

GW - 32

**GENERAL
CORRESPONDENCE**

YEAR(S):

AUG 2005 → AUG 2004



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 Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



Hall Environmental Analysis Laboratory

Date: 13-Dec-04

CLIENT: Giant Refining Co
Project: Railroad Rack Lagoon SWMU
Lab Order: 0411234

CASE NARRATIVE

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

Hall Environmental Analysis Laboratory

Date: 13-Dec-04

CLIENT: Giant Refining Co

Client Sample ID: RR-E-1 Wall S

Lab Order: 0411234

Collection Date: 11/20/2004 11:00:00 AM

Project: Railroad Rack Lagoon SWMU

Lab ID: 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
Chloride	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
Sulfate	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, Orthophosphate (As P)	ND	15		mg/Kg	10	12/2/2004 2:40:18 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range 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
Surr: DNOP	0	60-124	S	%REC	20	12/8/2004 2:16:56 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-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 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
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

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

Client: <i>Giant Refining Company - Arizona</i>	Project Name: <i>Railroad Rock Lagoon SUMU</i>
Address: <i>Route 3 Box 7 Gallup, NM 87301</i>	Project #:
	Project Manager: <i>Steve Morris</i>
Phone #: <i>505 722 3833</i>	Sampler: <i>Steve Morris</i>
Fax #:	Samples Cold?: <i>70</i> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Phone #: 505 722 3433

Fax #:

Project Name: Railroad ~~Rock~~
Rock Lagoon SWMU

Project 1:

Project Manager:

Sampler. Steve Morris

Samples Cold?: 7° ☒ Yes ☐ No

Number/Volume	Preservative			HEAL No.
	H ₂ O ₂	HCl		
2				011234 1

[illegible]

Received By: (Signature) *[Signature]* 11-27-04
Received By: (Signature) *[Signature]* @ 11:30



HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345-3975 Fax 505.245.4107
www.hallenvironmental.com

ANALYSIS REQUEST

[illegible]

Remarks: Gen Chem = Cations, Anions, and Soil pH

DEC-13-2004 (MON) 11:07

P. 001/004

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



Hall Environmental Analysis Laboratory

Date: 03-Dec-04

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

CASE NARRATIVE

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

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT:	Giant Refining Co	Client Sample ID:	RR-N-1
Lab Order:	0411218	Collection Date:	11/18/2004 8:00:00 AM
Project:	Railroad Rack Lagoon 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/Kg	10	11/30/2004 11:48:28 AM
Nitrogen, Nitrate (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						
pH	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

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

* - Value exceeds Maximum Contaminant Level 2 / 23

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co Client Sample ID: RR-E-1
 Lab Order: 0411218 Collection Date: 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 9056A: 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 PM
Sulfate	74	15		mg/Kg	10	11/30/2004 12:05:17 PM
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 12:05:17 PM
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 12:05:17 PM
EPA METHOD 8015B: DIESEL RANGE Analyst: JMP						
Diesel Range Organics (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 8021B: 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-Bromofluorobenzene	103	74-118		%REC	2	11/23/2004 4:07:37 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 12:20:55 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 PM
Lead	5.7	0.25		mg/Kg	1	11/23/2004 12:20:55 PM
Magnesium	4600	25		mg/Kg	1	11/23/2004 12:20:55 PM
Potassium	1300	50		mg/Kg	1	11/23/2004 12:20:55 PM
Selenium	ND	2.5		mg/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 150.1: PH Analyst: CMC						
pH	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

