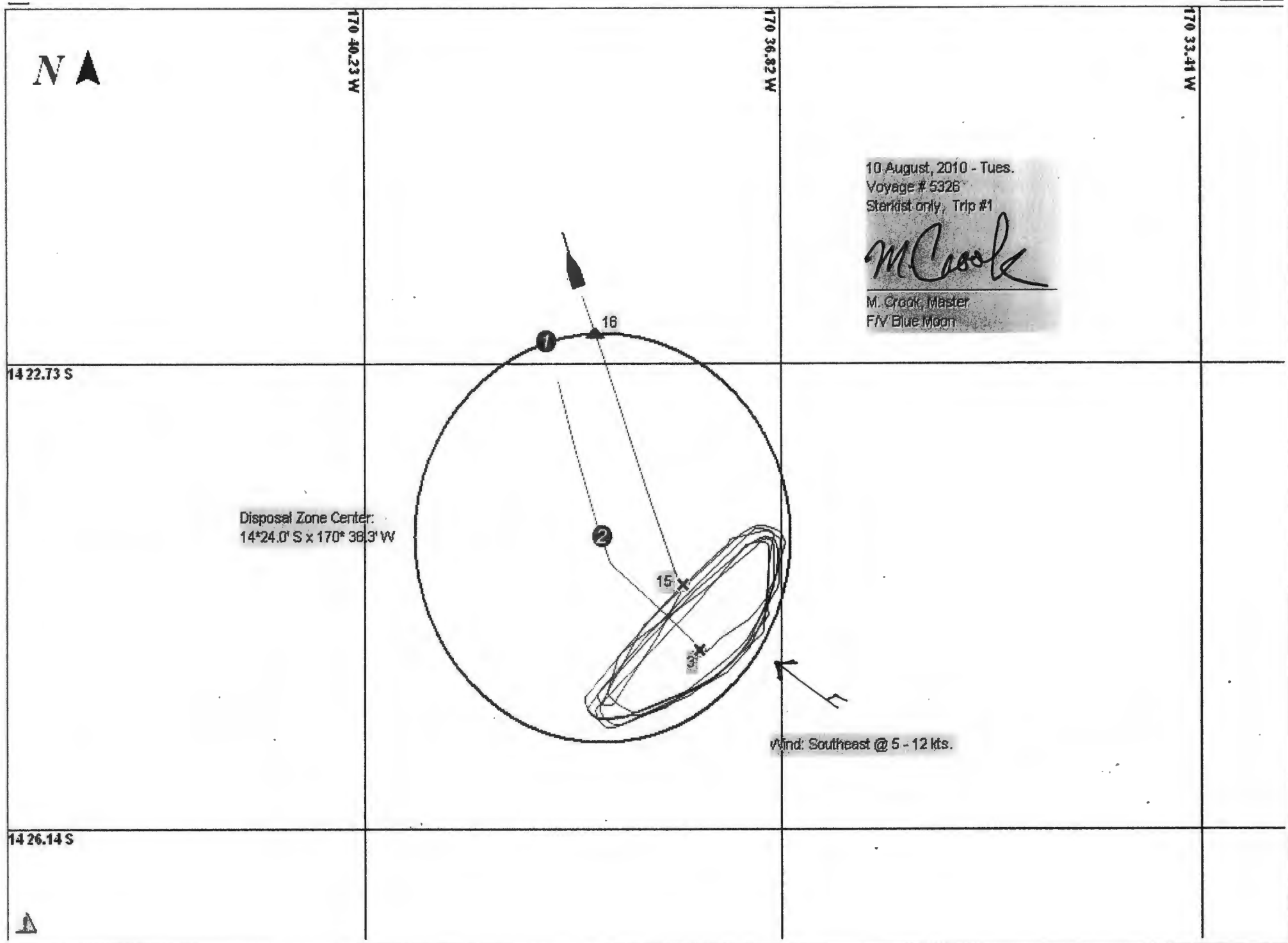
N E East @ 15

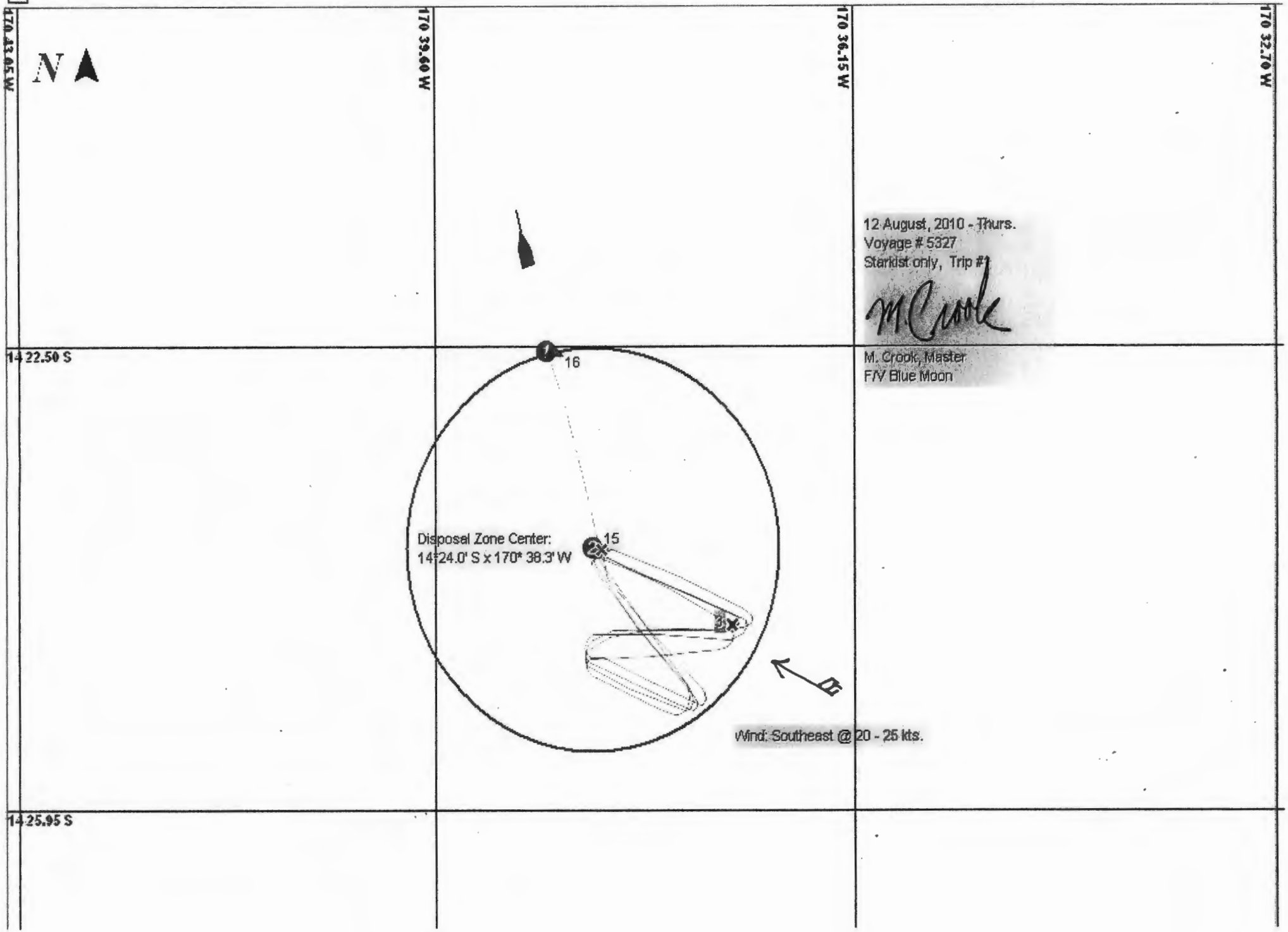
14 25.24 S

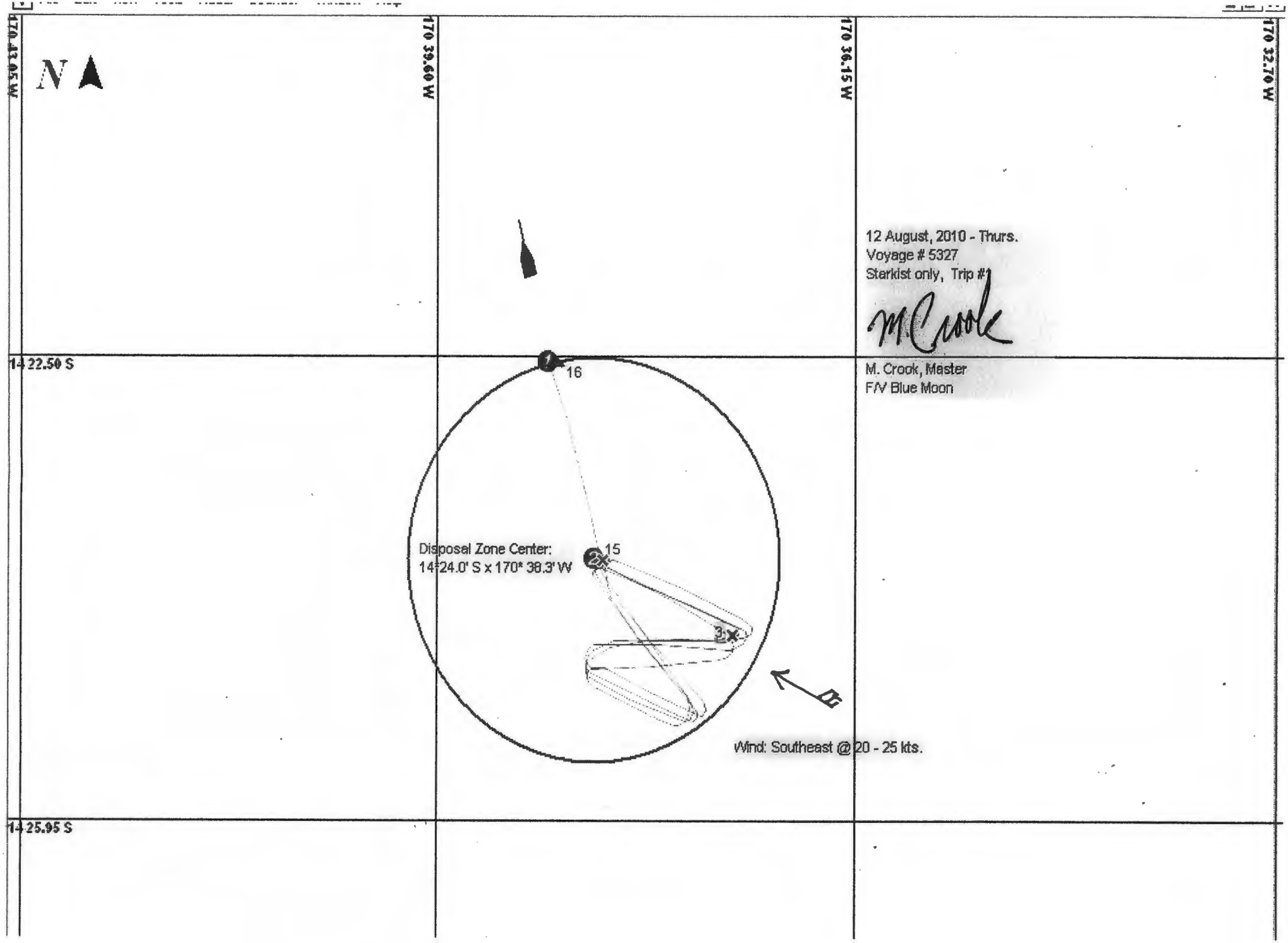

170 43.05 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
N
1
2
3
15
16
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: Southeast @ 5 - 7 kts.
03 August, 2010 - Tues.
Voyage # 6323
Stenkist only, Trip #1
M. Crook, Master
F/V Blue Moon

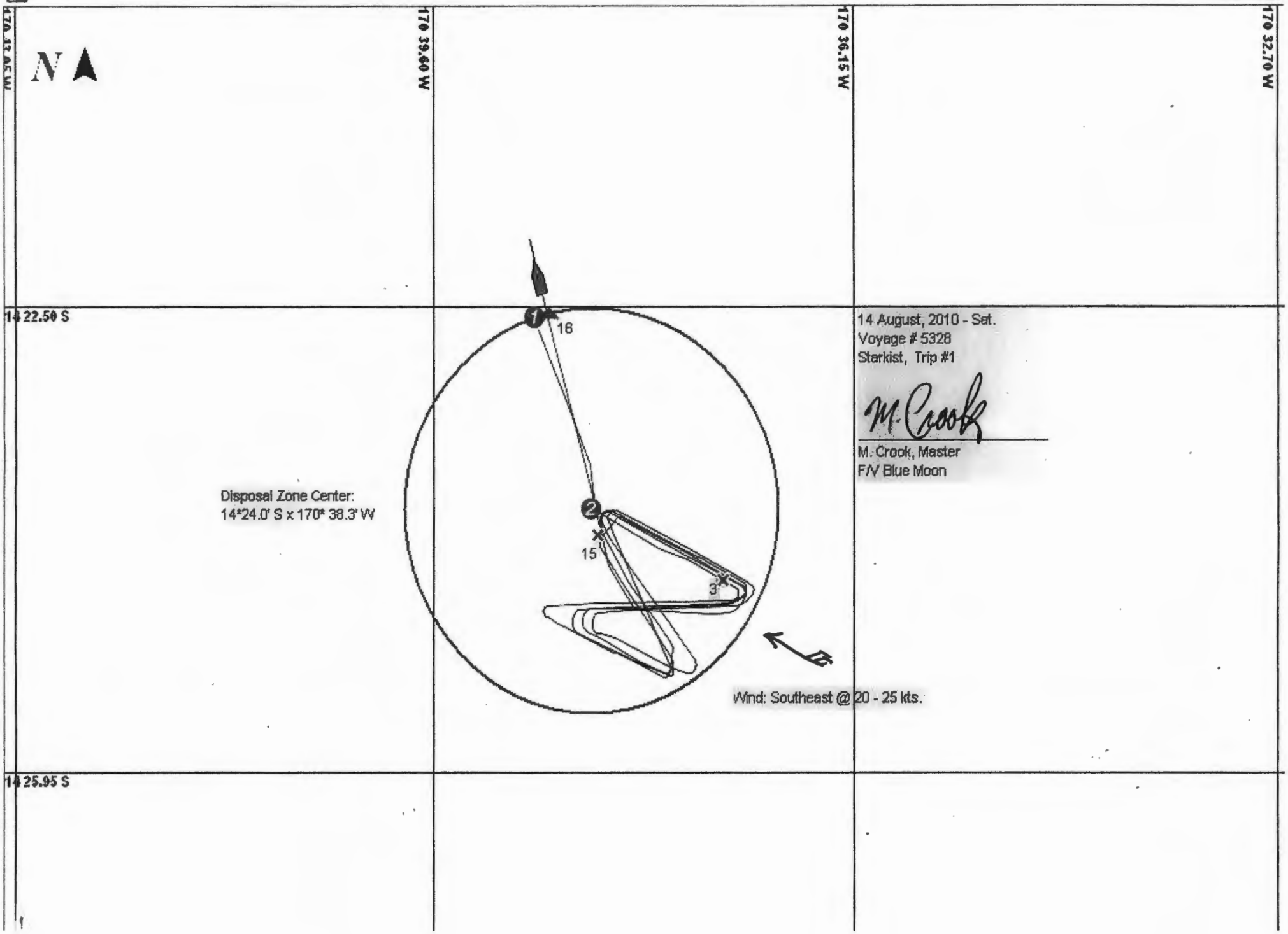

N
170 39.60 W
170 36.15 W
170 32.70 W
14 22.50 S
14 25.95 S
05 August, 2010 - Thurs.
Voyage # 5324
Starkist only, Trip #1
* Ocean Monitoring/Sampling Conducted
WPt. - 'C' = Control Sampling Station
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
1
2
3
15
16
C
Wind: East @ 15 - 18 kts.

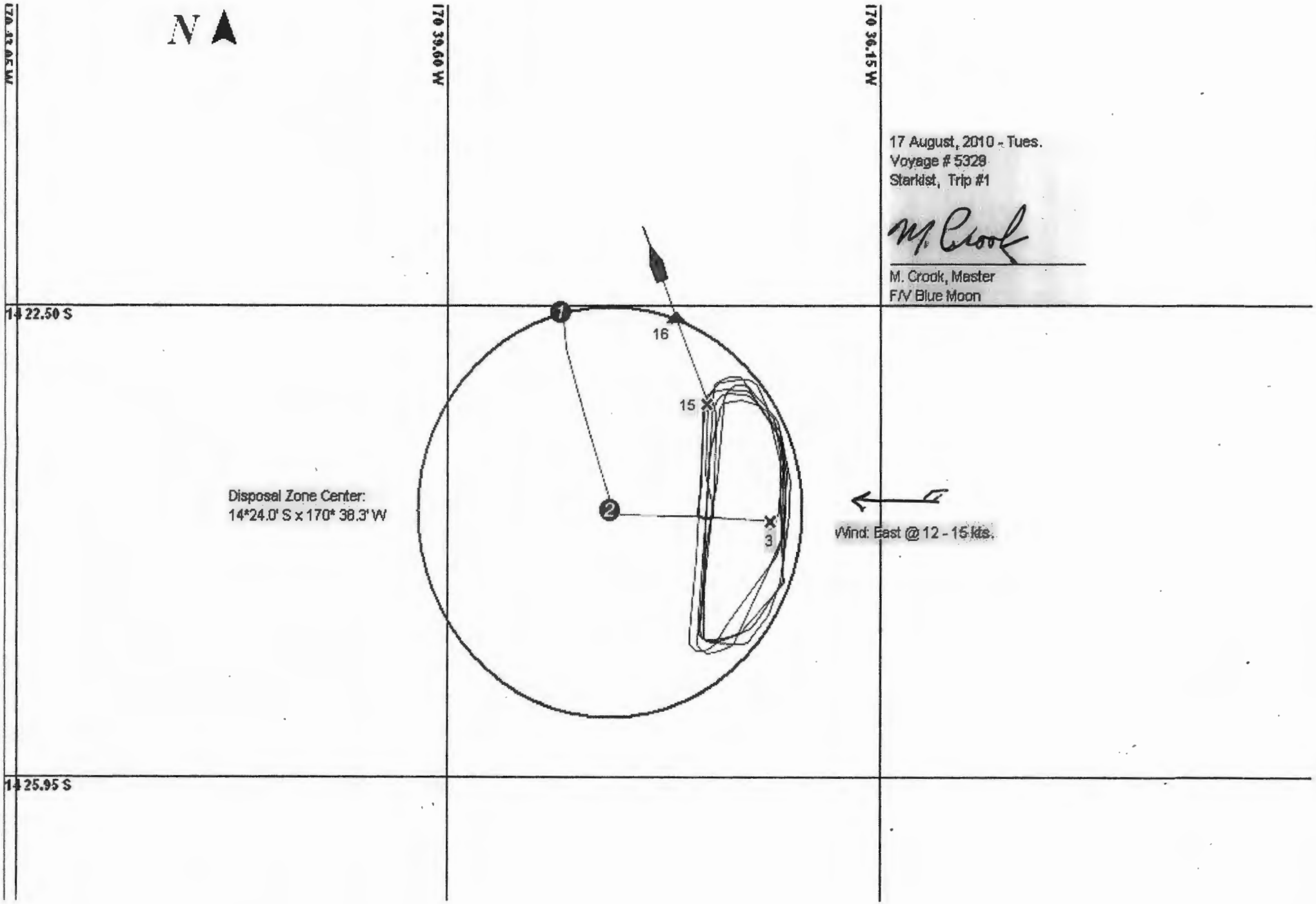

170 43.05 W
170 39.60 W
170 36.15 W
N
14 22.50 S
14 25.95 S
07 August, 2010 - Set.
Voyage # 5325
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
16
15
3
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: East @ 18 - 25 kts.

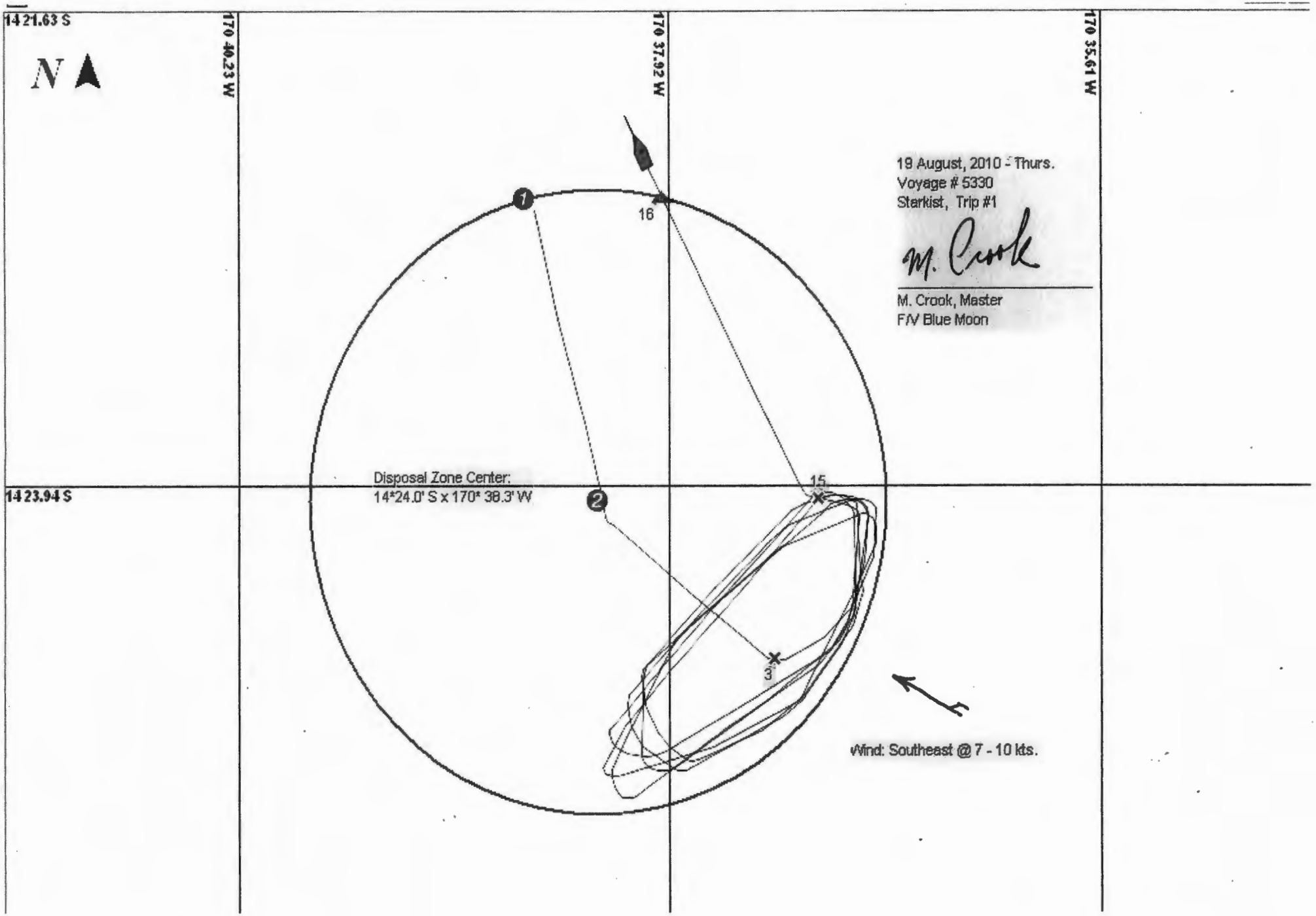

N
170 40.23 W
170 36.82 W
170 33.41 W
14 22.73 S
14 26.14 S
10 August, 2010 - Tues.
Voyage # 5326
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
16
1
2
15
Disposal Zone Center:
14*24.0' S x 170* 36.3' W
Wind: Southeast @ 5 - 12 kts.

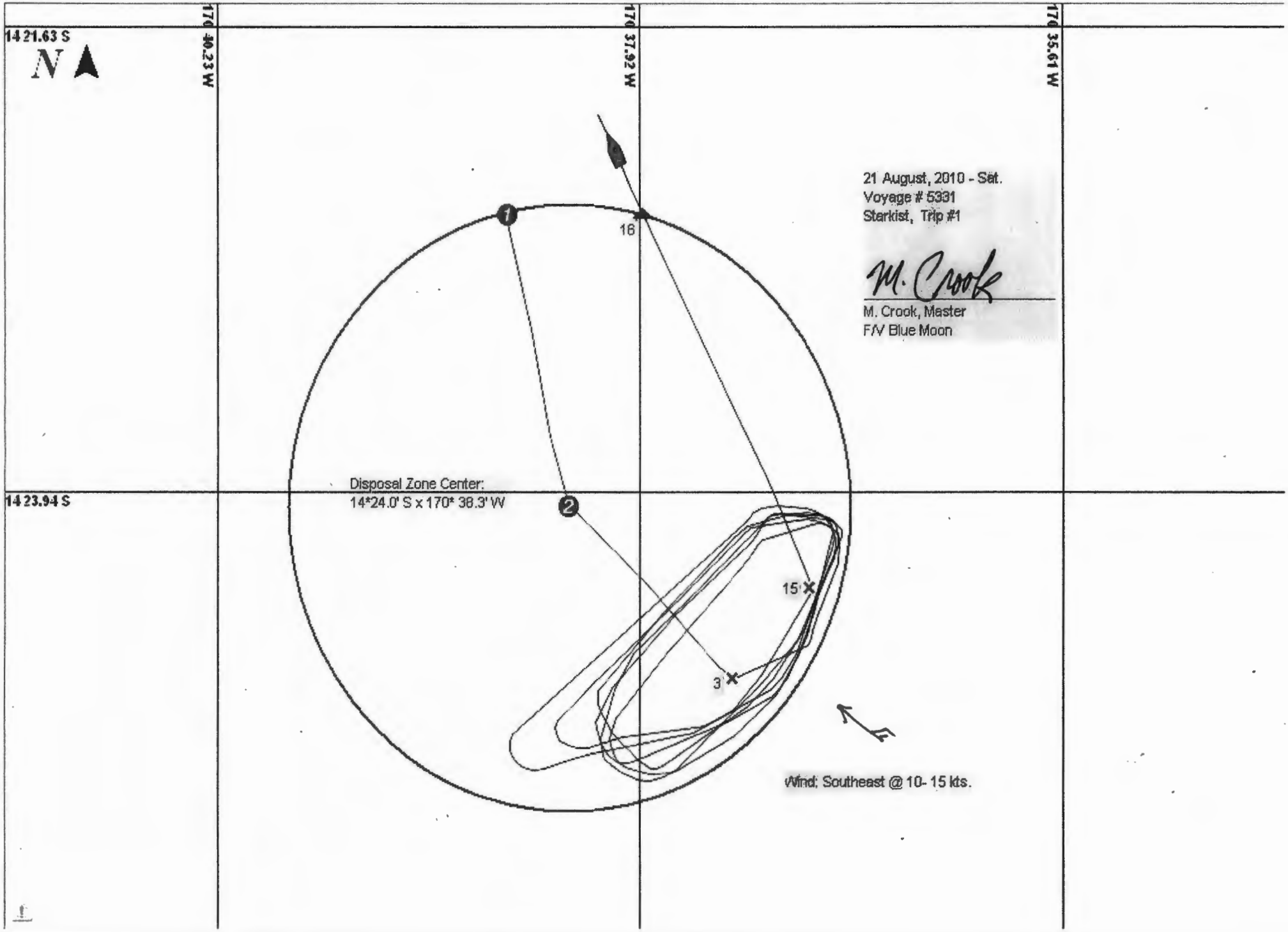

170 43.05 W
170 39.60 W
170 36.15 W
170 32.70 W
N
14 22.50 S
14 25.95 S
12 August, 2010 - Thurs.
Voyage # 5327
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
16
15
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: Southeast @ 20 - 25 kts.

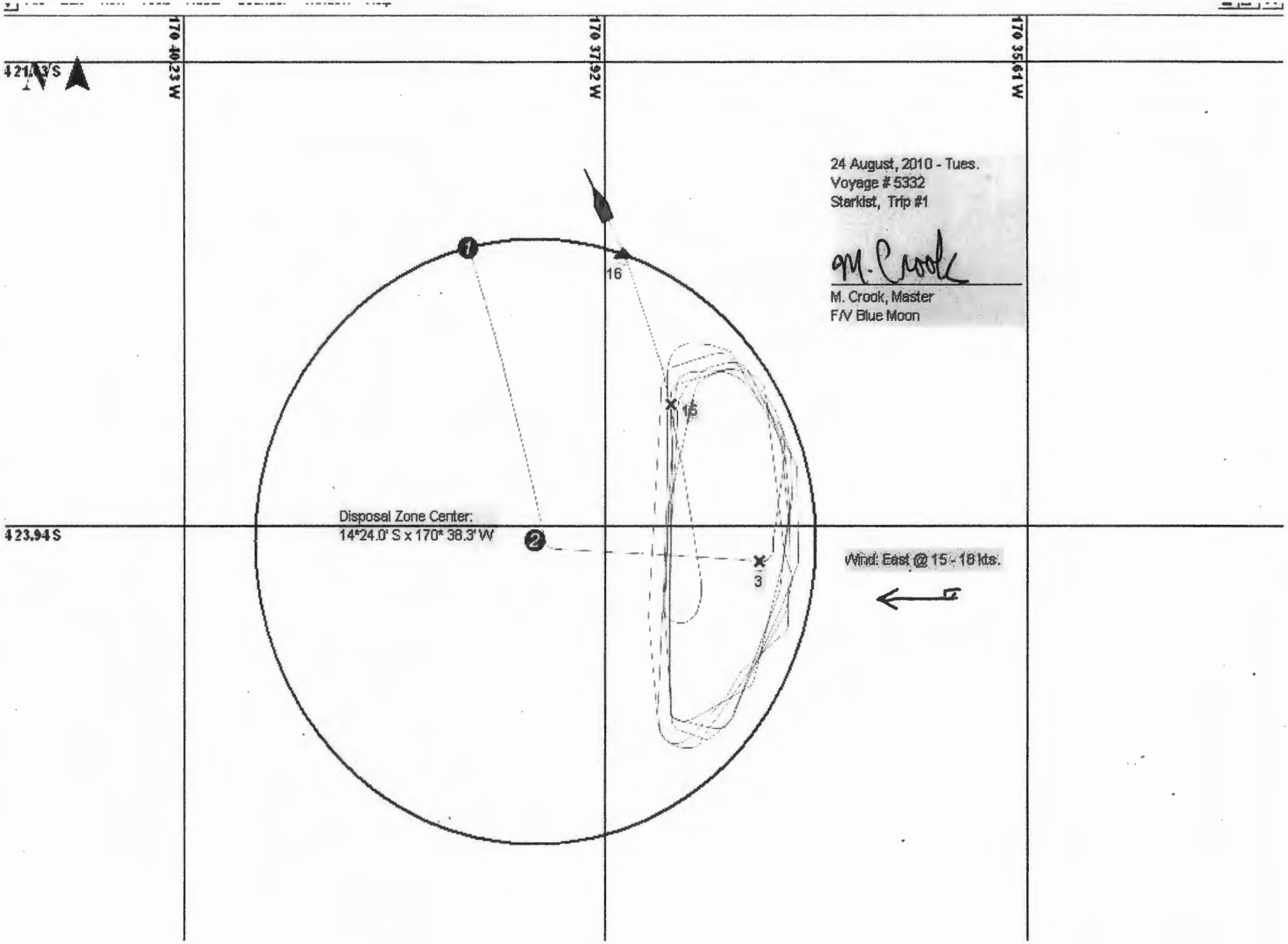

170 43.05 W
170 39.60 W
170 36.15 W
170 32.70 W
N
14 22.50 S
14 25.95 S
12 August, 2010 - Thurs.
Voyage # 5327
Starkist only, Trip #1
M. Crook, Master
F/V Blue Moon
1
16
15
2
3
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: Southeast @ 20 - 25 kts.

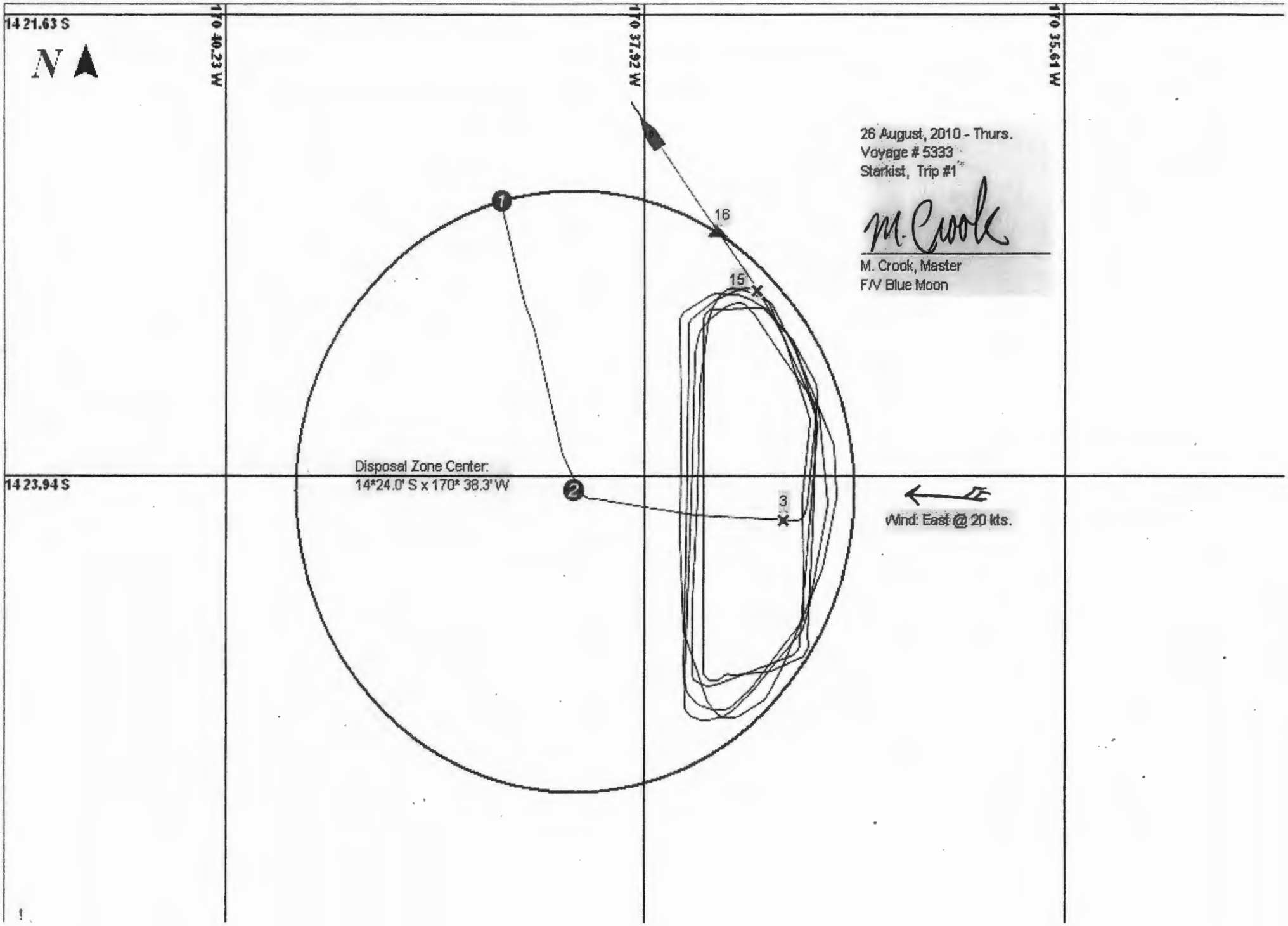

170 42.05 W
170 39.60 W
170 36.15 W
170 32.70 W
N
14 22.50 S
14 25.95 S
1
2
16
15
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
Wind: Southeast @ 20 - 25 kts.
14 August, 2010 - Sat.
Voyage # 5328
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon

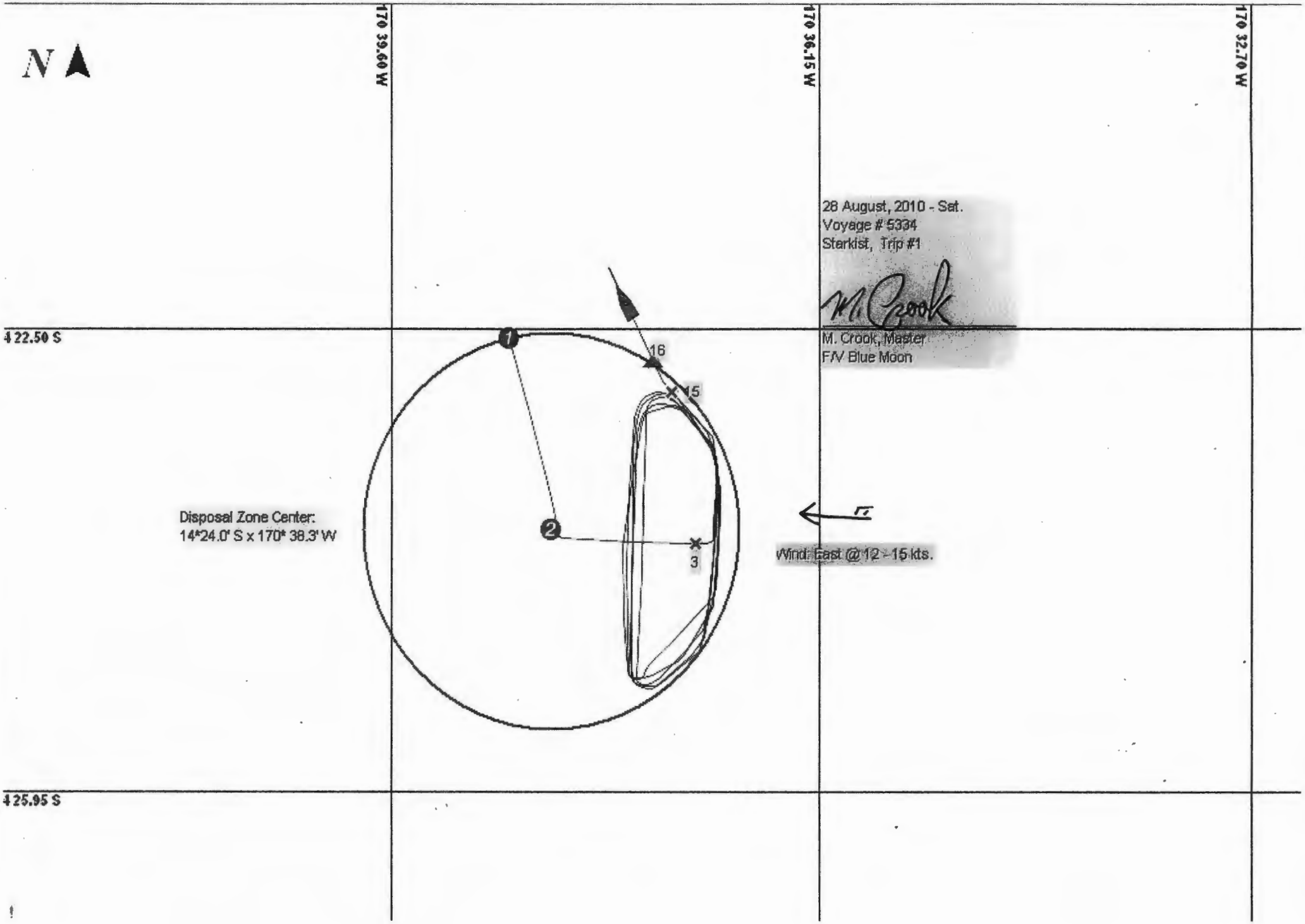

N
170 42.05 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
17 August, 2010 - Tues.
Voyage # 5329
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
3
15
16
Wind: East @ 12 - 15 kts.


14 21.63 S
N
170 40.23 W
170 37.92 W
170 35.61 W
14 23.94 S
1
2
16
15
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
19 August, 2010 - Thurs.
Voyage # 5330
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: Southeast @ 7 - 10 kts.


14 21.63 S
N
170 40.23 W
170 37.92 W
170 35.61 W
14 23.94 S
1
2
16
15
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
21 August, 2010 - Sat.
Voyage # 5331
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: Southeast @ 10- 15 kts.


170 40.23 W
170 37.92 W
170 35.61 W
421.13 S
423.94 S
24 August, 2010 - Tues.
Voyage # 5332
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
Wind: East @ 15 - 18 kts.
1
2
16
15
3


14 21.63 S
N
170 40.23 W
170 37.92 W
170 35.61 W
26 August, 2010 - Thurs.
Voyage # 5333
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
16
15
1
2
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
14 23.94 S
Wind: East @ 20 kts.


N
170 39.60 W
170 36.15 W
170 32.70 W
4 22.50 S
4 25.95 S
28 August, 2010 - Sat.
Voyage # 5334
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
3
15
16
Wind: East @ 12 - 15 kts.

2010

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

02 September, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue moon
Chief investigator:	Mike Crook
Starkist Samoa Co. Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling Positions:	All positions obtained by Global Positioning Satellite Navigator (GPS)

Mike Crook

P.O. Box 4[illegible]33 Pago Pago, AS

09/02/10

Introduction

On September 02, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0605: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master, Principal Investigator, Chief and Mate onboard.

0657: The *Blue Moon* entered the dumpzone circle @ 14*22.3' S / 170*38.5' W.

0708: The *Blue Moon* arrived at the dump-zone center, where observed southeasterly winds and slight southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0715: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with SE swells to 1.5 meters and a southeast wind of 15 knots. Skies were partly cloudy with unlimited visibility and the barometer reading 29.72 Current set and drift, of the ship, were to the northwest at 0.7 knots. No floating materials or sea life were observed here.

0725: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical/triangular pattern (see Plot 1) until 1020 hrs.

1030: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had

increased to 18 knots with still partly cloudy skies (40%). The waste plume was either dissipated here or had moved off to the northwest as there was very little of the typical tell-tale surface sheen or water discoloration visible. The current/wind drift of the ship was now GPS determined to be northwesterly @ 1.2 knots. No sea life or floatable materials were observed.

1040: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position had only a few light and scattered streaks of the characteristic glassy surface sheen of the waste plume. The drift rate of the ship with current and wind was GPS determined to be northwesterly (NW) at 1.1 knots between stations 2 & 3. No sea-life or floatable materials were noted at this position.

1050: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was in another area of broken patches of light glassy surface sheen over clear blue water. The drift rate of the ship between stations 3 & 4 was steady at 1.1 knots again, to the NW.

1100: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM, NW of Station #3, had the same visual absence of the waste plume as Station #1 with just natural clear blue water. There were no floating or suspended materials. The NW current/drift rate of the ship was again noted here to be at 1.0 knots.

1110: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.25 NM SSW of the zone center (Plot #1). The waste plume was barely visible at this location which was mostly natural, clear blue ocean with a few, barely visible, streaks of surface sheen. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds, mainly white Terns, flying by. The final barometer reading was 29.75 when monitoring activities were concluded at 1115 hrs. The *Blue Moon* exited the disposal zone at 1125 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 12:20 PM.

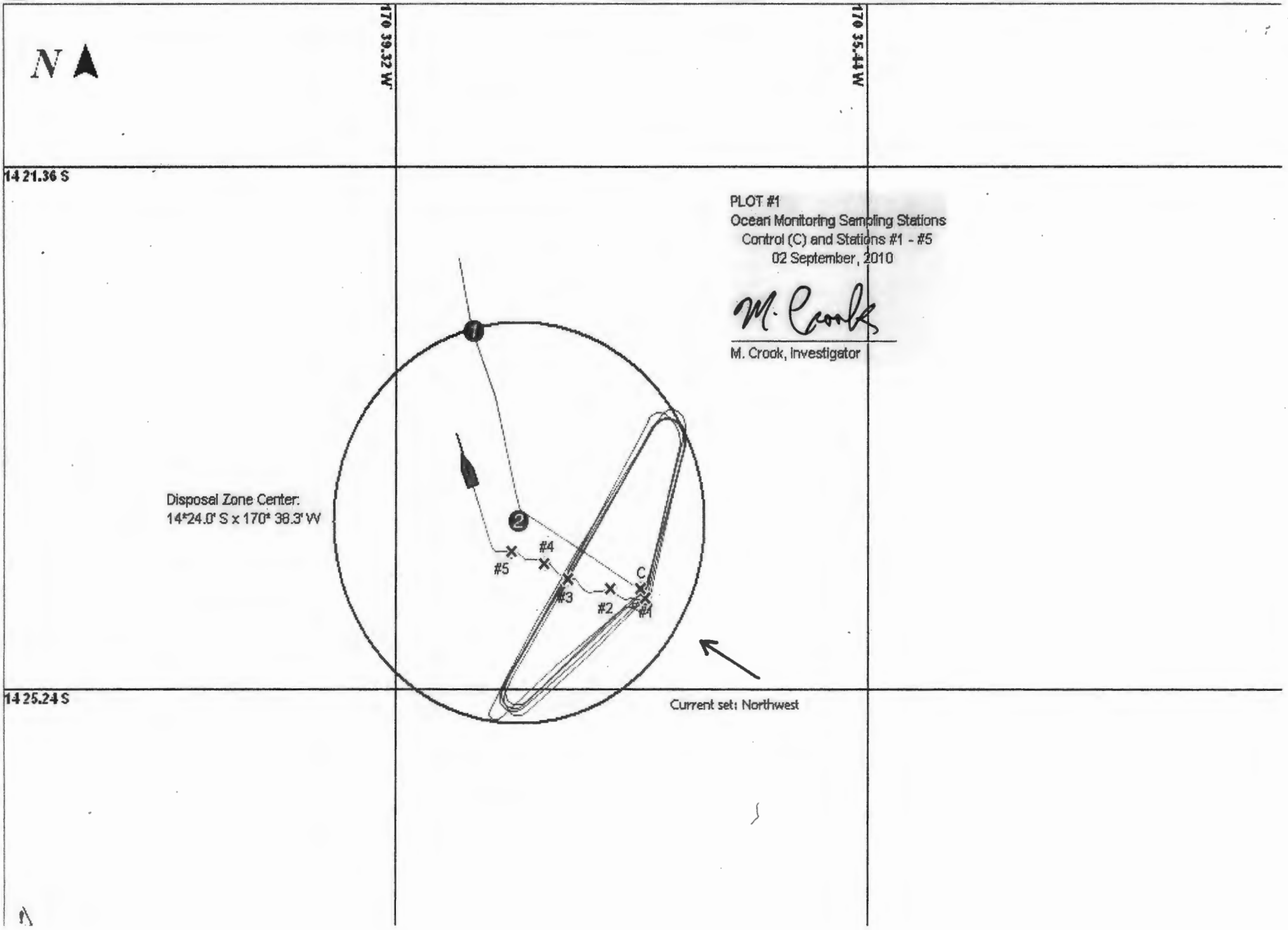
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 02 September 2010	Sea Conditions: Slight-Moderate w/ Southeast swells to 1.5 meters. Wind: Southeast @ 15 - 18 knots Visibility: Unlimited Barometer: 29.72 – 29.75 Current Set & Drift Rate: Northwest @ average 1.1 knots Sky: Partly Cloudy, 30 – 40%					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0715	Control	1	26.7	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
1030	Station 1	1	26.7	7.3	None	Same as Control Station color characteristics. Waste plume not extensively visible, appeared to be mostly dissipated
		3	26.7	7.3		
		10	26.7	7.3		
1040	Station 2	1	26.7	7.3	Slightly Pungent	A few light and scattered streaks of glassy surface sheen. No floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
1050	Station 3	1	27.2	7.3	Slightly Pungent	Same situation as Station #2. No floating or suspended particulate materials.
		3	26.7	7.3		
		10	26.7	7.3		
1100	Station 4	1	27.2	7.3	None	No visible evidence of the wastewater plume sheen in the vicinity of this position. No floating or suspended materials noted either.
		3	26.7	7.3		
		10	26.7	7.3		
1110	Station 5	1	27.2	7.3	Slightly Pungent	Leading edge of the waste plume. A very few light and widely scattered streaks of semi-glassy surface sheen with clear, blue, natural appearing seas further down-current to the northwest.
		3	26.7	7.3		
		10	26.7	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.57'	South	170° 37.27'	West
Station 1	14° 24.59'	South	170° 37.25'	West
Station 2	14° 24.52'	South	170° 37.52'	West
Station 3	14° 24.45'	South	170° 37.83'	West
Station 4	14° 24.33'	South	170° 38.07'	West
Station 5	14° 24.24'	South	170° 38.32'	West


N
170 39.32 W
170 35.44 W
14 21.36 S
14 25.24 S
PLOT #1
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
02 September, 2010
M. Crook, Investigator
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
1
2
#5
#4
#3
#2
C
#1
Current set: Northwest

2010

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

02 September, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue moon
Chief investigator:	Mike Crook
Starkist Samoa Co. Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling Positions:	All positions obtained by Global Positioning Satellite Navigator (GPS)

Mike Crook

P.O. Box 4933 Pago Pago, AS

09/02/10

Introduction

On September 02, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0605: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master, Principal Investigator, Chief and Mate onboard.

0657: The *Blue Moon* entered the dumpzone circle @ 14*22.3' S / 170*38.5' W.

0708: The *Blue Moon* arrived at the dump-zone center, where observed southeasterly winds and slight southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0715: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with SE swells to 1.5 meters and a southeast wind of 15 knots. Skies were partly cloudy with unlimited visibility and the barometer reading 29.72 Current set and drift, of the ship, were to the northwest at 0.7 knots. No floating materials or sea life were observed here.

0725: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical/triangular pattern (see Plot 1) until 1020 hrs.

1030: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had

increased to 18 knots with still partly cloudy skies (40%). The waste plume was either dissipated here or had moved off to the northwest as there was very little of the typical tell-tale surface sheen or water discoloration visible. The current/wind drift of the ship was now GPS determined to be northwesterly @ 1.2 knots. No sea life or floatable materials were observed.

1040: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position had only a few light and scattered streaks of the characteristic glassy surface sheen of the waste plume. The drift rate of the ship with current and wind was GPS determined to be northwesterly (NW) at 1.1 knots between stations 2 & 3. No sea-life or floatable materials were noted at this position.

1050: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was in another area of broken patches of light glassy surface sheen over clear blue water. The drift rate of the ship between stations 3 & 4 was steady at 1.1 knots again, to the NW.

1100: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM, NW of Station #3, had the same visual absence of the waste plume as Station #1 with just natural clear blue water. There were no floating or suspended materials. The NW current/drift rate of the ship was again noted here to be at 1.0 knots.

1110: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.25 NM SSW of the zone center (Plot #1). The waste plume was barely visible at this location which was mostly natural, clear blue ocean with a few, barely visible, streaks of surface sheen. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds, mainly white Terns, flying by. The final barometer reading was 29.75 when monitoring activities were concluded at 1115 hrs. The *Blue Moon* exited the disposal zone at 1125 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 12:20 PM.

OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 02 September 2010	Sea Conditions: Slight-Moderate w/ Southeast swells to 1.5 meters. Wind: Southeast @ 15 - 18 knots Visibility: Unlimited Barometer: 29.72 – 29.75 Current Set & Drift Rate: Northwest @ average 1.1 knots Sky: Partly Cloudy, 30 – 40%					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0715	Control	1	26.7	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
1030	Station 1	1	26.7	7.3	None	Same as Control Station color characteristics. Waste plume not extensively visible, appeared to be mostly dissipated
		3	26.7	7.3		
		10	26.7	7.3		
1040	Station 2	1	26.7	7.3	Slightly Pungent	A few light and scattered streaks of glassy surface sheen. No floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
1050	Station 3	1	27.2	7.3	Slightly Pungent	Same situation as Station #2. No floating or suspended particulate materials.
		3	26.7	7.3		
		10	26.7	7.3		
1100	Station 4	1	27.2	7.3	None	No visible evidence of the wastewater plume sheen in the vicinity of this position. No floating or suspended materials noted either.
		3	26.7	7.3		
		10	26.7	7.3		
1110	Station 5	1	27.2	7.3	Slightly Pungent	Leading edge of the waste plume. A very few light and widely scattered streaks of semi-glassy surface sheen with clear, blue, natural appearing seas further down-current to the northwest.
		3	26.7	7.3		
		10	26.7	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.57'	South	170° 37.27'	West
Station 1	14° 24.59'	South	170° 37.25'	West
Station 2	14° 24.52'	South	170° 37.52'	West
Station 3	14° 24.45'	South	170° 37.83'	West
Station 4	14° 24.33'	South	170° 38.07'	West
Station 5	14° 24.24'	South	170° 38.32'	West

N

170 39.32 W

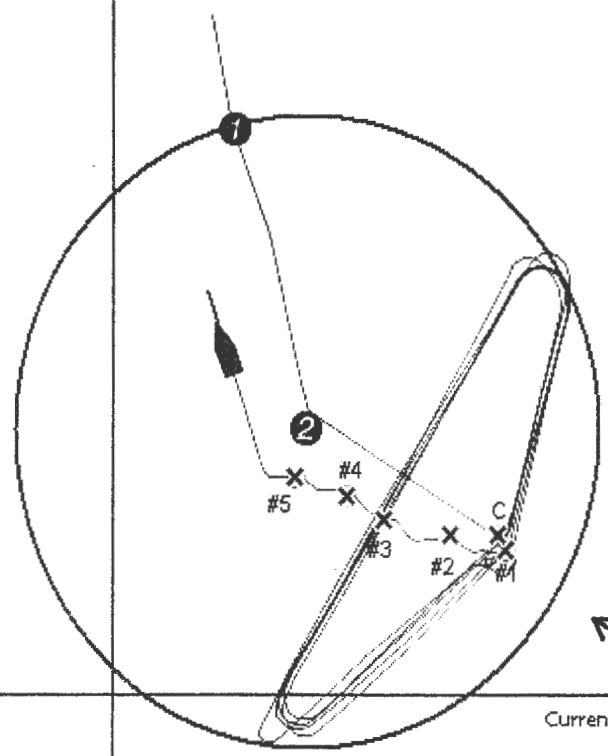
170 35.44 W

14 21.36 S

PLOT #1
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
02 September, 2010

M. Crook, Investigator

Disposal Zone Center:
14*24.0' S x 170* 38.3' W



Current set: Northwest

14 25.24 S

2010

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

02 September, 2010

Monitoring Vessel:	M/V Blue Moon
Discharge Vessel:	M/V Blue moon
Chief investigator:	Mike Crook
Starkist Samoa Co. Liaison:	Joe Carney
COS Samoa Packing Liaison:	Sam Augspurger
Determination of Sampling Positions:	All positions obtained by Global Positioning Satellite Navigator (GPS)

Mike Crook

P.O. Box 4933 Pago Pago, AS

09/02/10

Introduction

On September 02, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dumpsite area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0605: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master, Principal Investigator, Chief and Mate onboard.

0657: The *Blue Moon* entered the dumpzone circle @ 14*22.3' S / 170*38.5' W.

0708: The *Blue Moon* arrived at the dump-zone center, where observed southeasterly winds and slight southeasterly seas initially indicated disposal operations be conducted in the southeast dump-zone quadrant.

0715: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with SE swells to 1.5 meters and a southeast wind of 15 knots. Skies were partly cloudy with unlimited visibility and the barometer reading 29.72 Current set and drift, of the ship, were to the northwest at 0.7 knots. No floating materials or sea life were observed here.

0725: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elongated elliptical/triangular pattern (see Plot 1) until 1020 hrs.

1030: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had

increased to 18 knots with still partly cloudy skies (40%). The waste plume was either dissipated here or had moved off to the northwest as there was very little of the typical tell-tale surface sheen or water discoloration visible. The current/wind drift of the ship was now GPS determined to be northwesterly @ 1.2 knots. No sea life or floatable materials were observed.

1040: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position had only a few light and scattered streaks of the characteristic glassy surface sheen of the waste plume. The drift rate of the ship with current and wind was GPS determined to be northwesterly (NW) at 1.1 knots between stations 2 & 3. No sea-life or floatable materials were noted at this position.

1050: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position was in another area of broken patches of light glassy surface sheen over clear blue water. The drift rate of the ship between stations 3 & 4 was steady at 1.1 knots again, to the NW.

1100: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM, NW of Station #3, had the same visual absence of the waste plume as Station #1 with just natural clear blue water. There were no floating or suspended materials. The NW current/drift rate of the ship was again noted here to be at 1.0 knots.

1110: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.25 NM SSW of the zone center (Plot #1). The waste plume was barely visible at this location which was mostly natural, clear blue ocean with a few, barely visible, streaks of surface sheen. No notable sea life was observed at this position, or any of the previous stations, other than a few random seabirds, mainly white Terns, flying by. The final barometer reading was 29.75 when monitoring activities were concluded at 1115 hrs. The *Blue Moon* exited the disposal zone at 1125 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 12:20 PM.

OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 02 September 2010	Sea Conditions: Slight-Moderate w/ Southeast swells to 1.5 meters. Wind: Southeast @ 15 - 18 knots Visibility: Unlimited Barometer: 29.72 – 29.75 Current Set & Drift Rate: Northwest @ average 1.1 knots Sky: Partly Cloudy, 30 – 40%					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0715	Control	1	26.7	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
1030	Station 1	1	26.7	7.3	None	Same as Control Station color characteristics. Waste plume not extensively visible, appeared to be mostly dissipated
		3	26.7	7.3		
		10	26.7	7.3		
1040	Station 2	1	26.7	7.3	Slightly Pungent	A few light and scattered streaks of glassy surface sheen. No floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
1050	Station 3	1	27.2	7.3	Slightly Pungent	Same situation as Station #2. No floating or suspended particulate materials.
		3	26.7	7.3		
		10	26.7	7.3		
1100	Station 4	1	27.2	7.3	None	No visible evidence of the wastewater plume sheen in the vicinity of this position. No floating or suspended materials noted either.
		3	26.7	7.3		
		10	26.7	7.3		
1110	Station 5	1	27.2	7.3	Slightly Pungent	Leading edge of the waste plume. A very few light and widely scattered streaks of semi-glassy surface sheen with clear, blue, natural appearing seas further down-current to the northwest.
		3	26.7	7.3		
		10	26.7	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.57'	South	170° 37.27'	West
Station 1	14° 24.59'	South	170° 37.25'	West
Station 2	14° 24.52'	South	170° 37.52'	West
Station 3	14° 24.45'	South	170° 37.83'	West
Station 4	14° 24.33'	South	170° 38.07'	West
Station 5	14° 24.24'	South	170° 38.32'	West

N

170 39.32 W

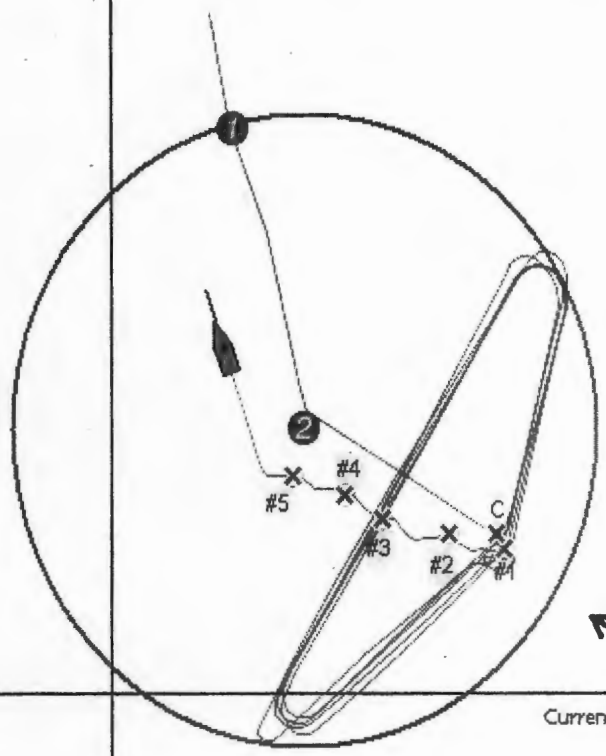
170 35.44 W

14 21.36 S

PLOT #1
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
02 September, 2010

M. Crook, Investigator

Disposal Zone Center:
14*24.0' S x 170* 38.3' W



Current set: Northwest

14 25.24 S

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON September, 2010

NUMBER OF TRIPS:	SK:	SP:	JOINT:	TOTAL:
	11	0	0	11

GALLONS-FOR THE MONTH:	SK:	SP:	JOINT:	TOTAL:
	1,880,000	0	0	1,880,000

GALLONS FOR SOLO TRIPS:	SK:	SP:
	1,880,000	0

RUNNING TIME ON TRIPS: 54.17 hrs.

DISCHARGE TIME ON TRIPS: 29.9 hrs.

AV. GPM DISCHARGE RATE: 113 gpm/s

AV. TRIP TIME: 4.92 hrs.

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK:	COS:
100.00%	N/A

MASTER :

STAR KIST SAMOA, CO
WATER TREATMENT DEPARTMENT

BLUE MOON - OCEAN DUMPING LOG

October 01, 2010

Trip Date	1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Volume
1-Sep-10	1st Trip	1545\1620 (75000)		2nd Trip	NONE	0
2-Sep-10	1st Trip	1430\1600 (47500)	192500	2nd Trip	NONE	0
3-Sep-10	1st Trip	1430\1915 (131250)		2nd Trip	NONE	0
4-Sep-10	1st Trip		178750	2nd Trip	NONE	0
5-Sep-10	1st Trip	0230\0430 (55000)		2nd Trip	NONE	0
6-Sep-10	1st Trip	1550\1930 (80000)		2nd Trip	NONE	0
7-Sep-10	1st Trip	1700\1900 (55000)	135000	2nd Trip	NONE	0
8-Sep-10	1st Trip	1540\2000 (100750)		2nd Trip	NONE	0
9-Sep-10	1st Trip	1600\1830 (67500)	155750	2nd Trip	NONE	0
10-Sep-10	1st Trip	1530\1930 (102000)		2nd Trip	NONE	0
11-Sep-10	1st Trip		169500	2nd Trip	NONE	0
12-Sep-10	1st Trip	1600\1800 (65000)		2nd Trip	NONE	0
13-Sep-10	1st Trip	1610\2015 (128750)		2nd Trip	NONE	0
14-Sep-10	1st Trip	1614\1815 (45000)	193750	2nd Trip	NONE	0
15-Sep-10	1st Trip	1600\2015 (121250)		2nd Trip	NONE	0
16-Sep-10	1st Trip	1500\1640 (48750)	166250	2nd Trip	NONE	0
17-Sep-10	1st Trip	1500\1900 (117500)		2nd Trip	NONE	0
18-Sep-10	1st Trip		166250	2nd Trip	NONE	0
19-Sep-10	1st Trip	1600\1730 (45000)		2nd Trip	NONE	0
20-Sep-10	1st Trip	1615\2100 (116750)		2nd Trip	NONE	0
21-Sep-10	1st Trip	1640\1900 (66250)	161750	2nd Trip	NONE	0
22-Sep-10	1st Trip	1600\2030 (115500)		2nd Trip	NONE	0
23-Sep-10	1st Trip	1630\1900 (72500)	181750	2nd Trip	NONE	0
24-Sep-10	1st Trip	1600\2040 (106250)		2nd Trip	NONE	0
25-Sep-10	1st Trip	N/P	178750	2nd Trip	NONE	0
26-Sep-10	1st Trip	SUNDAY		2nd Trip	NONE	0
27-Sep-10	1st Trip	N/P		2nd Trip	NONE	0
28-Sep-10	1st Trip	N/P		2nd Trip	NONE	0
29-Sep-10	1st Trip	N/P		2nd Trip	NONE	0
30-Sep-10	1st Trip			2nd Trip	NONE	0
TOTAL	1st Trip		1,880,000	2nd Trip		0
					Total 1st & 2nd	

cc:
Blue Moon- Captain
File

Prepared by: W.W.T

Date: 09/02/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5336

Permit # OD 93-01 & OD 93-02

Time	
1500	Begin 1st Loading SK
1900	Finish 1st Loading SK
1545	Begin 2nd Loading SK
1620	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:

SK	192500	Gallons
		Gallons
Total	192500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0605	Depart Starkist		14*16.50'	S	170* 41.2'	W	SE 15	50	29.80			
0657	Arrive Edge of Zone	# 1	14*22.7	S	170*38.7	W	SE 15	50	29.80	1.5	8.6	170°
0708	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 15	50	29.80	1.5	8.9	166
0720	Begin Discharge	# 3	14*24.6	S	170*37.3	W	SE 20	50	29.80	1.5 X	9	191°
35		# 4	14*23.4	S	170*36.9	W	SE 20	50	29.80	1.5	8.8	003°
50	Remarks:	# 5	14*24.8	S	170*38.2	W	SE 20	50	29.80	1.5	9	211°
0805		# 6	14*24.6	S	170*37.3	W	SE 20	50	29.8	1.5	9	50°
20	0715 water	# 7	14*24.0	S	170*37.6	W	SE 20	50	29.8	1.5 5	9.2	213°
35	sample	# 8	14*25.3	S	170*38.2	W	SE 20	50	29.8	1.5	8.5	057°
50		# 9	14*23.3	S	170*37.1	W	SE 20	50	29.8	1.5	9.1	224°
0905		# 10	14*24.7	S	170*38.1	W	SE 20	50	29.75	1.5	9.4	212°
20		# 11	14*23.0	S	170*36.9	W	SE 20	50	29.75	1.5	9.2	016°
35		# 12	14*24.0	S	170*37.6	W	SE 20	50	29.8	1.5 10	9.5	211°
50		# 13	14*24.7	S	170*37.5	W	SE 20	50	29.8	1.5	9.2	047°
1005		# 14	14*24.5	S	170*38.0	W	SE 20	50	29.8	1.5	9.7	311°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1020	Finish Discharge	15	14*25.1	S	170*38.1	W	SE 20	50	29.8	1.5	9.3	052°
1124	Exit Discharge Zone	16	14*27.7	S	170*38.8	W	SE 20	50	29.8	1.5	9.4	348°
1220	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.1 kts. Total Time Run 6.25 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 117.5 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/04/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5337

Permit # OD 93-01 & OD 93-02

Time	
1430	Begin 1st Loading SK
1600	Finish 1st Loading SK
1420	Begin 2nd Loading SK
1915	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK 178750 Gallons

Gallons

Total Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W						
0708	Arrive Edge of Zone	# 1	14*22.	S	170*38.	W	SE 25	50	29.7	2	8.1	162°
0713	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 25	50	29.7	2	8	167°
0730	Begin Discharge	# 3	14*24.7	S	170*37.1	W	SE 25	50	29.7	2 X	8.2	277°
45		# 4	14*24.8	S	170*37.7	W	SE 25	50	29.7	2	8.1	119°
0800	Remarks:	# 5	14*24.1	S	170*37.8	W	SE 25	50	29.7	2	8.7	333°
15		# 6	14*24.0	S	170*37.1	W	SE 25	50	29.7	2	8.4	115°
30		# 7	14*24.2	S	170*38.4	W	SE 25	50	29.7	2 5	9.0	268°
45		# 8	14*24.2	S	170*37.7	W	SE 25	50	29.75	2	9.1	332°
0900		# 9	14*24.0	S	170*37.2	W	SE 25	50	29.75	2	8.9	117°
15		# 10	14*24.2	S	170*38.6	W	SE 25	50	29.75	2	8.8	140°
30		# 11	14*24.4	S	170*37.6	W	SE 25	50	29.75	2	9.4	332°
45		# 12	14*24.0	S	170*37.1	W	SE 25	50	29.75	2 10	9	118°
1000		# 13	14*24.2	S	170*38.3	W	SE 25	50	29.75	2	9.6	271°
15		# 14	14*24.3	S	170*37.7	W	SE 25	50	29.75	2	9.6	333°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1019	Finish Discharge	15	14*23.8	S	170*37.9	W	SE 25	50	29.75	2	9.8	332°
1027	Exit Discharge Zone	16	14*22.6	S	170*38.4	W	SE 25	50	29.75	2	9.7	343°
1120	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 169 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 5.08 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 118.8 Gallons/min/kt.

