GW - <u>32</u>

GENERAL CORRESPONDENCE

YEAR(S):

Aug 2005 -> Aug 2004

2



COVER LETTER

December 13, 2004

Steve Morris Giant Refining Co Rt. 3 Box 7 Gallup, NM 87301 TEL: (505) 722-3833 FAX (505) 722-0210

RE: Railroad Rack Lagoon SWMU

Order No.: 0411234

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 1 sample on 11/22/2004 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Preeman, Business Manager Nancy McDuffie, Laboratory Manager



4901 Nowkins NES Suite DE Albuquerque, NM 87109 505.345.3975 = Fax 505.345.4107 www.hallenvironmental.com

Hall Envir	onmental Analysis Laboratory	Date: 13-Dec-04	<u>تد:</u>
CLIENT: Project: Lab Order:	Giant Refining Co Railroad Rack Lagoon SWMU 0411234	CASE NARRATIVE	

Analytical Comments for METHOD 8015DRO_S, SAMPLE 0411234-01A: Surrogate not recovered due to dilution.

=

CLIENT:

Project:

Lab ID:

Lab Order:

Hall Environmental Analysis Laboratory

0411234-01

Date: 13-Dec-04

Giant Refining Co Client San 0411234 Collect Railroad Rack Lagoon SWMU

Client Sample ID: RR-E-1 Wall S Collection Date: 11/20/2004 11:00:00 AM

Matrix: SOIL

		•				
Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS						Analyst: MAP
Fluoride	ND	3.0		mg/l <g< td=""><td>10</td><td>12/2/2004 2:40:18 PM</td></g<>	10	12/2/2004 2:40:18 PM
Chlorido	57	3.0		mg/Kg	10	12/2/2004 2:40:18 PM
Nitrogen, Nitrate (As N)	ND	3.0		mg/Kg	10	12/2/2004 2:40:18 PM
Sulfale	ND	15		mg/Kg	10	12/2/2004 2:40:18 PM
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	12/2/2004 2:40;18 PM
Phosphorus, Orthophosphala (As P)	ND	15		mg/Kg	10	12/2/2004 2:40:18 PM
EPA METHOD 8015B: DIESEL RANGE	•					Analyst: JMP
Diesel Rango Organics (DRO)	6300	200		mg/Kg	20	12/8/2004 2:16:56 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	12/8/2004 2:16:56 PM
Sur: DNOP	0	60-124	Ş	%REC	20	12/8/2004 2:16:56 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Mailhyl ten-butyl ether (MTBE)	ND	2.0		mg/Kg	20	11/24/2004 2:38:06 AM
Benzene	0.57	0.50		mg/Kg	20	11/24/2004 2:38:06 AM
Toluene	0.86	0,50		mg/Kg	20	11/24/2004 2:38:06 AM
Ethylbenzene	14	0.50		mg/Kg	20	11/24/2004 2:38:06 AM
Xylenes, Total	88	0.50		mg/Kg	20	11/24/2004 2:38:06 AM
Surr: 4-Bromofluorobenzene	103	74-118		%REC	20	11/24/2004 2:38:06 AM
EPA METHOD 7471: MERCURY						Analyst: CMC
Mercury	ND	0.033		mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS						Analyst: CMC
Arsenic	ND	5.0		mg/Kg	2	11/24/2004 2:22:50 PM
Barium	250	1.0		mg/Kg	10	11/24/2004 5:10:10 PM
Cadmium	ND	0.20		rng/Kg	2	11/24/2004 2:22:50 PM
Calcium	28000	130		mg/Kg	5	11/24/2004 2:26:51 PM
Chromium	4.5	0.60		mg/Kg	2	11/24/2004 2:22:50 PM
Lead	7.7	0.50		mg/Kg	2.	11/24/2004 2:22:50 PM
Magnesium	4200	50		mg/Kg	2	11/24/2004 2:22:50 PM
Potassium	690	100		mg/Kg	2	11/24/2004 2:22:50 PM
Selenium	ND	5.0		mg/Kg	2	11/24/2004 2:22:50 PM
Silver	ND	0.50		mg/Kg	2	11/24/2004 2:22:50 PM
Sodium	720	50		mg/Kg	2	11/24/2004 2:22:50 PM
EPA METHOD 150.1: PH						Analyst: CMC
pi-i .	8.88	0.010		pH Units	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range

R - RPD outside accepted recovery limits

Page 1 of 1

2/12

CHAI	N-OF-	CUSTO	DY RECORD					•	and the second				4	ALL 901 Jbuq	Haw	kins	: NE	, Sul	ite D)		5 LA	80a	EI Ator	
Client:	Fin	J Ra	fining Cinizo	Project Name: Rnck	Ro	ilro	م کے `	R. M.U.					T	el. 5 /ww.	05,3	45-3	975	Fax	c 50:	5.34		07			
Address:	Rom	Z3 P,N	Cinizor Box 7 M 87391	Project #.	- -					y) (1	sel)		8			YS.	SR								
······				Project Manage	r,	<u>ali</u>			1021)	soline Only)	(Gas/Die		81208				13		PO4, SO4)	3082)			080		(X or N)
Phone #: Fax #:	5.9	572	2 3,533	Sampler.	te	ue a	21	Ania	MTBE + TMB's (8021)	. TPH (Ga	158 MOL			04.1)	1 1 1	AH)	R.	ca, Mg)	03. NO2,	/ PCB's (I		6	804	Ŕ	or Headspace (Y or N)
Dale	Time	Maliix	Sample I.D. No.	Samples Cold?: Number/Volume	<u> </u>	eserval		1 No HEAL No. 0-11/234	×	BTEX + MTBE + TPH (Gasoline	TPH Method 8015B MOD (Gas/Diesel)	TPH (Method 418.1)	Vokaties Put Live (6021)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Cations (Na, K, Ca.	Anians (F, Cl, NO3, NO2, PO4,	8081 Pesticides / PCB's (8082)	8260 (VOA)	8270 (Semi-VOA)	10 5/ES	2 ril	Air Bubbles or H
20/04	1100	Sail	RR-E-1-Wall 5	2						8			ガゼ	ш ———			م لا	8 X	₹ X	æ		20	X		
																									_
Date: Z/04	Time: 1/5 Q	Relinquist	ed By: (Signalure)	Rocetter	Ry. y	8lgnalu	ie) //	22.04	Ren	arks															
Dale:	Time;		ed By: (Signature)	Pleceiver	Ner	270	(2/1:30			a	ñ	אירטייי היציד	n ·	an	Ì	-4	= oi		n pl	4	n_	ン		



COVER LETTER

December 03, 2004

Steve Morris Giant Refining Co Rt. 3 Box 7 Gallup, NM 87301 TEL: (505) 722-3833 FAX (505) 722-0210

RE: Railroad Rack Lagoon SWMU

Order No.: 0411218

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 13 samples on 11/19/2004 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager



4901 Hawkins NE Suite D Albuquerque, NM 87109 505.345.3975 Fax 505.345.4107 www.hallenvironmental.com

Date: 03-Dec-04

CLIENT:	Giant Refining Co	
Project:	Railroad Rack Lagoon SWMU	CASE NARRATIVE
Lab Order:	0411218	

Analytical Comments for METHOD 300_S, SAMPLE 0411218-09A MS: Unable to recover o-PO4-P due to possible matrix interference. IN12-04070 Analytical Comments for METHOD 300_S, SAMPLE 0411218-09A MSD: Unable to recover o-PO4-P due to possible matrix interference. IN12-04070

Date: 03-Dec-04

CLIENT:	Giant Refining Co			Client Sar	nple ID: F	R-N-1	
Lab Order:	0411218			Collec	tion Date:	11/18/	/2004 8:00:00 AM
Project:	Railroad Rack Lag	oon SWMU					
Lab ID:	0411218-01				Matrix:	SOIL	
Analyses		Result	PQL	Qual Units		DF	Date Analyzed
EPA METHOD	9056A: ANIONS						Analyst: MAP
Fluoride		18	3.0	mg/Kg		10	11/30/2004 11:48:28 AM
Chloride		320	3.0	mg/K g		10	11/30/2004 11:48:28 AM
Nitrogen, Nitrat	te (As N)	4.9	3.0	mg/Kg		10	11/30/2004 11:48:28 AM
Sulfate		680	15	mg/Kg		10	11/30/2004 11:48:28 AM

				-	
Nitrogen, Nitrite (As N)	ND	3.0	mg/Kg	10	11/30/2004 11:48:28 AM
Phosphorus, Orthophosphate (As P)	ND	- 15	mg/Kg	10	11/30/2004 11:48:28 AM
EPA METHOD 8015B: DIESEL RANGE					Analyst: JMP
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	11/23/2004 12:13:36 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/23/2004 12:13:36 PM
Surr: DNOP	78.7	60-124	%REC	1	11/23/2004 12:13:36 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10	mg/Kg	1	11/23/2004 3:37:35 PM
Benzene	ND	0.025	mg/Kg	1	11/23/2004 3:37:35 PM
Toluene	ND	0.025	mg/Kg	1	11/23/2004 3:37:35 PM
Ethylbenzene	ND	0.025	mg/Kg	. 1	11/23/2004 3:37:35 PM
Xylenes, Total	ND	0.025	mg/Kg	1	11/23/2004 3:37:35 PM
Surr: 4-Bromofluorobenzene	99.8	74-118	%REC	1	11/23/2004 3:37:35 PM
EPA METHOD 7471: MERCURY					Analyst: CMC
Mercury	ND	0.033	mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS					Analyst: CMC
Arsenic	ND	2.5	mg/Kg	1	11/23/2004 12:16:56 PM
Barium	250	0.99	mg/Kg	10	11/24/2004 4:28:22 PM
Cadmium	ND	0.10	mg/Kg	1	11/23/2004 12:16:56 PM
Calcium	18000	130	mg/Kg	5	11/23/2004 4:51:19 PM
Chromium	7.0	0.30	mg/Kg	1	11/23/2004 12:16:56 PM
Lead	14	0.25	mg/Kg	1	11/23/2004 12:16:56 PM
Magnesium	5200	25	mg/Kg	1	11/23/2004 12:16:56 PM
Potassium	2100	50	mg/Kg 🗸	1	11/23/2004 12:16:56 PM
Selenium	ND	2.5	mg/Kg	1	11/23/2004 12:16:56 PM
Silver	ND	0.25	mg/Kg	1	11/23/2004 12:16:56 PM
Sodium	2000	25	mg/Kg	1	11/23/2004 12:16:56 PM
EPA METHOD 150.1: PH					Analyst: CMC
рН	8.25	0.010	pH Units	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit

- S Spike Recovery outside accepted recovery limits
- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 2/23

- R RPD outside accepted recovery limits
- E Value above quantitation range

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CLIENT:	Giant Refining Co			Clie	ent Sample ID:	RR-E-1	
Lab Order:	0411218				Collection Date	e: 11/18/	2004 8:15:00 AM
Project:	Railroad Rack Lagoon	SWMU					
Lab ID:	0411218-02				Matrix	: SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9	56A: ANIONS						Analyst: MAP
Fluoride		6.1	3.0		mg/Kg	10	11/30/2004 12:05:17 PM
Chloride		54	3.0		mg/Kg	10	11/30/2004 12:05:17 PM
Nitrogen, Nitrate	(As N)	ND	3.0		mg/Kg	10	11/30/2004 12:05:17 PN
Sulfate		74	15		mg/Kg	10	11/30/2004 12:05:17 PN
Nitrogen, Nitrite (J	As N)	ND	3.0		mg/Kg	10	11/30/2004 12:05:17 PM
	ophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 12:05:17 PN
EPA METHOD 8	015B: DIESEL RANGE					•	Analyst: JMP
Diesel Range Org	janics (DRO)	81	10		mg/Kg	1	11/22/2004 8:26:19 PM
Motor Oil Range	Organics (MRO)	ND	50		mg/Kg	1	11/22/2004 8:26:19 PM
Surr: DNOP		71.3	60-124		%REC	1	11/22/2004 8:26:19 PM
EPA METHOD 8	021B: VOLATILES						Analyst: NSB
Methyl tert-butyl	ether (MTBE)	ND	0.20		mg/Kg	2	11/23/2004 4:07:37 PM
Benzene		ND	0.050		mg/Kg	2	11/23/2004 4:07:37 PM
Toluene		ND	0.050		mg/Kg	2	11/23/2004 4:07:37 PM
Ethylbenzene		ND	0.050		mg/Kg	2	11/23/2004 4:07:37 PM
Xylenes, Total		ND	0.050		mg/Kg	2	11/23/2004 4:07:37 PM
Surr: 4-Bromo	fluorobenzene	103	74-118		%REC	2	11/23/2004 4:07:37 PM
EPA METHOD 7	471: MERCURY						Analyst: CMC
Mercury		ND	0.033		mg/Kg	1	11/30/2004
EPA METHOD 6	010C: SOIL METALS						Analyst: CMC
Arsenic		ND	2.5		mg/Kg	1	11/23/2004 12:20:55 PM
Barium		290	0.96		mg/Kg	10	11/24/2004 4:32:37 PM
Cadmium		ND	0.10		mg/Kg	1	11/23/2004 12:20:55 PM
Calcium		16000	130		mg/Kg	5	11/23/2004 4:55:16 PM
Chromium		5.8	0.30		mg/Kg	1	11/23/2004 12:20:55 PN
Lead		5.7	0.25		mg/Kg	1	11/23/2004 12:20:55 PN
Magnesium		4600	25		mg/Kg	1	11/23/2004 12:20:55 PN
Potassium		1300	50		mg/Kg	1	11/23/2004 12:20:55 PN
Selenium		ND	2.5		m g/Kg	1	11/23/2004 12:20:55 PM
Silver		ND	0.25	,	mg/Kg	1	11/23/2004 12:20:55 PM
Sodium		1300	25		mg/Kg	1	11/23/2004 12:20:55 PM
EPA METHOD 1	150.1: PH						Analyst: CMC
рH		9.23	0.010		pH Units	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- *- Value exceeds Maximum Contaminant Level 3/23
- S Spike Recovery outside accepted recovery limits

Date: 03-Dec-04

- R RPD outside accepted recovery limits
- E Value above quantitation range

Date: 03-Dec-04

CLIENT:	Giant Refining Co			Clien	t Sample ID: F	R-S-1	
Lab Order:	0411218			С	ollection Date:	11/18/	2004 8:30:00 AM
Project:	Railroad Rack Lagoon	SWMU					
Lab ID:	0411218-03				Matrix:	SOIL	
Analyses		Result	PQL	Qual L	Jnits	DF	Date Analyzed
EPA METHOD	9056A: ANIONS	······					Analyst: MAP
Fluoride		4.6	3.0	n	ng/Kg	10	11/30/2004 12:22:06 PN
Chloride		27	3.0	'n	ng/Kg	10	11/30/2004 12:22:06 PM
Nitrogen, Nitrat	te (As N)	ND	3.0	ń	ng/Kg	10	11/30/2004 12:22:06 PN
Sulfate		28	15	n	ng/Kg	10	11/30/2004 12:22:06 PM
Nitrogen, Nitrite	e (As N)	ND	3.0	n	ng/Kg	10	11/30/2004 12:22:06 PN
Phosphorus, O	rthophosphate (As P)	ND	15	п	ng/Kg	10	11/30/2004 12:22:06 PM
EPA METHOD	8015B: DIESEL RANGE						Analyst: JMP
Diesel Range (Organics (DRO)	31	10	'n	ng/Kg	1	11/22/2004 8:57:58 PM
Motor Oil Rang	ge Organics (MRO)	ND	50	n	ng/Kg	1	11/22/2004 8:57:58 PM
Surr: DNOP		94.8	60-124	9	%REC	1	11/22/2004 8:57:58 PM
EPA METHOD	8021B: VOLATILES						Analyst: NSB
Methyl tert-buty	yl ether (MTBE)	ND	0.10	n	ng/Kg	1	11/23/2004 4:37:38 PM
Benzene		ND	0.025	n	ng/Kg	1	11/23/2004 4:37:38 PM
Toluene		ND	0.025	n	ng/Kg	1	11/23/2004 4:37:38 PM
Ethylbenzene		ND	0.025	, n	ng/Kg	1	11/23/2004 4:37:38 PM
Xylenes, Total		0.082	0.025	n	ng/Kg	1	11/23/2004 4:37:38 PM
Surr: 4-Bron	nofluorobenzene	104	74-118	9	%REC	1	11/23/2004 4:37:38 PM
	7471: MERCURY						Analyst: CMC
Mercury		ND	0.033	n	ng/Kg	1	11/30/2004
EPA METHOD	6010C: SOIL METALS						Analyst: CMC
Arsenic		ND	2.5	n	ng/Kg	1	11/23/2004 12:29:00 PM
Barium		300	0.96	n n	ng/Kg	10	11/24/2004 4:34:44 PM
Cadmium		ND	0.10	n	ng/Kg	1	11/23/2004 12:29:00 PM
Calcium		17000	250	. n	ng/Kg	10	11/23/2004 5:02:14 PM
Chromium		5.6	0.30	r	ng/Kg	1	11/23/2004 12:29:00 PN
Lead		5.1	0.25	n	ng/Kg	1	11/23/2004 12:29:00 PM
Magnesium		4400	25	r	ng/Kg	1	11/23/2004 12:29:00 PM
Potassium		1400	50	r	ng/Kg	1	11/23/2004 12:29:00 PM
Selenium		ND	2.5	r n	ng/Kg	1	11/23/2004 12:29:00 PM
Silver		ND	0.25	n n	ng/Kg	1	11/23/2004 12:29:00 PM
Sodium		870	25	r	ng/Kg	1	11/23/2004 12:29:00 PM
EPA METHOD) 150.1: PH						Analyst: CMC
рH		9.05	0.010	F	oH Units	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit

- S Spike Recovery outside accepted recovery limits
- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level 4 / 23
- R RPD outside accepted recovery limits
- E Value above quantitation range

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CLIENT:	Giant Refining Co			Client Sample I	D: RR-W-	1
Lab Order:	0411218			Collection D	ate: 11/18/	2004 8:45:00 AM
Project:	Railroad Rack Lagoon	SWMU				
Lab ID:	0411218-04			Ma	rix: SOIL	
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	9056A: ANIONS					Analyst: MAP
Fluoride		4.6	3.0	mg/Kg	10	11/30/2004 12:38:53 PM
Chloride		37	3.0	mg/Kg	10	11/30/2004 12:38:53 PN
Nitrogen, Nitral	te (As N)	ND	3.0	mg/Kg	10	11/30/2004 12:38:53 PM
Sulfate		ND	15	mg/Kg	10	11/30/2004 12:38:53 PM
Nitrogen, Nitrite	e (As N)	ND	3.0	mg/Kg	10	11/30/2004 12:38:53 PM
•	nthophosphate (As P)	ND	15	mg/Kg	10	11/30/2004 12:38:53 PM
EPA METHOD	8015B: DIESEL RANGE					Analyst: JMP
Diesel Range (Organics (DRO)	12	10	mg/Kg	1	11/22/2004 9:29:35 PM
Motor Oil Rang	ge Organics (MRO)	ND	50	mg/Kg	1	11/22/2004 9:29:35 PM
Surr: DNOP		95.9	60-124	%REC	1	11/22/2004 9:29:35 PM
EPA METHOD	8021B: VOLATILES					Analyst: NSB
Methyl tert-but	yl ether (MTBE)	ND	0.10	mg/Kg	1	11/23/2004 5:07:40 PM
Benzene		ND	0.025	mg/Kg	1	11/23/2004 5:07:40 PM
Toluene		NÐ	0.025	mg/Kg	1	11/23/2004 5:07:40 PM
Ethylbenzene	,	ND	0.025	. mg/Kg	1	11/23/2004 5:07:40 PM
Xylenes, Total		ND	0.025	mg/Kg	1	11/23/2004 5:07:40 PM
Surr: 4-Bron	nofluorobenzene	103	74-118	%REC	1	11/23/2004 5:07:40 PM
EPA METHOD	7471: MERCURY					Analyst: CMC
Mercury		ND	0.033	mg/Kg	1	11/30/2004
EPA METHOD	6010C: SOIL METALS					Analyst: CMC
Arsenic		ND	5.0	mg/Kg	2	11/24/2004 2:11:48 PN
Barium		310	0.99	mg/Kg	10	11/24/2004 4:41:39 PM
Cadmium		ND	0.20	mg/Kg	2	11/24/2004 2:11:48 PM
Calcium		16000	50	mg/Kg	2	11/24/2004 2:11:48 PM
Chromium		7.0	0.60	mg/Kg	2	11/24/2004 2:11:48 PN
Lead		7.8	0.50	mg/Kg	2	11/24/2004 2:11:48 PN
Magnesium		4800	50	mg/Kg	2	11/24/2004 2:11:48 PN
Potassium		1300	100	mg/Kg	2	11/24/2004 2:11:48 PM
Selenium		ND	5.0	mg/Kg	2	11/24/2004 2:11:48 PM
Silver		ND	0.50	mg/Kg	2	11/24/2004 2:11:48 PN
Sodium		1300	50	mg/Kg	2	11/24/2004 2:11:48 PN
EPA METHO	D 150.1: PH	•				Analyst: CM
рH		9.13	0.010	pH Units	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

Date: 03-Dec-04

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level 5 / 23
- E Value above quantitation range

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CLIENT:	Giant Refining Co			Client Sample I	D: RR-N-1	-Wall
Lab Order:	0411218			-		2004 9:00:00 AM
Project:	Railroad Rack Lagoon	SWMU				
Lab ID:	0411218-05			Mat	rix: SOIL	
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	9056A: ANIONS					Analyst: MAP
Fluoride		3.4	3.0	mg/Kg	10	11/30/2004 12:55:42 PM
Chloride		300	3.0	mg/Kg	10	11/30/2004 12:55:42 PM
Nitrogen, Nitrate	e (As N)	ND	3.0	mg/Kg	10	11/30/2004 12:55:42 PN
Sulfate		610	15	mg/Kg	10	11/30/2004 12:55:42 PN
Nitrogen, Nitrite	(As N)	ND	3.0	mg/Kg	10	11/30/2004 12:55:42 PN
Phosphorus, Or	thophosphate (As P)	NÐ	15	mg/Kg	10	11/30/2004 12:55:42 PN
EPA METHOD	8015B: DIESEL RANGE					Analyst: JMP
Diesel Range O	rganics (DRO)	ND	10	mg/Kg	1	11/22/2004 10:01:18 PM
Motor Oil Range	e Organics (MRO)	ND	50	mg/Kg	1	11/22/2004 10:01:18 PM
Surr: DNOP		97.8	60-124	%REC	1	11/22/2004 10:01:18 PN
EPA METHOD	8021B: VOLATILES					Analyst: NSB
Methyl tert-buty	l ether (MTBE)	ND	0.10	mg/Kg	1	11/23/2004 5:37:45 PM
Benzene		ND	0.025	mg/Kg	1	11/23/2004 5:37:45 PM
Toluene		ND	0.025	mg/Kg	· 1	11/23/2004 5:37:45 PM
Ethylbenzene		ND	0.025	mg/Kg	1	11/23/2004 5:37:45 PM
Xylenes, Total		ND	0.025	mg/Kg	1	11/23/2004 5:37:45 PM
Surr: 4-Brom	ofluorobenzene	100	74-118	%REC	1	11/23/2004 5:37:45 PM
EPA METHOD	7471: MERCURY					Analyst: CMC
Mercury		ND	0.033	mg/Kg	1	11/30/2004
EPA METHOD	6010C: SOIL METALS					Analyst: CMC
Arsenic		ND	2.5	mg/Kg	1	11/23/2004 12:40:59 PN
Barium		280	1.0	mg/Kg	10	11/24/2004 4:43:49 PM
Cadmium		ND	0.10	mg/Kg	1	11/23/2004 12:40:59 PN
Calcium		18000	250	mg/Kg	10	11/23/2004 5:18:23 PM
Chromium		7.6	0.30	mg/Kg	1	11/23/2004 12:40:59 PM
Lead		5.3	0.25	mg/Kg	1	11/23/2004 12:40:59 PM
Magnesium		5800	25	mg/Kg	1	11/23/2004 12:40:59 PM
Potassium		2700	50	mg/Kg	1	11/23/2004 12:40:59 PM
Selenium		ND	2.5	mg/Kg	1	11/23/2004 12:40:59 PM
Silver		ND	0.25	mg/Kg	1	11/23/2004 12:40:59 PI
Sodium		1500	25	mg/Kg	1	11/23/2004 12:40:59 PM
EPA METHOD	150.1: PH					Analyst: CMC
рН		8.37	0.010	pH Units	1	12/1/2004

Date: 03-Dec-04

Qualifiers:

ND - Not Detected at the Reporting Limit

- S Spike Recovery outside accepted recovery limits
- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level 6 / 23
- R RPD outside accepted recovery limits
- E Value above quantitation range

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CLIENT:	Giant Refining Co			Client Sar	nple ID: RR-S-1	-Wall
Lab Order:	0411218			Collec	tion Date: 11/18	/2004 9:15:00 AM
Project:	Railroad Rack Lagoor	SWMU				
Lab ID:	0411218-06				Matrix: SOIL	
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 9	056A: ANIONS					Analyst: MAP
Fluoride		4.7	3.0	mg/Kg	10	11/30/2004 1:12:30 PM
Chloride		76	3.0	mg/Kg	10	11/30/2004 1:12:30 PM
Nitrogen, Nitrate	(As N)	ND	3.0	mg/Kg	10	11/30/2004 1:12:30 PM
Sulfate		380	15	mg/Kg	10	11/30/2004 1:12:30 PM
Nitrogen, Nitrite ((As N)	ND	3.0	mg/Kg	10	11/30/2004 1:12:30 PM
Phosphorus, Ortl	hophosphate (As P)	ND	15	mg/Kg	10	11/30/2004 1:12:30 PM
EPA METHOD 8	015B: DIESEL RANGE					Analyst: JMP
Diesel Range Or	ganics (DRO)	ND	10	mg/Kg	1	11/22/2004 10:34:12 PM
Motor Oil Range	Organics (MRO)	ND	50	mg/Kg	1	11/22/2004 10:34:12 PM
Surr: DNOP		81.5	60-124	%REC	. 1	11/22/2004 10:34:12 PM
EPA METHOD 8	021B: VOLATILES					Analyst: NSB
Methyl tert-butyl	ether (MTBE)	ND	0.10	mg/Kg	1	11/23/2004 6:07:55 PM
Benzene		ND	0.025	mg/Kg	1	11/23/2004 6:07:55 PM
Toluene		ND	0.025	mg/Kg	1	11/23/2004 6:07:55 PM
Ethylbenzene		ND	0.025	mg/Kg	1	11/23/2004 6:07:55 PM
Xylenes, Total		ND	0.025	mg/Kg	1	11/23/2004 6:07:55 PM
Surr: 4-Bromo	fluorobenzene	104	74-118	%REC	1	11/23/2004 6:07:55 PM
EPA METHOD 7	471: MERCURY					Analyst: CMC
Mercury		ND	0.033	mg/Kg	1	11/30/2004
EPA METHOD 6	010C: SOIL METALS					Analyst: CMC
Arsenic		ND	2.5	mg/Kg	1	11/23/2004 12:49:06 PM
Barium		300	0.97	mg/Kg	10	11/24/2004 4:45:57 PM
Cadmium		ND	0.10	mg/Kg	ı 1	11/23/2004 12:49:06 PM
Calcium		17000	250	mg/Kg	10	11/23/2004 5:21:12 PM
Chromium		6.9	0.30	mg/Kg	1	11/23/2004 12:49:06 PM
Lead		5.9	0.25	mg/Kg	ı 1	11/23/2004 12:49:06 PM
Magnesium		5400	25	mg/Kg	1	11/23/2004 12:49:06 PM
Potassium		2000	50	mg/Kg		11/23/2004 12:49:06 PM
Selenium		ND	2.5	mg/Kg		11/23/2004 12:49:06 PM
Silver		ND	0.25	mg/Kg		11/23/2004 12:49:06 PM
Sodium		1000	25	mg/Kg	ı 1	11/23/2004 12:49:06 PM
EPA METHOD	150.1: PH					Analyst: CMC
рH		8.55	0.010	pH Un	its 1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

Date: 03-Dec-04

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level 7 / 23
- E Value above quantitation range

R - RPD outside accepted recovery limits

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Date: 03-Dec-04

CLIENT:	Giant Refining Co			Client Sar	nple ID: R	R-E-1-	Wall N
Lab Order:	0411218			Collec	tion Date:	11/18/2	2004 9:30:00 AM
Project:	Railroad Rack Lagoon	SWMU					
Lab ID:	0411218-07				Matrix:	SOIL	
Analyses		Result	PQL	Qual Units		DF	Date Analyzed
EPA METHOD	9056A: ANIONS						Analyst: MAP
Fluoride		36	3.0	mg/Kg		10	11/30/2004 2:02:56 PM
Chloride		76	3.0	mg/Kg		10	11/30/2004 2:02:56 PM
Nitrogen, Nitrat	ie (As N)	6.6	3.0	mg/Kg		10	11/30/2004 2:02:56 PM
Sulfate		270	15	mg/Kg		10	11/30/2004 2:02:56 PM
Nitrogen, Nitrite	e (As N)	ND	3.0	mg/Kg		10	11/30/2004 2:02:56 PM
Phosphorus, O	rthophosphate (As P)	ND	. 15	mg/Kg		10	11/30/2004 2:02:56 PM
EPA METHOD	8015B: DIESEL RANGE						Analyst: JMP
Diesel Range (Drganics (DRO)	150	10	mg/Kg		1	11/23/2004 12:46:34 PM
Motor Oil Rang	e Organics (MRO)	ND	50	mg/Kg		1	11/23/2004 12:46:34 PN
Surr: DNOP		110	60-124	%REC		1	11/23/2004 12:46:34 PN
EPA METHOD	8021B: VOLATILES						Analyst: NSB
Methyl tert-buty	yl ether (MTBE)	ND	0.10	mg/Kg		1	11/23/2004 6:37:48 PM
Benzene		ND	0.025	mg/Kg		1	11/23/2004 6:37:48 PM
Toluene		ND	0.025	mg/Kg		1	11/23/2004 6:37:48 PM
Ethylbenzene		ND	0.025	mg/Kg		1	11/23/2004 6:37:48 PM
Xylenes, Total	1	ND	0.025	mg/Kg		1	11/23/2004 6:37:48 PM
Surr: 4-Brom	nofluorobenzene	99.7	74-118	%REC		1	11/23/2004 6:37:48 PM
EPA METHOD	7471: MERCURY						Analyst: CMC
Mercury		ND	0.033	mg/Kg		1	11/30/2004
EPA METHOD	6010C: SOIL METALS						Analyst: CMC
Arsenic		ND	2.5	mg/Kg		1	11/23/2004 3:28:41 PM
Barium		260	0.96	mg/Kg		10	11/24/2004 4:48:09 PM
Cadmium		ND	0.10	mg/Kg		1	11/23/2004 3:28:41 PM
Calcium		15000	130	mg/Kg		5	11/23/2004 5:24:02 PM
Chromium		6.3	0.30	mg/Kg		1	11/23/2004 3:28:41 PM
Lead		6.2	0.25	mg/Kg		1	11/23/2004 3:28:41 PM
Magnesium		4600	25	mg/Kg		1	11/23/2004 3:28:41 PM
Potassium		1700	50	mg/Kg		1	11/23/2004 3:28:41 PM
Selenium		ND	2.5	mg/Kg		1	11/23/2004 3:28:41 PM
Silver		ND	0.25	mg/Kg		1	11/23/2004 3:28:41 PM
Sodium		1200	25	mg/Kg		1	11/23/2004 3:28:41 PM
EPA METHOD	150.1: PH						Analyst: CMC
рН		8.58	0.010	pH Un	its	1	12/1/2004

Qualifiers:

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ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

- B Analyte detected in the associated Method Blank
- R RPD outside accepted recovery limits

* - Value exceeds Maximum Contaminant Level 8/23 E - Value above quantitation range

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CLIENT:	Giant Refining Co			Client Sample ID: RR-W-1-Wall N							
Lab Order:	0411218			Collection D	ate: 11/18	/2004 10:45:00 AM					
Project:	Railroad Rack Lagoor	SWMU									
Lab ID:	0411218-09			Mat	rix: SOIL						
Analyses		Result	PQL	Qual Units	DF	Date Analyzed					
EPA METHOD	9056A: ANIONS					Analyst: MAR					
Fluoride		14	1.5	mg/Kg	5	11/30/2004 2:19:45 PM					
Chloride		290	1.5	mg/Kg	5	11/30/2004 2:19:45 PM					
Nitrogen, Nitrate	e (As N)	4.3	1.5	mg/Kg	5	11/30/2004 2:19:45 PM					
Sulfate	• , •	860	7.5	mg/Kg	5	11/30/2004 2:19:45 PM					
Nitrogen, Nitrite	(As N)	ND	1.5	mg/Kg	5	11/30/2004 2:19:45 PM					
Phosphorus, Or	thophosphate (As P)	ND	7.5	mg/Kg	5	11/30/2004 2:19:45 PN					
EPA METHOD	8015B: DIESEL RANGE					Analyst: JMF					
Diesel Range O	rganics (DRO)	450	10	mg/Kg	1	11/23/2004 1:18:13 PM					
Motor Oil Range	e Organics (MRO)	140	50	mg/Kg	1	11/23/2004 1:18:13 PN					
Surr: DNOP		87.4	60-124	%REC	1	11/23/2004 1:18:13 PN					
EPA METHOD	8021B: VOLATILES					Analyst: NSE					
Methyl tert-buty	l ether (MTBE)	ND	0.10	mg/Kg	1	11/23/2004 7:07:39 PN					
Benzene		ND	0.025	mg/Kg	1	11/23/2004 7:07:39 PM					
Toluene		ND	0.025	mg/Kg	1	11/23/2004 7:07:39 PM					
Ethylbenzene		ND	0.025	mg/Kg	1	11/23/2004 7:07:39 PM					
Xylenes, Total		ND	0.025	mg/Kg	1	11/23/2004 7:07:39 PN					
Surr: 4-Brom	ofluorobenzene	101	74-118	%REC	1	11/23/2004 7:07:39 PM					
EPA METHOD	7471: MERCURY					Analyst: CM					
Mercury		0.037	0.033	mg/Kg	1	11/30/2004					
EPA METHOD	6010C: SOIL METALS					Analyst: CM					
Arsenic		ND	2.5	mg/Kg	1	11/23/2004 3:32:35 PM					
Barium		460	1.0	mg/Kg	10	11/24/2004 4:50:16 PM					
Cadmium		ND	0.10	mg/Kg	1	11/23/2004 3:32:35 PI					
Calcium		32000	250	mg/Kg	10	11/23/2004 5:27:54 PI					
Chromium		27	0.30	mg/Kg	1	11/23/2004 3:32:35 PI					
Lead		11	0.25	mg/Kg	1	11/23/2004 3:32:35 Pt					
Magnesium		4300	25	mg/Kg	1	11/23/2004 3:32:35 Pt					
Potassium		1200	50	mg/Kg	1	11/23/2004 3:32:35 PI					
Selenium		ND	2.5	mg/Kg	1	11/23/2004 3:32:35 PI					
Silver		ND	0.25	mg/Kg	1	11/23/2004 3:32:35 Pi					
Sodium		1100	25	mg/Kg	1	11/23/2004 3:32:35 P					
EPA METHOD	150.1: PH					Analyst: CM					
рH		8.21	0.010	pH Units	1	12/1/2004					

Qualifiers:

ND - Not Detected at the Reporting Limit

- I Analyte detected below quantitation limits
- $\ensuremath{\mathsf{B}}$ Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level 9/23
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

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Date: 03-Dec-04

Date: 03-Dec-04

CLIENT:Giant Refining CoLab Order:0411218Project:Railroad Rack Lagoon SWMULab ID:0411218-10

Client Sample ID: RR-W-1-Wall S Collection Date: 11/18/2004 11:00:00 AM

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS					Analyst: MAP
Fluoride	7.9	3.0	mg/Kg	10	11/30/2004 4:00:30 PM
Chloride	33	3.0	mg/Kg	10	11/30/2004 4:00:30 PM
Nitrogen, Nitrate (As N)	ND	3.0	mg/Kg	10	11/30/2004 4:00:30 PM
Sulfate	39	15	mg/Kg	10	11/30/2004 4:00:30 PM
Nitrogen, Nitrite (As N)	ND	3.0	mg/Kg	10	11/30/2004 4:00:30 PM
Phosphorus, Orthophosphate (As P)	ND	15	mg/Kg	10	11/30/2004 4:00:30 PM
EPA METHOD 8015B: DIESEL RANGE					Analyst: JMP
Diesel Range Organics (DRO)	310	10	mg/Kg	1	11/23/2004 6:44:57 AM
Motor Oil Range Organics (MRO)	NĎ	50	mg/Kg	1	11/23/2004 6:44:57 AM
Surr: DNOP	111	60-124	%REC	1	11/23/2004 6:44:57 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	1.0	mg/Kg	10	11/23/2004 7:37:29 PM
Benzene	ND	0.25	mg/Kg	10	11/23/2004 7:37:29 PM
Toluene	ND	0.25	mg/Kg	10	11/23/2004 7:37:29 PM
Ethylbenzene	ND	0.25	mg/Kg	10	11/23/2004 7:37:29 PM
Xylenes, Total	ND	0.25	mg/Kg	10	11/23/2004 7:37:29 PM
Surr: 4-Bromofluorobenzene	104	74-118	%REC	10	11/23/2004 7:37:29 PM
EPA METHOD 7471: MERCURY					Analyst: CMC
Mercury	ND	0.033	mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS					Analyst: CMC
Arsenic	ND	2.5	mg/Kg	1	11/23/2004 3:40:28 PM
Barium	320	0.96	mg/Kg	10	11/24/2004 4:52:24 PM
Cadmium	ND	0.10	mg/Kg	1	11/23/2004 3:40:28 PM
Calcium	17000	250	mg/Kg	10	11/23/2004 5:30:43 PM
Chromium	3.1	0.30	mg/Kg	1	11/23/2004 3:40:28 PM
Lead	2.9	0.25	mg/Kg	1	11/23/2004 3:40:28 PM
Magnesium	4200	25	mg/Kg	1	11/23/2004 3:40:28 PM
Potasslum	1000	50	mg/Kg	1	11/23/2004 3:40:28 PM
Selenium	ND	2.5	mg/Kg	1	11/23/2004 3:40:28 PM
Silver	ND	0.25	mg/Kg	1	11/23/2004 3:40:28 PM
Sodium	920	25	mg/Kg	1	11/23/2004 3:40:28 PM
EPA METHOD 150.1: PH					Analyst: CMC
pH	8.89	0.010	pH Units	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level 10/23
- R RPD outside accepted recovery limits
- E Value above quantitation range

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CLIENT:	Giant Refining Co			ple ID: RR-B-1		
Lab Order:	0411218				-	/2004 11:30:00 AM
Project:	Railroad Rack Lagoon	SWMU		Conect	ion Date. 11/10	2004 11.30.00 AN
•	0	50000			Matrix: SOIL	
Lab ID:	. 0411218-11					·····
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	9056A: ANIONS					Analyst: MAI
Fluoride		4.5	3.0	mg/Kg	10	11/30/2004 4:17:19 PM
Chloride		34	3.0	mg/Kg	10	11/30/2004 4:17:19 PM
Nitrogen, Nitrati	e (As N)	ND	3.0	mg/Kg	10	11/30/2004 4:17:19 PM
Sulfate		ND	15	mg/Kg	10	11/30/2004 4:17:19 PN
Nitrogen, Nitrite	(As N)	ND	3.0	mg/Kg	10	11/30/2004 4:17:19 PN
Phosphorus, Or	thophosphate (As P)	ND	15	mg/Kg	10	11/30/2004 4:17:19 PM
EPA METHOD	8015B: DIESEL RANGE					Analyst: JMF
Diesel Range C	organics (DRO)	99	10	mg/Kg	1	11/23/2004 7:18:07 AN
Motor Oil Rang	e Organics (MRO)	ND	50	mg/Kg	1	11/23/2004 7:18:07 AN
Surr: DNOP		89.5	60-124	%REC	1	11/23/2004 7:18:07 AN
EPA METHOD	802113: VOLATILES					Analyst: NSE
Methyl tert-buty	l ether (MTBE)	ND	0.50	mg/Kg	5	11/23/2004 8:07:19 PM
Benzene		ND	0.13	mg/Kg	5	11/23/2004 8:07:19 PM
Toluene		ND	0.13	mg/Kg	5	11/23/2004 8:07:19 PN
Ethylbenzene		ND	0.13	mg/Kg	5	11/23/2004 8:07:19 PM
Xylenes, Total		0.52	0.13	mg/Kg	5	11/23/2004 8:07:19 PM
Surr: 4-Brom	ofluorobenzene	103	74-118	%REC	5	11/23/2004 8:07:19 PM
EPA METHOD	7471: MERCURY					Analyst: CM
Mercury		ND	0.033	mg/Kg	1	11/30/2004
EPA METHOD	6010C: SOIL METALS					Analyst: CM
Arsenic		ND	2.5	mg/Kg	1	11/23/2004 3:44:35 PM
Barium		260	1.0	mg/Kg	10	11/24/2004 4:54:36 PM
Cadmium		ND	0.10	mg/Kg	1	11/23/2004 3:44:35 PM
Calcium		15000	130	mg/Kg	5	11/23/2004 5:33:33 PN
Chromium		5.9	0.30	mg/Kg	1	11/23/2004 3:44:35 PM
Lead		5.6	0.25	mg/Kg	1	11/23/2004 3:44:35 PN
Magnesium		4600	25	mg/Kg	1	11/23/2004 3:44:35 PM
Potassium		1300	50	•••	1	11/23/2004 3:44:35 PN
Selenium		ND	2.5		1	11/23/2004 3:44:35 PM
Silver		ND	0.25	mg/Kg	1	11/23/2004 3:44:35 PN
Sodium		1400	25	mg/Kg	1	11/23/2004 3:44:35 PN
EPA METHOD	150.1: PH					Analyst: CM
pН		9.06	0.010	pH Unit	is 1	12/1/2004

Date: 03-Dec-04

Qualifiers:

ND - Not Detected at the Reporting Limit

- S Spike Recovery outside accepted recovery limits
- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level 11/23
- R RPD outside accepted recovery limits E - Value above quantitation range

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CLIENT: Giant Refining Co Lab Order: 0411218 Railroad Rack Lagoon SWMU **Project:** Lab ID: 0411218-12

Client Sample ID: RR-B-2 Collection Date: 11/18/2004 12:30:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS					Analyst: MAP
Fluoride	7.5	3.0	mg/Kg	10	11/30/2004 4:34:08 PM
Chloride	17	3.0	mg/Kg	10	11/30/2004 4:34:08 PM
Nitrogen, Nitrate (As N)	ND	3.0	mg/Kg	10	11/30/2004 4:34:08 PM
Sulfate	680	15	mg/Kg	10	11/30/2004 4:34:08 PM
Nitrogen, Nitrite (As N)	ND	3.0	mg/Kg	10	11/30/2004 4:34:08 PM
Phosphorus, Orthophosphate (As P)	ND	15	mg/Kg	10	11/30/2004 4:34:08 PM
EPA METHOD 8015B: DIESEL RANGE					Analyst: JMP
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	11/23/2004 7:49:46 AM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/23/2004 7:49:46 AM
Surr: DNOP	88.7	60-124	%REC	1	11/23/2004 7:49:46 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10	mg/Kg	1	11/24/2004 11:49:10 PM
Benzene	ND	0.025	mg/Kg	1	11/24/2004 11:49:10 PM
Toluene	ND	0.025	mg/Kg	1	11/24/2004 11:49:10 PM
Ethylbenzene	ND	0.025	mg/Kg	1	11/24/2004 11:49:10 PM
Xylenes, Total	ND	0.025	mg/Kg	1	11/24/2004 11:49:10 PM
Surr: 4-Bromofluorobenzene	102	74-118	%REC	1	11/24/2004 11:49:10 PM
EPA METHOD 7471: MERCURY					Analyst: CMC
Mercury	ND	0.033	mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS					Analyst: CMC
Arsenic	ND	2.5	mg/Kg	1	11/23/2004 3:56:24 PM
Barium	320	0.97	mg/Kg	10	11/24/2004 4:56:47 PM
Cadmium	ND	0.10	mg/Kg	1	11/23/2004 3:56:24 PM
Calcium	17000	250	mg/Kg	10	11/23/2004 5:37:24 PM
Chromium	5.1	0.30	mg/Kg	1	11/23/2004 3:56:24 PM
Lead	5.1	0.25	mg/Kg	1	11/23/2004 3:56:24 PM
Magnesium	4200	25	mg/Kg	1	11/23/2004 3:56:24 PM
Potassium	1000	50	mg/Kg	1	11/23/2004 3:56:24 PM
Selenium	ND	2.5	mg/Kg	1	11/23/2004 3:56:24 PM
Silver	ND	0.25	mg/Kg	1	11/23/2004 3:56:24 PM
Sodium	1300	25	mg/Kg	1	11/23/2004 3:56:24 PM
EPA METHOD 150.1: PH					Analyst: CMC
рН	8.75	0.010	pH Units	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit

- S Spike Recovery outside accepted recovery limits
- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

- R RPD outside accepted recovery limits
- E Value above quantitation range

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Nitrogen, Nitrate (As N)

10

11/30/2004 5:24:33 PM

CLIENT:	Giant Refining Co		Client Sample ID: RR-BP-1							
Lab Order:	0411218			Collection Date: 11/18/2004 1:00						
Project:	Railroad Rack Lage	oon SWMU								
Lab ID:	0411218-13				Matrix:	SOIL				
Analyses		Result	PQL	Qual Units		DF	Date Analyzed			
EPA METHOD	9056A: ANIONS						Analyst: MAP			
Fluoride		5.4	3.0	mg/Kg		10	11/30/2004 5:24:33 PM			
Chloride		60	3.0	mg/Kg		10	11/30/2004 5:24:33 PM			

3.0

mg/Kg

ND

Nillogen, Nillale (As N)	140	0.0	nigrity	10	11/30/2004 3.24.33 P M
Sulfate	ND	15	mg/Kg	10	11/30/2004 5:24:33 PM
Nitrogen, Nitrite (As ℕ)	. ND	3.0	mg/Kg	10	11/30/2004 5:24:33 PM
Phosphorus, Orthophosphate (As P)	ND	15	mg/Kg	10	11/30/2004 5:24:33 PM
EPA METHOD 8015B: DIESEL RANGE					Analyst: JMP
Diesel Range Organics (DRO)	3600	100	mg/Kg	10	11/23/2004 11:40:40 AM
Motor Oil Range Organics (MRO)	ND	500	mg/Kg	10	11/23/2004 11:40:40 AM
Surr: DNOP	83.2	60-124	%REC	10	11/23/2004 11:40:40 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	5.0	mg/Kg	50	11/23/2004 9:36:56 PM
Benzene	2.5	1.3	mg/Kg	50	11/23/2004 9:36:56 PM
Toluene	27	1.3	mg/Kg	50	11/23/2004 9:36:56 PM
Ethylbenzene	17	1.3	mg/Kg	50	11/23/2004 9:36:56 PM
Xylenes, Total	110	1.3	mg/Kg	50	11/23/2004 9:36:56 PM
Surr: 4-Bromofluorobenzene	113	74-118	%REC	50	11/23/2004 9:36:56 PM
EPA METHOD 7471: MERCURY					Analyst: CMC
Mercury	0.082	0.033	mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS					Analyst: CMC
Arsenic	ND	2.5	mg/Kg	1	11/23/2004 4:13:16 PM
Barium	240	0.99	mg/Kg	10	11/24/2004 5:01:04 PM
Cadmium	0.10	0.10	mg/Kg	1	11/23/2004 4:13:16 PM
Calcium	16000	130	mg/Kg	5	11/23/2004 5:40:11 PM
Chromium	5.5	0.30	mg/Kg	1	11/23/2004 4:13:16 PM
Lead	12	0.25	mg/Kg	1	11/23/2004 4:13:16 PM
Magnesium	3300	25	mg/Kg	1	11/23/2004 4:13:16 PM
Potassium	1000	50	mg/Kg	1	11/23/2004 4:13:16 PM
Selenium	ND	2.5	mg/Kg	1	11/23/2004 4:13:16 PM
Silver	ND	0.25	mg/Kg	1	11/23/2004 4:13:16 PM
Sodium	590	25	mg/Kg	1	11/23/2004 4:13:16 PM
EPA METHOD 150.1: PH					Analyst: CMC
рН	8.25	0.010	pH Units	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 13/23

E - Value above quantitation range

R - RPD outside accepted recovery limits

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Date: 03-Dec-04

CLIENT:	Giant Refining Co			Clie	ent Sample ID: F	R-BP-2	2
Lab Order:	0411218				Collection Date:	11/18/2	2004 1:30:00 PM
Project:	Railroad Rack Lagoon	SWMU					
Lab ID:	0411218-14				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	9056A: ANIONS						Analyst: MAP
Fluoride		8.1	3.0		mg/Kg	10	11/30/2004 5:41:22 PM
Chloride		59	3.0		mg/Kg	10	11/30/2004 5:41:22 PM
Nitrogen, Nitrate	e (As N)	ND	3.0		mg/Kg	10	11/30/2004 5:41:22 PM
Sulfate		24	15		mg/Kg	10	11/30/2004 5:41:22 PM
Nitrogen, Nitrite	(As N)	ND	3.0		mg/Kg	10	11/30/2004 5:41:22 PM
Phosphorus, Or	thophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 5:41:22 PM
EPA METHOD	8015B: DIESEL RANGE						Analyst: JMP
Diesel Range O	rganics (DRO)	2700	100		mg/Kg	10	11/29/2004 8:50:00 PM
Motor Oil Range	e Organics (MRO)	ND	500		mg/Kg	10	11/29/2004 8:50:00 PM
Surr: DNOP		78.9	60-124		%REC	10	11/29/2004 8:50:00 PM
EPA METHOD	8021B: VOLATILES						Analyst: NSB
Methyl tert-buty	l ether (MTBE)	ND	5.0		mg/Kg	50	11/23/2004 10:07:11 PN
Benzene		2.2	1.3		mg/Kg	50	11/23/2004 10:07:11 PN
Toluene		25	. 1.3		mg/Kg	50	11/23/2004 10:07:11 PN
Ethylbenzene		15	1.3		mg/Kg	50	11/23/2004 10:07:11 PM
Xylenes, Total		100	. 1.3		mg/Kg	50	11/23/2004 10:07:11 PM
Surr: 4-Brom	ofluorobenzene	113	74-118		%REC	50	11/23/2004 10:07:11 PN
EPA METHOD	7471: MERCURY						Analyst: CMC
Mercury		ND	0.033		mg/Kg	1	11/30/2004
EPA METHOD	6010C: SOIL METALS						Analyst: NMO
Arsenic		ND	2.5		mg/Kg	1	11/30/2004 2:20:51 PM
Barium		170	0.99		mg/Kg	10	11/24/2004 5:03:13 PM
Cadmium		ND	0.10		mg/Kg	1	11/23/2004 4:17:13 PM
Calcium		13000	130		mg/Kg	5	11/23/2004 5:46:03 PM
Chromium		4.4	0.30		mg/Kg	1	11/23/2004 4:17:13 PM
Lead		7.4	0.25		· mg/Kg	1	11/23/2004 4:17:13 PM
Magnesium		3000	25		mg/Kg	1	11/23/2004 4:17:13 PM
Potassium		940	50		mg/Kg	1	11/23/2004 4:17:13 PM
Selenium		ND	2.5		mg/Kg	1	11/23/2004 4:17:13 PM
Silver		ND	0.25		mg/Kg	1	11/23/2004 4:17:13 PM
Sodium		570	25		mg/Kg	1	11/23/2004 4:17:13 PM
EPA METHOD	150.1: PH						Analyst: CMC
pH		8.51	0.010		pH Units	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit

- S Spike Recovery outside accepted recovery limits
- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- R RPD outside accepted recovery limits
 - E Value above quantitation range

* - Value exceeds Maximum Contaminant Level 14/23 Page 13 of 13

Date: 03-Dec-04

CLIENT: Giant Refi Work Order: 0411218 Project: Railroad R	ning Co .ack Lagoon SWMU							QC SUM	IMAR	Y REP(Method I	
Sample ID MB-6967	Batch ID: 6967	Test Code:	E300	Units: mg/Kg		Analysis	s Date 11/3	30/2004 10:41:18 A	Prep D	ate 11/30/20	004
Client ID:		Run ID:	LC_041130A	•		SeqNo:	3235	552			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Quai
Fluoride	ND	0.3									
Chloride	ND	0.3									
Nitrogen, Nitrate (As N)	ND	0.3									
Sulfate	ND	1.5									
Nitrogen, Nitrite (As N)	ND	0.3									
Phosphorus, Orthophosphate (As	P) ND	1.5									
Sample ID MB-6969	Batch ID: 6969	Test Code:	E300	Units: mg/Kg		Analysis	; Date 11/3	30/2004 3:26:53 PM	Prep D	ate 11/30/20	04
Client ID:		Run ID:	LC_041130A			SeqNo:	3235	69			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.3									•
Chloride	ND	0.3									
Nitrogen, Nitrate (As N)	ND	0.3									
Sulfate	ND	1.5									
Nitrogen, Nitrite (As N)	ND	0.3									
Phosphorus, Orthophosphate (As	P) ND	1.5				•		·			
Sample ID MB-6944	Batch ID: 6944	Test Code:	SW8015	Units: mg/Kg		Analysis	Date 11/2	2/2004 5:41:51 PM	Prep Da	ate 11/22/20	04
Client ID:		Run ID:	FID(17A) 2_0	41 122A		SeqNo:	3226	01			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	8.438	0	10	0	84.4	60	124	0			

ND - Not Detected at the Reporting Limit Qualifiers: S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits 1

CLIENT: Work Order: Project:	Giant Ref 0411218 Railroad I	ining Co Rack Lagoon SWMU					QC SUM	IMAR	Y REPO			
Sample ID MB-69	30	Batch ID: 6930	Test Code	SW8021	Units: mg/Kg		Analysi	s Date 11/2	3/2004 12:37:21 P	Prep D	ate 11/19/20	004
Client ID:			Run ID:	PIDFID_0411	23A		SeqNo:	3227	90			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Methyl tert-butyl eth	ner (MTBE)	ND	0.1									
Benzene		ND	0.025									
Toluene		ND	0.025									
Ethylbenzene		ND	0.025									
Xylenes, Total		ND	0.025									
Surr: 4-Bromoflue	orobenzene	0.9942	0	1	0	99.4	74	118	0			
Sample ID MB-697	72	Batch ID: 6972	Test Code:	SW7471	Units: mg/Kg		Analysis	Date 11/3	0/2004	Prep D	ate 11/30/20)04
Client ID:			Run ID:	MI-LA254_04	1130A		SeqNo:	3233	75			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		ND	0.033									
Sample ID MB-695	54	Batch ID: 6954	Test Code:	SW6010A	Units: mg/Kg	······································	Analysis	Date 11/2	3/2004 11:10:00 A	Prep D	ate 11/22/20	04
Client ID:			Run ID:	ICP_041123A	•		SeqNo:	32269	90			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		ND	2.5	<u>_</u>								• •
Cadmium		0.05491	0.1									J
Calcium		12.41	25									J
Chromium		ND	0.3									
.ead		ND	0.25									
lagnesium		ND	25									
Potassium		ND	50									
Selenium		ND	2.5									
Silver		ND	0.25									

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

CLIENT: Work Order: Project:	Giant Refining Co 0411218 Railroad Rack Lagoon SWMU						RY REPORT Method Blank		
Sample ID MB-69 Client ID:	54 Batch ID: 6954	Test Code: S Run (D: 10	W6010A CP_041124A	Units: mg/Kg		Analysis Date 11/24/2004 4:05:08 PM SeqNo: 323121	Prep Dat	e 11/22/20	04
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val	%RPD	RPDLimit	Qual
Barium	ND	0.1							
Sample ID MB-69 Client ID:	54 Batch ID: 6954	Test Code: S Run ID: IC	W6010A CP_041123B	Units: mg/Kg		Analysis Date 11/24/2004 2:15:41 PM SeqNo: 323162	Prep Dat	e 11/22/20	04
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	ND	25							

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

QC SUMMARY REPORT

CLIENT: Giant Refining Co Work Order: 0411218 **Project:**

Railroad Rack Lagoon SWMU

Sample ID 0411218-09A DUP	Batch ID: 6967	Test Code:	E300	Units: mg/Kg		Analysis	Date 11/3	0/2004 2:36:34 PM	Prep Date 11/30/2004		
Client ID: RR-W-1-Wall N		Run ID:	LC_041130A	•		SeqNo: 323566					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	13.08	1.5	0	0	0	0	0	14.15	7.88	20	
Chloride	289.5	1.5	0	0	0	0	0	291.3	0.625	20	
Nitrogen, Nitrate (As N)	3.285	1.5	0	0	0	0	0	4.337	27.6	20	R
Sulfate	859	7.5	0	0	0	0	0	863.5	0.516	20	
Nitrogen, Nitrite (As N)	ND	1.5	0	0	0	0	0	0	0	20	
Phosphorus, Orthophosphate (As F	P) ND	7.5	0	0	0	0.	. 0	0	0	20	

Qualifiers:

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

1

Date: 03-Dec-04

Sample Duplicate

Work Order: 041121	lefining Co 8 d Rack Lagoon SWMU						 	QC SUM Laboratory (
Sample ID LCS-6967	Batch ID: 6967	Test Code	: E300	Units: mg/Kg		Analysis	s Date 11/3	0/2004 10:58:07 A	Prep C	Date 11/30/20	004
Cilent ID:		Run ID:	LC_041130A			SeqNo:	3235	53			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	1.372	0.3	1.5	0	91.5	90	110	0	• • ••	···	
Chloride	15.84	0.3	15	0	106	90	110	0			
Nitrogen, Nitrate (As N)	7.983	0.3	7.5	0	106	90	110	0			
Sulfate	32.25	1.5	30	0	108	90	110	0			
Nitrogen, Nitrite (As N)	2.984	0.3	3	0	99.5	90	110	0			
Phosphorus, Orthophosphate	(As P) 14.85	1.5	15	0	99.0	90	110	0			
Sample ID LCS-6969	Batch ID: 6969	Test Code:	E300	Units: mg/Kg	a <u>an a</u> nn an a	Analysis	s Date 11/3	0/2004 3:43:42 PM	Prep C	ate 11/30/20)04
Client ID:		Run ID:	LC_041130A			SeqNo:	3235	70			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	1.397	0.3	1.5	0	93.2	90	110	0			
Chloride	14.95	0.3	15	0	99.7	90	110	0		,	
Nitrogen, Nitrate (As N)	7.953	0.3	7.5	0	106	90	110	0			
Sulfate	30.98	1.5	30	0	103	90	110	· O ·			
Nitrogen, Nitrite (As N)	2.878	0.3	3	0	95.9	90	110	0			
Phosphorus, Orthophosphate	(As P) 15.24	1.5	15	0	102	90.	110	0			
Sample ID LCS-6944	Batch ID: 6944	Test Code:	SW8015	Units: mg/Kg		Analysis	Date 11/2	2/2004 6:14:46 PM	Prep D	ate 11/22/20)04
Client ID:		Run ID:	FID(17A) 2_0	41122A		SeqNo:	3226	02			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO) 34.85	10	50	0	69.7	67.4	117	0			• •

Date: 03-Dec-04

19/23

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Work Order: Project:	Giant Ret 0411218 Railroad	fining Co Rack Lagoon SWMU							QC SUM Laboratory Co			
Sample ID LCSD-	6944	Batch ID: 6944	Test Code:	SW8015	Units: mg/Kg		Analysis	Date 11/2	2/2004 6:47:44 PM	Prep D	ate 11/22/20	04
Client ID:			Run ID:	FID(17A) 2_0	41122A		SeqNo:	3226	03			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Orga	nics (DRO)	38.26	10	50	0	76.5	67.4	117	34.85	9.33	17.4	
Sample ID LCS-69	30	Batch ID: 6930	Test Code:	SW8021	Units: mg/Kg		Analysis	Date 11/2	3/2004 1:07:20 PM	Prep D	ate 11/19/20	04
Client ID:			Run ID:	PIDFID_0411	23A		SeqNo:	32279	92			
Analyte		Result	· PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		0.4318	0.025	0.42	0	103	77	122	0			
Toluene		2.009	0.025	1.9	0	106	81	115	0			
Ethylbenzene		0.4138	0.025	0.41	0	101	84	· 117	0			
Xylenes, Total		1.927	0.025	• 1.9	• • 0	101	84	116	• 0			
Sample ID LCS-69	72	Batch ID: 6972	Test Code:	SW7471	Units: mg/Kg		Analysis	Date 11/3	0/2004	Prep D	ate 11/30/20	04
Client ID:			Run ID:	MI-LA254_04	1130A		SeqNo:	32337	76			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HìghLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.1791	0.033	0.1667	0	107	75	125	0			
Sample ID LCSD-	5972	Batch ID: 6972	Test Code:	SW7471	Units: mg/Kg		Analysis	Date 11/3	0/2004	Prep D	ate 11/30/20	04
Client ID:			Run ID:	MI-LA254_04	1130A		SeqNo:	32339	94			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.1796	0.033	0.1667	0	108	75	125	0.1791	0.242	20	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co

Work Order: 0411218

Project:

Railroad Rack Lagoon SWMU

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID LCS-6954	Batch ID: 6954	Test Code	: SW6010A	Units: mg/Kg		Analysis	3 Date 11/2	3/2004 11:22:33 A	Prep D	ale 11/22/20	004
Client ID:		Run ID:	ICP_041123A	\		SeqNo:	3226	91			
Analyte	Result	PQL	SPK value	SPK Ref Vai	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Arsenic	26.73	2.5	25	0	107	80	120	0			
Cadmium	25.59	0.1	25	0.05491	102	80	120	0			
Calcium	2311	25	2500	12.41	91.9	80	120	0			
Chromium	25.74	0.3	25	0	103	80	120	0			
Lead	25.63	0.25	25	0	103	80	120	0			
Magnesium	2371	25	2500	0	94.8	80	120	0			
Potassium	2484	50	2500	0	99.4	80	120	0			
Selenium	27.77	2.5	25	0	111	80	120	0			
Silver	25.75	0.25	25	. 0	103	80	120	0			
Sample ID LCSD-6954	Batch ID: 6954	Test Code	SW6010A	Units: mg/Kg		Analysis	Date 11/2	3/2004 11:25:36 A	Prep Da	ate 11/22/20	004
Client ID:		Run ID:	ICP_041123A			SeqNo:	3226	92			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Arsenic	26.84	2.5	25	0	107	80	120	26.73	0.426	20	
Cadmium	25.25	0.1	25	0.05491	101	80	120	25.59	1.33	20	
Calcium	2302	25	2500	12.41	91.6	80	120	2311	0.394	20	
Chromium	25.22	0.3	25	0	101	80	120	25,74	2.02	20	
Lead	25.12	0.25	25	0	100	80	120	25.63	2.00	20	
Magnesium	2348	25	2500	0	93.9	80	120	2371	0.979	20	
Potassium	2450	50	2500	0	98.0	80	120	2484	1.39	20	
		2.5	25								

25

Qualifiers:

Silver

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

0.0495

J - Analyte detected below quantitation limits

25.74

0.25

R - RPD outside accepted recovery limits

0

103

80

120

25.75

3

CLIENT: Work Order: Project:	0411218	fining Co Rack Lagoon SWMU							QC SUM			
Sample ID LCS-69	954	Batch ID: 6954	Test Code:	SW6010A	Units: mg/Kg		Analysis		3/2004 11:22:33 A	Prep D	ate 11/22/20	04
Client ID:			Run ID:	ICP_041123E	3		SeqNo:	3228	71			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium		2763	25	2500	0	111	80	120	0			
Sample ID LCSD-	6954	Batch ID: 6954	Test Code:	SW6010A	Units: mg/Kg		Analysis	Date 11/2	3/2004 11:25:36 A	Prep D	ate 11/22/20	04
Client ID:			Run ID:	ICP_041123E	3		SeqNo:	3228	72			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium		2726	25	2500	0	109	80	120	2763	1.34	20	
Sample ID LCS-69	954	Batch ID: 6954	Test Code:	SW6010A	Units: mg/Kg		Analysis	Date 11/2	4/2004 4:23:50 PM	Prep D	ate 11/22/20	04
Client ID:			Run ID:	ICP_041124A	V		SeqNo:	3231	22			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium		24.55	0.1	25	0	98.2	80	120	0		•	
Sample ID LCSD-	6954	Batch ID: 6954	Test Code:	SW6010A	Units: mg/Kg		Analysis	Date 11/2	4/2004 4:26:06 PM	Prep D	ate 11/22/20	04
Client ID:			Run ID:	ICP_041124A	N		SeqNo:	3231	23			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium		23.86	0.1	25	0	95.4	80	120	24.55	2.85	20	

22/23

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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J - Analyte detected below quantitation limits

5

R - RPD outside accepted recovery limits

Work Order Number 0411218 Received by AT Checklist completed by Amount Amount Amount Amount Matrix Carrier name Client dop-off Shipping container/cooler in good condition? Yes No Not Present Not Shipped Custody seals intact on shipping container/cooler? Yes No Not Present Not Shipped Image: Client dop-off Custody seals intact on sample bottles? Yes No No Not Present Not Shipped Image: Client dop-off Custody seals intact on sample bottles? Yes No No No No No No Shipped Image: Client dop-off Custody agrees with sample labels? Yes No No Samples in proper container/bottle? Yes No Samples in proper container/bottle? Yes No Mo		Sample	Receipt Che	ecklist			
Checklist completed by	Client Name GIANTREFIN			Date and Time	Received:		
Watrix Carrier name Client dop-off Shipping container/cooler in good condition? Yes No Not Present	Work Order Number 0411218		I .	Received by	AT		
Shipping container/cooler in good condition? Yes No Not Present Into Shipped Custody seals intact on shipping container/cooler? Yes No No Not Present Not Shipped Into Shipped		ules 11	19/07 Date				
Custody seals intact on shipping container/cooler? Yes No Not Present Not Shipped Image: Control of Coolers and Cool	Matrix	Carrier name	Client drop-of	ſ			
Custody seals intact on sample bottles? Yes No N/A Chain of custody present? Yes No	Shipping container/cooler in good condition?		Yes 🗹	No 🗌	Not Present		
Chain of custody present? Yes V No Chain of custody signed when relinquished and received? Yes No Chain of custody agrees with sample labels? Yes No Chain of custody agrees with sample labels? Yes No Chain of custody agrees with sample labels? Yes No Chain of custody agrees with sample labels? Yes No Chain of custody agrees with sample labels? Yes No Chain of custody agrees with sample volume for indicated test? Yes No Chain sample volume for the same vol	Custody seals intact on shipping container/cooler	?	Yes 🗆	No 🗔	Not Present	Not Shipped	
Chain of custody signed when relinquished and received? Yes <table-cell> No Chain of custody agrees with sample labels? Yes 🖓 No Chain of custody agrees with sample labels? Yes 🖓 No Chain of custody agrees with sample labels? Yes 🖓 No Chain of custody agrees with sample labels? Yes 🖓 No Chain of custody agrees with sample container/level within holding time? Yes 🖓 No Chains have zero headspace? No VOA vials submitted 🖓 Yes Chain of N/A 🐼 Container/Temp Blank temperature? 6° 4* C ± 2 Acceptable time to cool. COMMENTS: Client contacted Date contacted: Person contacted Contacted by: Regarding Corrective Action Corrective Action Corrective Action Corrective Action Corrective Action Corrective Action Contacted Corrective Action Contacted Corrective Action Corrective Action</table-cell>	Custody seals intact on sample bottles?		Yes 🗹	No 🗌	N/A		
Chain of custody agrees with sample labels? Yes 🗹 No 🗌 Samples in proper container/bottle? Yes 🖉 No 🗌 Sample container/bottle? Yes 🖉 No 🗌 Sample container intact? Yes 🖉 No 🗌 All samples received within holding time? Yes 🖉 No 🗍 Water - VOA vials have zero headspace? No VOA vials submitted 🖉 Yes 🗌 No 🗌 Water - VOA vials have zero headspace? No VOA vials submitted \checkmark Yes \square No \square N/A \checkmark Container/Temp Blank temperature? 6° 4° C ± 2 Acceptable If given sufficient time to cool. COMMENTS: Client contacted Date contacted: Person contacted Contacted by: Regarding Corrective Action	Chain of custody present?		Yes 🗹	No 🗌			
Samples in proper container/tottle? Yes Ves No Sample containers intact? Yes No Sufficient sample volume for indicated test? Yes No All samples received within holding time? Yes No Water - VOA vials have zero headspace? No VOA vials submitted Ves No Water - pH acceptable upon receipt? Yes No No NiA Vest Container/Temp Blank temperature? 6° 4° C ± 2 Acceptable If given sufficient time to cool. COMMENTS: Client contacted Date contacted: Person contacted Contacted by: Regarding Comments: Corrective Action Corrective Action Corrective Action Corrective Action No Container/Temp Blank temperature? Yes Person contacted Corrective Action Regarding Corrective Action Corrective Action Corrective Action Corrective Action Contacted Contacted Corrective Action Corrective Action	Chain of custody signed when relinquished and r	eceived?	Yes 🗹	No 🗋			
Sample containers intact? Yes V No Sufficient sample volume for indicated test? Yes V No All samples received within holding time? Yes V No Water - VA-vials have zero headspace? No VOA vials submitted V Yes No No NA Water - pH acceptable upon receipt? Yes No No NA Container/Temp Blank temperature? 6° 4° C ± 2 Acceptable It given sufficient time to cool. COMMENTS: Client contacted Date contacted: Person contacted Contacted by: Regarding Comments: Comments: Comments:	Chain of custody agrees with sample labels?		Yes 🗹	No 🗆			
Sufficient sample volume for Indicated test? Yes Ves No All samples received within holding time? Yes No Water - VOA-vials have zero headspace? No VOA vials submitted Ves No Water - pH acceptable upon receipt? Yes No N/A Ves Container/Temp Blank temperature? 6° 4° C ± 2 Acceptable It given sufficient time to cool. COMMENTS: Client contacted Date contacted: Person contacted Contacted by: Regarding Comments: Corrective Action	Samples in proper container/bottle?		Yes 🗹	No \Box			
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Water - VOA vials have zero headspace? No VOA vials submitted Ves No Water - pH acceptable upon receipt? Container/Temp Blank temperature? 6° 4° C ± 2 Acceptable If given sufficient time to cool. COMMENTS: Client contacted Date contacted: Person contacted Contacted by: Regarding	Sufficient sample volume for indicated test?		Yes 🗹	No 🗆			
Water - pH acceptable upon receipt? Yes No NiA 🗹 Container/Temp Blank tempe:ature? 6° 4° C ± 2 Acceptable If given sufficient time to cool. COMMENTS: Client contacted Date contacted: Person contacted Contacted by: Regarding Comments: Corrective Action	All samples received within holding time?		Yes 🗹	No 🗌			
Container/Temp Blank temperature? 6° COMMENTS: Client contacted Date contacted: Person contacted Contacted by: Regarding Comments: Corrective Action Corrective Action	Water - VOA vials have zero headspace?	No VOA vials subr	nitted 🗹	Yes 🗌	No 🗆		
If given sufficient time to cool. COMMENTS: Client contacted Date contacted: Person contacted Contacted by: Regarding Comments: Corrective Action	Water - pH acceptable upon receipt?		Yes		N/A 🗹		
Client contacted Date contacted: Person contacted Contacted by: Regarding Comments:	Container/Temp Blank temperature?		6°				
Contacted by:	COMMENTS:						
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Comments:		Date contacted:		Pers	ion contacted	 *****	
Corrective Action	Contacted by:	Regarding	<u> </u>			 	
	Comments:					 	<u></u>
	Corrective Action					 	
						 	

CHAI	N-OF-	CUSTO	DY RECORD	TOP-									4	901	Haw	/kin	s NE	, Su	ite C)		s La	BOR	ATO	RY
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				Project Name:	- 5	iv	M	K					W	ww.	haii	envi	iron	men	tal.c	:om					
Address:	Ru	te s	- Ciniga Box 7	Project #:				·····						- A	M	WS	Ø F	En	JES						
G	all	p No	M 87301							() ()	el) 🕃			B.S.	1521.22				<u>ek</u> ete				0		
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		<u> </u>	Project Manager						Qu0 e	s/Dies		Z1 B						S04)				8		111
	·····			Atour	~ C	M	n	is	8021)	soline	) (Gas		Poz,				2		P04,	8082			x O		2
Phone #:	50	572	2 Z 3833	Sampler:	<u> </u>				+ TMB's (8021)	ч (Ga	B MOI	÷	THE REAL	=	_		2	Ca, Mg)	N0 ₂ ,	CB's (			80	Par K	Air O.: Heloo ar Headenaar (V
Fax #:	503	572	2 0210	Samples Cold?:	1.00	Ves	10			1 1 1 1 1	80151	1418.	List (1	504.	8021	r PAH	ls /	K, Ca,	NO ₃ ,	les / F		(OA)	9	.}	
Date	Time					servat			MTB	MTB	ethod	fethoc	s-fet	lethoc	lethoo	o NA o	3 Meta	(Na,	(F, CI,	esticio	(OA)	Semi-	3	9	
Dale	Time	Matrix	Sample I.D. No.	Number/Volume	HgClz		-	HEAL NO. 0411,218	BTEX + MTBE	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B MOD (Gas/Diesel)	TPH (Method 418.1)	Valatites Full List (2024)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Cations (Na, K,	Anions (F, CI, NO ₃ , NO ₂ , PO ₄ , SO ₄ )	8081 Pesticides / PCB's (8082)	8260 (VOA)	8270 (Semi-VOA)	òE	the second	
118/04	රුදිංග	Sail	RR-N-1	2			· .						.×		_		X	ý.	X				×.	X	
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3)	085	.,	RR-W-1	2	<b> </b>			¥.					X				×	x	x				、 入	<u>א</u>	ŀ
دد	0900	1)	RR-N-1-Wall	2	<b> </b>			5					×				X		x	 	<u> </u>		$\dot{\lambda}$	<u>~</u>	
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Client:	Tian	+ Reg	lining Ciniga Box 7 M 87391	Project Name:	Rai S	los	Г 1 Ц	Rock					Te	1. 50	uerq 05.34 halle	45-3	975	Fax	<b>t 50</b> :	5.34		07			
Address:	Row	Te 3	Box 7	Project #:			<u> </u>	·····					a) set	A	NAL	YSI	SR	म्	JES	<u>R</u>					
G	all	ingo M	M 87391										8					24. A.S		97-92-44 	MANDAMOR				
		<i>f</i>		Project Manager	r.				(8021)	asoline Only)	D (Gas/Die		81200			-	te l		, P04, S04	(8082)			4		ce (Y or N)
Phone #:	504	5.7Z	2 3.833	Sampler:	-	, 9	1	Inis	MB's	PH (G	B MO	<del>.</del>		<del>_</del>	-	_	F	(BM)	NO2	PCB's			000	<i>¥</i>	adspa
Fax #:	50	572	2 0210	Samples Cold?:		Q Yes	(	No No	E + T	1 + 3	8015	d 418	Ţ.	d 504	d 802	PA	als	K, Ca	NO3	des /		(NOA)	4	S.	or Hea
Dale	Time	Matrix	Sample I.D. No.	Number/Volume	Ри	eservativ HCI		HEAL NO. 0411 2-18	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline	TPH Method 8015B MOD (Gas/Diesel)	TPH (Method 418.1)	Velatties Full-List (802.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Cations (Na, K, Ca, Mg)	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄ )	8081 Pesticides / PCB's (8082)	8260 (VOA)	8270 (Semi-VOA)	2015	Soi.	Air Bubbles or Headspace (Y or N)
8/04	1300	Soil	RR-BP-1	2	<b> </b>	<u>├</u> ───┼		13					- x		$\exists$		<u> </u>	×	x				х	×	
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Date: 24-Aug-05

CLIENT:	Giant Refining Co			Client Sa	mple ID:	North V	Wall
Lab Order:	0508234			Tag	Number:		
Project:	R.R. Rack Lagoon A	dditional SE V	Vall Excavat	i Collect	ion Date:	8/19/20	05 10:00:00 AM
Lab ID:	0508234-01A				Matrix:	SOIL	
Analyses		Result	PQL	Qual Units		DF	Date Analyzed
EPA METHOD	8015B: GASOLINE RAN	IGE					Analyst: NSE
Gasoline Range	e Organics (GRO)	120	100	mg/Kg		20	8/23/2005 11:21:34 PM
Surr: BFB		106	83.1-124	%REC		20	8/23/2005 11:21:34 PM
EPA METHOD	8021B: VOLATILES						Analyst: NSE
Methyl tert-buty	l ether (MTBE)	ND	2.0	mg/Kg		20	8/23/2005 11:21:34 PM
Benzene		0.70	0.50	mg/Kg		20	8/23/2005 11:21:34 PM
Toluene		ND	0.50	mg/Kg		20	8/23/2005 11:21:34 PM
Ethylbenzene		3.4	0.50	mg/Kg		20	8/23/2005 11:21:34 PM
Xylenes, Total		6.5	0.50	mg/Kg		20	8/23/2005 11:21:34 PN
Sure A.Brom	ofluorobenzene	109	87.5-115	%REC		20	8/23/2005 11:21:34 PM

Qualifiers:

ND-Not Det tec t t Re min Limit

J - Analyte de sted be w santi ioa limi

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

: Sp : Rev very outsid accep if re very limits

I RF outside cepted : over lin 4s

E - Value above quantitation range

Page 1 of 12

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CLIENT:	Giant Refining Co
Lab Order:	0508234
Project:	R.R. Rack Lagoon Additional SE Wall Excavati
Lab ID:	0508234-01B

Client Sample ID: North Wall Tag Number: Collection Date: 8/19/2005 10:00:00 AM Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E ORGANICS					Analyst: SCO
Diesel Range Organics (DRO)	1500	1000		mg/Kg	100	8/21/2005 6:45:24 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	8/21/2005 6:45:24 PM
Surr: DNOP	0	60-124	5	%REC	100	8/21/2005 6:45:24 PM
EPA METHOD 8270C: SEMIVOLATIL	ES					Analyst: BL
Acenaphthene	0.65	0.20		mg/Kg	1	8/23/2005
Acenaphthylene	ND	0.20		mg/Kg	1	8/23/2005
Aniline	ND	0.20		mg/Kg	1	8/23/2005
Anthracene	ND	0.20		mg/Kg	1	8/23/2005
Azobenzene	ND	0.20		mg/Kg	1	8/23/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	8/23/2005
Benzidine	ND	0.20		mg/Kg	1	8/23/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	8/23/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	8/23/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	8/23/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	8/23/2005
Benzoic acid	ND	0.50		mg/Kg	1	8/23/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	8/23/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	8/23/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	8/23/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
Carbazole	ND	0.20		mg/Kg	1	8/23/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	8/23/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	8/23/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	8/23/2005
2-Chlorophenoi	ND	0.20		mg/Kg	· 1	8/23/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	8/23/2005
Chrysene	ND	0.20		mg/Kg	1	8/23/2005
Di-n-butyl phthalate	ND	0.25		mg/Kg	1	8/23/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	8/23/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	8/23/2005
Dibenzofuran	ND	0.50		mg/Kg	1	8/23/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
3,3°-Dichlorobenzidine	ND	0.20		mg/Kg	1	8/23/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	8/23/2005

J - Analyte de sted be wounti ion limi

I RF outside cept...: over lin 's

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

- Value exceeds Maximum Contaminant Level

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== CLIENT: **Giant Refining Co** 0508234 Lab Order: R.R. Rack Lagoon Additional SE Wall Excavati **Project:** Lab ID: 0508234-01B

Client Sample ID: North Wall Tag Number: Collection Date: 8/19/2005 10:00:00 AM Matrix: SOIL

analyses	Result	PQL	Qual Units	DF	Date Analyzed
2,4-Dichlorophenol	ND	0.20	mg/Kg	1	8/23/2005
2,4-Dimethylphenol	ND	0.20	mg/Kg	1	8/23/2005
4,6-Dinitro-2-methylphenol	ND	0.50	mg/Kg	1	8/23/2005
2,4-Dinitrophenol	ND	0.50	mg/Kg	1	8/23/2005
2,4-Dinitrotoluene	ND	0.20	mg/Kg	1	8/23/2005
2,6-Dinitrotoluene	ND	0.20	mg/Kg	1	8/23/2005
Fluoranthene	ND	0.20	mg/Kg	1	8/23/2005
Fluorene	1.5	0.20	mg/Kg	1	8/23/2005
Hexachlorobenzene	ND	0.20	mg/Kg	1	8/23/2005
Hexachlorobutadiene	ND	0.20	mg/Kg	1	8/23/2005
Hexachlorocyclopentadiene	ND	0.25	mg/Kg	1	8/23/2005
Hexachloroethane	ND	0.50	mg/Kg	1	8/23/2005
Indeno(1,2,3-cd)pyrene	ND	0.20	mg/Kg	1	8/23/2005
Isophorone	ND	0.20	mg/Kg	1	8/23/2005
2-Methylnaphthalene	9.8	2.0	mg/Kg	10	8/23/2005
2-Methylphenol	ND	0.20	mg/Kg	1	8/23/2005
3+4-Methylphenol	ND	0.20	mg/Kg	1	8/23/2005
N-Nitrosodi-n-propylamine	0.27	0.20	mg/Kg	1	8/23/2005
N-Nitrosodiphenylamine	ND	0.20	mg/Kg	1	8/23/2005
Naphthalene	3.1	0.20	mg/Kg	1	8/23/2005
2-Nitroaniline	ND	0.50	mg/Kg	1	8/23/2005
3-Nitroaniline	ND	0.50	mg/Kg	1	8/23/2005
4-Nitroaniline	ND	0.25	mg/Kg	1	8/23/2005
Nitrobenzene	ND	0.20	mg/Kg	1	8/23/2005
2-Nitrophenol	ND	0.20	mg/Kg	1	8/23/2005
4-Nitrophenol	ND	0.20	mg/Kg	1	8/23/2005
Pentachlorophenol	ND	0.50	mg/Kg	1	8/23/2005
Phenanthrene	2.9	0.20	mg/Kg	1	8/23/2005
Phenol	ND	0.20	mg/Kg	1	8/23/2005
Pyrene	ND	0.20	mg/Kg	1	8/23/2005
Pyridine	ND	0.50	mg/Kg	1	8/23/2005
1,2,4-Trichlorobenzene	ND	0.20	mg/Kg	1	8/23/2005
2,4,5-Trichlorophenol	ND	0.20	mg/Kg	1	8/23/2005
2,4,6-Trichlorophenol	ND	0.20	mg/Kg	1	8/23/2005
Surr: 2,4,6-Tribromophenol	110	35.5-141	%REC	1	8/23/2005
Surr: 2-Fluorobiphenyl	107	30.4-128	%REC	1	8/23/2005
Surr: 2-Fluorophenol	62.9	28.1-129	%REC	1	8/23/2005
Surr: 4-Terphenyl-d14	80.8	34.6-151	%REC	1	8/23/2005
Sun: Nitrobenzene-d5	73.9	26.5-122	%REC	1	8/23/2005
Surr: Phenol-d6	72.8	37.6-118	%REC	1	8/23/2005

Qualifiers:

ND-Not Det tec tit Reprin Linuit

: Sp : Rev ery outsid accept I re iver limitation

J - Analyte de sted be w santi ion limi

B - Analyte detected in the associated Method Blank.

* - Value exceeds Maximum Contaminant Level

I RF outside cept.ed : over lin 's

E - Value above quantitation range

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Date: 24-Aug-05

1

CLIENT:	Giant Refining Co			Client Sample	ID: So	uth Wall
Lab Order:	0508234			Tag Numi	ber:	
Project:	R.R. Rack Lagoon Ad	ditional SE V	Vall Excavati	Collection D	ate: 8/1	9/2005 10:30:00 AM
Lab ID:	0508234-02A			Mat	rix: SO	IL
Analyses		Result	PQL Q	ual Units	DI	Date Analyzed
EPA METHOD	8015B: GASOLINE RAN	GE				Analyst: NSB
Gasoline Rang	e Organics (GRO)	ND	250	mg/Kg	50	8/23/2005 11:52:19 PM
Surr: BFB	· ·	98.4	83.1-124	%REC	50	8/23/2005 11:52:19 PM
EPA METHOD	80218: VOLATILES					Analyst: NSE
Methyl tert-buty	yl ether (MTBE)	ND	5.0	mg/Kg	50	8/23/2005 11:52:19 PM
Benzene		ND	1.3	mg/Kg	50	8/23/2005 11:52:19 PM
Toluene		ND	1.3	mg/Kg	50	8/23/2005 11:52:19 PM
Ethylbenzene		4.5	1.3	mg/Kg	50	8/23/2005 11:52:19 PN
Xylenes, Total		15	1.3	mg/Kg	50	8/23/2005 11:52:19 PN
Sure A-Bron	noflu0robenzene	105	87.5-115	%REC	50	8/23/2005 11:52:19 PM

Qualifiers:

ND - Not Det tec tit Rentin Lin.it

J - Analyte de sted be wanti ion limi

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

2 Sp : Rec very outsid accept thre very limits

I RF outside cept.d: over lin 's

E - Value above quantitation range

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Date: 24-Aug-05

CLIENT:	Giant Refining Co			C	lient Sample ID:	South	Wall
Lab Order:	0508234				Tag Number:		
Project:	R.R. Rack Lagoon A	dditional SE W	all Excava	ti	<b>Collection Date:</b>	8/19/2	005 10:30:00 AM
Lab ID:	0508234-02B				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8	015B: DIESEL RANGE	ORGANICS	,				Analyst: SCC
Diesel Range Or	ganics (DRO)	3800	1000		mg/Kg	100	8/21/2005 7:16:33 PM
Motor Oil Range	Organics (MRO)	ND	5 <b>0</b> 00		mg/Kg	100	8/21/2005 7:16:33 PM
Surr: DNOP		0	60-124	S	%REC	100	8/21/2005 7:16:33 PM
EPA METHOD 8	270C: SEMIVOLATILE	S	·				Analyst: BL
Acenaphthene		2.4	2.0		mg/Kg	10	8/23/2005
Acenaphthylene		ND	2.0		mg/Kg	10	8/23/2005
Aniline		ND	2.0		mg/Kg	10	8/23/2005
Anthracene		ND	2.0		mg/Kg	10	8/23/2005
Azobenzene		ND	2.0		mg/Kg	10	8/23/2005
Benz(a)anthrace	ne	ND	2.5		mg/Kg	10	8/23/2005
Benzidine		ND	2.0		mg/Kg	10	8/23/2005
Benzo(a)pyrene		ND	2.0		mg/Kg	10	8/23/2005
Benzo(b)fluorant	hene	ND	2.0		mg/Kg	10	8/23/2005
Benzo(g,h,i)peryl		ND	3.0		mg/Kg	10	8/23/2005
Benzo(k)fluorantl	hene	ND	5.0		mg/Kg	10	8/23/2005
Benzoic acid		ND	5.0		mg/Kg	10	8/23/2005
Benzyl alcohol		ND	5.0		mg/Kg	10	8/23/2005
Bis(2-chloroetho)	(y)methane	ND	5.0		mg/Kg	10	8/23/2005
Bis(2-chloroethy)	)ether	ND	2.5		mg/Kg	10	8/23/2005
Bis(2-chloroisopr	opyl)ether	ND	5.0		mg/Kg	10	8/23/2005
Bis(2-ethylhexyl)	phthalate	ND	2.0		mg/Kg	10	8/23/2005
4-Bromophenyl p	henyl ether	ND	2.5		mg/Kg	10	8/23/2005
Butyl benzyl phth	alate	ND	2.0		mg/Kg	10	8/23/2005
Carbazole		ND	2.0		mg/Kg	10	8/23/2005
4-Chloro-3-methy	/Iphenol	ND	2.0		mg/Kg	10	8/23/2005
4-Chloroaniline		ND	2.0		mg/Kg	10	8/23/2005
2-Chloronaphtha	lene	ND	2.0		mg/Kg	10	8/23/2005
2-Chlorophenol		ND	2.0		mg/Kg	10	8/23/2005
4-Chloraphenyl p	henyl ether	ND	2.0		mg/Kg	10	8/23/2005
Chrysene		ND	2.0		mg/Kg	10	8/23/2005
Di-n-butyl phthala		ND	2.5		mg/Kg	10	8/23/2005
Di-n-octyl phthala	ate	ND	5.0		mg/Kg	10	8/23/2005
Dibenz(a,h)anthr	acene	ND	2.5		mg/Kg	10	8/23/2005
Dibenzofuran		ND	5.0		mg/Kg	10	8/23/2005
1,2-Dichlorobenz		ND	2.0		mg/Kg	10	8/23/2005
1,3-Dichlorobenz		ND	2.0		mg/Kg	10	8/23/2005
1,4-Dichlorobenz		ND	2.0		mg/Kg	10	8/23/2005
3,3'-Dichloroben:	zidine	ND	2.0		mg/Kg	10	8/23/2005
Diethyl phthalate		ND	2.0		mg/Kg	10	8/23/2005
Dimethyl phthala	te	ND	2.0		mg/Kg	10	8/23/2005

J - Analyte de sted be woanti sion limi

I RF outside cepted: over livits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

E - Value above quantitation range

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**CLIENT: Giant Refining Co** Lab Order: 0508234 **Project:** R.R. Rack Lagoon Additional SE Wall Excavati

0508234-02B

Lab ID:

**Tag Number:** Collection Date: 8/19/2005 10:30:00 AM

### Matrix: SOIL

Client Sample ID: South Wall

Inalyses	Result	PQL	Qual	Units	DF	Date Analyzed
2,4-Dichlorophenol	ND	2.0		mg/Kg	10	8/23/2005
2,4-Dimethylphenol	ND	2.0		mg/Kg	10	8/23/2005
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	10	8/23/2005
2,4-Dinitrophenol	ND	5.0		mg/Kg	10	8/23/2005
2,4-Dinitrotoluene	ND	2.0		mg/Kg	10	8/23/2005
2,6-Dinitrotoluene	ND	2.0		mg/Kg	10	8/23/2005
Fluoranthene	ND	2.0		mg/Kg	10	8/23/2005
Fluorene	5.1	2.0		mg/Kg	10	8/23/2005
Hexachlorobenzene	ND	2.0		mg/Kg	10	8/23/2005
Hexachlorobutadiene	ND	2.0		mg/Kg	10	8/23/2005
Hexachlorocyclopentadiene	ND	2.5		mg/Kg	[`] 10	8/23/2005
Hexachloroethane	ND	5.0		mg/Kg	10	8/23/2005
Indeno(1,2,3-cd)pyren@	ND	2.0		mg/Kg	10	8/23/2005
Isophorone	ND	2.0		mg/Kg	10	8/23/2005
2-Methylphenoi	ND	2.0		mg/Kg	10	8/23/2005
3+4-Melhyiphenoi	ND	2.0		mg/Kg	10	8/23/2005
N-Nitrosodi-n-propylamine	2.2	2.0		mg/Kg	10	8/23/2005
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	10	8/23/2005
Naphihalene	11	2.0		mg/Kg	10	8/23/2005
2-Nitroaniline	ND	5.0		mg/Kg	10	8/23/2005
3-Nitroaniline	ND	5.0		mg/Kg	10	8/23/2005
4-Nitroaniline	ND	2.5		mg/Kg	10	8/23/2005
Nitrobenzene	ND	2.0		mg/Kg	10	8/23/2005
2-Nitrophenol	ND	2.0		mg/Kg	10	8/23/2005
4-Nitrophenol	ND	2.0		mg/Kg	10	8/23/2005
Pentachlorophenol	ND	5.0		mg/Kg	10	8/23/2005
Phenanlhrene	9.8	2.0		mg/Kg	10	8/23/2005
Phenol	ND	2.0		mg/Kg	10	8/23/2005
Pyrene	ND	2.0		mg/Kg	10	8/23/2005
Pyridine	ND	5.0		mg/Kg	10	8/23/2005
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	10	8/23/2005
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	10	8/23/2005
2,4,6-Trichlorophenoi	ND	2.0		mg/Kg	10	8/23/2005
Surr: 2,4,6-Tribromophenol	109	35.5-141		%REC	10	8/23/2005
Surr: 2-Fluorobiphenyl	73.7	30.4-128		%REC	10	8/23/2005
Surr: 2-Fluorophenci	63.2	28.1-129		%REC	10	8/23/2005
Surr: 4-Terphenyl-d14	56.9	34.6-151		%REC	10	8/23/2005
Surr. Nitrobenzene-d5	111	26.5-122		%REC	10	8/23/2005
Surr. Phenol-d6	53.4	37.6-118		%REC	10	8/23/2005

### ND - Not Det let 11 Reprin Lin.it Qualifiers:

J - Analyte de sted be wisanti ion limi

B - Analyte detected in the associated Method Blank

- * Value exceeds Maximum Contaminant Level
- 2 Sp 2 Rec rery outsid accept line rver limita
- I RE outside ceptied: over lis 's

E - Value above quantitation range

Date: 24-Aug-05

Date: 2	4-A	ug-0.	5
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CLIENT: Lab Order: Project: Lab ID:	Giant Refining Co 0508234 R.R. Rack Lagoon Ad 0508234-03A	ditional SE V	/all Excavati		mber:	8/19/2	BTM. 2005 10:15:00 AM
Analyses		Result	PQL	Qual Units	]	DF	Date Analyzed
EPA METHOD	8015B: GASOLINE RANG	GE					Analyst: NSB
Gasoline Range	e Organics (GRO)	ND	250	mg/Kg	:	50	8/24/2005 12:23:04 AM
Surr. BFB		101	83.1-124	%REC	:	50	8/24/2005 12:23:04 AM
EPA METHOD	8021B: VOLATILES						Analyst: NSB
Methyl tert-buty	l ether (MTBE)	ND	5.0	mg/Kg	!	50	8/24/2005 12:23:04 AM
Benzene		ND	1.3	mg/Kg	:	50	8/24/2005 12:23:04 AM
Toluene		ND	1.3	mg/Kg	5	50	8/24/2005 12:23:04 AM
Ethylbenzene		ND	1.3	mg/Kg	Ę	50	8/24/2005 12:23:04 AM
Xylenes, Total		11	1.3	mg/Kg	ę	50	8/24/2005 12:23:04 AM
0	ofluorobenzene	105	87.5-115	%REC		50	8/24/2005 12:23:04 AM

Qualifiers:

ND-Not Det tec 1 t Re unit Lin.it

J - Analyte de sted be w santi ion limi

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

: Sp. : Rec. rery outsid accept fine over limits

I RF outside cepted: over lines

E - Value above quantitation range

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CLIENT:	Giant Refining Co	С
Lab Order:	0508234	
Project:	R.R. Rack Lagoon Additional SE Wall Excavati	
Lab ID:	0508234-03B	

Client Sample ID: North BTM. Tag Number: Collection Date: 8/19/2005 10:15:00 AM Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE	ORGANICS					Analyst: SCO
Diesel Range Organics (DRO)	7000	200		mg/Kg	· 20	8/21/2005 9:52:45 AM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	8/21/2005 9:52:45 AM
Sur: DNOP	٥	60-124	S	%REC	20	8/21/2005 9:52:45 AM
EPA METHOD 8270C: SEMIVOLATILE	S					Analyst: BL
Acenaphlhene	2.1	2.0		mg/Kg	10	8/23/2005
Acenaphthylene	ND	2.0		mg/Kg	10	8/23/2005
Aniline	ND	2.0		mg/Kg	10	8/23/2005
Anthracene	ND	2.0		mg/Kg	10	8/23/2005
Azobenzene	ND	2.0		mg/Kg	10	8/23/2005
Benz(a)anthracene	ND	2.5		mg/Kg	10	8/23/2005
Benzidine	ND	2.0		mg/Kg	10	8/23/2005
Benzo(a)pyrene	ND	2.0		mg/Kg	10	8/23/2005
Benzo(b)fluoranthene	ND	2.0		mg/Kg	10	8/23/2005
Benzo(g,h,i)perylene	ND	3.0		mg/Kg	10	8/23/2005
Benzo(k)fluoranthene	ND	5.0		mg/Kg	10	8/23/2005
Benzoic acid	ND	5.0		mg/Kg	10	8/23/2005
Benzyl alcohol	ND	5.0		mg/Kg	10	8/23/2005
Bis(2-chloroethoxy)methane	ND	5.0		mg/Kg	10	8/23/2005
Bis(2-chloroethyl)ether	ND	2.5		mg/Kg	10	8/23/2005
Bis(2-chloroisopropyi)ether	ND	5.0		mg/Kg	10	8/23/2005
Bis(2-ethylhexyl)phthalate	ND	2.0		mg/Kg	10	8/23/2005
4-Bromophenyl phenyl ether	ND	2.5		mg/Kg	10	8/23/2005
Butyl benzyl phthalate	ND	2.0		mg/Kg	10	8/23/2005
Carbazole	ND	2.0		mg/Kg	10	8/23/2005
4-Chloro-3-methylphenol	ND	2.0	,	mg/Kg	10	8/23/2005
4-Chioroaniline	ND	2.0		mg/Kg	10	8/23/2005
2-Chloronaphthalene	ND	2.0		mg/Kg	10	8/23/2005
2-Chlorophenol	ND	2.0		mg/Kg	10	8/23/2005
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	10	8/23/2005
Chrysene	ND	2.0		mg/Kg	10	8/23/2005
Di-n-butyl phthalale	ND	2.5		mg/Kg	10	8/23/2005
Di-n-octyl phthalate	ND	5.0		mg/Kg	10	8/23/2005
Dibenz(a,h)anthracene	ND	2.5		mg/Kg	10	8/23/2005
Dibenzofuran	ND	5.0		mg/Kg	10	8/23/2005
1,2-Dichlorobenzene	ND	2.0		mg/Kg	10	8/23/2005
1,3-Dichlorobenzene	ND	2.0		mg/Kg	10	8/23/2005
1,4-Dichlorobenzene	ND	2.0		mg/Kg	10	8/23/2005
3,3'-Dichlorobenzidine	ND	2.0		mg/Kg	10	8/23/2005
Diethyl phthalate	ND	2.0		mg/Kg	10	8/23/2005
Dimethyl phthalate	ND	2.0		mg/Kg	10	8/23/2005

J - Analyte de sted be wiranti ion limi

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

E - Value above quantitation range

I RF outside cept.d: over lin 's

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CLIENT:	Giant Refining Co		· (	Client Sample ID:	North	BTM.	
Lab Order:	0508234						
Project: R.R. Rack Lagoo		Iditional SE W	all Excavati	<b>Collection Date:</b>	8/19/2005 10:15:00 AM		
Lab ID:	0508234-03B			Matrix:	SOIL		
Analyses		Result	PQL Qual	Units	DF	Date Analyzed	
2,4-Dichlorophe	enol	ND	2.0	mg/Kg	10	8/23/2005	
2,4-Dimethylph	enol	ND	2.0	m <b>g</b> /Kg	10	8/23/2005	
4,6-Dinitro-2-m	ethylphenol	ND	5.0	mg/Kg	10	8/23/2005	
2,4-Dinitrophen	ol	ND	5.0	mg/Kg	10	8/23/2005	
2,4-Dinitrotatue	ne	ND	2.0	mg/Kg	10	8/23/2005	
2,6-Dinitrotolue	ne	ND	2.0	mg/Kg	10	8/23/2005	
Fluoranthene		ND	2.0	mg/Kg	10	8/23/2005	
Fluorene		4.3	2.0	т9/Кд	10	8/23/2005	
Hexachloroben	zene	ND	2.0	mg/Kg	10	8/23/2005	
Hexachlorobuta	idiene	ND	2.0	mg/Kg	10	8/23/2005	
Hexachlorocycl	opentadiene	ND	2.5	mg/Kg	10	8/23/2005	
Hexachloroetha	ine	ND	5.0	mg/Kg	10	8/23/2005	
Indeno(1,2,3-co	1)pyrene	ND	2.0	mg/Kg	10	8/23/2005	
Isophorone		ND	2.0	mg/Kg	10	8/23/2005	
2-Methylnaphth	alene	34	2.0	mg/Kg	10	8/23/2005	
2-Methylphenol	ł	ND	2.0	mg/Kg	10	8/23/2005	
3+4-Methylphe	nol	ND	2.0	mg/Kg	10	8/23/2005	
N-Nitrosodi-n-p	ropylamine	ND	2.0	mg/Kg	10	8/23/2005	
N-Nitrosodiphe	nylamine	ND	2.0	mg/Kg	10	8/23/2005	
Naphlhalene		8.2	2.0	mg/Kg	10	8/23/2005	
2-Nitroaniline		ND	5.0	mg/Kg	10	8/23/2005	
3-Nilroaniline		ND	5.0	mg/Kg	10	8/23/2005	
4-Nitroaniline		ND	2.5	mg/Kg	10	8/23/2005	
Nitrobenzene		ND	2.0	mg/Kg	10	8/23/2005	
2-Nitrophenol		ND	2.0	mg/Kg	10	8/23/2005	
4-Nitrophenol		ND	2.0	mg/Kg	10	8/23/2005	
Pentachlorophe	enol	ND	5.0	mg/Kg	10	8/23/2005	
Phenanthrene		8.1	2.0	mg/Kg	10	8/23/2005	
Phenol		ND	2.0	mg/Kg	10	8/23/2005	
Pyrene		ND	2.0	mg/Kg	10	8/23/2005	
Pyridine		ND	5.0	mg/Kg	10	8/23/2005	
1,2,4-Trichlorol	benzene	ND	2.0	mg/Kg	10	8/23/2005	
2,4,5-Trichlorog	phenol	ND	2.0	mg/Kg	10	8/23/2005	
2,4,6-Trichloro	phenol	ND	2.0	mg/Kg	10	8/23/2005	
Surr: 2,4,6-T	nbramophenol	110	35.5-141	%REC	10	8/23/2005	
Surr: 2-Fluor	robiphenyl	69.1	30.4-128	%REC	10	8/23/2005	
Surr: 2-Fluor	rophenol	57.2	28.1-129	%REC	10	8/23/2005	
Surr: 4-Terpl	henyl-d14	54.7	34.6-151	%REC	10	8/23/2005	
Surr: Nitrobe	enzene-d5	80.2	26.5-122	%REC	10	8/23/2005	
Surr: Phenol	l-d6	51.7	37.6-118	%REC	10	8/23/2005	

Qualifiers:

ND-Not Det tec tit Rearth Linuit

J - Analyte de sted be winanti ion limi

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

Date: 24-Aug-05

I RF outside cept-1: over lin 's

E - Value above quantitation range

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CLIENT:	Giant Refining Co	Client Sample ID:	South BTM.
Lab Order:	0508234	Tag Number:	
Project:	R.R. Rack Lagoon Additional SE Wall Excavati	<b>Collection Date:</b>	8/19/2005 10:45:00 AM
Lab ID:	0508234-04A	Matrix:	SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RAN	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	8/24/2005 12:53:57 AM
Sur: BFB	98.0	83.1-124	%REC	1	8/24/2005 12:53:57 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10	mg/Kg	1	B/24/2005 12:53:57 AM
Benzene	ND	0.025	mg/Kg	1	8/24/2005 12:53:57 AM
Toluene	ND	0.025	mg/Kg	1	8/24/2005 12:53:57 AM
Elhylbenzene	ND	0.025	mg/Kg	1	8/24/2005 12:53:57 AM
Xylenes, Total	0.036	0.025	mg/Kg	1	8/24/2005 12:53:57 AM
Surr. 4-Bromofluorobenzene	104	87.5-115	%REC	1	8/24/2005 12:53:57 AM

Qual	lifiers:	
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ND - Not Det tec 1 t Runtin Lin.it

- J Analyte de sted be w santi ion limi
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level
- : Sp : Res very outsid accept fire over limits
- I RF outside cepted: over livits
- E Value above quantitation range

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CLIENT:	Giant Refining Co			Client Sample	ID: South	BTM.
Lab Order:	0508234			Tag Numl	ber:	
Project:	R.R. Rack Lagoon Ac	iditional SE W	all Excavati	Collection D	ate: 8/19/2	2005 10:45:00 AM
Lab ID:	0508234-04B				rix: SOIL	
Analyses	,	Result	PQL (	Qual Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE	ORGANICS	•			Analyst: SCC
Diesel Range O	rganics (DRO)	15	10	mg/Kg	1	8/21/2005 10:25:32 AN
Motor Oil Range	e Organics (MRO)	ND	50	mg/Kg	1	8/21/2005 10:25:32 AN
Sur: DNOP		117	60-124	%REC	1	8/21/2005 10:25:32 AN
EPA METHOD	8270C: SEMIVOLATILE	S				Analyst: BL
Acenaphthene		ND	0.20	mg/Kg	1	8/23/2005
Acenaphthylene	ł	ND	0.20	mg/Kg	1	8/23/2005
Aniline		ND	0.20	mg/Kg	1	8/23/2005
Anthracene		ND	0.20	mg/Kg	1	8/23/2005
Azobenzene		ND	0.20	mg/Kg	1	8/23/2005
Benz(a)anthrace	ene	ND	0.25	mg/Kg	1	8/23/2005
Benzidine		ND	0.20	mg/Kg	1	8/23/2005
Benzo(a)pyrene	1	ND	0.20	mg/Kg	1	8/23/2005
Benzo(b)fluoran	thene	ND	0.20	mg/Kg	1	8/23/2005
Benzo(g,h,l)per	viene	ND	0.30	mg/Kg	1	8/23/2005
Benzo(k)fluoran	thene	ND	0.50	mg/Kg	1	8/23/2005
Benzoic acid		ND	0.50	mg/Kg	1	8/23/2005
Benzyl alcohol		ND	0.50	mg/Kg	1	8/23/2005
Bis(2-chloroetho	xy)methane	ND	0.50	mg/Kg	1	8/23/2005
Bis(2-chloroethy	/i)ether	ND	0.25	mg/Kg	1	8/23/2005
Bis(2-chloroisop	ropyi)ether	ND	0.50	mg/Kg	1	8/23/2005
Bis(2-ethylhexyl	)phthalate	ND	0.20	mg/Kg	1	8/23/2005
4-Bromophenyl	phenyl ether	ND	0.25	mg/Kg	1	8/23/2005
Butyl benzyl pht	halate	ND	0.20	mg/Kg	1	8/23/2005
Carbazole		ND	0.20	mg/Kg	1	8/23/2005
4-Chloro-3-meth	iyiphenol	ND	0.20	mg/Kg	1	8/23/2005
4-Chloroaniline		ND	0.20	mg/Kg	1	8/23/2005
2-Chloronaphth	alene	ND	0.20	mg/Kg	1	8/23/2005
2-Chlorophenol		ND	0.20	mg/Kg	1	8/23/2005
4-Chlorophenyl	phenyl ether	ND	0.20	mg/Kg	1	8/23/2005
Chrysene		ND	0.20	mg/Kg	1	8/23/2005
Di-n-bulyl phtha	late	ND	0.25	mg/Kg	1	8/23/2005
Di-n-octyl phtha	late	ND	0.50	mg/Kg	1	8/23/2005
Dibenz(a,h)anth	racene	ND	0.25	mg/Kg	1	8/23/2005
Dibenzofuran		ND	0.50	mg/Kg	1	8/23/2005
1,2-Dichloroben	геле	ND	0.20	mg/Kg	1	8/23/2005
1,3-Dichloroben	zene	ND	0.20	mg/Kg	1	8/23/2005
1,4-Dichloroben	zene	ND	0.20	mg/Kg	1	8/23/2005
3,3'-Dichlorobe	nzidine	ND	0.20	mg/Kg	1	8/23/2005
Diethyl phthalat	e	ND	0.20	mg/Kg	1	8/23/2005
Dimethyl phthal	ate	ND	0.20	mg/Kg	1	8/23/2005

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J - Analyte de sted be winanti ion limi

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

I RF outside cepted: over lin 's

E - Value above quantitation range

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CLIENT:	Giant Refining Co
Lab Order:	0508234
Project:	R.R. Rack Lagoon Additional SE Wall Excavati
Lab ID:	0508234-04B

Client Sample ID: South BTM. Tag Number: Collection Date: 8/19/2005 10:45:00 AM Matrix: SOIL 