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

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co Client Sample ID: RR-S-1
 Lab Order: 0411218 Collection Date: 11/18/2004 8:30:00 AM
 Project: Railroad Rack Lagoon SWMU
 Lab ID: 0411218-03 Matrix: 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 12:22:06 PM
Chloride	27	3.0		mg/Kg	10	11/30/2004 12:22:06 PM
Nitrogen, Nitrate (As N)	ND	3.0		mg/Kg	10	11/30/2004 12:22:06 PM
Sulfate	28	15		mg/Kg	10	11/30/2004 12:22:06 PM
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 12:22:06 PM
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 12:22:06 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	31	10		mg/Kg	1	11/22/2004 8:57:58 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/22/2004 8:57:58 PM
Surr: DNOP	94.8	60-124		%REC	1	11/22/2004 8:57:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	11/23/2004 4:37:38 PM
Benzene	ND	0.025		mg/Kg	1	11/23/2004 4:37:38 PM
Toluene	ND	0.025		mg/Kg	1	11/23/2004 4:37:38 PM
Ethylbenzene	ND	0.025		mg/Kg	1	11/23/2004 4:37:38 PM
Xylenes, Total	0.082	0.025		mg/Kg	1	11/23/2004 4:37:38 PM
Surr: 4-Bromofluorobenzene	104	74-118		%REC	1	11/23/2004 4:37:38 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 12:29:00 PM
Barium	300	0.96		mg/Kg	10	11/24/2004 4:34:44 PM
Cadmium	ND	0.10		mg/Kg	1	11/23/2004 12:29:00 PM
Calcium	17000	250		mg/Kg	10	11/23/2004 5:02:14 PM
Chromium	5.6	0.30		mg/Kg	1	11/23/2004 12:29:00 PM
Lead	5.1	0.25		mg/Kg	1	11/23/2004 12:29:00 PM
Magnesium	4400	25		mg/Kg	1	11/23/2004 12:29:00 PM
Potassium	1400	50		mg/Kg	1	11/23/2004 12:29:00 PM
Selenium	ND	2.5		mg/Kg	1	11/23/2004 12:29:00 PM
Silver	ND	0.25		mg/Kg	1	11/23/2004 12:29:00 PM
Sodium	870	25		mg/Kg	1	11/23/2004 12:29:00 PM
EPA METHOD 150.1: PH						Analyst: 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

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

* - Value exceeds Maximum Contaminant Level 4 / 23

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co **Client Sample ID:** RR-W-1
Lab Order: 0411218 **Collection Date:** 11/18/2004 8:45:00 AM
Project: Railroad Rack Lagoon SWMU
Lab ID: 0411218-04 **Matrix:** 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 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, Orthophosphate (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 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 8021B: 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-Bromofluorobenzene	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 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
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 PM
Sodium	1300	50		mg/Kg	2	11/24/2004 2:11:48 PM
EPA METHOD 150.1: PH						Analyst: CMC
pH	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

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

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co Client Sample ID: RR-N-1-Wall
 Lab Order: 0411218 Collection Date: 11/18/2004 9:00:00 AM
 Project: Railroad Rack Lagoon SWMU
 Lab ID: 0411218-05 Matrix: 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 (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, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 12:55:42 PM
Phosphorus, Orthophosphate (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 Range 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-butyl 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-Bromofluorobenzene	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 PM
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 PM
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 PM
Sodium	1500	25		mg/Kg	1	11/23/2004 12:40:59 PM
EPA METHOD 150.1: PH						Analyst: CMC
pH	8.37	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

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

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co **Client Sample ID:** RR-S-1-Wall
Lab Order: 0411218 **Collection Date:** 11/18/2004 9:15:00 AM
Project: Railroad Rack Lagoon SWMU
Lab ID: 0411218-06 **Matrix:** SOIL

Analyses	Result	PQL	Qual	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
pH	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

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

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co **Client Sample ID:** RR-E-1-Wall N
Lab Order: 0411218 **Collection Date:** 11/18/2004 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, Nitrate (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 (As N)	ND	3.0		mg/Kg	10	11/30/2004 2:02:56 PM
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 2:02:56 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	150	10		mg/Kg	1	11/23/2004 12:46:34 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/23/2004 12:46:34 PM
Surr: DNOP	110	60-124		%REC	1	11/23/2004 12:46:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl 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	ND	0.025		mg/Kg	1	11/23/2004 6:37:48 PM
Surr: 4-Bromofluorobenzene	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
pH	8.58	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

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

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co Client Sample ID: RR-W-1-Wall N
 Lab Order: 0411218 Collection Date: 11/18/2004 10:45:00 AM
 Project: Railroad Rack Lagoon SWMU
 Lab ID: 0411218-09 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
pH	8.21	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 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co Client Sample ID: RR-W-1-Wall S
 Lab Order: 0411218 Collection Date: 11/18/2004 11:00:00 AM
 Project: Railroad Rack Lagoon SWMU
 Lab ID: 0411218-10 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)	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: 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
Potassium	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

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

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co Client Sample ID: RR-B-1
 Lab Order: 0411218 Collection Date: 11/18/2004 11:30:00 AM
 Project: Railroad Rack Lagoon SWMU
 Lab ID: 0411218-11 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						
pH	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

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

* - Value exceeds Maximum Contaminant Level 11/23

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co Client Sample ID: RR-B-2
 Lab Order: 0411218 Collection Date: 11/18/2004 12:30:00 PM
 Project: Railroad Rack Lagoon SWMU
 Lab ID: 0411218-12 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
pH	8.75	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