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/07/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5338

Permit # OD 93-01 & OD 93-02

Time	
0230	Begin 1st Loading SK
0430	Finish 1st Loading SK
1550	Begin 2nd Loading SK
1930	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK 175 000 Gallons

Gallons

Total Gallons

Time		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
										Metric		kts	True*
0640	Depart Starkist		14*16.50'	S	170* 41.2'	W		70	29.65				
0732	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 25	70	29.65	2		8.5	168°
0742	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 25	70	29.65	2		8.5	166°
0750	Begin Discharge	# 3	14*2 4.8	S	170*3 7.2	W	SE 25	60	29.65	2	X	9	276°
0805		# 4	14*2 4.3	S	170*3 8.5	W	SE 25	60	29.65	2		9.3	296°
20	Remarks:	# 5	14*2 4.8	S	170*3 7.6	W	SE 25	60	29.65	2		9.4	343°
35		# 6	14*2 4.2	S	170*3 7.1	W	SE 25	60	29.65	2		8.6	125°
50		# 7	14*2 4.3	S	170*3 8.3	W	SE 25	60	29.65	2	5	9.4	276°
0905		# 8	14*2 5.0	S	170*3 7.6	W	SE 25	60	29.65	2		9.3	353°
20		# 9	14*2 4.1	S	170*3 6.9	W	SE 25	60	29.65	2		8.8	125°
35		# 10	14*2 4.3	S	170*3 8.3	W	SE 20	60	29.65	2		9.5	271°
50		# 11	14*2 4.3	S	170*3 7.8	W	SE 25	60	29.65	2		9.7	346°
1005		# 12	14*2 4.3	S	170*3 8.0	W	SE 25	60	29.65	2	10	10	274°
		# 13	14*2	S	170*3	W							
		# 14	14*2	S	170*3	W							
		# 15	14*2	S	170*3	W							
		# 16	14*2	S	170*3	W							
		# 17	14*2	S	170*3	W					15		
		# 18	14*2	S	170*3	W							
		# 19	14*2	S	170*3	W							
		# 20	14*2	S	170*3	W							
			14*2	S	170*3	W							
			14*2	S	170*3	W					20		
			14*2	S	170*3	W							
1015	Finish Discharge	13	14*2 4.4	S	170*3 8.5	W	SE 25	60	29.65	2		9.5	097°
1013	Exit Discharge Zone	14	14*2 2.8	S	170*3 8.9	W	SE 25	60	29.65	2		9.8	347°
1120	Secure SK Dock		14*16.50'	S	170*41.2'	W							

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 145 mins. Average Speed During Discharge: 9.3 kts. Total Time Run 3.6 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 100.1 Gallons/min/kt.

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/09/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5339

Permit # OD 93-01 & OD 93-02

Time	
1700	Begin 1st Loading SK
1900	Finish 1st Loading SK
1540	Begin 2nd Loading SK
2000	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK 153750 Gallons

Gallons

Total Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W		100	29.65	Metric	kts	True*
0700	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 25	100	29.65	2	8.4	166°
0714	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 25	100	29.65	2.5	8.3	166°
0725	Begin Discharge	# 3	14*24.4	S	170*37.1	W	SE 25	100	29.65	3 X	8.3	271°
40		# 4	14*24.4	S	170*36.1	W	SE 25	100	29.65	3	8.3	107°
55	Remarks:	# 5	14*24.0	S	170*37.8	W	SE 25	100	29.65	3	8.8	319°
0810		# 6	14*24.0	S	170*36.7	W	SE 25	100	29.65	3	8.3	253°
25		# 7	14*24.4	S	170*38.2	W	SE 25	100	29.65	2.5 5	8.4	102°
40		# 8	14*23.8	S	170*37.9	W	SE 25	90	29.65	2.5	9.4	315°
55		# 9	14*23.9	S	170*36.8	W	SE 25	90	29.65	2.5	9.6	246°
0910		# 10	14*24.3	S	170*38.4	W	SE 25	90	29.65	2.5	8.9	110°
25		# 11	14*24.1	S	170*37.6	W	SE 25	90	29.65	2.5	9.2	314°
40		# 12	14*23.9	S	170*37.0	W	SE 25	100	29.65	2.5 10	9.9	250°
55		# 13	14*24.5	S	170*37.6	W	SE 25	100	29.65	2.5	9	103°
1010		# 14	14*23.8	S	170*37.9	W	SE 25	100	29.65	2.5	9.7	319°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1012	Finish Discharge	15	14*23.6	S	170*38.0	W	SE 25	100	29.65	2.5	9.4	318°
1017	Exit Discharge Zone	16	14*23.6	S	170*38.4	W	SE 25	100	29.65	2.5	9.4	343°
1105	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 167 mins. Average Speed During Discharge: 9 kts. Total Time Run 4.91 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 103 Gallons/min/kt.

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/11/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5340

Permit # OD 93-01 & OD 93-02

Time	
1600	Begin 1st Loading SK
1820	Finish 1st Loading SK
1520	Begin 2nd Loading SK
1930	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:			
SK	169 500	Gallons
	—	Gallons
Total	169 500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W		100	29.7			
0702	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 20	100	29.7	2	8.4	163°
0713	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 20	100	29.7	2	8.6	165°
0720	Begin Discharge	# 3	14*2 4.4	S	170*3 7.2	W	SE 20	100	29.7	2 X	8.4	166°
35		# 4	14*2 4.0	S	170*3 7.6	W	SE 20	100	29.7	2	8.9	206°
50	Remarks:	# 5	14*2 4.6	S	170*3 7.3	W	SE 20	100	29.7	2	8.5	046°
0805		# 6	14*2 3.3	S	170*3 7.3	W	SE 20	100	29.7	2	9.3	210°
20		# 7	14*2 4.8	S	170*3 8.0	W	SE 20	100	29.7	2 5	9.4	204°
35		# 8	14*2 3.7	S	170*3 7.0	W	SE 20	100	29.7	2	9.4	009°
50		# 9	14*2 4.7	S	170*3 8.0	W	SE 20	100	29.7	2	9.6	207°
0905		# 10	14*2 4.1	S	170*3 7.1	W	SE 20	100	29.7	2	9.2	005°
20		# 11	14*2 4.6	S	170*3 7.9	W	SE 20	100	29.7	2	9.5	208°
35		# 12	14*2 4.2	S	170*3 7.1	W	SE 20	100	29.7	2 10	9.2	014°
1005		# 13	14*2 4.4	S	170*3 7.1	W	SE 20	100	29.7	2	9.2	025°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1010	Finish Discharge	14	14*2 3.5	S	170*3 6.9	W	SE 20	100	29.7	2	9.6	353°
1015	Exit Discharge Zone	15	14*2 3.1	S	170*3 7.1	W	SE 20	100	29.7	2	9.6	338°
1110	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.2 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 108.3 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/14/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5341

Permit # OD 93-01 & OD 93-02

Time	
1600	Begin 1st Loading SK
1800	Finish 1st Loading SK
1610	Begin 2nd Loading SK
2015	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK 197 750 Gallons

Gallons

Total 197 750 Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W		70	29.75			
0707	Arrive Edge of Zone	# 1	14*22. 4	S	170*38. 7	W	SE25	70	29.75	3	8.3	166°
0717	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE25	70	29.75	3	8.8	157°
0730	Begin Discharge	# 3	14*2 4.7	S	170*3 7.1	W	SE25	70	29.75	3 X	8.9	277°
45		# 4	14*2 4.4	S	170*3 8.6	W	SE25	70	29.75	3	8.5	124°
0800	Remarks:	# 5	14*2 4.5	S	170*3 7.7	W	SE25	70	29.75	3	9.1	335°
15		# 6	14*2 3.5	S	170*3 8.0	W	SE25	70	29.75	3	8.9	118°
30		# 7	14*2 4.2	S	170*3 7.9	W	SE25	70	29.75	3 5	9.2	273°
45		# 8	14*2 4.5	S	170*3 7.6	W	SE25	70	29.75	3	9.4	335°
0900		# 9	14*2 3.7	S	170*3 7.9	W	SE25	70	29.75	3	9.5	335°
15		# 10	14*2 4.2	S	170*3 7.5	W	SE 25	70	29.75	3	9.8	277°
30		# 11	14*2 5.0	S	170*3 7.6	W	SE 25	70	29.75	3	9.4	122°
45		# 12	14*2 3.7	S	170*3 7.9	W	SE 25	70	29.75	3 10	9.4	335°
1000		# 13	14*2 4.2	S	170*3 7.5	W	SE 25	70	29.75	3	9.9	271°
10		# 14	14*2 4.1	S	170*3 8.3	W	SE 30	70	29.75	3	9.1	327°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1010	Finish Discharge	15	14*2 4.1	S	170*3 8.3	W	SE30	70	29.75	3	9.1	327°
1018	Exit Discharge Zone	16	14*2 2.3	S	170*3 9.0	W	SE30	70	29.75	3	9.5	344°
1115	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 160 mins. Average Speed During Discharge: 9.2 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 134 Gallons/min/kt.

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/16/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5342

Permit # OD 93-01 & OD 93-02

Time	
1615	Begin 1st Loading SK
1815	Finish 1st Loading SK
1600	Begin 2nd Loading SK
2015	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:			
SK	166 250	Gallons	
	—	Gallons	
Total	166 250	Gallons	

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W		100	29.7			
0704	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE20	100	29.7	2	8.4	165°
0717	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE20	100	29.7	2	8.7	165°
0727	Begin Discharge	# 3	14*2 4.4	S	170*3 7.5	W	SE20	100	29.7	2 X	9.1	121°
0742		# 4	14*2 4.1	S	170*3 7.6	W	SE 20	100	29.7	2	9.4	208°
57	Remarks:	# 5	14*2 4.6	S	170*3 7.2	W	SE 20	100	29.7	2	7.1	047°
08 12		# 6	14*2 3.9	S	170*3 7.5	W	SE 20	100	29.7	2	9.3	211°
27		# 7	14*2 4.5	S	170*3 7.2	W	SE 20	100	29.7	2 5	9.1	019°
42		# 8	14*2 3.7	S	170*3 7.5	W	SE 20	100	29.7	2	9.5	209°
57		# 9	14*2 5.1	S	170*3 8.0	W	SE20	100	29.7	2	9.1	053°
09 12		# 10	14*2 4.3	S	170*3 7.1	W	SE20	100	29.7	2	9.2	014°
27		# 11	14*2 5.1	S	170*3 8.2	W	SE20	100	29.7	2	9.7	203°
42		# 12	14*2 4.1	S	170*3 7.1	W	SE 20	100	29.7	2 10	9.8	019°
57		# 13	14*2 5.1	S	170*3 8.0	W	SE20	100	29.7	2	9.5	057°
10 12		# 14	14*2 4.3	S	170*3 7.1	W	SE 20	100	29.7	2	9.3	050°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1013	Finish Discharge	15	14*2 4.1	S	170*3 7.1	W	SE20	100	29.7	2	9.3	017°
1020	Exit Discharge Zone	16	14*2 2.6	S	170*3 7.8	W	SE20	100	29.7	2	9.9	333°
1110	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 157 mins. Average Speed During Discharge: 9.3 kts. Total Time Run 4.9 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 113.8 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/18/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5343

Permit # OD 93-01 & OD 93-02

Time	
1500	Begin 1st Loading SK
1640	Finish 1st Loading SK
1500	Begin 2nd Loading SK
1900	Finish 2nd Loading SK

Trip # 1 -
Trip # 2

Volume Loaded: SK 166250 Gallons
Gallons
Total Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0635	Depart Starkist		14*16.50'	S	170* 41.2'	W		50	29.7	Metric	kts	True*
0728	Arrive Edge of Zone	# 1	14*22.6	S	170*38.6	W	SE 20	50	29.7	2	8.4	166°
0735	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 20	50	29.7	2	8.5	164°
0745	Begin Discharge	# 3	14*2 4.4	S	170*3 7.4	W	SE 20	50	29.7	2 X	9.2	119°
0900		# 4	14*2 4.0	S	170*3 7.4	W	SE 20	50	29.7	2	7.3	216°
15	Remarks:	# 5	14*2 4.8	S	170*3 7.5	W	SE 20	50	29.7	2	8.9	052°
20		# 6	14*2 3.7	S	170*3 7.2	W	SE 20	50	29.7	2	9.2	211°
45		# 7	14*2 4.5	S	170*3 8.1	W	SE 20	50	29.7	2 5	9.1	119°
0900		# 8	14*2 4.0	S	170*3 7.6	W	SE 25	50	29.7	2	9.4	328°
15		# 9	14*2 4.1	S	170*3 6.9	W	SE 25	50	29.7	2	9.4	253°
30		# 10	14*2 4.5	S	170*3 7.9	W	SE 25	50	29.7	2	9.1	116°
45		# 11	14*2 3.6	S	170*3 7.8	W	SE 25	50	29.7	2	9.6	341°
1000		# 12	14*2 4.1	S	170*3 7.3	W	SE 25	50	29.7	2 10	9.7	264°
15		# 13	14*2 4.7	S	170*3 7.6	W	SE 25	50	29.7	2	9.1	115°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1025	Finish Discharge	14	14*2 3.5	S	170*3 7.9	W	SE 25	50	29.7	2	9.4	017°
1035	Exit Discharge Zone	15	14*2 2.6	S	170*3 8.2	W	SE 25	50	29.7	2	9.6	341°
1135	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 160 mins. Average Speed During Discharge: 9.28 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 111.9 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/21/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5344

Permit # OD 93-01 & OD 93-02

Time	
1600	Begin 1st Loading SK
1730	Finish 1st Loading SK
1615	Begin 2nd Loading SK
2100	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK 161 750 Gallons

Gallons

Total Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W		50	29.65			
0655	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 20	50	29.65	1.5	8.6	166°
0702	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 20	50	29.65	2	8.6	165°
0710	Begin Discharge	# 3	14*2 4.4	S	170*3 7.5	W	SE 20	50	29.65	1.5 X	9.4	119°
25		# 4	14*2 3.6	S	170*3 7.2	W	SE 20	50	29.65	1.5	9.1	210
40	Remarks:	# 5	14*2 4.5	S	170*3 7.3	W	SE 20	50	29.65	1.5	9.2	047°
55		# 6	14*2 3.5	S	170*3 7.2	W	SE 20	50	29.65	1.5	9.2	220°
0810		# 7	14*2 5.0	S	170*3 8.1	W	SE 20	50	29.65	1.5 5	9.3	200°
25		# 8	14*2 5.4	S	170*3 7.0	W	SE 20	50	29.65	1.5	9	330°
40		# 9	14*2 4.8	S	170*3 8.0	W	SE 20	50	29.65	1.5	9.2	209°
55		# 10	14*2 3.6	S	170*3 7.0	W	SE 20	50	29.65	1.5	9.3	014°
0910		# 11	14*2 4.5	S	170*3 7.8	W	SE 20	50	29.65	1.5	9.6	209°
25		# 12	14*2 4.3	S	170*3 7.1	W	SE 20	50	29.65	1.5 10	9.3	019°
40		# 13	14*2 4.9	S	170*3 8.0	W	SE 20	50	29.65	1.5	9.7	209°
50		# 14	14*2 4.9	S	170*3 7.7	W	SE 20	50	29.65	1.5	9.0	036°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
50	Finish Discharge	14	14*2 4.9	S	170*3 7.9	W	SE 20	50	29.65	1.5	9.0	036°
1000	Exit Discharge Zone	15	14*2 2.5	S	170*3 8.3	W	SE 20	50	29.65	1.5	9.6	340°
1050	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 160 mins. Average Speed During Discharge: 9.25 kts. Total Time Run 4.6 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 109.2 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/23/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5345

Permit # OD 93-01 & OD 93-02

Time	
1640	Begin 1st Loading SK
1900	Finish 1st Loading SK
1600	Begin 2nd Loading SK
2030	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:

SK	181 750	Gallons
	—	Gallons
Total	181 750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W		70	29.7			
0706	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE20	70	29.7	2	8.4	168°
0717	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE25	70	29.7	2	8.5	124°
0725	Begin Discharge	# 3	14*2 4.4	S	170*3 7.5	W	SE25	70	29.7	2 X	8.8	119°
40		# 4	14*2 4.4	S	170*3 8.6	W	SE25	70	29.7	2	9.1	122°
55	Remarks:	# 5	14*2 7.8	S	170*3 7.7	W	SE25	70	29.7	2	9.3	116°
0810		# 6	14*2 4.0	S	170*3 7.2	W	SE25	70	29.7	2	9	120°
25		# 7	14*2 4.2	S	170*3 8.7	W	SE25	70	29.7	2 5	9.4	261°
40		# 8	14*2 4.1	S	170*3 7.8	W	SE25	70	29.7	2	9.2	332°
55		# 9	14*2 4.0	S	170*3 7.2	W	SE25	70	29.7	2	8.9	123°
0910		# 10	14*2 4.2	S	170*3 8.2	W	SE25	70	29.7	2	9.8	271°
25		# 11	14*2 5.0	S	170*3 7.4	W	SE25	70	29.7	2	9.5	332°
40		# 12	14*2 7.8	S	170*3 7.6	W	SE 30	70	29.7	2 10	9.2	119°
55		# 13	14*2 4.2	S	170*3 7.7	W	SE 30	70	29.7	2	10	233°
1010		# 14	14*2 5.0	S	170*3 7.4	W	SE 30	70	29.7	2	9.7	342°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1015	Finish Discharge	15	14*2 4.3	S	170*3 7.7	W	SE 30	70	29.7	2	9.5	332°
1030	Exit Discharge Zone	16	14*2 2.7	S	170*3 8.3	W	SE 30	70	29.7	2	9.3	341°
1120	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 175 mins. Average Speed During Discharge: 9.3 kts. Total Time Run 5.08 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 111.6 Gallons/min/kt.

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/25/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5346

Permit # OD 93-01 & OD 93-02

Time	
1630	Begin 1st Loading SK
1900	Finish 1st Loading SK
1600	Begin 2nd Loading SK
2040	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK _____ Gallons

_____ Gallons

Total 178750 Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W		100	29.7			
0700	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	ESE 25	100	29.7	2	8.8	166°
0714	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	ESE 25	100	29.7	2	8.2	166°
0720	Begin Discharge	# 3	14*2 4.4	S	170*3 7.4	W	ESE 25	100	29.7	2 X	8.9	115°
35		# 4	14*2 4.3	S	170*3 8.5	W	ESE 25	100	29.7	2	9.2	112°
50	Remarks:	# 5	14*2 4.4	S	170*3 7.4	W	ESE 25	100	29.7	2	9.4	325°
0805		# 6	14*2 3.8	S	170*3 7.4	W	ESE 25	100	29.7	2	9.3	111°
20		# 7	14*2 4.1	S	170*3 8.4	W	ESE 25	90	29.7	2 5	9.4	231°
35		# 8	14*2 3.8	S	170*3 7.8	W	ESE 25	90	29.7	2	9.4	322°
50		# 9	14*2 3.8	S	170*3 7.1	W	ESE 25	90	29.7	2	9.1	110°
0905		# 10	14*2 4.2	S	170*3 8.3	W	ESE 25	100	29.7	2	9.7	265°
20		# 11	14*2 4.7	S	170*3 7.2	W	ESE 25	100	29.7	2	9.4	331°
35		# 12	14*2 3.7	S	170*3 7.4	W	ESE 25	100	29.7	2 10	9	100°
50		# 13	14*2 4.2	S	170*3 8.0	W	ESE 25	100	29.7	2	9.3	267°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0755	Finish Discharge	14	14*2 4.8	S	170*3 9.1	W	ESE 25	100	29.7	2	9.7	270°
1003	Exit Discharge Zone	15	14*2 2.4	S	170*3 8.7	W	ESE 25	100	29.7	2	9.6	343°
1055	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

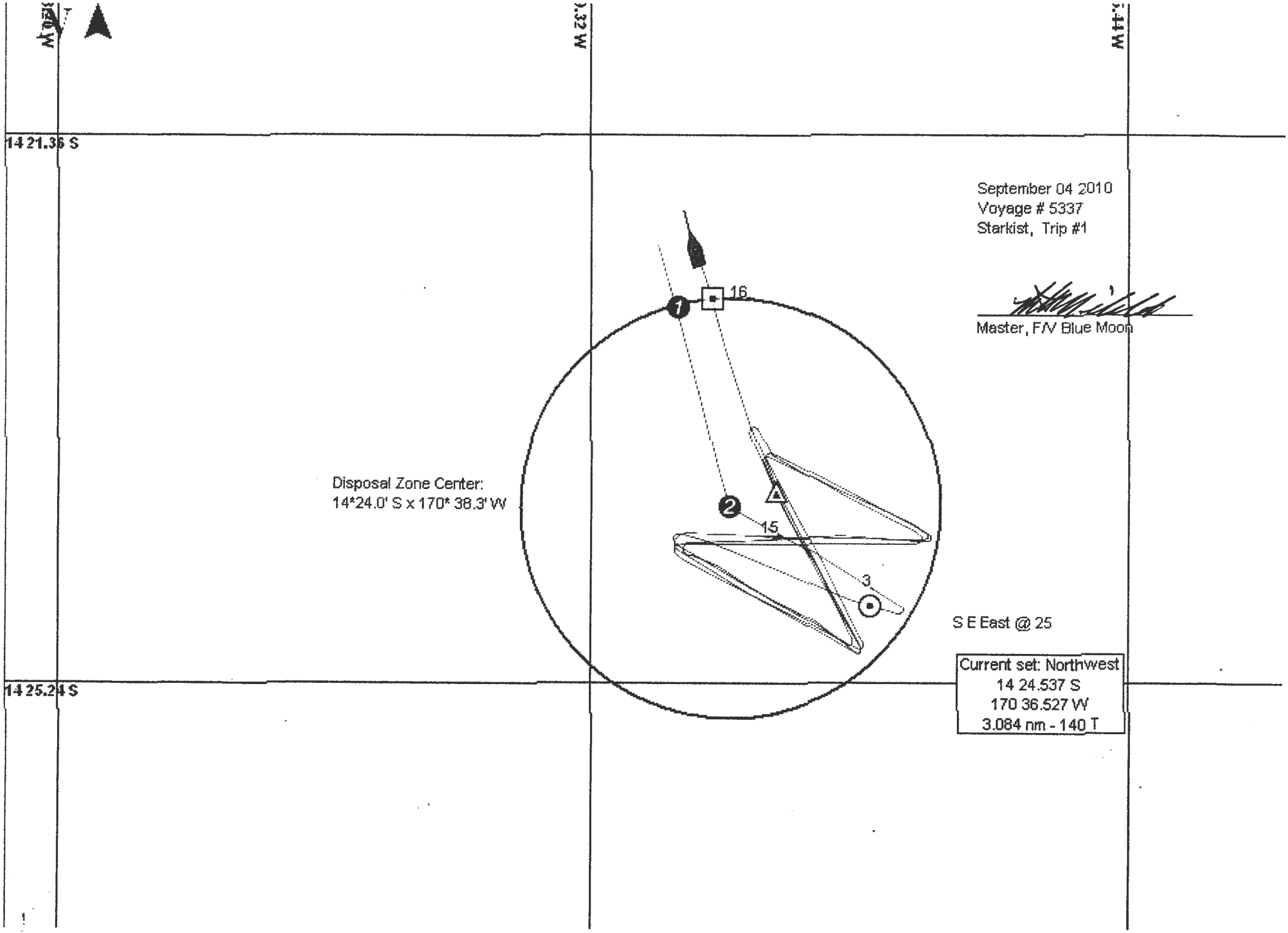
Total Discharge Time: 155 mins. Average Speed During Discharge: 9.3 kts. Total Time Run 4.75 hr.

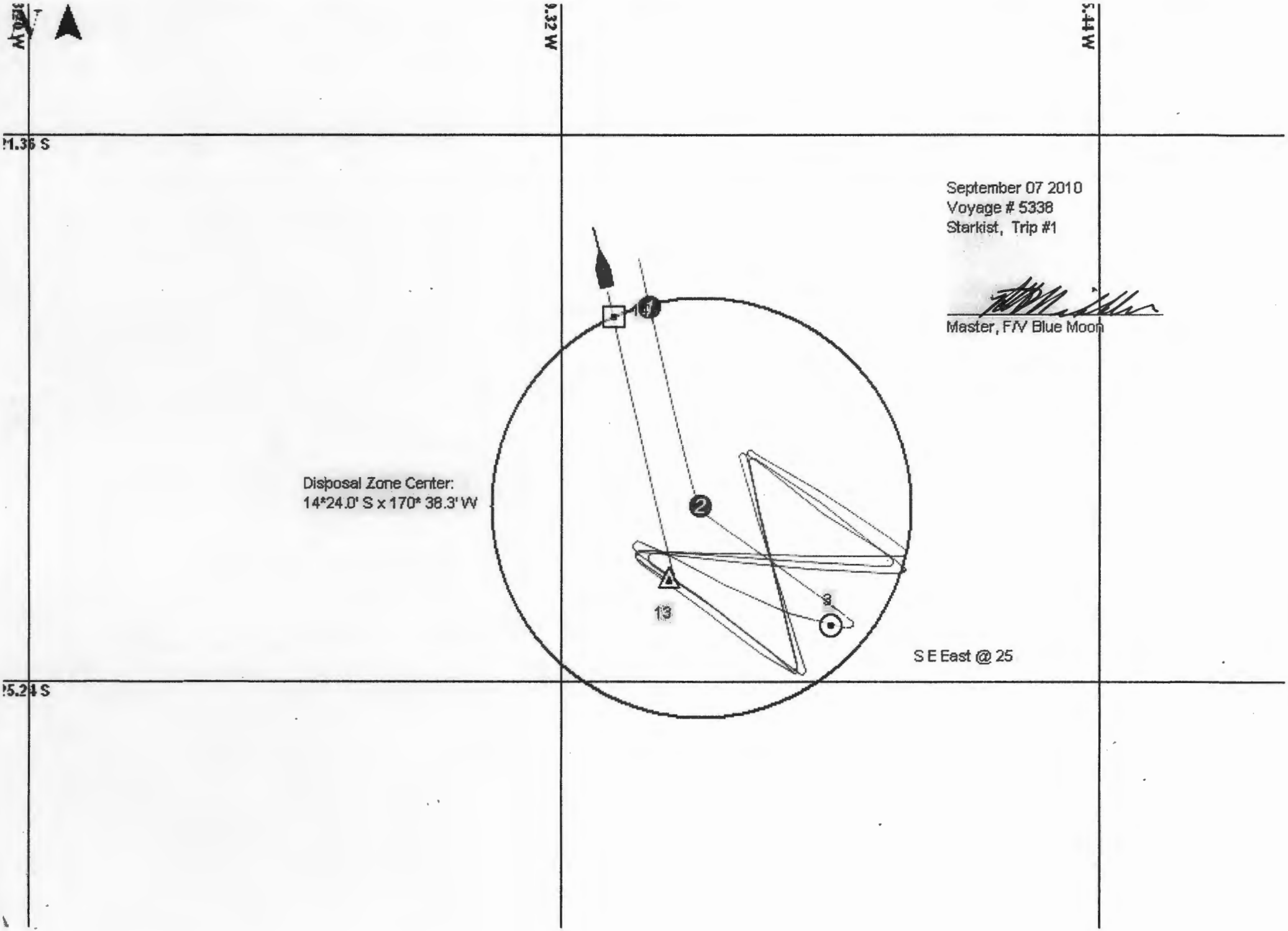
Navigational Plot made: yes Presence of Plume? None

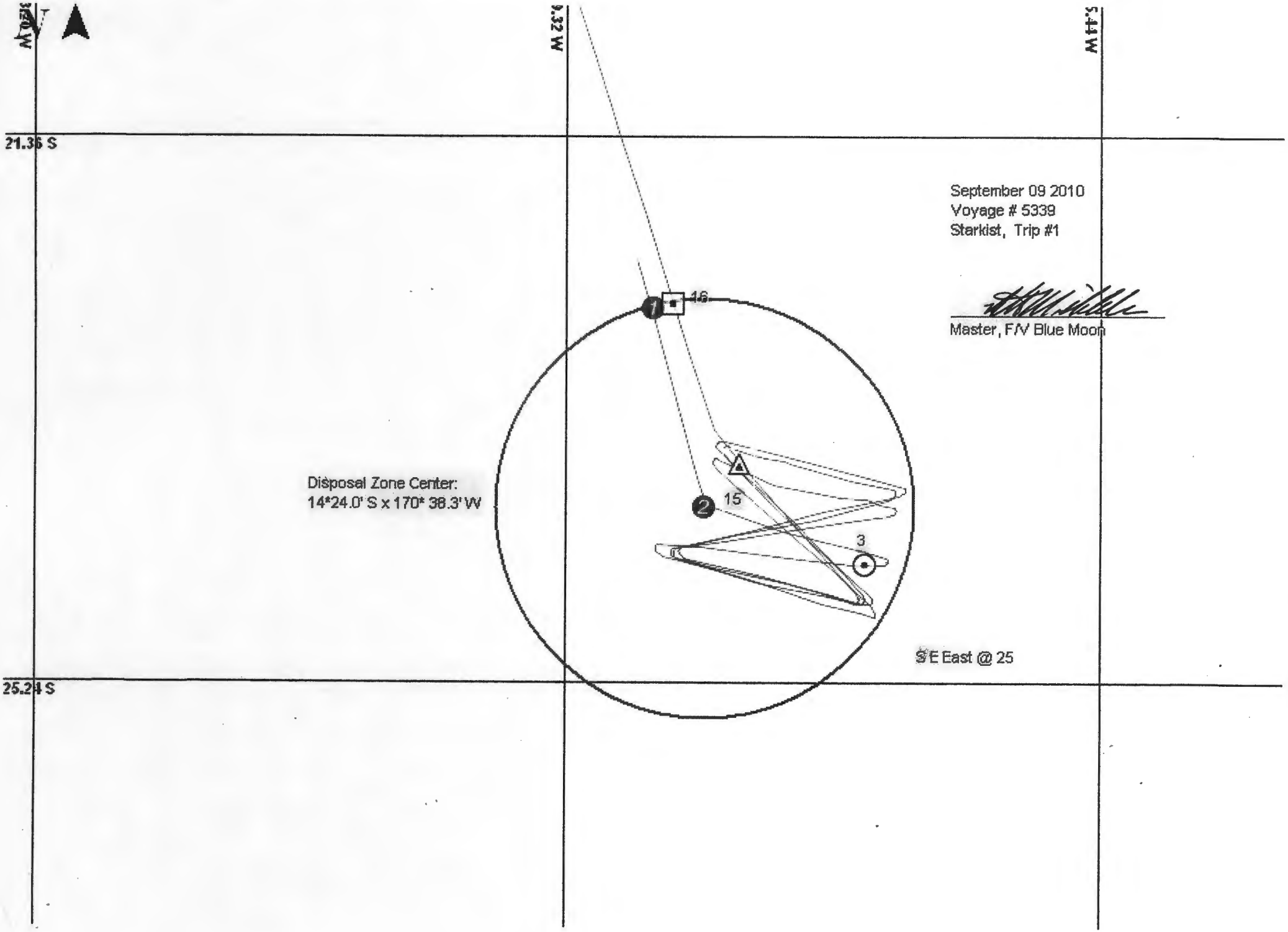
Time and position of any floating material: None Discharge Rate: 124 Gallons/min/kt.

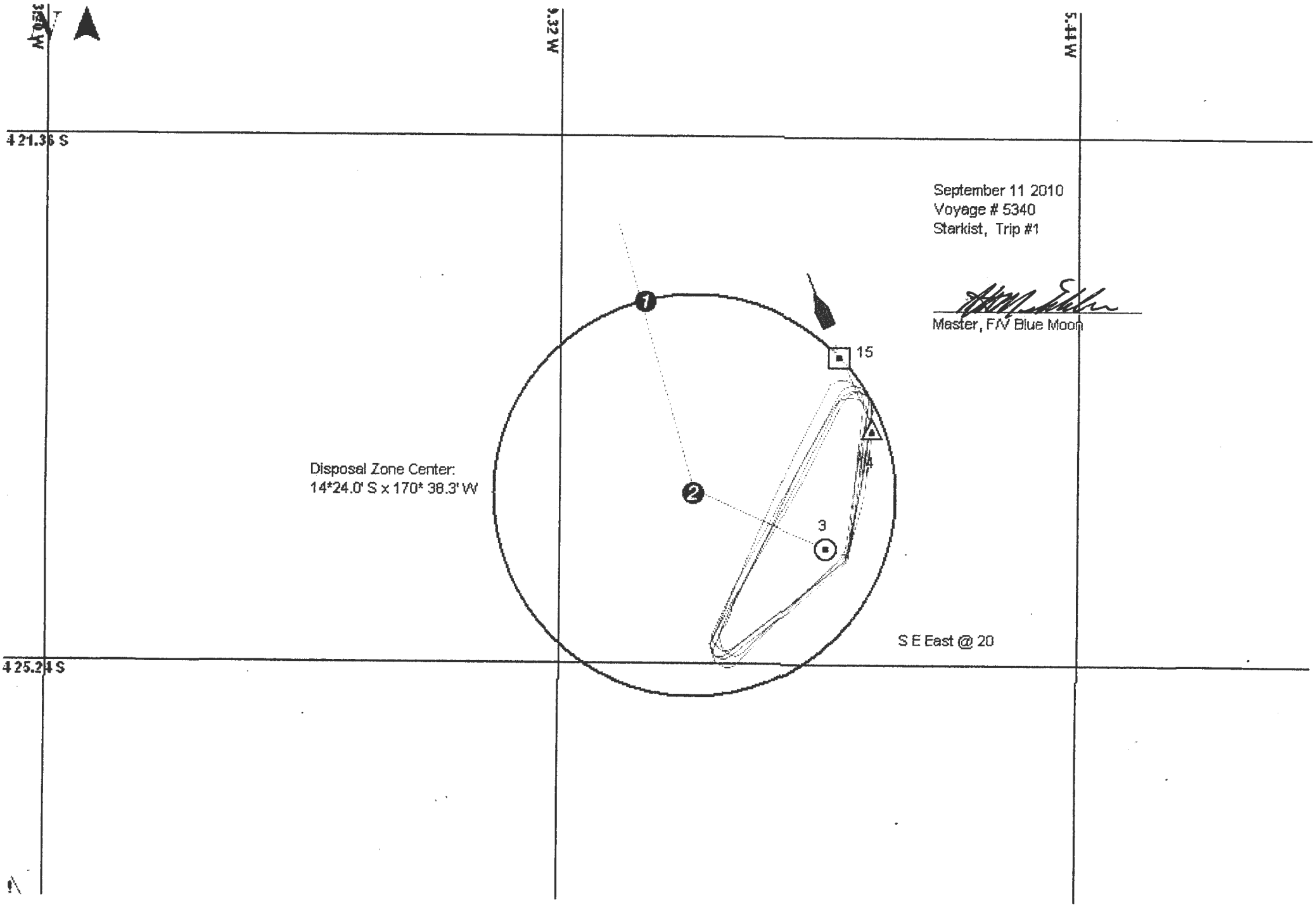
Unusual Occurrences? None

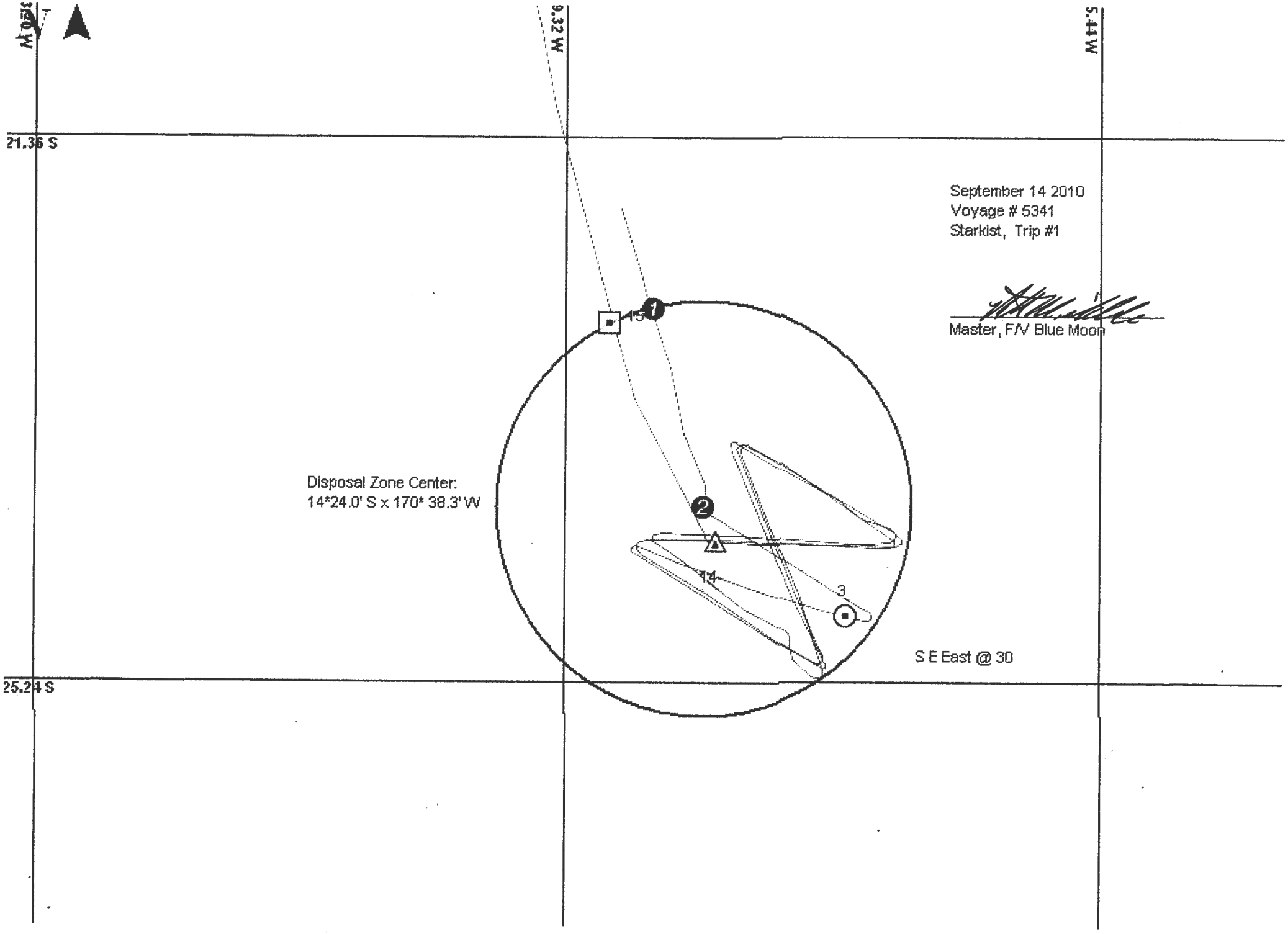
Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

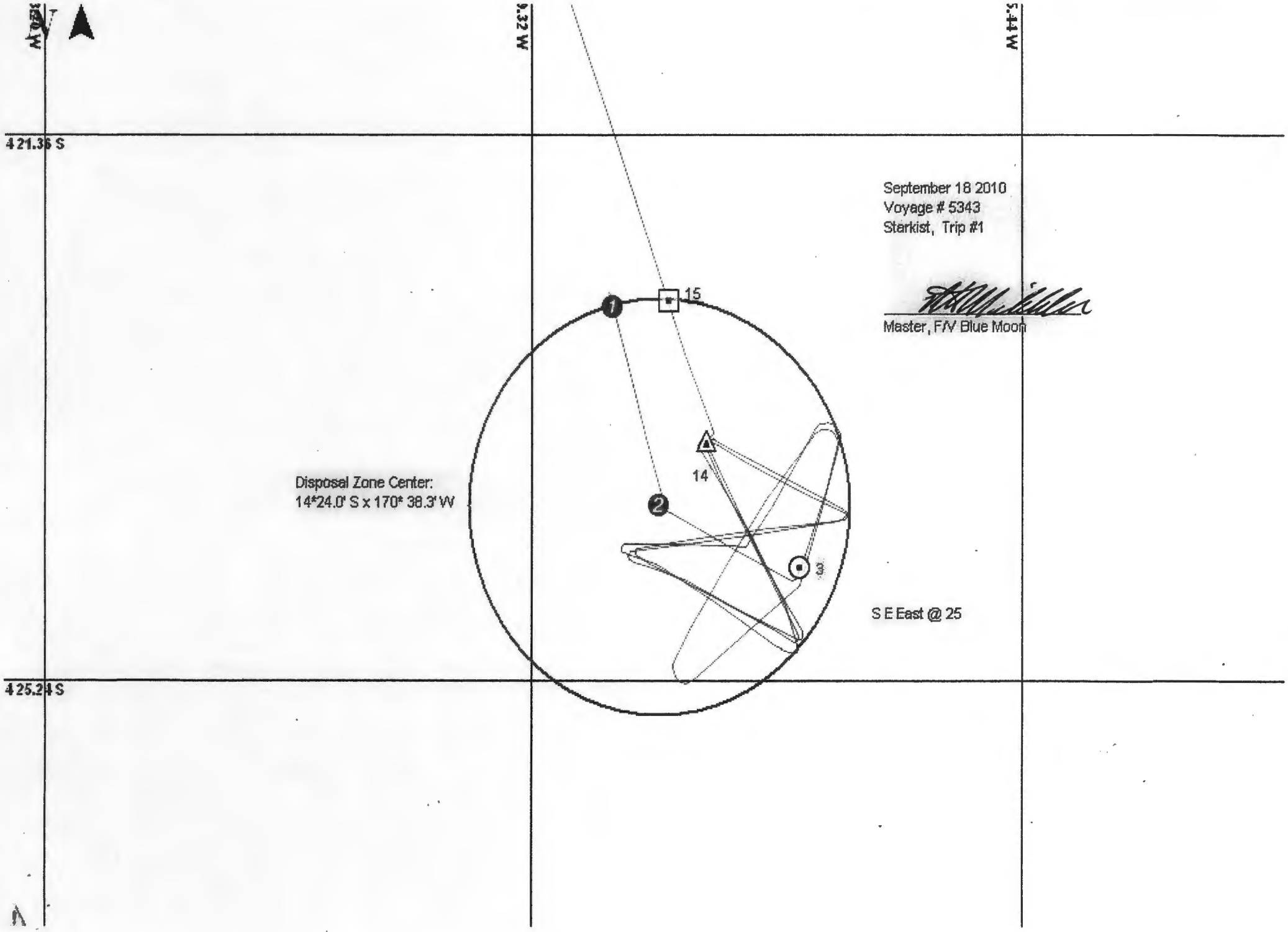

14 21.36 S
14 25.24 S
September 04 2010
Voyage # 5337
Starkist, Trip #1
Master, F/V Blue Moon
16
1
2
15
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
S E East @ 25
Current set: Northwest
14 24.537 S
170 36.527 W
3.084 nm - 140 T

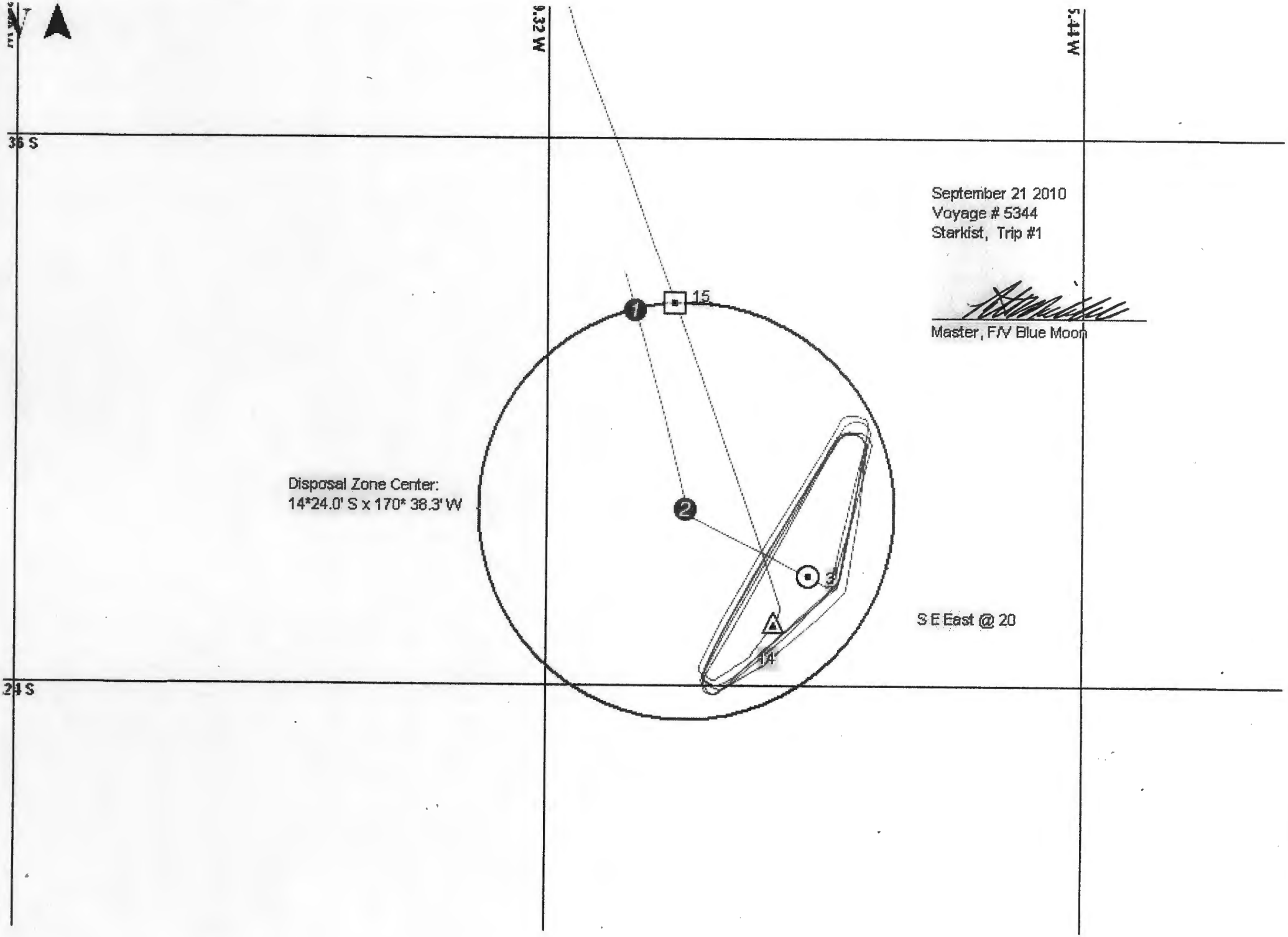

9.32 W
5.44 W
1.36 S
5.24 S
September 07 2010
Voyage # 5338
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
14
2
13
3
S E East @ 25

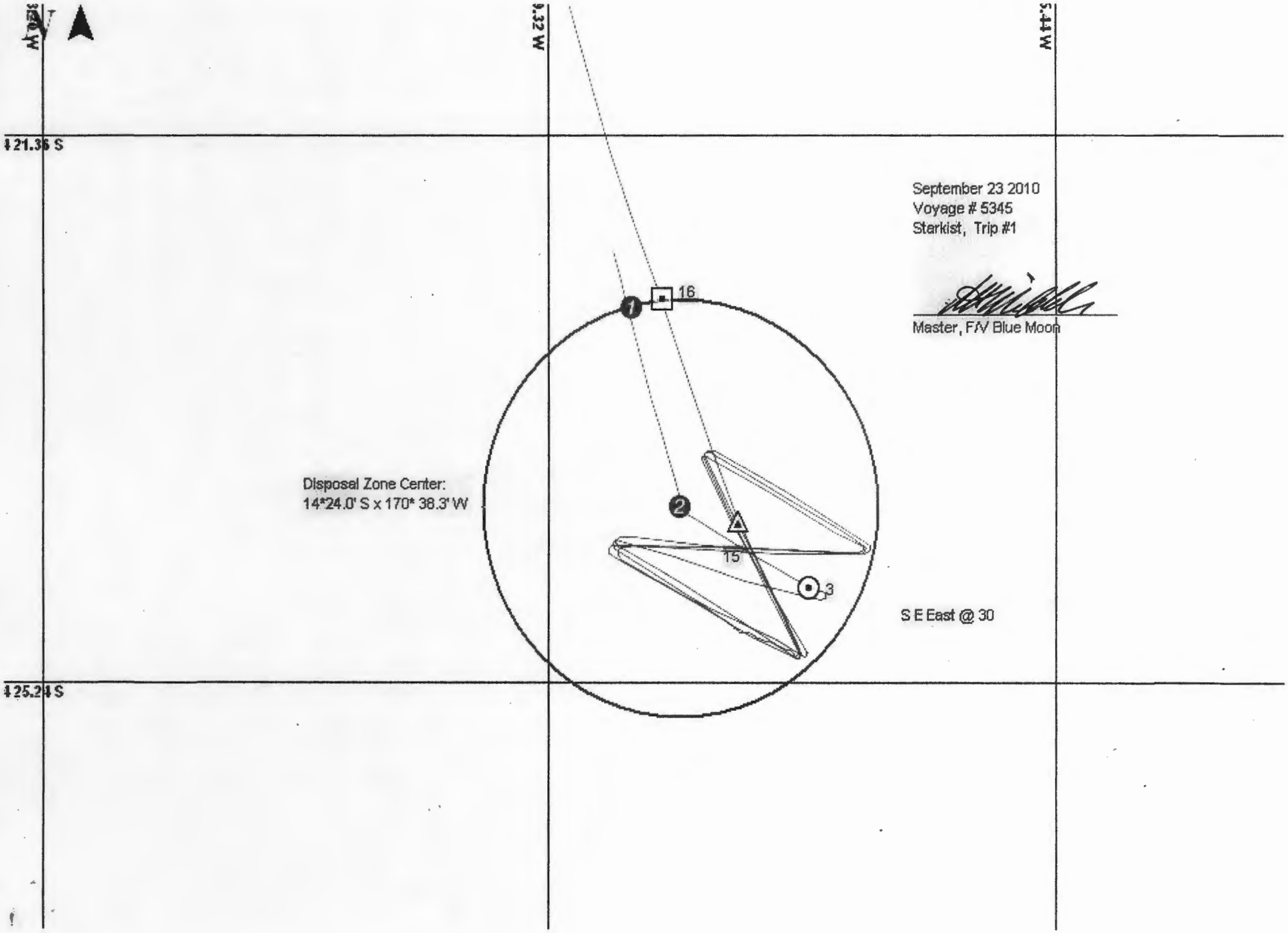

21.36 S
25.24 S
September 09 2010
Voyage # 5339
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
3
15
16
E East @ 25

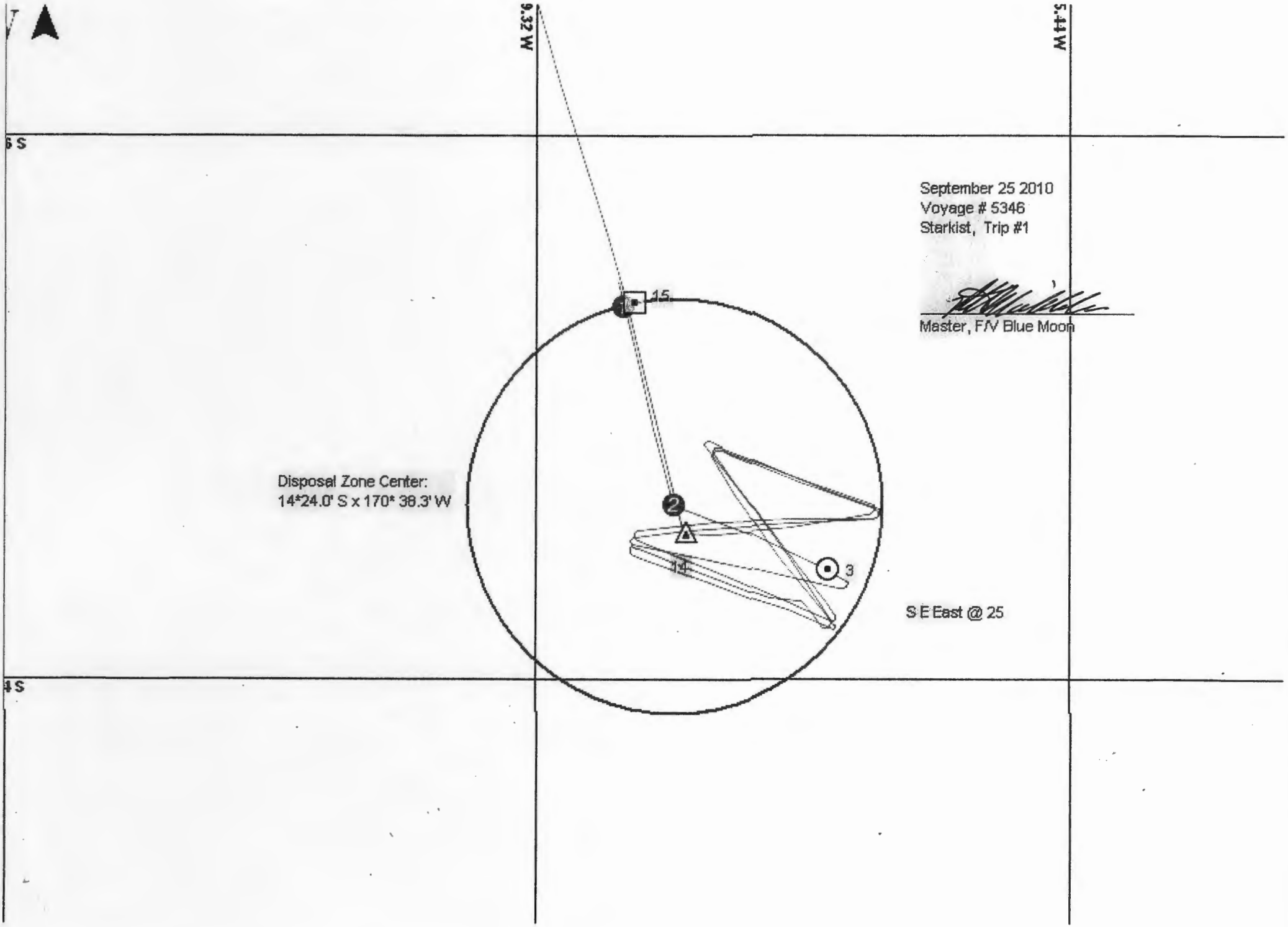

September 11 2010
Voyage # 5340
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
S E East @ 20
15
4
3
1
2
4 21.36 S
4 25.24 S


September 14 2010
Voyage # 5341
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
S E East @ 30
1
2
3
4
5
21.36 S
25.24 S
0.32 W
5.44 W


W
W 32 W
W 44 W
421.36 S
425.24 S
September 18 2010
Voyage # 5343
Starkist, Trip #1
Master, F/V Blue Moon
15
1
14
2
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
S E East @ 25


N
36 S
24 S
September 21 2010
Voyage # 5344
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
S E East @ 20
1
2
3
14
15


9.32 W
5.44 W
21.36 S
25.24 S
September 23 2010
Voyage # 5345
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
16
1
2
15
3
S E East @ 30



September 25 2010
Voyage # 5346
Starkist, Trip #1

Master, F/V Blue Moon

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON September, 2010

NUMBER OF TRIPS:	SK:	SP:	JOINT:	TOTAL:
	11	0	0	11

GALLONS-FOR THE MONTH:	SK:	SP:	JOINT:	TOTAL:
	1,880,000	0	0	1,880,000

GALLONS FOR SOLO TRIPS:	SK:	SP:
	1,880,000	0

RUNNING TIME ON TRIPS: 54.17 hrs.

DISCHARGE TIME ON TRIPS: 29.9 hrs.

AV. GPM DISCHARGE RATE: 113 gpm/s

AV. TRIP TIME: 4.92 hrs.

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK:	COS:
100.00%	N/A

MASTER :

STAR KIST SAMOA, CO
WATER TREATMENT DEPARTMENT

BLUE MOON - OCEAN DUMPING LOG

October 01, 2010

Trip Date	1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Volume
1-Sep-10	1st Trip	1545\1620 (75000)		2nd Trip	NONE	0
2-Sep-10	1st Trip	1430\1600 (47500)	192500	2nd Trip	NONE	0
3-Sep-10	1st Trip	1430\1915 (131250)		2nd Trip	NONE	0
4-Sep-10	1st Trip		178750	2nd Trip	NONE	0
5-Sep-10	1st Trip	0230\0430 (55000)		2nd Trip	NONE	0
6-Sep-10	1st Trip	1550\1930 (80000)		2nd Trip	NONE	0
7-Sep-10	1st Trip	1700\1900 (55000)	135000	2nd Trip	NONE	0
8-Sep-10	1st Trip	1540\2000 (100750)		2nd Trip	NONE	0
9-Sep-10	1st Trip	1600\1830 (67500)	155750	2nd Trip	NONE	0
10-Sep-10	1st Trip	1530\1930 (102000)		2nd Trip	NONE	0
11-Sep-10	1st Trip		169500	2nd Trip	NONE	0
12-Sep-10	1st Trip	1600\1800 (65000)		2nd Trip	NONE	0
13-Sep-10	1st Trip	1610\2015 (128750)		2nd Trip	NONE	0
14-Sep-10	1st Trip	1614\1815 (45000)	193750	2nd Trip	NONE	0
15-Sep-10	1st Trip	1600\2015 (121250)		2nd Trip	NONE	0
16-Sep-10	1st Trip	1500\1640 (48750)	166250	2nd Trip	NONE	0
17-Sep-10	1st Trip	1500\1900 (117500)		2nd Trip	NONE	0
18-Sep-10	1st Trip		166250	2nd Trip	NONE	0
19-Sep-10	1st Trip	1600\1730 (45000)		2nd Trip	NONE	0
20-Sep-10	1st Trip	1615\2100 (116750)		2nd Trip	NONE	0
21-Sep-10	1st Trip	1640\1900 (66250)	161750	2nd Trip	NONE	0
22-Sep-10	1st Trip	1600\2030 (115500)		2nd Trip	NONE	0
23-Sep-10	1st Trip	1630\1900 (72500)	181750	2nd Trip	NONE	0
24-Sep-10	1st Trip	1600\2040 (106250)		2nd Trip	NONE	0
25-Sep-10	1st Trip	N/P	178750	2nd Trip	NONE	0
26-Sep-10	1st Trip	SUNDAY		2nd Trip	NONE	0
27-Sep-10	1st Trip	N/P		2nd Trip	NONE	0
28-Sep-10	1st Trip	N/P		2nd Trip	NONE	0
29-Sep-10	1st Trip	N/P		2nd Trip	NONE	0
30-Sep-10	1st Trip			2nd Trip	NONE	0
TOTAL	**1st Trip**		**1,880,000**	**2nd Trip**		0
					Total 1st & 2nd	

cc:
Blue Moon- Captain
File

Prepared by: W.W.T

Date: 09/02/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5336

Permit # OD 93-01 & OD 93-02

Time	
1500	Begin 1st Loading SK
1900	Finish 1st Loading SK
1545	Begin 2nd Loading SK
1620	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:		
SK	192500	Gallons
		Gallons
Total	192500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0605	Depart Starkist		14*16.50'	S	170* 41.2'	W	SE 15	50	29.80			
0657	Arrive Edge of Zone	# 1	14*22.7	S	170*38.7	W	SE 15	50	29.80	1.5	8.6	170°
0708	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 15	50	29.80	1.5	8.7	166
0720	Begin Discharge	# 3	14*24.6	S	170*37.3	W	SE 20	50	29.80	1.5 X	9	191°
35		# 4	14*23.4	S	170*36.9	W	SE 20	50	29.80	1.5	8.8	003°
50	Remarks:	# 5	14*24.8	S	170*38.2	W	SE 20	50	29.80	1.5	9	211°
0805		# 6	14*24.6	S	170*37.3	W	SE 20	50	29.8	1.5	9	50°
20	0715 water	# 7	14*24.0	S	170*37.6	W	SE 20	50	29.8	1.5 5	9.2	213°
35	sample	# 8	14*25.3	S	170*38.2	W	SE 20	50	29.8	1.5	8.5	057°
50		# 9	14*23.3	S	170*37.1	W	SE 20	50	29.8	1.5	9.1	224°
0905		# 10	14*24.7	S	170*38.1	W	SE 20	50	29.75	1.5	9.4	212°
20		# 11	14*23.0	S	170*36.9	W	SE 20	50	29.75	1.5	9.2	016°
35		# 12	14*24.0	S	170*37.6	W	SE 20	50	29.8	1.5 10	9.5	211°
50		# 13	14*24.7	S	170*37.5	W	SE 20	50	29.8	1.5	9.2	047°
1005		# 14	14*24.5	S	170*38.0	W	SE 20	50	29.8	1.5	9.7	211°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1020	Finish Discharge	15	14*25.1	S	170*38.1	W	SE 20	50	29.8	1.5	9.3	052°
1124	Exit Discharge Zone	16	14*27.7	S	170*38.8	W	SE 20	50	29.8	1.5	9.4	348°
1220	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.1 kts. Total Time Run 6.25 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 117.5 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/04/10 F/V Blue Moon Ocean Dumping Log Voyage #: 5337

Permit # OD 93-01 & OD 93-02

Time	
1430	Begin 1st Loading SK
1600	Finish 1st Loading SK
1430	Begin 2nd Loading SK
1915	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK 178750 Gallons

Gallons

Total Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W						
0708	Arrive Edge of Zone	# 1	14*22.	S	170*38.	W	SE 25	50	29.7	2	8.1	162°
0713	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 25	50	29.7	2	8	167°
0730	Begin Discharge	# 3	14*24.7	S	170*37.1	W	SE 25	50	29.7	2 X	8.2	277°
45		# 4	14*24.8	S	170*37.7	W	SE 25	50	29.7	2	8.1	119°
0800	Remarks:	# 5	14*24.1	S	170*37.8	W	SE 25	50	29.7	2	8.7	333°
15		# 6	14*24.0	S	170*37.1	W	SE 25	50	29.7	2	8.4	115°
30.		# 7	14*24.2	S	170*38.4	W	SE 25	50	29.7	2 5	9.0	268°
45		# 8	14*24.2	S	170*37.7	W	SE 25	50	29.75	2	9.1	332°
0900		# 9	14*24.0	S	170*37.2	W	SE 25	50	29.75	2	8.9	117°
15		# 10	14*24.2	S	170*38.6	W	SE 25	50	29.75	2	8.8	140°
30.		# 11	14*24.4	S	170*37.6	W	SE 25	50	29.75	2	9.4	332°
45.		# 12	14*24.0	S	170*37.1	W	SE 25	50	29.75	2 10	9	118°
1000.		# 13	14*24.2	S	170*38.3	W	SE 25	50	29.75	2	9.6	271°
15.		# 14	14*24.3	S	170*37.7	W	SE 25	50	29.75	2	9.6	333°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1019	Finish Discharge	15	14*23.8	S	170*37.9	W	SE 25	50	29.75	2	9.8	332°
1027	Exit Discharge Zone	16	14*22.6	S	170*38.4	W	SE 25	50	29.75	2	9.7	343°
1120	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 169 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 5.08 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 118.8 Gallons/min/kt.

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/07/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5338

Permit # OD 93-01 & OD 93-02

Time	
0230	Begin 1st Loading SK
0430	Finish 1st Loading SK
1550	Begin 2nd Loading SK
1930	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK 135 000 Gallons

Gallons

Total Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0640	Depart Starkist		14*16.50'	S	170* 41.2'	W		70	29.65			
0732	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 25	70	29.65	2	8.5	168°
0742	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 25	70	29.65	2	8.5	166°
0750	Begin Discharge	# 3	14*2 4.8	S	170*3 7.2	W	SE 25	60	29.65	2 X	9	276°
0805		# 4	14*2 4.3	S	170*3 8.5	W	SE 25	60	29.65	2	9.3	296°
20	Remarks:	# 5	14*2 4.8	S	170*3 7.6	W	SE 25	60	29.65	2	9.4	343°
35		# 6	14*2 4.2	S	170*3 7.1	W	SE 25	60	29.65	2	8.6	123°
50		# 7	14*2 4.3	S	170*3 8.3	W	SE 25	60	29.65	2 5	9.4	276°
0905		# 8	14*2 5.0	S	170*3 7.6	W	SE 25	60	29.65	2	9.3	353°
20		# 9	14*2 4.1	S	170*3 6.9	W	SE 25	60	29.65	2	8.8	125°
35		# 10	14*2 4.3	S	170*3 8.3	W	SE 20	60	29.65	2	9.5	271°
50		# 11	14*2 4.3	S	170*3 7.8	W	SE 25	60	29.65	2	9.7	346°
1005		# 12	14*2 4.3	S	170*3 8.0	W	SE 25	60	29.65	2 10	10	274°
		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1015	Finish Discharge	13	14*2 4.4	S	170*3 8.5	W	SE 25	60	29.65	2	9.5	097°
1013	Exit Discharge Zone	14	14*2 2.8	S	170*3 8.9	W	SE 25	60	29.65	2	9.8	347°
1120	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 145 mins. Average Speed During Discharge: 9.3 kts. Total Time Run 3.6 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 100.1 Gallons/min/kt.

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/09/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5339

Permit # OD 93-01 & OD 93-02

Time	
1700	Begin 1st Loading SK
1900	Finish 1st Loading SK
1540	Begin 2nd Loading SK
2000	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK 153 750 Gallons

Gallons

Total Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W		100	29.65	Metric	kts	True*
0700	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 25	100	29.65	2	8.4	166°
0714	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 25	100	29.65	2.5	8.3	166°
0725	Begin Discharge	# 3	14*2 4.4	S	170*3 7.1	W	SE 25	100	29.65	3 X	8.3	271°
40		# 4	14*2 4.4	S	170*3 8.1	W	SE 25	100	29.65	3	8.3	107°
55	Remarks:	# 5	14*2 4.0	S	170*3 7.8	W	SE 25	100	29.65	3	8.8	319°
0810		# 6	14*2 4.0	S	170*3 6.7	W	SE 25	100	29.65	3	8.3	253°
25		# 7	14*2 4.4	S	170*3 8.2	W	SE 25	100	29.65	2.5 5	8.4	102°
40		# 8	14*2 3.8	S	170*3 7.9	W	SE 25	90	29.65	2.5	9.4	315°
55		# 9	14*2 3.9	S	170*3 6.8	W	SE 25	90	29.65	2.5	9.6	246°
0910		# 10	14*2 4.3	S	170*3 8.4	W	SE 25	90	29.65	2.5	8.9	110°
25		# 11	14*2 4.1	S	170*3 7.6	W	SE 25	90	29.65	2.5	9.2	314°
40		# 12	14*2 3.9	S	170*3 7.0	W	SE 25	100	29.65	2.5 10	9.9	250°
55		# 13	14*2 4.5	S	170*3 7.6	W	SE 25	100	29.65	2.5	9	103°
1010		# 14	14*2 3.8	S	170*3 7.9	W	SE 25	100	29.65	2.5	9.7	319°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1012	Finish Discharge	15	14*2 3.6	S	170*3 8.0	W	SE 25	100	29.65	2.5	9.4	318°
1017	Exit Discharge Zone	16	14*2 2.6	S	170*3 8.4	W	SE 25	100	29.65	2.5	9.4	343°
1105	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 161 mins. Average Speed During Discharge: 9 kts. Total Time Run 4.91 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 103 Gallons/min/kt.

