Aqua Survey, Inc.

BIOMONITORING REPORT
Mysidopsis bahia

KIN-BUC LANDFILL
383 MEADOW ROAD
EDISON, NEW JERSEY 08817

November 27, 2002

JOB #22-530

469 Point Breeze Road
Flemington, NJ 08822

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asi

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NJDEP BIOMONITORING REPORT FORM - ACUTE BIOASSAY

NJPDES PERMIT #: NJ Permit Equivalent DSN 002

FACILITY NAME: Kin-Buc Landfill
FACILITY ADDRESS: 383 Meadow Road, Edison, NJ 08817

FACILITY CONTACT PERSON: Glen Grieb **PHONE #:** 732-572-4743

ACUTE TOXICITY LABORATORY: AQUA SURVEY INC.
469 Point Breeze Road
Flemington, NJ 08822

ACUTE LABORATORY CERTIFICATION NO.: 10309

TEST SPECIFICATIONS

Effluent Type (e.g., final, predisinfection): Final

Test Type: Static Daily Renewal

TEST RESULTS/

Test Starting Date: 11/04/02 Completion Date: 11/08/02

Test Endpoint: LC_{50} x
NMAT ____
EC_{50} ____

LC_{50}/EC_{50} (% effluent): >100% 95% Confidence Interval: N/A

Highest percent mortality in any test concentration (if applicable): 5%
Test concentration: 50%

Test Organism: Mysid shrimp (common name) *Mysidopsis bahia* (scientific name)

QUALITY CONTROL SUMMARY

Control mortality:	zero
Temperature maintained within 20° +/- 2°C?:	Yes
Dissolved Oxygen Levels always greater than 40% saturation?	Yes
Two or more concentrations exhibit a trend deviation?	No

CERTIFICATION

Accuracy of report certified by:

Thomas J. Dolce
Laboratory Manager

11/27/02
Date

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TEST ORGANISM DATA

Test Organism Source: Culture x Commercial hatchery __ (Specify)

Test Organism Acclimation

Is the culture water and test dilution water the same and are the culture water temperature and dilution water temperature identical? Yes _ No x

If yes, proceed to Test Design section.

Fish and Grass Shrimp

Initial number of organisms:
Total acclimation period:
Acclimation period to 100 percent dilution water at the specified test temperature and test salinity:
Number of mortalities:
Test organism age at start of test (days):

Mysid and Cladoceran

Initial number of organisms: 150
Test organism age at start of test (days): 4 days
Culture water source: Forty Fathoms
Culture water salinity: 23.4 ; Culture water temperature: 22.8°C
Dilution water source: Manasquan
Dilution water salinity upon collection: 29.9 ppt
Number of mortalities: zero

TEST DESIGN

Number of effluent test concentrations: 5
Number of replicates/test concentration: 2
Number of test organisms/replicate: 10
Volume of liquid test chamber (liters): 0.5
Flowthrough bioassay exchange rate (replacements/day): N/A

EFFLUENT SAMPLING

Plant sampling location: Final Effluent just before weir
Effluent type: Final
Discharge (check one) Continuous x Intermittent _____
Effluent sample type: 24 composite

SAMPLE COLLECTION			SAMPLE DATA TAKEN UPON ARRIVAL AT LABORATORY			USE IN TOXICITY TEST	
ASI No.	Beginning Date/Time	Ending Date/Time	TEMP.	D.O.	PH	Date(s)	Time(s)
2022434	11/03/02;1100	11/04/02;1000	2.0	11.3	8.0	11/04/02	1640
2022469	11/04/02;1100	11/05/02;1000	2.4	10.6	7.4	11/05/02	1645
2022489	11/05/02;1100	11/06/02;1000	1.7	11.6	7.1	11/06/02	1640
2022499	11/06/02;1100	11/07/02;1000	2.3	11.5	7.3	11/07/02	1520

Maximum sample holding time (hours): <36
Testing location: Aqua Survey, Inc., Flemington, NJ

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EFFLUENT SAMPLE ADJUSTMENTS

Were any salinity adjustments made? Yes _x_ No __

If yes, specify the source of sea salts, brine or water used: Forty Fathoms, Marine Enterprises, MD

Were any pH adjustments made? Yes ____ No _x_

If yes, specify the reagent used ___ the amount used _____ sample

The pH level upon sample collection (initial pH) _

The pH level after the addition of the sea salts (drifted pH) _

The adjusted pH level __

Was the effluent sample filtered in any manner? Yes ____ No _x_

If yes, please specify the mesh size: _____.