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

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT:	Giant Refining Co	Client Sample ID:	RR-BP-1
Lab Order:	0411218	Collection Date:	11/18/2004 1:00:00 PM
Project:	Railroad Rack Lagoon 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
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
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
pH	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	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT:	Giant Refining Co	Client Sample ID:	RR-BP-2
Lab Order:	0411218	Collection Date:	11/18/2004 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 (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, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 5:41:22 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	2700	100		mg/Kg	10	11/29/2004 8:50:00 PM
Motor Oil Range 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-butyl 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 PM
Xylenes, Total	100	1.3		mg/Kg	50	11/23/2004 10:07:11 PM
Surr: 4-Bromofluorobenzene	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: 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

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co
Work Order: 0411218
Project: Railroad Rack Lagoon SWMU

QC SUMMARY REPORT
Method Blank

Sample ID	MB-6967	Batch ID:	6967	Test Code:	E300	Units:	mg/Kg	Analysis Date	11/30/2004 10:41:18 A	Prep Date	11/30/2004
Client ID:		Run ID:	LC_041130A	SeqNo:	323552						
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-6969	Batch ID:	6969	Test Code:	E300	Units:	mg/Kg	Analysis Date	11/30/2004 3:26:53 PM	Prep Date	11/30/2004
Client ID:		Run ID:	LC_041130A	SeqNo:	323569						
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	11/22/2004 5:41:51 PM	Prep Date	11/22/2004
Client ID:		Run ID:	FID(17A) 2_041122A	SeqNo:	322601						
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

CLIENT: Giant Refining Co
 Work Order: 0411218
 Project: Railroad Rack Lagoon SWMU

QC SUMMARY REPORT

Method Blank

Sample ID	MB-6930	Batch ID:	6930	Test Code:	SW8021	Units:	mg/Kg	Analysis Date	11/23/2004 12:37:21 P	Prep Date	11/19/2004
Client ID:		Run ID:	PIDFID_041123A	SeqNo:	322790						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.1									
Benzene	ND	0.025									
Toluene	ND	0.025									
Ethylbenzene	ND	0.025									
Xylenes, Total	ND	0.025									
Surr: 4-Bromofluorobenzene	0.9942	0	1	0	99.4	74	118	0			

Sample ID	MB-6972	Batch ID:	6972	Test Code:	SW7471	Units:	mg/Kg	Analysis Date	11/30/2004	Prep Date	11/30/2004	
Client ID:		Run ID:	MI-LA254_041130A	SeqNo:	323375							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		ND	0.033									

Sample ID	MB-6954	Batch ID: 6954	Test Code: SW6010A	Units: mg/Kg	Analysis Date	11/23/2004 11:10:00 A	Prep Date	11/22/2004			
Client ID:		Run ID:	ICP_041123A		SeqNo:	322690					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	2.5									
Cadmium	0.05491	0.1									J
Calcium	12.41	25									J
Chromium	ND	0.3									
Lead	ND	0.25									
Magnesium	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: Giant Refining Co
Work Order: 0411218
Project: Railroad Rack Lagoon SWMU

QC SUMMARY REPORT

Method Blank

Sample ID	MB-6954	Batch ID:	6954	Test Code:	SW6010A	Units:	mg/Kg	Analysis Date	11/24/2004 4:05:08 PM	Prep Date	11/22/2004	
Client ID:		Run ID:	ICP_041124A	SeqNo:	323121							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium		ND	0.1									

Sample ID	MB-6954	Batch ID:	6954	Test Code:	SW6010A	Units:	mg/Kg	Analysis Date	11/24/2004 2:15:41 PM	Prep Date	11/22/2004	
Client ID:		Run ID:	ICP_041123B	SeqNo:	323162							
Analyte		Result	PQL	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
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

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co
Work Order: 0411218
Project: 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:	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 P)	ND	7.5	0	0	0	0	0	0	0	20	

18/23

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

Hall Environmental Analysis Laboratory

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: mg/Kg	Analysis Date	11/30/2004 10:58:07 A	Prep Date	11/30/2004			
Client ID:		Run ID:	LC_041130A		SeqNo:	323553					
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	Analysis Date	11/30/2004 3:43:42 PM	Prep Date	11/30/2004			
Client ID:		Run ID:	LC_041130A		SeqNo:	323570					
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	11/22/2004 6:14:46 PM	Prep Date	11/22/2004			
Client ID:		Run ID:	FID(17A) 2_041122A		SeqNo:	322602					
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			