Analyses	Result	PQL (	Jual Units	DF	Date Analyzed
2,4-Dichlorophenol	ND	0.20	mg/Kg	1	8/23/2005
2,4-Dimethylphenol	ND	0.20	mg/Kg	1	8/23/2005
4,6-Dinitro-2-methylphenol	ND	0.50	mg/Kg	1	8/23/2005
2,4-Dinitrophenol	ND	0.50	mg/Kg	1	8/23/2005
2,4-Dinitrotoluene	ND	0.20	mg/Kg	1	8/23/2005
2,6-Dinitrotoluene	ND	0.20	mg/Kg	1	8/23/2005
Fluoranthene	ND	0.20	mg/Kg	1	8/23/2005
Fluorene	ND	0.20	mg/Kg	1	8/23/2005
Hexachlorobenzene	ND	0.20	mg/Kg	1	8/23/2005
Hexachlorobutadiene	ND	0.20	mg/Kg	1	8/23/2005
Hexachlorocyclopentadiene	ND	0.25	mg/Kg	1	8/23/2005
Hexachloroethane	ND	0.50	mg/Kg	1	8/23/2005
Indeno(1,2,3-cd)pyrene	ND	0.20	mg/Kg	1	8/23/2005
Isophorone	ND	0.20	mg/Kg	1	8/23/2005
2-Methylnaphthalene	ND	0.20	mg/Kg	. 1	8/23/2005
2-Methylphenol	ND	0.20	mg/Kg	1	8/23/2005
3+4-Methylphenol	ND	0.20	mg/Kg	1	8/23/2005
N-Nitrosodi-n-propylamine	ND	0.20	mg/Kg	1	8/23/2005
N-Nitrosodiphenylamine	ND	0.20	mg/Kg	1	8/23/2005
Naphthalene	ND	0.20	mg/Kg	1	8/23/2005
2-Nitroaniline	ND	0.50	mg/Kg	1	8/23/2005
3-Nitroaniline	ND	0.50	mg/Kg	1	8/23/2005
4-Nitroaniline	ND	0.25	mg/Kg	1	8/23/2005
Nitrobenzene	ND	0.20	mg/Kg	1	8/23/2005
2-Nitrophenol	ND	0.20	mg/Kg	1	8/23/2005
4-Nitrophenol	ND	0.20	mg/Kg	1	8/23/2005
Pentachlorophenol	ND	0.50	mg/Kg	1	8/23/2005
Phenanthrene	ND	0.20	mg/Kg	1	8/23/2005
Phenol	ND	0.20	mg/Kg	1	8/23/2005
Pyrene	ND	0.20	mg/Kg	1	8/23/2005
Pyridine	ND	0.50	mg/Kg	1	8/23/2005
1,2,4-Trichlorobenzene	ND	0.20	mg/Kg	1	8/23/2005
2,4,5-Trichlorophenol	ND	0.20	mg/Kg	1	8/23/2005
2,4,6-Trichlorophenol	ND	0.20	mg/Kg	1	8/23/2005
Surr: 2,4,6-Tribromaphenol	93.6	35.5-141	%REC	1	8/23/2005
Surr. 2-Fluorobiphenyl	63.9	30.4-128	%REC	1	8/23/2005
Sur: 2-Fluorophenol	62.7	28.1-129	%REC	1	8/23/2005
Surr: 4-Terphenyl-d14	82.0	34.6-151	%REC	1	8/23/2005
Surr: Nitrobenzene-d5	66.7	26.5-122	%REC	1	8/23/2005
Surr: Phenol-d6	67.9	37.6-118	%REC	1	8/23/2005

Qualifiers:

ND - Not Det lec 11 Rubrin Linuit

- : Sp : Rec rery outsid accep life rver_limits
- J Analyte de sted be winanti ion limi
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level

I RF outside cepted: over line's E-Value above quantitation range

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### COVER LETTER

August 26, 2005

Steve Morris Giant Refining Co Rt. 3 Box 7 Gallup, NM 87301 TEL: (505) 722-0258 FAX (505) 722-0210

RE: R.R. Rack Lagoon Additional SE Wall Exc

Order No.: 0508234

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 4 samples on 8/19/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager



4901 Hawkins NE Suite D Albuquerque, NM 87109 505.345.3975 Fax 505.345.4107 www.hallenvironmental.com

Date: 26-Aug-05

		n kan a sana ana ana ana ana ana ana ana an	
CLIENT:	Giant Refining Co		
Project: Lab Order:	R.R. Rack Lagoon Additional SE Wall Excavati 0508234	CASE NARRATIVE	

Analytical Comments for METHOD 8015DRO_S, SAMPLE 0508234-01B: DNOP not recovered due to dilution Analytical Comments for METHOD 8015DRO_S, SAMPLE 0508234-02B: DNOP not recovered due to dilution Analytical Comments for METHOD 8015DRO_S, SAMPLE 0508234-03B: DNOP not recovered due to dilution

8/23/2005

8/23/2005

8/23/2005

8/23/2005

8/23/2005

CLIENT:	Giant Refining Co				ent Samp			all
Lab Order:	0508234				Collectio	on Date:	8/19/20	005 10:00:00 AM
Project:	R.R. Rack Lagoon Ad	ditional SE V	Vall Excava	ti				
Lab ID:	0508234-01					Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	<u></u>	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE	ORGANICS						Analyst: SCC
Diesel Range C	Organics (DRO)	1500	1000		mg/Kg		100	8/21/2005 6:45:24 PM
Motor Oil Rang	e Organics (MRO)	ND	5000		тд/Кд		100	8/21/2005 6:45:24 PM
Surr: DNOP		0	60-124	s	%REC		1 <b>00</b>	8/21/2005 6:45:24 PM
EPA METHOD	8015B: GASOLINE RAN	GE						Analyst: NSB
Gasoline Range	e Organics (GRO)	120	100		mg/Kg		20	8/23/2005 11:21:34 PM
Surr: BFB		106	83.1-124		%REC		20	8/23/2005 11:21:34 PM
EPA METHOD	8021B: VOLATILES							Analyst: NSB
Methyl tert-buty	l ether (MTBE)	ND	2.0		mg/Kg		20	8/23/2005 11:21:34 PM
Benzene		0.70	0.50		mg/Kg		20	8/23/2005 11:21:34 PM
Toluene		ND	0.50		mg/Kg		20	8/23/2005 11:21:34 PM
Ethylbenzene		3.4	0.50		mg/Kg		20	8/23/2005 11:21:34 PM
Xylenes, Tolal		6.5	0.50		mg/Kg		20	8/23/2005 11:21:34 PM
•	ofluorobenzene	109	87.5-115		%REC		20	8/23/2005 11:21:34 PM
EPA METHOD	8270C: SEMIVOLATILES	5						Analyst: BL
Acenaphihene		0.65	0.20		mg/Kg		1	8/23/2005
Acenaphthylen	e	ND	0.20		mg/Kg		1	8/23/2005
Anifine		ND	0.20		mg/Kg		1	8/23/2005
Anthracene		ND	0.20		mg/Kg		1	8/23/2005
Azobenzene		ND	0.20		mg/Kg		1	8/23/2005
Benz(a)anthrac	ene	ND	0.25		mg/Kg		1	8/23/2005
Benzidine		ND	0.20		mg/Kg		1	8/23/2005
Benzo(a)pyrene	2	ND	0.20		тg/Kg		1	8/23/2005
Benzo(b)fluorar		ND	0.20		тg/Kg		1	8/23/2005
Benzo(g,h,i)per		ND	0.30		mg/Kg		1	8/23/2005
Benzo(k)fluorar	-	ND	0.50		mg/Kg		1	8/23/2005
Benzoic acid		ND	0.50		mg/Kg		1	B/23/2005
Benzyl alcohol		ND	0.50		mg/Kg		1	8/23/2005
Bis(2-chloroeth	oxy)methane	ND	0.50		mg/Kg		1	8/23/2005
Bis(2-chloroeth	• •	ND	0.25		mg/Kg		1	8/23/2005
Bis(2-chloroiso	- •	ND	0.50		mg/Kg		1	8/23/2005
Bis(2-ethylhexy		ND	0.20		mg/Kg		1	8/23/2005
4-Bromophenyl	-	ND	0.25		mg/Kg		1	8/23/2005
Butyl benzyl ph		ND	0.20		mg/Kg		1	8/23/2005
Carbazole		ND	0.20		mg/Kg		1	8/23/2005
					<u> </u>			

Qualifiers:

4-Chloro-3-methylphenol

4-Chlorophenyl phenyl ether

2-Chloronaphthalene

4-Chloroaniline

2-Chlorophenol

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

ND

ND

ND

ND

ND

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

1

1

1

1

1

Date: 26-Aug-05

R - RPD outside accepted recovery limits

E - Value above quantitation range

2/21

0.20

0.20

0.20

0.20

0.20

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Date: 26-Aug-05

 CLIENT:
 Giant Refining Co
 Client Sample ID: North Wall

 Lab Order:
 0508234
 Collection Date: 8/19/2005 10:00:00 AM

 Project:
 R.R. Rack Lagoon Additional SE Wall Excavati

 Lab ID:
 0508234-01
 Matrix: SOIL

Lab ID: 0508234-01 POL Oual Units Analyses Result DF **Date Analyzed** ND Chrysene 0.20 mg/Kg 1 8/23/2005 Di-n-butyl phthalate ND 0.25 mg/Kg 8/23/2005 1 Di-n-octyl phthalate ND 0.50 mg/Kg 8/23/2005 1 Dibenz(a,h)anthracene ND 0.25 mg/Kg 8/23/2005 1 ND 0.50 mg/Kg Dibenzofurarı 8/23/2005 1 0.20 1,2-Dichlorobenzene ND mg/Kg B/23/2005 1 ND 0.20 1.3-Dichlorobenzene mg/Kg 8/23/2005 1 ND 0.20 1,4-Dichlorobenzene mg/Kg 8/23/2005 1 0.20 3,3'-Dichlorobenzidine ND mg/Kg B/23/2005 1 0.20 Diethyl phthalate ND mg/Kg 8/23/2005 1 0.20 ND Dimethyl phthalate mg/Kg 8/23/2005 1 2,4-Dichlorophenol ND 0.20 mg/Kg 8/23/2005 1 ND 0.20 mg/Kg 8/23/2005 2,4-Dimethylphenol 1 ND 0.50 4,6-Dinitro-2-methylphenol mg/Kg 1 8/23/2005 2,4-Dinitrophenol ND 0.50 mg/Kg 1 8/23/2005 2.4-Dinitrotoluene ND 0.20 mg/Kg 8/23/2005 1 ND 0.20 mg/Kg 8/23/2005 2,6-Dinitrotoluene 1 Fluoranthene ND 0.20 mg/Kg 8/23/2005 1 Fluorene 1.5 0.20 ллg/Kg 1 8/23/2005 ND 0.20 mg/Kg 8/23/2005 Hexachlorobenzene 1 Hexachlorobutadiene ND 0.20 mg/Kg 1 8/23/2005 Hexachlorocyclopentadiene ND 0.25 mg/Kg 1 8/23/2005 ND 0.50 mg/Kg Hexachloroethane 8/23/2005 1 Indeno(1,2,3-cd)pyrene ND 0.20 mg/Kg 1 8/23/2005 ND 0.20 ma/Ka 1 8/23/2005 Isophorone 2.0 mg/Kg 10 8/23/2005 2-Methylnaphthalene 9.8 2-Methylphenol ND 0.20 mg/Kg 1 8/23/2005 3+4-Methylphenol ND 0.20 mg/Kg 1 8/23/2005 ND 0.20 mg/Kg 8/23/2005 N-Nitrosodi-n-propylamine 1 ND 0.20 mg/Kg 8/23/2005 N-Nitrosodiphenylamine 1 Naphthalene 3.1 0.20 mg/Kg 1 8/23/2005 0.50 mg/Kg 8/23/2005 2-Nitroaniline ND 1 ND 0.50 mg/Kg 8/23/2005 3-Nitroaniline 1 4-Nitroaniline ND 0.25 mg/Kg 1 B/23/2005 ND 0.20 mg/Kg 1 8/23/2005 Nitrobenzene ND 0.20 mg/Kg 8/23/2005 1 2-Nitrophenol ND 0.20 mg/Kg 1 8/23/2005 4-Nitrophenol ND 0.50 mg/Kg 1 8/23/2005 Pentachlorophenol 0.20 mg/Kg 8/23/2005 2.9 Phenanthrene 1 Phenol ND 0.20 mg/Kg 1 8/23/2005 ND 0.20 mg/Kg 8/23/2005 1 Pyrene ND 0.50 mg/Kg 8/23/2005 Pyridine 1

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 3/21

E - Value above quantitation range

R - RPD outside accepted recovery limits

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**CLIENT:** Giant Refining Co Lab Order: 0508234 **Project:** R.R. Rack Lagoon Additional SE Wall Excavati Lab ID: 0508234-01

Client Sample ID: North Wall Collection Date: 8/19/2005 10:00:00 AM

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20	mg/Kg	1	8/23/2005
2,4,5-Trichlorophenol	ND	0,20	mg/Kg	. 1	8/23/2005
2,4,6-Trichlorophenol	ND	0.20	mg/Kg	1	8/23/2005
Surr: 2,4,6-Tribromophenol	110	35.5-141	%REC	1	8/23/2005
Sur: 2-Fluoroblphenyl	107	30.4-128	%REC	1	8/23/2005
Surr: 2-Fluorophenol	62.9	28.1-129	%REC	1	8/23/2005
Surr: 4-Terphenyl-d14	80.8	34.6-151	%REC	1	8/23/2005
Surr: Nitrobenzene-d5	73.9	26.5-122	%REC	1	8/23/2005
Surr: Phenol-d6	72.8	37.6-118	%REC	1	B/23/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 4/21

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

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CLIENT:	Giant Refining Co	Client Sample ID: South Wall								
Lab Order:	0508234				-		.005 10:30:00 AM			
Project:	R.R. Rack Lagoon Ad	ditional SE W	Init Exacus	:	Concention	Date. 0/17/2	IVIA 00.00.00 10.00			
-	_		an excava	LJ						
Lab ID:	0508234-02				IVI.	atrix: SOIL	- Magantani Santa ang ang ang ang ang ang ang ang ang an			
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed			
EPA METHOD	8015B: DIESEL RANGE	ORGANICS					Analyst: SCC			
Diesel Range C	Irganics (DRO)	3800	1000		mg/Kg	100	8/21/2005 7:16:33 PM			
Motor Oil Range	e Organics (MRO)	ND	5000		mg/Kg	100	8/21/2005 7:16:33 PM			
Surr: DNOP		D	60-124	S	%REC	100	8/21/2005 7:16:33 PM			
EPA METHOD	8015B: GASOLINE RAN	GE					Analyst: NSB			
Gasoline Range	e Organics (GRO)	ND	250		mg/Kg	50	8/23/2005 11:52:19 PM			
Surr: BFB		98.4	83.1-124		%REC	50	8/23/2005 11:52:19 PM			
EPA METHOD	8021B: VOLATILES						Analyst: NSB			
Methyl tert-buty	l ether (MTBE)	ND	5.0		mg/Kg	50	8/23/2005 11:52:19 PM			
Benzene		ND	1.3		mg/Kg	50	8/23/2005 11:52:19 PM			
Toluene	¢.	ND	1.3		mg/Kg	50	8/23/2005 11:52:19 PM			
Ethylbenzene		4.5	1.3		mg/Kg	50	8/23/2005 11:52:19 PM			
Xylenes, Total		15	1.3		mg/Kg	50	8/23/2005 11:52:19 PM			
Surr: 4-Brom	ofluorobenzene	105	87.5-115		%REC	50	8/23/2005 11:52:19 PM			
EPA METHOD	8270C: SEMIVOLATILES	5					Analyst: BL			
Acenaphthene		2.4	2.0	•	mg/Kg	10	8/23/2005			
Acenaphthylen	e · ·	ND	2.0		mg/Kg	10	8/23/2005			
Aniline		ND	2.0		mg/Kg	10	8/23/2005			
Anthracene		ND	2.0		mg/Kg	10	8/23/2005			
Azobenzene		ND	2.0		mg/Kg	10	8/23/2005			
Benz(a)anthrac	ene	ND	2.5		mg/Kg	10	8/23/2005			
Benzidine		ND	2.0		mg/Kg	10	8/23/2005			
Benzo(a)pyren	e	ND	2.0		mg/Kg	10	8/23/2005			
Benzo(b)fluora	nthene	ND	2.0		mg/Kg	10	8/23/2005			
Benzo(g,h,i)pe	rylene	ND	3.0		mg/Kg	10	8/23/2005			
Benzo(k)fluora	nihene	ND	5.0		mg/Kg	10	8/23/2005			
Benzoic acid		ND	5.0		mg/Kg	10	8/23/2005			
Benzyl alcohol		ND	5.0		mg/Kg	10	8/23/2005			
Bis(2-chloroeth	loxy)methane	ND	5.0		mg/Kg	10	8/23/2005			
Bis(2-chloroet)	nyi)ether	ND	2.5		mg/Kg	10	8/23/2005			
Bis(2-chloroisc	propyl)elher	ND	5.0		mg/Kg	10	8/23/2005			
Bis(2-ethylhex	yl)phthalate	ND	2.0		mg/Kg	10	8/23/2005			
4-Bromapheny	/) pheny) ether	ND	2.5		mg/Kg	10	8/23/2005			
Butyi benzyi p	hthalate	ND	2.0		mg/Kg	10	8/23/2005			
Carbazole		ND	2.0		mg/Kg	10	8/23/2005			
4-Chloro-3-me	••	ND	2.0		mg/Kg	10	8/23/2005			
4-Chioroanilin	e	ND	2.0		mg/Kg	10	8/23/2005			
2-Chloronaphi	halene	ND	2.0		mg/Kg	10	8/23/2005			
2-Chlorophen	l	ND	2.0		mg/Kg	10	8/23/2005			
4-Chlorophen	yl phenyl ether	ND	2.0	)	mg/Kg	10	8/23/2005			

Date: 26-Aug-05

J - Analyte detected below quantitation limits

Qualifiers:

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

E - Value above quantitation range

S - Spike Recovery outside accepted recovery limits

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ND - Not Detected at the Reporting Limit

R - RPD outside accepted recovery limits

Date: 26-Aug-05

CLIENT:

Lab Order:

Giant Refining Co

0508234

· · · · · · · · · Client Sample ID: South Wall

Collection Date: 8/19/2005 10:30:00 AM

Project: R.R. Rack Lagoon Additional SE Wall Excavati

Lab ID: 0508234-02

Matrix: SOIL 

nalyses	Result	PQL Q	ual Units	DF	Date Analyzed
Chrysene	ND	2.0	mg/Kg	10	8/23/2005
Di-n-bulyl phthalate	ND	2.5	mg/Kg	10	8/23/2005
Di-n-octyl phthalate	ND	5.0	mg/Kg	10	8/23/2005
Dibenz(a,h)anthracene	ND	2.5	mg/Kg	10	8/23/2005
Dibenzofuran	ND	5.0	mg/Kg	10	8/23/2005
1,2-Dichlorobenzene	ND	2.0	mg/Kg	10	8/23/2005
1,3-Dichlorobenzene	ND	.2.0	mg/Kg	10	8/23/2005
1,4-Dichlorobenzene	ND	2.0	mg/Kg	10	8/23/2005
3,3'-Dichlorobenzidine	ND	2.0	mg/Kg	10	8/23/2005
Diethyl phthalate	ND	2.0	mg/Kg	10	8/23/2005
Dimethyl phthalate	ND	2.0	mg/Kg	10	8/23/2005
2,4-Dichlorophenol	ND	2.0	mg/Kg	10	8/23/2005
2,4-Dimethylphenol	ND	2.0	mg/Kg	10	8/23/2005
4,6-Dinitro-2-methylphenol	ND	5.0	mg/Kg	10	8/23/2005
2,4-Dinitrophenol	ND	5.0	mg/Kg	10	8/23/2005
2,4-Dinitrotoluene	ND	2.0	mg/Kg	10	8/23/2005
2,6-Dinitrotoluene	ND	2.0	mg/Kg	10	8/23/2005
Fluoranthene	ND	2.0	mg/Kg	10	8/23/2005
Fluorene	5.1	2.0	mg/Kg	10	8/23/2005
Hexachlorobenzene	ND	2.0	mg/Kg	10	8/23/2005
Hexachlorobuladiene	ND	2.0	mg/Kg	10	8/23/2005
Hexachlorocyclopeniadiene	ND	2.5	mg/Kg	10	8/23/2005
Hexachloroethane	ND	5.0	mg/Kg	10	8/23/2005
Indeno(1,2,3-cd)pyrene	ND	2.0	mg/Kg	10	8/23/2005
Isophorane	ND	2.0	mg/Kg	10	8/23/2005
2-Methylnaphthalene	49	4.0	mg/Kg	20	8/25/2005
2-Methylphenol	ND	2.0	mg/Kg	10	8/23/2005
3+4-Methylphenol	ND	2.0	mg/Kg	10	8/23/2005
N-Nitrosodi-n-propylamine	ND	2.0	mg/Kg	10	8/23/2005
N-Nitrosodiphenylamine	ND	2.0	mg/Kg	10	8/23/2005
Naphlhalene	11	2.0	mg/Kg	10	8/23/2005
2-Nitroaniline	ND	.5.0	mg/Kg	10	8/23/2005
3-Nitroaniline	ND	. 5.0	mg/Kg	10	8/23/2005
4-Nitroaniline	ND	2.5	mg/Kg	10	8/23/2005
Nitrobenzene	ND	2.0	mg/Kg	10	8/23/2005
2-Nitrophenol	ND	2.0	mg/Kg	10	8/23/2005
4-Nitrophenol	ND	2.0	mg/Kg	10	8/23/2005
Pentachlorophenol	ND	5.0	mg/Kg	10	8/23/2005
Phenanthrene	9.8	2.0	mg/Kg	10	8/23/2005
Phenol	ND	2.0	mg/Kg	10	8/23/2005
Pyrene	ND	2.0	mg/Kg	10	8/23/2005
Pyridine	ND	5.0	mg/Kg	10	8/23/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 6/21 R - RPD outside accepted recovery limits E - Value above quantitation range

Page 5 of 12

 CLIENT:
 Giant Refining Co
 Client Sample ID: South Wall

 Lab Order:
 0508234
 Collection Date: 8/19/2005 10:30:00 AM

 Project:
 R.R. Rack Lagoon Additional SE Wall Excavati

Lab ID: 0508234-02

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	2.0	mg/Kg	10	8/23/2005
2,4,5-Trichlorophenol	ND	2.0	mg/Kg	10	8/23/2005
2,4,6-Trichlorophenol	ND	2.0	mg/Kg	10	8/23/2005
Surr: 2,4,6-Tribromophenol	109	35.5-141	%REC	10	8/23/2005
Surr: 2-Fluorobiphenyl	73.7	30.4-128	%REC	10	8/23/2005
Surr: 2-Fluorophenal	63.2	28.1-129	%REC	10	8/23/2005
Surr: 4-Terphenyl-d14	56. <del>9</del>	34.6-151	%REC	10	8/23/2005
Surr: Nilrobenzene-d5	111	26.5-122	%REC	10	8/23/2005
Surr: Phenoi-d6	53.4	37.6-118	%REC	10	8/23/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 7 / 21

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

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# Hall Environmental Analysis Laboratory Date: 26-Aug-05

Client Sample ID: North BTM.

Collection Date: 8/19/2005 10:15:00 AM

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CLIENT:	Giant Refining Co	С
Lab Order:	0508234	
Project:	R.R. Rack Lagoon Additional SE Wall Excavati	
Lab ID:	0508234-03	

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	GE ORGANICS	· ·				Analyst: SCC
Diesel Range Organics (DRO)	7000	200		mg/Kg	20	8/21/2005 9:52:45 AM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	8/21/2005 9:52:45 AM
Surr: DNOP	0	60-124	S	%REC	20	8/21/2005 9:52:45 AM
EPA METHOD 8015B: GASOLINE RA	ANGE					Analyst: NSB
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	8/24/2005 12:23:04 AM
Surr. BFB	<b>1</b> 01	83.1-124		%REC	50	8/24/2005 12:23:04 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	5.0		mg/Kg	50	8/24/2005 12:23:04 AM
Benzene	ND	1.3		mg/Kg	50	8/24/2005 12:23:04 AM
Toluene	ND	1.3		mg/Kg	50	8/24/2005 12:23:04 AM
Elhylbenzene	ND	1.3		mg/Kg	50	8/24/2005 12:23:04 AM
Xylenes, Total	11	1.3		mg/Kg	50	8/24/2005 12:23:04 AM
Surr: 4-Bromofluorobenzene	105	87.5-115		%REC	50	8/24/2005 12:23:04 AM
EPA METHOD 8270C: SEMIVOLATI	LES					Analyst: BL
Acenaphihene	2.1	2.0		mg/Kg	10	8/23/2005
Acenaphthylene	ND	2.0		mg/Kg	10	8/23/2005
Aniline	ND	2.0		mg/Kg	10	8/23/2005
Anlhracene	ND	2.0		mg/Kg	10	8/23/2005
Azobenzene	ND	2.0		mg/Kg	10	8/23/2005
Benz(a)anthracene	ND	2.5		mg/Kg	10	8/23/2005
Benzidine	ND	2.0		mg/Kg	10	8/23/2005
Benzo(a)pyrene	ND	2.0		mg/Kg	10	8/23/2005
Benzo(b)fluoranthene	ND	2.0		mg/Kg	10	8/23/2005
Benzo(g,h,i)perylene	ND	3.0		mg/Kg	10	8/23/2005
Benzo(k)fluoranthene	ND	5.0		mg/Kg	10	8/23/2005
Benzoic acid	ND	5.0		mg/Kg	10	8/23/2005
Benzyl alcohol	ND	5.0		mg/Kg	10	8/23/2005
Bis(2-chloroethoxy)methane	ND	5.0		mg/Kg	10	8/23/2005
Bis(2-chloroethyl)ether	ND	2.5		mg/Kg	10	8/23/2005
Bis(2-chloroisopropyl)ether	ND	5.0		mg/Kg	10	8/23/2005
Bis(2-ethylhexyl)phthalate	ND	2.0		mg/Kg	10	8/23/2005
4-Bromophenyl phenyl ether	ND	2.5		mg/Kg	10	8/23/2005
Butyl benzyl phihalate	ND	2.0		mg/Kg	10	8/23/2005
Carbazole	ND	2.0		mg/Kg	10	8/23/2005
4-Chloro-3-methylphenol	ND	2.0		mg/Kg	10	8/23/2005
4-Chloroaniline	ND	2.0		mg/Kg	10	8/23/2005
2-Chloronaphthalene	ND	2.0		mg/Kg	10	8/23/2005
2-Chlorophenol	ND	2.0		mg/Kg	10	8/23/2005
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	10	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

E - Value above quantitation range

8/21

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Date: 26-Aug-05

..... **CLIENT:** Giant Refining Co Lab Order: 0508234 R.R. Rack Lagoon Additional SE Wall Excavati

Client Sample ID: North BTM.

Collection Date: 8/19/2005 10:15:00 AM

**Project:** 

Lab ID:

0508234-03

Matrix: SOIL

nalyses	Result	PQL	Qual Units	DF	Date Analyzed
Chrysene	ND	2.0	mg/Kg	10	8/23/2005
Di-n-butyl phthalate	ND	2.5	mg/Kg	10	8/23/2005
Di-n-octyl phthalate	ND	5.0	mg/Kg	10	8/23/2005
Dibenz(a,h)anthracene	ND	2.5	mg/Kg	10	8/23/2005
Dibenzofuran	ND	5.0	mg/Kg	10	8/23/2005
1,2-Dichlorobenzene	ND	2.0	mg/Kg	10	8/23/2005
1,3-Dichlorobenzene	ND	2.0	mg/Kg	10	8/23/2005
1,4-Dichlorobenzene	ND	2.0	mg/Kg	10	8/23/2005
3,3'-Dichlorobenzidine	ND	2.0	mg/Kg	10	8/23/2005
Diethyl phihalate	ND	2.0	mg/Kg	10	8/23/2005
Dimethyl phihalate	ND	2.0	mg/Kg	10	8/23/2005
2,4-Dichlorophenol	ND	2.0	mg/Kg	10	8/23/2005
2,4-Dimethylphenol	ND	2.0	mg/Kg	10	8/23/2005
4,6-Dinitro-2-methylphenol	ND	5.0	mg/Kg	10	8/23/2005
2,4-Dinitrophenol	ND	5.0	mg/Kg	10	8/23/2005
2,4-Dinitrotoluene	ND	2.0	mg/Kg	10	8/23/2005
2,6-Dinitrololuene	ND	2.0	mg/Kg	10	8/23/2005
Fluoranthene	ND	2.0	mg/Kg	10	8/23/2005
Fluorene	4.3	2.0	mg/Kg	10	8/23/2005
Hexachlorobenzene	ND	2.0	mg/Kg	10	8/23/2005
Hexachlorobutadiene	ND	2.0	mg/Kg	10	8/23/2005
Hexachlorocyclopentadiene	ND	2.5	mg/Kg	10	8/23/2005
Hexachloroethane	ND	5.0	mg/Kg	10	8/23/2005
Indeno(1,2,3-cd)pyrene	ND	2.0	mg/Kg	10	8/23/2005
Isophorone	ND	2.0	mg/Kg	10	8/23/2005
2-Methylnaphthalene	34	2.0	mg/Kg	10	8/23/2005
2-Methylphenol	ND	2.0	mg/Kg	10	8/23/2005
3+4-Methylphenol	ND	2.0	mg/Kg	10	8/23/2005
N-Nitrosodi-n-propylamine	ND	2.0	mg/Kg	10	8/23/2005
N-Nitrosodiphenylamine	ND	2.0	mg/Kg	10	8/23/2005
Naphthalene	8.2	2.0	mg/Kg	10	8/23/2005
2-Nitroaniline	ND	5.0	mg/Kg	10	8/23/2005
3-Nitroaniline	ND	5.0	mg/Kg	10	8/23/2005
4-Nitroaniline	ND	2.5	mg/Kg	10	8/23/2005
Nitrobenzene	ND	2.0	mg/Kg	10	8/23/2005
2-Nitrophenol	ND	2.0	mg/Kg	10	8/23/2005
4-Nitrophenol	ND	2.0	mg/Kg	10	8/23/2005
Pentachlorophenol	ND	5.0	mg/Kg	10	8/23/2005
Phenanthrene	8.1	2.0	mg/Kg	10	8/23/2005
Phenol	ND	2.0	mg/Kg	10	8/23/2005
Pyrene	ND	2.0	mg/Kg	10	8/23/2005
Pyridine	ND	5.0	mg/Kg	10	8/23/2005

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 9/21 E - Value above quantitation range

R - RPD outside accepted recovery limits

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Client Sample ID: North BTM.

Collection Date: 8/19/2005 10:15:00 AM

CLIENT:	Giant Refining Co
Lab Order:	0508234
Project:	R.R. Rack Lagoon Additional SE Wall Excavati
Lab ID:	0508234-03

Matrix: SOIL

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Analyses	Result	PQL	Qual Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	2.0	mg/Kg	10	8/23/2005
2,4,5-Trichlorophenol	ND	2.0	mg/Kg	10	8/23/2005
2,4,6-Trichlorophenol	ND	2.0	mg/Kg	10	8/23/2005
Surr: 2,4,6-Tribromophenol	110	35.5-141	%REC	10	8/23/2005
Surr. 2-Fluorobiphenyl	69.1	30.4-128	%REC	10	8/23/2005
Surr: 2-Fluorophenol	57.2	28.1-129	%REC	10	8/23/2005
Surr: 4-Terphenyl-d14	54.7	34.6-151	%REC	10	8/23/2005
Surr: Nitrobenzene-d5	80.2	26.5-122	%REC	10	8/23/2005
Surr: Phenol-d6	51.7	37.6-118	%REC	10	8/23/2005

Qualifiers:

- ND Not Detected at the Reporting Limit
- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level 10 / 21
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

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CLIENT:	Giant Refining Co			Clie	ent Sam	ple ID: S	South B1	ГМ.
.ab Order:	0508234				Collecti	ion Date:	8/19/20	05 10:45:00 AM
Project:	R.R. Rack Lagoon Ad	ditional SE W	/all Excava	ti				
Lab ID:	0508234-04					Matrix:	SOIL	
Analyses	· · · · · · · · · · · · · · · · · · ·	Result	PQL	Qual	Units	• •	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE	ORGANICS						Analyst: SCC
Diesel Range O	Irganics (DRO)	15	10		mg/Kg		1	8/21/2005 10:25:32 AM
Motor Oil Range	e Organics (MRO)	ND	50		mg/Kg		1	8/21/2005 10:25:32 AM
Surr: DNOP		117	60-124		%REC		1	8/21/2005 10:25:32 AM
EPA METHOD	8015B: GASOLINE RAN	GE						Analyst: NSE
Gasoline Range	e Organics (GRO)	ND	5.0		mg/Kg		1	8/24/2005 12:53:57 AM
Surr: BFB		98.0	83.1-124		%REC		1	8/24/2005 12:53:57 AM
EPA METHOD	8021B: VOLATILES							Analyst: NSE
Methyl tert-buty	l ether (MTBE)	ND	0.10		mg/Kg		1	8/24/2005 12:53:57 AN
Benzene		ND	0.025		mg/Kg		1	8/24/2005 12:53:57 AM
Toluene		ND	0.025		mg/Kg		1	8/24/2005 12:53:57 AM
Ethylbenzene		ND	0.025		mg/Kg		1	8/24/2005 12:53:57 AN
Xylenes, Total		0.036	0.025		mg/Kg		1	8/24/2005 12:53:57 AM
Surr: 4-Brom	ofluorobenzene	104	87.5-115		%REC		1	8/24/2005 12:53:57 AM
EPA METHOD	8270C: SEMIVOLATILES	3						Analyst: BL
Acenaphthene		ND	0.20		mg/Kg		1	8/23/2005
Acenaphthylen	e ·	ND	0.20		mg/Kg		1	8/23/2005
Aniline		ND	0.20		mg/Kg		1	8/23/2005
Anthracene	*	ND	0.20		mg/Kg		1	8/23/2005
Azobenzene		ND	0.20		mg/Kg		1	8/23/2005
Benz(a)anihrad	cene	ND	0.25		mg/Kg		1	8/23/2005
Benzidine		ND	0.20		mg/Kg		1	8/23/2005
Benzo(a)pyren	e [·] ·	ND	0.20		mg/Kg		1	8/23/2005
Benzo(b)fluora		ND	0.20		mg/Kg		1	8/23/2005
Benzo(g,h,i)pe	rylene	ND	0,30		mg/Kg		1	8/23/2005
Benzo(k)fluora	nlhene	ND	0.50		mg/Kg		1	8/23/2005
Benzoic acid		ND	0.50		mg/Kg		1	8/23/2005
Benzyl alcohol	· · · · ·	ND	0.50		mg/Kg		1	8/23/2005
Bis(2-chloroeth		ND	0.50		mg/Kg		1	8/23/2005
Bis(2-chloroeth		ND	0.25		mg/Kg		1	8/23/2005
Bis(2-chloroisc		ND	0.50		mg/Kg		1	8/23/2005
Bis(2-ethylhex		ND	0.20		mg/Kg		1	8/23/2005
4-Bromopheny	• -	ND	0.25		mg/Kg		1	8/23/2005
Butyl benzył p	hthalate	ND	0.20		mg/Kg		1	8/23/2005
Carbazole		ND	0.20		mg/Kg		1	B/23/2005
4-Chloro-3-me		ND	0.20		mg/Kg		1	8/23/2005
4-Chloroanilin		ND	0.20		mg/Kg		1	8/23/2005
2-Chloronaphi		ND	0.20		mg/Kg		1	8/23/2005
2-Chlorophen		ND	0.20		mg/Kg		1	8/23/2005
4-Chlorophen	yi phenyi elher	ND	0.20	I	mg/Kg	•	1	8/23/2005
Oualifiers:	ND - Not Detected at the R	eporting Limit		<b></b>	S - Spike	Recovery ou	itside acce	pted recovery limits
		· -				-		=

Date: 26-Aug-05

* - Value exceeds Maximum Contaminant Level 11/21

B - Analyte detected in the associated Method Blank

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E - Value above quantitation range

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**CLIENT: Giant Refining Co** Lab Order: 0508234

Client Sample ID: South BTM.

Collection Date: 8/19/2005 10:45:00 AM

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**Project:** R.R. Rack Lagoon Additional SE Wall Excavati

Lab ID: 0508234-04 Matrix: SOIL

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	• • • • • • • • • •			·· ·	
Analyses	Result	PQL	Qual Unit	s DF	Date Analyzed
Chrysene	ND	0.20	mg/k	g 1	8/23/2005
Di-n-butyl phthalate	ND	0.25	mg/k	- ig 1	8/23/2005
Di-n-octyl phthalate	ND	0.50	mg/k	ig 1	8/23/2005
Dibenz(a,h)anthracene	ND	0.25	mg/H	ig 1	8/23/2005
Dibenzofuran	ND	0.50	mg/k	g 1	8/23/2005
1,2-Dichlorobenzene	ND	0.20	mg/H		8/23/2005
1,3-Dichlorobenzene	ND	0.20	mg/k	ʻg 1	8/23/2005
1,4-Dichlorobenzene	ND	0.20	mg/k	ig 1	8/23/2005
3,3'-Dichlorobenzidine	ND	0.20	mg/H	ʻg 1	8/23/2005
Diethyl phthalate	ND	0.20	mg/K	ig 1	8/23/2005
Dimethyl phthalate	ND	0.20	mg/k	ig 1	8/23/2005
2,4-Dichlorophenol	ND	0.20	mg/k	ig 1	8/23/2005
2.4-Dimethylphenol	ND	0.20	mg/k	ig 1	8/23/2005
4,6-Dinitro-2-methylphenol	ND	0.50	mg/ł	íg 1	8/23/2005
2,4-Dinitrophenol	ND	0.50	mg/ł	ig 1	8/23/2005
2,4-Dinitrotoluene	ND	0.20	mg/k	ig 1	8/23/2005
2,6-Dinitrololuene	ND	0.20	mg/H	íg 1	8/23/2005
Fluoranthene	ND	0.20	mg/k	ig 1	8/23/2005
Fluorene	ND	0.20	mg/k	íg 1	8/23/2005
Hexachlorobenzene	ND	0.20	mg/ŀ	íg 1	8/23/2005
Hexachlorobutadiene	ND	0.20	mg/ł	ig 1	8/23/2005
Hexachlorocyclopentadiene	ND	0.25	mg/k	ig 1	8/23/2005
Hexachloroethane	ND	0.50	mg/k	ig 1	8/23/2005
Indeno(1,2,3-cd)pyrene	ND	0.20	mg/ł	íg 1	8/23/2005
Isophorone	ND	0,20	mg/k	íg 1	8/23/2005
2-Methylnaphthalene	ND	0.20	mg/ŀ	íg 1	8/23/2005
2-Methylphenol	ND	0.20	mg/h	íg 1	8/23/2005
3+4-Methylphenol	ND	0.20	mg/k	ig 1	8/23/2005
N-Nitrosodi-n-propylamine	ND	0.20	mg/H	ig 1	8/23/2005
N-Nitrosodiphenylamine	ND	0.20	mg/ł	íg 1	8/23/2005
Naphthalene	ND	0.20	mg/ł	ig 1	8/23/2005
2-Nitroaniline	ND	0.50	mg/ł	ig 1	8/23/2005
3-Nitroaniline	ND	0.50	mg/ł	íg 1	8/23/2005
4-Nitroaniline	ND	0.25	mg/ŀ	ig 1	8/23/2005
Nitrobenzene	ND	0.20	mg/}	-	8/23/2005
2-Nitrophenol	ND	0.20	mg/ł	-	8/23/2005
4-Nitrophenol	ND	0.20	mg/ł	-	8/23/2005
Pentachiorophenoi	ND	0.50	mg/H		8/23/2005
Phenanthrene	ND	0.20	mg/}	-	8/23/2005
Phenol	ND	0.20	mg/ł		8/23/2005
Pyrene	ND	0.20	mg/ł	-	8/23/2005
Pyridine	ND	0.50	mg/ŀ	(g 1	8/23/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

* - Value exceeds Maximum Contaminant Level 12/21 E - Value above quantitation range

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Date: 26-Aug-05

222 CLIENT: Giant Refining Co Lab Order: 0508234 **Project:** R.R. Rack Lagoon Additional SE Wall Excavati Matrix: SOIL Lab ID: 0508234-04

### Client Sample ID: South BTM. Collection Date: 8/19/2005 10:45:00 AM

Result	PQL Q	ual Units	DF	Date Analyzed
ND	0.20	mg/Kg	1	8/23/2005
ND	0.20	mg/Kg	1	8/23/2005
ND	0.20	mg/Kg	1	8/23/2005
93.6	35.5-141	%REC	1	8/23/2005
63.9	30.4-128	%REC	1	8/23/2005
62.7	28.1-129	%REC	1	8/23/2005
82.0	34.6-151	%REC	1	8/23/2005
66.7	26.5-122	%REC	1	8/23/2005
67.9	37.6-118	%REC	1	8/23/2005
	ND ND 93.6 63.9 62.7 82.0 66.7	Result         PQL         Q           ND         0.20         ND         0.20           ND         0.20         0.20         0.20           93.6         35.5-141         63.9         30.4-128           62.7         28.1-129         82.0         34.6-151           66.7         26.5-122         26.5-122         26.5-122	Result         PQL         Qual         Units           ND         0.20         mg/Kg           ND         0.20         mg/Kg           ND         0.20         mg/Kg           93.6         35.5-141         %REC           63.9         30.4-128         %REC           62.7         28.1-129         %REC           82.0         34.6-151         %REC           66.7         26.5-122         %REC	Result         PQL         Qual         Units         DF           ND         0.20         mg/Kg         1           ND         0.20         mg/Kg         1           ND         0.20         mg/Kg         1           93.6         35.5-141         %REC         1           63.9         30.4-128         %REC         1           62.7         28.1-129         %REC         1           82.0         34.6-151         %REC         1           66.7         26.5-122         %REC         1

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 13/21

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

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Hall Environmen	ntal Anal	lysis Labora	tory		··· ··· ·· ···					Date: 2	64ug-05	
Work Order: 050	nt Refining 8234 L. Rack Lago	Co oon Additional S	E Wall Exca						QC SUN	IMAR	Y REP( Method	
Sample ID MB-8573	Batc	h ID: 8573	Test Code:		Units: mg/Kg		•		/2005 1:58:54 AM	Prep D	ate 8/19/200	05
Client ID:			Run ID:	FID(17A) 2_0	50820A		SeqNo:	3903	55			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (D Motor Oil Range Organics Surr: DNOP		ND ND 10.5	10 50 0	10	0	105	60	124	0			
						103						
Sample ID mb-8571	Batc	h ID: 8571	Test Code:		Units: mg/Kg		Analysis		/2005 6:42:39 PM	Prep D	ate 8/19/200	D5
Client ID:			Run ID:	PIDFID_0508	22A		SeqNo:	3910	43			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics Surr: BFB	(GRO)	ND 914.7	5 0	1000	0	91.5	83.1	124	D		·	
Sample ID mb-8571	Batch	h ID: 8571	Test Code:	SW8021	Units: mg/Kg		Analysis	Date 8/22	/2005 6:42:39 PM	Prep D	ate 8/19/200	05
Client ID:			Run ID:	PIDFID_0508	22A		SeqNo:	3910	D4			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl other (MT	TBE)	ND	0.1		· ••··· ··· · ••							
Benzene		0.01303	0.025									J
Toluene		0.01188	0.025									J
Ethylbenzene		0.01603	0.025									J
Xylenes, Total		0.02385	0.025									J
Surr: 4-Bromofluoroban	izene	0.9884	0	1	0	98.8	87.5	115	0			

14/21

. Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

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CLIENT:

0508234 Work Order:

QC SUMMARY REPORT

Method Blank

R.R. Rack Lagoon Additional SE Wall Excavati Project:

Sample ID MB-8570	Batch ID: 8570	Test Code:	SW8270C	Uniis: mg/Kg		Analysi	s Daie   8/22	/2005	Prep Da	ate 8/19/200	5
Client ID:		Run ID:	ELMO_05082	22A		SeqNo:	3911	45			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimlt	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.2									
Acenaphthylene	ND	0.2									
Aniline	ND	0.2									
Anthracene	ND	0.2									
Azobenzene	ND	0.2									
Benz(a)anthracene	ND	0.25							•		
Benzidine	ND	0.2									
Benzo(a)pyrene	ND	0.2									
Benzo(b)fluoranthene	ND	0.2									
Benzo(g,h,i)perylene	0.02967	0.3									.I
Benzo(k)fluoranthene	ND	0.5		· ·							Ū
Benzoic acid	ND	0.5									
Benzyl alcohol	ND	0.5									
Bis(2-chloroethoxy)methane	ND	0.5									
Bls(2-chloroethyl)ether	ND	0.25									
Bis(2-chloroisopropyl)ether	ND	0.5									
Bis(2-ethylhexyl)phthalate	0.06733	0.2									, ·
4-Bromophenyl phenyl ether	ND	0.25									0
Butyl benzyl phthalate	ND	0.2									
Carbazole	ND	0.2									
4-Chloro-3-methylphenol	ND	0,2									
4-Chloroaniline	ND	0.2									
2-Chloronaphthalene	ND	0.2									
2-Chlorophenol	ND	0.2									
4-Chlorophenyi phenyi ether	ND	0.2						,			
Chrysene	ND	0.2									
Di-n-butyl phthalate	0.257	0.25									
Di-n-octyl phthalate	ND	0.5									

Qualifiers:

15/21

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Work Order:	Giant Refining Co 0508234			QC SUMMARY REPOI
Project:	R.R. Rack Lagoon Add	litional SE	Wall Excavati	
Dibenz(a,h)anthrac	ene	ND	0.25	
Dibenzofuran		ND	0.5	
1,2-Dichlorobenzer	ne	ND	0.2	
1,3-Dichlorobenzei	ne tra	ND	0.2	
1,4-Dichlorobenzer	ne	ND	0.2	
3,3'-Dichlorobenzio	line	ND	0.2	
Diethyl phthalate		ND	0.2	
Dimethyl phthalate		ND	0.2	
2,4-Dichlorophenol		ND	0.2	
2,4-Dimethylpheno	I	ND	0.2	
4,6-Dinitro-2-methy	/iphenol	ND	0.5	
2,4-Dinitrophenol		ND	0.5	
2,4-Dinitrotoluene		ND	0.2	
2,6-Dinitrotoluene		ND	0.2	
Fluoranthene	<u>,</u>	ND	0.2	(1, 2, 2, 3) = (1, 2, 3) and $(1, 2, 3)$ and $(1, 2, 3)$ and $(1, 2, 3)$ and $(2, 3)$ and $(2, 3)$ and $(2, 3)$
Fluorene		ND	0.2	
Hexachlorobenzen	e	ND	0.2	
Hexachlorobutadie	ne	ND	0.2	
Hexachlorocyclope	ntadiene	ND	0.25	
Hexachloroethane		ND	0.5	
Indeno(1,2,3-cd)py	rene	ND	0.2	
Isophorone		ND	0.2	
2-Methylnaphthaler	le	ND	0.2	
2-Methylphenol		ND	0.2	
3+4-Methylphenol		ND	0.2	
N-Nitrosodi-n-propy	lamine	ND	0.2	
N-Nitrosodiphenyla	mine	ND	0.2	
Naphthalene		ND	0.2	
2-Nitroaniline		ND	0.5	
3-Nitroaniline		ND	0.5	
4-Nitroaniline		ND	0.25	
Nitrobenzene		ND	0.2	
2-Nitrophenol		ND	0.2	

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Qualifiers:

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ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

. . . ....

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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### DRT

Blank

CLIENT:	Giant Refining Co	•							QC SUMM	IARY REPORT
Work Order:	0508234								-	Mathed Dist.
Project:	R.R. Rack Lagoon A	Additional SE V	Vall Excavati							Method Blank
4-Nitrophenol		ND	0.2						· · · ·	
Pentachlorophenol		ND	0.5							
Phenanthrene		ND	0.2							
Phenol		ND	0.2							
Pyrene		ND	0.2							
Pyridine		ND	0.5							
1,2,4-Trichiorobenz	zene	ND	0.2							
2,4,5-Trichloropher	nol	ND	0.2							
2,4,6-Trichloropher	n <b>ol</b>	ND	0.2							4
Surr: 2,4,6-Tribro	omophenol	2,838	0	3.33	0	85.2	35.5	141	0	
Surr: 2-Fluorobip	phenyl	1.208	0	1.67	O	72.4	30.4	128	0	
Surr: 2-Fluoroph	ienol	2.164	0	3.33	.0	65.0	28.1	129	0	
Surr: 4-Terpheny	yl-d14	1.483	0	1.67	0	88.8	34.6	151	Ō	
Surr: Nitrobenze	ene-d5	1.198	0	1.67	0	71.7	26.5	122	0	
Surr: Phenol-d6		2.348	0	3.33	0	70.5	37.6	118	0	

#### 1920-1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 - 1920 -. . . . . . . . . . . . .

Qualifiers:

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

	iinentai 7	Analysis Labora									6-Aug-05	
CLIENT: Work Order: Project:	Giant Refi 0508234 R.R. Rack	ning Co Lagoon Additional Sl	E Wall Exca	vati					QC SUN Laboratory (			
Sample ID LCS-85 Client ID:	573	Batch ID: 8573	Test Code: Run ID:	SW8015 FID(17A) 2_0	Units: mg/Kg 050820A		Analysi SeqNo:		/2005 2:31:43 AM 56	Prep D	ate 8/19/200	)5
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Diesel Range Organ	nics (DRO)	53.51	10	50	0	107	67.4	117	0			
Sample ID LCSD-8 Client ID:	8573	Batch ID: 8573	Test Code: Run ID:	SW8015 FID(17A) 2_0	Units: mg/Kg 050820A	<u>1 </u>	Analysi SeqNo:		/2005 3:04:32 AM 57	Prep D	ate 8/19/20(	)5
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Diesel Range Organ	nics (DRO)	58.49	10	50	0	117	67.4	117	53.51	8.89	17.4	
Sample ID Ics-857 Client ID:	1	Batch ID: 8571	Test Code: Run ID:	SW8015 PIDFID_0508	Units: mg/Kg 122A		Analysi SeqNo:		/2005 7:45:44 PM 59	Prep D	ate 8/19/200	15
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Gasoline Range Org	ganics (GRO)	24.66	5	25	0	98.6	84	120	0			
Sample ID GRO Ic: Client ID:	s 2.5ug	Batch ID: 8571	Test Code: Run ID:	SW8015 PIDFID_0508	Units: mg/Kg 23A		Analysi SeqNo:		/2005 12:52:35 PM 57	Prep D	ale	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Gasoline Range Org	ganics (GRO)	22.13	5	25	0.0156	88.5	84	120	0			
Sample ID GRO Ic: Client ID:	s 2.5ug	Batch ID: 8571	Test Code: Run ID:	SW8015 PIDFID_0508	Units: mg/Kg 24A		Analysis SeqNo:		/2005 4:49:06 PM 09	Prep Di	ate	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
	anics (GRO)	22,35	5	25	0.0214	89.3	84	120	O [/]			

18/21

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

# QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: Giant Refining Co

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Work Order: 0508234

Project: R.R. Rack Lagoon Additional SE Wall Excavati

Analysis Date 8/22/2005 7:45:44 PM Test Code: SW8021 Units: mg/Kg Prep Date 8/19/2005 Batch ID: 8571 Sample ID Ics-8571 391005 Run ID: PIDFID_050822A SeqNo: Client ID: LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual Result PQL SPK value SPK Ref Val %REC Analyte 2 0 105 65 132 0 0.1 Methyl tert-butyl ether (MTBE) 2.093 0.42 0.01303 104 85.6 116 0 0.4507 0.025 Benzene 2 0.01188 105 82.4 120 0 0.025 2.111 Toluene 0.41 0.01603 102 86.4 111 0 0.4324 0.025 Ethylbenzene 2.185 0.025 2 0.02385 108 78.4 125 0 Xylenes, Total Test Code: SW8021 Units: mg/Kg Analysis Date 8/23/2005 1:55:24 PM Prep Date Batch ID: 8571 Sample ID BTEX lcs 100ng 391323 PIDFID 050823A SeqNo: Run ID: Client ID: HighLimit RPD Ref Val POL SPK value SPK Ref Val %REC LowLimit %RPD RPDLimit Result Oual Analyte 95.6 65 132 0 0.9565 0.1 1 0 Methyl tert-butyl ether (MTBE) 0.025 1 0 104 85.6 116 0 1.04 Benzene 0 103 82.4 120 0 1.027 0.025 1 Toluene 1.036 0.025 1 0 104 86.4 111 0 Ethylbenzene 2.1 0.025 2 0 105 78.4 125 0 Xylenes, Total

/21

19

Qualifiers:

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits B - Analyte detected in the associated Method Blank

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### CLIENT: Giant Refining Co Work Order: 0508234

### QC SUMMARY REPORT

Laboratory Control Spike - generic

Project: R.R. Rack Lagoon Additional SE Wall Excavati

Sample ID LCS-8570 Batch ID: 8570 Test Code: SW8270C Units: mg/Kg Analysis Date 8/22/2005 Prep Date 8/19/2005 Client ID: Run ID: ELMO_050822A SeqNo: 391146 PQL Analyte Result SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual 1.344 125 Acenaphthene 0.2 1.67 0 80.5 24 0 4-Chloro-3-methylphenol 2.653 0.2 3.33 0 79.7 14.6 154 0 2-Chlorophenol 2.177 0.2 3.33 0 65.4 13.3 149 0 0.9777 0 1,4-Dichlorobenzene 0.2 1.67 58.5 23.6 118 0 2.4-Dinitrotoluene 0.2 0 1.402 1.67 83.9 28 136 0 N-Nitrosodi-n-propylamine 1,068 0.2 1.67 0 64.0 28 114 0 4-Nitrophenol 2.711 0.2 3.33 0 81.4 13.1 150 0 Pentachlorophenol 2.921 0.5 3.33 0 87.7 20.1 139 0 Phenol 2.213 0.2 3,33 0 66.4 17.3 141 0 Pyrene 1.288 0.2 0 77.1 29 1.67 131 0 1,2,4-Trichlorobenzene 1.109 0.2 1.67 0 66.4 17.9 126 0

Sample ID LCSD-8570	Batch ID: 8570	Test Code:	SW8270C	Units: mg/Kg		Analysi	s Date 8/22	/2005	Prep D	ate 8/19/200	)5
Client ID:		Run ID:	ELMO_05082	22A		SeqNo:	3911	47			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.298	0.2	1.67	0	77.7	24	125	1.344	3.48	25	
4-Chloro-3-methylphenol	2.848	0.2	3.33	0	85.5	14.6	154	2.653	7.08	25	
2-Chlorophenol	2.318	0.2	3.33	0	69.6	13.3	149	2.177	6.29	25	
1,4-Dichlorobenzene	0.9963	0.2	1.67	0	59.7	23.6	118	0.9777	1.89	25	
2,4-Dinitrotoluene	1.337	0.2	1.67	0	80.1	28	136	1.402	4,70	25	
N-Nitrosodi-n-propylamine	1.11	0.2	1.67	0	66.5	28	114	1.068	3.83	25	
4-Nitrophenol	2.786	0.2	3.33	0	83.7	13.1	150	2.711	2.73	25	
Pentachlorophenol	3.056	0.5	3.33	0	91.8	20.1	139	2.921	4.53	25	
Phenol	2.304	0.2	3.33	0	69.2	17,3	141	2.213	4.06	25	
Pyrene	1.384	0.2	1.67	0	82.9	29	131	1.288	7.21	25	
1,2,4-Trichlorobenzene	1,145	0.2	1.67	0	68.5	17.9	126	1.109	3.17	25	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

3

J - Analyte detected below quantitation limits

Sample Receipt Checklist

### Client Name GIANTREFIN

Date and Time Received:

8/19/2005

Work Order Number 0508234

Received by AMF

8-19-05 Date

Checklist completed by

**Corrective Action** 

(,hleppe

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?		Yes 🗹	No 🗆	Not Present		
Custody seals intact on shipping container/cool	er?	Yes	No 🗌	Not Present	Not Shipped	
Custody seals intact on sample bottles?		Yes 🗹	No 🗆	N/A		
Chain of custody present?		Yes 🗹	No 🗌			
Chain of custody signed when relinquished and	received?	Yes 🗹	No 🗀			
Chain of custody agrees with sample labels?		Yes 🗹	No 🗆			
Samples in proper container/bottle?		Yes 🗹				
Sample containers intact?		Yes 🗹	No 🗌			
Sufficient sample volume for indicated test?		Yes 🗹	No 🗆			
All samples received within holding lime?		Yes 🗹	No 🗖			
Water - VOA vials have zero headspace?	No VOA vials su	bmitted 🗹	Yes 🗌	No 🗔		
Water - pH acceptable upon receipt?		Yes 🗌	No 🗔	N/A 🗹		
Container/Temp Blank temperature?		6°	4° C ± 2 Accep If given sufficie			
COMMENTS:						
Client contacted	Date contacted:		Pe	rson contacted		000 Auto
Contacted by:	Regarding				•	
Comments:					<b></b>	
маналарынын жана алар жана алар жана жана жана жана жана жана жана жа				******		

CHA Client:	IN-OF	CUST	ODY RECORD	Other: Project Name:	QA/ Std 🗖	GC Par Le Doct	ckage: evel 4	agoon						<b>4</b> 9 Al Te	101 301 501 50 1.50	Haw Ierqu 5.34	<b>SIS</b> kins   Je, N 15.39	<b>LA</b> NE, 9 ew N 975	NNN Suite Mexic Fai Ital. C	<b>RA</b> 2 D 20 87 x 50	<b>109</b>	YF	07	
Address	mpo	Ny -	Sox 7	SE Wa Project #:	ell a	<u>Epc</u>	an	ation							<u>M</u>	YEI	61: 	EQ	IJŦ	T		2.0		
	all	- <i>Ρ</i> , Ν	<u>M 87301</u>	Project Manager	J.	JU.	h	Ĵ.	3's (8021)	BTEX + MTBE + TPH (Gasoline Only)	Gas/Diesel)						, P0, S0,)	)'s (8082)						
Phone # Fax #:	<u>ے (</u>		223833 220210	Sampler: Sample Temperati	Jre:	509	M	mis	+ Mtbe + TMB';	ate + TPH	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	etals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ ,	8081 Pesticides / PCB's (8082)	DA)		21B			Air Buthlor on Ucadranae (V on NI)
Date	Time	Matrix	Sample I.D. No.	Number/Volume	Pr HgCl ₂	eservat HNO ₃	ive 	HEALNO. 0508234	BTEX + N	BTEX + N	TPH Meth	TPH (Met	EDB (Met	EDC (Met	8310 (PN	RCRA B Metals	Anions (F,	8081 Pes	8260B (VOA)	8270 (Semi-VOA)	00			Ain Dubble
11 <u>9 65</u>	1000	Sout	North Wall	2/48.				-1			Y									X	r			
	1030	1)	South Well	1,0				2			$\lambda$									7	×			
	1015		North Stim-	. //				3			N									7	$\boldsymbol{\lambda}$			
·)	1045	1)	South BTM.	15				4			<u>۲</u>									×	<u>ې</u>			
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<u></u>		<b>*</b>																						+
Date: Date:			ed By: (Signature)	Received Received	lin		2) 	3/1/1/05 13:55	Rem		2		 , /		 4<	Ā	<u></u>	/	L	1	1	1	1_	1



### COVER LETTER

August 31, 2005

Steve Morris Giant Refining Co Rt. 3 Box 7 Gallup, NM 87301 TEL: (505) 722-0258 FAX (505) 722-0210

RE: RR Rock Lagoon NW Add. Excav.

Order No.: 0508272

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 4 samples on 8/24/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager



4901 Hawkins NE Suite D Albuquerque, NM 87109 505.345.3975 Fax 505.345.4107 www.hallenvironmental.com

CLIENT:	Giant Refining Co			Clie	ent Sample I	D: }	North W	all			
Lab Order:	0508272				Collection D	ate:	8/22/2005 1:00:00 PM				
Project:	RR Rock Lagoon NW	Add. Excav.									
Lab ID:	0508272-01				Ma	trix:	SOIL				
Analyses		Result	PQL	Qual	Units		DF	Date Analyzed			
EPA METHOD	8015B: DIESEL RANGE	ORGANICS						Analyst: SCC			
Diesel Range C	)rganics (DRO)	ND	10		mg/Kg		1	8/29/2005 8:05:54 AM			
Motor Oil Rang	e Organics (MRO)	ND	50		mg/Kg		1	8/29/2005 8:05:54 AM			
Surr: DNOP		86.2	60-124		%REĊ		1	8/29/2005 8:05:54 AM			
EPA METHOD	8015B: GASOLINE RAN	GE						Analyst: NSB			
Gasoline Range	e Organics (GRO)	ND	5.0		mg/Kg		1	8/30/2005 6:08:35 PM			
Surr: BFB		102	83.1-124		%REC		1	8/30/2005 6:08:35 PM			
EPA METHOD	8021B: VOLATILES							Analyst: NSB			
Methyl tert-buty	l ether (MTBE)	ND	0.10		mg/Kg		1	8/30/2005 6:08:35 PM			
Benzene		ND	0.025		mg/Kg		1	8/30/2005 6:08:35 PM			
Toluene		ND	0.025		mg/Kg		1	8/30/2005 5:08:35 PM			
Ethylbenzene	1 - 1	ND	0.025		mg/Kg		1	8/30/2005 6:08:35 PM			
Xylenes, Tolal		ND	0.025		mg/Kg		1	8/30/2005 6:08:35 PM			
Surr: 4-Brom	ofluorobenzene	99.0	87.5-115		%REC		1	8/30/2005 6:08:35 PM			
EPA METHOD	8270C: SEMIVOLATILES	5						Analyst: BL			
Acenaphthene		ND	0.20		mg/Kg		1	8/25/2005			
Acenaphthylen	e	ND	0.20		mg/Kg		1	8/25/2005			
Aniline		ND	0.20		mg/Kg		1	8/25/2005			
Anthracene		ND	0.20		mg/Kg		1	8/25/2005			
Azobenzene		ND	0.20		mg/Kg		1	8/25/2005			
Benz(a)anthrac	ene	ND	0.25		mg/Kg		1	8/25/2005			
Benzidine		ND	0.20		mg/Kg		1	8/25/2005			
Benzo(a)pyren	B	ND	0.20		mg/Kg		1	8/25/2005			
Benzo(b)fluora:	nthene	ND	0.20		mg/Kg		1	8/25/2005			
Benzo(g,h,i)pe	rylene	ND	0.30		mg/Kg		1	8/25/2005			
Benzo(k)fluorai	nthene	ND	0.50		mg/Kg		1	8/25/2005			
Benzoic acid	, · ·	ND	0.50		mg/Kg		1	8/25/2005			
Benzyl alcohol		ND	0.50		mg/Kg		1	8/25/2005			
Bis(2-chloroeth	ioxy)melhane	ND	0.50		mg/Kg		1	8/25/2005			
Bis(2-chloroeth	nyi)ether	ND	0.25		mg/Kg		1	8/25/2005			
Bis(2-chloroiso	propyl)ether	ND	0.50		mg/Kg		1	8/25/2005			
Bis(2-ethylhexy	/i)phthalate	ND	0.20		mg/Kg		1	8/25/2005			
4-Bromopheny	I phenyl ether	ND	0.25	•	mg/Kg		1	8/25/2005			
Butyl benzyl pl	nthalate	ND	0.20		mg/Kg		1	8/25/2005			
Carbazole		ND	0.20		mg/Kg		1	8/25/2005			
4-Chloro-3-me	thylphenol	ND	0.20		mg/Kg		1	8/25/2005			
4-Chloroaniline	2	ND	0.20		mg/Kg		1	8/25/2005			
2-Chloronapht	halene	ND	0.20		mg/Kg		1	8/25/2005			
2-Chlorophenc	bi	ND	0.20		mg/Kg		1	8/25/2005			
4-Chloropheny	/i phenyl ether	ND	0.20		mg/Kg		1	8/25/2005			

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Date: 31-Aug-05

**CLIENT:** Lab Order: 0508272

Lab ID:

Giant Refining Co

Client Sample ID: North Wall Collection Date: 8/22/2005 1:00:00 PM

Project: RR Rock Lagoon NW Add. Excav.

0508272-01

Matrix: SOIL

Analyses	Result	PQL Qi	al Units	DF	Date Analyzed
Chrysene	ND	0.20	mg/Kg	1	8/25/2005
Di-n-butyl phthalate	ND	0.25	mg/Kg	1	8/25/2005
Di-n-octyl phthalate	ND	0.50	mg/Kg	1	8/25/2005
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	8/25/2005
Dibenzofuran	ND	0.50	mg/Kg	<u> </u>	8/25/2005
1,2-Dichlorobenzene	ND	0.20	mg/Kg	1	8/25/2005
1,3-Dichlorobenzene	ND	0.20	mg/Kg	1	8/25/2005
1,4-Dichlorobenzene	ND	0.20	mg/Kg	1	8/25/2005
3,3'-Dichlorobenzidine	ND	0.20	mg/Kg	1	8/25/2005
Diethyl phihalate	ND	0.20	mg/Kg	1	8/25/2005
Dimethyl phthalate	ND	0.20	mg/Kg	1	8/25/2005
2,4-Dichlorophenol	ND	0.20	mg/Kg	1	8/25/2005
2,4-Dimethylphenol	ND	0.20	mg/Kg	1	8/25/2005
4,6-Dinitro-2-melhylphenol	ND	0.50	mg/Kg	1	B/25/2005
2,4-Dinitrophenol	ND	0.50	mg/Kg	1	8/25/2005
2,4-Dinitrololuene	ND	0.20	mg/Kg	1	8/25/2005
2,6-Dinitrotoluene	ND	0.20	mg/Kg	1	8/25/2005
Fluoranthene	ND	0.20	mg/Kg	1	8/25/2005
Fluorene	ND	0.20	mg/Kg	1	8/25/2005
Hexachlorobenzene	ND	0.20	mg/Kg	1	8/25/2005
Hexachlorobutadiene	ND	0,20	mg/Kg	1	8/25/2005
Hexachlorocyclopentadiene	ND	0.25	mg/Kg	1	8/25/2005
Hexachloroethane	ND	0,50	mg/Kg	1	8/25/2005
Indeno(1,2,3-cd)pyrene	ND	0.20	mg/Kg	1	8/25/2005
Isophorone	ND	0.20	mg/Kg	1	8/25/2005
2-Methylnaphthalene	ND	0.20	mg/Kg	1	8/25/2005
2-Methylphenol	ND	0.20	mg/Kg	1	8/25/2005
3+4-Methylphenol	ND	0.20	mg/Kg	1	8/25/2005
N-Nitrosodi-n-propylamine	ND	0.20	mg/Kg	1	8/25/2005
N-Nitrosodiphenylamine	ND	0.20	mg/Kg	1	8/25/2005
Naphthalene	ND	0.20	mg/Kg	1	8/25/2005
2-Nitroaniline	ND	0.50	mg/Kg	1	B/25/2005
3-Nitroaniline	ND	0.50	mg/Kg	1	8/25/2005
4-Nitroaniline	ND	0.25	mg/Kg	1	8/25/2005
Nitrobenzene	ND	0.20	mg/Kg	1	8/25/2005
2-Nitrophenol	ND	0.20	mg/Kg	1	8/25/2005
4-Nitrophenol	, ND	0.20	mg/Kg	1	8/25/2005
Pentachlorophenol	ND	0.50	mg/Kg	1	8/25/2005
Phenanthrene	ND	0.20	mg/Kg	1	8/25/2005
Phenol	ND	0.20	mg/Kg	1	8/25/2005
Pyrene	ND	0.20	mg/Kg	1	8/25/2005
Pyridine	ND	0.50	mg/Kg	1	8/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

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* - Value exceeds Maximum Contaminant Level

E - Value above quantitation range

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CLIENT:	Giant Refining Co	Client Sample ID: North Wall
Lab Order:	0508272	Collection Date: 8/22/2005 1:00:00 PM
Project:	RR Rock Lagoon NW Add. Excav.	
Lab ID:	0508272-01	Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20	mg/Kg	1	8/25/2005
2,4,5-Trichlorophenol	ND	0.20	mg/Kg	1	8/25/2005
2,4,6-Trichlorophenol	ND	0.20	mg/Kg	1	8/25/2005
Surr. 2,4,6-Tribromophenol	92.9	35.5-141	%REC	1	8/25/2005
Surr: 2-Fluorobiphenyl	65.6	30.4-128	%REC	1	8/25/2005
Surr: 2-Fluorophenol	60.0	28.1-129	%REC	1	8/25/2005
Surr: 4-Terphenyl-d14	90.6	34.6-151	%REC	1	8/25/2005
Surr: Nitrobenzene-cl5	64.4	26.5-122	%REC	1	8/25/2005
Surr: Phenol-d6	67.5	37.6-118	%REC	1	8/25/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

CLIENT: Giant Refining Co Lab Order: 0508272 **Project:** RR Rock Lagoon NW Add. Excav.

### Client Sample ID: North BTM Collection Date: 8/22/2005 1:15:00 PM

Date: 31-Aug-05

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Lab ID: 0508272-02				Matrix: SOIL	
Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E ORGANICS	•			Analyst: SCC
Diesel Range Organics (DRO)	41	10	mg/Kg	1	8/29/2005 8:38:42 AM
Motor Oil Range Organics (MRO)	ND	.50	mg/Kg	1	8/29/2005 8:38:42 AM
Surr: DNOP	72.4	60-124	%REC	1	8/29/2005 8:38:42 AM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	8/30/2005 6:40:19 PM
Surr: BFB	108	83.1-124	%REC	1	8/30/2005 6:40:19 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10	mg/Kg	1	8/30/2005 6:40:19 PM
Benzene	ND	0.025	mg/Kg	1	8/30/2005 6:40:19 PM
Toluene	ND	0.025	mg/Kg	1	8/30/2005 6:40:19 PM
Elhylbenzene	ND	0.025	mg/Kg	1	8/30/2005 6:40:19 PM
Xylenes, Total	ND	0.025	mg/Kg	1	8/30/2005 6:40:19 PM
Sur: 4-Bromofluorobenzene	102	87.5-115	%REC	1	8/30/2005 6:40:19 PM
EPA METHOD 8270C: SEMIVOLATIL	.ES				Analyst: BL
Acenaphthene	ND	0.20	mg/Kg	1	8/25/2005
Acenaphthylene	ND	0.20	mg/Kg	1	8/25/2005
Aniline	ND	0.20	mg/Kg	1	8/25/2005
Anthracene	ND	0.20	mg/Kg	1	8/25/2005
Azobenzene	ND	0.20	mg/Kg	1	8/25/2005
Benz(a)anthracene	ND	0.25	mg/Kg	1	8/25/2005
Benzidine	ND	0.20	mg/Kg	1	8/25/2005
Benzo(a)pyrene	ND	0.20	mg/Kg	1	8/25/2005
Benzo(b)fluoranthene	ND ¹	0.20	mg/Kg	1	8/25/2005
Benzo(g,h,i)perylene	ND	0.30	mg/Kg	1	8/25/2005
Benzo(k)fluoranthene	ND	0.50	mg/Kg	1	8/25/2005
Benzoic acid	ND	0.50	mg/Kg	1	8/25/2005
Benzyl alcohol	ND	0.50	mg/Kg	1	8/25/2005
Bis(2-chloroethoxy)methane	ND	0.50	mg/Kg	1	8/25/2005
Bis(2-chloroethyl)ether	ND	0.25	mg/Kg	1	8/25/2005
Bis(2-chloroisopropyl)ether	ND	0.50	mg/Kg	1	8/25/2005
Bis(2-ethylhexyl)phthalate	ND	0.20	mg/Kg	1	8/25/2005
4-Bromophenyl phenyl ether	ND	0,25	mg/Kg	1	8/25/2005
Butyl benzyl phihalate	ND	0.20	mg/Kg	1	8/25/2005
Carbazole	ND	0.20	mg/Kg	- 1	8/25/2005
4-Chloro-3-methylphenol	ND	0.20	mg/Kg	1	8/25/2005
4-Chloroaniline	ND	0.20	mg/Kg	1	8/25/2005
2-Chloronaphihalene	ND	0.20	mg/Kg	1	8/25/2005
2-Chlorophenol	ND	0.20	mg/Kg	1	8/25/2005
4-Chlorophenyl phenyl elher	ND	0,20	mg/Kg	1	8/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

E - Value above quantitation range

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J - Analyte detected below quantitation limits

### Date: 31-Aug-05

CLIENT:Giant Refining CoLab Order:0508272Project:RR Rock Lagoon NW Add. Excav.

### Lab ID:

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0508272-02

### Client Sample ID: North BTM Collection Date: 8/22/2005 1:15:00 PM

### Matrix: SOIL

nalyses	Result	PQL	Qual Units	DF	Date Analyzed
Chrysene	ND	0.20	mg/Kg	1	8/25/2005
Di-n-butyl phthalate	0.37	0.25	mg/Kg	1	8/25/2005
Di-n-octyl phthalate	ND	0.50	mg/Kg	1	8/25/2005
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	8/25/2005
Dibenzofuran	ND	0.50	mg/Kg	1	8/25/2005
1,2-Dichlorobenzene	ND	0.20	mg/Kg	1	8/25/2005
1,3-Dichiorobenzene	ND	0.20	mg/Kg	1	8/25/2005
1,4-Dichlorobenzene	ND	0.20	mg/Kg	1	8/25/2005
3,3°-Dichlorobenzidine	ND	0.20	mg/Kg	1	8/25/2005
Diethyl phthalate	ND	0.20	mg/Kg	1	8/25/2005
Dimethyl phthalate	ND	0.20	mg/Kg	1	8/25/2005
2,4-Dichlorophenol	ND	0.20	mg/Kg	1	8/25/2005
2,4-Dimethylphenol	ND	0.20	mg/Kg	1	8/25/2005
4,6-Dinitro-2-methylphenol	ND	0.50	mg/Kg	1	8/25/2005
2,4-Dinitrophenol	ND	0.50	mg/Kg	1	8/25/2005
2,4-Dinitrotoluene	ND	0.20	mg/Kg	1	8/25/2005
2,6-Dinitrotoluene	ND	0.20	mg/Kg	1	8/25/2005
Fluoranthene	ND	0.20	mg/Kg	1	8/25/2005
Fluorene	ND	0.20	mg/Kg	1	8/25/2005
Hexachlorobenzene	ND	0.20	mg/Kg	1	8/25/2005
Hexachlorobutadiene	ND	0.20	mg/Kg	1	8/25/2005
Hexachlorocyclopentadiene	ND	0.25	mg/Kg	1	8/25/2005
Hexachloroethane	ND	0.50	mg/Kg	1	8/25/2005
Indeno(1,2,3-cd)pyrene	ND	0.20	mg/Kg	1	8/25/2005
Isophorone	ND	0.20	mg/Kg	1	8/25/2005
2-Methylnaphthalene	ND	0.20	mg/Kg	1	8/25/2005
2-Methylphenol	ND	0.20	mg/Kg	1	8/25/2005
3+4-Melhylphenol	ND	0.20	mg/Kg	1	8/25/2005
N-Nitrosodi-n-propylamine	ND	0.20	mg/Kg	1	8/25/2005
N-Nitrosodiphenylamine	ND	0.20	mg/Kg	1	8/25/2005
Naphthalene	ND	0.20	mg/Kg	1	8/25/2005
2-Nitroaniline	ND	0.50	mg/Kg	1	8/25/2005
3-Nitroaniline	ND	0.50	mg/Kg	1	8/25/2005
4-Nitroaniline	ND	0.25	mg/Kg	1	8/25/2005
Nilrobenzene	ND	0,20	mg/Kg	1	8/25/2005
2-Nitrophenol	ND	0.20	mg/Kg	1	8/25/2005
4-Nitrophenol	ND	0.20	mg/Kg	1	8/25/2005
Pentachlorophenol	ND	0,50	mg/Kg	1	8/25/2005
Phenanthrene	ND	0.20	mg/Kg	1	8/25/2005
Phenol	ND	0.20	mg/Kg	1	8/25/2005
Ругеле	ND	0.20	mg/Kg	1	8/25/2005
Pyridine	ND	0.50	mg/Kg	1	8/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

- R RPD outside accepted recovery limits
- Blank E Value above ou

* - Value exceeds Maximum Contaminant Level

E - Value above quantitation range

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Date: 31-Aug-05

# CLIENT:Giant Refining CoLab Order:0508272Project:RR Rock Lagoon NW Add. Excav.Lab ID:0508272-02

#### Client Sample ID: North BTM Collection Date: 8/22/2005 1:15:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20	mg/Kg	1	8/25/2005
2,4,5-Trichlorophenol	ND	0.20	mg/Kg	1	8/25/2005
2,4,6-Trichlorophenol	ND	0.20	mg/Kg	1	8/25/2005
Surr. 2,4,6-Tribromophenol	103	35.5-141	%REC	1	8/25/2005
Sur: 2-Fluorobiphenyl	70.4	30.4-128	%REC	1	8/25/2005
Sur: 2-Fluorophenol	66.5	28.1-129	%REC	1	8/25/2005
Surr: 4-Terphenyl-d14	92.6	34.6-151	%REC	1	8/25/2005
Surr. Nitrobenzene-d5	60.5	26.5-122	%REC	1	8/25/2005
Sur: Phenol-d6	66.1	37.6-118	%REC	1	8/25/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Date: 31-Aug-05

CLIENT:	Giant Refining Co			Clie	nt Sam	ple ID: S	South W	all
Lab Order:	0508272			C	Collect	ion Date:	8/22/2	005 1:30:00 PM
Project:	RR Rock Lagoon NW	Add. Excav.						
Lab ID:	0508272-03					Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	· · · · · · · · · · · · · · · · · · ·	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE	ORGANICS						Analyst: SCC
Diesel Range C	Drganics (DRO)	ND	10		mg/Kg		1	8/29/2005 9:11:30 AM
Motor Oil Rang	e Organics (MRO)	ND	50		mg/Kg		1	8/29/2005 9:11:30 AM
Sur: DNOP		70,1	60-124		%REC		1	8/29/2005 9:11:30 AM
EPA METHOD	8015B: GASOLINE RAN	GE		·				Analyst: NSB
Gasoline Rang	e Organics (GRO)	ND	5.0		mg/Kg		1	8/30/2005 7:43:24 PM
Surr: BFB		97.7	83.1-124		%REC		1	8/30/2005 7:43:24 PM
EPA METHOD	8021B: VOLATILES							Analyst: NSB
Methyl tert-buty	yl ether (MTBE)	ND	0.10		mg/Kg		1	8/30/2005 7:43:24 PM
Benzene	• *	ND	0.025		mg/Kg		1.	8/30/2005 7:43:24 PM
Toluene		ND	0.025		mg/Kg		1	8/30/2005 7:43:24 PM
Ethylbenzene		ND	0.025	•	mg/Kg		1	8/30/2005 7:43:24 PM
Xylenes, Total		ND	0.025		mg/Kg		1	8/30/2005 7:43:24 PM
Surr: 4-Bron	ofluorobenzene	98.9	87.5-115		%REC		1	8/30/2005 7:43:24 PM
EPA METHOD	8270C: SEMIVOLATILES	6						Analyst: BL
Acenaphthene		ND	0.20		mg/Kg		1	8/25/2005
Acenaphthylen	e .	ND	0.20		mg/Kg		1	8/25/2005
Aniline		ND	0.20		mg/Kg		1	8/25/2005
Anthracene	,	ND	0.20		mg/Kg		1	8/25/2005
Azobenzene		ND	0.20		mg/Kg		1	8/25/2005
Benz(a)anthra	cene	ND	0.25		mg/Kg		1	8/25/2005
Benzidine		ND	0.20		mg/Kg		1	8/25/2005
Benzo(a)pyren	e	ND	0.20		mg/Kg		1	8/25/2005
Benzo(b)fluora	inthene	ND	0.20		mg/Kg		1	8/25/2005
Benzo(g,h,i)pe	rylene	ND	0.30		mg/Kg		1	8/25/2005
Benzo(k)fluora	nthene	ND	0.50		mg/Kg		1	8/25/2005
Benzoic acid		ND	0.50		mg/Kg		1	8/25/2005
Benzyl alcohol		ND	0.50		mg/Kg		1	8/25/2005
Bis(2-chloroeth	noxy)methane	ND	0.50		mg/Kg		1	8/25/2005
Bis(2-chloroet)	nyi)elher	ND	0.25		mg/Kg		1	8/25/2005
Bis(2-chloroisc	opropyl)ether	ND	0.50		mg/Kg		1	8/25/2005
Bis(2-ethylhex	yl)phihalate	ND	0.20		mg/Kg		1	8/25/2005
4-Bromopheny	/i phenyi elher	ND	0.25		mg/Kg		1	8/25/2005
Butyl benzyl p	hihalale	ND	0.20		mg/Kg		1	8/25/2005
Carbazole		ND	0.20		mg/Kg		1	8/25/2005
4-Chloro-3-me	athylphenol	ND	0.20		mg/Kg		1	8/25/2005
4-Chloroanilin	e	ND	0.20		mg/Kg		1	8/25/2005
2-Chloronaphi	ihalene	ND	0.20		mg/Kg		1	8/25/2005
2-Chlorophen	ol	ND	0.20		mg/Kg		1	8/25/2005
	yl phenyl ether	ND	0.20		mg/Kg		1	B/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 7/21 R - RPD outside accepted recovery limits

E - Value above quantitation range

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Date: 31-Aug-05

Collection Date: 8/22/2005 1:30:00 PM

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**CLIENT:** Giant Refining Co Lab Order: 0508272

Lab ID:

**Project:** RR Rock Lagoon NW Add. Excav. 0508272-03

Matrix: SOIL

Client Sample ID: South Wall

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
Chrysene	ND	0.20	mg/Kg	1	8/25/2005
Di-n-butyl phthalate	0.25	0.25	mg/Kg	1	8/25/2005
Di-n-octyl phthalate	ND	0.50	mg/Kg	1	8/25/2005
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	8/25/2005
Dibenzoluran	ND	0.50	mg/Kg	1	8/25/2005
1,2-Dichlorobenzene	ND	0,20	mg/Kg	1	8/25/2005
1,3-Dichlorobenzene	ND	0.20	mg/Kg	1	8/25/2005
1,4-Dichlorobenzene	ND	0.20	mg/Kg	1	8/25/2005
3,3'-Dichlorobenzidine	ND	0.20	mg/Kg	1	8/25/2005
Diethyl phthalate	ND	0.20	mg/Kg	1	8/25/2005
Dimethyl phthalate	ND	0.20	т <b>g/K</b> g	1	B/25/2005
2,4-Dichlorophenol	ND	0.20	mg/Kg	1	8/25/2005
2,4-Dimethylphenol	ND	0.20	mg/Kg	1	8/25/2005
4,6-Dinitro-2-methylphenol	ND	0.50	mg/Kg	1	8/25/2005
2,4-Dinitrophenol	ND	0.50	mg/Kg	1	8/25/2005
2,4-Dinitrotoluene	ND	0.20	mg/Kg	1	8/25/2005
2,6-Dinitrotoluene	ND	0.20	mg/Kg	1	8/25/2005
Fluoranthene	ND	0.20	mg/Kg	1	8/25/2005
Fluorene	ND	0.20	mg/Kg	1	8/25/2005
Hexachlorobenzene	ND	0.20	mg/Kg	1	8/25/2005
Hexachlorobutadiene	ND	0.20	mg/Kg	1	8/25/2005
Hexachlorocyclopentadiene	ND	0.25	i mg/Kg	1	8/25/2005
Hexachloroethane	ND	0.50	mg/Kg	1	8/25/2005
Indeno(1,2,3-cd)pyrene	ND	0.20	mg/Kg	1	8/25/2005
Isophorone	ND	0.20	mg/Kg	1	8/25/2005
2-Methylnaphthalene	ND	0.20	mg/Kg	1	8/25/2005
2-Methylphenol	ND	0.20	mg/Kg	1	8/25/2005
3+4-Methylphenol	ND	0.20	mg/Kg	1	8/25/2005
N-Nitrosodi-n-propylamine	ND	0.20	mg/Kg	1	8/25/2005
N-Nitrosodiphenylamine	ND	0.20	mg/Kg	1	8/25/2005
Naphthalene	ND	0,20	mg/Kg	1	8/25/2005
2-Nitroaniline	ND	0.50	mg/Kg	1	8/25/2005
,3-Nitroaníline	ND	0,50	mg/Kg	1	8/25/2005
4-Nitroaniline	ND	0.25	mg/Kg	1	8/25/2005
Nitrobenzene	ND	0.20	mg/Kg	1	8/25/2005
2-Nitrophenol	ND	0.20	mg/Kg	1	8/25/2005
4-Nitrophenol	ND	0.20	mg/Kg	1	8/25/2005
Pentachlorophenol	ND	0.50	mg/Kg	1	8/25/2005
Phenanthrene	ND	0.20	mg/Kg	1	8/25/2005
Phenol	ND	0.20	mg/Kg	1	8/25/2005
Pyrene	ND	0.20	mg/Kg	1	8/25/2005
Pyridine	ND	0.50	mg/Kg	1	8/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

* - Value exceeds Maximum Contaminant Level

E - Value above quantitation range

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#### Date: 31-Aug-05

CLIENT:	Giant Refining Co
Lab Order:	0508272
Project:	RR Rock Lagoon NW Add. Excav.
Lab ID:	0508272-03

#### Client Sample ID: South Wall Collection Date: 8/22/2005 1:30:00 PM

Matrix: SOIL

Analyses	Result	PQL Qual Units		DF	Date Analyzed	
1,2,4-Trichlorobenzene	ND	0.20	mg/Kg	1	8/25/2005	
2,4,5-Trichlorophenol	ND	0.20	mg/Kg	1	8/25/2005	
2,4,6-Trichlorophenol	ND	0.20	mg/Kg	1	8/25/2005	
Surr: 2,4,6-Tribromophenol	96.6	35.5-141	%REC	1	8/25/2005	
Surr: 2-Fluorobiphenyl	63.1	30.4-128	%REC	1	8/25/2005	
Surr: 2-Fluorophenol	63.9	28.1-129	%REC	1	8/25/2005	
Surr: 4-Terphenyl-d14	92.8	34.6-151	%REC	1	8/25/2005	
Surr: Nitrobenzene-d5	65.8	26.5-122	%REC	1	8/25/2005	
Surr: Phenol-d6	66.8	37.6-118	%REC	1	8/25/2005	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

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**CLIENT:** Client Sample ID: South BTM Giant Refining Co Lab Order: 0508272 Collection Date: 8/22/2005 1:45:00 PM **Project:** RR Rock Lagoon NW Add. Excav. Matrix: SOIL Lab ID: 0508272-04 PQL Qual Units DF **Date Analyzed** Analyses Result EPA METHOD 8015B: DIESEL RANGE ORGANICS Analyst: SCC Diesel Range Organics (DRO) ND 10 mg/Kg 1 8/29/2005 10:17:43 AM Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 8/29/2005 10:17:43 AM Surr: DNOP 66.9 %REC 8/29/2005 10:17:43 AM 60-124 1 EPA METHOD 8015B: GASOLINE RANGE Analyst: NSB ND 5.0 mg/Kg 1 8/30/2005 8:14:49 PM Gasoline Range Organics (GRO) %REC 8/30/2005 8:14:49 PM Surr: BFB 104 83.1-124 1 EPA METHOD 8021B; VOLATILES Analyst: NSB 0.10 Methyl tert-butyl ether (MTBE) ND mg/Kg 1 8/30/2005 8:14:49 PM Benzene ND 0.025 mq/Kg 1 8/30/2005 8:14:49 PM Toluene ND 0.025 mg/Kg 1 8/30/2005 8:14:49 PM ND 0.025 8/30/2005 8:14:49 PM Ethylbenzene mg/Kg 1 ND Xvlenes, Total 0.025 mg/Kg 1 8/30/2005 8:14:49 PM Surr: 4-Bromofluorobenzene 101 87.5-115 %REC 1 8/30/2005 8:14:49 PM EPA METHOD 8270C: SEMIVOLATILES Analyst: BL Acenaphthene ND 0.20 mg/Kg 1 8/25/2005 Acenaphthylene ND 0.20 mg/Kg 1 8/25/2005 Aniline ND 0.20 mg/Kg 1 8/25/2005 ND 0.20 mg/Kg Anthracene 1 8/25/2005 ND 0.20 Azobenzene mg/Kg 1 8/25/2005 0.25 Benz(a)anthracene ND mg/Kg 8/25/2005 1 0.20 ND Benzidlne mg/Kg 8/25/2005 1 0.20 Benzo(a)pyrene ND mg/Kg 8/25/2005 1 mg/Kg Benzo(b)fluoranthene ND 0.20 8/25/2005 1 ND 0.30 Benzo(g,h,i)perylene mg/Kg 1 8/25/2005 Benzo(k)fluoranlhene ND 0.50 mg/Kg 1 8/25/2005 ND 0.50 Benzoic acid mg/Kg 1 8/25/2005 0.50 Benzyl alcohol ND mg/Kg 1 8/25/2005 0.50 Bis(2-chloroethoxy)methane ND mg/Kg 1 8/25/2005 0.25 Bis(2-chloroethyl)ether ND mq/Kq 1 8/25/2005 ND 0.50 Bis(2-chloroisopropyl)ether mg/Kg 1 8/25/2005 0.20 Bis(2-ethylhexyl)phthalate ND mg/Kg 8/25/2005 1 4-Bromophenyl phenyl ether ND 0.25 mg/Kg 8/25/2005 1 ND 0.20 mg/Kg Butyl benzyl phthalate 8/25/2005 1 ND 0.20 Carbazole mg/Kg 8/25/2005 1 0.20 4-Chloro-3-methylphenol ND mg/Kg 8/25/2005 1 ND 0.20 4-Chloroaniline mg/Kg 1 8/25/2005 2-Chloronaphthalene ND 0.20 mg/Kg 1 8/25/2005 2-Chlorophenol ND 0.20 mg/Kg 8/25/2005 1 0.20 4-Chlorophenyl phenyl ether ND mg/Kg 8/25/2005 1

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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**CLIENT:** Giant Refining Co Lab Order: 0508272 Project: RR Rock Lagoon NW Add. Excav. Lab ID: 0508272-04

#### Client Sample ID: South BTM Collection Date: 8/22/2005 1:45:00 PM

#### Matrix: SOIL

Inalyses	Result	PQL	Qual Units	DF	Date Analyzed
Chrysene	ND	0.20	mg/Kg	1	8/25/2005
Di-n-butyl phthalate	ND	0.25	mg/Kg	1	8/25/2005
Di-n-octyl phthalate	ND	0.50	mg/Kg	1	8/25/2005
Dibenz(a,h)anthracene	ND	0.25	mg/Kg	1	8/25/2005
Dibenzofuran	ND	0.50	mg/Kg	1	8/25/2005
1,2-Dichlorobenzene	ND	0.20	mg/Kg	1	8/25/2005
1,3-Dichlorobenzene	ND	0.20	mg/Kg	1	8/25/2005
1,4-Dichlorobenzene	ND	0.20	mg/Kg	1	8/25/2005
3,3 '-Dichlorobenzidine	ND	0.20	mg/Kg	1	8/25/2005
Diethyl phihalate	ND	0.20	mg/Kg	1	8/25/2005
Dimethyl phthalate	ND	0.20	mg/Kg	1	8/25/2005
2,4-Dichlorophenol	ND	0.20	mg/Kg	1	8/25/2005
2,4-Dimethylphenol	ND	0.20	mg/Kg	1	8/25/2005
4,6-Dinitro-2-methylphenol	ND	0.50	mg/Kg	1	8/25/2005
2,4-Dinitrophenol	ND	0.50	mg/Kg	1	8/25/2005
2,4-Dinitrotoluene	ND	0.20	mg/Kg	1	8/25/2005
2,6-Dinitrotoluene	ND	0.20	mg/Kg	1	8/25/2005
Fluoranthene	ND	0.20	mg/Kg	1	8/25/2005
Fluorene	ND	0.20	mg/Kg	1	8/25/2005
Hexachlorobenzene	ND	0.20	mg/Kg	1	8/25/2005
Hexachlorobutadiene	ND	0.20	mg/Kg	1	8/25/2005
Hexachlorocyclopentadiene	ND	0.25	mg/Kg	1	8/25/2005
Hexachloroelhane	ND	0.50	mg/Kg	1	8/25/2005
Indeno(1,2,3-cd)pyrene	ND	0.20	mg/Kg	1	8/25/2005
Isophorone	ND	0.20	mg/Kg	1	8/25/2005
2-Methylnaphthalene	ND	0.20	mg/Kg	1	8/25/2005
2-Methylphenol	ND	0.20	mg/Kg	1	8/25/2005
3+4-Melhylphenol	ND	0.20	mg/Kg	1	8/25/2005
N-Nitrosodi-n-propylamine	ND	0.20	mg/Kg	1	8/25/2005
N-Nitrosodiphenylamine	ND	0.20	mg/Kg	1	8/25/2005
Naphlhalene	ND	0.20	mg/Kg	1	8/25/2005
2-Nitroaniline	ND	0.50	mg/Kg	1	8/25/2005
3-Nitroaniline	ND	0.50	mg/Kg	1	8/25/2005
4-Nitroaniline	ND	0.25	mg/Kg	1	8/25/2005
Nitrobenzene	ND	0.20	mg/Kg	1	8/25/2005
2-Nitrophenol	ND	0.20	mg/Kg	1	8/25/2005
4-Nilrophenol	ND	· 0.20	mg/Kg	1	8/25/2005
Pentachlorophenol	ND	0.50	mg/Kg	1	8/25/2005
Phenanthrene	ND	0.20	mg/Kg	1	8/25/2005
Phenoi	ND	0.20	mg/Kg	1	8/25/2005
Pyrene	ND	0.20	mg/Kg	1	8/25/2005
Pyridine	ND	0.50	mg/Kg	1	8/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level 11/21

R - RPD outside accepted recovery limits

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CLIENT:Giant Refining CoLab Order:0508272Project:RR Rock Lagoon NW Add. Excav.

#### Date: 31-Aug-05

#### Client Sample ID: South BTM Collection Date: 8/22/2005 1:45:00 PM

Lab ID: 0508272-04

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	8/25/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	8/25/2005
Surr: 2,4,6-Tribromophenol	58.6	35.5-141		%REC	1	8/25/2005
Surr: 2-Fluorobiphenyl	36.3	30.4-128		%REC	1	8/25/2005
Surr: 2-Fluorophenol	39.3	28.1-129		%REC	1	8/25/2005
Surr: 4-Terphenyl-d14	77.3	34.6-151		%REC	1	8/25/2005
Surr: Nitrobenzene-d5	37.2	26.5-122		%REC	1	8/25/2005
Surr: Phenol-d6	38.6	37.6-118		%REC	1	8/25/2005

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Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

^{el} 12/21

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Hall Environmental	Analysis Labora	itory			<b>.</b>				Date: 3	11-Aug-05	
Work Order: 0508272	fining Co	·					· ·	QC SUN	IMAR	Y REP( Method I	
Sample ID MB-8603	Batch ID: 8603	Test Code:	SW8015	Units: mg/Kg		Analysis		/2005 4:13:11 PM	Prep D	ate 8/24/200	5
Client ID:		Run ID:	FID(17A) 2_0	50824A		SeqNo:	3923	17			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Diesel Range Organics (DRO) Motor Oil Range Organics (MR		10 50									
Surr: DNOP	8.098	0	10	0	81.0	60	124	0			
Sample ID mb-8607	Batch ID: 8607	Test Code:	SW8015	Units: mg/Kg		Analysis	Date 8/30	/2005 4:33:28 PM	Prep D	ate 8/24/200	5
Client ID:		Run ID:	PIDFID_0508	30A		SeqNo:	3939	54			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Gasoline Range Organics (GRC Surr: BFB	C) ND 1012	5 0	1000	0	101	83.1	124	. 0			·
Sample ID mb-8607	Batch ID: 8607	Test Code:	SW8021	Units: mg/Kg		Analysis	Date 8/30/	2005 4:33:28 PM	Prep D	ate 8/24/200	5
Client ID:		Run ID:	PIDFID_0508	30A		SeqNo:	39392	27			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC		HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.1									
Benzene	ND	0.025									
Toluene	ND	0.025									
Elhylbenzene	ND	0.025									
Xylenes, Total	ND	0.025		_				_			
Surr: 4-Bromofluorobenzene	0.9898	0	1	0	99.0	87.5	115	0			

Date: 31- Aug.05

Qualifiers:

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

#### CLIENT: Giant Refining Co Work Order: 0508272

#### QC SUMMARY REPORT

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Method Blank

Project: RR Rock Lagoon NW Add. Excav.

Sample ID MB-8613	Batch ID: 8613	Test Code:	SW8270C	Units: mg/Kg		Analysis	s Date 8/25	/2005	Prep D	ate 8/24/200	)5
Client ID:		Run ID:	ELMO_05082	25A		SeqNo:	3924	29			
Anaiyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Acenaphthene	ND	0.2								••	
Acenaphihylene	ND	0.2									
Aniline	ND	0.2									
Anthracene	ND	0.2									
Azobenzene	ND	0.2									
Benz(a)anthracene	ND	0.25									
Benzidine	ND	0.2									
Benzo(a)pyrene	ND	0.2									
Benzo(b)fluoranthene	ND	0.2									
Benzo(g,h,i)perylene	ND	0.3									
Benzo(k)fluoranthene	ND	0.5									
Benzoic acid	ND	0.5									
Benzyl alcohol	ND	0.5									
Bis(2-chloroethoxy)methane	ND	0.5									
Bis(2-chloroethyl)ether	ND	0.25									
Bis(2-chloroisopropyl)ether	ND	0.5									
Bis(2-ethylhexyl)phthalate	0.07633	0.2									L
4-Bromophenyl phenyl ether	ND [.]	0.25									
Butyl benzyl phthalate	ND	0.2									
Carbazole	ND	0.2									
4-Chloro-3-methylphenol	ND	0.2									
4-Chloroaniline	ND	0.2									
2-Chioronaphthalene	ND	0.2									
2-Chiorophenol	ND	0.2									
4-Chlorophenyi phenyi ether	ND	0.2									
Chrysene	ND	0.2		· .							
Di-n-butyl phthalate	0.1017	0.25									Ŀ
Di-n-octyl phthalate	ND	0.5									J

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ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits B - Analyte detected in the associated Method Blank

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CLIENT: Giant Refining Co

Work Order: 0508272

#### Project: RR Rock Lagoon NW Add. Excav.

Dibenz(a,h)anthracene	ND	0.25
Dibenzofuran	ND	Ū.5
1,2-Dichlorobenzene	ND	0.2
1,3-Dichlorobenzene	ND	0.2
1,4-Dichlorobenzene	ND	0.2
3,3°-Dichtorøbenzidine	ND	0.2
Diethyl phthalate	ND	0.2
Dimethyl phthalate	ND	0.2
2,4-Dichlorophenol	ND	0.2
2,4-Dimethylphenol	ND	0.2
4,6-Dinitro-2-methylphenol	ND	0.5
2,4-Dinitrophenol	ND	0.5
2,4-Dinitrotoluene	ND	0.2
2,6-Dinitrotoluene	ND	0.2
Fluoranthene	ND	0.2
Fluorene	ND	0.2
Hexachlorobenzene	ND	0.2
Hexachlorobutadiene	ND	0.2
Hexachlorocyclopentadiene	ND	0.25
Hexachloroelhane	ND	0.5
Indeno(1,2,3-cd)pyrene	ND	0.2
Isophorone	ND	0.2
2-Methylnaphthalene	ND	0.2
2-Methylphenol	ND	0.2
3+4-Methylphenol	ND	0.2
N-Nitrosodi-n-propylamine	ND	0.2
N-Nitrosodiphenylamine	ND	0.2
Naphthalene	ND	0.2
2-Nitroaniline	ND	0.5
3-Nitroanlline	ND	0.5
4-Nitroaniline	ND	0.25
Nitrobenzene	ND	0.2
2-Nitrophenol	ND	0.2

## QC SUMMARY REPORT

Method Blank

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

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CLIENT: Work Order: Project:	Giant Refining Co 0508272 RR Rock Lagoon NV	V Add. Excav.							QC SUMM	ARY REPORT Method Blank
4-Nitrophenol		ND	0.2							
Pentachlorophenol		ND	0.5							
Phenanthrene		ND	0.2							
Phenol		ND	0.2							
Pyrene		ND	0.2							
Pyridine		ND	0.5							
1,2,4-Trichlorobena	zene	ND	0.2							
2,4,5-Trichloropher	noi	ND	0.2							
2,4,6-Trichloropher	noi	ND	0.2							
Surr: 2,4,6-Tribro	omophenol	3.006	0	3.33	0	90.3	35.5	141	0	
Surr: 2-Fluorobi	phenyl	1.251	0	1.67	0	74.9	30.4	128	0	
Surr: 2-Fluoroph	ienol	2.686	O	3.33	0	80.7	28.1	129	0	
Surr: 4-Terpheny	yl-d14	1.586	0	1.67	0	95.0	34.6	151	0	
Surr: Nitrobenze	ne-d5	1.45	0	1.67	0	86.8	26.5	122	0	
Surr: Phenol-d6		2.784	0	3.33	. 0	83.6	37.6	118	0	

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Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co 0508272 Work Order: Project:

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RR Rock Lagoon NW Add. Excav.

QC SUMMARY REPORT

Date: 31-Aug-05

Sample Matrix Spike

Sample ID 0508272-01a ms	Batch ID: 8607	Test Code:	SW8015	Units: mg/Kg		Analysis	Date 8/30	/2005 8:46:18 PM	Prep D	ate 8/24/200	5
Client ID: North Wall		Run ID:	PIDFID_0508	30A		SeqNo:	3939	71			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLímit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25.26	5	25	0	101	84	120	0			
Surr: BFB	1065	0	1000	0	106	83.1	124	D			
Sample ID 0508272-01a msd	Batch ID: 8607	Test Code:	SW8015	Units: mg/Kg		Analysis Date 8/30/2005 9:17:21 PM				ate 8/24/200	5
Client ID: North Wall		Run ID:	PIDFID_0508	330A		SeqNo:	3939	72			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23.88	5	25	0	95.5	84	120	25.26	5.62	11.6	
Sum: BFB	1096	0	1000	0	110	83.1	124	1065	2.86	0	
Sample ID 0508272-01a ms	Batch ID: 8607	Test Code:	SW8021	Units: mg/Kg		Analysis	Date 8/30	/2005 8:46:18 PM	Prep Da	ate 8/24/200	5 ·
Client ID: North Wall		Run ID:	PIDFID_0508	30A		SeqNo:	39393	39			
Analyle	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimlt	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.746	0.1	2	0	87.3	65	132	0			
Benzene	0.4063	0.025	0.42	0	96.7	85.6	116	0			
Toluene	2.051	0.025	1.9	0	108	82.4	120	0			
Ethylbenzene	0.4099	0.025	0.41	0	100	86.4	111	. 0			
Xylenes, Total	2.026	0.025	1.9	0	107	78.4	125	0			
Surr: 4-Bromofluorobenzene	1.062	· 0	1	0	106	87.5	115	0			

Qualifiers:

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

## CLIENT:Giant Refining CoWork Order:0508272Project:RR Rock Lagoon NW Add. Excav.

## QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID 0508272-01a msd	Batch ID: 8607	Test Code:	SW8021	Units: mg/Kg		/2005 9:17:21 PM	Prep Da	ate 8/24/200	5		
Client ID: North Wall		Run ID:	PIDFID_0508	30A		SeqNo:	3939	40			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Quai
Methyl tert-butyl ether (MTBE)	1,697	0.1	2	0	B4.8	65	132	1.746	2,86	28	
Benzene	0.4188	0.025	0.42	0	<b>99</b> .7	85.6	116	0.4063	3.03	27	
Toluene	2.091	0.025	1.9	0	110	82.4	120	2.051	1.94	19	
Ethylbenzene	0.4074	0.025	0.41	0	99.4	86.4	111	0.4099	0.622	10	
Xylenes, Total	2.044	0.025	1.9	0	108	78.4	125	2.026	0.923	13	
Surr: 4-Bromofluorobenzene	1.053	0	1	0	105	87.5	115	1.062	0.816	0	

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Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Date: 31-Aug-05

CLIENT: Giant Refining Co Work Order: 0508272

Project: RR Rock Lagoon NW Add. Excav.

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID LCS-8603	Batch ID: 8603	Test Code:	SWB015	Units: mg/Kg		Analysis	s Date 8/25	/2005 5:19:21 PM	Prep Da	ate 8/24/200	)5
Client ID:		Run ID:	FID(17A) 2_0	50824A		SeqNo:	3923	18			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Diesel Range Organics (DRO)	43.03	10	. 50	0	86.1	67.4	117	0			
Sample ID LCSD-8603	Batch ID: 8603	Test Code:	SW8015	Units: mg/Kg		Analysis	a Date 8/26	/2005 7:29:18 AM	Prep Da	ate 8/24/200	)5
Client ID:		Run ID:	FID(17A) 2_0	50824A		SeqNo:	3923	19			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38.09	10	50	0	76.2	67.4	117	43.03	12.2	17.4	
Sample ID Ics-8607	Batch ID: 8607	Test Code:	SW8015	Units: mg/Kg		Analysis	Date 8/30	/2005 5:05:02 PM	Prep Da	ate 8/24/200	5
Client ID:		Run ID:	PIDFID_0508	30A		SeqNo:	3939	65			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO	) 26.86	5	25	0	107	84	120	0			
Sample ID (cs-8607	Batch ID: 8607	Test Code:	SW8021	Units: mg/Kg		Analysis	Date 8/30	/2005 5:05:02 PM	Prep Da	ate 8/24/200	5
Client ID:		Run ID:	PIDFID_0508	30A		SeqNo:	39393	29			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.737	0.1	2	0	86.8	65	132	0			
Benzene	0.4379	0.025	0.42	0	104	85.6	116	0			
Toluene	2.211	0.025	1.9	0	116	82.4	120	0			
Ethylbenzene	0.43	0.025	0.41	0	105	86.4	111	0			
Xylenes, Total	2.147	0.025	1.9	0	113	78.4	125	0			

Qualifiers:

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

#### CLIENT: Giant Refining Co Work Order: 0508272

_____

QC SUMMARY REPORT

Laboratory Control Spike - generic

Project: RR Rock Lagoon NW Add. Excav.

