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18 JULY 91

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TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-01-7367

TO: Ed Makarewicz, EPA-OSC

FROM: Bill Sy, TAT II PM BM
S. May, TAT II QC SM

SUBJECT: Documentation of Transmittal

SITE: ELizabeth Coal Gas

TDD#: 9104-0012 WM

DATE: 7/17/91

The purpose of this memo is to document the transmittal of the following:

_____ Letter Report DCN#_____

_____ OSC Report Draft/Final DCN#_____

_____ Photographs

_____ Analytical Data

_____ POLREP

_____ Safety Plan DCN#_____

_____ Community Relations Plan DCN#_____

_____ Sampling Plan DCN#_____

_____ Sampling Report DCN#_____

_____ Action Memorandum DCN#_____

_____ SPCC Report

_____ Site Maps

__x__ Other summary of ESD results

cc: TAT PM
TDD File

394268

Roy F. Weston, Inc.
MAJOR PROGRAMS DIVISION
In Association with ICF Technology, Inc., C.C. Johnson & Malhotra, P.C., Resource Applications, Inc., and R.E. Sarriera Associates

ELIZABETH COAL GAS (aqueous)

VOLATILES	UNITS	G-15 aq.	H-16 aq.	A-Q-1, aq.	L-12, aq.	trip blank	Rinsate
Ethyl Benzene	ug/L					1.0J	

SEMI-VOLATILES/BNA's	UNITS	G-15, aq.	H-16, aq.	A-Q-1, aq.	L-12, aq.	trip blank	Rinsate
Isophorone	ug/L	0.2J	0.1J				
2-Methylnaphthalene	ug/L				0.1J		
Acenapthylene	ug/L				0.4J		
Bis-(2-ethylhexyl) Phthal.	ug/L	190	3.4J	5.1J	5.9J		
Dibenzofuran	ug/L				0.3J		
Fluorene	ug/L				0.2J		
Phenanthrene	ug/L	0.6J	0.1J	0.2J	0.9J		0.1J
Anthracene	ug/L				0.4J		
Di-n-butylphthalate	ug/L	17					
Fluoranthene	ug/L	1.1J	0.2J	0.5J	2.0J		
Pyrene	ug/L	0.6J	0.2J	0.5J	1.6J		
Butyl Benzyl Phthalate	ug/L		0.2J	0.4J	1.0J		0.2J
Chrysene	ug/L			0.4J	1.2J		
Di-n-octyl Phthalate	ug/L	380			0.1J		
3,4-Benzofluoranthene	ug/L			0.2J	1.0J		
11,12- Benzofluoranthene	ug/L			0.4J	0.8J		
Benzo(a)pyrene	ug/L			0.3J	1.0J		
Indeno(1,2,3-cd)pyrene	ug/L			0.2J	0.7J		
1,12-Benzoperylene	ug/L				0.8J		
1,2 Benzanthracene	ug/L		0.1J		1.0J		

J : estimated

ELIZABETH COAL GAS (aqueous)

METALS/CN	UNITS	G-15, aq.	H-15, aq.	A-Q-1	L-12, aq.	trip blank	Rinsate
Aluminum	ug/L	309	418	493	789		
Arsenic	ug/L		16.4	17.6			
Calcium	mg/L	100	54	56	72		
Chromium	ug/L						22
Copper	ug/L	56	41	36	30		
Lead	ug/L				37		
Magnesium	mg/L	24	29	30	27		
Manganese	ug/L	67	131	159	319		
Potassium	mg/L	6	8	8	7		
Sodium	mg/L	100	183	188	159		
Zinc	ug/L	46	55	61	77		

J : estimated

ELIZABETH COAL GAS (soil)

VOLATILES	UNITS	D-4, SS	D-4, s	D-4, s, MS	4, s, MS/M	I10, s	H11, s	H4, s	J6, s
Methylene Chloride	ug/kg								
Benzene	ug/kg					150J			
Toluene	ug/kg		100J			300J			
Phenol	ug/kg					140J	91J		