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: 0411218
 Project: Railroad Rack Lagoon SWMU

QC SUMMARY REPORT
 Laboratory Control Spike Duplicate

Sample ID	LCSD-6944	Batch ID: 6944	Test Code: SW8015	Units: mg/Kg	Analysis Date	11/22/2004 6:47:44 PM	Prep Date	11/22/2004			
Client ID:	Run ID: FID(17A) 2_041122A			SeqNo:	322603						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	11/23/2004 1:07:20 PM	Prep Date	11/19/2004			
Client ID:		Run ID:	PIDFID_041123A		SeqNo:	322792					
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-6972	Batch ID: 6972	Test Code: SW7471	Units: mg/Kg	Analysis Date	11/30/2004	Prep Date	11/30/2004			
Client ID:			Run ID:	MI-LA254_041130A	SeqNo:	323376					
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	11/30/2004	Prep Date	11/30/2004			
Client ID:			Run ID: MI-LA254_041130A			SeqNo: 323394					
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 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
 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 Date	11/23/2004 11:22:33 A	Prep Date	11/22/2004			
Client ID:		Run ID:	ICP_041123A		SeqNo:	322691					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	11/23/2004 11:25:36 A	Prep Date	11/22/2004			
Client ID:		Run ID:	ICP_041123A		SeqNo:	322692					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	
Selenium	26.92	2.5	25	0	108	80	120	27.77	3.13	20	
Silver	25.74	0.25	25	0	103	80	120	25.75	0.0495	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
 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 Date	11/23/2004 11:22:33 A	Prep Date	11/22/2004					
Client ID:			Run ID: ICP_041123B			SeqNo: 322871							
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	11/23/2004 11:25:36 A	Prep Date	11/22/2004					
Client ID:			Run ID: ICP_041123B			SeqNo: 322872							
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	11/24/2004 4:23:50 PM	Prep Date	11/22/2004					
Client ID:			Run ID: ICP_041124A			SeqNo: 323122							
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	11/24/2004 4:26:06 PM	Prep Date	11/22/2004					
Client ID:			Run ID: ICP_041124A			SeqNo: 323123							
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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

Work Order Number 0411218

Received by AT

Checklist completed by

Abonigalis 11/19/04
Signature Date

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	

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 _____

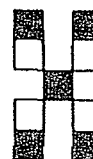
CHAIN-OF-CUSTODY RECORD

Client: Giant Refining Company - Ciniza
 Address: Route 3 Box 7 Gallup, NM 87301
 Project Name: Railroad Rack Lagoon SWMU
 Project #: _____
 Project Manager: Steve Morris
 Sampler: Steve Morris
 Samples Cold?: 6 ☐ Yes ☐ No

Phone #: 505 722 3833
 Fax #: 505 722 0210

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative			HEAL No.
					HgCl ₂	HCl		
11/18/04	0800	Soil	RR-N-1	2				0411218 1
"	0815	"	RR-E-1	2				2
"	0830	"	RR-S-1	2				3
"	0845	"	RR-W-1	2				4
"	0900	"	RR-N-1-Wall	2				5
"	0915	"	RR-S-1-Wall	2				6
"	0930	"	RR-E-1-Wall N	2				AB 7
"	1030	"	RR-E-1-Wall S	2				8
"	1045	"	RR-W-1-Wall N	2				9
"	1100	"	RR-W-1-Wall S	2				10
"	1130	"	RR-B-1	2				11
"	1230	"	RR-B-2	2				12

Date: 11/19/04 Time: 1340 Relinquished By: (Signature) Steve Morris
 Date: _____ Time: _____ Relinquished By: (Signature) _____
 Received By: (Signature) [Signature] 11/19/04
 Received By: (Signature) _____ 1340



HALL ENVIRONMENTAL ANALYSIS LABORATORY
 4901 Hawkins NE, Suite D
 Albuquerque, New Mexico 87109
 Tel. 505.345-3975 Fax 505.345.4107
 www.hallenvironmental.com

ANALYSIS REQUEST

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B MOD (Gas/Diesel)	TPH (Method 418.1)	VOCs Full List (8021)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals Total	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)	8015 DROXORO	Soil pH	Air Bubbles or Headspace (Y or N)
				X				X	X	X				X	X	
				X				X	X	X				X	X	
				X				X	X	X				X	X	
				X				X	X	X				X	X	
				X				X	X	X				X	X	
				X				X	X	X				X	X	
				X				X	X	X				X	X	
				X				X	X	X				X	X	
				X				X	X	X				X	X	
				X				X	X	X				X	X	