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/11/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5340

Permit # OD 93-01 & OD 93-02

Time	
1600	Begin 1st Loading SK
1870	Finish 1st Loading SK
1520	Begin 2nd Loading SK
1930	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:			
	SK	169 500	Gallons
		—	Gallons
	Total	169 500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W		100	29.7			
0702	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 20	100	29.7	2	8.4	163°
0713	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 20	100	29.7	2	8.6	165°
0720	Begin Discharge	# 3	14*2 4.4	S	170*3 7.2	W	SE 20	100	29.7	2 X	8.4	166°
35		# 4	14*2 4.0	S	170*3 7.6	W	SE 20	100	29.7	2	8.7	206°
50	Remarks:	# 5	14*2 4.6	S	170*3 7.3	W	SE 20	100	29.7	2	8.5	046°
0805		# 6	14*2 3.3	S	170*3 7.3	W	SE 20	100	29.7	2	9.3	210°
20		# 7	14*2 4.8	S	170*3 8.0	W	SE 20	100	29.7	2 5	9.4	204°
35		# 8	14*2 3.7	S	170*3 7.0	W	SE 20	100	29.7	2	9.4	009°
50		# 9	14*2 4.7	S	170*3 8.0	W	SE 20	100	29.7	2	9.6	207°
0905		# 10	14*2 4.1	S	170*3 7.1	W	SE 20	100	29.7	2	9.2	005°
20		# 11	14*2 4.6	S	170*3 7.9	W	SE 20	100	29.7	2	9.5	208°
35		# 12	14*2 4.2	S	170*3 7.1	W	SE 20	100	29.7	2 10	9.2	014°
1005		# 13	14*2 4.4	S	170*3 7.1	W	SE 20	100	29.7	2	9.2	025°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1010	Finish Discharge	14	14*2 3.5	S	170*3 6.9	W	SE 20	100	29.7	2	9.6	353°
1015	Exit Discharge Zone	15	14*2 3.1	S	170*3 7.1	W	SE 20	100	29.7	2	9.6	338°
1110	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.2 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 108.3 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/14/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5341

Permit # OD 93-01 & OD 93-02

Time	
1600	Begin 1st Loading SK
1800	Finish 1st Loading SK
1610	Begin 2nd Loading SK
2015	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:

SK	197 750	Gallons
		Gallons
Total	197 750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W		70	29.75			
0707	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE25	70	29.75	3	8.3	166°
0717	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE25	70	29.75	3	8.8	157°
0730	Begin Discharge	# 3	14*2 4.7	S	170*3 7.1	W	SE25	70	29.75	3 X	8.9	277°
45		# 4	14*2 4.4	S	170*3 8.6	W	SE25	70	29.75	3	8.5	124°
0800	Remarks:	# 5	14*2 4.5	S	170*3 7.7	W	SE25	70	29.75	3	9.1	335°
15		# 6	14*2 3.5	S	170*3 8.0	W	SE25	70	29.75	3	8.9	118°
30		# 7	14*2 4.2	S	170*3 7.9	W	SE25	70	29.75	3 5	9.2	273°
45		# 8	14*2 4.5	S	170*3 7.6	W	SE25	70	29.75	3	9.4	335°
0900		# 9	14*2 3.7	S	170*3 7.9	W	SE25	70	29.75	3	9.5	335°
15		# 10	14*2 4.2	S	170*3 7.5	W	SE 25	70	29.75	3	9.8	272°
30		# 11	14*2 5.0	S	170*3 7.6	W	SE 25	70	29.75	3	9.4	122°
45		# 12	14*2 3.7	S	170*3 7.9	W	SE 25	70	29.75	3 10	9.4	335°
1000		# 13	14*2 4.2	S	170*3 7.5	W	SE 25	70	29.75	3	9.9	271°
10		# 14	14*2 4.1	S	170*3 8.3	W	SE 30	70	29.75	3	9.1	327°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1010	Finish Discharge	15	14*2 4.1	S	170*3 8.3	W	SE30	70	29.75	3	9.1	327°
1018	Exit Discharge Zone	16	14*2 2.3	S	170*3 9.0	W	SE30	70	29.75	3	9.5	344°
1115	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center N/A End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 160 mins. Average Speed During Discharge: 9.2 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 134 Gallons/min/kt.

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/16/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5342

Permit # OD 93-01 & OD 93-02

Time	
1615	Begin 1st Loading SK
1815	Finish 1st Loading SK
1600	Begin 2nd Loading SK
2015	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:

SK	166250	Gallons
	—	Gallons
Total	166250	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W		100	29.7	Metric	kts	True*
0704	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE20	100	29.7	2	8.4	165°
0717	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE20	100	29.7	2	8.7	165°
0727	Begin Discharge	# 3	14*2 4.4	S	170*3 7.5	W	SE20	100	29.7	2 X	9.1	121°
0742		# 4	14*2 4.1	S	170*3 7.6	W	SE 20	100	29.7	2	9.4	208°
57	Remarks:	# 5	14*2 4.6	S	170*3 7.2	W	SE 20	100	29.7	2	7.1	047°
08 12		# 6	14*2 3.7	S	170*3 7.5	W	SE 20	100	29.7	2	9.3	211°
27		# 7	14*2 4.5	S	170*3 7.2	W	SE 20	100	29.7	2 5	9.1	019°
42		# 8	14*2 5.7	S	170*3 7.5	W	SE 20	100	29.7	2	9.5	209°
57		# 9	14*2 5.1	S	170*3 8.0	W	SE20	100	29.7	2	9.1	053°
09 12		# 10	14*2 4.3	S	170*3 7.1	W	SE20	100	29.7	2	9.2	014°
27		# 11	14*2 5.1	S	170*3 8.2	W	SE20	100	29.7	2	9.7	203°
42		# 12	14*2 4.1	S	170*3 7.1	W	SE 20	100	29.7	2 10	9.8	019°
57		# 13	14*2 5.1	S	170*3 8.0	W	SE20	100	29.7	2	9.5	057°
10 12		# 14	14*2 4.3	S	170*3 7.1	W	SE 20	100	29.7	2	9.3	050°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
10 13	Finish Discharge	15	14*2 4.1	S	170*3 7.1	W	SE20	100	29.7	2	9.3	017°
10 20	Exit Discharge Zone	16	14*2 2.6	S	170*3 7.8	W	SE20	100	29.7	2	9.9	333°
11 10	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 157 mins. Average Speed During Discharge: 9.3 kts. Total Time Run 4.9 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 113.8 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/18/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5343

Permit # OD 93-01 & OD 93-02

Time	
1500	Begin 1st Loading SK
1640	Finish 1st Loading SK
1500	Begin 2nd Loading SK
1900	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK 166250 Gallons

Gallons

Total Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0635	Depart Starkist		14*16.50'	S	170* 41.2'	W		50	29.7			
0728	Arrive Edge of Zone	# 1	14*22.6	S	170*38.6	W	SE 20	50	29.7	2	8.4	166°
0735	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 20	50	29.7	2	8.5	164°
0745	Begin Discharge	# 3	14*2 4.4	S	170*3 7.4	W	SE 20	50	29.7	2 X	9.2	119°
0900		# 4	14*2 4.0	S	170*3 7.4	W	SE 20	50	29.7	2	7.3	216°
15	Remarks:	# 5	14*2 4.8	S	170*3 7.5	W	SE 20	50	29.7	2	8.9	052°
20		# 6	14*2 3.7	S	170*3 7.2	W	SE 20	50	29.7	2	9.2	211°
45		# 7	14*2 4.5	S	170*3 8.1	W	SE 20	50	29.7	2 5	9.1	119°
0900		# 8	14*2 4.0	S	170*3 7.6	W	SE 25	50	29.7	2	9.4	328°
15		# 9	14*2 4.1	S	170*3 6.9	W	SE 25	50	29.7	2	9.4	253°
30		# 10	14*2 4.5	S	170*3 7.9	W	SE 25	50	29.7	2	9.1	116°
45		# 11	14*2 3.6	S	170*3 7.8	W	SE 25	50	29.7	2	9.6	341°
1000		# 12	14*2 4.1	S	170*3 7.3	W	SE 25	50	29.7	2 10	7.7	264°
15		# 13	14*2 4.7	S	170*3 7.6	W	SE 25	50	29.7	2	9.1	115°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1025	Finish Discharge	14	14*2 3.5	S	170*3 7.9	W	SE 25	50	29.7	2	9.4	017°
1035	Exit Discharge Zone	15	14*2 2.6	S	170*3 8.2	W	SE 25	50	29.7	2	9.6	341°
1135	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 160 mins. Average Speed During Discharge: 9.28 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 111.9 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/21/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5344

Permit # OD 93-01 & OD 93-02

Time	
1600	Begin 1st Loading SK
1730	Finish 1st Loading SK
1615	Begin 2nd Loading SK
2100	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK 161 750 Gallons

Gallons

Total Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W		50	29.65			
0655	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 20	50	29.65	1.5	8.6	166°
0702	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 20	50	29.65	2	8.6	165°
0710	Begin Discharge	# 3	14*2 4.4	S	170*3 7.5	W	SE 20	50	29.65	1.5 X	9.4	119°
25		# 4	14*2 3.6	S	170*3 7.2	W	SE 20	50	29.65	1.5	9.1	217°
40	Remarks:	# 5	14*2 4.8	S	170*3 7.3	W	SE 20	50	29.65	1.5	9.2	047°
55		# 6	14*2 3.5	S	170*3 7.2	W	SE 20	50	29.65	1.5	9.2	220°
0810		# 7	14*2 5.0	S	170*3 8.1	W	SE 20	50	29.65	1.5 5	9.3	200°
25		# 8	14*2 5.4	S	170*3 7.0	W	SE 20	50	29.65	1.5	9	330°
40		# 9	14*2 4.8	S	170*3 8.0	W	SE 20	50	29.65	1.5	9.2	209°
55		# 10	14*2 3.6	S	170*3 7.0	W	SE 20	50	29.65	1.5	9.3	014°
0910		# 11	14*2 4.5	S	170*3 7.8	W	SE 20	50	29.65	1.5	9.6	209°
25		# 12	14*2 4.3	S	170*3 7.1	W	SE 20	50	29.65	1.5 10	9.3	019°
40		# 13	14*2 4.9	S	170*3 8.0	W	SE 20	50	29.65	1.5	9.7	209°
50		# 14	14*2 4.9	S	170*3 7.7	W	SE 20	50	29.65	1.5	9.0	036°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
50	Finish Discharge	14	14*2 4.9	S	170*3 7.9	W	SE 20	50	29.65	1.5	9.0	036°
1000	Exit Discharge Zone	15	14*2 2.5	S	170*3 8.3	W	SE 20	50	29.65	1.5	9.6	340°
1050	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center New End of Discharge New Discharge Pattern Ellipse

Total Discharge Time: 160 mins. Average Speed During Discharge: 9.25 kts. Total Time Run 4.6 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 109.2 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/23/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5345

Permit # OD 93-01 & OD 93-02

Time	
1640	Begin 1st Loading SK
1900	Finish 1st Loading SK
1600	Begin 2nd Loading SK
2030	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:			
SK	181 750	Gallons
	—	Gallons
Total	181 750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W		70	29.7	Metric	kts	True*
0706	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE20	70	29.7	2	8.4	168°
0717	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE25	70	29.7	2	8.5	124°
0725	Begin Discharge	# 3	14*2 4.4	S	170*3 7.5	W	SE25	70	29.7	2 X	8.8	119°
40		# 4	14*2 4.4	S	170*3 8.6	W	SE25	70	29.7	2	9.1	122°
55	Remarks:	# 5	14*2 3.8	S	170*3 7.7	W	SE25	70	29.7	2	9.3	116°
0810		# 6	14*2 4.0	S	170*3 7.2	W	SE25	70	29.7	2	9	120°
25		# 7	14*2 4.2	S	170*3 8.7	W	SE25	70	29.7	2 5	9.4	201°
40		# 8	14*2 4.1	S	170*3 7.8	W	SE25	70	29.7	2	9.2	332°
55		# 9	14*2 4.0	S	170*3 7.2	W	SE25	70	29.7	2	8.9	123°
0910		# 10	14*2 4.2	S	170*3 8.2	W	SE25	70	29.7	2	9.8	271°
25		# 11	14*2 5.0	S	170*3 7.4	W	SE25	70	29.7	2	9.5	332°
40		# 12	14*2 3.8	S	170*3 7.6	W	SE 30	70	29.7	2 10	9.2	119°
55		# 13	14*2 4.2	S	170*3 7.7	W	SE 30	70	29.7	2	10	283°
1010		# 14	14*2 5.0	S	170*3 7.4	W	SE 30	70	29.7	2	9.7	342°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1015	Finish Discharge	15	14*2 4.3	S	170*3 7.7	W	SE 30	70	29.7	2	9.5	332°
1030	Exit Discharge Zone	16	14*2 2.7	S	170*3 8.3	W	SE 30	70	29.7	2	9.3	341°
1120	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 175 mins. Average Speed During Discharge: 9.3 kts. Total Time Run 5.08 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 111.6 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/25/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5346

Permit # OD 93-01 & OD 93-02

Time	
1630	Begin 1st Loading SK
1900	Finish 1st Loading SK
1600	Begin 2nd Loading SK
2040	Finish 2nd Loading SK

Trip # 1 -
Trip # 2

Volume Loaded: SK _____ Gallons
_____ Gallons
Total 178750 Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W		100	29.7			
0700	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	ESE 25	100	29.7	2	8.8	166°
0714	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	ESE 25	100	29.7	2	8.2	166°
0720	Begin Discharge	# 3	14*2 4.4	S	170*3 7.4	W	ESE 25	100	29.7	2 X	8.9	115°
35		# 4	14*2 4.3	S	170*3 8.5	W	ESE 25	100	29.7	2	9.2	112°
50	Remarks:	# 5	14*2 4.4	S	170*3 7.4	W	ESE 25	100	29.7	2	9.4	325°
0805		# 6	14*2 3.8	S	170*3 7.4	W	ESE 25	100	29.7	2	9.3	111°
20		# 7	14*2 4.1	S	170*3 8.4	W	ESE 25	90	29.7	2 5	9.4	231°
35		# 8	14*2 3.8	S	170*3 7.8	W	ESE 25	90	29.7	2	9.4	322°
50		# 9	14*2 3.8	S	170*3 7.1	W	ESE 25	90	29.7	2	9.1	110°
0905		# 10	14*2 4.2	S	170*3 8.3	W	ESE 25	100	29.7	2	9.7	265°
20		# 11	14*2 4.7	S	170*3 7.2	W	ESE 25	100	29.7	2	9.4	331°
35		# 12	14*2 3.7	S	170*3 7.4	W	ESE 25	100	29.7	2 10	9	100°
50		# 13	14*2 4.2	S	170*3 8.0	W	ESE 25	100	29.7	2	9.3	267°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0755	Finish Discharge	14	14*2 4.8	S	170*3 9.1	W	ESE 25	100	29.7	2	9.7	270°
1003	Exit Discharge Zone	15	14*2 2.4	S	170*3 8.7	W	ESE 25	100	29.7	2	9.6	343°
1055	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

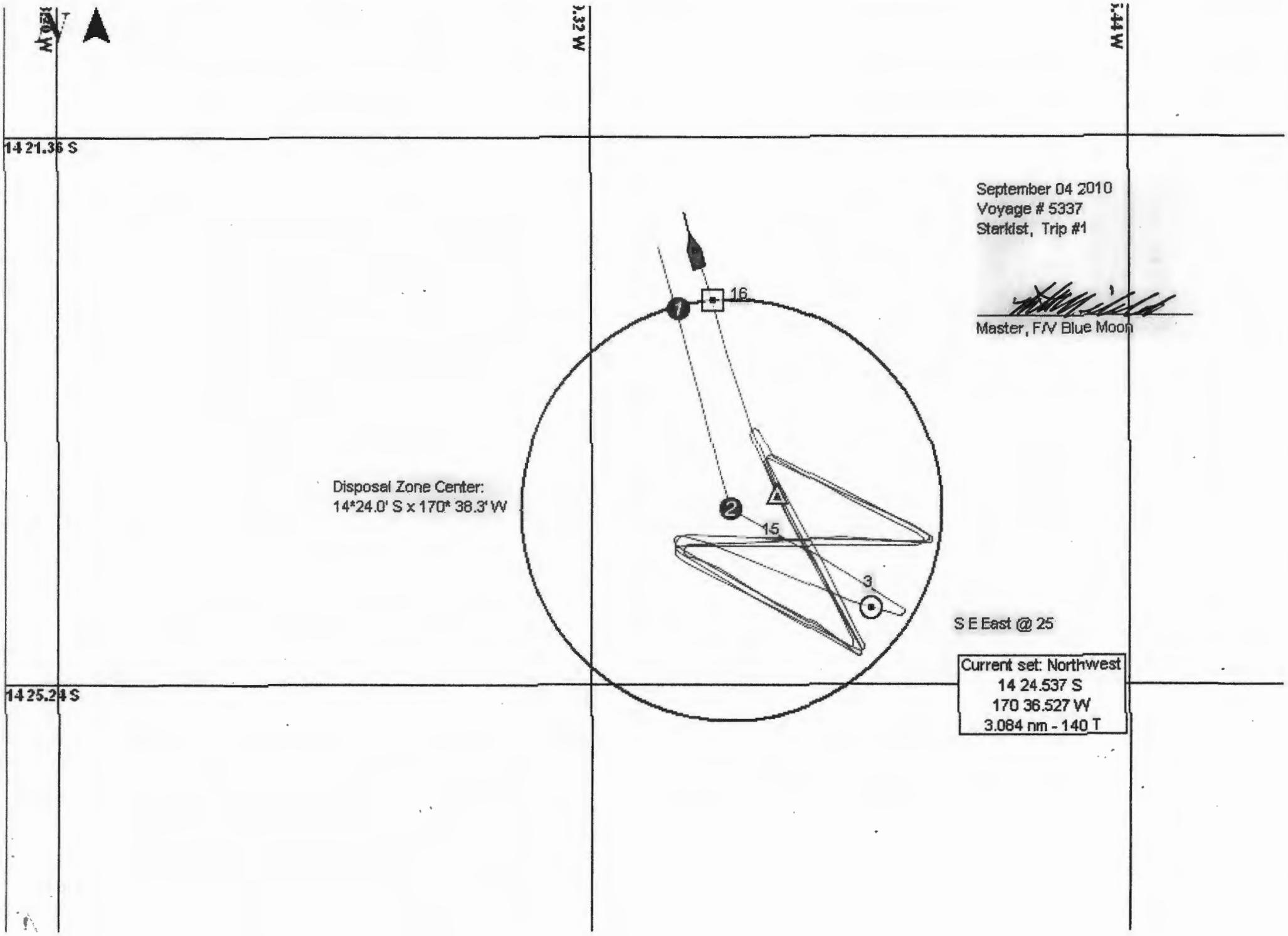
Total Discharge Time: 155 mins. Average Speed During Discharge: 9.3 kts. Total Time Run 4.75 hr.

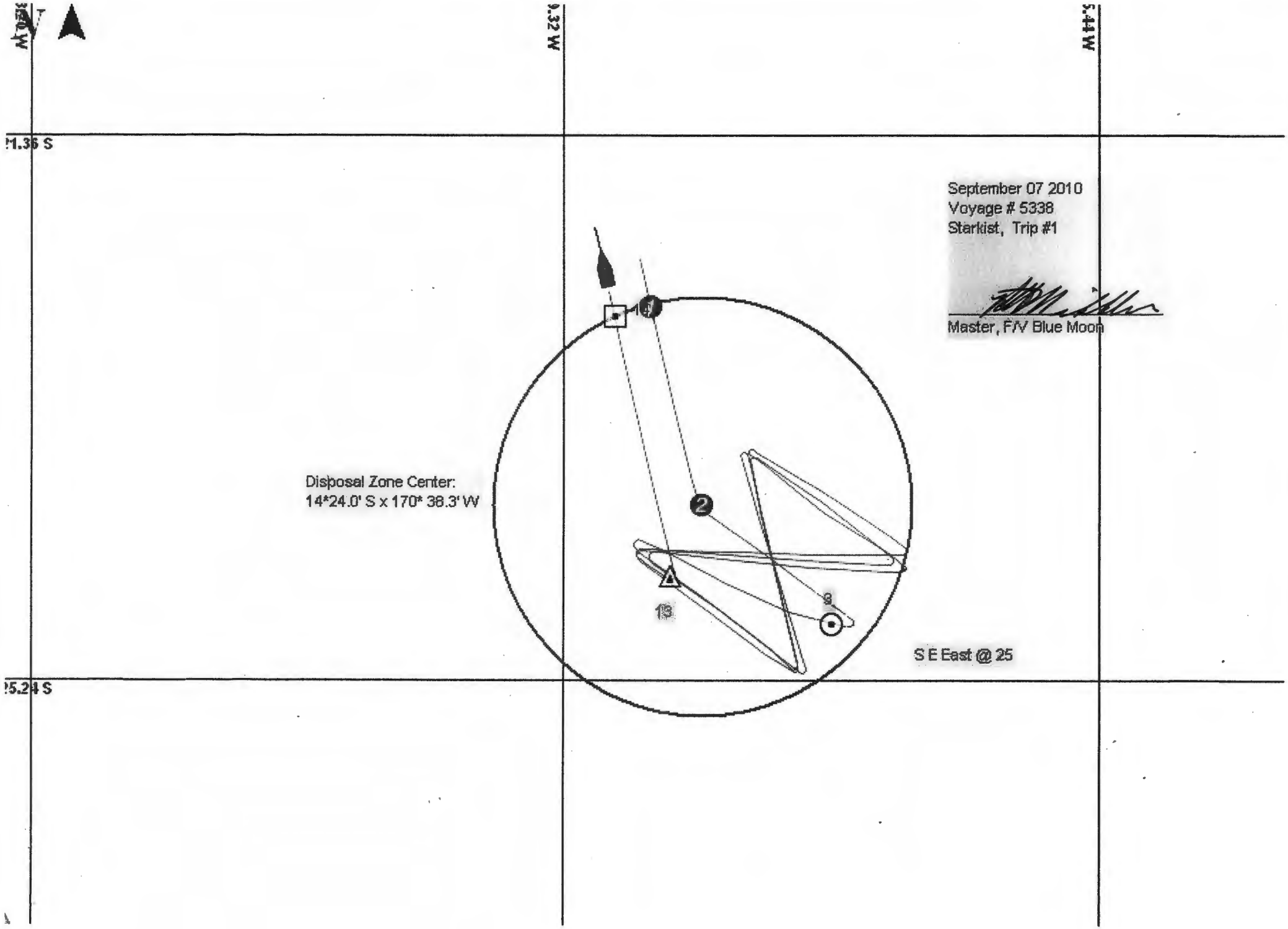
Navigational Plot made: yes Presence of Plume? None

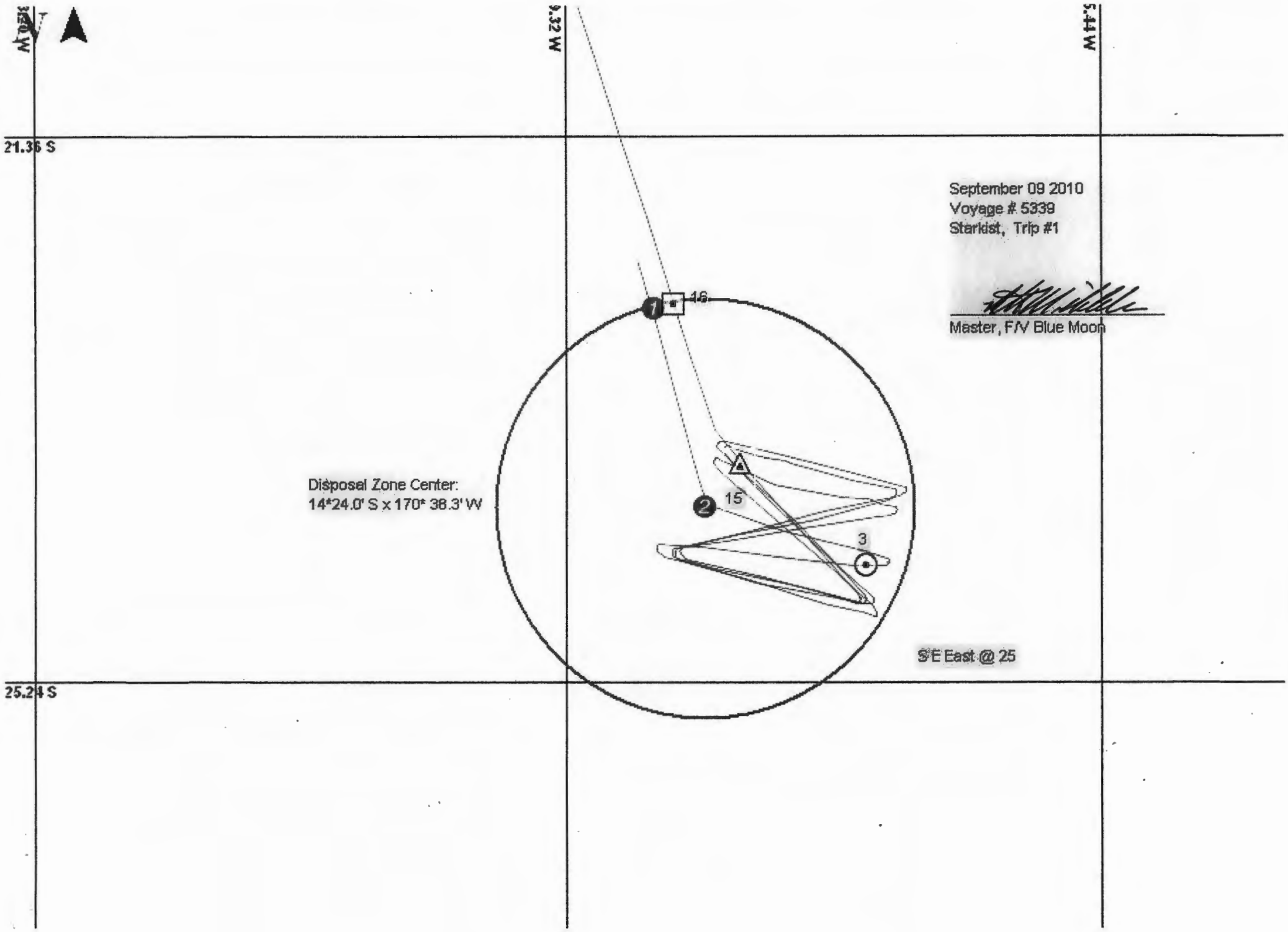
Time and position of any floating material: None Discharge Rate: 124 Gallons/min/kt.

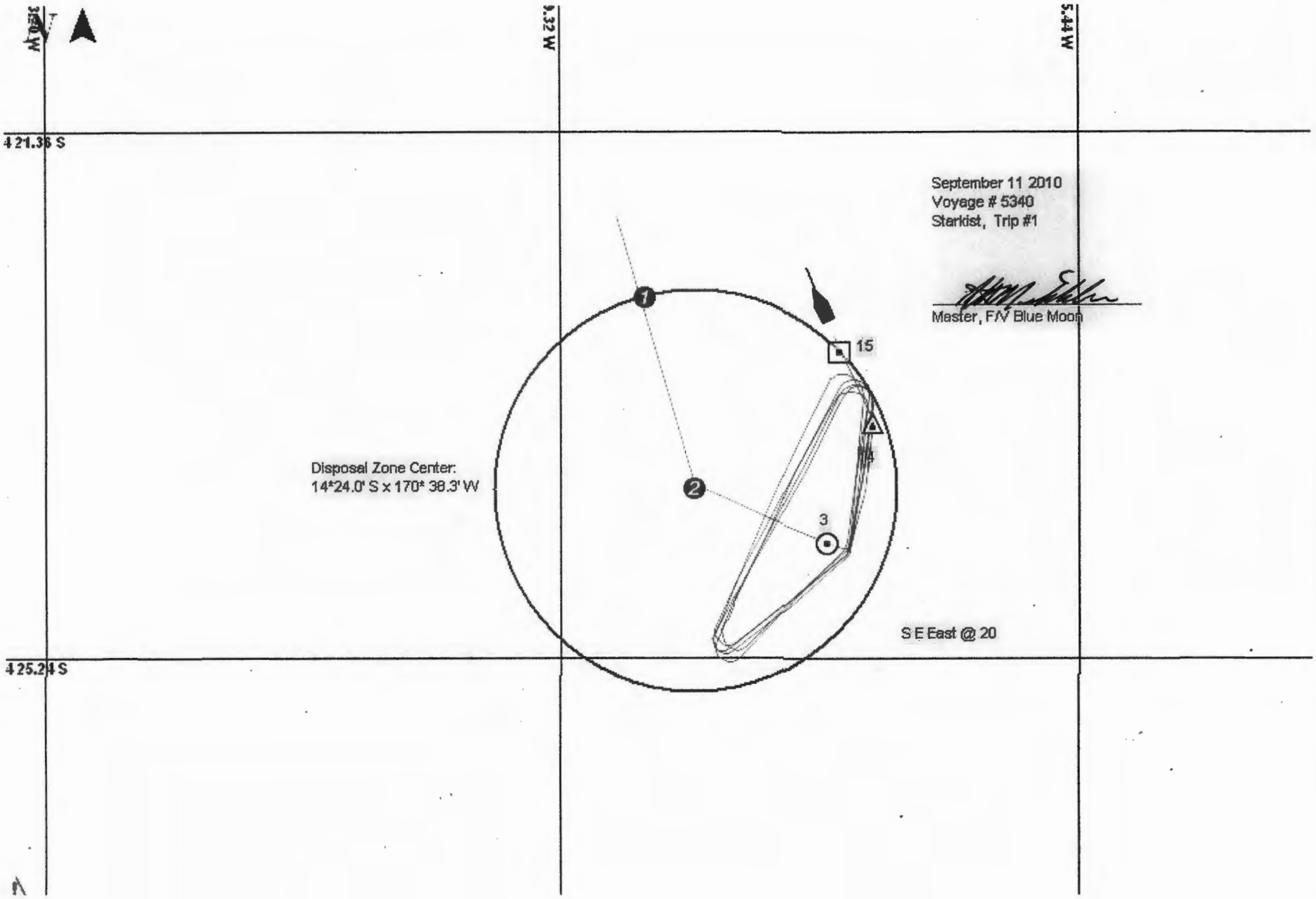
Unusual Occurrences? None

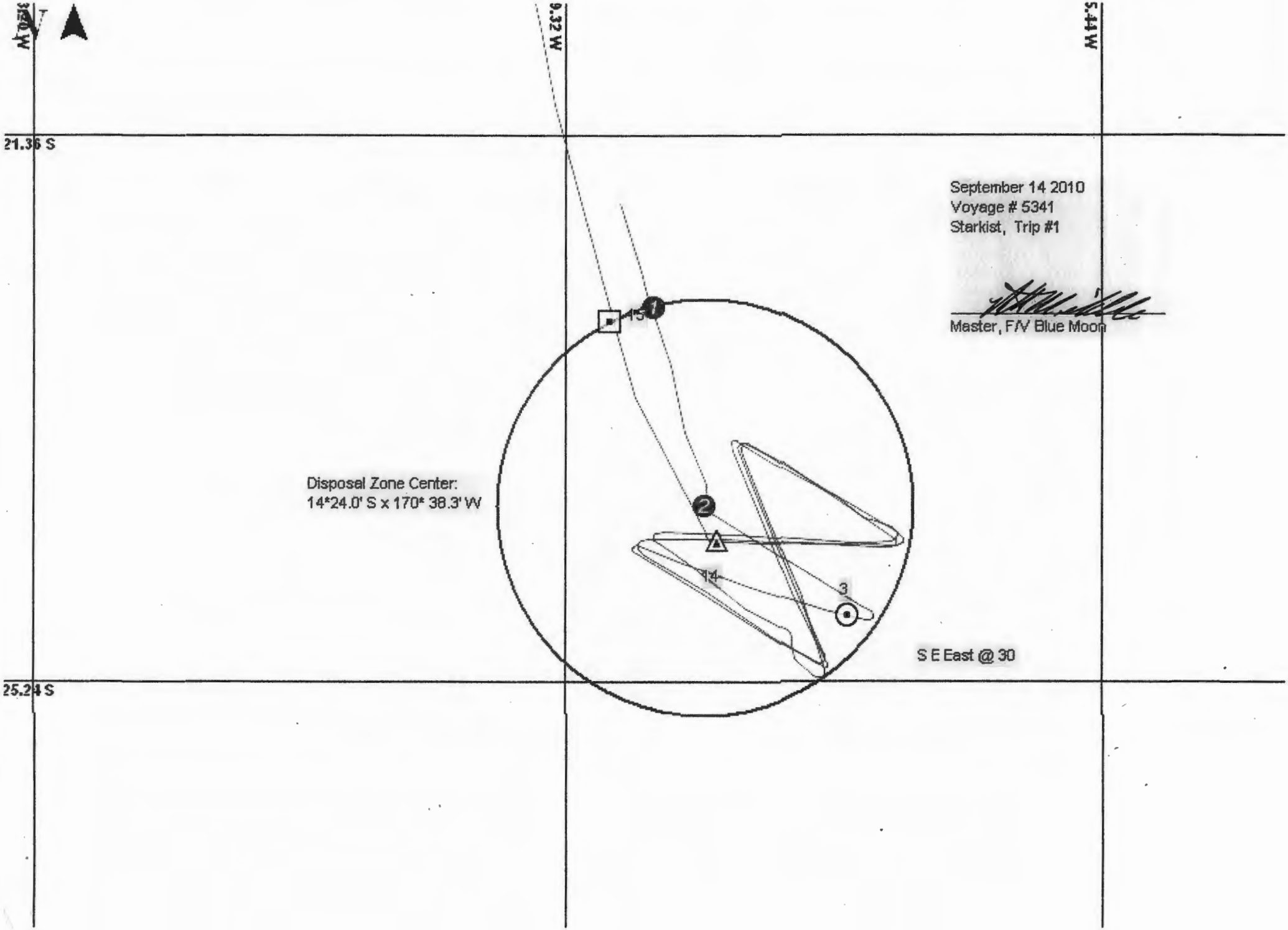
Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

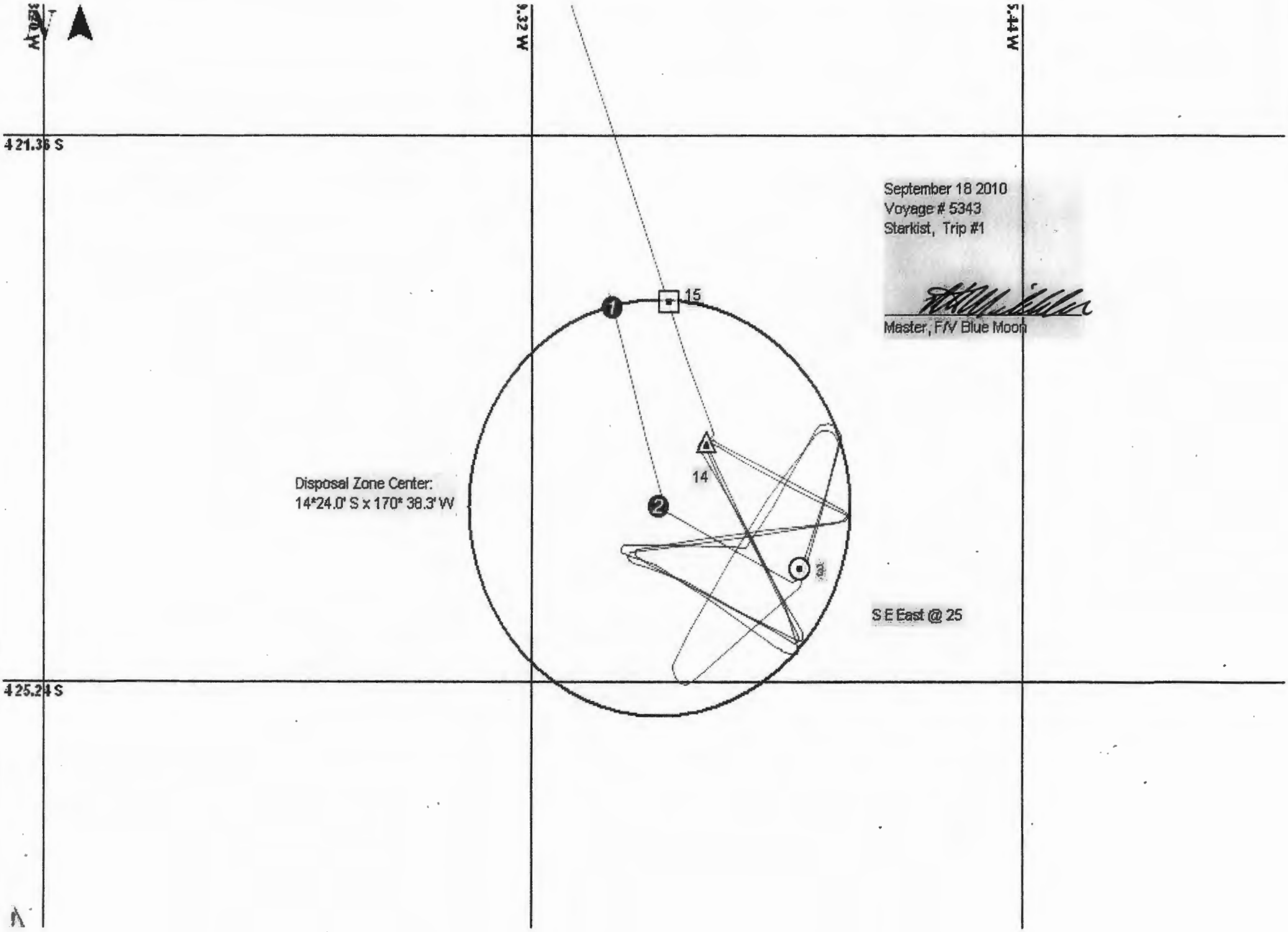

14 21.36 S
14 25.24 S
September 04 2010
Voyage # 5337
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
16
1
2
15
3
S E East @ 25
Current set: Northwest
14 24.537 S
170 36.527 W
3.084 nm - 140 T

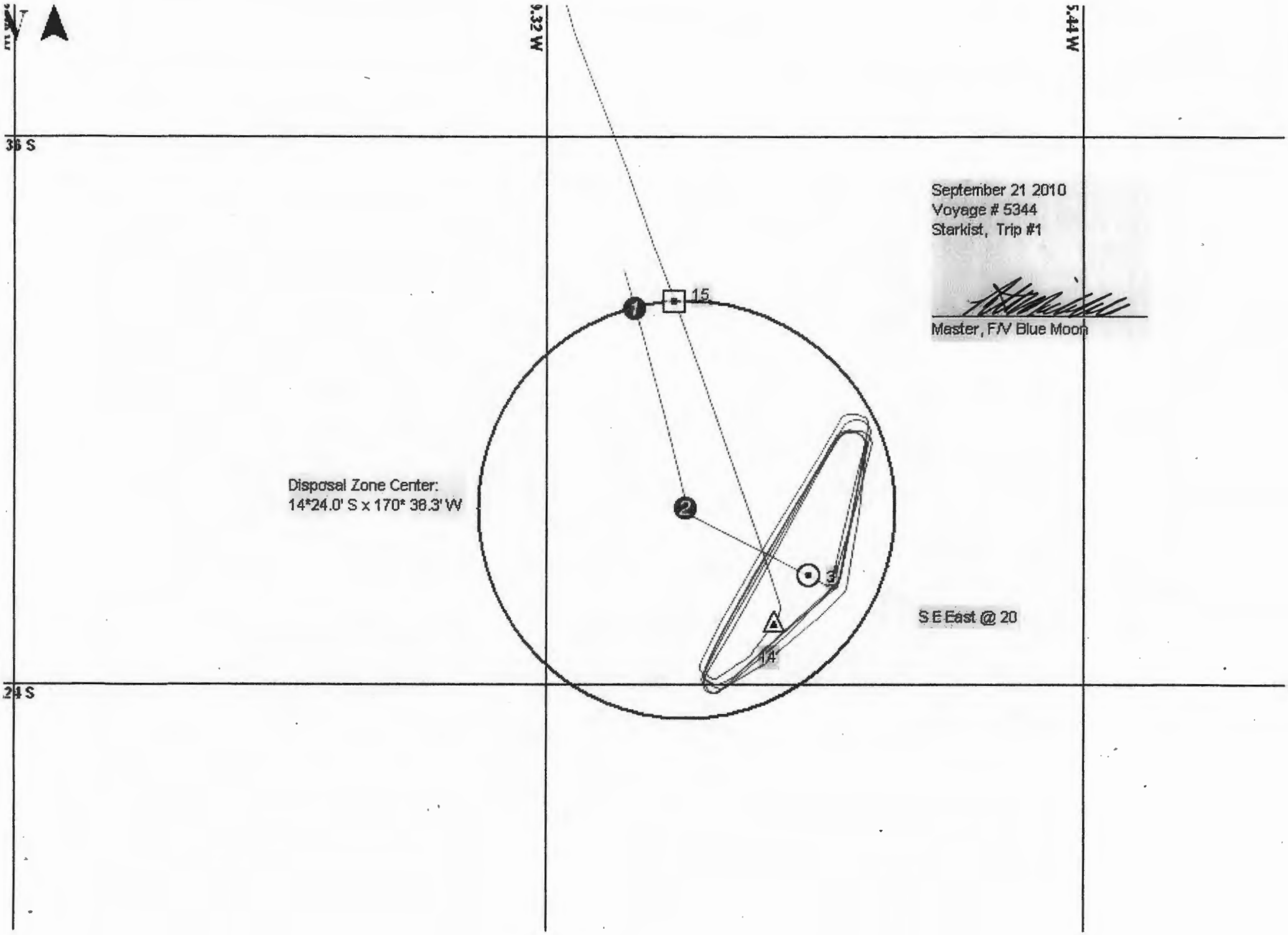

September 07 2010
Voyage # 5338
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
S E East @ 25
1
2
3
4

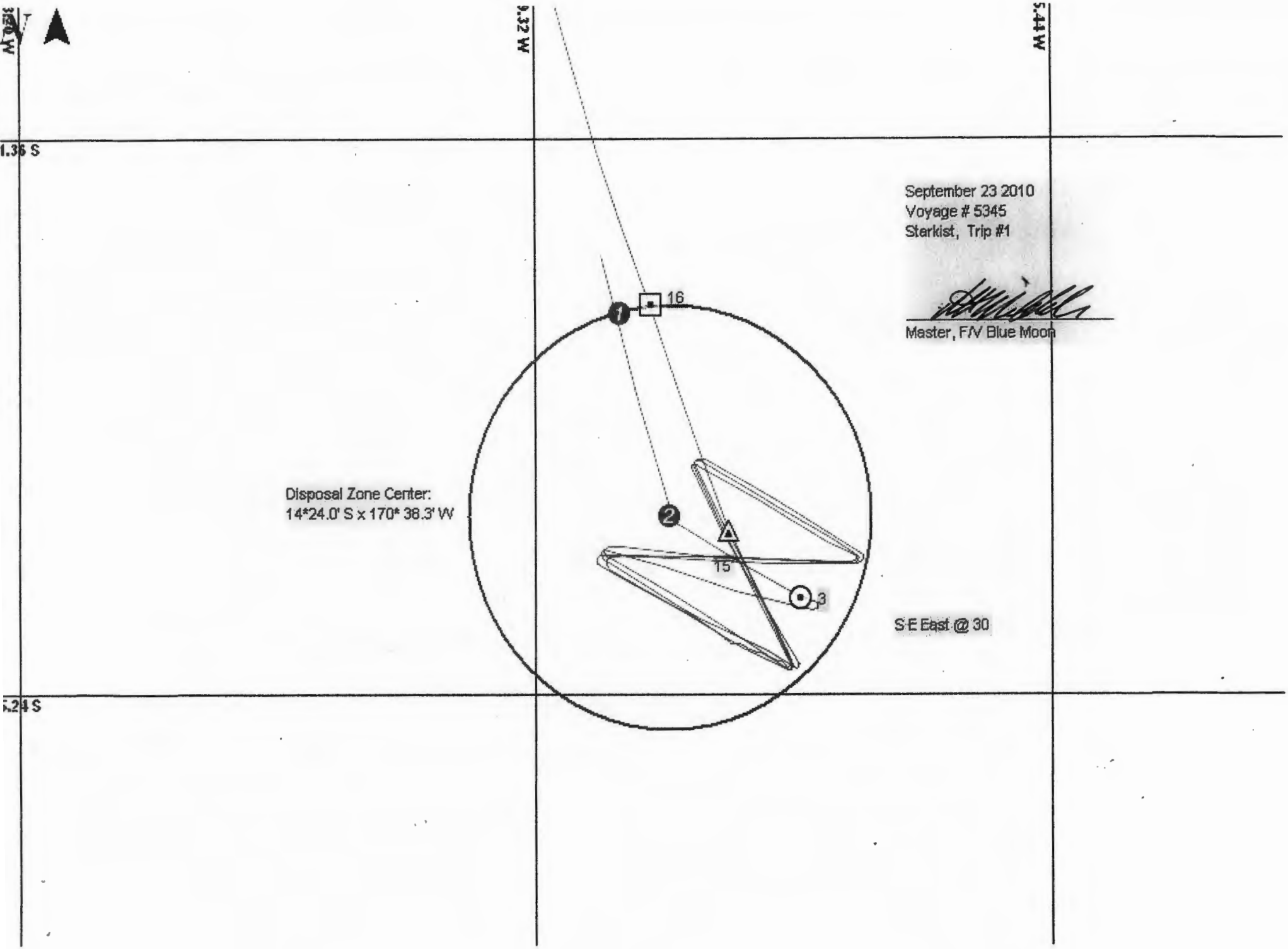

21.36 S
25.24 S
September 09 2010
Voyage # 5339
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
3
15
16
S'E East @ 25


3.32 W
5.44 W
4 21.36 S
4 25.24 S
September 11 2010
Voyage # 5340
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
3
4
15
S E East @ 20


21.36 S
25.24 S
9.32 W
5.44 W
September 14 2010
Voyage # 5341
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
1
2
3
14
15
S E East @ 30

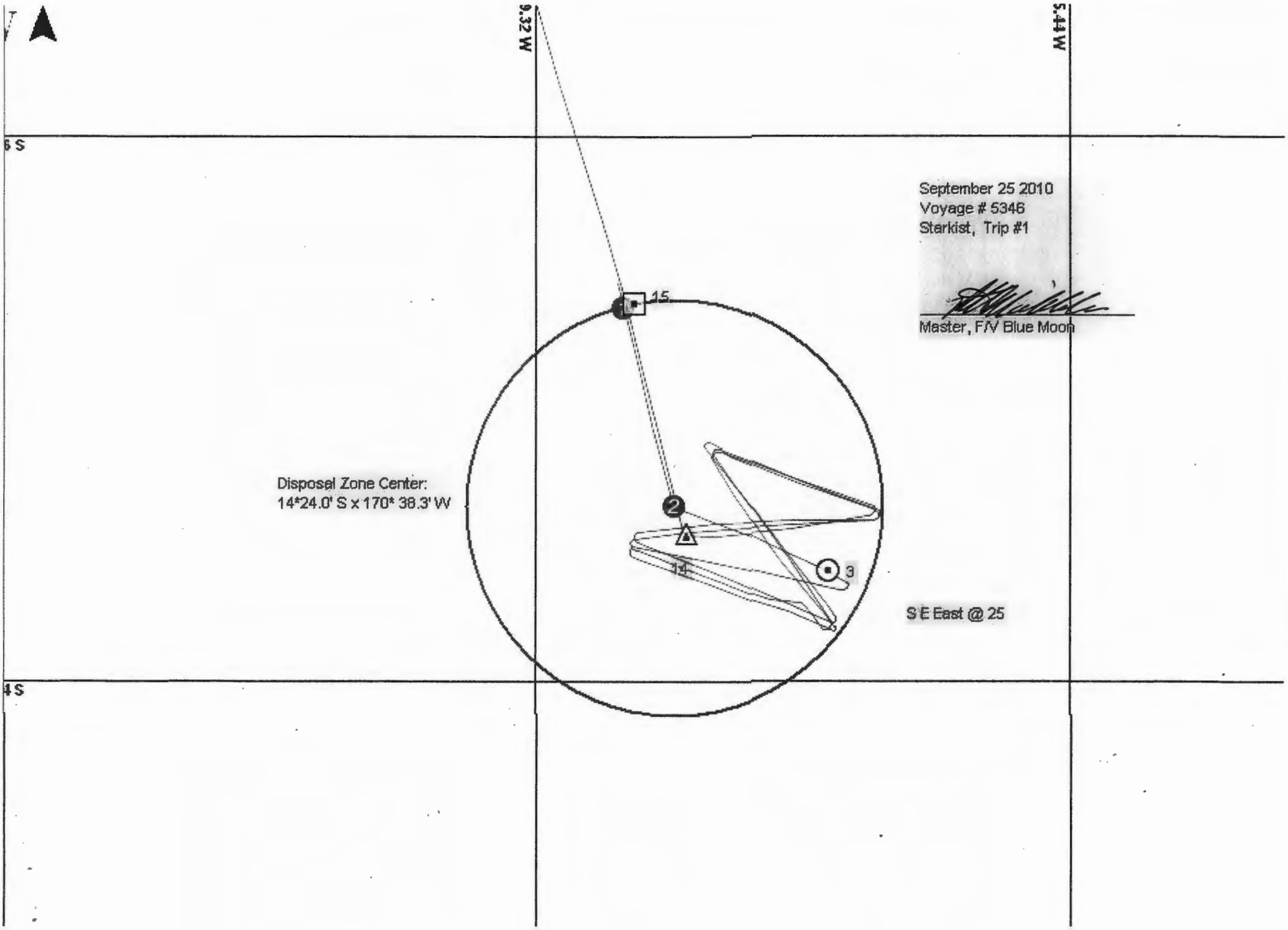

W 23.32 W
W 23.44 W
4 21.36 S
4 25.24 S
September 18 2010
Voyage # 5343
Starkist, Trip #1
Master, F/V Blue Moon
15
14
1
2
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
S E East @ 25


36 S
24 S
5.44 W
September 21 2010
Voyage # 5344
Starkist, Trip #1
Master, F/V Blue Moon
15
1
2
3
14
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
S E East @ 20



September 23 2010
Voyage # 5345
Starkist, Trip #1

Master, F/V Blue Moon


9.32 W
5.44 W
6 S
4 S
15
2
3
14
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
September 25 2010
Voyage # 5346
Starkist, Trip #1
Master, F/V Blue Moon
S E East @ 25

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON September, 2010

NUMBER OF TRIPS:	SK:	SP:	JOINT:	TOTAL:
	11	0	0	11

GALLONS-FOR THE MONTH:	SK:	SP:	JOINT:	TOTAL:
	1,880,000	0	0	1,880,000

GALLONS FOR SOLO TRIPS:	SK:	SP:
	1,880,000	0

RUNNING TIME ON TRIPS: 54.17 hrs.

DISCHARGE TIME ON TRIPS: 29.9 hrs.

AV. GPM DISCHARGE RATE: 113 gpm/s

AV. TRIP TIME: 4.92 hrs.

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK:	COS:
100.00%	N/A

MASTER :

STAR KIST SAMOA, CO
WATER TREATMENT DEPARTMENT

BLUE MOON - OCEAN DUMPING LOG

October 01, 2010

Trip Date	1st Trip	Loading Time	Total Volume	2nd Trip	Loading Time	Volume
1-Sep-10	1st Trip	1545\1620 (75000)		2nd Trip	NONE	0
2-Sep-10	1st Trip	1430\1600 (47500)	192500	2nd Trip	NONE	0
3-Sep-10	1st Trip	1430\1915 (131250)		2nd Trip	NONE	0
4-Sep-10	1st Trip		178750	2nd Trip	NONE	0
5-Sep-10	1st Trip	0230\0430 (55000)		2nd Trip	NONE	0
6-Sep-10	1st Trip	1550\1930 (80000)		2nd Trip	NONE	0
7-Sep-10	1st Trip	1700\1900 (55000)	135000	2nd Trip	NONE	0
8-Sep-10	1st Trip	1540\2000 (100750)		2nd Trip	NONE	0
9-Sep-10	1st Trip	1600\1830 (67500)	155750	2nd Trip	NONE	0
10-Sep-10	1st Trip	1530\1930 (102000)		2nd Trip	NONE	0
11-Sep-10	1st Trip		169500	2nd Trip	NONE	0
12-Sep-10	1st Trip	1600\1800 (65000)		2nd Trip	NONE	0
13-Sep-10	1st Trip	1610\2015 (128750)		2nd Trip	NONE	0
14-Sep-10	1st Trip	1614\1815 (45000)	193750	2nd Trip	NONE	0
15-Sep-10	1st Trip	1600\2015 (121250)		2nd Trip	NONE	0
16-Sep-10	1st Trip	1500\1640 (48750)	166250	2nd Trip	NONE	0
17-Sep-10	1st Trip	1500\1900 (117500)		2nd Trip	NONE	0
18-Sep-10	1st Trip		166250	2nd Trip	NONE	0
19-Sep-10	1st Trip	1600\1730 (45000)		2nd Trip	NONE	0
20-Sep-10	1st Trip	1615\2100 (116750)		2nd Trip	NONE	0
21-Sep-10	1st Trip	1640\1900 (66250)	161750	2nd Trip	NONE	0
22-Sep-10	1st Trip	1600\2030 (115500)		2nd Trip	NONE	0
23-Sep-10	1st Trip	1630\1900 (72500)	181750	2nd Trip	NONE	0
24-Sep-10	1st Trip	1600\2040 (106250)		2nd Trip	NONE	0
25-Sep-10	1st Trip	N/P	178750	2nd Trip	NONE	0
26-Sep-10	1st Trip	SUNDAY		2nd Trip	NONE	0
27-Sep-10	1st Trip	N/P		2nd Trip	NONE	0
28-Sep-10	1st Trip	N/P		2nd Trip	NONE	0
29-Sep-10	1st Trip	N/P		2nd Trip	NONE	0
30-Sep-10	1st Trip			2nd Trip	NONE	0
TOTAL	**1st Trip**		**1,880,000**	**2nd Trip**		**0**
					Total 1st & 2nd	

cc:
Blue Moon- Captain
File

Prepared by: W.W.T

Date: 09/02/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5336

Permit # OD 93-01 & OD 93-02

Time	
1500	Begin 1st Loading SK
1900	Finish 1st Loading SK
1545	Begin 2nd Loading SK
1620	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK 192500 Gallons

Gallons

Total 192500 Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0605	Depart Starkist		14*16.50'	S	170* 41.2'	W	SE 15	50	29.80			
0657	Arrive Edge of Zone	# 1	14*22.7	S	170*38.7	W	SE 15	50	29.80	1.5	8.6	170°
0708	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 15	50	29.80	1.5	8.9	166
0720	Begin Discharge	# 3	14*24.6	S	170*3 7.3	W	SE 20	50	29.80	1.5 X	9	191°
35		# 4	14*2 3.4	S	170*3 6.9	W	SE 20	50	29.80	1.5	8.8	003°
50	Remarks:	# 5	14*2 4.8	S	170*3 8.2	W	SE 20	50	29.80	1.5	9	211°
0805		# 6	14*2 4.6	S	170*3 7.3	W	SE 20	50	29.8	1.5	9	50°
20	0715 water	# 7	14*2 4.0	S	170*3 7.6	W	SE 20	50	29.8	1.5 5	9.2	213°
35	sample	# 8	14*2 5.3	S	170*3 8.2	W	SE 20	50	29.8	1.5	8.8	057°
50		# 9	14*2 3.3	S	170*3 7.1	W	SE 20	50	29.8	1.5	9.1	224°
0905		# 10	14*2 4.7	S	170*3 8.1	W	SE 20	50	29.75	1.5	9.4	212°
20		# 11	14*2 3.0	S	170*3 6.9	W	SE 20	50	29.75	1.5	9.2	016°
35		# 12	14*2 4.0	S	170*3 7.6	W	SE 20	50	29.8	1.5 10	9.5	211°
50		# 13	14*2 4.7	S	170*3 7.5	W	SE 20	50	29.8	1.5	9.2	047°
1005		# 14	14*2 4.5	S	170*3 8.0	W	SE 20	50	29.8	1.5	9.7	311°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1020	Finish Discharge	15	14*2 5.1	S	170*3 8.1	W	SE 20	50	29.8	1.5	9.3	052°
1124	Exit Discharge Zone	16	14*2 2.7	S	170*3 8.8	W	SE 20	50	29.8	1.5	9.4	348°
1220	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.1 kts. Total Time Run 6.25 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 117.5 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/04/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5337

Permit # OD 93-01 & OD 93-02

Time	
1430	Begin 1st Loading SK
1600	Finish 1st Loading SK
1430	Begin 2nd Loading SK
1915	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK 178750 Gallons

Gallons

Total Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W						
0708	Arrive Edge of Zone	# 1	14*22.	S	170*38.	W	SE 25	50	29.7	2	8.1	162°
0713	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 25	50	29.7	2	8	167°
0730	Begin Discharge	# 3	14*24.7	S	170*37.1	W	SE 25	50	29.7	2 X	8.2	277°
45		# 4	14*24.8	S	170*37.7	W	SE 25	50	29.7	2	8.1	119°
0800	Remarks:	# 5	14*24.1	S	170*37.8	W	SE 25	50	29.7	2	8.7	333°
15		# 6	14*24.0	S	170*37.1	W	SE 25	50	29.7	2	8.4	115°
30.		# 7	14*24.2	S	170*35.4	W	SE 25	50	29.7	2 5	9.0	268°
45		# 8	14*24.2	S	170*37.7	W	SE 25	50	29.75	2	9.1	332°
0900		# 9	14*24.0	S	170*37.2	W	SE 25	50	29.75	2	8.9	117°
15		# 10	14*24.2	S	170*38.6	W	SE 25	50	29.75	2	8.8	140°
30.		# 11	14*24.4	S	170*37.6	W	SE 25	50	29.75	2	9.4	332°
45.		# 12	14*24.0	S	170*37.1	W	SE 25	50	29.75	2 10	9	118°
1000.		# 13	14*24.2	S	170*38.3	W	SE 25	50	29.75	2	9.6	271°
15		# 14	14*24.3	S	170*37.7	W	SE 25	50	29.75	2	9.6	333°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1019	Finish Discharge	15	14*23.8	S	170*37.9	W	SE 25	50	29.75	2	9.8	332°
1027	Exit Discharge Zone	16	14*22.6	S	170*38.4	W	SE 25	50	29.75	2	9.7	343°
1120	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 169 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 5.08 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 118.8 Gallons/min/kt.

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/07/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5338

Permit # OD 93-01 & OD 93-02

Time	
0230	Begin 1st Loading SK
0430	Finish 1st Loading SK
1550	Begin 2nd Loading SK
1930	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK 175000 Gallons

Gallons

Total Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0640	Depart Starkist		14*16.50'	S	170* 41.2'	W		70	29.65			
0732	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 25	70	29.65	2	8.5	168°
0742	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 25	70	29.65	2	8.5	166°
0750	Begin Discharge	# 3	14*2 4.8	S	170*3 7.2	W	SE 25	60	29.65	2 X	9	276°
0805		# 4	14*2 4.3	S	170*3 8.5	W	SE 25	60	29.65	2	9.3	296°
20	Remarks:	# 5	14*2 4.8	S	170*3 7.6	W	SE 25	60	29.65	2	9.4	343°
35		# 6	14*2 4.2	S	170*3 7.1	W	SE 25	60	29.65	2	8.6	125°
50		# 7	14*2 4.3	S	170*3 8.3	W	SE 25	60	29.65	2 5	9.4	226°
0905		# 8	14*2 5.0	S	170*3 7.6	W	SE 25	60	29.65	2	9.3	353°
20		# 9	14*2 4.1	S	170*3 6.9	W	SE 25	60	29.65	2	8.8	125°
35		# 10	14*2 4.3	S	170*3 8.3	W	SE 20	60	29.65	2	9.8	271°
50		# 11	14*2 4.3	S	170*3 7.8	W	SE 25	60	29.65	2	9.7	346°
1005		# 12	14*2 4.3	S	170*3 8.0	W	SE 25	60	29.65	2 10	10	274°
		# 13	14*2	S	170*3	W						
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1015	Finish Discharge	13	14*2 4.4	S	170*3 8.5	W	SE 25	60	29.65	2	9.5	097°
1013	Exit Discharge Zone	14	14*2 2.8	S	170*3 8.9	W	SE 25	60	29.65	2	9.8	347°
1120	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 145 mins. Average Speed During Discharge: 9.3 kts. Total Time Run 3.6 hr.

Navigational Plot made: Yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 100.1 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/09/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5339

Permit # OD 93-01 & OD 93-02

Time	
1700	Begin 1st Loading SK
1900	Finish 1st Loading SK
1540	Begin 2nd Loading SK
2000	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK 153750 Gallons

Gallons

Total Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0616	Depart Starkist		14*16.50'	S	170* 41.2'	W		100	29.65	Metric	kts	True*
0700	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 25	100	29.65	2	8.4	166°
0714	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 25	100	29.65	2.5	8.3	166°
0725	Begin Discharge	# 3	14*2 4.4	S	170*3 7.1	W	SE 25	100	29.65	3 X	8.3	271°
40		# 4	14*2 4.4	S	170*3 8.1	W	SE 25	100	29.65	3	8.3	167°
55	Remarks:	# 5	14*2 4.0	S	170*3 7.8	W	SE 25	100	29.65	3	8.8	319°
0810		# 6	14*2 4.0	S	170*3 6.7	W	SE 25	100	29.65	3	8.3	253°
25		# 7	14*2 4.4	S	170*3 8.2	W	SE 25	100	29.65	2.5 5	8.4	102°
40		# 8	14*2 3.8	S	170*3 7.9	W	SE 25	90	29.65	2.5	9.4	315°
55		# 9	14*2 3.9	S	170*3 6.8	W	SE 25	90	29.65	2.5	9.6	246°
0910		# 10	14*2 4.3	S	170*3 8.4	W	SE 25	90	29.65	2.5	8.9	110°
25		# 11	14*2 4.1	S	170*3 7.6	W	SE 25	90	29.65	2.5	9.7	314°
40		# 12	14*2 3.9	S	170*3 7.0	W	SE 25	100	29.65	2.5 10	9.9	250°
55		# 13	14*2 4.5	S	170*3 7.6	W	SE 25	100	29.65	2.5	9	103°
1010		# 14	14*2 3.8	S	170*3 7.9	W	SE 25	100	29.65	2.5	9.7	319°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1012	Finish Discharge	15	14*2 3.6	S	170*3 8.0	W	SE 25	100	29.65	2.5	9.4	318°
1017	Exit Discharge Zone	16	14*2 2.6	S	170*3 8.4	W	SE 25	100	29.65	2.5	9.4	343°
1105	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 161 mins. Average Speed During Discharge: 9 kts. Total Time Run 4.91 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 103 Gallons/min/kt.

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/11/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5340

Permit # OD 93-01 & OD 93-02

Time	
1600	Begin 1st Loading SK
1870	Finish 1st Loading SK
1520	Begin 2nd Loading SK
1930	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:			
	SK	169 500	Gallons
		—	Gallons
	Total	169 500	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W		100	29.7			
0702	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 20	100	29.7	2	8.4	163°
0713	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 20	100	29.7	2	8.6	165°
0720	Begin Discharge	# 3	14*2 4.4	S	170*3 7.2	W	SE 20	100	29.7	2 X	8.4	166°
35		# 4	14*2 4.0	S	170*3 7.6	W	SE 20	100	29.7	2	8.7	206°
50	Remarks:	# 5	14*2 4.6	S	170*3 7.3	W	SE 20	100	29.7	2	8.5	046°
0805		# 6	14*2 3.3	S	170*3 7.3	W	SE 20	100	29.7	2	9.3	210°
20		# 7	14*2 4.8	S	170*3 8.0	W	SE 20	100	29.7	2 5	9.4	204°
35		# 8	14*2 3.7	S	170*3 7.0	W	SE 20	100	29.7	2	9.4	009°
50		# 9	14*2 4.7	S	170*3 8.0	W	SE 20	100	29.7	2	9.6	207°
0905		# 10	14*2 4.1	S	170*3 7.1	W	SE 20	100	29.7	2	9.2	005°
20		# 11	14*2 4.6	S	170*3 7.9	W	SE 20	100	29.7	2	9.5	208°
35		# 12	14*2 4.2	S	170*3 7.1	W	SE 20	100	29.7	2 10	9.2	014°
1005		# 13	14*2 4.4	S	170*3 7.1	W	SE 20	100	29.7	2	9.2	025°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1010	Finish Discharge	14	14*2 3.5	S	170*3 6.9	W	SE 20	100	29.7	2	9.6	353°
1015	Exit Discharge Zone	15	14*2 3.1	S	170*3 7.1	W	SE 20	100	29.7	2	9.6	338°
1110	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 9.2 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 108.3 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/14/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5341

Permit # OD 93-01 & OD 93-02

Time	
1600	Begin 1st Loading SK
1800	Finish 1st Loading SK
1610	Begin 2nd Loading SK
2015	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:

SK	197 750	Gallons
		Gallons
Total	193 750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
										Metric		kts	True*
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W		70	29.75				
0707	Arrive Edge of Zone	# 1	14*22. 4	S	170*38. 7	W	SE25	70	29.75	3		8.3	165°
0717	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE25	70	29.75	3		8.8	157°
0730	Begin Discharge	# 3	14*2 4.7	S	170*3 7.1	W	SE25	70	29.75	3	X	8.9	277°
45		# 4	14*2 4.4	S	170*3 8.6	W	SE25	70	29.75	3		8.5	124°
0800	Remarks:	# 5	14*2 4.5	S	170*3 7.7	W	SE25	70	29.75	3		9.1	335°
15		# 6	14*2 3.5	S	170*3 8.0	W	SE25	70	29.75	3		8.9	118°
30		# 7	14*2 4.2	S	170*3 7.9	W	SE25	70	29.75	3	5	9.2	273°
45		# 8	14*2 4.5	S	170*3 7.6	W	SE25	70	29.75	3		9.4	335°
0900		# 9	14*2 3.7	S	170*3 7.9	W	SE25	70	29.75	3		9.5	338°
15		# 10	14*2 4.2	S	170*3 7.5	W	SE 25	70	29.75	3		9.8	272°
30		# 11	14*2 5.0	S	170*3 7.6	W	SE 25	70	29.75	3		9.4	122°
45		# 12	14*2 3.7	S	170*3 7.9	W	SE 25	70	29.75	3	10	9.4	338°
1000		# 13	14*2 4.2	S	170*3 7.5	W	SE 25	70	29.75	3		9.9	271°
10		# 14	14*2 4.1	S	170*3 8.3	W	SE 30	70	29.75	3		9.1	327°
		# 15	14*2	S	170*3	W							
		# 16	14*2	S	170*3	W							
		# 17	14*2	S	170*3	W					15		
		# 18	14*2	S	170*3	W							
		# 19	14*2	S	170*3	W							
		# 20	14*2	S	170*3	W							
			14*2	S	170*3	W							
			14*2	S	170*3	W					20		
			14*2	S	170*3	W							
1010	Finish Discharge	15	14*2 4.1	S	170*3 8.3	W	SE30	70	29.75	3		9.1	327°
1018	Exit Discharge Zone	16	14*2 2.3	S	170*3 9.0	W	SE30	70	29.75	3		9.5	344°
1115	Secure SK Dock		14*16.50'	S	170*41.2'	W							

Current Direction: At Center N/A End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 160 mins. Average Speed During Discharge: 9.2 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 134 Gallons/min/kt.