Were any adjustments to the levels of chlorine made? Yes ____ No _x_

If yes, specify the dechlorination agent used _____; and the amount of reagent used _____

Specify the chlorine levels prior to _____; and after addition of the reagent _____

Was an additional control included in the test containing the dechlorination agent? Yes ____ No ___

DILUTION WATER

Effluent Receiving Water: Raritan River

Dilution Water Source: Manasquan

(If reconstituted water is used specify type)

If a substitute dilution water (i.e. not the receiving water) was used, had its use been approved by NJDEP in the acute methodology questionnaire? Yes _x_ No ____

Collection Location: Manasquan Inlet

Collection Date(s): 10/31/02

TEST RESULTS

LC_{50}/EC_{50} (% Effluent)	24 hour	48 hour	72 hour	96 hour
	>100%*	>100%*	>100%*	>100%*

Calculation Method:
- Probit Method __
- The Trimmed Spearman Karber Method __
- Graphical Interpolation __
- Visual Inspection *

NOTE: Attach the statistical printouts used to determine the LC_{50} value and the mortality data sheets.

Is the calculated LC_{50}/EC_{50} valid according to the specifications of the method used? Yes _x_ No ___

MISCELLANEOUS

Were any exposure chambers aerated during the test? Yes ____ No _x_

If yes, specify concentrations and duration, including the lowest percent saturation reached prior to aeration and at what time:_____.

Were test organisms observed for appearance and behavior at least daily? Yes _x_ No _

NOTE: Attach a copy of the acute toxicity test bench sheets with observation coded for each day.

NOTE: Attach a copy of the raw data sheets for physical-chemical measurements taken during the test to the test report form.

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APPENDIX

AQUA SURVEY, INC.
96 HOUR BIOASSAY

GENERAL INFORMATION

Job #: 22-530 Client: KBL Organism: M. bahia

Dilution Water: Receiving _____ Culture ✓ 40 fathoms Alternative ✓ Manasquan

Test Type: Flow Through _____ Static Daily Renewal ✓ Static Non- Renewal _____

Test Volume: 500mL Chamber Volume: 1L Light: 50-100 fc 52.8

Test Start Date: 11/4/02 Time: 1640 Technician: KW

Test End Date: 11/8/02 Time: 1035 Technician: LA

ACCLIMATION INFORMATION (Laboratory or Field Acclimation Only)

Exchange Rate: Drip ____ Meter, Pump ____ Exchange Rate (mL/min) _____

Start Date: _____ Time: _____ Chamber Volume: _____

End Date: _____ Time: _____ Feeding: : Day 0 _____ Day 1 _____ Day 2 _____ Day 3 _____

Remarks: _____ Mortality: Day 0 _____ Day 1 _____ Day 2 _____ Day 3 _____

Temperature Range: _____ (Field Use Only) Temperature: Day 0 _____ Day 1 _____ Day 2 _____ Day 3 _____ (Lab Use Only)

*See Culture Acclimation Form

DILUTER INFORMATION

Set Up Date: _____ Water Used: _____ Diluter Number: _____ Technician: _____

Cycles During Pretest: _____ Elapsed Time: _____

Day 1 Cycles: _____ Elapsed Time: _____ Day 2 Cycles: _____ Elapsed Time: _____

Day 3 Cycles: _____ Elapsed Time: _____ Total Cycles: _____ Elapsed Time: _____

DESCRIPTION OF SAMPLES (Use Only for In- Lab Samples)

Effluent Odor: None Color: yellow Other: _____

Diluent Odor: None Color: Clear Salinity: 29 ppt Other: _____

ASI Number	Sample Data Taken Upon Arrival at Laboratory			Use in Toxicity Test	
	Temperature	D.O.	pH	Date(s)	Time(s)
2022434	2.0	11.3	8.0	11/4/02	1640
2022469	2.4	10.6	7.4	11/5/02	1645
2022489	1.7	11.6	7.1	11/6/02	1640
2022499	2.3	11.5	7.3	11/7/02	1520

AERATION PROCEDURE

Aeration Required: _____ Aeration Not Required: ✓

Description of Problem: Do levels below 50% saturation ____ DO levels dropping rapidly ____

Cycles Increased: Date: _____ Time: _____ Technician: _____

Dilution aeration begun: Date: _____ Time: _____ Technician: _____

Test aeration begun: Date: _____ Time: _____ Technician: _____

Aqua Survey, Inc.