SEMI-VOLATILES/BNA's	UNITS	D-4, ss	D-4, s	D-4, s, MS	4, s, MS/M	I10, s	H11, s	H4, s	J6, s
1,3-Dichlorobenzene	ug/kg								
2-Methylphenol	ug/kg					34J	87J		
4-Methylphenol	ug/kg					100J			
2,4-Dimethylphenol	ug/kg								
Naphthalene	ug/kg		240J				650J	950J	170J
2-Methylnaphthalene	ug/kg		46J			440J	100J	190J	37J
Acenapthylene	ug/kg		110J			2300	930J	660J	110J
Acenaphthene	ug/kg		91J			430J	120J	460J	59J
Dibenzofuran	ug/kg		62J			800J	220J	250J	39J
Fluorene	ug/kg		62J			1000J	240J		
Phenanthrene	ug/kg	76J	600J			10000	2800	4100	420J
Anthracene	ug/kg	22J	210J			3400	900J	1400J	190J
Diethyl Phthalate	ug/kg	140J	62J				87J	110J	98J
Di-n-butylphthalate	ug/kg	510J	360J			450J	390J	410J	630J
Fluoranthene	ug/kg	140J	1400J			16000	5800	8700	1300
Pyrene	ug/kg	120J	1200J			15000	5800	7800	1200
Butyl Benzyl Phthalate	ug/kg		32J			82J	140J		22J
Chrysene	ug/kg	74J	820J			11000	3900	5400	890J
Di-n-octyl Phthalate	ug/kg						160J	220J	
3,4-Benzofluoranthene	ug/kg	64J	730J			14000	4200	5000	820J
11,12- Benzofluoranthene	ug/kg	57J	790J			4800	2500	4100	720J
Benzo(a)pyrene	ug/kg	79J	920J			12000	4200	5800	960J
Indeno(1,2,3-cd)pyrene	ug/kg	41J	450J			6000	2000	2700	510J
1,12-Benzoperylene	ug/kg	42J	160J			5600	1900	2700	520J
1,2 Benzanthracene	ug/kg	82J							
1,2:5,6-Dibenzanthracene	ug/kg		140J			580J	170J	250J	130J

J : estimated

ELIZABETH COAL GAS (soil)

PESTICIDES/PCB	UNITS	D-4, SS	D-4, s	D-4, s, MS	4, s, MS/M	I10, s	H11, s	H4, s	J6, s
4,4'-DDE	ug/kg						22.5		
4,4'-DDT	ug/kg						56.5		

METALS/CN	UNITS	D-4, ss	D-4, s	D-4, s, MS	4, s, MS/M	I10, s	H11, s	H4, s	J6, s
Aluminum	mg/kg	14000	7880	7940	7700	9720	10400	11900	8630
Barium	mg/kg	64	24	33	35	134	144	164	35
Cadmium	mg/kg	5.8	5.3	5.1	4.9	10.0	10.2	8.3	5.8
Calcium	mg/kg	1130	727	1450	2090	8820	7340	3070	856
Chromium	mg/kg	11	14	16	17	21	23	26	15
Cobalt	mg/kg	9				10	10	10	
Copper	mg/kg	11	14	15	21	77	127	54	13
Iron	mg/kg	15200	13700	14100	12900	23100	24000	21400	14800
Lead	mg/kg	8	40	57	84	274	233	328	44
Magnesium	mg/kg	2880	617	1060	1220	4930	5050	4520	1170
Manganese	mg/kg	678	75	98	71	404	398	363	108
Mercury	mg/kg		0.14		0.62	1.0	0.80	0.91	
Nickel	mg/kg	13	5	7	7	26	29	23	7
Potassium	mg/kg	884		579	602	1590	1840	1600	
Silver	mg/kg	5.0	4.6	4.8	4.6	9.0	8.8	7.9	5.2
Sodium	mg/kg				574	738	743	751	643
Vanadium	mg/kg	22	18	18	18	28	50	31	19
Zinc	mg/kg	33	34	46	66	193	241	178	40

J : estimated

ELIZABETH COAL GAS (soil)