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/16/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5342

Permit # OD 93-01 & OD 93-02

Time	
1615	Begin 1st Loading SK
1815	Finish 1st Loading SK
1600	Begin 2nd Loading SK
2015	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:			
SK	166250	Gallons
	—	Gallons
Total	166250	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell		Speed	Course
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W		100	29.7	Metric		kts	True*
0704	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE20	100	29.7	2		8.4	165°
0717	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE20	100	29.7	2		8.7	165°
0727	Begin Discharge	# 3	14*2 4.4	S	170*3 7.5	W	SE20	100	29.7	2	X	9.1	121°
0742		# 4	14*2 4.1	S	170*3 7.6	W	SE 20	100	29.7	2		9.4	208°
57	Remarks:	# 5	14*2 4.6	S	170*3 7.2	W	SE 20	100	29.7	2		7.1	047°
08 12		# 6	14*2 3.9	S	170*3 7.5	W	SE 20	100	29.7	2		9.3	211°
27		# 7	14*2 4.5	S	170*3 7.2	W	SE 20	100	29.7	2	5	9.1	019°
42		# 8	14*2 3.7	S	170*3 7.5	W	SE 20	100	29.7	2		9.5	209°
57		# 9	14*2 5.1	S	170*3 8.0	W	SE20	100	29.7	2		9.1	053°
09 12		# 10	14*2 4.3	S	170*3 7.1	W	SE20	100	29.7	2		9.2	014°
27		# 11	14*2 5.1	S	170*3 8.2	W	SE20	100	29.7	2		9.7	203°
42		# 12	14*2 4.1	S	170*3 7.1	W	SE 20	100	29.7	2	10	9.8	019°
57		# 13	14*2 5.1	S	170*3 8.0	W	SE20	100	29.7	2		9.5	057°
10 12		# 14	14*2 4.3	S	170*3 7.1	W	SE 20	100	29.7	2		9.3	050°
		# 15	14*2	S	170*3	W							
		# 16	14*2	S	170*3	W							
		# 17	14*2	S	170*3	W					15		
		# 18	14*2	S	170*3	W							
		# 19	14*2	S	170*3	W							
		# 20	14*2	S	170*3	W							
			14*2	S	170*3	W							
			14*2	S	170*3	W					20		
			14*2	S	170*3	W							
1013	Finish Discharge	15	14*2 4.1	S	170*3 7.1	W	SE20	100	29.7	2		9.3	017°
1020	Exit Discharge Zone	16	14*2 2.6	S	170*3 7.8	W	SE20	100	29.7	2		9.9	333°
1110	Secure SK Dock		14*16.50'	S	170*41.2'	W							

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 157 mins. Average Speed During Discharge: 9.3 kts. Total Time Run 4.9 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 113.8 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/18/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5343

Permit # OD 93-01 & OD 93-02

Time	
1500	Begin 1st Loading SK
1640	Finish 1st Loading SK
1500	Begin 2nd Loading SK
1900	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:		
SK	166250	Gallons
		Gallons
Total		Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
0635	Depart Starkist		14*16.50'	S	170* 41.2'	W		50	29.7	Metric	kts	True*
0728	Arrive Edge of Zone	# 1	14*22.6	S	170*38.6	W	SE 20	50	29.7	2	8.4	166°
0735	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 20	50	29.7	2	8.5	164°
0745	Begin Discharge	# 3	14*2 4.4	S	170*3 7.4	W	SE 20	50	29.7	2 X	9.2	119°
0900		# 4	14*2 4.0	S	170*3 7.4	W	SE 20	50	29.7	2	7.3	216°
15	Remarks:	# 5	14*2 4.8	S	170*3 7.5	W	SE 20	50	29.7	2	8.9	052°
20		# 6	14*2 3.7	S	170*3 7.2	W	SE 20	50	29.7	2	9.2	211°
45		# 7	14*2 4.5	S	170*3 8.1	W	SE 20	50	29.7	2 5	9.1	119°
0900		# 8	14*2 4.0	S	170*3 7.6	W	SE 25	50	29.7	2	9.4	328°
15		# 9	14*2 4.1	S	170*3 6.9	W	SE 25	50	29.7	2	9.4	253°
30		# 10	14*2 4.5	S	170*3 7.9	W	SE 25	50	29.7	2	9.1	116°
45		# 11	14*2 3.6	S	170*3 7.8	W	SE 25	50	29.7	2	9.6	341°
1000		# 12	14*2 4.1	S	170*3 7.3	W	SE 25	50	29.7	2 10	7.7	264°
15		# 13	14*2 4.7	S	170*3 7.6	W	SE 25	50	29.7	2	9.1	115°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1025	Finish Discharge	14	14*2 3.5	S	170*3 7.9	W	SE 25	50	29.7	2	9.4	017°
1035	Exit Discharge Zone	15	14*2 2.6	S	170*3 8.2	W	SE 25	50	29.7	2	9.6	341°
1135	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 160 mins. Average Speed During Discharge: 9.28 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 111.9 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/21/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5344

Permit # OD 93-01 & OD 93-02

Time	
1600	Begin 1st Loading SK
1730	Finish 1st Loading SK
1615	Begin 2nd Loading SK
2100	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK 161 750 Gallons

Gallons

Total Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W		50	29.65			
0655	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE 20	50	29.65	1.5	8.6	166°
0702	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE 20	50	29.65	2	8.6	165°
0710	Begin Discharge	# 3	14*2 4.4	S	170*3 7.5	W	SE 20	50	29.65	1.5 X	9.4	119°
25		# 4	14*2 3.6	S	170*3 7.2	W	SE 20	50	29.65	1.5	9.1	210
40	Remarks:	# 5	14*2 4.5	S	170*3 7.3	W	SE 20	50	29.65	1.5	9.2	047°
55		# 6	14*2 3.5	S	170*3 7.2	W	SE 20	50	29.65	1.5	9.2	220°
0810		# 7	14*2 5.0	S	170*3 8.1	W	SE 20	50	29.65	1.5 5	9.3	200°
25		# 8	14*2 5.4	S	170*3 7.0	W	SE 20	50	29.65	1.5	9	330°
40		# 9	14*2 4.8	S	170*3 8.0	W	SE 20	50	29.65	1.5	9.2	209°
55		# 10	14*2 3.6	S	170*3 7.0	W	SE 20	50	29.65	1.5	9.3	014°
0910		# 11	14*2 4.5	S	170*3 7.8	W	SE 20	50	29.65	1.5	9.6	209°
25		# 12	14*2 4.3	S	170*3 7.1	W	SE 20	50	29.65	1.5 10	9.3	019°
40		# 13	14*2 4.9	S	170*3 8.0	W	SE 20	50	29.65	1.5	9.7	209°
50		# 14	14*2 4.9	S	170*3 7.7	W	SE 20	50	29.65	1.5	9.0	036°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
50	Finish Discharge	14	14*2 4.9	S	170*3 7.9	W	SE 20	50	29.65	1.5	9.0	036°
1000	Exit Discharge Zone	15	14*2 2.5	S	170*3 8.3	W	SE 20	50	29.65	1.5	9.6	340°
1050	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 160 mins. Average Speed During Discharge: 9.25 kts. Total Time Run 4.6 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 109.2 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/23/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5345

Permit # OD 93-01 & OD 93-02

Time	
1640	Begin 1st Loading SK
1900	Finish 1st Loading SK
1600	Begin 2nd Loading SK
2030	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:

SK	181 750	Gallons
	—	Gallons
Total	181 750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0615	Depart Starkist		14*16.50'	S	170* 41.2'	W		70	29.7			
0706	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	SE20	70	29.7	2	8.4	168°
0717	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	SE25	70	29.7	2	8.5	124°
0725	Begin Discharge	# 3	14*2 4.4	S	170*3 7.5	W	SE25	70	29.7	2 X	8.8	119°
40		# 4	14*2 4.4	S	170*3 8.6	W	SE25	70	29.7	2	9.1	122°
55	Remarks:	# 5	14*2 7.8	S	170*3 7.7	W	SE25	70	29.7	2	9.3	116°
0810		# 6	14*2 4.0	S	170*3 7.2	W	SE25	70	29.7	2	9	120°
25		# 7	14*2 4.0	S	170*3 8.7	W	SE25	70	29.7	2 5	9.4	201°
40		# 8	14*2 4.1	S	170*3 7.8	W	SE25	70	29.7	2	9.2	332°
55		# 9	14*2 4.0	S	170*3 7.2	W	SE25	70	29.7	2	8.9	123°
0910		# 10	14*2 4.2	S	170*3 8.2	W	SE25	70	29.7	2	9.8	271°
25		# 11	14*2 5.0	S	170*3 7.4	W	SE25	70	29.7	2	9.5	332°
40		# 12	14*2 7.8	S	170*3 7.6	W	SE 30	70	29.7	2 10	9.2	119°
55		# 13	14*2 4.2	S	170*3 7.7	W	SE 30	70	29.7	2	10	273°
1010		# 14	14*2 5.0	S	170*3 7.4	W	SE 30	70	29.7	2	9.7	342°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1015	Finish Discharge	15	14*2 4.3	S	170*3 7.7	W	SE 30	70	29.7	2	9.5	332°
1030	Exit Discharge Zone	16	14*2 2.7	S	170*3 8.3	W	SE 30	70	29.7	2	9.3	341°
1120	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

Total Discharge Time: 175 mins. Average Speed During Discharge: 9.3 kts. Total Time Run 5.08 hr.

Navigational Plot made: yes Presence of Plume? NONE

Time and position of any floating material: NONE Discharge Rate: 111.6 Gallons/min/kt.

Unusual Occurrences? NONE

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

Date: 09/25/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5346

Permit # OD 93-01 & OD 93-02

Time	
1630	Begin 1st Loading SK
1900	Finish 1st Loading SK
1600	Begin 2nd Loading SK
2040	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded: SK _____ Gallons

_____ Gallons

Total 178750 Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
0610	Depart Starkist		14*16.50'	S	170* 41.2'	W		100	29.7			
0700	Arrive Edge of Zone	# 1	14*22.4	S	170*38.7	W	ESE 25	100	29.7	2	8.8	166°
0711	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	ESE 25	100	29.7	2	8.2	166°
0720	Begin Discharge	# 3	14*2 4.4	S	170*3 7.4	W	ESE 25	100	29.7	2 X	8.9	115°
35		# 4	14*2 4.3	S	170*3 8.5	W	ESE 25	100	29.7	2	9.2	112°
50	Remarks:	# 5	14*2 4.4	S	170*3 7.4	W	ESE 25	100	29.7	2	9.4	325°
0805		# 6	14*2 3.8	S	170*3 7.4	W	ESE 25	100	29.7	2	9.3	111°
20		# 7	14*2 4.1	S	170*3 8.4	W	ESE 25	90	29.7	2 5	9.4	231°
35		# 8	14*2 3.8	S	170*3 7.8	W	ESE 25	90	29.7	2	9.4	322°
50		# 9	14*2 3.8	S	170*3 7.1	W	ESE 25	90	29.7	2	9.1	110°
0905		# 10	14*2 4.2	S	170*3 8.3	W	ESE 25	100	29.7	2	9.7	265°
20		# 11	14*2 4.7	S	170*3 7.2	W	ESE 25	100	29.7	2	9.4	331°
35		# 12	14*2 3.7	S	170*3 7.4	W	ESE 25	100	29.7	2 10	9	108°
50		# 13	14*2 4.2	S	170*3 8.0	W	ESE 25	100	29.7	2	9.3	267°
		# 14	14*2	S	170*3	W						
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
0755	Finish Discharge	14	14*2 4.8	S	170*3 8.1	W	ESE 25	100	29.7	2	9.7	270°
1003	Exit Discharge Zone	15	14*2 2.4	S	170*3 8.7	W	ESE 25	100	29.7	2	9.6	343°
1055	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Fig 8

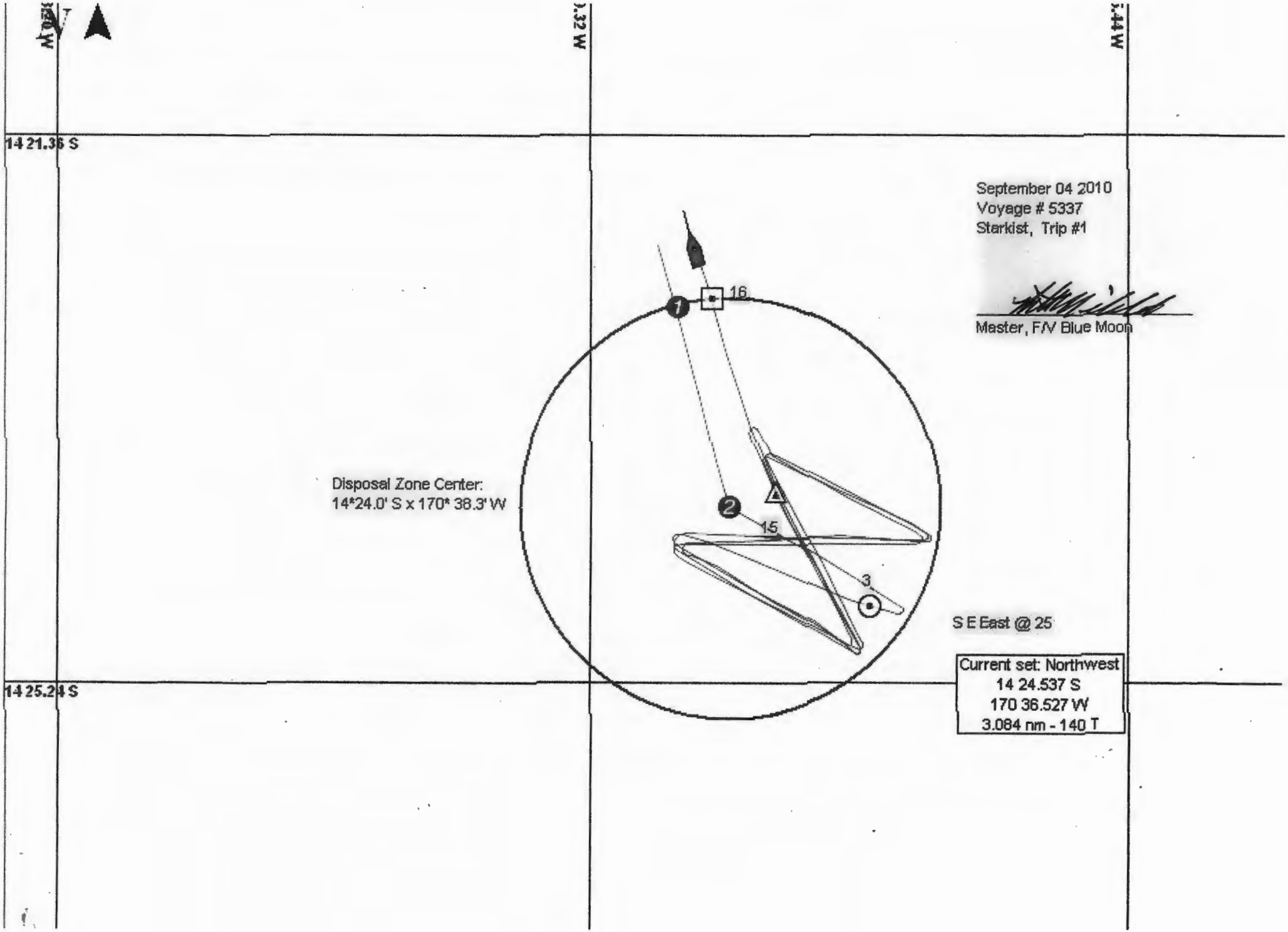
Total Discharge Time: 155 mins. Average Speed During Discharge: 9.3 kts. Total Time Run 4.75 hr.

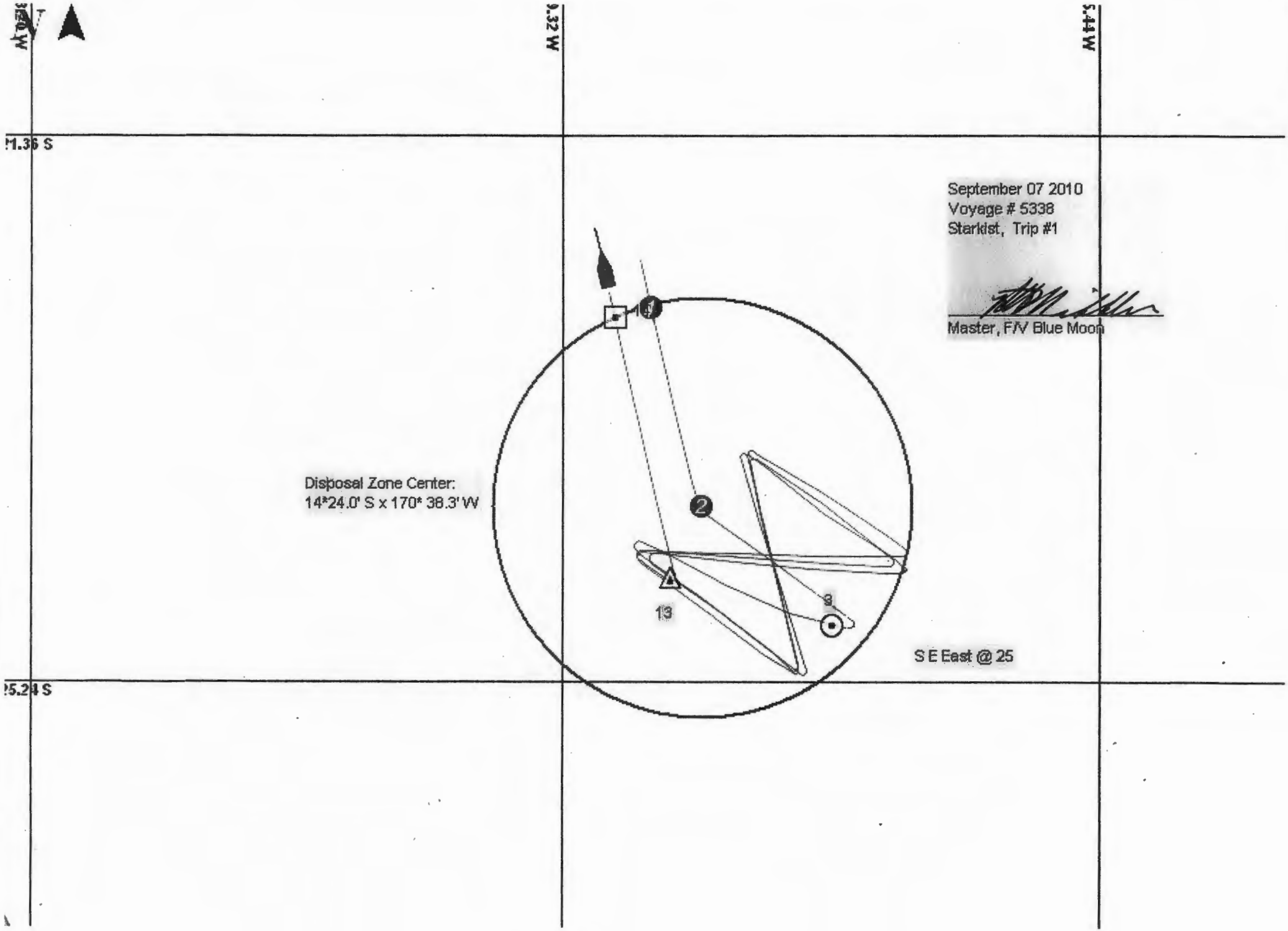
Navigational Plot made: yes Presence of Plume? None

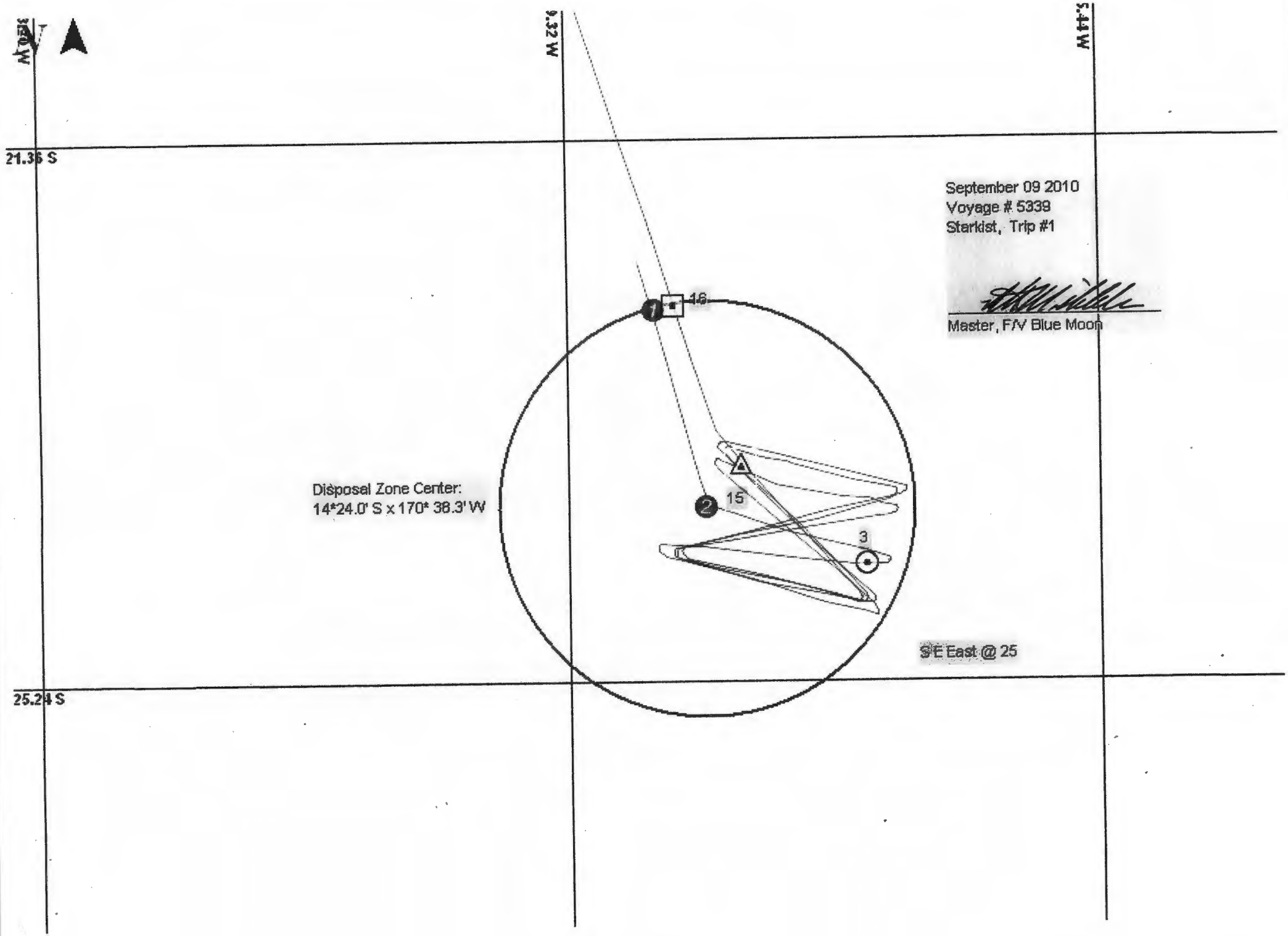
Time and position of any floating material: None Discharge Rate: 124 Gallons/min/kt.

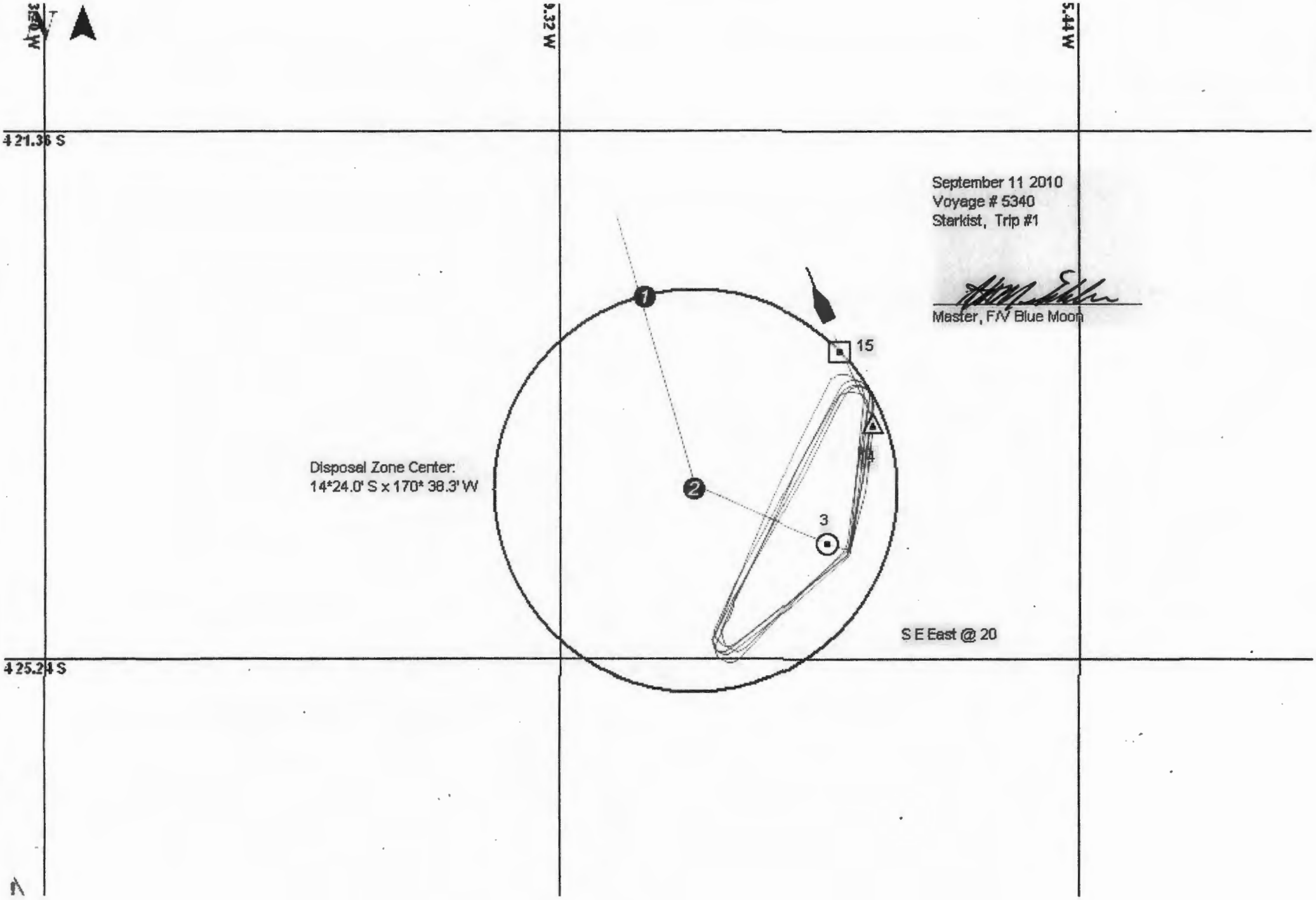
Unusual Occurrences? None

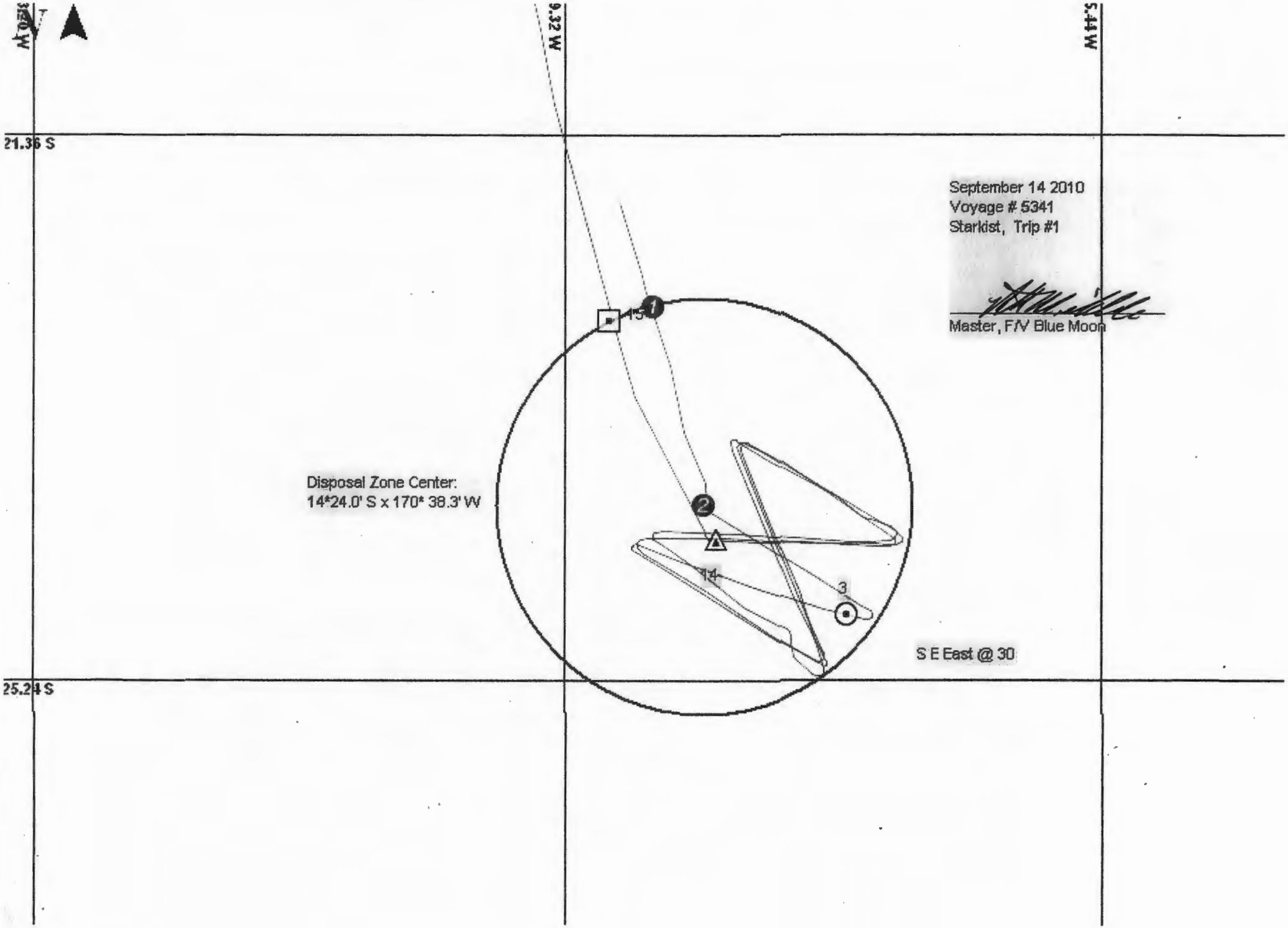
Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon

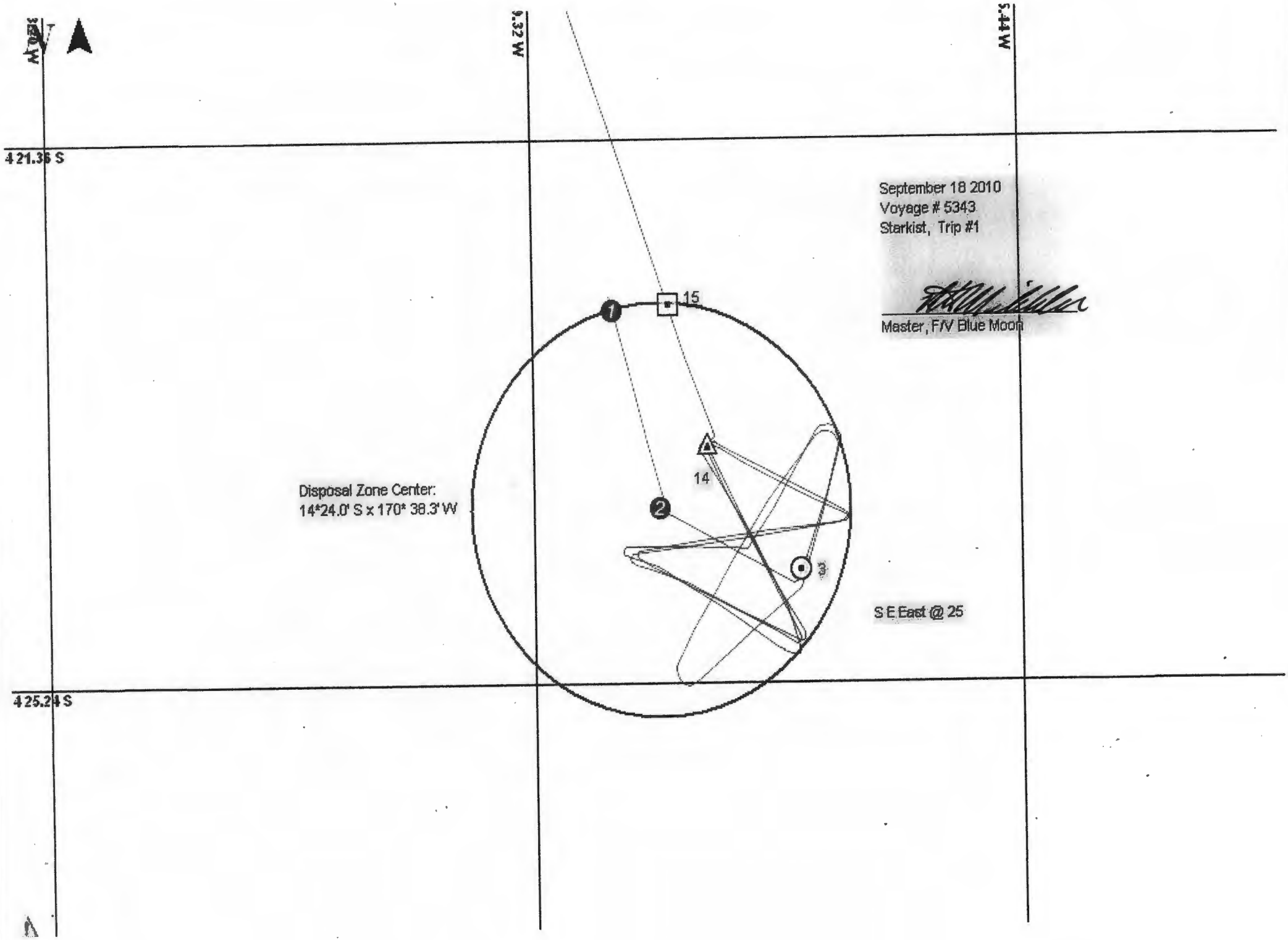

14 21.36 S
14 25.24 S
September 04 2010
Voyage # 5337
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
16
15
3
S E East @ 25
Current set: Northwest
14 24.537 S
170 36.527 W
3.084 nm - 140 T

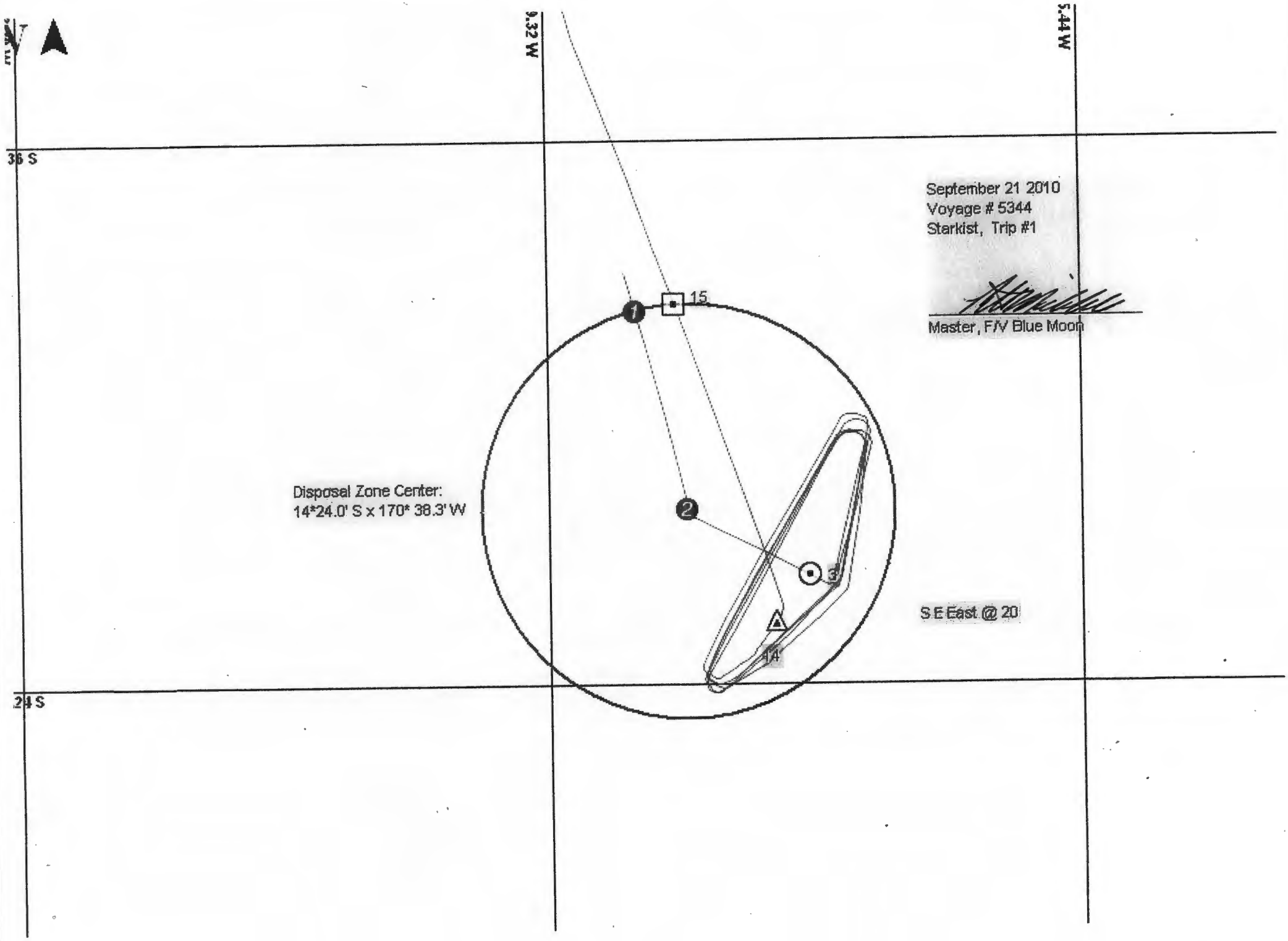

September 07 2010
Voyage # 5338
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
3
13
S E East @ 25

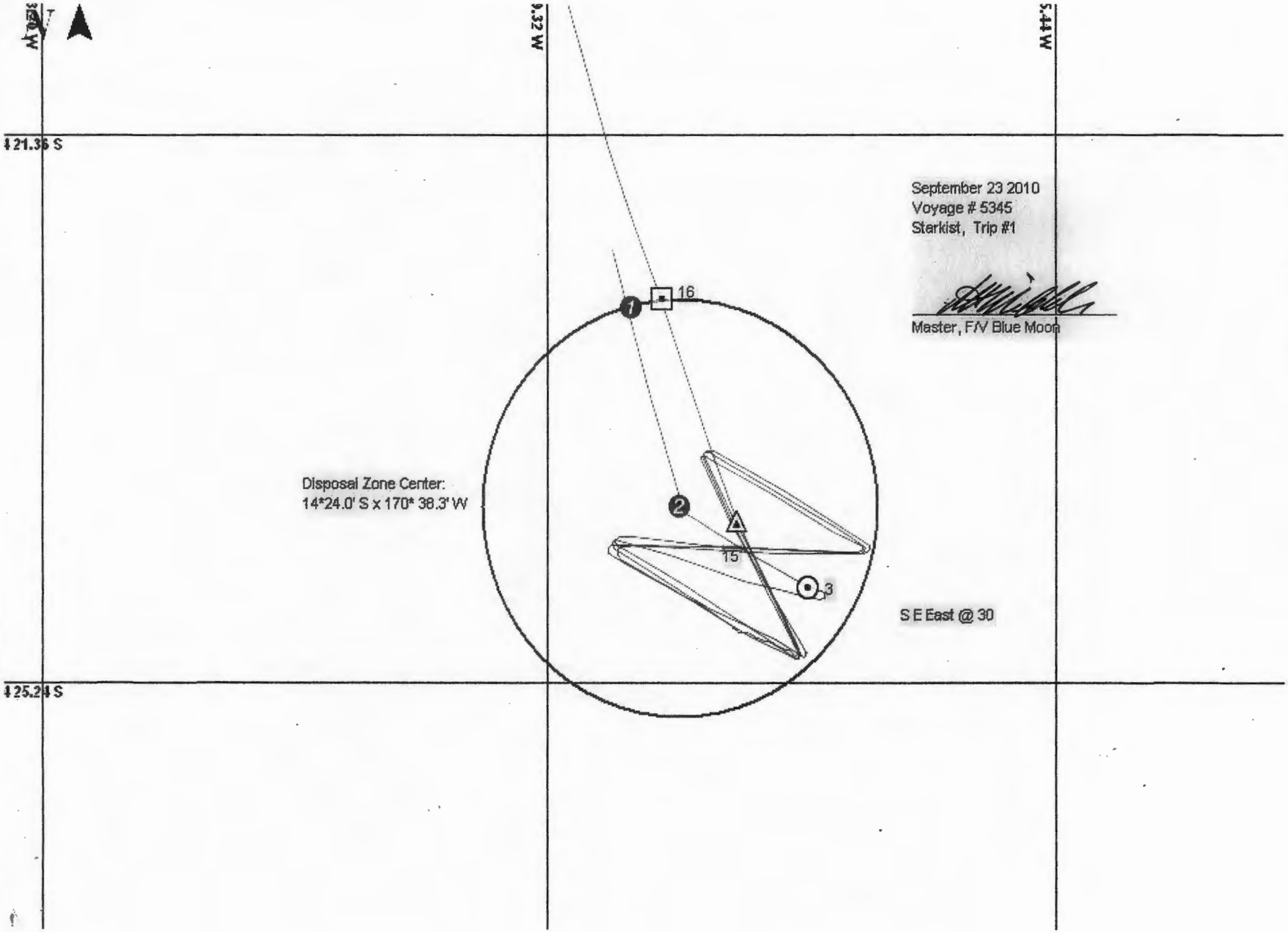

September 09 2010
Voyage # 5339
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
16
15
3
S E East @ 25
21.36 S
25.24 S
5.44 W

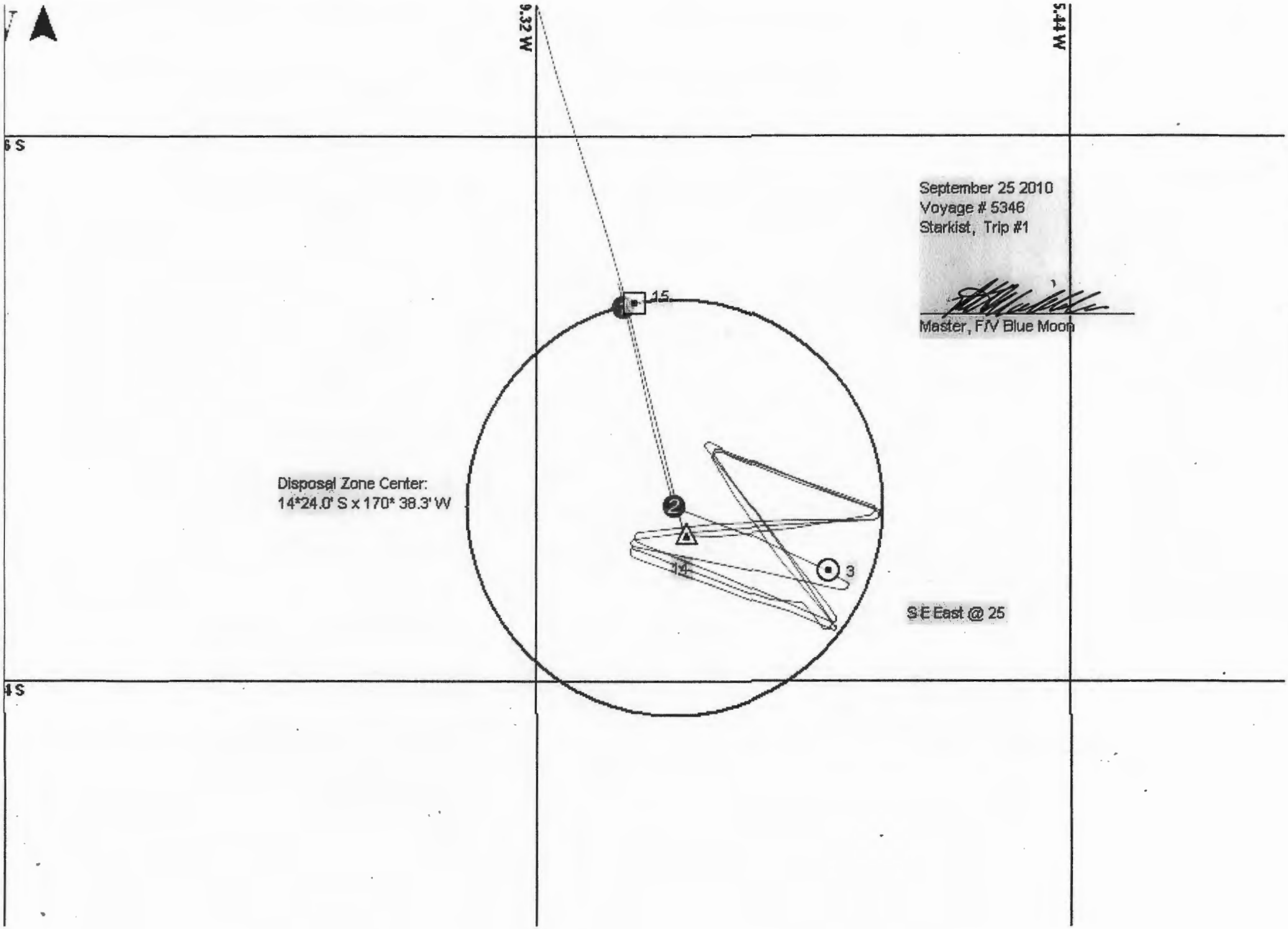

5.44 W
4 21.36 S
4 25.24 S
September 11 2010
Voyage # 5340
Starkist, Trip #1
Master, F/V Blue Moon
15
1
2
3
4
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
S E East @ 20


21.36 S
25.24 S
9.32 W
5.44 W
September 14 2010
Voyage # 5341
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
3
14
15
S E East @ 30


September 18 2010
Voyage # 5343
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
S E East @ 25
15
14
3
1
2
4 21.36 S
4 25.24 S
9.32 W
5.44 W


36 S
24 S
32 W
44 W
September 21 2010
Voyage # 5344
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
3
14
15
S E East @ 20


September 23 2010
Voyage # 5345
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
S E East @ 30
16
1
2
15
3


9.32 W
5.44 W
6 S
4 S
September 25 2010
Voyage # 5346
Starkist, Trip #1
Master, F/V Blue Moon
15
2
3
14
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
S-E East @ 25

Ocean Disposal Site
Monitoring Report
(OD Permit 93-01 & 93-02)

07 October, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS/Samoa Packing	Craig Double
Determination of Sampling Positions:	All positions obtained by GPS Satellite Navigation

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
10 Oct. 2010

Introduction

On October 7, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dump-site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0615: The *Blue Moon* departed Pago Pago Harbor bound for the dump-site location with Master/Principal Investigator, Chief and Mate on board.

0703: The *Blue Moon* entered the dumpzone circle @ 14*22.5' S / 170*38.7' W.

0713: The *Blue Moon* arrived at the dump-zone center, where observed light easterly winds and slight southerly seas initially indicated disposal operations be conducted in the eastern dump-zone quadrant.

0725: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or east (E) of the dump-zone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with south swells to 2.0 meters and a light E breeze of 7 knots and the barometer reading 29.58. Current set and drift, of the ship, were to the west at 0.5 knots. No floating materials or sea life were observed here.

0735: The *Blue Moon* began disposal operations in the eastern dump zone quadrant and continued discharging material with a north to south reciprocal, elongated elliptical pattern, approximately 2.2 miles long (see Plot 1) until 1025 hrs.

1035: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The E winds had increased slightly to 10 knots with still, partly cloudy skies. The waste plume appeared here as elongate streaks of moderate glassy surface sheen extending in a north to south direction and moving to the west. The current/wind drift of the ship was now GPS determined to be westerly @ 0.6 knots. No sea life or floatable materials were observed.

1045: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position showed moderate glassy surface sheen along with abundant fine, suspended particulate material. These particulates extended down to the limit of water visibility and were light brown to ash colored. The average drift rate of the ship with current and wind was GPS determined to be westerly (W) at 0.6 knots between stations 2 & 3 (See Plot #1). No sea-life was noted at this position.

1055: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position showed only some very light glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was again, 0.6 knots to the west.

1105: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM, W of Station #3, didn't show any of the typical visual characteristics of the waste plume (like the glassy surface sheens or milky discolorations) and appeared to be in an area of natural clear blue water within the plume itself. There were no floating or suspended materials. The W current/drift rate of the ship was again noted here to be at 0.5 knots.

1115: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.26 NM south-southeast of the zone center (See Plot #1). The leading edge of the waste plume was clearly visible at this location as an area of moderate glassy surface sheen with clear, natural appearing blue waters further down-current to the west. The final drift rate of the ship was noted to be 0.6 knots. No notable sea life was observed at this position or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.60 when monitoring activities were concluded at 1125 hrs. The *Blue Moon* exited the disposal zone at 1135 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1225 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

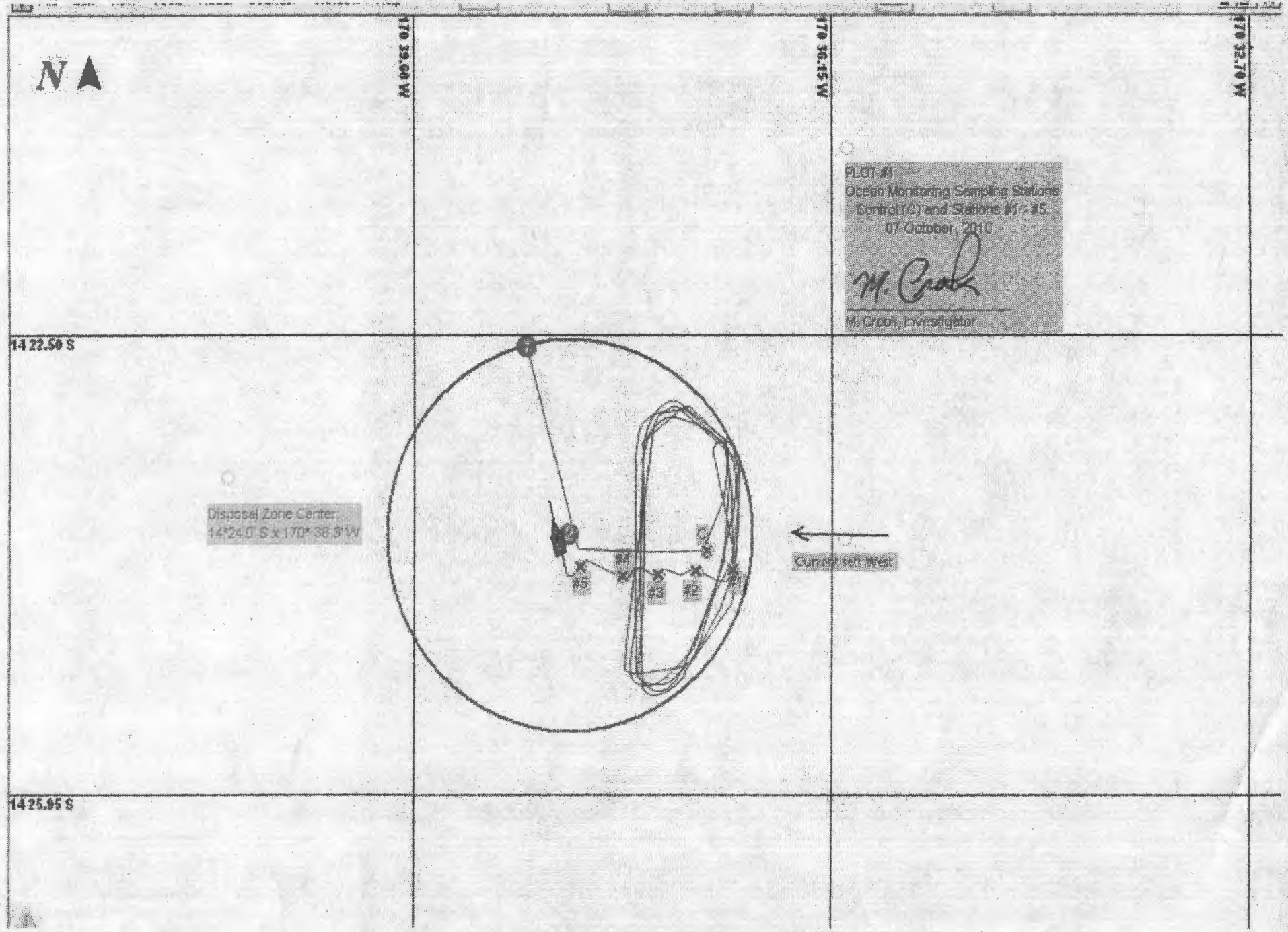
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 07 October 2010	Sea Conditions: Slight w/ South swells to 2.0 meters. Wind: East @ 7 - 10 knots Visibility: Unlimited Barometer: 29.58 – 29.61 Current Set & Drift Rate: West @ average 0.6 knots Sky: Partly Cloudy to cloudy, 30 – 90%					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0725	Control	1	28.3	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	28.3	7.3		
		10	28.3	7.3		
1035	Station 1	1	28.3	7.3	Slightly Pungent	Moderate glassy surface sheen with some light milky blue patches. No floating or suspended particulate or other material.
		3	28.3	7.3		
		10	28.3	7.3		
1045	Station 2	1	28.3	7.3	Slightly Pungent	A large area of moderate glassy sheen with abundant suspended, fine particulate materials, light brown in color extending down to the limit of visibility (approx. 4 meters).
		3	28.3	7.3		
		10	28.3	7.3		
1055	Station 3	1	28.3	7.3	Slightly Pungent	Light surface sheen over deep, clear blue. No floating or suspended particulate materials at this position, 0.25 NM down-current of Station #2.
		3	28.3	7.3		
		10	28.3	7.3		
1105	Station 4	1	28.3	7.3	Slightly Pungent	No visible evidence (i.e. typical sheen) of the wastewater plume sheen in the vicinity of this position, an apparent void in the midst of the plume . No floating or suspended materials noted either.
		3	28.3	7.3		
		10	28.3	7.3		
1115	Station 5	1	28.3	7.3	Slightly Pungent	Leading edge of the waste plume. Moderate glassy surface sheen with clear, blue, natural appearing seas further down-current to the west. No floating or suspended materials of any description.
		3	28.3	7.3		
		10	28.3	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.14'	South	170° 37.19'	West
Station 1	14° 24.21'	South	170° 36.95'	West
Station 2	14° 24.28'	South	170° 37.21'	West
Station 3	14° 24.27'	South	170° 37.48'	West
Station 4	14° 24.26'	South	170° 37.72'	West
Station 5	14° 24.24'	South	170° 38.26'	West


N
170 39.00 W
170 36.15 W
170 32.70 W
14 22.50 S
14 25.95 S
PLOT #1
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
07 October, 2010
M. Crook, Investigator
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Current set: West
C
#1
#2
#3
#4
#5

Ocean Disposal Site
Monitoring Report
(OD Permit 93-01 & 93-02)

07 October, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Clarney
CGS Samoa Packing	Craig Double
Determination of Sampling Positions:	All positions obtained by GPS Satellite Navigation

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
09 October, 2010

Introduction

On October 7, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dump-site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0615: The *Blue Moon* departed Pago Pago Harbor bound for the dump-site location with Master/Principal Investigator, Chief and Mate on board.

0703: The *Blue Moon* entered the dumpzone circle @ 14*22.5' S / 170*38.7' W.

0713: The *Blue Moon* arrived at the dump-zone center, where observed light easterly winds and slight southerly seas initially indicated disposal operations be conducted in the eastern dump-zone quadrant.

0725: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or east (E) of the dump-zone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were slight with south swells to 2.0 meters and a light E breeze of 7 knots and the barometer reading 29.58. Current set and drift, of the ship, were to the west at 0.5 knots. No floating materials or sea life were observed here.

0735: The *Blue Moon* began disposal operations in the eastern dump zone quadrant and continued discharging material with a north to south reciprocal, elongated elliptical pattern, approximately 2.2 miles long (see Plot 1) until 1025 hrs.

1035: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The E winds had increased slightly to 10 knots with still, partly cloudy skies. The waste plume appeared here as elongate streaks of moderate glassy surface sheen extending in a north to south direction and moving to the west. The current/wind drift of the ship was now GPS determined to be westerly @ 0.6 knots. No sea life or floatable materials were observed.

1045: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position showed moderate glassy surface sheen along with abundant fine, suspended particulate material. These particulates extended down to the limit of water visibility and were light brown to ash colored. The average drift rate of the ship with current and wind was GPS determined to be westerly (W) at 0.6 knots between stations 2 & 3 (See Plot #1). No sea-life was noted at this position.

1055: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position showed only some very light glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was again, 0.6 knots to the west.

1105: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM, W of Station #3, didn't show any of the typical visual characteristics of the waste plume (like the glassy surface sheens or milky discolorations) and appeared to be in an area of natural clear blue water within the plume itself. There were no floating or suspended materials. The W current/drift rate of the ship was again noted here to be at 0.5 knots.

1115: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.26 NM south-southeast of the zone center (See Plot #1). The leading edge of the waste plume was clearly visible at this location as an area of moderate glassy surface sheen with clear, natural appearing blue waters further down-current to the west. The final drift rate of the ship was noted to be 0.6 knots. No notable sea life was observed at this position or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.60 when monitoring activities were concluded at 1125 hrs. The *Blue Moon* exited the disposal zone at 1135 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1225 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

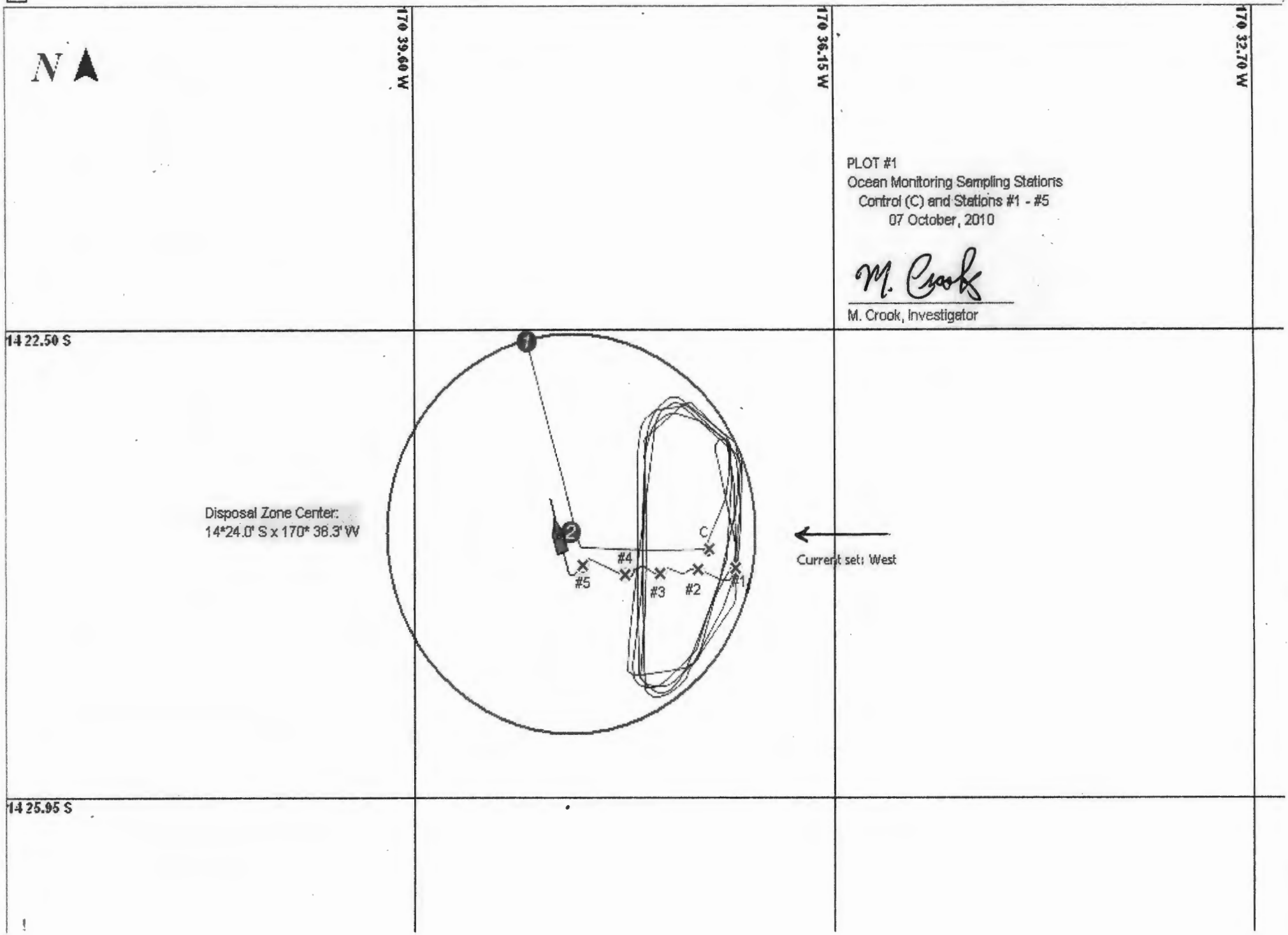
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 07 October 2010	Sea Conditions: Slight w/ South swells to 2.0 meters. Wind: East @ 7 - 10 knots Visibility: Unlimited Barometer: 29.58 – 29.61 Current Set & Drift Rate: West @ average 0.6 knots Sky: Partly Cloudy to cloudy, 30 – 90%					
Time	Station	Depth (meters)	Temp. (°C)	pH	Odor	Color
0725	Control	1	28.3	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	28.3	7.3		
		10	28.3	7.3		
1035	Station 1	1	28.3	7.3	Slightly Pungent	Moderate glassy surface sheen with some light milky blue patches. No floating or suspended particulate or other material.
		3	28.3	7.3		
		10	28.3	7.3		
1045	Station 2	1	28.3	7.3	Slightly Pungent	A large area of moderate glassy sheen with abundant suspended, fine particulate materials, light brown in color extending down to the limit of visibility (approx. 4 meters).
		3	28.3	7.3		
		10	28.3	7.3		
1055	Station 3	1	28.3	7.3	Slightly Pungent	Light surface sheen over deep, clear blue. No floating or suspended particulate materials at this position, 0.25 NM down-current of Station #2.
		3	28.3	7.3		
		10	28.3	7.3		
1105	Station 4	1	28.3	7.3	Slightly Pungent	No visible evidence (i.e. typical sheen) of the wastewater plume sheen in the vicinity of this position, an apparent void in the midst of the plume . No floating or suspended materials noted either.
		3	28.3	7.3		
		10	28.3	7.3		
1115	Station 5	1	28.3	7.3	Slightly Pungent	Leading edge of the waste plume. Moderate glassy surface sheen with clear, blue, natural appearing seas further down-current to the west. No floating or suspended materials of any description.
		3	28.3	7.3		
		10	28.3	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.14'	South	170° 37.19'	West
Station 1	14° 24.21'	South	170° 36.95'	West
Station 2	14° 24.28'	South	170° 37.21'	West
Station 3	14° 24.27'	South	170° 37.48'	West
Station 4	14° 24.26'	South	170° 37.72'	West
Station 5	14° 24.24'	South	170° 38.26'	West


N
170 39.60 W
170 36.15 W
170 32.70 W
14 22.50 S
14 25.95 S
PLOT #1
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
07 October, 2010
M. Crook, Investigator
Disposal Zone Center:
14*24.0' S x 170* 36.3' W
1
2
C
#1
#2
#3
#4
#5
Current set: West

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON October, 2010

	SK:	Other	JOINT:	TOTAL:
NUMBER OF TRIPS:	12	0	0	**12**
GALLONS-FOR THE MONTH:	1,733,000	0	0	**1,733,000**

	SK:	Other
GALLONS FOR SOLO TRIPS:	**1,733,000**	**0**

RUNNING TIME ON TRIPS: **61.16 hrs.**

DISCHARGE TIME ON TRIPS: **32.6 hrs.**

AV. GPM DISCHARGE RATE: **98.3 gal/min//kt**

AV. TRIP TIME: **5.1 hrs.**

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

SK:	Other
100.00%	N/A

MASTER : M. Crook

Date: 10/02/10

F/V Blue Moon Ocean Dumping Log

Voyage #: 5347

Permit # OD 93-01 & OD 93-02

Time	
1410	Begin 1st Loading SK
1615	Finish 1st Loading SK
1410	Begin 2nd Loading SK
1730	Finish 2nd Loading SK

Trip # 1 -

Trip # 2

Volume Loaded:

SK	170 000	Gallons
	–	Gallons
Total	170 000	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell	Speed	Course
										Metric	kts	True*
06 15	Depart Starkist		14*16.50'	S	170* 41.2'	W		50	29.65			
0700	Arrive Edge of Zone	# 1	14*22.	S	170*38.	W	ESE 20	50	29.65	1.5	9.2	166°
07 13	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	ESE	50	29.65	1.5	8.9	165°
07 20	Begin Discharge	# 3	14*2 4.4	S	170*3 7.3	W	ESE 20	50	29.65	1.5 X	9	113°
35		# 4	14*2 4.0	S	170*3 7.5	W	ESE 20	50	29.65	1.5	9.2	210°
50	Remarks:	# 5	14*2 4.8	S	170*3 7.9	W	ESE 20	50	29.65	1.5	9.2	054°
0805		# 6	14*2 3.2	S	170*3 7.1	W	ESE 20	50	29.65	1.5	9.3	216°
20		# 7	14*2 5.2	S	170*3 8.0	W	ESE 20	50	29.65	1.5 5	8.9	061°
35		# 8	14*2 4.8	S	170*3 7.9	W	ESE 20	50	29.65	1.5	9.6	208°
50		# 9	14*2 4.0	S	170*3 7.5	W	ESE 20	50	29.65	1.5	9	049°
0905		# 10	14*2 3.3	S	170*3 6.9	W	ESE 20	50	29.65	1.5	9.5	267°
20		# 11	14*2 4.7	S	170*3 7.9	W	ESE 20	50	29.65	1.5	9.9	211°
35		# 12	14*2 4.4	S	170*3 7.1	W	ESE 20	50	29.65	1.5 10	9.3	016°
50		# 13	14*2 4.7	S	170*3 8.0	W	ESE 20	50	29.65	1.5	10.1	209°
1005		# 14	14*2 4.2	S	170*3 7.1	W	ESE 20	50	29.65	1.5	9.2	012°
		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1010	Finish Discharge	15	14*2 3.8	S	170*3 7.0	W	ESE 20	50	29.65	1.5	9.3	341°
1017	Exit Discharge Zone	16	14*2 2.6	S	170*3 7.6	W	ESE 20	50	29.65	1.5	9.4	334°
11 15	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Elliptic

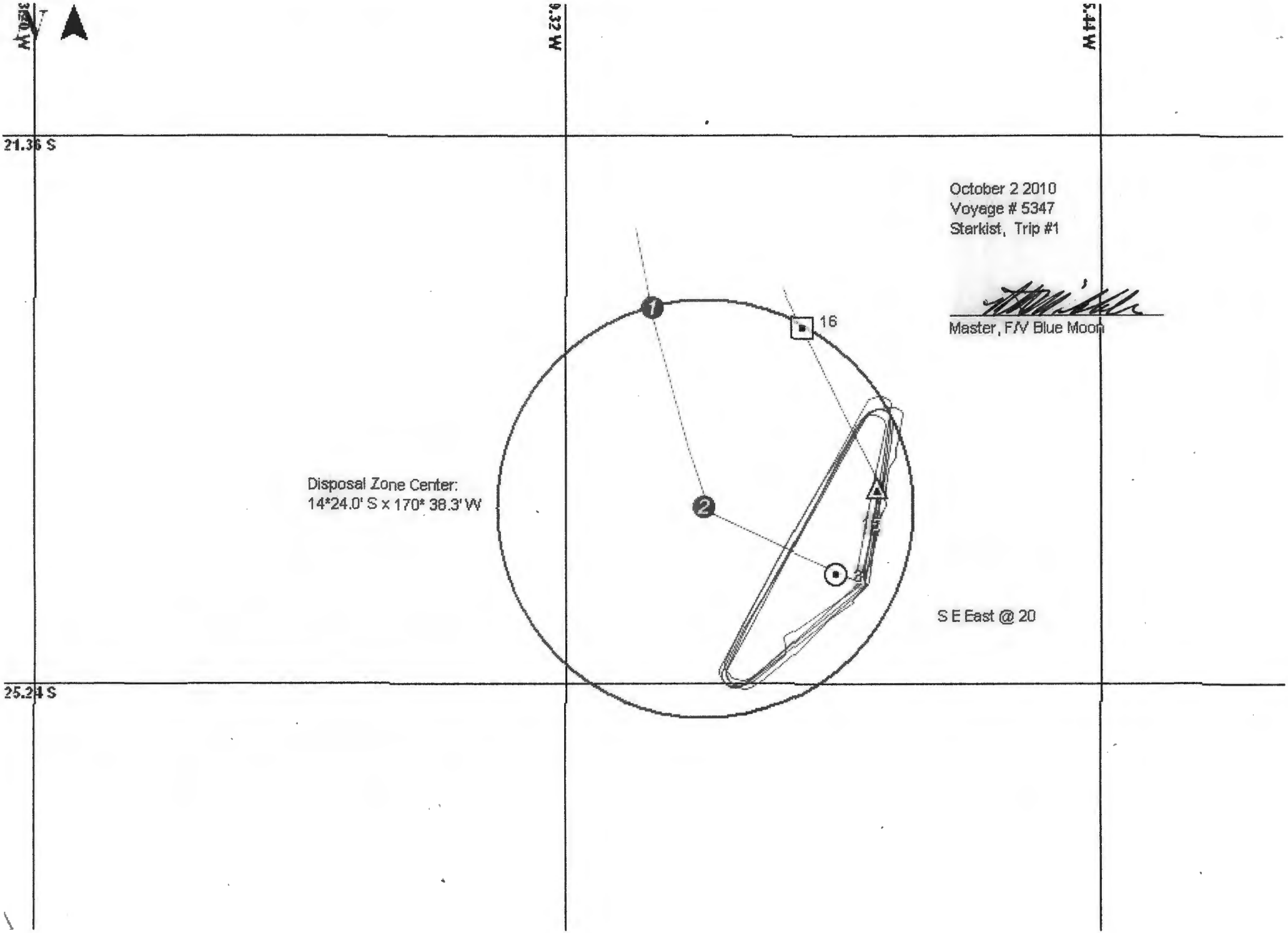
Total Discharge Time: 170 mins. Average Speed During Discharge: 9.3 kts. Total Time Run 5 hr.