LIVE COUNTS AND OBSERVATIONS

Job #: 22-530 Organism: M. bahia

Concentration %		Observation Interval- Hours									
		0		24		48		72		96	
		Live Count	Observ	Live Count	Observ	Live Count	Observ	Live Count	Observ	Live Count	Observ
40 Fathoms Control	A	10	1	10	1	10	1	10	1	10	1
	B	10	1	10		10		10		10	
Manasquan Dil	A	10	1	10		10		10		10	
	B	10	1	10		10		10		10	
6.25	A	10	1	10		10		10		10	
	B	10	1	10		10		10		10	
12.5	A	10	1	10		10		10		10	
	B	10	1	10		10		10		10	
25	A	10	1	10		10		10		10	
	B	10	1	10		10		10		10	
50	A	10	1	10		10		10		10	
	B	10	1	9		9		9		9	
100	A	10	1	10		10		10		10	
	B	10	1	10		10		10		10	
Date		11/4/02		11/5/02		11/6/02		11/7/02		11/8/02	
Initials		KW		LH		KW		KW		LH	

Terms and Conditions for Test Organisms' Appearance and Behaviour

Term	Explanation	Code
Normal	Unaffected	1
Inactive	Abnormally low activity, motionless or nearly so, weak and enfeebled	2
Irritated	Hyperactivity, muscle spasms, erratic swimming	3
Surfacing	Rising and remaining unusually long at the surface	4
Abnormal body orientation	Inverted or turned approximately 90° laterally from normal body position	5
Abnormal skin color	Light discolored, dark discolored, or varidiscolored (mottled)	6
Abnormal skin condition	Mucus shedding or coagulations, hemorrahaging from gills, eyes or anal opening	7
Abnormal respiration	Rapid, slow, gulping or periodic flexure of the operculum of fish as to reverse water flow (coughing)	8

AQUA SURVEY, INC.

CULTURE LAB DISTRIBUTION FORM

DATE: 11/4/02

TEST JOB#: 22-530 CLIENT: KBL

TEST LOCATION: IN-LAB [X] FIELD [ ]

TEST SPECIES: M bahia

TOTAL NUMBER ORGANISMS TRANSFERRED: 150+

AQUA SURVEY, INC. CULTURE LAB INVESTIGATORS: CC

A. ORGANISMS

1. ASI CULTURE/HOLDING UNIT: 39l Tank
2. RECEIVING LOG #: N/A
3. CULTURE LOG #: 22-0629
4. AGE/SIZE INFORMATION: HD 10/31/02

B. HOLDING [X] CULTURE [ ] WATER PARAMETERS

1. TEMPERATURE: 21.9°C
2. SALINITY: 29.9 ppt
3. WATER SOURCE: Manasquan

C. TRANSFER CUSTODY & TRANSFER

1. LIVESTOCK RELINQUISHMENT DATE: 11/4/02
   TIME: 1600hrs
   BY: CC

2. LIVESTOCK RECEIVING DATE: 11/4/02
   TIME: 1600hrs
   BY: [illegible]

3. CULTURE SUPERVISOR OR SENIOR TECH. INITIALS: CC

REMARKS:

AQUA SURVEY, INC.
CULTURE LABORATORY

15 Day - General Species Status Log

Species: M. bahia

Dates: 10/31/02

Receiving [ ] Culture [X] Log #: 4D 10/31/02

Initial Stock @: 200+

Test Job #: 22-530

Client: ICBL

Food Type: Artemia

Date	Day Number	Temp/DO	NH_3NO_2	pH	Sal/Hardness	Alkalinity	Mortality	Remarks/Initials
10/31	1	22.8°C/6.5	0/0	7.8	23.4ppt	104	Ø	Acclimation started Fed Artemia BK/CD
11/1	2	22.0°C/7.1	0/0-0.3	7.4	26.2ppt	124	Ø	Acclimation cont Fed Artemia CD/BK
11/2	3	20.4°C/6.6	0.25/0.3	7.6	28.4ppt	~~240~~ ①	Ø	Acclimation concluded Fed Artemia CC
11/3	4	21.5°C/7.6	0.5/0.3-0.8	8.1	29.4ppt	128	Ø	Fed Artemia CC
11/4	5	21.9°C/6.2	0.5/0.3	7.9	29.9ppt	136	Ø	To test CC
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							

① Mistake CC ALK = 124

AQUA SURVEY, INC.