Sample ID LCS-8613	Batch ID: 8613	Test Code	SW8270C	Units: mg/Kg		Analysis	5 Date 8/25	/2005	Prep D	ate 8/24/200	)5
Client ID:		Run ID:	ELMO_0508;	25A		SeqNo:	<b>392</b> 4	30			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Acenaphihene	1.268	0.2	1.67	0	75.9	24	125	0			
4-Chloro-3-methylphenol	2.687	0.2	3.33	0	80.7	14.6	154	D			
2-Chlorophenol	2.195	0.2	3.33	· 0	65.9	13.3	149	0			
1,4-Dichlorobenzene	D.987	0.2	1.67	0	59.1	23.6	118	O			
2,4-Dinitrotoluene	1.288	0.2	1.67	0	77.1	28	136	0			
N-Nitrosodi-n-propylamine	1.043	0.2	1.67	Ð	62.5	28	114	0			
4-Nitrophenol	2.444	0.2	3.33	0	73.4	13.1	150	0			
Pentachlorophenol	3.074	0.5	3.33	0	92.3	<b>2</b> 0.1	139	0			
Phenol	2.247	0.2	3.33	0	67.5	17.3	141	O			
Pyrene	1.315	0.2	1.67	· 0	78.7	29	131	· 0			
1,2,4-Trichlorobenzene	1.15	0. <b>2</b>	1.67	0	68.8	17.9	126	0			
Sample ID LCSD-8613	Batch ID: 8613	Test Code:	SW8270C	Units: mg/Kg	·	Analysis	Date 8/25	/2005	Prep Da	ate 8/24/200	)5
Client ID:		Run ID:	ELMO_05082	25A		SeqNo:	3924	31			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Acenaphthene	1.272	0.2	1.67	0	76.2	24	125	1.268	0.341	25	
4-Chloro-3-methylphenol	2.474	0.2	3.33	Q	74.3	14.6	154	2.687	8.28	25	
2-Chlorophenol	2.253	0.2	3.33	0	67.7	13.3	149	2.195	2.61	25	
								0.007	6.81	25	
1,4-Dichlorobenzene	0.922	0.2	1.67	0	<b>55.2</b>	23.6	118	0.987	0.01		
1,4-Dichlorobenzene 2,4-Dinlirotoluene		0.2 0.2	1.67 1.67	0 0	55.2 74.1	23.6 28	118 136	0.987 1.288	4.07	25	
	0.922			_							
2,4-Dinitrotoluene N-Nitrosodi-n-propylamine	0.922 1.237	0.2	1.67	Q	74.1	28	136	1.288	4.07	25	
2,4-Dinlirotoluene N-Nitrosodi-n-propylamine 4-Nitrophenol	0.922 1.237 1.011	0.2 0.2	1.67 1.67	0	74.1 60.5	28 28	136 114	1.288 1.043	4.07 3,15	25 25 25	
2,4-Dinitrotoluene	0.922 1.237 1.011 2.316	0.2 0.2 0.2	1.67 1.67 3.33	0 0 0	74.1 60.5 69.6	28 28 13.1	136 114 150	1.288 1.043 2.444	4.07 3.15 5.36 4.44	25 25 25 25	
2,4-Dinlirotoluene N-Nitrosodi-n-propylamine 4-Nitrophenol Pentachlorophenol	0.922 1.237 1.011 2.316 2.941	0.2 0.2 0.2 0.5	1.67 1.67 3.33 3.33	0 0 0 0	74.1 60.5 69.6 88.3	28 28 13.1 20.1	136 114 150 139	1.288 1.043 2.444 3.074	4.07 3.15 5.36	25 25 25	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

	Sample	Receipt Ch	necklist		
Client Name GIANTREFIN			Date and Time	Received:	8/24/2005
Work Order Number 0508272	ΛΛ		Received by	AT	
	1 lesing	C	7-711-0	5	
Checklist completed by Signature	nupper	, Date	-270		
Mahin	<i>,</i>		**		
Matrix	Carrier name	Client drop-c	<u>on</u>		
Shipping container/cooler in good condition?		Yes 🗹	No 🗔	Not Present	
Custody seals intact on shipping container/cooler	?	Yes 🗋	No 🗔	Not Present	🗋 Not Shipped 🗹
Custody seals intact on sample bottles?		Yes 🗹	No 🗔	N/A [	
Chain of custody present?		Yes 🗹	No 🖾		
Chain of custody signed when relinquished and re-	eceived?	Yes 🗹	No 🗔		
Chain of custody agrees with sample labels?		Yes 🗹	No 🗀		
Samples in proper container/bottle?		Yes 🗹	No 🗍		
Sample containers intact?		Yes 🗹	No 🗔	i.	
Sufficient sample volume for indicated test?	·	Yes 🗹	No 🗔		
All samples received within holding time?		Yes 🗹	No 🗌		
Water - VOA vials have zero headspace?	No VOA vials subm	itted 🗹	Yes	No 🗆	
Water - pH acceptable upon receipt?		Yes 🗌	No 🗌	N/A 🗹	
Container/Temp Blank temperature?		6	4° C ± 2 Accepta	bie	
		•	If given sufficient		
COMMENTS:					
		•			
Client contacted	Date contacted:		Pers	on contacted	، 
Contacted by:	Regarding				
Comments:					
	·				
			· · · · · · · · · · · · · · · · · · ·	·····	
			· · · · · · · · · · · · · · · · · · ·		
Corrective Action					
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				ODY REGORD	Other:		Level 4							<b>A</b> 49 Al Te	<b>NA</b> 301   buqu	LYS Hawl erqu 5.34	<b>315</b> kins 1 e, N 5.3	<b>LA</b> NE, 5 ew N 975		<b>RA</b> 0 D 0 87 x 50	<b>TOF</b> 109		37	
	Address:	Ron	r - Cin Te 3. NN	fining inpa Box 7 1 87301	N.W. Odd Project #:	Lition	al E	icartion											DE					
	Phone #:	50	5 72	2 3833 2 9210	Project Manager: Sampler: Sample Temperat	ve 4	MA H	riz Foris	TBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	od 418.1)	od 504.1)	ad 8021)	or PAH)	tals	Anions (F, Cl, ND ₃ , NO ₂ , PO ₄ , SO ₄ )	8081 Pesticides / PCB's (8082)	(Å)	ii-VDA)	1 <i>B</i>			Air Bubbles or Headspace (Y or N)
0/	Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservi HgCl ₂ HNO		HEAL NO.	BTEX + MTBE	BTEX + MI		TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, C	8081 Pesti	B260B (VOA)	8270 ((	8021			Air Bubbles
81	2 <u 23	1309. 1315	Soil	North Wall North B.tm				-1			X		_							× ~	7	_		_
	17	1330	13	South Wall			-	3	┢		- <u>-</u>									メ	7 ×	_	+	+
	· · ·	1345	ני	South B.tm				Ý.			γ́ γ									<u> </u>	*			
						h														-				
8/2	Date 4/25 Date:	0700	A	ed By: (Signature)		By: (Signatu By: (Signatu	Ņ	8/24/05	Rem	harks:	Å		re	Å	-									



#### COVER LETTER

September 02, 2005

Steve Morris Giant Refining Co Rt. 3 Box 7 Gallup, NM 87301 TEL: (505) 722-0258 FAX (505) 722-0210

RE: RR Rack Lagoon Concrete Pipe TCLP

Order No.: 0508273

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 1 sample on 8/24/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager



4901 Hawkins NE s Suite D Albuquerque, NM 87109 505.345.3975 Fax 505.345.4107 www.hallenvironmental.com

Matrix: SOLID

#### CLIENT: Giant Refining Co Client Sample ID: Concrete Pipe Lab Order: 0508273 Collection Date: 8/22/2005 2:00:00 PM **Project:** RR Rack Lagoon Concrete Pipe TCLP Lab ID: 0508273-01

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
VOLATILES, TCLP LEACHED					Analyst: KTM
Benzene	ND	0.50	mg/L	1	8/29/2005
2-Butanone	ND	200	mg/L	1	8/29/2005
Carbon Tetrachloride	ND	0.50	mg/L	1	8/29/2005
Chlorobenzene	ND	100	mg/L	1	8/29/2005
Chloroform	DN	6.0	mg/L	1	8/29/2005
1,4-Dichlorobenzene	ND	7.5	mg/L	1	8/29/2005
1,2-Dichloroethane (EDC)	ND	0.50	mg/L	1	8/29/2005
1,1-Dichloroethene	ND	0.70	mg/L	1	8/29/2005
Hexachlorobutadiene	ND	0.50	mg/L	1	8/29/2005
Tetrachloroethene (PCE)	ND	0.70	mg/L	1	8/29/2005
Trichloroethene (TCE)	ND	0.50	mg/L	1	8/29/2005
Vinyl chloride	ND	0.20	mg/L	1	8/29/2005
Surr: 1,2-Dichloroethane-d4	95.2	75.8-124	%REC	1	8/29/2005
Sur: 4-Bromofluorabenzene	106	84.5-121	%REC	1	8/29/2005
Surr: Dibromofluoromethane	97.2	79.9-120	%REC	1	8/29/2005
Sur: Toluene-dB	94.8	83.1-121	%REC	1	8/29/2005
MERCURY, TCLP LEACHED					Analyst: CMC
Mercury	ND	0.020	mg/L	1	9/1/2005
EPA METHOD 6010C: TCLP METALS					Analyst: NMO
Arsenic	ND	5.0	mg/L	1	9/2/2005 10:01:03 AM
Barium	ND	100	mg/L	1	9/2/2005 10:01:03 AM
Cadmium	ND	1.0	mg/L	1	9/2/2005 10:01:03 AM
Chromium	ND	5.0	mg/L	1	9/2/2005 10:01:03 AM
Lead	ND	5.0	mg/L	1.	9/2/2005 10:01:03 AM
Selenium	ND	1.0	mg/L	1	9/2/2005 11:36:33 AM
Silver	ND	5.0	mg/L	1	9/2/2005 10:01:03 AM

Qualifiers:

ND - Not Detected at the Reporting Limit

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

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Page 1 of 1

CLIENT: Giant Refining Co Work Order: 0508273

Project: RR Rack Lagoon Concrete Pipe TCLP

Sample ID MB-8623	Batch ID: 8623	Test Code:	SW8260B	Units: mg/L		Analysi	s Date 8/29	/2005	Prep D	ate 8/25/200	)5
Client ID:		Run ID:	NEPTUNE_0	50829A		SeqNo:	3933	67			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Benzene	ND	0.5									
2-Butanone	ND	200									
Carbon Tetrachloride	ND	0.5									
Chlorobenzene	ND	100									
Chloroform	ND	6									
1,4-Dichlorobenzene	ND	7.5									
1,2-Dichloroethane (EDC)	ND	0.5									
1,1-Dichloroethene	ND	0.7									
Hexachlorobutadiene	ND	0.5									
Tetrachloroethene (PCE)	ND	0.7									
Trichloroethene (TCE)	ND	0.5									
Vinyl chloride	ND	0.2									
Surr: 1,2-Dichloroethane-d4	0.00894	0	0.01	0	89.4	75.8	124	٥			
Surr: 4-Bromofluorobenzene	0.0105	0	0.01	0	105	84.5	121	0			
Surr: Dibromofluoromethane	0.009402	0	0.01	0	94.0	79.9	120	0			
Surr: Toluene-d8	0.00993	0	0.01	0	99.3	83.1	121	0			
Sample ID MB-8666	Batch ID: 8666	Test Code:	SW7470	Units: mg/L		Analysi	s Date 9/1/2	2005	Prep D	ate 9/1/2005	
Client ID;		Run ID:	MI-LA254_05	0901A		SeqNo:	3948	30			
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.02									

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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Date: 02-Sep-05

Method Blank

QC SUMMARY REPORT

#### CLIENT: Giant Refining Co Work Order: 0508273

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QC SUMMARY REPORT

Method Blank

Project: RR Rack Lagoon Concrete Pipe TCLP

Sample ID. MB-8553 Client ID:	Batch ID: 8663	Test Code: Run ID:	SW1311/6010 ICP_050902B	Units: mg/L		Analysis Date   9/2/2005 9:41:04 AM SeqNo:           394972	Prep Date 9/1/2005
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qui
Arsenic	ND	5					
Barium	ND	100					
Cadmium	ND	1					
Chromium	ND	5					
Lead	ND	5					
Silver	ND	5					
Sample ID MB-8663	Batch ID: 8663	Test Code:	SW1311/6010	Units: mg/L		Analysis Date 9/2/2005 11:23:01 AM	Prep Date 9/1/2005
Client ID:		Run ID:	ICP_050902B			SeqNo: 395130	
Analyte	Result	PQL	SPK value S	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qua
Selenium	ND	1			····	<u> </u>	,

Qualifiers:

3/8

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits B - Analyte detected in the associated Method Blank

Giant Refining Co

QC SUMMARY REPORT

Date: 02-Sep-05

Sample Duplicate

Work Order:0508273Project:RR Rack Lagoon Concrete Pipe TCLP

Sample ID 0508273-01B DUP	Batch ID: 8666	Test Code:	SW7470	Units: mg/L		Analysis	Date 9/1/2	2005	Prep D	ale 9/1/2005	
Client ID: Concrete Pipe		Run ID:	MI-LA254_05	50901A		SeqNo:	3948:	33			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.02	0	0	0	0	0	0	0	20	

CLIENT:

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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J - Analyte detected below quantitation limits

Date: 02-Sep-05

CLIENT: Work Order: Project:	Giant Ref 0508273 RR Rack	ining Co Lagoon Concrete Pipe	TCLP	 	• •				QC SU		<b>Y REP(</b> e Matrix	
Sample ID 050827 Client ID: Concre	3-01B MS Ite Pipe	Batch ID: 8666	Test Code: Run ID:	SW7470 MI-LA254_05	Units: mg/L 50901A		Алаlysis SeqNo:	5 Date 9/1/2 3948		Prep D	ate 9/1/2005	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.004774	0.002	0.005	0	95.5	75	125	0			
Sample ID 050827 Client ID: Concre		Batch ID: 8666	Test Code: Run ID:	SW7470 MI-LA254_05	Units: mg/L 50901A		Analysis SeqNo:	Date 9/1/: 3948		Prep Da	ate 9/1/2005	
Analyle		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.004905	0.002	0.005	0	98.1	75	125	0.004774	2.71	20	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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____ Giant Refining Co CLIENT: **QC SUMMARY REPORT** 0508273 Work Order: Laboratory Control Spike - generic RR Rack Lagoon Concrete Pipe TCLP **Project:** Analysis Date 9/1/2005 Prep Date 9/1/2005 Batch ID: 8666 Test Code: SW7470 Units: mg/L Sample ID LCS-8666 Run ID: MI-LA254_050901A SeqNo: 394831 Client ID: SPK value SPK Ref Val Result PQL %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Analyte ٠ 0.004336 0.002 0.005 0 86.7 80 120 0 Mercury Analysis Date 9/1/2005 Sample ID LCSD-8666 Test Code: SW7470 Units: mg/L Batch ID: 8666 Prep Date 9/1/2005 **Client ID:** Run ID: MI-LA254_050901A SeqNo: 394836 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Mercury 0.004353 0.002 0.005 0 87.1 80 120 0.004336 0.380 20

Sample ID LCS-8663	Batch ID: 8663	Test Code	: SW1311/6010	Units: mg/L		Analysis	Date 9/2/2	2005 9:44:10 AM	Prep D	ate 9/1/2005	;
Client ID:		Run ID:	ICP_050902B			SeqNo:	3949	73			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimlt	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5852	0.2	0.5	0	117	80	120	0			
Barium	0.4917	0.2	0.5	0	98.3	80	120	0			
Cadmium	0.5218	0.2	0.5	0	104	80	120	0			
Chromium	0.4953	0.2	0.5	0	99.1	80	120	0			
Lead	0.5058	0.2	0.5	0	101	80	120	0			
Silver	0.5261	0.2	0.5	0	105	80	120	0			

#### Hall Environmental Analysis Laboratory

J - Analyte detected below quantitation limits

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits .

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B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

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Qualifiers:

Date: 02-Sep-05

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Work Order: 05082	Refining Co 273 ack Lagoon Concrete Pipe	TCLP	<u></u>			<u> </u>		QC SUN			
Sample ID LCSD-8663	Batch ID: 8663	Test Code:	SW1311/601	) Units: mg/L		Analysi	s Date 9/2/:	2005 9:48:26 AM	Prep D	ate 9/1/2005	
Client ID:		Run ID:	ICP_050902E	1		SeqNo:	3949	74			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLImit	Qual
Arsenic	0.5508	0.2	0.5	0	110	80	120	0.5852	6.04	20	
Barlum	0.4784	0.2	0.5	0	95.7	80	120	0.4917	2.75	20	
Cadmium	0.4979	0.2	0.5	0	99.6	80	120	0.5218	4.70	20	
Chromium	0.4728	0.2	0.5	0	94.6	80	120	0.4953	4.66	20	
Lead	0.4835	0.2	0.5	0	96.7	80	120	0,5058	4.50	20	
Silver	0.5127	0,2	0.5	0	103	80	120	0.5261	2.57	20	
Sample ID LCS-8663	Batch ID: 8663	Test Code:	SW1311/6010	Units: mg/L		Analysis	5 Date 9/2/2	2005 11:25:32 AM	Prep Da	ale 9/1/2005	
Client ID:		Run ID:	ICP_0509028			SeqNo:	3951:	31			
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	0.4209	0.2	0.5	0	84,2	80	120	0	• • • • •	•	
Sample ID LCSD-8663	Batch ID: 8663	Test Code:	SW1311/6010	Units: mg/L		Analysis	Date 9/2/2	2005 11:31:06 AM	Prep Da	ale	
Client ID:		Run ID:	ICP_050902B			SeqNo:	39513	33			
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	0.4242	0.2	0.5	0	84.8	80	120	0.4209	0.762	20	

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CLIENT Giant Refining Co.

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Qualifiers:

7/8

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

	Sample	Receipt C	hecklist				
Client Name GIANTREFIN			Date and Time	Received:		. 8/2	24/2005
Work Order Number 0508273			Received by	AT			
Checklist completed by	huger.	Date	8-24-0	25			
Matrix	Carrier name	Client drop-	off			·	
Shipping container/cooler In good condition?		Yes . 🗹		Not Present			
Custody seals intact on shipping container/coole	er?	Yes	Να 🗖	Not Present		Not Shipped	
Cuslody seals intact on sample bottles?		Yes 🗆	No 🗖	N/A			
Chain of custody present?		Yes 🗹	Νο				
Chain of custody signed when relinquished and	received?	Yes 🗹	No 🗖				
Chain of custody agrees with sample labels?		Yes 🗹	Νο				
Samples in proper container/bottle?		Yes 🗹	No 🗔			·	
Sample containers intact?		Yes 🗹	No 🗆				
Sufficient sample volume for indicated test?		Yes 🗹					
All samples received within holding time?		Yes 🗹	No 🗆				
Water - VOA vials have zero headspace?	No VOA vials subr	nitted 🗹	Yes 🗌	No 🗔			
Water - pH acceptable upon receipt?		Yes 🗌	No 🗔	N/A 🗹			
Container/Temp Blank temperature?		6°	4° C ± 2 Accepta				
COMMENTS:							
Client contacted	Date contacted:		Pers	on contacted			
Contacted by:	Regarding				·····,		
Comments:			***	#1			
			e			<del></del>	
		·····			_		
			· · · · · · · · · · · · · · · · · · ·				
	16 me daar waxaa ka ¹⁶ 0 mi	·					
Corrective Action							
<u> </u>					<u> </u>		

<u>c</u> _	llient:	Fin	t K	ODY RECORD	Other: Project Name: Concret Project #:	Std 🗖		evel 4 l							4 Al Te W	901 Ibuqu I. 50 ww.h	Haw Jerqu 5.34 Naller	SIS kins Je, N 45.3 iviroj	NE, lew 1 975	Suit Nexid	e D co 87 ix 50 com	7109 5.34	RY	107		
- - P	Phone #:	50-	5723	- Ciniza Box 7 M & 739/ 2 9833 0210	Project Manager Sampler: Sample Temperat	ve te	M re c	Mon M	ib priz	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)		EDB (Method 504.1)	lad 8021)	A or PAH)	stals	Anions (F, Cl, $NO_3$ , $NO_2$ , $PO_4$ , $SO_4$ )	8081 Pesticides / PCB's (8082)	INC	ni-VOA)	RCRASMITL	BTER			Air Bubbles or Headspace (Y or N)
-	Date	Time	Matrix	Sample I.D. No.	Number/Volume		reservat HNO ₃	ive	HEAL No. 0508:273	BTEX + M	BTEX + MI	TPH Metho	TPH (Method 418.1)	EDB (Meth	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, C	8081 Pest	8260B (VOA)	8270 (Semi-VOA)	TCL &	Tclf			Air Bubbles
8/22	105	1400	Remer	Concrete tipe					-1	<u> </u>								. <u>.</u>				X.	X			
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#### COVER LETTER

September 07, 2005

Steve Morris Giant Refining Co Rt. 3 Box 7 Gallup, NM 87301 TEL: (505) 722-0258 FAX (505) 722-0210

RE: RR Rock Lagoon Add. Exc. 8-30-05

Order No.: 0508346

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 10 samples on 8/31/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager



4901 Hawkins NE® Suite DB Albuquerque, NM 87109 505.345.3975 Fax 505.345.4107 www.hallenvironmental.com

Date: 07-Sep-05

CLIENT:	Giant Refining Co
Project:	RR Rock Lagoon Add. Exc. 8-30-05
Lab Order:	0508346

#### **CASE NARRATIVE**

"S" flags denote that the surrogate was not recoverable due to sample dilution or matrix interferences.

#### -----CLIENT: Giant Refining Co Client Sample ID: RR-1-83005 Lab Order: 0508346 Collection Date: 8/30/2005 7:15:00 AM **Project:** RR Rock Lagoon Add. Exc. 8-30-05 Matrix: SOIL Lab ID: 0508346-01 PQL Qual Units DF Analyses Result **Date Analyzed** EPA METHOD 8015B: DIESEL RANGE ORGANICS Analyst: SCC 9/2/2005 2:55:36 AM Diesel Range Organics (DRO) 640 10 mg/Kg 1 Motor Oil Range Organics (MRO) ND 50 mg/Kg 1 9/2/2005 2:55:36 AM Surr: DNOP 93.8 60-124 %REC 1 9/2/2005 2:55:36 AM EPA METHOD 8260B: VOLATILES SHORT LIST Analyst: BDH 0.050 ma/Ka 9/4/2005 Benzene ND 1 Toluene ND 0.050 mg/Kg 1 9/4/2005 Ethylbenzene ND 0.050 mg/Kg 1 9/4/2005 ND Xylenes, Total 0.050 mg/Kg 1 9/4/2005 Surr: 4-Bromofluorobenzene 102 72.9-143 %REC 9/4/2005 1 Surr: Dibromofluoromethane 103 85.2-118 %REC 9/4/2005 1 EPA METHOD 8270C: SEMIVOLATILES Analyst: BL 0.20 Acenaphthene 0.56 ma/Ka 1 9/4/2005 ND Acenaphthylene 0.20 mg/Kg 9/4/2005 1 Aniline ND 0.20 mg/Kg 1 9/4/2005 ND 0.20 mg/Kg 9/4/2005 Anthracene 1 Azobenzene ND 0.20 mg/Kg 9/4/2005 1 Benz(a)anthracene ND 0:25 mg/Kg 9/4/2005 1 ND 0.20 mg/Kg 9/4/2005 Benzidine 1 ND 0.20 mg/Kg 9/4/2005 Benzo(a)pyrene 1 ND 0.20 mg/Kg 9/4/2005 Benzo(b)fluoranthene 1 ND Benzo(g,h,i)perylene 0.30 mg/Kg 1 9/4/2005 Benzo(k)fluoranthene ND 0.50 mg/Kg 1 9/4/2005 Benzoic acid ND 0.50 mg/Kg 1 9/4/2005 Benzyl alcohol ND 0.50 mg/Kg 1 9/4/2005 Bis(2-chloroethoxy)methane ND 0.50 mg/Kg 1 9/4/2005 ND Bis(2-chloroethyl)ether 0.25 mg/Kg 1 9/4/2005 ND 0.50 Bis(2-chloroisopropyl)ether mg/Kg 1 9/4/2005 ND 0.20 Bis(2-ethylhexyl)phthalate mg/Kg 9/4/2005 1 0.25 4-Bromophenyl phenyl ether ND mg/Kg 1 9/4/2005 0.20 Butyl benzyl phthalate ND mg/Kg 1 9/4/2005 ND 0.20 Carbazole mg/Kg 1 9/4/2005 ND 4-Chloro-3-methylphenol 0.20 mg/Kg 9/4/2005 1 4-Chloroaniline ND 0.20 mg/Kg 1 9/4/2005 ND 0.20 2-Chloronaphthalene mg/Kg 1 9/4/2005 2-Chlorophenol ND 0.20 mg/Kg 9/4/2005 1 4-Chlorophenyl phenyl ether ND 0.20 mg/Kg 9/4/2005 1 ND Chrysene 0.20 mg/Kg 1 9/4/2005 Di-n-butyl phthalate ND 0.25 mg/Kg 1 9/4/2005 ND 0.50 Di-n-octyl phihalale mg/Kg 1 9/4/2005 Dibenz(a,h)anthracene ND 0.25 mg/Kg 9/4/2005 1

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range

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Date: 07-Sep-05

CLIENT: **Giant Refining Co** Lab Order: 0508346 **Project:** RR Rock Lagoon Add. Exc. 8-30-05 Lab ID: 0508346-01

#### Client Sample ID: RR-1-83005 Collection Date: 8/30/2005 7:15:00 AM

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#### Matrix: SOIL

Analyses	Result	PQL (	Qual Units	DF	Date Analyzed
Dibenzofuran	ND	0.50	mg/Kg	1	9/4/2005
1,2-Dichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
1,3-Dichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
1.4-Dichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
3,3'-Dichlorobenzidine	ND	0.20	mg/Kg	1	9/4/2005
Diethyl phthalate	ND	0.20	mg/Kg	1	9/4/2005
Dimethyl phthalate	ND	0.20	mg/K <b>g</b>	1	9/4/2005
2,4-Dichlorophenol	ND	0.20	mg/Kg	1	9/4/2005
2,4-Dimethylphenol	ND	0.20	mg/Kg	1	9/4/2005
4,6-Dinitro-2-methylphanal	ND	0.50	mg/Kg	1	9/4/2005
2,4-Dinitrophenol	ND	0.50	mg/Kg	1	9/4/2005
2,4-Dinitrotoluene	ND	0.20	mg/Kg	1	9/4/2005
2,6-Dinitrotoluene	ND	0.20	mg/Kg	1	9/4/2005
Fluoranthene	ND	0.20	mg/Kg	1	9/4/2005
Fluorene	0.91	0.20	mg/Kg	1	9/4/2005
Hexachlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
Hexachlorobutadiene	ND	0.20	mg/Kg	1	9/4/2005
Hexachlorocyclopentadiene	ND	0.25	mg/Kg	1	9/4/2005
Hexachloroethane	ND	0.50	mg/Kg	1	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	0.20	mg/Kg	1	9/4/2005
Isopharone	ND	0.20	mg/Kg	1	9/4/2005
2-Methylnaphthalene	7.9	1.0	mg/Kg	5	9/6/2005
2-Melhylphenol	ND	0.20	mg/Kg	1	9/4/2005
3+4-Melhylphenol	ND	0.20	mg/Kg	1	9/4/2005
N-Nitrosodi-n-propylamine	ND	0.20	mg/Kg	1	9/4/2005
N-Nitrosodiphenylamine	ND	0.20	mg/Kg	1	9/4/2005
Naphthalene	1.0	0.20	mg/Kg	1	9/4/2005
2-Nitroanlline	ND	0.50	mg/Kg	1	9/4/2005
3-Nitroaniline	ND	0.50	mg/Kg	1	9/4/2005
4-Nitroaniline	ND	0.25	mg/Kg	1	9/4/2005
Nitrobenzene	ND	0.20	mg/Kg	1	9/4/2005
2-Nitrophenol	ND	0.20	mg/Kg	1	9/4/2005
4-Nitrophenol	ND	0.20	mg/Kg	1	9/4/2005
Pentachlorophenol	ND	0.50	mg/Kg	1	9/4/2005
Phenanthrene	3.8	0,20	mg/Kg	1	9/4/2005
Phenol	ND	0.20	mg/Kg	1	9/4/2005
Pyrene	ND	0.20	mg/Kg	1	9/4/2005
Pyridine	ND	0.50	mg/Kg	1	9/4/2005
1,2,4-Trichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
2,4,5-Trichlorophenol	ND	0.20	mg/Kg	1	9/4/2005
2,4,6-Trichlorophenol	ND	0.20	mg/Kg	1	9/4/2005
Surr: 2,4,6-Tribromophenol	98.3	35.5-141	%REC	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

- R RPD outside accepted recovery limits

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

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Surr: Phenol-d6

CLIENT: Giant Refining Co				Client Sample ID: RR-1-83005								
Lab Order:	0508346				Collect	ion Date:	8/30/20	05 7:15:00 AM				
Project:	RR Rock Lagoon Ad	d. Exc. 8-30-05										
Lab ID:	0508346-01					Matrix:	SOIL					
Analyses		Result	PQL	Qual	Units		DF	Date Analyzed				
Surr. 2-Fluor	obiphenyl	107	30.4-128		%REC		1	9/4/2005				
Surr: 2-Fluor	ophenol	76.7	28.1-129		%REC		1	9/4/2005				
Surr: 4-Terpl	henyl-d14	78.3	34.6-151		%REC		1	9/4/2005				
Surr. Nitrobenzene-d5		78.3	26.5-122		%REC		1	9/4/2005				

37.6-118

84.5

%REC

Qualifiers:

ND - Not Detected at the Reporting Limit

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level
- S Spike Recovery outside accepted recovery limits

Date: 07-Sep-05

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9/4/2005

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Page 3 of 30

Date: 07-Sep-05

EPA METHOD 8015B: DIESEL RANGE ORGANICS           Diesel Range Organics (DRO)         1900         100         mg/Kg         10         9/3/200           Motor Oil Range Organics (MRO)         ND         500         mg/Kg         10         9/3/200           Surr: DNOP         105         60-124         %REC         10         9/3/200           EPA METHOD 8260B: VOLATILES SHORT LIST         Enzene         ND         0.050         mg/Kg         1         9/4/200           Toluene         ND         0.050         mg/Kg         1         9/4/200           Elhylbenzene         ND         0.050         mg/Kg         1         9/4/200           Xylenes, Total         0.41         0.050         mg/Kg         1         9/4/200           Surr: 4-Bromofluorobenzene         126         72.9-143         %REC         1         9/4/200	
Project:         RR Rock Lagoon Add. Exc. 8-30-05         Matrix:         SOIL           Lab ID:         0508346-02         Matrix:         SOIL           Analyses         Result         PQL         Qual         Units         DF         Date           EPA METHOD 8015B: DIESEL RANGE ORGANICS         Diesel Range Organics (DRO)         1900         100         mg/Kg         10         9/3/200           Motor Oil Range Organics (MRO)         ND         500         mg/Kg         10         9/3/200           Surr: DNOP         105         60-124         %REC         10         9/3/200           EPA METHOD 8260B: VOLATILES SHORT LIST         Benzene         ND         0.050         mg/Kg         1         9/4/200           EHA/Iblenzene         ND         0.050         mg/Kg         1         9/4/200           Surr: 4-Bromofluorobenzene         126         72.9-143         %REC         1         9/4/200           EPA METHOD 8270C: SEMIVOLATILES         Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1	-00 AN/
Lab ID:         0508346-02         Matrix:         SOIL           Analyses         Result         PQL         Qual         Units         DF         Date           EPA METHOD 8015B: DIESEL RANGE ORGANICS Diesel Range Organics (DRO)         1900         100         mg/Kg         10         9/3/200           Motor Oil Range Organics (MRO)         ND         500         mg/Kg         10         9/3/200           Sur: DNOP         105         60-124         %REC         10         9/3/200           EPA METHOD 8260B: VOLATILES SHORT LIST Benzene         ND         0.050         mg/Kg         1         9/4/200           Ethylbenzene         ND         0.050         mg/Kg         1         9/4/200           Xylenes, Total         0.41         0.050         mg/Kg         1         9/4/200           Sur: 4-Bromofluorobenzene         126         72.9-143         %REC         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthene </th <th></th>	
Analyses         Result         PQL         Qual         Units         DF         Date           EPA METHOD 8015B: DIESEL RANGE ORGANICS         Diesel Range Organics (DRO)         1900         100         mg/Kg         10         9/3/200           Motor Oil Range Organics (DRO)         ND         500         mg/Kg         10         9/3/200           Sur: DNOP         105         60-124         %REC         10         9/3/200           EPA METHOD 8260B: VOLATILES SHORT LIST         Benzene         ND         0.050         mg/Kg         1         9/4/200           EIhylbenzene         ND         0.050         mg/Kg         1         9/4/200           Sur: 4-Bromofluorobenzene         ND         0.050         mg/Kg         1         9/4/200           Sur: 4-Bromofluorobenzene         126         72.9-143         %REC         1         9/4/200           EPA METHOD 8270C: SEMIVOLATILES         MC         0.20         mg/Kg         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthylene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthene         ND         0.20         <	
EPA METHOD 8015B: DIESEL RANGE ORGANICS           Diesel Range Organics (DRO)         1900         100         mg/Kg         10         9/3/200           Motor Oil Range Organics (MRO)         ND         500         mg/Kg         10         9/3/200           Surr: DNOP         105         60-124         %REC         10         9/3/200           EPA METHOD 8260B: VOLATILES SHORT LIST         Benzene         ND         0.050         mg/Kg         1         9/4/200           Toluene         ND         0.050         mg/Kg         1         9/4/200           Ethylbenzene         ND         0.050         mg/Kg         1         9/4/200           Surr: 4-Bromofluorobenzene         126         72.9-143         %REC         1         9/4/200           Surr: 4-Bromofluorobenzene         126         72.9-143         %REC         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthone         ND         0.20         mg/Kg         1         9/4/200           Acenaphthylene         ND         0.20         mg/Kg         1         9/4/200           Achtracene         ND         0.20         mg/Kg	
Diesel Range Organics (DRO)         1900         100         mg/Kg         10         9/3/200           Motor Oil Range Organics (MRO)         ND         500         mg/Kg         10         9/3/200           Surr: DNOP         105         60-124         %REC         10         9/3/200           EPA METHOD 8260B: VOLATILES SHORT LIST           9/4/200           Toluene         ND         0.050         mg/Kg         1         9/4/200           Ethylbenzene         ND         0.050         mg/Kg         1         9/4/200           Xylenes, Total         0.41         0.050         mg/Kg         1         9/4/200           Surr: 4-Bromofluorobenzene         126         72.9-143         %REC         1         9/4/200           EPA METHOD 8270C: SEMIVOLATILES           1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthylene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthylene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthylene         ND         0.20         mg/Kg         1<	Analyzed
Motor Oil Range Organics (MRO)         ND         500         mg/Kg         10         9/3/200           Surr: DNOP         105         60-124         %REC         10         9/3/200           EPA METHOD 8260B: VOLATILES SHORT LIST               9/4/200           Toluene         ND         0.050         mg/Kg         1         9/4/200           Ethylbenzene         ND         0.050         mg/Kg         1         9/4/200           Xylenes, Total         0.41         0.050         mg/Kg         1         9/4/200           Surr: 4-Bromofluorobenzene         126         72.9-143         %REC         1         9/4/200           EPA METHOD 8270C: SEMIVOLATILES           9/4/200         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthylene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthylene         ND         0.20         mg/Kg         1         9/4/200           Aniline         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene	Analyst: SC
Surr: DNOP         105         60-124         %REC         10         9/3/200           EPA METHOD 8260B: VOLATILES SHORT LIST         Benzene         ND         0.050         mg/Kg         1         9/4/200           Toluene         ND         0.050         mg/Kg         1         9/4/200           Ethylbenzene         ND         0.050         mg/Kg         1         9/4/200           Xylenes, Total         0.41         0.050         mg/Kg         1         9/4/200           Surr: 4-Bromofluorobenzene         126         72.9-143         %REC         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Aniline         ND         0.20         mg/Kg         1         9/4/200           Anthracene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0	15 12:54:13 AM
EPA METHOD 8260B: VOLATILES SHORT LIST           Benzene         ND         0.050         mg/Kg         1         9/4/200           Toluene         ND         0.050         mg/Kg         1         9/4/200           Ethylbenzene         ND         0.050         mg/Kg         1         9/4/200           Xylenes, Total         0.41         0.050         mg/Kg         1         9/4/200           Surr: 4-Bromofluorobenzene         126         72.9-143         %REC         1         9/4/200           EPA METHOD 8270C: SEMIVOLATILES           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthylene         ND         0.20         mg/Kg         1         9/4/200           Aniline         ND         0.20         mg/Kg         1         9/4/200           Anthracene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)pyrene         ND         0.20         mg/Kg         1	5 12:54:13 AM
Benzene         ND         0.050         mg/Kg         1         9/4/200           Toluene         ND         0.050         mg/Kg         1         9/4/200           Ethylbenzene         ND         0.050         mg/Kg         1         9/4/200           Xylenes, Total         0.41         0.050         mg/Kg         1         9/4/200           Surr: 4-Bromofluorobenzene         126         72.9-143         %REC         1         9/4/200           EPA METHOD 8270C: SEMIVOLATILES          72.9-143         %REC         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthylene         ND         0.20         mg/Kg         1         9/4/200           Aniline         ND         0.20         mg/Kg         1         9/4/200           Azobenzene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.20         mg/Kg         1         9/4/200           Benzo(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b)fluoranthene         ND         0.20         mg/Kg <td>12:54:13 AM</td>	12:54:13 AM
Toluene         ND         0.050         mg/Kg         1         9/4/200           Ethylbenzene         ND         0.050         mg/Kg         1         9/4/200           Xylenes, Total         0.41         0.050         mg/Kg         1         9/4/200           Surr: 4-Bromofluorobenzene         126         72.9-143         %REC         1         9/4/200           EPA METHOD 8270C: SEMIVOLATILES         ND         0.20         mg/Kg         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Aniline         ND         0.20         mg/Kg         1         9/4/200           Anihracene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.20         mg/Kg         1         9/4/200           Benzo(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b)fluoranthene         ND         0.20         mg/	Analyst: BD
Ethylbenzene         ND         0.050         mg/Kg         1         9/4/200           Xylenes, Total         0.41         0.050         mg/Kg         1         9/4/200           Surr: 4-Bromofluorobenzene         126         72.9-143         %REC         1         9/4/200           EPA METHOD 8270C: SEMIVOLATILES          Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Aniline         ND         0.20         mg/Kg         1         9/4/200           Anthracene         ND         0.20         mg/Kg         1         9/4/200           Azobenzene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b)fluoranthene <td< td=""><td>5</td></td<>	5
Xylenes, Total         0.41         0.050         mg/Kg         1         9/4/200           Surr: 4-Bromofluorobenzene         126         72.9-143         %REC         1         9/4/200           EPA METHOD 8270C: SEMIVOLATILES         ND         0.20         mg/Kg         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthylene         ND         0.20         mg/Kg         1         9/4/200           Aniline         ND         0.20         mg/Kg         1         9/4/200           Anthracene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.20         mg/Kg         1         9/4/200           Benzidine         ND         0.20         mg/Kg         1         9/4/200           Benzo(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b)fluoranthene         ND         0.20         mg/Kg         1         9/4/200           Benzo(c),h,i)pertene         ND         0.30 <t< td=""><td>5</td></t<>	5
Surr: 4-Bromofluorobenzene         126         72.9-143         %REC         1         9/4/200           EPA METHOD 8270C: SEMIVOLATILES         Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthylene         ND         0.20         mg/Kg         1         9/4/200           Aniline         ND         0.20         mg/Kg         1         9/4/200           Anthracene         ND         0.20         mg/Kg         1         9/4/200           Azobenzene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.20         mg/Kg         1         9/4/200           Benzidine         ND         0.20         mg/Kg         1         9/4/200           Benzidine         ND         0.20         mg/Kg         1         9/4/200           Benzo(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b)fluoranthene         ND         0.20         mg/Kg         1         9/4/200           Benzo(g,h,l)pyrlene         ND         0	15
EPA METHOD 8270C: SEMIVOLATILES           Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthylene         ND         0.20         mg/Kg         1         9/4/200           Aniline         ND         0.20         mg/Kg         1         9/4/200           Aniline         ND         0.20         mg/Kg         1         9/4/200           Anthracene         ND         0.20         mg/Kg         1         9/4/200           Azobenzene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.20         mg/Kg         1         9/4/200           Benzidine         ND         0.20         mg/Kg         1         9/4/200           Benzo(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b)fluoranthene         ND         0.20         mg/Kg         1         9/4/200           Benzo(g,h,i)pyrjene         ND         0.20         mg/Kg         1         9/4/200	5
Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthylene         ND         0.20         mg/Kg         1         9/4/200           Aniline         ND         0.20         mg/Kg         1         9/4/200           Aniline         ND         0.20         mg/Kg         1         9/4/200           Anthracene         ND         0.20         mg/Kg         1         9/4/200           Azobenzene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.20         mg/Kg         1         9/4/200           Benzidine         ND         0.20         mg/Kg         1         9/4/200           Benzo(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b)fluoranthene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b,h,l)perylene         ND         0.20         mg/Kg         1         9/4/200	15
Acenaphthene         ND         0.20         mg/Kg         1         9/4/200           Acenaphthylene         ND         0.20         mg/Kg         1         9/4/200           Aniline         ND         0.20         mg/Kg         1         9/4/200           Aniline         ND         0.20         mg/Kg         1         9/4/200           Anthracene         ND         0.20         mg/Kg         1         9/4/200           Azobenzene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.20         mg/Kg         1         9/4/200           Benzidine         ND         0.20         mg/Kg         1         9/4/200           Benzo(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b)fluoranthene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b,h,l)perylene         ND         0.20         mg/Kg         1         9/4/200	Analyst: BL
Aniline         ND         0.20         mg/Kg         1         9/4/200           Anthracene         ND         0.20         mg/Kg         1         9/4/200           Azobenzene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.25         mg/Kg         1         9/4/200           Benzidine         ND         0.20         mg/Kg         1         9/4/200           Benzo(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b)fluoranthene         ND         0.20         mg/Kg         1         9/4/200           Benzo(g,h,i)perylene         ND         0.30         mg/Kg         1         9/4/200	5
Anthracene         ND         0.20         mg/Kg         1         9/4/200           Azobenzene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.25         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.25         mg/Kg         1         9/4/200           Benzo(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b)fluoranthene         ND         0.20         mg/Kg         1         9/4/200           Benzo(g,h,i)perylene         ND         0.30         mg/Kg         1         9/4/200	15
Azobenzene         ND         0.20         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.25         mg/Kg         1         9/4/200           Benz(a)anthracene         ND         0.25         mg/Kg         1         9/4/200           Benzo(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b)fluoranthene         ND         0.20         mg/Kg         1         9/4/200           Benzo(g,h,i)perylene         ND         0.30         mg/Kg         1         9/4/200	5
Benz(a)anthracene         ND         0.25         mg/Kg         1         9/4/200           Benzidine         ND         0.20         mg/Kg         1         9/4/200           Benzo(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b)fluoranthene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b)fluoranthene         ND         0.20         mg/Kg         1         9/4/200           Benzo(g,h,i)perylene         ND         0.30         mg/Kg         1         9/4/200	5
Benz(a)anthracene         ND         0.25         mg/Kg         1         9/4/200           Benzidine         ND         0.20         mg/Kg         1         9/4/200           Benzo(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b)fluoranthene         ND         0.20         mg/Kg         1         9/4/200           Benzo(g,h,i)perylene         ND         0.30         mg/Kg         1         9/4/200	15
Benzidine         ND         0.20         mg/Kg         1         9/4/200           Benzo(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b)fluoranthane         ND         0.20         mg/Kg         1         9/4/200           Benzo(g,h,i)perylene         ND         0.30         mg/Kg         1         9/4/200	5
Benzo(a)pyrene         ND         0.20         mg/Kg         1         9/4/200           Benzo(b)fluoranthene         ND         0.20         mg/Kg         1         9/4/200           Benzo(g,h,i)perylene         ND         0.30         mg/Kg         1         9/4/200	5
Benzo(b)fluoranthene         ND         0.20         mg/Kg         1         9/4/200           Benzo(g,h,i)perylene         ND         0.30         mg/Kg         1         9/4/200	)5
Benzo(g,h,i)perylene ND 0.30 mg/Kg 1 9/4/200	)5
	5
	)5
Benzoic acid ND 0.50 mg/Kg 1 9/4/200	)5
Benzyl alcohol ND 0.50 mg/Kg 1 9/4/200	)5
Bis(2-chloroethoxy)methane ND 0.50 mg/Kg 1 9/4/200	)5
Bis(2-chloraethyl)ether , ND 0.25 mg/Kg 1 9/4/200	
Bis(2-chloroisopropyl)ether ND 0.50 mg/Kg 1 9/4/200	
Bis(2-ethylhexyl)phthalate ND 0.20 mg/Kg 1 9/4/200	
4-Bromophenyl phenyl ether ND 0.25 mg/Kg 1 9/4/200	
Butyl benzyl phihalate ND 0.20 mg/Kg 1 9/4/200	
Carbazole ND 0.20 mg/Kg 1 9/4/200	
4-Chloro-3-methylphenol ND 0.20 mg/Kg 1 9/4/200	
4-Chioroaniline ND 0.20 mg/Kg 1 9/4/200	
2-Chloronaphthalene ND 0.20 mg/Kg 1 9/4/200	
2-Chiorophenol ND 0.20 mg/Kg 1 9/4/200	
4-Chlorophenyl ether ND 0.20 mg/Kg 1 9/4/200	
Chrysene ND 0.20 mg/Kg 1 9/4/200	
Di-n-butyl phthalate 0.26 0.25 B mg/Kg 1 9/4/200	
Di-n-octyl phthalate ND 0.50 mg/Kg 1 9/4/200	
Dibenz(a,h)anthracene ND 0.25 mg/Kg 1 9/4/200	
Dibenzofuran ND 0.50 mg/Kg 1 9/4/200	
Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery	ery limits
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits	
B - Analyte detected in the associated Method Blank E - Value above quantitation range	
• Volue exceeds Maximum Contaminant Level	-
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Date: 07-Sep-05

CLIENT: Giant Refining Co Lab Order: 0508346 Project: RR Rock Lagoon Add. Exc. 8-30-05 Lab ID:

Client Sample ID: RR-2-83005 Collection Date: 8/30/2005 7:30:00 AM

0508346-02

Matrix: SOIL

nalyses	Result	PQL	Qual Units	DF	Date Analyzed
1,2-Dichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
1,3-Dichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
1,4-Dichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
3,3'-Dichlorobenzidine	ND	0.20	mg/Kg	1	9/4/2005
Diethyl phthalate	ND	0.20	mg/Kg	1	9/4/2005
Dimethyl phthalate	ND	0.20	mg/Kg	1	9/4/2005
2,4-Dichlorophenol	ND	0.20	mg/Kg	1	9/4/2005
2,4-Dimethylphenol	0.22	0.20	mg/Kg	1	9/4/2005
4,6-Dinitro-2-methylphenol	ND	0.50	mg/Kg	1	9/4/2005
2,4-Dinitrophenol	ND	0.50	mg/Kg	1	9/4/2005
2,4-Dinitrololuene	ND	0.20	mg/Kg	1	9/4/2005
2,6-Dinitrotoluene	ND	0.20	mg/Kg	1	9/4/2005
Fluoranthene	ND	0.20	mg/Kg	1	9/4/2005
Fluorene	ND	0.20	mg/Kg	1	9/4/2005
Hexachlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
Hexachlorobutadiene	ND	0.20	mg/Kg	1	9/4/2005
Hexachlorocyclopentadiene	ND	0.25	mg/Kg	1	9/4/2005
Hexachloroethane	ND	0.50	mg/Kg	1	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	0.20	mg/Kg	1	9/4/2005
Isophorone	ND	0.20	mg/Kg	1	9/4/2005
2-Methylnaphthalene	2.2	0.20	mg/Kg	1	9/4/2005
2-Methylphenol	ND	0,20	mg/Kg	1	9/4/2005
3+4-Methylphenol	ND	0.20	mg/Kg	1	9/4/2005
N-Nitrosodi-n-propylamine	ND	0.20	mg/Kg	1	9/4/2005
N-Nitrosodiphenylamine	ND	0.20	mg/Kg	1	9/4/2005
Naphthalene	2,2	0.20	mg/Kg	1	9/4/2005
2-Nitroaniline	ND	0.50	mg/Kg	1	9/4/2005
3-Nitroaniline	ND	0.50	mg/Kg	1	9/4/2005
4-Nilroaniline	ND	0.25	mg/Kg	1	9/4/2005
Nitrobenzene	ND	0.20	mg/Kg	1	9/4/2005
2-Nitrophenol	ND	0.20	mg/Kg	1	9/4/2005
4-Nitrophenol	ND	0.20	mg/Kg	1	9/4/2005
Penlachiorophenol	ND	0.50	mg/Kg	1	9/4/2005
Phenanlhrene	1.3	0.20	mg/Kg	1	9/4/2005
Phenol	ND	0.20	mg/Kg	1	9/4/2005
Pyrene	ND	0.20	mg/Kg	1	9/4/2005
Pyridine	ND	0.50	mg/Kg	1	9/4/2005
1,2,4-Trichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
2,4,5-Trichlorophenol	ND	0.20	mg/Kg	1	9/4/2005
2,4,6-Trichlorophenol	ND	0.20	mg/Kg	1	9/4/2005
Surr: 2,4,6-Tribromophenol	91.1	35.5-141	%REC	1	9/4/2005
Surr: 2-Fluorobiphenyl	94.2	30.4-128	%REC	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

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- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range

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Surr: Nitrobenzene-d5

Surr: Phenol-d6

#### Date: 07-Sep-05

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9/4/2005

9/4/2005

CLIENT: Giant Refining Co				005				
Lab Order:	0508346				Collect	ion Date:	8/30/20	005 7:30:00 AM
Project:	RR Rock Lagoon	Add. Exc. 8-30-05						
Lab ID:	0508346-02					Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units		DF	Date Analyzed
Surr: 2-Fluor	ophenol	78.2	28.1-129		%REC		1	9/4/2005
Surr: 4-Terpl	nenyl-d14	85.0	34.6-151		%REC		1	9/4/2005

26.5-122

37.6-118

82.8

89.6

%REC

%REC

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

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# CLIENT:Giant Refining CoLab Order:0508346Project:RR Rock Lagoon Add. Exc. 8-30-05Lab ID:0508346-03

#### Client Sample ID: RR-3-83005 Collection Date: 8/30/2005 7:40:00 AM

Matrix: SOIL Lab ID: 0508346-03 PQL Qual Units Analyses Result DF **Date Analyzed** Analyst: SCC EPA METHOD 8015B: DIESEL RANGE ORGANICS 9/3/2005 1:27:00 AM Diesel Range Organics (DRO) 2900 100 mg/Kg 10 10 9/3/2005 1:27:00 AM Motor Oil Range Organics (MRO) ND 500 mg/Kg %REC 10 9/3/2005 1:27:00 AM Surr: DNOP 60-124 122 Analyst: BDH EPA METHOD 8260B: VOLATILES SHORT LIST 0.050 mg/Kg 9/4/2005 Benzene ND 1 9/4/2005 ND 0.050 mg/Kg Toluene 1 ND 0.050 mg/Kg 9/4/2005 Ethylbenzene 1 mg/Kg 0.050 9/4/2005 2.8 1 Xylenes, Total %REC 9/4/2005 Surr: 4-Bromofluorobenzene 97.2 72.9-143 1 Analyst: BL EPA METHOD 8270C: SEMIVOLATILES 2.0 10 9/4/2005 Acenaphthene ND mg/Kg ND 2.0 mg/Kg 10 9/4/2005 Acenaphthylene ND 2.0 mg/Kg 10 9/4/2005 Aniline 2.0 10 9/4/2005 Anthracene ND mg/Kg 2.0 mg/Kg 10 9/4/2005 Azobenzene ND Benz(a)anthracene ND 2.5 mg/Kg 10 9/4/2005 Benzidine ND 2.0 mg/Kg 10 9/4/2005 2.0 10 9/4/2005 Benzo(a)pyrene ND mg/Kg 2.0 10 9/4/2005 Велzo(b)fluoranthene ND mg/Kg 10 Benzo(g,h,i)perylene ND 3.0 mg/Kg 9/4/2005 10 Benzo(k)/luoranthene ND 5.0 mg/Kg 9/4/2005 ND mg/Kg 10 9/4/2005 Benzoic acld 5.0 Benzyl alcohol ND 5.0 mg/Kg 10 9/4/2005 ND 5.0 mg/Kg 10 9/4/2005 Bis(2-chloroethoxy)methane 10 9/4/2005 Bis(2-chloroethyl)ether ND 2.5 mg/Kg Bis(2-chloroisopropyl)elher ND 5.0 mg/Kg 10 9/4/2005 Bis(2-ethylhexyl)phthalate ND 2.0 mg/Kg 10 9/4/2005 4-Bromophenyl phenyl ether ND 2.5 mg/Kg 10 9/4/2005 Butyl benzyl phthalate ND 2.0 mg/Kg 10 9/4/2005 Carbazole ND 2.0 mg/Kg 10 9/4/2005 4-Chloro-3-methylphenol ND 2.0 mg/Kg 10 9/4/2005 ND 2.0 mg/Kg 10 9/4/2005 4-Chloroaniline 2-Chloronaphlhalene ND 2.0 mg/Kg 10 9/4/2005 ND 2.0 mg/Kg 10 2-Chlorophenol 9/4/2005 ND 2.0 mg/Kg 10 9/4/2005 4-Chiorophenyl phenyl elher Chrysene ND 2.0 mg/Kg 10 9/4/2005 ND mg/Kg 10 Di-n-butyl phthalate 25 9/4/2005 Di-n-octyl phthalate ND 5.0 mg/Kg 10 9/4/2005 2.5 mg/Kg Dibenz(a,h)anthracene ND 10 9/4/2005 5.0 Dibenzofuran ND mg/Kg 10 9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

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#### Date: 07-Sep-05

CLIENT: Giant Refining Co Lab Order: 0508346 **Project:** RR Rock Lagoon Add. Exc. 8-30-05 Lab ID: 0508346-03

#### Client Sample ID: RR-3-83005 Collection Date: 8/30/2005 7:40:00 AM

#### Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
1,2-Dichlorobenzene	ND	2.0	mg/Kg	10	9/4/2005
1,3-Dichlorobenzene	ND	2.0	mg/Kg	10	9/4/2005
1,4-Dichlorobenzene	ND	2.0	mg/Kg	10	9/4/2005
3,3'-Dichlorobenzidine	ND	2.0	mg/Kg	10	9/4/2005
Diethyl phthalate	· ND	2.0	mg/Kg	10	9/4/2005
Dimethyl phthalate	ND	2.0	mg/Kg	[·] 10	9/4/2005
2,4-Dichlorophenol	• ND	2.0	тg/Kg	10	9/4/2005
2,4-Dimethylphenol	ND	2.0	тд/Кд	10	9/4/2005
4,6-Dinitro-2-methylphenol	ND	5.0	mg/Kg	10	9/4/2005
2,4-Dinitrophenol	ND	5.0	mg/Kg	10	9/4/2005
2,4-Dinitrotoluene	ND	2.0	mg/Kg	10	9/4/2005
2,6-Dinitrotoluene	ND	2.0	mg/Kg	10	9/4/2005
Fluoranthene	ND	2.0	mg/Kg	10	9/4/2005
Fluorene	ND	2.0	тд/Кд	10	9/4/2005
Hexachiorobenzene	ND	2.0	mg/Kg	10	9/4/2005
Hexachlorobuladiene	ND	2.0	mg/Kg	10	9/4/2005
Hexachlorocyclopentadiene	ND	2.5	mg/Kg	10	9/4/2005
Hexachloroethane	ND	5.0	mg/Kg	10	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	2.0	mg/Kg	10	9/4/2005
Isophorone	ND	2.0	mg/Kg	10	9/4/2005
2-Methylnaphthalene	11	2.0	mg/Kg	. 10	9/4/2005
2-Methylphenol	ND	2.0	mg/Kg	10	9/4/2005
3+4-Methylphenol	ND	2.0	mg/Kg	10	9/4/2005
N-Nitrosodi-n-propylarnine	ND	2.0	mg/Kg	10	9/4/2005
N-Nilrosodiphenylamine	ND	2.0	mg/Kg	10	9/4/2005
Naphthalene	2.6	2.0	mg/Kg	10	9/4/2005
2-Nitroaniline	ND	5.0	mg/Kg	10	9/4/2005
3-Nitroaniline	ND	5.0	mg/Kg	10	9/4/2005
4-Nitroaniline	ND	2.5	mg/Kg	10	9/4/2005
Nitrobenzene	ND	2.0	mg/Kg	10	9/4/2005
2-Nitrophenol	ND	2.0	mg/Kg	10	9/4/2005
4-Nitrophenol	ND	2.0	mg/Kg	10	9/4/2005
Pentachlorophenol	ND	5.0	mg/iKg	10	9/4/2005
Phenanthrene	4.5	2.0	mg/Kg	10	9/4/2005
Phenol	ND	2.0	mg/Kg	10	9/4/2005
Pyrene	ND	2.0	mg/Kg	10	9/4/2005
Pyridine	ND	5.0	mg/Kg	10	9/4/2005
1,2,4-Trichlorobenzene	ND	2.0	mg/Kg	10	9/4/2005
2,4,5-Trichlorophenol	ND	2.0	mg/Kg	10	9/4/2005
2,4,6-Trichlorophenol	ND	2.0	mg/Kg	10	9/4/2005
Surr: 2,4,6-Tribromophenol	113	35.5-141	%REC	10	9/4/2005
Surr: 2-Fluorobiphenyl	83.6	30.4-128	%REC	10	9/4/2005

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Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

- * Value exceeds Maximum Contaminant Level
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

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CLIENT:	Giant Refining Co	Cli
Lab Order:	0508346	
Project:	RR Rock Lagoon Add. Exc. 8-30-05	
Lab ID:	0508346-03	

#### lient Sample ID: RR-3-83005 Collection Date: 8/30/2005 7:40:00 AM

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Matrix: SOIL

alyses	Result	PQL Qu	al Units	DF	Date Analyzed
Surr: 2-Fluorophenol	70.0	28.1-129	%REC	10	9/4/2005
Surr: 4-Terphenyl-d14	80.6	34.6-151	%REC	10	9/4/2005
Surr: Nitrobenzene-d5	78.4	26.5-122	%REC	10	9/4/2005
Surr: Phenol-d6	66.8	37.6-118	%REC	10	9/4/2005

#### Qualifiers:

ND - Not Detected at the Reporting Limit

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

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CLIENT:		Client Sample ID: RR-4-83005						
Lab Order:	0508346				Collect	ion Date:	8/30/20	005 7:50:00 AM
Project:	RR Rock Lagoon A	dd. Exc. 8-30-0	5					
Lab ID:	0508346-04					Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units		DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE	ORGANICS						Analyst: SC
Diesel Range O	rganics (DRO)	4000	200		mg/Kg		20	9/3/2005 1:59:51 AM
	Organics (MRO)	ND	1000		тg/Kg		20	9/3/2005 1:59:51 AM
Surr: DNOP		0	60-124	S	%REC		20	9/3/2005 1:59:51 AM
EPA METHOD	8260B: VOLATILES SH	ORTLIST						Analyst: BDI
Benzene		ND	0.050		mg/Kg		1	9/4/2005
Toluene		ND	0.050		mg/Kg		1	9/4/2005
Ethylbenzene		0.38	0.050		mg/Kg		1	9/4/2005
Xylenes, Total		4.1	0.050		mg/Kg		1	9/4/2005
•	ofluorobenzene	121	72.9-143		%REC		1	9/4/2005
EPA METHOD	8270C: SEMIVOLATILE	S						Analyst: BL
Acenaphihene		ND	2.0		тд/Кд		10	9/4/2005
Acenaphthylene	ана на селото на село В селото на	ND	2.0		mg/Kg		10	9/4/2005
Aniline		ND	2.0		mg/Kg		10	9/4/2005
Anthracene		ND	2.0		mg/Kg		10	9/4/2005
Azobenzene		ND	2.0		mg/Kg		10	9/4/2005
Benz(a)anthrac	ene	ND	2.5		mg/Kg		10	9/4/2005
Benzidine		ND	2.0		mg/Kg		10	9/4/2005
Benzo(a)pyrene	2 · ·	ND	2.0		mg/Kg		10	9/4/2005
Benzo(b)fluorar		ND	2.0		mg/Kg		10	9/4/2005
Benzo(g,h,i)per		ND	3.0		mg/Kg		10	9/4/2005
Benzo(k)fluoran		ND	5.0		mg/Kg		10	9/4/2005
Benzoic acid		ND	5.0		mg/Kg		10	9/4/2005
Benzyl alcohol		ND	5.0		mg/Kg		10	9/4/2005
Bis(2-chloroeth	oxylmethane	ND	5.0		mg/Kg		10	9/4/2005
Bis(2-chloroeth	••	ND	2.5		mg/Kg		10	9/4/2005
Bis(2-chloroiso		ND	5.0	· · · ·	mg/Kg		10	9/4/2005
Bis(2-ethylhexy		ND	2.0		mg/Kg		10	9/4/2005
4-Bromophenyl		ND	2.5		mg/Kg		10	9/4/2005
Bulyi benzyi ph		ND	2.0		mg/Kg		10	9/4/2005
Carbazole		ND	2.0		mg/Kg		10	9/4/2005
4-Chloro-3-met	hviphenol	ND	2.0		mg/Kg		10	9/4/2005
4-Chloroaniline		ND	2.0		mg/Kg		10	9/4/2005
2-Chloronaphth		ND	2.0		mg/Kg		10	9/4/2005
2-Chlorophenol		ND	2.0		mg/Kg		10	9/4/2005
4-Chlorophenyl		ND	2.0		mg/Kg		10	9/4/2005
Chrysene		ND	2.0		mg/Kg		10	9/4/2005
Di-n-butyl phth	alate	ND	2.5		mg/Kg		10	9/4/2005
Di-n-octyl phth		ND	5.0		mg/Kg		10	9/4/2005
Dibenz(a,h)ant		ND	2.5		mg/Kg		10	9/4/2005
Dibenzofuran		ND	5.0		mg/Kg		10	9/4/2005
Qualifiers:	ND - Not Detected at the	Reporting Limit			S - Spike	Recovery ou	tside accer	ted recovery limits
~	J - Analyte detected below				•	outside accep		
	B - Analyte detected in th	•				above quant		-
	* - Value exceeds Maxim		vel			4		Page 10 of 3
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CLIENT:	Giant Refining Co	
Lab Order:	0508346	
Project:	RR Rock Lagoon Add. Exc. 8-30-05	
Lab 1D:	0508346-04	

Date: 07-Sep-05

#### Client Sample ID: RR-4-83005 Collection Date: 8/30/2005 7:50:00 AM

Matrix: SOIL

Analyses	Result	PQL	Qual Unit	s DF	Date Analyzed
1,2-Dichlorobenzene	ND	2.0	тд/К	g 10	9/4/2005
1,3-Dichlorobenzene	ND	2.0	тg/К		9/4/2005
1,4-Dichlorobenzene	ND	2.0	- mg/К	g 10	9/4/2005
3,3 ⁻ -Dichlorobenzidine	ND	2.0	mg/K	g 10	9/4/2005
Diethyl phthalate	ND	2.0	- mg/K	- g 10	9/4/2005
Dimethyl phthalate	ND	2.0	mg/K	g 10	9/4/2005
2,4-Dichlorophenol	ND	2.0	mg/K	g 10	9/4/2005
2,4-Dimethylphenol	ND	2.0	mg/K	-	9/4/2005
4,6-Dinitro-2-methylphanol	ND	5.0	mg/K	g 10	9/4/2005
2,4-Dinitrophenol	ND	5.0	mg/K	g 10	9/4/2005
2,4-Dinitrotoluene	ND	2.0	mg/K	g 10	9/4/2005
2,6-Dinitrotoluene	ND	2.0	mg/K	g 10	9/4/2005
Fluoranthene	ND .	2.0	mg/K	g 10	9/4/2005
Fluorene	3.2	2.0	mg/K		9/4/2005
Hexachlorobenzene	ND	2.0	тg/К		9/4/2005
Hexachlorobutadiene	ND	2.0	mg/K	g 10	9/4/2005
Hexachlorocyclopentadiene	ND	2.5	mg/K	g 10	9/4/2005
Hexachloroethane	ND	5.0	mg/K	g 10	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	2.0	mg/K	g 10	9/4/2005
Isophorone	ND	2.0	mg/K	g 10	9/4/2005
2-Methylnaphthalene	20	2.0	mg/K	g 10	9/4/2005
2-Methylphenol	ND	2.0	mg/К	g 10	9/4/2005
3+4-Methylphenol	ND	2.0	mg/K	g 10	9/4/2005
N-Nitrosodi-n-propylamine	ND	2.0	mg/K	g 10	9/4/2005
N-Nitrosodiphenylamine	ND	2.0	mg/К	g 10	9/4/2005
Naphthalene	4.2	2.0	mg/K	g 10	9/4/2005
2-Nilroaniline	ND	5.0	mg/K	g 10	9/4/2005
3-Nitroaniline	ND	5.0	mg/K	g 10	9/4/2005
4-Nitroaniline	ND	2.5	mg/K	g 10	9/4/2005
Nitrobenzene	ND	2.0	mg/K	g 10	9/4/2005
2-Nitrophenol	ND	2.0	mg/K	g 10	9/4/2005
4-Nitrophenol	ND	2.0	mg/K	g 10	9/4/2005
Pentachlorophenol	ND	5.0	mg/K	g 10	9/4/2005
Phenanthrene	7.1	2.0	mg/K	g 10	9/4/2005
Phenol	ND	2.0	mg/K	g 10	9/4/2005
Pyrene	NÐ	2.0	mg/K	-	9/4/2005
Pyridine	ND	5.0	mg/K		9/4/2005
1,2,4-Trichlorobenzene	ND	2.0	mg/K	-	9/4/2005
2,4,5-Trichlorophenol	ND	2.0	mg/K	g 10	9/4/2005
2,4,6-Trichlorophenol	ND	2.0	mg/K	-	9/4/2005
Surr: 2,4,6-Tribromophenol	108	35.5-141	%RE		9/4/2005
Surr: 2-Fluorobiphenyl	97.4	30.4-128	%RE	C 10	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 12/39 R - RPD outside accepted recovery limits

E - Value above quantitation range

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#### Date: 07-Sep-05

## CLIENT:Giant Refining CoLab Order:0508346Project:RR Rock Lagoon Add. Exc. 8-30-05Lab ID:0508346-04

#### Client Sample ID: RR-4-83005 Collection Date: 8/30/2005 7:50:00 AM

Matrix: SOIL

alyses	Result PQL Qual		al Units	DF	Date Analyzed
Surr: 2-Fluoraphenal	65.1	28.1-129	%REC	10	9/4/2005
Surr: 4-Terphenyl-d14	90.4	34.6-151	%REC	10	9/4/2005
Surr: Nitrobenzene-d5	116	26.5-122	%REC	10	9/4/2005
Surr: Phenol-d6	70.8	37.6-118	%REC	10	9/4/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

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CLIENT:	Giant Refining Co			Clie	Client Sample ID: 1			RR-5-83005		
Lab Order:	0508346			(	Collectio	n Date:	8/30/2	005 8:00:00 AM		
Project:	RR Rock Lagoon	Add. Exc. 8-30-05	÷							
Lab ID:	0508346-05					Matrix:	SOIL			
Analyses		Result	PQL	Qual	Units		DF	Date Analyzed		
PA METHOD	8015B: DIESEL RAN	GE ORGANICS						Analyst: SC		
Diesel Range O	rganics (DRO)	1000	20		mg/Kg		2	9/3/2005 2:32:52 AM		
Motor Oil Range	e Organics (MRO)	ND	100		mg/Kg		2	9/3/2005 2:32:52 AM		
Surr: DNOP		98.4	60-124		%REC		2	9/3/2005 2:32:52 AM		
EPA METHOD	8260B: VOLATILES	SHORT LIST						Analyst: BD		
Benzene		ND	0.050		mg/Kg		1	9/4/2005		
Toluene		ND	0.050		mg/Kg		1	9/4/2005		
Ethylbenzene		ND	0.050		mg/Kg		1	9/4/2005		
Xylenes, Total		0.33	0.050		mg/Kg		1	9/4/2005		
Surr. 4-Brom	olluorobenzene	97.2	72.9-143		%REC		1	9/4/2005		
EPA METHOD	8270C: SEMIVOLAT	ILES						Analyst: BL		
Acenaphthene		0.29	0.20		mg/Kg		1	9/4/2005		
Acenaphthylene	9	ND	0.20		mg/Kg		1	9/4/2005		
Aniline		ND	0.20		mg/Kg		1	9/4/2005		
Anthracene		ND	0.20		mg/Kg		1	9/4/2005		
Azobenzene		ND	0.20		mg/Kg		1	9/4/2005		
Benz(a)anthrac	ene	ND	0.25		mg/Kg		1	9/4/2005		
Benzidine		ND	0.20		mg/Kg		1	9/4/2005		
Benzo(a)pyrene	)	ND	0.20		mg/Kg		1	9/4/2005		
Benzo(b)fluorar	lhene	ND	0.20		mg/Kg		1	9/4/2005		
Benzo(g.h.i)per	ylene	ND	0.30		mg/Kg		1	9/4/2005		
Benzo(k)fluorar	thene	ND	0.50		mg/Kg		1	9/4/2005		
Benzolc acid		ND	0.50		mg/Kg		1	9/4/2005		
Benzyl alcohol		ND	0.50		mg/Kg		1	9/4/2005		
Bis(2-chloroeth	oxy)melhane	ND	0.50		mg/Kg		1	9/4/2005		
Bis(2-chloroeth	yl)ether	ND	0.25		mg/Kg		1	9/4/2005		
Bis(2-chloroiso	oropyl)ether	ND	0.50		mg/Kg		1	9/4/2005		
Bis(2-ethylhexy	i)phthalate	ND	0.20		mg/Kg		1	9/4/2005		
4-Bromophenyl	phenyl ether	ND	0.25		mg/Kg		1	9/4/2005		
Butyl benzyl ph	thalate	ND	0.20		mg/Kg		1	9/4/2005		
Carbazole		ND	0.20		mg/Kg		1	9/4/2005		
4-Chloro-3-met	hylphenol	ND	0.20		mg/Kg		1	9/4/2005		
4-Chloroaniline		ND	0.20		mg/Kg		1	9/4/2005		
2-Chloronaphth	alene	ND	0.20		mg/Kg		1	9/4/2005		
2-Chloropheno		ND	0.20		mg/Kg		1	9/4/2005		
4-Chlorophenyl	phenyl ether	ND	0.20		mg/Kg		1	9/4/2005		
Chrysene		ND	0.20		mg/Kg		1	9/4/2005		
Di-n-butyl phth	alate	ND	0.25		mg/Kg		1	9/4/2005		
Di-n-actyl phih	alale	ND	0.50		mg/Kg		1	9/4/2005		
Dibenz(a,h)ant	hracene	ND	0.25		mg/Kg		1	9/4/2005		
Dibenzofuran		ND	0.50		mg/Kg		1	9/4/2005		

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

- * Value exceeds Maximum Contaminant Level 14/39
- E Value above quantitation range

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# CLIENT:Giant Refining CoLab Order:0508346Project:RR Rock Lagoon Add. Exc. 8-30-05Lab ID:0508346-05

#### Client Sample ID: RR-5-83005 Collection Date: 8/30/2005 8:00:00 AM

#### Matrix: SOIL

nalyses	Result	PQL Q	ual Units	DF	Date Analyzed
1,2-Dichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
1,3-Dichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
1,4-Dichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
3,3°-Dichlorobenzidine	ND	0.20	mg/Kg	1	9/4/2005
Diethyl phthalate	ND	0.20	mg/Kg	· 1	9/4/2005
Dimethyl phihalate	ND	0.20	mg/Kg	1	9/4/2005
2,4-Dichtorophenol	ND	0.20	mg/Kg	1	9/4/2005
2,4-Dimethylphenol	ND	0.20	mg/Kg	1	9/4/2005
4,6-Dinitro-2-methylphenol	ND	0.50	mg/Kg	1	9/4/2005
2,4-Dinitrophenol	ND	0.50	mg/Kg	1.	9/4/2005
2,4-Dinitrotoluene	ND	0.20	mg/Kg	1	9/4/2005
2,6-Dinitrotoluene	ND	0.20	mg/Kg	1	9/4/2005
Fluoranthene	ND	0.20	mg/Kg	1	9/4/2005
Fluorene	0.49	0.20	mg/Kg	1	9/4/2005
Hexachlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
Hexachlorobutadiene	ND	0.20	mg/Kg	1	9/4/2005
Hexachlorocyclopentadiene	ND	0.25	mg/Kg	1	9/4/2005
Hexachloroethane	ND	0.50	mg/Kg	1	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	0.20	mg/Kg	1	9/4/2005
Isophorone	ND	0.20	mg/Kg	· 1	9/4/2005
2-Methylnaphthalene	2.7	0.20	mg/Kg	1	9/4/2005
2-Methylphenol	ND	0.20	mg/Kg	1	9/4/2005
3+4-Methylphenol	ND	0.20	mg/Kg	1	9/4/2005
N-Nitrosodi-n-propylamine	• ND	0.20	mg/Kg	1	9/4/2005
N-Nitrosodiphenylamine	ND	0.20	mg/Kg	1	9/4/2005
Naphthalene	0.59	0.20	mg/Kg	1	9/4/2005
2-Nitroaniline	ND	0.50	mg/Kg	1	9/4/2005
3-Nitroaniline	ND	0.50	mg/Kg	1	9/4/2005
4-Nilroaniline	ND	0.25	mg/Kg	1	9/4/2005
Nitrobenzene	ND	0.20	mg/Kg	. 1	9/4/2005
2-Nitrophenol	ND	0.20	mg/Kg	1.	9/4/2005
4-Nitrophenol	ND	0.20	mg/Kg	1	9/4/2005
Penlachlorophenol	ND	0.50	mg/Kg	1	9/4/2005
Phenanthrene	1.4	0.20	mg/Kg	1	9/4/2005
Phenol	ND	0.20	mg/Kg	1	9/4/2005
Pyrene	ND	0.20	mg/Kg	1	9/4/2005
Pyridine	ND	0.50	mg/Kg	1	9/4/2005
1,2,4-Trichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
2,4,5-Trichlorophenol	ND	0.20	mg/Kg	1	9/4/2005
2,4,6-Trichlorophenol	ND	0.20	mg/Kg	1	9/4/2005
Surr. 2,4,6-Tribromophenol	92.3	35.5-141	%REC	1	9/4/2005
Surr. 2-Fluorobiphenyl	91.4	30.4-128	%REC	1	9/4/2005

ND - Not Detected at the Reporting Limit

Qualifiers:

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range

#### Date: 07-Sep-05

# CLIENT:Giant Refining CoClient Sample ID:RR-5-83005Lab Order:0508346Collection Date:8/30/2005 8:00:00 AMProject:RR Rock Lagoon Add. Exc. 8-30-05Matrix:SOILLab ID:0508346-05Matrix:SOIL

alyses	Result	PQL Q	ial Units	DF	Date Analyzed
Surr: 2-Fluorophenol	78.5	28.1-129	%REC	1	9/4/2005
Surr. 4-Terphenyl-d14	80.8	34.6-151	%REC	1	9/4/2005
Surr. Nitrobenzene-d5	80.9	26.5-122	%REC	1	9/4/2005
Surr: Phenol-d6	84.3	37.6-118	%REC	1	9/4/2005

#### Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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#### Date: 07-Sep-05

LIENT:	Giant Refining Co		Client Sample ID: RR-6-83005						
ab Order:	0508346				Collect	ion Date:	8/30/20	005 8:10:00 AM	
Project:	RR Rock Lagoon Ad	d. Exc. 8-30-05	5						
.ab ID:	0508346-06					Matrix:	SOIL		
Analyses		Result	PQL	Qual	Units		DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE	ORGANICS						Analyst: SCC	
Diesel Range O	rganics (DRO)	5300	200		mg/Kg		20	9/2/2005 11:48:37 PM	
Motor Oil Range	e Organics (MRO)	ND	1000		mg/Kg		20	9/2/2005 11:48:37 PM	
Surr: DNOP		۵	60-124	S	%REC		20	9/2/2005 11:48:37 PM	
EPA METHOD	8260B: VOLATILES SHO	ORT LIST						Analyst: BDI	
Benzene		ND	0.050		mg/Kg		1	9/4/2005	
Toluene		ND	0.050		mg/Kg		1	9/4/2005	
Ethylbenzene		ND	0.050		mg/Kg		1	9/4/2005	
Xylenes, Total	• .	1.8	0.050		mg/Kg		1	9/4/2005	
Surr: 4-Brom	olluorobenzene	111	72.9-143		%REC		1	9/4/2005	
EPA METHOD	8270C: SEMIVOLATILE	5						Analyst: BL	
Acenaphthene		ND	0.20		mg/Kg		1	9/4/2005	
Acenaphthylene	e [']	ND	0.20		mg/Kg		1	9/4/2005	
Aniline		ND	0.20		mg/Kg		1	9/4/2005	
Anthracene		ND	0.20	•	mg/Kg		1	9/4/2005	
Azobenzene		ND	0.20		mg/Kg		1	9/4/2005	
Benz(a)anthrac	ene	ND	0.25		mg/Kg		1	9/4/2005	
Benzidine		ND	0.20		mg/Kg		1	9/4/2005	
Benzo(a)pyren	8	ND	0.20		mg/Kg		1	9/4/2005	
Benzo(b)fluora	nthene	ND	0.20		mg/Kg		1	9/4/2005	
Benzo(g,h,i)pe	rylene	ND	0.30		mg/Kg		1	9/4/2005	
Benzo(k)fluorai	nthene	ND	0.50		mg/Kg		1	9/4/2005	
Benzoic acid		ND	0.50		mg/Kg		1	9/4/2005	
Benzyl alcohol		ND	0.50		mg/Kg		1	9/4/2005	
Bis(2-chloroeth	••	ND	0.50		mg/Kg		1	9/4/2005	
Bis(2-chloroeth		ND	0.25		mg/Kg		1	9/4/2005	
Bis(2-chloroiso		ND	0.50		mg/Kg		1	9/4/2005	
Bis(2-ethylhex)		ND	0.20		mg/Kg		1	9/4/2005	
4-Bromopheny		ND	0.25		mg/Kg		1	9/4/2005	
Butyl benzyl pl	nthalate	ND	0.20	•	mg/Kg		1	9/4/2005	
Carbazole		ND	0.20		mg/Kg		1	9/4/2005	
4-Chloro-3-me		ND	0.20		mg/Kg		1	9/4/2005	
4-Chloroaniline		ND	0.20		mg/Kg		1	9/4/2005	
2-Chloronaphl		ND	0.20		mg/Kg		1	9/4/2005	
2-Chlorophenc		ND	0.20		mg/Kg		1	9/4/2005	
4-Chloropheny	/i phenyl elher	ND	0.20		mg/Kg		1	9/4/2005	
Chrysene	• • •	ND	0.20		mg/Kg		1	9/4/2005	
Di-n-butyl phth		ND	0.25		mg/Kg		1	9/4/2005	
Di-n-octyl phth		ND	0.50		mg/Kg		1 ·	9/4/2005	
Dibenz(a,h)an	Ihracene	ND	0.25		mg/Kg		1	9/4/2005	
Dibenzofuran		0.68	0.50	) 	mg/Kg		1	9/4/2005	
Qualifiers:	ND - Not Detected at the R	eporting Limit			S - Spike	Recovery ou	tside accej	pted recovery limits	
	J - Analyte detected below	quantitation limits			R - RPD (	outside accep	ted recove	ry linuts	
	B - Analyte detected in the	associated Methor	Blank		E - Value	above quant	itation ran	De	

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

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Date: 07-Sep-05

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- --**CLIENT: Giant Refining Co** Lab Order: 0508346 Project: RR Rock Lagoon Add. Exc. 8-30-05 Lab ID:

#### Client Sample ID: RR-6-83005 Collection Date: 8/30/2005 8:10:00 AM

0508346-06

Matrix: SOIL

malyses	Result	PQL	Qual Uni	ts DF	Date Analyzed
1,2-Dichlorobenzene	ND	0.20	mg/k		9/4/2005
1,3-Dichlorobenzene	ND	0.20	mg/ŀ	-	9/4/2005
1,4-Dichlorobenzene	ND	0.20	mg/H		9/4/2005
3,3 ⁻ -Dichlorobenzidine	ND	0.20	mg/k	(g 1	9/4/2005
Diethyl phthalate	ND	0.20	mg/ł	(g 1	9/4/2005
Dimethyl phthalate	ND	0.20	mg/H	(g 1	9/4/2005
2,4-Dichlorophenol	ND	0.20	mg/k	(g 1	9/4/2005
2,4-Dimelhylphenol	ND	0.20	mg/k	(g 1	9/4/2005
4,6-Dinitro-2-methylphenol	ND	0.50	mg/k	(g 1	9/4/2005
2,4-Dinitrophenol	ND	0.50	mg/H		9/4/2005
2,4-Dinitrotoluene	ND	0.20	mg/k		9/4/2005
2,6-Dinitrotoluene	ND	0.20	mg/k	íg 1	9/4/2005
Fluoranthene	ND	0.20	mg/k	-	9/4/2005
Fluorene	0.34	0.20	- mg/k		9/4/2005
Hexachlorobenzene	ND	0.20	mg/H	-	9/4/2005
Hexachlorobutadiene	ND	0.20	mg/k		9/4/2005
Hexachlorocyclopentadiene	ND	0.25	mg/K		9/4/2005
Hexachloroethane	ND	0.50	mg/K		9/4/2005
Indeno(1,2,3-cd)pyrene	ND	0.20	mg/k	(g 1	9/4/2005
Isophorone	ND	0.20	mg/M	ິ ຊີ 1	9/4/2005
2-Methylnaphthalene	36	2.0	mg/k	-	9/6/2005
2-Methylphenol	ND	0.20	mg/K	íg 1	9/4/2005
3+4-Methylphenol	ND	0.20	. mg/K	ig 1	9/4/2005
N-Nitrosodi-n-propylamine	ND	0.20	mg/K	-	9/4/2005
N-Nitrosodiphenylamine	ND	0.20	mg/K	•	9/4/2005
Naphthalene	3.8	0.20	mg/H	-	9/4/2005
2-Nitroaniline	ND	0.50	mg/K	-	9/4/2005
3-Nitroanlline	ND	0.50	mg/K	-	9/4/2005
4-Nitroaniline	ND	0.25	mg/K	-	9/4/2005
Nitrobenzene	ND	0.20	mg/K	-	9/4/2005
2-Nitrophenol	ND	0.20	mg/K		9/4/2005
4-Nitrophenol	ND	0.20	mg/K	g 1	9/4/2005
Pentachlorophenol	ND	0.50	mg/K	ig 1	9/4/2005
Phenanthrene	8.0	2.0	mg/K	ig 10	9/6/2005
Phenol	ND	0.20	mg/K	ig 1	9/4/2005
Pyrene	0.41	0.20	mg/K	-	9/4/2005
Pyridine	ND	0.50	mg/K	-	9/4/2005
1,2,4-Trichlorobenzene	ND	0.20	mg/K	g 1	9/4/2005
2,4,5-Trichlorophenol	ND	0.20	mg/K	-	9/4/2005
2,4,6-Trichlorophenol	ND	0.20	mg/K		9/4/2005
Surr: 2,4,6-Tribromophenol	60.1	35.5-141	%RE	-	9/4/2005
Surr: 2-Fluorobiphenyl	79.0	30.4-128	%RE	C 1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

R - RPD outside accepted recovery limits

E - Value above quantitation range

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#### Date: 07-Sep-05

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Analyses	Result	PQL Qual Units	DF	Date Analyzed	
Lab ID:	0508346-06	Matrix	SOIL		
Project:	RR Rock Lagoon Add. Exc. 8-30-05				
Lab Order:	0508346	Collection Date	: 8/30/20	005 8:10:00 AM	
CLIENT:	Giant Refining Co	Client Sample ID:	RR-6-83	005	
					-

nalyses	Result	PQL	Qual Units	DF	Date Analyzed		
Surr: 2-Fluorophenol	66.9	28.1-129	%REC	1	9/4/2005		
Surr: 4-Terphenyl-d14	82.2	34.6-151	%REC	1	9/4/2005		
Surr: Nitrobenzene-d5	89.1	26.5-122	%REC	1	9/4/2005		
Surr. Phenol-d6	78.4	37.6-118	%REC	1	9/4/2005		

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Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

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CLIENT:Giant Refining CoLab Order:0508346Projeet:RR Rock Lagoon Add. Exc. 8-30-05Lab ID:0508346-07

Client Sample ID: RR-7-83005 Collection Date: 8/30/2005 8:20:00 AM

Matrix: SOIL Lab ID: DF PQL Qual Units Analyses Result **Date Analyzed EPA METHOD 8015B: DIESEL RANGE ORGANICS** Analyst: SCC 20 Diesel Range Organics (DRO) 9000 200 mg/Kg 9/3/2005 12:21:25 AM ND 1000 mg/Kg 20 Motor Oil Range Organics (MRO) 9/3/2005 12:21:25 AM Surr: DNOP 0 60-124 s %REC 20 9/3/2005 12:21:25 AM EPA METHOD 8260B: VOLATILES SHORT LIST Analyst: BDH Benzene ND 0.050 mg/Kg 1 9/4/2005 0.050 Toluene ND mg/Kg 1 9/4/2005 ND 0.050 Ethylbenzene mg/Kg 1 9/4/2005 Xylenes, Total 2.9 0.050 mg/Kg 1 9/4/2005 Surr: 4-Bromofluorobenzene 103 72.9-143 %REC 1 9/4/2005 **EPA METHOD 8270C: SEMIVOLATILES** Analyst: BL Acenaphthene 2.6 2.0 mg/Kg 10 9/4/2005 ND 2.0 mg/Kg 10 9/4/2005 Acenaphthylene Aniline ND 2.0 mg/Kg 10 9/4/2005 Anthracene ND 2.0 mg/Kg 10 9/4/2005 Azobenzene ND 2.0 mg/Kg 10 9/4/2005 Benz(a)anthracene ND 2.5 mg/Kg 10 9/4/2005 Benzidine ND 2.0 mg/Kg 10 9/4/2005 ND 2.0 mg/Kg 10 9/4/2005 Benzo(a)pyrene Benzo(b)fluoranthene ND 2.0 ma/Ka 10 9/4/2005 ND Benzo(g,h,i)perylene 3.0 mg/Kg 10 9/4/2005 Benzo(k)fluoranthene ND 5.0 mg/Kg 10 9/4/2005 Benzoic acid ND 5.0 mg/Kg 10 9/4/2005 Benzyl alcohol ND 5.0 mg/Kg 10 9/4/2005 Bis(2-chloroethoxy)methane ND 5.0 mg/Kg 10 9/4/2005 Bis(2-chloroethyl)ether ND 2.5 mg/Kg 10 9/4/2005 Bis(2-chloroisopropyl)elher ND 5.0 mg/Kg 10 9/4/2005 Bis(2-ethylhexyl)phthalate ND 2.0 mg/Kg 10 9/4/2005 4-Bromophenyl phenyl ether ND 2.5 mg/Kg 10 9/4/2005 Butyl benzyl phthalate ND 2.0 mg/Kg 10 9/4/2005 ND 2.0 Carbazole mg/Kg 10 9/4/2005 4-Chloro-3-methylphenol ND 2.0 mg/Kg 10 9/4/2005 2.0 4-Chloroaniline ND mg/Kg 10 9/4/2005 2-Chloronaphthalene NΠ 2.0 mg/Kg 10 9/4/2005 2.0 2-Chlorophenol ND mg/Kg 10 9/4/2005 ND 2.0 4-Chlorophenyl phenyl ether mg/Kg 10 9/4/2005 ND 2.0 Chrysene mg/Kg 10 9/4/2005 Di-n-bulyl phthalate ND 2.5 mg/Kg 10 9/4/2005 Di-n-octyl phthalate ND 5.0 mg/Kg 10 9/4/2005 mg/Kg Dibenz(a,h)anthracene ND 2.5 10 9/4/2005 ND Dibenzofuran 5.0 mg/Kg 10 9/4/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

E - Value above quantitation range

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#### Date: 07-Sep-05

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CLIENT:Giant Refining CoLab Order:0508346Project:RR Rock Lagoon Add. Exc. 8-30-05

0508346-07

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Lab ID:

#### Client Sample ID: RR-7-83005 Collection Date: 8/30/2005 8:20:00 AM

#### Matrix: SOIL

nalyses	Result	PQL	Qual Units	DF	Date Analyzed
1,2-Dichlorobenzene	ND	2.0	mg/Kg	10	9/4/2005
1,3-Dichlorobenzene	ND	2.0	mg/Kg	10	9/4/2005
1,4-Dichlorobenzene	ND	2.0	mg/Kg	10	9/4/2005
3,3'-Dichlorobenzidine	ND	2.0	mg/Kg	10	9/4/2005
Diethyl phthalate	ND	2.0	mg/Kg	10	9/4/2005
Dimelhyl phihalate	ND	2.0	mg/Kg	10	9/4/2005
2,4-Dichlorophenol	ND	2.0	mg/Kg	10	9/4/2005
2,4-Dimelhylphenol	ND	2.0	mg/Kg	10	9/4/2005
4,6-Dinitro-2-methylphenol	ND	5.0	mg/Kg	10	9/4/2005
2,4-Dinitrophenol	ND	5.0	mg/Kg	10	9/4/2005
2,4-Dinitrotoluene	ND	2.0	mg/Кg,	10	9/4/2005
2,6-Dinitrotaluene	ND	2.0	mg/Kg	10	9/4/2005
Fluoranthene	ND	2.0	mg/Kg	10	9/4/2005
Fluorene	ND	2.0	mg/Kg	10	9/4/2005
Hexachlorobenzene	ND	2.0	mg/Kg	10	9/4/2005
Hexachlorobuladiene	ND	2.0	mg/Kg	10	9/4/2005
Hexachlorocyclopentadiene	ND	2.5	mg/Kg	10	9/4/2005
Hexachloroethane	ND	5.0	mg/Kg	10	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	2.0	mg/Kg	10	9/4/2005
Isophorone	ND	2.0	mg/Kg	10	9/4/2005
2-Methylnaphthalene	<b>39</b> [†]	2.0	mg/Kg	10	9/4/2005
2-Methylphenol	ND	2.0	mg/Kg	10	9/4/2005
3+4-Methylphenol	ND	2.0	mg/Kg	10	9/4/2005
N-Nitrosodi-n-propylamine	ND	2.0	mg/Kg	10	9/4/2005
N-Nitrosodiphenylamine	ND	2.0	mg/Kg	10	9/4/2005
Naphthalene	5.0	2.0	mg/Kg	10	9/4/2005
2-Nitroaniline	ND	5.0	mg/Kg	10	9/4/2005
3-Nitroaniline	ND	5.0	mg/Kg	10	9/4/2005
4-Nitroaniline	ND	2.5	mg/Kg	10	9/4/2005
Nitrobenzene	ND	2.0	mg/Kg	10	9/4/2005
2-Nitrophenol	ND	2.0	mg/Kg	10	9/4/2005
4-Nitrophenol	ND	2.0	mg/Kg	10	9/4/2005
Pentachlorophenol	ND	5.0	mg/Kg	10	9/4/2005
Phenanthrene	10	2.0	mg/Kg	10	9/4/2005
Phenol	ND	2.0	mg/Kg	10	9/4/2005
Pyrene	ND	2.0	mg/Kg	10	9/4/2005
Pyridine	ND	5.0	mg/Kg	10	9/4/2005
1,2,4-Trichlorobenzene	ND	2.0	mg/Kg	10	9/4/2005
2,4,5-Trichlorophenol	ND	2.0	mg/Kg	10	9/4/2005
2,4,6-Trichlorophenol	ND	2.0	mg/Kg	10	9/4/2005
Surr: 2,4,6-Tribromophenol	115	35.5-141	%REC	10	9/4/2005
Surr: 2-Fluorobiphenyl	105	30.4-128	%REC	10	9/4/2005

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Qualifiers: ND - Not Detected

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

R - RPD outside accepted recovery limits E - Value above quantitation range

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CLIENT:	Giant Refining Co
Lab Order:	0508346
Project:	RR Rock Lagoon Add. Exc. 8-30-05
Lab ID:	0508346-07

#### Date: 07-Sep-05

#### Client Sample ID: RR-7-83005 Collection Date: 8/30/2005 8:20:00 AM

- -- ---

Matrix: SOIL I Analyses PQL Qual Units Result DF **Date Analyzed** 28.1-129 %REC Surr: 2-Fluorophenol 68.5 10 9/4/2005 Surr: 4-Terphenyl-d14 80.8 34.6-151 %REC 9/4/2005 10 Surr: Nitrobenzene-d5 125 26.5-122 %REC 10 9/4/2005 s Surr: Phenol-d6 74.8 37.6-118 %REC 9/4/2005 10

#### Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Date: 07-Sep-05

LIENT:	Giant Refining Co			C	ent Sample ID: 1	10(-0-03	005
ab Order:	0508346				<b>Collection Date:</b>	8/30/20	05 8:30:00 AM
roject:	RR Rock Lagoon A	dd. Exc. 8-30-05					
ab ID:	0508346-08				Matrix:	SOIL	
nalyses	· · · · · · · · · · · · · · · · · · ·	Result		Qual	Units	DF	Date Analyzed
PA METHOD B	015B: DIESEL RANG	E ORGANICS					Analyst: SCC
Diesel Range Or	ganics (DRO)	ND	10		mg/Kg	1	9/2/2005 6:12:34 AM
Motor Oil Range		ND	50		mg/Kg	1	9/2/2005 6:12:34 AM
Surr: DNOP		81.0	60-124		%REC	1	9/2/2005 6:12:34 AM
PA METHOD B	260B: VOLATILES SI	HORT LIST					Analyst: BDF
Benzene		ND	0.050		mg/Kg	1	9/4/2005
Toluene		ND	0.050		mg/Kg	1	9/4/2005
Ethylbenzene		ND	0.050		mg/Kg	1	9/4/2005
Xylenes, Total		ND	0.050		mg/Kg	1	9/4/2005
Surr. 4-Bromo	fluoratienzene	106	72.9-143		%REC	1	9/4/2005
	270C: SEMIVOLATIL	ES					Analyst: BL
Acenaphthene		ND	0.20		mg/Kg	1	9/4/2005
Acenaphthylene		ND	0.20		mg/Kg	1	9/4/2005
Aniline		ND	0.20		mg/Kg	1	9/4/2005
Anthracene		ND	0.20		mg/Kg	1	9/4/2005
Azobenzene		ND	0.20		mg/Kg	1	9/4/2005
Benz(a)anthrace	ne .	ND	0.25		mg/Kg	1	9/4/2005
Benzidine		ND	0.20		mg/Kg	1	9/4/2005
Benzo(a)pyrene		ND	0.20		mg/Kg	1	9/4/2005
Benzo(b)fluoran	thene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(g,h,i)pery		ND	0.30		mg/Kg	1	9/4/2005
Benzo(k)fluoran		ND	0.50		mg/Kg	1	9/4/2005
Benzoic acid		ND	0.50	,	mg/Kg	1	9/4/2005
Benzyl alcohol		ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroetho	xv)methane	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethy		ND	0.25		mg/Kg	1	9/4/2005
Bis(2-chloroisop	•	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-ethylhexyl		ND	0.20		mg/Kg	1	9/4/2005
4-Bromophenyl		ND	0.25		mg/Kg	1	9/4/2005
Butyl benzyl pht		ND	0.20		mg/Kg	1	9/4/2005
Carbazole		ND	0.20		mg/Kg	1	9/4/2005
4-Chlora-3-meth	wlohenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chloroaniline	· · · · · · · · · · · · · · · · · · ·	ND	0.20		mg/Kg	1	9/4/2005
2-Chloronaphth	alene	ND	0.20		mg/Kg	1	9/4/2005
2-Chlorophenol		ND	0.20		mg/Kg	1	9/4/2005
4-Chlorophenyl	ohenvi elber	ND	0.20		mg/Kg	1	9/4/2005
Chrysene		ND	0.20		mg/Kg	1	9/4/2005
Di-n-butyl phtha	lale	ND	0.25		mg/Kg	1	9/4/2005
Di-n-octyl phtha		ND	0.50		mg/Kg	1	9/4/2005
Dibenz(a,h)anth		ND	0.25		mg/Kg	1	9/4/2005
Dibenzofuran		ND	0.50		mg/Kg	1	9/4/2005
					S - Spike Recovery ou	uside acco	
Qualifiers:	ND - Not Detected at the	Repotting Limit			a - aprice Recovery of	GIGE BECE	acu recovery minus

B - Analyte detected in the associated Method Blank

E - Value above quantitation range * - Value exceeds Maximum Contaminant Level

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-----CLIENT: Giant Refining Co Lab Order: 0508346 Project:

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#### Client Sample ID: RR-8-83005 Collection Date: 8/30/2005 8:30:00 AM

RR Rock Lagoon Add. Exc. 8-30-05 Lab ID: 0508346-08

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
1,2-Dichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
1,3-Dichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
1,4-Dichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
3,3°-Dichlorobenzidine	ND	0.20	mg/Kg	1	9/4/2005
Diethyl phthalate	ND	0.20	mg/Kg	1	9/4/2005
Dimethyl phthalate	ND	0.20	mg/Kg	1	9/4/2005
2,4-Dichlorophenol	ND	0,20	mg/Kg	1	9/4/2005
2,4-Dimethylphenol	ND	0.20	mg/Kg	1	9/4/2005
4,6-Dinitro-2-methylphenol	ND	0.50	mg/Kg	1	9/4/2005
2,4-Dinitrophenol	ND	0.50	mg/Kg	1	9/4/2005
2,4-Dinitrotoluene	ND	0.20	mg/Kg	1	9/4/2005
2,6-Dinitrolaluene	ND	0.20	mg/Kg	1	9/4/2005
Fluoranthene	ND	0.20	mg/Kg	1	9/4/2005
Fluorene	ND	0.20	mg/Kg	1	9/4/2005
Hexachlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
Hexachlorobutadiene	ND	0.20	mg/Kg	1	9/4/2005
Hexachlorocyclopeniadiene	ND	0.25	mg/Kg	1	9/4/2005
Hexachtoroethane	ND	0.50	mg/Kg	1	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	0.20	mg/Kg	1	9/4/2005
Isophorone	ND	0.20	mg/Kg	1	9/4/2005
2-Methylnaphthalene	ND	0.20	mg/Kg	1	9/4/2005
2-Methylphenol	ND	0.20	mg/Kg	1	9/4/2005
3+4-Methylphenol	ND	0.20	mg/Kg	1	9/4/2005
N-Nitrosodi-n-propylamine	ND	0.20	mg/Kg	1	9/4/2005
N-Nitrosodiphenylamine	ND	0.20	mg/Kg	1	9/4/2005
Naphlhalene	ND	0.20	mg/Kg	1	9/4/2005
2-Nitroaniline	ND	0.50	mg/Kg	1	9/4/2005
3-Nitroaniline	ND	0.50	mg/Kg	1	9/4/2005
4-Nitroaniline	ND	0.25	mg/Kg	1	9/4/2005
Nitrobenzene	ND	0.20	mg/Kg	1	9/4/2005
2-Nitrophenol	ND	0.20	mg/Kg	1	9/4/2005
4-Nitrophenol	ND	0.20	mg/Kg	1	9/4/2005
Pentachlorophenol	ND	0.50	mg/Kg	1	9/4/2005
Phenanthrene	ND	0.20	mg/Kg	1	9/4/2005
Phenol	ND	0.20	mg/Kg	1	9/4/2005
Pyrene	ND	0.20	mg/Kg	1	9/4/2005
Pyńdine	ND	0.50	mg/Kg	1	9/4/2005
1,2,4-Trichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
2,4,5-Trichlorophenol	ND	0.20	mg/Kg	່ 1	9/4/2005
2,4,6-Trichlorophenol	ND	0.20	mg/Kg	1	9/4/2005
Surr: 2,4,6-Tribromophenol	89.7	35.5-141	%REC	1	9/4/2005
Surr: 2-Fluorobiphenyl	67.9	30.4-128	%REC	1	9/4/2005

Qualifiers:

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ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits E - Value above quantitation range

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

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CLIENT:	Giant Refining Co	Client Semula ID: DB 9 92005
-	. 0	Client Sample ID: RR-8-83005
Lab Order:	0508346	Collection Date: 8/30/2005 8:30:00 AM
Project:	RR Rock Lagoon Add. Exc. 8-30-05	
Lab ID:	0508346-08	Matrix: SOIL

alyses	Result	PQL Q	ual Units	DF	Date Analyzed
Surr: 2-Fluorophenol	60.4	28.1-129	%REC	1	9/4/2005
Surr: 4-Terphenyl-d14	87.3	34.6-151	%REC	t	9/4/2005
Surr: Nitrobenzene-d5	61.8	26.5-122	%REC	1	9/4/2005
Surr. Phenol-d6	64.5	37.6-118	%REC	1	9/4/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Giant Refining Co

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**CLIENT:** 

_____ Client Sample ID: RR-9-83005 913013005 9.40.00 ANA ~ ... -

	Giant Kenning Co			Cher	nt Sample ID:	101-2-07	005
Lab Order:	0508346			C	<b>Collection Date:</b>	8/30/20	05 8:40:00 AM
Project:	RR Rock Lagoon Add	J. Exc. 8-30-	05				
Lab 1D:	0508346-09				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8	015B: DIESEL RANGE	ORGANICS					Analyst: SCC
Diesel Range Or	ganics (DRO)	ND	10	1	mg/Kg	1	9/2/2005 6:45:22 AM
Motor Oil Range	Organics (MRO)	ND	50	ı	mg/Kg	1	9/2/2005 6:45:22 AM
Surr: DNOP		96.7	60-124		%REC	1	9/2/2005 6:45:22 AM
EPA METHOD 8	260B: VOLATILES SHO	RT LIST					Analyst: BDH
Benzene		ND	0.050	ł	mg/Kg	1	9/4/2005
Toluene		ND	0.050	ſ	ng/Kg	1	9/4/2005
Ethylbenzene		NÐ	0.050	r	ng/Kg	1	9/4/2005
Xylenes, Total		NÐ	0.050	г	ng/Kg	1	9/4/2005
Surr: 4-Bromo	fluorobenzene	<b>1</b> 15	72.9-143		%REC	1	9/4/2005
EPA METHOD 8	270C: SEMIVOLATILES	;					Analyst: BL
Acenaphthene		ND	0.20	r	ng/Kg	1	9/4/2005
Acenaphthylene		ND	0.20		ng/Kg	1	9/4/2005
Aniline		ND	0.20		ng/Kg	1	9/4/2005
Anthracene		ND	0.20		ng/Kg	1	9/4/2005
Azobenzene		ND	0.20		ng/Kg	1	9/4/2005
Benz(a)anthrace	ne	ND	0.25		ng/Kg	1	9/4/2005
Benzidine		ND	0.20		ng/Kg	1	9/4/2005
Benzo(a)pyrene		ND	0.20		ng/Kg	1	9/4/2005
Benzo(b)fluorant	hene	ND	0.20		ng/Kg	1	9/4/2005
Benzo(g,h,i)peryl	ene	ND	0.30		ng/Kg	1	9/4/2005
Benzo(k)fluorant	hene	ND	0.50		ng/Kg	1	9/4/2005
Benzoic acid		ND	0.50	Г	ng/Kg	1	9/4/2005
Benzyl alcohol		ND	0.50		ng/Kg	1	9/4/2005
Bis(2-chloroetho	ky)methane	NÐ	0.50		ng/Kg	1	9/4/2005
Bis(2-chloroethyl	)ether	ND	0.25		ng/Kg	1	9/4/2005
Bis(2-chloroisopr	opyl)ether	NÐ	0.50	п	ng/Kg	1	9/4/2005
Bis(2-ethylhexyl)	phihalate	ND	0.20	п	ng/Kg	1	9/4/2005
4-Bromophenyl p	henyl elher	ND	0.25	n	ng/Kg	1	9/4/2005
Butyl benzyl phth	alate	ND	0.20	п	ng/Kg	1	9/4/2005
Carbazole		ND	0.20	п	ng/Kg	1	9/4/2005
4-Chloro-3-methy	riphenol	ND	0.20	ń	ng/Kg	1	9/4/2005
4-Chloroaniline		ND	0.20	л	ng/Kg	1	9/4/2005
2-Chloronaphtha	lene	ND	0.20	п	ng/Kg	1	9/4/2005
2-Chlorophenol		ND	0.20	п	ng/Kg	1	9/4/2005
4-Chlorophenyl p	henyl ether	ND	0.20	п	ng/Kg	1	9/4/2005
Chrysene		ND	0.20	п	ng/Kg	1	9/4/2005
Di-n-butyl phthala	ale	ND	0.25	л	ng/Kg	1	9/4/2005
Di-n-octyl phthala	ate	ND	0.50	n	ng/Kg	1	9/4/2005
Dibenz(a,h)anthr	acene	ND	0.25		ng/Kg	1	9/4/2005
Dibenzofuran		NÐ	0.50		ng/Kg	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

* - Value exceeds Maximum Contaminant Level

E - Value above quantitation range

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#### Date: 07-Sep-05

CLIENT:Giant Refining CoLab Order:0508346Project:RR Rock Lagoon Add. Exc. 8-30-05Lab ID:0508346-09

#### Client Sample ID: RR-9-83005

Collection Date: 8/30/2005 8:40:00 AM

## Matrix: SOIL

nalyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	9/4/2005
Dielhyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	. 1	9/4/2005
4,8-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	9/4/2005
2,4-Dinltrophenol	ND	0.50		mg/Kg	1	9/4/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	9/4/2005
2,6-Dinitrotaluene	ND	0.20		mg/Kg	1	9/4/2005
Fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Fluorene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	9/4/2005
Hexachloroethane	ND	0.50		mg/Kg	1	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	9/4/2005
Isophorone	ND	0.20		mg/Kg	1	9/4/2005
2-Melhyinaphihalene	ND	0.20		mg/Kg	1	9/4/2005
2-Methylphenol	ND	0.20		mg/Kg	1	9/4/2005
3+4-Methylphenal	ND	0.20		mg/Kg	1	9/4/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	9/4/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	9/4/2005
Naphthalene	ND	0.20		mg/Kg	1	9/4/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	9/4/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	9/4/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	9/4/2005
Nitrobenzene	ND	0.20		mg/Kg	1	9/4/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	9/4/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	9/4/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	9/4/2005
Phenanihrene	ND	0.20		mg/Kg	1	9/4/2005
Phenol	ND	0.20		mg/Kg	1	9/4/2005
Pyrene	ND	0.20		mg/Kg	1	9/4/2005
Pyridine	ND	0.50		mg/Kg	1	9/4/2005
1,2,4-Trichlorobenzerie	ND	0.20		mg/Kg	1	9/4/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
Surr: 2,4,6-Tribromophenol	88.3	35.5-141		%REC	1	9/4/2005
Sur: 2-Fluorobiphenyl	75.4	30.4-128		%REC	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

R - RPD outside accepted recovery limits E - Value above quantitation range

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#### Ha

Date: 07-Sep-05

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9/4/2005

9/4/2005

#### CL Client Sample ID: RR-9-83005 Lal Collection Date: 8/30/2005 8:40:00 AM Pro Matrix: SOIL Lal -----. . . Result PQL Qual Units Analyses DF **Date Analyzed** 28.1-129 %REC 67.7 9/4/2005 Surr: 2-Fluorophenol 1 Surr: 4-Terphenyl-d14 86.0 34.6-151 %REC 1 9/4/2005

26.5-122

37.6-118

%REC

%REC

72.5

74.3

Qualifiers:

- ND Not Detected at the Reporting Limit
- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

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Hall Envir	onmental Analysis Laboratory	Date: 07-Sep-
CLIENT:	Giant Refining Co	Client Sample ID: RR-9-83(
Lab Order:	0508346	Collection Date: 8/30/20
Project:	RR Rock Lagoon Add. Exc. 8-30-05	
Lab ID:	0508346-09	Matrix: SOIL

Surr: Nitrobenzene-d5

Surr: Phenol-d6

Date: 07-Sep-05

CLIENT:	Giant Refining Co			Cli	ent Sample ID	: RR-10-	83005
Lab Order:	0508346 -				Collection Da	te: 8/30/2	2005 9:00:00 AM
Project:	RR Rock Lagoon Ad	d. Exc. 8-30-0	5				,
Lab ID:	0508346-10				Matr	ix: SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8	015B: DIESEL RANGE	ORGANICS					Analyst: SCC
Diesel Range Or	ganics (DRO)	ND	10		mg/Kg	1	9/2/2005 7:18:10 AM
Motor Oil Range	Organics (MRO)	ND	50	,	mg/Kg	t	9/2/2005 7:18:10 AM
Surr: DNOP		97.5	60-124		%REC	1	9/2/2005 7:18:10 AM
EPA METHOD 8	260B: VOLATILES SHO	DRT LIST					Analyst: BDH
Benzene		ND	0.050		mg/Kg	1	9/4/2005
Toluene		ND	. 0.050		mg/Kg	1	9/4/2005
Ethylbenzene		ND	0.050		mg/Kg	t	9/4/2005
Xylenes, Tolal		ND	0.050		mg/Kg	1	9/4/2005
Surr. 4-Bromo	fluorobenzene	94.9	72.9-143		%REC	1	9/4/2005
EPA METHOD 8	270C: SEMIVOLATILES	5					Analyst: BL
Acenaphthene		ND	0.20		mg/Kg	1	9/4/2005
Acenaphthylene		ND	0.20		mg/Kg	1	9/4/2005
Aniline	, ·	ND	0.20		mg/Kg	1	9/4/2005
Anthracene		ND	0.20		mg/Kg	1	9/4/2005
Azobenzene		ND	0.20		mg/Kg	1	9/4/2005
Benz(a)anlhrace	ane	ND	0.25		mg/Kg	1	9/4/2005
Benzidine		ND	0.20		mg/Kg	1	9/4/2005
Benzo(a)pyrene		ND	0.20		тд/Кд	1	9/4/2005
Benzo(b)îluoran	thene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(g,h,i)pery	lene	ND	0.30		mg/Kg	1	9/4/2005
Benzo(k)fluorani	thene	ND	0.50	,	mg/Kg	1	9/4/2005
Benzoic acid	,	ND	0.50		mg/Kg	1	9/4/2005
Benzyl alcohol		ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroetho	xy)methane	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethy	i)ether	ND	0.25		mg/Kg	1.	9/4/2005
Bis(2-chlorolsop		ND	0.50		mg/Kg	1	9/4/2005
Bis(2-ethylhexyl	)phthalate	ND	0.20		mg/Kg	1	9/4/2005
4-Bromophenyl		ND	0.25		mg/Kg	1	9/4/2005
Butyl benzyl phi	halate	ND	0.20		mg/Kg	1	9/4/2005
Carbazole	и. 	ND	0.20	,	mg/Kg	1	9/4/2005
4-Chloro-3-meth	nylphenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chloroaniline		ND	0.20		mg/Kg	1	9/4/2005
2-Chloronaphth		ND	0.20		mg/Kg	1	9/4/2005
2-Chlorophenol		ND	0.20		mg/Kg	1	9/4/2005
4-Chlorophenyl	phenyl ether	ND	0.20		mg/Kg	1	9/4/2005
Chrysene		ND	0.20		mg/Kg	1	9/4/2005
Di-n-butyl phtha	late	ND	0.25		mg/Kg	1	9/4/2005
Di-n-octyl phtha	late	ND	0.50		mg/Kg	1	9/4/2005
Dibenz(a,h)anth	nracene	ND	0.25		mg/Kg	1	9/4/2005
Dibenzoluran		ND	0.50	L ·	mg/Kg	1	9/4/2005