Navigational Plot made: yes Presence of Plume? None

Time and position of any floating material: None Discharge Rate: 107.5 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon


3.20 W
9.32 W
5.44 W
21.36 S
25.24 S
October 2 2010
Voyage # 5347
Starkist, Trip #1
Master, F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
3
16
S E East @ 20

Date: 10/05/10 Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5348

Permit # OD 93-01 & OD 93-02

	Time	
0/3	1515	Begin 1st Loading SK
	1745	Finish 1st Loading SK
0/4	1615	Begin 2nd Loading SK
	1930	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	198,750	Gallons	
		Gallons	
Total	198,750	Gallons	

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	60	29.58			
0705	Arrive Edge of Zone	# 1	14*22.55' S	170*38.68' W	NW-3	40%	29.60	SE-1.5	8.4	163
0715	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	" "	" "	8.2	168
0725	Begin Discharge	# 3	14*24.13' S	170*39.38' W	" "	25%	" "	" " X	8.1	270
40		# 4	14*24.42' S	170*38.83' W	" "		" "		8.6	000
55	Remarks:	# 5	14*23.64' S	170*39.45' W	NW-3		" "		8.6	201
0810		# 6	14*24.97' S	170*38.86' W	"				8.5	014
25		# 7	14*23.02' S	170*39.05' W	"			5	8.2	207
40		# 8	14*24.82' S	170*39.43' W	calm				8.8	132
55		# 9	14*23.80' S	170*38.64' W	"	30%			9.0	001
0910		# 10	14*23.81' S	170*39.50' W	calm	"			8.9	192
25		# 11	14*24.19' S	170*38.78' W	"	"			9.4	359
40		# 12	14*23.62' S	170*39.41' W	"	"		10	9.2	193
55		# 13	14*24.56' S	170*38.82' W		25%	29.59		9.4	002
1010		# 14	14*23.03' S	170*39.10' W		"	"		9.1	257
25		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1025	Finish Discharge	#15	14*23.40' S	170*38.98' W	calm	25%	29.59	SE/S-1.5	9.4	348
1033	Exit Discharge Zone	#16	14*22.73' S	170*39.07' W	" "	"	"	"	9.4	346
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center East End of Discharge Slack Discharge Pattern Ellipse

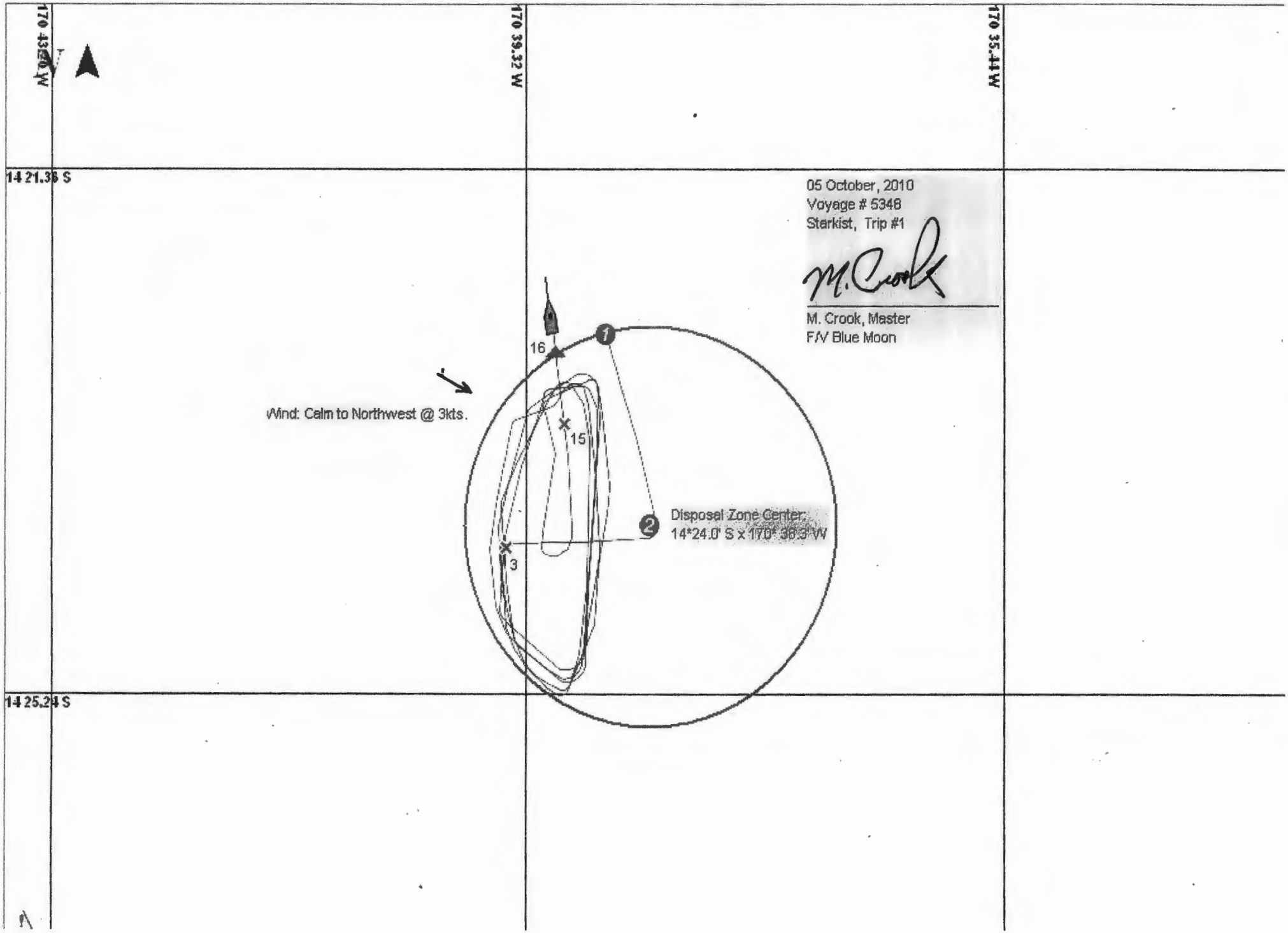
Total Discharge Time: 180 mins. Average Speed During Discharge: 8.86 kts. Total Time Run 5.2 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 124.6 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crooks


170 43.20 W
170 39.32 W
170 35.44 W
14 21.36 S
14 25.24 S
05 October, 2010
Voyage # 5348
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
Wind: Calm to Northwest @ 3kts.
16
15
3
1
2
Disposal Zone Center:
14°24.0' S x 170° 38.3' W

Date: 10/07/10 Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5349

Permit # OD 93-01 & OD 93-02

	Time	
0/5	1540	Begin 1st Loading SK
	1745	Finish 1st Loading SK
	1640	Begin 2nd Loading SK
10/6	2045	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	182,500	Gallons	
		Gallons	
Total	182,500	Gallons	

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	CALM	25	29.60			
0703	Arrive Edge of Zone	# 1	14*22.53' S	170*38.67 W	East-7	40	"	South-2.0	8.6	162
0713	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.5	164
0735	Begin Discharge	# 3	14*24.02' S	170*37.16' W	" "	"	29.58	" " X	7.9	013
" 50		# 4	14*24.25' S	170*37.72' W			"		8.8	181
0805	Remarks: Ocean	# 5	14*24.27' S	170*37.05' W			29.59		8.6	009
" 20	Monitoring	# 6	14*23.96' S	170*37.69' W			"		8.9	178
" 35	Control Sample	# 7	14*24.73' S	170*37.11 W			"	5	8.7	016
" 50	drawn @ 0725 hrs.	# 8	14*23.98' S	170*37.76' W		50%	29.60		9.1	170
0905	Position:	# 9	14*24.99' S	170*37.35' W					8.9	018
" 20	14°24.14' South	# 10	14*23.15' S	170*37.60' W					8.8	187
" 35	170° 37.19' West	# 11	14*25.00' S	170*37.37' W					9.0	024
" 50	* 'C' on Nav Plot	# 12	14*23.06' S	170*37.33' W		60		10	9.4	281
1005		# 13	14*24.62' S	170*37.72' W	East-10				9.5	180
" 20		# 14	14*24.33' S	170*36.97' W			29.61		9.3	007
" 35		# 15	14*2 S	170*3 W						
" 50		# 16	14*2 S	170*3 W						
1105		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1025	Finish Discharge	#15	14*23.46' S	170*36.99' W	EAST-10	70%	29.61	South-2.0	9.5	349
1135	Exit Discharge Zone	#16	14*22.67' S	170*38.73 W	East-7	90%	29.60	" "	9.4	342
1225	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

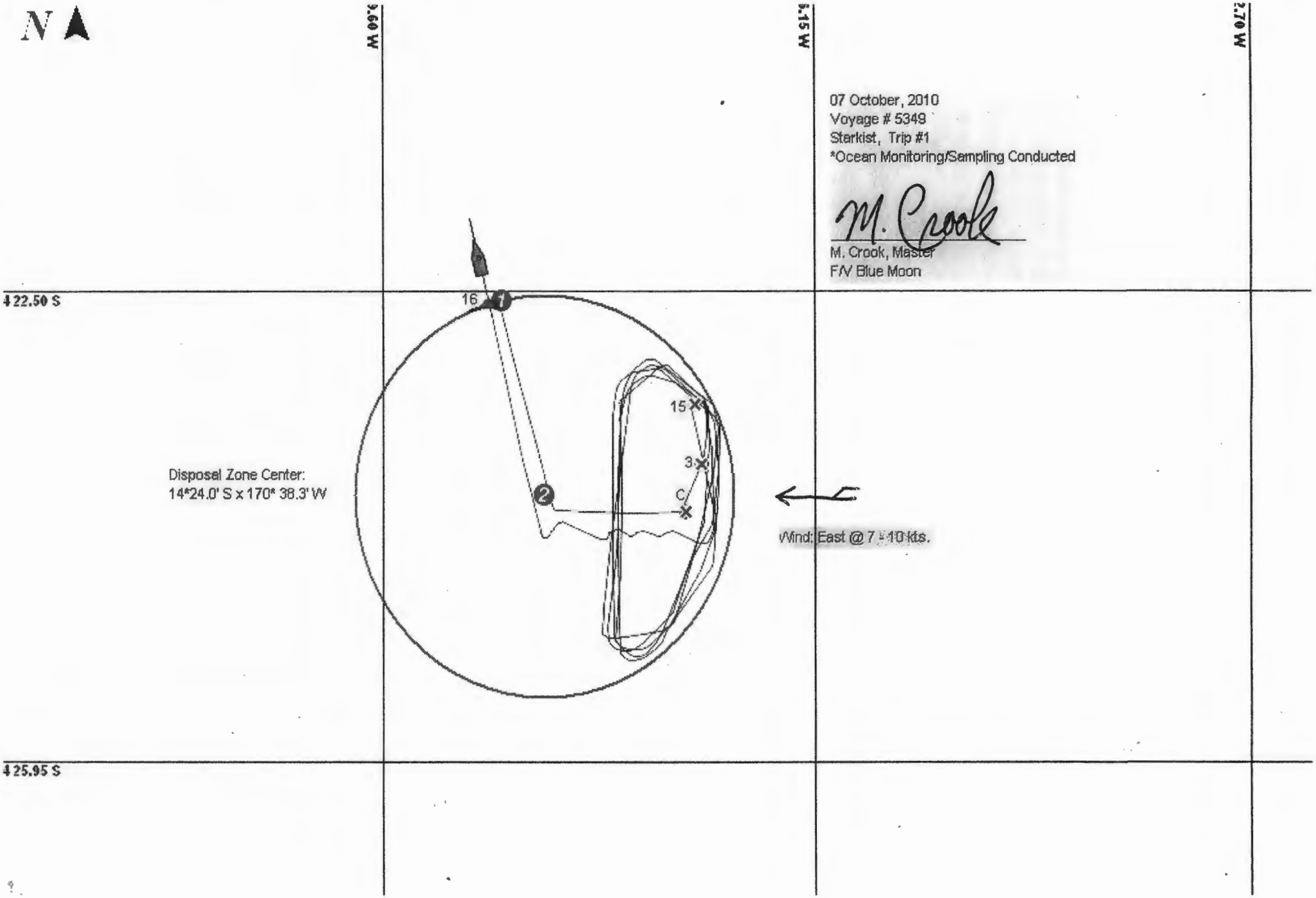
Total Discharge Time: 170 mins. Average Speed During Discharge: 8.95 kts. Total Time Run 6.2 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 120 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook



07 October, 2010
Voyage # 5349
Starkist, Trip #1
*Ocean Monitoring/Sampling Conducted

M. Crook

M. Crook, Master
F/V Blue Moon

Date: 10/09/10 Sat..

F/V Blue Moon Ocean Dumping Log

Voyage #: 5350

Permit # OD 93-01 & OD 93-02

	Time	
10/7	1615	Begin 1st Loading SK
	1830	Finish 1st Loading SK
10/8	1615	Begin 2nd Loading SK
	2020	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	180,500	Gallons	
		Gallons	
Total	180,500	Gallons	

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	NE-15+	50	29.58			
0653	Arrive Edge of Zone	# 1	14*22.51' S	170*38.68' W	ENE-18	"	29.59	E+SE-2+	8.3	161
0703	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.7	162
0712	Begin Discharge	# 3	14*24.03' S	170*37.17' W		60	"	" " X	8.1	090
" 27		# 4	14*23.80' S	170*37.64' W		"			8.8	180
" 42	Remarks:	# 5	14*24.40' S	170*37.63' W		"			8.3	022
" 57		# 6	14*23.56' S	170*37.66' W		75%			8.9	183
0812		# 7	14*25.01' S	170*37.25' W				5	8.2	044
" 27		# 8	14*23.17' S	170*37.13' W	ENE-20		29.60		9.0	311
42		# 9	14*24.81' S	170*37.75' W					9.2	182
57		# 10	14*23.46' S	170*36.99' W			29.61		9.0	332
0912		# 11	14*23.79' S	170*37.62' W			"		9.4	183
27		# 12	14*24.28' S	170*36.89' W	ENE-18		"	10	8.9	017
42		# 13	14*23.28' S	170*37.62' W			"		9.2	184
57		# 14	14*24.88' S	170*36.99' W			29.60		9.3	000
1012		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1012	Finish Discharge	#15	14*22.95 S	170*37.37' W	ENE-18	75%	29.60	E+SE 2+	9.2	308
1014	Exit Discharge Zone	#16	14*22.74 S	170*37.52' W	" "	"	"	" "	9.0	316
1110	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 5.1 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 113 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

170 43.95 W

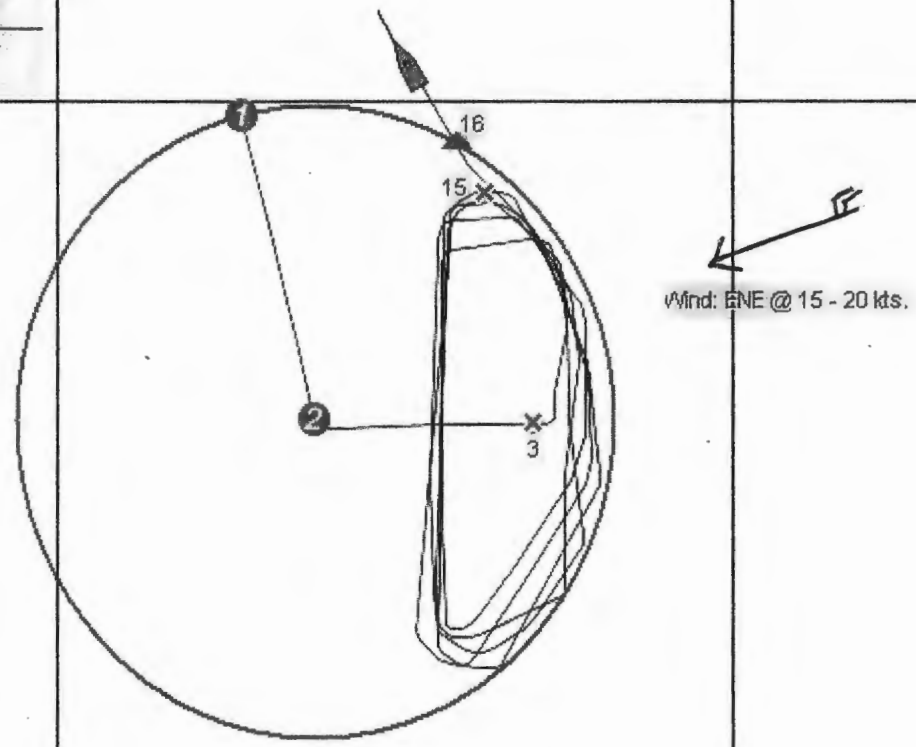
170 39.60 W

170 36.15 W

09 October, 2010 - Sat.
Voyage # 5350
Starkist, Trip #1

M. Crook, Master
F/V Blue Moon

14 22.50 S



Disposal Zone Center:
14*24.0' S x 170* 38.3' W

14 25.95 S

Date: 10/12/10 Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5351

Permit # OD 93-01 & OD 93-02

	Time	
0/11	1720	Begin 1st Loading SK
	2030	Finish 1st Loading SK
		Begin 2nd Loading SK
		Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	70,000	Gallons	
		Gallons	
Total	70,000	Gallons	

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0600	Depart Starkist		14°16.50' S	170° 41.2' W	E-5	25	29.61			
0650	Arrive Edge of Zone	# 1	14°22.56' S	170°38.70' W	East-10	"	"	S+SE-2.0	9.0	163
0658	Arrive Zone Center	# 2	14°24.0 S	170°38.3 W	" "	20	"	" "	8.9	158
0705	Begin Discharge	# 3	14°24.03' S	170°37.23' W	" "	10	"	" " X	8.6	090
20		# 4	14°23.63' S	170°37.71' W	" "	"	"	" "	9.1	182
35	Remarks:	# 5	14°24.62' S	170°37.22' W	" "	"	29.62	" "	8.8	026
50		# 6	14°23.79' S	170°37.71' W	" "	"	"		9.4	180
0805		# 7	14°24.93' S	170°37.16' W	E-12	15	"	5	8.8	027
20		# 8	14°23.04' S	170°37.25' W	" "	"	"		9.3	293
35		# 9	14°24.72' S	170°37.82' W	" "	"	"		9.5	180
50		# 10	14°23.41' S	170°36.96 W	" "	20	29.63		9.2	320
0905		# 11	14°24.40' S	170°37.79 W	E-15	"	"		9.4	182
20		# 12	14°24.51' S	170°37.04' W	" "	25	"	10	8.9	024
35		# 13	14°2 S	170°3 W						
50		# 14	14°2 S	170°3 W						
		# 15	14°2 S	170°3 W						
		# 16	14°2 S	170°3 W						
		# 17	14°2 S	170°3 W				15		
		# 18	14°2 S	170°3 W						
		# 19	14°2 S	170°3 W						
		# 20	14°2 S	170°3 W						
			14°2 S	170°3 W						
			14°2 S	170°3 W				20		
			14°2 S	170°3 W						
0925	Finish Discharge	#13	14°23.40' S	170°37.08' W	East-15	25%	29.63	S+SE-2.0	9.3	336
0930	Exit Discharge Zone	#14	14°22.94' S	170°37.29' W	" "	"	" "	" "	9.5	331
1030	Secure SK Dock		14°16.50' S	170°41.2' W						

63.

Current Direction: At Center West End of Discharge WEST Discharge Pattern Ellipse

Total Discharge Time: 140 mins. Average Speed During Discharge: 9.1 kts. Total Time Run 4.5 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 55 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cooke

File Edit View Tools Radar Sounder Window Help

170 43.05 W

170 39.60 W

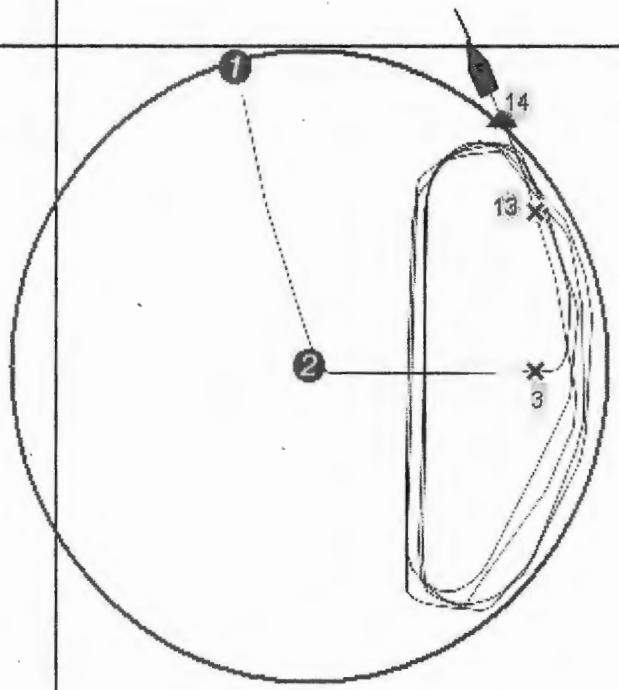
170 36.15 W

12 October, 2010 - Tues
Voyage # 5351
Starkist, Trip #1

M. Crook

M. Crook, Master
F/V Blue Moon

14 22.50 S



Disposal Zone Center:
14*24.0' S x 170* 38.3' W

Wind: East @ 10- 15 kts.

14 25.95 S

Date: 10/14/10 Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5352

Permit # OD 93-01 & OD 93-02

Time		
1620	Begin 1st Loading SK	
2000	Finish 1st Loading SK	
	Begin 2nd Loading SK	
/	Finish 2nd Loading SK	

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
	SK	105,750	Gallons
		"	Gallons
	Total	105,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	East-5	90%	29.62			
0655	Arrive Edge of Zone	# 1	14*22.57' S	170*38.66' W	E-12	95	29.64	E+SE-2.0	8.8	160
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	100	"	" "	8.7	157
0715	Begin Discharge	# 3	14*24.02' S	170*37.13' W	E-15	Rain-100	29.65	" " X	8.5	090
30		# 4	14*23.98' S	170*37.67' W		90	"	" "	9.0	182
45	Remarks:	# 5	14*24.31' S	170*36.94' W					8.6	358
0800		# 6	14*23.29' S	170*37.58' W			29.66		8.8	183
15		# 7	14*24.65' S	170*37.02' W	E-12	Light Rain	"	5	8.5	017
30		# 8	14*23.17' S	170*37.54' W	" "	Dic-100	"		8.7	209
45		# 9	14*24.98' S	170*37.68' W	" "	" "	29.68		9.1	183
0900		# 10	14*23.45' S	170*37.02' W	" "	" "	"		8.9	320
15		# 11	14*24.91' S	170*37.61' W		90	"		8.4	150
30		# 12	14*23.17' S	170*37.70' W		80	"	10	9.4	179
45		# 13	14*22.59' S	170*38.36' W						
1000		# 14	14*2 S	170*3 W						
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0937	Finish Discharge	#13	14*24.00 S	170*37.73 W	E-12	80%	29.68	E+SE-2.0	9.4	181
0952	Exit Discharge Zone.	#14	14*2 S	170*3 W	" "	"	"	" "	9.4	337
1045	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

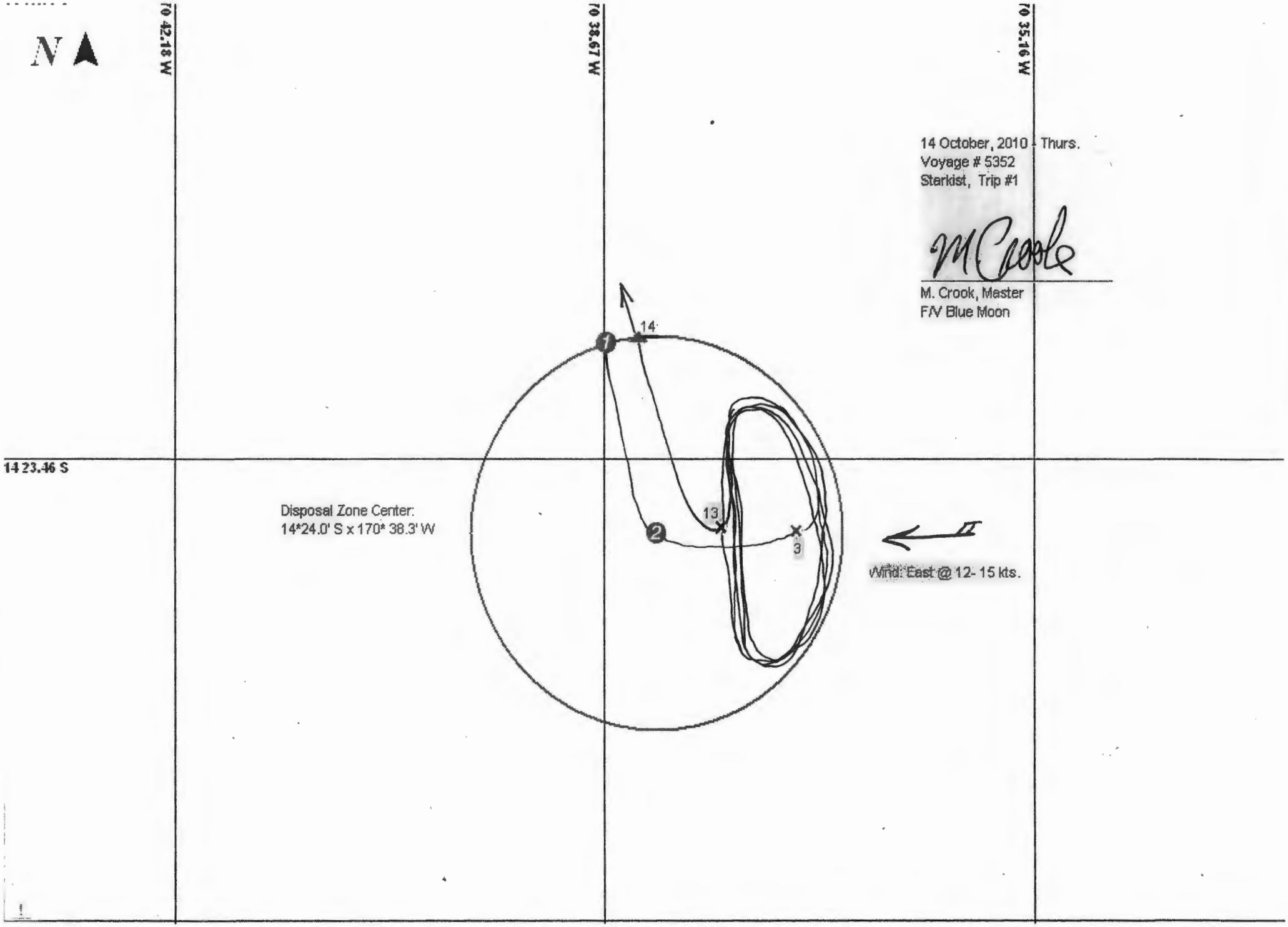
Total Discharge Time: 142 mins. Average Speed During Discharge: 8.85 kts. Total Time Run 4.66 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 84 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook


N
70 42.18 W
70 38.67 W
70 35.16 W
14 23.46 S
14 October, 2010 - Thurs.
Voyage # 5352
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
14
1
13
2
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
Wind: East @ 12- 15 kts.

Date: 10/16/10 Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5353

Permit # OD 93-01 & OD 93-02

	Time	
10/14	1600	Begin 1st Loading SK
	1800	Finish 1st Loading SK
10/15	1600	Begin 2nd Loading SK
	2180	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded: SK 173,500 Gallons

Gallons

Total 173,500 Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	East-7	70	29.58			
0657	Arrive Edge of Zone	# 1	14*22.55' S	170*38.67 W	East-12	"	29.59	SE-2.0	8.7	164
0707	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	60	"	" "	8.5	161
0715	Begin Discharge	# 3	14*24.06' S	170*37.20' W	" "	"	"	" " X	8.6	090
" 30		# 4	14*23.59' S	170*37.65' W	" "	"	"	" "	8.4	179
" 45	Remarks:	# 5	14*24.12' S	170*37.06' W	" "	"			8.5	014
0800		# 6	14*23.51' S	170*37.61' W	" "	70			8.7	180
" 15		# 7	14*24.90' S	170*37.08' W	East-15	"		5	8.4	032
" 30		# 8	14*23.18' S	170*37.12' W	" "	75			8.6	326
" 45		# 9	14*24.80' S	170*37.59' W	" "				8.9	184
0900		# 10	14*23.29' S	170*37.05' W	" "				8.8	329
" 15		# 11	14*24.60' S	170*37.61' W	" "				9.0	180
" 30		# 12	14*23.81' S	170*36.97' W	" "			10	8.9	356
" 45		# 13	14*24.20' S	170*37.65' W	" "				9.3	180
1000		# 14	14*24.60' S	170*37.02' W		80			9.1	012
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1008	Finish Discharge	#15	14*23.24' S	170*37.10' W	East-15	80 %	29.59	SE-2.0	9.2	338
1009	Exit Discharge Zone	#16	14*22.87' S	170*37.22' W			"	" "	9.2	339
1110	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

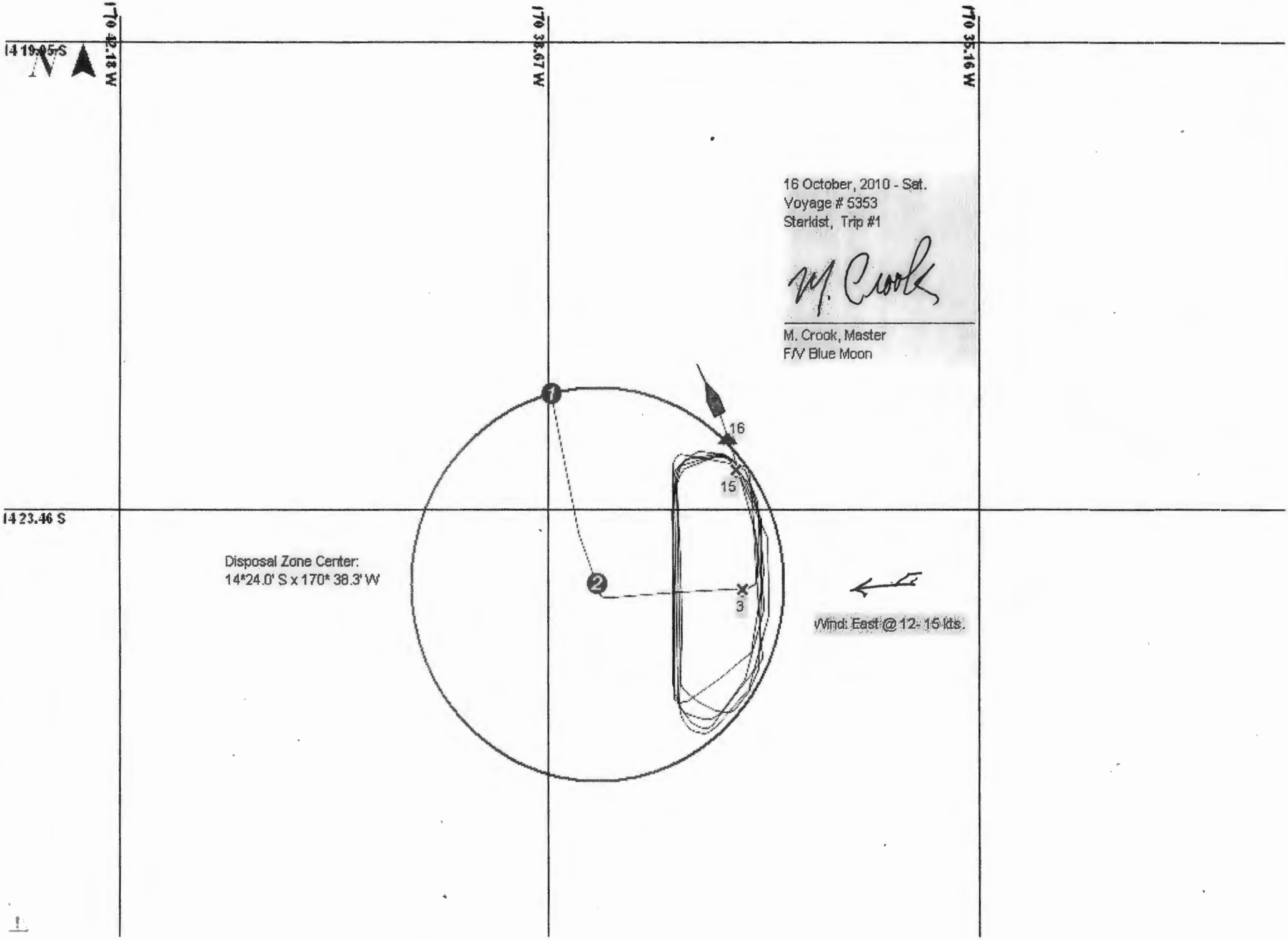
Total Discharge Time: 173 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 5.15 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 114 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook


170 42.18 W
170 38.67 W
170 35.16 W
14 19.05 S
14 23.46 S
N
16 October, 2010 - Sat.
Voyage # 5353
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
1
2
3
15
16
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
Wind: East @ 12- 15 kts.

Date: 10/19/10 Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5354

Permit # OD 93-01 & OD 93-02

	Time	
10/18	1900	Begin 1st Loading SK
	2100	Finish 1st Loading SK
	0230	Begin 2nd Loading SK
10/19	0410	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded: SK 85,750 Gallons

Gallons

Total 85,750 Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	East-7	75	29.66			
0652	Arrive Edge of Zone	# 1	14*22.55' S	170*38.66' W	East-10	"	"	SE-1.5	9.2	162
0702	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.67	" "	9.1	164
0710	Begin Discharge	# 3	14*24.03' S	170*37.24' W	East-12	"	"	" " X	8.7	090
" 25		# 4	14*23.54' S	170*37.84' W	" "	"			9.2	189
" 40	Remarks:	# 5	14*24.08' S	170*37.03' W	" "	70			8.9	006
" 55		# 6	14*23.46' S	170*37.80' W	" "	"			9.1	181
0810		# 7	14*25.02' S	170*37.35' W	East-15	60		5	8.6	030
" 25		# 8	14*23.09' S	170*37.72' W	" "	"			9.0	184
" 40		# 9	14*24.83' S	170*37.24' W	" "	"			8.5	033
" 55		# 10	14*23.07' S	170*37.68' W	" "	50			9.1	182
0910		# 11	14*24.48' S	170*37.71' W	" "	"			8.4	011
		# 12	14*2 S	170*3 W				10		
		# 13	14*2 S	170*3 W						
		# 14	14*2 S	170*3 W						
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0915	Finish Discharge	#12	14*23.94' S	170*37.86' W	East-15	50 %	29.67	SE-1.5	9.5	337
0925	Exit Discharge Zone	#13	14*22.60' S	170*38.44' W	" "	"	" "	" "	9.5	335
1130	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

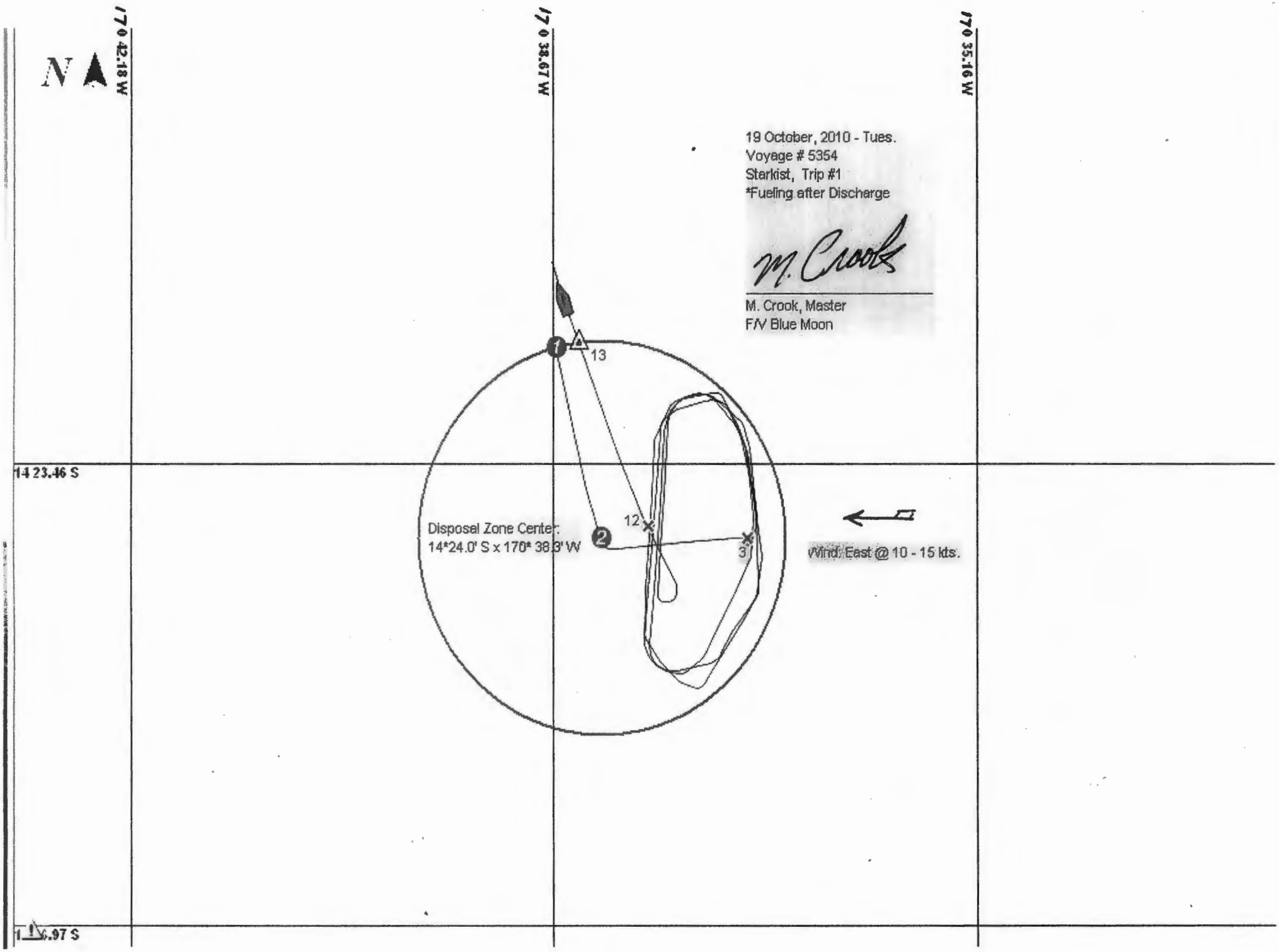
Total Discharge Time: 125 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 5.4 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 77 Gallons/min/kt.

Unusual Occurrences? None (Fueling: 1015-1130 hrs.)

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook


N
170 42.18 W
170 38.67 W
170 35.16 W
14 23.46 S
1 6.97 S
19 October, 2010 - Tues.
Voyage # 5354
Starkist, Trip #1
*Fueling after Discharge
M. Crook, Master
F/V Blue Moon
13
12
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
Wind: East @ 10 - 15 kts.

Date: 10/21/10 Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5355

Permit # OD 93-01 & OD 93-02

	Time	
10/19	1740	Begin 1st Loading SK
	1940	Finish 1st Loading SK
10/20	1600	Begin 2nd Loading SK
	2030	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	152,500	Gallons
Other	0	Gallons
Total	152,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	30	29.62			
0655	Arrive Edge of Zone	# 1	14*22.57' S	170*38.69' W	East-7	40	"	SE-1.5	8.6	163
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.7	165
0715	Begin Discharge	# 3	14*23.96' S	170*37.20' W	" "	"	"	" " X	8.2	090
" 30		# 4	14*23.65' S	170*37.67' W		"	"		8.9	183
" 45	Remarks:	# 5	14*24.39' S	170*36.96' W		30	"		8.8	358
0800		# 6	14*23.26' S	170*37.66' W		"	"		8.7	182
" 15		# 7	14*24.81' S	170*37.15' W		40	29.63	5	8.5	027
" 30		# 8	14*23.01' S	170*37.34' W		"	"		9.3	312
" 45		# 9	14*24.95' S	170*37.35' W	East-10	"	"		8.6	031
0900		# 10	14*22.89' S	170*37.46' W	" "	"	"		8.3	296
" 15		# 11	14*24.94' S	170*37.67' W					9.1	158
" 30		# 12	14*23.41' S	170*37.01' W				10	9.1	304
" 45		# 13	14*24.63' S	170*37.70 W					9.0	177
1000		# 14	14*23.25 S	170*37.10 W					8.8	276
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1005	Finish Discharge	# 15	14*23.08' S	170*37.50' W	East-10	40%	29.63	SE-1.5	9.4	258
1013	Exit Discharge Zone	# 16	14*22.62' S	170*37.92' W	" "	"	"	" "	9.5	335
1105	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

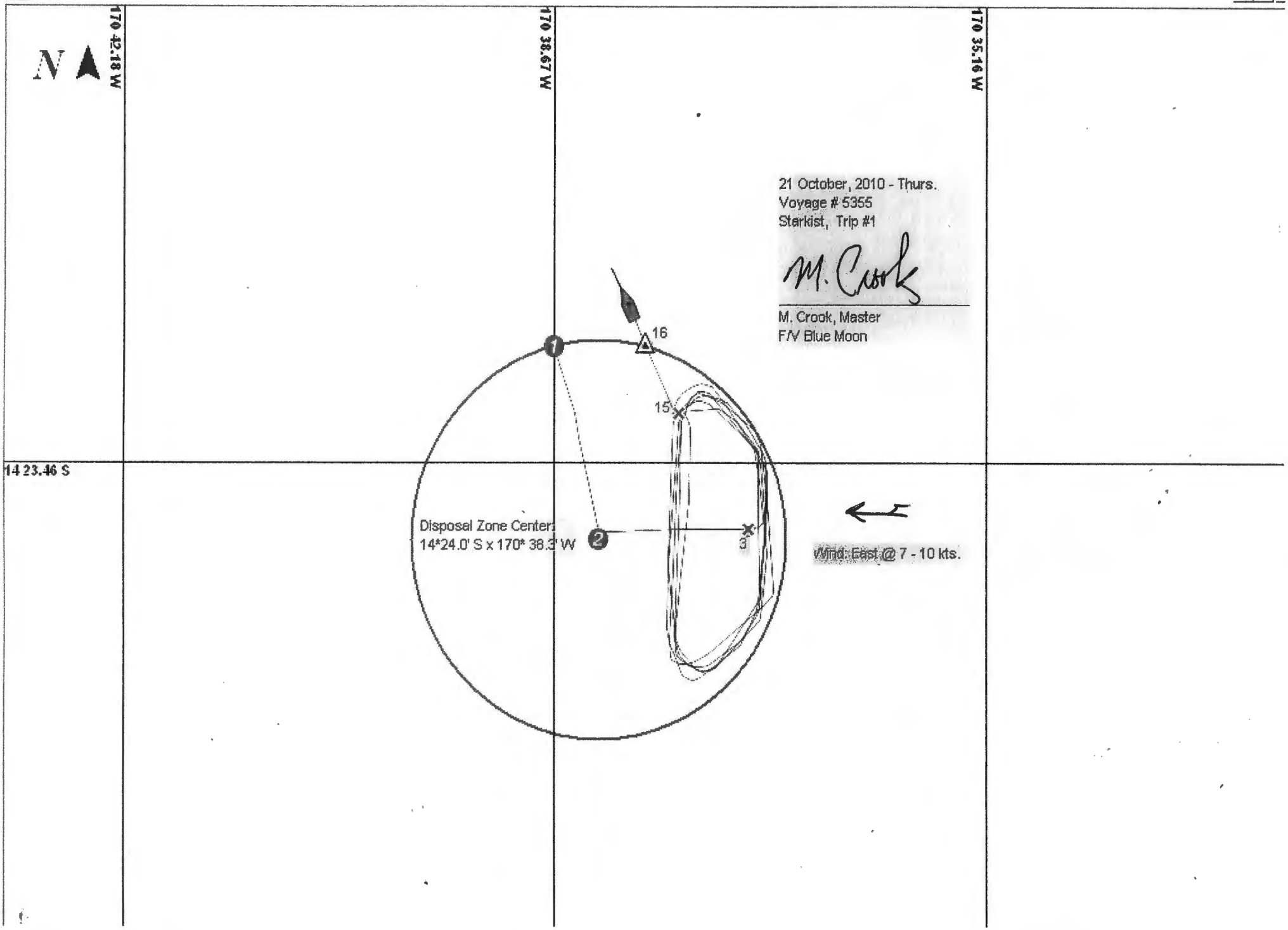
Total Discharge Time: 170 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 4.9 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 102 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crooks


N
170 42.18 W
170 38.67 W
170 35.16 W
14 23.46 S
21 October, 2010 - Thurs.
Voyage # 5355
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
16
15
1
2
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
Wind: East @ 7 - 10 kts.

Date: 10/23/10 Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5356

Permit # OD 93-01 & OD 93-02

Time		
1515	Begin 1st Loading SK	
2010	Finish 1st Loading SK	
/	Begin 2nd Loading SK	
	Finish 2nd Loading SK	

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	128,750	Gallons	
		Gallons	
Total	128,750	Gallons	

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	East-5	50	29.65			
0655	Arrive Edge of Zone	# 1	14*22.57' S	170*38.66 W	East-10	"	29.67	SE-1.5	8.8	164
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.6	162
0715	Begin Discharge	# 3	14*24.04' S	170*37.28' W	" "	60	"	" " X	8.5	090
30		# 4	14*23.64' S	170*37.23' W		70	"		8.8	184
45	Remarks:	# 5	14*24.51' S	170*37.15' W		80	"		8.6	006
0800		# 6	14*23.33' S	170*37.56' W		90	"		8.7	196
15		# 7	14*24.68' S	170*37.24' W			"	5	8.8	018
30		# 8	14*23.44' S	170*37.60' W			29.68		8.9	187
45		# 9	14*25.08' S	170*37.66' W	East-12				8.5	026
0900		# 10	14*23.06' S	170*37.28' W		80			8.5	278
15		# 11	14*24.75' S	170*37.82' W					9.1	182
30		# 12	14*23.58' S	170*36.96' W		70		10	9.3	351
45		# 13	14*24.69' S	170*37.72 W		"			9.4	186
1000		# 14	14*23.84' S	170*36.76' W		75	29.67		9.1	350
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1015	Finish Discharge	#15	14*23.60' S	170*37.65' W	East-12	70%	29.67	SE-1.5	9.3	184
1023	Exit Discharge Zone.	#16	14*22.56' S	170*38.36' W	" "	"	"	" "	9.7	332
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

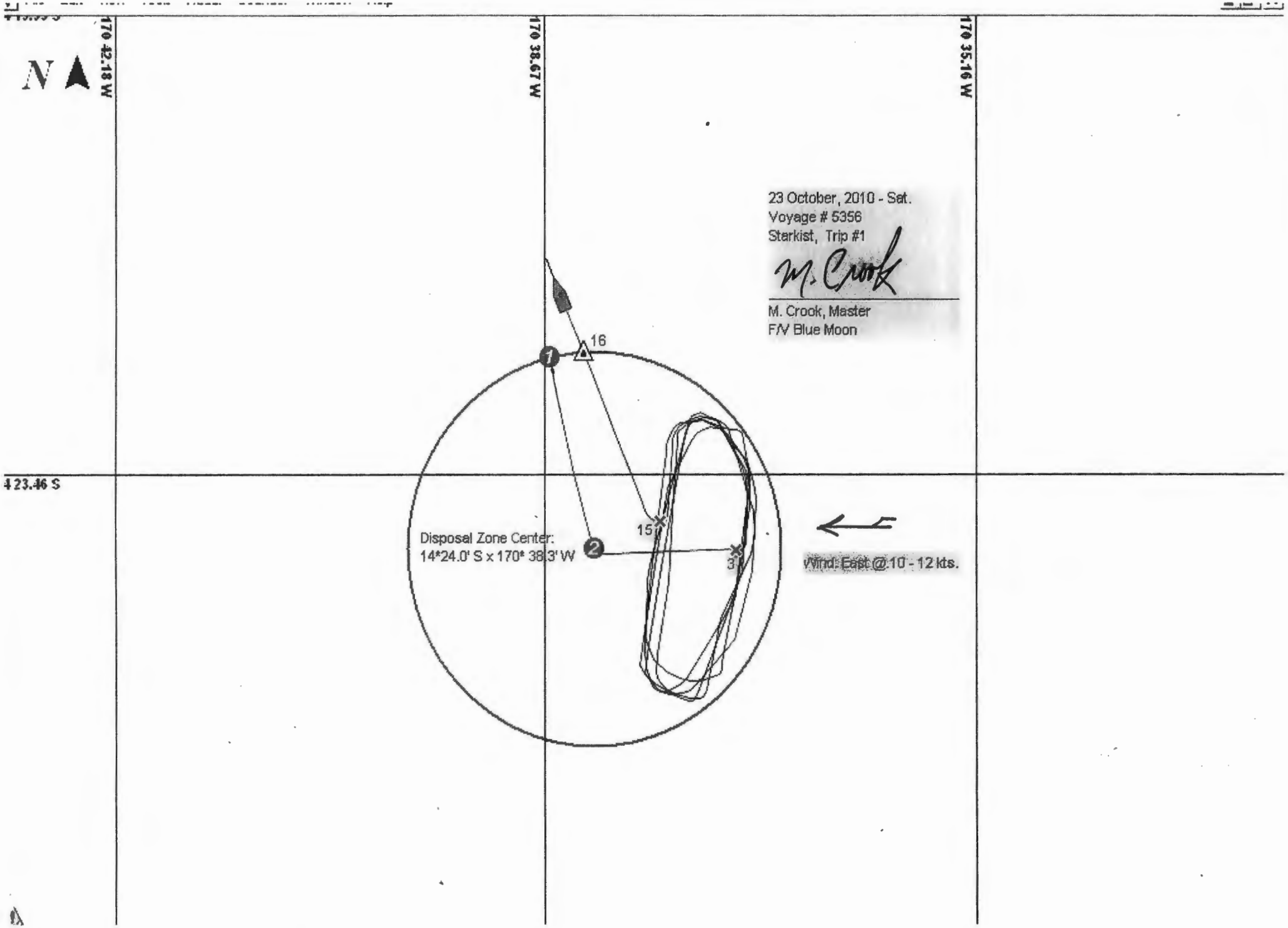
Total Discharge Time: 180 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 5.15 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 80.4 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook


N
170 42.18 W
170 38.67 W
170 35.16 W
14 23.46 S
23 October, 2010 - Sat.
Voyage # 5356
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
16
1
15
2
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
Wind: East @ 10 - 12 kts.

Date: 10/28/10 Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5357

Permit # OD 93-01 & OD 93-02

	Time	
10/27	1550	Begin 1st Loading SK
	1745	Finish 1st Loading SK
10/28	0000	Begin 2nd Loading SK
	0250	Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:			
SK	148,750	Gallons	
	–	Gallons	
Total	148,750	Gallons	

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	NW-5	90	29.51			
0650	Arrive Edge of Zone	# 1	14*22.57' S	170*38.66' W	" "	75	"	SE-1.5	8.7	164
0658	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.8	163
0705	Begin Discharge	# 3	14*24.05' S	170*39.36' W	" "	"	29.50	" " X	8.6	270
" 20		# 4	14*24.77' S	170*38.73' W	" "	80	"	" "	8.3	000
" 35	Remarks:	# 5	14*23.26' S	170*39.25' W	" "	"	"	" "	8.6	224
" 50		# 6	14*25.10' S	170*39.19' W	" "	"	"		8.8	131
0805		# 7	14*23.89' S	170*38.81' W	" "	"	"	5	8.5	359
" 20		# 8	14*23.80' S	170*39.49' W	" "	90	"		9.0	182
" 35		# 9	14*24.29' S	170*38.73 W	NW-7	"	29.51		8.7	353
" 50		# 10	14*23.25' S	170*39.32' W	" "	"	"		9.0	207
0905		# 11	14*25.09' S	170*38.91' W	" "	"	"		8.9	358
" 20		# 12	14*23.06' S	170*39.12' W	" "	"	"	10	8.9	226
" 35		# 13	14*25.04' S	170*39.28' W	" "	"	"		9.2	171
" 50		# 14	14*2 S	170*3 W						
1005		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
0950	Finish Discharge	# 14	14*23.25' S	170*38.75' W	NW-7	90%	29.51	SE-1.5	9.2	355
0955	Exit Discharge Zone	# 15	14*22.69' S	170*38.84 W	" "	"	"	" "	9.2	350
1100	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center East End of Discharge East Discharge Pattern Ellipse

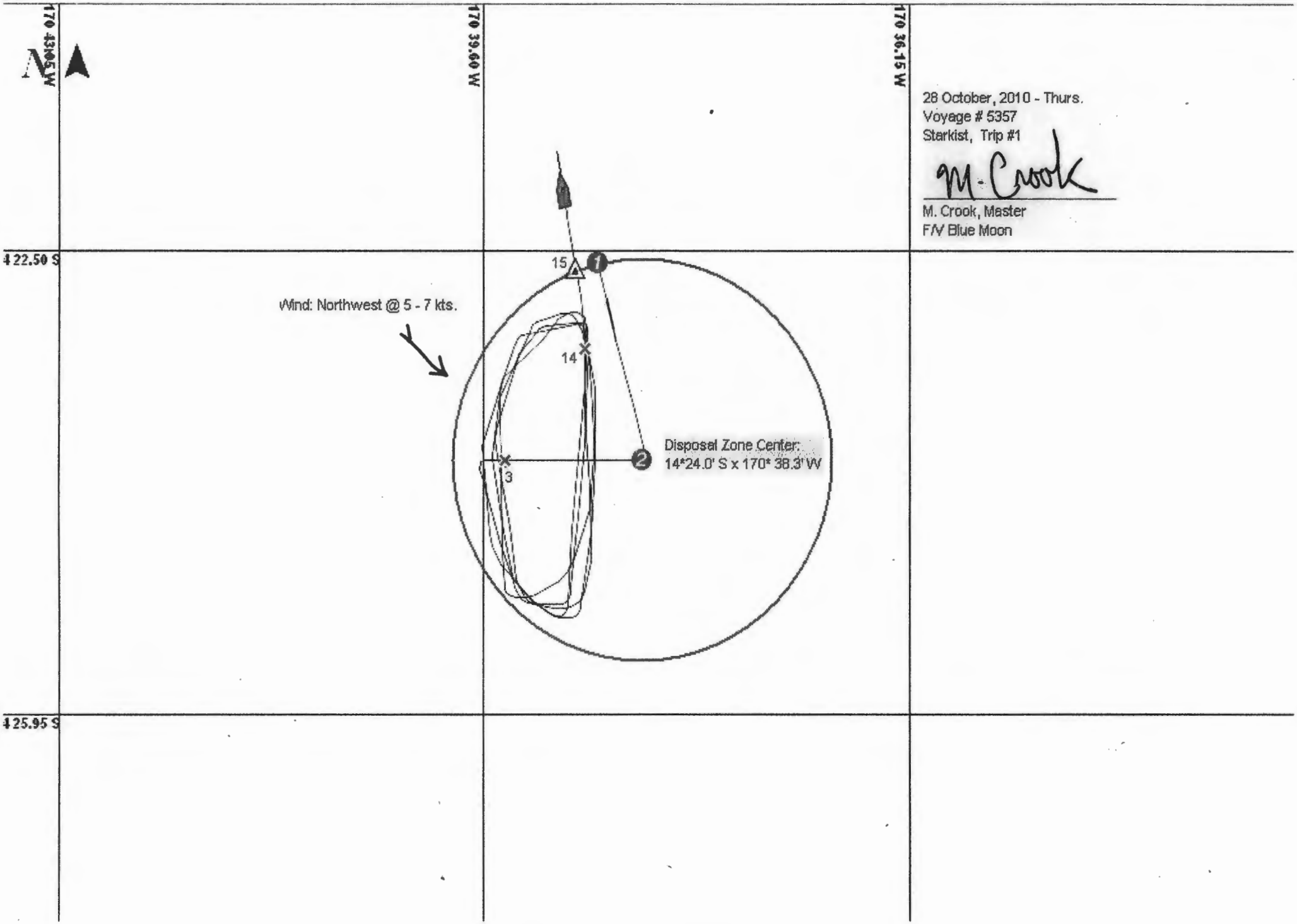
Total Discharge Time: 165 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 4.9 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 102.4 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook



28 October, 2010 - Thurs.
Voyage # 5357
Starkist, Trip #1

M. Crook

M. Crook, Master
F/V Blue Moon

Date: 10/30/10 sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5358

Permit # OD 93-01 & OD 93-02

	Time	
19th	1700	Begin 1st Loading SK
	2120	Finish 1st Loading SK
		Begin 2nd Loading SK
		Finish 2nd Loading SK

Trip # 1 - ✓

Trip # 2

Volume Loaded:

SK	136,250	Gallons
		Gallons
Total	136,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	SE-15	100%	29.51			
0713	Arrive Edge of Zone	# 1	14*22.54' S	170*38.66' W	SE-18	"	29.52	SE-2.5+	8.0	163
0723	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	7.7	162
0732	Begin Discharge	# 3	14*24.53' S	170*37.33' W	" "	"	29.53	" " X	7.9	115
" 47		# 4	14*24.96' S	170*38.16' W	" "	"	"	" "	7.5	118
0802	Remarks:	# 5	14*24.27' S	170*38.04' W	" "				9.0	315
" 17		# 6	14*24.57' S	170*37.18' W	" "				8.8	262
" 32		# 7	14*25.11' S	170*37.67' W	" "			5	8.3	114
" 47		# 8	14*24.13' S	170*37.66' W	" "				7.9	112
0902		# 9	14*24.66' S	170*37.97' W	SE-20				8.2	115
" 17		# 10	14*24.59' S	170*37.82' W			29.54		9.1	263
" 32		# 11	14*24.56' S	170*37.09' W			"		8.8	221
" 47		# 12	14*24.96' S	170*38.06' W				10	8.4	109
1002		# 13	14*24.16' S	170*38.12' W		90%			8.9	348
" 17		# 14	14*2 S	170*3 W						
" 32		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1012	Finish Discharge	# 14	14*23.98' S	170*38.16' W	SE-20	90%	29.54	SE-2.5+	9.2	334
1020	Exit Discharge Zone	# 15	14*22.63' S	170*38.62' W	" "	"	"	" "	9.1	340
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Figure 8

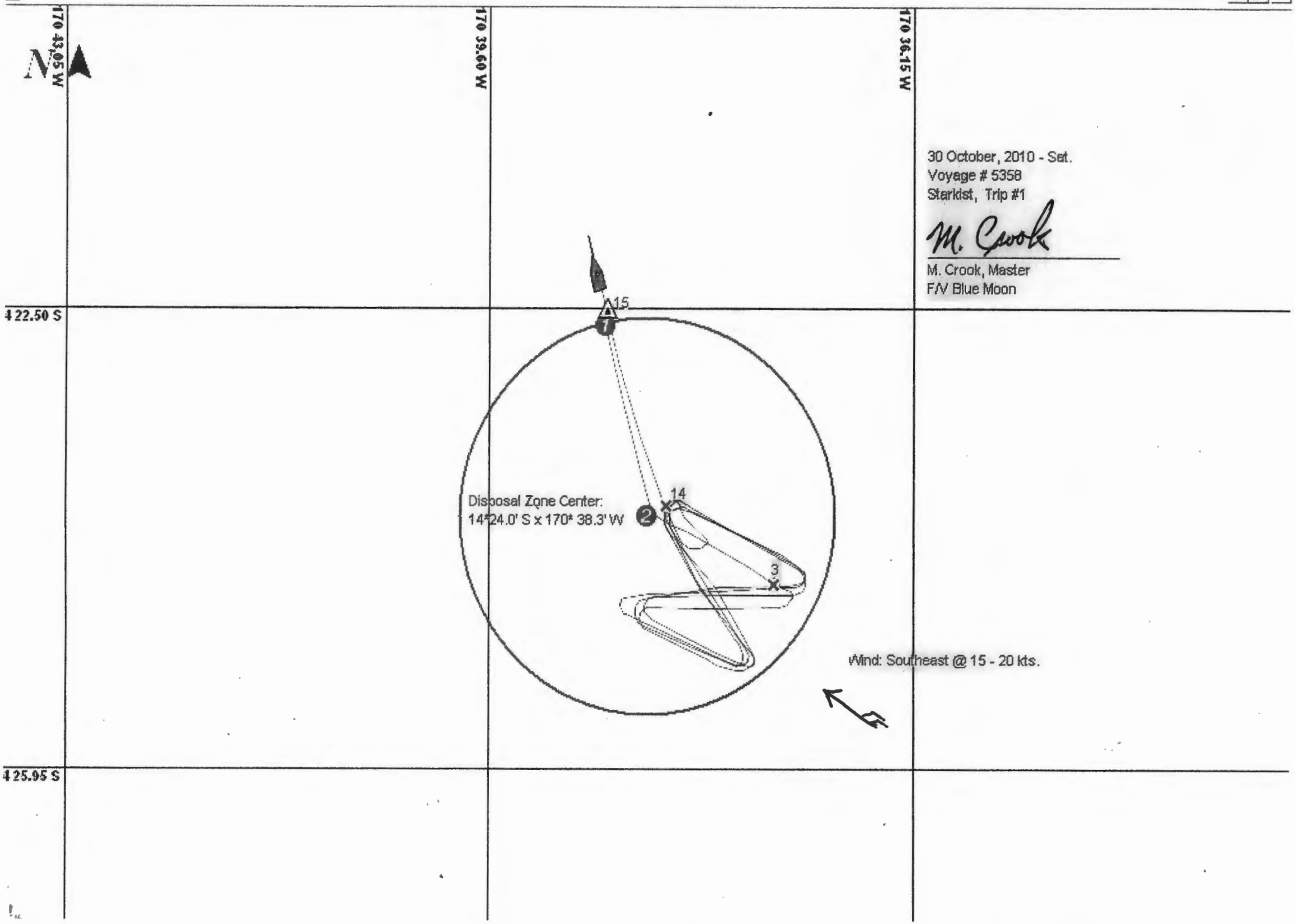
Total Discharge Time: 160 mins. Average Speed During Discharge: 8.5 kts. Total Time Run 5.0 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 100.2 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook


170 43.05 W
170 39.60 W
170 36.15 W
4 22.50 S
4 25.95 S
N
15
1
14
2
3
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: Southeast @ 15 - 20 kts.
30 October, 2010 - Sat.
Voyage # 5358
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon

13

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

04 November, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS/Samoa Packing	Craig Double
Determination of Sampling Positions:	All positions & drift rates obtained by GPS Satellite Navigation.