Culture Lab Acclimation Form

Acclimatization

[ ] No acclimatization required
[ ] Temperature acclimatization
[ ] Water acclimatization

Job #: 22-530 Test Species: ~~Apr~~ (1) M. bahia

Acclimatization Initial Parameters

Temperature: 22.8°C Salinity: 23.4ppt Type of Water: Forty Fathoms

Acclimatization Target Parameters

Temperature: 20±2 °C Salinity: 30±2 ppt Type of Water: Monesqueen

Acclimatization Chamber Volume (liters): 39l tank

Acclimatization Location: Culture Lab

Acclimatization Water Type: Monesqueen

Acclimatization Water Temperature: 20.6 °C

Acclimatization Commencement-Date/Time: 10/3/02 / 1600hrs

Change Over Rate (Approximately mL/Minute): 10-20ml/min.

Acclimatization Conclusion - Date/Time: 11/2/02 / 1630hrs

Technician Initials/Commencement: CD

Technician Initials/Conclusion: CC

Supervisor Initials: CD

Remarks: (1) Mistake CD

Job #: 22-530
Client: KBL
Sample: effluent

ASI Sample #: 2022434
Approx. sample volume: 2L
Collection Date/Time: 11/4/02
Initial pH 8.2
(Salinity adjusted): 8.2

Normality & Vol. of HCl/NaOH: _____ pH: _____

Normality & Vol. of HCl/NaOH: N/A pH: _____

Normality & Vol. of HCl/NaOH: _____ pH: _____
Date/Time: 11/4/02 1610 Initial: KW

ASI Sample #: 2022469
Approx. sample volume: 2L
Collection Date/Time: 11/5/02
Initial pH 8.1
(Salinity adjusted): 8.1

Normality & Vol. of HCl/NaOH: _____ pH: _____

Normality & Vol. of HCl/NaOH: N/A pH: _____

Normality & Vol. of HCl/NaOH: _____ pH: _____
Date/Time: 11/5/02 1430 Initial: KW

ASI Sample #: 2022489
Approx. sample volume: 2L
Collection Date/Time: 11/6/02
Initial pH 8.1
(Salinity adjusted): 8.2

Normality & Vol. of HCl/NaOH: _____ pH: _____

Normality & Vol. of HCl/NaOH: N/A pH: _____

Normality & Vol. of HCl/NaOH: _____ pH: _____
Date/Time: 11/6/02 1615 Initial: KW

ASI Sample #: _____
Approx. sample volume: 2L
Collection Date/Time: 11/7/02
Initial pH 8.1
(Salinity adjusted): 8.2

Normality & Vol. of HCl/NaOH: _____ pH: _____

Normality & Vol. of HCl/NaOH: N/A pH: _____

Normality & Vol. of HCl/NaOH: _____ pH: _____
Date/Time: 11/7/02 1500 Initial: KW

Job #: 22-530

Client: KBL

AQUA SURVEY, INC.
Hardness Worksheet

Lot # EDTA:
Molarity EDTA: 0.0100M

Sample	ASI #	Dish ID	Sample Volume (mL)	Burette Reading Initial	Burette Reading Final	Difference (A)	mg/L* $CaCO_3$	Initial/ Date/ Time
DIK ①								
0	2022434	1	10	0.0	11.0	11.0	1100	11/22/02 1450
24	2022469	2	↓	0.0	11.7	11.7	1170	↓
48	2022489	3	↓	0.0	11.6	11.6	1160	↓
72	2022499	4	↓	0.0	11.6	11.6	1160	↓
① 96			↓					

* mg $CaCO_3$= AxBX1000/mL Sample
Where A= volume of standard EDTA titrant used
Where B= 1 when EDTA molarity =0.01
NOTE: If sample volume is changed the simplified equation must be altered to reflect change