ND - Not Detected at the Reporting Limit

Qualifiers:

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level 29/39

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R - RPD outside accepted recovery limits
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Date: 07-Sep-05

CLIENT: Giant I Lab Order: 050834 Project: RR Ro

Lab ID:

Giant Refining Co 0508346 RR Rock Lagoon Add. Exc. 8-30-05 0508346-10

## Client Sample ID: RR-10-83005 Collection Date: 8/30/2005 9:00:00 AM

Matrix: SOIL

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
1,2-Dichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
1,3-Dichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
1,4-Dichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
3,3 ⁻ -Dichlorobenzidine	ND	0.20	mg/Kg	1	9/4/2005
Diethyl phthalate	ND	0.20	mg/Kg	1	9/4/2005
Dimethyl phthalate	ND	0.20	mg/Kg	1	9/4/2005
2,4-Dichlorophenol	ND	0.20	mg/Kg	1	9/4/2005
2,4-Dimethylphenol	ND	0.20	mg/Kg	1	9/4/2005
4,6-Dinitro-2-methylphenol	ND	0.50	mg/Kg	1	9/4/2005
2,4-Dinitrophenol	ND	0.50	mg/Kg	1	9/4/2005
2,4-Dinitrotoluene	ND	0.20	mg/Kg	1	9/4/2005
2,6-Dinitrotoluene	ND	0.20	mg/Kg	1	9/4/2005
Fluoranthene	ND	0.20	mg/Kg	1	9/4/2005
Fluorene	ND	0.20	mg/Kg	1	9/4/2005
Hexachlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
Hexachlorobuladiene	ND	0.20	mg/Kg	1	9/4/2005
Hexachlorocyclopentadiene	ND	0.25	mg/Kg	1	9/4/2005
Hexachloroethane	ND	0.50	mg/Kg	1	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	0.20	mg/Kg	1	9/4/2005
Isophorone	ND	0.20	mg/Kg	1	9/4/2005
2-Methyinaphihalene	ND	0.20	mg/Kg	1	9/4/2005
2-Methylphenol	ND	0.20	mg/Kg	1	9/4/2005
3+4-Methylphenol	ND	0.20	mg/Kg	1	9/4/2005
N-Nitrosodi-n-propylamine	ND	0.20	mg/Kg	1	9/4/2005
N-Nitrosodiphenylamine	ND	0.20	mg/Kg	1	9/4/2005
Naphthalene	ND	0.20	mg/Kg	1	9/4/2005
2-Nitroaniline	ND	0.50	mg/Kg	1	9/4/2005
3-Nitroaniline	ND	0.50	mg/Kg	1	9/4/2005
4-Nitroaniline	ND	0.25	mg/Kg	1	9/4/2005
Nitrobenzene	ND	0.20	mg/Kg	1	9/4/2005
2-Nitrophenol	ND	0.20	mg/Kg	1	9/4/2005
4-Nitrophenol	ND	0.20	mg/Kg	1	9/4/2005
Pentachlorophenol	ND	0.50	mg/Kg	1	9/4/2005
Phenanthrene	ND	0.20	mg/Kg	1	9/4/2005
Phenol	ND	0.20	mg/Kg	1	9/4/2005
Pyrene	ND	0.20	mg/Kg	1	9/4/2005
Pyridine	ND	0.50	mg/Kg	1	9/4/2005
1,2,4-Trichlorobenzene	ND	0.20	mg/Kg	1	9/4/2005
2,4,5-Trichlorophenol	ND	0.20	mg/Kg	1	9/4/2005
2,4,6-Trichlorophenol	ND	0.20	mg/Kg	1	9/4/2005
Surr: 2,4,6-Tribromophenol	81.3	35.5-141	%REC	· 1	9/4/2005
Surr. 2-Fluorobiphenyl	66.1	30.4-128	%REC	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

R - RPD outside accepted recovery limits

E - Value above quantitation range

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#### Date: 07-Sep-05

CLIENT:	Giant Refining Co			Cli	ent Sample ID: 1	R-10-8	3005
ab Order:	0508346				<b>Collection Date:</b>	8/30/2	005 9:00:00 AM
Project:	RR Rock Lagoon	Add. Exc. 8-30-05	5				
.ab ID:	0508346-10				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
Surr: 2-Fluoro	phenol	53.5	28.1-129		%REC	1	9/4/2005
Sun: 4-Terph		85.5	34.6-151		%REC	1	9/4/2005
Surr: Nitrober		61.6	26.5-122		%REC	1	9/4/2005
Surr: Phenol-	d6 i	62.7	37.6-118		%REC	1	9/4/2005
	,						
	•						
Qualifiers:	ND - Not Detected at t	he Reporting Limit			S - Spike Recovery ou	tside acce	pted recovery limits
Annual 31	J - Analyte detected be				R - RPD outside accep		

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 31/39

E - Value above quantitation range

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Date: 07-Sep-05

CLIENT: Giant Refining Co Work Order: 0508346 Project: RR Rock Lagoon Add. Exc. 8-30-05

QC SUMMARY REPORT

Method Blank

Sample ID MB-8649	Batch ID: 8649	Test Code:	SW8015	Units: mg/Kg		Analysis	s Date 9/1/2	005 9:27:29 PM	Prep D	ate 8/31/200	5					
Client ID:		Run ID:	FID(17A) 2_0	D(17A) 2_050901A		SeqNo: 395109										
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual					
Diesel Range Organics (DRO)	ND	10														
Motor Oil Range Organics (MRC	)) ND	50														
Surr: DNOP	9.957	۵	10	0	<b>99</b> .6	60	124	O								

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits B - Analyte detected in the associated Method Blank

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#### Giant Refining Co CLIENT: 0508346

Work Order:

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QC SUMMARY REPORT

Method Blank

RR Rock Lagoon Add. Exc. 8-30-05 **Project:** 

Sample ID MB-8645			Units: mg/Kg	*	Analysi	5 Date 9/4/2	2005	Prep D	ate 8/31/200	5	
Client ID:		Run ID:	ELMO_05090	)4A		SeqNo:	3957	25			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.2						•••••			
Acenaphihylene	ND	0.2									
Aniline	ND	0.2									
Anthracene	ND	0.2								•	
Azobenzene	ND	0.2									
Benz(a)anthracene	ND	0.25									
Benzidine	ND	0.2									
Benzo(a)pyrene	ND	0.2									
Benzo(b)fluoranthene	ND	0.2									
Benzo(g.h,i)perylene	ND	0.3									
Benzo(k)fluoranthene	ND	0.5									
Benzoic acid	ND	0.5									
Benzyl alcohol	ND	0.5	·								
Bis(2-chloroethoxy)methane	ND	0.5									
Bis(2-chloroethyl)ether	ND	0.25									
Bis(2-chloroisopropyl)ether	ND	0.5									
Bis(2-ethylhexyl)phthalate	0.04733	0.2									J
4-Bromophenyl phenyl ether	ND	0.25									
Butyl benzyl phthalate	ND	0.2									
Carbazole	ND	0.2									
4-Chloro-3-methylphenol	ND	0.2									
4-Chioroaniline	ND	0.2									
2-Chloronaphthalene	ND	0.2									-
2-Chlorophenol	ND	0.2									
4-Chlorophenyl phenyl ether	ND	0.2									
Chrysene	ND	0.2									
Di-n-butyl phthalate	1.756	0.25									
Di-n-octyl phthalate	ND	0.5									

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Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT:	Giant Refining Co	)		QC SUMMARY REPORT
Work Order:	0508346		0.7	Method Blank
Project:	RR Rock Lagoon	Add. Exc. 8-30-	05	
Dibenz(a,h)anthrac	ene	ND	0.25	
Dibenzofuran		ND	D.5	
1,2-Dichlorobenzer	ne	ND	0.2	
1,3-Dichlorobenzer	ne	ND	0.2	
1,4-Dichlorobanzer		ND	0.2	
3,3°-Dichlorobenzio	line	ND	0.2	
Diethyl phthalate		ND	0.2	
Dimethyl phthalate		ND	0.2	
2,4-Dichlorophenol		ND	0.2	
2,4-Dimethylpheno	I	ND	0.2	
4,6-Dinitro-2-methy	/iphenol	ND	0.5	
2,4-Dinitrophenal		ND	0.5	
2,4-Dinitrotoluene		ND	0.2	
2,6-Dinitrotoluene		ND	0.2	
Fluoranthene	•	ND	0.2	
Fluorene		ND	0.2	
Hexachlorobenzen	e	ND	0.2	
Hexachlorobutadie		ND	0.2	
Hexachiorocyclope	ntadiene	ND	0.25	
Hexachloroethane		ND	0.5	
Indeno(1,2,3-cd)py	rene	ND	0.2	
isophorone		ND	0.2	
2-Methyl∩aphthaler	he	ND	0.2	
2-Methylphenol		ND	0.2	
3+4-Methylphenol		ND	0.2	
N-Nitrosodi-n-propy		ND	0.2	
N-Nitrosodiphenyla	mine	ND	0.2	
Naphthalene		ND	0.2	
2-Nitroaniline		ND	0.5	
3-Nitroaniline		ND	0.5	
4-Nitroaniline		ND.	0.25	
Nitrobenzene		ND	0.2	
2-Nitrophenol		ND	0.2	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

------

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Work Order: Project:	Giant Refining Co 0508346 RR Rock Lagoon A	dd. Exc. 8-30-05	; ·				·		QC SUMM	ARY REPORT Method Blank
4-Nitrophenol	and a standard and a	ND	0.2							······································
Pentachlorophenol		ND	Ũ.5							
Phenanthrene		ND	0.2							
Phenol		ND	0.2							
Pyrene		ND	0.2							
Pyridine		ND	0.5			•				
1,2,4-Trichlorobenz	ene	ND	0.2							
2,4,5-Trichlorophen	ol	ND	0.2							
2,4,6-Trichlorophen	ol	ND	0.2							
Surr: 2,4,6-Tribro	mophenol	2.551	0	3.33	0	76.6	35.5	141	0	
Surr: 2-Fluorobip	henyl	1.208	0	1.67	0	72.3	30.4	128	0	
Surr: 2-Fluorophe	enol	2.424	0	3.33	0	72.8	28.1	129	0	
Surr: 4-Terpheny		1,411	0	1.67	0	84.5	34.6	151	0	
Surr: Nitrobenzer		1.161	0	1.67	0	69.5	26.5	122	0	
Surr: Phenol-d6		2.484	O	3.33	0	74.6	37.6	118	D	

Qualifiers:

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co Work Order: 0508346

Project: RR Rock Lagoon Add. Exc. 8-30-05

Sample ID mb-8648	Batch ID: 8648	Test Code: SW8260B Units: mg/Kg				Analysi	5 Date 9/3/2	2005	Prep Date 8/31/2005					
Client ID:		Run ID:	THOR_05090	)3A		SeqNo:	3955	96						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	•	RPD Ref Val	%RPD	RPDLimit	Qual			
Benzene	ND	0.05	0	0	0	0	0	0						
Тошеле	ND	0.05	0	0	0	0	0	0						
Ethylbenzene	ND	0.05	0	0	0	0	0	D						
Xylenes, Total	ND	0.05	0	0	0	0	0	D						
Surr: 4-Bromofluorobenzene	0.5104	0	0.5	0	102	72.9	143	0						
Surr: Dibromofluoromethane			95.0	85.2	118	0								

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Date: 07-Sep-05

QC SUMMARY REPORT

Method Blank

Work Order: 0508346	efining Co c Lagoon Add. Exc. 8-3	30-05		· · ·				QC SUN Laboratory			
Sample ID LCS-8649 Client ID:	Batch ID: 8649	Test Code: Run ID:	SW8015 FID(17A) 2_0	Units: mg/Kg 150901A	<u></u>	Analysi SeqNo:		2005 10:00:21 PM 10	Prep D	ate 8/31/200	05
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45.26	10	50	0	90.5	67.4	117	0			
Sample ID LCSD-8649	Batch ID: 8649	Test Code:	SW8015	Units: mg/Kg		Analysi	s Date 9/1/	2005 11:05:57 PM	Prep D	ate 8/31/200	
Client ID:		Run ID;	FID(17A) 2_0	50901A		SeqNo	3951	12			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

0

0

0

Units: mg/Kg

98.8

%REC

87.3

102

67.4

SeqNo:

78

79.4

117

395601

LowLimit HighLimit RPD Ref Val

126

117

Analysis Date 9/3/2005

45.26

0

0

50

SPK value SPK Ref Val

1

1

THOR_050903A

10

Run ID:

POL

0.05

0.05

Test Code: SW8260B

#### Hall Environmental Analysis Laboratory

Date: 07-Sep-05

8.70

%RPD

17.4

Prep Date 8/31/2005

RPDLimit

Qual

Diesel Range Organics (DRO)

Sample ID Ics-8648

Client ID:

Analyte

Benzene Toluene

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

1

J - Analyte detected below quantitation limits

49.38

Result

0.8733

1.016

Batch ID: 8648

#### Giant Refining Co CLIENT: Work Order: 0508346 RR Rock Lagoon Add. Exc. 8-30-05 Project: Test Code: SW8270C Analysis Date 9/4/2005 Batch ID: 8646 Units: mg/Kg Sample ID LCS-8646 Run ID: ELMO_050904A SeqNo: 395726 **Client ID:** PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val Result Analyte

1.67

3.33

3.33

1.67

1.67

1.67

3.33

3.33

3.33

1.67

0.2

0.2

0.2

0.2

0.2

0.2

0.2

0.5

0.2

0.2

1.264

2.484

2.206

1.053

1,257

1.099

2.786

2.67

2.236

1.308

3 8 /39 Acenaphthene

2-Chlorophenol 1,4-Dichlorobenzene

4-Nitrophenol

Phenol

Pyrene

2,4-Dinitrotoluene

Pentachlorophenol

4-Chloro-3-methylphenol

N-Nitrosodi-n-propylamine

1,2,4-Trichlorobenzene	1.096	0.2	1.67	O	65.6	17.9	126	0			
Sample ID LCSD-8646	Batch ID: 8646	Test Code	SW8270C	Units: mg/Kg		Analysis	s Date 9/4/2	2005	Prep Da	ate 8/31/200	)5
Client ID:		Run ID:	ELMO_05090	94A		SeqNo:	3957	28			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimil	Qual
Acenaphihene	1.397	0.2	1.67	0	83.7	24	125	1,264	10.0	25	
4-Chloro-3-methylphenol	2.881	0.2	3.33	0	86.5	14.6	154	2.484	14.8	25	
2-Chlorophenol	2.495	0.2	3.33	0	74.9	13.3	149	2.206	12.3	25	
1,4-Dichlorobenzene	1.155	0.2	1.67	0	69.2	23.6	118	1.053	9.21	25	
2,4-Dinitrotoluene	1.389	0.2	1.67	0	83.2	28	136	1.257	10.0	25	
N-Nitrosodi-n-propylamine	1.241	0.2	1.67	0	74.3	28	114	1.099	12.2	25	
4-Nitrophenol	3.195	0.2	3.33	0	96.0	13.1	150	2.786	13.7	25	
Penlachlorophenol	2.888	0.5	3.33	0	86.7	20.1	139	2.67	7.85	25	
Phenol	2.534	0.2	3.33	Ο	76.1	17.3	141	2.236	12.5	25	
Pyrene	1.411	0.2	1.67	0	84.5	. 29	131	1.306	7.73	25 -	
1,2,4-Trichlorobenzene	1.22	0.2	1.67	0	73.1	17.9	126	1.096	10.7	25	

0

0

0

0

0

0

0

0

0

0

75.7

74.6

66.2

63.1

75.2

65.8

83.7

80.2

67.2

78.2

24

14.6

13.3

23.6

28

28

13.1

20.1

17.3

29

125

154

149

118

136

114

150

139

141

131

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

**QC SUMMARY REPORT** 

%RPD

0

0

0

0

0

0

0

0

0

0

Laboratory Control Spike - generic

Prep Date 8/31/2005

RPDLimit

Qual

S	Sample Receipt Ch	ecklist		
		Date and Tin	ne Received:	8/31/2005
Work Order Number 0508346	κ.	Received t	by AT	
Checklist completed by		813	1105	
Signalure	Date	·····		
Matrix Carrie	r name <u>Client drop-c</u>	ſſ		
Shipping container/cooler in good condition?	Yes 🗆	No 🗆	Not Present	
Custody seals intact on shipping container/cooler?	Yes 🗌	No 🗆	Not Present	Not Shipped 🗹
Custody seals intact on sample bottles?	Yes 🗹	No 🗖	N/A	
Chain of custody present?	Yes 🗹	No 🗆		
Chain of custody signed when relinquished and received?	Yes 🗹	Νο		
Chain of custody agrees with sample labels?	Yes 🗹	No 🗖		
Samples in proper container/bottle?	Yes 🗹	No 🗆		
Sample containers intact?	Yes 🗹	No 🗆		
Sufficient sample volume for indicated test?	Yes 🗹			
All samples received within holding time?	Yes 🗹	No 🗆		
Water - VOA vials have zero headspace? No VOA v	ials submitted 🔽	Yes 🗆	No 🗌	
Water - pH acceptable upon receipt?	Yes 🗌		N/A 🗹	
Container/Temp Blank temperature?	3°	4° C ± 2 Accer If given sufficie	otable ant time to cool.	
COMMENTS:				
O''				
Client contacted Date contacted	ied:	Pt	erson contacted	
Contacted by: Regarding				
Comments:				
Corrective Action				
	39/39	a		
	0770			

			ody record	Other:	Std 🗖		evel 4							<b>A</b> 49	. <b>NA</b> 901	<b>LY</b> Haw	SIS kins	LA NE, S	<b>BC</b> Suite		DRY			
Client:	tor	+ Re	lining.	Project Name:	eR	Roc	l2 2	02000 on 8-30-05	1		THE REAL			Te	1. 50	)5.34	45.3	975	Fa	co 8710 ix 505.3	)9 345.4	107		
Gm	pon	L =	liniza	addition	al E	ica	soli	m 8-30-05							1		וסיויטי						1	
Address:	Ru	£3	Box 7	Project #:	'									ζŢ	7.11	Æ	<u>EL</u>	Ι÷	IJΞ	<u> </u>				
G	la	p. Sy	M 87391							S														
				Project Manager	:				21)						[		ر ⁴	ត្ត						N N
	· ···			Sit	د نعرید	24	h	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	s (80)	Gasoli	je g						PO. 5	3 (BOE						
Phone #:	505	. 72	2-2833	Sampler:	-	24	Al	mb	+ TMB's (8021)	TPH	B B B B	=	1.1)	5			NO2.	PCB'			TEX		. [	henan
Fax #:	505	75	2 2833	Sample Temperat		3	*	<u> </u>		+		od 41E	od 50,	08 pc	or PA	cals	NO ₃ .	cides /	A	-VDA)	18-			or Her
Date	Time	Matrix	Sample I.D. No.	Number/Volume	L	eservati HNO,	ive	HEAL No.	btex + mtbe	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 80158 (Bas(Diesel)	TPH (Method 41B.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄ )	8081	8260B (VOA)	8270 (Semi-VDA)	-1 2 od			Air Bubbles or Headsnace (V or N)
30/05	0715	· .	RR-1-83005	2-400				0508346-1			x			-						K	X	┟──┼		
7	0730		RR-2-83005	<i>h</i>				- 7			X	-								×	X			
<b>))</b>	0749		RR-3-83005		1		. <u> </u>	-3			X									×	X			
	0750		RR-4- 83005	5 N -				-4			x			-						X	4			
"	9899		fir-5-83005	1)				-5			X									X	X			F
•7	0810		RR-6-83005	• >				-6			x									X	17			
1)	9829		RR-7-83005	<i>?</i> `}				-1			$\mathbf{x}$									X	X			
17	9830		RR-8-83005	*>				- 8			X									X	4			
1)	9840	·····	RR-9-93005	1 >				-9			x									X	4			F
1)	0999		RR-10-83005	1 2				-10			X									X	K			
		·		· · · ·		· · ·																		
, Date; 3//05	Time: 9855	Relinquishe	d By: (Signature)	Received	By: (Si	ignature		8/31/05	Rem	arks:	F	PU	2	۔ بے	7								<u>.                                    </u>	
Date:		Relinquishe	d By: (Signature)	Received	By: (Si	ignature	e)	CALOKIS_			, ,			-										



#### COVER LETTER

September 26, 2005

Steve Morris Giant Refining Co Rt. 3 Box 7 Gallup, NM 87301 TEL: (505) 722-0258 FAX (505) 722-0210

RE: RR Rock Lagoon Add. Exc. 9/15/05

Order No.: 0509181

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 7 samples on 9/19/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

UP

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager



4901 Hawkins NE Suite D≅ Albuquerque, NM 87109 505.345.3975 ■ Fax 505.345.4107 www.hallenvironmental.com

CLIENT:	T: Giant Refining Co				Client Sample ID: RR-1A-91505							
Lab Order:	Order: 0509181			Collection Date: 9/15/2005 2:30:00 PM								
Project:	RR Rock Lagoon Add	. Exc. 9/15/05										
Lab ID:	0509181-01					Matrix:	SOIL					
Analyses		Result	PQL	Qual	Units		DF	Date Analyzed				
EPA METHOD	8015B: DIESEL RANGE	ORGANICS						Analyst: SCC				
Diesei Range C	Organics (DRO)	210	10		mg/Kg		1	9/22/2005 11:24:47 AM				
Motor Oil Range Organics (MRO)		ND	50		mg/Kg		1	9/22/2005 11:24:47 AM				
Surr: DNOP		106	60-124		%REC		1	9/22/2005 11:24:47 AM				
EPA METHOD	8260B: VOLATILES SHO	ORT LIST						Analyst: BDH				
Methyl tert-buty	/I ether (MTBE)	ND	0.050		mg/Kg		1	9/24/2005				
Benzene		ND	0.050		mg/Kg		1	9/24/2005				
Toluene		ND	0.050		mg/Kg		1	9/24/2005				
Ethylbenzene		ND	0.050		mg/Kg		1	9/24/2005				
Culturelizerie		ND	0.050		mg/Kg		4	9/24/2005				
Xylenes, Total	2 · · · ·	ND	0.000		mgmg			512-412005				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

Date: 26-Sep-05

R - RPD outside accepted recovery limits

E - Value above quantitation range

Page 1 of 7

1/26

aline) 5;

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#### Date: 26-Sep-05

CLIENT:	Client Sample ID: RR-2A-91505								
Lab Order:	0509181	509181				on Date:	9/15/2005 2:35:00 PM		
Project:	RR Rock Lagoon A	dd. Exc. 9/15/05				Matrix:			
Lab ID:	0509181-02						SOIL	·	
Analyses		Result	PQL	Qual U	Inits		DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANG	E ORGANICS						Analyst: SCC	
Diesel Range Organics (DRO)		130	- 10	m	g/Kg		1	9/22/2005 11:57:56 AM	
Motor Oil Range Organics (MRO)		ND	50	៣	ig/Kg		1	9/22/2005 11:57:56 AM	
Surr. DNOP		107	60-124	%	REC		1	9/22/2005 11:57:56 AM	
EPA METHOD	8260B: VOLATILES SI	HORT LIST						Analyst: BDH	
Methyl tert-buty	/i ether (MTBE)	ND	0.050	m	g/Kg		1	9/24/2005	
Benzene		ND	0.050	m	ig/Kg		1	9/24/2005	
Taluene		ND	0.050	m	ıg/Kg		1	9/24/2005	
Ethylbenzene		ND	0.050	m	g/Kg		1	9/24/2005	
Xylenes, Total		ND	0.050	m	g/Kg		1	9/24/2005	
Surr: 4-Brom	ofiuorobenzene	97.4	86.2-120	%	REC		1	9/24/2005	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits

E - Value above quantitation range

2/26

Page 2 of 7

CLIENT:	Giant Refining Co	Client Sample ID: RR-3A-91505							
Lab Order:	0509181	31			Collect	ion Date:	9/15/2005 2:40:00 PM		
Project:	RR Rock Lagoon Add.	l. Exc. 9/15/05				Matrix:			
Lab ID:	0509181-03						SOIL		
Analyses		Result	PQL	Qual	Units		DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE O	RGANICS						Analyst: SCC	
Diesel Range Organics (DRO)		ND	10		mg/Kg		1	9/22/2005 12:31:01 PM	
Motor Oil Range Organics (MRO)		ND	50		mg/Kg		1	9/22/2005 12:31:01 PM	
Surr: DNOP		109	60-124		%REC		1	9/22/2005 12:31:01 PM	
EPA METHOD	8260B: VOLATILES SHOR	T LIST				,		Analyst: BDH	
Methyl tert-buty	/i ether (MTBE)	ND	0.050		mg/Kg		1	9/24/2005	
Benzene		ND	0.050		mg/Kg		1	9/24/2005	
Toluene		ND	0.050		mg/Kg		1	9/24/2005	
Ethylbenzene		ND	0.050		mg/Kg		1	9/24/2005	
Xylenes, Total		ND	0.050		mg/Kg		1	9/24/2005	
Sum A-Brom	ofluorobenzene	113	86.2-120		%REC		1	9/24/2005	

Qualifiers:

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 3 / 26

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Page 3 of 7

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Date: 26-Sep-05

CLIENT:	Giant Refining Co		Client Sample ID: RR-4A-91505						
Lab Order:	0509181		Collection Date: 9/15/2005 2:45:00 PM						
Project:	RR Rock Lagoon A	dd. Exc. 9/15/05							
Lab ID:	0509181-04					Matrix:	SOIL		
Analyses		Result	PQL	Qual	Units		DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANG	E ORGANICS						Analyst: SCC	
Diesel Range C	Organics (DRO)	ND	10		mg/Kg		1	9/22/2005 1:04:05 PM	
Motor Oil Rang	e Organics (MRO)	ND	- 50		mg/Kg		1	9/22/2005 1:04:05 PM	
Surr: DNOP		101	60-124		%REC		1	9/22/2005 1:04:05 PM	
EPA METHOD	8260B: VOLATILES S	HORT LIST						Analyst: BDH	
Methyl tert-buty	l ether (MTBE)	ND	0.050		mg/Kg		1	9/24/2005	
Benzene		ND	0.050		mg/Kg		1	9/24/2005	
Toluene		ND	0.050		mg/Kg		1	9/24/2005	
Ethylbenzenø		ND	0.050		mg/Kg		1	9/24/2005	
Xylenes, Total		ND	0.050		mg/Kg		1	9/24/2005	
Surr: 4-Brorr	oliuorobenzene	119	86.2-120		%REC		1	9/24/2005	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level 4 / 26
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

CLIENT:	Giant Refining Co			<b>Client Sample</b>	ID: RR-5A-	91505				
Lab Order:	0509181		Collection Date: 9/15/2005 2:50:00 PM							
Project:	RR Rock Lagoon Ad	d. Exc. 9/15/05								
Lab ID:	0509181-05			M	atrix: SOIL	·				
Analyses		Result	PQL Q	ual Units	DF	Date Analyzed				
EPA METHOD	8015B: DIESEL RANGE	ORGANICS				Analyst: SCC				
Diesel Range C	Drganics (DRO)	ND	10	mg/Kg	1	9/22/2005 1:37:09 PM				
Motor Oil Rang	e Organics (MRO)	ND	50	mg/Kg	1	9/22/2005 1:37:09 PM				
Surr: DNOP		102	60-124	%REC	1	9/22/2005 1:37:09 PM				
EPA METHOD	8260B: VOLATILES SH	ORT LIST				Analyst: BDH				
Methyl tert-buty	/l ether (MTBE)	ND	0.050	mg/Kg	1	9/24/2005				
Benzene		ND	0.050	mg/Kg	1	9/24/2005				
Toluene		ND	0.050	mg/Kg	1	9/24/2005				
Ethylbenzene		ND	0.050	mg/Kg	1	9/24/2005				
Xylenes, Total		. ND	0.050	mg/Kg	1	9/24/2005				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

• - Value exceeds Maximum Contaminant Level 5 / 26

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits

E - Value above quantitation range

Page 5 of 7

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Date: 26-Sep-05

CLIENT:	Giant Refining Co	efining Co Client Sample ID: RR-6A-91505								
Lab Order:	0509181			Coll	ection D:	ate: 9/15/2	005 2:55:00 PM			
Project:	RR Rock Lagoon Ad	d. Exc. 9/15/05	05							
Lab ID:	0509181-06				Mati	rix: SOIL				
Analyses		Result	PQL	Qual Uni	ts	DF	Date Analyzed			
EPA METHOD	8015B: DIESEL RANGE	ORGANICS			_		Analyst: SCC			
Diesel Range C	)rganics (DRO)	ND	10	mg/i	۶g	1	9/22/2005 2:10:14 PM			
Motor Oil Rang	e Organics (MRO)	ND	50	mg/i	۲g	1	9/22/2005 2:10:14 PM			
Surr: DNOP		101	60-124	%R8	EC	1	9/22/2005 2:10:14 PM			
EPA METHOD	8260B: VOLATILES SH	ORT LIST					Analyst: BDH			
Methyl tert-buty	l ether (MTBE)	ND	0.050	mg/l	۲g	1	9/24/2005			
Benzene		ND	0.050	mg/l	۲g	1	9/24/2005			
Toluene		ND	0.050	mg/ł	<b>(</b> g	1	9/24/2005			
Ethylbenzene		ND	0.050	mg/i	٢g	1	9/24/2005			
Xylenes, Totai		ND	0.050	mg/i	۲g	1	9/24/2005			
Surr. 4-Brom	oliuorobenzene	90.5	86.2-120	%RI	EC	1	9/24/2005			

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits

E - Value above quantitation range

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Hall Envir	onmental Analys	is Labora	Date: 26-Sep-05							
CLIENT:	Giant Refining Co			Client Sample ID: RR-7A-91505						
Lab Order:	0509181				Collect	ion Date:	9/15/2	2005 3:00:00 PM		
Project:	RR Rock Lagoon Add	l. Exc. 9/15/05	5							
Lab ID:	0509181-07					Matrix:	SOIL			
Analyses		Result	PQL	Qual	Units		DF	Date Analyzed		
EPA METHOD 8015B: DIESEL RANGE ORGANICS								Analyst: SCC		
Diesel Range C	Drganics (DRO)	ND	10		mg/Kg		1	9/22/2005 3:16:27 PM		
Motor Oil Rang	e Organics (MRO)	ND	50		mg/Kg		1	9/22/2005 3:16:27 PM		
Surr. DNOP		104	60-124		%REC		1	9/22/2005 3:16:27 PM		
EPA METHOD	8260B: VOLATILES SHO	ORT LIST						Analyst: BDH		
Methyl tert-buty	/i ether (MTBE)	ND	0.050		mg/Kg		1	9/24/2005		
Benzene		ND	0.050		mg/Kg	••	1	9/24/2005		
Toluene		ND	0.050		mg/Kg		1	9/24/2005		
Ethylbenzene	. ·	ND	0.050		mg/Kg		1	9/24/2005		
Xylenes, Total		ND	0.050		mg/Kg		1	9/24/2005		
Surr: 4-Brom	ofluorobenzene	104	86.2-120		%REC		1	9/24/2005		

Qualifiers:	ND - Not Detected at the Reporting Limit		S - Spike Recovery outside accepted recov	ery limits
	J - Analyte detected below quantitation limits		R - RPD outside accepted recovery limits	
	B - Analyte detected in the associated Method Blank		E - Value above quantitation range	· .
	* - Value exceeds Maximum Contaminant Level 7 / 26	5		Page 7 o



Client: Hall Environmental-Albuquerque **Project:** Lab ID: B05091262-001 Client Sample ID: RR-1A-91505, 0509181-01B

Report Date: 09/23/05 Collection Date: 09/20/05 14:30 Date Received: 09/20/05 Matrix: Soil

				MCL/		
Analyses	Result	Units	Qual	RL QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS						
Moisture	7.6	wt%		0.01	SW3550A	09/22/05 13:31 / mwa
SEMI-VOLATILE ORGANIC COMPOL	INDS					
1,2,4-Trichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
1,2-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
1,3-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
1,4-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
1-Methylnephthalene	0.29	mg/kg	J	0.33	SW8270C	09/22/05 15:01 / dsm
2,4,5-Trichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
2,4,6-Trichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
2,4-Dichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
2,4-Dimethylphenol	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
2,4-Dinitrophenol	ND	mg/kg		1.7	SW8270C	09/22/05 15:01 / dsm
2,4-Dinitrotoluene	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
2,6-Dinitrotoluene	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
2-Chloronaphthalene	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
2-Chlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
2-Methylnaphthalene	0.069	mg/kg	J	0.33	SW8270C	09/22/05 15:01 / dsm
2-Nitrophenol	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
3,3 -Dichlorobenzidine	ND	mg/kg		0.67	SW8270C	09/22/05 15:01 / dsm
4,6-Dinitro-2-methylphenol	ND	mg/kg		1.7	SW8270C	09/22/05 15:01 / dsm
4-Bromophenyl phenyl ether	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
4-Chloro-3-methylphenol	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
4-Chlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
4-Chlorophenyi phenyl ether	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
4-Nitrophenol	ND	mg/kg		1.7	SW8270C	09/22/05 15:01 / dsm
Acenaphthene	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
Acenaphthylene	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
Anthracene	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
Azobenzene	ND	mg/kg		0,33	SW8270C	09/22/05 15:01 / dsm
Benzidine	ND	mg/kg		0.67	SWB270C	09/22/05 15:01 / dsm
Benzo(a)anthracene	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
Benzo(a)pyrene	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
Benzo(b)fluoranthene	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
Benzo(g,h,i)perylene	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
Benzo(k)fluoranthene	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
bis(-2-chloroethoxy)Methane	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
bis(-2-chloroethyl)Ether	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
bis(2-chloroisopropyl)Elher	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
bis(2-ethylhexyl)Phthalate	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
Butylbenzylphthalate	ND	mg/kg		0.33	SW8270C	09/22/05 15:01 / dsm
Chrysene	0.058	mg/kg	J	0.33	SW8270C	09/22/05 15:01 / dsm

RL - Analyte reporting limit. Report Definitions:

QCL - Quality control limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

J - Estimated value. The analyte was present but less than the reporting limit.



#### LABORATORY ANALYTICAL REPORT

Client: Hall Environmental-Albuquerque Project: Lab D: B05091262-001 Client Sample ID: RR-1A-91505, 0509181-01B Report Date: 09/23/05 Collection Date: 09/20/05 14:30 Date Received: 09/20/05 Matrix: Soil

	MCL/								
Analyses	Result	Units	Qual	RL	QCL	Method	Analysis Date / By		
SEMI-VOLATILE ORGANIC COM	POUNDS								
Dibenzo(a,h)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
Diethyl phthalate	ND	mg/kg		0.33		SWB270C	09/22/05 15:01 / dsm		
Dimethyl phlhalate	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
Di-n-butyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
Di-n-octyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
Fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
Fluorene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
Hexachlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
Hexachlorobutadiene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
Hexachlorocyclopentadiene	ND	mg/kg		0.67		SW8270C	09/22/05 15:01 / dsm		
Hexachloroethane	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
Indeno(1,2,3-cd)pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
Isophorone	ND	mg/kg		0.33		SWB270C	09/22/05 15:01 / dsm		
m+p-Cresols	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
Naphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
Nitrobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
n-Nilrosodimethylamlne	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
n-Nilroso-di-n-propylamine	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
n-Nitrosodiphenylamine	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
o-Cresol	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
Pentachlorophenol	ND	mg/kg		1.7		SW8270C	09/22/05 15:01 / dsm		
Phenanthrane	1.6	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
Phenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
Pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm		
Pyridine	ND	mg/kg		0.67		SW8270C	09/22/05 15:01 / dsm		
Surr. 2,4,6-Tribromophenol	114	%REC			19-122	SW8270C	09/22/05 15:01 / dsm		
Surr. 2-Fluorobiphenyl	82.4	%REC			30-115	SW8270C	09/22/05 15:01 / dsm		
Sur: 2-Fluorophenol	81.5	%REC			25- <b>12</b> 1	SW8270C	09/22/05 15:01 / dsm		
Surr: Nilrobenzene-d5	75.1	%REC			23-120	SW8270C	09/22/05 15:01 / dsm		
Surr: Phenol-d5	83.0	%REC			24-113	SW8270C	09/22/05 15:01 / dsm		
Surr. Terphenyl-d14	102	%REC			18-137	SWB270C	09/22/05 15:01 / dsm		

 Report
 RL - Analyte reporting limit.

 Definitions:
 QCL - Quality control limit.

MCL - Maximum contaminant level.



### LABORATORY ANALYTICAL REPORT

Cliest: Hall Environmental-Albuquerque **Project:** Lab ID: B05091262-002 Client Sample ID: RR-2A-91505, 050981-2B

Report Date: 09/23/05 Collection Date: 09/15/05 14:35 Date Received: 09/20/05 Matrix: Soil

				MCL/		
Analyses	Result	Units	Qual	RL QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS						
Moisture	7.9	wt%		0.01	SW3550A	09/22/05 13:31 / mwd
SEMI-VOLATILE ORGANIC COMPOL	INDS					
1,2,4-Trichlorobenzena	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
1,2-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
1,3-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
1,4-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
1-Methylnaphthalene	0.13	mg/kg	J	0.33	SW8270C	09/22/05 15:44 / dsm
2,4,5-Trichlorophenol	ND	mg/kg		0.33	SWB270C	09/22/05 15:44 / dsm
2,4,6-Trichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
2,4-Dichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
2,4-Dimethylphenol	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
2,4-Dinitrophenol	ND	mg/kg		1.7	SW8270C	09/22/05 15:44 / dsm
2,4-Dinitrolaluene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
2,6-Dinitrololuene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
2-Chloronaphthalena	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
2-Chlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
2-Meinyinaphihalene	0.11	mg/kg	J	0.33	SWB270C	09/22/05 15:44 / dsm
2-Nitrophenol	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
3,3'-Dichlorobenzidine	ND	mg/kg		0.67	SW8270C	09/22/05 15:44 / dsm
4,6-Dinitro-2-methylphenol	ND	mg/kg		1.7	SW8270C	09/22/05 15:44 / dsm
4-Bromophenyl phenyl ether	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
4-Chloro-3-melhylphenol	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
4-Chlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
4-Chlorophenyl phenyl ether	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
4-Nitrophenol	ND	mg/kg		1.7	SW8270C	09/22/05 15:44 / dsm
Acenaphihene	ND	mg/kg		0,33	SW8270C	09/22/05 15:44 / dsm
Acenaphthylene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Anthracene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Azobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Benzidine	ND	mg/kg		0.67	SW8270C	09/22/05 15:44 / dsm
Benzo(a)anthracene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Benzo(a)pyrene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Benzo(b)Iluoranthene	ND	mg/kg	·	0.33	SW8270C	09/22/05 15:44 / dsm
Benzo(g,h,i)perylena	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Banzo(k)fluoranthene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
bis(-2-chloroethoxy)Methane	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
bis(-2-chloroethyl)Ether	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
bis(2-chloroisopropyi)Elher	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
bis(2-ethylhexyl)Phihalale	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Butylbenzylphthalate	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Chrysene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm

RL - Analyte reporting limit. Report Definitions:

QCL - Quality control limit.

MCL - Maximum contaminant level,

ND - Not detected at the reporting limit.

J - Estimated value. The analyte was present but less than the reporting limit.



### LABORATORY ANALYTICAL REPORT

Client: Hall Environmental-Albuquerque Project:

Lab ID: B05091262-002

Client Sample ID: RR-2A-91505, 050981-2B

Report Date: 09/23/05 Collection Date: 09/15/05 14:35 Date Received: 09/20/05 Matrix: Soil

				MCL/		
Analyses	Result	Units	Qual	RL QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMP	POUNDS					
Dibenzo(a,h)anthracene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Dielhyl phihalate	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Dimethyl phthelate	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Di-n-butyl phthalate	0,13	mg/kg	t	0.33	SW8270C	09/22/05 15:44 / dsm
Di-n-octyl phthalate	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Fluoranthene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Fluorena	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Hexachlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Hexachlorobutadiene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Hexachlorocyclopentadlene	ND	mg/kg		0.67	SW8270C	09/22/05 15:44 / dsm
Hexachloroelhane	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Indeno(1,2,3-cd)pyrene	ND	mg/kg	,	0.33	SW8270C	09/22/05 15:44 / dsm
Isophorone	ND	mg/kg		0,33	SW8270C	09/22/05 15:44 / dsm
m+p-Cresols	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Naphthalene	0.043	mg/kg	L	0.33	SW8270C	09/22/05 15:44 / dsm
Nitrobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
n-Nilrosodimethylamine	ND	mg/kg		0.33	SW8270C	09/22/05 15;44 / dsm
n-Nilroso-di-n-propylamine	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
n-Nitrosodiphenylamine	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
o-Cresol	ND	mg/kg		0.33	SWB270C	09/22/05 15:44 / dsm
Pentachlorophenol	ND	mg/kg		1.7	SW8270C	09/22/05 15:44 / dsm
Phenanthrane	0,16	mg/kg	J	0.33	SW8270C	09/22/05 15:44 / dsm
Phenol	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Pyrene	ND	mg/kg		0.33	SW8270C	09/22/05 15:44 / dsm
Pyridine	ND	mg/kg		0.67	SW8270C	09/22/05 15:44 / dsm
Surr: 2,4,6-Tribromophenol	95.0	%REC		19-12	2 SW8270C	09/22/05 15:44 / dsm
Surr: 2-Fluorobiphenyl	77.5	%REC		30-11	5 SW8270C	09/22/05 15:44 / dsm
Surr: 2-Fluorophenol	84.0	%REC		25-12	1 SW8270C	09/22/05 15:44 / dsm
Surr: Nitrobenzene-d5	74.9	%REC		23-12	0 SW8270C	09/22/05 15:44 / dsm
Surr: Phenol-d5	84.0	%REC		24-11	3 SW8270C	09/22/05 15:44 / dsm
Surr: Terphenyl-d14	91.9	%REC		18-13	7 SW8270C	09/22/05 15:44 / dsm

Report Definitions: RL - Analyte reporting limit.

QCL - Quality control limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

 ${\bf J}$  - Estimated value. The analyte was present but less than the reporting limit.



Client: Hall Environmental-Albuquerque Project: Lab ID: B05091262-003

Client Sample ID: RR-3A-91505, 0509181-3B

RL - Analyte reporting limit.

QCL - Quality control limit.

Report Definitions: Report Date: 09/23/05 Collection Date: 09/15/05 14:40 Date Received: 09/20/05 Matrix: Soil

			. —	MCL		
Analyses	Result	Units	Qual	RL QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS						
Molsture	11	wt%		0.01	SW3550A	09/22/05 13:32 / mwc
SEMI-VOLATILE ORGANIC COMPOL	UNDS					
1,2,4-Trichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
1,2-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
1,3-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
1,4-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
1-Methylnaphthalene	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
2,4,5-Trichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
2,4,6-Trichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
2,4-Dichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
2,4-Dimethylphenol	ND	mg/kg	•	0.33	SW8270C	09/22/05 16:27 / dsm
2,4-Dinitrophenol	ND	mg/kg		1.7	SW8270C	09/22/05 16:27 / dsm
2,4-Dinitrotoluene	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
2,6-Dinitrotoluene	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
2-Chloronaphthalene	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
2-Chlorophenoi	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
2-Methylnaphthalene	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
2-Nitrophenol	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
3,3'-Dichlorobenzidine	ND	mg/kg		0.67	SW8270C	09/22/05 16:27 / dsm
4,6-Dinitro-2-methylphanol	ND	mg/kg		1.7	SW8270C	09/22/05 16:27 / dsm
4-Bromophenyl phenyl ether	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
4-Chloro-3-methylphenoi	ND	mg/kg		0.33	SW8270C	09/22/05 18:27 / dsm
4-Chlorophenoi	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
4-Chlorophenyl phenyl ether	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
	ND			1.7	SW8270C	09/22/05 16:27 / dsm
4-Nitrophenol	ND	mg/kg				
Acenaphihene		mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
Acenaphihylene	ND ND	mg/kg		0.33	SW8270C SW8270C	09/22/05 16:27 / dsm
Anthracene		mg/kg		0.33		09/22/05 16:27 / dsm
Azobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
	ND	mg/kg		0.67	SW8270C	09/22/05 16:27 / dsm
Benzo(a)anthracene	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
Benzo(a)pyrene	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
Benzo(b)fluoranihene	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
Benzo(g,h,i)perylene	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
Benzo(k)fluoranthene	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
bis(-2-chloroethoxy)Methane	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
bis(-2-chloroethyl)Ether	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
bis(2-chlorolsopropyl)Ether	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
bis(2-ethylhexyl)Phthalate	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm
Bułylbenzylphihalate	ND	mg/kg		0.33	SWB270C	09/22/05 16:27 / dsm
Chrysene	ND	mg/kg		0.33	SW8270C	09/22/05 16:27 / dsm

MCL - Maximum contaminant level.



#### LABORATORY ANALYTICAL REPORT

Client: Hall Environmental-Albuquerque Project: Lab ID: B05091262-003

Client Sample ID: RR-3A-91505, 0509181-3B

Report Date: 09/23/05 Collection Date: 09/15/05 14:40 Date Received: 09/20/05 Matrix: Soil

· · · · · · · · · · · · · · · · · · ·				MC	L/		
Analyses	Result	Units	Qual	RL QC	L M	lethod	Analysis Date / By
SEMI-VOLATILE ORGANIC COMP	OUNDS						
Dibenzo(a,h)anthracene	ND	mg/kg		0.33	:	SWB270C	09/22/05 16:27 / dsm
Diethyl phthalate	ND	mg/kg		0.33	:	SW8270C	09/22/05 16:27 / dsm
Dimethyl phthalate	ND	mg/kg		D.33	ł	SW8270C	09/22/05 16:27 / dsm
Di-n-butyl phthalate	0.091	mg/kg	J	0.33	· .	SW8270C	09/22/05 16:27 / dsm
Di-n-octyl phthalate	ND	mg/kg		0.33	:	SW8270C	09/22/05 16:27 / dsm
Fluoranthene	ND	mg/kg		0.33	:	SW8270C	09/22/05 16:27 / dsm
Fluorene	ND	mg/kg		0.33	:	SW8270C	09/22/05 16:27 / dsm
Hexachlorobenzene	ND	mg/kg		0.33	:	SW8270C	09/22/05 16:27 / dsm
Hexachlorobuladiene	ND	mg/kg		0.33	:	SW8270C	09/22/05 16:27 / dsm
Hexachlorocyclopentadiene	ND	mg/kg		0.67	:	SW8270C	09/22/05 16:27 / dsm
Hexachloroethane	ND	mg/kg		0.33	:	SW8270C	09/22/05 16:27 / dsm
Indeno(1,2,3-cd)pyrene	ND	mg/kg		0.33	:	SW8270C	09/22/05 16:27 / dsm
Isophorone	ND	mg/kg		0.33	:	SW8270C	09/22/05 16:27 / dsm
m+p-Cresols	ND	mg/kg		0.33	1	SW8270C	09/22/05 16:27 / dsm
Naphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Nilrobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
n-Nitrosodimethylamine	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
n-Nitroso-di-n-propylamine	ND	mg/kg		0.33	:	SW8270C	09/22/05 16:27 / dsm
n-Nitrosodiphenylamine	ND	mg/kg		0,33		SW8270C	09/22/05 16:27 / dsm
o-Cresol	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Penlachlorophenol	ND	mg/kg		1.7		SW8270C	09/22/05 16:27 / dsm
Phenanthrene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Phenol	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Pyridine	ND	mg/kg		0.67		SW8270C	09/22/05 16:27 / dsm
Surr: 2,4,6-Tribromophanol	99.5	%REC		· 1:	9-122	SW8270C	09/22/05 16:27 / dsm
Surr. 2-Fluorobiphenyl	81.5	%REC		3	0-115	SWB270C	09/22/05 16:27 / dsm
Surr, 2-Fluorophenal	84.5	%REC		2	5-121	SW8270C	09/22/05 16:27 / dsm
Surr: Nitrobenzene-d5	79.7	%REC		2	3-120	SW8270C	09/22/05 16:27 / dsm
Surr: Phenol-d5	85.5	%REC		2	4-113	SW8270C	09/22/05 16:27 / dsm
Surr: Terphenyl-d14	95.1	%REC		1	8-1 <b>37</b>	SW8270C	09/22/05 16:27 / dsm

Report Definitions:

中国新闻学校,""新闻"中国的""大学",在中国的""一",""""大学"的""大学"的"一",""新闻的"大学"的""一","我们就是一个"大学"的"大学"。

RL - Analyte reporting limit. QCL - Quality control limit. MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

 ${\bf J}$  - Estimated value. The analyte was present but less than the reporting limit.

13/26



Client: Hall Environmental-Albuquerque Project: Lab ID: B05091262-004

Client Sample ID: RR-4A-91505, 0509181-4B

Report Date: 09/23/05 Collection Date: 09/15/05 14:45 Date Received: 09/20/05 Matrix: Soil

				MCL		
Analyses	Result	Units	Qual	RL QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS						
Moisture	9.2	wt%		0.01	SW3550A	09/22/05 13:32 / mwd
SEMI-VOLATILE ORGANIC COMPOL	INDS					
1,2,4-Trichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
1.2-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
1,3-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
1,4-Dichlorobenzene	ND	mg/kg		0,33	SW8270C	09/22/05 17:10 / dsm
1-Methylnaphthalene	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
2,4,5-Trichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
2,4,6-Trichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
2,4-Dichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
2,4-Dimethylphenol	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
2,4-Dinitrophenol	ND	mg/kg		1.7	SW8270C	09/22/05 17:10 / dsm
2.4-Dinitrotoluene	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
2.6-Dinitrotoluene	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
2-Chloronaphthalene	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
2-Chlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
2-Methyinaphthalene	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
2-Nitrophenol	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
3,3°-Dichlorobenzidine	ND	mg/kg		0.67	SW8270C	09/22/05 17:10 / dsm
4,6-Dinitro-2-methylphenol	ND	mg/kg		1.7	SW8270C	09/22/05 17:10 / dsm
4-Bromophenyi phenyi ether	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
4-Chloro-3-methylphenol	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
4-Chiaraphenal	ND	mg/kg		0.33	SWB270C	09/22/05 17:10 / dsm
4-Chlorophenyl phenyl elher	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
4-Nitrophenol	ND	mg/kg		1.7	SW8270C	09/22/05 17:10 / dsm
Acenaphthene	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
Acenaphthylene	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
Anihracene	ND	mg/kg		0.33	SWB270C	09/22/05 17:10 / dsm
Azobenzene	ND	mg/kg		0.33	SWB270C	09/22/05 17:10 / dsm
Benzidine	ND	mg/kg		0.67	SW8270C	09/22/05 17:10 / dsm
Benzo(a)anthracene	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
Benzo(a)pyrene	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
Benzo(b)Nuoranthene	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
Benzo(g,h,i)perylene	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
Benzo(k)iluoranthene	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
bis(-2-chloroethoxy)Methane	ND	mg/kg		0,33	SW8270C	09/22/05 17:10 / dsm
bis(-2-chloroethyl)Ether	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
bis(2-chloroisopropyl)Ether	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
bis(2-ethylhexyl)Phthalate	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
Butylbenzylphihalate	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm
Chrysene	ND	mg/kg		0.33	SW8270C	09/22/05 17:10 / dsm

RL - Analyte reporting limit. Report Definitions:

QCL - Quality control limit.

MCL - Maximum contaminant level.



### LABORATORY ANALYTICAL REPORT

Client: Hall Environmental-Albuquerque Project: Lab ID: B05091262-004 Client Sample ID: RR-4A-91505, 0509181-4B

Report Date: 09/23/05 Collection Date: 09/15/05 14:45 Date Received: 09/20/05 Matrix: Soil

				N	ACL/		
Analyses	Result	Units	Qual	RL (	QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COMPOUND	S						
Dibenzo(a,h)anlhracene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Diethyl phlhaiate	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Dimethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Di-n-bulyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Di-n-octyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Fluoranihene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Fluorene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Hexachlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Hexachlorobutadiene	ND	mg/kg		0,33		SW8270C	09/22/05 17:10 / dsm
Hexachlorocyclopentadiene	ND	mg/kg		0.67		SW8270C	09/22/05 17:10 / dsm
Hexachloroethane	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Indeno(1,2,3-cd)pyrene	ND	mg/kg	•	0.33		SW8270C	09/22/05 17:10 / dsm
Isophorone	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
m+p-Cresols	ND	mg/kg		0.33	k.	SW8270C	09/22/05 17:10 / dsm
Naphihalene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Nilrobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
n-Nitrosodimethylamine	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
n-Nitroso-di-n-propylamine	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
n-Nitrosodiphenylamine	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
o-Cresol	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Pentachlorophenol	ND	mg/kg		1.7		SW8270C	09/22/05 17:10 / dsm
Phenanthrene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Phenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Pyridine	ND	mg/kg		0.67		SW8270C	09/22/05 17:10 / dsm
Surr: 2,4,6-Tribromophenol	95.0	%REC			19-122	SW8270C	09/22/05 17:10 / dsm
Surr: 2-Fluoroblphenyl	77.8	%REC			30-115	SW8270C	09/22/05 17:10 / dsm
Surr: 2-Fluorophenal	78.D	%REC			25-121	SW8270C	09/22/05 17:10 / dsm
Surr: Nitrobenzene-d5	70.9	%REC			23-120	SW8270C	09/22/05 17:10 / dsm
Surr: Phenol-d5	77.5	%REC			24-113	SW8270C	09/22/05 17:10 / dsm
Surr: Terphenyl-d14	89.3	%REC			18-137	SW8270C	09/22/05 17:10 / dsm

Report Definitions: RL - Analyle reporting limit. QCL - Quality control limit. MCL - Maximum contaminant level.



Client: Hall Environmental-Albuquerque **Project:** Lab ID: B05091262-005

Client Sample ID: RR-5A-91505, 0509181-5B

Report Date: 09/23/05 Collection Date: 09/15/05 14:50 Date Received: 09/20/05 Matrix: Soil

				MCL/		
Analyses	Result	Units	Qual	RL QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS			·			, · · ·
Moisture	6.2	wt%		0.01	SW3550A	09/22/05 13:32 / mwd
SEMI-VOLATILE ORGANIC COMPOL	JNDS					
1,2,4-Trichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
1,2-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
1,3-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
1,4-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
1-Methyinaphthalene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
2,4,5-Trichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
2,4,6-Trichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
2,4-Dichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
2,4-Dimethylphenol	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
2,4-Dinitrophenol	ND	mg/kg		1.7	SW8270C	09/22/05 17:53 / dsm
2,4-Dinitrotoluene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
2,6-Dinitrololuene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
2-Chloronaphthalene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
2-Chlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
2-Methyinaphthalene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
2-Nitrophenol	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
3,3°-Dichlorobenzidine	ND	mg/kg		0.67	SW8270C	09/22/05 17:53 / dsm
4,6-Dinitro-2-methylphenol	ND	mg/kg		1.7	SW8270C	09/22/05 17:53 / dsm
4-Bromophenyl phenyl ether	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
4-Chloro-3-methylphenol	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
4-Chlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
4-Chlorophenyl phenyl ether	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
4-Nitrophenol	ND	mg/kg		1.7	SW8270C	09/22/05 17:53 / dsm
Acenaphihene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Acenaphihylene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Anthracene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Azobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Benzidine	ND	mg/kg		0.67	SW8270C	09/22/05 17:53 / dsm
Benzo(a)anthracene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Benzo(a)pyrene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Benzo(b)fluoranthene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Benzo(g,h,i)perylene	0.044	mg/kg	J	0.33	SW8270C	09/22/05 17:53 / dsm
Benzo(g,n,nparytene Benzo(k)/luoranihene	ND	mg/kg	J	0.33	SW8270C	09/22/05 17:53 / dsm
bis(-2-chloroelhoxy)Methane	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
bis(-2-chloroethyl)Ether	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm 09/22/05 17:53 / dsm
bis(2-chiaraisopropyl)Ether	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm 09/22/05 17:53 / dsm
	ND			0.33	SW8270C	
bis(2-ethylhexyl)Phthalate	ND	mg/kg		0.33		09/22/05 17:53 / dsm
Butylbenzylphihalate		mg/kg			SW8270C	09/22/05 17:53 / dsm
Chrysene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm

RL - Analyte reporting limit. Report Definitions:

QCL - Quality control limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

J - Estimated value. The analyte was present but less than the reporting limit.



Client: Hall Environmental-Albuquerque Project:

Lab ID: B05091262-005

Client Sample ID: RR-5A-91505, 0509181-5B

Report Date: 09/23/05 Collection Date: 09/15/05 14:50 Date Received: 09/20/05 Matrix: Soil

				MCL/		
Analyses	Result	Units	Qual	RL QCL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COM	POUNDS					
Dibenzo(a,h)anthracene	0.040	mg/kg	J	0.33	SW8270C	09/22/05 17:53 / dsm
Diethyl phthalate	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Dimethyl phthalate	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
DI-n-butyl phthalate	0.069	mg/kg	J	0.33	SWB270C	09/22/05 17:53 / dsm
Di-n-octyl phthalate	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Fluoranlhene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Fluorene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Hexachlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Hexachlorobutadiene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Hexachlorocyclopentadiene	ND	mg/kg		0.67	SW8270C	09/22/05 17:53 / dsm
Hexachloroelhane	ND	mg/kg	· ·	0.33	SW8270C	09/22/05 17:53 / dsm
Indeno(1,2,3-cd)pyrene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Isophorone	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
m+p-Cresols	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Naphihalene	· ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Nilrobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
n-Nitrosodimethylamine	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
n-Nitroso-di-n-propylamine	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
n-Nitrosodiphenylamine	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
o-Cresol	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Pentachlorophenol	ND	mg/kg		1.7	SW8270C	09/22/05 17:53 / dsm
Phenanthrene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Phenol	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Pyrene	ND	mg/kg		0.33	SW8270C	09/22/05 17:53 / dsm
Pyridine	ND	mg/kg		0.67	SW8270C	09/22/05 17:53 / dsm
Surr: 2,4,6-Tribromophenol	93.0	%REC		19-122		09/22/05 17:53 / dsm
Surr: 2-Fluorobiphenyl	80.7	%REC		30-115		09/22/05 17:53 / dsm
Surr: 2-Fluorophenoi	65.0	%REC		25-121		09/22/05 17:53 / dsm
Surr: Nitrobenzene-d5	76.3	%REC		23-120		09/22/05 17:53 / dsm
Surr: Phenol-d5	81.0	%REC		24-113		09/22/05 17:53 / dsm
Surr: Terphenyl-d14	95.5	%REC		18-137		09/22/05 17:53 / dsm

 Report
 RL - Analyte reporting limit.

 Definitions:
 QCL - Quality control limit.

 J - Estimated value.
 The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.



Client: Hall Environmental-Albuquerque **Project:** Lab ID: B05091262-006 Client Sample ID: RR-6A-91505, 0509181-6B

Report Date: 09/23/05 Collection Date: 09/15/05 14:55 Date Received: 09/20/05 Matrix: Soil

				MCL/		
Analyses	Result	Units	Qual	RL QCL	Method	Analysis Date / B
PHYSICAL CHARACTERISTICS		·				
Moisture	11	wt%		0.01	SW3550A	09/22/05 13:32 / mw
SEMI-VOLATILE ORGANIC COMPOL	JNDS					
1,2,4-Trichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 18:35 / dsr
1,2-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / dsr
1,3-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
1,4-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
1-Methylnaphthalene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / dsi
2,4,5-Trichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds/
2,4,6-Trichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / dsr
2,4-Dichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / dsr
2,4-Dimelhylphenol	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / dsi
2,4-Dinitrophenol	ND	mg/kg		1.7	SW8270C	09/22/05 18:36 / dsr
2,4-Dinitrotoluene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
2,6-Dinitrotoluene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / dsi
2-Chloronaphthalene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / dsi
2-Chlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
2-Methylnaphthalene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
2-Nitrophenol	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
3,3°-Dichlorobenzidine	ND	mg/kg		0.67	SW8270C	09/22/05 18:36 / ds
4,6-Dinitro-2-methylphenol	ND	mg/kg		1.7	SW8270C	09/22/05 18;36 / ds
4-Bromophenyl phenyl othor	ND	mg/kg		0.33	SWB270C	09/22/05 18:36 / ds
4-Chloro-3-methylphenol	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
4-Chlarophenol	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
4-Chlorophenyl phenyl ether	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
4-Nitrophenol	ND	mg/kg		1.7	SW8270C	09/22/05 18:36 / ds/
Acenaphthene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
Acenaphthylene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
Anthracene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
Azobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
Benzidine	ND	mg/kg		0.67	SW8270C	09/22/05 18:36 / ds
Benzo(a)anthracene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
Benzo(a)pyrene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
Benzo(b)fluoranthene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
Benzo(g,h,i)perylene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
Benzo(k)fluoranthene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
bis(-2-chloroethoxy)Methane	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
bis(-2-chloroethyl)Ether	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
bis(2-chloroisopropyl)Ether	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
bis(2-ethylhexyl)Phthalate	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / dsr
Butylbenzylphthalate	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds
Chrysene	ND	mg/kg		0.33	SW8270C	09/22/05 18:36 / ds

RL - Analyte reporting limit. Report Definitions:

QCL - Quality control limit.

MCL - Maximum contaminant level.



### LABORATORY ANALYTICAL REPORT

Client: Hall Environmental-Albuquerque Project: Lab ID: B05091262-006 Report Date: 09/23/05 Collection Date: 09/15/05 14:55 Date Received: 09/20/05 Matrix: Soil

Client Sample ID: RR-6A-91505, 0509181-6B

				٨	ACL/		
Analyses	Result	Units	Qual	RL (	QĊL	Method	Analysis Date / By
SEMI-VOLATILE ORGANIC COM	POUNDS						
Dibenzo(a,h)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Diethyl phihalate	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Dimethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Di-n-bulyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Di-n-octyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Fluorene	ND	mg/kg		0.33	•	SW8270C	09/22/05 18:36 / dsm
Hexachlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Hexachlorobutadiana	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Hexachlorocyclopentadiene	ND	mg/kg		0.67		SW8270C	09/22/05 18:36 / dsm
Hexachloroethane	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Indeno(1,2,3-cd)pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Isophorone	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
m+p-Cresols	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Naphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Nitrobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
n-Nitrosodimethylamine	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
n-Nitroso-di-n-propylamine	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
n-Nitrosodiphenylemine	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
o-Cresol	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Pentachlorophenol	ND	mg/kg		1.7		SW8270C	09/22/05 18:36 / dsm
Phenanthrene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Phenol	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Pyridine	ND	mg/kg		0.67		SW8270C	09/22/05 18:36 / dsm
Surr: 2,4,8-Tribromophenal	93.0	%REC			19-122	SW8270C	09/22/05 18:36 / dsm
Surr: 2-Fluorobiphenyl	84.1	%REC			30-115	SW8270C	09/22/05 18:36 / dsm
Surr: 2-Fluorophenol	88.0	%REC			25-121	SW8270C	09/22/05 18:36 / dsm
Surr: Nitrobenzene-d5	79.5	%REC			23-120	SW8270C	09/22/05 18:36 / dsm
Surr: Phenol-d5	84.0	%REC			24-113	SW8270C	09/22/05 18:36 / dsm
Surr: Terphenyl-d14	95.5	%REC			18-137	SWB270C	09/22/05 18:36 / dsm

ReportRL - Analyte reporting limit.Definitions:QCL - Quality control limit.

Contraction of the

1972 1981 198

MCL - Maximum contaminant level.



Client: Hall Environmental-Albuquerque **Project:** Lab ID: B05091262-007

Report Date: 09/23/05 Collection Date: 09/15/05 15:00 Date Received: 09/20/05 Matrix: Soil

Client Sample ID: RR-7A-91505, 0509181-7B

			_	MCL/		
Analyses	Result	Units	Qual	RL QCL	Method	Analysis Date / By
PHYSICAL CHARACTERISTICS						
Moisture	10	wt%		0.01	SW3550A	09/22/05 13:32 / mwd
SEMI-VOLATILE ORGANIC COMPOU	NDS					
1,2,4-Trichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
1,2-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
1,3-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
1,4-Dichlorobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
1-Methylnaphthalene	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
2,4,5-Trichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
2,4,6-Trichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
2,4-Dichlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
2,4-Dimethylphenol	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
2,4-Dinitrophenol	ND	mg/kg		1.7	SW8270C	09/22/05 19:19 / dsm
2,4-Dinitrotoluene	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
2,6-Dinitrololuene	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
2-Chloronaphihalene	ND	mg/kg	,	0.33	SW8270C	09/22/05 19:19 / dsm
2-Chlorophenol	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
2-Methylnaphthalene	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
2-Nilrophenol	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
3,3'-Dichlorobanzidina	ND	mg/kg		0.67	SW8270C	09/22/05 19:19 / dsm
4,6-Dinitro-2-methylphenol	ND	mg/kg		1.7	SW8270C	09/22/05 19:19 / dsm
4-Bromophenyl phenyl ether	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
4-Chloro-3-methylphenol	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
4-Chlorophanol	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
4-Chlorophenyl phenyl ether	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
4-Nitrophenol	ND	mg/kg		1.7	SW8270C	09/22/05 19:19 / dsm
Acenaphlhene	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
Acenaphthylene	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
Anthracena	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
Azobenzene	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
Benzidine	ND	mg/kg		0.67	SW8270C	09/22/05 19:19 / dsm
Benzo(a)anthracene	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
Benzo(a)pyrene	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
Benzo(b)fluoranthene	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
Benzo(g,h,i)perviene	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
Benzo(k)fluoranthene	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
bis(-2-chloroethoxy)Methane	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
bis(-2-chloroethyl)Ether	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
bis(2-chloroisopropyl)Ether	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
bis(2-ethylhexyl)Phthalate	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
Butylbenzylphihalate	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm
Chrysene	ND	mg/kg		0.33	SW8270C	09/22/05 19:19 / dsm

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Report Definitions: RL - Analyte reporting limit. QCL - Quality control limit.

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### LABORATORY ANALYTICAL REPORT

Client: Hall Environmental-Albuquerque Project: Lab ID: B05091262-007 Client Sample ID: RR-7A-91505, 0509181-7B Report Date: 09/23/05 Collection Date: 09/15/05 15:00 Date Received: 09/20/05 Matrix: Soil

				MCI			
Analyses	Result	Units	Qual	RL QC	LN	Acthod	Analysis Date / By
SEMI-VOLATILE ORGANIC COM	POUNDS						
Dibenzo(a,h)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Diethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Dimethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Di-n-butyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Di-n-octyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Fluorene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Hexachlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Hexachlorobuladiene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Hexachlorocyclopentadiene	ND	mg/kg		0.67		SW8270C	09/22/05 19:19 / dsm
Hexachloroethane	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Indeno(1,2,3-cd)pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Isophorone	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
m+p-Cresols	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Naphlhalene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Nitrobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
n-Nitrosodimethylamine	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
n-Nitroso-di-n-propylamine	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
n-Nitrosodiphenylamine	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
o-Cresol	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Pentachlorophenol	ND	mg/kg		1.7		SW8270C	09/22/05 19:19 / dsm
Phenanthrene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Phenol	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Pyridine	ND	mg/kg		0.67		SW8270C	09/22/05 19:19 / dsm
Surr: 2,4,6-Tribromophenol	76.0	%REC			3-122	SW8270C	09/22/05 19:19 / dsm
Sur: 2-Fluorobiphenyi	73.3	%REC		30	)-115	SW8270C	09/22/05 19:19 / dsm
Surr: 2-Fluorophenol	74.0	%REC		2	5-121	SW8270C	09/22/05 19:19 / dsm
Surr: Nitrobenzene-d5	66.2	%REC		23	3-120	SW8270C	09/22/05 19:19 / dsm
Surr: Phenol-d5	70.0	%REC		24	1-113	SW8270C	09/22/05 19:19 / dsm
Surr: Terphenyl-d14	83.4	%REC		11	3-137	SW8270C	09/22/05 19:19 / dsm

Report Definitions:

Part State

RL - Analyte reporting limit. QCL - Quality control limit. MCL - Maximum contaminant level.

CLIENT:	Giant Refining Co			OC SUM	IMARY REPORT
Work Order: Project:	0509181 RR Rock Lagoon Add. Exc. 9	9/15/05		20000	Method Blank
Sample ID MB-87	94 Balch ID: 8794	Test Code: SW8015	Linits: ma/Ka	Analysis Date 9/20/2005 8:51:53 PM	Prep Date 9/20/2005

Sample ID MB-8794	Balch ID: 8794	Test Code:	SW8015	Units: mg/Kg		Analysis	Date 9/20	2005 8:51:53 PM	Prep D	ate 9/20/200	)5
Client ID:		Run ID:	FID(17A) 2_0	50920A		SeqNo:	4022	14			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	) ND	50									
Surr: DNOP	10.73	0	10	0	107	60	124	0			
Sample ID mb-8782	Batch ID: 8782	Test Code:	SW8260B	Units: mg/Kg		Analysis	Date 9/24	2005	Prep D	ate 9/19/200	)5
Client ID:		Run ID:	THOR_05092	3A		SeqNo:	40337	71			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HìghLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.05	0	0	0	0	0	0			
Benzene	ND	0.05	0	0	0	0	0	0			
Toluene	ND	0.05	0	0	0	Û	0	0			
Elhylbenzene	ND	0.05	σ	0	0	0	0	0			
Xylenes, Total	0.0457	0.05	0	0	0	0	0	0			j
Surr: 4-Bromofluorobenzene	0.6268	0	0.5	0	125	72.9	143	0			

Qualifiers:

22/26

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Date: 26-Sep-05 . . . . . . . .

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Date: 26-Sep-05

CLIENT:	Giant Refining Co			QC SU	JMMARY REPORT
Work Order: Project:	0509181 RR Rock Lagoon Add. Exc. 9	9/15/05		· · · · · · · ·	Sample Matrix Spike
Sample ID 05091	31-03a ms Balch ID: 8782	Test Code: SW8260B	Units: mg/Kg	Analysis Date 9/24/2005	Prep Date 9/19/2005

Client ID: RR-3A-91505		Run ID:	THOR_05092	23A		SeqNo	4033	73			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.7619	0.05	1	0	76.2	78	126	D			S
Toluene	1,144	0.05	. 1	0	114	79.4	117	0			
Surr: 4-Bromofluorobenzene	0.5177	0	0.5	0	104	72.9	143	0			
Sample ID 0509181-03a msd	Batch ID: 8782	Test Code	: SW8260B	Units: mg/Kg		Analysis	s Date 9/24	/2005	Prep D	ate 9/19/200	5
Client ID: RR-3A-91505		Run ID:	THOR_05092	23A		SeqNo:	4033	74			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.8462	0.05	1	-0	84.6	78	126	0.7619	10.5	19	
Toluene	0.9524	0.05	1	0	95.2	79.4	117	1.144	18.3	0	
Surr: 4-Bromofluorobenzene	0.5191	· 0	0.5	0	104	72.9	143	0.5177	0.270	O	

23/26

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

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····· CLIENT:

Work Order:

# Giant Refining Co

RR Rock Lagoon Add. Exc. 9/15/05 **Project:** 

0509181

Analysis Date 9/24/2005 Sample ID 0509181-03a ms Batch ID: 8782 Test Code: SW8260B Units: mg/Kg Prep Date 9/19/2005 403373 Client ID: RR-3A-91505 Run ID: THOR_050923A SeqNo: LowLimit HighLimit RPD Ref Val POL SPK value SPK Ref Val %REC %RPD RPDLimit Result Qual Analyte 78 Benzene 0.7619 0.05 1 0 76.2 126 0 s 0 79.4 0 Toluene 1.144 0.05 1 114 117 Surr: 4-Bromofluorobenzene 0.5177 0 0.5 0 104 72.9 143 0 Sample ID 0509181-03a msd Batch ID: 8782 Test Code: SW8260B Units: mg/Kg Analysis Date 9/24/2005 Prep Date 9/19/2005 Client ID: RR-3A-91505 Run ID: THOR_050923A SeqNo: 403374 PQL Analyte Result SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD **RPDLimit** Qual -----Велгепе 0.8462 0.05 1 0 84.6 78 126 0.7619 10.5 19 0.9524 0.05 1 0 Toluene 95.2 79.4 117 1.144 18.3 0 0 0.5 Surr: 4-Bromofluorobenzene 0.5191 0 104 72.9 143 0.5177 0.270 0

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Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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**QC SUMMARY REPORT** Sample Matrix Spike

Date: 26-Sep-05

Date: 26-Sep-05

Work Order: 0509181	fining Co Lagoon Add. Exc. 9/1	5/05			· .			QC SUN			
Sample ID LCS-8794 Client ID:	Batch ID: 8794	Test Code: Run ID:	SW8015 FID(17A) 2_0	Units: mg/Kg 950920A		Analysis SeqNo:		/2005 9:24:58 PM 15	Prep D	ale 9/20/200	5
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44.24	10	50	0	88.5	67.4	117	0			
Sample ID LCSD-8794 Client ID:	Batch ID: 8794	Test Code: Run ID:	SW8015 FID(17A) 2_0	Units: mg/Kg 150920A		Analysis SegNo:		/2005 9:58:02 PM 16	Prep D	ate 9/20/200	5
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41.68	10	50	0	83.4	67.4	117	44.24	5.96	17.4	
Sample ID Ics-8782 Client ID:	Batch ID: 8782	Test Code: Run ID:	SW8260B THOR_05092	Units: mg/Kg 23A		Analysis SeqNo:	Dale 9/24/ 40337		Prep D	ate 9/19/200	5
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.8492	0.05	1	0	84.9	78	126	0			

0

0.05

1.034

1

25/26

Toluene

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits

103

79.4

117

0

B - Analyte detected in the associated Method Blank

1

J - Analyte detected below quantitation limits

,	Sample	Recei	pt Che	cklist			
Client Name GIANTREFIN				Date and Time	e Received:	. 9/1	19/2005
Work Order Number 0509181				Received by	/ GLS		
Checklist completed by	upe		9_10 Date	-05			·
Matrix	Carrier name	<u>Client</u>	drop-off			•	
Shipping container/cooler in good condition?		Yes.		No 🗆	Not Present		
Custody seals intact on shipping container/coole	r?	Yes [			Not Present	Not Shipped	
Custody seals intact on sample bottles?		Yes 6	$\checkmark$		N/A		
Chain of custody present?		Yes	$\checkmark$	No 🖾			
Chain of custody signed when relinquished and	received?	Yes 🗄	$\checkmark$				
Chain of custody agrees with sample labels?		Yes 🗄	<b>v</b>				
Samples in proper container/bottle?		Yes	~				
Sample containers intact?		Yes	<b>Z</b>				
Sufficient sample volume for indicated test?		Yes 🗄	<b>~</b>	No 🗌			
All samples received within holding time?		Yes 🗄	<b>~</b>	No 🗔			
Water - VOA vials have zero headspace?	No VOA vials subm	nitted 🛛	✓	Yes 🗆	No 🗆		
Water - pH acceptable upon receipt?		Yes [		Νο	N/A 🗹		
Container/Temp Blank temperature?		4		4°C±2Accept I given sufficien			
COMMENTS:							
Client contacted	Date contacted:			Per	son contacted	 	
Contacted by:	Regarding				·····	 	
Comments:		<u> </u>					
Corrective Action						 	

Ū	lient:	Fian	+ Re	ODY REGORD	Other [.]	Std 🖸		evel 4	agoon tion \$15/05						<b>4</b> 4 A Te	901 Ibuqu	Haw Jerqu 5.34	<b>SIS</b> kins Je, N 45, 3	NE, Iew <b>1</b> 975	Suite Suite Mexic Fa	9 <b>84</b> 10 10 87 10 87	<b>.TO</b> 7109	RY	107		
Δ	ddress:	P	ti -	Ciniza Box 7	Breitect #		Ge		4			exit.			ζŢ,	7.1	Œ	ΘĿ	Ψ	ŪŦ	Æ					
- - -				507/ M 87301	Project Manager:	,				1 1 1 TMB's (8021)	+ TPH (Gasoline Only)	5B (Gas/Diesel)						P0, S0, )	's (8082)			BTER				ice (Y or N)
F	hone #:	50	572	23833	Sampler:					٦₽	HdI	58 (6	B. 1)	4.1	21)	£		. NO	/ PCB		~	1				adspe
				2 0210	Sample Temperat	ure:		40	<u> </u>	1+出		d 801	pd 41	od 50	od 80.	or PA	tals	1, ND ₃	cides ,	(A)	i-VOA	7 7				or He
-	Date	Time	Matrix	Sample I.D. No.	Number/Volume	Pr HgCl ₂	eserval HNO ₃		HEAL No.	BTEX + MITBE	BTEX + MTBE	TPH Method 801	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8D21)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₂ , NO ₂ , PO ₄ , SO ₄ )	8081 Pesticides / PCB's (8082)	B260B (VOA)	8270 (Semi-VOA)	0 0 0				Air Bubbles or Headspace (Y or N)
15	65	1430	Soil	RR-1A-91505					1			X									χ	X				
	1)	1435	111	RR-2A-91505	•				2			X									X	X				
-	ゥ	1440	11	RR-3A- 91505	· · · · · · · · · · · · · · · · · · ·				3			γ									X	X				
- 2	>	1445	17	RR-4A-91505					Ч			X									X	X			_	
	 り	14:50		RR-5A-91505			1		วี	1		X									X	X		-		
,	)	1455		RR-6A-91505			1		6	1		X									X	X		•		
- 2 -	<u>ر</u>	1500		RR-7A-91505				 	7	-		X									X	X			_	
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-			Dellessiel			the states					<u> </u>															
	late: 205 Jate:	Time: OS45 Time:	X	ed By: (Signature)	Received				O'SIS	Hen	narks:	R	U	S	Ł	ł	2	DA	×γ							
				- 	1	-	•						•		•							•	•			

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Price, Way	ne, EMNRD		<u> </u>
From	James Romero [jromero@giant	com]	Sent: Tue 8/30/2005 4:13 PM
To:		EMNRD; Monzeglio, Hope, NMENV; Foust, De	
Cc:	Steve Morris		$\langle \rangle$
Subject:	RE: Spill Report (daily update for	or 8/	
Attachment			
Daily update	e for 8/30/05		
<ol> <li>Water is I</li> <li>The oil ta</li> <li>Conducted</li> </ol>	peing drained from the water nk will be pumped out later th		bi system
From Sent To: J Cc: S	Driginal Message 1: James Romero 1: Monday, August 29, 2005 2 ames Romero; 'Price, Wayne biteve Morris ect: RE: Spill Report (daily u	2:37 PM , EMNRD'; 'hope.monzeglio@state.nm	n.us'; 'denny.foust@state.nm.us'
Daily	update for 8/29/05		
2) Wa As		om 55,000 barrel tanks and sent back rrels/each) of water has been remove	
Attac	hed are spreadsheets showir	ng truck numbers for pond clean out a	and water from tanks to api
	Cc: Steve Morris		tate.nm.us'; 'denny.foust@state.nm.us' 5)
		g progress. Continued visual inspection	<ol><li>Moreover, all operations to clean the ponds are ons during nighttime hours have not documented</li></ol>
	Original Message		
	From: James Rome		
	• •	gust 18, 2005 3:17 PM	، امر
	Cc: Ed Riege; Steve	MNRD'; 'hope.monzeglio@state.nm.u Morris; James Romero; Johnny Sancl Report (daily update for 8/18/05)	
	Daily update for 8/18	3/05	
	<ol> <li>2) Visual inspections</li> <li>3) Started release of</li> </ol>	rations to clean ponds, approximately s thru the night were all good f water from lower storm water basin emediation plan (should go out tomorr	
	<b>Sent:</b> Thursd <b>To:</b> James Ro <b>Cc:</b> Ed Rios;	Wayne, EMNRD [mailto:wayne.price@ lay, August 18, 2005 7:30 AM	nez; David Kirby

### OCD hereby approves of your request.

Please be advised that NMOCD approval of this request does not relieve (Giant) of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve (Giant) of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Wayne Price-Senior Environmental Engr. Oil Conservation Division 1220 S. Saint Francis Santa Fe, NM 87505 E-mail <u>wayne.price@state.nm.us</u> Tele: 505-476-3487 Fax: 505-4763462

From: James Romero [mailto:jromero@giant.com]
Sent: Wed 8/17/2005 12:27 PM
To: Price, Wayne, EMNRD
Cc: Ed Rios; Ed Riege; Steve Morris; Johnny Sanchez; David Kirby
Subject: RE: Spill Report (daily update for 8/17/05)

Wayne, Hope:

Per OCD's condition here is our daily update:

1) We just received the lab results (via telephone) on Storm water Outfall #1

Benzene ND EthylBen ND Toluene .35ppb Xylene 2.1ppb

With these tests results, and due to the fact the lower storm water basin is at capacity, we'd like your approval to release water off property.

2) Riley Industrial is onsite and unplugging the process sewer lines to the weir box.

3) The outlet to the upper storm water basin has been plugged to contain the spill

If you have any questions please feel free to call me anytime, James

-----Original Message----- **From:** Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us] **Sent:** Tuesday, August 16, 2005 8:01 AM **To:** Price, Wayne, EMNRD; James Romero; Monzeglio, Hope, NMENV; foust.denny@state.nm.us **Cc:** Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios **Subject:** RE: Spill Report

Wayne Price-Senior Environmental Engr. Oil Conservation Division 1220 S. Saint Francis Santa Fe, NM 87505 E-mail <u>wayne.price@state.nm.us</u> Tele: 505-476-3487 Fax: 505-4763462

From: Price, Wayne, EMNRD Sent: Tue 8/16/2005 8:59 AM To: James Romero; Monzeglio, Hope, NMENV; 'foast.denny@state.nm.us' Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios Subject: RE: Spill Report

OCD hereby approves of the emergency actions with the following conditions:

- 1. All water sales from the ponds shall cease, unless approved by OCD.
- 2. No stormwater shall be released that exceeds the WQCC standards.
- 3. The emergeny actions shall be continous (24 hour) until API problem is correct.
- 4. A daily E-mail report shall be submitted until emergency is over.
- 5. Giant shall isolate the other ponds, if possible during the emergency condition.

Please be advised that NMOCD approval of this plan does not relieve (Giant) of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve (Giant) of responsibility for compliance with any other federal, state, or local laws and/or regulations.

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From: James Romero [mailto:jromero@giant.com]
Sent: Mon 8/15/2005 5:12 PM
To: Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: Spill Report

### Wayne,

As we discussed via telephone today, our API pump motor is not working properly (20-30% capacity) which resulted in a reportable discharge into our aeration lagoons. Samples were gathered and lab results were received today on Lagoon 2, and Evap Pond 1 (see below). I will follow up this email with a formal C-141 spill report. Moreover, I will submit pics, lab results, and a site map, etc.

However, as an interim measure, and with your approval, we are taking the following actions:

(1) Vac-trucks will be used to pump and clean out the aeration lagoons/API sump

(2) Interim emergency storage of material within two 55,000 barrel tanks located on western part of the property (map will follow hard copy).(3) A chopper pump will be installed and has been ordered (replacement of old API pump)

LAB RESULTS	Lagoon 2	Evap Pond 1
MTBE	88 ppb	60 ppb
Benzene	306 ppb	1000 ppb
Toluene	8.7 ppb	76 ppb

<10.0 p

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Price, Wayı	ne, EMNRD	
From:	James Romero [jromero@giant.com]	Sent: Mon 8/29/2005 3:37 PM
То:	James Romero; Price, Wayne, EMNRD; Monzeglio, Hope, N	IMENV; Foust, Denny, EMNRD
Cc:	Steve Morris	
Subject:	RE: Spill Report (daily update for 8/	
Attachments	🕫 🗋 API Clean Up 26Aug05.xls(24KB) 🗋 API Clean Up 27Au	ıq05.xls(24KB) 🗋 API Clean up Water 28Aug 05.xls(26KB)

1) Riley is contuning operations to clean ponds

2) Water is now being removed from 55,000 barrel tanks and sent back to API

As of 28Aug05 61 trucks (60barrels/each) of water has been removed from tanks

3) Visual Inspections thru the weekend and night were good

Attached are spreadsheets showing truck numbers for pond clean out and water from tanks to api

-----Original Message-----From: James Romero Sent: Tuesday, August 23, 2005 2:57 PM To: James Romero; 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'; 'denny.foust@state.nm.us' Cc: Steve Morris Subject: RE: Spill Report (daily update for 8/22/05 and 8/23/05)

Attached is a spreadsheet showing our daily truck counts for 8/22. Moreover, all operations to clean the ponds are moving forward and making progress. Continued visual inspections during nighttime hours have not documented any new spills around the API.

-----Original Message-----From: James Romero Sent: Thursday, August 18, 2005 3:17 PM To: 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us' Cc: Ed Riege; Steve Morris; James Romero; Johnny Sanchez Subject: RE: Spill Report (daily update for 8/18/05)

Daily update for 8/18/05

1) Riley started operations to clean ponds, approximately 4000 barrels were removed today

2) Visual inspections thru the night were all good

3) Started release of water from lower storm water basin

4) Completed spill/remediation plan (should go out tomorrow Friday)

----Original Message----From: Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us]
Sent: Thursday, August 18, 2005 7:30 AM
To: James Romero
Cc: Ed Rios; Ed Riege; Steve Morris; Johnny Sanchez; David Kirby
Subject: RE: Spill Report (daily update for 8/17/05)

### OCD hereby approves of your request.

Please be advised that NMOCD approval of this request does not relieve (Giant) of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve (Giant) of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Wayne Price-Senior Environmental Engr. Oil Conservation Division 1220 S. Saint Francis Santa Fe, NM 87505 E-mail <u>wayne.price@state.nm.us</u> Tele: 505-476-3487 Fax: 505-4763462

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Sent: Wed 8/17/2005 12:27 PM
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Cc: Ed Rios; Ed Riege; Steve Morris; Johnny Sanchez; David Kirby
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Benzene ND EthylBen ND Toluene .35ppb Xylene 2.1ppb

With these tests results, and due to the fact the lower storm water basin is at capacity, we'd like your approval to release water off property.

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Sent: Tuesday, August 16, 2005 8:01 AM
To: Price, Wayne, EMNRD; James Romero; Monzeglio, Hope, NMENV; foust.denny@state.nm.us
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: RE: Spill Report

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1

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# API AND POND CLEAN UP

# 26-Aug-05

## Start

Stop

×.

Truck 89	8:41AM	8:48AM
Truck 90	9:14AM	9:21AM
Truck 91	9:45AM	9:53AM
Truck 92	10:17AM	10:25AM
Truck 93	10:52AM	11:00AM
Truck 94	11:20AM	11:29AM
Truck 95	11:51AM	12:00PM
Truck 96	1:49PM	1:57PM
Truck 97	2:02PM	2:08PM
Truck 98	2:26PM	2:34PM
Truck 99	2:42PM	2:54PM
Truck 100	2:56PM	3:07PM
Truck 101	3:10PM	3:20PM
Truck 102	3:22PM	3:32PM
Truck 103	3:38PM	3:44PM
Truck 104	4:05PM	4:13PM
Truck 105	4:17PM	4:24PM
Truck 106	6:15PM	6:23PM
Truck 107	6:45PM	7:00PM

Sludge into Tank

# API AND POND CLEAN UP

# 27-Aug-05

Start

Stop

•.

4

Truck 108	8:53AM	9:01AM
Truck 109	9:22AM	9:30AM
Truck 110	9:55AM	10:02AM
Truck 111	10:56AM	11:03AM
Truck 112	11:25AM	11:32AM
Truck 113	11:35AM	11:44AM
Truck 114	11:50AM	11:58AM
Truck 115	2:18PM	2:27PM
Truck 116	2:52PM	2:57PM
Truck 117	3:22PM	3:30PM
Truck 118	3:48PM	3:56PM
Truck 119	3:59PM	4:08PM
Truck 120	4:13PM	4:21PM
Truck 121	4:31PM	4:39PM
Truck 122	4:43PM	4:51PM
Truck 123	4:55PM	5:04PM
Truck 124	5:07PM	5:15PM
Truck 125	5:22PM	5:30PM
Truck 126	5:35PM	5:44PM
Truck 127	5:53PM	6:02PM
Truck 128	6:25PM	6:32PM

Sludge into Tank

# API AND POND CLEAN UP

# 28-Aug-05

Start

Stop

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		<b>–</b>
Truck 44	8:10AM	8:19AM
Truck 45	8:20AM	8:27AM
Truck 46	8:33AM	8:40AM
Truck 47	8:45AM	9:01AM
Truck 48	9:03AM	9:10AM
Truck 49	9:16AM	9:27AM
Truck 50	9:28AM -	9:35AM
Truck 51	9:40AM	9:56AM
Truck 52	9:58AM	10:06AM
Truck 53	10:16AM	10:26AM
Truck 54	10:28AM	10:43AM
Truck 55	10:45PM	10:58AM
Truck 56	11:00AM	11:10AM
Truck 57	11:14AM	11:25AM
Truck 58	11:27AM	11:34AM
Truck 59	11:40AM	11:50AM
Truck 60	11:52AM	12:00PM
Truck 61	12:14PM	12:22PM

Water taken out of West Tank and put back into API

	nts can contain viruses that repharm your computer. Attachments may not disp rne, EMNRD	
From:	James Romero [jromero@giant.com]	Sent: Mon 8/29/2005 11:18 AM
То:	Monzeglio, Hope, NMENV; James Romero; Ed Riege	
Cc:	Cobrain, Dave, NMENV; Price, Wayne, EMNRD; Foust, Denny, EMNRD	
Subject:	RE: 1,152,000 gal Release notification form	

Hope, Attachment #4 titled "Re Aeration Lagoon/Evaporation Pond/Clean Up and Remediation is an internal scope of work put together by our Operations Branch. I included it as additional information. The attachments are as follows (1) lab results; (2) copy of email notification; (3) Diagram of API; (4) Internal scope of work titled ...Aeration Lagoon..."; and (5) Cover page of Riley's EMS. Due to the time constraints on notification and time needed to have the map made, I did not include it. However, attached to this email you will find an electronic version of that map.

Moreover, I will draft a more detail "knowledge of process" discussion.

If you have any questions, I'll be in all week. Sorry I missed your call on Friday I was out sick

----Original Message----From: Monzeglio, Hope, NMENV [mailto:hope.monzeglio@state.nm.us]
Sent: Friday, August 26, 2005 10:40 AM
To: jromero@giant.com; eriege@giant.com
Cc: Cobrain, Dave, NMENV; Price, Wayne, EMNRD; Foust, Denny, EMNRD
Subject: 1,152,000 gal Release notification form

James

I have questions pertaining to the *Release Notification and Corrective Action Operator* form pertaining to the 1,152,000-gallon release. The *Remediation Plan* identifies 5 attachments. I am missing attachment 4 and have 6 attachments labeled.

Is attachment 4 titled "Aeration Lagoon/Evaporation Pond/Clean up and Remediation? If so then I think the attachments were mislabeled. Please identify the names of each attachment.

The Remediation Plan under "*Environmental Consequences*" the second paragraph discusses "knowledge of the process" and sludge material (F, K wastes) dropped out before exiting the API, (see attachment 3). Giant must provide more information regarding the "knowledge process." This information should include where in the process the sludge drop out occurs, identify specifically on the diagram where this process takes place (e.g. highlight the route), and provide a written description of this "knowledge process," including how, where, and when the F and K listed wastes drop out before exiting the API separator.

Under "*ON-GOING ACTIONS*," paragraph 2 mentions a map. I do not think I received this map, as there is not a map identifying two 55,000-barrel tanks or truck routes. Please send me the map if there is one.

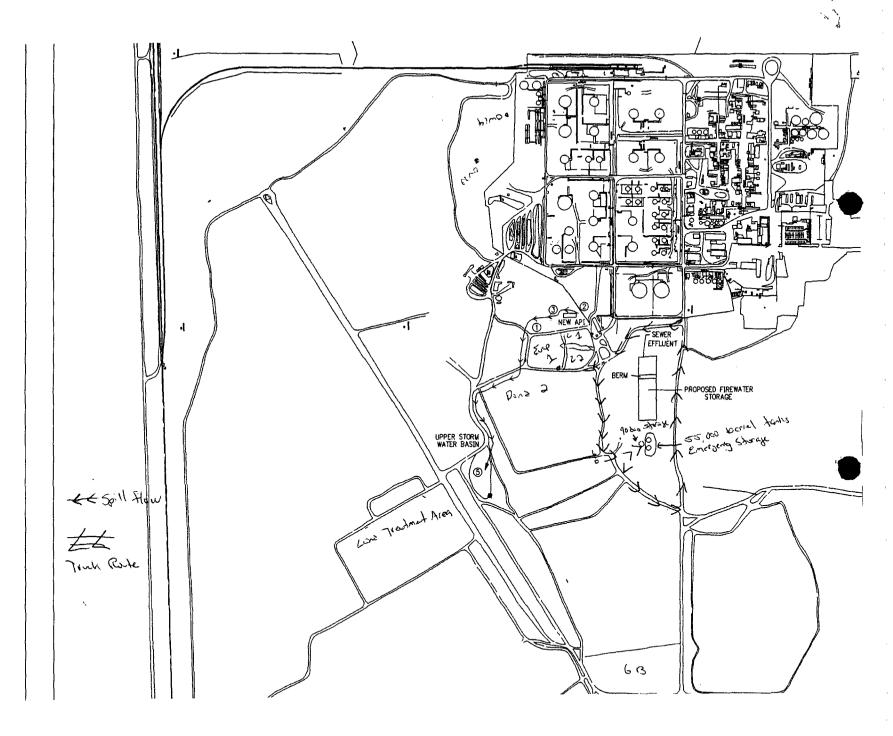
If you have questions please contact me at 505-428-2545.

Thanks

Hope

Hope Monzeglio Environmental Specialist New Mexico Environment Department Hazardous Waste Bureau 2905 Rodeo Park Drive East, BLDG 1 Santa Fe NM 87505 Phone: (505) 428-2545 Fax: (505)-428-2567 hope.monzeglio@state.nm.us This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this email in entroplease notify the system manager. This message mains confidential information and is intended only for the individual named. If you are not the named addressee you should not dissemine distribute or copy this e-mail.

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#### Price, Wayne, EMNRD

From:	Steve Morris [smorris@giant.com]
То:	Monzeglio, Hope, NMENV; Price, Wayne, EMNRD
Cc:	James Romero
Subject:	Pond 1 and lagoon update 8-26-05
Attachments	

Hope and Wayne,

Riley Ind. vacuum trucks assisted by Giaint maintenance continue to skim oil from evaporation pond 1. Nothing out of the ordinary to report today. Thanks, Steve Morris

DISCLAIMER: The information contained in this e-mail message may be privileged, confidential and protected from disclosure. If you are not the intended recipient, any further disclosure, use, dissemination, distribution or copying of this message or any attachment is strictly prohibited. If you think you have received this e-mail message in error, please e-mail the sender at the above address and permanently delete the e-mail. Although this e-mail and any attachments are believed to be free of any virus or other defect that might affect any computer system into which they are received and opened, it is the responsibility of the recipient to ensure that they are virus free and no responsibility is accepted by Giant Industries, Inc. or its affiliates for any loss or damage arising in any way from their use. Sent: Fri 8/26/2005 11:14 AM

#### Price, Wayne, EMNRD

From:	Steve Morris [smorris@giant.com]
То:	Monzeglio, Hope, NMENV; Price, Wayne, EMNRD
Cc:	James Romero
Subject:	Daily update lagoons and pond 1.
Attachment	S:

Hope and Wayne, James is off sick today so I'll let you know the status of the clean up. Today (8/25/05) the tanks are being dewatered and oil removal continues on evaporation pond 1 using Riley's vacuum trucks. I have repositioned one of the aerators on lagoon 2 in order to make it easier to use the boom with the vacuum trucks. Thanks,

Steve Morris

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Attachments can contain viruses that repharm your computer. Attachments may not displate rrectly.  Price, Wayne, EMNRD		
From:	James Romero [jromero@giant.com]	Sent: Tue 8/23/2005 3:56 PM
То:	James Romero; Price, Wayne, EMNRD; Monzeglio, Hope, NME	NV; Foust, Denny, EMNRD
Cc:	Steve Morris	
Subject:	RE: Spill Report (daily update for 8/22/05 and 8/23/05)	
Attachmen	ts: 🗋 API Clean up 22 Aug 05.xls(24KB)	

Attached is a spreadsheet showing our daily truck counts for 8/22. Moreover, all operations to clean the ponds are moving forward and making progress. Continued visual inspections during nighttime hours have not documented any new spills around the API.

----Original Message----From: James Romero
Sent: Thursday, August 18, 2005 3:17 PM
To: 'Price, Wayne, EMNRD'; 'hope.monzeglio@state.nm.us'
Cc: Ed Riege; Steve Morris; James Romero; Johnny Sanchez
Subject: RE: Spill Report (daily update for 8/18/05)

Daily update for 8/18/05

.

1) Riley started operations to clean ponds, approximately 4000 barrels were removed today

2) Visual inspections thru the night were all good

3) Started release of water from lower storm water basin

4) Completed spill/remediation plan (should go out tomorrow Friday)

----Original Message----From: Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us]
Sent: Thursday, August 18, 2005 7:30 AM
To: James Romero
Cc: Ed Rios; Ed Riege; Steve Morris; Johnny Sanchez; David Kirby
Subject: RE: Spill Report (daily update for 8/17/05)

#### OCD hereby approves of your request.

Please be advised that NMOCD approval of this request does not relieve (Giant) of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve (Giant) of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Wayne Price-Senior Environmental Engr. Oil Conservation Division 1220 S. Saint Francis Santa Fe, NM 87505 E-mail <u>wayne.price@state.nm.us</u> Tele: 505-476-3487 Fax: 505-4763462

From: James Romero [mailto:jromero@giant.com]
Sent: Wed 8/17/2005 12:27 PM
To: Price, Wayne, EMNRD
Cc: Ed Rios; Ed Riege; Steve Morris; Johnny Sanchez; David Kirby
Subject: RE: Spill Report (daily update for 8/17/05)

Wayne, Hope:

Per OCD's condition here is our daily update:

1) We just received the lab results (via telephone) on Storm water Outfall #1 Benzene ND EthylBen ND

#### Toluene .35 Xvlene 2.10

With these tests results, and due to the fact the lower storm water basin is at capacity, we'd like your approval to release water off property.

2) Riley Industrial is onsite and unplugging the process sewer lines to the weir box.

3) The outlet to the upper storm water basin has been plugged to contain the spill

If you have any questions please feel free to call me anytime, James

-----Original Message----- **From:** Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us] **Sent:** Tuesday, August 16, 2005 8:01 AM **To:** Price, Wayne, EMNRD; James Romero; Monzeglio, Hope, NMENV; foust.denny@state.nm.us **Cc:** Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios **Subject:** RE: Spill Report

Wayne Price-Senior Environmental Engr. Oil Conservation Division 1220 S. Saint Francis Santa Fe, NM 87505 E-mail <u>wayne.price@state.nm.us</u> Tele: 505-476-3487 Fax: 505-4763462

From: Price, Wayne, EMNRD Sent: Tue 8/16/2005 8:59 AM To: James Romero; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us' Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios Subject: RE: Spill Report

OCD hereby approves of the emergency actions with the following conditions:

- 1. All water sales from the ponds shall cease, unless approved by OCD.
- 2. No stormwater shall be released that exceeds the WQCC standards.
- 3. The emergeny actions shall be continous (24 hour) until API problem is correct.
- 4. A daily E-mail report shall be submitted until emergency is over.
- 5. Giant shall isolate the other ponds, if possible during the emergency condition.

Please be advised that NMOCD approval of this plan does not relieve (Giant) of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve (Giant) of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Wayne Price-Senior Environmental Engr.Oil Conservation Division1220 S. Saint FrancisSanta Fe, NM 87505E-mail wayne.price@state.nm.usTele:505-476-3487Fax:505-4763462

To: Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; 'foust.genny@state.nm.us' Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios Subject: Spill Report

Wayne,

As we discussed via telephone today, our API pump motor is not working properly (20-30% capacity) which resulted in a reportable discharge into our aeration lagoons. Samples were gathered and lab results were received today on Lagoon 2, and Evap Pond 1 (see below). I will follow up this email with a formal C-141 spill report. Moreover, I will submit pics, lab results, and a site map, etc.

However, as an interim measure, and with your approval, we are taking the following actions:

(1) Vac-trucks will be used to pump and clean out the aeration lagoons/API sump

(2) Interim emergency storage of material within two 55,000 barrel tanks located on western part of the property (map will follow hard copy).(3) A chopper pump will be installed and has been ordered (replacement of old API pump)

LAB RESULTS	Lagoon 2	Evap Pond 1
MTBE	88 ppb	60 ppb
Benzene	306 ppb	1000 ppb
Toluene	8.7 ppb	76 ppb
Ethylbenzene	<2.5 ppb	<10.0 ppb

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## 22-Aug-05

Start

Stop

•a 25

4

<u> </u>		
Truck 70	4:19PM	4:27PM
Truck 71	4:35PM	4:45PM
Truck 72	4:50PM	5:00PM
Truck 73	5:06PM	5:14PM
Truck 74	5:38PM	5:47PM
Truck 75	6:05PM	6:14PM
Truck 76	6:17PM	6:25PM
Truck 77	6:38PM	6:47PM
Truck 78	6:48PM	6:55PM

# Price, Wayne, EMNRD Sent: Mon 8/22/2005 2:10 PM From: Monzeglio, Hope, NMENV Sent: Mon 8/22/2005 2:10 PM To: eriege@giant.com; James Romero [jromero@giant.com] Sent: Mon 8/22/2005 2:10 PM Cc: Cobrain, Dave, NMENV; Price, Wayne, EMNRD Subject: Subject: Spill sampling Attachments: For the second s

James

I am following up with an email from our phone conversation pertaining to the spill.

1. All sampling results, hazardous waste determinations, and waste disposal activities must be documented and submitted to NMED.

2. Giant must collect samples of effluent discharged from Aeration Lagoon 2 to Evaporation Pond 1 on a weekly basis until four weeks after the API Separator repair and monthly thereafter. Giant must submit the samples for analytical analysis to include: EPA Method 8270, EPA Method 8021 (BTEX), and priority pollutant metals (totals and dissolved). After receiving the analytical results from the first two sampling events, the required analytical analyses will be revisited and possibly modified. Giant must also provide NMED with the flow rate from Aeration Lagoon 2 to Evaporation Pond 1.

3. Giant must calculate the volume of oil spilled and water released during the spill events.

If you have any questions please give me a call.

Hope

Hope Monzeglio Environmental Specialist New Mexico Environment Department Hazardous Waste Bureau 2905 Rodeo Park Drive East, BLDG 1 Santa Fe NM 87505 Phone: (505) 428-2545 Fax: (505)-428-2567 hope.monzeglio@state.nm.us

Attachments can contain viruses that menarm your computer. Attachments may not displate rectly.		
Price, Wayn	e, EMNRD	
From:	James Romero [jromero@giant.com]	Sent: Mon 8/22/2005 2:01 PM
то:	Monzeglio, Hope, NMENV; Price, Wayne, EMNRD	
Cc:		
Subject:	Daily Report for August 19-21	
Attachments:	API Clean Up 21Aug05.xls(24KB)	API Clean Up 19Aug05.xls(28KB)

<<API Clean Up 21Aug05.xls>> <<API Clean Up 20Aug05.xls>> <<API Clean Up 19Aug05.xls>>

The attached spreadsheets are the truck loads over the weekend (each truck carries approximately 80 barrels). Our future goal will be to have one additional truck at the API (in lieu of the API sump pump). There were no reports of any spills during this time period.

## 21-Aug-05

Start

## Stop

Truck 61	9:50AM	9:58AM
Truck 62	10:02AM	10:11AM
Truck 63	10:19AM	10:27AM
Truck 64	10:36AM	10:44AM
Truck 65	10:51AM	11:00AM
Truck 66	11:08AM	11:16AM
Truck 67	11:20AM	11:28AM
Truck 68	11:42AM	11:50AM
Truck 69	11:53AM	12:00AM

3

4A

## 20-Aug-05

#### Start

## Stop

"

	<b>_</b>
10:18AM	10:28AM
10:30AM	10:40AM
10:50AM	11:00AM
11:08AM	11:15AM
11:17AM	11:33AM
11:36AM	11:49AM
1:17PM	1:29PM
1:35PM	1:46PM
1:50PM	2:07PM
2:12PM	2:26PM
2:40PM	2:54PM
3:07PM	3:15PM
3:28PM	3:37PM
4:22PM	4:32PM
4:41PM	4:51PM
5:00PM	5:11PM
5:21PM	5:34PM
5:45PM	5:53PM
6:00PM	6:10PM
6:19PM	6:35PM
6:40PM	7:00PM
	10:30AM         10:50AM         11:08AM         11:08AM         11:17AM         11:36AM         1:35PM         1:35PM         1:35PM         2:12PM         2:40PM         3:07PM         3:28PM         4:22PM         5:00PM         5:21PM         5:45PM         6:00PM

## 19-Aug-05

Start

Stop

•1

Truck 8		
Truck 8		
II GOR 0	8:00AM	8:45AM
Truck 9	8:50AM	9:00AM
Truck 10	9:10AM	9:20AM
Truck 11	9:35AM	9:46AM
Truck 12	9:50AM	10:00AM
Truck 13	10:02AM	10:11AM
Truck 14	10:25AM	10:35AM
Truck 15	10:41AM	10:50AM
Truck 16	11:00AM	11:10AM
Truck 17	11:15AM	11:25AM
Truck 18	11:30AM	11:42AM
Truck 19	12:43PM	12:50PM
Truck 20	12:58PM	1:06PM
Truck 21	1:12PM	1:20PM
Truck 22	1:25PM	1:37PM
Truck 23	1:40PM	1:50PM
Truck 24	1:55PM	2:06PM
Truck 25	2:11PM	2:20PM
Truck 26	2:25PM	2:35PM
Truck 27	2:45PM	2:55PM
Truck 28	3:05PM	3:10PM
Truck 29	3:12PM	3:18PM
Truck 30	4:00PM	4:10PM
Truck 31	4:17PM	4:27PM
Truck 32	4:30PM	4:40PM
Truck 33	4:45PM	4:55PM
Truck 34	5:00PM	5:10PM
Turck 35	5:15PM	5:25PM

Truck 36	5:30PM	5:40PM
Truck 37	5:45PM	5:55PM
Truck 38	6:25PM	6:35PM
Truck 39	6:40PM	7:00PM

#### Price, Wayne, EMNRD

From:	Monzeglio, Hope, NMENV
то:	Price, Wayne, EMNRD
Cc:	
Subject:	Ciniza
Attachments:	

Sent: Fri 8/19/2005 9:09 AM

Wayne

Below is a draft of requirements I will be sending to Giant. Are there any other analytical analyses that you want me to include for number 2. Do you want a sample of effluent discharged from Evaporation Pond 1 to Evaporation pond 2. Make any additions to this and then I will email it accordingly. I told James I would contact you and put our requirements in one email. James said that in the GW plan that should be sent at the beginning of the month, (not sure which sample either effluent from EP1 to EP2 or a sample from EP2) had a high benzene spike. Give me a call if you have any questions.

1. All sampling results, hazardous waste determinations, and waste disposal activities must be documented and submitted to NMED.

2. Giant must collect samples of effluent discharged from Aeration Lagoon 2 to Evaporation Pond 1 on a weekly basis until four weeks after the API Separator repair and monthly thereafter. Giant must submit the samples for analytical analysis to include: EPA Method 8270, EPA Method 8021 (BTEX), and priority pollutant metals (totals and dissolved). After receiving the analytical results from the first two sampling events, the required analytical analyses will be revisited and possibly modified.