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
06 November. 2010

Introduction

On November 4, 2010 the waste water tanker *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dump-site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0615: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master/Principal Investigator, Chief and Mate on board.

0713: The *Blue Moon* entered the dumpzone circle @ 14*22.6' S / 170*38.6' W.

0723: The *Blue Moon* arrived at the dump-zone center, where observed stiff southeasterly winds and moderate southeasterly seas indicated disposal operations be conducted in the southeast dump-zone quadrant.

0740: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were rough with SE swells to 2.5 meters and a strong SE wind of 20+ knots and the barometer reading 29.60. Current set and drift, of the ship, were to the northwest at 1.4 knots. No floating materials or sea life were observed here.

0747: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elliptical type pattern, approximately 2 miles long (see Plot 1) until 0820 hrs when, due to the rough sea condition, the discharge pattern was changed to the Figure 8 or Bow Tie pattern to reduce the excessive rolling of the ship. Wastewater discharging was completed at 10:52 hrs.

1055: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had increased to 25 knots during the discharge but had subsequently dropped back at this time to about 20 knots, with still, overcast skies. The waste plume was not visible at all here, with no sign of the typical glassy surface

sheen. The current/wind drift of the ship was now GPS determined to be northwesterly @ 1.2 knots. No sea life or floatable materials were observed.

1105: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position, like Station #1, lacked any visual presence of the wastewater plume in it's immediate area, just clear natural blue appearing seawater. However, a few track-line remnants of the typical glassy surface sheen were apparent further down-current to the northwest and a few hundred meters to the north. The average drift rate of the ship with current and wind was GPS determined to be northwesterly (NW) at 1.3 knots between stations 2 & 3 (See Plot #1). No sea-life or floatable materials were noted at this position.

1115: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position showed some heavy glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was 1.25 knots to the west-northwest.

1125: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 miles NW of Station #3, showed the same visual characteristics of the waste plume as Stations #1 & #2 with another large area of natural clear blue water. There were no floating or suspended materials. The NW current/drift rate of the ship was noted here to be a brisk 1.3 knots which had carried the last visible remnants of the plume at least an additional ¾ of a mile further down-current to the NW.

1015: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.6 NM southwest of the zone center (see Plot #1). The leading edge of the waste plume was clearly visible at this location as a patchy area of moderate and heavy streaks of glassy surface sheen with clear, natural appearing blue waters further down-current to the NW. No notable sea life was observed at this position or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.61 when monitoring activities were concluded at 1140 hrs. The *Blue Moon* exited the disposal zone at 1150 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1245 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

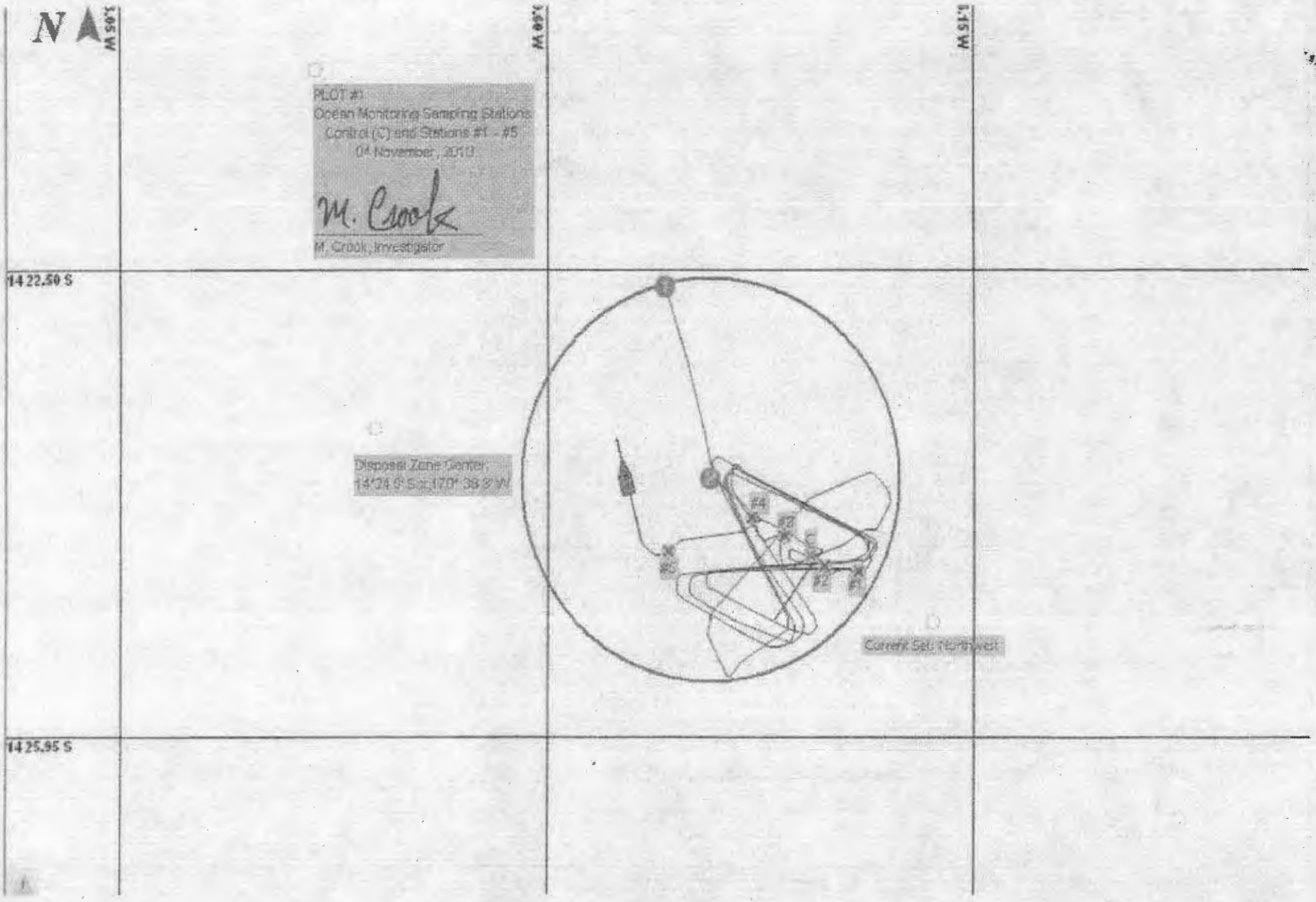
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 04 November 2010	Sea Conditions: Moderate to Rough w/ East/Southeast swells to 2.5 meters. Wind: Southeast @ 20 - 25 knots Visibility: Fair to Good Barometer: 29.60 – 29.63 Current Set & Drift: Northwest @ average 1.3 knots Sky: 100% Cloudy w/ passing rains.					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0740	Control	1	26.1	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	26.1	7.3		
		10	26.1	7.3		
1055	Station 1	1	26.7	7.3	None	Same color characteristics as the Control Station
		3	26.7	7.3		
		10	26.7	7.3		
1105	Station 2	1	26.7	7.3	None	Deep, clear blue water but a couple broken glassy track lines 300 meters to the north of this position. No floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
1115	Station 3	1	26.7	7.3	Slightly Pungent	Heavy, glassy surface sheen over clear blue water. No floating or suspended particulate materials present.
		3	26.7	7.3		
		10	26.7	7.3		
1125	Station 4	1	26.7	7.3	Slightly Pungent	Same characteristics as the Control and #1 Stations.
		3	26.7	7.3		
		10	26.7	7.3		
1135	Station 5	1	26.7	7.3	Slightly Pungent	The leading edge of the waste plume consisted of broken up patches of earlier glassy track lines w/ moderate to heavy surface sheen. No floating or suspended particulate materials.
		3	26.7	7.3		
		10	26.7	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.74'	South	170° 37.14'	West
Station 1	14° 24.67'	South	170° 37.40'	West
Station 2	14° 24.64'	South	170° 37.50'	West
Station 3	14° 24.47'	South	170° 37.66'	West
Station 4	14° 24.36'	South	170° 37.87'	West
Station 5	14° 24.58'	South	170° 38.57'	West


N
PLOT #:
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
04 November, 2010
M. Crook, Investigator
14 22.50 S
14 25.95 S
Disposal Zone Center:
14°24.6' S lat 170° 38.3' W
Current Set: Northwest
#1
#2
#3
#4
#5
C

Ocean Disposal Site Monitoring Report

(OD Permit 93-01 & 93-02)

04 November, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS/Samoa Packing	Craig Double
Determination of Sampling Positions:	All positions & drift rates obtained by GPS Satellite Navigation.

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
06 November. 2010

Introduction

On November 4, 2010 the waste water tanker *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dump-site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0615: The *Blue Moon* departed Pago Pago Harbor bound for the dumpsite location with Master/Principal Investigator, Chief and Mate on board.

0713: The *Blue Moon* entered the dumpzone circle @ 14*22.6' S / 170*38.6' W.

0723: The *Blue Moon* arrived at the dump-zone center, where observed stiff southeasterly winds and moderate southeasterly seas indicated disposal operations be conducted in the southeast dump-zone quadrant.

0740: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or southeast (SE) of the dumpzone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with stations' position were recorded (Table 1). Seas at this time were rough with SE swells to 2.5 meters and a strong SE wind of 20+ knots and the barometer reading 29.60. Current set and drift, of the ship, were to the northwest at 1.4 knots. No floating materials or sea life were observed here.

0747: The *Blue Moon* began disposal operations in the SE dump zone quadrant and continued discharging material with a northeast to southwest reciprocal, elliptical type pattern, approximately 2 miles long (see Plot 1) until 0820 hrs when, due to the rough sea condition, the discharge pattern was changed to the Figure 8 or Bow Tie pattern to reduce the excessive rolling of the ship. Wastewater discharging was completed at 10:52 hrs.

1055: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The SE winds had increased to 25 knots during the discharge but had subsequently dropped back at this time to about 20 knots, with still, overcast skies. The waste plume was not visible at all here, with no sign of the typical glassy surface

sheen. The current/wind drift of the ship was now GPS determined to be northwesterly @ 1.2 knots. No sea life or floatable materials were observed.

1105: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position, like Station #1, lacked any visual presence of the wastewater plume in it's immediate area, just clear natural blue appearing seawater. However, a few track-line remnants of the typical glassy surface sheen were apparent further down-current to the northwest and a few hundred meters to the north. The average drift rate of the ship with current and wind was GPS determined to be northwesterly (NW) at 1.3 knots between stations 2 & 3 (See Plot #1). No sea-life or floatable materials were noted at this position.

1115: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position showed some heavy glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was 1.25 knots to the west-northwest.

1125: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 miles NW of Station #3, showed the same visual characteristics of the waste plume as Stations #1 & #2 with another large area of natural clear blue water. There were no floating or suspended materials. The NW current/drift rate of the ship was noted here to be a brisk 1.3 knots which had carried the last visible remnants of the plume at least an additional ¾ of a mile further down-current to the NW.

1015: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.6 NM southwest of the zone center (see Plot #1). The leading edge of the waste plume was clearly visible at this location as a patchy area of moderate and heavy streaks of glassy surface sheen with clear, natural appearing blue waters further down-current to the NW. No notable sea life was observed at this position or any of the previous stations, other than a few random seabirds flying by. The final barometer reading was 29.61 when monitoring activities were concluded at 1140 hrs. The *Blue Moon* exited the disposal zone at 1150 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1245 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 04 November 2010	Sea Conditions: Moderate to Rough w/ East/Southeast swells to 2.5 meters. Wind: Southeast @ 20 - 25 knots Visibility: Fair to Good Barometer: 29.60 – 29.63 Current Set & Drift: Northwest @ average 1.3 knots Sky: 100% Cloudy w/ passing rains.					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0740	Control	1	26.1	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	26.1	7.3		
		10	26.1	7.3		
1055	Station 1	1	26.7	7.3	None	Same color characteristics as the Control Station
		3	26.7	7.3		
		10	26.7	7.3		
1105	Station 2	1	26.7	7.3	None	Deep, clear blue water but a couple broken glassy track lines 300 meters to the north of this position. No floating or suspended materials.
		3	26.7	7.3		
		10	26.7	7.3		
1115	Station 3	1	26.7	7.3	Slightly Pungent	Heavy, glassy surface sheen over clear blue water. No floating or suspended particulate materials present.
		3	26.7	7.3		
		10	26.7	7.3		
1125	Station 4	1	26.7	7.3	Slightly Pungent	Same characteristics as the Control and #1 Stations.
		3	26.7	7.3		
		10	26.7	7.3		
1135	Station 5	1	26.7	7.3	Slightly Pungent	The leading edge of the waste plume consisted of broken up patches of earlier glassy track lines w/ moderate to heavy surface sheen. No floating or suspended particulate materials.
		3	26.7	7.3		
		10	26.7	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 24.74'	South	170° 37.14'	West
Station 1	14° 24.67'	South	170° 37.40'	West
Station 2	14° 24.64'	South	170° 37.50'	West
Station 3	14° 24.47'	South	170° 37.66'	West
Station 4	14° 24.36'	South	170° 37.87'	West
Station 5	14° 24.58'	South	170° 38.57'	West

170 43.05 W

170 39.60 W

170 36.15 W

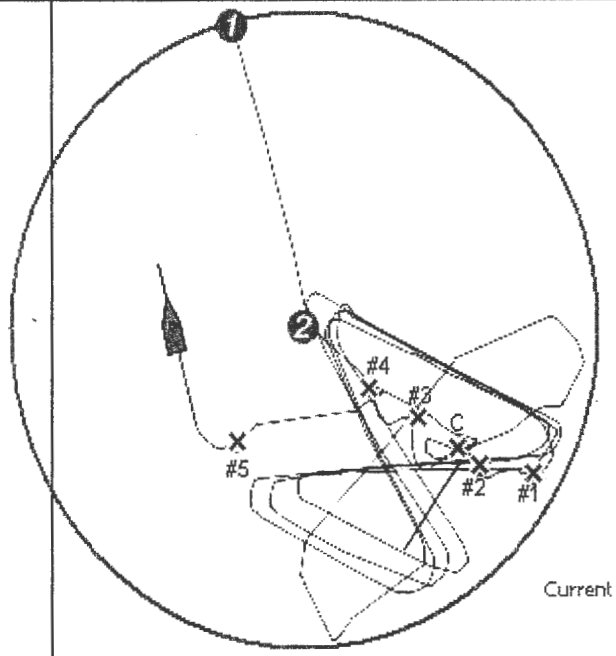
PLOT #1
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
04 November, 2010

M. Crook

M. Crook, Investigator

14 22.50 S

Disposal Zone Center:
14*24.0' S x 170* 38.3' W



Current Set: Northwest

14 25.95 S

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON November, 2010

NUMBER OF TRIPS:	Starkist	Other	JOINT:	TOTAL:
	9	0	0	**9**

GALLONS-FOR THE MONTH:	Starkist	Other	JOINT:	TOTAL:
	1,441,000	0	0	**1,441,000**

GALLONS FOR SOLO TRIPS:	Starkist	Other
	1,441,000	**0**

RUNNING TIME ON TRIPS: **47.13 hrs.**

DISCHARGE TIME ON TRIPS: **26.5 hrs.**

AV. GPM DISCHARGE RATE: **102.1 gal/min//kt**

AV. TRIP TIME: **5.24 hrs.**

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

Starkist	Other
100.00%	**0.00%**

MASTER : M. Crook

M. Crook

Date: 11/02/10 Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5359

Permit # OD 93-01 & OD 93-02

Time		
11/01 1600	Begin 1st Loading SK	
2015	Finish 1st Loading SK	
	Begin 2nd Loading SK	
	Finish 2nd Loading SK	

Trip # 1 - X

Trip # 2

Volume Loaded:

SK	133,750	Gallons
Other	0	Gallons
Total	133,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0620	Depart Starkist		14*16.50' S	170* 41.2' W	East-5	40	29.70			
0710	Arrive Edge of Zone	# 1	14*22.57' S	170*38.69' W	East-12	"	29.68	S+SE-2.0	8.6	163
0720	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.5	158
0730	Begin Discharge	# 3	14*24.04' S	170*37.20' W		"	"	X	8.5	090
45		# 4	14*23.69' S	170*37.61' W		50	"		8.5	181
0800	Remarks:	# 5	14*24.44' S	170*36.95' W			"		8.6	004
15		# 6	14*23.46' S	170*37.75' W			29.69		8.4	188
30		# 7	14*24.97' S	170*37.21' W			"	5	8.6	042
45		# 8	14*23.10 S	170*37.62 W	East-15	70	"		8.8	194
0900		# 9	14*24.86' S	170*37.23' W	" "	"	"		8.6	036
15		# 10	14*23.23' S	170*37.09' W	" "	80	"		9.1	310
30		# 11	14*24.72 S	170*37.70' W	" "	"	"		8.9	182
45		# 12	14*23.44' S	170*36.98' W	" "	"	"	10	9.2	338
1000		# 13	14*24.28' S	170*37.75' W					9.0	176
15		# 14	14*23.94' S	170*36.94' W					9.0	347
30		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1020	Finish Discharge	#15	14*23.26' S	170*37.21' W	East-15	80%	29.69	S+SE-2.0	9.2	329
1025	Exit Discharge Zone	#16	14*22.79' S	170*37.45' W	" "	"	"	" "	9.3	327
1120	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge WEST Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 8.8 kts. Total Time Run 5.0 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 89.4 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 11/04/10 Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5360

Permit # OD 93-01 & OD 93-02

	Time	
11/2	1400	Begin 1st Loading SK
	1520	Finish 1st Loading SK
	1615	Begin 2nd Loading SK
11/3	2045	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:		
SK	173,750	Gallons
Other	0	Gallons
Total	173,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	East-10	100	29.60			
0713	Arrive Edge of Zone	# 1	14*22.58' S	170*38.64 W	SE-20	100	"	SE-2.0	8.1	161
0723	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	100	"	" "	7.8	164
0747	Begin Discharge	# 3	14*24.55' S	170*37.22' W	" "		29.61	SE-2.5 X	7.7	055
0802		# 4	14*24.43' S	170*37.68' W	SE-22		29.62	" "	8.5	220
17	Remarks: Ocean	# 5	14*25.31' S	170*37.86' W	SE-25		"	" "	8.1	028
32	Monitoring	# 6	14*24.26' S	170*37.51' W	" "		"	" "	7.6	113
47	Control Samples	# 7	14*24.70' S	170*37.83' W	" "		29.63	" " 5	8.8	262
0902	drawn: 0740	# 8	14*24.87' S	170*37.59' W	" "		"	" "	9.0	318
17	Position:	# 9	14*24.28' S	170*37.44' W	SE-22		29.62	" "	8.3	112
32	14° 24.58' Sx	# 10	14*24.76' S	170*38.41' W					9.1	261
47	170° 37.40' W	# 11	14*24.54' S	170*37.94' W					9.3	320
1002		# 12	14*24.31' S	170*37.38' W				10	7.9	115
17		# 13	14*24.72' S	170*38.29' W			29.61		9.5	263
32		# 14	14*24.43' S	170*37.98' W			"		9.3	326
47		# 15	14*24.38' S	170*37.23' W	SE-20		"		8.1	118
1102		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1052	Finish Discharge	#16	14*24.62' S	170*37.02' W	SE-20	100%	29.61	SE-2.5	8.7	210
1150	Exit Discharge Zone	#17	14*22.90' S	170*39.27' W	" "	"	"	" "	9.1	339
1245	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse to Figure 8 (0820 hr.

Total Discharge Time: 185 mins. Average Speed During Discharge: 8.5 kts. Total Time Run 6.5 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 110.5 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 11/06/10 sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5361

Permit # OD 93-01 & OD 93-02

	Time	
11/5	1515	Begin 1st Loading SK
	2100	Finish 1st Loading SK
	/	Begin 2nd Loading SK
		Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:

SK	163,750	Gallons
Other	0	Gallons
Total	163,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	East-5	50%	29.60			
0700	Arrive Edge of Zone	# 1	14*22.58' S	170*38.64' W	East-12	"	"	E/SE-1.5	8.9	162
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"		8.9	165
0720	Begin Discharge	# 3	14*24.07' S	170*37.12' W	" "	40	"	X	8.6	090
35		# 4	14*23.54' S	170*37.69' W					9.0	183
50	Remarks:	# 5	14*24.82' S	170*37.14' W					8.4	019
0805		# 6	14*23.12' S	170*37.19' W					8.9	328
20		# 7	14*24.80' S	170*37.81' W	East-15			5	9.1	178
35		# 8	14*23.24' S	170*37.08' W					8.7	212
50		# 9	14*24.44' S	170*37.77' W		50	29.61		9.3	183
0905		# 10	14*24.29' S	170*36.93' W					8.8	357
20		# 11	14*23.57' S	170*37.76' W					9.3	181
35		# 12	14*24.94' S	170*37.20' W		60		10	8.9	012
50		# 13	14*23.73' S	170*37.76' W			29.62		9.3	184
1005		# 14	14*25.02' S	170*37.37' W			"		9.0	046
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1015	Finish Discharge	#15	14*23.70' S	170*37.51' W	East-15	60%	29.62	E/SE-1.5	9.6	331
1025	Exit Discharge Zone	#16	14*22.58' S	170*37.96' W	" "	"	"	" "	9.6	334
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.1 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 104 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crooks

Date: 11/09/10 tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5362

Permit # OD 93-01 & OD 93-02

	Time	
11/8	1800	Begin 1st Loading SK
	2150	Finish 1st Loading SK
11/9	0130	Begin 2nd Loading SK
	0230	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:			
	SK	140,750	Gallons
	Other	0	Gallons
	Total	140,750	Gallons

		WP#	GPS Position				Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course °True
0620	Depart Starkist		14*16.50'	S	170* 41.2'	W	Calm	25%	29.58			
0710	Arrive Edge of Zone	# 1	14*22.58'	S	170*38.70	W	East-7	30	29.55	S+SW-2.0	9.0	160
0719	Arrive Zone Center	# 2	14*24.0	S	170*38.3	W	" "	35	" "	" "	8.9	158
0727	Begin Discharge	# 3	14*24.06'	S	170*37.14'	W	" "	"	29.54	" " X	8.7	090
" 42		# 4	14*23.60'	S	170*37.62'	W		"	"		8.8	178
" 57	Remarks:	# 5	14*24.57'	S	170*36.94'	W		50	29.55		8.4	014
0812		# 6	14*23.08'	S	170*37.39'	W		60	29.56		8.5	273
" 27		# 7	14*24.98'	S	170*37.31'	W		"	"	5	8.4	035
" 42		# 8	14*23.17'	S	170*37.12'	W		"	"		8.7	328
" 57		# 9	14*24.79	S	170*37.64'	W	East-10	70	"		9.1	178
0912		# 10	14*23.67	S	170*36.88'	W		80	29.57		8.9	009
" 27		# 11	14*24.48'	S	170*37.64'	W		"			9.2	181
" 42		# 12	14*23.71'	S	170*36.96'	W	East-7	75		10	9.2	349
" 57		# 13	14*24.53'	S	170*37.69'	W	" "	80			9.3	181
1012		# 14	14*2	S	170*3	W						
" 27		# 15	14*2	S	170*3	W						
		# 16	14*2	S	170*3	W						
		# 17	14*2	S	170*3	W				15		
		# 18	14*2	S	170*3	W						
		# 19	14*2	S	170*3	W						
		# 20	14*2	S	170*3	W						
			14*2	S	170*3	W						
			14*2	S	170*3	W				20		
			14*2	S	170*3	W						
1010	Finish Discharge	# 14	14*24.21'	S	170*37.19'	W	East-7	85%	29.57	S+SW-2.0	9.2	338
1020	Exit Discharge Zone	# 15	14*22.74'	S	170*37.65'	W	NE-5	Rain	"	" "	9.1	336
1115	Secure SK Dock		14*16.50'	S	170*41.2'	W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 163 mins. Average Speed During Discharge: 8.86 kts. Total Time Run 4.9 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 97.5 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 11/11/10 Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5363

Permit # OD 93-01 & OD 93-02

	Time	
11/10	1610	Begin 1st Loading SK
	2130	Finish 1st Loading SK
11/11	0030	Begin 2nd Loading SK
	0215	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:			
SK	172,000	Gallons
Other	0	Gallons
Total	172,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	North-12	90%	29.55			
0700	Arrive Edge of Zone	# 1	14*22.55' S	170*38.69' W	" "	95	29.57	South-1.5	8.8	166
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	N-15	"	"		8.6	168
0720	Begin Discharge	# 3	14*23.00' S	170*38.14' W	" "	90	"	X	8.5	000
" 35		# 4	14*23.34' S	170*38.51' W	" "	"	29.58		8.9	089
" 50	Remarks:	# 5	14*22.83' S	170*38.11' W	" "	"			8.6	269
0805		# 6	14*23.45' S	170*38.77' W	" "	100			8.5	091
" 20		# 7	14*22.85' S	170*37.70' W	" "			5	8.7	272
" 35		# 8	14*23.47' S	170*38.68' W	N-12				8.9	087
" 50		# 9	14*22.83' S	170*37.59' W	" "				9.0	271
0905		# 10	14*23.28' S	170*39.25 W	" "				8.7	190
" 20		# 11	14*22.84' S	170*37.61' W	" "				9.1	270
" 35		# 12	14*23.00' S	170*39.19' W	" "	90		10	9.0	181
" 50		# 13	14*23.22' S	170*37.27' W	N-15	"			8.6	000
1005		# 14	14*22.89 S	170*38.98' W	" "	"			9.4	268
" 20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1010	Finish Discharge	#15	14*22.85' S	170*38.57 W	N-15	90%	29.58	South-1.5	9.1	089
1013	Exit Discharge Zone	#16	14*22.54' S	170*38.38' W	" "	"	" "	" "	9.0	341
1105	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center South End of Discharge South Discharge Pattern Ellipse

Total Discharge Time: 170 mins. Average Speed During Discharge: 8.97 kts. Total Time Run 4.9 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 113 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 11/13/10 Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5364

Permit # OD 93-01 & OD 93-02

Time.		
1610	Begin 1st Loading SK	11/12
2100	Finish 1st Loading SK	
	Begin 2nd Loading SK	
	Finish 2nd Loading SK	

Trip # 1 - X

Trip # 2

Volume Loaded:

SK	125,750	Gallons
Other	0	Gallons
Total	125,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	75%	29.67			
0650	Arrive Edge of Zone	# 1	14*22.54' S	170*38.67' W	East-10	"	"	S-1.5	9.0	160
0700	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.68	S+SE-1.5	9.0	162
0710	Begin Discharge	# 3	14*24.04' S	170*37.19' W	" "	70	"	" " X	8.8	090
" 25		# 4	14*23.41' S	170*37.84' W	" "	75			8.7	179
" 40	Remarks:	# 5	14*24.62' S	170*37.11' W	" "	"			8.8	011
" 55		# 6	14*23.18' S	170*37.80' W	" "	80			8.6	183
0810		# 7	14*24.90' S	170*37.83' W	East-7	"		5	8.9	172
" 25		# 8	14*23.46' S	170*36.99' W	" "	"	29.67		9.4	338
" 40		# 9	14*24.51' S	170*37.80' W	" "		"		9.2	180
" 55		# 10	14*23.72' S	170*36.95' W	" "		29.66		9.4	001
0910		# 11	14*23.45' S	170*37.74 W	East-5		"		9.3	180
" 25		# 12	14*24.76' S	170*37.16' W	" "	70		10	9.2	028
" 40		# 13	14*23.25' S	170*37.76' W		"			8.9	182
" 55		# 14	14*25.08 S	170*37.29' W		60			9.0	036
1010		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1010	Finish Discharge	#15	14*23.34' S	170*37.44' W	East-5	60%	29.67	S+SE-1.5	9.5	334
1015	Exit Discharge Zone	#16	14*22.64' S	170*37.72' W	" "	"	"	" "	9.6	333
1105	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West (slow) Discharge Pattern Ellipse

Total Discharge Time: 180 mins. Average Speed During Discharge: 9.05 kts. Total Time Run 5.0 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 77.6 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crooke

Date: 11/18/10 Thurs

F/V Blue Moon Ocean Dumping Log

Voyage #: 5365

Permit # OD 93-01 & OD 93-02

	Time	
11/16	1800	Begin 1st Loading SK
	1900	Finish 1st Loading SK
11/17	1420	Begin 2nd Loading SK
11/18	0540	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:		
SK	173,750	Gallons
Other	0	Gallons
Total	173,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	East-5	100-Rain	29.60			
0700	Arrive Edge of Zone	# 1	14*22.56' S	170*38.71' W	SE-10	85	"	S+SE-2.0	8.3	159
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.1	163
0720	Begin Discharge	# 3	14*24.72' S	170*37.54' W		80	"	X	7.9	135
35		# 4	14*24.56' S	170*37.61' W		"	"		8.8	224
50	Remarks:	# 5	14*24.61' S	170*36.98' W		75	"		8.6	022
0805		# 6	14*24.53' S	170*37.77 W		"	"		8.7	223
20		# 7	14*24.46' S	170*36.90' W	SE-7	"	"	5	8.6	004
35		# 8	14*24.85' S	170*38.02' W	" "	70	"		9.0	218
50		# 9	14*23.99' S	170*36.90' W		"	"		8.6	256
0905		# 10	14*25.21' S	170*37.98' W		60	"		8.7	110
20		# 11	14*24.01' S	170*37.97' W			29.59		8.9	216
35		# 12	14*24.95' S	170*37.46' W	SE-5			10	9.4	041
50		# 13	14*24.37' S	170*37.77 W					9.1	215
1005		# 14	14*24.66' S	170*37.21' W					9.5	048
20		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1012	Finish Discharge	#15	14*23.87' S	170*37.10' W	SE-5	60%	29.59	S+SE-2.0	9.7	332
1018	Exit Discharge Zone	#16	14*22.65' S	170*37.66' W	" "	"	"	" "	9.7	333
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center NW End of Discharge NW Discharge Pattern Ellipse

Total Discharge Time: 172 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 5.15 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 113.5 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 11/20/10 Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5366

Permit # OD 93-01 & OD 93-02

	Time	
11/18	1830	Begin 1st Loading SK
	1915	Finish 1st Loading SK
11/19	1430	Begin 2nd Loading SK
	2015	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:		
SK	192,500	Gallons
Other	0	Gallons
Total	192,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	North-7	100-Rain	29.52			
0700	Arrive Edge of Zone	# 1	14*22.58' S	170*38.67' W	" "	100%	29.54	S+SE-1.5	8.9	170
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W			"		8.8	162
0717	Begin Discharge	# 3	14*23.00 S	170*38.04 W			29.55	X	8.6	000
32		# 4	14*23.42' S	170*38.45' W			"		9.2	088
47	Remarks:	# 5	14*22.81' S	170*37.71' W	North-5		29.56		8.7	271
0802		# 6	14*23.47' S	170*39.20' W	"		"		8.2	090
" 17		# 7	14*23.06' S	170*37.41' W	"		29.57	5	8.8	313
" 32		# 8	14*22.92' S	170*39.03' W	North-10		"		8.8	246
" 47		# 9	14*23.43' S	170*37.69' W	N-7	Rain	29.58		9.3	087
0902		# 10	14*22.80' S	170*38.62' W	" "	100%	"		8.9	262
" 17		# 11	14*23.40' S	170*38.17' W			"		9.6	084
" 32		# 12	14*22.76' S	170*38.52' W			29.59	10	9.1	241
" 47		# 13	14*23.48' S	170*38.43' W	NNE-10	Rain			9.3	090
1002		# 14	14*22.81' S	170*38.16' W	" "	"			9.0	273
" 17		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1015	Finish Discharge	#15	14*23.39' S	170*37.17' W	North-10	Rain	29.60	S+SE-1.5	9.2	089
1018	Exit Discharge Zone	#16	14*23.39' S	170*36.95' W	" "	"	"	" "	9.4	090
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center South End of Discharge South Discharge Pattern Ellipse

Total Discharge Time: 178 mins. Average Speed During Discharge: 9.1 kts. Total Time Run 5.25 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 119 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 11/30/10 Tues.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5367

Permit # OD 93-01 & OD 93-02

	Time	
11/28	1830	Begin 1st Loading SK
	1843	Finish 1st Loading SK
	1615	Begin 2nd Loading SK
11/29	2115	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:		
SK	165,000	Gallons
Other	0	Gallons
Total	165,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	25%	29.53			
0650	Arrive Edge of Zone	# 1	14*22.53' S	170*38.66' W	NE-7	40	29.55	S to 2.0	8.8	164
0700	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.6	165
0710	Begin Discharge	# 3	14*23.51' S	170*37.41' W	" "	"	"	" " X	8.6	045
" 25		# 4	14*23.60' S	170*37.83' W	" "	50%	29.56	" "	8.6	148
" 40	Remarks:	# 5	14*23.46' S	170*37.18' W		"	"		8.7	339
" 55		# 6	14*23.52' S	170*37.74' W		60	"		8.6	142
0810		# 7	14*24.25' S	170*36.91' W		80	29.57	5	8.9	357
" 25		# 8	14*23.27' S	170*38.02' W		"	"		8.8	146
" 40		# 9	14*24.52' S	170*36.97' W		70	"		9.0	008
" 55		# 10	14*2 2.71' S	170*37.84' W		"	"		9.4	284
0910		# 11	14*2 4.39' S	170*37.56' W			"		8.9	123
" 25		# 12	14*2 2.84' S	170*37.59' W			"	10	9.5	282
" 40		# 13	14*2 4.25' S	170*37.52 W	NE-10		"		9.2	126
" 55		# 14	14*2 2.95' S	170*37.46' W	" "		"		9.6	301
1010		# 15	14*24.09' S	170*37.67' W		60	"		9.1	148
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1025	Finish Discharge	#16	14*2 2.94' S	170*37.39' W	NE-10	60%	29.57	S to 2.0	9.3	318
1027	Exit Discharge Zone	#17	14*2 2.78' S	170*37.51' W	" "	50%	"	" "	9.5	322
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center SW End of Discharge SW-Slow Discharge Pattern Ellipse

Total Discharge Time: 195 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 5.33 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 94 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

N

170 39.60 W

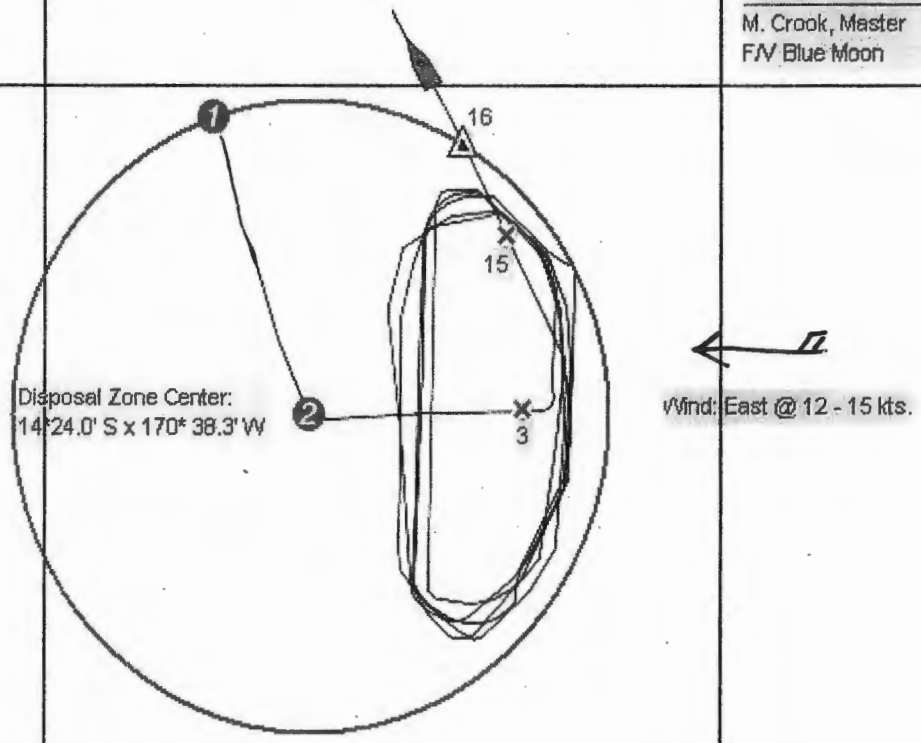
170 36.15 W

170 32.70 W

02 November, 2010 - Tues.
Voyage # 5359
Starkist, Trip #1

M. Crook, Master
F/V Blue Moon

4 22.50 S



4 25.95 S

N

170 39.60 W

170 36.15 W

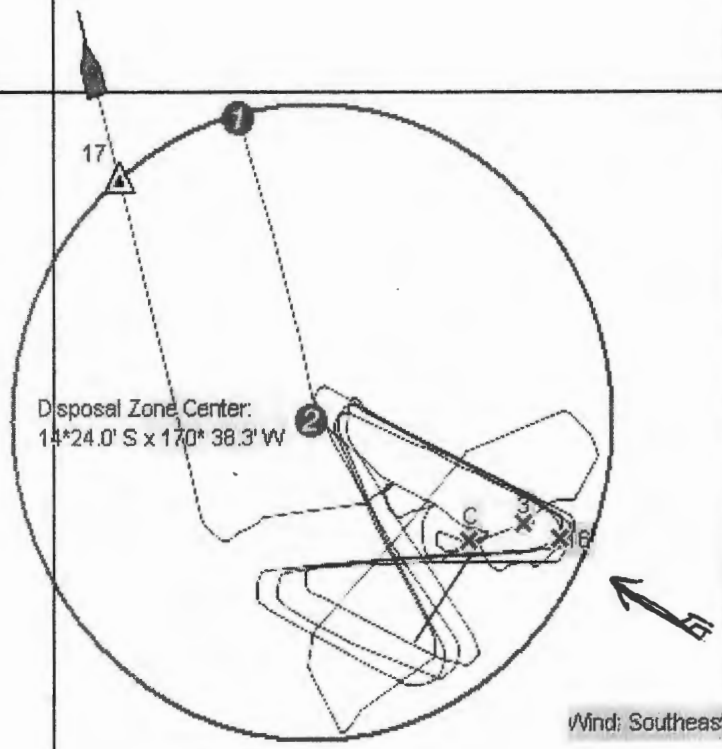
170 32.70 W

04 November, 2010 - Thurs.
Voyage # 5360
Starkist, Trip #1
** Ocean Monitoring/Sampling Conducted

M. Crook

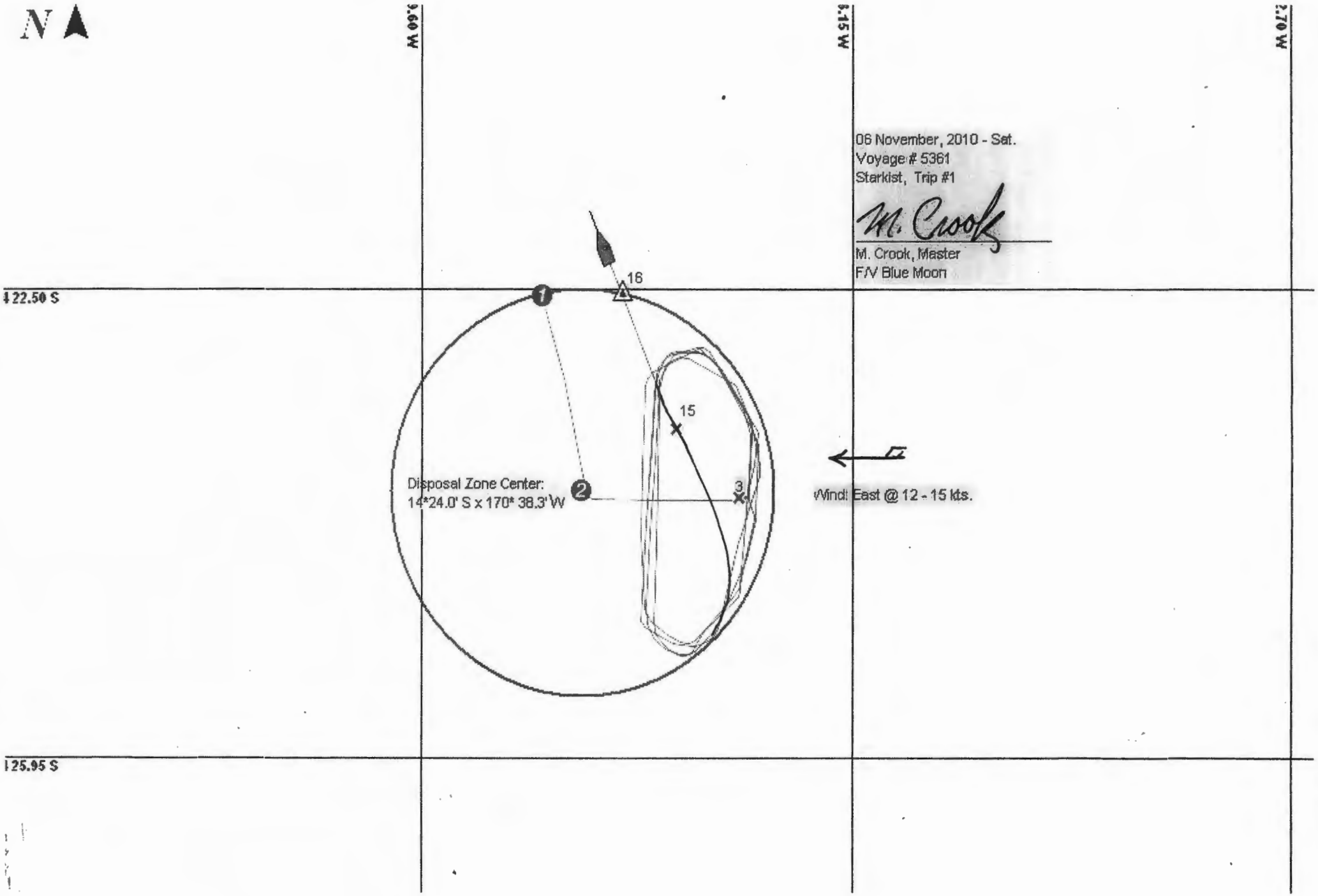
M. Crook, Master
F/V Blue Moon

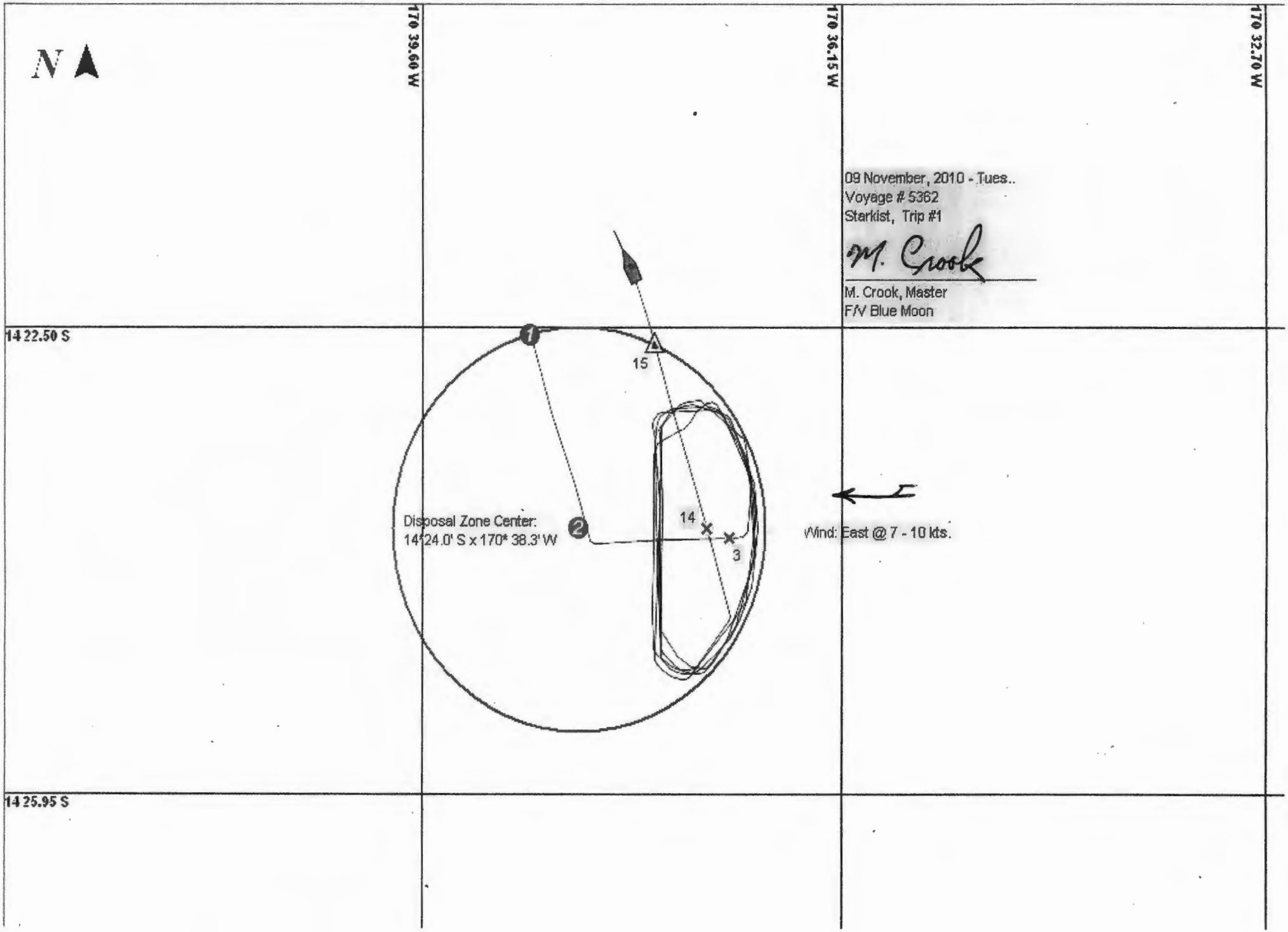
4 22.50 S

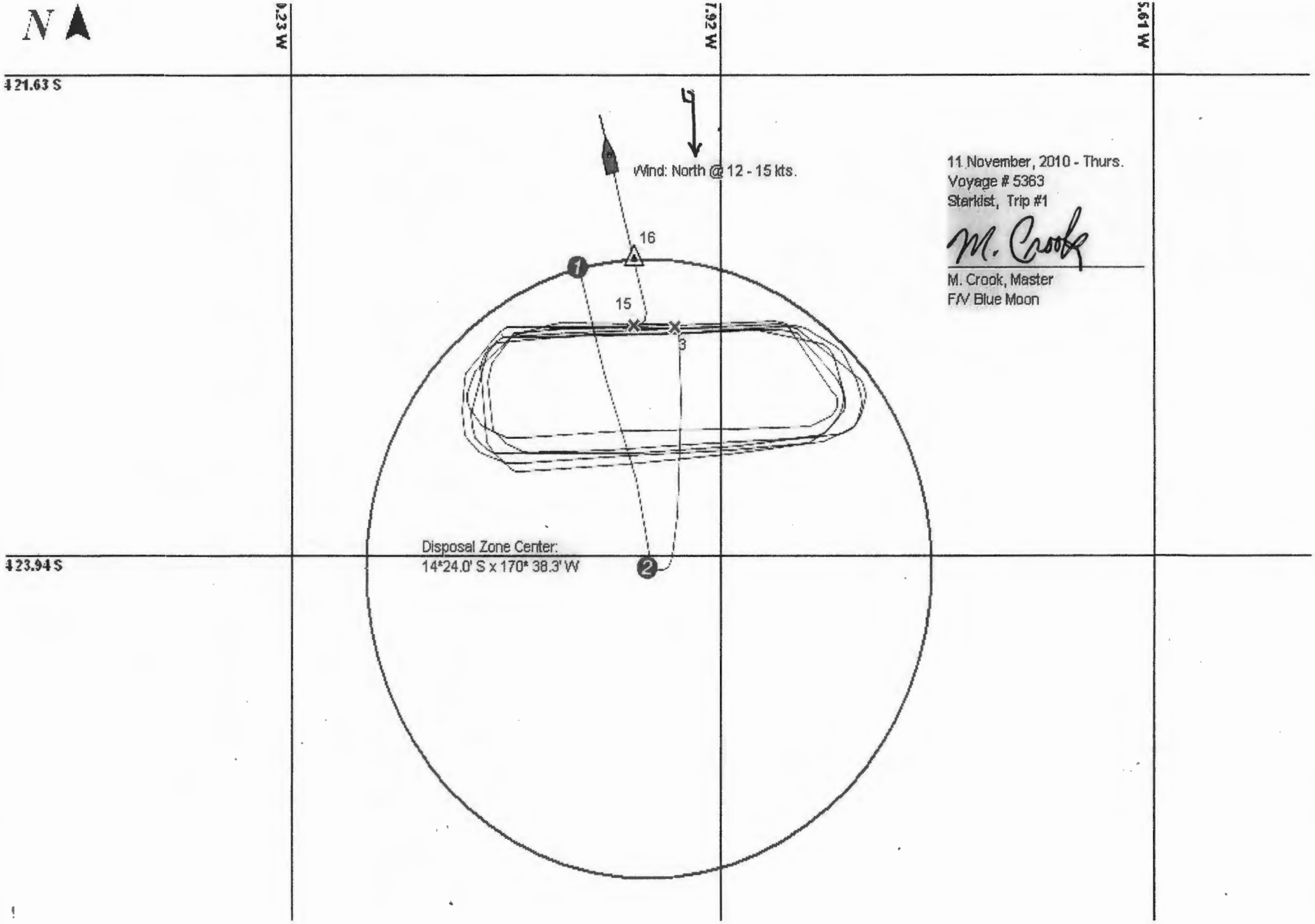


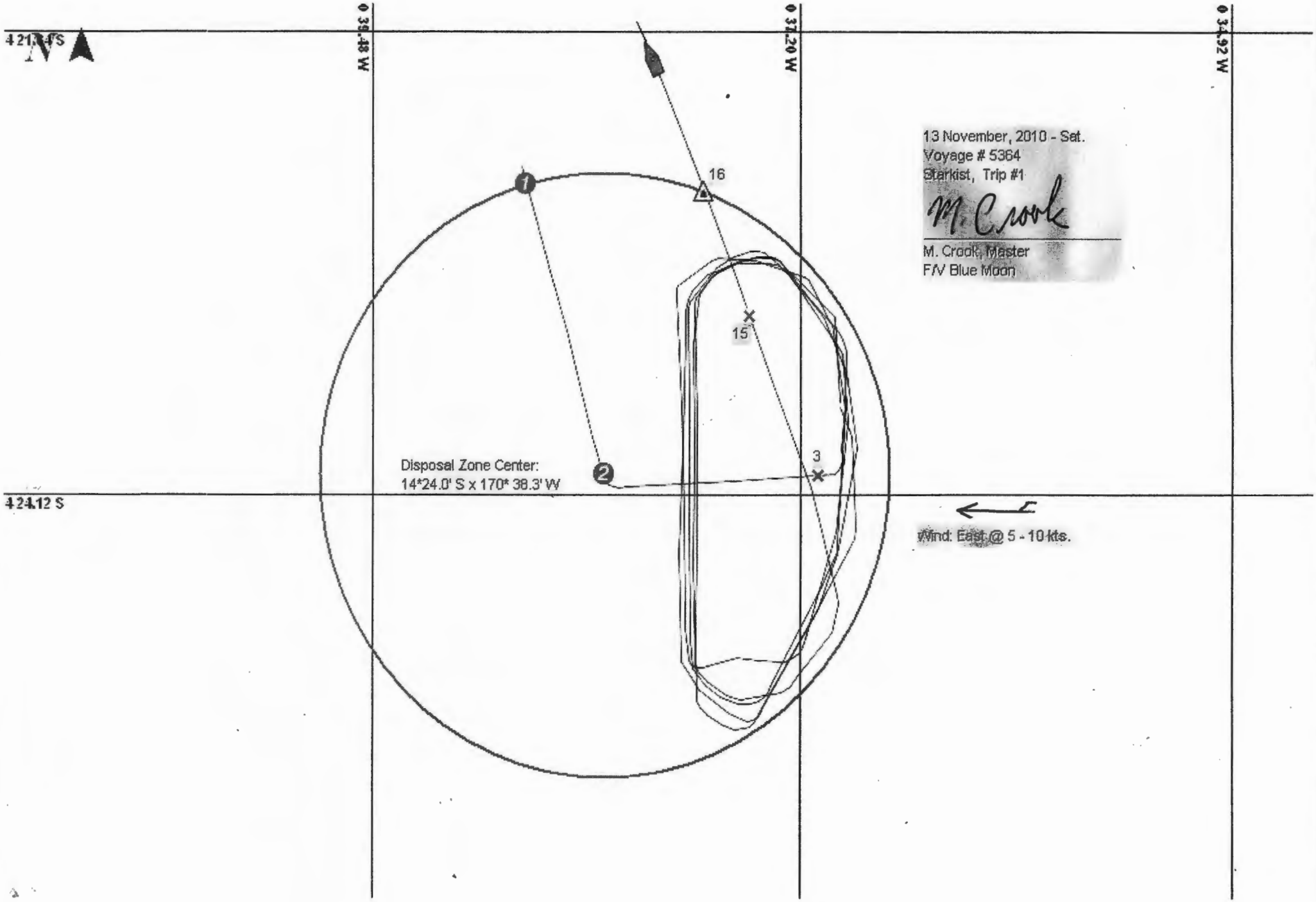
Wind: Southeast @ 20 - 25 kts.

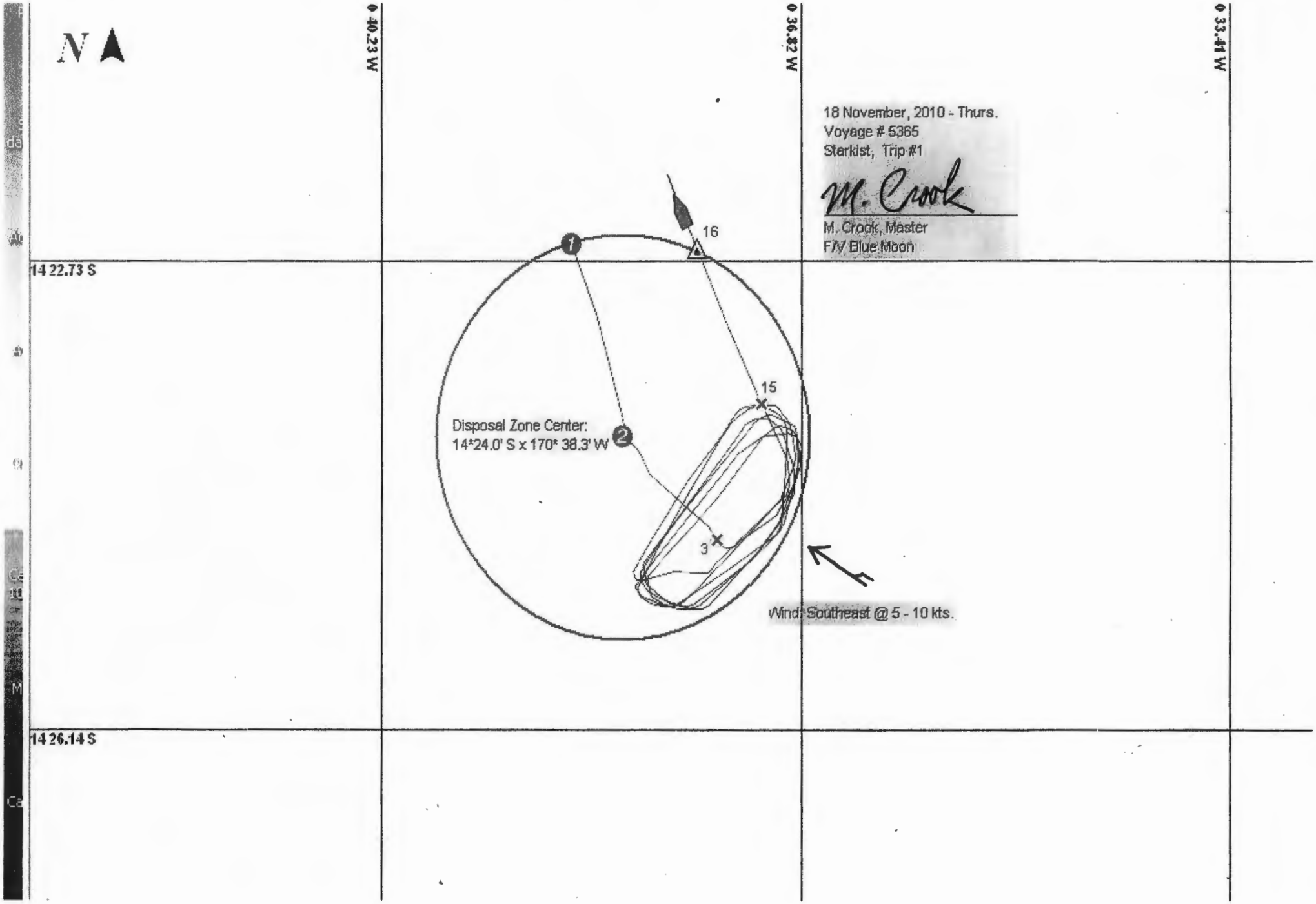
4 25.95 S

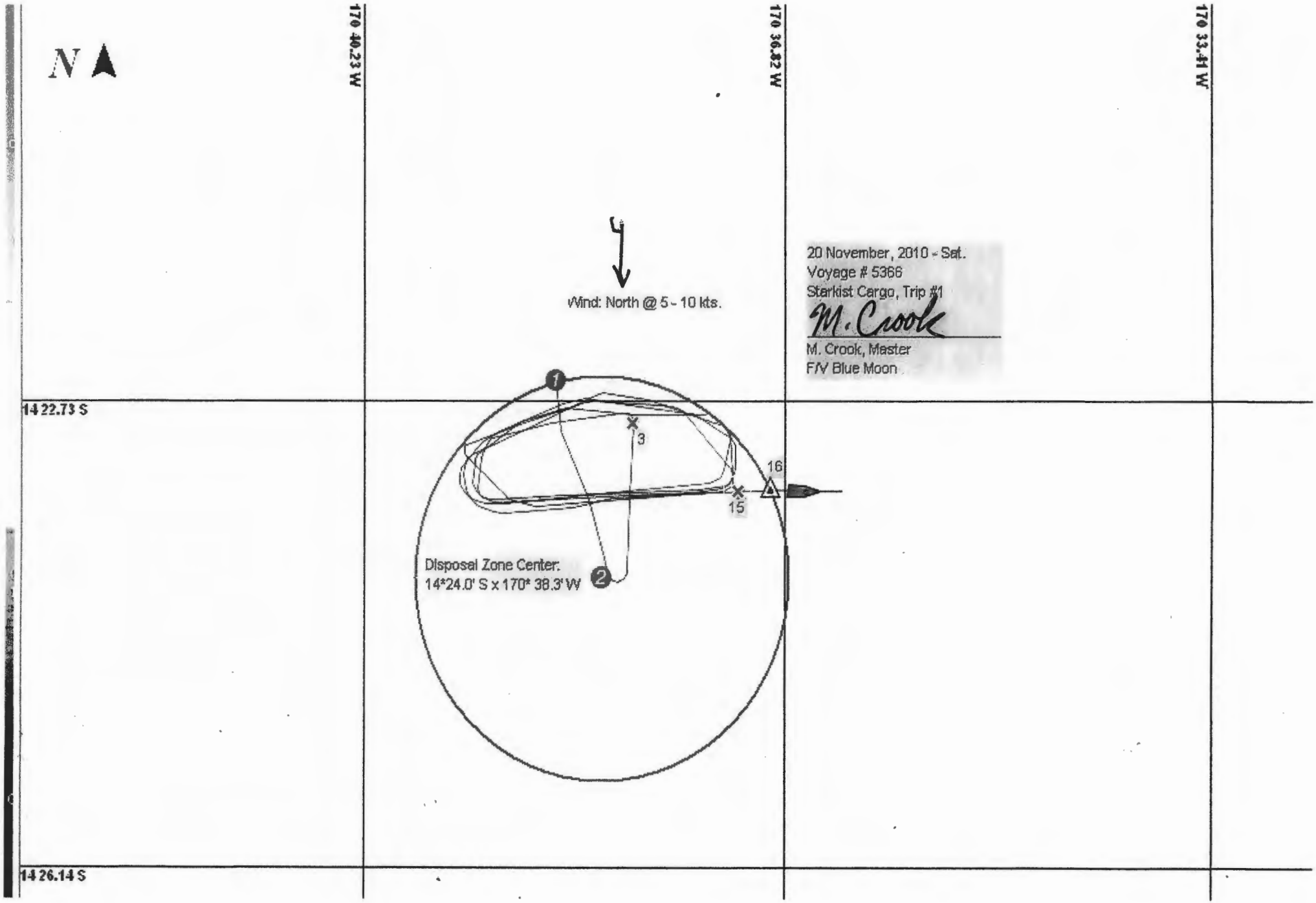

N
5.60 W
5.15 W
5.70 W
22.50 S
25.95 S
06 November, 2010 - Sat.
Voyage # 5361
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
16
15
1
2
3
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
Wind: East @ 12 - 15 kts.

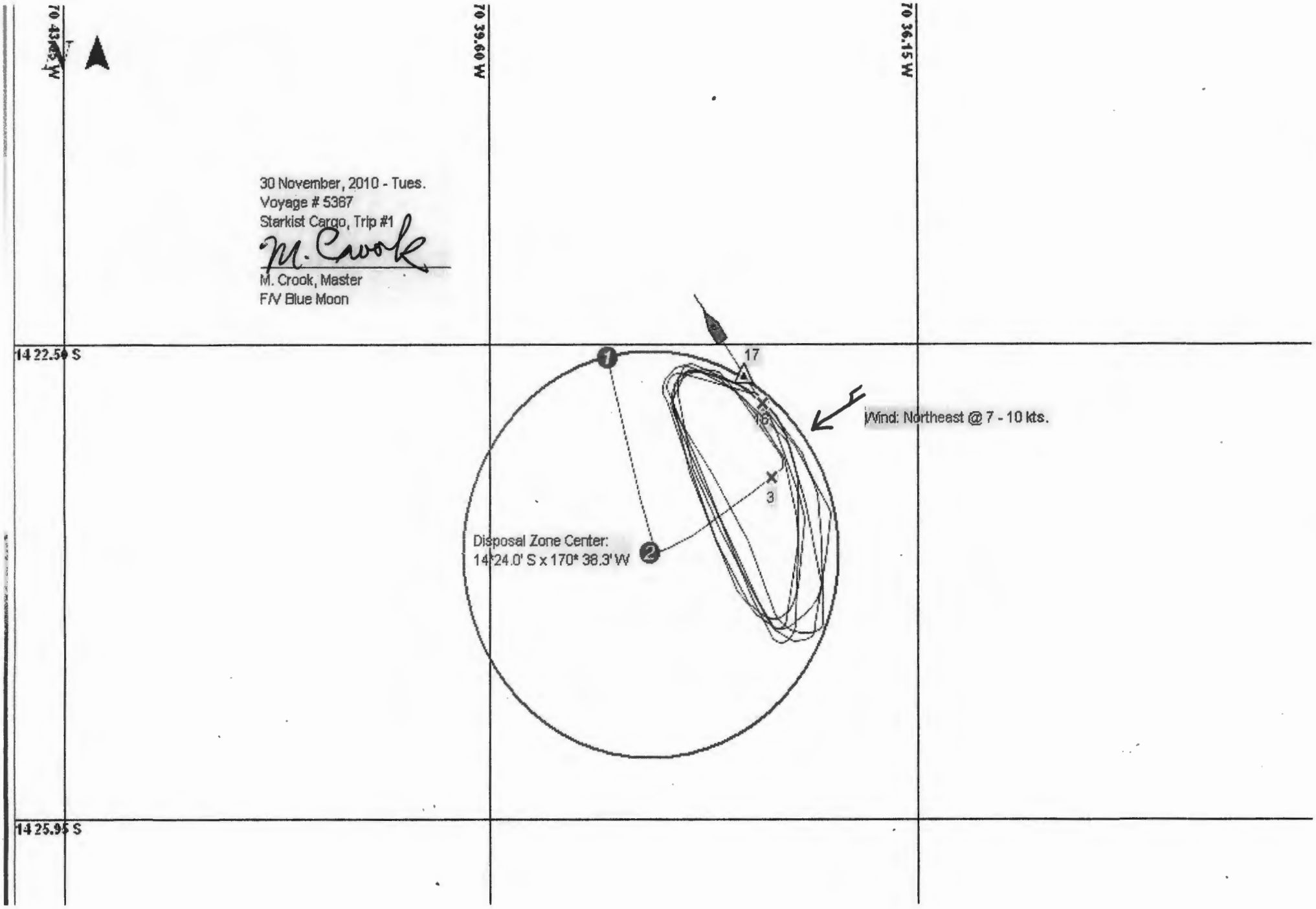

N
170 39.60 W
170 36.15 W
170 32.70 W
14 22.50 S
14 25.95 S
09 November, 2010 - Tues..
Voyage # 5362
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon
1
2
15
14
3
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: East @ 7 - 10 kts.


N
170.23 W
170.92 W
170.61 W
14 21.63 S
14 23.94 S
Wind: North @ 12 - 15 kts.
16
15
3
1
2
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
11 November, 2010 - Thurs.
Voyage # 5363
Starkist, Trip #1
M. Crook, Master
F/V Blue Moon


4 21.24 S
N
0 38.48 W
0 37.20 W
0 34.92 W
16
1
15
3
2
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
4 24.12 S
13 November, 2010 - Sat.
Voyage # 5364
Starkist, Trip #1
M. Crook
M. Crook, Master
F/V Blue Moon
Wind: East @ 5 - 10 kts.


N
0 40.23 W
0 36.82 W
0 33.41 W
14 22.73 S
14 26.14 S
18 November, 2010 - Thurs.
Voyage # 5365
Sterkist, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14*24.0' S x 170* 38.3' W
1
2
3
15
16
Wind: Southeast @ 5 - 10 kts.


N
170 40.23 W
170 36.82 W
170 33.41 W
14 22.73 S
14 26.14 S
Wind: North @ 5 - 10 kts.
20 November, 2010 - Sat.
Voyage # 5366
Starkist Cargo, Trip #1
M. Crook
M. Crook, Master
F/V Blue Moon
1
2
3
15
16
Disposal Zone Center:
14*24.0' S x 170* 38.3' W


70 43.45 W
70 39.60 W
70 36.15 W
14 22.50 S
14 25.95 S
30 November, 2010 - Tues.
Voyage # 5367
Starkist Cargo, Trip #1
M. Crook, Master
F/V Blue Moon
17
16
3
Wind: Northeast @ 7 - 10 kts.
Disposal Zone Center:
14°24.0' S x 170° 38.3' W

14

Ocean Disposal Site
Monitoring Report
(OD Permit 93-01 & 93-02)

02 December, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS/Samoa Packing	Craig Double
Determination of Sampling Positions:	All positions obtained by GPS Satellite Navigation

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
06 December, 2010

Introduction

On December 2, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dump-site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0605: The *Blue Moon* departed Pago Pago Harbor bound for the dump-site location with Master/Principal Investigator, Chief and Mate on board.