Or simplified when 25mLsample used mg $CaCO_3$/L= Ax40

① N/A 11/21/02

AQUA SURVEY, INC.
96 HOUR BIOASSAY

WATER QUALITY

Job #: 22-530

Organism: M bahia

Client: KBL

Conc.	ALKALINITY (mg/L in 25 mL)					HARDNESS (mg/L in 25 mL)				
0 %	0	24	48	72	96	0	24	48	72	96
Start	12.5				2.2					
Stop	15.1				5.0					
Diff	2.6				2.8		N/A			
X	40	40	40	40	40	40	40	40	40	40
	104				112					
Initial/ Date/ Time	LH 11/8/02				LH 11/8/02					
100 %	0	24	48	72	96	0	24	48	72	96
Start	0	0	0	0	5.0					
Stop	5.0	4.2	4.4	4.4	12.5	See Hardness Work Sheet				
Diff	5.0	4.2	4.4	4.4	7.5					
X	40	40	40	40	40	40	40	40	40	40
	200	168	176	176	300					
Initial/ Date/ Time	MS 1530 11-5-02	MT 1500 11/4/02	MT 1420 11/6/02	MS 1500 11-7-02	LH 11/8/02					

Residual Chlorine (mg/L in 25 mL)					
Conc.	0	24	48	72	96
0 %	ND				NA RE 11/22/02
100 %	ND	ND	ND	ND	
Initial/ Date/ Time	MT 1500 11/4/02	MS 1530 11-5-02	MT 1530 11/6/02	MS 1500 11-7-02	

ND= Non Detectable Limit

Nitrite (ppm in 25 mL)					
Conc.	0	24	48	72	96
0 %			NA 11/22/02		
100 %					
Initial/ Date/ Time					

530B-0.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	11/04/02 16:26:21 40 fats	21.30	44029.0	28.46	6.88	8.26
1	11/04/02 16:27:00 con	19.24	44066.0	28.50	8.35	8.10
2	11/04/02 16:27:31 6 25	19.24	43933.0	28.40	8.58	8.05
3	11/04/02 16:27:52 12.5	19.35	43990.0	28.44	8.59	8.06
4	11/04/02 16:28:16 25	19.73	44279.0	28.65	8.57	8.09
5	11/04/02 16:28:49 50	20.38	44614.0	28.89	8.45	8.16
6	11/04/02 16:29:33 100	21.92	45553.0	29.55	7.84	8.24

Project #: 530 Test type: ☑ ACUTE ☐ CHRONIC ☐ OTHER _____ Date: 11/4/02

Species: ☐ *P. promelas* ☐ *C. dubia* ☑ *M. bahia* ☐ Other _____ Day of Study: 0hrs

OPERATIONAL RANGE:

			Check if OK
Temperature:	18 to 22		☑
Salinity:	28 to 32		☑
Dissolved Oxygen:	>4 0		☑
pH:	7.3 to 8.3 ☐	6.0 to 9.0	☑

Meter Used:
Blue ☐
Red ☑
Green ☐

Actions taken: _____

See deviation summary sheet ☐

Initials: UH

530B-24.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	11/05/02 09:44:40	19.43	44133.0	28.55	7.71	7.66
1	11/05/02 09:46:02	19.61	44033.0	28.47	7.62	7.56
2	11/05/02 09:46:37	19.68	44220.0	28.61	7.61	7.53
3	11/05/02 09:47:24	19.65	44456.0	28.78	7.69	7.55
4	11/05/02 09:47:56	19.61	44758.0	28.99	7.72	7.60
5	11/05/02 09:48:22	19.66	45160.0	29.28	7.70	7.67
6	11/05/02 09:48:54	19.81	46162.0	30.01	7.57	7.77

Project #: 530 Test type: ☑ ACUTE ☐ CHRONIC ☐ OTHER _____ Date: 11/5/02

Species: ☐ *P. promelas* ☐ *C. dubia* ☑ *M. bahia* ☐ Other _____ Day of Study: 84hrs

OPERATIONAL RANGE:

			Check if OK
Temperature:	18	to 22	☑
Salinity:	28	to 32	☑
Dissolved Oxygen:	>4 0		☑
pH:	7.3 to 8.3 ☐	6.0 to 9.0	☑