3. Giant must calculate the volume of oil spilled and water released during the spill events.

Hope Monzeglio Environmental Specialist New Mexico Environment Department Hazardous Waste Bureau 2905 Rodeo Park Drive East, BLDG 1 Santa Fe NM 87505 Phone: (505) 428-2545 Fax: (505)-428-2567 hope.monzeglio@state.nm.us

# Price, Wayne, EMNRD

Sent: Thu 8/18/2005 4:16 PM

From:	James Romero []romero@giant.com]
То:	Price, Wayne, EMNRD; Monzeglio, Hope, NMENV
Cc:	Ed Riege; Steve Morris; James Romero; Johnny Sanchez
Subject:	RE: Spill Report (daily update for 8/18/05)

#### Attachments:

Daily update for 8/18/05

1) Riley started operations to clean ponds, approximately 4000 barrels were removed today

2) Visual inspections thru the night were all good

3) Started release of water from lower storm water basin

4) Completed spill/remediation plan (should go out tomorrow Friday)

-----Original Message-----From: Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us] Sent: Thursday, August 18, 2005 7:30 AM To: James Romero Cc: Ed Rios; Ed Riege; Steve Morris; Johnny Sanchez; David Kirby Subject: RE: Spill Report (daily update for 8/17/05)

#### OCD hereby approves of your request.

Please be advised that NMOCD approval of this request does not relieve (Giant) of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve (Giant) of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Wayne Price-Senior Environmental Engr. Oil Conservation Division 1220 S. Saint Francis Santa Fe, NM 87505 E-mail <u>wayne.price@state.nm.us</u> Tele: 505-476-3487 Fax: 505-4763462

From: James Romero [mailto:jromero@giant.com]
Sent: Wed 8/17/2005 12:27 PM
To: Price, Wayne, EMNRD
Cc: Ed Rios; Ed Riege; Steve Morris; Johnny Sanchez; David Kirby
Subject: RE: Spill Report (daily update for 8/17/05)

Wayne, Hope:

Per OCD's condition here is our daily update:

1) We just received the lab results (via telephone) on Storm water Outfall #1

Benzene ND EthylBen ND Toluene .35ppb Xylene 2.1ppb

With these tests results, and due to the fact the lower storm water basin is at capacity, we'd like your approval to release water off property.

2) Riley Industrial is onsite and unplugging the process sewer lines to the weir box.

3) The outlet to the upper storm water basin has been plugged to contain the spill

If you have any questions please feel free to call me anytime, James

-----Original Message-----

From: Price, Wayne, EMNRD [1000:wayne.price@state.nm.us] Sent: Tuesday, August 16, 2005 8:01 AM To: Price, Wayne, EMNRD; James Romero; Monzeglio, Hope, NMENV; foust.denny@state.nm.us Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios Subject: RE: Spill Report

Wayne Price-Senior Environmental Engr. Oil Conservation Division 1220 S. Saint Francis Santa Fe, NM 87505 E-mail <u>wayne.price@state.nm.us</u> Tele: 505-476-3487 Fax: 505-4763462

From: Price, Wayne, EMNRD
Sent: Tue 8/16/2005 8:59 AM
To: James Romero; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: RE: Spill Report

OCD hereby approves of the emergency actions with the following conditions:

- 1. All water sales from the ponds shall cease, unless approved by OCD.
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Wayne Price-Senior Environmental Engr. Oil Conservation Division 1220 S. Saint Francis Santa Fe, NM 87505 E-mail <u>wayne.price@state.nm.us</u> Tele: 505-476-3487 Fax: 505-4763462

From: James Romero [mailto:jromero@giant.com]
Sent: Mon 8/15/2005 5:12 PM
To: Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: Spill Report

Wayne,

As we discussed via telephone today, our API pump motor is not working properly (20-30% capacity) which resulted in a reportable discharge into our aeration lagoons. Samples were gathered and lab results were received today on Lagoon 2, and Evap Pond 1 (see below). I will follow up this email with a formal C-141 spill report. Moreover, I will submit pics, lab results, and a site map, etc.

However, as an interim measure, and with your approval, we are taking the following actions:

(1) Vac-trucks will be used to pump and clean out the aeration lagoons/API sump

(2) Interim emergency storage of material within two 55,000 barrel tanks located on western part of the property (map will follow hard copy).(3) A chopper pump will be installed and has been ordered (replacement of old API pump)

LAB RESULTS	Lagoon 2	Evap Pond 1
MTBE	88 ppb	60 ppb
Benzene	306 ppb	1000 ppb
Toluene	8.7 ppb	76 ppb
Ethylbenzene	<2.5 ppb	<10.0 ppb

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Price Wayne, EMNRD		
² From:	Price, Wayne, EMNRD	Sent: Thu 8/18/2005 8:30 AM
То:	James Romero	
Cc:	Ed Rios; Ed Riege; Steve Morris; Johnny Sanchez; David Kirby	
Subject:	RE: Spill Report (daily update for 8/17/05)	
Attachmer	nts:	

#### OCD hereby approves of your request.

Please be advised that NMOCD approval of this request does not relieve (Giant) of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve (Giant) of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Wayne Price-Senior Environmental Engr. Oil Conservation Division 1220 S. Saint Francis Santa Fe, NM 87505 E-mail <u>wayne.price@state.nm.us</u> Tele: 505-476-3487 Fax: 505-4763462

From: James Romero [mailto:jromero@giant.com]
Sent: Wed 8/17/2005 12:27 PM
To: Price, Wayne, EMNRD
Cc: Ed Rios; Ed Riege; Steve Morris; Johnny Sanchez; David Kirby
Subject: RE: Spill Report (daily update for 8/17/05)

Wayne, Hope:

Per OCD's condition here is our daily update:

1) We just received the lab results (via telephone) on Storm water Outfall #1

Benzene	ND
EthylBen	ND
Toluene	.35ppb
Xylene	2.1ppb

With these tests results, and due to the fact the lower storm water basin is at capacity, we'd like your approval to release water off property.

2) Riley Industrial is onsite and unplugging the process sewer lines to the weir box.

3) The outlet to the upper storm water basin has been plugged to contain the spill

If you have any questions please feel free to call me anytime, James

-----Original Message-----From: Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us] Sent: Tuesday, August 16, 2005 8:01 AM To: Price, Wayne, EMNRD; James Romero; Monzeglio, Hope, NMENV; foust.denny@state.nm.us Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios Subject: RE: Spill Report

Wayne Price-Senior Environmental Engr. Oil Conservation Division 1220 S. Saint Francis Santa Fe, NM 87505 E-mail <u>wayne.price@state.nm.us</u> Tele: 505-476-3487 Fax: 505-4763462 From: Price, Wayne, EMNRD
Sent: Tue 8/16/2005 8:59 AM
To: James Romero; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'
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From: James Romero [mailto:jromero@giant.com]
Sent: Mon 8/15/2005 5:12 PM
To: Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
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Benzene	306 ppb	1000 ppb





76 ppb <10.0 ppb



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( Yog replied on 8/18/2005 8:30 AM.

#### Price, Wayne, EMNRD

From:	James Romero [jromero@giant.com]
То:	Price, Wayne, EMNRD
Cc:	Ed Rios; Ed Riege; Steve Morris; Johnny Sanchez; David Kirby
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#### Attachments:

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-----Original Message----- **From:** Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us] **Sent:** Tuesday, August 16, 2005 8:01 AM **To:** Price, Wayne, EMNRD; James Romero; Monzeglio, Hope, NMENV; foust.denny@state.nm.us **Cc:** Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios **Subject:** RE: Spill Report

Wayne Price-Senior Environmental Engr. Oil Conservation Division 1220 S. Saint Francis Santa Fe, NM 87505 E-mail <u>wayne.price@state.nm.us</u> Tele: 505-476-3487 Fax: 505-4763462

From: Price, Wayne, EMNRD
Sent: Tue 8/16/2005 8:59 AM
To: James Romero; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: RE: Spill Report

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From: James Romero [mailto:jromero@giant.com]
Sent: Mon 8/15/2005 5:12 PM
To: Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: Spill Report

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Price, Way	me, EMNRD	
From: (	James Romero [jromero@giant.com]	Sent: Tue 8/16/2005 3:21 PM
то:	Price, Wayne, EMNRD; Monzeglio, Hope, NMENV	
Cc:	Ed Rios; Ed Riege; Steve Morris; David Kirby	
Subject:	RE: Spill Report	
Attachmen	ts:	

Wayne, I wanted to follow up via email regarding our phone conversation and the emergency conditions.

1) Giant is no longer selling water from our ponds

2) Spill releases (excluding API which goes into Lagoons) have been contained within the upper storm water basin. To ensure contaminants are being contained and not leaving the property, Giant took samples from the lower basin (Outfall #1) which exits the property and took numerous soil samples. In addition to sampling, Giant has plugged outfall #1 until lab results demonstrate no contaminants are present.

3) Giant will have 4 pumper trucks hauling wastes from the API, and Lagoons to our 55,000 barrel tanks during daylight hours. In addition, during nighttime hours Giant personnel will monitor and document their visual inspections of the API and Ponds.
4) Giant will keep OCD and NMENV appraised daily

5) Giant will evaluate if isolating the ponds is logistically practicable. However, due to the heavy rains and lowered capacity of our ponds, this may no be possible.

I'm in the process of submitting a C141 and Remediation plan, which will include photos, spill amounts, lab results, clean up efforts including pumper truck routes, amounts recovered, spill contingencies, site map, rainfall records, and contingencies etc. If you would like us to include any other information let me know.

-----Original Message----- **From:** Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us] **Sent:** Tuesday, August 16, 2005 8:01 AM **To:** Price, Wayne, EMNRD; James Romero; Monzeglio, Hope, NMENV; foust.denny@state.nm.us **Cc:** Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios **Subject:** RE: Spill Report

Wayne Price-Senior Envi Oil Conservation Division 1220 S. Saint Francis Santa Fe, NM 87505 E-mail <u>wayne.price@state.nm.us</u> Tele: 505-476-3487 Fax: 505-4763462

From: Price, Wayne, EMNRD
Sent: Tue 8/16/2005 8:59 AM
To: James Romero; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
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From: James Romero [mailto:jromero@giant.com]
Sent: Mon 8/15/2005 5:12 PM
To: Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: Spill Report

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#### Price, Wayne, EMNRD

From:	Ed Riege [eriege@giant.com]
То:	Monzeglio, Hope, NMENV; Price, Wayne, EMNRD
Cc:	Steve Morris; James Romero
Subject:	RR Rack Lagoon
Attachments	

Cleanup work on the RR Rack Lagoon is to continue this week. Giant will follow the NMED recommendations made by Hope last January. The old pipeline will be removed and further cleanup is needed in the lagoon area, to be followed by the sampling guidelines given to us by Hope. Thanks Ed Riege

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Price, Way	yne, EMNRD	
From:	Price, Wayne, EMNRD	Sent: Tue 8/16/2005 9:00 AM
To:	Price, Wayne, EMNRD; James Romero; Monzeglio, Hope, NMENV; 'fous	st.denny@state.nm.us'
Cc:	Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios	
Subject:	RE: Spill Report	
Attachmen	its:	

Wayne Price-Senior Environmental Engr. Oil Conservation Division 1220 S. Saint Francis Santa Fe, NM 87505 E-mail <u>wayne.price@state.nm.us</u> Tele: 505-476-3487 Fax: 505-4763462

From: Price, Wayne, EMNRD
Sent: Tue 8/16/2005 8:59 AM
To: James Romero; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
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To: Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'
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то:	Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'	
Cc:	Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios	
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#### Price, Wayne, EMNRD

From:	James Romero [jromero@giant.com]
То:	Price, Wayne, EMNRD
Cc:	
Subject:	RE: Giant Ciniza API spill report
Attachments:	

Sent: Mon 8/15/2005 7:39 AM

Wayne, not a problem I will forward the requested information to you and Denny.

----Original Message----From: Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us]
Sent: Friday, August 12, 2005 2:09 PM
To: Jromero@Giant.com
Cc: Foust, Denny, EMNRD; Eriege@giant.com
Subject: Giant Ciniza API spill report

Dear James:

OCD is in receipt of the C-141 spill report dated 8/3/05. After talking to you, Ed and Randy I understand that the spill report did not report the actual release volume. Please in the future report the actual amount. In addition, please resubmit the spill report with a remediation plan for the areas impacted i.e. 1700 ft of area. Also provide a plan for disposing of the material and verification whether it is Hazardous. Please send in photos of the spill area.

OCD and Giant have a good working relationship, I would like to maintain our trust.

Wayne Price-Senior Environmental Engr. Oil Conservation Division 1220 S. Saint Francis Santa Fe, NM 87505 E-mail <u>wayne.price@state.nm.us</u> Tele: 505-476-3487 Fax: 505-4763462

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Price, Wayne, EMNRD			
From:	Price, Wayne, EMNRD	Sent: Fri 8/12/2005 3:08 PM	
To:	Jromero@Giant.com		
Cc:	Foust, Denny, EMNRD; Eriege@giant.com		
Subject:	Giant Ciniza API spill report		

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Price, Way	yne, EMNRD	
From:	Steve Morris [smorris@giant.com]	Sent: Thu 8/11/2005 12:08 PM
To:	Hope. Monzeglio (E-mail); Cobrain, Dave, NMENV; Price, Wayne, EMNRD	
Cc:	Ed Riege; James Romero; Johnny Sanchez	
Subject:	Well Depth to Water 2005.xls	

Attachments: Attachments: Well Depth to Water 2005.xls(11KB)

<<Well Depth to Water 2005.xls>> Hope, Dave, & Wayne, Here are the water elevations for the wells I measured on 5/24/05. The boundry well casing elevations weren't done at the time the wells were completed. We will get that done as soon as we can and send you those water elevations. Thanks, Steve Morris

Attachments	s can contain viruses that may my our computer. Attachments may not display c	ctly.	
Price, Wayn	e, EMNRD		
From:	Ed Riege [eriege@giant.com]	Sent:	Wed 8/10/2005 11:29 AM
То:	Monzeglio, Hope, NMENV; Price, Wayne, EMNRD		
Cc:	James Romero; Steve Morris		
Subject:	FW: GWM-1		
Attachments	: D <u>GWM-1.xls(43KB)</u>		
Sorry I missed t	that Hope. Here is Bills response and a corrected copy of GWM-1 boring log.		
Original Me	SS30e		

From: Werpei@aol.com [mailto:Werpei@aol.com] Sent: Wednesday, August 10, 2005 11:10 AM To: eriege@giant.com Subject: GWM-1

The correct value should be that the sands extend to 22.5 feet. The sand is not a part of the Chinle Group (Petrified Forest Formation). Sorry, I'll beat Nathan (again).

William H. Kingsley, PE Precision Engineering, Inc. PO Box 422 Las Cruces, NM 88004-0422

Office: 505-523-7674

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Sheet: 2 OF 2 Bore Point: SW corner of Pond

#### Precision Engineering ³ P.O. Box 422

³ P.O. Box 422 Las Cruces, NM 88004 505-523-7674

***** 

File #: 03-118 Site: Ciniza Boundry Wells

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Water Elevation: Not Encountered Boring No.: GWM-1

### Log of Test Borings

Elevation: TBD Date: 7/8/2004

	_	BLOW			MATERIAL CHARACTERISTICS				· · · · · · · · · · · · · · · · · · ·
LAB #	DEPTH	COUNT	PLOT	SCALE		%М	LL	PI	CLASS.
	21.5-22.5		////////	<u>22.0</u>	Sand, gravelly				
			////////						
	22.5-24.0		////////		Petrified Forest Formation, Painted Desert				
					<u>Member,</u> <u>Mudstone</u> , weathered, red-purple,				
	24.0		/////////		reduction spots, hard, moist, blocky/crumbly				<u> </u>
	24.0		1	<u>25.0</u>	1.0.				
					Screened interval 18-24'				
			l i			{			
i i									
			1	<u>30.0</u>					
			Į						
			[						
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1			Į	l					
				40.0					
ļ			ļ				l		
							ł		
	L		L			[	[		
SIZE &	TYPE OF	BORING: 4	-1/4" ID	Hollow	Stemmed Auger	LOGG	ED E	3Y:	NS

https://webmail.state.nm.us/exchange/WPrice/Inbox/FW: GWM-1.EML/1_r

Attachments can contain viruses that ma	rm your computer. Attachments may not display

Price, Wayne, EMNRD

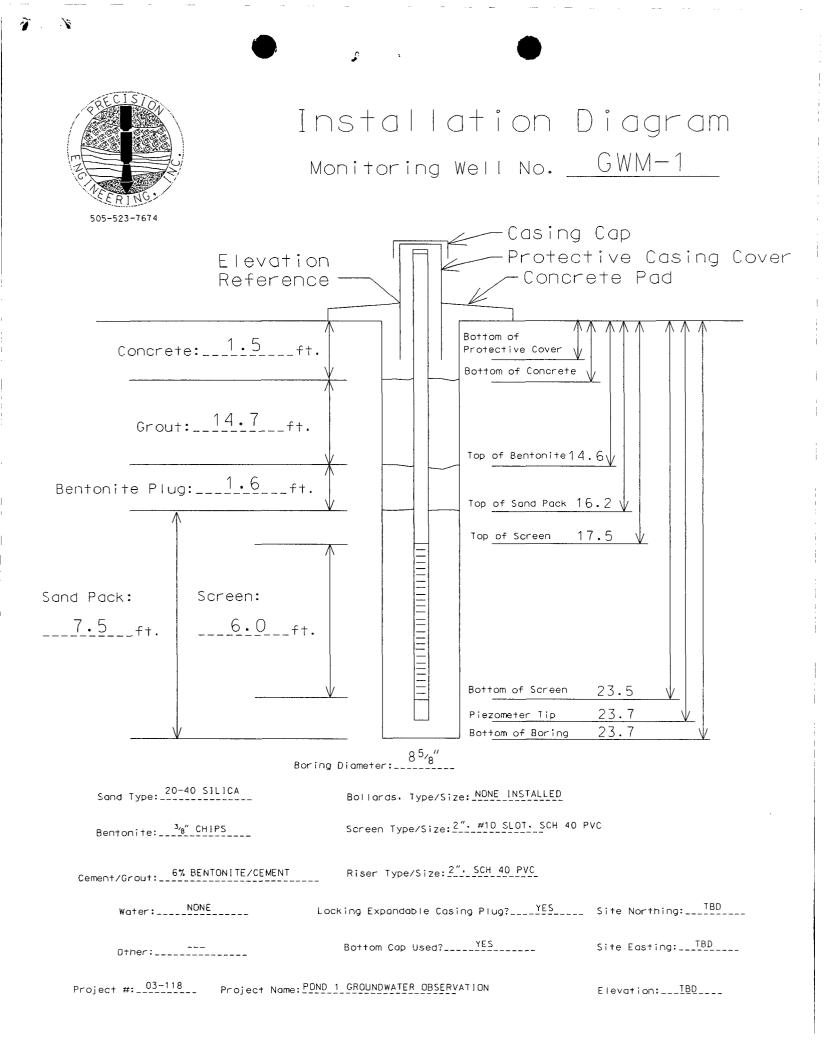
Sent: Tue 8/9/2005 5:01 PM

ctly.

From:	Ed Riege [eriege@giant.com]
То:	Monzeglio, Hope, NMENV; Price, Wayne, EMNRD
Cc:	Steve Morris; Ed Rios; James Romero
Subject:	GWM-1.xis (corrected)
Attachments	GWM-1.xls(39KB)

<<GWM-1.xls>> Hope, The reference to clay, black, wet at the 40 ft level for GWM-1 was a mistake by Precision Engineering. It was copied over from the first page by mistake. It has been removed. The true depth of this boring was 24 ft. Thanks Ed

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Precision Engineering,

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P.O. Box 422 Las Cruces, NM 88004 505-523-7674 File #: 03-118 Site: Ciniza Boundry Wells

i.

Elevation: TBD Date: 7/8/2004

### Water Elevation: Not Encountered Boring No.: GWM-1

Sheet: 1 OF 2

Bore Point: SW corner of Pond 1

Log of Test Borings

	DEPTH 0-1.5 1.5-20.0	COUNT	PLOT 0/0/0/0/ 0/0/0/0/ ///////// ////////		MATERIAL CHARACTERISTICS (MOISTURE, CONDITION, COLOR,ETC.) Clay, gravelly, red-brown, wet Clay, red-brown, wet	%M	LL	PI	CLASS.
			o/o/o/o/ o/o/o/o/ /////////						
			o/o/o/o/ ///////// ///////////////////						
	1.5-20.0		///////// /////////	0.5	Clay, red-brown, wet				
	1.5-20.0		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.5	Clay, red-brown, wet				
				0.5					
				<u>2.5</u>					1
			////////						
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			////////	<u>5.0</u>					
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						1			
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	20-21.5			20.0	<u>Clav,</u> black, wet,		<u> </u>		
	20-21.J				joiay, black, wel,				
						1			
SIZE 2 1		BORING:			v Stemmed Auger	LOGG			NS

C:\Documents and Settings\eriege\Local Settings\Temp\[GWM-1.xls]Sheet

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Sheet: 2 OF 2 Bore Point: SW corner of Pond 7

## Precision Engineering P.O. Box 422 Las Cruces, NM 88004

File #: 03-118 Site: Ciniza Boundry Wells ļ.

Elevation: TBD Date: 7/8/2004

Water Elevation: Not Encountered Boring No.: GWM-1

#### Log of Test Borings

505-523-7674

		BLOW			MATERIAL CHARACTERISTICS				
AB#	DEPTH	COUNT	PLOT	SCALE		%M		PI	CLASS.
	21.5-24.0	000111			Sand, gravelly	70111			
	21.0 24.0		////////	<u></u>	<u>bunu</u> , graveny				
	22.5-24.0		/////////		Petrified Forest Formation, Painted Desert	Ì			
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Member, Mudstone, weathered, red-purple,				
			////////		reduction spots, hard, moist, blocky/crumbly				
	24.0				T.D.				
ĺ				<u>25.0</u>					
					Screened interval 18-24'				
[									
				20.0		ļ			
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				35.0					
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ł									
ľ				<u>40.0</u>		Į	l		
1									
ſ			1						
ľ					<u>Clay</u> , black, wet,				
			1	i		1	1		1

C:\Documents and Settings\eriege\Local Settings\Temp\[GWM-1.xls]Sheet

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#### History of GWM-1

This well was installed on July 8, 2004 downgradient of the aeration basins at the Ciniza refinery in order to monitor the shallow groundwater used to detect potential leakage from the aeration basins. The following summarizes the sampling of this well and all analyses meet the NM WQCC standards except for the June 28, 2005 sample analysis for benzene which matched the .01 mg/l standard. Giant plans to resample this well on July 28 and analyze for the annual requirements of: general chemistry/VOC/SVOC/BTEX/MTBE/metals. We will report the results to OCD and NMED as soon as they are received. I will follow-up this email with a mailed hard copy that will include the installation daigram, the log of test boring, and the analytical results summarized below. Please note that the analyses completed on 7/28/04 identifies the well as EP-1 New Well which was before the well was officially designated as GWM-1.

Well GWM-1	ug/l	ug/l	ug/l	ug/l
sampling date	benzene	toluene	ethylbenzene	xylenes
6/28/2005	10	<2.5	3.5	41
2/15/2005	5	2.4	2.6	31
7/28/2004	<1	<1	1.5	3.4

Price, Way	yne, EMNRD	
From:	Price, Wayne, EMNRD	<b>Sent:</b> Mon 8/8/2005 2:38 PM
То:	James Romero; Monzeglio, Hope, NMENV; 'cobrain.dave@state.nm.us'	
Cc:	Ed Rios; Steve Morris; Johnny Sanchez; Ed Riege	
Subject:	RE: Conference call to discuss GWM#1	
Attachmen	te	

I will not be able to make the conf. call. However, OCD has a basic question. Where is the contaminants coming from and why did they show up. This issue will have to be addressed.

Wayne Price-Senior Environmental Engr. Oil Conservation Division 1220 S. Saint Francis Santa Fe, NM 87505 E-mail <u>wayne.price@state.nm.us</u> Tele: 505-476-3487 Fax: 505-4763462

From: James Romero [mailto:jromero@giant.com]
Sent: Mon 8/8/2005 2:02 PM
To: Monzeglio, Hope, NMENV; Price, Wayne, EMNRD; 'cobrain.dave@state.nm.us'
Cc: Ed Rios; Steve Morris; Johnny Sanchez; Ed Riege
Subject: Conference call to discuss GWM#1

Hello everyone, attached is the ground-water data for GWM1 to date. As a reminder, the well was installed on July 8, 2004 down gradient of the aeration basins and when drilled contained water. To date our sampling schedule as allowed us to sample 4-times (July04, Feb05,June05, and Aug05). On all GWM1 samples, water quality parameters have been below the NMWQS and MCL's, with the exception of two sampling periods: (1) June 2005 - 10ppb benzene; and (2) Aug 2005 - 2.6 mg/L Fluoride and 2000 mg/L Chloride. Our next scheduled sampling event will be in the fourth quarter for MTBE and BTEX.

<<gwm1.xls>>

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District I 625 N. French I District II 201 W. Grond				Sta Energy Min		New Mexi and Natural	-					Form C-141 ctober 10, 2003	
301 W. Grand A				Oil C	Conserv	vation Div	ision		Submit 2 Copies to appropriate District Office in accordance				
000 Rio Brazos District IV				1220	South	th St. Francis Dr.					th Rule	e 116 on back	
220 S. St. Franc	cis Dr., Santa	1 Fe, NM 87505		Sa	nta Fe	, NM 875	05					side of form	
			Rele	ease Notific	eation	and Co	rrective A	ction					
						OPERA				al Report		Final Report	
Name of Co Address Rt		iant Industri	ies, Inc.				tes Romero/Ste lo. 505-722-38		is				
Facility Nar		ndustries, Ir	nc.			Facility Typ		33					
Surface Ow				Mineral (		Giant Indust			Lease N	Io			
Surface Ow		industries, n	<u>IC.</u>						Lease	<u>.</u>			
Unit Letter	Section	Townshin	Dongo	LOCA Feet from the		South Line	LEASE Feet from the	East/W	est Line	County			
	33	Township 15N	Range 15W	reet nom the						McKinley			
		Latitu	de	30° 29' 3	30"	Longitude	e108° 24" 40	0"					
				NAT	URE	OF RELI	EASE						
Type of Rele Source of Re		water								Recovered (			
Source of Re	lease API					Est. 1-3 days prior to sampling 8			Date and Hour of Discovery 8/15/05 Received Lab Results				
Was Immedi	ate Notice (	Tiven?				Est. (Aug 7 If YES, To			8/15/05 N	lotified OCE	)/NME	NV	
was minicul			Yes 🗌	] No 🗌 Not R	equired		to Wayne Price, I	Denny Fo	oust (OCD	), and Hope	Monz	eglio	
By Whom? J			Morris				lour 8/9/05 Samp			ab Results			
Was a Water	course Read	ched?	]Yes 🛛	No		If YES, Vo	lume Impacting t	the Water	course.				
If a Watercou	urse was Im	pacted, Descr	ibe Fully.	* N/A									
The API sur	mp pump v		king prop	n Taken.* erly (20-30% ca	apacity)	which resul	ted in a reporta	ble discl	narge into	o our aerati	on lag	oons/ponds	
^See atta	cnea Re	mediation	i Plan										
Describe Are	a Affected	and Cleanup	Action Ta	ken.									
*See atta	ched Re	mediatior	ı Plan										
		mediation											
I hereby cert	ify that the	information g	iven abov	e is true and comp	lete to th	ne best of my	knowledge and u	Inderstan	d that pur	suant to NM	OCD r	ules and	
				nd/or file certain i ce of a C-141 rep									
should their	operations h	nave failed to	adequatel	y investigate and r	remediate	e contaminati	on that pose a thr	reat to gro	ound wate	r, surface wa	iter, hu	man health	
		addition, NMO ws and/or reg		ptance of a C-141	report de	oes not reliev	e the operator of	responsil	oility for c	compliance v	vith any	y other	
Teuerar, state	, 01 10cai 1a	ws and/or reg					OIL CON	SERV	ATION	DIVISIO	)N		
Signatur							<u>_</u>						
						Approved by	District Supervis	sor:					
Printed Nam													
Title: Enviro	onmental Ei	ngineer				Approval Da		E	Expiration	Date:		· · · · · · · · · · · · · · · · · · ·	
E-mail Addr	ess: Jromer	ro@Giant.con	n			Conditions o	f Approval:			Attached	$\boxtimes$		
Date: Phone Attach Addi			Aug sary	7,2005			<u></u>						

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**Background**: The API sump pump not working properly resulted in a reportable release of wastewater into the aeration lagoons/ponds. Grab samples on Evaporation Pond #1 and Lagoon #1 were taken on August 9, 2005. On August 15, 2005 Giant's Ciniza Refinery received lab results (attachment 1) indicating levels above the regulatory limit for Benzene. Giant immediately contacted the New Mexico Office of Oil Conservation Division (OCD) and the New Mexico Environmental Department (NMENV) via phone/email (attachment 2).

### **ENVIRONMENTAL CONSEQUENCES:**

On average the API output is 50-100 gpm (144,000 gpd). Based on these numbers, it is estimated 1,152,000 gallons of untreated oily water was discharged into the environment (aeration lagoon and ponds) through August  $15^{\text{th}}$ . However, the discharge was and continues to be contained within the lagoons and ponds; no waterways were/are being impacted and no releases have left the property. Giant evaluated isolating the ponds to limit the area of contamination, however, due to heavy rainfall >5.0" (see rainfall data), and on-going operations, it was logistically impracticable.

Based on knowledge of the process, no discharge of any listed wastes occurred. This is due to the fact the sludge material (F, K wastes) dropped out before exiting the API (see attachment 3).

Ground water sampling per 2005 OCD permit is scheduled to occur later this month. Any Ground water contamination (if detected) will be immediately reported to OCD and NMENV.

#### **IMMEDIATE ACTION TAKEN**:

Immediate notification was given (via telephone/email) to OCD and NMENV. Giant requested permission to utilize vac-trucks to clean out lagoons and store material in two 55,000-barrel tanks. OCD granted emergency approval with the following conditions:

(1) All water sales from the ponds shall cease, unless approved by OCD

(2) No storm water shall be released that exceeds the WQCC standards.

(3) The emergency actions shall be continuous (24 hour) until API problem is correct.

(4) A daily E-mail report shall be submitted until emergency is over.

(5) Giant shall isolate the other ponds, if possible during the emergency condition

### **ON-GOING ACTIONS:**

Giant Management (Ed Rios) notified all personnel via email of the importance of spill prevention.

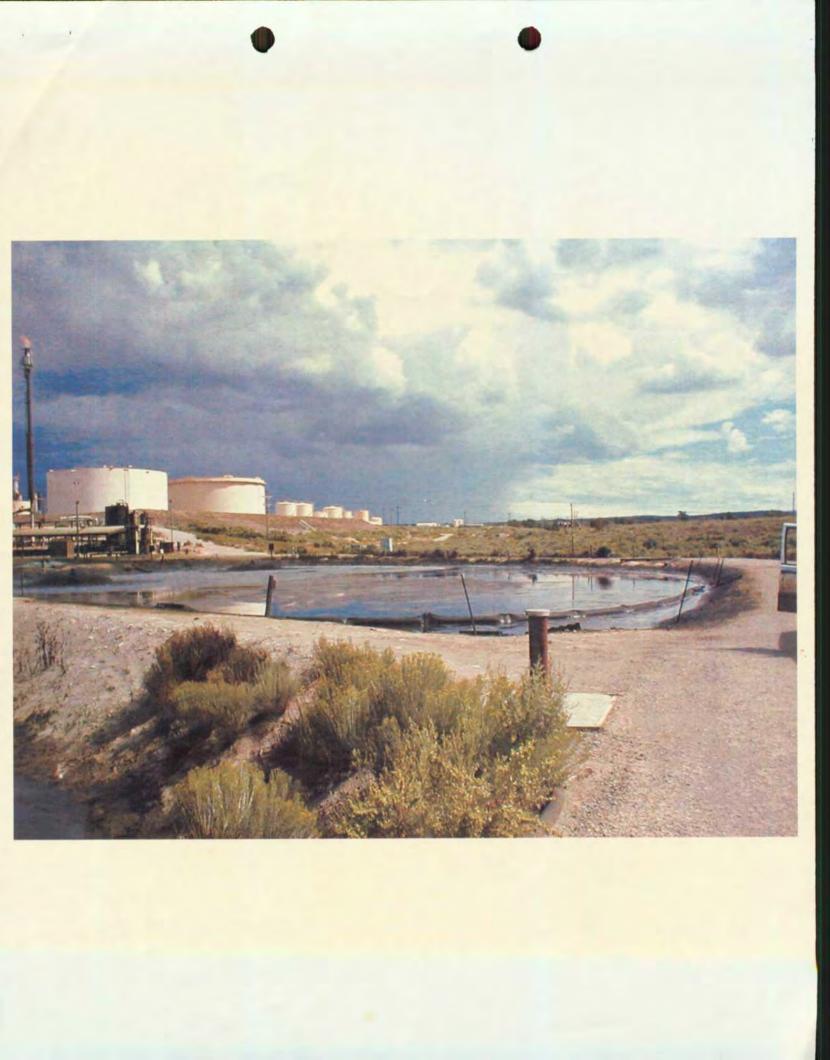
Giant personnel developed a detailed scope of work (see attachment 4). This included preparing two 55,000-barrel tanks (see map) to receive material from the lagoons.

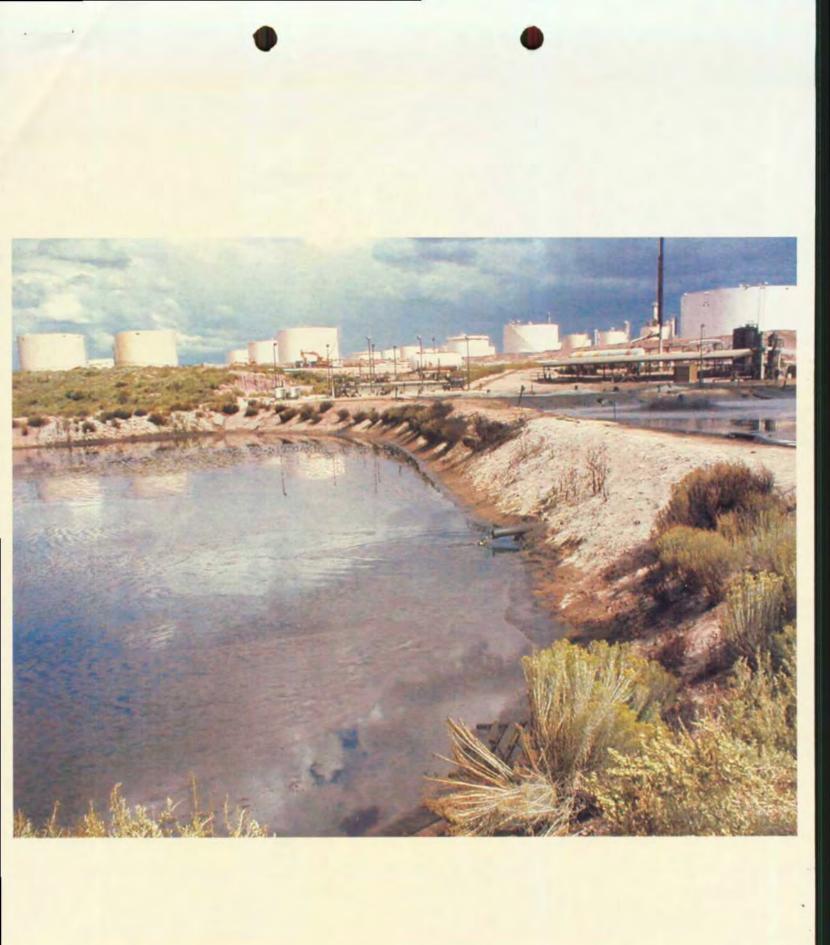
Moreover, a contract was given to Riley Industrial Services to use 2-3 large capacity vacuum trucks and personnel to vacuum, and transport lagoon material to the tanks. Giant has verified the contractor has an Environmental Management System in place (see attachment 5) and is aware of Giant's SPCC plan. Work will commence on August 18th and continue until completion. Trucks will run during daylight hours (see map for truck routes), however, due to inclimate weather conditions, and associated safety concerns, work maybe be temporarily stopped.

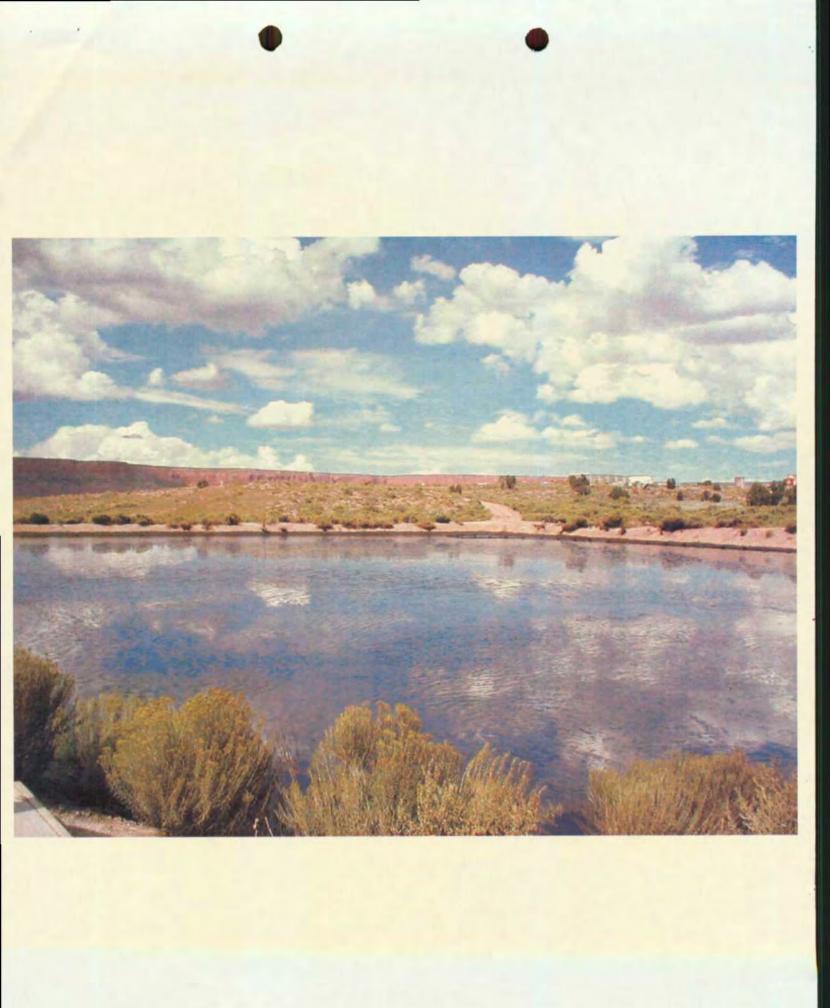
In addition to pumping material from the lagoons, the lagoon/pond banks will require cleaning. Any soil removed will be stockpiled on plastic lining and tested TCLP. Based on the results of the TCLP, disposal of soils will be onsite and/or shipped off site has hazardous waste.

Moreover, to fix the API, a new chopper pump has been ordered and should arrive within 6-8 weeks. A complete installation plan will be developed forwarded to OCD.

Ground water sampling for Giants OCD Permit is scheduled for later this month. Any Ground water contamination (if detected) will be immediately reported to OCD and NMENV.











December 08, 2004

Steve Morris Giant Refining Co Rt. 3 Box 7 Gallup, NM 87301 TEL: (505) 722-3833 FAX (505) 722-0210

RE: Evap. Pond #2 Inlet 111904

IRONMENTAL

JALYSIS BORATORY

Order No.: 0411219

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 1 sample on 11/19/2004 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager



4901 Hawkins NE∎ Suite D■ Albuquerque, NM 87109 505.345.3975 ■ Fax 505.345.4107 www.hallenvironmental.com

CLIENT:	Giant Refining Co			Client	Sample ID: Po	ond #2	2 Inlet
Lab Order:	0411219			Col	lection Date:	11/19/	/2004 11:00:00 AM
Project:	Evap. Pond #2 Inlet 1	11904					
Lab ID:	0411219-01			:	Matrix:	AQUI	EOUS
Analyses		Result	PQL	Qual Un	its	DF	Date Analyzed
EPA METHOD	8021B: VOLATILES						Analyst: NSB
Methyl tert-buty	/I ether (MTBE)	110	100	hð\	L	40	11/24/2004 3:19:09 PM
Benzene		24	20	hð/	L	40	11/24/2004 3:19:09 PM
Toluene		72	20	hð/	L	40	11/24/2004 3:19:09 PM
Ethylbenzene		20	20	hb/	L	40	11/24/2004 3:19:09 PM
Xylenes, Total		110	20	μg/	Ľ	40	11/24/2004 3:19:09 PM
Surr: 4-Brom	ofluorobenzene	103	74-118	%F	REC	40	11/24/2004 3:19:09 PM
EPA METHOD	7470: MERCURY						Analyst: CMC
Mercury		0.0012	0.00020	mg	/L	1	12/2/2004
EPA 6010C: T	OTAL RECOVERABLE M	IETALS					Analyst: NMC
Arsenic		ND	0.020	mg	I/L	1	12/2/2004 9:20:49 AM
Barium		0.14	0.020	mg	ı/L	1	12/2/2004 9:20:49 AM
Cadmium		ND	0.0020	mg	ı/∟	1	12/2/2004 9:20:49 AM
Chromium		0.012	0.0060	mg	µ∕L	1	12/2/2004 9:20:49 AM
Lead		0.0075	0.0050	mg	ı∕L	1	12/2/2004 9:20:49 AM
Selenium		ND	0.050	់ភាព	µ∕L	1	12/7/2004 8:56:19 AM
Silver		ND	0.0050	mg	y/L	1	12/2/2004 9:20:49 AM
EPA METHOD	160.1: TDS						Analyst: MAI
Total Dissolved	d Solids	3800	200	m	g/L_	4	11/24/2004

### Hall Environmental Analysis Laboratory

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 1 / 8

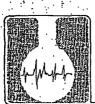
S - Spike Recovery outside accepted recovery limits

Date: 08-Dec-04

- R RPD outside accepted recovery limits
- E Value above quantitation range

.

Page 1 of 1



### ASSAIGAI ANALYTICAL LABORATORIES, INC.

4301 Masthead NE • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259

3332 Wedgewood, Ste. N • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820 127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-2558

HALL ENVIRONMENTAL	· · ·	۰.
attn: ANDY FREEMAN	• • • •	۰
4901 HAWKINS NE, SUITE D		
ALBUQUERQUE NM 87	109-43	572

Explanation of codes В analyte detected in Method Blank Ę result is estimated H. analyzed out of hold time tentatively identified compound N S subcontracted .. 1-9 see footnote

STANDARD

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. . ... . * Assaigai Analytical Laboratories, Inc. Certificate of Analysis

Order: 041	1487 HAL	03	Receipt: 11-19-04	William P.	. Biava: Presid	ent of Assaign	i Analytical Laboratorias, i	Inc.
· · ·	ND #2 INLET UEOUS	•	C	ollected: 11-19-	-04 11:00:0	00 By:		
QC Group	Run Sequence	CAS#	Analyte	Result	Units	Dilution Factor	Detection Limit Code	Prep Run Date Date
0411487-01A BOD04148	WC:2004.3313.16	EPA 405.1	Biochemical Oxygen Demand	1246			By: CMS	- · · · · · ·
0411487-01B WCOD04040	WC.2004.3367.14	EPA 410.1	Biochemical Oxygen Demand Chemical Oxygen Demand Chemical Oxygen Demand	1246		10	By NJI	11-19-04 11-24-04
Detected, ie resu Detection Limit:	ilt is less than the sam All results relate only	to the items tes	acceptable condition and all sampling wi tection Limit. Sample specific Defection led. Any miscellaneous workorder infor or field blank centemination.	Limit is determined	l.bv multinívi	na the same	10 re. Sample result of N le Dilution Factor by th	D indicates Not : . e listed Reporting
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Page 1.of 1			SQLCoyote: Reports 1.1.0 DUCTION OF THIS REPORT IN LESS THAN FU	0411031209XX			Report Date 12	2/6/2004 4:07:48 PM

### Hall Environmental Analysis Laboratory

Evap. Pond #2 Inlet 111904

Date: 08-Dec-04

CLIENT:	Giant Refining Co
Work Order:	0411219

QC SUMMARY REPORT

Method Blank

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Sample ID Reagent Blank 5m	Batch ID: R13881	Test Code	: SW8021	Units: µg/L		Analysi	s Date 11/2	4/2004 8:25:04 AM	Prep D	ate	
Client ID:		Run ID:	PIDFID_0411	24A		SeqNo:	3229	65			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Methyl tert-butyl ether (MTBE)	ND	2.5									• •
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	20.19	0	20	0	101	74	118	· `0			
Sample ID MB-6991	Batch ID: 6991	Test Code:	SW7470	Units: mg/L		Analysis	Date <b>12/2</b>	/2004	Prep D	ate 12/2/200	4
Client ID:		Run ID:	MI-LA254_04	1202A		SeqNo:	32402	28			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.0002				-			- dot, /		• • • • •
Sample ID MB-6980	Batch ID: 6980	Test Code:	SW6010A	Units: mg/L		Analysis	Date 12/2/	2004 9:05:17 AM	Prep Da	ate 12/1/200	4
Client ID:		Run ID:	ICP_041202A	•		SeqNo:	32394	11			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.02			· · · · · · · · · · · · · · · · · · ·						
Barium	ND	0.02									
Cadmium	ND	0.002									
Chromium	ND	0.006									
Lead	ND	0,005									
Selenium	0.01884	0.05									J
Silver	0.001192	0.005									J

**Project:** 

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

I

## CLIENT:Giant Refining CoWork Order:0411219Project:Evap. Pond #2 Inlet 111904

### QC SUMMARY REPORT

Method Blank

_____

Sample ID MB-6980	Batch ID: 6980	Test Code:	SW6010A	Units: mg/L		Analysis Date 12/7/2004 7:59:54 AM	Prep Date 12/1/200	)4
Client ID:		Run ID:	ICP_0412074	A		SeqNo: 324781		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Selenium	0.0209	0.05						J
Sample ID MB-6956	Batch ID: 6956	Test Code:	E160.1	Units: mg/L		Analysis Date 11/24/2004	Prep Date 11/23/20	04
Client ID:		Run ID:	WC_0411240	;		SeqNo: 323022		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit	Qual
Total Dissolved Solids	ND	50						

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

### Hall Environmental Analysis Laboratory

### **Date:** 08-Dec-04

CLIENT:Giant Refining CoWork Order:0411219Project:Evap. Pond #2 Inlet 111904

### **QC SUMMARY REPORT**

Laboratory Control Spike - generic

Sample ID BTEX std 100ng	Batch ID: R13881	Test Code	: SW8021	Units: µg/L		Analysi	s Date 11/2	4/2004 2:19:21 PM	Prep D	ate	
Client ID:		Run ID:	PIDFID_0411	24A		SeqNo:	3230	77			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	35.23	2.5	40	0	88.1	54.9	142	0			
Benzene	19.81	0.5	20	0	99.0	81.3	121	0			
Toluene	20.17	0.5	20	0	101	84.9	118	0			
Ethylbenzene	19.93	0.5	20	0	99.6	53.8	149	0			
Xylenes, Total	59.98	0.5	60	0	100	83.1	122	0			
Sample ID LCS-6991	Batch ID: 6991	Test Code:	SW7470	Units: mg/L	· · · · · · · · · · · · · · · · · · ·	Analysis	5 Date 12/2	/2004	Prep D	ate 12/2/200	4
Client ID:		Run ID:	MI-LA254_04	1202A		SeqNo:	32403	33			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00542	0.0002	0.005	0	108	75.2	134	0			
Sample ID LCSD-6991	Batch ID: 6991	Test Code:	SW7470	Units: mg/L	·····	Analysis	Date 12/2/	2004	Prep Da	ate 12/2/200	4
Client ID:		Run ID:	MI-LA254_04	1202A		SeqNo:	32403	34			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Quai
Mercury	0.004943	0.0002	0.005	0	98.9	75.2	134	0.00542	9.21	0	

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

## CLIENT:Giant Refining CoWork Order:0411219Project:Evap. Pond #2 Inlet 111904

### QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID LCS-6980	Batch ID: 6980	Test Code	: SW6010A	Units: mg/L	,	Analysis	Date 12/2	2/2004 9:08:09 AM	Prep D	ate 12/1/200	04
Client ID:		Run ID:	ICP_041202A			SeqNo:	3239	42			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Arsenic	0.436	0.02	0.5	0	87.2	80	120	0			
Barium	0.46	0.02	0.5	0	92.0	80	120	0			
Cadmium	0.4281	0.002	0.5	0	85.6	80	120	0			
Chromium	0.4782	0.006	0.5	0	95.6	80	120	0			
Lead	0.4388	0.005	0.5	0	87.8	80	120	0			
Silver	0.4356	0.005	0.5	0.001192	86.9	80	120	0			
Sample ID LCSD-6980	Batch ID: 6980	Test Code:	SW6010A	Units: mg/L		Analysis	Date 12/2	/2004 9:11:17 AM	Prep Da	ate 12/1/200	)4
Client ID:		Run ID:	ICP_041202A			SeqNo:	32394	43			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.4641	0.02	0.5	0	92.8	80	120	0.436	6.24	20	•
Barium	0.4811	0.02	0.5	0	96.2	80	120	0.46	4.50	20	
Cadmium	0.4473	0.002	0.5	0	89.5	80	120	0.4281	4.39	20	
Chromium	0.5006	0.006	0.5	0	100	80	120	0.4782	4.58	20	
Lead	0.4614	0.005	0.5	0	92.3	80	120	0.4388	5.03	20	
Silver	0.4582	0.005	0.5	0.001192	91.4	80	120	0.4356	5.05	20	
										and the second	
Sample ID LCS-6980	Batch ID: 6980	Test Code:	SW6010A	Units: mg/L		Analysis	Date 12/7/	2004 8:02:19 AM	Prep Da	ate 12/1/200	4
Sample ID LCS-6980 Client ID:	Batch ID: 6980	Test Code: Run ID:	SW6010A ICP_041207A	Units: mg/L		Analysis SeqNo:	Date 12/7/ 32478		Prep Da	ate 12/1/200	4
	Batch ID: 6980 Result		ICP_041207A	Units: mg/L SPK Ref Val	%REC	SeqNo:	32478		Prep Da %RPD	ate <b>12/1/200</b> RPDLimit	4 Qual

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Work Order: Project:	041121	Refining Co 19 Pond #2 Inlet 111904							QC SUM Laboratory C			
Sample ID LCSD Client ID:	-6980	Batch ID: 6980	Test Code Run ID:	SW6010A	Units: mg/L		Analysi SeqNo:		/2004 8:04:44 AM 33	Prep D	pate 12/1/200	)4
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium		0.5466	0.05	0.5	0.0209	105	80	120	0.5304	3.01	20	
Sample ID LCS-6 Client ID:	956	Batch ID: 6956	Test Code: Run ID:	E160.1 WC_0411240	Units: mg/L		Analysis SeqNo:	5 Date 11/2 32302		Prep D	ate 11/23/20	104
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved So	lids	982	50	1000	0	, 98.2	80	120	0			

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

### Hall Environmental Analysis Laboratory

	Sample	Receipt Che	ecklist			
Client Name GIANTREFIN			Date and Time	Received:		
Work Order Number 0411219			Received by	AT		
Checklist completed by Signature	les_11/	19/04 Date				
Matrix	Carrier name	Client drop-of	ſ			
Shipping container/cooler in good condition?		Yes 🗹	No 🗌	Not Present		
Custody seals intact on shipping container/cooler?		Yes 🗌	No 🗖	Not Present	Not Shipped	
Custody seals intact on sample bottles?		Yes 🗌	No 🗖	N/A		
Chain of custody present?		Yes 🗹	No 🗆			
Chain of custody signed when relinquished and re-	ceived?	Yes 🗹	No 🗖			
Chain of custody agrees with sample labels?		Yes 🗹	No 🗆			
Samples in proper container/bottle?		Yes 🗹	No 🗆			
Sample containers intact?		Yes 🗹	No 🗆			
Sufficient sample volume for indicated test?		Yes 🗹	No 🗆			
All samples received within holding time?		Yes 🗹	No 🗆			
Water - VOA vials have zero headspace?	No VOA vials subr	nitted 🗌	Yes 🗹	No 🗆		
Water - pH acceptable upon receipt?		Yes 🗆	No 🗆	N/A 🗹		
Container/Temp Blank temperature?		6°	4° C ± 2 Accept			
COMMENTS:						
Client contacted	Date contacted:		Per	son contacted		
Contacted by: F	Regarding					
Comments:	<u></u>				·	
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Corrective Action						
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CHA Client:	IN-OF.	CUSTO	DY RECORD	Project Name:			0	A					4 A	901 Ibud	Hav Juer	vkin que,	s NE , Nev	i, Su v Me	ite I exice	) 5 87	109				0,
	<u>Slan</u>	TB	fining Griza Box 7	Project Name:	<u>مر</u> رث	ye.	Por	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~											x 50 tal.c		5.41	07			
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		/ )		Project Manager				~			as/Di								t, S04)	2)			4	TE.	a (Y or N)
				M	f m	.9	U	nia	(8021	asolii	D) (G		(				2		P04,	: (8082)			2	2+	∑ ₽
Phone	: 50.	5 72	23833	Sampler:	5.	R.C.	M	man	+ TMB's (8021)	+ TPH (Gasoline	B MC	.1)	8021	÷.	1)	<del>,</del>	1 ta	(Mg)	NO ²	PCB's			4	える	ads
Fax #:	505	72	z 0210	Samples Cold?:	1.	U Yes	5	O No	L + U	L + 1	8015	d 418	List (	d 504	d 802	Ir PA	als	У.	NO3	des /		VOA)	0	BTE	or He
				[	<i>[</i>	eservat			+ MTBE	MTB	ethod	letho	In Full	Aethor	letho(	PNA C	8 Met	s (Na,	(F, CI	estici	VOA)	Semi-	D'Q	2 /	bles (
Date	Time	Matrix	Sample I.D. No.	Number/Volume	HgCl2			HEAL No. 0411219	BTEX +	BTEX + MTBE	TPH Method 8015B MOD (Gas/Diesel)	TPH (Method 418.1)	Volatiles Full List (8021)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Cations (Na, K, Ca, Mg)	Anions (F, Cl, NO ₃ , NO ₂ ,	8081 Pesticides / PCB's	3260 (VOA)	8270 (Semi-VOA)	80	802	Air Bubbles or Heads
117/04	1199	Water	Pand#27. At	7				1					-			<u> </u>	<u>-</u> X						X	X	
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From: James Romero [mailto:jromero@giant.com]
Sent: Mon 8/15/2005 5:12 PM
To: Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: Spill Report

Wayne,

Ethylbenzene

As we discussed via telephone today, our API pump motor is not working properly (20-30% capacity) which resulted in a reportable discharge into our aeration lagoons. Samples were gathered and lab results were received today on Lagoon 2, and Evap Pond 1 (see below). I will follow up this email with a formal C-141 spill report. Moreover, I will submit pics, lab results, and a site map, etc.

However, as an interim measure, and with your approval, we are taking the following actions:

(1) Vac-trucks will be used to pump and clean out the aeration lagoons/API sump

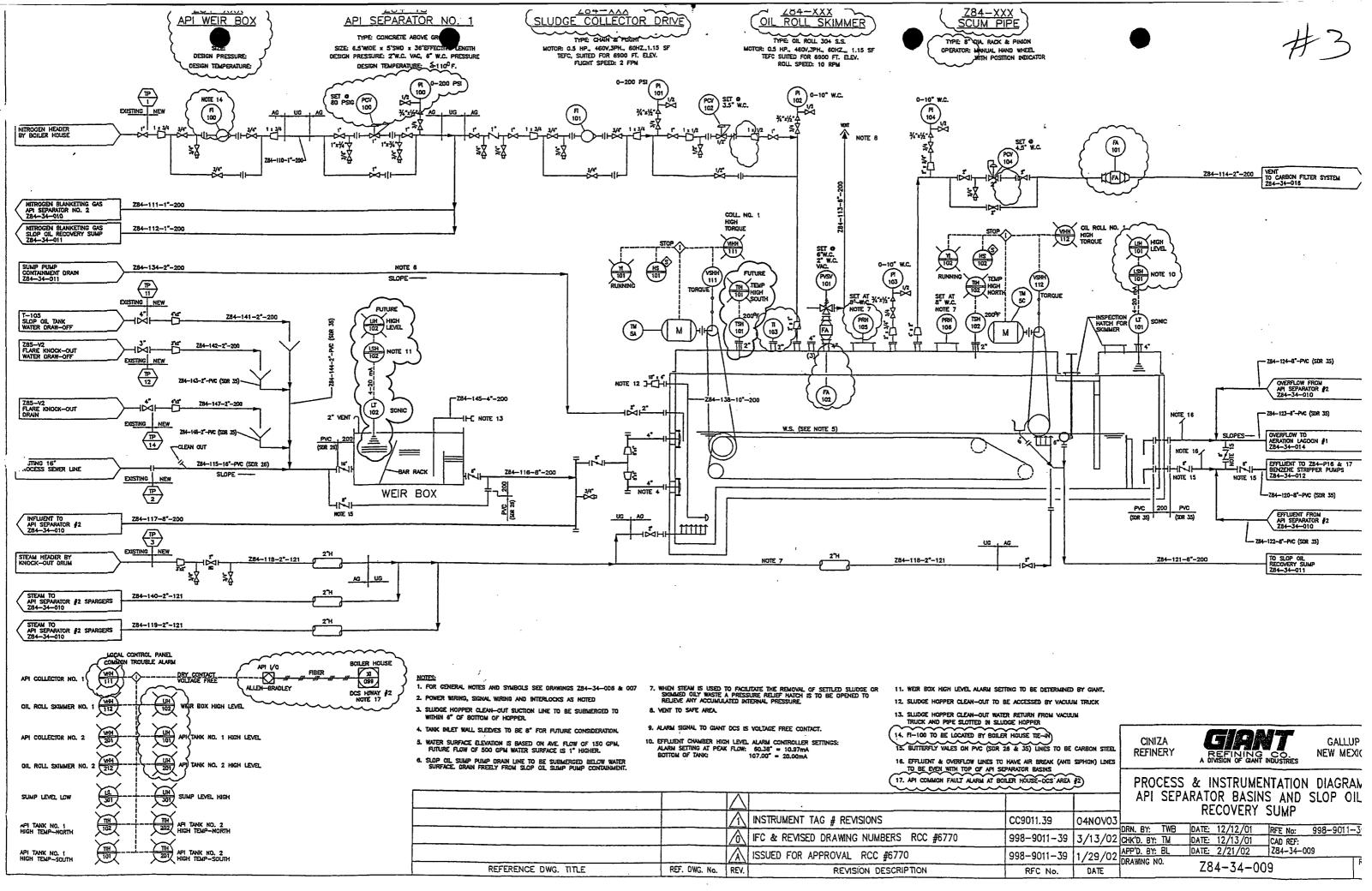
(2) Interim emergency storage of material within two 55,000 barrel tanks located on western part of the property (map will follow hard copy).

(3) A chopper pump will be installed and has been ordered (replacement of old API pump)

<10.0 ppb

LAB RESULTS	Lago	on 2	Evap Pond 1
MTBE	88 ppb	60 pp	Ь
Benzene	306 ppb	1000 ppb	
Toluene	8.7 ppb	76 ppt	)

<2.5 ppb



U	DGE HOPPER					
0	R HOUSE THE-IN 28 & 35) LINES TO BE HAVE AIR BREAK (ANTI PARATOR BASINS		CINIZA REFINERY	REFINING A DIVISION OF GAN		GALLUP NEW MEXI(
	ILER HOUSE-DOS'AREA	Ð		& INSTRUME		
			API SEPA	RECOVERY		SLOP OIL
	CC9011.39	04NOV03				
	998-9011-39	3/13/02	drn. by: TWB Chk'd. by: TM	DATE: 12/12/01 DATE: 12/13/01	RFE No: CAD REF:	998-9011-3
	998-9011-39	1/29/02	APP'D. BY: BL	DATE: 2/21/02	Z84-34-0	09
-	RFC No.	DATE	DRAWING NO.	Z84-34-0	09	1

### Aeration Lagoon / Evaporation Pond / Clean Up and Remediation

#5

The following scope of work will commence on or about the 16th or 17th day of August 2005 and continue until completion. Giant personnel as well as outside contractors will be involved. Giant will assign personnel to oversee and report project progress to management on a daily basis through to completion.

### **Aeration Lagoons / Evaporation ponds**

- Visually inspect the two tanks just south of the pond spray evaporators. Verify that the tanks are empty. Look over the area and identify any obstacles or hazards that will need to be addressed. (Complete)
- Install all necessary flanges, fittings, and valves for a water draw / sample point on the flanges located on the bottom of each tank just south of the large tie piping. Verify that the block valves between the two tanks are blocked in and tagged out to isolate the tanks. Install an empty barrel in the ground at each drain location to avoid possible ground contamination during testing. (Complete)
- Take the 3" rental trash pump from the lay down area to the tanks and place inside the dike. Locate the pump with the suction to the North. Install the discharge piping and connect it to the bottom of the East tank. Make sure to install a block valve and a check valve at the tank to avoid possible leaks or spill. Make sure to fully fuel the pump. Locate the small day tank, fill it up and locate it at the pump for refueling. Start the pump to verify proper operation.
- Clear out and level an area inside the dike to allow easy access for the vacuum trucks to get in and out of the area with no difficulty. Run the rental pump suction to the area for the vacuum trucks to hook to.
- The north dike wall is not in place. The dike will need to be built up to 4 feet and slope the inside and outside to allow the vacuum trucks to drive over it without difficulty. Compact the dike and ramp areas due to the weight of the vacuum trucks.
- Prior to starting to fill the tanks from the vacuum trucks a "Supervisory JSA" will be conducted at the site with all departments involved.
- Contractor will bring in 2 to 3 large capacity vacuum trucks. Contractors will need an orientation from safety. Safety will be notified of their arrival date and time with as much advanced notice as possible. Giant and contractor personnel will go to the pond and tank area and walk through the scope of work. Make sure contract personnel fully understand what is expected of them, where they will be loading from and unloading to, what roads to use and what areas to avoid. Giant personnel assigned to the project must be present at all times. Giant personnel assigned to the project will report to planning each day at 1:00 P.M. to give an update on progress. Due to inclimate weather Giant personnel may stop the project at any time to avoid possible unsafe conditions but will report any stoppage to management immediately. Giant personnel will also report when work has resumed.
  - Giant and contractor personnel will work together at the ponds to locate the floating booms and pull the oils to one side of the pond for easy access to the vacuum trucks. The vacuum trucks will load at the edges of the lagoons or ponds. The loads will be taken to the tanks and unloaded with the 3" rental pump into the East tank. This process will continue until a representative from the Environmental department verifies that the lagoon or pond is cleaned to acceptable levels.

- The lagoon/pond banks will require cleaning. Giant and contract personnel will use various equipment, such as backhoes, to remove the contaminated soils. The soils will be relocated to an area specified by the Environmental department. The soils will be tested to verify what means of disposal or remediation will be required. The project will not be considered complete until final decisions on the remediation / disposal of the soils has been addressed and the material is in remediation or shipped off site.
- The material in the East tank will be allowed to settle for a specified length of time to allow oil/water separation. The water will be drawn out of the bottom of the East tank and pushed into the West tank for testing and disposal. The liquid oils remaining in the East tank will be pumped into vacuum trucks and taken to tank 107 and unloaded there. The material will be sent back to the refinery units for processing. Any remaining sludge / solids will be disposed of as directed by the Environmental department. Again, until this step is complete and the tanks are emptied and cleaned the project will not be considered complete.
- After completion of each of the above steps department supervisors will be required to walk through the area and sign off on a sheet to verify that all are in agreement that the step is complete. The Giant representative from maintenance assigned to the project will be responsible for the sign off sheet and will turn it in to planning the day of signing.



# Riley Industrial Services, Inc.

#6

New Mexico and Four Corners Area Operations

### ENVIRONMENTAL MANAGEMENT SYSTEM

**APRIL 2005** 

#### Price, Wayne, EMNRD

From:Monzeglio, Hope, NMENVTo:Ed RiegeCc:Price, Wayne, EMNRDSubject:RE: RR Rack LagoonAttachments:

Thanks Ed

Hope Monzeglio Environmental Specialist New Mexico Environment Department Hazardous Waste Bureau 2905 Rodeo Park Drive East, BLDG 1 Santa Fe NM 87505 Phone: (505) 428-2545 Fax: (505)-428-2567 hope.monzeglio@state.nm.us

From: Ed Riege [mailto:eriege@giant.com]
Sent: Tue 8/16/2005 12:18 PM
To: Monzeglio, Hope, NMENV; Price, Wayne, EMNRD
Cc: Steve Morris; James Romero
Subject: RR Rack Lagoon

Cleanup work on the RR Rack Lagoon is to continue this week. Giant will follow the NMED recommendations made by Hope last January. The old pipeline will be removed and further cleanup is needed in the lagoon area, to be followed by the sampling guidelines given to us by Hope. Thanks Ed Riege

DISCLAIMER: The information contained in this e-mail message may be privileged, confidential and protected from disclosure. If you are not the intended recipient, any further disclosure, use, dissemination, distribution or copying of this message or any attachment is strictly prohibited. If you think you have received this e-mail message in error, please e-mail the sender at the above address and permanently delete the e-mail. Although this e-mail and any attachments are believed to be free of any virus or other defect that might affect any computer system into which they are received and opened, it is the responsibility of the recipient to ensure that they are virus free and no responsibility is accepted by Giant Industries, Inc. or its affiliates for any loss or damage arising in any way from their use. Sent: Tue 8/16/2005 1:14 PM

	2	3 HLO				
District II 1301 W. Grand Avenue, Artesia, NM 88210 Energy Minerals	New Mexico and Natural Resources	Form C-141 Revised October 10, 2003 Submit 2 Conjecto enprennieto				
1000 Rio Brazos Road, Aztec, NM 87410	rvation Division h St. Francis Dr.	Submit 2 Copies to appropriate District Office in accordance				
1220 S. St. Francis Dr. Santa Ed. NIM 97505	e, NM 87505	with Rule 116 on back side of form				
	n and Corrective Action	1				
	OPERATOR	🛛 Initial Report 🛛 🗍 Final Report				
Name of Company Giant Industries, Inc.	Contact James Romero/Steve Mo					
Address Rt. 3, Box 7 Facility Name Giant Industries, Inc.	Telephone No. 505-722-3833 Facility Type Refinery					
	Giant Industries, Inc.	Lease No.				
	N OF RELEASE	West Line County McKinley				
Latitude30° 29' 30"	Longitude108° 24" 40"					
NATURE	OF RELEASE	· · · · · · · · · · · · · · · · · · ·				
Type of Release wastewater	Volume of Release 50-100 gallons	Volume Recovered approx. 50-100				
Source of Release API weir box	Date and Hour of Occurrence 8/15/05 @ 4:00pm	Date and Hour of Discovery 8/15/05 @ 4:15 pm				
Was Immediate Notice Given?	If YES, To Whom?					
Ves No Not Required						
By Whom? James Romero and Steve Morris Was a Watercourse Reached?	Date and Hour 8/9/05 Sample Date If YES, Volume Impacting the Wat					
☐ Yes ⊠ No						
If a Watercourse was Impacted, Describe Fully.* N/A						
Describe Cause of Problem and Remedial Action Taken.* The weir box at the API separator overflowed discharging 50-100 gallon heavy rains (>1") and debris blocking the process lines. The second AP	s of wastewater onto the ground. The of bay (which was down for maintenance)	discharge was caused by a combination of e) was put into service to stop the overflow.				
Describe Area Affected and Cleanup Action Taken.						
Within minutes of discovery a front end loader constructed a temporary area or within the upper storm water basin. An estimated 800 gallons of reintroduced to the API Separator. Impacted soils/vegetation were piled	rainwater and waster water was captured	ed and pumped via vac truck and				
I hereby certify that the information given above is true and complete to regulations all operators are required to report and/or file certain release public health or the environment. The acceptance of a C-I41 report by t should their operations have failed to adequately investigate and remedia or the environment. In addition, NMOCD acceptance of a C-141 report federal, state, or local laws and/or regulations.	notifications and perform corrective ac he NMOCD marked as "Final Report" ate contamination that pose a threat to g	tions for releases which may endanger does not relieve the operator of liability ground water, surface water, human health				
	OIL CONSERV	VATION DIVISION				
Signature						
Printed Name: JAMES ROMERO	Approved by District Supervisor:					
Title: Environmental Engineer	Approval Date:	Expiration Date:				
E-mail Address: Jromero@Giant.com	Conditions of Approval:	Attached 🛛				
Date: 8/3/05 Phone: 505-722-0227 * Attach Additional Sheets 1f Necessary						

REMEDIATION PLAN SPILL 8/15/05 17.1

<u>Background</u>: On 8/15/05 the weir box at the API separator overflowed discharging wastewater onto the ground. The overflow was mainly due to a combination of heavy rains and debris blocking the pipes (see pic #1).

#### **ENVIRONMENTAL CONSEQUENCES:**

An estimated 50-100 gallons of wastewater was discharged which mixed with 1" of rainfall runoff. The storm runoff and spill were contained via a temporary berm and upper storm water basin (see pic #2,3). Combined storm water and wastewater is estimated at approximately 800 gallons.

### ACTION TAKEN:

Within minutes of the discovery a front-end loader wad dispatched to construct a temporary berm (see pic #2) near the API Separator. In addition, the second API bay (which was down for Maintenance) was put into service to stop the weir box from overflowing. Additional measures such as closing valves at the upper storm water basin were also taken to ensure containment.

#### **RECOMMENDED ACTION:**

Work orders were issued to remove the contaminated water, soils, and impacted vegetation. The soil will be piled on plastic and lab analysis will be performed prior to any disposal. The water will be pumped via pump trucks and sent back through the API Separator. The impacted vegetation was placed in plastic bags and will be stored onsite until the lab results are received.



# 7



#2



#3



#### MEMORANDUM

Date: August 23, 2005

TO: Denny Foust, Wayne Price, Hope Monzeglio

FROM: James Romer

RE: Amended C-141 for spill 8/3/05

Per our phone conversation with Denny Foust on 8/23/05, we have amended our spill report (C-141) for 8/3/05. The changes reflected are: (1) 0 barrels recovered (impacted soils only were recovered); (2) clarified the API "separator" pump valve broke; and (3) changed 6 barrels oily water to 756 gallons of waste water.

District I 1625 N. French District II						New Mex		)		Rev		Form C-141 tober 10, 2003
1301 W. Grand . <u>District III</u> 1000 Rio Brazos <u>District IV</u> 1220 S. St. Fran	s Road, Aztec	c, NM 87410	i	1220	Sout	rvation Div h St. Franc Se, NM 875	is Dr.			Submit 2 C District ( wi	Copies to Office i th Rule	o appropriate n accordance 116 on back side of form
							orrective A	ction				
			Iten			OPERAT(			Amende	d Report		Final Report
		iant Industri	ies, Inc.			Contact Jar	nes Romero/Ste	ve Morri				
Address Rt	<u> </u>	Tu day to tax. Tu					No. 505-722-38	333				
		Industries, In				Facility Typ						
Surface Ow	mer Giant	Industries, Ir	nc.	Mineral C	Owner	Giant Indust	ries, Inc.		Lease N	No		
						N OF RE						
Unit Letter	Section 33	Township 15N	Range 15W	Feet from the	Nort	h/South Line	Feet from the	East/Wo	est Line	County McKinley		
		Latitu	de	30° 29'	30"	Longitud	<b>e</b> 108° 24" 4	0"		-		
				NAT	URE	E OF REL	EASE					
		/ater (wastewa					Release 756 gall			Recovered (		
Source of Re	elease API	Separator pun	np vaive				Hour of Occurrenc 5-6 am		8/3/05 @	Hour of Dis 6am	covery	
Was Immedi	into Notico (	Civon?		······································		If YES, To	Whom?			·····		
was minieur		_	Yes 🗌	] No 🗌 Not R	equired		to Wayne Price, 1	Denny Fo	oust (OCE	), and Hope	Monze	glio
By Whom?	James Rome	ero and Steve	Morris			Date and H	Hour 8/9/05 Samp	ple Date	8/12/05 L	ab Results		
Was a Water	rcourse Read		]Yes 🗵	7 No		If YES, V	olume Impacting 1	the Water	course.			
If a Wateroo	urse was Im	pacted, Descr										
			·									
The API sep	arator pump		causing ap				r containing 6 bar	rels of oil	. The put	mp was imm	ediately	y taken out
Describe Are	ea Affected	and Cleanup	Action Ta	ken.								
							er storm water bas ed on plastic linin				ately is	sued to
regulations a public health should their or the enviro	all operators h or the envi operations l onment. In a	are required t ironment. The have failed to	to report a e acceptan adequatel OCD acce	nd/or file certain ce of a C-141 rep y investigate and	release ort by f remedi	notifications a the NMOCD n ate contaminat	knowledge and u and perform correct narked as "Final R ion that pose a thr we the operator of	ctive actio Report" do reat to gro	ons for rel bes not rel bund wate	leases which lieve the ope r, surface wa	may en rator of ater, hu	ndanger Tliability man health
			>				OIL CON	SERV2	ATION	DIVISIO	DN	
Signature:				<b>.</b>								
Printed Nam	ne: JAMES	ROMERO				Approved by	District Supervis	sor:				
Title: Envir	onmental E	ngineer				Approval Da	te:	E	Expiration	Date:		
E-mail Add	ress: Jrome	ro@Giant.con	n			Conditions c	of Approval:			Attached	I 🖂	
Date: 8/3/0 * Attach Add		505-722-0227 ets If Necess										

District I 1625 N. French District II 1301 W. Grand District III			۲	Energy Mi	nerals	New Mexi and Natural	Resources				vised Oc	Form C-141 stober 10, 2003 o appropriate
1000 Rio Brazos District IV	Road, Aztec	, NM 87410				rvation Div h St. Franc				District (	Office i	n accordance 116 on back
1220 S. St. Fran	cis Dr., Santa	i Fe, NM 87505				e, NM 875				***	ui ituit	side of form
			Rele	ase Notific	catio	n and Co	orrective A	ction				
					OP	ERATOR		🛛 AMEN	IDEI	D Report		Final Report
Name of Co Address Rt		iant Industri	ies, Inc.				nes Romero/Ste					
		ndustries, In				Facility Typ	No. 505-722-38 e Refinery				<u> </u>	
Surface Ow	ner Giant	Industries, Ir	nc.	Mineral (	Dwner	Giant Indust	ries, Inc.	Le	ase N	No.		
						N OF REI						
Unit Letter	Section 33	Township 15N	Range 15W	Feet from the		/South Line	Feet from the	East/West L	ine	County McKinley		
L		Latitu	de	30° 29'	30"	Longitud	e 108° 24" 40	0"				
						OF REL				-	r	
Type of Rele						Volume of	Release 756 Gal			Recovered 7		
Source of Re	lease API	Motor broke a	valve			Date and F 8/3/05 @	Iour of Occurrenc 5-6am			Hour of Dis 6am	covery	
Was Immedi	ate Notice (		Yes [	] No 🔲 Not R	equired	If YES, To					Monze	eglio
		ero and Steve	Morris				Iour 8/3/05@9:0					
Was a Water	course Rea		]Yes 🛛	No		If YES, Vo	olume Impacting t	the Watercour	se.	ţ.		
If a Waterco	urse was Im	pacted, Descr	ibe Fully.	* N/A				<u></u>	<u> </u>			
Describe Ca containing a impacted so	1pproximat	em and Reme ely 6 barrels	dial Actio of oil. Th	n Taken.* The A e pump was imn	PI Pur nediate	np broke a va ly taken out o	lve which caused f service and a w	d approximat ork orders is	tely 7 sued	'56 gallons o fro pump a	of oily and cle	water an up of
*See atta	ched Re	mediation	ı Plan									
Approxima remove the	tely 6 barre impacted s	and Cleanup , els of oily wat oil. Impacted the above da	ter was di I soil will	scharged which	traveled stored (	d 1700 feet int on plastic linit	to a storm-water 1g and tested for	basin. Worl contaminan	k ord ts. L	ers were im ab results o	media n soil s	tely issued amples have
regulations a public health should their or the enviro	all operators or the envi operations l onment. In a	are required for a re	to report a e acceptan adequatel OCD acce	nd/or file certain ce of a C-141 rep y investigate and	release ort by t remedia	notifications a he NMOCD m ate contaminat	knowledge and und perform correct narked as "Final R ion that pose a thr the operator of	ctive actions f Report" does n reat to ground	or rel ot rel wate	eases which ieve the ope r, surface w	may er rator o ater, hu	ndanger f liability Iman health
			>				OIL CON	SERVAT	ION	DIVISIO	DN	
Signature.					-							
Printed Nam	e: JAMES	ROMERO				Approved by	District Supervis	sor:				
Title: Envir	onmental E	ngineer		·		Approval Da	te:	Expir	ation	Date:		·
E-mail Add	ess: Jromer	ro@Giant.con	n			Conditions o	f Approval:			Attached	1 🕅	
Phone: 505-	722-3833	DED TO 8/3/0		KT						Attached		
* Attach Add	itional She	ets If Necess	sary									

## REMEDIATION PLAN Updated Spill report dated 8/15/05

Background: On 08/03/05 at approximately 5:00 a.m., the API Pump valve broke which released approximately 756 gallons of oily water.

#### **ENVIRONMENTAL CONSEQUENCES:**

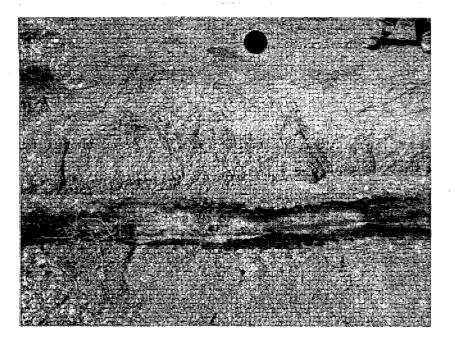
An estimated 756 gallons of water and oil were discharged into the environment traveling approximately 1700' (see attachment 1). The spill was contained within the property and no waterways were impacted (see attachment 2). All impacted soil was removed with a front-end loader and stored on plastic lining (see attachment 5). The discharge did not contain any listed hazardous wastes, soil samples were taken and sent for lab analysis. Attachments 3 and 4 show the impacted area after clean up and following a heavy rainfall.

#### ACTION TAKEN:

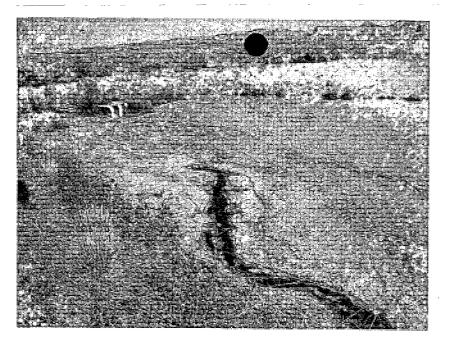
Immediately action was taken which included: (1) taking the pump out of service; (2) assessment and containment the spill; and (3) removal the impacted soil; (4) soil samples sent for lab analysis

#### **<u>RECOMMENDED ACTION:</u>**

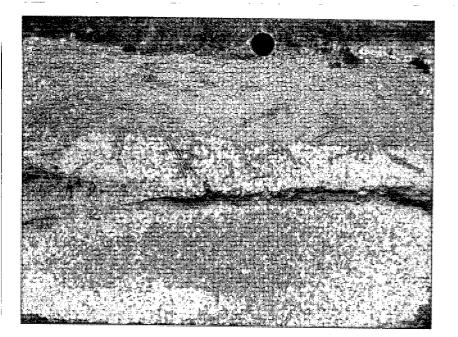
Soil samples were gathered to determine if the soil is contaminated (i.e., Benzene). If lab results show any contaminants, the soil will be disposed as hazardous waste. However, if lab results show no contamination, and soil meets the requirements in our OCD permit, it will be place on the OCD landfill.



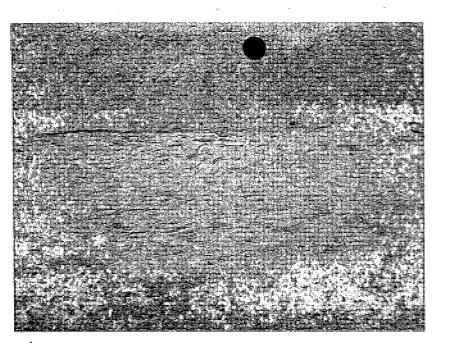
Attachment # 1



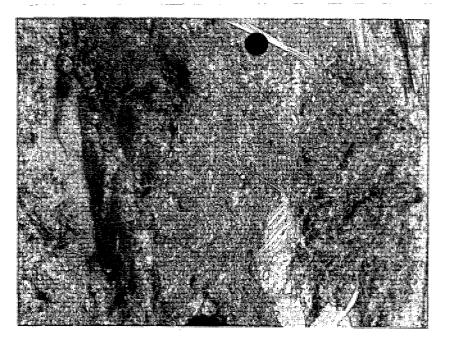
Attachment # 2



Attachment # 3



Attachment #4



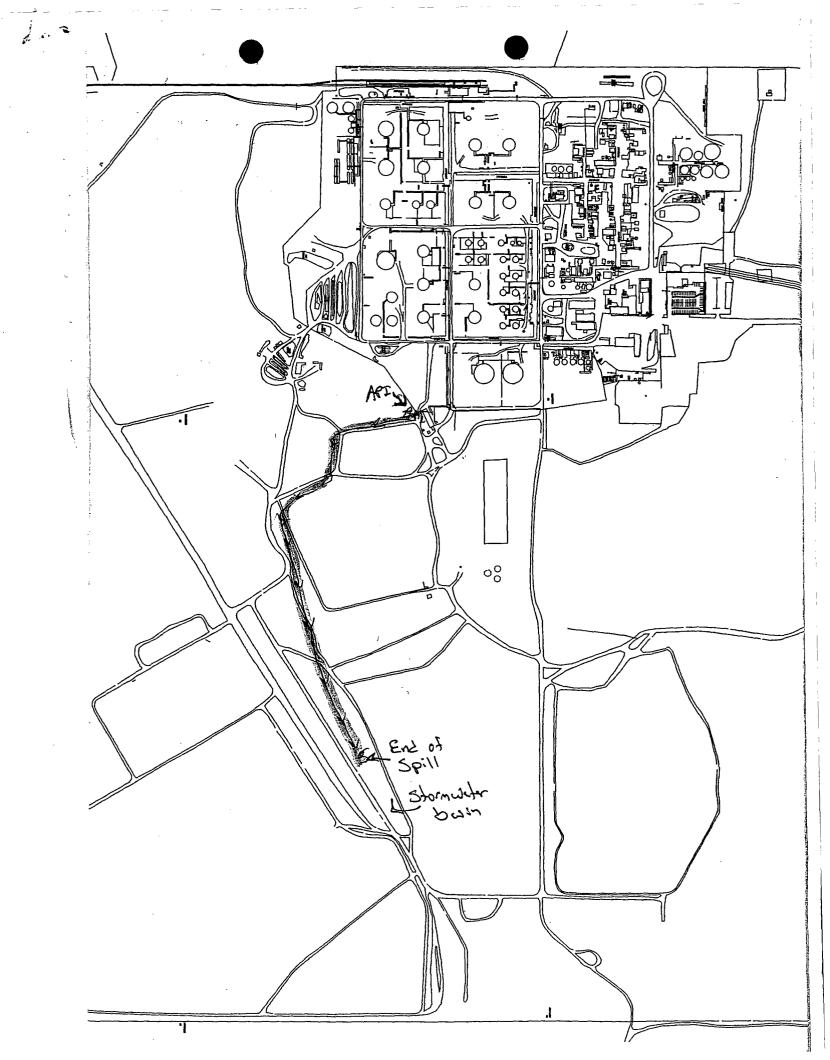
Attachment # 5 Impacted Soil Stockpiles

7 2.9- <b>2</b>						· · · · ·			
District I 625 N. French I District II				Sta Energy Mi	ate of N herals a	New Mexi nd Natural	Resources II	IVED	Form C-141 Revised October 10, 2003
301 W. Grand A District III				Oil C	oncert	vation Dix	vision	S	Submit 2 Copies to appropriate District Office in accordance
000 Rio Brazos District IV	Road, Aztec	c, NM 87410		1220	South	St. Franc	is Dr. AUG 8	- 2005	District Office in accordance with Rule 116 on back
220 S. St. Fran	cis Dr., Santa	a Fe, NM 87505		Sa	inta Fe	, NM 875	0511. CONSI		side of form
			Rela				rrective		
						OPERA	and the second s	🛛 Initial	Report 🗌 Final Repor
Address Rt		liant Industri	es, Inc.				nes Romero/Stev No. 505-722-383	······································	
		Industries, In	c			Facility Typ			•
Surface Ow	ner Giant	Industries, Ir	IC.	Mineral C	)wner (	Biant Indust	ries. Inc.	Lease No	
	, ,					OF REI			······································
Unit Letter	Section 33	Township 15N	Range 15W	Feet from the		South Line	Feet from the		County McKinley
	<u> </u>	Latitu	de	30° 29'	30"	Longitud	e108° 24" 40	)"	
						OF REL		<u> </u>	
Type of Rele						Volume of	Release 8 barrels		covered Impacted soil
Source of Re	lease API	Motor broke a	valve			Date and H 8/3/05 @	lour of Occurrence	e Date and H 8/3/05 @ 6	our of Discovery
Was Immedi	ate Notice (	Given?				If YES, To	Whom?		am
				] No 🗌 Not R	equired	Phone call	to Wayne Price a	ind Denny Foust	
By Whom? J Was a Water		ero and Steve	Morris				Iour 8/3/05 @ 9:0		
was a water	course Kea		Yes 🛛	No		If YES, $V_0$	olume Impacting t	he Watercourse.	
If a Waterco	urse was Im	pacted, Descr	ibe Fully.	*		l			
No watercou	rse was im	nacted							
		puereu							
discharge of Describe Are	nto the grou	und. The pur	np was ir Action Ta	nmediately taker	1 out of s	ervice and a	ı work order issu	ed.	parrels of oily water to be
Approximat immediately	tely 6 barre y issued ren	els of oily wat nove the imp	er was di acted soil	scharged which to . Impacted soil v	traveled vill be te	1700 feet in mporarily s	to a storm-water tored on plastic li	basin (see attached ining and tested for	map). Work orders were contaminants.
regulations a public health should their or the enviro	all operators or the envi operations l onment. In a	s are required t ironment. The have failed to	o report a acceptan adequatel OCD acce	nd/or file certain : ice of a C-141 rep y investigate and :	release nort by the remediate	otifications a NMOCD m contaminat	nd perform correct arked as "Final R ion that pose a thr	ctive actions for relea eport" does not relie eat to ground water,	ant to NMOCD rules and ases which may endanger ve the operator of liability surface water, human health mpliance with any other
Signature:		$\sim$		~			OIL CON	SERVATION I	DIVISION
Printed Nam	e: JAMES	ROMERO				Approved by	District Supervis	or:	
Title: Envir	onmental E	ngineer				Approval Da	te:	Expiration D	pate:
E-mail Addr	ess: Jromer	ro@Giant.con	1			Conditions o	f Approval:		Attached 🖂
Date: 8/3/0	)5			Phone: 505-722-3	3833				Map

i.

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* Attach Additional Sheets If Necessary



District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210	State of Energy Minerals	New Mex and Natura			Rev	Form C-141 vised October 10, 2003
District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV		rvation Di [.] h St. Franc			District (	Copies to appropriate Office in accordance th Rule 116 on back
1220 S. St. Francis Dr., Santa Fe, NM 87505	Santa F	e, NM 875	505			side of form
Releas	e Notificatio	n and Co	orrective A	ction		
		<b>OPERA</b>		🛛 🛛 Init	ial Report	Final Report
Name of Company Giant Refining Company - ( Address Route 3 Box 7 Gallup, NM 87301	Ciniza		phen C. Morris No. 505-722-383	33		
Facility Name Giant Refining Company – Ciniz	za Refinery		e Oil Refinery			
Surface Owner Giant Industries, Inc.	Mineral Owner	Giant Indust	ries, Inc.	Lease	No.	]
	LOCATIO	N OF RE	LEASE			
Unit LetterSectionTownshipRangeFe23 & 3315N15W	et from the North	h/South Line	Feet from the	East/West Line	County McKinley	
Latitu	35° 29' 30" de	Longitud	108° 24' 40 le	22		
	NATURE	COF REL	EASE			
Type of Release Diesel spill Source of Release: Diesel marketing tank #1			Release 630 galle Hour of Occurrence	e Date and	Recovered 63 Hour of Disc 1935 hrs.	
Was Immediate Notice Given?	o 🗌 Not Required	If YES, To				
By Whom? Stephen C. Morris			Hour 7/21/05 0930		······································	
Was a Watercourse Reached?	D		olume Impacting t			
Describe Cause of Problem and Remedial Action Ta which allowed the diesel marketing tank #1 to over f Tank farm operators shut down the pump and blocke marketing tanks. A work order was written and clear	fill. ed in the valve to tan	k #1. They als	o verified that the	spill was contain	ed in the berm	ned area at the
Describe Area Affected and Cleanup Action Taken. ⁴		· · · · · · · · · · · · · · · · · · ·		ter fan se ster fan se ster ster ster ster ster ster ster s		
The affected area is the bermed portion of the Ciniza I hereby certify that the information given above is t regulations all operators are required to report and/or public health or the environment. The acceptance of should their operations have failed to adequately inv or the environment. In addition, NMOCD acceptance	rue and complete to r file certain release f a C-141 report by t estigate and remedia	notifications a he NMOCD m ite contaminat	nd perform correc arked as "Final R ion that pose a thre	tive actions for re eport" does not re eat to ground wat	leases which lieve the oper er, surface wa	may endanger ator of liability ter, human health
federal, state, or local laws and/or regulations.						
Signature: Hope C. Mom	r b		OIL CON	SERVATION	<u>I DIVISIO</u>	<u>N</u>
Printed Name: Stephen C. Morr Title: ENV. ENGINEER	is	Approved by	District Supervise	or:		
Title: ENV. ENGINEER		Approval Da	te:	Expiration	Date:	
E-mail Address: emotris Qgian Date: 7-21-05 Phone: 7	t. com	Conditions o	f Approval:		Attached	
Attach Additional Sheets If Necessary	220238					

	Dr., Hobbs, 1	NM 88240	Ő	St	ate of	New Mex	ieo to		ראות התרע זאת	n 'f		Form C-1
<u>istrict II</u> 301 W. Grand	Avenue, Arte	esia, NM 88210	)	Energy Mi	nerals	and Natura	Resources					tober 10, 2
<u>istrict III</u> 000 Rio Brazo				Oil C	Conser	vation Div				Submit 2	Copies to	o appropri n accorda
istrict IV			-			h St. Franc		UL 2 @	3 2005			116 on b
20 S. St. Fran	icis Dr., Santa	a Fe, NM 8750:				e, NM 875				NIF		side of fo
			Rele	ease Notific	cation		¥.	Aquips	ION			
	<u> </u>		0	0:		OPERA7		•••••	🔟 Initi	al.Report		Final Re
		ant Refining 7 Gallup, N		iy - Ciniza			ohn C. Morri No. 505-722-3					
				Ciniza Refinery			e Oil Refiner					
Surface Ow	ner Giant	Industries, In	nc.	Mineral C	Owner (	Giant Industr	ies, Inc.		Lease 1	No.		
,				LOCA	ATIO	N OF REI	LEASE					
Unit Letter	Section 23 & 33	Township 15N	Range 15W	Feet from the		South Line	Feet from the	East/	West Line	County McKinle	v	
	25 00 55			35° 29'	30"		108° 24' 4	40"			<u> </u>	
			La	titude		Longitud	le					
_				NAT	TURE	OF RELI	EASE					
Type of Rel							Release 630 ga			Recovered		ns
Source of R	elease: Dies	el marketing t	ank #1			Date and H	lour of Occurre 35 hrs.	nce	Date and 7/20/05 1	Hour of D 935 hrs.	iscovery	
Was Immed	iate Notice (			-		If YES, To	Whom?					
			Yes	] No 🗌 Not R	equired		ce and Steve Ha					
By Whom?							lour 7/21/05 09					
57	rcourse kea	cned/				I I I I I I I I I I I I I I I I I I I	1	- 41 - 317 - 4				
		ppacted, Descr				If YES, Vo	olume Impactin	g the Wat	ercourse.		- <u></u>	
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#### COVER LETTER

July 05, 2005

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Ed Riege Giant Refining Co Rt. 3 Box 7 Gallup, NM 87301 TEL: (505) 722-3833 FAX (505) 722-0210

RE: GWM-1-2nd Qtr. 2005

Order No.: 0506293

Dear Ed Riege:

Hall Environmental Analysis Laboratory received 1 sample on 6/30/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager



4901 Hawkins NE Suite D Albuquerque, NM 87109 505.345.3975 Fax 505.345.4107 www.hallenvironmental.com

CLIENT:	Giant Refining Co			Client Sample	D: GWM-	1-2Q-05
Lab Order:	0506293			•		2005 12:30:00 PM
Project:	GWM-1-2nd Qtr. 2005					
Lab ID:	0506293-01			Ma	trix: AQU	EOUS
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed
EPA METHOD	8021B: VOLATILES					Analyst: NSE
Benzene		10	2.5	µg/L	5	6/30/2005 7:39:06 PM
Toluene		ND	2.5	µg/L	5	6/30/2005 7:39:06 PM
Ethylbenzene		3.5	2.5	µg/L	5	6/30/2005 7:39:06 PM
Xylenes, Total		41	2.5	µg/L	5	6/30/2005 7:39:06 PM
Surr: A Brom	ofluorobenzene	101	83.3-121	%REC	5	6/30/2005 7:39:06 PM

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Date: 05-Jul-05

#### Qualifiers:

ND - Not Detected at the Reporting Limit

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

Date: 05-Jul-05

CLIENT:Giant Refining CoWork Order:0506293Project:GWM-1-2nd Qtr. 2005

# QC SUMMARY REPORT

Method Blank

Sample ID Reagent Blank 5m	Batch ID: R15863	Test Code	SW8021	Units: µg/L		Analysi	s Date 6/30	/2005 10:30:22 AM	Prep Da	ate	
Client ID:		Run ID:	PIDFID_0506	30A		SeqNo:	3762	31			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	17.44	0	20	0	87.2	83.3	121	0			

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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CLIENT:Giant Refining CoWork Order:0506293Project:GWM-1-2nd Qtr. 2005

## QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID BTEX LCS 100ng	Batch ID: R15863	Test Code	SW8021	Units: µg/L		Analysis	5 Date 6/30	/2005 12:03:37 PM	Prep Da	ate	
Client ID:		Run ID:	PIDFID_0506	30A		SeqNo:	3762	39			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.58	0.5	20	0	92.9	88.7	114	0		a a sala as gag yay ya - African	
Toluene	18.93	0.5	20	0	94.6	89.3	112	0			
Ethylbenzene	18.79	0.5	20	0	93.9	88.6	113	0			
Xylenes, Total	57.41	0.5	60	0	95.7	89.4	112	0			

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

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	Sample	Receipt			
Client Name GIANTREFIN			Date and Time		6/30/2005
Work Order Number 0506293	11		Received by	AT	
Checklist completed by	the		6/30	105	
Signature		Da	ele contraction of the second se		
Matrix	Carrier name	<u>FedEx</u>			
Shipping container/cooler in good condition?		Yes 🗹		Not Present	
Custody seals intact on shipping container/cooler	?	Yes 🗹	No 🗌	Not Present	Not Shipped
Custody seals intact on sample bottles?		Yes 🗹	No 🗌	N/A [	
Chain of custody present?		Yes 🗹	No 🗔		
Chain of custody signed when relinquished and r	eceived?	Yes 🗹	No 🗔		
Chain of custody agrees with sample labels?		Yes 🗹	No 🗔		
Samples in proper container/bottle?		Yes 🗹	No 🗌		
Sample containers intact?		Yes 🗹	No 🗔		
Sufficient sample volume for indicated test?		Yes 🗹	No 🗌		
All samples received within holding time?		Yes 🗹	No 🗆		
Water - VOA vials have zero headspace?	No VOA vials sub	mitted	Yes 🗹	No 🗌	
Water - pH acceptable upon receipt?		Yes 🗌	No 🗔	N/A 🗹	
Container/Temp Blank temperature?		5°	4° C ± 2 Accept	able	
			If given sufficien	t time to cool.	
COMMENTS:					
Client contacted	Date contacted:		Per	son contacted	
Contacted by:	Regarding				
Comments:					
	·····				
Corrective Action					

- -	Client:		- REFI	ODY RECORD		IELAC	n Applie USACE							49 Al Te W	901 buqu 1. 50 ww.h	Haw lerqu 5.34 allen	kins ie, N 15.3 iviror	NE, lew N 975 nmer	Suito Mexic Fa	e D co 87 ax 50 com	<b>. TO</b> I	RY	07	
- - F		<u> </u>	, Ni -72	130× 1 11 87301 2-3833 22-0210	Project Manager ED R Sampler:	WHY ure:	Add Clu	ur Jeff	VTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B MOD (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)		Cations (Na, K, Ca, Mg)	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄ )			emi-VOA)	21 BTEX		Air Bubbles or Heads (Y or N)
(	Date 23/05	Time //236.4k	Matrix Hz O	Sample I.D. No. GWM-1-2Q-65	Number/Volume	H _g Cl ₂		HEAL NO.	BTEX + MTBE	BTEX + N	TPH Met		EDB (Me	EDC (Me	8310 (Pr	RCRA 8 Metals	Cations (1	Anions (F	8081 Pe	8260 (VOA)	8270 (Semi-VOA)	X 80		Air Bubbl
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BILL RICHARDSON GOVERNOR State of New Mexico

Hazardous Waste Bureau 2905 Rodeo Park Drive East, Building 1 Santa Fe, New Mexico 87505-6303 Telephone (505) 428-2500 Fax (505) 428-2567 www.nmenv.state.nm.us



RON CURRY SECRETARY

DERRITH WATCHMAN-MOORE DEPUTY SECRETARY

#### CERTIFIED MAIL RETURN RECEIPT REQUESTED

June 1, 2005

Mr. Ed Riege Environmental Superintendent Giant Refining Company Route 3, Box 7 Gallup, New Mexico 87301

#### SUBJECT: APPROVAL WITH MODIFICATIONS GIANT CINIZA REFINERY 2003 OCD ANNUAL REPORTS GW-32 AUGUST 2004 GIANT REFINING COMPANY, CINIZA REFINERY EPA ID NO. NMD000333211 HWB-GRCC-04-001

Dear Mr. Riege:

The New Mexico Environment Department (NMED) has completed its review of the *Giant Ciniza Refinery 2003 OCD Annual Reports GW-32* (Annual Report), dated August 2004, submitted on behalf of Giant Refining Company Ciniza (the Permittee). Also referenced in this document are *OCD Discharge Plan Renewal Application* (Renewal Application), dated April 28, 2004, *Attachment To The Discharge Permit GW-032, Discharge Permit Approval Conditions* (Discharge Attachment), dated June 23, 2004, and the *GW-032 Plan Amendments* (Amendments) to the Renewal Application, dated November 29, 2004. The Permittee must adhere to the requirements established in this Approval with Modifications for future groundwater reports and submit a response for all requested information, revised documentation and electronic submittals within 120 days of receipt of this Approval with Modifications or this approval will be rescinded. The requested information, revised documentation and electronic submittals must include a response letter that details where the information was revised cross-referencing NMED's

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numbered comments. The Permittee must make the following modifications and submissions as a condition for this approval.

- 1. In addition to NMED, all requested information must be submitted to the Oil Conservation Division (OCD) Santa Fe office and also to the OCD Aztec District Office to the attention of Mr. Denny Foust.
- 2. Future groundwater reports submitted to NMED must only report on groundwater monitoring activities that occurred during the year and not report on other OCD requirements as included in this Annual Report.
- 3. The Renewal Application Volumes I & II were submitted on compact disks (CDs). The Permittee must revise these CD's to include the November 2004 Amendments and any changes required by this Approval with Modifications and submit the revised version to NMED. The Permittee must also submit a revised hard copy.
- 4. The Site Plan "*Ciniza Well & Boring Locations*" (Map) submitted, as Appendix A of the Amendments must be revised to identify all current wells, historic monitoring locations, and land treatment areas. Abandoned wells shall be denoted. This map should not include exploratory borings that were not completed as wells. To limit confusion and provide consistency, the well names and land treatment areas/units referenced in the Amendments and the Renewal Application must be the same as the well names identified on the Map. (All maps and documents must be updated prior to submittal when name changes occur to wells or other units). (See Comment #7)
- 5. The Annual Report is divided into "Permit Condition" Sections. Future reports must identify the Permit Condition being addressed.
- 6. The Permittee is encouraged to follow NMED's position paper General Reporting Requirements For Routine Groundwater Monitoring at RCRA Sites (www.nmenv.state.nm.us/hwb/guidance.html) when preparing the Annual Groundwater Report.
- 7. Amendments, Attachment 1, Section 9.0, #7, p. 9-4: "Well #4 used for industrial purposes was sampled August 12, 2004 and will be sampled every three years (next in 2007) according to the table in item 4. Industrial Well #2 will be sampled in 2004 and will be sampled every three years beginning in 2008. Well #2, a potable well, is scheduled for sampling in 2006 to meet SDWS, and every three years thereafter."

The well names identified in #7 are not the same well names identified in the table in item 4 (the Table). The Table only identifies one Well #2 and does not identify any well as "industrial" or "potable." The Permittee must define industrial and potable wells and provide the construction details of these wells. The Permittee must also clarify #7 and revise the Table to reflect the well names notated in #7. The wells listed in the Amendments must also be depicted and consistently labeled on the Map, (e.g., the previously provided Map does not identify two "#2" Wells and the "color code" does not identify any wells as industrial or potable). Well names must be consistent and refer to the same well in all documents and maps; the Permittee must revise the Map accordingly. (See Comments #3 and #4)

- 8. Boundary well information was provided in the Amendments. The Permittee must provide the following additional information:
  - a. Provide well development information to include: the methods used for well development (e.g. pumping, surging, bailing), well development procedures, removal rate and volume of ground water removed, identify any water quality parameters (e.g. pH, electrical conductance, temperature) measured and the frequency at which measurements were recorded and identify the criteria used to determine when well development was complete.
  - b. "Log of Test Borings," (boring logs) Boring No. BW1C identifies "T.D. at 65 feet set well in boring, see well diagram." The boring log later states "T.D. at 157 feet set well in boring see well diagram." The Permittee must clarify if this well was nested or has two sampling zones and must provide the well construction diagram. (see comment 8.c below)
  - c. The Boundary Well boring logs provided by the Permittee are inconsistent. A few borings state, "see well diagram" but no well construction diagrams were provided. Some boring logs identify slotted PVC screen size and the depth at which the screen was set while others do not include this information. The Permittee must provide well construction diagrams for all boundary wells. The diagrams shall include the screen slot size, depth at which the screens were set, the details of the filter pack and seal placement and the hydrostratigraphy.
- 9. Annual Report, Permit Condition 8b. API Separator, requirement in the Discharge Attachment: "A closure plan for OCD approval shall be filed by September 01, 2004 for the Old API separator."

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Upon the start of operation of the new API Separator and closure of the old API Separator, the Permittee must submit to NMED a closure report documenting all closure activities that occurred to include but is not limited to:

- a. Identify the date the old API Separator was removed from service and the start date of operation of the new API Separator.
- b. Identify the volume of sludge (K051, F037, and F038 waste) removed, any contaminated soil surrounding the separator and "spent sand."
- c. Identify the final disposal location of the "spent sand" and contaminated soil.
- d. List all instruments or machinery operated during closure activities.
- e. Identify and describe any repairs performed on the old API Separator.
- f. Provide photographs of the API Separator both before and after the cleaning.
- g. Describe all sampling activities that occurred during closure, provide all laboratory results, and waste characterization data/profile forms.
- h. Describe all cleaning and removal activities used to remove residual wastes from the API Separator.
- i. Provide a description of the unit's future use.
- j. All closure activities must be documented in detail.
- 10. Annual Report, (Annual Groundwater Report) Permit Condition 16.A.i, requirement in the Discharge Attachment: "A description of the monitoring and remediation activities, which occurred during the year including conclusions and recommendations."

Future groundwater reports must expand this section to provide detailed descriptions of the "monitoring and remediation activities." This section shall include, but is not limited to, the dates of the groundwater sampling events (e.g. October, 2004), identification of dry wells, wells that exceed cleanup standards, wells that could not be sampled due to the presence of separate phase-hydrocarbon (SPH) or other circumstances. This section shall

describe sample collection procedures and field methods and include any remediation activities that occurred during the year. (See Comment # 14)

11. Annual Report, (Annual Groundwater Report) Permit Condition 16.A.i, (Summary of wells) requirement in the Discharge Attachment: "OW wells 11, 12, 13, 14, 29, & 30 were analyzed for BTEX and MTBE."

This section appears to have a mistake in the text since OW-11 was also analyzed for general chemistry, VOC's, SVOC's, and metals. Future reports must identify wells requiring additional analysis separately. (The above statement should address OW-11 separately listing all the analysis to be performed because the statement leads the reader to believe the only analysis performed on OW-11 was benzene, toluene, ethylbenzene, xylenes (BTEX) and MTBE).

12. Annual Report, (Annual Groundwater Report) Permit Condition 16.A.i, (Summary of Wells, Conclusions & recommendations), requirement in the Discharge Attachment: "OW-14 continues to show low levels of contamination."

The only recommendation provided in this section is to continue sampling "OCD 12, 13, 14, 29, and 30 on an annual basis." The Permittee neglects to address that OW-14 benzene levels have exceeded the Water Quality Control Commission Regulations (WQCC) and EPA National Primary Drinking Water Standards maximum contaminant level (MCL) since Fall 2001 according to the summary tables listing the laboratory analytical results. Therefore, the Permittee must delete the term "low" in the statement above. The Permittee must also sample OW-14 on a semi-annual basis.

This section appears to have a mistake in the text "the recommendation is to continue to sample OCD 12, 13, 14, 29, and 30 on an ....." The Permittee must clarify if these wells should be identified as OW-11, 12, 13, 14, 29, and 30. If the OCD wells exist the Permittee must provide the locations of these wells and summary tables listing the laboratory analytical results and water measurements, etc.

13. Annual Report, (Annual Groundwater Report) Permit Condition 16.A.i., (Summary of surface water sampling; Conclusions & recommendations), addressed in the Discharge Attachment and a requirement in the Amendments: This section states "On an annual basis, a grab sample of the inlet water to Pond # 2 shall be collected and analyzed for BOD, COD, TDS, BTEX, MTBE, and total RCRA metals. On an annual basis, a grab sample of evaporation pond water shall be collected and analyzed for general chemistry parameters. This sampling will be conducted the fourth quarter of this year."

The Permittee must submit to NMED the grab sample laboratory results conducted in the fourth quarter of this year.

To monitor the effectiveness of the aeration lagoons, the Permittee must sample the effluent from aeration lagoon 2 to the inlet to evaporation pond 1 "(EP-1 IN)" on a semiannual basis and analyze the sample for BTEX using EPA Method 8021B, Semi Volatile Organics (SVOC's) using EPA Method 8270, and RCRA Metals. This requirement must be added to the Amendments, Section 9.0, #5, p.9-3. (See Comment #3)

14. Annual Report, (Annual Groundwater Report) Permit Condition 16.A.ii, requirement and stated in the Discharge Attachment: "Summary tables listing laboratory analytic results, of all water quality sampling for each monitoring point and plots of concentration vs. time for contaminants of concern from each monitoring point. Any WQCC constituent found to exceed the groundwater standard shall be highlighted and noted in the annual report. Copies of the most recent years laboratory analytical data sheets will also be submitted."

Future reports must contain the following:

- a. The summary tables listing laboratory analytical results must present the required analyses identified in the Table found in Attachment 1 Section 9.0, #4 of the Amendments. For example, OW-11 "Tabulated Analytical Results" in the Annual Report Permit Condition 16.A.ii does not present analytical results for MTBE and SVOC's which are included in the Table and also presented in the analytical sampling results found in Permit Condition 21.B.
- b. The summary tables listing laboratory analytical results must include all ground water quality sampling results obtained during the past calendar year and should compare detected contaminant concentrations to applicable cleanup standards (WQCC's and MCL's) or screening levels (EPA Region VI Tap Water Screening Levels). Any data exceeding the cleanup standards or screening levels must be highlighted. The tables must indicate the detection limits and units pertaining to the laboratory results (e.g., <10  $\mu$ g/L), and not denote the detection limit as non detect (ND).
- c. The report should include a section that describes field sample collection and handling procedures, equipment calibrations, decontamination procedures, collection and management of investigation derived wastes, cleanup standard

exceedances, and address any laboratory data quality exceptions or elevated detection limits.