0655: The *Blue Moon* entered the dumpzone circle @ 14*22.6' S / 170*38.7' W.

0705: The *Blue Moon* arrived at the dump-zone center, where observed light northeasterly winds and slight east/SE seas initially indicated disposal operations be conducted in the northeastern dump-zone quadrant.

0715: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or northeast (NE) of the dump-zone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with station's position were recorded (Table 1). Seas at this time were slight with east & SE swells to1.0 meters and a light NE breeze of 5 knots with the barometer reading 29.56. Current set and drift, of the ship, were to the southwest at 0.4 knots. No floating materials or sea life were observed here.

0725: The *Blue Moon* began disposal operations in the NE dump zone quadrant and continued discharging material with a northwest to SE reciprocal, elongated elliptical pattern, approximately 2.25 miles long (see Plot 1) until 1005 hrs.

1010: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The NE winds had increased slightly to 10 knots with still, partly cloudy skies. The waste plume appeared here as an oblong body of moderate glassy surface sheen extending in a northwest (NW) to SE direction and moving to the southwest (SW). The current/wind drift of the ship was now GPS determined to be westerly @ 0.5 knots. No sea life or floatable materials

were observed.

1020: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position showed heavy glassy surface sheen but no floating or suspended particulate material. The average drift rate of the ship with current and wind was GPS determined to be southwesterly at 0.5 knots between stations 2 & 3 (See Plot #1). No sea-life was noted at this position.

1030: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position showed only some very light glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was again, 0.4 - 0.5 knots to the SW.

1040: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM SW of Station #3, showed the typical heavy glassy surface sheen characteristic of the waste plume and was within 0.25 NM from the visible leading edge of the plume. There were no floating or suspended materials. The SW current/drift rate of the ship was again noted here to be at 0.5 knots.

1050: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.45 NM south of the zone center (See Plot #1). The leading edge of the waste plume was clearly visible at this location as an area of heavy glassy surface sheen with clear, natural appearing blue waters further down-current to the southwest. Also present in this sheen, were fine, suspended particulate material extending down to the limit of water visibility as well as a few floating, golf ball sized blobs of a grease-like substance . All the above were brown to gray or ash colored. The final drift rate of the ship was noted to be 0.5 knots. Other than a few random seabirds flying by, no notable sea life was observed at this position or any of the previous stations, although a 10 kg. Wahoo was caught on trolling gear near the zone perimeter on the return. The final barometer reading was 29.52 when monitoring activities were concluded at 1100 hrs. The *Blue Moon* exited the disposal zone at 1115 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1205 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

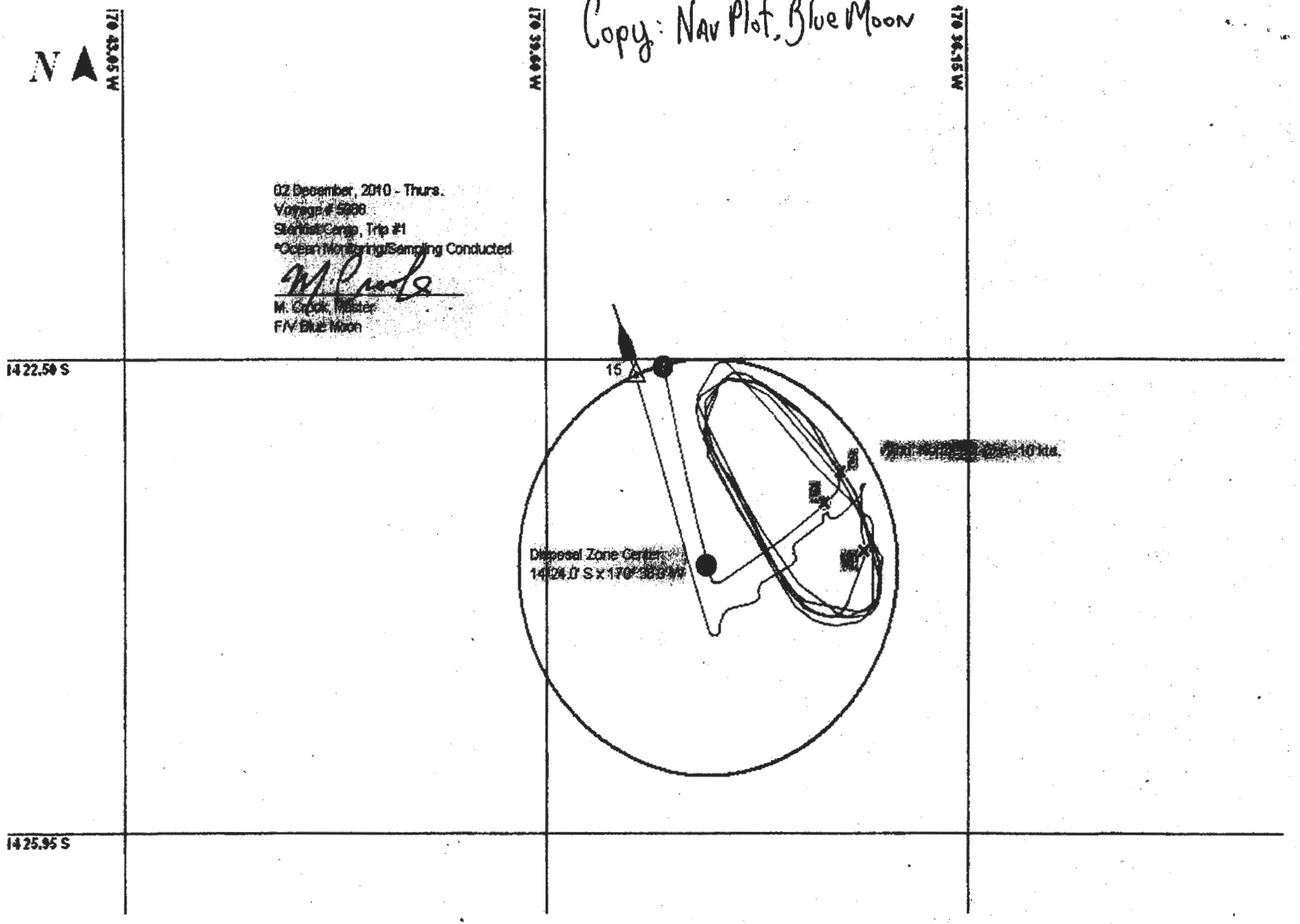
Table 1

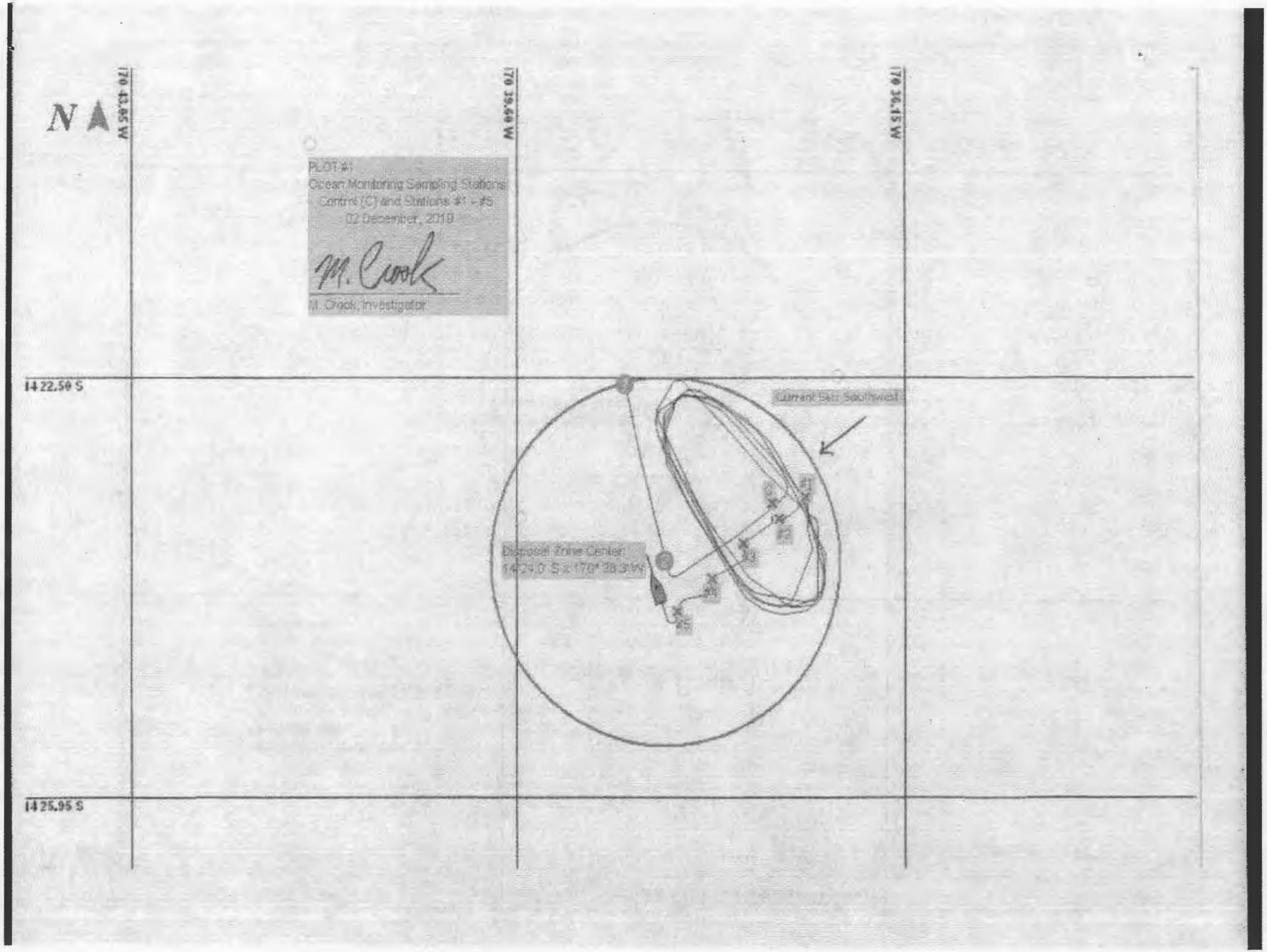
Date: 02 December 2010	Sea Conditions: Slight w/ South/Southeast swells to 1.0 meters. Wind: Northeast @ 5 - 10 knots Visibility: Good @ 6-10+ miles. Barometer: 29.53 – 29.57- 29.52 Current Set & Drift: Southwest @ average 0.5 knots Sky: Partly cloudy 25 - 60%.					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0715	Control	1	27.8	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	27.8	7.3		
		10	27.8	7.3		
1010	Station 1	1	28.9	7.3	None	Moderate glassy surface sheen over clear blue water. No floating or suspended materials or sea life.
		3	28.9	7.3		
		10	28.9	7.3		
1020	Station 2	1	28.9	7.3	Slightly Pungent	Heavy glassy surface sheen over clear blue water. No floating or suspended materials.
		3	28.3	7.3		
		10	28.3	7.3		
1030	Station 3	1	28.9	7.3	Slightly Pungent	Light glassy surface sheen over clear blue water at the center of the plume ellipse. No floating or suspended particulate materials present.
		3	28.9	7.3		
		10	28.9	7.3		
1040	Station 4	1	28.9	7.3	Pungent	Same characteristics as Station #2.
		3	28.9	7.3		
		10	28.9	7.3		
1050	Station 5	1	28.9	7.3	Pungent	The leading edge of the wastewater plume: Heavy surface sheen with fine, gray suspended particulate materials and several floating, golf ball sized blobs of greasy material.
		3	28.9	7.3		
		10	28.3	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 23.53'	South	170° 37.32'	West
Station 1	14° 23.43'	South	170° 37.00'	West
Station 2	14° 23.65'	South	170° 37.27'	West
Station 3	14° 23.87'	South	170° 37.57'	West
Station 4	14° 24.14'	South	170° 37.83'	West
Station 5	14° 24.39'	South	170° 38.15'	West

Copy: Nav Plot, Blue Moon




N
170 43.85 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
PLOT #1
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
02 December, 2010
M. Crook, Investigator
Current Set: Southwest
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
C
#1
#2
#3
#4
#5

Ocean Disposal Site
Monitoring Report
(OD Permit 93-01 & 93-02)

02 December, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS/Samoa Packing	Craig Double
Determination of Sampling Positions:	All positions obtained by GPS Satellite Navigation

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
06 December, 2010

Introduction

On December 2, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dump-site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0605: The *Blue Moon* departed Pago Pago Harbor bound for the dump-site location with Master/Principal Investigator, Chief and Mate on board.

0655: The *Blue Moon* entered the dumpzone circle @ 14*22.6' S / 170*38.7' W.

0705: The *Blue Moon* arrived at the dump-zone center, where observed light northeasterly winds and slight east/SE seas initially indicated disposal operations be conducted in the northeastern dump-zone quadrant.

0715: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or northeast (NE) of the dump-zone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with station's position were recorded (Table 1). Seas at this time were slight with east & SE swells to1.0 meters and a light NE breeze of 5 knots with the barometer reading 29.56. Current set and drift, of the ship, were to the southwest at 0.4 knots. No floating materials or sea life were observed here.

0725: The *Blue Moon* began disposal operations in the NE dump zone quadrant and continued discharging material with a northwest to SE reciprocal, elongated elliptical pattern, approximately 2.25 miles long (see Plot 1) until 1005 hrs.

1010: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The NE winds had increased slightly to 10 knots with still, partly cloudy skies. The waste plume appeared here as an oblong body of moderate glassy surface sheen extending in a northwest (NW) to SE direction and moving to the southwest (SW). The current/wind drift of the ship was now GPS determined to be westerly @ 0.5 knots. No sea life or floatable materials

were observed.

1020: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position showed heavy glassy surface sheen but no floating or suspended particulate material. The average drift rate of the ship with current and wind was GPS determined to be southwesterly at 0.5 knots between stations 2 & 3 (See Plot #1). No sea-life was noted at this position.

1030: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position showed only some very light glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was again, 0.4 - 0.5 knots to the SW.

1040: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM SW of Station #3, showed the typical heavy glassy surface sheen characteristic of the waste plume and was within 0.25 NM from the visible leading edge of the plume. There were no floating or suspended materials. The SW current/drift rate of the ship was again noted here to be at 0.5 knots.

1050: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.45 NM south of the zone center (See Plot #1). The leading edge of the waste plume was clearly visible at this location as an area of heavy glassy surface sheen with clear, natural appearing blue waters further down-current to the southwest. Also present in this sheen, were fine, suspended particulate material extending down to the limit of water visibility as well as a few floating, golf ball sized blobs of a grease-like substance . All the above were brown to gray or ash colored. The final drift rate of the ship was noted to be 0.5 knots. Other than a few random seabirds flying by, no notable sea life was observed at this position or any of the previous stations, although a 10 kg. Wahoo was caught on trolling gear near the zone perimeter on the return. The final barometer reading was 29.52 when monitoring activities were concluded at 1100 hrs. The *Blue Moon* exited the disposal zone at 1115 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1205 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

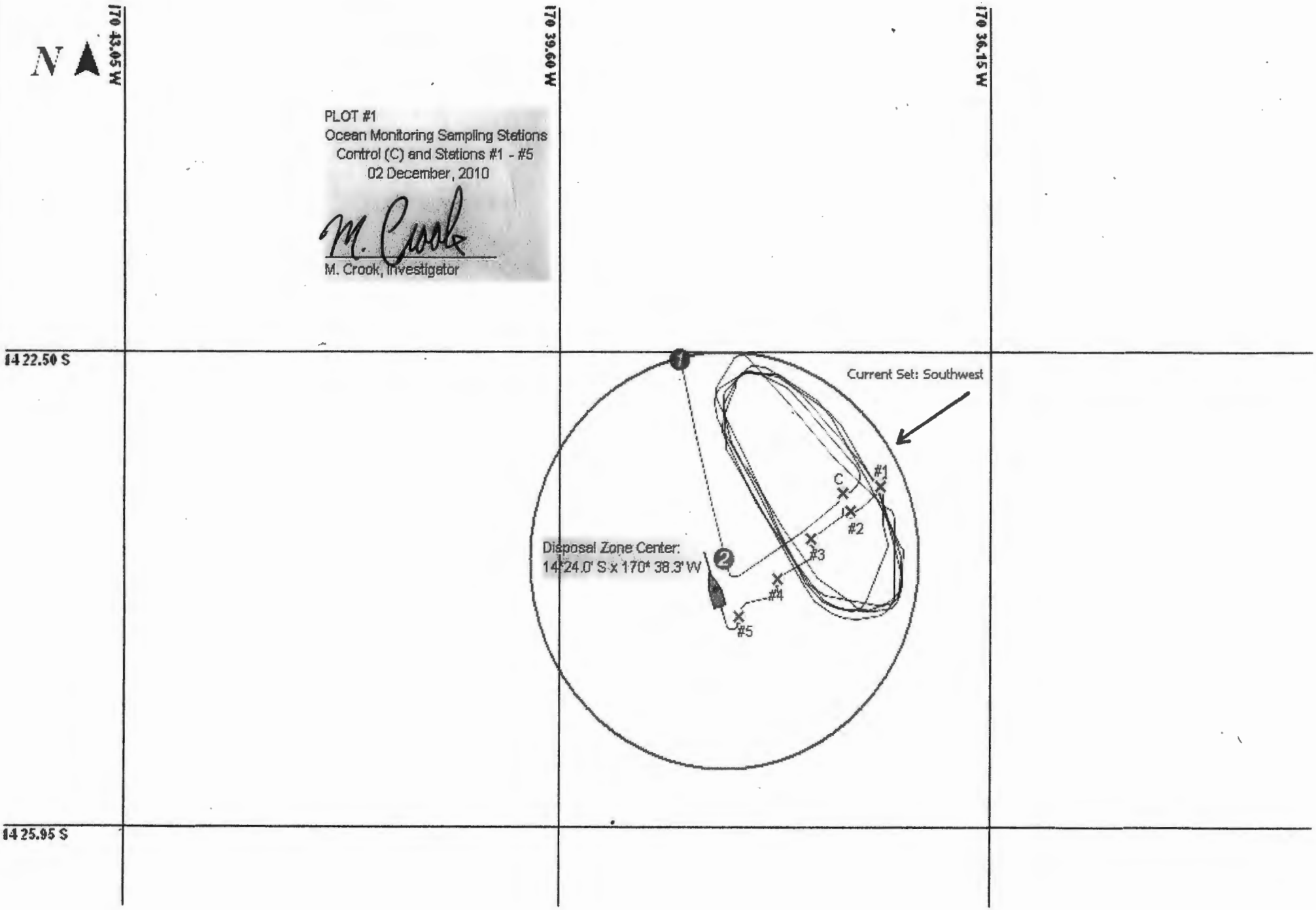
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 02 December 2010	Sea Conditions: Slight w/ South/Southeast swells to 1.0 meters. Wind: Northeast @ 5 - 10 knots Visibility: Good @ 6-10+ miles. Barometer: 29.53 – 29.57- 29.52 Current Set & Drift: Southwest @ average 0.5 knots Sky: Partly cloudy 25 - 60%.					
Time	**Station**	**Depth (meters)**	**Temp. (°C)**	**pH**	**Odor**	**Color**
0715	Control	1	27.8	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	27.8	7.3		
		10	27.8	7.3		
1010	Station 1	1	28.9	7.3	None	Moderate glassy surface sheen over clear blue water. No floating or suspended materials or sea life.
		3	28.9	7.3		
		10	28.9	7.3		
1020	Station 2	1	28.9	7.3	Slightly Pungent	Heavy glassy surface sheen over clear blue water. No floating or suspended materials.
		3	28.3	7.3		
		10	28.3	7.3		
1030	Station 3	1	28.9	7.3	Slightly Pungent	Light glassy surface sheen over clear blue water at the center of the plume ellipse. No floating or suspended particulate materials present.
		3	28.9	7.3		
		10	28.9	7.3		
1040	Station 4	1	28.9	7.3	Pungent	Same characteristics as Station #2.
		3	28.9	7.3		
		10	28.9	7.3		
1050	Station 5	1	28.9	7.3	Pungent	The leading edge of the wastewater plume: Heavy surface sheen with fine, gray suspended particulate materials and several floating, golf ball sized blobs of greasy material.
		3	28.9	7.3		
		10	28.3	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 23.53'	South	170° 37.32'	West
Station 1	14° 23.43'	South	170° 37.00'	West
Station 2	14° 23.65'	South	170° 37.27'	West
Station 3	14° 23.87'	South	170° 37.57'	West
Station 4	14° 24.14'	South	170° 37.83'	West
Station 5	14° 24.39'	South	170° 38.15'	West


N
170 43.05 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
PLOT #1
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
02 December, 2010
M. Crook, Investigator
Current Set: Southwest
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
C
#1
#2
#3
#4
#5

Copy: Nav Plot, Blue Moon

N

170 43.05 W

170 39.60 W

170 36.15 W

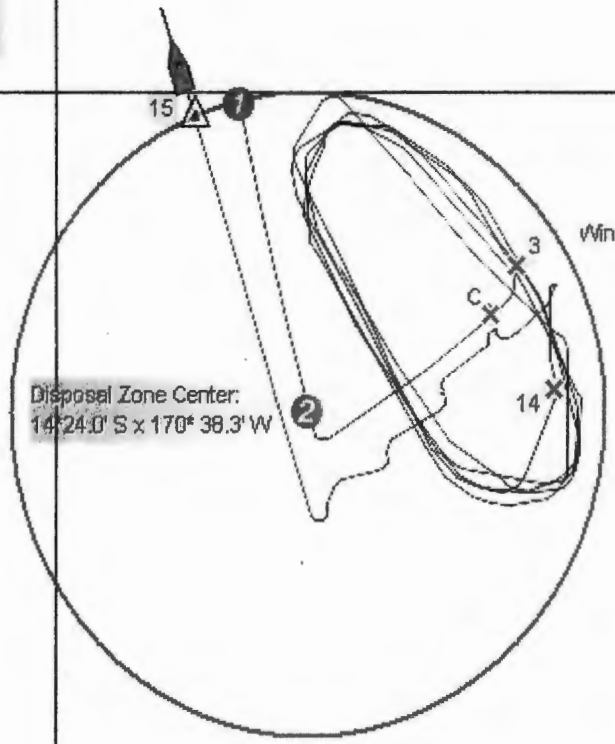
14 22.50 S

14 25.95 S

02 December, 2010 - Thurs.
Voyage # 5368
Starkist Cargo, Trip #1
*Ocean Monitoring/Sampling Conducted

M. Crook

M. Crook, Master
F/V Blue Moon



Ocean Disposal Site
Monitoring Report
(OD Permit 93-01 & 93-02)

02 December, 2010

Monitoring Vessel:	F/V Blue Moon
Discharge Vessel:	F/V Blue Moon
Chief Investigator:	Mike Crook
Starkist Samoa Liaison:	Joe Carney
COS/Samoa Packing	Craig Double
Determination of Sampling Positions:	All positions obtained by GPS Satellite Navigation

Mike Crook
P.O. Box 4933
Pago Pago, AS 96799
06 December, 2010

Introduction

On December 2, 2010 the tank-ship *Blue Moon* departed Starkist Samoa dock bound for the designated ocean dump-site area approximately seven miles south of Pago Pago Harbor, American Samoa, on a routine wastewater disposal operation and for the purpose of monitoring this disposal of tuna cannery generated hi-strength liquid wastes into the waters of the Pacific Ocean. This monitoring and reporting were conducted in compliance with general permit conditions and Appendix A of Ocean Dumping Permits OD 93-01 & OD 93-02.

Chronology of Events

0605: The *Blue Moon* departed Pago Pago Harbor bound for the dump-site location with Master/Principal Investigator, Chief and Mate on board.

0655: The *Blue Moon* entered the dumpzone circle @ 14*22.6' S / 170*38.7' W.

0705: The *Blue Moon* arrived at the dump-zone center, where observed light northeasterly winds and slight east/SE seas initially indicated disposal operations be conducted in the northeastern dump-zone quadrant.

0715: Control Station Monitoring. The *Blue Moon* arrived 1.1 nautical miles (NM) up-current or northeast (NE) of the dump-zone center, where discrete seawater samples were taken from depths of 1, 3, and 10 meters. Water temperatures, color, pH and observed sea/sky conditions with station's position were recorded (Table 1). Seas at this time were slight with east & SE swells to1.0 meters and a light NE breeze of 5 knots with the barometer reading 29.56. Current set and drift, of the ship, were to the southwest at 0.4 knots. No floating materials or sea life were observed here.

0725: The *Blue Moon* began disposal operations in the NE dump zone quadrant and continued discharging material with a northwest to SE reciprocal, elongated elliptical pattern, approximately 2.25 miles long (see Plot 1) until 1005 hrs.

1010: Station One Monitoring. Discrete water samples were drawn from depths of 1, 3, and 10 meters. Water temperatures, pH, stations' position and water color observations were all recorded in Table 1. The NE winds had increased slightly to 10 knots with still, partly cloudy skies. The waste plume appeared here as an oblong body of moderate glassy surface sheen extending in a northwest (NW) to SE direction and moving to the southwest (SW). The current/wind drift of the ship was now GPS determined to be westerly @ 0.5 knots. No sea life or floatable materials

were observed.

1020: Station Two Monitoring. Station two was sampled with the same procedures as station one with measurements and observations being recorded in Table 1. This position showed heavy glassy surface sheen but no floating or suspended particulate material. The average drift rate of the ship with current and wind was GPS determined to be southwesterly at 0.5 knots between stations 2 & 3 (See Plot #1). No sea-life was noted at this position.

1030: Station Three Monitoring. Seawater samples were collected and measurements taken as with Stations 1 & 2. This position showed only some very light glassy surface sheen over clear blue water. The drift rate of the ship between Stations #3 & 4 was again, 0.4 - 0.5 knots to the SW.

1040: Station Four monitoring. Standard sampling procedures were again carried out as in previous stations. This position, 0.25 NM SW of Station #3, showed the typical heavy glassy surface sheen characteristic of the waste plume and was within 0.25 NM from the visible leading edge of the plume. There were no floating or suspended materials. The SW current/drift rate of the ship was again noted here to be at 0.5 knots.

1050: Station Five monitoring. Sampling for this final station was conducted at the visual leading edge of the waste plume and approximately 0.45 NM south of the zone center (See Plot #1). The leading edge of the waste plume was clearly visible at this location as an area of heavy glassy surface sheen with clear, natural appearing blue waters further down-current to the southwest. Also present in this sheen, were fine, suspended particulate material extending down to the limit of water visibility as well as a few floating, golf ball sized blobs of a grease-like substance . All the above were brown to gray or ash colored. The final drift rate of the ship was noted to be 0.5 knots. Other than a few random seabirds flying by, no notable sea life was observed at this position or any of the previous stations, although a 10 kg. Wahoo was caught on trolling gear near the zone perimeter on the return. The final barometer reading was 29.52 when monitoring activities were concluded at 1100 hrs. The *Blue Moon* exited the disposal zone at 1115 hours and arrived back in Pago Pago Harbor to deliver the collected samples to the Starkist Samoa Co. laboratory at 1205 hours.

Prepared by M. Crook
Mike Crook, Principal Investigator

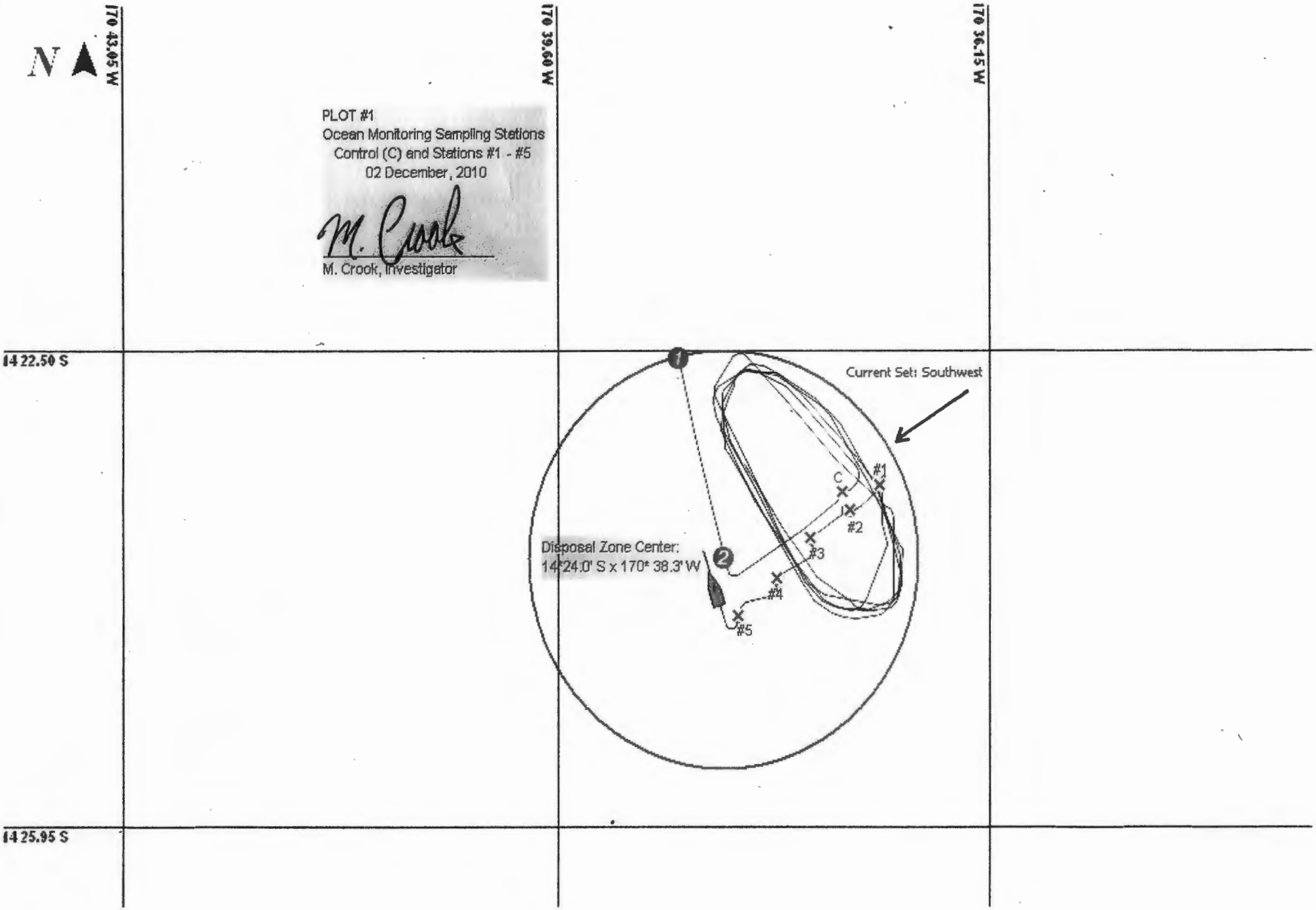
OCEAN DUMPING RESEARCH PERMIT: OD-93-01 & 02

Table 1

Date: 02 December 2010	Sea Conditions: Slight w/ South/Southeast swells to 1.0 meters. Wind: Northeast @ 5 - 10 knots Visibility: Good @ 6-10+ miles. Barometer: 29.53 – 29.57- 29.52 Current Set & Drift: Southwest @ average 0.5 knots Sky: Partly cloudy 25 - 60%.					
Time	Station	Depth (meters)	Temp. (°C)	pH	Odor	Color
0715	Control	1	27.8	7.3	None	Clear and natural deep pelagic blue w/ no floating or suspended materials.
		3	27.8	7.3		
		10	27.8	7.3		
1010	Station 1	1	28.9	7.3	None	Moderate glassy surface sheen over clear blue water. No floating or suspended materials or sea life.
		3	28.9	7.3		
		10	28.9	7.3		
1020	Station 2	1	28.9	7.3	Slightly Pungent	Heavy glassy surface sheen over clear blue water. No floating or suspended materials.
		3	28.3	7.3		
		10	28.3	7.3		
1030	Station 3	1	28.9	7.3	Slightly Pungent	Light glassy surface sheen over clear blue water at the center of the plume ellipse. No floating or suspended particulate materials present.
		3	28.9	7.3		
		10	28.9	7.3		
1040	Station 4	1	28.9	7.3	Pungent	Same characteristics as Station #2.
		3	28.9	7.3		
		10	28.9	7.3		
1050	Station 5	1	28.9	7.3	Pungent	The leading edge of the wastewater plume: Heavy surface sheen with fine, gray suspended particulate materials and several floating, golf ball sized blobs of greasy material.
		3	28.9	7.3		
		10	28.3	7.3		

SAMPLE STATIONS POSITIONS

	LATITUDE		LONGITUDE	
Control-C	14° 23.53'	South	170° 37.32'	West
Station 1	14° 23.43'	South	170° 37.00'	West
Station 2	14° 23.65'	South	170° 37.27'	West
Station 3	14° 23.87'	South	170° 37.57'	West
Station 4	14° 24.14'	South	170° 37.83'	West
Station 5	14° 24.39'	South	170° 38.15'	West


N
170 43.05 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
PLOT #1
Ocean Monitoring Sampling Stations
Control (C) and Stations #1 - #5
02 December, 2010
M. Crook, Investigator
Current Set: Southwest
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
1
2
C
#1
#2
#3
#4
#5

Copy: Nav Plot, Blue Moon

N

170 43.05 W

170 39.60 W

170 36.15 W

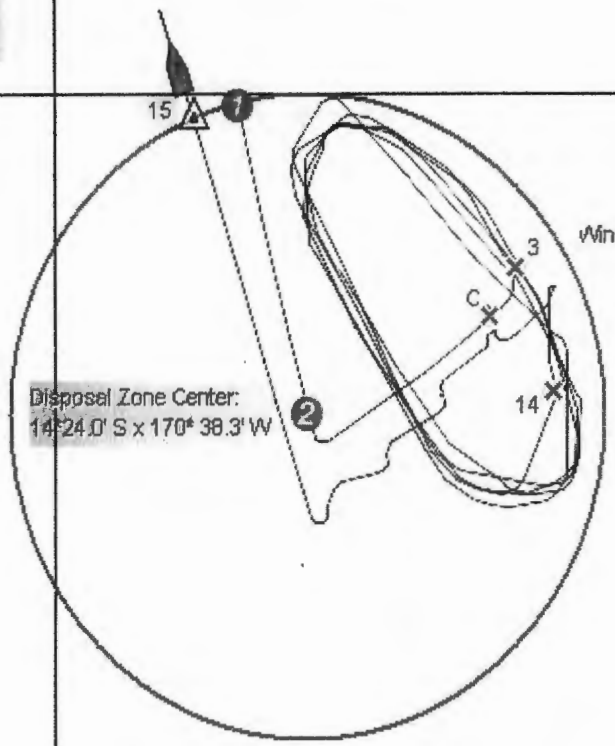
14 22.50 S

14 25.95 S

02 December, 2010 - Thurs.
Voyage # 5368
Starkist Cargo, Trip #1
*Ocean Monitoring/Sampling Conducted

M. Crook

M. Crook, Master
F/V Blue Moon



Wind: Northeast @ 5 - 10 kts.

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON December, 2010

NUMBER OF TRIPS:	Starkist	Other	Joint	TOTAL:
	8	0	0	**8**

GALLONS-FOR THE MONTH:	Starkist	Other	Joint	TOTAL:
	1,163,750	0	0	**1,163,750**

GALLONS FOR SOLO TRIPS:	Starkist	Other
	1,163,750	**0**

RUNNING TIME ON TRIPS: **41.1 hrs.**

DISCHARGE TIME ON TRIPS: **22.66 hrs.**

AV. GPM DISCHARGE RATE: **95.8 gal/min//kt**

AV. TRIP TIME: **5.14 hrs.**

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

Starkist	Other
100.00%	**0.00%**

MASTER : M. Crook

M. Crook

Date: 12/02/10 Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5368

Permit # OD 93-01 & OD 93-02

	Time	
1/30	2015	Begin 1st Loading SK
	2100	Finish 1st Loading SK
2/1	1600	Begin 2nd Loading SK
	2120	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded: SK 155,000 Gallons; Other 0 Gallons; Total 155,000 Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	60	29.53			
0655	Arrive Edge of Zone	# 1	14*22.57' S	170*38.68' W	NE-5	"	29.55	S+SE to 1.0	8.7	166
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.56	" "	8.7	161
0725	Begin Discharge	# 3	14*23.46' S	170*37.22' W	" "	"	"	" " X	7.9	350
40		# 4	14*23.65' S	170*37.91' W	" "	"	"	" "	8.6	141
55	Remarks:	# 5	14*23.50' S	170*37.11' W	" "	"	"		9.1	328
0810	Ocean Monitoring	# 6	14*23.16' S	170*38.25' W	" "	50	29.57		8.5	147
25	Control Station	# 7	14*24.24' S	170*36.88' W	" "	"	"	5	8.2	000
40	Samples drawn	# 8	14*22.57' S	170*37.94' W	" "	"	"		9.1	281
55	at 0715 hours	# 9	14*24.21' S	170*36.88' W	NE-7	40	29.55		8.8	359
0910	14°23.53' S	# 10	14*22.84' S	170*37.65' W	" "	"			9.2	301
25	170°37.32' W	# 11	14*24.17' S	170*37.66' W	" "	30			9.1	142
40		# 12	14*23.24' S	170*37.43' W	NE-10	"	29.53	10	9.5	309
55		# 13	14*23.85' S	170*37.82' W	" "	20	"		9.3	149
1010		# 14	14*2 S	170*3 W						
25		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1005	Finish Discharge	# 14	14*24.01 S	170*36.99 W	NE-10	25%	29.53	" "	9.1	011
1115	Exit Discharge Zone	# 15	14*22.73 S	170*38.84 W	NE-7	"	29.52	S+SE-1.0	9.4	336
1205	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center Southwest (SW) End of Discharge SW Discharge Pattern Ellipse

Total Discharge Time: 160 mins. Average Speed During Discharge: 8.86 kts. Total Time Run 6.0 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 109 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 12/04/10 sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5369

Permit # OD 93-01 & OD 93-02

Time		
1415	Begin 1st Loading SK	
2100	Finish 1st Loading SK	
/	Begin 2nd Loading SK	
/	Finish 2nd Loading SK	

Trip # 1 - X

Trip # 2

Volume Loaded:			
	SK	158,756	Gallons
	Other	0	Gallons
	Total	158,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0600	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	75	29.54			
0650	Arrive Edge of Zone	# 1	14*22.52' S	170*38.68 W	NE-10	60	"	E+SE-1.0	8.9	163
0700	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	50	"	" "	8.8	162
0710	Begin Discharge	# 3	14*23.50' S	170*37.34' W	" "	"	29.53	" " X	8.9	045
" 25		# 4	14*23.52' S	170*37.84' W	" "	"	29.52		8.9	144
" 40	Remarks:	# 5	14*24.05' S	170*36.86' W	" "	"	"		8.7	351
" 55		# 6	14*23.22' S	170*38.03' W	" "	"	"		8.6	148
0810		# 7	14*24.30' S	170*36.94' W	" "	"	"	5	8.8	003
25		# 8	14*22.78' S	170*37.85' W	" "	40	"		8.7	273
40		# 9	14*24.21' S	170*37.48' W		"	"		9.1	142
55		# 10	14*22.96' S	170*37.40' W		"	"		9.2	313
0910		# 11	14*23.98' S	170*37.58' W		"	"		9.2	148
25		# 12	14*23.22' S	170*37.27' W		50	29.53	10	9.4	319
40		# 13	14*23.69' S	170*37.78' W		"	"		9.2	145
55		# 14	14*23.23' S	170*37.19' W		60	"		9.5	324
1010		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1002	Finish Discharge	#15	14*22.71' S	170*37.66 W	NE-10	60	29.53	E+SE-1.0	9.3	323
1002	Exit Discharge Zone	#16	14*22.70' S	170*37.58 W	" "	"	"	" "	9.6	327
1055	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center SW End of Discharge SW Discharge Pattern Ellipse

Total Discharge Time: 172 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 4.9 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 102.5 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 12/07/10 Tues

F/V Blue Moon Ocean Dumping Log

Voyage #: 5370

Permit # OD 93-01 & OD 93-02

	Time	
12/6	1945	Begin 1st Loading SK
	2145	Finish 1st Loading SK
	0000	Begin 2nd Loading SK
12/7	0300	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:		
SK	135,000	Gallons
Other	0	Gallons
Total	135,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	East-10	60	29.55			
0655	Arrive Edge of Zone	# 1	14*22.56 S	170*38.65' W	East-15	90	29.59	E+SE-1.5	9.2	163
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	80	"	" "	9.0	161
0715	Begin Discharge	# 3	14*24.04' S	170*37.21' W	" "	90	"	X	8.4	090
" 30		# 4	14*23.45' S	170*37.71' W	" "	100	"		8.9	178
" 45	Remarks:	# 5	14*24.82' S	170*37.08' W	" "	Rain-100	"		8.5	021
0800		# 6	14*23.11' S	170*37.29' W	" "	90	"		8.7	311
" 15		# 7	14*25.02' S	170*37.60' W		"		5	8.8	132
" 30		# 8	14*23.33' S	170*37.05' W		100			8.6	324
" 45		# 9	14*24.39' S	170*37.71' W	East-12	"			8.7	178
0900		# 10	14*23.98' S	170*36.89' W	" "	"			8.8	009
" 15		# 11	14*24.33' S	170*37.73' W		"			9.5	180
" 30		# 12	14*24.50' S	170*37.06' W		"		10	9.0	006
" 45		# 13	14*23.47' S	170*37.58' W		95			9.4	188
1000		# 14	14*24.68' S	170*37.64' W		"			9.1	356
" 15		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1010	Finish Discharge	#15	14*23.39' S	170*37.79' W	East-12	95%	29.59	E+SE-1.5	9.2	346
1015	Exit Discharge Zone	#16	14*22.56' S	170*38.12' W	" "	"	29.57	" "	9.4	331
1105	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 5.0 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 87 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crooks

Date: 12/09/10 Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5371

Permit # OD 93-01 & OD 93-02

Time	
1645	Begin 1st Loading SK
2130	Finish 1st Loading SK
/	Begin 2nd Loading SK
	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:		
SK	136,250	Gallons
Other	0	Gallons
Total	136,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	90	29.53			
0653	Arrive Edge of Zone	# 1	14*22.54' S	170*38.66' W	East-10	75	29.54	E+SE-1.0	8.7	164
0703	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" " "	8.7	158
0713	Begin Discharge	# 3	14*24.04' S	170*37.23' W	" "	60	"	" " X	8.4	090
" 28		# 4	14*23.78' S	170*37.75' W		"	"	" "	9.1	181
" 43	Remarks:	# 5	14*24.76' S	170*37.08' W	East-12	"	"	" "	8.5	039
" 58		# 6	14*23.28' S	170*37.45' W	" "	"	"		8.9	178
0813		# 7	14*25.05' S	170*37.34' W	" "	"	"	5	8.4	044
" 28		# 8	14*23.10' S	170*37.48' W	East-15	"	"		8.9	236
" 43		# 9	14*24.81' S	170*37.75' W	" "	"	"		9.1	179
" 58		# 10	14*23.58' S	170*36.96' W	" "	50	"		8.8	356
0913		# 11	14*24.43' S	170*37.65' W	" "	"	"		9.6	180
" 28		# 12	14*23.70' S	170*36.98' W	" "	"	"	10	9.0	355
" 43		# 13	14*24.46' S	170*37.76' W	" "	"	"		9.5	177
" 58		# 14	14*23.91' S	170*36.99 W	" "		"		9.1	001
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1005	Finish Discharge	#15	14*23.10' S	170*37.30' W	East-15	50%	29.54	E+SE-1.0	9.2	328
1008	Exit Discharge Zone	#16	14*22.77' S	170*37.49' W	" "	"	" "	" "	9.1	331
1105	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 172 mins. Average Speed During Discharge: 8.95 kts. Total Time Run 5.0 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 88.5 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Carr

Date: 12/11/10 Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5372

Permit # OD 93-01 & OD 93-02

	Time	
12/10	1500	Begin 1st Loading SK
	2130	Finish 1st Loading SK
	/	Begin 2nd Loading SK
	/	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:		
SK	155,500	Gallons
Other	0	Gallons
Total	155,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	East-5	100	29.60			
0700	Arrive Edge of Zone	# 1	14*22. S	170*38.68' W	East-12	100	"	E+SE-1.0	8.7	166
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.6	164
0718	Begin Discharge	# 3	14*24.04' S	170*37.21' W	" "	"	"	" " X	8.7	090
" 33		# 4	14*23.65' S	170*37.62' W	"	"	"		8.8	180
" 48	Remarks:	# 5	14*24.56' S	170*37.09' W	East-15	"	"		8.7	006
0803		# 6	14*23.20' S	170*37.72' W	" "	90	"		8.6	183
" 18		# 7	14*24.76' S	170*37.28' W	" "	"	"	5	8.3	066
" 33		# 8	14*23.10 S	170*37.59' W	" "	"	"		8.9	237
" 48		# 9	14*24.95' S	170*37.78' W	" "	Rain	"		8.7	164
0903		# 10	14*23.42' S	170*37.07' W	" "	90	"		9.0	341
" 18		# 11	14*24.21' S	170*37.78' W	" "	"	"		9.2	181
" 33		# 12	14*23.95' S	170*36.96' W	" "	80	"	10	9.1	004
" 48		# 13	14*28.05' S	170*37.72' W	" "	"	29.59		9.5	182
1003		# 14	14*24.11' S	170*37.09' W	" "	75	"		8.9	009
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1010	Finish Discharge	#15	14*23.18' S	170*37.34' W	East-15	75%	29.59	E&SE-1.0	9.4	328
1014	Exit Discharge Zone	#16	14*22.73' S	170*37.59' W	" "				9.5	331
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 172 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 5.33 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 101.6 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 12/14/10 Tues..

F/V Blue Moon Ocean Dumping Log

Voyage #: 5373

Permit # OD 93-01 & OD 93-02

	Time	
12/13	1615	Begin 1st Loading SK
	2140	Finish 1st Loading SK
	0130	Begin 2nd Loading SK
12/14	0310	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:			
	SK	165,000	Gallons
	Other	0	Gallons
	Total	165,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	50	29.53			
0658	Arrive Edge of Zone	# 1	14*22.56' S	170*38.67 W	East-10	60	"	E+SE-1.0	8.8	161
0708	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.9	165
0715	Begin Discharge	# 3	14*23.97' S	170*37.13 W	" "	"	"	" " X	8.6	190
" 30		# 4	14*23.61' S	170*37.64' W	" "	70	"		8.7	180
" 45	Remarks:	# 5	14*23.94' S	170*36.90 W	" "	"	29.54		8.8	002
0800		# 6	14*23.81' S	170*37.72' W	East-12	80-Rain	"		8.9	181
" 15		# 7	14*24.65' S	170*37.02' W	" "	75		5	8.7	013
" 30		# 8	14*23.50' S	170*37.68' W	" "	"			9.0	184
" 45		# 9	14*24.56' S	170*37.00' W	East-10	"			8.8	020
0900		# 10	14*23.28' S	170*37.65' W	" "	70	29.55		9.1	182
" 15		# 11	14*24.66' S	170*37.08' W	" "	60	"		8.9	015
" 30		# 12	14*23.01 S	170*37.36' W		50	29.54	10	9.0	276
" 45		# 13	14*24.53' S	170*37.05' W			"		8.8	019
1000		# 14	14*23.34' S	170*37.04' W			29.53		9.1	335
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1003	Finish Discharge	# 15	14*23.02' S	170*37.37' W	East-10	50%	29.53	E&SE-1.0	9.2	274
1005	Exit Discharge Zone	#16	14*22.74' S	170*37.66' W	" "	"	"	" "	9.2	331
1100	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 168 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 4.85 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 110.3 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 12/16/10 Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5374

Permit # OD 93-01 & OD 93-02

	Time	
2/15	1630	Begin 1st Loading SK
	2100	Finish 1st Loading SK
	/	Begin 2nd Loading SK
		Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:			
SK	138,250	Gallons
Other	0	Gallons
Total	138,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	70	29.59			
0705	Arrive Edge of Zone	# 1	14*22.57' S	170*38.66' W	"	60	"	SSE-1.5	8.7	165
0715	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	East-2	"	"	" "	8.5	161
0722	Begin Discharge	# 3	14*23.94' S	170*37.17' W	" "	"	29.58	" " X	8.7	090
37		# 4	14*23.64' S	170*37.71' W	" "	"	"	" "	8.5	181
52	Remarks:	# 5	14*24.49' S	170*37.06' W	" "				9.0	004
0807		# 6	14*23.30' S	170*37.71' W	" "	70			8.6	187
" 22		# 7	14*24.85' S	170*37.22' W	E-3	"		5	8.9	012
" 37		# 8	14*23.21' S	170*37.68' W		"			9.0	181
" 52		# 9	14*25.04' S	170*37.36' W		"	29.57		8.9	093
0907		# 10	14*22.99' S	170*37.32' W	E-2	60	"		9.2	307
" 22		# 11	14*24.85' S	170*37.68' W	" "	"	"		9.0	162
" 37		# 12	14*23.32' S	170*37.06' W	Calm	"	"	10	9.7	332
" 52		# 13	14*24.52' S	170*37.60' W	"	"	"		9.4	180
1007		# 14	14*24.03' S	170*36.99' W	"	"			9.3	005
" 22		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1015	Finish Discharge	#15	14*23.02' S	170*37.41' W	Calm	60%	29.57	SSE-1.5	9.7	306
1017	Exit Discharge Zone	#16	14*22.78' S	170*37.58' W	"	"	"	" "	9.6	321
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 173 mins. Average Speed During Discharge: 9.1 kts. Total Time Run 5.1 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 88 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 12/18/10 Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5375

Permit # OD 93-01 & OD 93-02

Time	
1620	Begin 1st Loading SK
2100	Finish 1st Loading SK
	Begin 2nd Loading SK
	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:			
SK	120,000	Gallons
Other	0	Gallons
Total	120,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	East-7	100-Rain	29.56			
0705	Arrive Edge of Zone	# 1	14*22.56' S	170*38.67 W	ENE-7	100	29.58	SE-1.0	8.9	160
0715	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.59	" "	8.7	158
0722	Begin Discharge	# 3	14*23.94' S	170*37.20' W				X	9.2	086
" 37		# 4	14*23.63' S	170*37.49' W					8.7	180
" 52	Remarks:	# 5	14*24.02' S	170*36.85' W					8.8	356°
0807		# 6	14*23.25' S	170*37.72' W					8.9	178°
" 22		# 7	14*24.74' S	170*37.03' W				5	9.1	032
" 37		# 8	14*23.813' S	170*37.61' W					8.8	181
" 52		# 9	14*24.51' S	170*36.92' W	East-7				9.2	009
0907		# 10	14*23.20 S	170*37.58' W	East-8				8.9	183
" 22		# 11	14*24.56' S	170*36.97' W	East-10		29.60		9.3	011
" 37		# 12	14*23.35' S	170*37.67' W	"		"	10	9.0	186
" 52		# 13	14*24.83' S	170*37.16' W	"		"		9.3	023
1007		# 14	14*23.27' S	170*37.04' W					9.2	315
" 22		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1010	Finish Discharge	#15	14*22.98' S	170*37.50' W	East-10	100%	29.60	SE-1.0	9.3	286
1013	Exit Discharge Zone	#16	14*22.64' S	170*37.86' W	" "	"	"	" "	9.5	321
1110	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

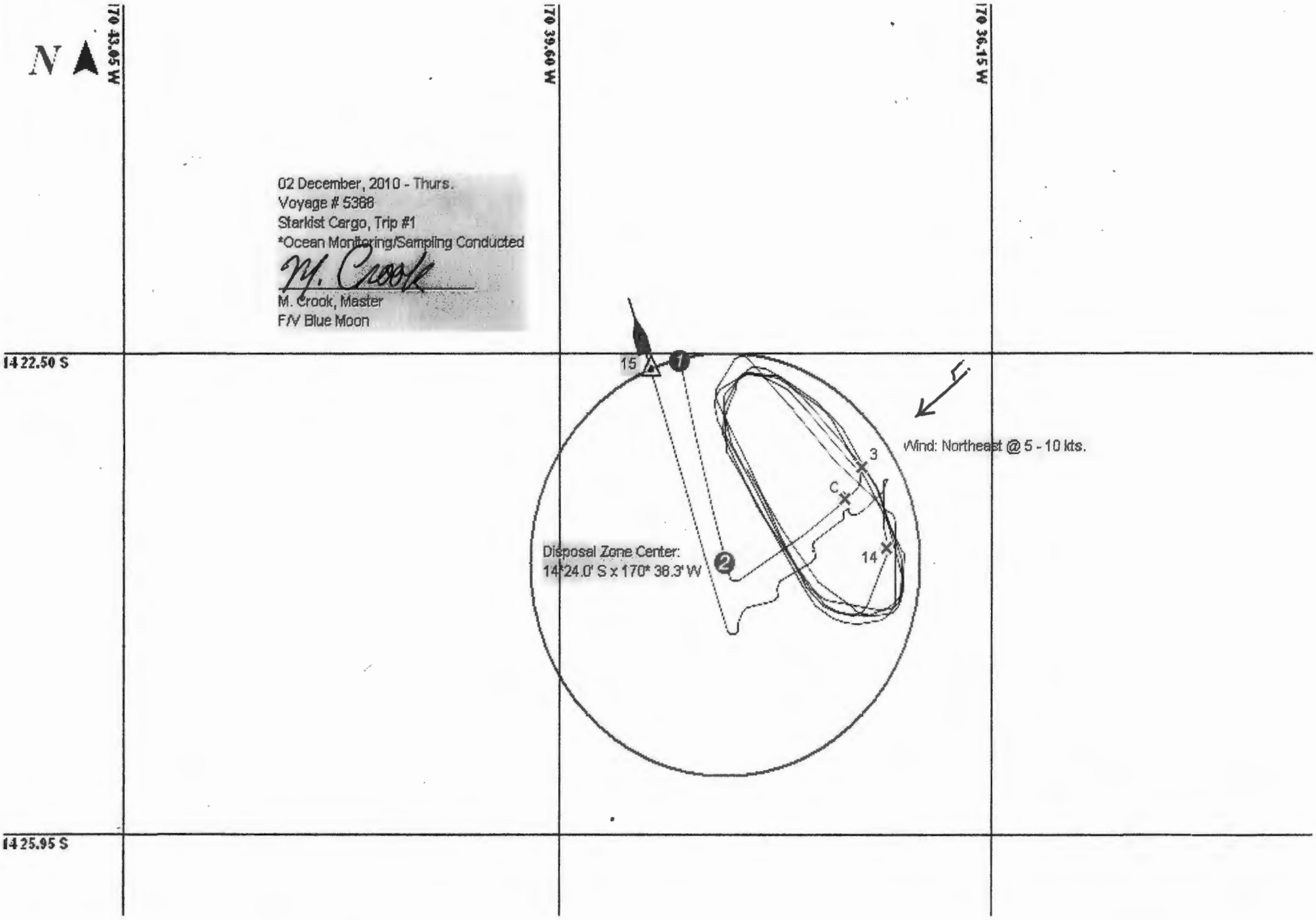
Total Discharge Time: 168 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 4.9 hr.

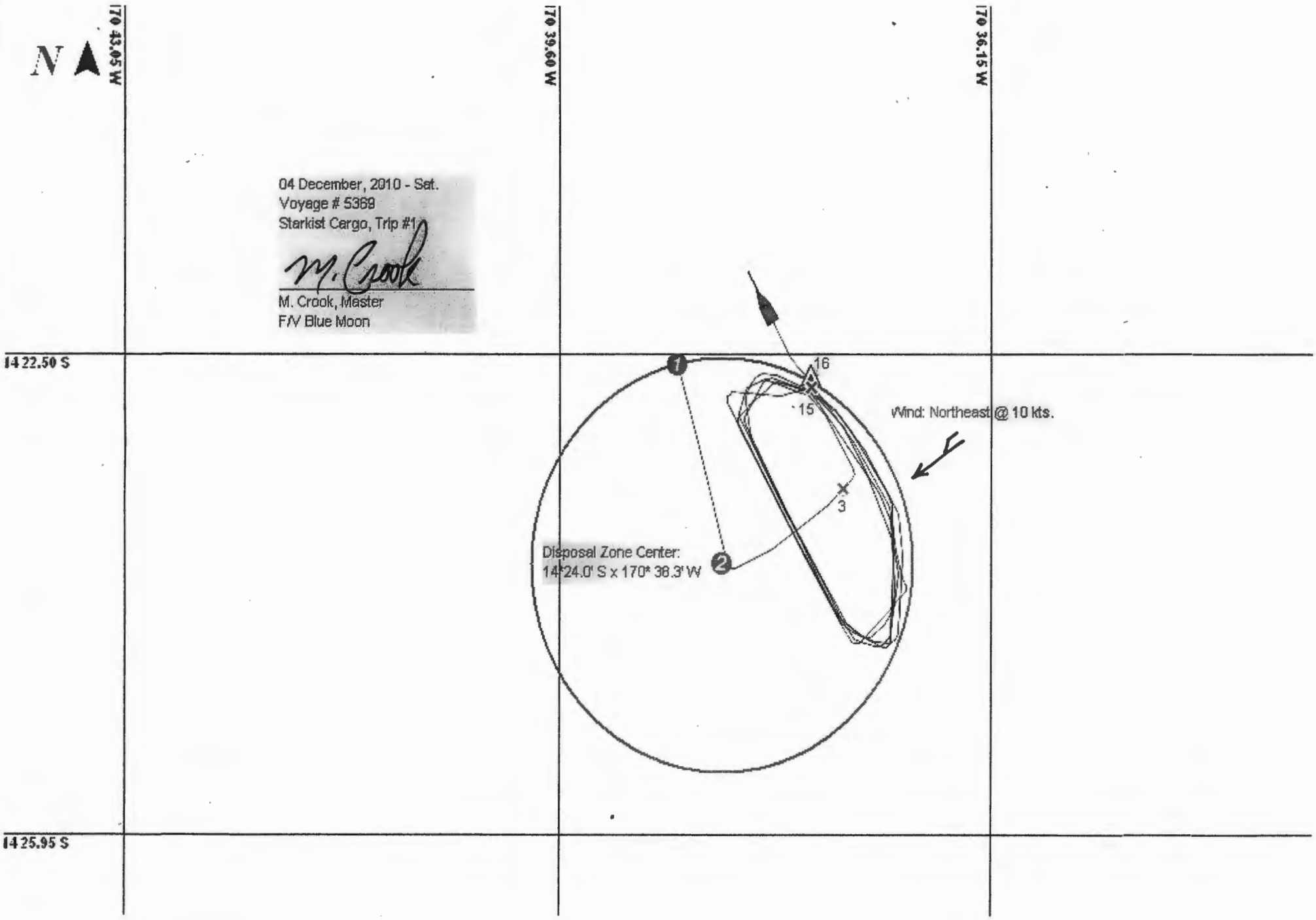
Navigational Plot made: yes Presence of Plume? No

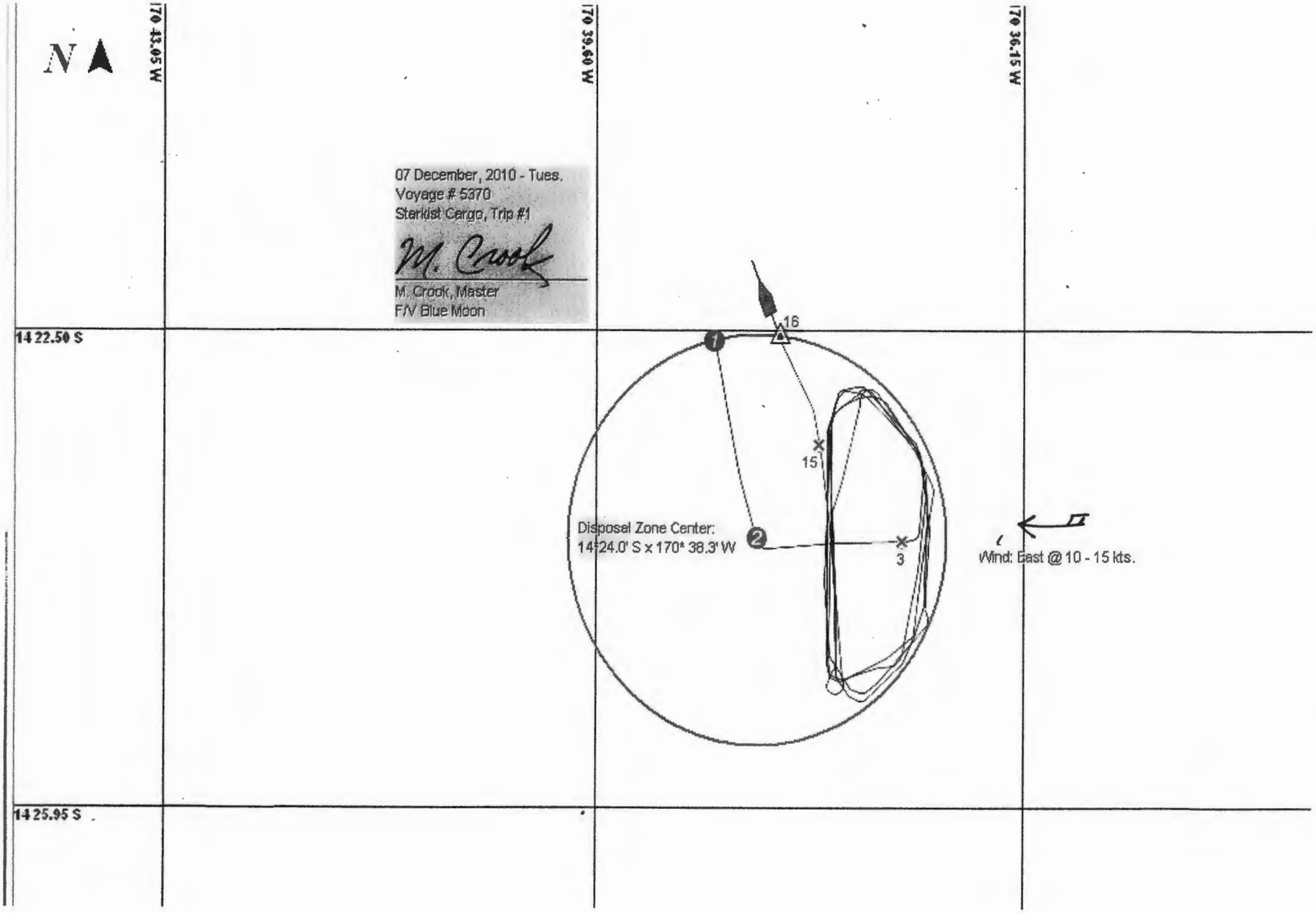
Time and position of any floating material: None Discharge Rate: 79.4 Gallons/min/kt.