Meter Used:
Blue ☐
Red ☐
Green ☑

Actions taken: _____

See deviation summary sheet ☐

Initials: LH

530B-48.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	11/06/02 09:49:29	20.38	44975.0	29.15	6.59	7.78
1	11/06/02 09:50:27	20.30	45048.0	29.20	6.76	7.59
2	11/06/02 09:51:02	20.26	44979.0	29.15	6.86	7.53
3	11/06/02 09:51:24	20.21	44883.0	29.08	6.91	7.53
4	11/06/02 09:51:59	20.25	45033.0	29.19	6.93	7.58
5	11/06/02 09:52:32	20.27	45097.0	29.24	6.87	7.66
6	11/06/02 09:53:13	20.35	45396.0	29.45	6.66	7.78

Project #: 530 **Test type:** ☑ ACUTE ☐ CHRONIC ☐ OTHER _____ **Date:** 11/6/02

Species: ☐ *P. promelas* ☐ *C. dubia* ☑ *M. bahia* ☐ Other _____ **Day of Study:** 48hrs

OPERATIONAL RANGE: **Check if OK** **Meter Used:**

Temperature: 18 to 22 ☑ **Blue** ☐

Salinity: 28 to 32 ☑ **Red** ☐

Dissolved Oxygen: >4 0 ☑ **Green** ☑

pH: 7.3 to 8.3 ☐ 6.0 to 9.0 ☑

Actions taken: _____

See deviation summary sheet ☐ **Initials:** LA

530B-72.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	11/07/02 09:59:03	20.00	45106.0	29.24	6.82	7.63
1	11/07/02 10:00:21	20.00	44520.0	28.82	6.98	7.49
2	11/07/02 10:00:57	20.00	44489.0	28.80	7.03	7.47
3	11/07/02 10:01:43	20.01	44509.0	28.81	7.04	7.50
4	11/07/02 10:02:09	19.98	44434.0	28.76	7.05	7.56
5	11/07/02 10:02:37	20.05	44567.0	28.86	7.02	7.66
6	11/07/02 10:03:06	20.12	44624.0	28.90	6.94	7.80

Project #: 530 **Test type:** ☑ ACUTE ☐ CHRONIC ☐ OTHER _____ **Date:** 11/7/02

Species: ☐ *P. promelas* ☐ *C. dubia* ☑ *M. bahia* ☐ Other _____ **Day of Study:** 72hrs

OPERATIONAL RANGE:

			Check if OK	Meter Used:
Temperature:	18 to 22		☑	Blue ☐
Salinity:	28 to 32		☑	Red ☐
Dissolved Oxygen:	>4 0		☑	Green ☐
pH:	7.3 to 8.3 ☐	6.0 to 9.0	☑	

Actions taken: _____

See deviation summary sheet ☐ **Initials:** LH

530B-96.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	11/08/02 09:43:13	19.75	46956.0	30.59	7.59	7.64
1	11/08/02 09:44:14	19.62	45271.0	29.36	7.71	7.50
2	11/08/02 09:44:57	19.61	45142.0	29.27	7.72	7.45
3	11/08/02 09:46:09	19.62	45027.0	29.19	7.67	7.46
4	11/08/02 09:46:46	19.62	45052.0	29.21	7.57	7.52
5	11/08/02 09:47:35	19.61	45172.0	29.29	7.50	7.62
6	11/08/02 09:47:57	19.72	45501.0	29.53	7.42	7.73

Project #: 530 **Test type:** ☑ ACUTE ☐ CHRONIC ☐ OTHER _____ **Date:** 11/8/02

Species: ☐ *P. promelas* ☐ *C. dubia* ☑ *M. bahia* ☐ Other _____ **Day of Study:** 96hrs

OPERATIONAL RANGE: **Check if OK** **Meter Used:**

Temperature: 18 to 22 ☑ **Blue** ☐

Salinity: 28 to 32 ☑ **Red** ☐

Dissolved Oxygen: >4 0 ☑ **Green** ☑

pH: 7.3 to 8.3 ☐ 6.0 to 9.0 ☑

Actions taken: _____

See deviation summary sheet ☐ **Initials:** CH

asi

Job #: VC-530

Client: KBL (Kin BUC) Landfill

Facility Location:

Discharge #:

Contact:

Phone #:

Sample Collection Point: FINAL EFFLENT, EFFLENT JUST BEFORE WEIR.