- d. The Permittee shall measure facility well depths to water/product levels from the well casing rims in accordance with the schedule presented in the Amendments, Attachment 1, Section 9.0 Modifications, (Groundwater Monitoring Plan). The water/product levels must be measured to an accuracy of 0.01 foot. The Permittee shall calculate water table elevations by subtracting the depth to water from the surveyed well casing rim elevations. The Permittee shall provide a corrected water table elevation in wells containing phase-separated hydrocarbons by adding 0.8 times the measured product thickness to the calculated water table elevation (if applicable). This information must be compiled and included on a table, see 14.e below.
- e. The Permittee shall provide a water elevation table for each well. The column headings shall include: measurement date, well identification, well casing elevation, total well depth, depth to SPH, depth to water, groundwater elevation, and corrected water table elevation (if SPH are present). From the data presented in the water elevation table, the Permittee shall prepare annual water table potentiometric elevation and product thickness maps for each ground water monitoring event. The maps must include all well locations, calculated water table elevations and phase-separated hydrocarbon thicknesses (where present) for each well.
- f. All future maps and figures must contain facility features including above ground storage tanks (AST) and process units, as well as a north arrow, scale, and an explanation for all abbreviations, symbols, and acronyms.

# 15. Annual Report, (Annual Groundwater Report) Permit Condition 16.A.ii, requirement in the Discharge Attachment:

The tables labeled "Fall 2002" and "Fall 2003" illustrate analytical results for OW-12, OW-13, OW-14, OW-29, and OW-30. The units identified in the tables are mg/l however; the laboratory results provided in Annual Report, Permit Condition 21.B illustrate the same concentrations in  $\mu g/l$ . The Permittee must clarify if the data presented in the "Fall 2002" and "Fall 2003" tables represent concentrations in mg/l or  $\mu g/l$  and provide NMED with corrected tables.

# 16. Annual Report, (Annual Groundwater Report) Permit Condition 16.A.ii, requirement in the Discharge Attachment:

The "Tabulated Analytical Results," column "Fall 03" for MW-1, MW-2, MW-4, MW-5, and OW-11 are blank for certain analytes. Future reports must provide an explanation or notation to identify what the blank spaces represent or insert the appropriate data into the column.

# 17. Amendments, Attachment 1, Section 9.0 Modification, (Groundwater Monitoring Plan,) # 4 Table, p. 9-2 & 9-3:

The Table requires OW-1 to be visually checked for artesian flow conditions and collect "level measurements of the Sonsela Aquifer water table" from OW-10 on a quarterly basis. The Table also requires sampling SMW-2 and SMW-4 on an annual basis for "general chemistry" and "RCRA list constituents." This information was not presented in the Annual Report. The Permittee must submit the above information and provide an explanation why the information was not addressed in the Annual Report.

18. Annual Report, (Annual Groundwater Report) Permit Condition 16.A.iii, requirement and stated in the Discharge Attachment: "An annual water table potentiometric elevation map using the water table elevation of the ground water in all refinery monitor wells. A corrected water table elevation shall be determined for all wells containing phase-separated hydrocarbons. The map shall show well locations, pertinent site features, and the direction and magnitude of the hydraulic gradient."

The map provided in this section does not present the correct data because it does not identify all the wells and their ground water elevations. All future water table potentiometric elevation maps must contain a title, accurately and consistently labeled well locations identifying the ground water elevations. A key/explanation for all abbreviations, symbols, and acronyms must be provided. (See comment No. 14. d, e, and f).

19. Annual Report, (Annual Groundwater Report) Permit Condition 16.A.iv as stated in the Discharge Attachment: "Plots of water table elevation vs. time for each ground water monitoring point."

This section contains a map titled *Sonsela Piezometric Surface 2003* that does not provide the required information. However, the Annual Report Permit, Condition 16.A.ii provides plots of water table elevation vs. time for MW-1, MW-2, MW-4, MW-5, and

OW-11. Future reports shall provide plots of water table elevations vs. time for each ground water monitoring point as provided in Permit Condition 16.A.ii.

20. Annual Report, (Annual Groundwater Report) Permit Condition 16.A.v., requirement and stated in the Discharge Attachment: "An annual product thickness map based on the thickness of free phase product on ground water in all refinery recovery wells. This map shall include isopleth lines for products and contaminants of concern."

NMED does not understand the provided response "No well product thickness measurements were taken in 2003. Only volume was measured."

The Permittee must identify the volume measured, how the volume was measured, and what instruments or calculations were used to measure the volume. The Permittee must justify how their response relates to the required annual product thickness map. Future reports shall provide a product thickness map if product is measured in more than one well. The product thickness maps shall identify well locations labeled with the thickness of product found in each well. (See comment No. 14.d, e, and f)

21. The Annual Report, (Annual Groundwater Report) Permit Condition 16.A.vi, requirement in the Discharge Attachment: "The volume of product recovered in the recovery wells during each quarter and the total recovered to date."

The Permittee shall provide the following information:

- a. Discuss and provide rationale why product recovery measurements for the second quarter were not listed for RW-5 and RW-6.
- b. Provide an explanation why product recovery volumes are not presented for RW-2.
- c. Provide an explanation why data was not provided for the third and fourth quarters for recovery wells RW-1, RW-2, RW-5 and RW-6.
- d. Provide the calculations that were utilized in determining the volumes of "Total Recovered to Date Through 2003."
- 22. Annual Report, Permit Condition 17.B, requirement and states in the Discharge Attachment: "Northeast OCD Land Treatment Area (Old Railroad Rack Lagoon Temporary Land farm: Giant Refining Company will abide by all commitments

submitted in the application dated 04/27/04 Section 9.0 (Temporary Landfarm). Analytical results from the treatment zone monitoring will be submitted to the OCD in the annual report required on the 1st day of September of each year. Giant shall report any significant changes in the monitoring results." The Amendments, Attachment 1, #11, p. 9-6, (Temporary Landfarm) states "Periodic soil sampling and analysis shall be performed in order to ascertain potential impact to native subsurface soil beneath the landfarm. On a quarterly basis, a soil grab sample shall be collected from a random location within the central zone of the landfarm at a depth of 2 to 3 feet below ground surface. The sample shall be analyzed for TPH and BTEX. In addition, on an annual basis, this sample shall also be analyzed for general chemistry parameters and total metals."

This is an OCD requirement. NMED did not observe any 2003 sampling results in the Annual Report. The Permittee must provide the sampling results to NMED and OCD. If sampling did not occur, the Permittee must provide explanation why samples were not obtained.

23. **Railroad Rack Lagoon, Permit Condition 18, requirement in the Discharge** Attachment: "A closure plan shall be submitted for OCD approval by September 1, 2004. and the Permittee response: "Giant believes this condition has been met. The plan was included in the May 24, 2004 letter to Wayne Price followed by notice of approval from Hope Monzeglio on June 2, 2004."

This is an OCD requirement per the Discharge Attachment of which NMED approved the use of soil as "backfill at SWMU 8 (Railroad Rack Lagoon)." The approval of soil use does not constitute a closure plan. As addressed in the Amendments letter, the Permittee is working with NMED to excavate contaminated soil from this SWMU 8 that is regulated under the Post Closure Care Permit. The Permittee must be aware these closure activities may not meet OCD closure requirements.

24. Annual Report, (Evaporation Ponds) Permit Condition 19.D, requirement in Discharge Attachment: "Temporary storage ponds, which were previously approved, shall be identified and Giant shall submit a closure plan for OCD approval by September 01, 2004."

This is an OCD requirement of which NMED approved the use of soil. This condition has not been met. The Permittee must submit a summary report of all activities that occurred during closure of the temporary storage ponds (TSP). This report must document, but is not limited to: the amount of soil removed from the TSP, the amount of

removed soil used as dike material between ponds 5 & 6, provide the amount of soil removed from the Central OCD Landfarm to cover the TSP, and provide all applicable analytical results. The Permittee must provide a summary of all activities that occurred during the closure of the temporary storage ponds. The Permittee must consult OCD for additional closure requirements.

25. Annual Report, (Waste Water Pilot) Permit Condition 20.3, requirement and stated in the Discharge Attachment: "Giant shall design, implement and maintain a sampling and metering station on the incoming line. Grab samples shall be collected quarterly and analyzed for Hazardous Characteristics (TCLP) by EPA method 1311 and B.O.D. All emergency up-sets or an exceedance of RCRA standards shall be reported to OCD within 24 hours and immediate corrective actions taken."

This is an OCD requirement. NMED noted the analytical results for the quarterly grab samples were not in our copy. The Permittee must submit the analytical results to the quarterly grab samples to NMED and OCD. An explanation must be provided if grab samples were not collected.

26. Annual Report, (Annual Report) Permit Condition 21.A, requirement in the Discharge Attachment: "Summary Of All Major Refinery Activities Or Events." The "April" summary states "The proposal for the refinery boundary wells installation was sent to OCD and NMED for their approval. A copy is attached." "A progress report on the Discharge Plan renewal was sent to OCD. A copy is attached."

The copies were not provided in the Annual Report. The Permittee must submit the proposal for the refinery boundary wells installation and the progress report on the Discharge Plan renewal to NMED.

27. Annual Report, (Annual Report) Permit Condition 21.F, requirement in Discharge Attachment: "Summary of discovery of new groundwater contamination."

The August 2004 sampling results for well BW-2-B slightly exceed the WQCC Standard for selenium. Any exceedance of the WQCC Standards, MCL, or EPA Region VI Tap Water Screening Levels must be provided in future reports.

If you have questions regarding this approval please contact me at 505-428-2545.

Sincerely,

Hope Monzetto

Hope Monzeglio Project Leader Permits Management Program

HCM:hcm

cc: David Cobrain, NMED HWB John Kieling, NMED HWB Wayne Price, NMEMNRD OCD Denny Foust, NMEMNRD OCD, Aztec Office

file: Reading File and GRCC 2005 File

ANALYSIS

#### COVER LETTER

February 23, 2005

Steve Morris Giant Refining Co Rt. 3 Box 7 Gallup, NM 87301 TEL: (505) 722-0258 FAX (505) 722-0210

RE: GWM-1-1st Qtr. 2005

Order No.: 0502178

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 1 sample on 2/18/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager Nancy McDuffic, Laboratory Manager



4901 Hawkins NEE Suite DE Albuquerque, NM 87109 505.345.3975 Fax 505.345.4107 www.hallenvironmental.com

### FEB-23-2005(WED) 15:47

# Hall Environmental Analysis Laboratory

Date: 23-Feb-05

CLIENT:	Giant Refining Co			Client Sample	D: GWM-	1-1Q-05
Lab Order:	0502178			Collection 1	Date: 2/15/2	2005 2:30:00 PM
Project:	GWM-1-1st Qir. 2005					
Lab ID:	0502178-01			M:	trix: AQU	EOUS
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	8021B: VOLATILES					Analyst: NSB
Bonzono		5.0	0.50	µg/L	1	2/22/2005 9:49:27 AM
Toluene		2.4	0,50	µg/L	1	2/22/2005 9:49:27 AM
Ethylbenzene		2.6	0.50	µg/L	1	2/22/2005 9:49:27 AM
Xylenes, Total		31	0.50	µg/L	1	2/22/2005 9:49:27 AM
Sur: 4-Brom	ofluorobenzene	112	83.3-121	%REC	1	2/22/2005 9:49:27 AM

Qualifiers:

ND - Not Detected at the Reporting Limit

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- - Value exceeds Maximum Contaminant Level 1/4
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

FEB-23-2005(WED) 15:47

Date: 23-Feb-05

# Hall Environmental Analysis Laboratory

CLIENT: Giant Refi Work Order: 0502178 Project: GWM-1-1	ining Co 1st Qtr. 2005							QC SUM	IMAR	Y REP( Method I	
Sample ID Reagent Blank 5m Client ID:	Batch ID: R14637	Test Code: Run ID:	SW8021 PIDFID_0502	Units: µg/L 21A		Analysis SeqNo:		2005 9:04:5 <b>3 AM</b> 15	Prep Da	ale	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimil	HighUmit	RPD Ref Val	%RPD	RPDLImit	Qual
Benzene	ND	0.5							· · · · · · · · · · · · · · · · · · ·		•,
Toluene	ND	0.5									
Elhylbenzene	ND	0.5									
Xylenes, Tolal	ND	0.5									
Surr: 4-Bromafiuorabenzene	19.5	0	20	0	97.5	83,3	121	0			
Sample ID Reagent Blank 5m	Batch ID: R14646	Test Code	: SW8021	Units: µg/L	<del>مىكتىمى بال</del> يان <del>بالطن بال</del> تك	Analysis	Date 2/22	/2005 7:49:45 AM	Prep D	ale	
Client ID:		Run ID:	PIDFID_0502	222A		SeqNo:	3410	24			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	Low/Limit	HighLimit	RPD Ref Val	%RPD	RPDUmil	Quəl
Велгепе	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	20.33	0	20	0	102	83,3	121	0			

2/4

Qualifiers:

ND . Not Detected at the Reporting Limit

5 - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

P. 003/006

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J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

Date: 23-Feb-05

CLIENT: Giant Refining Co Work Order: 0502178 Project: GWM-1-1st Qtr. 2005

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID BTEX std 100ng	Batch ID: R14637	Tesl Code:	SW8021	Units: µg/L		Analysis	Date 2/21	/2005 11:21:58 AM	Prep Dal <del>s</del>				
Client ID:		Run ID:	PIDFID_0502	221A		SeqNo:	3408	16					
Analyle	Result	POL	SPK value SPK Ref Val		%REC	LowLimit	HighLimil	RPD Ref Val	%RPD	RPDLimit	Qual		
Benzene	19.91	0.5	20	0	99.6	88.7	114	0					
Toluene	20.02	0,5	20	0	100	89.3	112	· 0					
Ethylbenzene	19.91	0.5	20	0	99.5	88.6	113	0					
Xylenes, Total	60,56	0.5	60	0	101	69.4	112	0					
Sample ID BTEX std 100ng	Batch ID: R14648	Test Code:	SW8021	Units: µg/L		Analysis	Prep Date						
Client ID:		Run ID:	PIDFID_0502	222A		SeqNo:	3410	35					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighUmit	RPD Ref Val	%RPD	RPDLimit	Qual		
Benzene	20.17	0.5	20	0	101	88.7	114	0					
Toluene	20.5	0.5	20	0	103	89.3	112	0					
Ethylbenzene	20.05	0.5	20	Ó	100	88.6	113	0					
Xylenes, Total	60.68	0.5	60	0	- 101	89.4	112	0					

3/4

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Qualiflers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R · RFD outside accepted recovery limits

## FEB-23-2005(WED) 15:48

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Hall Environmental Analysis Lab	oratory					
	Sample	Reco	eipt Che	ecklist		
				Date and Time	Received:	2/18/2005
Work Order Number 0502178	$\partial$			Recolved by	AT	
Checklist completed by	n	1	Dale	2118165		
Matrix	Carrier name	Clier	<u>nt drop-of</u>	<u>f</u>		
Shipping container/cooler in good condition?		Yes	$\checkmark$	No 🗌	Not Present	
Custody seals intact on shipping container/coold	n?	Yes			Not Present	Not Shipped
Custody seals intact on sample bottles?		Yes		No 🗹	N/A	
Chain of custody present?		Yes	$\mathbf{\Sigma}$	No 🗖		
Chain of custody signod when relinquished and	rcceived?	Yes				
Chain of custody agrees with sample labels?		Yes	V	No 🗔		
Samples in proper container/bottle?		Yas		ои		
Sample containers Intact?		Yes				
Sufficient sample volume for indicated test?		Yes		No 🗖		
All samples received within holding time?		Yas				
Water - VOA vials have zero headspace?	No VOA vials subm	nitted		Yes 🗹		
Water - pH acceptable upon receipt?		Yes		No 🗖	N/A	
Container/Temp Blank temperature?			6°	4° C ± 2 Accepta If given sufficient		
COMMENTS:						
	======		:			
Client contacted	Date contacted:			Pers	on contacted	
Contacted by:	Regarding					
Comments:						
					<u></u>	
			- <u></u>			
Corrective Action						
				· · · · · · · · · · · · · · · · · · ·	······································	

CHAIN-OF-CUSTODY RECORD			Accreditation Applied: NELAC USACE USACE Other: Project Name: GWM-1-15T QTR, 2005										HALL ENVIRONMENTAL ANALYSIS LABORATORY 4901 Hawkins NE, Suite D Albuquerque, New Mexico 87109 Tel. 505.345.3975 Fax 505.345.4107 www.hallenvironmental.com								Yana ya				
Address: ROLTE 3, ADX 7			Project #:										AA	<b>/S</b> ]	5 R	<b>=</b> [/]	互								
GALLUP, NM 8/301			Project Manager: STEVE MADDUR				s (8021)	sasoline Only)	ID (Gas/Diesel)							P0, S0,J	s (8082)			X		ce (Y or N)			
Phone #: 505-722-3833 Fax #: 505-722-0210			STRUE MORRIS Sampley Leypung Sanguez + MAREN TOE Sample Temperature:				MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method B015B MOD (Gas/Diesel)	TPH (Mechad 418.1)	EDB (Method 504.1)	EDC (Mechod 8021)	8310 (PNA or PAH)	Metals	(Na, K, Ca, Mg)	Anions (F, Cl, NO ₃ , NO ₂ ,	8081 Pesticides / PCB's (8082)	מא	8270 (Semi-VOA)	N BTE		Air Bubbles or Headspace (Y or N)			
Dat	æ	Trne	Matrix	Sample I.D. No.	Number/Volume	}	eserval HNO ₃	r	HEAL No.	BTEX + MTBE	BTEX +	TPH Mer	TPH (Me	EDB (M	EDC (ME	8310 (P	RCRA B Metals	Cations (Na, K,	Anions ()	8081 Pe	8260 (VOA)	8270 (S	100		Air Bubb
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Date:		me:		ned By: (Signature)	Remarks		<u>~</u>																		

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P. 006/006

### **Ed Riege**

From: Sent: To: Subject: Steve Morris Thursday, January 06, 2005 3:55 PM Ed Riege FW: Railroad Rack Lagoon REE

RECEIVED

### JAN 1 C 2005

OIL CONSERVATION DIVISION

3.,

Original M	lessage	OIL CONS.
From:	Steve Morris	DIVI
Sent:	Thursday, January 06, 2005 3:46 PM	
To:	Wayne Price (E-mail); Dave Cobrain (E-mail	); Hope Monzeglio (E-mail)
Subject:	FW: Railroad Rack Lagoon	. د



Railroad Rack RR Rack Rev 2.jpg .agoon SWMU # 8...

Dear Dave, Hope, and Wayne,

After reviewing sample results from the excavation at the Railroad Rack Lagoon, we have found three areas of concern. These are marked on the attached drawing as circled 1, 2, and 3. Area one (Area beneath pipe) will be excavated to include:

- Removing soil from above pipe and field testing.
- Removing pipe from excavation.
- Remove contaminated soil and field testing.
- Send soil samples from excavation to Hall Lab. in Albuquerque for confirmation.

Areas two and three will be excavated and sampled in the same manner as the original portion of the project. (Field testing and confirmation samples)

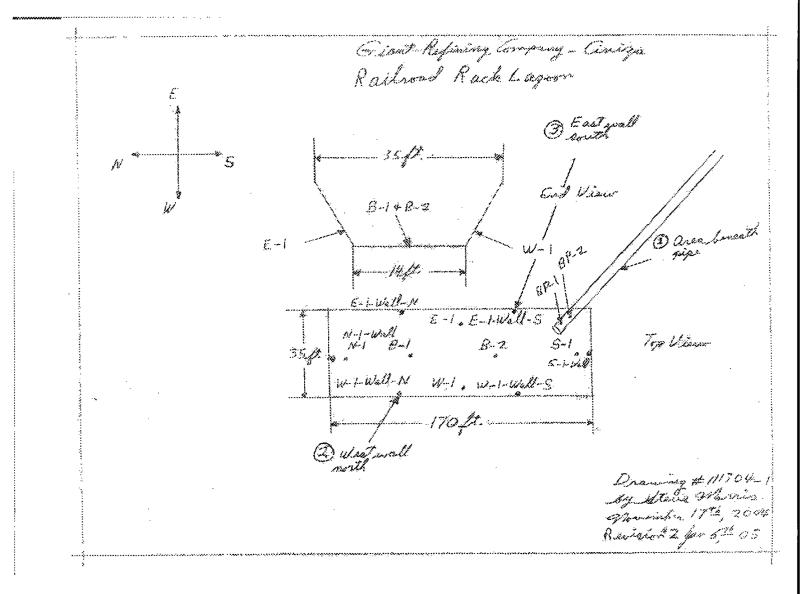
In addition to the drawing, we are including a summary sheet of the sample results. We will also send hard copies of the actual analysis by mail.

Fuhs Trucking will return to finish this project as soon as the weather and their schedule allows.

Please let us know if this plan meets your approval. If there are any questions or concerns with this portion of the project, please give me a call at 505-722-0258, or Ed Riege at 505-722-0217.

Thanks, Steve Morris

	Railroad Rack Lagoon SWMU #8													
All analysis are in mg/kg (ppm)														
Sample ID #	Date	Fluoride	Chloride	Nitrate	Sulfate	Nitrite	Phosphorus	DRO	MRO	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes, Total
RR-N-1	11/18/2004	18	320	4.9	680	ND	ND	ND	ND	ND	ND	ND	ND	ND
RR-E-1	11/18/2004	6.1	54	ND	74	ND	ND	81	ND	ND	ND	ND	ND	ND
RR-S-1	11/18/2004	4.6	27	ND	28	ND	ND	31	ND	ND	ND	ND	ND	0.082
RR-W-1	11/18/2004	4.6	37	ND	ND	ND	ND	12	ND	ND	ND	ND	ND	ND
RR-N-1 WALL	11/18/2004	3.4	300	ND	610	ND	ND	ND	ND	ND ND	ND ND	ND ND	ND ND	ND ND
RR-S-1-WALL	11/18/2004	4.7	16	ND	380	ND	ND	ND 150	ND			ND ND	ND ND	
RR-E-1-WALL N		36	16	6.6	270	ND	ND	150 6300	ND ND	ND ND	ND 0.57	0.86	14	83
RR-E-1-WALL S		ND 14	57 290	ND 4.3	ND 860	ND ND	ND ND	450	140	ND ND	0.57 ND	0.00 ND	ND	ND
RR-W-1-WALL N		7.9	290 33	4.3 ND	39	ND	ND	310	ND	ND	ND	ND	ND	ND
RR-W-1-WALL S	11/18/2004	4.5	33	ND	ND	ND	ND	99	ND	ND	ND	ND	ND	0.52
RR-B-1	11/18/2004	4.5	17	ND	680	ND	ND	ND	ND	ND	ND	ND	ND	ND
RR-BP-1	11/18/2004	5.4	60	ND	ND	ND	ND	3600	ND	ND	2.5	27	17	110
RR-BP-2	11/18/2004	8.1	59	ND	24	ND	ND	2700	ND	ND	2.2	25	15	100
	11/10/2004	0.1										1	[	1
	. 1						E		E .	F			1	
Sample ID	Date	Mercury	Arsenic	Barium	Cadmium	Calcium	Chromium	Lead	Magnesium	Potassium	Selenium	Silver	Sodium	Hd
# Q wamble RR-N-1	et D D 11/18/2004	ZMercury	ZArsenic	Barium 250	D D Cadmium	Calcinm 00081	7	PLead 14	5200	<u>a</u> 2100	ND ND	ND	2000	8.25
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RR-N-1	11/18/2004 11/18/2004 11/18/2004	Z Z Mercury	ND ND ND	250 290 300	ND ND ND	18000 16000 17000	7	14 5.7 5.1	5200 4600 4400	2100 1300 1400	ND ND ND	ND ND ND	2000 1300 870	8.25 9.23 9.05
RR-N-1 RR-E-1	11/18/2004 11/18/2004 11/18/2004 11/18/2004	ND ND ND	ND ND ND ND	250 290 300 310	ND ND ND ND	18000 16000 17000 16000	7 5.8 5.6 7	14 5.7 5.1 7.8	5200 4600 4400 4800	2100 1300 1400 1300	ND ND ND ND	ND ND ND ND	2000 1300 870 1300	8.25 9.23 9.05 9.13
RR-N-1 RR-E-1 RR-S-1 RR-W-1 RR-N-1 WALL	11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004	ND ND ND ND	ND ND ND ND ND	250 290 300 310 280	ND ND ND ND ND	18000 16000 17000 16000 18000	7 5.8 5.6 7 7.6	14 5.7 5.1 7.8 5.3	5200 4600 4400 4800 5800	2100 1300 1400 1300 2700	S ND ND ND ND ND	ND ND ND ND ND	0 2000 1300 870 1300 1500	8.25 9.23 9.05 9.13 8.37
RR-N-1 RR-E-1 RR-S-1 RR-W-1 RR-N-1 WALL RR-S-1-WALL	11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004	ND ND ND ND ND	ND ND ND ND ND ND	250 290 300 310 280 300	ND ND ND ND ND ND	18000 16000 17000 16000 18000 17000	7 5.8 5.6 7 7.6 6.9	14 5.7 5.1 7.8 5.3 5.9	5200 4600 4400 4800 5800 5400	2100 1300 1400 1300 2700 2000	S ND ND ND ND ND ND	ND ND ND ND ND ND	0 2000 1300 870 1300 1500 1000	8.25 9.23 9.05 9.13 8.37 8.55
RR-N-1 RR-E-1 RR-S-1 RR-W-1 RR-N-1 WALL RR-S-1-WALL RR-E-1-WALL N	11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004	ND ND ND ND ND ND	ND ND ND ND ND ND ND	250 290 300 310 280 300 260	ND ND ND ND ND ND	18000 16000 17000 16000 18000 17000 15000	7 5.8 5.6 7 7.6 6.9 6.3	14 5.7 5.1 7.8 5.3 5.9 6.2	5200 4600 4400 4800 5800 5400 4600	2100 1300 1400 1300 2700 2000 1700	S ND ND ND ND ND ND	ND ND ND ND ND ND	<i>9</i> 2000 1300 870 1300 1500 1000 1200	8.25 9.23 9.05 9.13 8.37 8.55 8.55 8.58
RR-N-1 RR-E-1 RR-S-1 RR-W-1 RR-N-1 WALL RR-S-1-WALL RR-E-1-WALL N RR-E-1-WALL S	11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/20/2004	ND ND ND ND ND ND ND	ND ND ND ND ND ND ND	250 290 300 280 300 260 250	ND ND ND ND ND ND ND	18000 16000 17000 16000 18000 17000 15000 28000	7 5.8 5.6 7 7.6 6.9 6.3 4.5	14 5.7 5.1 7.8 5.3 5.9 6.2 7.7	5200 4600 4400 5800 5400 4600 4200	<b>a</b> 2100 1300 1400 1300 2700 2000 1700 690	S ND ND ND ND ND ND ND	ND ND ND ND ND ND ND	0 2000 1300 870 1300 1500 1000 1200 ND	8.25 9.23 9.05 9.13 8.37 8.55 8.55 8.58 8.88
RR-N-1 RR-E-1 RR-S-1 RR-N-1 WALL RR-S-1-WALL RR-E-1-WALL N RR-E-1-WALL S RR-W-1-WALL N	11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/20/2004 11/18/2004	ND ND ND ND ND ND	ND ND ND ND ND ND ND ND	250 290 300 280 300 260 250 460	ND ND ND ND ND ND ND ND ND	18000 16000 17000 16000 18000 17000 15000 28000 32000	7 5.8 5.6 7 7.6 6.9 6.3 4.5 27	14 5.7 5.1 7.8 5.3 5.9 6.2 7.7 11	5200 4600 4400 4800 5800 5400 4600 4200 4300	<b>a</b> 2100 1300 1400 2700 2000 1700 690 1200	S ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND	0 2000 1300 870 1300 1500 1000 1200 ND 1100	8.25 9.23 9.05 9.13 8.37 8.55 8.58 8.58 8.88 8.88 8.21
RR-N-1 RR-E-1 RR-S-1 RR-W-1 RR-S-1-WALL RR-E-1-WALL N RR-E-1-WALL S RR-W-1-WALL N RR-W-1-WALL S	11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/20/2004 11/18/2004 11/18/2004	ND ND ND ND ND 0.037 ND	ND ND ND ND ND ND ND ND ND ND	250 290 300 280 300 260 250 460 320	ND ND ND ND ND ND ND ND ND ND ND	18000 16000 17000 16000 18000 17000 15000 28000 32000 17000	7 5.8 5.6 7 7.6 6.9 6.3 4.5 27 3.1	14 5.7 5.1 7.8 5.3 5.9 6.2 7.7 11 2.9	5200 4600 4400 5800 5400 4600 4200 4300 4200	<b>a</b> 2100 1300 1400 2700 2000 1700 690 1200 1000	s ND ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND ND	0 2000 1300 870 1300 1500 1000 1200 ND 1100 920	8.25 9.23 9.05 9.13 8.37 8.55 8.58 8.88 8.88 8.21 8.89
RR-N-1 RR-E-1 RR-S-1 RR-N-1 WALL RR-S-1-WALL RR-E-1-WALL N RR-E-1-WALL S RR-W-1-WALL S RR-W-1-WALL S RR-W-1-WALL S	11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004	ND ND ND ND ND 0.037 ND ND	ND ND ND ND ND ND ND ND ND ND ND	250 290 300 280 300 260 250 460 320 260	ND ND ND ND ND ND ND ND ND ND ND ND	18000 16000 17000 18000 17000 15000 28000 32000 17000 15000	7 5.8 5.6 7 7.6 6.9 6.3 4.5 27 3.1 5.9	14 5.7 5.1 7.8 5.3 5.9 6.2 7.7 11 2.9 5.6	5200 4600 4400 5800 5400 4600 4200 4300 4200 4300 4200	<b>a</b> 2100 1300 1400 2700 2000 1700 690 1200 1200 1000 1300	S ND ND ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND ND ND	0 2000 1300 870 1500 1500 1000 1200 ND 1100 920 1400	8.25 9.23 9.05 9.13 8.37 8.55 8.58 8.88 8.88 8.21 8.89 9.06
RR-N-1 RR-E-1 RR-S-1 RR-W-1 RR-S-1-WALL RR-E-1-WALL N RR-E-1-WALL S RR-W-1-WALL S RR-W-1-WALL S RR-W-1-WALL S RR-B-1 RR-B-2	11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004	ND ND ND ND ND 0.037 ND ND ND ND	ND ND ND ND ND ND ND ND ND ND ND ND	250 290 300 280 300 260 250 460 320 260 320	ND ND ND ND ND ND ND ND ND ND ND ND	18000 16000 17000 18000 17000 15000 28000 32000 32000 17000 15000 17000	7 5.8 5.6 7 7.6 6.9 6.3 4.5 27 3.1 5.9 5.1	14 5.7 5.1 7.8 5.3 5.9 6.2 7.7 11 2.9 5.6 5.1	5200 4600 4400 5800 5400 4600 4200 4300 4200 4200 4200 4200	<b>a</b> 2100 1300 1400 2700 2000 1700 690 1200 1200 1000 1300	S ND ND ND ND ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND ND ND ND ND	0 2000 1300 870 1500 1500 1200 ND 1100 920 1400 1300	8.25 9.23 9.05 9.13 8.37 8.55 8.58 8.88 8.21 8.89 9.06 8.75
RR-N-1 RR-E-1 RR-S-1 RR-W-1 RR-S-1-WALL RR-E-1-WALL N RR-E-1-WALL S RR-W-1-WALL S RR-W-1-WALL S RR-W-1-WALL S RR-B-1 RR-B-1 RR-B-2 RR-BP-1	11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004	ND ND ND ND ND ND 0.037 ND ND ND 0.082	ND ND ND ND ND ND ND ND ND ND ND ND ND	250 290 300 280 300 260 250 460 320 260 320 240	ND ND ND ND ND ND ND ND ND ND ND ND ND N	18000 16000 17000 18000 18000 17000 28000 32000 17000 15000 17000 16000	7 5.8 5.6 7 7.6 6.9 6.3 4.5 27 3.1 5.9 5.1 5.5	14 5.7 5.1 7.8 5.3 5.9 6.2 7.7 11 2.9 5.6 5.1 12	5200 4600 4400 5800 5400 4600 4200 4300 4200 4200 4200 3300	<b>a</b> 2100 1300 1400 2700 2000 1700 690 1200 1000 1300 1000 1000	8 ND ND ND ND ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND ND ND ND ND N	0 2000 1300 870 1500 1500 1000 1200 ND 1100 920 1400 1300 590	8.25 9.23 9.05 9.13 8.37 8.55 8.58 8.88 8.21 8.89 9.06 8.75 8.25
RR-N-1 RR-E-1 RR-S-1 RR-W-1 RR-S-1-WALL RR-S-1-WALL RR-E-1-WALL N RR-E-1-WALL S RR-W-1-WALL S RR-W-1-WALL S RR-B-1 RR-B-1 RR-B-2 RR-BP-1 RR-BP-2	11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004	ND ND ND ND ND 0.037 ND ND ND ND	ND ND ND ND ND ND ND ND ND ND ND ND	250 290 300 280 300 260 250 460 320 260 320	ND ND ND ND ND ND ND ND ND ND ND ND	18000 16000 17000 18000 17000 15000 28000 32000 32000 17000 15000 17000	7 5.8 5.6 7 7.6 6.9 6.3 4.5 27 3.1 5.9 5.1	14 5.7 5.1 7.8 5.3 5.9 6.2 7.7 11 2.9 5.6 5.1	5200 4600 4400 5800 5400 4600 4200 4300 4200 4200 4200 4200	<b>a</b> 2100 1300 1400 2700 2000 1700 690 1200 1200 1000 1300	S ND ND ND ND ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND ND ND ND ND	0 2000 1300 870 1500 1500 1200 ND 1100 920 1400 1300	8.25 9.23 9.05 9.13 8.37 8.55 8.58 8.88 8.21 8.89 9.06 8.75
RR-N-1 RR-E-1 RR-S-1 RR-W-1 RR-S-1-WALL RR-S-1-WALL RR-E-1-WALL N RR-E-1-WALL S RR-W-1-WALL S RR-W-1-WALL S RR-B-1 RR-B-1 RR-B-2 RR-BP-1 RR-BP-2 Background	11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004	ND ND ND ND ND ND 0.037 ND ND ND 0.082 ND	ND ND ND ND ND ND ND ND ND ND ND ND ND N	250 290 300 280 300 260 250 460 320 260 320 260 320 240 170	ND ND ND ND ND ND ND ND ND ND ND ND ND N	18000 16000 17000 18000 17000 15000 28000 32000 17000 15000 17000 16000 13000	7 5.8 7 7.6 6.9 6.3 4.5 27 3.1 5.9 5.1 5.5 4.4	14 5.7 5.1 7.8 5.3 5.9 6.2 7.7 11 2.9 5.6 5.1 12	5200 4600 4400 5800 5400 4600 4200 4300 4200 4200 4600 4200 3300 3000	<b>a</b> 2100 1300 1400 2700 2000 1700 690 1200 1000 1300 1000 1000	8 ND ND ND ND ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND ND ND ND ND N	0 2000 1300 870 1300 1500 1200 ND 1200 ND 1100 920 1400 1300 590 570	8.25 9.23 9.05 9.13 8.37 8.55 8.58 8.88 8.21 8.89 9.06 8.75 8.25 8.25 8.51
RR-N-1 RR-E-1 RR-S-1 RR-W-1 RR-S-1-WALL RR-S-1-WALL RR-E-1-WALL N RR-E-1-WALL S RR-W-1-WALL S RR-W-1-WALL S RR-B-1 RR-B-2 RR-BP-1 RR-BP-2 Background BG-1	11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004	ND ND ND ND ND ND ND ND ND 0.082 ND 0.02	ND ND ND ND ND ND ND ND ND ND ND ND ND	250 290 300 280 300 260 250 460 320 260 320 240 170 240	ND ND ND ND ND ND ND ND ND ND 0.1 ND	18000 16000 17000 18000 17000 15000 28000 32000 32000 17000 15000 17000 16000 13000	7 5.8 7 7.6 6.9 6.3 4.5 27 3.1 5.9 5.1 5.5 4.4 8	14 5.7 5.1 7.8 5.3 5.9 6.2 7.7 11 2.9 5.6 5.1 12 7.4	5200 4600 4400 5800 5400 4600 4200 4300 4200 4200 4200 3300	<b>a</b> 2100 1300 1400 2700 2000 1700 690 1200 1000 1300 1000 1000	8 ND ND ND ND ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND ND ND ND ND N	0 2000 1300 870 1300 1500 1200 ND 1100 920 1400 1300 590 570	8.25 9.23 9.05 9.13 8.37 8.55 8.58 8.88 8.21 8.89 9.06 8.75 8.25 8.25 8.51 8.79
RR-N-1 RR-E-1 RR-S-1 RR-N-1 WALL RR-S-1-WALL RR-E-1-WALL N RR-E-1-WALL S RR-W-1-WALL S RR-W-1-WALL S RR-B-1 RR-B-2 RR-BP-1 RR-BP-2 Background BG-1 BG-2	11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 5/23/1997 5/24/1997	ND ND ND ND ND ND ND ND 0.037 ND 0.037 ND 0.037 ND 0.082 ND	ND ND ND ND ND ND ND ND ND ND ND ND ND N	250 290 300 280 300 260 250 460 320 260 320 240 170 240 240	ND ND ND ND ND ND ND ND ND ND 0.1 ND ND ND	18000 16000 17000 18000 17000 15000 28000 32000 17000 15000 17000 16000 13000	7 5.8 7 7.6 6.9 6.3 4.5 27 3.1 5.9 5.1 5.5 4.4 8 13	14 5.7 5.1 7.8 5.3 5.9 6.2 7.7 11 2.9 5.6 5.1 12 7.4 7 8	5200 4600 4400 5800 5400 4600 4200 4200 4200 4200 4200 3300 3000	<u>a</u> 2100     1300     1400     1300     2700     2000     1700     690     1200     1000     1000     1000     1000     940     -     -     -	S ND ND ND ND ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND ND ND ND ND N	0 2000 1300 870 1300 1500 1200 ND 1100 920 1400 1300 590 570	8.25 9.23 9.05 9.13 8.37 8.55 8.58 8.88 8.88 8.21 8.89 9.06 8.75 8.25 8.51 8.51 8.79 9.04
RR-N-1 RR-E-1 RR-S-1 RR-W-1 RR-S-1-WALL RR-S-1-WALL RR-E-1-WALL N RR-E-1-WALL S RR-W-1-WALL S RR-W-1-WALL S RR-B-1 RR-B-2 RR-BP-1 RR-BP-2 Background BG-1	11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004 11/18/2004	ND ND ND ND ND ND ND ND ND 0.082 ND 0.02	ND ND ND ND ND ND ND ND ND ND ND ND ND	250 290 300 280 300 260 250 460 320 260 320 240 170 240	ND ND ND ND ND ND ND ND ND ND 0.1 ND	18000 16000 17000 18000 17000 15000 28000 32000 32000 17000 15000 17000 16000 13000	7 5.8 7 7.6 6.9 6.3 4.5 27 3.1 5.9 5.1 5.5 4.4 8	14 5.7 5.1 7.8 5.3 5.9 6.2 7.7 11 2.9 5.6 5.1 12 7.4	5200 4600 4400 5800 5400 4600 4200 4200 4200 4200 4200 3300 3000	<b>a</b> 2100 1300 1400 2700 2000 1700 690 1200 1000 1300 1000 1000	8 ND ND ND ND ND ND ND ND ND ND ND ND ND	ND ND ND ND ND ND ND ND ND ND ND ND ND N	0 2000 1300 870 1300 1500 1200 ND 1100 920 1400 1300 590 570	8.25 9.23 9.05 9.13 8.37 8.55 8.58 8.88 8.21 8.89 9.06 8.75 8.25 8.25 8.51 8.79





### COVER LETTER

December 03, 2004

Steve Morris Giant Refining Co Rt. 3 Box 7 Gallup, NM 87301 TEL: (505) 722-3833 FAX (505) 722-0210

RE: Railroad Rack Lagoon SWMU

Order No.: 0411218

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 13 samples on 11/19/2004 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager



4901 Hawkins NE■ Suite D■ Albuquerque, NM 87109 505.345.3975■ Fax 505.345.4107 www.hallenvironmental.com



Hall Envir	onmental Analysis Laboratory	<b>Date:</b> 03-Dec-04			
CLIENT:	Giant Refining Co				
Project:	Railroad Rack Lagoon SWMU	CASE NARRATIVE			
Lab Order:	0411218				

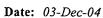
Analytical Comments for METHOD 300_S, SAMPLE 0411218-09A MS: Unable to recover o-PO4-P due to possible matrix interference. IN12-04070 Analytical Comments for METHOD 300_S, SAMPLE 0411218-09A MSD: Unable to recover o-PO4-P due to possible matrix interference. IN12-04070

CLIENT:	Giant Refining Co			Client Sampl	e ID: RR-N	-1
Lab Order:	0411218			Collection	n Date: 11/1	8/2004 8:00:00 AM
Project:	Railroad Rack Lagoor	I SWMU				
Lab ID:	0411218-01			И	Aatrix: SOI	L
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	9056A: ANIONS			······································		Analyst: MAP
Fluoride		18	3.0	mg/Kg	10	11/30/2004 11:48:28 AM
Chloride		320	3.0	mg/Kg	10	11/30/2004 11:48:28 AM
Nitrogen, Nitrate	e (As N)	4.9	3.0	mg/Kg	10	11/30/2004 11:48:28 AM
Sulfate		680	15	mg/Kg	_ 10	11/30/2004 11:48:28 AM
Nitrogen, Nitrite	(As N)	ND	3.0	mg/Kg	10	11/30/2004 11:48:28 AM
Phosphorus, Or	thophosphate (As P)	ND	15	mg/Kg	10	11/30/2004 11:48:28 AM
EPA METHOD	8015B: DIESEL RANGE					Analyst: JMP
Diesel Range O	rganics (DRO)	ND	10	mg/Kg	1	11/23/2004 12:13:36 PM
Motor Oil Range	e Organics (MRO)	ND	50	mg/Kg	1	11/23/2004 12:13:36 PM
Surr: DNOP		78.7	60-124	%REC	1	11/23/2004 12:13:36 PM
EPA METHOD	8021B: VOLATILES					Analyst: NSB
Methyl tert-buty	l ether (MTBE)	ND	0.10	mg/Kg	1	11/23/2004 3:37:35 PM
Benzene		ND	0.025	mg/Kg	1	11/23/2004 3:37:35 PM
Toluene		ND	0.025	mg/Kg	1	11/23/2004 3:37:35 PM
Ethylbenzene		ND .	0.025	mg/Kg	. 1	11/23/2004 3:37:35 PM
Xylenes, Total		ND	0.025	mg/Kg	1	11/23/2004 3:37:35 PM
Surr: 4-Brom	ofluorobenzene	99.8	74-118	%REC	1	11/23/2004 3:37:35 PM
EPA METHOD	7471: MERCURY					Analyst: CMC
Mercury		ND	0.033	mg/Kg	1	11/30/2004
EPA METHOD	6010C: SOIL METALS					Analyst: CMC
Arsenic		ND	2.5	mg/Kg	1	11/23/2004 12:16:56 PM
Barium		250	0.99	mg/Kg	10	11/24/2004 4:28:22 PM
Cadmium		ND	0.10	mg/Kg	1	11/23/2004 12:16:56 PM
Calcium		18000	130	mg/Kg	5	11/23/2004 4:51:19 PM
Chromium		7.0	0.30	mg/Kg	1	11/23/2004 12:16:56 PM
Lead		14	0.25	mg/Kg	1	11/23/2004 12:16:56 PM
Magnesium		5200	25	mg/Kg	1	11/23/2004 12:16:56 PM
Potassium		2100	50	mg/Kg	1	11/23/2004 12:16:56 PM
Selenium		ND	2.5	mg/Kg	1	11/23/2004 12:16:56 PM
Silver		ND	0.25	mg/Kg	1	11/23/2004 12:16:56 PM
Sodium		2000	25	mg/Kg	1	11/23/2004 12:16:56 PM
EPA METHOD	150.1: PH					Analyst: CMC
pН		8.25	0.010	pH Units	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level 2 / 23
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range



Project:				Coned	Date:	11/10/	/2004 8:15:00 AM
. rojeci.	Railroad Rack Lagoon S	SWMU					
Lab ID:	0411218-02				Matrix:	SOIL	
Analyses		Result	PQL	Qual Units	;	DF	Date Analyzed
EPA METHOD 9	0056A: ANIONS						Analyst: MAP
Fluoride		6.1	3.0	mg/Kg	J	10	11/30/2004 12:05:17 PM
Chloride		54	3.0	mg/Kg	J	10	11/30/2004 12:05:17 PM
Nitrogen, Nitrate	(As N)	ND	3.0	mg/Kg	3	10	11/30/2004 12:05:17 PN
Sulfate		74	15	mg/Kg	ļ	10	11/30/2004 12:05:17 PN
Nitrogen, Nitrite	(As N)	ND	3.0	mg/Kg	)	10	11/30/2004 12:05:17 PM
Phosphorus, Ort	hophosphate (As P)	ND	15	mg/Kg	9	10	11/30/2004 12:05:17 PN
EPA METHOD 8	3015B: DIESEL RANGE						Analyst: JMP
Diesel Range O	rganics (DRO)	81	10	mg/Kg	9	1	11/22/2004 8:26:19 PM
Motor Oil Range	Organics (MRO)	ND	50	mg/K	3	1	11/22/2004 8:26:19 PM
Surr: DNOP		71.3	60-124	%RE	2	1	11/22/2004 8:26:19 PM
EPA METHOD	8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl	ether (MTBE)	ND	0.20	mg/K	3	2	11/23/2004 4:07:37 PM
Benzene		ND	0.050	mg/K	9	2	11/23/2004 4:07:37 PM
Toluene		ND	0.050	mg/K	9	2	11/23/2004 4:07:37 PM
Ethylbenzene		ND	0.050	mg/K	9	2	11/23/2004 4:07:37 PM
Xylenes, Total		ND	0.050	.mg/K	9	2	11/23/2004 4:07:37 PM
Surr: 4-Bromo	ofluorobenzene	103	74-118	%RE	C	2	11/23/2004 4:07:37 PM
EPA METHOD	7471: MERCURY						Analyst: CMC
Mercury		ND	0.033	mg/K	9	1	11/30/2004
EPA METHOD	6010C: SOIL METALS						Analyst: CMC
Arsenic		ND	2.5	mg/K	g	1	11/23/2004 12:20:55 Pl
Barium		290	0.96	mg/K	g	10	11/24/2004 4:32:37 PM
Cadmium		ND	0.10	mg/K	g	1	11/23/2004 12:20:55 PI
Calcium		16000	130	mg/K	g	5	11/23/2004 4:55:16 PM
Chromium		5.8	0.30	mg/K	g	1	11/23/2004 12:20:55 Pl
Lead		5.7	0.25	mg/K	g	1	11/23/2004 12:20:55 Pi
Magnesium		4600	25	mg/K	g	1	11/23/2004 12:20:55 P
Potassium		1300	50	mg/K	g	1	11/23/2004 12:20:55 P
Selenium		ND	2.5	mg/K	g	1	11/23/2004 12:20:55 Pi
Silver		ND	0.25	mg/K	g	1	11/23/2004 12:20:55 P
Sodium		1300	25	mg/k	g	1	11/23/2004 12:20:55 P
EPA METHOD	150.1: PH						Analyst: CMC
рH		9.23	0.010	pH U	nits	1	12/1/2004

Giant Refining Co

**CLIENT:** 

Date: 03-Dec-04

Client Sample ID: RR-E-1

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 3 / 23

Page 2 of 13

Qualifiers:

- _____
  - ND Not Detected at the Reporting Limit
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

ND - Not Detected at the Reporting Limit J - Analyte detected below quantitation limits

Fluoride       4.6       3.0       mg/Kg       10       11/30/2004 12:         Chloride       27       3.0       mg/Kg       10       11/30/2004 12:         Nitrogen, Nitrate (As N)       ND       3.0       mg/Kg       10       11/30/2004 12:         Sulfate       28       15       mg/Kg       10       11/30/2004 12:         Nitrogen, Nitrite (As N)       ND       3.0       mg/Kg       10       11/30/2004 12:         Phosphorus, Orthophosphate (As P)       ND       3.0       mg/Kg       10       11/30/2004 12:         EPA METHOD 8015B: DIESEL RANGE        Analys       10       11/30/2004 12:       Analys         Diesel Range Organics (DRO)       31       10       mg/Kg       1       11/22/2004 8:5         Motor Oll Range Organics (MRO)       ND       50       mg/Kg       1       11/22/2004 8:5         Surr: DNOP       94.8       60-124       %REC       1       11/22/2004 4:3         Benzene       ND       0.010       mg/Kg       1       11/23/2004 4:3         Benzene       ND       0.025       mg/Kg       1       11/23/2004 4:3         Toluene       ND       0.025       mg/Kg       1       11/23	
Lab ID:         0411218-03         Matrix:         SOIL           Analyses         Result         PQL         Qual         Units         DF         Date Analyze           EPA METHOD 9056A: ANIONS         Analyse         Analyse         Analyse         Analyse           Fluoride         4.6         3.0         mg/Kg         10         11/30/2004 12:           Chloride         27         3.0         mg/Kg         10         11/30/2004 12:           Nitrogen, Nitrate (As N)         ND         3.0         mg/Kg         10         11/30/2004 12:           Sulfate         28         15         mg/Kg         10         11/30/2004 12:           Nitrogen, Nitrite (As N)         ND         3.0         mg/Kg         10         11/30/2004 12:           Sulfate         28         15         mg/Kg         10         11/30/2004 12:           Nitrogen, Nitrite (As N)         ND         3.0         mg/Kg         10         11/30/2004 12:           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 12:           Diesel Range Organics (DRO)         31         10         mg/Kg         1         11/22/2004 8:5           Surr: DNOP	М
Lab ID:         0411218-03         Matrix:         SOIL           Analyses         Result         PQL         Qual         Units         DF         Date Analyze           EPA METHOD 9056A: ANIONS         Analyse         Analyse         Analyse         Analyse           Fluoride         4.6         3.0         mg/Kg         10         11/30/2004 12:           Chloride         27         3.0         mg/Kg         10         11/30/2004 12:           Nitrogen, Nitrate (As N)         ND         3.0         mg/Kg         10         11/30/2004 12:           Sulfate         28         15         mg/Kg         10         11/30/2004 12:           Nitrogen, Nitrite (As N)         ND         3.0         mg/Kg         10         11/30/2004 12:           Sulfate         28         15         mg/Kg         10         11/30/2004 12:           Nitrogen, Nitrite (As N)         ND         3.0         mg/Kg         10         11/30/2004 12:           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 12:           Diesel Range Organics (DRO)         31         10         mg/Kg         1         11/22/2004 8:5           Surr: DNOP	
EPA METHOD 9056A: ANIONS         Analys           Fluoride         4.6         3.0         mg/Kg         10         11/30/2004 12:           Chloride         27         3.0         mg/Kg         10         11/30/2004 12:           Nitrogen, Nitrate (As N)         ND         3.0         mg/Kg         10         11/30/2004 12:           Sulfate         28         15         mg/Kg         10         11/30/2004 12:           Nitrogen, Nitrite (As N)         ND         3.0         mg/Kg         10         11/30/2004 12:           Nitrogen, Nitrite (As N)         ND         3.0         mg/Kg         10         11/30/2004 12:           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 12:           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 12:           EPA METHOD 8015B: DIESEL RANGE         Analys         Analys         ND         10         11/30/2004 12:           Sur: DNOP         94.8         60-124         %REC         1         11/22/2004 8:5           Sur: DNOP         94.8         60-124         %REC         1         11/22/2004 4:3           Benzene         ND	
Fluoride       4.6       3.0       mg/Kg       10       11/30/2004 12:         Chloride       27       3.0       mg/Kg       10       11/30/2004 12:         Nitrogen, Nitrate (As N)       ND       3.0       mg/Kg       10       11/30/2004 12:         Sulfate       28       15       mg/Kg       10       11/30/2004 12:         Nitrogen, Nitrite (As N)       ND       3.0       mg/Kg       10       11/30/2004 12:         Phosphorus, Orthophosphate (As P)       ND       3.0       mg/Kg       10       11/30/2004 12:         Phosphorus, Orthophosphate (As P)       ND       15       mg/Kg       10       11/30/2004 12:         PA       METHOD 8015B: DIESEL RANGE       Analys       10       11/30/2004 12:       Analys         Diesel Range Organics (DRO)       31       10       mg/Kg       1       11/20/2004 8:5         Motor Oll Range Organics (MRO)       ND       50       mg/Kg       1       11/22/2004 8:5         Surr: DNOP       94.8       60-124       %REC       1       11/22/2004 4:3         Benzene       ND       0.025       mg/Kg       1       11/23/2004 4:3         Benzene       ND       0.025       mg/Kg	zed
Chloride         27         3.0         mg/Kg         10         11/30/2004 12:           Nitrogen, Nitrate (As N)         ND         3.0         mg/Kg         10         11/30/2004 12:           Sulfate         28         15         mg/Kg         10         11/30/2004 12:           Nitrogen, Nitrate (As N)         ND         3.0         mg/Kg         10         11/30/2004 12:           Nitrogen, Nitrite (As N)         ND         3.0         mg/Kg         10         11/30/2004 12:           Phosphorus, Orthophosphate (As P)         ND         3.0         mg/Kg         10         11/30/2004 12:           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 12:           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 12:           EPA METHOD 8015B: DIESEL RANGE         Analys         Analys         Analys         Surr: DNOP         94.8         60-124         %REC         1         11/22/2004 8:5           Surr: DNOP         94.8         60-124         %REC         1         11/23/2004 4:3         Benzene         ND         0.025         mg/Kg         1         11/23/2004 4:3         11/23/2004 4:3         11/23/200	st: MAP
Nitrogen, Nitrate (As N)         ND         3.0         mg/Kg         10         11/30/2004 12:           Sulfate         28         15         mg/Kg         10         11/30/2004 12:           Nitrogen, Nitrite (As N)         ND         3.0         mg/Kg         10         11/30/2004 12:           Nitrogen, Nitrite (As N)         ND         3.0         mg/Kg         10         11/30/2004 12:           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 12:           EPA METHOD 8015B: DIESEL RANGE         Analys         10         11/30/2004 12:         Analys           Diesel Range Organics (DRO)         31         10         mg/Kg         1         11/22/2004 8:5           Motor Oil Range Organics (MRO)         ND         50         mg/Kg         1         11/22/2004 8:5           Surr: DNOP         94.8         60-124         %REC         1         11/22/2004 8:5           EPA METHOD 8021B: VOLATILES         Analys         Analys         Analys         Analys           Methyl tert-butyl ether (MTBE)         ND         0.10         mg/Kg         1         11/23/2004 4:3           Benzene         ND         0.025         mg/Kg         1         11/	22:06 PM
Sulfate         28         15         mg/Kg         10         11/30/2004 12:           Nitrogen, Nitrite (As N)         ND         3.0         mg/Kg         10         11/30/2004 12:           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 12:           EPA METHOD 8015B: DIESEL RANGE         Analyse           Diesel Range Organics (DRO)         31         10         mg/Kg         1         11/22/2004 8:5           Motor Oil Range Organics (MRO)         ND         50         mg/Kg         1         11/22/2004 8:5           Surr: DNOP         94.8         60-124         %REC         1         11/22/2004 8:5           EPA METHOD 8021B: VOLATILES         Analyse           Methyl tert-butyl ether (MTBE)         ND         0.10         mg/Kg         1         11/22/2004 4:3           Benzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Toluene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Ethylbenzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Xylenes, Total         0.082         0.025         mg/Kg	22:06 PM
Nitrogen, Nitrite (As N)         ND         3.0         mg/Kg         10         11/30/2004 12:           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 12:           EPA METHOD 8015B: DIESEL RANGE         Analys           Diesel Range Organics (DRO)         31         10         mg/Kg         1         11/22/2004 8:5           Motor Oil Range Organics (MRO)         ND         50         mg/Kg         1         11/22/2004 8:5           Surr: DNOP         94.8         60-124         %REC         1         11/22/2004 8:5           EPA METHOD 8021B: VOLATILES         Analys           Methyl tert-butyl ether (MTBE)         ND         0.10         mg/Kg         1         11/22/2004 4:3           Benzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Toluene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Ethylbenzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Xylenes, Total         0.082         0.025         mg/Kg         1         11/23/2004 4:3	22:06 PM
Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 12:           EPA METHOD 8015B: DIESEL RANGE         Analyse           Diesel Range Organics (DRO)         31         10         mg/Kg         1         11/22/2004 8:5           Motor Oil Range Organics (MRO)         ND         50         mg/Kg         1         11/22/2004 8:5           Surr: DNOP         94.8         60-124         %REC         1         11/22/2004 8:5           EPA METHOD 8021B: VOLATILES         Analyse           Methyl tert-butyl ether (MTBE)         ND         0.10         mg/Kg         1         11/23/2004 4:3           Benzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Toluene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Ethylbenzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Xylenes, Total         0.082         0.025         mg/Kg         1         11/23/2004 4:3	22:06 PM
EPA METHOD 8015B: DIESEL RANGE       Analyse         Diesel Range Organics (DRO)       31       10       mg/Kg       1       11/22/2004 8:5         Motor Oil Range Organics (MRO)       ND       50       mg/Kg       1       11/22/2004 8:5         Surr: DNOP       94.8       60-124       %REC       1       11/22/2004 8:5         EPA METHOD 8021B: VOLATILES       Analyse         Methyl tert-butyl ether (MTBE)       ND       0.10       mg/Kg       1       11/23/2004 4:3         Benzene       ND       0.025       mg/Kg       1       11/23/2004 4:3         Toluene       ND       0.025       mg/Kg       1       11/23/2004 4:3         Ethylbenzene       ND       0.025       mg/Kg       1       11/23/2004 4:3         Xylenes, Total       0.082       0.025       mg/Kg       1       11/23/2004 4:3	22:06 PM
Diesel Range Organics (DRO)         31         10         mg/Kg         1         11/22/2004 8:5           Motor Oil Range Organics (MRO)         ND         50         mg/Kg         1         11/22/2004 8:5           Surr: DNOP         94.8         60-124         %REC         1         11/22/2004 8:5           EPA METHOD 8021B: VOLATILES         Analys           Methyl tert-butyl ether (MTBE)         ND         0.10         mg/Kg         1         11/23/2004 4:3           Benzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Toluene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Ethylbenzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Xylenes, Total         0.082         0.025         mg/Kg         1         11/23/2004 4:3	:22:06 PM
Motor Oil Range Organics (MRO)         ND         50         mg/Kg         1         11/22/2004 8:5           Surr: DNOP         94.8         60-124         %REC         1         11/22/2004 8:5           EPA METHOD 8021B: VOLATILES         Analys           Methyl tert-butyl ether (MTBE)         ND         0.10         mg/Kg         1         11/23/2004 4:3           Benzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Toluene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Ethylbenzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Xylenes, Total         0.082         0.025         mg/Kg         1         11/23/2004 4:3	st: JMP
Surr: DNOP         94.8         60-124         %REC         1         11/22/2004 8:5           EPA METHOD 8021B: VOLATILES         Analys           Methyl tert-butyl ether (MTBE)         ND         0.10         mg/Kg         1         11/23/2004 4:3           Benzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Toluene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Ethylbenzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Xylenes, Total         0.082         0.025         mg/Kg         1         11/23/2004 4:3	57:58 PM
EPA METHOD 8021B: VOLATILES         Analysis           Methyl tert-butyl ether (MTBE)         ND         0.10         mg/Kg         1         11/23/2004 4:3           Benzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Toluene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Ethylbenzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Xylenes, Total         0.082         0.025         mg/Kg         1         11/23/2004 4:3	
Methyl tert-butyl ether (MTBE)         ND         0.10         mg/Kg         1         11/23/2004 4:3           Benzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Toluene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Ethylbenzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Xylenes, Total         0.082         0.025         mg/Kg         1         11/23/2004 4:3	57:58 PM
Benzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Toluene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Ethylbenzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Xylenes, Total         0.082         0.025         mg/Kg         1         11/23/2004 4:3	st: NSB
Toluene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Ethylbenzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Xylenes, Total         0.082         0.025         mg/Kg         1         11/23/2004 4:3	37:38 PM
Ethylbenzene         ND         0.025         mg/Kg         1         11/23/2004 4:3           Xylenes, Total         0.082         0.025         mg/Kg         1         11/23/2004 4:3	37:38 PM
Xylenes, Total 0.082 0.025 mg/Kg 1 11/23/2004 4:3	37:38 PM
	37:38 PM
	37:38 PM
Surr: 4-Bromofluorobenzene         104         74-118         %REC         1         11/23/2004 4:3	37:38 PM
•	st: CMC
Mercury ND 0.033 mg/Kg 1 11/30/2004	
	st: CMC
Arsenic ND 2.5 mg/Kg 1 11/23/2004 12	:29:00 PM
Barium 300 0.96 mg/Kg 10 11/24/2004 4:3	34:44 PM
Cadmium ND 0.10 mg/Kg 1 11/23/2004 12	29:00 PN
Calcium 17000 250 mg/Kg 10 11/23/2004 5:0	02:14 PM
Chromium 5.6 0.30 mg/Kg 1 11/23/2004 12	29:00 PN
Lead 5.1 0.25 mg/Kg 1 11/23/2004 12	2:29:00 PN
Magnesium 4400 25 mg/Kg 1 11/23/2004 12	2:29:00 PN
Potassium 1400 50 mg/Kg 1 11/23/2004 12	2:29:00 PM
Selenium ND 2.5 mg/Kg 1 11/23/2004 12	2:29:00 PM
Silver ND 0.25 mg/Kg 1 11/23/2004 12	2:29:00 PN
Sodium 870 25 mg/Kg 1 11/23/2004 12	2:29:00 PN
	/st: CMC
pH 9.05 0.010 pH Units 1 12/1/2004	

Qualifiers:

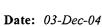
ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 4 / 23

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range



CLIENT:	Giant Refining Co			Client Sample	<b>ID:</b> RR-W-1	
Lab Order:	0411218			<b>Collection</b>	Date: 11/18/2	004 8:45:00 AM
Project:	Railroad Rack Lagoon	SWMU				
Lab ID:	0411218-04			Ma	atrix: SOIL	
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 90	56A: ANIONS					Analyst: MAP
Fluoride		4.6	3.0	mg/Kg	10	11/30/2004 12:38:53 PM
Chloride		37	3.0	mg/Kg	10	11/30/2004 12:38:53 PM
Nitrogen, Nitrate	(As N)	ND	3.0	mg/Kg	10	11/30/2004 12:38:53 PM
Sulfate		ND	15	mg/Kg	10	11/30/2004 12:38:53 PM
Nitrogen, Nitrite (	As N)	ND	3.0	mg/Kg	10	11/30/2004 12:38:53 PM
Phosphorus, Orth	ophosphate (As P)	ND	15	mg/Kg	10	11/30/2004 12:38:53 PM
EPA METHOD 8	015B: DIESEL RANGE					Analyst: JMP
Diesel Range Org	anics (DRO)	12	10	mg/Kg	1	11/22/2004 9:29:35 PM
Motor Oil Range	Organics (MRO)	ND	50	mg/Kg	1	11/22/2004 9:29:35 PM
Surr: DNOP		95.9	60-124	%REC	1	11/22/2004 9:29:35 PM
EPA METHOD 8	021B: VOLATILES					Analyst: NSB
Methyl tert-butyl	ether (MTBE)	ND	0.10	mg/Kg	1	11/23/2004 5:07:40 PM
Benzene		ND	0.025	mg/Kg	1	11/23/2004 5:07:40 PM
Toluene		ND	0.025	mg/Kg	1	11/23/2004 5:07:40 PM
Ethylbenzene		ND	0.025	mg/Kg	1	11/23/2004 5:07:40 PM
Xylenes, Total		ND	0.025	mg/Kg	1	11/23/2004 5:07:40 PM
Surr: 4-Bromot	luorobenzene	103	74-118	%REC	1	11/23/2004 5:07:40 PM
EPA METHOD 7	471: MERCURY					Analyst: CMC
Mercury		ND	0.033	mg/Kg	1	11/30/2004
EPA METHOD 6	010C: SOIL METALS					Analyst: CMC
Arsenic		ND	5.0	mg/Kg	2	11/24/2004 2:11:48 PM
Barium		310	0.99	mg/Kg	10	11/24/2004 4:41:39 PM
Cadmium		ND	0.20	mg/Kg	2	11/24/2004 2:11:48 PM
Calcium		16000	50	mg/Kg	2	11/24/2004 2:11:48 PM
Chromium		7.0	0.60	mg/Kg	2	11/24/2004 2:11:48 PM
Lead		7.8	0.50	mg/Kg	2	11/24/2004 2:11:48 PM
Magnesium		4800	50	mg/Kg	2	11/24/2004 2:11:48 PM
Potassium		1300	100	mg/Kg	2	11/24/2004 2:11:48 PM
Setenium		ND	5.0	mg/Kg	2	11/24/2004 2:11:48 PM
Silver		ND	0.50	mg/Kg	2	11/24/2004 2:11:48 PM
Sodium		1300	50	mg/Kg	2	11/24/2004 2:11:48 PM
EPA METHOD 1	50.1: PH					Analyst: CMC
pН		9.13	0.010	pH Units	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level 5 / 23
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range



Date: 03-Dec-04

	Grant Romming CO			eneme sumpre sor r	u	() dii
Lab Order:	0411218			<b>Collection Date:</b>	11/18/	/2004 9:00:00 AM
Project:	Railroad Rack Lagoon	SWMU				
Lab ID:	0411218-05			Matrix:	SOIL	
Analyses		Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD	9056A: ANIONS	· · · · · ·				Analyst: MAP
Fluoride		3.4	3.0	mg/Kg	10	11/30/2004 12:55:42 PM
Chloride		300	3.0	mg/Kg	10	11/30/2004 12:55:42 PM
Nitrogen, Nitrat	te (As N)	ND	3.0	mg/Kg	10	11/30/2004 12:55:42 PM
Sulfate		610	15	mg/Kg	10	11/30/2004 12:55:42 PM
Nitrogen, Nitrit	e (As N)	ND	3.0	mg/Kg	10	11/30/2004 12:55:42 PM
Phosphorus, O	erthophosphate (As P)	ND	15	mg/Kg	10	11/30/2004 12:55:42 PM
EPA METHOD	8015B: DIESEL RANGE					Analyst: JMP
Diesel Range (	Organics (DRO)	ND	10	mg/Kg	1	11/22/2004 10:01:18 PM
Motor Oil Rang	ge Organics (MRO)	ND	50	mg/Kg	1	11/22/2004 10:01:18 PM
Surr: DNOP		97.8	60-124	%REC	1	11/22/2004 10:01:18 PM
EPA METHOD	8021B: VOLATILES					Analyst: NSB
Methyl tert-but	yl ether (MTBE)	ND	0.10	mg/Kg	1	11/23/2004 5:37:45 PM
Benzene		ND	0.025	mg/Kg	1	11/23/2004 5:37:45 PM
Toluene		ND	0.025	mg/Kg	1	11/23/2004 5:37:45 PM
Ethylbenzene		ND	0.025	mg/Kg	1	11/23/2004 5:37:45 PM
Xylenes, Total		ND	0.025	mg/Kg	1	11/23/2004 5:37:45 PM
Surr: 4-Bror	nofluorobenzene	100	74-118	%REC	1	11/23/2004 5:37:45 PM
EPA METHOD	7471: MERCURY					Analyst: CMC
Mercury		ND	0.033	mg/Kg	1	11/30/2004
EPA METHOD	6010C: SOIL METALS					Analyst: CMC
Arsenic		ND	2.5	mg/Kg	1	11/23/2004 12:40:59 PN
Barium		280	1.0	mg/Kg	10	11/24/2004 4:43:49 PM
Cadmium		ND	0.10	mg/Kg	1	11/23/2004 12:40:59 PN
Calcium		18000	250	mg/Kg	10	11/23/2004 5:18:23 PM
Chromium		7.6	0.30	mg/Kg	1	11/23/2004 12:40:59 PN
Lead		5.3	0.25	mg/Kg	1	11/23/2004 12:40:59 PN
Magnesium		5800	25	mg/Kg	1	11/23/2004 12:40:59 PN
Potassium		2700	50	mg/Kg	1	11/23/2004 12:40:59 PM
Selenium		ND	2.5	mg/Kg	1	11/23/2004 12:40:59 PM
Silver		ND	0.25	mg/Kg	1	11/23/2004 12:40:59 PN
Sodium		1500	25	mg/Kg	1	11/23/2004 12:40:59 PM
EPA METHO	D 150.1: PH					Analyst: CMC
рН		8.37	0.010	pH Units	1	12/1/2004

Giant Refining Co

**CLIENT:** 

Qualifiers:

ND - Not Detected at the Reporting Limit

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level 6 / 23

Date: 03-Dec-04

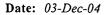
Client Sample ID: RR-N-1-Wall Collection Date: 11/18/2004 9:00:00 AM

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

**Giant Refining Co** 



### Client Sample ID: RR-S-1-Wall Collection Date: 11/18/2004 9:15:00 AM

Lab Order:0411218Project:Railroad Rack Lagoon SWMULab ID:0411218-06

**CLIENT:** 

#### Matrix: SOIL

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS					Analyst: MAP
Fluoride	4.7	3.0	mg/Kg	10	11/30/2004 1:12:30 PM
Chloride	76	3.0	mg/Kg	10	11/30/2004 1:12:30 PM
Nitrogen, Nitrate (As N)	ND	3.0	mg/Kg	10	11/30/2004 1:12:30 PM
Sulfate	380	15	mg/Kg	10	11/30/2004 1:12:30 PM
Nitrogen, Nitrite (As N)	ND	3.0	mg/Kg	10	11/30/2004 1:12:30 PM
Phosphorus, Orthophosphate (As P)	ND	15	mg/Kg	10	11/30/2004 1:12:30 PM
EPA METHOD 8015B: DIESEL RANGE					Analyst: JMP
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	11/22/2004 10:34:12 PM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/22/2004 10:34:12 PM
Surr: DNOP	81.5	60-124	%REC	1	11/22/2004 10:34:12 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10	mg/Kg	1	11/23/2004 6:07:55 PM
Benzene	ND	0.025	mg/Kg	1	11/23/2004 6:07:55 PM
Toluene	ND	0.025	mg/Kg	1	11/23/2004 6:07:55 PM
Ethylbenzene	ND	0.025	mg/Kg	1	11/23/2004 6:07:55 PM
Xylenes, Total	ND	0.025	mg/Kg	1	11/23/2004 6:07:55 PM
Surr: 4-Bromofluorobenzene	104	74-118	%REC	1	11/23/2004 6:07:55 PM
EPA METHOD 7471: MERCURY					Analyst: CMC
Mercury	ND	0.033	mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS					Analyst: CMC
Arsenic	ND	2.5	mg/Kg	1	11/23/2004 12:49:06 PM
Barium	300	0.97	mg/Kg	10	11/24/2004 4:45:57 PM
Cadmium	ND	0.10	mg/Kg	1	11/23/2004 12:49:06 PM
Calcium	17000	250	mg/Kg	10	11/23/2004 5:21:12 PM
Chromium	6.9	0.30	mg/Kg	1	11/23/2004 12:49:06 PM
Lead	5.9	0.25	mg/Kg	1	11/23/2004 12:49:06 PM
Magnesium	5400	25	mg/Kg	1	11/23/2004 12:49:06 PM
Potassium	2000	50	mg/Kg	1	11/23/2004 12:49:06 PM
Selenium	ND	2.5	mg/Kg	1	11/23/2004 12:49:06 PM
Silver	ND	0.25	mg/Kg	1	11/23/2004 12:49:06 PM
Sodium	1000	25	mg/Kg	1	11/23/2004 12:49:06 PM
EPA METHOD 150.1: PH					Analyst: CMC
рН	8.55	0.010	pH Units	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level 7 / 23
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

Giant Refining Co



Client Sample ID: RR-W-1-Wall N Collection Date: 11/18/2004 10:45:00 AM

Lab Order:0411218Project:Railroad Rack Lagoon SWMULab ID:0411218-09

**CLIENT:** 

#### Matrix: SOIL

Analyses	Result	PQL Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS					Analyst: MAP
Fluoride	14	1.5	mg/Kg	5	11/30/2004 2:19:45 PM
Chloride	290	1.5	mg/Kg	5	11/30/2004 2:19:45 PM
Nitrogen, Nitrate (As N)	4.3	1.5	mg/Kg	5	11/30/2004 2:19:45 PM
Sulfate	860	7.5	mg/Kg	5	11/30/2004 2:19:45 PM
Nitrogen, Nitrite (As N)	ND	1.5	mg/Kg	5	11/30/2004 2:19:45 PM
Phosphorus, Orthophosphate (As P)	ND	7.5	mg/Kg	5	11/30/2004 2:19:45 PM
EPA METHOD 8015B: DIESEL RANGE					Analyst: JMP
Diesel Range Organics (DRO)	450	10	mg/Kg	1	11/23/2004 1:18:13 PM
Motor Oil Range Organics (MRO)	140	50	mg/Kg	1	11/23/2004 1:18:13 PM
Surr: DNOP	87.4	60-124	%REC	1	11/23/2004 1:18:13 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10	mg/Kg	1	11/23/2004 7:07:39 PM
Benzene	ND	0.025	mg/Kg	1	11/23/2004 7:07:39 PM
Toluene	ND	0.025	mg/Kg	1	11/23/2004 7:07:39 PM
Ethylbenzene	ND	0.025	mg/Kg	1	11/23/2004 7:07:39 PM
Xylenes, Total	ND	0.025	mg/Kg	1	11/23/2004 7:07:39 PM
Surr: 4-Bromofluorobenzene	101	74-118	%REC	1	11/23/2004 7:07:39 PM
EPA METHOD 7471: MERCURY					Analyst: CMC
Mercury	0.037	0.033	mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS					Analyst: CMC
Arsenic	ND	2.5	mg/Kg	1	11/23/2004 3:32:35 PM
Barium	460	1.0	mg/Kg	10	11/24/2004 4:50:16 PM
Cadmium	ND	0.10	mg/Kg	1	11/23/2004 3:32:35 PM
Calcium	32000	250	mg/Kg	10	11/23/2004 5:27:54 PM
Chromium	27	0.30	mg/Kg	1	11/23/2004 3:32:35 PM
Lead	11	0.25	mg/Kg	1	11/23/2004 3:32:35 PM
Magnesium	4300	25	mg/Kg	1	11/23/2004 3:32:35 PM
Potassium	1200	50	mg/Kg	1	11/23/2004 3:32:35 PM
Selenium	ND	2.5	mg/Kg	1	11/23/2004 3:32:35 PM
Silver	ND	0.25	mg/Kg	1	11/23/2004 3:32:35 PM
Sodium	1100	25	mg/Kg	1	11/23/2004 3:32:35 PM
EPA METHOD 150.1: PH					Analyst: CMC
рН	8.21	0.010	pH Units	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level 9 / 23

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range



Lab Oruer: 0411218			Conection Da	ite: 11/18/	2004 11:00:00 AM
Project: Railroad Rack Lagoon	SWMU				
Lab ID: 0411218-10			Matr	ix: SOIL	
Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS					Analyst: MAP
Fluoride	7.9	3.0	mg/Kg	10	11/30/2004 4:00:30 PM
Chloride	33	3.0	mg/Kg	10	11/30/2004 4:00:30 PM
Nitrogen, Nitrate (As N)	ND	3.0	mg/Kg	10	11/30/2004 4:00:30 PM
Sulfate	39	15	mg/Kg	10	11/30/2004 4:00:30 PM
Nitrogen, Nitrite (As N)	ND	3.0	mg/Kg	10	11/30/2004 4:00:30 PM
Phosphorus, Orthophosphate (As P)	ND	15	mg/Kg	10	11/30/2004 4:00:30 PM
EPA METHOD 8015B: DIESEL RANGE					Analyst: JMP
Diesel Range Organics (DRO)	310	10	mg/Kg	1	11/23/2004 6:44:57 AM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/23/2004 6:44:57 AM
Surr: DNOP	111	60-124	%REC	1	11/23/2004 6:44:57 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSE
Methyl tert-butyl ether (MTBE)	ND	1.0	mg/Kg	10	11/23/2004 7:37:29 PM
Benzene	ND	0.25	mg/Kg	10	11/23/2004 7:37:29 PN
Toluene	ND	0.25	mg/Kg	10	11/23/2004 7:37:29 PM
Ethylbenzene	ND	0.25	mg/Kg	10	11/23/2004 7:37:29 PN
Xylenes, Total	ND	0.25	mg/Kg	10	11/23/2004 7:37:29 PN
Surr: 4-Bromofluorobenzene	104	74-118	%REC	10	11/23/2004 7:37:29 PN
EPA METHOD 7471: MERCURY					Analyst: CMC
Mercury	ND	0.033	mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS					Analyst: CM
Arsenic	ND	2.5	mg/Kg	1	11/23/2004 3:40:28 PM
Barium	320	0.96	mg/Kg	10	11/24/2004 4:52:24 PN
Cadmium	ND	0.10	mg/Kg	1	11/23/2004 3:40:28 PN
Calcium	17000	250	mg/Kg	10	11/23/2004 5:30:43 PM
Chromium	3.1	0.30	mg/Kg	1	11/23/2004 3:40:28 PN
Lead	2.9	0.25	mg/Kg	1	11/23/2004 3:40:28 PM
Magnesium	4200	25	mg/Kg	1	11/23/2004 3:40:28 PN
Potassium	1000	50	mg/Kg	1	11/23/2004 3:40:28 PN
Selenium	ND	2.5	mg/Kg	1	11/23/2004 3:40:28 PN
Silver	ND	0.25	mg/Kg	1	11/23/2004 3:40:28 PM
Sodium	920	25	mg/Kg	1	11/23/2004 3:40:28 PM
EPA METHOD 150.1: PH					Analyst: CM
рH	8.89	0.010	pH Units	1	12/1/2004

Giant Refining Co **CLIENT:** Lab Order: 0411218

### Client Sample ID: RR-W-1-Wall S Collection Date: 11/18/2004 11:00:00 AM

Date: 03-Dec-04

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 10/23

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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Giant Refining Co

Client Sample ID: RR-B-1

Date: 03-Dec-04

Collection Date: 11/18/2004 11:30:00 AM

Lab Order: 0411218 **Project:** Railroad Rack Lagoon SWMU Lab ID: 0411218-11

CLIENT:

Matrix: SOIL

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS					Analyst: MAP
Fluoride	4.5	3.0	mg/Kg	10	11/30/2004 4:17:19 PM
Chloride	34	3.0	mg/Kg	10	11/30/2004 4:17:19 PM
Nitrogen, Nitrate (As N)	ND	3.0	mg/Kg	10	11/30/2004 4:17:19 PM
Sulfate	ND	15	mg/Kg	10	11/30/2004 4:17:19 PM
Nitrogen, Nitrite (As N)	ND	3.0	mg/Kg	10	11/30/2004 4:17:19 PM
Phosphorus, Orthophosphate (As P)	ND	15	mg/Kg	10	11/30/2004 4:17:19 PM
EPA METHOD 8015B: DIESEL RANGE					Analyst: JMP
Diesel Range Organics (DRO)	99	10	mg/Kg	1	11/23/2004 7:18:07 AM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	11/23/2004 7:18:07 AM
Surr: DNOP	89.5	60-124	%REC	1	11/23/2004 7:18:07 AM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.50	mg/Kg	5	11/23/2004 8:07:19 PM
Benzene	ND	0.13	mg/Kg	5	11/23/2004 8:07:19 PM
Toluene	ND	0.13	mg/Kg	5	11/23/2004 8:07:19 PM
Ethylbenzene	ND	0.13	mg/Kg	5	11/23/2004 8:07:19 PM
Xylenes, Total	0.52	0.13	mg/Kg	5	11/23/2004 8:07:19 PM
Surr: 4-Bromofluorobenzene	103	74-118	%REC	5	11/23/2004 8:07:19 PM
EPA METHOD 7471: MERCURY					Analyst: CMC
Mercury	ND	0.033	mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS					Analyst: CMC
Arsenic	ND	2.5	mg/Kg	1	11/23/2004 3:44:35 PM
Barium	260	1.0	mg/Kg	10	11/24/2004 4:54:36 PM
Cadmium	ND	0.10	mg/Kg	1	11/23/2004 3:44:35 PM
Calcium	15000	130	mg/Kg	5	11/23/2004 5:33:33 PM
Chromium	5.9	0.30	mg/Kg	1	11/23/2004 3:44:35 PM
Lead	5.6	0.25	mg/Kg	1	11/23/2004 3:44:35 PM
Magnesium	4600	25	mg/Kg	1	11/23/2004 3:44:35 PM
Potassium	1300	50	mg/Kg	1	11/23/2004 3:44:35 PM
Selenium	ND	2.5	mg/Kg	1	11/23/2004 3:44:35 PM
Silver	ND	0.25	mg/Kg	1	11/23/2004 3:44:35 PM
Sodium	1400	25	mg/Kg	1	11/23/2004 3:44:35 PM
EPA METHOD 150.1: PH					Analyst: CMC
рН	9.06	0.010	pH Units	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 11/23

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

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CLIENT:	Giant Refining Co			Client Sample ID:	RR-B-2	
Lab Order:	0411218			<b>Collection Dat</b>	e: 11/18/	/2004 12:30:00 PM
Project:	Railroad Rack Lagoor	n SWMU				
Lab ID:	0411218-12			Matri	x: SOIL	
Analyses		Result	PQL Q	Qual Units	DF	Date Analyzed
EPA METHOD	9056A: ANIONS					Analyst: MAP
Fluoride		7.5	3.0	mg/Kg	10	11/30/2004 4:34:08 PM
Chloride		17	3.0	mg/Kg	10	11/30/2004 4:34:08 PM
Nitrogen, Nitrat	te (As N)	ND	3.0	mg/Kg	10	11/30/2004 4:34:08 PM
Sulfate		680	15	mg/Kg	10	11/30/2004 4:34:08 PM
Nitrogen, Nitrite	e (As N)	ND	3.0	mg/Kg	10	11/30/2004 4:34:08 PM
Phosphorus, O	rthophosphate (As P)	ND	15	mg/Kg	10	11/30/2004 4:34:08 PM
EPA METHOD	8015B: DIESEL RANGE					Analyst: JMP
Diesel Range C	Organics (DRO)	ND	10	mg/Kg	1	11/23/2004 7:49:46 AM
Motor Oil Rang	e Organics (MRO)	ND	50	mg/Kg	1	11/23/2004 7:49:46 AM
Surr: DNOP		88.7	60-124	%REC	1	11/23/2004 7:49:46 AM
EPA METHOD	8021B: VOLATILES					Analyst: NSB
Methyl tert-buty	yl ether (MTBE)	ND	0.10	mg/Kg	1	11/24/2004 11:49:10 PM
Benzene		ND	0.025	mg/Kg	1	11/24/2004 11:49:10 PM
Toluene		ND	0.025	mg/Kg	1	11/24/2004 11:49:10 PM
Ethylbenzene		ND	0.025	mg/Kg	1	11/24/2004 11:49:10 PM
Xylenes, Total	·	ND	0.025	mg/Kg	1	11/24/2004 11:49:10 PM
Surr: 4-Brom	nofluorobenzene	102	74-118	%REC	1	11/24/2004 11:49:10 PM
EPA METHOD	7471: MERCURY					Analyst: CMC
Mercury		ND	0.033	mg/Kg	1	11/30/2004
EPA METHOD	6010C: SOIL METALS					Analyst: CMC
Arsenic		ND	2.5	mg/Kg	1	11/23/2004 3:56:24 PM
Barium		320	0.97	mg/Kg	10	11/24/2004 4:56:47 PM
Cadmium		ND	0.10	mg/Kg	1	11/23/2004 3:56:24 PM
Calcium		17000	250	mg/Kg	10	11/23/2004 5:37:24 PM
Chromium		5.1	0.30	mg/Kg	1	11/23/2004 3:56:24 PM
Lead		5.1	0.25	mg/Kg	1	11/23/2004 3:56:24 PM
Magnesium		4200	25	mg/Kg	1	11/23/2004 3:56:24 PM
Potassium		1000	50	mg/Kg	1	11/23/2004 3:56:24 PM
Selenium		ND	2.5	mg/Kg	1	11/23/2004 3:56:24 PM
Silver		ND	0.25	mg/Kg	1	11/23/2004 3:56:24 PM
Sodium		1300	25	mg/Kg	1	11/23/2004 3:56:24 PM
EPA METHOD	) 150.1: PH					Analyst: CMC
рH		8.75	0.010	pH Units	1	12/1/2004

Date: 03-Dec-04

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits R - RPD outside accepted recovery limits

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level 12/23

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ove quantitation range

Project:         Railroad Rack Lagoon SWMU           Lab ID:         0411218-13         Matrix:         SOIL           Analyses         Result         PQL         Qual         Units         DF         Date Analyzed           EPA METHOD 9056A: ANIONS         Analyse:         Manalyse         Analyse:         Manalyse           Fluoride         5.4         3.0         mg/Kg         10         11/300204 5:24:33 PM           Nitrogen, Nitrate (As N)         ND         3.0         mg/Kg         10         11/300204 5:24:33 PM           Nitrogen, Nitrate (As N)         ND         3.0         mg/Kg         10         11/300204 5:24:33 PM           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/300204 5:24:33 PM           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/300204 5:24:33 PM           Motor Oil Range Organics (DRO)         ND         50         mg/Kg         10         11/320204 1:40:40 AM           Sur: DNOP         83.2         60-124         %REC         10         11/232004 1:40:40 AM           Sur: DNOP         83.2         60-124         %REC         10         11/232004 9:36:56 PM           Pot METHOD 8015:	CLIENT:	Giant Refining Co		С	lient Sample II	: RR-BP-	1
Lab ID:         0411218-13         Matrix:         SOIL           Analyses         Result         PQL         Qual         Units         DF         Date Analyzed           EPA METHOD 9056A: ANIONS         -         Analyse:         MAP         Nalyse:         MAP           Fluoride         5.4         3.0         mg/Kg         10         11/30/2004 5:24:33 PM           Nitrogen, Nitrate (As N)         ND         3.0         mg/Kg         10         11/30/2004 5:24:33 PM           Nitrogen, Nitrate (As N)         ND         3.0         mg/Kg         10         11/30/2004 5:24:33 PM           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 5:24:33 PM           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 5:24:33 PM           Diseel Range Organics (DRO)         3600         100         mg/Kg         10         11/32/2004 11:40:40 AM           Surr DNOP         83.2         60-124         %REC         10         11/23/2004 9:36:56 PM           Diseel Range Organics (DRO)         3600         100         mg/Kg         10         11/23/2004 9:36:56 PM           PA METHOD 8021B: VOLATILES	Lab Order:	0411218			<b>Collection D</b> a	ate: 11/18/	/2004 1:00:00 PM
Lab ID:         0411218-13         Matrix:         SOIL           Analyses         Result         PQL         Qual         Units         DF         Date Analyzed           EPA METHOD 9056A: ANIONS         -         Analyse:         MAP         Nalyse:         MAP           Fluoride         5.4         3.0         mg/Kg         10         11/30/2004 5:24:33 PM           Nitrogen, Nitrate (As N)         ND         3.0         mg/Kg         10         11/30/2004 5:24:33 PM           Nitrogen, Nitrate (As N)         ND         3.0         mg/Kg         10         11/30/2004 5:24:33 PM           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 5:24:33 PM           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 5:24:33 PM           Diseel Range Organics (DRO)         3600         100         mg/Kg         10         11/32/2004 11:40:40 AM           Surr DNOP         83.2         60-124         %REC         10         11/23/2004 9:36:56 PM           Diseel Range Organics (DRO)         3600         100         mg/Kg         10         11/23/2004 9:36:56 PM           PA METHOD 8021B: VOLATILES	Project:	Railroad Rack Lagoon	SWMU				
EPA METHOD 9056A: ANIONS         Analyst: MAP           Fluoride         5.4         3.0         mg/kg         10         11/30/2004 5:24:33 PM           Chloride         60         3.0         mg/kg         10         11/30/2004 5:24:33 PM           Nitrogen, Nitrate (As N)         ND         3.0         mg/kg         10         11/30/2004 5:24:33 PM           Nitrogen, Nitrate (As N)         ND         15         mg/kg         10         11/30/2004 5:24:33 PM           Nitrogen, Nitrite (As N)         ND         3.0         mg/kg         10         11/30/2004 5:24:33 PM           Nitrogen, Nitrite (As N)         ND         3.0         mg/kg         10         11/30/2004 5:24:33 PM           Phosphorus, Orthophosphate (As P)         ND         15         mg/kg         10         11/30/2004 5:24:33 PM           Diesel Range Organics (DRO)         3600         100         mg/kg         10         11/23/2004 1:40:40 AM           Sur: DNOP         83.2         60-124         %REC         10         11/23/2004 1:40:40 AM           EPA METHOD 8021B: VOLATILES         Analyst: NSB         Methyl tert-buyl ether (MTBE)         ND         50         11/23/2004 9:36:56 PM           Sur: DNOP         83.2         50         11/23/2004 9:36:5	Lab ID:	-			Mati	rix: SOIL	
Fluoride         5.4         3.0         mg/kg         10         11/30/2004 5:24:33 PM           Nitrogen, Nitrate (As N)         ND         3.0         mg/kg         10         11/30/2004 5:24:33 PM           Nitrogen, Nitrate (As N)         ND         15         mg/kg         10         11/30/2004 5:24:33 PM           Nitrogen, Nitrite (As N)         ND         15         mg/kg         10         11/30/2004 5:24:33 PM           Nitrogen, Nitrite (As N)         ND         3.0         mg/kg         10         11/30/2004 5:24:33 PM           Nitrogen, Nitrite (As N)         ND         3.0         mg/kg         10         11/30/2004 5:24:33 PM           Phosphorus, Orthophosphate (As P)         ND         15         mg/kg         10         11/30/2004 5:24:33 PM           Diesel Range Organics (MRO)         ND         500         mg/kg         10         11/23/2004 1:24:04 AM           Sur: DNOP         83.2         60-124         %REC         10         11/23/2004 1:24:04 AM           Benzene         2.5         1.3         mg/kg         50         11/23/2004 4:36:56 PM           Toluene         27         1.3         mg/kg         50         11/23/2004 4:36:56 PM           Sur: -Retromofluorobenzene         13 <th>Analyses</th> <th></th> <th>Result</th> <th>PQL Qua</th> <th>l Units</th> <th>DF</th> <th>Date Analyzed</th>	Analyses		Result	PQL Qua	l Units	DF	Date Analyzed
Fluoride         5.4         3.0         mg/kg         10         11/30/2004 5:24:33 PM           Chioride         60         3.0         mg/kg         10         11/30/2004 5:24:33 PM           Nitrogen, Nitrate (As N)         ND         3.0         mg/kg         10         11/30/2004 5:24:33 PM           Nitrogen, Nitrate (As N)         ND         3.0         mg/kg         10         11/30/2004 5:24:33 PM           Phosphorus, Orthophosphate (As P)         ND         15         mg/kg         10         11/30/2004 5:24:33 PM           EPA METHOD 8015B: DIESEL RANGE         Analyst: JMP         Diesel Range Organics (ORO)         3600         100         mg/kg         10         11/23/2004 11:40:40 AM           Sur: DNOP         83.2         60-124         %REC         10         11/23/2004 11:40:40 AM           EPA METHOD 8021B: VOLATILES         Analyst: NSB         Methyl terb-butyl ether (MTBE)         ND         5.0         mg/kg         50         11/23/2004 9:36:56 PM           Benzene         2.5         1.3         mg/kg         50         11/23/2004 9:36:56 PM           Sur: A-Bromofluorobenzene         113         74-118         %REC         50         11/23/2004 9:36:56 PM           EPA METHOD 6010C: SOIL METALS         Analyst: CMC <td>EPA METHOD</td> <td>9056A: ANIONS</td> <td></td> <td></td> <td></td> <td></td> <td>Analyst: MAP</td>	EPA METHOD	9056A: ANIONS					Analyst: MAP
Nitrogen, Nitrate (As N)         ND         3.0         mg/Kg         10         11/30/2004 5:24:33 PM           Sulfate         ND         15         mg/Kg         10         11/30/2004 5:24:33 PM           Nitrogen, Nitrite (As N)         ND         3.0         mg/Kg         10         11/30/2004 5:24:33 PM           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 5:24:33 PM           PDA METHOD 8015B: DIESEL RANGE	Fluoride		5.4	3.0	.mg/Kg	10	
Sulfate         ND         15         mg/Kg         10         11/30/2004 5:24:33 PM           Nitrogen, Nitrite (As N)         ND         3.0         mg/Kg         10         11/30/2004 5:24:33 PM           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 5:24:33 PM           EPA METHOD 8015B: DIESEL RANGE         Analyst: JMP         Diesel Range Organics (ORO)         ND         500         mg/Kg         10         11/23/2004 11:40:40 AM           Motor Oil Range Organics (ORO)         ND         500         mg/Kg         10         11/23/2004 11:40:40 AM           Sur: DNOP         83.2         60-124         %REC         10         11/23/2004 11:40:40 AM           Benzene         2.5         1.3         mg/Kg         50         11/23/2004 11:40:40 AM           Benzene         2.5         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Benzene         2.5         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Surf: 4-Bromofluorobenzene         17         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Surf: 4-Bromofluorobenzene         17         1.3         mg/Kg         50         11/23/2004 9:36:56 PM	Chloride		60	3.0	mg/Kg	10	11/30/2004 5:24:33 PM
Nitrogen, Nitrite (As N)         ND         3.0         mg/Kg         10         11/30/2004 5:24:33 PM           Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 5:24:33 PM           EPA METHOD 8015B: DIESEL RANGE         Analyst: JMP           Diesel Range Organics (DRO)         3600         100         mg/Kg         10         11/23/2004 11:40:40 AM           Motor Oil Range Organics (MRO)         ND         500         mg/Kg         10         11/23/2004 11:40:40 AM           Sur: DNOP         83.2         60-124         %REC         10         11/23/2004 11:40:40 AM           EPA METHOD 8021B: VOLATILES         Analyst: NSB         Methyl tert-butyl ether (MTBE)         ND         5.0         mg/Kg         50         11/23/2004 9:36:56 PM           Benzene         2.5         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Sur: A-Bromofluorobenzene         17         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Sur: 4-Bromofluorobenzene         17         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Sur: 4-Bromofluorobenzene         113         74-118         %REC         50         11/23/2004 9:36:56 PM           Sur:	Nitrogen, Nitrat	te (As N)	ND	3.0	mg/Kg	10	11/30/2004 5:24:33 PM
Phosphorus, Orthophosphate (As P)         ND         15         mg/Kg         10         11/30/2004 5:24:33 PM           EPA METHOD 8015B: DIESEL RANGE         Analyst: JMP           Diesel Range Organics (DRO)         3600         100         mg/Kg         10         11/23/2004 11:40:40 AM           Motor Oil Range Organics (MRO)         ND         500         mg/Kg         10         11/23/2004 11:40:40 AM           Sur: DNOP         83.2         60-124         %REC         10         11/23/2004 11:40:40 AM           EPA METHOD 8021B: VOLATILES         Analyst: NSB         Analyst: NSB         Analyst: NSB           Methyl tert-bulyl ether (MTBE)         ND         5.0         mg/Kg         50         11/23/2004 9:36:56 PM           Benzene         2.5         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Sur: A-Bromofluorobenzene         110         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Sur: 4-Bromofluorobenzene         113         74-118         %REC         50         11/23/2004 9:36:56 PM           Sur: 4-Bromofluorobenzene         113         74-118         mg/Kg         50         11/23/2004 9:36:56 PM           Sur: 4-Bromofluorobenzene         113         74-118         mg/Kg	Sulfate		ND	15	mg/Kg	10	11/30/2004 5:24:33 PM
EPA METHOD 8015B: DIESEL RANGE         Analyst: JMP           Diesel Range Organics (DRO)         3600         100         mg/Kg         10         11/23/2004 11:40:40 AM           Motor Oil Range Organics (MRO)         ND         500         mg/Kg         10         11/23/2004 11:40:40 AM           Sur: DNOP         83.2         60-124         %REC         10         11/23/2004 11:40:40 AM           EPA METHOD 8021B: VOLATILES         Analyst: NSB         Methyl tert-butyl ether (MTBE)         ND         5.0         mg/Kg         50         11/23/2004 9:36:56 PM           Benzene         2.5         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Toluene         27         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Kethyl tert-butyl ether (MTBE)         110         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Toluene         27         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Kylenes, Total         110         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Surr: 4-Bromofluorobenzene         113         74-118         %REC         50         11/23/2004 9:36:56 PM           Mercury         0.082         0	Nitrogen, Nitrite	e (As N)	ND	3.0	mg/Kg	10	11/30/2004 5:24:33 PM
Diesel Range Organics (DRO)         3600         100         mg/Kg         10         11/23/2004 11:40:40 AM           Motor Oil Range Organics (MRO)         ND         500         mg/Kg         10         11/23/2004 11:40:40 AM           Sur: DNOP         83.2         60-124         %REC         10         11/23/2004 11:40:40 AM           EPA METHOD 8021B: VOLATILES         Analyst: NSB           Methyl tert-butyl ether (MTBE)         ND         5.0         mg/Kg         50         11/23/2004 9:36:56 PM           Benzene         2.5         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Toluene         27         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Sur:: 4-Bromofluorobenzene         17         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Sur:: 4-Bromofluorobenzene         13         74-118         %REC         50         11/23/2004 9:36:56 PM           Sur:: 4-Bromofluorobenzene         113         74-118         %REC         50         11/23/2004 9:36:56 PM           Sur:: 4-Bromofluorobenzene         113         74-118         %REC         50         11/23/2004 9:36:56 PM           Barium         0.082         0.033         mg/Kg         1 <td>Phosphorus, O</td> <td>rthophosphate (As P)</td> <td>ND</td> <td>15</td> <td>mg/Kg</td> <td>10</td> <td>11/30/2004 5:24:33 PM</td>	Phosphorus, O	rthophosphate (As P)	ND	15	mg/Kg	10	11/30/2004 5:24:33 PM
Motor Oil Range Organics (MRO)         ND         500         mg/Kg         10         11/23/2004 11:40:40 AM           Surr: DNOP         83.2         60-124         %REC         10         11/23/2004 11:40:40 AM           EPA METHOD 8021B: VOLATILES         Analyst: NSB           Methyl tert-butyl ether (MTBE)         ND         5.0         mg/Kg         50         11/23/2004 9:36:56 PM           Benzene         2.5         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Toluene         27         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Surr: 4-Bromofluorobenzene         17         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Surr: 4-Bromofluorobenzene         113         74-118         %REC         50         11/23/2004 9:36:56 PM           EPA METHOD 7471: MERCURY         Analyst: CMC         Analyst: CMC         50         11/23/2004 4:13:16 PM           Mercury         0.082         0.03         mg/Kg         1         11/23/2004 4:13:16 PM           Cadmium         0.10         0.10         mg/Kg         1         11/23/2004 4:13:16 PM           Cadmium         5.5         0.30         mg/Kg         1         11/23/2004 4:13:16 PM <td>EPA METHOD</td> <td>8015B: DIESEL RANGE</td> <td></td> <td></td> <td></td> <td></td> <td>Analyst: JMP</td>	EPA METHOD	8015B: DIESEL RANGE					Analyst: JMP
Surr. DNOP         83.2         60-124         %REC         10         11/23/2004 11:40:40 AM           EPA METHOD 8021B: VOLATILES         Analyst: NSB           Methyl tert-butyl ether (MTBE)         ND         5.0         mg/Kg         50         11/23/2004 9:36:56 PM           Benzene         2.5         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Toluene         27         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Ethylbenzene         17         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Surr: 4-Bromofluorobenzene         113         74-118         %REC         50         11/23/2004 9:36:56 PM           Surr: 4-Bromofluorobenzene         113         74-118         %REC         50         11/23/2004 9:36:56 PM           EPA METHOD 7471: MERCURY         Analyst: CMC         Mercury         Analyst: CMC         Analyst: CMC           Mercury         0.082         0.033         mg/Kg         1         11/23/2004 4:13:16 PM           Barium         240         0.99         mg/Kg         1         11/23/2004 4:13:16 PM           Cadmium         0.10         0.10         mg/Kg         1         11/23/2004 4:13:16 PM	Diesel Range (	Organics (DRO)	3600	100	mg/Kg	10	11/23/2004 11:40:40 AM
Analyst: NSB           Methyl tert-butyl ether (MTBE)         ND         5.0         mg/Kg         50         11/23/2004 9:36:56 PM           Benzene         2.5         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Benzene         2.7         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Ethylbenzene         17         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Xylenes, Total         110         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Surr: 4-Bromofluorobenzene         113         74-118         %REC         50         11/23/2004 9:36:56 PM           EPA METHOD 7471: MERCURY         Analyst: CMC         Analyst: CMC           Mercury         0.082         0.033         mg/Kg         1         11/30/2004           PA METHOD 6010C: SOIL METALS         Analyst: CMC         Analyst: CMC         Arsenic         Analyst: CMC           Arsenic         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Cadmium         0.10         0.10         mg/Kg         1         11/23/2004 4:13:16 PM           Cadium         0.25         mg/Kg         1         11/23/2004 4:13:	Motor Oil Rang	ge Organics (MRO)	ND	500	mg/Kg	10	11/23/2004 11:40:40 AM
Methyl tert-butyl ether (MTBE)         ND         5.0         mg/Kg         50         11/23/2004 9:36:56 PM           Benzene         2.5         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Toluene         27         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Ethylbenzene         17         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Xylenes, Total         110         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Surr: 4-Bromofluorobenzene         113         74-118         %REC         50         11/23/2004 9:36:56 PM           EPA METHOD 7471: MERCURY         Analyst: CMC         Analyst: CMC         Analyst: CMC           Mercury         0.082         0.033         mg/Kg         1         11/23/2004 4:13:16 PM           Barium         240         0.99         mg/Kg         10         11/23/2004 4:13:16 PM           Calcium         0.10         0.10         mg/Kg         1         11/23/2004 4:13:16 PM           Calcium         16000         130         mg/Kg         1         11/23/2004 4:13:16 PM           Lead         12         0.25         mg/Kg         1         11/23/2004 4:13:16 PM	Surr: DNOP		83.2	60-124	%REC	10	11/23/2004 11:40:40 AM
Benzene         2.5         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Toluene         27         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Ethylbenzene         17         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Xylenes, Total         110         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Surr: 4-Bromofluorobenzene         113         74-118         %REC         50         11/23/2004 9:36:56 PM           EPA METHOD 7471: MERCURY         Analyst: CMC         50         11/23/2004 9:36:56 PM         Analyst: CMC           Mercury         0.082         0.033         mg/Kg         1         11/23/2004 9:36:56 PM           Barium         0.082         0.033         mg/Kg         1         11/23/2004 9:36:56 PM           Barium         0.082         0.033         mg/Kg         1         11/23/2004 9:36:56 PM           Mercury         0.082         0.033         mg/Kg         1         11/23/2004 9:36:56 PM           Cadmium         0.10         0.99         mg/Kg         10         11/23/2004 4:13:16 PM           Cadmium         0.10         0.10         mg/Kg         1         11/23/200	EPA METHOD	8021B: VOLATILES					Analyst: NSB
Toluene         27         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Ethylberzene         17         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Xylenes, Total         110         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Surr: 4-Bromofluorobenzene         113         74-118         %REC         50         11/23/2004 9:36:56 PM           EPA METHOD 7471: MERCURY         Analyst: CMC           Mercury         0.082         0.033         mg/Kg         1         11/23/2004 9:36:56 PM           EPA METHOD 6010C: SOIL METALS         Analyst: CMC           Arsenic         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Barium         240         0.99         mg/Kg         10         11/23/2004 4:13:16 PM           Cadmium         0.10         0.10         mg/Kg         5         11/23/2004 4:13:16 PM           Cadmium         0.10         0.30         mg/Kg         1         11/23/2004 4:13:16 PM           Cadmium         0.10         0.10         mg/Kg         1         11/23/2004 4:13:16 PM           Lead         12         0.25         mg/Kg         1	Methyl tert-but	yl ether (MTBE)	ND	5.0	mg/Kg	50	11/23/2004 9:36:56 PM
Ethylbenzene         17         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Xylenes, Total         110         1.3         mg/Kg         50         11/23/2004 9:36:56 PM           Surr: 4-Bromofluorobenzene         113         74-118         %REC         50         11/23/2004 9:36:56 PM           EPA METHOD 7471: MERCURY         Analyst: CMC         Analyst: CMC         Analyst: CMC           Mercury         0.082         0.033         mg/Kg         1         11/23/2004 4:13:16 PM           Barium         240         0.99         mg/Kg         10         11/23/2004 4:13:16 PM           Cadmium         0.10         0.10         mg/Kg         1         11/23/2004 4:13:16 PM           Calcium         16000         130         mg/Kg         1         11/23/2004 4:13:16 PM           Lead         12         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Lead         12         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Magnesium         3300         25         mg/Kg         1         11/23/2004 4:13:16 PM           ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM         11/23/2004 4:13:16 PM	Benzene		2.5	1.3	mg/Kg	50	11/23/2004 9:36:56 PM
Xylenes, Total         110         1.3         mg/kg         50         11/23/2004 9:36:56 PM           Surr: 4-Bromofluorobenzene         113         74-118         %REC         50         11/23/2004 9:36:56 PM           EPA METHOD 7471: MERCURY Mercury         0.082         0.033         mg/Kg         1         11/30/2004           EPA METHOD 6010C: SOIL METALS         Analyst: CMC         Analyst: CMC           Arsenic         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Barium         240         0.99         mg/Kg         10         11/23/2004 4:13:16 PM           Cadmium         0.10         0.10         mg/Kg         1         11/23/2004 4:13:16 PM           Calcium         16000         130         mg/Kg         1         11/23/2004 4:13:16 PM           Lead         12         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Magnesium         3300         25         mg/Kg         1         11/23/2004 4:13:16 PM           Velassium         1000         50         mg/Kg         1         11/23/2004 4:13:16 PM           Selenium         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Silver<	Toluene		27	1.3	mg/Kg	50	11/23/2004 9:36:56 PM
Surr: 4-Bromofluorobenzene         113         74-118         % REC         50         11/23/2004 9:36:56 PM           EPA METHOD 7471: MERCURY Mercury         0.082         0.033         mg/Kg         1         11/30/2004           EPA METHOD 6010C: SOIL METALS         Analyst: CMC         Analyst: CMC           Arsenic         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Barium         240         0.99         mg/Kg         10         11/23/2004 4:13:16 PM           Cadmium         0.10         0.10         mg/Kg         1         11/23/2004 4:13:16 PM           Calcium         16000         130         mg/Kg         1         11/23/2004 4:13:16 PM           Lead         12         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Magnesium         3300         25         mg/Kg         1         11/23/2004 4:13:16 PM           Selenium         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Silver         ND         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Barium         0.00         50         mg/Kg         1         11/23/2004 4:13:16 PM           Chromium	Ethylbenzene		17	1.3	mg/Kg	50	11/23/2004 9:36:56 PM
EPA METHOD 7471: MERCURY         Analyst: CMC           Mercury         0.082         0.033         ng/Kg         1         11/30/2004           EPA METHOD 6010C: SOIL METALS         Analyst: CMC           Arsenic         ND         2.5         ng/Kg         1         11/23/2004 4:13:16 PM           Barium         240         0.99         ng/Kg         10         11/24/2004 5:01:04 PM           Cadmium         0.10         0.10         ng/Kg         1         11/23/2004 4:13:16 PM           Calcium         16000         130         mg/Kg         1         11/23/2004 4:13:16 PM           Chromium         5.5         0.30         mg/Kg         1         11/23/2004 4:13:16 PM           Lead         12         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Magnesium         3300         25         mg/Kg         1         11/23/2004 4:13:16 PM           Potassium         1000         50         mg/Kg         1         11/23/2004 4:13:16 PM           Selenium         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Silver         ND         0.25         mg/Kg         1         11/23/2004 4:13:16 PM	Xylenes, Total		110	1.3	mg/Kg	50	11/23/2004 9:36:56 PM
Mercury         0.082         0.033         mg/Kg         1         11/30/2004           EPA METHOD 6010C: SOIL METALS         Arsenic         Analyst: CMC           Arsenic         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Barium         240         0.99         mg/Kg         10         11/24/2004 5:01:04 PM           Cadmium         0.10         0.10         mg/Kg         1         11/23/2004 4:13:16 PM           Calcium         16000         130         mg/Kg         5         11/23/2004 4:13:16 PM           Chromium         5.5         0.30         mg/Kg         1         11/23/2004 4:13:16 PM           Lead         12         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Magnesium         3300         25         mg/Kg         1         11/23/2004 4:13:16 PM           Potassium         1000         50         mg/Kg         1         11/23/2004 4:13:16 PM           Selenium         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Silver         ND         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Sodium         590         25         m	Surr: 4-Bron	nofluorobenzene	113	74-118	%REC	50	11/23/2004 9:36:56 PM
EPA METHOD 6010C: SOIL METALS         Analysi: CMC           Arsenic         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Barium         240         0.99         mg/Kg         10         11/24/2004 5:01:04 PM           Cadmium         0.10         0.10         mg/Kg         1         11/23/2004 4:13:16 PM           Calcium         16000         130         mg/Kg         5         11/23/2004 4:13:16 PM           Chromium         5.5         0.30         mg/Kg         1         11/23/2004 4:13:16 PM           Lead         12         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Magnesium         3300         25         mg/Kg         1         11/23/2004 4:13:16 PM           Potassium         1000         50         mg/Kg         1         11/23/2004 4:13:16 PM           Selenium         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Silver         ND         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Sodium         590         25         mg/Kg         1         11/23/2004 4:13:16 PM           Sodium         590         25         mg/Kg <t< td=""><td>EPA METHOD</td><td>7471: MERCURY</td><td></td><td></td><td></td><td></td><td>Analyst: CMC</td></t<>	EPA METHOD	7471: MERCURY					Analyst: CMC
ArsenicND2.5mg/Kg111/23/2004 4:13:16 PMBarium2400.99mg/Kg1011/24/2004 5:01:04 PMCadmium0.100.10mg/Kg111/23/2004 4:13:16 PMCalcium16000130mg/Kg511/23/2004 4:13:16 PMChromium5.50.30mg/Kg111/23/2004 4:13:16 PMLead120.25mg/Kg111/23/2004 4:13:16 PMMagnesium330025mg/Kg111/23/2004 4:13:16 PMSeleniumND2.5mg/Kg111/23/2004 4:13:16 PMSeleniumND2.5mg/Kg111/23/2004 4:13:16 PMSodium59025mg/Kg111/23/2004 4:13:16 PMFPA METHOD 150.1: PHAnalyst: CMC	Mercury		0.082	0.033	mg/Kg	1	11/30/2004
Barium         240         0.99         mg/Kg         10         11/24/2004 5:01:04 PM           Cadmium         0.10         0.10         mg/Kg         1         11/23/2004 4:13:16 PM           Calcium         16000         130         mg/Kg         5         11/23/2004 4:13:16 PM           Chromium         5.5         0.30         mg/Kg         1         11/23/2004 4:13:16 PM           Lead         12         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Magnesium         3300         25         mg/Kg         1         11/23/2004 4:13:16 PM           Potassium         1000         50         mg/Kg         1         11/23/2004 4:13:16 PM           Selenium         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Silver         ND         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Sodium         590         25         mg/Kg         1         11/23/2004 4:13:16 PM           EPA METHOD 150.1: PH         590         25         mg/Kg         1         11/23/2004 4:13:16 PM	EPA METHOD	6010C: SOIL METALS					Analyst: CMC
Cadmium         0.10         0.10         mg/Kg         1         11/23/2004 4:13:16 PM           Calcium         16000         130         mg/Kg         5         11/23/2004 5:40:11 PM           Chromium         5.5         0.30         mg/Kg         1         11/23/2004 4:13:16 PM           Lead         12         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Magnesium         3300         25         mg/Kg         1         11/23/2004 4:13:16 PM           Potassium         3300         25         mg/Kg         1         11/23/2004 4:13:16 PM           Selenium         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Silver         ND         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Sodium         590         25         mg/Kg         1         11/23/2004 4:13:16 PM           EPA METHOD 150.1: PH          Sodium         590         25         mg/Kg         1         11/23/2004 4:13:16 PM	Arsenic		ND	2.5	mg/Kg	1	11/23/2004 4:13:16 PM
Calcium         16000         130         mg/Kg         5         11/23/2004 5:40:11 PM           Chromium         5.5         0.30         mg/Kg         1         11/23/2004 4:13:16 PM           Lead         12         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Magnesium         3300         25         mg/Kg         1         11/23/2004 4:13:16 PM           Potassium         3300         25         mg/Kg         1         11/23/2004 4:13:16 PM           Selenium         1000         50         mg/Kg         1         11/23/2004 4:13:16 PM           Silver         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Sodium         590         25         mg/Kg         1         11/23/2004 4:13:16 PM           EPA METHOD 150.1: PH         EPA METHOD 150.1: PH         Analyst: CMC         Analyst: CMC	Barium		240	0.99	mg/Kg	10	11/24/2004 5:01:04 PM
Chromium         5.5         0.30         mg/Kg         1         11/23/2004 4:13:16 PM           Lead         12         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Magnesium         3300         25         mg/Kg         1         11/23/2004 4:13:16 PM           Potassium         3300         25         mg/Kg         1         11/23/2004 4:13:16 PM           Selenium         1000         50         mg/Kg         1         11/23/2004 4:13:16 PM           Selenium         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Silver         ND         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Sodium         590         25         mg/Kg         1         11/23/2004 4:13:16 PM           EPA METHOD 150.1: PH         EPA METHOD 150.1: PH         Analyst: CMC	Cadmium		0.10	0.10	mg/Kg	1	11/23/2004 4:13:16 PM
Lead       12       0.25       mg/Kg       1       11/23/2004 4:13:16 PM         Magnesium       3300       25       mg/Kg       1       11/23/2004 4:13:16 PM         Potassium       1000       50       mg/Kg       1       11/23/2004 4:13:16 PM         Selenium       ND       2.5       mg/Kg       1       11/23/2004 4:13:16 PM         Selenium       ND       2.5       mg/Kg       1       11/23/2004 4:13:16 PM         Silver       ND       0.25       mg/Kg       1       11/23/2004 4:13:16 PM         Sodium       590       25       mg/Kg       1       11/23/2004 4:13:16 PM         EPA METHOD 150.1: PH       Analyst: CMC	Calcium		16000	130	mg/Kg	5	11/23/2004 5:40:11 PM
Magnesium         3300         25         mg/Kg         1         11/23/2004 4:13:16 PM           Potassium         1000         50         mg/Kg         1         11/23/2004 4:13:16 PM           Selenium         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Silver         ND         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Sodium         590         25         mg/Kg         1         11/23/2004 4:13:16 PM           EPA METHOD 150.1: PH         Frankyst: CMC         Anakyst: CMC         Anakyst: CMC	Chromium		5.5	0.30	mg/Kg	1	11/23/2004 4:13:16 PM
Potassium         1000         50         mg/Kg         1         11/23/2004 4:13:16 PM           Selenium         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Silver         ND         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Sodium         590         25         mg/Kg         1         11/23/2004 4:13:16 PM           EPA METHOD 150.1: PH         Analyst: CMC         Analyst: CMC         Analyst: CMC	Lead		12	0.25	mg/Kg	1	11/23/2004 4:13:16 PM
Selenium         ND         2.5         mg/Kg         1         11/23/2004 4:13:16 PM           Silver         ND         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Sodium         590         25         mg/Kg         1         11/23/2004 4:13:16 PM           EPA METHOD 150.1: PH         Analyst: CMC	Magnesium		3300	25	mg/Kg	1	11/23/2004 4:13:16 PM
Silver         ND         0.25         mg/Kg         1         11/23/2004 4:13:16 PM           Sodium         590         25         mg/Kg         1         11/23/2004 4:13:16 PM           EPA METHOD 150.1: PH         Analyst: CMC	Potassium		1000	50	mg/Kg	1	11/23/2004 4:13:16 PM
Sodium         590         25         mg/Kg         1         11/23/2004 4:13:16 PM           EPA METHOD 150.1: PH         Analyst: CMC	Selenium		ND	2.5	mg/Kg	1	11/23/2004 4:13:16 PM
EPA METHOD 150.1: PH Analyst: CMC	Silver		ND	0.25	mg/Kg	1	11/23/2004 4:13:16 PM
-	Sodium		590	25	mg/Kg	1	11/23/2004 4:13:16 PM
pH 8.25 0.010 pH Units 1 12/1/2004	EPA METHO	D 150.1: PH					Analyst: CMC
	pН		8.25	0.010	pH Units	1	12/1/2004