Remarks: Gen Chem = Cations, Anions, and Soil pH
per S.M delete RR-E-1-Wall S, 11/19/04

Client: <u>Giant - Refining</u>	Project Name: <u>Railroad Rock</u>
<u>Company - Amiga</u>	<u>Lagoon SWMU</u>
Address: <u>Route 3 Box 7</u>	Project #:
<u>Gallop, NM 87301</u>	
	Project Manager:
	<u>Steve Morris</u>
Phone #: <u>505 722 3833</u>	Sampler: <u>Steve Morris</u>
Fax #: <u>505 722 0210</u>	Samples Cold?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Phone #: 505 722 5833

Fax #: 505 722 0210

Project Name: *Railroad Rock*
Lagoon SWMU

Project #.

Project Manager:

Steve Morris

Sampler: Steve Morris

Samples Cold?:/ ☐ Yes ☐ No

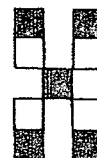
[illegible]

Date: 7/19/04	Time: 1340	Relinquished By: (Signature) 
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Received By: (Signature) _____, 11/19/04

Date:	Time:	Relinquished By: (Signature)
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Received By: (Signature) 1340



HALL ENVIRONMENTAL ANALYSIS LABORATORY
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ANALYSIS REQUEST

[illegible]

Remarks:

Hall Environmental Analysis Laboratory

Date: 24-Aug-05

CLIENT:	Giant Refining Co	Client Sample ID:	North Wall
Lab Order:	0508234	Tag Number:	
Project:	R.R. Rack Lagoon Additional SE Wall Excavati	Collection Date:	8/19/2005 10:00:00 AM
Lab ID:	0508234-01A	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	120	100		mg/Kg	20	Analyst: NSB 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						
Methyl tert-butyl ether (MTBE)	ND	2.0		mg/Kg	20	Analyst: NSB 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 PM
Surr: 4-Bromofluorobenzene	109	87.5-115		%REC	20	8/23/2005 11:21:34 PM

Qualifiers:	ND - Not Detected at Reporting Limit	: Sp - Recovery outside acceptable recovery limits
	J - Analyte detected below quantitation limit	I - RF outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Hall Environmental Analysis Laboratory

Date: 24-Aug-05

CLIENT: Giant Refining Co **Client Sample ID:** North Wall
Lab Order: 0508234 **Tag Number:**
Project: R.R. Rack Lagoon Additional SE Wall Excavati **Collection Date:** 8/19/2005 10:00:00 AM
Lab ID: 0508234-01B **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
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	S	%REC	100	8/21/2005 6:45:24 PM
EPA METHOD 8270C: SEMIVOLATILES						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
Benzolc 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-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-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

Qualifiers: ND - Not Detected at Reporting Limit S - Spill Response outside accepted reporting limits
 J - Analyte detected below quantitation limit I - RF outside accepted reporting limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 24-Aug-05

CLIENT: Giant Refining Co **Client Sample ID:** North Wall
Lab Order: 0508234 **Tag Number:**
Project: R.R. Rack Lagoon Additional SE Wall Excavati **Collection Date:** 8/19/2005 10:00:00 AM
Lab ID: 0508234-01B **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
Surr: 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 Detected at Reporting Limit : Sp - Result very outside accepted reporting limits
 J - Analyte detected below quantitation limit I - RF outside accepted reporting limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 24-Aug-05

CLIENT:	Giant Refining Co	Client Sample ID:	South Wall
Lab Order:	0508234	Tag Number:	
Project:	R.R. Rack Lagoon Additional SE Wall Excavati	Collection Date:	8/19/2005 10:30:00 AM
Lab ID:	0508234-02A	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range 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-butyl 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-Bromofluorobenzene	105	87.5-115		%REC	50	8/23/2005 11:52:19 PM

Qualifiers:

ND - Not Detected to Reporting Limit

J - Analyte detected below quantitation limit

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Result 'very outside' accepted over limits

I - Result outside accepted over limits

E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 24-Aug-05

CLIENT: Giant Refining Co **Client Sample ID:** South Wall
Lab Order: 0508234 **Tag Number:**
Project: R.R. Rack Lagoon Additional SE Wall Excavati **Collection Date:** 8/19/2005 10:30:00 AM
Lab ID: 0508234-02B **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	3800	1000		mg/Kg	100	8/21/2005 7:16:33 PM
Motor Oil Range Organics (MRO)	ND	5000		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 8270C: SEMIVOLATILES						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)anthracene	ND	2.5		mg/Kg	10	8/23/2005
Benzdine	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 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-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
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 phthalate	ND	2.0		mg/Kg	10	8/23/2005
Dimethyl phthalate	ND	2.0		mg/Kg	10	8/23/2005