Test Type: Acute ✓ Chronic ___ Diluent Only ___ Other: ___

Dilution Collection Location:

Shipping Information:
To: ASI

From: ~~ASI A.~~ ① KBL

Shipment Method/ Special Instructions:
ASI AUTO

Collection/ Sample Key: C= Composite; G= Grab; SD= Sediment; E= Effluent; D= Diluent; S= Soil; SL= Sludge; T= Tissue

ASI #	Collected By: Name (Print)/ Date*/ Time*	Collection/ Sample Type	Sample Volume	Relinquished By: Signature/ Date/ Time	Received By: Signature/ Date/ Time	Relinquished By: Signature/ Date/ Time	Received By: Signature/ Date/ Time
2022434	M. TURNER 11/3/02 1100 / 11/4/02 1000	C/E	4L	Mark Turner 11/4/02 1630	Sig Horn 11/4/02 1630		
2022469	M. SWENSON 11-4-02 1100 11-5-02 1000	C/E	4L	[illegible] 11-5-02 1345	Kelly Wischmeier 11/5/02 1345		
2022489	M. TURNER 11/5/02 1100 / 11/6/02 1000	C/E	4L	Mark Turner 11/6/02 1650	Tom Dolce 11/6/02 1700		
2022499	M. SWENSON 11-6-02 1100 → 11-7-02 1000	C/E	4C	[illegible] 11-7-02 1430	Tom Dolce 11/7/02 1500		

* Please Write Date and Time Sample Collection Started and Date and Time Sample Collection Ended

ASI #	Ice +	Temp. °C	Signature/ Date/ Time	Notes:
2022434	I	2.0	Mark Turner 11/4/02 1630	
2022469	I	2.4	[illegible] 11-5-02 1345	
2022489	I	1.7	Mark Turner 11/6/02 1650	
2022499	I	2.3	[illegible] 11-7-02 1430	

+
I= Ice
D= Dry Ice
B= Blue Ice
N= None

INTERNAL USE ONLY

Aqua Survey, Inc., 469 Point Breeze Road, Flemington, NJ 08822; Phone: (908)788-8700; Fax: (908)788-9165; www.aquasurvey.com

① KBL

QUALITY CARRIERS, INC. 3802 CORPOREX PARK DRIVE, SUITE 200 TAMPA, FL 33619 | SCAC-QLYC

DRIVER 1:	[illegible]	DRIVER NO.:	500036
DRIVER 2:	[illegible]	DRIVER NO.:	[illegible]
DRIVER 3:	[illegible]	DRIVER NO.:	[illegible]
TRAILER/CHASSIS NUMBER:	5605	CONTAINER NUMBER:	

ORDER NUMBER: 5 5 6 2 2 8 1 4

SHIPPER NAME/CITY/STATE:
ATLANTIC OCEAN
[illegible] Blvd
Ft. Pleasant NJ

CONSIGNEE NAME/CITY/STATE:
AQUASURVEY
Flemington NJ

TRACTOR NUMBER
LOAD 01061
UNLOAD [illegible]
LINEHAUL [illegible]
RELAY 1
RELAY 2
RELAY 3

C	PKG	COMMODITY AND HAZARDOUS MATERIAL DESCRIPTION (MUST AGREE WITH DESCRIPTION ON SHIPPING ORDER)	QUANTITY	TARE	GROSS	NET	TEMP
		SEAWATER	5500GAL				

IN CASE OF LEAK, SPILL, FIRE OR OTHER EMERGENCY, CALL TOLL FREE
QUALITY CARRIERS 24 HOUR EMERGENCY RESPONSE HOT LINE 800-759-8265

COMPLETE AS REQUIRED: INTRANSIT HEAT ○ TRAILER STEAMING ○ TRAILER CLEANING ○ DEAD HEAD MILES _____
CANCELLED SHIPMENT ○ REJECTED SHIPMENT ○ RECONSIGNED SHIPMENT ○ TOLLS $ _____ US ○ CAN ○