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Qualifiers:

ND - Not Detected at the Reporting Limit

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level 13/23

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range



Date: 03-Dec-04

CLIENT:	Giant Refining Co			Client Sample ID	RR-BP-	2
Lab Order:	0411218			Collection Dat	te: 11/18/	2004 1:30:00 PM
Project:	Railroad Rack Lagoon	SWMU				
Lab ID:	0411218-14			Matri	x: SOIL	
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	9056A: ANIONS					Analyst: MAP
Fluoride		8.1	3.0	mg/Kg	10	11/30/2004 5:41:22 PM
Chloride		59	3.0	mg/Kg	10	11/30/2004 5:41:22 PM
Nitrogen, Nitrate	e (As N)	ND	3.0	mg/Kg	10	11/30/2004 5:41:22 PM
Sulfate		24	15	mg/Kg	10	11/30/2004 5:41:22 PM
Nitrogen, Nitrite	(As N)	ND	3.0	mg/Kg	10	11/30/2004 5:41:22 PM
Phosphorus, Or	thophosphate (As P)	ND	15	mg/Kg	10	11/30/2004 5:41:22 PM
EPA METHOD	8015B: DIESEL RANGE					Analyst: JMP
Diesel Range O	Organics (DRO)	2700	100	mg/Kg	10	11/29/2004 8:50:00 PM
Motor Oil Range	e Organics (MRO)	ND	500	mg/Kg	10	11/29/2004 8:50:00 PM
Surr: DNOP		78.9	60-124	%REC	10	11/29/2004 8:50:00 PM
EPA METHOD	8021B: VOLATILES					Analyst: NSB
Methyl tert-buty	l ether (MTBE)	ND	5.0	mg/Kg	50	11/23/2004 10:07:11 PM
Benzene		2.2	1.3	mg/Kg	50	11/23/2004 10:07:11 PM
Toluene		25	1.3	mg/Kg	50	11/23/2004 10:07:11 PM
Ethylbenzene		15	1.3	mg/Kg	50	11/23/2004 10:07:11 PI
Xylenes, Total		100	1.3	mg/Kg	50	11/23/2004 10:07:11 PI
Surr: 4-Brom	ofluorobenzene	113	74-118	%REC	50	11/23/2004 10:07:11 PM
EPA METHOD	7471: MERCURY					Analyst: CMC
Mercury		ND	0.033	mg/Kg	1	11/30/2004
EPA METHOD	6010C: SOIL METALS					Analyst: NMC
Arsenic		ND	2.5	mg/Kg	1	11/30/2004 2:20:51 PM
Barium		170	0.99	mg/Kg	10	11/24/2004 5:03:13 PM
Cadmium		ND	0.10	mg/Kg	1	11/23/2004 4:17:13 PM
Calcium		13000	130	mg/Kg	5	11/23/2004 5:46:03 PM
Chromium		4.4	0.30	mg/Kg	1	11/23/2004 4:17:13 PM
Lead		7.4	0.25	mg/Kg	1	11/23/2004 4:17:13 PN
Magnesium		3000	25	mg/Kg	1	11/23/2004 4:17:13 PM
Potassium		940	50	mg/Kg	1	11/23/2004 4:17:13 PM
Selenium		ND	2.5	mg/Kg	1	11/23/2004 4:17:13 PM
Silver		ND	0.25	mg/Kg	1	11/23/2004 4:17:13 PM
Sodium		570	25	mg/Kg	1	11/23/2004 4:17:13 PN
EPA METHOD	150.1: PH					Analyst: CMC

Qualifiers:

ND - Not Detected at the Reporting Limit

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level 14/23
- S Spike Recovery outside accepted recovery limits

Date: 03-Dec-04

- R RPD outside accepted recovery limits
- E Value above quantitation range

Giant Refining Co

····· **QC SUMMARY REPORT** 

Work Order: 0411218 **Project:** Railroad Rack Lagoon SWMU

CLIENT:

Sample ID MB-6967	Batch ID: 6967	Test Code	: E300	Units: mg/Kg		Analysis	Date 11/3	30/2004 10:41:18 A	Prep D	Date 11/30/2	004
Client ID:		Run ID:	LC_041130A			SeqNo:	3235	552			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Fluoride	ND	0.3	••••••••••••••••••••••••••••••••••••••						••••		
Chloride	ND	0.3									
Nitrogen, Nitrate (As N)	• ND	0.3									
Sulfate	ND	1.5									
Nitrogen, Nitrite (As N)	ND	0.3									
Phosphorus, Orthophosphate (As	P) ND	1.5									
Sample ID MB-6969	Batch ID: 6969	Test Code:	E300	Units: mg/Kg		Analysis	Date 11/3	0/2004 3:26:53 PM	Prep D	ate 11/30/20	004
Client ID:		Run ID:	LC_041130A			SeqNo:	3235	69			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.3									
Chloride	ND	0.3									
Nitrogen, Nitrate (As N)	ND	0.3									
Sulfate	ND	1.5									
Nitrogen, Nitrite (As N)	ND	0.3									
Phosphorus, Orthophosphate (As	P) ND	1.5									
Sample ID MB-6944	Batch ID: 6944	Test Code:	SW8015	Units: mg/Kg		Analysis	Date 11/2	2/2004 5:41:51 PM	Prep D	ate 11/22/20	004
Client ID:		Run ID:	FID(17A) 2_04	41122A		SeqNo:	3226	01			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10						· · · · · · · · · · · · · · · · · · ·			** * ** **
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	8.438	0	10	0	84.4	60	124	0			

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

15/23

Date: 03-Dec-04

Method Blank

### CLIENT: Giant Refining Co Work Order: 0411218

### **QC SUMMARY REPORT**

Method Blank

Project: Railroad Rack Lagoon SWMU

Test Code: SW8021 Units: ma/Ka Analysis Date 11/23/2004 12:37:21 P Prep Date 11/19/2004 Sample ID MB-6930 Batch ID: 6930 PIDFID 041123A SeqNo: 322790 Client ID: Run ID: LowLimit HighLimit RPD Ref Val %RPD RPDLimit Analyte Result POL SPK value SPK Ref Val %REC Qual ND 0.1 Methyl tert-butyl ether (MTBE) 0.025 ND Benzene 0.025 Toluene ND ND 0.025 Ethylbenzene 0.025 ND Xylenes, Total 0 0 99.4 74 118 0 Surr: 4-Bromofluorobenzene 0.9942 1 Batch ID: 6972 Test Code: SW7471 Units: mg/Kg Analysis Date 11/30/2004 Prep Date 11/30/2004 Sample ID MB-6972 323375 Run ID: MI-LA254 041130A SegNo: Client ID: Analyte Result POL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDI imit Qual ND 0.033 Mercurv Analysis Date 11/23/2004 11:10:00 A Sample ID MB-6954 Batch ID: 6954 Test Code: SW6010A Units: mg/Kg Prep Date 11/22/2004 Client ID: Run ID: ICP_041123A SeaNo: 322690 PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val Result %RPD RPDLimit Qual Analyte ND 2.5 Arsenic 0.05491 0.1 Cadmium 12.41 25 Calcium ND 0.3 Chromium ND 0.25 Lead ND 25 Magnesium ND 50 Potassium ND 2.5 Selenium Silver ND 0.25

Qualifiers:

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ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

CLIENT: Work Order: Project:	Giant Refining Co 0411218 Railroad Rack Lagoon SWMU				QC SUM	IMARY REPORT Method Blank
Sample ID MB-69 Client ID:	54 Batch ID: 6954	Test Code: SV Run ID: ICI	N6010A Units: mg/Kg P_041124A		Analysis Date 11/24/2004 4:05:08 PM SeqNo: 323121	Prep Date 11/22/2004
Analyte	Result	PQL S	SPK value SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Barium	ND	0.1				
Sample ID MB-69 Client ID:	54 Batch ID: 6954	Test Code: SW Run ID: ICF	N6010A Units: mg/Kg P_041123B		Analysis Date 11/24/2004 2:15:41 PM SeqNo: 323162	Prep Date 11/22/2004
Analyte	Result	PQL S	SPK value SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Sodium	ND	25				

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

Date: 03-Dec-04

CLIENT:Giant Refining CoWork Order:0411218Project:Railroad Rack Lagoon SWMU

## QC SUMMARY REPORT

Sample Duplicate

Sample ID 0411218-09A DUP	Batch ID: 6967	Test Code: E300 Units: mg/Kg Analysis Date 11/30/2004 2:36:34 PM			Prep Date 11/30/2004						
Client ID: RR-W-1-Wall N		Run ID:	LC_041130A			SeqNo:	3235	56			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	13.08	1.5	0	0	0	0	0	14.15	7.88	20	
Chloride	289.5	1.5	0	0	0	0	0	291.3	0.625	20	
Nitrogen, Nitrate (As N)	3.285	1.5	0	0	0	0	0	4.337	27.6	20	R
Sulfate	859	7.5	0	0	0	0	0	86 <b>3</b> .5	0.516	20	
Nitrogen, Nitrite (As N)	ND	1.5	0	0	0	0	0	0	0	20	
Phosphorus, Orthophosphate (As F	P) ND	7.5	0	0	0	0	0	0	0	20	

Qualifiers: N

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

R - RPD outside accepted recovery limits

Date: 03-Dec-04

CLIENT:	Giant Refining Co
Work Order:	0411218
Project:	Railroad Rack Lagoon SWMU

# QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID LCS-6967	Batch ID: 6967	Test Code	: E300	Units: <b>mg/Kg</b>		Analysis	s Date 11/3	0/2004 10:58:07 A	Prep D	ate 11/30/20	004
Client ID:		Run ID:	LC_041130A			SeqNo:	3235	53			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Fluoride	1.372	0.3	1.5	0	91.5	90	110	0			
Chloride	15.84	0.3	15	0	106	90	110	0			
Nitrogen, Nitrate (As N)	7.983	0.3	7.5	0	106	90	110	0			
Sulfate	32.25	1.5	30	0	108	90	110	0			
Nitrogen, Nitrite (As N)	2.984	0.3	3	0	99.5	90	110	0			
Phosphorus, Orthophosphate (As	P) 14.85	1.5	15	0	99.0	90	110	0			
Sample ID LCS-6969	Batch ID: 6969	Test Code	E300	Units: mg/Kg		Analysis	Date 11/3	0/2004 3:43:42 PM	Prep D	ate 11/30/20	004
Client ID:		Run ID:	LC_041130A			SeqNo:	32357	70			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	1.397	0.3	1.5	0	93.2	90	110	0			
Chloride	14.95	0.3	15	0	99.7	90	110	0			
Nitrogen, Nitrate (As N)	7.953	0.3	7.5	0	106	90	110	0			
Sulfate	30.98	1.5	30	0	103	90	110	0			
Nitrogen, Nitrite (As N)	2.878	0.3	3	0	95.9	90	110	0			
Phosphorus, Orthophosphate (As	P) 15.24	1.5	15	0	102	90	110	0			
Sample ID LCS-6944	Batch ID: 6944	Test Code:	SW8015	Units: mg/Kg		Analysis	Date 11/2	2/2004 6:14:46 PM	Prep Da	ate 11/22/20	04
Client ID:		Run ID:	FID(17A) 2_0	41 <b>12</b> 2A		SeqNo:	32260	)2			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	34.85	10	50	0	69.7	67.4	117	0	**** ***** * **** ****		

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Qualifiers: ND - N

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

### CLIENT: Giant Refining Co Work Order: 0411218

## QC SUMMARY REPORT

Project: Railroad Rack Lagoon SWMU

Laboratory Control Spike Duplicate

Sample ID LCSD-6944	Batch ID: 6944	Test Code	: SW8015	Units: mg/Kg		Analysis	s Date 11/2	2/2004 6:47:44 PM	Prep D	ate 11/22/20	004
Client ID:		Run ID:	FID(17A) 2_0	)41122A		SeqNo:	3226	03			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Diesel Range Organics (DRO)	38.26	10	50	0	76.5	67.4	117	34.85	9.33	17.4	
Sample ID LCS-6930	Batch ID: 6930	Test Code	SW8021	Units: mg/Kg		Analysis	Date 11/2	3/2004 1:07:20 PM	Prep D	ate 11/19/20	004
Client ID:		Run ID:	PIDFID_0411	23A		SeqNo:	3227	92			
Analyte	Result	· PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Benzene	0.4318	0.025	0.42	0	103	77	122	0			
Toluene	2.009	0.025	1.9	0	106	81	115	0			
Ethylbenzene	0.4138	0.025	0.41	0	101	84	<b>1</b> 17	0			
Xylenes, Total	1.927	0.025	1.9	0	101	84	116	0			
Sample ID LCS-6972	Batch ID: 6972	Test Code:	SW7471	Units: mg/Kg		Analysis	Date 11/3	0/2004	Prep Da	ate 11/30/20	04
Client ID:		Run ID:	MI-LA254_04	1130A		SeqNo:	32337	76			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.1791	0.033	0.1667	0	107	75	125	0		-	
Sample ID LCSD-6972	Batch ID: 6972	Test Code:	SW7471	Units: mg/Kg		Analysis	Date 11/3	0/2004	Prep Da	ate 11/30/20	04
Client ID:		Run ID:	MI-LA254_04	1130A		SeqNo:	32339	94			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.1796	0.033	0.1667	0	108	75	125	0.1791	0.242	20	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

#### CLIENT: Giant Refining Co

Work Order:

### -----QC SUMMARY REPORT

0411218 Railroad Rack Lagoon SWMU **Project:** 

Laboratory Control Spike - generic

Sample ID LCS-6954	Batch ID: 6954	Test Code	SW6010A	Units: mg/Kg		Analysis	Date 11/2	3/2004 11:22:33 A	Prep D	ate 11/22/20	04
Client ID:		Run ID:	ICP_041123A	•		SeqNo:	3226	91			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Arsenic	26.73	2.5	25	0	107	80	120	0			
Cadmium	25.59	0.1	25	0.05491	102	80	120	0			
Calcium	2311	25	2500	12.41	91.9	80	120	0			
Chromium	25.74	0.3	25	0	103	80	120	0			
Lead	25.63	0.25	25	0	103	80	120	0			
Magnesium	2371	25	2500	0	94.8	80	120	0			
Potassium	2484	50	2500	0	99.4	80	120	0			
Selenium	27.77	2.5	25	0	111	80	120	0			
Silver	25.75	0.25	25	0	103	80	120	0			
Sample ID LCSD-6954	Batch ID: 6954	Test Code:	SW6010A	Units: mg/Kg		Analysis	Date 11/2:	3/2004 11:25:36 A	Prep Da	ate 11/22/20	04
Client ID:		Run ID:	ICP_041123A			SeqNo:	32269	92			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Arsenic						80	120	26.73	0.426	20	
	26.84	2.5	25	0	107	80	120	20.75			
· · · · · · · · ·	26.84 25.25	2.5 0.1	25 25	0.05491	107 101	80 80	120	25.59	1.33	20	
Cadmium Calcium				-					1.33 0.394	20 20	
Cadmium Calcium	25.25	0.1	25	0.05491	101	80	120	25.59			
Cadmium Calcium Chromium	25.25 2302	0.1 25	25 2500	0.05491 12.41	101 <b>9</b> 1.6	80 80	120 120	25.59 2311	0.394	20	
Cadmium Calcium Chromium Lead	25.25 2302 25.22	0.1 25 0.3	25 2500 25	0.05491 12.41 0	101 <b>9</b> 1.6 101	80 80 80	120 120 120	25.59 2311 25.74	0.394 2.02	20 20	
Cadmium Calcium Chromium Lead Magnesium	25.25 2302 25.22 25.12	0.1 25 0.3 0.25	25 2500 25 25	0.05491 12.41 0 0	101 91.6 101 100	80 80 80 80	120 120 120 120	25.59 2311 25.74 25.63	0.394 2.02 2.00	20 20 20	
Cadmium	25.25 2302 25.22 25.12 2348	0.1 25 0.3 0.25 25	25 2500 25 25 25	0.05491 12.41 0 0 0	101 91.6 101 100 93.9	80 80 80 80 80	120 120 120 120 120	25.59 2311 25.74 25.63 2371	0.394 2.02 2.00 0.979	20 20 20 20	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

### CLIENT: Giant Refining Co Work Order: 0411218

# QC SUMMARY REPORT

Project: Railroad Rack Lagoon SWMU

Laboratory Control Spike - generic

Sample ID LCS-6954	Batch ID: 6954	Test Code:	SW6010A	Units: <b>mg/Kg</b>		Analysis	s Date 11/2	3/2004 11:22:33 A	Prep D	ate 11/22/20	004
Client ID:		Run ID:	ICP_041123E	3		SeqNo:	3228	71			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Sodium	2763	25	2500	0	111	80	120	0			
Sample ID LCSD-6954	Batch ID: 6954	Test Code:	SW6010A	Units: mg/Kg		Analysis	s Date 11/2	3/2004 11:25:36 A	Prep D	ate 11/22/20	004
Client ID:		Run ID:	ICP_041123B	ł		SeqNo:	3228	72			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	2726	25	2500	0	109	80	120	2763	1.34	20	
Sample ID LCS-6954	Batch ID: 6954	Test Code:	SW6010A	Units: mg/Kg		Analysis	Date 11/2	4/2004 4:23:50 PM	Prep D	ate 11/22/20	04
Client ID:		Run ID:	ICP_041124A	L Contraction of the second seco		SeqNo:	3231	22			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	24.55	0.1	25	0	98.2	80	120	0			
Sample ID LCSD-6954	Batch ID: 6954	Test Code:	SW6010A	Units: mg/Kg		Analysis	Date 11/2	4/2004 4:26:06 PM	Prep D	ate 11/22/20	04
Client ID:		Run ID:	ICP_041124A			SeqNo:	3231	23			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	23.86	0.1	25	0	95.4	80	120	24.55	2.85	20	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

Sam	ple Rece	eipt Chee	cklist			
Client Name GIANTREFIN			Date and Time	Received:		
Work Order Number 0411218	1		Received by	AT		
Checklist completed by	1/19/	J / Date				
Matrix Carrier na	me <u>Clien</u>	<u>t drop-off</u>				
Shipping container/cooler in good condition?	Yes			Not Present		
Custody seals intact on shipping container/cooler?	Yes		No 🗆	Not Present	Not Shipped	
Custody seals intact on sample bottles?	Yes		No 🗆	N/A		
Chain of custody present?	Yes		No 🗌			
Chain of custody signed when relinquished and received?	Yes		No 🗌			
Chain of custody agrees with sample labels?	Yes	$\checkmark$	No 🗆			
Samples in proper container/bottle?	Yes	$\checkmark$	No 🗌			
Sample containers intact?	Yes		No 🗆			
Sufficient sample volume for indicated test?	Yes		No 🗀			
All samples received within holding time?	Yes		No 🗌			
Water - VOA vials have zero headspace? No VOA vials	submitted		Yes 🗋	No 🗆		
Water - pH acceptable upon receipt?	Yes		No 🗌	N/A 🗹		
Container/Temp Blank temperature?		6°	4° C ± 2 Accepta	ble ·		
			If given sufficient	time to cool.		
COMMENTS:						
Client contacted Date contacted			Pers	on contacted	 	
Contacted by: Regarding						
Comments:						
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Corrective Action						

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Client:	Fie	m /	Refining	Project Name: Railroad Rach																	5.345 om	5.410	)7		
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				Project Manager			~			_	ю е	as/Die		P221						4, SO	5			0 20	or NV
				Sampler. Steve Monis						(802	(Gasoline	9) QC						Er l		2, PO	s (808			2	Se Z
Phone #: 505 722 3833				Sampler.	a.	c 4	M	nit		TMB's (8021)	)) Hd	5B M	<del>.</del>		<u> </u>	Ē	$\widehat{\mathbf{f}}$	10	Ca, Mg)	NO.	PCB			× (	6
Fax #:	یہ ک	572	2 0210	Samples Cold?:				CI No		8E +	+ =	d 801	od 418	<u>*</u>	20 20	08 pc	or PA	itals	Y.	S	cides /		-VOA		イエ
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		Matrix			HgCl ₂	HCI		04112		BTEX	BTEX	HdT	Hall			EDC	8310	RCR	Catio	Anior	8081	8260	8270	ê i	dir Bubt
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	0 <i>93</i> 0		RR-E-1-WallN	2				A6	1					X				ĸ	X	X				x /	
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Date	Time	Matrix	Sample I.D. No.	Number/Volume	<del>/</del>	eserval		HEAL No.	BTEX + MTBE	BTEX + MTBE + TPH (Gasoline	TPH Method 8015B MOD (Gas/Diesel)	TPH (Method 418.1)	Velatites Full-List (5021)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Cations (Na, K, Ca, Mg)	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ ,	8081 Pesticides / PCB's (8082)	8260 (VOA)	8270 (Semi-VOA)	8015	5.	Air Bubbles or Hea
t					HgCl2	нсі		0411218	BTE	BTE	ТРН	ТРН	Veta	EDB	ä	831	RCF	Cati	Anic	808	826	827	à	M	Air E
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	<u>-</u>					A	h	ie	(8021)	asoline	D (Gas/		6			R		P04. S	(8082)			10%		ce (Y or
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Dale	Time	Malrix	Sample I.D. No.	Number/Volume	Pri	eserva HCI	live	HEAL NO. 0-11/234		8TEX + MTBE +	TPH Method 80158 MOD (Gas/Diesel)	TPH (Method 418.1)	-Votation Part Line (8021)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Cations (Na, K,	Anions (F, CI, NO3, NO2, PO4,	8061 Pesticides / PCB's (8082)	8260 (VOA)	8270 (Semi-VDA)	30/5	; }	Air Bubbles
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B C DEC-13-2004(MON) 11:07

P. 001/004

ANALYSIS

### COVER LETTER

December 13, 2004

Steve Morris Giant Refining Co Rt. 3 Box 7 Gallup, NM 87301 TEL: (505) 722-3833 FAX (505) 722-0210

RE: Railroad Rack Lagoon SWMU

Order No.: 0411234

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 1 sample on 11/22/2004 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Preeman, Business Manager Nancy McDuffie, Laboratory Manager



4901 Howkins NEE Suite DE Albuquerque, NM 87109 505.345.3975 = Fax 505.345.4107 www.hallenvironmental.com

Date: 13-Dec-04

CLIENT:	Giant Refining Co
Project:	Railroad Rack Lagoon SWMU
Lab Order:	0411234

DEC-13-2004(MON) 11:07

## CASE NARRATIVE

Analytical Comments for METHOD 8015DRO_S, SAMPLE 0411234-01A: Surrogate not recovered due to dilution.

Date: 13-Dec-04

Client Sample ID: RR-E-1 Wall S Collection Date: 11/20/2004 11:00:00 AM

CLIENT:	Giant Refining Co
Lab Order:	0411234
Project:	Railroad Rack Lagoon SWMU
Lab M:	0411234-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS						Analyst: MAP
Fluoride	ND	3.0		mg/Kg	10	12/2/2004 2:40:18 PM
Chioride	57	3.0		mg/Kg	10	12/2/2004 2:40:18 PM
Nitrogen, Nitrate (As N)	ND	3.0		mg/Kg	10	12/2/2004 2:40:18 PM
Sulfale	ND	15		mg/Kg	10	12/2/2004 2:40:18 PM
Nitrogen, Nitrile (As N)	NĎ	3.0		mg/Kg	10	12/2/2004 2:40:18 PM
Phosphorus, Orthophosphale (As P)	ND	15		mg/Kg	10	12/2/2004 2:40:18 PM
EPA METHOD 8015B: DIESEL RANGE	•					Analyst: JMP
Diesel Rango Organics (DRO)	6300	200		mg/Kg	20	12/8/2004 2:16:56 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	12/8/2004 2:16:56 PM
SUIT. DNOP	0	60-124	s	%REC	20	12/8/2004 2:16:56 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl ten-butyl ether (MTBE)	ND	2.0		mg/Kg	20	11/24/2004 2:38:06 AM
Benzene	0.57	0.50		mg/Kg	20	11/24/2004 2:38:06 AM
Toluene	0.86	0.50		mg/Kg	20	11/24/2004 2:38:06 AM
Ethylbenzene	14	0.50		mg/Kg	20	11/24/2004 2:38:06 AM
Xylenes, Total	88	0.50		mg/Kg	20	11/24/2004 2:38:06 AM
Surr: 4-Bromofluorobenzene	103	74-118		%REC	20	11/24/2004 2:38:06 AM
EPA METHOD 7471: MERCURY						Analyst: CMC
Mercury	ND	0.033		mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS						Analyst: CMC
Arsenic	ND	5.0		mg/Kg	2	11/24/2004 2:22:50 PM
Barium	250	1.0		mg/Kg	10	11/24/2004 5:10:10 PM
Cadmium	ND	0.20		mg/Kg	2	11/24/2004 2:22:50 PN
Calcium	28000	130		mg/Kg	5	11/24/2004 2:26:51 PN
Chromlum	4.5	0.60		mg/Kg	2	11/24/2004 2:22:50 PM
Lead	7.7	0.50		mg/Kg	2	11/24/2004 2:22:50 PN
Magnesium	4200	50		mg/Kg	2	11/24/2004 2:22:50 PN
Potossium	690	100		mg/Kg	2	11/24/2004 2:22:50 PM
Selenium	ND	5.0		mg/Kg	2	11/24/2004 2:22:50 PN
Silver	ND	0.50		то/Ка	2	11/24/2004 2:22:50 PN
Sodium	720	50		mg/Kg	2	11/24/2004 2:22:50 PM
EPA METHOD 150.1: PH						Analyst: CM
pH .	8.88	0.010		pH Units	1	12/1/2004

Qualifiers;

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

- Value exceeds Maximum Contaminant Level 2/12

- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits

E - Value above quantitation range

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ANTINATION STORY ANTINA MANAGEMENT	•	
GIANT		(

No.2322 P.1

Jan.20. 2004 12:35PM

INDUSTRIES, INC.

**Ciniza Refinery** 

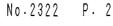
Route 3, Box 7

Gallup, New Mexico 87301 Phone: 505/722-3833 Fax: 505/722-0210

**DATE:** 1/20/04TIME: AM / PM TO: FROM: **Company: FAX #:** DEPT: PHONE #: **EXTENSION:** WE ARE TRANSMITTING 3 PAGE (S) FOLLOWING THIS COVERSHEET. IF YOU DO NOT RECEIVE ALL THE PAGES, PLEASE INFORM US AS SOON AS POSSIBLE. CONFIRMATION? ____ YES ____ NO CONFIRMED BY:_ FILE REFERENCE: Staff Alochaig Burnit GW-37: Response 40 12/19/03 letter COMMENTS: lda Cal a email with a ANI the agreet documents (land form correspond and charges included.

Jan.20. 2004 12:35PM

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January 20, 2004

Mr. Wayne Price State of New Mexico Oil Conservation Division 1220 South Saint Francis Drive Santa Fe, New Mexico 87505-6303

Re: Draft Discharge Permit GW-032

Dear Wayne:

We received and reviewed the second draft of Discharge Plan GW-032 for the Giant Ciniza Refinery. Attached are our comments and recommendations for finalizing the plan.

In addition, I am working to set up a meeting that will include representatives of Giant, Pilot, OCD, and NMED. The purpose of this meeting will be to discuss the requirements of the new Discharge Plan and specifically the limitations on wastewater received from the Pilot Travel Center. It is important that all parties have a clear understanding of these new permit conditions and the associated consequences of noncompliance. In particular, I wish to make it clear to all parties that Giant cannot directly manage or control activities at the Pilot Travel Center. Our fundamental recourse in the event of sustained and unresolved noncompliance at the Pilot Travel Center is to close the valve in the sewer line and cease receiving flow from them. Obviously, this potential outcome would have a major impact on operations at the Travel Center and consequently it is in Pilot's best interest to ensure that this never occurs. It is my hope that good communication will prevent future problems.

Thank you again for diligent efforts to complete the application renewal process. If you have any questions or need additional information, please contact me by telephone at (505) 722-0227 or via email at <u>dmancini@giant.com</u>.

Sincerely,

Adancen

Dorinda Mancini

Enclosure

c: Denny Foust David Cobrain File PHONE 505-722-3833 FAX 505-722-0210

ROUTE 3 BOX 7 GALLUP NEW MEXICO B7301



#### Cover letter

Giant Refining Company is not a separate legal entity. The permit should be issued to Giant Industries Arizona, Inc. d/b/a Giant Refining Company ("Giant").

The third paragraph of your cover letter mentions the use of screening or netting on exposed pits and open tanks in order to render these non hazardous to wildlife including migratory birds. Historically, there has been no evidence that Ciniza's evaporation ponds, aeration basins, or land treatment areas have been hazardous to wildlife including migratory birds. As we have discussed, Giant believes that because of the condition and contents of the ponds, and the absence of any harm to birds and wildlife, that our ponds need not be covered with screens or netting.

The following comments relate to the specific numbered paragraphs in the Attachment labeled, "Discharge Permit Approval Conditions."

#### Condition No. 8 - Below Grade Tanks/Sumps/Pits/Ponds

With regard to the section on the existing API separator, Giant does not plan to close this equipment, but rather intends to convert it for use as a non-process stormwater retention structure. Giant understands that because such use is acceptable to OCD, a closure plan is not necessary.

#### Condition No. 10 - Class V Wells

Ciniza has no Class V wells that handle industrial wastes. As noted on the facility map, we do employ sanitary leach fields for domestic waste only.

#### Condition No. 13 - Waste Disposal

Giant ships some of its waste and recyclable materials to out-of-state permitted facilities. For those instances in which Giant ships nonhazardous waste material to in-state disposal facilities, Giant will only use OCD approved facilities.

#### Condition No. 16 - Vadose Zone and Water Pollution

With regard to the extensive reporting requirements outlined in this section, Giant does not currently have sufficient resources (personnel or budget) to accomplish all of these tasks on an annual basis. We would prefer to use our limited resources in actual field activities that are protective of the environment (such as inspections, repairs, and modifications) rather than extensive paperwork. Giant believes that some of the reporting requirements are inapplicable to Giant or are unnecessarily burdensome. Giant would like to discuss our ideas for modifying this list to focus on just the most important items.

#### Condition No. 19 - Railroad Rack Lagoon

Rather than expend resources on developing another closure plan for this site, Giant would prefer to excavate the remaining soil from this site and treat it in the adjoining OCD landfarm. We would then collect and analyze samples from the bottom of the excavation zone, and if clean, then refill the depression with clean soil. This

## Draft Permit Comments

may be accomplished in 2004 if time, personnel and weather allow this to be done in one season. We believe that closure of the RRR Lagoon can be accomplished by the end of 2005.

#### Condition No. 20 - Evaporation Ponds

With regard to Section A covering inspections, we would like to discuss ways to make our inspections more flexible and responsive to current conditions. For example, our inspection practice is to conduct routine visual inspections of the evaporation ponds. If the ponds are nearing capacity, then our monitoring is frequent and we begin evaluating alternative measures. Conversely, if the pond levels are very low, then we use our limited personnel resources to focus on other regulatory commitments. As such, we cannot commit to routine daily inspections and detailed record keeping (such as freeboard measurements) at all times. Currently the ponds are inspected weekly and after any major storm event, and Giant would like to propose this schedule for the new discharge plan.

With regard to Section B covering sprinklers, Giant has replaced the old sprinkler system with new atomization technology. This equipment converts pond water into micron-sized particles that immediately flash into vapor. As such, the former wind-drift problems have been eliminated. This system has a capacity of 160 GPM. In warm, dry weather, evaporation rates as high as 70% can be achieved with 50% being easily within reach.

With regard to Section C covering wastewater metering, we do not currently have any capability for metering individual wastewater flow rates to the evaporation ponds. We record flow at the weir from Pond 2 to Pond 10 during our weekly pond inspection. This measurement is a "snapshot" but is the only place where flow is measured. It could be that this information can provide a type of "average " over time that will be sufficient information for your needs.

With regard to Section D covering temporary evaporation ponds, Giant does not have any at the present time and does not intend to use them except as a last resort. We would prefer to use other techniques, such as selling the water for non-domestic use, rather than install temporary ponds. If it became necessary to have additional pond capacity, Giant would apply to OCD for permission at that time. With the new evaporation system installed and the ability to sell pond water for beneficial re-use, we believe no additional pond capacity will be required. Consequently, we recommend deleting this section.

#### Condition No. 21 - Wastewater from Pilot Travel Center and Truck Stop Facility

With regard to items covering treatment limitations at the Pilot Travel Center, Pilot is contractually obligated to Giant to meet the new treatment standards. Therefore, Giant does not see the necessity of installing nor operating any treatment equipment required to meet these conditions (this will be the responsibility of Pilot). Because Pilot will be operating its own equipment on its own property, Giant will not be in a position to directly demonstrate that the treatment system is achieving a minimum 60 percent reduction in BOD. However, Giant will require that Pilot meet these conditions or, in the event of sustained and unresolved noncompliance, Giant will close the sewer line valve and cease receiving flow from the travel center. Pilot will be responsible for monitoring and reporting to Giant any analytical results used for compliance with treatment standards imposed on the travel center effluent.

#### Draft Permit Comments

No.2322

P. 5

With regard to item 21.2, the bypass line has been locked and out of service since our discussion last summer.

With regard to item 21.3, our contract with Pilot requires quarterly monitoring for contaminants of concern. Please see attachment 1.6.b. of the Purchase Agreement between Giant and Pilot, which is included in the hardcopy version of this document.

With regard to item 21.4, as noted above, sampling and analyses are the responsibility of Pilot. The amount of effluent received by Giant is determined to be equal to the amount of water supplied to Pilot (which is metered). At this time, Giant has no plans to meter the effluent. Pilot has sampled and reported the required parameters in a timely manner and is in compliance with the requirements as stated in the contract. We believe that requiring Giant to sample also is redundant and unnecessary at this time, and that installation and maintenance of a sample station will require resources better used elsewhere. Of course, any upset or exceedences, and the corrective action taken, will be reported to OCD within 24 hours as required.

With regard to item 21.5, if required by the discharge plan, Giant will request the information from Pilot and forward it to OCD.

#### Condition No. 22 - Aeration Basins

Giant's aeration basins are not designed for nor operated as a treatment system for BOD and TOC control. As such, monitoring the removal efficiency for BOD and TOC is not feasible. Earlier Discharge Plans may have been written as if the evaporation ponds "discharged" to ground or surface water which is why BOD and COD were measured and reported under those plans. Giant believes it is more efficient to prevent inappropriate BOD/TOC materials from entering the system in the first place. Consequently, we recommend that this section be dropped from the permit.

#### Condition No. 24 - Annual Report

As noted above under Condition No. 16, Giant would like to discuss the scope of the report and the resources needed to provide this information annually. Perhaps other reports, such as the biennial Hazardous Waste Report required by the NMED, can be used to supply some of the information. We look forward to discussing how we can use information already gathered to provide you with most of this information.

Jan.20. 2004 12:36PM

#### ATTACHMENT 1.6.b.

No.2322

P. 6

#### SAMPLING PARAMETERS

#### A. Buyer's sampling and analyses shall include the following:

- 5-day Biological Oxygen Demand (BOD5), not to exceed a level of 700mg/l.
- Chemical Oxygen Demand (COD)
- Total RCRA 8 Metals, not to exceed the regulatory levels listed in 40 CFR P 261.24.
- Volatiles by Method 8260 (full list)
- Semivolatiles by Method 8270 (full list)
- Total Organic Carbon (TOC)
- B. Sample point: influent to the lift station or lift station effluent.
- C. Buyer also shall conduct such sampling and analysis as may be required by the Plan, from time to time.
- D. The aforementioned sampling parameters may be subject to change from time to time to allow Seller to remain in compliance with the Plan and applicable Laws.

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#### COVER LETTER

August 03, 2004

Steve Morris Giant Refining Co Rt. 3 Box 7 Gallup, NM 87301 TEL: (505) 722-3833 FAX (505) 722-0210

RE: EP-1 New Well

Order No.: 0407300

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 1 sample on 7/29/2004 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager



4901 Hawkins NE Suite D Albuquerque, NM 87109 505.345.3975 & Fax 505.345.4107 www.hallenvironmental.com

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CLIENT:	Giant Refining Co		(	Client Sample I	<b>D</b> : EP-1-N	ew Well
Lab Order:	0407300			Collection I	Date: 7/28/2	2004 8:00:00 AM
Project:	EP-1 New Well					
Lab ID:	0407300-01			Ma	trix: AQUI	EOUS
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed
EPA METHOD	8021B: VOLATILES					Analyst: NSE
Benzene		ND	1.0	µg/L	2	8/2/2004 8:46:10 PM
Toluene		ND	1.0	µg/L	2	8/2/2004 8:46:10 PM
Ethylbenzene		1.5	1.0	µg/L	2	8/2/2004 8:46:10 PM
Xylenes, Total		3.4	1.0	µg/L	2	8/2/2004 8:46:10 PM
Surr: 4-Bron	nofluorobenzene	105	74-118	%REC	2	8/2/2004 8:46:10 PM

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Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

Date: 03-Aug-04

R - RPD outside accepted recovery limits

E - Value above quantitation range

Page 1 of 1

1/4

Date: 03-Aug-04

CLIENT:	Giant Refining Co	<b>QC SUMMARY REPORT</b>	
Work Order:	0407300		
Project:	EP-1 New Well	Method Blank	

Sample ID Reagent Blank 5m	Batch ID: R12630	Test Code	: SW8021	Units: µg/L		Analysi	s Date 8/2/	2004 8:00:14 AM	Prep D	ate		
Client ID:		Run ID:	PIDFID_0408	302A		SeqNo	2928	74			ţ.	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	•	RPD Ref Val	%RPD	RPDLimit	Qual	•
Benzene	ND	0.5										
Toluene	ND	0.5										
Ethylbenzene	ND	0.5										
Xylenes, Total	ND	0.5										
Surr: 4-Bromofluorobenzene	20.61	0	20	0	103	74	118	0				,

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

Giant Refining Co

# QC SUMMARY REPORT

Laboratory Control Spike - generic

Work Order:0407300Project:EP-1 New Well

CLIENT:

Sample ID BTEX Std 100ng Client ID:	Batch ID: R12630	Test Code: Run ID:		Analysis SeqNo:		2004 9:00:53 AM B6	Prep Date			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit	Qual
Benzene	19.36	0.5	20	0	96.8	81.3	121	0		
Toluene	20.52	0.5	20	0	103	84.9	118	0		
Ethylbenzene	20.4	0.5	20	0	102	53.8	149	0		
Xylenes, Total	61.56	0.5	60	0	103	83.1	122	0		

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

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#### Date: 03-Aug-04

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	Sample	Receipt Che	ecklist		
Client Name GIANTREFIN			Date and Time	Received:	7/29/2004
Work Order Number 0407300	)		Received by	AT	
Checklist completed by	Maria_	Date	129/04		
Matrix	Carrier name	FedEx			
Shipping container/cooler in good condition?		Yes 🗹	No 🗌	Not Present	
Custody seals intact on shipping container/cooler	?	Yes 🗆	No 🗌	Not Present	Not Shipped
Custody seals intact on sample bottles?		Yes 🗌	No 🗹	N/A	
Chain of custody present?		Yes 🗹			
Chain of custody signed when relinquished and re	eceived?	Yes 🗹	No 🗆		
Chain of custody agrees with sample labels?		Yes 🗹			•
Samples in proper container/bottle?		Yes 🗹	No 🗆		
Sample containers intact?		Yes 🗹	No 🗌		
Sufficient sample volume for indicated test?		Yes 🗹			
All samples received within holding time?		Yes 🗹	No 🗆		
Water - VOA vials have zero headspace?	No VOA vials subr	mitted	Yes 🗹	No 🗋	
Water - pH acceptable upon receipt?		Yes 🗌	No 🗆	N/A 🗹	
Container/Temp Blank temperature?		8°	4° C ± 2 Accepta		
COMMENTS:					
Client contacted	Date contacted:		Pers	son contacted	
Contacted by:	Regarding				
Comments:					
			<u> </u>		
Corrective Action					

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<u> </u>	<u>alu</u>	<u>,</u>	1 3 1501	Project Managel			<i>[</i> 2		J21)	oline Only	(Gas/Dies								PO4, SO4)	(8082)				ie (Y or N)
Phone #:	50	257	22 3 833	Sampler.					+ TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B MOD (Gas/Diesel)	:18.1)	st (8021)	04.1)	021)	(HA		Ca, Mg)	103, N02, I	s / PCB's (8		)A)	BTEZ	
Dale	<u>50</u> Time	S 72 Matrix	220210 Sample I.D. No.	Samples Cold?: Number/Volume	<u>,                                     </u>	□ Yes eservati		HEAL No.	BTEX + MTBE +	X + MTBE 4	Method 80	TPH (Method 418.1)	Volatiles Full List (8021)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Cations (Na, K, Ca, Mg)	Anions (F, Cl, NO ₃ , NO ₂ ,	8081 Pesticides / PCB's	8260 (VOA)	>-i⊓	1/20	Air Bubbles or Heaq
1/28/04	0800	H= 0	EP-1-Now-Wold		HgCh	нсі		0407.300-1	BTE	BTE	HdT	ТРН	Vola	EDB	EDC	831(	RCP	Catio	Anic	808	826	827	$\frac{c_0}{X}$	Air E
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#### Price, Wayne

From:Price, WayneSent:Thursday, October 14, 2004 8:50 AMTo:'Ed Riege'Subject:RE: Giant Ciniza GW-032 plan amendments

Sorry Ed for the confusion. What I should have said is Giant is responsible for putting together a comprehensive report and responsible for evaluating the data, and if there is a problem to notify OCD and take corrective actions. What I don't want to happen again is the scenario of what has happened at Bloomfield, i.e. OCD finding a major problem. Yes, your report is good and is much improved over the past years. Thanks for your efforts in improving this report. I look forward in working with you.

-----Original Message-----From: Ed Riege [mailto:eriege@giant.com] Sent: Wednesday, October 13, 2004 4:31 PM To: 'Price, Wayne' Cc: Dave Cobrain (E-mail); Hope Monzeglio (E-mail); Foust, Denny; Matt Davis; Steve Morris Subject: RE: Giant Ciniza GW-032 plan amendments

Wayne, We will prepare the information you requested. Your last paragraph has me perplexed. I checked the 2003 annual report that was submitted in August and all the items requested in item 21 were included. I personally put this report together and did not bury a problem. Please clarify and I will respond.

Sincerely, Ed Riege

-----Original Message-----From: Price, Wayne [mailto:WPrice@state.nm.us] Sent: Wednesday, October 13, 2004 3:50 PM To: Ed Rigie (E-mail) Cc: Dave Cobrain (E-mail); Hope Monzeglio (E-mail); Foust, Denny Subject: Giant Ciniza GW-032 plan amendments

Dear ED:

Please amend your permit section 9.0 to include the new nine BW pond perimeter wells and the new bore hole near pond #2. Update the Plant Site Drawing that was submitted in the Sept 2003 submittal to include all of the wells. Please mark the raw water wells by number and note if active or in-active.

Please modify your sampling protocol to include General Chemistry for the 9 BW wells and new bore hole near pond #2 next year. Also note on report if wells are dry.

OCD is requesting that you sample water well #2 since our records show that it has not been sampled since 1995. Amend your section 9 to include any water analysis that you have sampled during the year, i.e. SDWA requirements. Include a plan to sample the plant water wells. OCD suggest maybe rotating the sampling events each year.

Please amend your permit to include the sampling of the Pilot Center waste water condition #20 of permit. Include results in annual report.

Please amend your plan to include a perimeter search so we don't have an incident like Bloomfield.

Please submit photos and closure information for the RR Rack Lagoon for OCD approval.

Please submit information pertains to the cooling tower waste created during your last turn-around.

Please submit the additional analysis for the BW pond perimeter wells. Please identify these wells. When you submit analysis please include a drawing so we know which wells correspond to the analytical work.

Also make sure next years annual report contains all of the information requested in condition #21. Make Sure that Giant points out possible problems and make conclusions and recommendations. Failure to do this could result in civil penalties. Other words, do not bury a problem in the report. Giant's responsibility is to notify OCD of problems and make corrective actions.

Please submit this information by December 01, 2004.

Sincerely:

Wayne Price New Mexico Oil Conservation Division 1220 S. Saint Francis Drive Santa Fe, NM 87505 505-476-3487 fax: 505-476-3462 E-mail: WPRICE@state.nm.us

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This email has been scanned by the MessageLabs Email Security System. For more information please visit http://www.messagelabs.com/email

#### Price, Wayne

From: Sent: To: Cc: Subject: Price, Wayne Wednesday, October 13, 2004 3:50 PM Ed Rigie (E-mail) Dave Cobrain (E-mail); Hope Monzeglio (E-mail); Foust, Denny Giant Ciniza GW-032 plan amendments

Dear ED:

Please amend your permit section 9.0 to include the new nine BW pond perimeter wells and the new bore hole near pond #2. Update the Plant Site Drawing that was submitted in the Sept 2003 submittal to include all of the wells. Please mark the raw water wells by number and note if active or in-active.

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Please submit this information by December 01, 2004.

Sincerely:

Wayne Price New Mexico Oil Conservation Division 1220 S. Saint Francis Drive Santa Fe, NM 87505 505-476-3487 fax: 505-476-3462 E-mail: WPRICE@state.nm.us



ROUTE 3 BOX 7 GALLUP NEW MEXICO 87301

PHONE

505-722-3833 INTERNET WWW.GIANT.COM

RECEIVED

#### SEP 1 7 2004

OIL CONSERVATION DIVISION

September 15, 2004

Mr. Roger Anderson Environmental Bureau Chief New Mexico Oil Conservation Division 1220 South Street Francis Drive Santa Fe, NM 87505

Re: New Monitor Well Analysis

Attached please find the lab analysis for the newly installed monitor wells at the Giant Ciniza refinery. Also enclosed is a summary table entitled Boundry Well Sample results. The following chemicals were found in Well BW-3-C (ug/L):

- benzene- 5.2
- toluene- 1.0
- xylene- 1.5

Acetone was found in Well BW-2-C at 1500 ug/L. Giant plans to purge these two wells and resample for the parameters listed above by the end of September. This should help to determine whether these parameters are actually present or whether there was drilling, sampling or lab contamination.

If you have any questions regarding this report please contact me at (505) 722-0217.

Sincerely,

Ed Riege Environmental Superintendent

C: Matt Davis w/o report Denny Foust, OCD, Aztec Office w/report Hope Monzeglio, NMED

REFINING COMPANY



ROUTE 3 BOX 7 GALLUP NEW MEXICO 87301

PHONE 505-722-3833 INTERNET WWW.GIANT.COM

CERTIFIED MAIL 7099 3220 0001 1425 4951

August 30, 2004

Mr. Roger Anderson

Santa Fe, NM 87505

SEP 07 2004

RECEIVED

# **Oil** Conservation Division Environmental Bureau

Re: 2003 OCD Annual Reports

1220 South Street Francis Drive

Environmental Bureau Chief

New Mexico Oil Conservation Division

Attached please find the 2003 Annual Groundwater Report for the Giant Ciniza Refinery, as required by Discharge Permit GW-032, permit condition 16.A. Included with this report are the formal report items required by permit condition 21. This report also addresses the following permit conditions:

- Condition 8.b. The API separator closure plan.
- Condition 17.b. Northeast OCD Land Treatment Area (Old Railroad Rack Lagoon Temporary Landfarm analytic results.
- Condition 18. Railroad rack lagoon closure plan.
- Condition 19.D. Temporary storage pond closure plan.
- Condition 20.3. Pilot Travel Center sampling and metering station.

The followings wells were sampled in 2003:

- MW 1,2,4,5
- OW 11,12,13,14,29,30

Summaries of the analytical can be found in 16.A.ii. and copies of the lab analysis for these wells can be found in 21.B. Monitor wells 1,2,4, & 5 were non detect for all parameters analyzed for except for barium. Minute amounts were found in the range of .083 to .15 ppm which is below groundwater standards. OW wells 11,12,13,14,29 & 30 were analyzed for BTEX and MTBE. All parameters were non detect except for 2.7 ppb for MTBE at OW30 and the following were detected in OW14:

- benzene- 190 ppb
- toluene- 2 ppb
- ethylbenzene- 2.3 ppb
- xylene- 2.5 ppb
- MTBE- 46 ppb

Surface water sampling was conducted at the aeration lagoon inlet (AL1-IN), evaporation pond 1 inlet (EPI-IN) and the outlet from evaporation pond 2 (EP2-OUT). Summaries of the analytical can be found in 16.A.ii. BTEX and MTBE were detected in AL1-IN. EPI-IN and EP2-OUT were all non detect for BTEX and MTBE except for the following:

- EP1-IN xylene- 13 ppb
  - MTBE- 17 ppb EP2-OUT toluene- 1.2 ppb

xylene- 1 ppb

If you have any questions regarding this report please contact me at (505) 722-0217.

Sincerely,

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Ed Riege Environmental Superintendent

C: Matt Davis w/o report Denny Foust, OCD, Aztec Office w/report

#### Price, Wayne

From: Sent: To: Subject: Price, Wayne Wednesday, September 29, 2004 3:57 PM 'Ed Riege' RE: Underground sewer boxes

Dear ED, sorry it took so long to get back with you. OCD will require secondary containment with leak detection!

----Original Message-----From: Ed Riege [mailto:eriege@giant.com] Sent: Thursday, September 09, 2004 3:17 PM To: 'WPrice@state.nm.us' Subject: Underground sewer boxes

Wayne, We plan to do some sewer repair in the Alky unit during the first quater of 2004. We may need to replace a couple of the underground sewer boxes. Will the new sewer boxes require secondary containment or does the 5 year sewer testing requirement suffice. Thanks Ed DISCLAIMER: The information contained in this e-mail message may be privileged, confidential and protected from disclosure. If you are not the intended recipient, any further disclosure, use, dissemination, distribution or copying of this message or any attachment is strictly prohibited. If you think you have received this e-mail message in error, please e-mail the sender at the above address and permanently delete the e-mail. Although this e-mail and any attachments are believed to be free of any virus or other defect that might affect any computer system into which they are received and opened, it is the responsibility of the recipient to ensure that they are virus free and no responsibility is accepted by Giant Industries, Inc. or its affiliates for any loss or damage arising in any way from their use.

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#### Price, Wayne

From: Sent: To: Subject: Ed Riege [eriege@giant.com] Friday, September 24, 2004 8:37 AM 'wprice@state.nm.us' Ciniza Well Closures



cinizaclosure.doc

<<cinizaclosure.doc>> Hi Wayne, Just wanted to give you a heads up that
Precision Engineering will start on Ciniza's well closures late Monday Sept.
27 or early Tuesday morning.

Thanks Ed

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This email has been scanned by the MessageLabs Email Security System. For more information please visit http://www.messagelabs.com/email September 16, 2004

Mr. Ed Riege Giant Refining Company Ciniza Refinery Route 3, Box 7 Gallup, New Mexico 87301

Re: Ciniza Well Closures

Mr. Riege,

It is our understanding the following wells will be closed: OW-2, OW-3, OW-7, OW-9, OW-24, SMW-1, SMW-3, and SMW-5. Total closure footage is estimated to be 498 feet. The general procedure for closure will be to use a 6% bentonite (montmorillonite clay) and cement slurry as the closure agent. Slurry will be injected at the bottom of the wells to displace the water. Once water has been displaced the will then be pressure. A minimum of three (3) well volumes of slurry will be pressure injected into the well. Slurry weight will be approximately thirteen (13) pounds per gallon. Once injection has been complete the surface finish will be demolished removed from the well location to a location on the refinery property designated by Giant Refining personnel. The steel protective casing will be regraded to natural conditions. A closure report will be provided indicating slurry volumes and any work performed at the well location to be placed in the well file. Precision Engineering, Inc. will change data bases and electronic files to reflect the well closures and the dates of closure. Copies of the updated maps will be provided to Giant Refining Company.

We are aware some wells have dedicated pumps. Prior to closure the pumps will be removed and the total length of emplacement will be determined. Pumps, vanes and down hole wiring and tubing will be decontaminated. Pumps will be moved and placed in alternate wells designated by Giant Refining. Modifications to surface casing or protective equipment will be provided by Precision Engineering, Inc.

Our estimated cost for well closures includes the above scope as well as all mobilization, per diem, materials, and equipment associated with the required work. Our fee for the work will not exceed \$11,920.00 plus appropriate taxes. We estimate six (6) days, including mobilization, will be required to complete the work. Should the closure process proceed more quickly the economy of time will reduce the total cost of the project. If you have questions, please contact our office.

Sincerely, Precision Engineering, Inc. William H. Kingsley, P.E.



Page 1 of 5

*****3 FaxBack # 11626

#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

JULY 5, 1991

#### MEMORANDUM

SUBJECT: Applicability of the "Mixture" Rule To Petroleum Refinery Wastewater Systems

FROM: Sylvia K. Lowrance Off ice of Solid Waste

TO: Director, Waste Management Division

Regions I - X

Last fall, EPA added two wastes, F037 and F038, generated in the treatment of petroleum refinery wastewaters to the list of hazardous wastes under 40 C.F.R. 261.31 (55 Fed. Reg. 46354, November 2, 1990). Since then, we have received requests for clarification concerning the application of the "mixture rule" to these listings. This memorandum is intended to provide guidance on this question.

In a December meeting with the American Petroleum Institute (API) and my staff, API discussed what it viewed as a potential conflict between the language of the listing that limits the listed wastes to those generated upstream of aggressive biological treatment units and the preamble discussion of the interaction between the "mixture rule" and the listing. API explained its fear that introduction of a particle of the sludge to non-hazardous wastewater would taint the wastewater and thus convert any downstream units into hazardous waste treatment facilities.

The discussion of the mixture rule in the preamble to the final regulation does not reflect any change in the Agency's position about how the mixture rule works and the circumstances in which a non-hazardous wastewater, i.e., non-listed wastewater, that generates a listed waste would become hazardous.

In response to an expression of concern about this matter in comments filed on the rule, EPA (Response to Comments Background Document) indicated as follows:

With respect to the commenter's concern that all downstream units would be regulated as hazardous as a consequence of application of the mixture rule, the Agency feels that the following points should be made. Generation of a waste does not occur until deposition. It is Agency policy that no mixing occurs in a wastewater treatment unit that manages a non-hazardous [nonlisted] liquid waste even if that liquid generates a hazardous sludge that settles to the bottom of the unit, unless that sludge is in some way dredged up and physically mixed with the liquid. If the Agency did not interpret the mixture rule in this manner, there would be no point in carefully limiting listings to include sludges but exclude wastewaters. The position of the Agency in expanding the listing was to ensure the regulation of similarly composed sludges, regardless of where they are generated.

This is consistent with EPA's previous discussions of the applicability of the mixture rule with respect to petroleum refinery wastewater separation sludges. (See attached December 7, 1984 Office of Solid Waste and Emergency Response Memorandum, Subject: Region VIII Policy for the Permitting of Refinery Oily Wastewater Treatment Ponds). Further, the Agency's position is fully explored in the extended discussion of the rule in the final rule concerning the delay of closure for hazardous waste management facilities. See 54 Fed. Reg. 33376, 33387 (August 14, 1989). There, the Agency rejected the position that when non-hazardous waste and a listed hazardous waste are co-mingled and co-managed in the same unit under any circumstances, the entire mixture is considered a listed waste.

The Agency has consistently interpreted the mixture rule not to apply where a nonlisted waste is discharged to a unit (i.e., surface impoundment) even if that liquid generates a hazardous sludge, unless the sludge is in some way "mixed" with the liquid (e.g., scoured as a result of operations in the unit). If the Agency did not interpret the mixture rule in this manner, there would be no point in carefully limiting listings to include sludges but exclude wastewater.

The discussion goes on to recognize that there is a continuum between sludge, the sludge/liquid and the liquid. Within the sludge/liquid interface there may be some mixing but not "mixing" so as to convert the liquid from non-hazardous waste to hazardous. Only in the event of scouring or other physical mixing would the mixture rule come into play.

Were any mixing to occur, it would be confined to the liquid/sludge interface. Levels of hazardous constituents escaping from the hazardous sludge to the non-hazardous liquid are not likely to pose an appreciable risk to human health and the environment. Should the impoundment be dredged so that scouring or other physical mixing occurs, the mixture rule would come into effect. 54 Fed. Reg. 33388.

Under the policy explained above, for example, it is unlikely that any increased turbidity associated with the introduction of water from storm events would create the necessary scouring or physical mixing described above so as to convert non-hazardous wastewater to hazardous. Similarly, for example, the small amount of resuspension of primary sludge associated with the normal operation of a properly designed wastewater treatment system would not render the wastewater hazardous.

cc: RA's Region I-X Richard Witt (LE-132S)

#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

http://yosemite.epa.gov/osw/rcra.nsf/documents/239140120CCA32A78525661100690000

#### **DECEMBER 7, 1984**

#### **MEMORANDUM**

SUBJECT: Region VIII Policy for the Permitting of Refinery Oily Wastewater Treatment Ponds

FROM: John He Skinner, Director

Office of Solid Waste (WH-562)

TO: Robert L. Duprey, Director

Region 8 Air and Waste Management Division (8AW-WM)

We have reviewed the proposed Region VIII position discussed in your memos dated May 1 and October 12, 1984 that define permitting coverage of refinery wastewater treatment ponds. As your staff may have informed you, there have been several meetings between my staff and yours to discuss this problem. We have also met with Chevron, Phillips, Tosco and API and, separately, with Region IX to discuss the issue. We share your concern about the threat posed to ground and surface waters by some of the unlined wastewater ponds that treat or store oily wastewaters. However, we believe that the similarity of downstream unit sludges (in terms of lead and chromium levels) to those found in the API Separator are not a sufficient basis for defining the material in the downstream units as API Separator Sludge. In fact, the similarity of these sludges was a significant factor in our decision to move forward on an expanded listing to regulate these pond sludges.

Specifically, we are planning in a forthcoming listing to regulate oil/water/solids separation sludges generated in the wastewater treatment system prior to biological treatment. This listing was originally proposed in November of 1980. We expect to issue a notice identifying all of the available data in support of the listing and to provide some clarifications in response to previous comments. Current plans are to promulgate that listing by late summer.

While the listing revision should cover most sludges generated in these ponds, we realize that does not address your short term problem. We do have some suggestions in this regard. Section 206 of the Hazardous and Solid Waste Amendments of 1984 provides that persons obtaining RCRA permits must undertake corrective action for all releases of hazardous constituents from any solid waste management unit as a condition of obtaining the RCRA permit. Thus, if a refinery pond is releasing hazardous constituents and the refinery seeks a RCRA permit for any unit at that facility, the refinery would have to undertake corrective action for the releases from the pond. (This could be done either through the permit, or pursuant to an interim status compliance order.) This principle applies even if the pond is not considered to hold a hazardous waste, since Section 206 applies to releases of hazardous constituents from <u>solid waste</u> management units.

A second option for addressing these pond sludges is to regulate the wastes as hazardous based on their

http://yosemite.epa.gov/osw/rcra.nsf/documents/239140120CCA32A78525661100690000

exhibiting one or more of the characteristics of hazardous waste (see 40 CFR §261.21 -24). You mentioned this option in your recent letter with respect to EP Toxicity. However, your staff seems to have overlooked corrosivity (high pH has been found in some COD ponds) and reactivity (§261.23(a)(5)). It is likely that some refinery pond sludges will contain excessive levels of reactive sulfides.

The final option that could be used to deal with downstream impoundments and basins is applicability of the mixture rule. It is imperative, however, that your staff understand the proper framework for the application of the mixture rule. To maintain that a pond is regulated because an API Separator is an inherently inefficient unit and allows sludge to be carried through to a pond, is inaccurate. Likewise, downstream oxidation ponds are not regulated simply because they sometimes receive flow that has bypassed the API Separator. In both cases, the listed API Separator Sludge has not yet been generated. Rather, API Separator Sludge is generated when it is deposited in the bottom of an API Separator. The mixture rule is relevant only in those cases where previously deposited sludge is scoured, resuspended, and then carried out of the unit with the wastewater. If the Region can make a case for scouring from a separator, the mixture rule is applicable and the wastewater becomes a hazardous waste until delisted or discharged to a stream subject to regulation under the Clean Water Act.

The burden of proof in the demonstration of scouring is upon the Agency. Such an argument, although technically complex, can be made based on well established hydrodynamic principles. Realizing that there are limited resources and capability for developing such an argument by the Regions, we have (at the request of your staff) taken an active role in the development of guidance for the application of this argument. Attached to this memo is a preliminary list of factors that may be required to establish the occurrence of scouring from a given separator. These points are being provided at this time to facilitate the initiation of information gathering in the more serious cases.

We have also requested that the Office of Waste Programs Enforcement (OWPE) develop more thorough guidance. That effort is being conducted by their contractor (Metcalf & Eddy). We anticipate that your staff will be contacted by them in the near future. The contractor should be able to provide some direct assistance to your staff in some specific cases, thereby serving the dual purpose of training and resolution of specific factors of concern. Mike Barclay (FTS: 475-8727) of OWPE is the Head-quarters lead on that project and should be contacted for any further information. Ben Smith of my staff (FTS: 475-8551) is our technical expert in this matter and the lead on our study of petroleum refineries and their wastes. Do not hesitate to contact him if additional questions arise pertaining to this or other matters.

cc: RA's Region I-X

Mike Barclay (OWPE) Steve Silverman (OGC) Susan Manganello (ORC, Region VIII)

#### Factors To Be Evaluated In Determining The Potential For

Separator Sludge Scouring

http://yosemite.epa.gov/osw/rcra.nsf/documents/239140120CCA32A78525661100690000

Sludge Accumulation Practices - Continuous sludge removal from the separator rules out the occurrence of scouring. At the other end of the spectrum are facilities that allow sludge to accumulate to considerable depth. Accumulation to a depth greater than 50% of the flow depth makes scouring probable. Intermediate ranges of accumulation will probably depend more heavily on other factors.

Flow Variability - Unless overloaded, units with maximum-to-minimum, flow ratios at the separator effluent of less than 2 and inlet flow ratios of less than 4 are probably not experiencing much resuspension of sludge.

Poor Separator Design or Operation - Factors contributing to scour conditions include: excessive, inlet or outlet zone turbulence; nominal horizontal velocities greater than 30 feet per minute; nominal overflow rates (flow/ surface area) greater than 10,000 gallons per day/square foot of basin; basins less than 30 feet in length; opera-tion under pressure (e.g., with a backwater at the inlet of a separator with a frozen surface), settling zone turbulence (sometimes seen as bubbling with solids entrainment).

Separator Effluent Characteristics - Excessive weir loadings (e.g., operation with a suppressed weir, flow depth greater than a foot) facilitate carryover of resuspended particles. Visible, large (diameter greater than 1/4 inch) sludge particles in the separator effluent are strong evidence of scouring associated with microbial degradation of deposited sludge.

Sludge Characteristics - Particle size distribution as measured by wet sieve and hydrometer analyses is necessary information to define scour conditions. The presence of coke fines in the wastewater influent is also important because that size of particle (<.lmm) is non-cohesive and highly susceptible to resuspension.

Price, Way	yne, EMNRD	
From:	Monzeglio, Hope, NMENV	Sent: Wed 9/21/2005 9:49 AM
То:	James Romero; Price, Wayne, EMNRD; Foust, Denr	ny, EMNRD; Cobrain, Dave, NMENV; Price, Wayne, EMNRD
Cc:	Steve Morris; Ed Riege; Johnny Sanchez	
Subject:	RE: Proposal for new monitoring wells (GWM-2 and	I GWM-3)
Attachmen	ts:	
NMED here	eby approves the well and boring installation p	rocedures as presented in the attachments to this email.
Hope Monz	zeglio	
Hope Monz	zeglio	
	ntal Specialist	
	o Environment Department	
Hazardous	Waste Bureau	

2905 Rodeo Park Drive East, BLDG 1 Santa Fe NM 87505 Phone: (505) 428-2545 Fax: (505)-428-2567 hope.monzeglio@state.nm.us

From: James Romero [mailto:jromero@giant.com]
Sent: Tue 9/20/2005 11:40 AM
To: Monzeglio, Hope, NMENV; Price, Wayne, EMNRD; Foust, Denny, EMNRD; Cobrain, Dave, NMENV; Price, Wayne, EMNRD
Cc: Steve Morris; Ed Riege; Johnny Sanchez
Subject: Proposal for new monitoring wells (GWM-2 and GWM-3)

Per our conference call, we are submitting the following installation Procedures for GMW-2 and GMW-3 which was prepared by Precision Engineering. As we discussed, and with your approval, we'd like to begin drilling the week of September 26, 2005. Moreover, in addition to the procedures, you'll find a map which depicts the new well locations. Giant would like to former ally request your review and approval of these plans. If there is any additional information you need or questions call Steve Morris at 505-722-3258. I'll be in training this week, however, I will be checking email.

<<gmw2and3locations.pdf>> <<cinizagmwwells.DOC>>

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Route 3, Box 7 Gallup, New Mexico 87301

August 30, 2004

Mr. Joe Murrietta, Executive Director NWNM Regional Solid Waste Authority PO Box 1330 Thoreau, NM 87323

RE: Disposal of Cooling Tower Basin Residue and Coarse Salt

Dear Mr. Murrietta:

Giant Refining Company – Ciniza Refinery would like to dispose of the above-mentioned waste at your Red Rocks Facility.

Enclosed you will find analytical results on the material from the Cooling Tower cleanup.

In addition to the material from the Cooling Tower, there is a significant amount of coarse salt from the Brine Tank cleanout. These were placed in the same containment area and became mixed. We would like to dispose of them together in the same roll off bins as there is no way to separate them now.

The salt from the brine tank is used for water treatment and is just regular salt (Na Cl). It came into contact with water and nothing more.

If you have any questions or concerns, please give me a call at 505-722-0258.

Sincerely,

Minis

Steve Morris Environmental Engineer Giant Refining Co. – Ciniza Refinery

Enc.

CC: Wayne Price, Oil Conservation Division (w/enc.)



#### COVER LETTER

July 21, 2004

Dorinda Mancini Giant Refining Co Rt. 3 Box 7 Gallup, NM 87301 TEL: (505) 722-0227 FAX (505) 722-0210

RE: 2004 Cooling Tower Sludge

Order No.: 0407021

Dear Dorinda Mancini:

Hall Environmental Analysis Laboratory received 1 sample on 7/2/2004 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

0

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager



4901 Hawkins NE■ Suite D■ Albuquerque, NM 87109 505.345.3975■ Fax 505.345.4107 www.hallenvironmental.com

Date: 21-Jul-04

**CLIENT:** Client Sample ID: Cooling Tower Sludge Giant Refining Co Collection Date: 6/28/2004 9:10:00 AM Lab Order: 0407021 **Project:** 2004 Cooling Tower Sludge Matrix: SOLID Lab ID: 0407021-01 PQL Qual Units Analyses Result DF **Date Analyzed EPA METHOD 9056A: ANIONS** Analyst: MAP 500 Fluoride ND 150 mg/Kg 7/20/2004 7:59:22 PM Chloride 510000 1500 mg/Kg 5000 7/21/2004 Nitrogen, Nitrate (As N) 150 mg/Kg 500 ND 7/20/2004 7:59:22 PM Sulfate ND 750 mg/Kg 500 7/20/2004 7:59:22 PM Nitrogen, Nitrite (As N) ND 150 mg/Kg 500 7/20/2004 7:59:22 PM Phosphorus, Orthophosphate (As P) ND 750 mg/Kg 500 7/20/2004 7:59:22 PM MERCURY, TCLP LEACHED Analyst: IC 0.040 20 7/12/2004 Mercury 0.041 mg/L **EPA METHOD 6010C: SOIL METALS** Analyst: NMO 25 1 7/9/2004 2:15:40 PM Calcium 960 mg/Kg Iron 620 10 mg/Kg 10 7/12/2004 1:55:51 PM 25 mg/Kg 7/9/2004 2:15:40 PM Magnesium 130 1 Manganese 70 0.10 mg/Kg 1 7/9/2004 2:15:40 PM Potassium 860 50 mg/Kg 1 7/9/2004 2:15:40 PM Sodium 450000 2500 mg/Kg 100 7/12/2004 1:52:23 PM Zinc ND 2.5 mg/Kg 1 7/9/2004 2:15:40 PM EPA METHOD 6010C: TCLP METALS Analyst: NMO Arsenic ND 5.0 mg/L 5 7/9/2004 9:32:03 AM Barium ND 100 mg/L 5 7/9/2004 9:32:03 AM Cadmium ND 1.0 mg/L 5 7/9/2004 9:32:03 AM Chromium 5.0 mg/L 5 7/9/2004 9:32:03 AM ND 5 Lead 5.0 ND mg/L 7/9/2004 9:32:03 AM Selenium 5 ND 1.0 mg/L 7/9/2004 9:32:03 AM Silver 5.0 ND mg/L 5 7/9/2004 9:32:03 AM

Qualifiers:

ND - Not Detected at the Reporting Limit

- J Analyte detected below quantitation limits
- B Analyte detected in the associated Method Blank
- * Value exceeds Maximum Contaminant Level 1 / 8
- S Spike Recovery outside accepted recovery limits
- R RPD outside accepted recovery limits
- E Value above quantitation range

CLIENT: Giant Refining Co

Work Order: 0407021

Project: 2004 Cooling Tower Sludge

Sample ID MB-6124	Batch ID: 6124	Test Code:	E300	Units: mg/Kg		Analysis	5 Date 7/19	/2004 9:43:40 PM	Prep D	ate 7/15/200	4
Client ID:		Run ID:	LC_040719A			SeqNo:	2886	96			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Fluoride	ND	0.3			•						
Chloride	0.7154	0.3									
Nitrogen, Nitrate (As N)	ND	0.3									
Sulfate	ND	1.5									
Nitrogen, Nitrite (As N)	ND	. <b>0.3</b>									
Phosphorus, Orthophosphate (As	P) ND	1.5									
Sample ID MB-6089	Batch ID: 6089	Test Code:	SW7470	Units: mg/L		Analysis	Date 7/12	/2004	Prep Da	ate 7/12/200	4
Client ID:		Run ID:	MI-LA254_04	0712A		SeqNo:	2862	08			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.02		•						·	
Sample (D MB-6069	Batch ID: 6069	Test Code:	SW6010A	Units: mg/Kg		Analysis	Date 7/9/2	2004 11:20:30 AM	Prep Da	ate 7/7/2004	
Client ID:		Run ID:	ICP_040709B	i		SeqNo:	2858	77			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Quai
Calcium	ND	25							-		
Iron	ND	1									
Magnesium	ND	25									
Manganese	ND	0.1									
Potassium	ND	50									
Sodium	ND	25									
Zinc	ND	2.5									

Qualifiers:

2/8

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

1

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

Date: 21-Jul-04

Method Blank

**QC SUMMARY REPORT** 

# CLIENT:Giant Refining CoWork Order:0407021Project:2004 Cooling Tower Sludge

# **QC SUMMARY REPORT**

Method Blank

Sample ID MB-6073	Batch ID: 6073	Test Code: SW1311/6010 Units: mg/L				Analysi	s Date 7/9/2	2004 8:19:52 AM	Prep Date 7/7/2004					
Client ID:		Run ID:	ICP_040709/	A		SeqNo:	2857	05						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Quai			
Arsenic	ND ·	5												
Barium	ND	100			•									
Cadmium	ND	1			•									
Chromium	ND	5												
Lead	ND	5												
Selenium	ND	1												
Silver	ND	· 5												

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

Date: 21-Jul-04

CLIENT: Giant Refining Co

# **QC SUMMARY REPORT**

Sample Duplicate

Work Order:	0407021

Project: 2004 Cooling Tower Sludge

Sample ID 0407021-01A	Batch ID: 6124	Test Code	: <b>E300</b>	Units: mg/Kg		Analysis	Date 7/20	/2004 8:32:58 PM	Prep Da	ate 7/15/2004	4
Client ID: Cooling Tower SI	•	Run ID:	LC_040720A			SeqNo:	2891	25			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	150	0	0	. 0	0	0	0			
Nitrogen, Nitrate (As N)	ND	150	0	0	0	0	0	0			
Sulfate	287.3	750	<i>,</i> 0	0	0	0	0	0			J
Nitrogen, Nitrite (As N)	ND	150	0	0	0	0	0	0			
Phosphorus, Orthophosphate (As I	P) ND	750	0	0	0	. 0	0	0			

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

2004 Cooling Tower Sludge

Date: 21-Jul-04

CLIENT:Giant Refining CoWork Order:0407021

### QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID LCS-6124	Batch ID: 6124	Test Code	: E300	Units: mg/Kg		Analysis	Date 7/19	/2004 10:00:28 PM	Prep D	ate 7/15/200	)4			
Client ID:		Run ID:	LC_040719A			SeqNo:	2886	97						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua			
Fluoride	1.443	0.3	1.5	0	96.2	90	110	0						
Chloride	16.05	0.3	15	0.7154	102	90	110	0			В			
Nitrogen, Nitrate (As N)	7.744	0.3	7.5	0	103	90	110	0						
Sulfate	31.7	1.5	30	0	106	90	110	0						
Nitrogen, Nitrite (As N)	3.186	. 0.3	3	0	106	90	110	0						
Phosphorus, Orthophosphate (As	P) 15 <b>.18</b>	1.5	15	0	101	90	110	0						
Sample ID LCS-6089	Batch ID: 6089 Test Code: SW7470 Uni		Units: mg/L		Analysis	2004	Prep Date 7/12/2004							
Client ID:		Run ID:	MI-LA254_04	0712A		SeqNo:	28620	9						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua			
Mercury	0.004998	0.002	0.005	0	100	80	120	0						
Sample ID LCSD-6089	Batch ID: 6089	Test Code:	SW7470	Units: mg/L	Units: mg/L			2004	Prep Date 7/12/2004					
Client ID:		Run ID:	MI-LA254_04	0712A		SeqNo:	28622	20						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua			

5/8

**Project:** 

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

# CLIENT:Giant Refining CoWork Order:0407021Project:2004 Cooling Tower Sludge

# QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID LCS-6069	ID LCS-6069 Batch ID: 6069 Test Cod			le: SW6010A Units: mg/Kg			s Date 7/9/2	2004 11:23:20 AM	Prep D		
Client ID:	Run ID:			3		SeqNo:	2858	78			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Calcium	2364	25	2500	0	94.6	. 80	120	0			
Iron	32.01	1	25	0	128	80	120	0			S
Magnesium	2418	25	2500	0	96.7	80	120	0			
Manganese	24.71	0.1	25	0	98.8	80	120	0			
Potassium	2452	50	2500	0	98.1	80	120	0			
Sodium	2723	25	2500	0	109	80	120	0			
Zinc	ND	2.5	25	0	0	80	120	0			S
Sample ID LCSD-6069	Batch ID: 6069	Test Code:	SW6010A	Units: mg/Kg		Analysis	Date 7/9/2	2004 11:26:32 AM	Prep Da	ate 7/7/2004	
Client ID:		Run ID:	ICP_040709B			SeqNo:	28587	79	·		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	2429	25	2500	0	97.1	80	120	2364	2.71	20	
Iron	29.74	1	25	0	119	80	120	32.01	7.36	20	
Magnesium	247 <b>7</b>	25	2500	0	· 99.1	80	120	2418	2.38	· 20	
Manganese	25.24	0.1	25	0	101	80	120	24.71	2.12	20	
	2484	50	2500	0	99.4	80	120	2452	1.31	20	
Potassium	2-10-1										
Potassium Sodium	2729	25	2500	0	109	80	120	2723	0.215	20	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

d recovery limits B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

#### CLIENT: Giant Refining Co Work Order: 0407021

# QC SUMMARY REPORT

Laboratory Control Spike - generic

Project: 2004 Cooling Tower Sludge

	Batch ID: 6073	Test Code:	SW1311/6010	Units: mg/L		Analysis	Date 7/9/2	004 8:22:43 AM	Prep Da	ate 7/7/2004	
Sample ID LCS-6073	Balarid, who	Run ID:	ICP_040709A		•	SeqNo:	28570	)6			
Client ID: Analyte	Result	PQL	•	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
	0,4585	0.4	0.5	0	91.7	80	120	0			
Arsenic	0.4732	0.4	0.5	0	94:6	80	120	0			
Barium	0.4502	0.4	0.5	0	90.0	80	120	0			
Cadmium	0.4818	0.4	0.5	0	96.4	80	120	0			
Chromium	0.4668	0.4	0.5	0	93.4	80	120	0			-
Lead	0.3995	0.2	0.5	0	79. <del>9</del>	80	120	0			S
Selenium	0.3658	· 0.4	0.5	0	93.2	80	120	0			
Silver						Analysis	Date 7/9/2	2004 8:25:57 AM	Prep Da	ate 7/7/2004	, ,
Sample ID LCSD-6073	Batch ID: 6073	Test Code	: SW1311/6010								
Client ID:		Run iD:	ICP_040709A			SeqNo:					_
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qu
	0.4691	0.4	0.5	0	93.8	80	120	0.4585	2.28	20	
Arsenic	0.4031	0.4	0.5	0	94.2	80	· 120	0.4732	0.425	20	
Barium	0.45	0.4	0.5	0	90.0	80	120	0.4502	0.0554	20	
Cadmium	0.4803	0.4	0.5	0	96.1	80	120	0.4818	0.300	20	
Chromium	0.4665	0.4	0.5	0	93.3	80	120	0.4668	0.0654	20	
Lead	0.3982	0.2	0.5	0	79.6	80	120	0.3995	0.317	20	S
Selenium Silver	0.3982	0.4	0.5	• 0	93.0	80	120	0.4658	0.140	20	

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

· · · ·	Sample	Rece	ipt Che	ecklist			
Client Name GIANTREFIN				Date and Time	e Received:	- 7	/2/2004
Work Order Number 0407021	Λ			Received by	AT		
Checklist completed by	he	×.	-1/2	last			
Signature	11-4		Date	/0/			
Matrix	Carrier name	<u>FedE</u>	<u>x</u>				
Shipping container/cooler in good condition?		Yes		No 🗔	Not Present		
Custody seals intact on shipping container/cooler?		Yes		No 🗔	Not Present 🗹	Not Shipped	
Custody seals intact on sample bottles?		Yes		No 🗹	N/A		
Chain of custody present?		Yes		No 🗖			
Chain of custody signed when relinquished and rec	eived?	Yes		No 🗖			
Chain of custody agrees with sample labels?		Yes		No 🗆			
Samples in proper container/bottle?		Yes		No 🗖			
Sample containers intact?		Yes		No 🗖			
Sufficient sample volume for indicated test?		Yes		No 🗔			
All samples received within holding time?		Yes		No 🗔			
Water - VOA vials have zero headspace?	No VOA vials sub	mitted		Yes 🗋	No 🗔		
Water - pH acceptable upon receipt?		Yes		No 🗔	N/A 🗹		
Container/Temp Blank temperature?			3°	4°C±2Accep If given sufficient			
COMMENTS:							
					·		
Client contactedD	ate contacted:			Pe	rson contacted		
Contacted by:	legarding				·		
Comments:							
					····		
		<u></u>					
Corrective Action							
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CHAI	N-OF-	CUSTO	DY RECORD										4	901	Haw	kins	ne,	Sui	le A				(L) Iora	KKG		
	Jene	za k A Re	Fining Co Box P	Project Name: 2004 Sec.	Project Name: 2004 Cooling Tower Sandge J Project #: Wester + Disposed Determination							Albuquerque, New Mexico 87109 Tel. 505.345.3975 Fax 505.345.4107 www.hallenvironmental.com												\$] k		
Address: (		3, t	BOX PT NH. 8730	Project #: U Detcy	)est	e v nat	B	sposel		(Å	(Ias			A	NAL	YSI	S R		JES	T						
	<u> </u>	7	<u> </u>	Project Manage	<u>г.</u>					asoline On	D (Gas/Die						d'L	NK.	, PO4, SÓ4)	(8082)				N JOY NO		
Phone #: Fax #:	505	- 72	2-3833 2-0210	Sampler: Samples Cold?:	Eo			R ::	E + TMB's (	E + TPH (G	8015B MO	d 418.1)	List (8021)	d 504.1)	d 8021)	or PAH)	als <i>:TR</i>	K, Ca, Mg)	1, NO3, NO2	des / PCB's	5	VOA)		dr Hel		
Date	Time	Matrix	Sample I.D. No.	Number/Volume		eservat HCI		HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B MOD (Gas/Diesel)	TPH (Method 418.1)	Volatiles Full List (8021)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA c	RCRA 8 Metals	Cations (Na, K, Ca, Mg)	Anions (F, C1, NO ₃ , NO ₂ ,	8081 Pesticides / PCB's (8082)	(NON)-0928	8220 (Semi-VOA)	New York	<b>H</b> Subbles		
-28-04	0910	solio	Conting Tower Sloge					0407021-1									X	X	X							
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Date: 6-2 8-49 Date:	Time: \$630 Time:		ed By: (Signature) ed By: (Signature)	CC & Receive Receive	ha	1	ĽĽ	7/2/04	1	narks 1 ( ) 1 ( )	i je	n cau	ar (		he U		e U	J. Vea		tta J	i de la composición de la comp	N. DE		bic		

#### Price, Wayne

From: Sent: To: Cc: Subject: Price, Wayne Tuesday, July 27, 2004 3:12 PM Dorinda Manncina (E-mail); Ed Rigie (E-mail) hope Monzeglio (E-mail) New Monitor points (New Wells) and one located Near API separator and ponds

Dear Dorinda, Please make sure this monitoring point is included in your sampling program. Section 9.0 of the discharge plan calls for this well to be checked for fluids quarterly. Your annual report shall reflect your findings. Please notify OCD within 48 hours of discovery of fluids. The new wells near the evaporation ponds shall also be included in the annual report. Please let me know which of those wells have fluids in them.

Sincerely:

Wayne Price New Mexico Oil Conservation Division 1220 S. Saint Francis Drive Santa Fe, NM 87505 505-476-3487 fax: 505-476-3462 E-mail: WPRICE@state.nm.us

From: Sent: To: Cc: Subject: Ed Riege [eriege@giant.com] Wednesday, July 21, 2004 4:01 PM 'rcanderson@state.nm.us' 'wprice@state.nm.us' FW: API containment

> Roger,

> In our phone conversation today we advised you of water infiltration (8
> gpd) into our new API secondary containment. The new API has not been put
> into service and the water sampled from the containment showed no BTEX. We
> had discussed putting the API into service and sampling the containment
> before the containment leak is repaired. At this time we have decided to
> initiate the leak repair before the API is put into service due to pipe
> configuration. The new anticipated date of startup for the API is now
> August 23. We will keep Wayne updated on the repair project.
> Thanks Ed Riege
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From: Sent: To: Cc: Subject: Ed Riege [eriege@giant.com] Wednesday, July 21, 2004 3:54 PM 'randerson@state.nm.us' 'wprice@state.nm.us'; Dorinda Mancini API containment

Roger,

In our phone conversation today we advised you of water infiltration (8 gpd) into our new API secondary containment. The new API has not been put into service and the water sampled from the containment showed no BTEX. We had discussed putting the API into service and sampling the containment before the containment leak is repaired. At this time we have decided to initiate the leak repair before the API is put into service due to pipe configuration. The new anticipated date of startup for the API is now August 23. We will keep Wayne updated on the repair project. Thanks Ed Riege

i.

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From: Sent: To: Subject: Ed Riege [eriege@giant.com] Thursday, July 01, 2004 4:12 PM 'Price, Wayne' RE: Giant Ciniza water wells

Wayne,

I gave you a bum steer! According to Kinglsey, well #1 is out of service not #2. Well #1 is sealed and capped. Well #3 is the potable well but can also be used as industrial. Thanks Ed

----Original Message----From: Price, Wayne [mailto:WPrice@state.nm.us] Sent: Thursday, July 01, 2004 3:40 PM To: 'Eriege@giant.com' Cc: Dorinda Manncina (E-mail) Subject: Giant Ciniza water wells

Dear ED,

I received the information on the plant water wells. Per our telephone conversation well #2 is out of service, while well #1 and 4 are your industrial wells and well #3 id the potable well. Do you know if well #2 has been plugged?

Sincerely:

Wayne Price New Mexico Oil Conservation Division 1220 S. Saint Francis Drive Santa Fe, NM 87505 505-476-3487 fax: 505-476-3462 E-mail: WPRICE@state.nm.us

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From: Sent: To: Cc: Subject: Price, Wayne Thursday, July 01, 2004 3:40 PM 'Eriege@giant.com' Dorinda Manncina (E-mail) Giant Ciniza water wells

**Contacts:** 

Ed Rigie

Dear ED,

I received the information on the plant water wells. Per our telephone conversation well #2 is out of service, while well #1 and 4 are your industrial wells and well #3 id the potable well. Do you know if well #2 has been plugged?

Sincerely:

1912.02	ESOURCES DEP	ARTMENT
LL RICHARDSON Governor (505 Joanna Prukop (505) 4 Cabinet Secretary Lawrence E. Morgan Conucil Delegate Edward J. Duff Vier Firedout Bar Saud	O CHAPTER D. Box 498 New Mexico 87316 5) 488-5650 88-6115 (Fax)	Lori Wrotenbery Director Oil Conservation Divisior <u>tion</u>
TelephonePersonalXXXE-MailTime:9am-12 noonDate:6/24/04	New Mexico St SENATOR LIDIO	
Originating Party: Navajo Tribe Chapter House Other Parties: Wprice-OCD see list		Home: (505) 863-3643 Fax: (505) 863-2554

**Discussion:** Meeting of Tribal Members and invited guest to start a process to determine water quality problems.

#### **Conclusions or Agreements:**

CC:

OCD will sample the two public supply wells #666 & 668 to determine if the problem is related to the oil and gas industry. Sample results will be evaluated and sent to the tribe when received by OCD.

Wape Pin JERRY SILAGO WATER/WASTE WATER FOREMAN CROWNPOINT SUB-OFFICE Signed: Office: 505-786-5566 Fax : 520-729-6295 Email : jerrys@ntua.com <u>F</u>ax NAVAJO TRIBAL UTILITY AUT HO P.O. Box 1825 CROWNPOINT, NEW MEXICO 8731

Oil Conservation Division * 1220 South St. Francis Drive * Santa Fe, New Mexico 87505 Phone: (505) 476-3440 * Fax (505) 476-3462 * <u>http://www.emnrd.state.nm.us</u>

# IYANBITO SPECIAL CHAPTER MEETING JUNE 24, 2004 AGENDA

- I. Meeting call to order
  - A. Invocation
  - B. Introduction of Guest(s):
    - Lawrence T. Morgan, Council Delegate
    - Jerry Silago, Navajo Tribal Utility Authority
    - Ded Misra, Navajo Nation Environmental Protection Agency
    - Senator Lidio Rainaldi
    - Representative Irvin Harrison
    - Representative George Hanosh
    - Wayne Price, Environmental Bureau, New Mexico Oil Conservation
    - Dave Cobrain, New Mexico Environmental Dept., Hazardous Waste Bureau
    - Hope Monzelio, New Mexico Environmental Dept., Hazardous Waste Bureau
    - Durinda Mancini, Giant Refinery
- II. Review/acceptance of proposed agenda
  - A. Iyanbito Water Quality
  - B. Iyanbito Senior Citizen Memorandum of Understanding (MOU)
- III. Announcement A. Planning Meeting – July 2, 2004
- IV. Benediction/Adjournment

# "Thank you for coming – Have a safe trip home"

Pinnacle Laborat	ories Inc.	CH		OF 24/51			<u>P</u> Y	P				<u> </u>	<u>0</u> 4	ر میں 2	- 116.9 <u>- 22. 2</u> - 2	
PROJECT MANAGER: COMPANY ADDRESS: DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOCD DOC DOC	<u>77505</u>	Petroleum Hydrocarbons (418:1) TRPH (MOD 8015) Diese/Direct Inject	(M8015) Gas/Purge & Trap 8021 (BTEX)/8015 (Gasoline) MTRF	(BTEX), BY MTBE TTMB CFCE	8021 (EDX) 8021 (HALO)	(CUST)		YSIS	8260 (Landfill) Volatile Organics	2esticides /PCB (608/8081/8082) / Harbicides /PCB (608/8081/8082) / Harbicides (615/8151) / Harbicides (615/815151) / Harbicides (615/8151	Î	Polynuclear Aromatics (610/8310/82/0/SIMS) General Chemistry:	エナドッパ dS/ o CD Priority Pollutant Metals (13)	Target Analyte List Metals (23)+ U	0 0	Metals: Number de containers
SAMPLE ID         DATE         TI $T-606$ $6/24/34$ $13$ $I - 667$ $6/24/34$ $13$	∞ A	Pe ( <u>V</u>	<u>N) - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - </u>		80 80	80	83	82	<u>82</u>	Per Che	a a a a a a a a a a a a a a a a a a a	2 ×× ××	7	X X Ia	RC	8 3 6
PROJ NAME IL GODINA VERTIFICA	AUTHORIZATION IS RE 24hr 48hr 7/2hr 7 TION REQUIRED NM (	1 WEEK		(N	IOJECT DRMAL), A	J S	RELINOI	Pui	Time	 17: 5/54	1 12 1/2		iré:		ime: Date:	2
SHIPPED VIA SAMPLE RECEIPT NO CONTAINERS 11+1 T-60	21ved 11 1211				- SI 10	ompany: ee reverse s RECEIVI gnature:	ED BY:	Time:		<u> </u>	Compa RECI Signal Signal	EIVED B	M. (LAF	<u>)</u> ime:	2 17 17	
CUSTODY SEALS			7107-(505	).544-377	•Fas(505	1.0	rinted Nam Ompany 113×E-mail		Date: B@WORI	DNETA	TENET		VA l Inñaoli	Labo	ы. 	

¥J.

Navajo-Yanbito Chapte buse Water Meeting. OCD- W.Price, NMED-Haz Waste D.Corbrain & H.Monzegilo Sampled Water Wells #666 and 668



Water samples collected by Navajo Tribe members. Clear water with settable solids. No hydrocarbon was observed.



Well House # 666-



Well House #666 looking southeast. Giant Ciniza Refinery in background approximately 2 miles away.



Well House #666 water sample collection point at spigot. Water flow is in direction of annotated arrow. All samples taken here were discarded, except BTEX volatiles. Reason being it was downstream of water treatment chemical injection. Chemical Pump was shut down for BTEX collection. Water well pump was running during sampling. All other samples were taken in the room next door at a petcock off of the water well line.



Well House # 668

Navajo-Yanbito Chapter House Water Meeting. OCD- W.Price, NMED-Haz Waste D.Corbrain & H.Monzegilo Sampled Water Wells #666 and 668





Picture of drum of chemical clearification used to treat the water.

Well House #668 water sample collection point at spigot. Water flow is in direction of annotated arrow. Chemical Pump was shut down for sample collection. Water well pump was running during sampling.



Same as above.



Well House #668 looking east. Giant Ciniza Refinery in background approximately 2 miles away. Railroad tracks located nearby.

6/24/04



May 5, 2004

Mr. Wayne Price Environmental Bureau Oil Conservation Division NM Energy, Minerals & Natural Resources Department 1220 South St. Francis Drive Santa Fe, New Mexico 87505

# RE: Giant Industries Arizona, Inc. d/b/a Giant Refining Co., Ciniza Refinery GW-032 Renewal Submittal – Volumes I & II

Dear Mr. Price:

Enclosed with this letter is Ciniza Refinery's Groundwater Discharge Plan (GW-032) revised submittal.

The plan submittal consists of two documents on CDs. Volume I is the revised plan submittal as of 4/28/04 and includes drilling logs, well diagrams and stratigraphic profile diagrams. Volume II contains Ciniza's Integrated Contingency Plan including our facility's SPCC and SWPPP plans.

Thank you for all your assistance. If you have any questions, please contact me at (505) 722-0227.

Sincerely,

Marceni

Dorinda Mancini Environmental Manager, Ciniza Refinery

Enclosures (2)

cc: Denny Foust, OCD Aztec Office
 Dave Cobrain, NMED, HWB
 David Kirby, Esq., Giant Industries Arizona, Inc.
 Matthew Davis, General Manger, Ciniza Refinery
 Ed Riege, Environmental Supt., Giant Industries Arizona, Inc.

PHONE 505-722-3833 FAX 505-722-0210 ROUTE 3 BOX 7 Gallup New Mexico 87301 NEW MEXICO OIL CONSERVATION DIVISION HAZARDOUS MATERIALS EMERGENCY RESPONSE GUIDELINES

GH-032

# Hazardous Materials Incident Notification Information Checklist

JP

16

The following information should be given to dispatch. Dispatch should be instructed to give all information received to response agencies.

Notification	Time Dispatch Notified 10:15 Am 4/8/04
Caller	Caller Name DORIDA MAUNCINA - GIANT
	Caller Location <u>CINIZA</u> RE FINERY
	Caller Phone Number 505 - 122 - 0227
	Incident location (address or nearest milepost or exit) 1/4 min N of I-40 BEADD PLOT TRAVEL CENTER
<u>Hazardous</u> <u>Materials</u>	,
Information	Time incident occurred $\cancel{PAM}$
,	Container type <u>ISO BUTANE</u> PROCESS UNIT (truck, train car, drum, storage tank, pipeline, etc.)
	Substance $\angle PG$
	UN Identification Number 1075
	Other identification
	Amount of material spilled/released
	(flowing, on fire, vapors present, etc.)
Saama	Weather conditions <u>cool - OVEACAS</u> (i.e., sunny, overcast, wet, dry, etc.)
<u>Scene</u> Description	Wind direction $\mu \nu \nu \epsilon - c \Lambda \mu \kappa$
	Wind speed CALM
	Terrain (i.e., valley, stream bed, depression, asphalt, etc.)
	Environmental Concerns NONE AT THIS TIME (streams, sewers, etc.)
Affected	Number of people affected
<b>Population</b>	Condition of people affected
<u>Resources</u>	Resources required <u>LEAC - 911</u> ERON ON SITE AT GATE (EMS, HazMat Team, Fire Department, etc) <u>Me KINNGGY SHER NEPT</u> . GALLIP GIRE NEP Response actions anticipated And/or in progress <u>RESINGRY-HAZ-MAT TEAM ACTIVATED</u>
<u>Response</u>	(i.e., rescue, fire suppression,
Comments	$\frac{\text{containment, etc.})}{(p I \sigma)} = 800 - 937 - 4937 \times 5836$
	MARM GOX = AZ
	MARK COX - AZ 3 REGINEAY EMPLOYEES INJURED (SEE BACK)
	(SEE BACK)

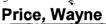
4/8/04 -	
11:20 AM	CALLED DEOC- NUTY officER JED 476-9635 SHEFT UNIFIER COMMAND BEINS OFACULED, STANT, MCHUNEELY FIRE DEST GALLOP FIRE BEAT NMSA EON ON SITE
11:45 Am	(WP, PA, CL) REC CALL FROM DORIMAA (GIANT) CONSIGNATION DALY 3 PEOPLE INJUNED TAKEN TO MMM-HOS ERO-STROD HUGSMAN 863-9353 GIANT IC IS CHAPTLE ARNOLD 722-0241 - THEAT IS COMMUNICATION BETWEEN GIART & ERO.
F 11: 50 AG	CALLER OCA DISTIT - CHAMIE PEALIN - DISENSSER INCLAENT SP QUEC CALL GIANT
Luvelt	
12:23 per 1:15 pm	DAVE CALARAR NEED CALLED LEST MESSAGE T CALL DC & LEST MESSAGE -
15:13 pm wp/cl	POND # 2 FIRE WATER FLOWING PROCESS AREA TO STORADWATER ARAMSE - OFF SITE MIXING
	WITH RAIN WATER EPA #6 SONDING (CONTRACTOR - GUESTON)
	MADAJO EPA 15 OF SITE ALM(STATE) + TRIBAL LAND!
	(LAST 1:00 PM) (ALOT THANGE CEATER -) WAS SHUT DOWN ERO
	4- INJULIES (IH, Card, flicen TEST)
	API-OVER FLOWING - NO BOUR STREAM WATER SUPPLIES THET BURNED BE FRANCTED - (OCD RECORDER STOP FLOW) Called un fift megtore DAVE CARAin - NHED
1º 1:0 4 pm	\$/8M 5.5-722-7877 Home lotale M 870-2711- all
	BATER 13 NOT REACHING RO PURCO - THEY HAVE STOPPED NOIDS

Operational Period ber Mission UNIT LOG oſ Prepared By Unit Name / Designator GAUT SIRUITA -Activity / Event WAYNE PRICE Time 4/01/04 8:20An DISCUSSED REAKT INVESTIGATION PLAN WITH OCRIMPA (GIRPI) 4/09/04 CALLER EOC DUTY OFFICER - TOM CONFIRMER * 9AM SITE WAS DOWNGRADER TO LEVEL 1 ABOUT 1-2 pm av 4/08/09 2 9-12 pm SENTORES E-MAILS - SEE FILE!

From:

Sent:

To: Cc:



Price, Wayne Thursday, April 08, 2004 11:16 AM Prukop, Joanna; Leach, Carol; Mills, Tom; Wrotenbery, Lori Anderson, Roger; Chavez, Frank; Perrin, Charlie Giant Cinza Oil Refinery Explosion-update 11 am Located 16 miles east of Gallup and 1/4 Subject: mi north of I-40 behind the travel center.

Giant Notified OCD at 10:15 am of an Explosion at the refinery and resultant fire. The Isobutene (basically LPG UN # 1075) unit exploded and caught fire. Three Giant employees have been hospitalized and Giant has implemented their emergency response plan. The NMSP has an ERO at the site including local emergency response crews. The NMSP has not assumed command at this time. The refinery has specialized fire fighting crews and Haz-mat people and have implemented an on-site command system. I-40 is still open and no one from the general public has been injured. Giant's PIO is Mark Cox 1-800-937-4937 ext 8836. OCD is in the process of contacting the state police HQ-ERO duty officer to obtain additional information to determine if additional resources are required.

Sincerely:



From: Sent: To: Subject:

Price, Wayne Thursday, April 08, 2004 10:28 AM Anderson, Roger FW: KOBTV.com - At least three injured in oil refinery explosions.txt



KOBTV.com - At least three inj...

Not the matrix orinda Manneina of Giant Cinza Oil Refinery located 16 miles east of Gallup NMcalled at 10:15 am to report an explosion and resultant fire. Three refinery workers have been injured. The Fire is out and there are no further threat to the employees or the Public. The NMSP was on-scene. The fire was in the isobutane stripper. Bob Gallagher called concern it might have been a homeland security issue. Per Dorinda they have no reason to believe it was a terrorist. The product is classified as UN 1075 basically LPG.

-----Original Message-----From: Martin, Ed Sent: Thursday, April 08, 2004 10:20 AM To: Price, Wayne Subject: KOBTV.com - At least three injured in oil refinery explosions.txt

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KOBTV.com - At least 4 injured in oil refinery explosions east of Gallup

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	BTV.com	and the second s	CLI	CK HERE
LIVE LOCAL LATE BREAKING	At least 4 injured	S WEATHER SPORTS in oil refinery explosion of Gallup Last Update: 04/08/2004 10:24:59 A By: Kurt Christopher Two explosions rocked an oil refinery this morning, injuring at least four peo	east of Gallup	
KOBTV.com Set Home Page NM Top Stories	KOB-TV	Witnesses reported seeing a fireball r east side of the Giant Industries gaso some 15 miles east of Gallup around	line refinery,	NM TO
Local News US/World News Business Consumer News		Monica Greene of Rehoboth McKinley Hospital says her facility has received ounty sheriff's Lieutenant John Yearly s d third-degree burns and have life-threa	four victims ays at least	At lea injured refinery explosi Gallup
Decision 2004 DWI Watch	Greene said she also expecte the hospital.	ed an additional ten other people to be	transported to	• Rain havoc c
Education/Kids Environment Health	octane fuel exploded, and that	y Glascock says a processor unit used at caused a secondary blast. He says t by that's being vented, and the propan	there's a	Albuc man kil
Legal Resources Politics Pueblos / Tribes Sports	Donovan of the Gallup Indepe	at officials are fearful of additional explo endent says a quarter-mile perimeter h 00 employees at the refinery and custo outh of the refinery.	as been	MOF
Tech / Labs Weather	feel the entire building shake.	el center at the time of the blast. He sa Kerstein said a huge fireball could be other customers were evacuated.		S
FEATURES	Interstate 40 is still open, but	police are discouraging travel in the an	ea.	
Autos Classifieds E-mail News		ws 4 and KOBTV.com for the latest on		
Events Feedback 4	The Associated Press contrib	outed to this report.		
Food / Recipes Home Center Jobs	Print Story   Email to a Friend			
Live Cameras Lottery Mornings Movies NM Trade Parade of Pets	Give Feedback on This Story			
TV Schedule Yellow Pages				

KOBTV.com - At least 4 injured in oil refinery explosions east of Gallup



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This page automatically refreshes every 20 minutes.