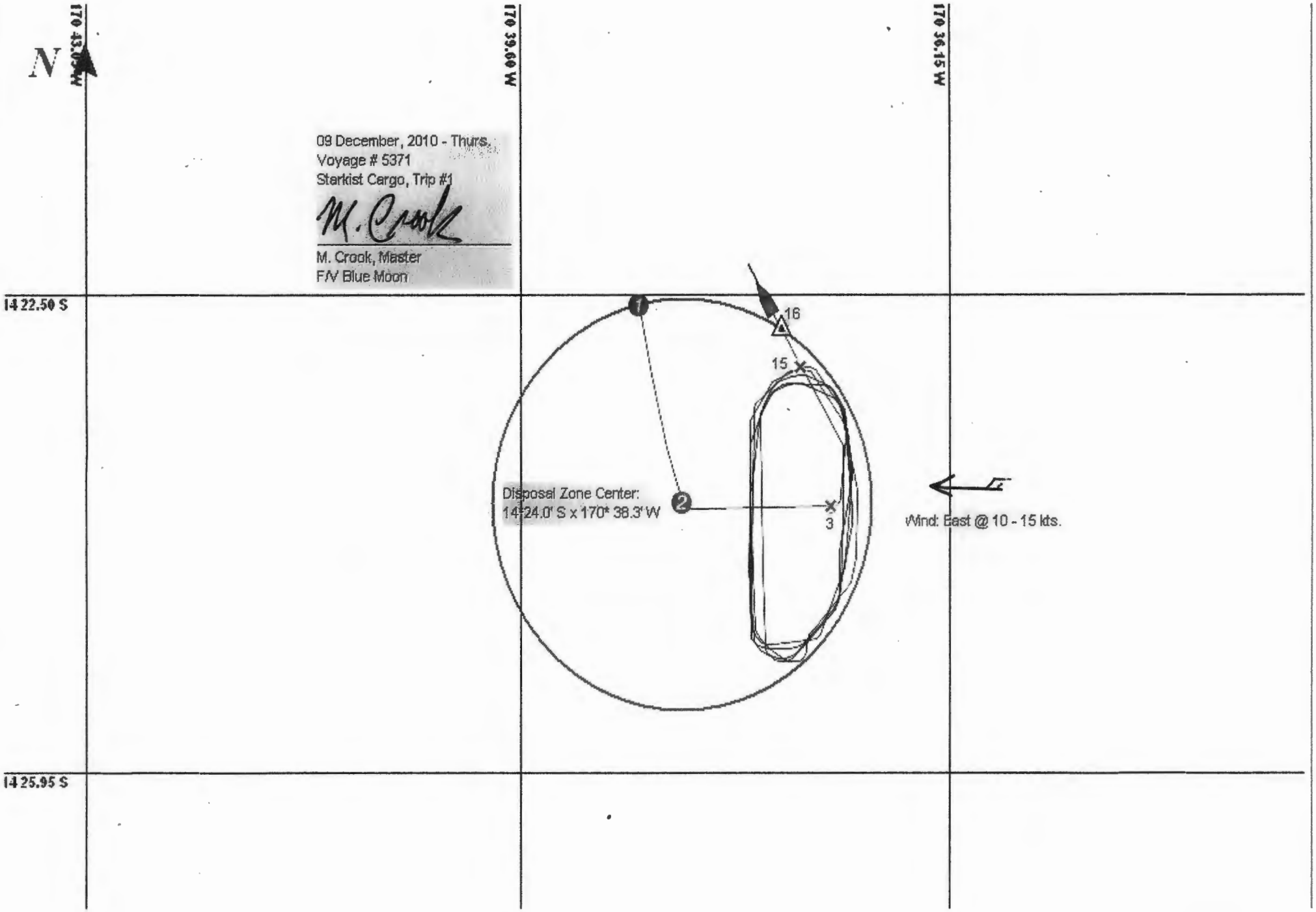
Unusual Occurrences? None

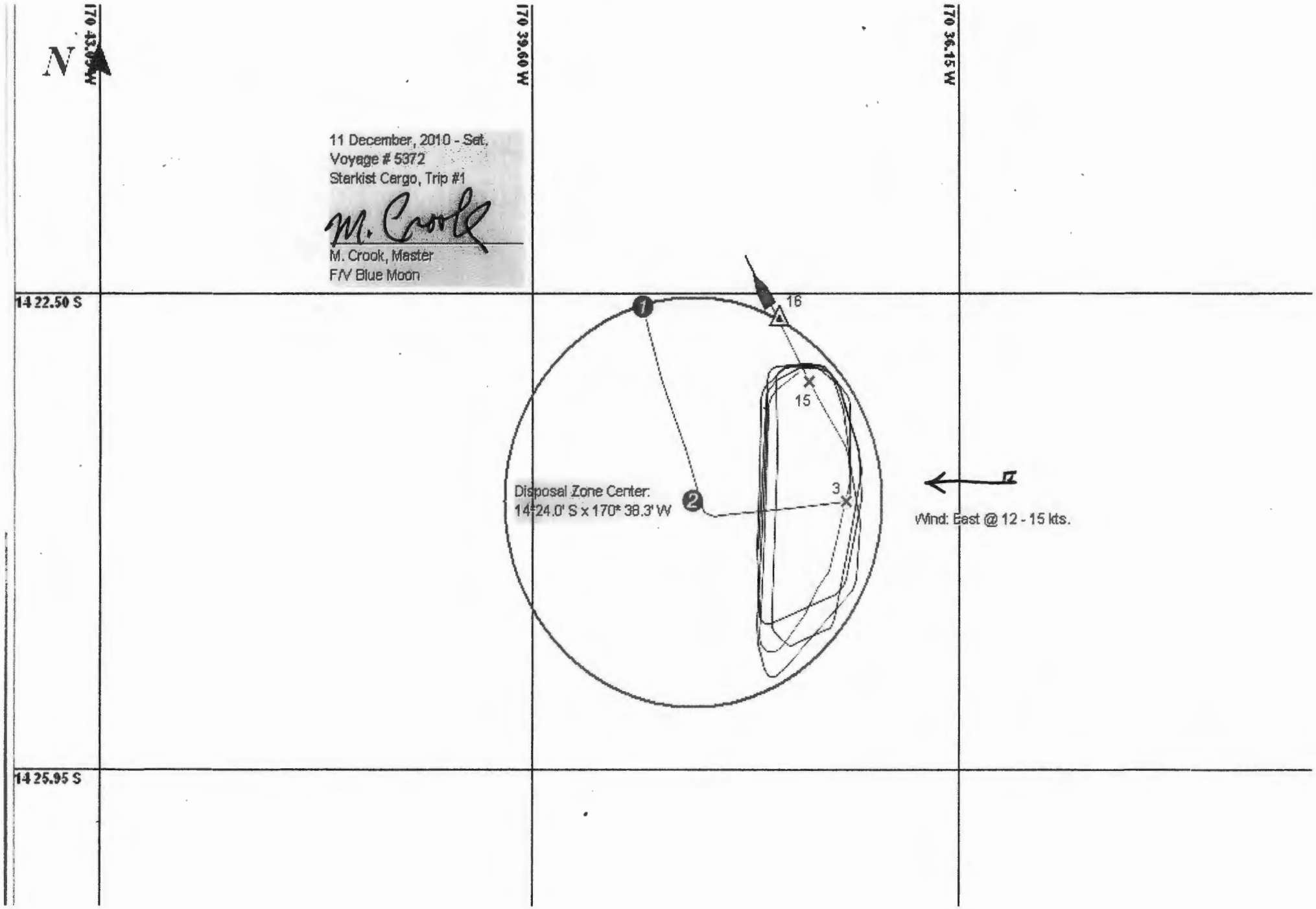
Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

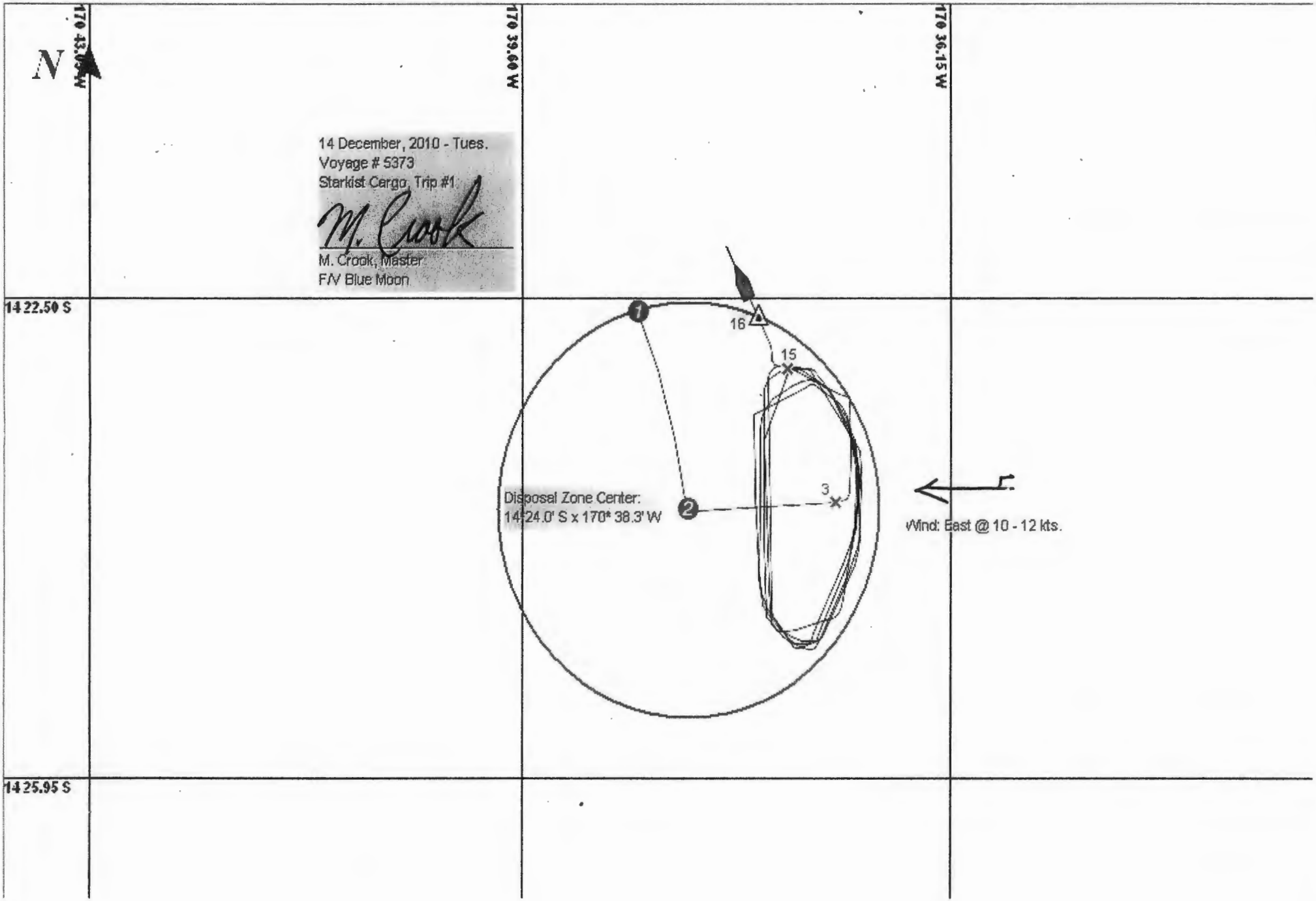

N
170 43.05 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
02 December, 2010 - Thurs.
Voyage # 5368
Starkist Cargo, Trip #1
*Ocean Monitoring/Sampling Conducted
M. Crook, Master
F/V Blue Moon
15
1
2
3
C
14
Wind: Northeast @ 5 - 10 kts.
Disposal Zone Center:
14°24.0' S x 170° 38.3' W

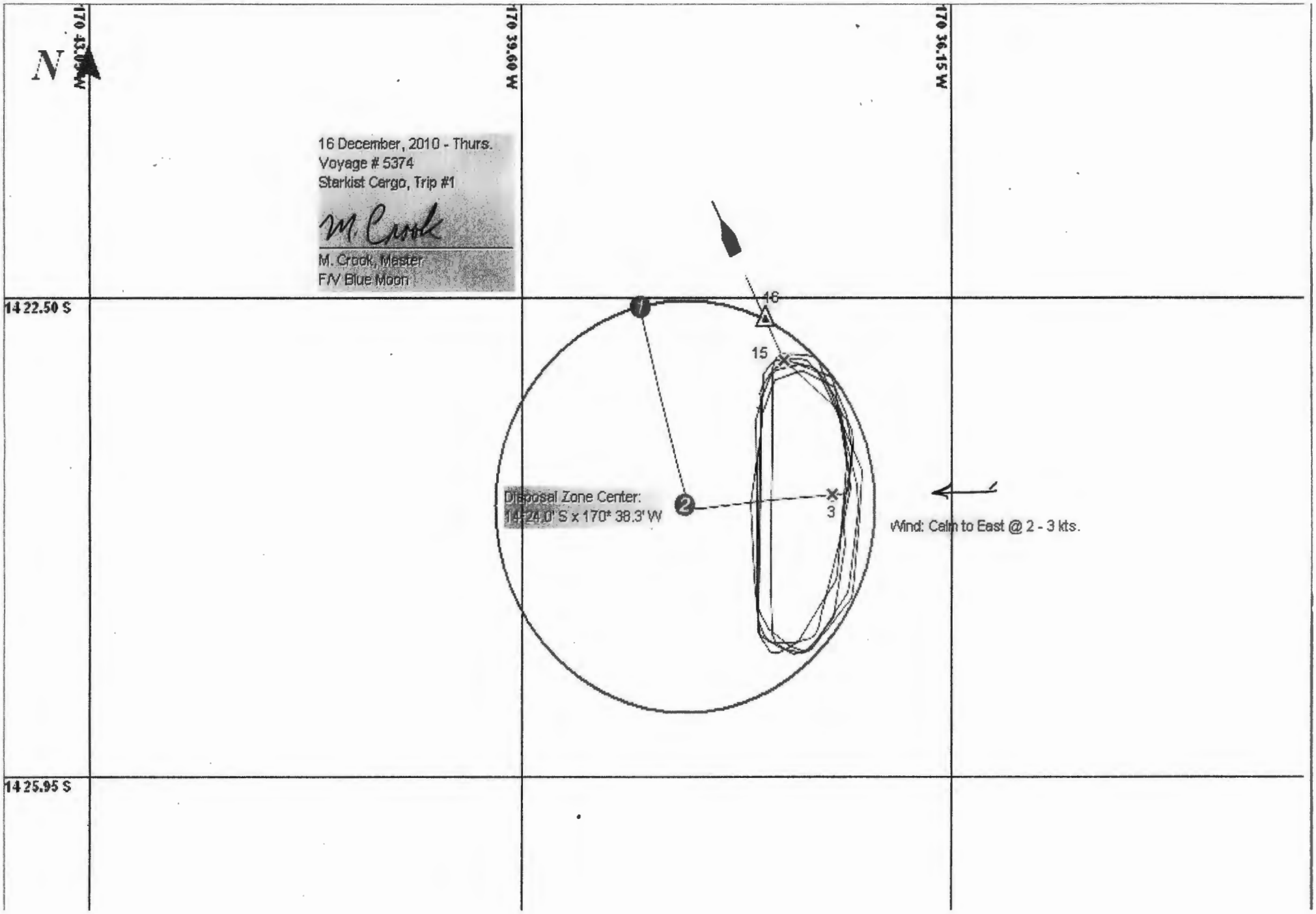

N
170 43.05 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
04 December, 2010 - Sat.
Voyage # 5369
Starkist Cargo, Trip #1
M. Crook, Master
F/V Blue Moon
16
15
3
Wind: Northeast @ 10 kts.
Disposal Zone Center:
14°24.0' S x 170° 38.3' W

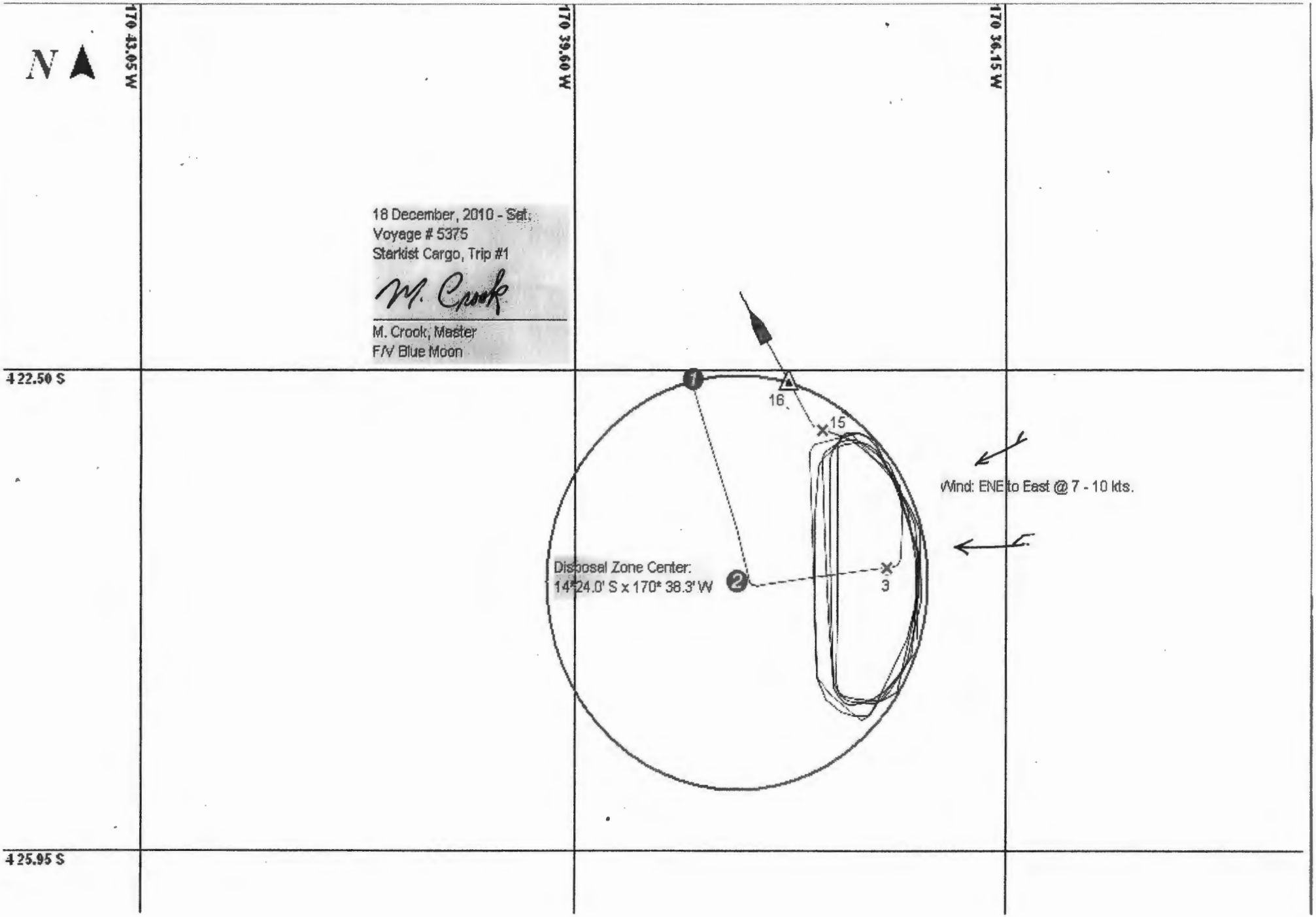

N
170 43.05 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
07 December, 2010 - Tues.
Voyage # 5370
Starkist Cargo, Trip #1
M. Crook, Master
F/V Blue Moon
16
15
3
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: East @ 10 - 15 kts.


N
170 43.05 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
09 December, 2010 - Thurs.
Voyage # 5371
Starkist Cargo, Trip #1
M. Crook, Master
F/V Blue Moon
1
2
3
15
16
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: East @ 10 - 15 kts.


N
170 43.05 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
11 December, 2010 - Sat.
Voyage # 5372
Starkist Cargo, Trip #1
M. Crook, Master
F/V Blue Moon
1
2
3
15
16
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: East @ 12 - 15 kts.


N
170 43.00 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
14 December, 2010 - Tues.
Voyage # 5373
Starkist Cargo, Trip #1
M. Crook, Master
F/V Blue Moon
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
1
2
3
15
16
Wind: East @ 10 - 12 kts.


N
170 43.00 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
16 December, 2010 - Thurs.
Voyage # 5374
Starkist Cargo, Trip #1
M. Crook, Master
F/V Blue Moon
1
2
3
15
16
Disposal Zone Center:
14 24.0' S x 170° 38.3' W
Wind: Calm to East @ 2 - 3 kts.


N
170 43.05 W
170 39.60 W
170 36.15 W
4 22.50 S
4 25.95 S
18 December, 2010 - Sat.
Voyage # 5375
Starkist Cargo, Trip #1
M. Crook, Master
F/V Blue Moon
1
16
15
Wind: ENE to East @ 7 - 10 kts.
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
2
3

OCEAN DUMPING MONTHLY SUMMARY

F/V BLUE MOON December, 2010

NUMBER OF TRIPS:	Starkist	Other	Joint	TOTAL:
	8	0	0	**8**

GALLONS-FOR THE MONTH:	Starkist	Other	Joint	TOTAL:
	1,163,750	0	0	**1,163,750**

GALLONS FOR SOLO TRIPS:	Starkist	Other
	1,163,750	**0**

RUNNING TIME ON TRIPS: **41.1 hrs.**

DISCHARGE TIME ON TRIPS: **22.66 hrs.**

AV. GPM DISCHARGE RATE: **95.8 gal/min//kt**

AV. TRIP TIME: **5.14 hrs.**

AV. PERCENTAGE OF VESSEL USED BY EACH CANNERY - BY GALLONAGE:

Starkist	Other
100.00%	**0.00%**

MASTER : M. Crook

M. Crook

Date: 12/02/10 Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5368

Permit # OD 93-01 & OD 93-02

	Time	
1/30	2015	Begin 1st Loading SK
	2100	Finish 1st Loading SK
2/1	1600	Begin 2nd Loading SK
	2120	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:			
SK	155,000	Gallons
Other	0	Gallons
Total	155,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	60	29.53			
0655	Arrive Edge of Zone	# 1	14*22.57' S	170*38.68' W	NE-5	"	29.55	S+SE to 1.0	8.7	166
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.56	" "	8.7	161
0725	Begin Discharge	# 3	14*23.46' S	170*37.22' W	" "	"	"	" " X	7.9	350
40		# 4	14*23.65' S	170*37.91' W	" "	"	"	" "	8.6	141
65	Remarks:	# 5	14*23.50' S	170*37.11' W	" "	"	"		9.1	328
0810	Ocean Monitoring	# 6	14*23.16' S	170*38.25' W	" "	50	29.57		8.5	147
25	Control Station	# 7	14*24.24' S	170*36.88' W	" "	"	"	5	8.2	000
40	Samples drawn	# 8	14*22.67' S	170*37.94' W	" "	"	"		9.1	281
55	at 0715 hours	# 9	14*24.21' S	170*36.88' W	NE-7	40	29.55		8.8	359
0910	14°23.53' S	# 10	14*22.84' S	170*37.65' W	" "	"			9.2	301
25	170°37.32' W	# 11	14*24.17' S	170*37.66' W	" "	30			9.1	142
40		# 12	14*23.24' S	170*37.43' W	NE-10	"	29.53	10	9.5	309
55		# 13	14*23.85' S	170*37.82' W	" "	20	"		9.3	149
1010		# 14	14*2 S	170*3 W						
25		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1005	Finish Discharge	# 14	14*24.01 S	170*36.99 W	NE-10	25%	29.53	" "	9.1	011
1115	Exit Discharge Zone	# 15	14*22.73 S	170*38.84 W	NE-7	"	29.52	S+SE 1.0	9.4	336
1205	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center Southwest (SW) End of Discharge SW Discharge Pattern Ellipse

Total Discharge Time: 160 mins. Average Speed During Discharge: 8.86 kts. Total Time Run 6.0 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 109 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 12/04/10 sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5369

Permit # OD 93-01 & OD 93-02

Time		
1415	Begin 1st Loading SK	
2100	Finish 1st Loading SK	Trip # 1 - X
/	Begin 2nd Loading SK	Trip # 2
/	Finish 2nd Loading SK	

12/3

Volume Loaded:			
SK	158,756	Gallons
Other	0	Gallons
Total	158,750	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0600	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	75	29.54			
0650	Arrive Edge of Zone	# 1	14*22.52' S	170*38.68 W	NE-10	60	"	E+SE-1.0	8.9	163
0700	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	50	"	" "	8.8	162
0710	Begin Discharge	# 3	14*23.50' S	170*37.34' W	" "	"	29.53	" " X	8.7	045
" 25		# 4	14*23.52' S	170*37.84' W	" "	"	29.52		8.9	144
" 40	Remarks:	# 5	14*24.05' S	170*36.86' W	" "	"	"		8.7	351
" 55		# 6	14*23.22' S	170*38.03' W	" "	"	"		8.6	148
0810		# 7	14*24.30' S	170*36.94' W	" "	"	"	5	8.8	003
25		# 8	14*22.78' S	170*37.85' W	" "	40	"		8.7	273
40		# 9	14*24.21' S	170*37.48' W		"	"		9.1	142
55		# 10	14*22.96' S	170*37.40' W		"	"		9.2	313
0910		# 11	14*23.98' S	170*37.58' W		"	"		9.2	148
25		# 12	14*23.22' S	170*37.27' W		50	29.53	10	9.4	319
40		# 13	14*23.69' S	170*37.78' W		"	"		9.2	145
55		# 14	14*23.23' S	170*37.19' W		60	"		9.5	324
1010		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1002	Finish Discharge	#15	14*22.71' S	170*37.66 W	NE-10	60	29.53	E+SE-1.0	9.3	323
1002	Exit Discharge Zone	#16	14*22.70' S	170*37.58 W	" "	"	"	" "	9.6	327
1055	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center SW End of Discharge SW Discharge Pattern Ellipse

Total Discharge Time: 172 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 4.9 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 102.5 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 12/07/10 Tues

F/V Blue Moon Ocean Dumping Log

Voyage #: 5370

Permit # OD 93-01 & OD 93-02

	Time	
12/6	1945	Begin 1st Loading SK
	2145	Finish 1st Loading SK
	0000	Begin 2nd Loading SK
12/7	0300	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:			
	SK	135,000	Gallons
	Other	0	Gallons
	Total	135,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	East-10	60	29.55			
0655	Arrive Edge of Zone	# 1	14*22.56 S	170*38.65' W	East-15	90	29.59	E+SE-1.5	9.2	163
0705	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	80	"	" "	9.0	161
0715	Begin Discharge	# 3	14*24.04' S	170*37.21' W	" "	90	"	X	8.4	090
" 30		# 4	14*23.45' S	170*37.71' W	" "	100	"		8.9	178
" 45	Remarks:	# 5	14*24.82' S	170*37.08' W	" "	Rain-100	"		8.5	021
0800		# 6	14*23.11' S	170*37.29' W	" "	90	"		8.7	311
" 15		# 7	14*25.02' S	170*37.60' W		"		5	8.8	132
" 30		# 8	14*23.33' S	170*37.05' W		100			8.6	324
" 45		# 9	14*24.39' S	170*37.71' W	East-12	"			9.2	178
0900		# 10	14*23.98' S	170*36.89' W	" "	"			8.8	009
" 15		# 11	14*24.33' S	170*37.73' W		"			9.5	180
" 30		# 12	14*24.50' S	170*37.06' W		"		10	9.0	006
" 45		# 13	14*23.47' S	170*37.58' W		95			9.4	188
1000		# 14	14*24.68' S	170*37.64' W		"			9.1	356
" 15		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1010	Finish Discharge	#15	14*23.39' S	170*37.79' W	East-12	95%	29.59	E+SE-1.5	9.2	346
1015	Exit Discharge Zone	#16	14*22.56' S	170*38.12' W	" "	"	29.57	" "	9.4	331
1105	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 175 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 5.0 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 87 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 12/09/10 Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5371

Permit # OD 93-01 & OD 93-02

Time	
1645	Begin 1st Loading SK
2130	Finish 1st Loading SK
/	Begin 2nd Loading SK
	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:		
SK	136,250	Gallons
Other	0	Gallons
Total	136,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	90	29.53			
0653	Arrive Edge of Zone	# 1	14*22.54' S	170*38.66' W	East-10	75	29.54	E+SE-1.0	8.9	164
0703	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" " "	8.7	158
0713	Begin Discharge	# 3	14*24.04' S	170*37.23' W	" "	60	"	" " X	8.4	090
" 28		# 4	14*23.78' S	170*37.75' W		"	"	" "	9.1	181
" 43	Remarks:	# 5	14*24.76' S	170*37.08' W	East-12	"	"	" "	8.5	039
" 58		# 6	14*23.28' S	170*37.45' W	" "	"	"		8.9	178
0813		# 7	14*25.05' S	170*37.34' W	" "	"	"	5	8.4	044
" 28		# 8	14*23.10' S	170*37.48' W	East-15	"	"		8.9	236
" 43		# 9	14*24.81' S	170*37.75' W	" "	"	"		9.1	179
" 58		# 10	14*23.58' S	170*36.96' W	" "	50	"		8.8	356
0913		# 11	14*24.43' S	170*37.65 W	" "	"	"		9.6	180
" 28		# 12	14*23.70' S	170*36.98' W	" "	"	"	10	9.0	355
" 43		# 13	14*24.46' S	170*37.76' W	" "	"	"		9.5	177
" 58		# 14	14*23.91' S	170*36.99 W	" "		"		9.1	001
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1005	Finish Discharge	#15	14*23.10' S	170*37.30' W	East-15	50%	29.54	E+SE-1.0	9.2	328
1008	Exit Discharge Zone	#16	14*2 2.77' S	170*3 7.49' W	" "	"	" "	" "	9.1	331
1105	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 172 mins. Average Speed During Discharge: 8.95 kts. Total Time Run 5.0 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 88.5 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Carl

Date: 12/11/10 Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5372

Permit # OD 93-01 & OD 93-02

Time		
12/10 1500	Begin 1st Loading SK	
2130	Finish 1st Loading SK	
/	Begin 2nd Loading SK	
/	Finish 2nd Loading SK	

Trip # 1 - X

Trip # 2

Volume Loaded:		
SK	155,500	Gallons
Other	0	Gallons
Total	155,500	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0605	Depart Starkist		14*16.50' S	170* 41.2' W	East-5	100	29.60			
0700	Arrive Edge of Zone	# 1	14*22. S	170*38.68' W	East-12	100	"	E+SE-1.0	8.7	166
0710	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.6	164
0718	Begin Discharge	# 3	14*24.04' S	170*37.21' W	" "	"	"	" " X	8.7	070
" 33		# 4	14*23.65' S	170*37.62' W	"	"	"		8.8	180
" 48	Remarks:	# 5	14*24.56' S	170*37.09' W	East-15	"	"		8.7	006
0803		# 6	14*23.20' S	170*37.72 W	" "	90	"		8.6	183
" 18		# 7	14*24.76' S	170*37.38' W	" "	"	"	5	8.3	066
" 33		# 8	14*23.10 S	170*37.51' W	" "	"	"		8.9	237
" 48		# 9	14*24.95' S	170*37.78' W	" "	Rain	"		8.7	164
0903		# 10	14*23.42' S	170*37.07' W	" "	90	"		9.0	341
" 18		# 11	14*24.21' S	170*37.78' W	" "	"	"		9.2	181
" 33		# 12	14*23.75' S	170*36.96' W	" "	80	"	10	9.1	004
" 48		# 13	14*28.05' S	170*37.72' W	" "	"	29.59		9.5	182
1003		# 14	14*24.11' S	170*37.09' W	" "	75	"		8.9	009
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1010	Finish Discharge	#15	14*23.18' S	170*37.34' W	East-15	75%	29.59	E&SE-1.0	9.4	328
1014	Exit Discharge Zone	#16	14*22.73' S	170*37.59' W	" "				9.5	331
1125	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 172 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 5.33 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 101.6 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 12/14/10 Tues..

F/V Blue Moon Ocean Dumping Log

Voyage #: 5373

Permit # OD 93-01 & OD 93-02

	Time	
12/13	1615	Begin 1st Loading SK
	2140	Finish 1st Loading SK
12/14	0130	Begin 2nd Loading SK
	0310	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:		
SK	165,000	Gallons
Other	0	Gallons
Total	165,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	50	29.53			
0658	Arrive Edge of Zone	# 1	14*22.56' S	170*38.67 W	East-10	60	"	E+SE-1.0	8.8	161
0708	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	"	" "	8.9	165
0715	Begin Discharge	# 3	14*23.97' S	170*37.13 W	" "	"	"	" " X	8.6	090
" 30		# 4	14*23.61' S	170*37.64' W	" "	70	"		8.7	180
" 45	Remarks:	# 5	14*23.94' S	170*36.90 W	" "	"	29.54		8.8	002
0800		# 6	14*23.81' S	170*37.72' W	East-12	80-Rain	"		8.9	181
" 15		# 7	14*24.65' S	170*37.02' W	" "	75		5	8.7	013
" 30		# 8	14*23.50' S	170*37.68' W	" "	"			9.0	184
" 45		# 9	14*24.56' S	170*37.00' W	East-10	"			8.8	020
0900		# 10	14*23.28' S	170*37.65' W	" "	70	29.55		9.1	182
" 15		# 11	14*24.66' S	170*37.08' W	" "	60	"		8.9	015
" 30		# 12	14*23.01 S	170*37.36' W		50	29.54	10	9.0	276
" 45		# 13	14*24.53' S	170*37.05' W			"		8.8	019
1000		# 14	14*23.34' S	170*37.04' W			29.53		9.1	335
		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1003	Finish Discharge	# 15	14*23.02' S	170*37.37' W	East-10	50%	29.53	E&SE-1.0	9.2	274
1005	Exit Discharge Zone	#16	14*22.74' S	170*37.66' W	" "	"	"	" "	9.2	331
1100	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 168 mins. Average Speed During Discharge: 8.9 kts. Total Time Run 4.85 hr.

Navigational Plot made: Yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 110.3 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

Date: 12/16/10 Thurs.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5374

Permit # OD 93-01 & OD 93-02

	Time	
2/15	1630	Begin 1st Loading SK
	2100	Finish 1st Loading SK
	/	Begin 2nd Loading SK
	/	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:		
SK	138,250	Gallons
Other	0	Gallons
Total	138,250	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell Metric	Speed kts	Course True*
0610	Depart Starkist		14*16.50' S	170* 41.2' W	Calm	70	29.59			
0705	Arrive Edge of Zone	# 1	14*22.57' S	170*38.66' W	"	60	"	SSE-1.5	8.7	165
0715	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	East-2	"	"	" "	8.5	161
0722	Begin Discharge	# 3	14*23.94' S	170*37.17' W	" "	"	29.58	" " X	8.7	090
37		# 4	14*23.64' S	170*37.71' W	" "	"	"	" "	8.5	181
52	Remarks:	# 5	14*24.49' S	170*37.06' W	" "				9.0	004
0807		# 6	14*23.30' S	170*37.71' W	" "	70			8.6	187
" 22		# 7	14*24.85' S	170*37.22' W	E-3	"		5	8.9	012
" 37		# 8	14*23.21' S	170*37.68' W		"			9.0	181
" 52		# 9	14*25.04' S	170*37.36' W		"	29.57		8.9	093
0907		# 10	14*22.99' S	170*37.32' W	E-2	60	"		9.2	307
" 22		# 11	14*24.85' S	170*37.68' W	" "	"	"		9.0	162
" 37		# 12	14*23.32' S	170*37.06' W	Calm	"	"	10	9.7	332
" 52		# 13	14*24.52' S	170*37.60' W	"	"	"		9.4	180
1007		# 14	14*24.03' S	170*36.99' W	"	"			9.3	005
" 22		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1015	Finish Discharge	#15	14*23.02' S	170*37.41' W	Calm	60%	29.57	SSE-1.5	9.7	306
1017	Exit Discharge Zone	#16	14*22.78' S	170*37.58' W	"	"	"	" "	9.6	321
1115	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

Total Discharge Time: 173 mins. Average Speed During Discharge: 9.1 kts. Total Time Run 5.1 hr.

Navigational Plot made: yes Presence of Plume? No

Time and position of any floating material: None Discharge Rate: 88 Gallons/min/kt.

Unusual Occurrences? None

Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Crook

Date: 12/18/10 Sat.

F/V Blue Moon Ocean Dumping Log

Voyage #: 5375

Permit # OD 93-01 & OD 93-02

Time	
1620	Begin 1st Loading SK
2100	Finish 1st Loading SK
	Begin 2nd Loading SK
	Finish 2nd Loading SK

Trip # 1 - X

Trip # 2

Volume Loaded:		
SK	120,000	Gallons
Other	0	Gallons
Total	120,000	Gallons

		WP#	GPS Position		Wind	% Clouds	Barometer	Swell	Speed	Course
								Metric	kts	True*
0615	Depart Starkist		14*16.50' S	170* 41.2' W	East-7	100-Rain	29.56			
0705	Arrive Edge of Zone	# 1	14*22.56' S	170*38.67 W	ENE-7	100	29.58	SE-1.0	8.9	160
0715	Arrive Zone Center	# 2	14*24.0 S	170*38.3 W	" "	"	29.59	" "	8.7	158
0722	Begin Discharge	# 3	14*23.94' S	170*37.20' W				X	9.2	086
" 37		# 4	14*23.63' S	170*37.49' W					8.7	180
" 52	Remarks:	# 5	14*24.02' S	170*36.85' W					8.8	356°
0807		# 6	14*23.25' S	170*37.72' W					8.9	178°
" 22		# 7	14*24.74' S	170*37.03' W				5	9.1	032
" 37		# 8	14*23.13' S	170*37.61' W					8.8	181
" 52		# 9	14*24.51' S	170*36.92' W	East-7				9.2	009
0907		# 10	14*23.20 S	170*37.58' W	East-8				8.9	183
" 22		# 11	14*24.56' S	170*36.97' W	East-10		29.60		9.3	011
" 37		# 12	14*23.35' S	170*37.67' W	"		"	10	9.0	186
" 52		# 13	14*24.83' S	170*37.16' W	"		"		9.3	023
1007		# 14	14*23.27' S	170*37.04' W					9.2	315
" 22		# 15	14*2 S	170*3 W						
		# 16	14*2 S	170*3 W						
		# 17	14*2 S	170*3 W				15		
		# 18	14*2 S	170*3 W						
		# 19	14*2 S	170*3 W						
		# 20	14*2 S	170*3 W						
			14*2 S	170*3 W						
			14*2 S	170*3 W				20		
			14*2 S	170*3 W						
1010	Finish Discharge	#15	14*22.98' S	170*37.50' W	East-10	100%	29.60	SE-1.0	9.3	286
1013	Exit Discharge Zone	#16	14*22.64' S	170*37.86' W	" "	"	"	" "	9.5	321
1110	Secure SK Dock		14*16.50' S	170*41.2' W						

Current Direction: At Center West End of Discharge West Discharge Pattern Ellipse

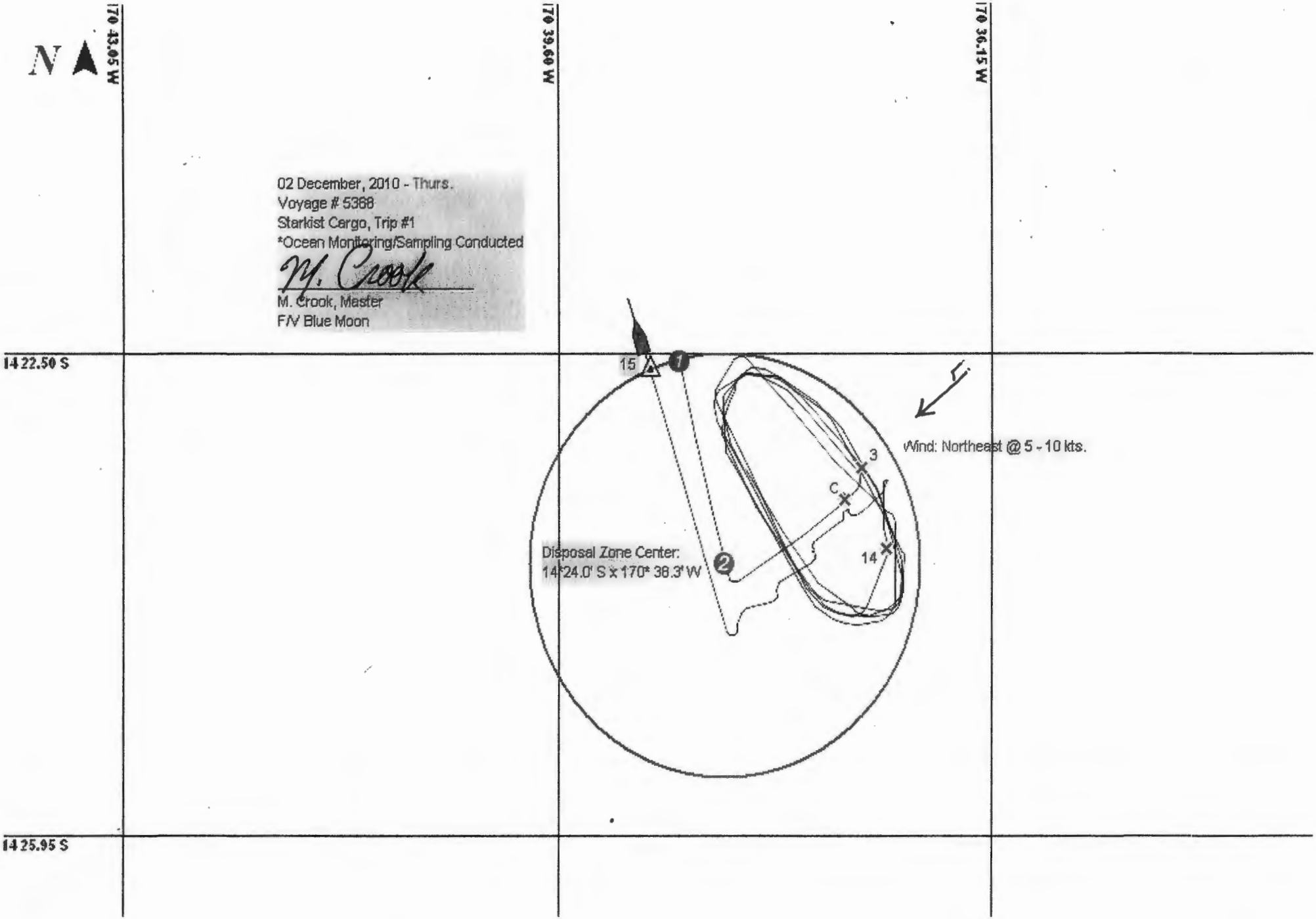
Total Discharge Time: 168 mins. Average Speed During Discharge: 9.0 kts. Total Time Run 4.9 hr.

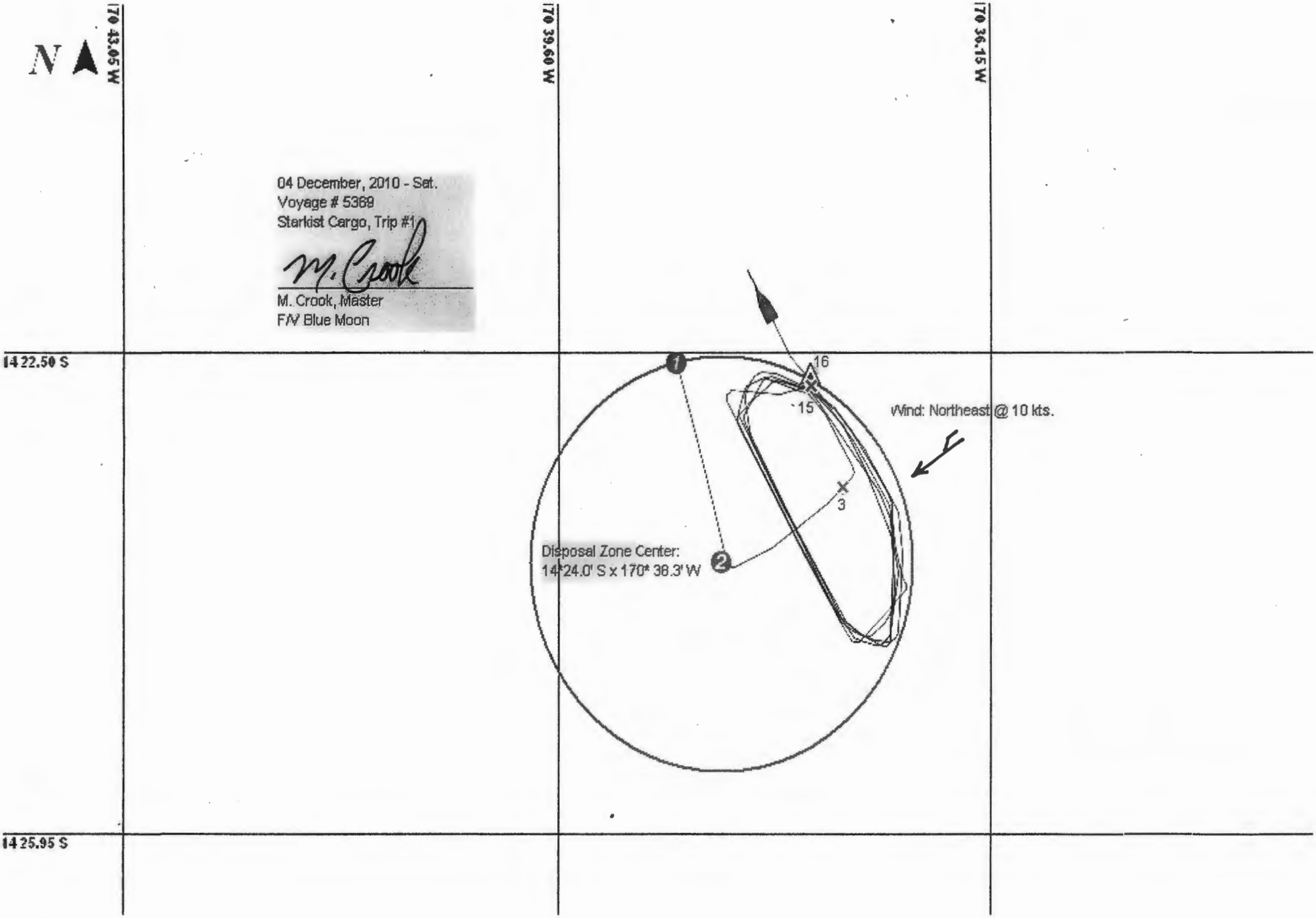
Navigational Plot made: yes Presence of Plume? No

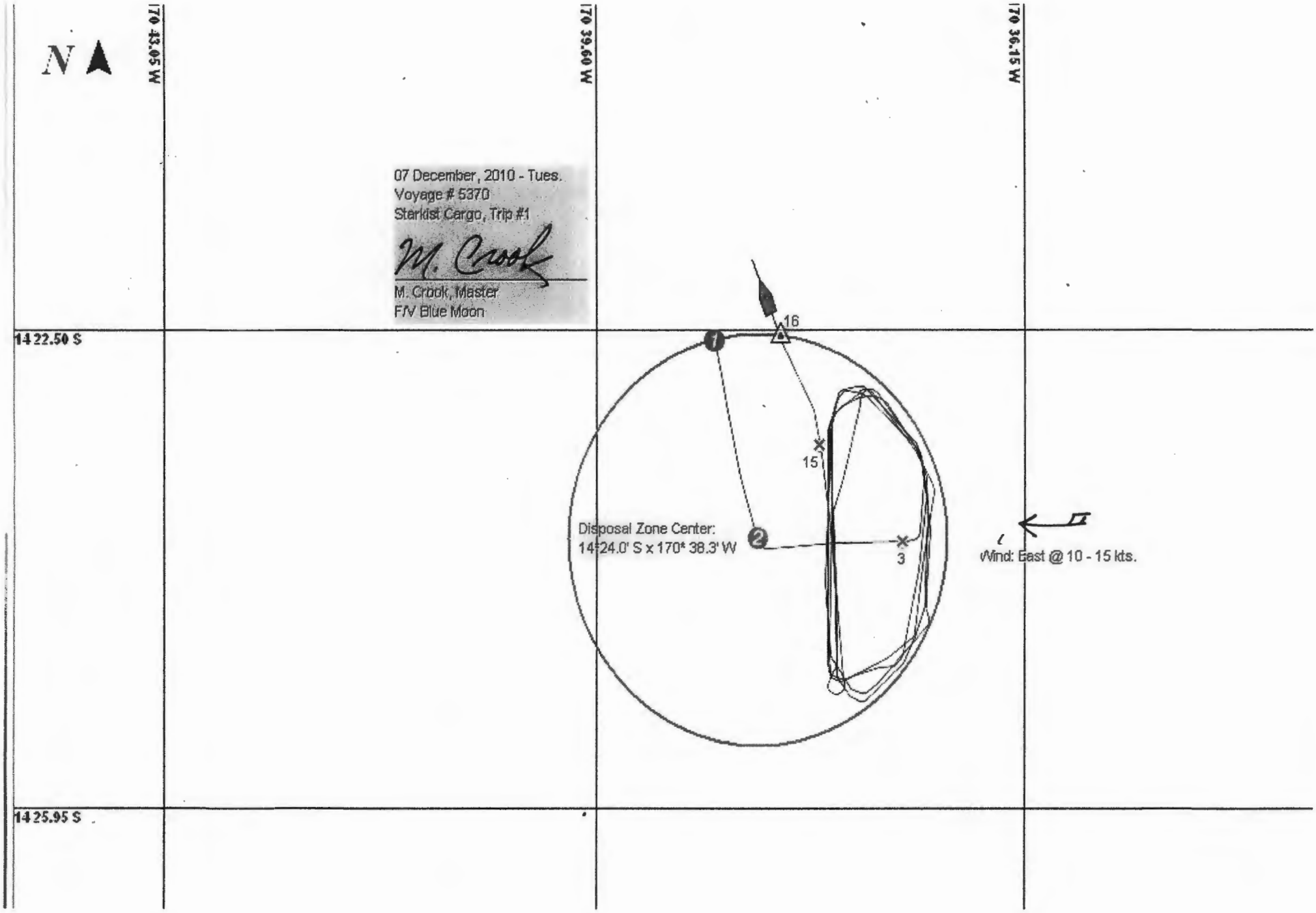
Time and position of any floating material: None Discharge Rate: 79.4 Gallons/min/kt.

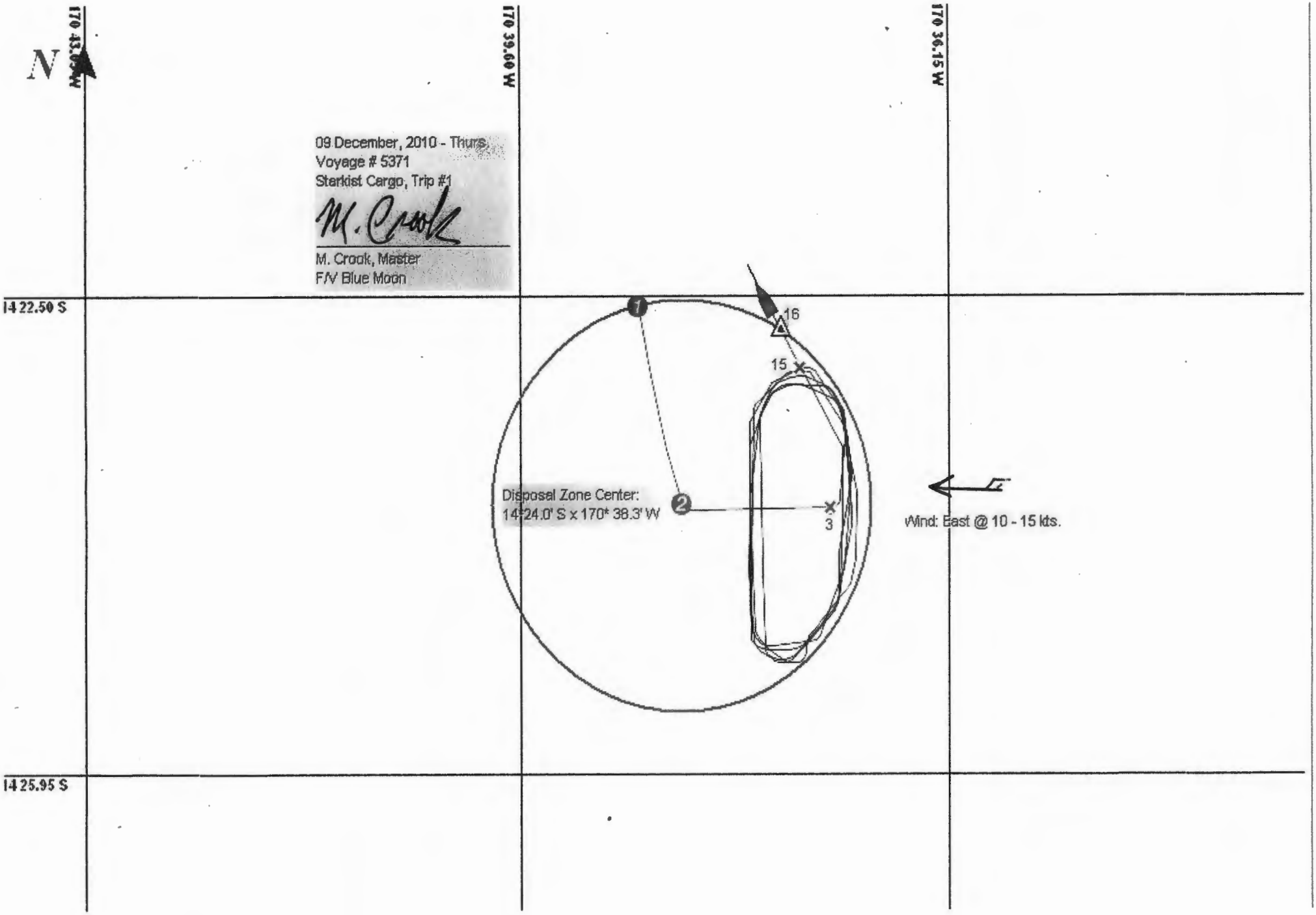
Unusual Occurrences? None

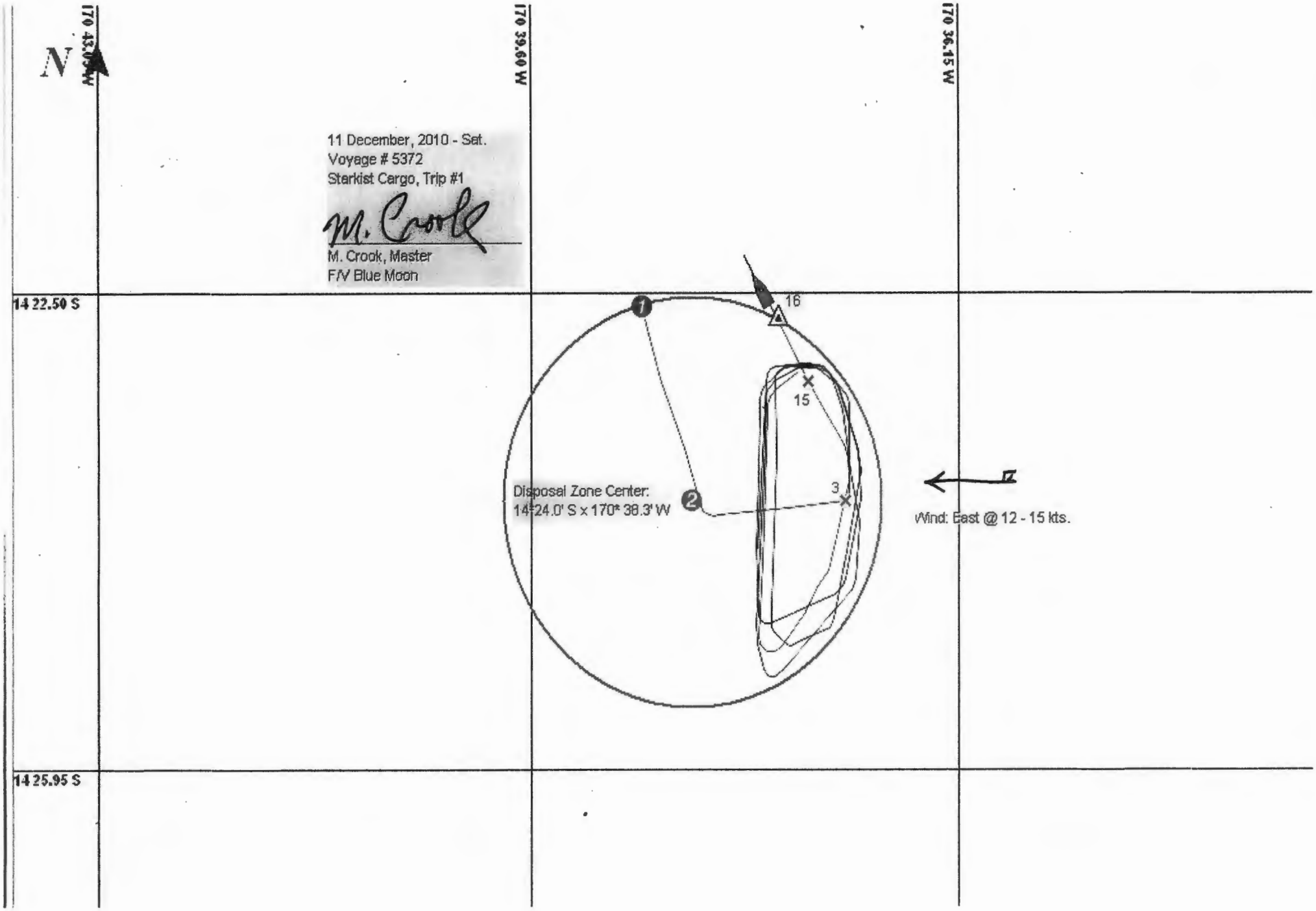
Notifications made: A.S.P.A. ✓ U.S.C.G.M.S.D. ✓ Master: F/V Blue Moon M. Cook

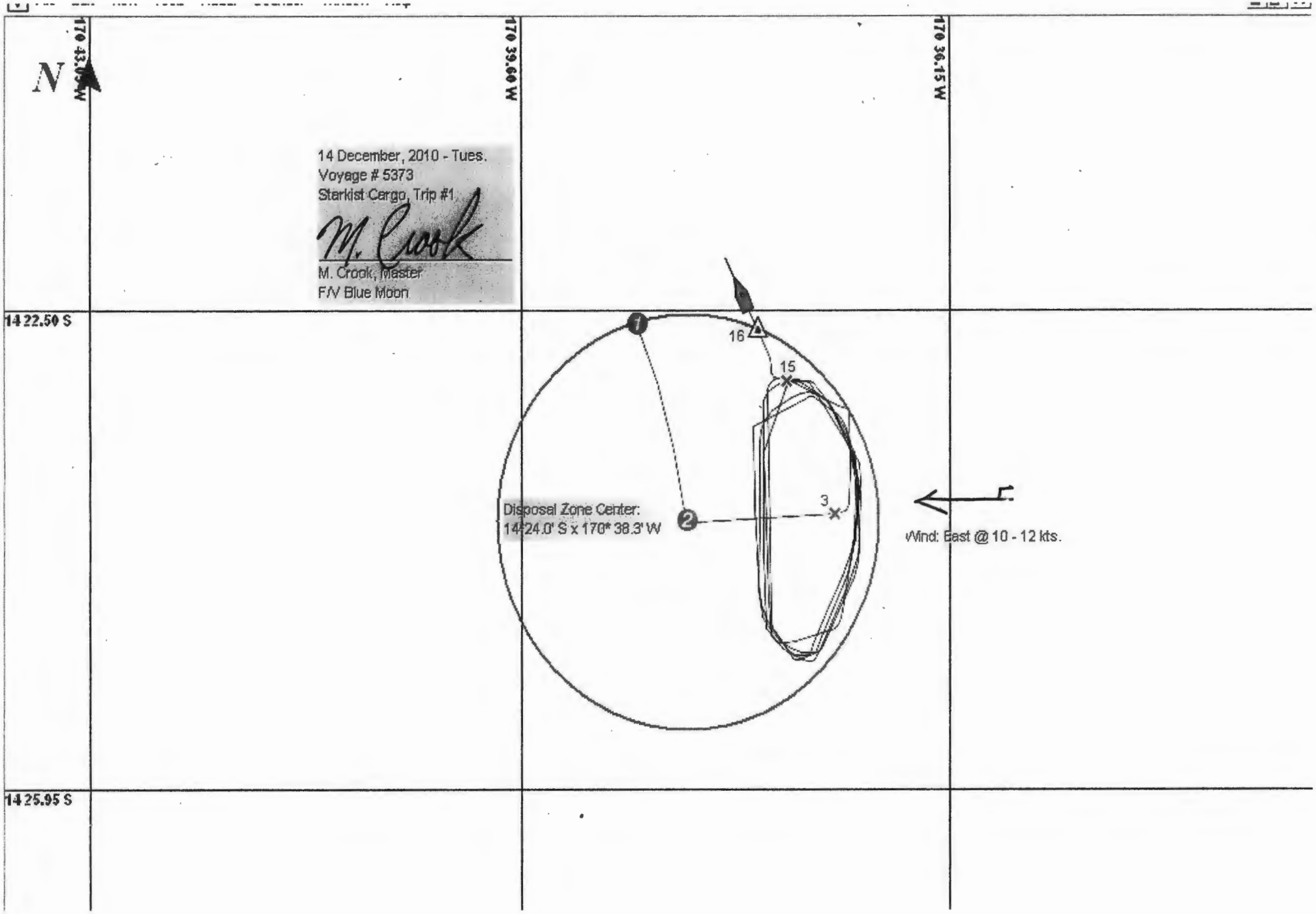

N
170 43.05 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
02 December, 2010 - Thurs.
Voyage # 5368
Starkist Cargo, Trip #1
*Ocean Monitoring/Sampling Conducted
M. Crook, Master
F/V Blue Moon
15
1
2
3
C
14
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: Northeast @ 5 - 10 kts.

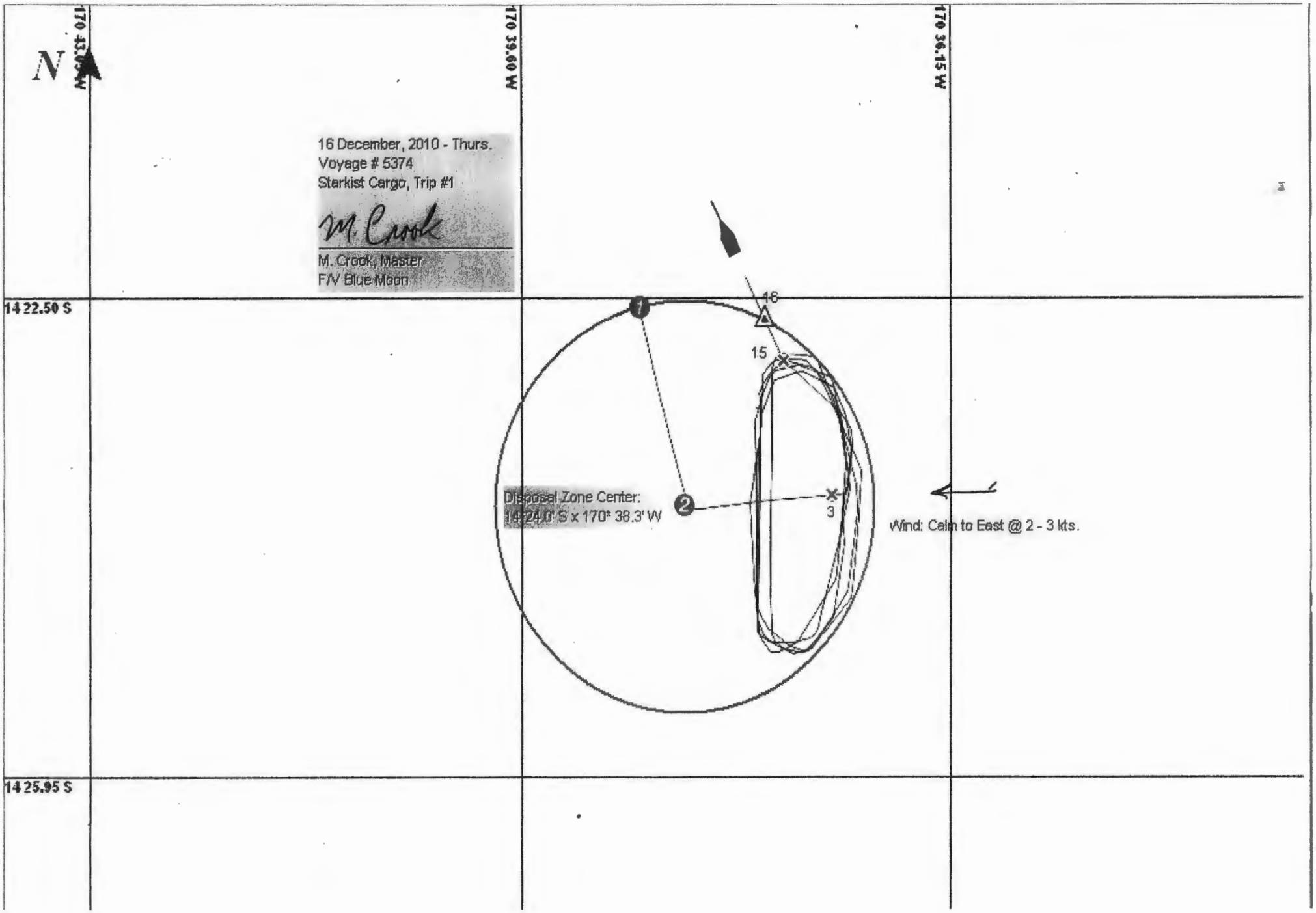

N
170 43.05 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
04 December, 2010 - Sat.
Voyage # 5369
Starkist Cargo, Trip #1
M. Crook, Master
F/V Blue Moon
1
2
3
15
16
Wind: Northeast @ 10 kts.
Disposal Zone Center:
14°24.0' S x 170° 38.3' W

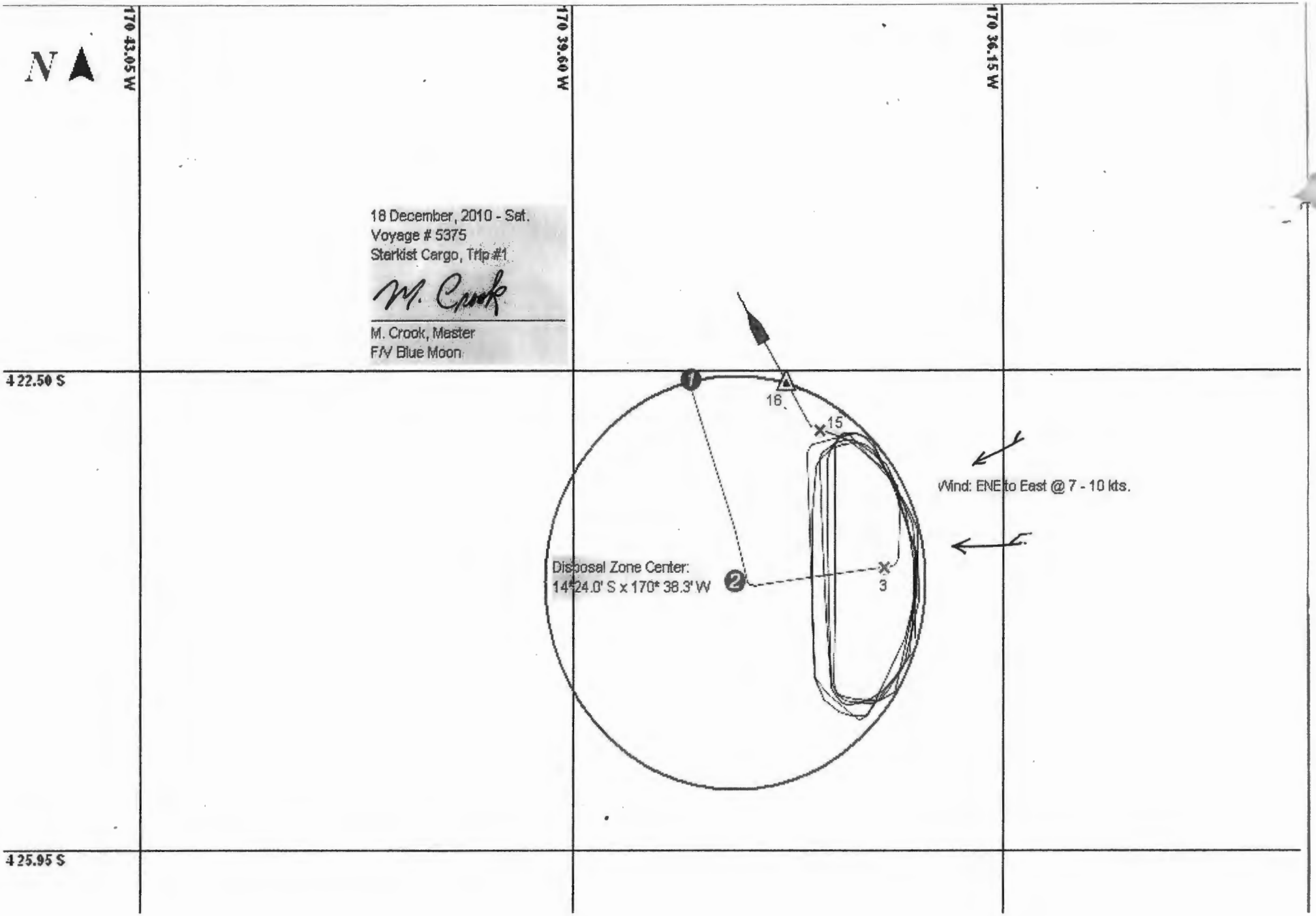

N
170 43.05 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
07 December, 2010 - Tues.
Voyage # 5370
Sterkist Cargo, Trip #1
M. Crook, Master
F/V Blue Moon
16
15
3
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: East @ 10 - 15 kts.


N
170 43.00 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
09 December, 2010 - Thurs.
Voyage # 5371
Starkist Cargo, Trip #1
M. Crook, Master
F/V Blue Moon
1
2
3
15
16
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: East @ 10 - 15 kts.


N
170 43.05 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
11 December, 2010 - Sat.
Voyage # 5372
Starkist Cargo, Trip #1
M. Crook, Master
F/V Blue Moon
1
2
3
15
16
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: East @ 12 - 15 kts.


N
170 43.05 W
170 39.60 W
170 36.15 W
14 22.50 S
14 25.95 S
14 December, 2010 - Tues.
Voyage # 5373
Starkist Cargo, Trip #1
M. Crook, Master
F/V Blue Moon
1
2
3
15
16
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: East @ 10 - 12 kts.


N
170 43.00 W
170 39.60 W
170 36.15 W
16 December, 2010 - Thurs.
Voyage # 5374
Starkist Cargo, Trip #1
M. Crook
M. Crook, Master
F/V Blue Moon
14 22.50 S
14 25.95 S
1
2
3
15
16
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: Calm to East @ 2 - 3 kts.


N
170 43.05 W
170 39.60 W
170 36.15 W
4 22.50 S
4 25.95 S
18 December, 2010 - Sat.
Voyage # 5375
Starkist Cargo, Trip #1
M. Crook, Master
F/V Blue Moon
1
2
16
15
3
Disposal Zone Center:
14°24.0' S x 170° 38.3' W
Wind: ENE to East @ 7 - 10 kts.