LOADING INFORMATION (MILITARY TIME):
APPOINTMENT: DT 10/31/00 TIME 1300
ARRIVAL TIME: DT 10/31/00 TIME 1330
START TIME: DT 10/31/00 TIME 1345
FINISH TIME: DT 10/31/00 TIME 1430
DEPART TIME: DT 10/31/00 TIME 1445

UNLOADING INFORMATION (MILITARY TIME):
APPOINTMENT: DT 11/1/00 TIME 800
ARRIVAL TIME: DT 11/1/00 TIME 1125
START TIME: DT 11/1/00 TIME 1215
FINISH TIME: DT 11/1/00 TIME [illegible]
DEPART TIME: DT _____ TIME _____

SHIPPER BILL OF LADING NUMBER

LATE PICKUP REASON:
SHIPPER ○ DISPATCH ○ EQUIPMENT ○
DRIVER ○ WEATHER/ROAD CONDITIONS ○
PUMP ○ COMPRESSOR ○ BLOWER ○
VACUUM ○ NOZZLE ○ SPOTTED TRL ○
RAIL TRANSFER ○ SCALE $ _____ US ○ CAN ○
HOSE 2" _____ FT 3" _____ FT 4" _____ FT

LATE DELIVERY REASON:
SHIPPER ○ DISPATCH ○ EQUIPMENT ○
DRIVER ○ WEATHER/ROAD CONDITIONS ○
PUMP ○ COMPRESSOR ○ BLOWER ○
VACUUM ○ NOZZLE ○ SPOTTED TRL ○
RAIL TRANSFER ○ SCALE $ _____ US ○ CAN ○
HOSE 2" _____ FT 3" _____ FT 4" _____ FT

I HAVE CHECKED THE DOCUMENTS FOR THIS SHIPMENT AND VERIFY THAT THERE IS ADEQUATE STORAGE ROOM TO RECEIVE THIS SHIPMENT AND CONNECTION HAS BEEN MADE TO THE PROPER STORAGE FACILITY

CONSIGNEE'S SIGNATURE

REASON FOR LOADING DELAY: Work plant fatigue

REASON FOR UNLOADING DELAY:

CONSIGNEE YOU ARE RESPONSIBLE FOR UNLOADING ALL CONTENTS ASSIGNED TO YOU BY SHIPPER

○ ALL PRODUCT WAS RECEIVED IN GOOD ORDER
○ NO RETAIN - ALL PRODUCT WAS REMOVED FROM THE TRAILER
○ LESS THAN 5 GALLONS RETAIN AND NO PRODUCT IS VISABLE ON TRAILER WALLS
○ MORE THAN 5 GALLONS RETAIN REMAIN IN THE TRAILER
APPROX _____ GAL REMAIN
○ TRAILER WAS NOT INSPECTED POSSIBLE RETAIN

SHIPPER'S SIGNATURE X

CONSIGNEE'S SIGNATURE X

I acknowledge that the current rate for the specific load referenced in this delivery receipt may be higher or lower than the compensation percentage indicated in my contractor agreement. I have been advised of and understand the rate for this specific movement and indicate my acceptance by my initials below. Further, I understand that this document becomes an addendum to my independent contractor agreement.

Initials Date

MAN11-1.DAT

	DateTime	Temp	SpCond	Salinity	DO Conc	pH
	M/D/Y	C	uS/cm	ppt	mg/L	
0	11/01/02 11:36:33	16.19	44102.0	28.51	8.37	7.66

Page of

ASI, INC.
SAMPLE RECEIVING FORM

Client: VARIOUS
Job #: VARIOUS
Shipped Via: QC
# of Shipping Containers: 1
Type of Shipping Container: tanker
Custody Seal: Present __ Absent ✓ Broken __
Condition of Shipping Containers: Acceptable ✓ Unacceptable __

	ASI #	Sample ID	Type of Container	Number of Containers	Condition of Samples †	Temp. °C	Ice +	Type of Sample *
1.	2022411	MANASQUAN	tanker	1	A	16.2	N	W
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								

NOTES: (Discrepancies Between Sample Label and COC Record)

	OPENED/RECEIVED BY:	DATE/TIME
1.	Tom Dolie	11/1/02 1000
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Fri Nov 01 12:16:16 2002

* Sp Soil † Ac Acceptable + Ice