From: Sent: To: Subject: Perrin, Charlie Thursday, April 08, 2004 2:32 PM Price, Wayne RE: Giant Cinza Oil Refinery Explosion-update 11 am 1/4 mi north of I-40 behind the travel center.

Located 16 miles east of Gallup and

Wayne

I just got off the phone with Direnda.

At this time there will be no up line effect, the plant was scheduled for a turn around shut-down in the near future and they are going into that mode now.

I also indicated if she needed any help from this end to let us know.

I told her to contact you regarding future updates.

Charlie

Original	I Message	
From:	Price, Wayne	
Sent:	Thursday, April 08, 2004 11:16 AM	
To:	Prukop, Joanna; Leach, Carol; Mills, Tom; Wrotenber	y, Lori
Cc:	Anderson, Roger; Chavez, Frank; Perrin, Charlie	
Subject:	Giant Cinza Oil Refinery Explosion-update 11 am	Located 16 miles east of Gallup and 1/4 mi north of I-40 behind the travel
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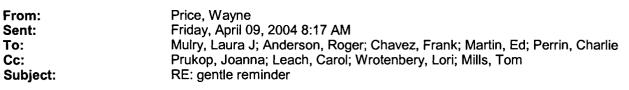
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From:Price, WayneSent:Thursday, April 08, 2004 11:16 AMTo:Prukop, Joanna; Leach, Carol; Mills, Tom; Wrotenbery, LoriCc:Anderson, Roger; Chavez, Frank; Perrin, CharlieSubject:Giant Cinza Oil Refinery Explosion-update 11 amLocated 16 miles east of Gallup and 1/4<br/>mi north of I-40 behind the travel center.

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Sincerely:



I will have you a status report around 9am.

Original Message				
From:	Mulry, Laura J			
Sent: To: Subject:	Thursday, April 08, 2004 5:09 PM Anderson, Roger; Chavez, Frank; Price, Wayne; Martin, Ed; Perrin, Charlie gentle reminder			

Hi Guys,

Heard about the oil refinery explosion and just wanted to send a gentle reminder requesting that you keep me in the loop on any news in the field, just as you do with others here at EMNRD. The more information I have the better I can position OCD and respond to any inquiries.

You did a great job with keeping me posted on the Carlsbad gas leak. Thanks for remembering me!

Have a great weekend.

Laura J. Mulry Public Information Officer Energy, Minerals and Natural Resources State of New Mexico 1220 South St. Francis Drive Santa Fe, NM 87505 (505) 476-3226 cell: (505) 690-1689 www.emnrd.state.nm.us

From:	Price, Wayne	
Sent:	Friday, April 09, 2004 9:14 AM	
To:	Dorinda Manncina (E-mail)	
Cc:	Prukop, Joanna; Leach, Carol; Wrotenbery, Lori; Mulry, Laura J; Mills, Tom; Perrin, Charlie;	
	Chavez, Frank; Dave Cobrain (E-mail)	
Subject:	Giant Ciniza Refinery Explosion Environmental Impacts?	

Dear Ms Manncina:,

Please submit as soon as possible a status report describing any possible environmental impacts that may have resulted from the incident yesterday. Please include a map of the area showing possible impacted areas. Digital photos would also be great. Please address the following issues:

1. Are there any fresh water wells or watercourses that may become impacted?

2. Are there un-controlled areas where the public may have access?

3. What, if any is the chemical constituent of concern (COC's).

4. What immediate mitigation steps is Giant taking to prevent the spread of any COC's

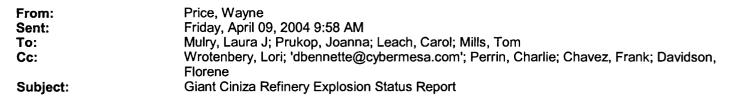
5. Is there any foreseen threat of any further release of COC's, I.e. what is the level of the ponds and what is the quality of their integrity?

6. Did any of the Bio-waste from the travel center escape?

7. Did any Refinery EPA Listed hazardous waste leave the site?

Please submit for OCD approval a work plan to immediately address these issues. <u>Please submit by no later than</u> <u>11am today</u>.

Sincerely:



Attention: OCD Response Team

At approximately 1-2 pm yesterday 04/08/04 the NMSP-ERO downgraded the incident to a Level I which basically turned the ICP back over to Giant. It was reported by Giant to OCD there was a small LPG fire last night about 7 pm but was allowed to burn itself out.

OCD has requested that Giant provide OCD with an up-dated status report by 11 am today describing any possible environmental impacts and an emergency work plan for OCD approval. It appears at this time some refinery pond wastewater was used to assist their fire fighting capabilities during the incident. During this time it was reported that the Zuni mountains was experiencing heavy rainfall and some of this storm water ran across the refinery site during the incident carrying some of this water off-site. Environmental impacts are unknown at this time, however OCD anticipates these impacts will not be significant due to the amount of fresh rainwater diluting the firewater and our knowledge of the pond water. This site is permitted by the OCD and receives frequent inspections and reports on the wastewater. The wastewater is non-hazardous. It does contain some salts.

Sincerely:

From: Sent: To: Subject: Price, Wayne Friday, April 09, 2004 10:00 AM 'dbennett@cybermesa.COM' FW: Giant Ciniza Refinery Explosion Status Report

Original Mess	5age
From:	Price, Wayne
Sent:	Friday, April 09, 2004 9:58 AM
To:	Mulry, Laura J; Prukop, Joanna; Leach, Carol; Mills, Tom
Cc:	Wrotenbery, Lori; 'dbennette@cybermesa.com'; Perrin, Charlie; Chavez, Frank; Davidson, Florene
Subject:	Giant Ciniza Refinery Explosion Status Report

Attention: OCD Response Team

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From: Sent: To: Subject: Price, Wayne Friday, April 09, 2004 10:01 AM 'dbennett@cybermesa.com' FW: Giant Ciniza Refinery Explosion Environmental Impacts?

Original Me	essage
From:	Price, Wayne
Sent:	Friday, April 09, 2004 9:14 AM
То:	Dorinda Manncina (E-mail)
Cc:	Prukop, Joanna; Leach, Carol; Wrotenbery, Lon; Mulry, Laura J; Mills, Tom; Perrin, Charlie; Chavez, Frank; Dave Cobrain (E-mail)
Subject:	Giant Ciniza Refinery Explosion Environmental Impacts?

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- 7. Did any Refinery EPA Listed hazardous waste leave the site?

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Sincerely:

From: Sent: To: Subject: Perrin, Charlie Thursday, April 08, 2004 2:32 PM Price, Wayne RE: Giant Cinza Oil Refinery Explosion-update 11 am 1/4 mi north of I-40 behind the travel center.

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Cc:	Anderson, Roger; Chavez, Frank; Perrin, Charlie	
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Sincerely:

From: Sent: To: Subject: Mulry, Laura J Thursday, April 08, 2004 5:09 PM Anderson, Roger; Chavez, Frank; Price, Wayne; Martin, Ed; Perrin, Charlie gentle reminder

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You did a great job with keeping me posted on the Carlsbad gas leak. Thanks for remembering me!

Have a great weekend.

Laura J. Mulry Public Information Officer Energy, Minerals and Natural Resources State of New Mexico 1220 South St. Francis Drive Santa Fe, NM 87505 (505) 476-3226 cell: (505) 690-1689 www.emnrd.state.nm.us

From: Sent: To: Subject: Mulry, Laura J Friday, April 09, 2004 8:23 AM Price, Wayne RE: gentle reminder

Thanks!

Laura J. Mulry Public Information Officer Energy, Minerals and Natural Resources State of New Mexico 1220 South St. Francis Drive Santa Fe, NM 87505 (505) 476-3226 cell: (505) 690-1689 www.emnrd.state.nm.us

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 Thursday, April 08, 2004 5:09 PM

 To:
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 Subject:
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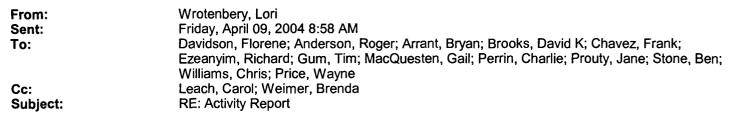
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Notably absent from this report is any mention of the incident at the Giant Refinery. Wayne, please provide Florene the information she needs. Thanks.

----Original Message---- From: Davidson, Florene
 Sent: Friday, April 09, 2004 7:50 AM
 To: Friday, April 09, 2004 7:50 AM
 To: Anderson, Roger; Arrant, Bryan; Brooks, David K; Chavez, Frank; Ezeanyim, Richard; Gum, Tim; MacQuesten, Gail; Perrin, Charlie; Prouty, Jane; Stone, Ben; Williams, Chris; Wrotenbery, Lori
 Subject: Activity Report

<< File: April5Activity.doc >>

From: Sent: To: Cc: Subject: Wrotenbery, Lori Friday, April 09, 2004 9:14 AM Perrin, Charlie Price, Wayne; Anderson, Roger RE: Activity Report

No, you didn't drop the ball. Wayne updated OFS regularly yesterday. The information just didn't make it into the activity report, mainly because it was late-breaking news. I'm sure we'll remember next time something like this happens to update the activity report.

China was great. I'll tell you more about it later. Happy Easter to you, too.

From:Perrin, CharlieSent:Friday, April 09, 2004 9:08 AMTo:Wrotenbery, LoriSubject:RE: Activity Report

Lori

Greetings

I guess I dropped the ball here, I did not know about the plant fire before I sent in our activity report and it never crossed my mind to send anything about it.

I have looked and can not find any information indicating to send reports to Mrs. Mulry.

I will include her in info statements to you and Joanna.

Welcome back how was china. hope you have rested up from the trip Happy Easter. have a great weekend Charlie

-----Original Message-----

From:Wrotenbery, LoriSent:Friday, April 09, 2004 8:58 AMTo:Davidson, Florene; Anderson, Roger; Arrant, Bryan; Brooks, David K; Chavez, Frank; Ezeanyim, Richard; Gum, Tim; MacQuesten,<br/>Gail; Perrin, Charlie; Prouty, Jane; Stone, Ben; Williams, Chris; Price, WayneCc:Leach, Carol; Weimer, BrendaSubject:RE: Activity Report

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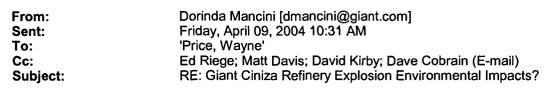
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 Subject:
 Activity Report

<< File: April5Activity.doc >>



Importance:

Wayne, Please see my reply below.

Dorinda Mancini Environmental Manager, Ciniza Refinery 505.722.0227 dmancini@giant.com

High

-----Original Message-----From: Price, Wayne [mailto:WPrice@state.nm.us] Sent: Friday, April 09, 2004 10:14 AM To: Dorinda Manncina (E-mail) Cc: Prukop, Joanna; Leach, Carol; Wrotenbery, Lori; Mulry, Laura J; Mills, Tom; Perrin, Charlie; Chavez, Frank; Dave Cobrain (E-mail) Subject: Giant Ciniza Refinery Explosion Environmental Impacts?

Dear Ms Mancini:,

Please submit as soon as possible a status report describing any possible environmental impacts that may have resulted from the incident yesterday. Please include a map of the area showing possible impacted areas. Digital photos would also be great. Please address the following issues:

1. Are there any fresh water wells or watercourses that may become impacted? NO

2. Are there un-controlled areas where the public may have access? NO

3. What, if any is the chemical constituent of concern (COC's). POSSIBLY A SMALL AMOUNT OF CHLORIDES.

4. What immediate mitigation steps is Giant taking to prevent the spread of any COC's DISCONTINUED USE OF FIRE FIGHTING WATER FROM POND 2 AS OF 1400 HOURS 4/8/04; FIRE FIGHTING WATER WAS DILUTED BY HEAVY RUN-ON AND RUNOFF OUT OF LARGE STORM EVENT IN ZUNI MOUNTAINS (PROBABLY 5% FFW AND 95% STORMWATER); TOOK SAMPLES OF STORMWATER LEAVING PLANT SITE @ STORMWATER DISCHARGE OUTLET # 2 AT NW CORNER OF PROPERTY; WILL ANALYZE SAMPLES FOR TPH, BTEX, CHLORIDES AND DISSOLVED WQCC METALS, AND PHENOLS; VISIBLY OBSERVED FLOW OF SW LEAVING SITE AS NORTH UNDER RAILROAD THROUGH CULVERT AND THEN SHEET FLOW TO THE NORTH.

5. Is there any foreseen threat of any further release of COC's, I.e. what is the level of the ponds and what is the quality of their integrity? NO - PONDS ARE VERY LOW DUE TO NEW EVAPORATION SYSTEM AND DROUGHT CONDITIONS; ALL POND DIKES IN GOOD CONDITION. NO RELEASE FROM PONDS EXPECTED.

6. Did any of the Bio-waste from the travel center escape? NO

7. Did any Refinery EPA Listed hazardous waste leave the site? NO, NEITHER LISTED OR CHARACTERISTIC HAZ WASTE WAS INVOLVED OR LEFT THE SITE.

Please submit for OCD approval a work plan to immediately address these

issues. Please submit by later than 11am today.



Sincerely:

Wayne Price New Mexico Oil Conservation Division 1220 S. Saint Francis Drive Santa Fe, NM 87505 505-476-3487 fax: 505-476-3462 E-mail: WPRICE@state.nm.us

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THE WORK PLAN TO ADDRESS THE ENVIRONMENTAL IMPACTS CONSISTS OF THE FOLLOWING:

ANALYZE SAMPLES AND REPORT RESULTS AS SOON AS AVAILABLE
 VISUALLY CONFIRM SW FLOW AMOUNT AND DIRECTION AS OF FRIDAY, 4/9/04.
 USING A TOPO MAP, CHART FLOW OF DISCHARGE OFF SITE. SEND COPY OF MAP TO OCD VIA FAX AS SOON AS AVAILABLE.
 TAKE DIGITAL PHOTOS OF AREA OF IMPACTS IF POSSIBLE.
 WALK THE RIO PUERCO TRIBUTARY NORTH AND WEST OF FACILITY AS SOON AS WEATHER AND SURFACE CONDITIONS (MUD) ALLOWS.
 IF ANY SALT DEPOSITS ARE FOUND (AFTER THE AREA DRIES OUT), SAMPLE, ANALYZE, AND REPORT. IF DAMAGE IS CONFIRMED, PREPARE PLAN TO FURTHER INVESTIGATE AND/OR REMEDIATE AREA OF IMPACT.

Dorinda Mancini Environmental Manager, Ciniza Refinery

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From: Sent: To: Cc: Subject: Price, Wayne Friday, April 09, 2004 10:51 AM 'Dorinda Mancini'; Price, Wayne Ed Riege; Matt Davis; David Kirby; Dave Cobrain (E-mail) RE: Giant Ciniza Refinery Explosion Environmental Impacts?

OCD hereby approves of the submitted Plan.

Please be advised that NMOCD approval of this plan does not relieve (Giant) of liability should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve (Giant) of responsibility for compliance with any other federal, state, or local laws and/or regulations.

-----Original Message-----From: Dorinda Mancini [mailto:dmancini@giant.com] Sent: Friday, April 09, 2004 10:31 AM To: 'Price, Wayne' Cc: Ed Riege; Matt Davis; David Kirby; Dave Cobrain (E-mail) Subject: RE: Giant Ciniza Refinery Explosion Environmental Impacts? Importance: High

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 VISUALLY CONFIRM SW FLOW AMOUNT AND DIRECTION AS OF FRIDAY, 4/9/04.
 USING A TOPO MAP, CHART FLOW OF DISCHARGE OFF SITE. SEND COPY OF MAP TO OCD VIA FAX AS SOON AS AVAILABLE.
 TAKE DIGITAL PHOTOS OF AREA OF IMPACTS IF POSSIBLE.
 WALK THE RIO PUERCO TRIBUTARY NORTH AND WEST OF FACILITY AS SOON AS WEATHER AND SURFACE CONDITIONS (MUD) ALLOWS.
 IF ANY SALT DEPOSITS ARE FOUND (AFTER THE AREA DRIES OUT), SAMPLE, ANALYZE, AND REPORT. IF DAMAGE IS CONFIRMED, PREPARE PLAN TO FURTHER INVESTIGATE AND/OR REMEDIATE AREA OF IMPACT.

Dorinda Mancini Environmental Manager, Ciniza Refinery

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Contact: Mark B. Cox Vice President, Treasurer, & Chief Financial Officer Giant Industries, Inc. (480) 585-8888

FOR IMMEDIATE RELEASE

April 12, 2004

# UPDATE ON GIANT'S CINIZA REFINERY

Scottsdale, Arizona, April 12, 2004 - Giant Industries, Inc. [NYSE: GI] announced last Thursday, April 08, 2004, that a fire occurred at its Ciniza refinery at approximately 9:00 a.m. MDT in the alkylation unit, a unit that produces high octane blending stock for gasoline. As previously announced, the fire was contained to this unit, although there was also some damage to ancillary equipment of two adjacent units.

As a result of the fire, Giant temporarily shut down all of the operating units at the Ciniza refinery. At present, the Company does not believe there is significant damage to any of the refinery units other than the alkylation unit. The fire is currently under investigation by various governmental agencies. The Company also is conducting its own investigation with the assistance of an independent refinery expert to determine the cause of the fire and the extent of the damage.

On April 17, 2004, the refinery already was scheduled to commence a major repair and upgrade shutdown (known as a "turnaround"), and some of the turnaround team already was on site at the refinery when the fire occurred. In order to minimize the disruption to the refinery's operations, Giant accelerated the turnaround. This will allow the Company to work on the necessary repairs to the alkylation unit during the turnaround period when the refinery would not have been operating anyway. The turnaround is expected to be completed by mid-May. Based upon a preliminary internal investigation, Giant currently estimates that the cost to repair the damage caused by the fire will be in the range of 2.5 - 4.0 million and that repairs should be completed by mid-June. Giant has property insurance coverage that should cover a significant portion of the repair costs and also could receive proceeds from business interruption insurance if the waiting period under the policy is exceeded.

Prior to the fire, Giant was producing approximately 18,000 barrels per day at Ciniza and approximately 10,000 barrels per day at the Bloomfield refinery, which also is located in the Four Corners area. During the turnaround and while repairs to the damaged unit are ongoing, Giant intends to increase the output of its Bloomfield refinery by approximately 6,000 barrels per day. The

www.giant.com

Bloomfield refinery has a crue oil throughput capacity of 16,000 Trels per day and a total capacity including natural gas liquids of 16,600 barrels per day. After the turnaround, the Ciniza refinery could operate at full capacity while repairs to the alkylation unit are completed if it purchases high octane blending components from outside sources. Alternatively, Ciniza could sell the intermediate feedstocks processed by the unit to third parties for final processing.

Giant's Chairman and CEO, Fred Holliger commented, "Anytime something like this occurs in a refinery it is a very serious matter for our employees, our shareholders and the local community. We are thankful for the timely response of both our fire brigade and the local fire department. Unfortunately four employees were injured seriously enough to require transportation to a hospital in Albuquerque. Our thoughts and prayers go out to them and their families during this difficult time." L

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The Ciniza refinery has a crude oil throughput capacity of 20,800 barrels per day and a total capacity including natural gas liquids of 26,000 barrels per day. The alkylation unit has throughput of 1,800 barrels per day. The refinery is located near Gallup, New Mexico.

Giant, headquartered in Scottsdale, Arizona, is a refiner and marketer of petroleum products. Giant owns and operates one Virginia and two New Mexico crude oil refineries, a crude oil gathering pipeline system based in Farmington, New Mexico, which services the New Mexico refineries, finished products distribution terminals in Albuquerque, New Mexico and Flagstaff, Arizona, a fleet of crude oil and finished product truck transports, and a chain of retail service station/convenience stores in New Mexico, Colorado, and Arizona. Giant is also the parent company of Phoenix Fuel Co., Inc., an Arizona wholesale petroleum products distributor. For more information, please visit Giant's website at www.giant.com.

This press release contains forward-looking statements that involve known and unknown risks and uncertainties. Forward-looking statements are identified by words or phrases such as believes," "expects," "anticipates," "estimates," "should," "could," "plans," "intends," "may," "project," "predict," "will," variations of such words and phrases, and other similar expressions. Although we believe the assumptions upon which these forward-looking statements are based are reasonable, any of these assumptions could prove to be inaccurate, and the forward-looking statements based on these assumptions could be incorrect. While these forward-looking statements are made in good faith, and reflect the Company's current judgment regarding such matters, actual results could vary materially from the forward-looking statements. Important factors that could cause actual results to differ from forward-looking statements include, but are not limited to: the risk that damage to refinery units other than the alkylation unit could be more serious than we believe; the risk that the repairs to the alkylation unit could take longer or cost more than we expect; the risk that insurance coverage will not be available as we expect; and other risks detailed from time to time in the Company's filings with the Securities and Exchange Commission. All subsequent written and oral forward-looking statements attributable to the Company, or persons acting on behalf of the Company, are expressly qualified in their entirety by the foregoing. Forward-looking statements made by the Company represent its judgment on the dates such statements are made. The Company assumes no obligation to update any forward-looking statements to reflect new or changed events or circumstances.

No.0191 P. 1/6

Jan. 5. 1996 8:32PM

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FAX COVER SHEET

From: Lynn Miles

TO: Wayne f	rice
()	Conservation Div

Fax # (505) 476-3462

GIANT INDUSTRIES, INC. REGIONAL ACCOUNTING OFFICE ROUTE 3, BOX 7 GALLUP, NEW MEXICO 87301

IF YOU DO NOT RECEIVE ALL OF THE PAGES, PLEASE CALL ME AT: (505) 722-3833 FAX # (505) 722-0268

IAM TRANSMITTING PAGES FOLLOWING THIS COVER SHEET

20,2004 DATE: UMM

TIME: 10:00 AM

REGARDING: __

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Have a nice day !

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No.0191 P. 2/6



#### COVER LETTER

April 16, 2004

Dorinda Mancini Giant Refining Co Rt. 3 Box 7 Gallup, NM 87301 TEL: (505) 722-0227 FAX (505) 722-0210

Order No.: 0404094

Dear Dorinda Mancini:

RE: Ciniza Incident 4/8/04 Stormwater

Hall Environmental Analysis Laboratory received 2 samples on 4/13/2004 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

2

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager Nancy McDuffie, Laboratory Manager



4901 Hawkins NE Suite DE Albuquerque, NM 87109 505.345.3975 Fax 505.345.4107 www.hallenvironmental.com

No.0191 P. 3/6

Date: 16-Apr-04

CLIENT:	Giant Refining Co
Project:	Ciniza Incident 4/8/04 Stormwater
Lab Order:	0404094

Jan. 5. 1996 8:32PM

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**CASE NARRATIVE** 

The phenols are not reported because the samples were not collected in the appropriate containers and the samples were not preserved.

The metals samples were filtered and preserved at the laboratory.

The diesel range result reported for outfall #2 is not indicative of diesel range organics. A few peaks are in the diesel range giving the low level hit.

#### Jan. 5. 1996 8:32PM

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CLIENT:

#### Hall Environmental Analysis Laboratory

Giant Refining Co

Date: 16-Apr-04

#### Client Sample ID: E Side Arroyo Collection Date: 4/8/2004 3:30:00 PM

Lab Order: 0404094 **Project:** Ciniza Incident 4/8/04 Stormwater

Lab ID:	0404094-01			Mati	rix: AQUI	eous
Analyses	· · · · · · · · · · · · · · · · · · ·	Result	PQL Qu	al Units	DF	Date Analyzed
EPA METHOD	300.0: ANIONS		, 1			Analyst: JDC
Chloride		6500	25	mg/L	250	4/15/2004 12:48:05 PM
EPA METHOD	8015B: DIESEL RANG	E				Analyst: JMP
Diesel Range O	Organics (DRO)	ND	0.50	mg/L	1	4/13/2004 6:52:02 PM
Motor Oil Range	e Organics (MRO)	ND	5.0	mg/L	1	4/13/2004 6:52:02 PM
Surf: DNOP		121	58-140	%REC	1	4/13/2004 6:52:02 PM
EPA METHOD	8015B: GASOLINE R	ANGE				Analyst: NSB
	e Organics (GRO)	ND	0.050	mg/L	1	4/13/2004 9:57:09 AM
Sun: BFB		<del>98</del> .6	74.5-115	%REC	1	4/13/2004 9:57:09 AM
EPA METHOD	8021B: VOLATILES		+			Analyst NSB
Benzene		ND	0.50	µg/L	1	4/13/2004 9:57:09 AM
Toluene		ND	0.50	µg/L	1	4/13/2004 9:57:09 AM
Ethylbenzene		ND	0.50	µg/L	1	4/13/2004 9:57:09 AM
Xylenes, Total		ND	0.50	µg/L	1	4/13/2004 9:57:09 AM
Sun: 4-Brom	ofiuorobenzene	100	74-118	%REC	1	4/13/2004 9:57:09 AM
EPA 120.1: SP	ECIFIC CONDUCTAN	CE				Analyst: MAP
Specific Condu	ctance	150000	0.010	µmhos/cm	1	4/13/2004
MERCURY, DI	SSOLVED					Analyst: IC
Mercury		0.0019	0.0010	mg/L	5	4/15/2004
EPA METHOD	6010C: DISSOLVED I	METALS				Analyst: NMO
Arsenic		ND	0.020	mg/L	1	4/15/2004 12:13:45 PM
Barium		0.85	0.0020	mg/L	1	4/15/2004 12:13:45 PM
Cadmium		ND	0.0020	mg/L	1	4/15/2004 12:13:45 PM
Chromium		ND	0.0060	mg/L	1	4/15/2004 12:13:45 PM
Copper		ND	0.0060	mg/L	1	4/15/2004 12:13:45 PM
Iran		0.056	0.020	mg/L	1	4/15/2004 1:32:52 PM
Lead		ND	0.0050	mg/L	1	4/15/2004 12:13:45 PM
Manganese		0.58	0.0020	mg/L	1	4/15/2004 12:13:45 PM
Selenium		0.093	0.020	mg/L	1	4/15/2004 12:13:45 PM
Silver		ND	0.0050	mg/L	1	4/15/2004 12:13:45 PM
Uranium		ND	0.10	mg/L	1	4/16/2004 7:42:07 AM
Zinc		0.025	0.0050	mg/L	1	4/15/2004 12:13:45 PM
EPA METHOD	150.1: PH					Analyst: MAP
pH _		7.92	0.010	pH units	1	4/13/2004
EPA METHOD	160.2: TSS					Analyst: MAP
Suspended Sol	lida	720	1.0	mg/L	1	4/13/2004

#### Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

R - RPD outside accepted recovery limits

E - Value above quantitation range

Page 1 of 2

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#### Hall Environmental Analysis Laboratory

Date: 16-Apr-04

CLIENT:	Giant Refining Co			Clie	nt Sample II	: Outfall	#2
Lab Order:	0404094			(	Collection Da	te: 4/8/20	004 3:00:00 PM
Project:	Ciniza Incident 4/8/04	Stormwater					
Lab ID:	0404094-02				Mati	ix: AQUI	EOUS
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	300.0: ANIONS				. 7		Analyst: JDC
Chloride		7900	25		mg/L	250	4/15/2004 1:04:53 PM
EPA METHOD	8015B: DIESEL RANGE						Analyst: JMP
Diesel Range C	rganics (DRO)	0.52	0.50		mg/L	1	4/13/2004 7:22:31 PM
Motor Oil Rang	e Organics (MRO)	ND	5.0		mg/L	1	4/13/2004 7:22:31 PM
Sun: DNOP	-	120	58-140		%REC	1	4/13/2004 7:22:31 PM
EPA METHOD	8015B: GASOLINE RANG	)E					Analyst: NSB
Gasoline Range	e Organics (GRO)	ND	0.050		mg/L	1	4/13/2004 10:27:19 AM
Surr: BFB		103	74.5-115		%REC	1	4/13/2004 10:27:19 AM
EPA METHOD	8021B: VOLATILES				•		Analyst NSE
Benzene		ND	0.50		µg/L	1	4/13/2004 10:27:19 AM
Toluene		ND	0.50		μ <b>g/</b> L	1	4/13/2004 10:27:19 AM
Ethylbenzene		ND	0.50		µg/L	1	4/13/2004 10:27:19 AM
Xylenes, Total		ND	0.50		µg/L	1	4/13/2004 10:27:19 AM
Sur. 4-Brom	ofluorobenzene	103	74-118		%REC	1	4/13/2004 10:27:19 AM
EPA 120:1: SP							Analyst MAF
Specific Condu	ctance	150000	0.010		µmhos/cm	1	4/13/2004
MERCURY, DI	SSOLVED						Analyst: IC
Mercury		- ND	0.0010		mg/L	· 5	4/15/2004
EPA METHOD	6010C: DISSOLVED MET	TALS					Analyst: NMC
Arsenic		ND	0.020		ng/L'	1	4/15/2004 12:17:23 PM
Barium		1,9	0.010		mg/L	5	4/16/2004 7:32:15 AM
Cadmium		ND	0.0020	I.	mg/L	1	4/15/2004 12:17:23 PM
Chromlum		ND	0.0060	i i	mg/L	1	4/15/2004 12:17:23 PN
Copper		ND	0.0060	,	mg/L	1	4/15/2004 12:17:23 PM
lron		0.061	0.020	i i	mg/L	1	4/15/2004 1:34:08 PM
Lead		ND	0.0050	ł	mg/L	1	4/15/2004 12:17:23 PM
Manganese		0.64	0.0020	l .	mg/L	1	4/15/2004 12:17:23 PM
Selenium		0.097	0.020	)	mg/L	1	4/15/2004 12:17:23 PN
Silver		ND	0.0050	l .	mg/L	1	4/15/2004 12:17:23 PN
Uranium		ND	0.10	1	mg/L	1	4/16/2004 7:43:12 AM
Zinc		0.062	0.0050	)	mg/L	1	4/15/2004 12:17:23 PM
EPA METHOD	150.1: PH						Analyst: MAI
рH		7.81	0.010	)	pH units	1	4/13/2004
EPA METHOD	160.2: TSS						Analyst: MAI
Suspended So	lids	420	1.0	<b>`</b>	mg/L	1	4/13/2004

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

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B - Analyte detected in the associated Method Blank

· - Value exceeds Maximum Contaminant Level

E - Value above quantitation range

Page 2 of 2

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GIAN Address:	JEA.	fining	ND, d/b/a Co-Ceneza x7	Project Nama: 48/04 - Project #:	Sto Sto	ormu	sate	r	ANALYSIS REQUEST				<b>J7</b> 5. 1996													
	RH Z CTAI	<u>з Во</u> Гир,	x7 nm 87301	Project Manager	: ida	Щæ	e	ini	s (8021)	BTEX + MTBE + TPH (Gasolina Only)	TPH Method 80158 MOD (Gas/Diesely									•	endeed upp	ہ ح ح	ved metal		/ er NJ-	8:32PM
Phone # Fax # :	505 505	5-72	2-3833 2-0210	Sampler: Ste Sample Temperat	ve_	Mor	<u>rnis</u>	>	BTEX + M <del>The = TMBF</del> s (8021)	BE + TPH (G	180158 MO	d 418.1)	od 604.1)	d 8021)	or PAH)	ala	K, Ca, Mg)	Anions (F. CL. NO., NO., PO., SO.)	8081 Pesticides / PCB's (8082)		-	2/2	deast ved		or Headepd	
Date	Time	Matrix	Sampie I.D. No.	Number/Volume	на.	HNO, Co	<del></del> -	HEAL NO.	BTEX + ME	BTEX + MT	TPH Metho(	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Cetions (Na, K, Ca, Mg)	Anions (C)	8081 Pesti	8260 (VDA)	<u>8270 (Genirvea</u> )	Phen	NOCC	X X	Air Bubbles	2PH
418/04	1530	Water	Eat side arroyo	1 GAC		7		104094-1	$\mathbf{X}$		X	-					-	X			X	X	Ź	X	X	,7
418/04	1500	water	Eatside arroyo Outfall#2	7 Plastic				-2	X		X			_				X			Х	X	X	X	X	·
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No.0191 P. 6/6

#### Price, Wayne

From: Sent: To: Cc: Subject: Dorinda Mancini [dmancini@giant.com] Tuesday, April 13, 2004 9:18 AM 'RAnderson@state.nm.us'; 'WPrice@state.nm.us' David Kirby; Matt Davis; Ed Riege FW: North Outfall 041204



No Outfall 41204 3.jpg

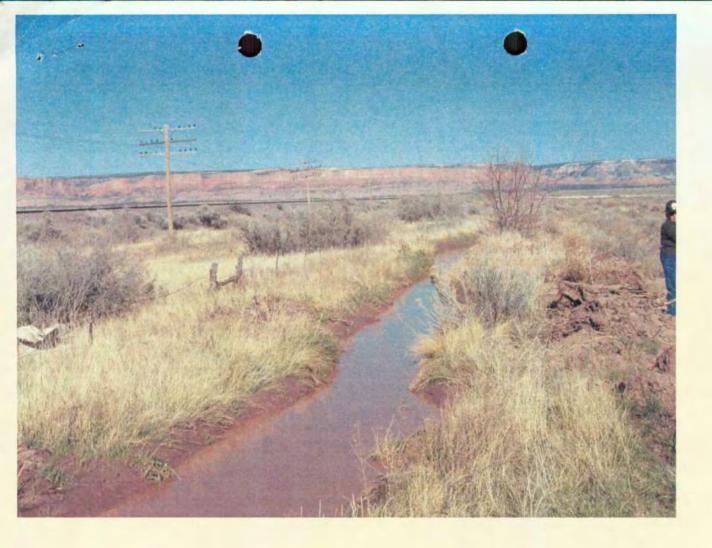
----Original Message-----> > From: Steve Morris Tuesday, April 13, 2004 8:38 AM Sent: > To: Ed Riege; Dorinda Mancini > Subject: North Outfall 041204

> Here's the pics from April 12, 2004. <<No Outfall 41204 1.jpg>> <<No Outfall 41204 2.jpg>> <<No Outfall 41204 3.jpg>> SCM > DISCLAIMER: The information contained in this e-mail message may be privileged, confidential and protected from disclosure. If you are not the intended recipient, any further disclosure, use, dissemination, distribution or copying of this message or any attachment is strictly prohibited. If you think you have received this e-mail message in error, please e-mail the sender at the above address and permanently delete the e-mail. Although this e-mail and any attachments are believed to be free of any virus or other defect that might affect any computer system into which they are received and opened, it is the responsibility of the recipient to ensure that they are virus free and no responsibility is accepted by Giant Industries, Inc. or its affiliates for any loss or damage arising in any way from their use.

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#### Price, Wayne

From: Sent: To: Cc:

Subject:

Mulry, Laura J Friday, April 09, 2004 12:05 PM Price, Wayne; Prukop, Joanna; Leach, Carol; Mills, Tom Wrotenbery, Lori; 'dbennette@cybermesa.com'; Perrin, Charlie; Chavez, Frank; Davidson, Florene RE: Giant Ciniza Refinery Explosion Status Report

# TheNewMexicoChannel.com

# Federal Team Investigates Refinery Blast

### Explosions Rocked Giant's Ciniza Plant Thursday

POSTED: 10:00 AM MDT April 8, 2004

**JAMESTOWN, N.M.** -- Investigators from Washington were in New Mexico Friday to try to figure out what caused the explosions at a refinery east of Gallup Thursday morning. Six people were hurt in the blasts, four of them critically, reported KOAT Action 7 News.

The U.S. Chemical Safety and Hazard investigation team expected to be in the state for several days interviewing witnesses and collecting evidence at the Giant Industries gasoline refinery. Investigator Rixio Medina said the team is interested in one chemical in particular -- hydrofluoric acid -- that's used in the refinery process.

"Hydrofluoric acid is not flammable but it is very corrosive. It can damage tissue with very low levels of exposure, so there's potential for impacting the health and safety of the employees and the public," Medina said.

Medina stressed that so far, investigators don't know if the acid was involved with the explosion or if any of the chemical was released as a result of the blast.

Authorities said a processor unit used to make high-octane fuel exploded about 9 a.m. Thursday, and that caused a secondary blast. The explosions triggered the refinery's water guns.

Billy Moore, Mike Saunders, Vincent Azua and Phillip Brown suffered serious burns across their upper bodies and faces, according to McKinley County Manager Tom Trujillo. All four men -- who are employees at the Giant Industries refinery -- were at the University of New Mexico Hospital in Albuquerque. A hospital representative said Brown was in serious condition. Saunders and Azua were in critical condition, and Moore was in satisfactory condition.

Moore is the refinery's safety officer and is also a county commissioner. Saunders is a volunteer firefighter for a nearby community and a volunteer deputy for the sheriff's department reserves.

State police said fellow employees Kerry Vandever and David Larry were treated at a Gallup hospital and released.

The FBI is conducting a routine investigation into the blasts.

The refinery is known as the Ciniza plant. The 880-acre facility is designed to help in the production of high-octane gasoline.

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Laura J. Mulry Public Information Officer Energy, Minerals and Natural Resources State of New Mexico 1220 South St. Francis Drive Santa Fe, NM 87505 (505) 476-3226





-----Original Message-----

From:Price, WayneSent:Friday, April 09, 2004 9:58 AMTo:Mulry, Laura J; Prukop, Joanna; Leach, Carol; Mills, TomCc:Wrotenbery, Lori; 'dbennette@cybermesa.com'; Perrin, Charlie; Chavez, Frank; Davidson, FloreneSubject:Giant Ciniza Refinery Explosion Status Report

#### Attention: OCD Response Team

At approximately 1-2 pm yesterday 04/08/04 the NMSP-ERO downgraded the incident to a Level I which basically turned the ICP back over to Giant. It was reported by Giant to OCD there was a small LPG fire last night about 7 pm but was allowed to burn itself out.

OCD has requested that Giant provide OCD with an up-dated status report by 11 am today describing any possible environmental impacts and an emergency work plan for OCD approval. It appears at this time some refinery pond wastewater was used to assist their fire fighting capabilities during the incident. During this time it was reported that the Zuni mountains was experiencing heavy rainfall and some of this storm water ran across the refinery site during the incident carrying some of this water off-site. Environmental impacts are unknown at this time, however OCD anticipates these impacts will not be significant due to the amount of fresh rainwater diluting the firewater and our knowledge of the pond water. This site is permitted by the OCD and receives frequent inspections and reports on the wastewater. The wastewater is non-hazardous. It does contain some salts.

Sincerely:

Wayne Price New Mexico Oil Conservation Division 1220 S. Saint Francis Drive Santa Fe, NM 87505 505-476-3487 fax: 505-476-3462 E-mail: WPRICE@state.nm.us

#### Price, Wayne

From: Sent: To: Subject: Price, Wayne Friday, December 19, 2003 11:21 AM Dorinda Manncina (E-mail); Tom Atwood (E-mail) Giant Ciniza Discharge Plan

Please find enclosed a rough draft#2 of the DP approval letter and conditions: Please note I highlighted items in Red that needs to be addressed. I want the DP to be amended to have a stand along document. Any Items referenced to previously approved conditions shall be incorporated into this DP. So you can copy parts of the old DP's and lets place them in the new DP. The new DP shall have everything in it and not referenced to older documents.

I want to keep in touch at least once a week until we get a new DP. For a goal I would like to shoot for Feb 15, 2004. Also I think it would simplify things if we had a one page spreadsheet showing all monitoring, sample parameters, and frequency.

I understand that the holidays are upon us so I would like to start no later than early Jan 04.

Merry X-mas and happy New Year.



Sincerely:

Wayne Price New Mexico Oil Conservation Division 1220 S. Saint Francis Drive Santa Fe, NM 87505 505-476-3487 fax: 505-476-3462 E-mail: WPRICE@state.nm.us

December 19, 2003

#### CERTIFIED MAIL RETURN RECEIPT NO. 5357 7119

Ms Dorinda Mancini Giant Refining Company Route 3, Box 7 Gallup, New Mexico 87301

RE: Discharge Permit GW-032 Ciniza Refinery McKinley County, New Mexico

Dear Ms. Mancini:

The groundwater discharge permit renewal, GW-032, for the Giant Refining Company (Giant) Ciniza Refinery located in the Section 28 and Section 33, Township 15 North, Range 15 West, NMPM, Mckinley County, New Mexico, is hereby approved under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 30 working days of receipt of this letter.

The original discharge permit was approved on August 01, 1986, with an expiration date of August 01, 1991. The discharge permit renewal application dated February 21, 2002 including attachments, subsequent information dated September 09, 2003 submitted pursuant to Section 3106 of the New Mexico Water Quality Control Commission (WQCC) Regulations also includes all earlier applications and all conditions later placed on those approvals.

The discharge permit is renewed pursuant to Section 3109.C. Please note Section 3109.G, which provides for possible future amendment of the permit. Please be advised that approval of this permit does not relieve Giant Refining Company of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does it relieve Giant Refining Company of its responsibility to comply with any other governmental authority's rules and regulations. Please be advised that all exposed pits, including lined pits and open top tanks (exceeding 16 feet in diameter) shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that Section 3104. of the regulations requires that "when a permit has been approved,

Ms. Mancini December 19, 2003 Page 2

discharges must be consistent with the terms and conditions of the permit." Pursuant to Section 3107.C.,

Giant Refining Company is required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3109.H.4., this approval is for a period of five years. This approval will expire August 01, 2006 and an application for renewal should be submitted in ample time before that date. Pursuant to Section 3106.F. of the regulations, if a discharger submits a discharge permit renewal application at least 120 days before the discharge permit expires and is in compliance with the approved permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved.

The discharge permit application for the Giant Refining Company, Ciniza Refinery is subject to the WQCC Regulation 3114. Every billable facility submitting a discharge permit will be assessed a fee equal to the filing fee of \$100.00 plus flat fee of \$8400.00 for Oil Refineries. The OCD has received the \$100.00 filing fee and \$8400.00 flat fee.

Please make all checks payable to:	Water Quality Management Fund
	C/o: Oil Conservation Division
	<b>1220 South Saint Francis Drive</b>
	Santa Fe, New Mexico 87505.

If you have any questions, please contact Wayne Price of my staff at (505-476-3487) or E-mail WPRICE@state.nm.us. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Roger C. Anderson Environmental Bureau Chief

RCA/lwp Attachments-1 xc: OCD Aztec Office

Ms. Mancini December 19, 2003 Page 3

#### ATTACHMENT TO THE DISCHARGE PERMIT GW-032 APPROVAL Giant Refining Company, Ciniza Refinery DISCHARGE PERMIT APPROVAL CONDITIONS December 05, 2003

- 1. <u>Payment of Discharge Permit Fees:</u> The \$100.00 filing fee and \$8400.00 flat fee has been received by the OCD.
- 2. <u>Commitments:</u> Giant Refining Company will abide by all commitments submitted in the discharge permit renewal application dated February 22, 2002 including attachments, subsequent information dated September 10, 2003 and these conditions for approval.
- 3. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in place and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets must also be stored on an impermeable pad with curbing.
- 4. <u>Process Areas:</u> All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
- 5. <u>Above Ground Tanks</u>: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad within the berm.
- 6. <u>Above Ground Saddle Tanks</u>: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.
- 7. Labeling: All tanks, drums, and other containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill, or ignite.
- 8. <u>Below Grade Tanks/Sumps/Pits/Ponds</u>: All below grade tanks, sumps, pits and ponds must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design, unless approved otherwise. All below grade tanks, sumps and pits must be tested annually or as specified below, see additional conditions, except

Ms. Mancini December 19, 2003 Page 4

systems that have secondary containment with leak detection. These systems with leak detection shall have a monthly inspection of the leak detection to determine if the primary containment is leaking. Results of tests and inspections shall be maintained at the facility covered by this discharge plan and available for NMOCD inspection. Any system found to be leaking shall be reported pursuant to Item # 12. Permit holders may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.

Existing Refinery Evaporation Ponds: These ponds will be exempted from required secondary containment as long as giant can demonstrate that all fluids are being contained within the pond system.

APL Separator(s): A closure plan for OCD approval shall be filed by March 15, 2004 for the Old API separator.

<u>New Wastewater (Total Plant) API Separator:</u> Giant must conform to permit condition Item #8. above. This system must have secondary containment with leak detection.

Additional Conditions: Giant shall develop, within one year of this plan being approved, a spreadsheet that contains all single lined underground tanks/sumps/pits. Each device or system shall have an identification number, drawing reference, date installed, test dates, test method, pass/fail/repair information with signature, and investigation results if applicable. Giant shall test at a minimum 20% of the total below grade devices each year.

9. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be approved by the OCD prior to installation and must be tested to demonstrate their mechanical integrity every five (5) years. Results of such tests shall be maintained at the facility covered by this discharge plan and available for NMOCD inspection. Permit holders may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.

Additional Conditions: Giant shall develop, within one year of this plan being approved, a spreadsheet that contains all underground process and wastewater lines. Each line shall have an identification number, drawing reference, date installed, test dates, test method, pass/fail/repair information with signature, and investigation results if applicable. Giant shall test at a minimum 20% of the underground process/wastewater pipelines each year.

Ms. Mancini December 19, 2003 Page 5

- 10. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be approved for construction and/or operation unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.
- 11. Housekeeping: All systems designed for spill collection/prevention, and leak detection will be inspected at least monthly to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices will be emptied of fluids within 48 hours of discovery. A record of inspection will be retained on site for a period of five years.
- 12. <u>Spill Reporting:</u> All spills/releases shall be reported pursuant to OCD Rule 116. and WQCC 1203. to the OCD Aztec District Office.
- 13. <u>Waste Disposal</u>: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge permit will be approved by OCD on a case-by-case basis.
  - 1. <u>Rule 712 Waste:</u> Pursuant to Rule 712, disposal of certain non-domestic waste is allowed at solid waste facilities permitted by the New Mexico Environment Department as long as the waste stream is identified in the discharge permit, and existing process knowledge of the waste stream does not change without notification to the Oil Conservation Division.
- 14. <u>OCD Inspections</u>: Additional requirements may be placed on the facility based upon results from OCD inspections.
- 15. <u>Storm Water Permit:</u> Giant Refining Company shall maintain stormwater runoff controls. As a result of operations if any water contaminant that exceeds the WQCC standards listed in 20 NMAC 6.2.3101 is discharged in any stormwater run-off then Giant shall notify the OCD within 24 hours of discovery, modify the permit within 15 days and submit for OCD approval. Giant shall also take immediate corrective actions pursuant to Item 12 of these conditions.
- 16. <u>Vadose Zone and Water Pollution</u>: The previously submitted investigation(s) and remediation plans were submitted pursuant to the discharge permit and all future discoveries of contamination will be addressed through the discharge permit. Groundwater monitor wells shall be observed, sampled and analyzed as proposed in the Discharge Plan Renewal application Section 9.4 dated 09/08/03 page 9-2 attached hereto.



Ms. Mancini December 19, 2003 Page 6

- A. <u>ANNUAL Groundwater REPORT</u>: An annual report will be submitted to the OCD by May 01 of each year. The annual reports will contain:
  - i. A description of the monitoring and remediation activities which occurred during the year including conclusions and recommendations.
  - ii. Summary tables listing laboratory analytic results, of all water quality sampling for each monitoring point and plots of concentration vs. time for contaminants of concern from each monitoring point. Any WQCC constituent found to exceed the groundwater standard shall be highlighted and noted in the annual report. Copies of the most recent years laboratory analytical data sheets will also be submitted.
  - iii. An annual water table potentiometric elevation map using the water table elevation of the ground water in all refinery monitor wells. A corrected water table elevation shall be determined for all wells containing phaseseparated hydrocarbons. This map shall show well locations, pertinent site features, and the direction and magnitude of the hydraulic gradient.
  - iv. Plots of water table elevation vs. time for each ground water monitoring point.
  - v. An annual product thickness map based on the thickness of free phase product on ground water in all refinery recovery wells. This map shall include isopleth lines for products and contaminants of concern.
  - vi. The volume of product recovered in the recovery wells during each quarter and the total recovered to date.
  - vii. <u>Electronic filing:</u> OCD would like to encourage Giant to file this report in an acceptable electronic format.

#### B. Additional Requirements:

i. Giant shall notify the OCD Santa Fe and local district office at least 2 weeks in advance of all scheduled activities such that the OCD has the opportunity to witness the events and split samples. For large facilities, i.e. referinies, an

Ms. Mancini December 19, 2003 Page 7

annual notification will suffice.

- ii. Giant shall notify the NMOCD within 15 days of the discovery of separated-phase hydrocarbons or the exceedance of a WQCC standard in any down gradient monitor well where separate-phase hydrocarbons were not present or where contaminant concentrations did not exceed WQCC standards during the preceding monitoring event.
- 17. <u>Refinery Land farm:</u> Giant Refining Company will abide by all commitments submitted in the application for Refinery Surface Waste Disposal Facility dated April 12, 1995, the approval conditions issued by OCD on June 14, 1995, Offsite Waste Approval dated January 24, 1996 and these conditions of approval. (above mentioned documents shall be made part of the record and placed in the current discharge Plan)
  - A. The approval conditions issued by OCD on June 14, 1995 Reporting item 1. shall now read: "Analytical results from the treatment zone monitoring will be submitted to the OCD in the annual report required on the 1st day of May of each year. Giant shall report any significant changes in the monitoring results.
- 18. <u>Railroad Rack Lagoon Land farm:</u> Giant Refining Company will abide by all commitments submitted in the application dated August 31, 2002 and E-mail Mancini/Price dated November 28, 2000 for the minor modification of the discharge permit which included construction of a temporary land farm to bioremediate non-hazardous soils excavated from the adjacent Railroad Rack Lagoon (NMED SWMU 8) and from the Secondary Oil Skimmer (NMED SWMU 11). This landfarm area may also receive other non-hazardous soils from plant operations. Please re-write DP to incorporate all of these conditions. Include plot plan of new landfarm with cells, fences, signs and treatzone monitoring and annual monitoring.
- 19. <u>Railroad Rack Lagoon:</u> A closure plan shall be submitted for OCD approval by July 01, 2004 for the Railroad Rack Lagoon pit area. All fluids shall be removed within 48 hours of discovery.
- 20. Evaporation Ponds: All wastewater discharged to the ponds shall be demonstrated that it meets the definition of EPA RCRA Non-hazardous pursuant to 40 CFR Part 260-261. A minimum freeboard of two feet will be maintained in the ponds so that no over topping of waste water occurs. Any major repairs or modifications to the ponds or leak detection systems must receive prior OCD approval. Any exceedence of the freeboard or any leaks or releases shall be reported pursuant to Item 12. (Spill Reporting) of these conditions.
  - A. <u>Pond Inspections</u>: Evaporation ponds shall be inspected monthly and after any major

Ms. Mancini December 19, 2003 Page 8

storm event. Records shall be maintained for fluid levels, freeboard, seepage, flow channels, pipes, valves and dike integrity.

- B. Pond #2 Evaporation Spray System:
  - i. Individual sprinklers in the spray system will be oriented to direct the fluid spray so that no direct spray or windblown draft will leave the confines of pond #2.
  - ii. The spray system will not be operated when wind conditions will allow spray or salt precipitates to drift outside the confines of pond #2.
- C. Pond(s) Water Quality Monitoring: Surface water shall be observed, sampled and analyzed as proposed in the discharge plan renewal application Section 9.5 dated 09/08/03 page 9-3 attached hereto. In addition, all wastewater from the refinery or other sources entering the ponds shall be metered and records maintained and reported in an annual report to be submitted on the 1st day of May of each year.

Pond Monitor Wells: Please include names of new wells and monitoring schedule include this in DP with analysis.

Water Sales from Ponds: All water sales shall be as proposed in the discharge plan renewal application Section 9 (Surplus Water Sales) dated 09/08/03 page 9-3 attached hereto and any additional conditions placed on those sales by the OCD. Please be advised that OCD approval does not relieve Giant of liability should these operations pose a threat to property, ground water, surface water, human health or the environment. In addition, OCD approval does not relieve Giant of responsibility for compliance with any other federal, state, or local laws and/or regulations.

There is currently a BOD restriction in your DP submittal?

#### 21. Wastewater from Pilot Travel Center and Truck Stop Facility:

In order for OCD to allow wastewater from the Pilot Travel Center and Truck Stop Facility to continue to be disposed of at the Giant Ciniza refinery, OCD will require Giant to incorporate the following conditions and controls into the discharge plan

Ms. Mancini December 19, 2003 Page 9 permit:

# 1.

- Any wastewater received from the Pilot Travel Center and Truck Stop shall be treated before being discharged to the evaporation ponds. Giant shall demonstrate that the treatment system is providing a minimum of 60% reduction in total B.O.D. levels.
- 2. The by-pass line, or any other by-pass means, whether by pipe, surface/subsurface flow shall be disconnected, plugged and/or prevented from flowing into the evaporation ponds before treatment.
- 3. All wastewater received from the Pilot Travel Center and Truck Stop shall be EPA RCRA Non-Hazardous as defined in 40 CFR part 261 and shall not contain phase separated hydrocarbons or solids.
- Giant shall design, implement and maintain a sampling and metering station on 4. the incoming line from the travel center/truck stop. Grab samples shall be collected quartely and analyized for Hazardous Characterisitics (TCLP) by EPA method 1311 and B.O.D. All emergency up-sets or an exceedence of RCRA standards shall be reported to OCD within 24 hours and immediate corrective actions taken.
- 5. Verify that travel center has primary solids/oil separation.
- 22. <u>Aeration Basins:</u> Provide a method to determine overall BOD and TOC efficiency. I think quarterly sampling is a must.
- **23.** Please amend the Plant site drawing to include the following:

drawing should have a title, dates, amended or Rev dates. Note that was Prepared for DP. Include wastewater flow on drawing. Add all lines going to API, ponds, add valve location on ponds, pond flow etc. add septic leach field lines.

24. Annual Report: On an annual basis due May 01, Giant will submit a formal report to the OCD on the past year's activities. The report will include the following at a minimum:



Ms. Mancini December 19, 2003 Page 10

- A. A summary of all major refinery activities or events.
- B. Results of all sampling and monitoring events.
- C. Summary of all waste and wasterwater disposed of, sold, or treated on-site, including a refinery waterwater balance sheet.
- D. Summary of the sump and underground wastewater lines tested.
- E. Summary of all leaks, spills and releases and corrective actions taken.
- F. Summary of discovery of new groundwater contamination. This should include recommendations for investigation and remediation.
- G. Summary and Copies of all EPA/NMED RCRA activity.
- H.
- 25. <u>Transfer of Discharge Permit</u>: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge permit. A written commitment to comply with the terms and conditions of the previously approved discharge permit must be submitted by the purchaser and approved by the OCD prior to transfer.
- 26. <u>Closure</u>: The OCD will be notified when operations of the facility are discontinued for a period in excess of six months. Prior to closure of the facility a closure permit will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure
- 27. Certification: Giant Refining Company by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. Giant Refining Company further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Conditions accepted by:	Giant Refining Company	
	Company Representative- print name	-
	Company Representative- Sign	Date
	Title	

Ms. Mancini December 19, 2003 Page 11

AUG.14 '03 08:07AM P.1 enny Joust 505-334-6170 alme Truce Fax: 50,5 476 - 3462 14/03 Atta com Date: Nerhsage Pages: Re: TAXd CC: Urgent For Review D Please Comment □ Please Reply D Please Rocycle More: 505 - 722-0227 I found the alached into in our files, h like the OCD aster el tice afgrood by Ballow Construction Enr. manager at preparel a letter for Dallow request & OCD, then IN on District approval letter the There is an TT dated 7/11 which stale rankeleoris to be met. leve the he Construction the same language that was to agree y in order YO witter Geort fack seens (that 40 plain CO have the mission each time 40 nter w and apologize you th well We lelen arrecte per prov. It in e future will find a requise to and in St & after my the striket and fo any use.

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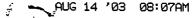
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A Division of Giant Industries, Inc.



July 8, 1996

Mr. Frank T. Chavez

District III Supervisor

State of New Mexico

Oil Conservation Division

1000 Rio Brazos Road Aztec, New Mexico 87410



Route 3, Box 7 Gallup, New Mexico 87301

505 722-3833

DRAFT

Dear Mr. Chavez:

SUBJECT: REQUEST TO USE TREATED PROCESS WATER

Energy, Minerals and Natural Resources Department

Giant Refining Company has been approached by Ballou Construction Company, a road construction company presently under contact with the State Highway Department to perform work on Interstate 40, to purchase evaporation pond water. Mr. Dan Welsh, Ballou Construction Company, informed me that they will need approximately 75,000 gallons of water beginning on August 1, 1996 through August 15, 1996.

Mr. Welsh also informed Giant that Ballou Construction has been unable to obtain any other source of water in this area. Therefore, Giant is requesting approval to sell 75,000 gallons of evaporation pond water from either Evaporation Pond #2, #11, or #12. In addition Mr. Welsh has been informed that OCD will have additional requirements that they (Ballou Construction Company) must follow, for example no ponding or run-off and if storage in tanks or containers is necessary, then precautions must been taken to prevent any releases.

If there are any questions on this matter please contact Mr. Joel Quinones at (505) 722-0260 or myself at (505) 722-0227.

Edward L. Horst, Environmental Manager Giant Refining Company Ciniza Refinery

cc: Patricio W. Sanchez, Petroleum Engineer, NMOCD Dick Platt, General Manager David Pavlich, HSE Manager Joel Quinones, Laboratory Manager Steve Morris, Envir. Spec.

A Division of Giant Industries, Inc.

P.3

DATE: 7-16-96		REFINING CO. Route 3, Box 7 Gallup, New Mexico 87301 505 722-3833	
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GARY E. JOHNSON GOVERNOR AZTEC DISTRICT OFFICE 1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 47410 (505) 584-4178 Fax (505)334-5170

P.5

JENNIPER A. SALISBURY CABINET SECRETARY

July 11, 1996

Rex Eberly Ballou Construction Company Incorporated PO Box 2300 Salina KS 67402-2300

Re: Using Refinery Waste Water for Road Construction

Dear Mr. Eberly:

I have received your letter dated July 11, 1996, requesting authorization to use approximately 75,000 gallons of refinery wastewater from ponds #2, #11, and #12 at Giant Refinery for construction on Interstate 40.

You may use this water as proposed with the following conditions:

- 1. The water will be applied so that no excess water runs off into roadside ditches or into any watercourse.
- 2. At the end of each day's activity, unused water will be stored in trucks or tanks so the water does not drip or drain onto the ground overnight. Alternatively, the water may be returned to the Giant ponds if no other material has been added to the water intentionally, or accidentally mixed with liquids that were previously contained in the truck or tank.

This approval does not relieve you of liability should your operation result in actual pollution of surface waters, ground waters, or the environment that may be actionable under other laws and/or regulations. In addition, this approval does not relieve you of responsibility for compliance with other county, state, federal, or tribal laws and/or regulations.

Sincerely,

Frank T. Chavez

District Supervisor

FTC\sh

cc: Roger Anderson - Santa Fe Giant Refinery, Ciniza Denny Foust, District Environmentalist

Rec. 7-15-96

OIL CONSERVATION DIVISION - 2040 S Pacheco- Santa Fe, NM 87505 - (505) 827-7181

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505-334-6170 Denny Jourt 505-476-3462 Mai Fax: To: Haneim Date: 13/03 Ø From Artal Tond Wd 3 en Pages: Re( / Instruction CC: 🗖 Urgent T For Review Please Comment □ Please Reply D Please Recycle Notes Construction 2002 the waler nor ruckin valu Ζ Ø 1 onlos Ø nore info needed minde ( 25--20 722-0227

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July 15, 2002

W. W. Construction, Inc. P.O. Box 6487 Albuquerque, NM 87104

RE: Pumping of Pond Water

Dear Sir:

Giant Refining Co., Ciniza Refinery has received your letter (by Fax) of July 12, 2002 requesting permission to pump pond water to your site via a three-inch pipeline. You also have agreed to hold Giant harmless against any and all claims, suits, or damages resulting from the use of the water.

Giant requires the following additional conditions be agreed to by your company and site personnel:

- One of your site staff will walk the length of the pipeline at least once per day to ensure ٠ pipeline integrity. If any leaks or problems are found, the pump will be shut off and Ciniza will be notified immediately at 722-3833 (Security).
- If the pump is running and any interruption in flow at your site occurs, the pump will be . shut down immediately and the problem will be identified and corrected. One of your field staff will notify Ciniza immediately if any problems occur.
- Ciniza Refinery reserves the right to suspend the pumping immediately if problems occur. Ciniza reserves the right to suspend the pumping operations at any time with 24 hour notice to the W. W. Construction's Field Office.

The purchase price for the pond water remains at \$1.00 per 10,000 gallons. W. W. Construction will be responsible for monitoring usage.

Sincerely,

Matthew R. Davis General Manager, Ciniza Refinery Giant Refining Co.

Date: 7/15/02 Date: 7/15/02 Date: 7/15/02 Date: 7/15/02 Date: 7/15/02 Date: 7/15/02

Miles Brown, Superintendent, W. W. Construction

PHONE 505-722-3833 FAX 505-722-0210

ROUTE 3 BOX 7 GALLUP NEW MEXICO 87301

P.2/3

P.3/3

N. W. Construction, Inc. P.O. Box 6487 • 1000 Gebaldon N.W. Albuquerque, New Mexico 57104 Phone: (505) 842-8136 • Jax: (505) 243-4614

July 12, 2002

Mr. Matt Davis General Manager Ciniza Refinery Glant Refinery Company Route 3 Box 7 Gallup, New Mexico 87301

RE: W. W. Construction, Inc. - Water Use

Dear Mr. Davis;

Your company has agreed to allow W. W. Construction, Inc. to use the water from the Ciniza Pond. W. W. Construction, Inc. will install a three-inch plastic pipeline. The pipeline will extend approximately one-half mile. The water will be used primarily for fugitive dust control.

After W. W. Construction, Inc. commences use of the water and until the water use terminates; W. W. Construction, Inc. will hold Glant Refinery Company harmless against any and all claims, suits, or damages resulting from the use of the water.

Sincerely,

Samel 6. Figures

Samuel A. Francis

CC: RF



REFINING COMPANY

## RECEIVED

JUL 3 0 2003

OIL CONSERVATION DIVISION

July 28, 2003

Wayne Price Environmental Bureau Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505

RE: Permit Renewal Fee for GW-032; Ciniza Refinery, Giant Refining Co.

Dear Mr. Price:

Enclosed please find a check made out to 'Waste Quality Management Fund' in the amount of \$8400 for the permit renewal fee for Groundwater Discharge Permit/Plan GW-032.

The completed permit application will be submitted to your office by September 10, 2003.

Please contact me at 505.722.0227 or @ <u>dmancini@giant.com</u> with any questions or concerns. Thank you for your assistance.

Sincerely,

Lucini

Dorinda Mancini Environmental Manager, Ciniza Refinery

Enc

CC: Roger Anderson, OCD Denny Foust, OCD Dave Cobrain, HWB Ed Riege, Env. Superintendent Matthew Davis, General Manager File

PHONE 505-722-3833 FAX 505-722-0210 ROUTE 3 BOX 7 GALLUP NEW MEXICO 87301

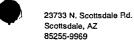


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Inv. Date

7/24/2003



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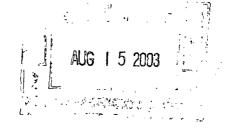
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W. W. Construction, Inc. 1000 Gabaldon N. W. Albuquerque, New Mexico 87104 Phone (505) 842-8136

July 25, 2003





Mr. Denny G. Foust Environmental Geologist Deputy Oil & Gas Inspector Oil Conservation Division 1000 Rio Brazos Road Aztec, New Mexico 87410

Dear Mr. Foust

Re: Ciniza Pond Water

At this time W.W.C., Inc. would like to request authorization to utilize water from the evaporation ponds at Giant Refinery Company (Ciniza) for dust suppression in conjunction with construction activities.

W.W.C., Inc. is aware of the following:

- 1.) The water will be applied so that no excess water runs off into roadside ditches or into any watercourse.
- 2.) At the end of each day's activity, unused water will be stored in trucks or tanks so the water does not drip or drain onto the ground overnight. Alternatively, the water may be returned to the giant ponds if no other material has been added to the water intentionally or accidentally mixed with liquids that were previously contained In the truck or tank.
- 3.) W.W.C., Inc. is aware that Ciniza pond water is not fit for consumption or agricultural use. Proper protective equipment will be required for anyone handling pond water.
- 4.) W.W.C., Inc. assumes liability upon taking possession of pond water.



AUG | 5 2003

J

Page 2 July 25, 2003

If there are any questions regarding this matter please feel free to call Barney Jones at (505)247-9336.

Sincerely

Barney Jones Safety & Environmental Officer

W. W. Construction, Inc. 1000 Gabaldon N. W. Albuquerque, New Mexico 87104 Phone (505) 842-8136 ER PURCHASE AGREEMENT

W.W.C., Inc. hereby agrees to reimburse Giant Refining Company at the rate of \$1.00/truck load for all water obtained from Giant's Ciniza Refinery for the purpose of dust suppression in connection with construction activities. W.W. C., Inc. also hereby acknowledges that it has been informed of the following:

The water obtained from Giant has been used in industrial operations and has been in contact with septic system materials. As such, the water is not fit for consumption or agricultural use, and direct contact with the water or its mist should be avoided. Use or appropriate personal protective equipment by those handling the water is recommended in order to minimize personnel contact.

Having been in contact with industrial operations, the waters use is subject to certain regulatory restrictions. The water is to be used solely for dust suppression, and the following conditions apply to its use:

- 1.) The water will be applied so that no excess water runs off into roadside ditches or into any watercourse.
- 2.) At the end of each day's activities, unused water will be stored in trucks or tanks so the water does not drip or drain onto the ground overnight. Alternatively, the water may be returned to the Giant ponds if no other material has been added to the water intentionally or accidentally mixed with liquids that were previously contained in the truck or tank.

Giants sale of this water does not relieve the purchaser of any liability should the purchaser's operations result in actual pollution of surface waters, ground waters, or the environment that may be actionable under any laws and/or regulations. In addition, this sale does not relieve the purchaser of responsibility for compliance with any applicable county, state, federal, or tribal laws and/or regulations.

The undersigned hereby acknowledges receipt of a copy of the above and agrees to the stated terms and conditions.

For Giant Refining

Date

## ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of che	ck No dated 7/25/03,
or cash received on	in the amount of \$ $8400^{-}$
from Giant Industries	
tor Ciniza Refinerca	GW-032
Submitted by: <u>Mayne m</u>	
Submitted to ASD by:	
Received in ASD by:	Date:
Filing Fee New Facility	Renewal
Modification Other	
Organization Code <u>521.07</u>	Applicable FY <u>2001</u>
To be deposited in the Water Quali	ty Management Fund.
Full Payment or Annual	Increment

 Image: State of this check is ensure if consideration of the state of the stat



July 28, 2003

Wayne Price Environmental Bureau Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505

RE: Permit Renewal Fee for GW-032; Ciniza Refinery, Giant Refining Co.

Dear Mr. Price:

Enclosed please find a check made out to 'Waste Quality Management Fund' in the amount of \$8400 for the permit renewal fee for Groundwater Discharge Permit/Plan GW-032.

The completed permit application will be submitted to your office by September 10, 2003.

Please contact me at 505.722.0227 or @ <u>dmancini@giant.com</u> with any questions or concerns. Thank you for your assistance.

Sincerely,

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Dorinda Mancini Environmental Manager, Ciniza Refinery

Enc

CC: Roger Anderson, OCD Denny Foust, OCD Dave Cobrain, HWB Ed Riege, Env. Superintendent Matthew Davis, General Manager File

PHONE 505-722-3833 FAX 505-722-0210 ROUTE 3 BOX 7 GALLUP NEW MEXICO 87301



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. . STATE OF NEW MEX CO ENFRGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

> 011. Con Reportion Ofvision 2040 S. 24(1):500 SANTA FE, NEW MEXICO 87505 (505) 827-7131

> > June 14, 1995



#### CERTIFIED MAIL RETURN RECEIPT NO. Z-765-962-696

Mr. John J. Stokes Giant Refining - Ciniza Refinery Route 3, Box 7 Gallup, NM 87301

RE: Approval of Landfarm Discharge Plan GW-032 Modification Giant Ciniza Refinery McKinley County, New Mexico

Dear Mr. Stokes:

The discharge plan modification GW-032 for the Giant Ciniza Refinery Landfarm located in Section 28 and Section 33, Township 15 North, Range 15 West, NMPM, McKindey County, New Mexico, is hereby approved under the conditions contained in the enclosed attachment. The discharge plan modification consists of the landfarm application and its contents dated April 12, 1995.

The discharge plan modification application was submitted pursuant to Section 3-106 of the New Mexico Water Quality Control Commission Regulations. Please note Sections 3-109.E and 3-109.F which provide for possible future amendments or modifications of the plan. Please be advised that the approval of this plan does not relieve Giant Refining Co. of liability should the operations associated with this facility result in pollution of surface water, ground water, or the environment. In additon, OCD approval does not relieve Giant of responsibility for compliance with any other Federal, State, or Local laws and/or regulations.

Please be advised that all exposed pits, including lined pits and open top tanks (tanks exceeding 16 feet in diameter), shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Mr. John J. Stokes June 14, 1995 Page 2

Please note that Section 3-104 of the regulations requires that "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3-107.C you are required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

This modification approval to the existing discharge plan will expire August 14, 1996, and you should submit an application for renewal in ample time before this date.

The discharge plan modification for the Giant Refining Co. Ciniza GW-032 is subject to the WQCC Regulation 3-114 discharge plan modification fee. Every billable facility submitting a discharge plan for modification shall be assessed a fee equal to the filing fee of fifty dollars (\$50) plus the flat fee of three-thousand, nine-hundred and ten dollars (\$3910) for Refineries filing for modification of existing discharge plans.

The filing fee and flat fee for the approved discharge plan modification has not been received by the OCD. The checks should be submitted to the NMED - Water Quality Management through the NMOCD office in Santa Fe, New Mexico.

On behalf of the staff of the Oil Conservation Division, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

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William J. LeMay

Director

WJI √pws Attachment

XC : Denny Foust

Mr. John J. Stokes June 14, 1995 Page 3

#### ATTACHMENT TO OCD PERMIT APPROVAL Giant Refining Co. Ciniza Refinery (June 14, 1995)

#### LANDFARM OPERATION

- 1. All operating procedures where not specified below will be adhered to as outlined in the application as submitted by Mr. John Stokes with Giant Refining dated April 12, 1995.
- 2. The facility will be fenced and have a sign at the entrance. The sign will be legible from at least 50 feet and will contain the following information: a) name of the facility, b) the permit number GW-032, c) location by section, township and range, and d) emergency phone number.
- 3. An adequate berm will be constructed and maintained to prevent runoff and runon for that portion of the facility containing contaminated soils.
- All contaminated soils received at the facility will be spread and disked within 72 hours of receipt.
- 5. Soils will be spread in six inch lifts or less.
- 6. Soils will be disked a minimum of once every two weeks to enhance biodegradation of the contaminants.
- 7. Successive lifts of contaminated soils will not be spread until a lahoratory measurement of Total Petroleum Hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm), and the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and the benzene concentration is less than 10 ppm. Comprehensive records of laboratory analysis and the sampling locations will be maintained at the facility. Authorization from the OCD will be obtained prior to the spreading of successive lifts and/or removal of the remediated soils.
- 8. Only oilfield wastes regulated by the OCD which are exempt from RCRA Subtitle C regulations or non-hazardous by characteristic testing will be accepted at the facility. Solids from operations not currently exempt under RCRA Subtitle C or mixed exempt/non-exempt solids will be tested for the appropriate hazardous Characteristics and submitted to OCD for approval prior to acceptance. Comprehensive records of all laboratory analyses and sample locations will be maintained by the Giant Refining Co.

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Mr. John J. Stokes June 14, 1995 Page 4

- Moisture will be added as necessary to enhance biodegradation and to control blowing dust. There will be no ponding, pooling or runoff allowed. Any ponding of precipitation will be removed within seventy-two (72) hours of discovery.
- 10. Enhanced bio-remediation through the application of microbes (bugs) and/or fertilizers will only be permitted after prior approval from the OCD. Request for the application of microbes must include the location of the area designated for the bioremediation program, composition of additives, and the method, amount and frequency of application.
- 11. No free liquids or soils with free liquids will be accepted at the facility.
- 12. Comprehensive records of all materials received at the facility will be maintained at the facility. The records for each load will include: a) the origin, b) date received, c) quantity, d) exempt or non-exempt status and analyses for hazardous constituents if required, and e) exact cell location and any addition of microbes, moisture, fertilizers, etc.

#### TREATMENT ZONE MONITORING

- 1. One (1) background sample will be taken from the center portion of the landfarm two (2) feet below the native ground surface. The sample will be analyzed for total petroleum hydrocarbons (TPH), general chemistry, and heavy metals using EPA approved methods.
- 2. A treatment zone not to exceed three (3) feet beneath the landfarm will be monitored. A minimum of one random soil sample will be taken from each cell, with no cell being larger than five acres, six (6) months after the first contaminated soils are received in the cell and then quarterly thereafter. The sample will be taken at two (2) to three (3) feet below the native ground surface.
- 3. The soil samples will be analyzed using approved EPA methods for TPH and BTEX quarterly, and general chemistry and heavy metals annually.
- 4. After obtaining the soil samples the bore holes will be filled with an impermeable material such as bentonite cement.



Mr. John J. Stokes June 14, 1995 Page S

#### **REPORTING**

- 1. Analytical results from the treatment zone monitoring will be submitted to the OCD Santa Fe Office within thirty (30) days of receipt from the laboratory.
- 2. The OCD will notified of any break, spill, or any other circumstance that could constitute a hazard or has potential to result in contamination in accordance with OCD Rule 116 and WQCC section 1-203.

#### **CLOSURE**

The Giant will notify the OCD upon cessation of operations. Upon cessation of landfarming operations for six (6) consecutive months, the Giant will complete cleanup of constructed facilities and restoration of the facility site within the following six (6) months, unless an extension is granted by the Director of the OCD. When the facility is to be closed no new material will be accepted. Existing soils will be remediated until they meet the OCD standards in effect at the time of closure. The area will then be resected with indigenous grasses and allowed to return to its natural state. Closure will be pursuant to all OCD requirements in affect at the time of closure.





Route 3, Dox 7 Gailup, New Mex co 87301

505 729 3839

November 17, 1995

Mr. William J. LeMay Oil Conservation Division New Mexico Energy, Minerals, and Natural Resources Department 2040 South Pacheco Santa Fe, New Mexico 87505

Re: Discharge Plant GW-032 Modification Fee - Landfarm Approval

Enclosed with this letter is a check in the amount of \$3,960.00 to cover the permit modification and filing fees for a modification to Giant Refining Company's OCD discharge permit GW-032 for Giant's Ciniza refinery. This fee was requested in your modification approval letter dated June 14, 1995. Due to an oversight on Giant's part, payment of this fee was inadvertently overlooked. I apologize for the delay.

Thank you for your staff's assistance in the permit modification process.

Sincerely,

Davil C. Paulert

David C. Pavlich Health, Safety, and Environmental Manager Giant Refining Company

[SRP\SPDOCS\WJL1117.95]

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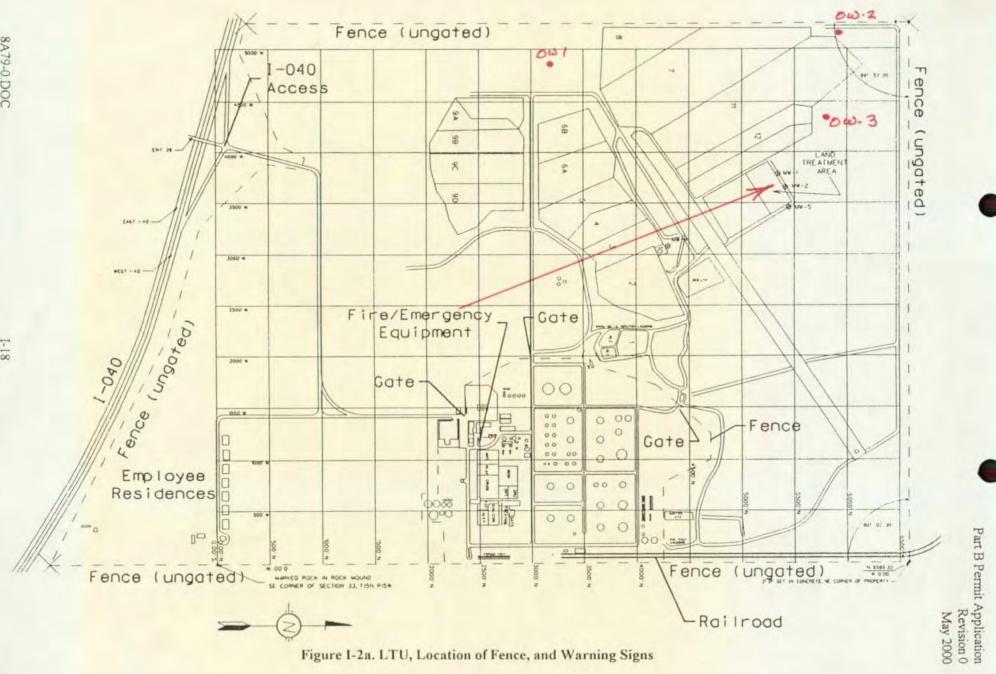


Figure 1-2a. LTU, Location of Fence, and Warning Signs

1-18

AEN I.D. 705350

merican Environmental Network, Inc.

May 29 1997

GIANT REFINING CO. RT. 3 BOX 7 GALLUP NM 87301

Project Name BCKGRD FOR RCRA LTA Project Number (none)

Attention: STEVE MORRIS

On 5/19/97 American Environmental Network (NM), Inc. (ADHS License No. AZ0015), received a request to analyze non-aq samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

pH analysis was performed by American Environmental Network (NM) Inc., Albuquerque, NM.

All other analyses were performed by American Environmental Network (FL) Inc., 11 East Olive Road, Pensacola, FL.

If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.

Kimberly D. McNeill Project Manager

MR: mt

Enclosure

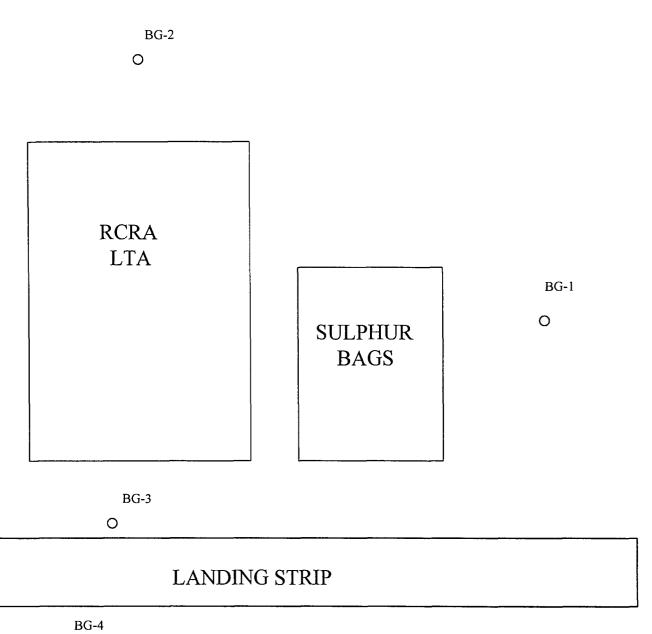
H. Mitchell Rubenstein, Ph. D. General Manager

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CLIENT	: GIANT REFINING CO.	AEN I.D.	: 705350
PROJECT #	: (none)	DATE RECEIVED	: 5/19/97
PROJECT NAME	: BCKGRD FOR RCRA LTA	REPORT DATE	: 5/29/97
AEN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	BG-1-51897	NA	5/18/97
02	BG-2-51897	NA	5/18/97
03	BG-3-51897	NA	5/18/97
04	BG-4-51897	NA	5/18/97

# Background samples 5/18/97

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#### GENERAL CHEMISTRY RESULTS

CLIENT		: GIANT REFINING CO.		AEN I.D.		: 705350
PROJECT	#	: (none)		DATE RECEIVED		: 5/19/97
PROJECT	NAME	: BCKGRD FOR RCRA LTA				
SAMPLE			DATE		DATE	
<u>ID.</u> #	CLIENT I.D.	MATRIX	SAMPLED		ANALYZED	
01	BG-1-51897	NON-AQ	5/18/97		5/23/97	
02	BG-2-51897	NON-AQ	5/18/97		6/23/97	
03	BG-3-51897	NON-AQ	5/18/97		5/23/97	
PARAME	TER		UNITS	01	02	03
PH (SW8	46-9045B)		UNITS	8.79	9.04	8.94

CHEMIST NOTES:

N/A

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#### GENERAL CHEMISTRY RESULTS

CLIENT PROJECT	#	: GIANT REFINING CO. : (none)		AEN I.D. DATE RECEIVED	: 705350 : 5/19/97
PROJECT	NAME	: BCKGRD FOR RCRA LTA			
SAMPLE			DATE		DATE
<u>ID. #</u>	CLIENT I.D.	MATRIX	SAMPLED	A	NALYZED
04	BG-4-51897	NON-AQ	5/18/97		5/23/97
PARAMET	rer		UNITS	04	
PH (SW84	46-9045B)		UNITS	8.70	

CHEMIST NOTES: N/A

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### GENERAL CHEMISTRY - QUALITY CONTROL

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CLIENT PROJECT # PROJECT NAME	: (none)	FINING CO.		AEN I.D. SAMPLE MATRI)	¢	05350 ION-AQ
PARAMETER	UNITS	AEN I.D.	SAMPLE RESULT	DUP. RESULT	% RPD	 
PH	UNITS	705350-01	8.79	8.86	0.8	 
CHEMIST NOTES: N/A						
% Recovery =	(Spike Sample Resu	ilt - Sample Result)	X 100			
/• noovory =	Spike Cond		X 100			
	. 5.4	(Sample Result - D	Duplicate Resul			
RPD (Relative Perce	nt Difference) =	Average	Result	X 100		

5

#### "FINAL REPORT FORMAT - MULTIPLE"

Accession: Client: Project Number: Project Name: Project Location: Test: QcLevel:	GIANT REFINING		K (N)	EW MEXICO)	INC.	
Parameter:	Unit:	Result:		R.L:	Batch:	Q:
Client ID: 705350-03	1		Lab	ID: 001		
WALKLEY BLACK TOC	8	0.29		0.05	WTS016	
Comments:						
Client ID: 705350-02	2		Lab	ID: 002		
WALKLEY BLACK TOC	8	0.58		0.05	WTS016	
Comments:						
Client ID: 705350-03	3		Lab	ID: 003		
WALKLEY BLACK TOC	8	0.58		0.05	WTS016	
Comments:						
Client ID: 705350-04	4		Lab	ID: 004		
WALKLEY BLACK TOC	8	0.48		0.05	WTS016	
Comments:						

#### "FINAL REPORT FORMAT - MULTIPLE"

Accession: Client: Project Number: Project Name: Project Location: Test:	705350 GIANT REFINING	ICO) INC.	
Client ID:	Lab Matrix:	Date/Time	Date
	ID:	Sampled:	Received:
705350-01	001 SOIL	18-MAY-97 0915	20-MAY-97
705350-02	002 SOIL	18-MAY-97 0935	20-MAY-97
705350-03	003 SOIL	18-MAY-97 0950	20-MAY-97
705350-04	004 SOIL	18-MAY-97 1010	20-MAY-97

#### "Method Report Summary"

Accession Number: Client: Project Number: Project Name: Project Location: Test:	AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO 705350 GIANT REFINING	INC.	
Client Sample Id:	Parameter:	Unit:	Result:
705350-01	WALKLEY BLACK TOC	20	0.29
705350-02	WALKLEY BLACK TOC	8	0.58
705350-03	WALKLEY BLACK TOC	010	0.58
705350-04	WALKLEY BLACK TOC	*	0.48

Parameter:	WALK TOC
Batch Id:	WTS016
Blank Result:	<0.05
Anal. Method:	WBTOC
Prep. Method:	N/A
Analysis Date:	23-MAY-97
Prep. Date:	23-MAY-97
Sample Dup	lication
Sample Dup:	705350-1
Rept Limit:	<0.05
Sample Result:	0.29
Dup Result:	0.29
Sample RPD:	0
Max RPD:	26
Dry Weight%	N/A
Matrix Spi	ke
Sample Spiked:	705350-1
Rept Limit:	<0.05
Sample Result:	0.29
Spiked Result:	0.48
Spike Added:	0.26
% Recovery:	73
% Rec Limits:	59-127
Dry Weight%	N/A
ICV	
ICV Result: True Result: % Recovery: % Rec Limits:	
LCS	
LCS Result:	0.24
True Result:	0.26
% Recovery:	92
% Rec Limits:	80-120

## "WetChem Quality Control Report"

---- Common Footnotes WetChem -----N/A = NOT APPLICABLE.N/S = NOT SUBMITTED.N/C = SAMPLE AND DUPLICATE RESULTS ARE AT OR BELOW AEN REPORTING LIMIT; THEREFORE, THE RPD IS "NOT CALCULABLE" AND NO CONTROL LIMITS APPLY. N/D = NOT DETECTED.R = REACTIVE T = TOTALG = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X AEN REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE RESULT IS AT OR BELOW AEN REPORTING LIMIT; THEREFORE, THE RESULTS ARE "IN CONTROL". Q = THE ANALYTICAL (POST-DISTILLATION) SPIKE IS REPORTED DUE TO PERCENT RECOVERY BEING OUTSIDE ACCEPTANCE LIMITS ON THE MATRIX (PRE-DISTILLATION) SPIKE. # = ELEVATED REPORTING LIMIT DUE TO INSUFFICIENT SAMPLE. + = ELEVATED REPORTING LIMIT DUE TO DILUTION INTO CALIBRATION RANGE. = ELEVATED REPORTING LIMIT DUE TO MATRIX INTERFERENCE. (DILUTION PRIOR TO ANALYSIS) @ = ADJUSTED REPORTING LIMIT DUE TO SAMPLE MATRIX. (DILUTION PRIOR TO DIGESTION) Ρ = ANALYTICAL (POST DIGESTION) SPIKE. = DUPLICATE INJECTION. Т & = AUTOMATED F = SAMPLE SPIKED > 4 X SPIKE CONCENTRATION. N/C+ = NOT CALCULABLE H = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X AEN REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE AEN REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL". A = SAMPLE AND DUPLICATE RESULTS ARE "OUT OF CONTROL". = THE SAMPLE RESULT FOR THE SPIKE IS BELOW THE REPORTING LIMIT. HOWEVER, THIS RESULT IS REPORTED FOR ACCURATE QC CALCULATIONS. NH= SAMPLE AND / OR DUPLICATE RESULT IS BELOW 5 X AEN REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE AEN REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL". SAMPLE IS NON-HOMOGENEOUS. (*) = DETECTION LIMITS RAISED DUE TO CLP METHOD NOT REQUIRING A CONCENTRATION STEP FOR CN. (CA) = SEE CORRECTIVE ACTIONS FORM. **= MATRIX INTERFERENCE SW-846, 3rd Edition, latest EPA-approved edition. EPA 600/4-79-020, Revised March 1983. STANDARD METHODS, For the Examination of Water and Wastewater, latest EPA-approved edition. NIOSH Manual of Analytical Methods, 4th Edition. ANNUAL BOOK OF ASTM STANDARDS, VOLUMES 11.01 and 11.02, latest EPA-approved edition. METHODS FOR THE DETERMINATION OF INORGANIC SUBSTANCES IN ENVIRONMENTAL SAMPLES, EPA600/R-93/100, AUGUST 1993 AEN-PN USES THE MOST CURRENT PROMULGATED METHODS FROM THE REFERENCES LISTED ABOVE. METHODS FOR SOIL ANALYSIS, PART 2, CHEMICAL AND MICROBILOGICAL PROPERTIES, 2ND EDITION. COLIFORM PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN THE LOGARITHM OF COLONIES PER 100 MLS OF SAMPLE ON DUPLICATE PLATES. PH PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN THE 1. COLIFORM. 2 PH SAMPLE AND DUPLICATE ANALYSIS. 3. FLASHPOINT. FLASHPOINT PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE ANALYSIS. RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION) RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES. RB = REBECCA BROWN NSB = NANCY S. BUTLER AB = ANDY BROTHERTON MM = MIKE MCKENZIE DPH = DOLLY P. HWANG JL = JAN LECLEAR LV = LASSANDRA VON APPEN JTZ = JONATHAN T. ZIENTARSKI RH = RICKY HAGENDORFER ED = ESTHER DANTIN PLD = PAULA L. DOUGHTY

### "FINAL REPORT FORMAT - MULTIPLE"

Accession: Client: Project Number: Project Name: Project Location: Test: QcLevel:	GIANT REFINING	TAL NETWOR	K (NEW MEXICO)	INC.		
Parameter:	Unit:	Result:	R.L:	Batch:	Q:	
Client ID: 705350-0	1		Lab ID:001			
SILVER (6010) ARSENIC (6010) BARIUM (6010) CADMIUM (6010) CHROMIUM (6010) MERCURY (7471) LEAD (6010) SELENIUM (6010)	MG/KG MG/KG MG/KG MG/KG MG/KG MG/KG MG/KG	ND ND 240 ND 8 ND 7 ND	1 5 1 0.5 1 0.02 5 10	A6S054 R6S054 B6S054 C6S054 H6S054 M4S023 P6S054 S6S054		
Comments:						
Client ID: 705350-0	2		Lab ID:002			
SILVER (6010) ARSENIC (6010) BARIUM (6010) CADMIUM (6010) CHROMIUM (6010) MERCURY (7471) LEAD (6010) SELENIUM (6010) Comments:	MG/KG MG/KG MG/KG MG/KG MG/KG MG/KG	ND ND 240 ND 13 ND 8 ND	1 5 1 0.5 1 0.02 5 10	A6S054 R6S054 B6S054 C6S054 H6S054 M4S023 P6S054 S6S054		
Client ID: 705350-0	3		Lab ID:003			
SILVER (6010) ARSENIC (6010) BARIUM (6010) CADMIUM (6010) CHROMIUM (6010) MERCURY (7471) LEAD (6010) SELENIUM (6010)	MG/KG MG/KG MG/KG MG/KG MG/KG MG/KG	ND ND 310 ND 13 ND 10 ND	1 5 1 0.5 1 0.02 5 10	A6S054 R6S054 B6S054 C6S054 H6S054 M4S023 P6S054 S6S054		
Comments:						
Client ID: 705350-0	4		Lab ID:004			
SILVER (6010) ARSENIC (6010) BARIUM (6010) CADMIUM (6010) CHROMIUM (6010) MERCURY (7471) LEAD (6010) SELENIUM (6010)	MG/KG MG/KG MG/KG MG/KG MG/KG MG/KG	ND ND 240 ND 13 ND 7 ND	1 5 1 0.5 1 0.02 5 10	A6S054 R6S054 B6S054 C6S054 H6S054 M4S023 P6S054 S6S054		

Comments:

#### "FINAL REPORT FORMAT - MULTIPLE"

Accession: Client: Project Number: Project Name: Project Location: Test:	705350 AMERICAN ENVIRONMENTAL NETWORK 705350 GIANT REFINING N/S RCRA METALS	(NEW MEXICO)	INC.	
Client Id:	Lab Matrix: Id:		Date/Time Sampled:	Date Received:
705350-01 705350-02 705350-03 705350-04	001 SOIL 002 SOIL 003 SOIL 004 SOIL		18-MAY-97 0915 18-MAY-97 0935 18-MAY-97 0950 18-MAY-97 1010	20-MAY-97 20-MAY-97 20-MAY-97 20-MAY-97

## "Method Report Summary"

Accession Number: Client: Project Number: Project Name: Project Location: Test:	AMERICAN ENVIRONMENTAL NETWORK (NEW MEXIC 705350 GIANT REFINING	O) INC.	
Client Sample Id:	Parameter:	Unit:	Result:
705350-01	BARIUM (6010)	MG/KG	240
	CHROMIUM (6010)	MG/KG	8
	LEAD (6010)	MG/KG	7
705350-02	BARIUM (6010)	MG/KG	240
	CHROMIUM (6010)	MG/KG	13
	LEAD (6010)	MG/KG	8
705350-03	BARIUM (6010)	MG/KG	310
	CHROMIUM (6010)	MG/KG	13
	LEAD (6010)	MG/KG	10
705350-04	BARIUM (6010)	MG/KG	240
	CHROMIUM (6010)	MG/KG	13
	LEAD (6010)	MG/KG	7

Parameter: Batch Id: Blank Result: Anal. Method: Prep. Method: Analysis Date: Prep. Date:	SILVER A6S054 <1 6010 3050 22-MAY-97 21-MAY-97	"Metals Q ARSENIC R6S054 <5 6010 3050 22-MAY-97 21-MAY-97	uality Cont BARIUM B6S054 <1 6010 3050 22-MAY-97 21-MAY-97	rol Report" CADMIUM C6S054 <0.5 6010 3050 22-MAY-97 21-MAY-97	CHROMIUM H6S054 <1 6010 3050 22-MAY-97 21-MAY-97	MERCURY M4S023 <0.02 7471 7471 23-MAY-97 23-MAY-97
Sample Dup	lication					
Sample Dup:	705350-1	705350-1	705350-1	705350-1	705350-1	705350-3
Rept Limit:	<1	<5	<1	<0.5	<1	<0.02
Sample Result:	160	180	440	180	200	0.40
Dup Result:	170	190	480	180	210	0.39
Sample RPD:	6	5	9	0	5	3
Max RPD:	20	20	20	20	20	20
Dry Weight%	N/A	N/A	N/A	N/A	N/A	N/A
Matrix Spi	ke					······································
Sample Spiked:	705350-1	705350-1	705350-1	705350-1	705350-1	705350-3
Rept Limit:	<1	<5	<1	<0.5	<1	<0.02
Sample Result:	<1	<5	240	<0.5	8	<0.02
Spiked Result:	160	180	440	180	200	0.40
Spike Added:	200	200	200	200	200	0.42
% Recovery:	80	90	100	90	96	95
% Rec Limits:	75-125	75-125	75-125	75-125	75-125	75-125
Dry Weight%	N/A	N/A	N/A	N/A	N/A	N/A
ICV						
ICV Result:	2.5	4.9	5.0	4.8	5.0	0.0044
True Result:	2.5	5.0	5.0	5.0	5.0	0.0040
% Recovery:	100	98	100	96	100	110
% Rec Limits:	90-110	90-110	90-110	90-110	90-110	80-120
LCS			······································			
LCS Result:	130	100	180	86	140	2.83
True Result:	117	103	170	88.8	133	2.86
% Recovery:	111	97	106	97	105	99
% Rec Limits:	72-178	71-129	74-126	75-125	78-122	64-135

-		"Metals Quality
Parameter: Batch Id:	LEAD P6S054	SELENIUM S6S054
Blank Result:		<10
Anal. Method:	6010	6010
Prep. Method:	3050	3050
Analysis Date:		22-MAY-97
Prep. Date:	21-MAY-97	21-MAY-97
Sample Dup	lication	
Sample Dup:	705350-1	705350-1
Rept Limit:	< 5	<10
Sample Result:	190	190
Dup Result:	200	200
Sample RPD:	5	5
Max RPD: Dry Weight%	20 N/A	20 N/A
	N/A	
Matrix Spi	ke	
Sample Spiked:	705350-1	705350-1
Rept Limit:	< 5	<10
Sample Result:	7	<10
Spiked Result:	190	190
Spike Added:	200	200
<pre>% Recovery:</pre>	92	95
% Rec Limits:	75-125	75-125
Dry Weight%	N/A	N/A
ICV		
ICV Result:	5.0	5.1
True Result:	5.0	5.0
<pre>% Recovery:</pre>	100	102
% Rec Limits:	90-110	90-110
LCS		
LCS Result:	83	140
True Result:	86.4	129
<pre>% Recovery: % Recovery:</pre>	96	109
% Rec Limits:	67-133	73-128

### "Metals Quality Control Report"

## "Quality Control Comments"

			Bat	ch Id	: Comments:
A6S054	ANALYST: GJ				
		daw "Camala	Dumlighting"		- MC (MCD
A6S054	The results reported und	der "Sampie	Dupilcation" a	ire un	e MS/MSD.
R6S054	ANALYST: GJ				
R6S054	The results reported und	der "Sample	Duplication" a	re th	e MS/MSD.
B6S054	ANALYST: GJ	-	-		
B6S054	The results reported und	der "Sample	Duplication" a	re th	e MS/MSD.
C6S054	ANALYST: GJ				
C6S054	The results reported und	der "Sampla	Duplication" a	ra th	
		der Sampre	Dupiicación a	ie cir	E M3/M3D.
H6S054	ANALYST: GJ			<b>-</b>	
H6S054	The results reported und	der "Sample	Duplication" a	re th	e MS/MSD.
M4S023	ANALYST: LV				
M4S023	The results reported und	der "Sample	Duplication" a	re th	e MS/MSD.
P6S054	ANALYST: GJ	-	-		
P6S054	The results reported und	der "Sample	Duplication" a	re th	A MS/MSD
S6S054	ANALYST: GJ	der bampre	Dupiicación a		
		des ll Cemple			
S6S054	The results reported und	der "Sample	Duprication" a	re ch	e MS/MSD.

N/A = NOT APPLICABLE.N/S = NOT SUBMITTED. N/C = SAMPLE AND DUPLICATE RESULTS ARE AT OR BELOW ATI REPORTING LIMIT; THEREFORE, THE RPD IS "NOT CALCULABLE" AND NO CONTROL LIMITS APPLY. N/D = NOT DETECTED.DISS. OR D = DISSOLVED T & D = TOTAL AND DISSOLVED R = REACTIVET = TOTALG = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE RESULT IS AT OR BELOW ATI REPORTING LIMIT; THEREFORE, THE RESULTS ARE "IN CONTROL" Q = THE ANALYTICAL (POST-DIGESTION) SPIKE IS REPORTED DUE TO PERCENT RECOVERY BEING OUTSIDE ACCEPTANCE LIMITS ON THE MATRIX (PRE-DIGESTION) SPIKE. = ELEVATED REPORTING LIMIT DUE TO INSUFFICIENT SAMPLE. = ELEVATED REPORTING LIMIT DUE TO DILUTION INTO CALIBRATION RANGE.
= ELEVATED REPORTING LIMIT DUE TO MATRIX INTERFERENCE. (DILUTION PRIOR TO ANALYSIS) @ = ADJUSTED REPORTING LIMIT DUE TO SAMPLE MATRIX. (DILUTION PRIOR TO DIGESTION) P = ANALYTICAL (POST DIGESTION) SPIKE. I = DUPLICATE INJECTION. & = AUTOMATED = SAMPLE SPIKED > 4 X SPIKE CONCENTRATION. F N/C+ = NOT CALCULABLE N/C* = NOT CALCULABLE; SAMPLE SPIKED > 4 X SPIKE CONCENTRATION. H = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE ATI REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL". A = SAMPLE AND DUPLICATE RESULTS ARE "OUT OF CONTROL" 7. = THE SAMPLE RESULT FOR THE SPIKE IS BELOW THE REPORTING LIMIT. HOWEVER, THIS RESULT IS REPORTED FOR ACCURATE QC CALCULATIONS. NH= SAMPLE AND / OR DUPLICATE RESULT IS BELOW 5 X ATI REPORTING LIMIT AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE ATI REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL". SAMPLE IS NON-HOMOGENEOUS. J = (FLORIDA DEP 'J' FLAG) - MATRIX SPIKE AND POST SPIKE RECOVERY IS OUT OF THE ACCEPTABLE RANGE. SEE OUT OF CONTROL EVENTS FORM. U = (FLORIDA DEP 'U' FLAG) - THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED. S = METHOD OF STANDARD ADDITIONS (MSA) WAS PERFORMED ON THIS SAMPLE. FROM ANALYSIS REPORT: RL= REPORTING LIMIT BASED ON METHOD DETECTION LIMIT STUDIES. Q= QUALIFIER (FOOTNOTE) FROM QUALITY CONTROL REPORT: RPD= RELATIVE PERCENT DEVIATION. RPT LIMIT= REPORTING LIMIT BASED ON METHOD DETECTION LIMIT STUDIES. NOTE : THE UNITS REPORTED ON THE QUALITY CONTROL REPORT ARE REPORTED ON AN AS RUN BASIS. SW-846, 3rd Edition, latest revision. EPA 600/4-79-020, Revised March 1983. NIOSH Manual of Analytical Methods, 4th Edition. Standard Methods For the Examination of Water and Wastewater, 18th Edition, 1992. Methods For the Determination of Metals in Environmental Samples - Supplement I, EPA 600/R-94-111, May 1994.

----- Common Footnotes Metals -----

GJ = GARY JACOBSJR = JOHN REEDJLH = JAMES L. HEREDLV = LASSANDRA VON APPENCD = CHRISTY DRAPERLV = LASSANDRA VON APPEN

Background for RERALTA

American

Environmental

# CHAIN OF CUSTODY

AEN LAB T.D. 705350

ZHEN Network (Arizona), Inc.	DATE 5-18-97 PAGE 1 OF 1 705350	
REPORT: Attn. to:	ANALYSIS REQUEST	
PLEASE COMPANY: $G$ TANT Refining Co. ADDRESS: $R \neq 3$ Box 7 $G = 1/1 \mu p$ NM 87301 PHONE: $5 \circ 5$ 722 0258 FAX: $5 \circ 5$ 722 0210 BILL TO: $SAME$ COMPANY: ADDRESS: $ME$	A Metals by TCLP ( A Metals by Total Dig A Carbon ar Aromatics (610/) GC/MS (624/8240/) GC/MS (624/8240/) GC/MS (615/8150 CD/MS (608/8080/505 CD/MED SITE 08 MBTXE/MTBE (8020 (M8015) Fuel Finge m Hydrocarbons (4	NUMBER OF CONTAINERS
SAMPLEID DATE TIME MATRIX LABID	estion 8260) 71ics) 71ics) 7508) 8260) 8260) 71ics) 7508) 8020) 8020) 8020) 8020) 8020) 8020) 8020) 8010) 1682 10 9 1881) 18.1)	ES ES
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PROJ. NO.:       Image: State of the state	SAMPLED & RELINQUISHED BY:       1.       RELINQUISHED BY:       2.       AELINQUISHED BY:         Signature:       Time:       Signature:       Time:       Signature:       Ime         Itte:       Wown       OSSS       Signature:       Time:       Signature:       Ime         NA       Printed Name:       Date:       Printed Name:       Date:       Printed Name:       Date:	3.
	Lompany: Phone: Lompany: Lompany:	· · · · · · · · · ·
W BUING AUTUMBIZATION IS BEAUTER FOR HUSH PROJECTS		3.
(RUSH) [] 24hr 48hr 72hr X 1 WEEK (NORMAL) 2 WEEKS		J.
Comments:	Printed Name: Date: Printed Name: Date: Date: Date: Date: Date:	
	Company: Company: American Environmental Net	twork

American Environmental Network Albuquerque, New Mexico

# Interlab Chain of Custody

DATE: 5-12-22-PAGE 10F)

NETWORK PROJECT MANAGER: KIMBERLY	D. McNE	EILL											- 1	ÀN/	١ĹŸ	SIS	S RI	ΞQι	JES	ST										
COMPANY: American Environmental Network ADDRESS: 2709-D Pan American Freeway, NE Albuquerque, NM 87107 705350 CUENT PROJECT MANAGER:					List	4 4	Is by TCLP (1311)				stry			ase			Pesticides/PCB (608/8080)		$\mathbf{O}$	Organics GC/MS (624/8240)	Aroma	* 1311) ZHE	1311)				Alpha/beta			NUMBER OF CONTAINERS
				- TAL	- РР	- BC	Meta				hemi			d Grease			ides/F	ides	leutral	e Org	ıclear	TCLF	ПССР				AIDU			ER OF
Kim McNeill SAMPLEID DATE	TIME	MATRIX	LAB ID	Metals	Metals	Metals	RCRA Metals by		10 X0	100	Gen Chemistry			Oil and	BOD	8	Pestic	Herbicides	Base/Neutral Acid	Volatile	Polynuclear	8240 (TCLP	8270 (		10-14		Gross			
705 350 - 01 5/18/97	9:15	NA		-	1	X	_		†	Ż		-		-	_	-	-	-	_				~					+		F
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PROJECT INFORMATION	PROJECT INFORMATION SAMPLE RECEIP						SAI	MPLES	S SEN	IT TO	:		RE	LIN	วบเร	SHE	D BY	<u>':</u>			1.	R	ELI	IQUIS	SHED	BY	:			2.
PROJECT NUMBER. 705350 TOTAL NUMBER OF CONTAINED			AS			1	N DIEC				-{	Signal		_}	2	Ti	me: 177	00	>		Si	gnati	116			Time.				
PHOJECT NAME. Limit refining CHAIN OF CUSTODY SEALS								NTON	901	1		1	Printe	d Na	me:	2.1	 د حر	ale:			 a .	Pi	inted	Name			Date			
INTACT?							NSACO								710				-//	<u>-/i</u>		ompa	ny							
			J	I			RTLAN DENIX				- '	Albuquerque NM						1.		FCF		BY: (								
				•									Signature: Time: D825									gnalu		<u>ы. (</u>	-	Time:			2.	
DUE DATE: 5-23-97-					÷	÷	- Truda d. hitt (					<u>0 y</u> 57.	6	2	2 Prinled Name: Date:															
RUSH SURCHARGE:								bindal Kitt 100/97							- 310.															
SPECIAL CERTIFICATION REQUIRED: [.]YES [.]NO								_						Ë.	<u>)</u>	71	<u> </u>					Co	mpai	ıy:		_				

Labs: San Diego (619) 458-9141 • Phoenix (602) 496-4400 • Seattle (206) 228-8335 • Pensacola (904) 474-1001 • Portland (503) 684-0447 • Albuquerque (505) 344-3777

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In     Project International Induction     Induction     Induction     Induction     Induction       In     Project Induction     Induction     Induction     Induction     Induction     Induction       In     In     Induction     Induction     Induction     Induction     Induction     Induction       In     In     In     In     In     In     In     In       In     In     In     In     In     In     In     In       In     In     In     In     In     In     In     In       In	Vi S. Inne Date.
(1) PRIDE AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS RECEIVED BY: 1. RECEIVED BY: 2. RECEIVED BY: (LA	
Printed Name: Date: Printed Name:	

American nvironmen	· · · · · · · · · · · · · · · · · · ·
PROJECT SAMPLE	
Lab Accession #: 705350	Date Received: 20 - Moy - 97
1. Was there a Chain of Custody? Yes No*	8. Were samples checked for Yes No* N/A preservative? (Check pH of all H ₂ O requiring preservative except VOA viais that require zero headspace)*
2. Was Chain of Custody properly (Yes) No* filled out and relinguished?	9. Is there sufficient volume for Yes No*
3. Were samples received cold? (Yes No* N/A (Criteria: 1° - 4°C: AEN-SOP	10. Were samples received within Holding Time? (REFER TO AEN-SOP 1040)
1055) 4. Were all samples properly Yes No*	11. Is Headspace visible > ¼ " in Yes* No N/A
labeled and identified? 5. Did samples require splitting? Yes* No Reg By: PM Client Other*	diameter in VOA vials?* If any headspace is evident, comment in out-of-control section.
6. Were samples received in ves No* proper containers for analysis	12. If sent, were matrix spike Yes No ⁺ N/A bottles returned?
requested? 7. Were all sample containers received intact?	13. Was Project Manager notified Yes No ⁺ (N/A) of problems? (initials:)
Airbill Number(s): 185 9358 593	Shipped By: 40×
Cooler Number(s): NS	Shipping Charges: MA
Cooler Weight(s): <u>N/7</u>	Cooler Temp(s) (°C): 4'C CCK / (LIST THERMOMETER NUMBER(S) FOR VERIFICATION)
	(USI INCOMORED NUMBER(S) FUR YERIFICATION)

**Out of Control Events and Inspection Comments:** 

Inspected By:,

(USE BACK OF PSIFFOR ADDITIONAL NOTES AND COMMENTS )

Date: 20-1124-97 Date May-91 Logged By

Note all Out-of-Control and/or questionable events on Comment Section of this form.

Note who requested the splitting of samples on the Comment Section of this form.

All preservatives for the State of North Caroline, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (AEN-SOP 938, section 2.2.9).

According to EPA, %" of headspace is allowed in 40 ml vials requiring volatile analysis, however, AEN makes it policy to record any headspace as out-of-control (AEN-SOP 938, section 2.2.12).