VOLATILES	UNITS	F6, s	I14	Z1	H8	I14ss	D9	K12
Methylene Chloride	ug/kg			2500				
Benzene	ug/kg							
Toluene	ug/kg							
Phenol	ug/kg		610J			160J		170J

SEMI-VOLATILES/BNA's	UNITS	F6, s	I14	Z1	H8	I14ss	D9	K12
1,3-Dichlorobenzene	ug/kg					36J		
2-Methylphenol	ug/kg		130J					160J
4-Methylphenol	ug/kg		530J			120J		
2,4-Dimethylphenol	ug/kg		200J					52J
Naphthalene	ug/kg	130J	2700		1600J	1400J	440J	1800J
2-Methylnaphthalene	ug/kg		570J		270J	410J	100J	
Acenapthylene	ug/kg	86J	3900		960J	1700J	480J	2100
Acenaphthene	ug/kg	77J	280J		620J	720J	130J	410J
Dibenzofuran	ug/kg	41J	850J		370J	1000J	140J	570J
Fluorene	ug/kg		980J		400J	1200J	180J	630J
Phenanthrene	ug/kg	620J	15000	29J	4200	11000	2600	7600
Anthracene	ug/kg	210J	6600		2000	3500	1000	3000
Diethyl Phthalate	ug/kg			110J	150J		160J	
Di-n-butylphthalate	ug/kg	330J	700J	680J	710J	380J	970J	1100J
Fluoranthene	ug/kg	1300	73000	31J	12000	17000	6000	16000
Pyrene	ug/kg	1100	7000		11000	1200J	5300	16000
Butyl Benzyl Phthalate	ug/kg	62J	190J	91J		140J	24J	210J
Chrysene	ug/kg	770J	41000		8300	15000	3400	12000
Di-n-octyl Phthalate	ug/kg			33J				
3,4-Benzofluoranthene	ug/kg	660J	50000J	14J	9100	19000	3400	14000
11,12- Benzofluoranthene	ug/kg	600J	12000J	16J	6600	7200	2100	7700
Benzo(a)pyrene	ug/kg	790J	43000	16J	8500	18000	3400	13000
Indeno(1,2,3-cd)pyrene	ug/kg	410J	14000		3900	8600	1700	5800
1,12-Benzoperylene	ug/kg	400J	12000		3600	8000	1700	5200
1,2 Benzanthracene	ug/kg							
1,2:5,6-Dibenzanthracene	ug/kg	100J	1100J		920J	2300	410J	490J

J : estimated

ELIZABETH COAL GAS (soil)

PESTICIDES/PCB	UNITS	F6, s	I14	Z1	H8	I14 ss	D9	K12
4,4'-DDE	ug/kg							
4,4'-DDT	ug/kg		41.4					

METALS/CN	UNITS	F6, s	I14	Z1	H8	I14ss	D9	K12
Aluminum	mg/kg	144100	9850	6140	8500	8870	9280	9960
Barium	mg/kg	72	204		48	154	122	196
Cadmium	mg/kg	7.7	10.0	4.4	5.6	7070	7.3	10.3
Calcium	mg/kg	1230	8880		1390		4780	9320
Chromium	mg/kg	17	34	10	20	8.0	16	25
Cobalt	mg/kg	10	10			16.3	9	10
Copper	mg/kg	16	147	6	31	23	51	98
Iron	mg/kg	20500	21800	11000	14900	20500	18400	22500
Lead	mg/kg	61	391	6	108	30200	206	364
Magnesium	mg/kg	4440	5300		1520	4630	4410	5230
Manganese	mg/kg	548	369	14	111	367	416	391
Mercury	mg/kg	2.85	1.10		0.57	0.91	0.38	1.02
Nickel	mg/kg	19	33		8	26	20	28
Potassium	mg/kg	1330	1600		739	1580	1410	1700
Silver	mg/kg	7.4	9.8	4.1	5.6	9.0	6.9	11.4
Sodium	mg/kg		976			990		1690
Vanadium	mg/kg	28	33	15	20	28	24	29
Zinc	mg/kg	59	317	43	68	321	147	261

J : estimated