Qualifiers: ND - Not Detected at Reporting Limit S - Spill: Re-entry outside accepted lower limits
 J - Analyte detected below quantitation limit I - RF outside reported upper limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 24-Aug-05

CLIENT: Giant Refining Co **Client Sample ID:** South Wall
Lab Order: 0508234 **Tag Number:**
Project: R.R. Rack Lagoon Additional SE Wall Excavati **Collection Date:** 8/19/2005 10:30:00 AM
Lab ID: 0508234-02B **Matrix:** SOIL

Analyses	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)pyrene	ND	2.0		mg/Kg	10	8/23/2005
Isophorone	ND	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	2.2	2.0		mg/Kg	10	8/23/2005
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	10	8/23/2005
Naphthalene	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
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-Fluorophenol	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

Qualifiers: ND - Not Detected at Reporting Limit S - Spike Recovery outside acceptable limits
 J - Analyte detected below quantitation limit I - RF outside acceptable limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 24-Aug-05

CLIENT:	Giant Refining Co	Client Sample ID:	North BTM.
Lab Order:	0508234	Tag Number:	
Project:	R.R. Rack Lagoon Additional SE Wall Excavati	Collection Date:	8/19/2005 10:15:00 AM
Lab ID:	0508234-03A	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range 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-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
Ethylbenzene	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

Qualifiers:	ND - Not Detected at Reporting Limit	: Sp. : Recovery outside acceptance limits
	J - Analyte detected below quantitation limit	I RF outside reported recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Hall Environmental Analysis Laboratory

Date: 24-Aug-05

CLIENT:	Giant Refining Co	Client Sample ID:	North BTM.
Lab Order:	0508234	Tag Number:	
Project:	R.R. Rack Lagoon Additional SE Wall Excavati	Collection Date:	8/19/2005 10:15:00 AM
Lab ID:	0508234-03B	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE 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 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	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-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 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-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
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 phthalate	ND	2.0		mg/Kg	10	8/23/2005
Dimethyl phthalate	ND	2.0		mg/Kg	10	8/23/2005

Qualifiers: ND - Not Detected at Reporting Limit : Sp - Recovery outside acceptable limits
J - Analyte detected below quantitation limit I - RF outside reported quantitation limits
B - Analyte detected in the associated Method Blank E - Value above quantitation range
* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 24-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: North BTM.

Lab Order: 0508234

Tag Number:

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

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

Lab ID: 0508234-03B

Matrix: SOIL

Analyses	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	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
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 Rejection Limit

J - Analyte detected below quantitation limit

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

: Sp : Recovery outside acceptance limits

I RF outside acceptance limits

E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 24-Aug-05

CLIENT: Giant Refining Co **Client Sample ID:** South BTM.
Lab Order: 0508234 **Tag Number:**
Project: R.R. Rack Lagoon Additional SE Wall Excavati **Collection Date:** 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 RANGE						Analyst: NSB
Gasoline Range 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: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	8/24/2005 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
Ethylbenzene	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

Qualifiers: ND - Not Detected at Reporting Limit
 J - Analyte detected below quantitation limit
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

: Sp : Re: very outside accepted reporting limits
 I RF outside accepted reporting limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 24-Aug-05

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	15	10		mg/Kg	1	8/21/2005 10:25:32 AM
Motor Oil Range 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 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	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-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-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

Qualifiers: ND - Not Detected at Reporting Limit : Sp - Recovery outside acceptable limits
 J - Analyte detected below quantitation limit I - RF outside acceptable limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 24-Aug-05

CLIENT: Giant Refining Co Client Sample ID: South BTM.
 Lab Order: 0508234 Tag Number:
 Project: R.R. Rack Lagoon Additional SE Wall Excavati Collection Date: 8/19/2005 10:45:00 AM
 Lab ID: 0508234-04B 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	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-Tribromophenol	93.6	35.5-141		%REC	1	8/23/2005
Surr: 2-Fluorobiphenyl	63.9	30.4-128		%REC	1	8/23/2005
Surr: 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 Detected at Reporting Limit : Sp : Re: 'ery outside' accept (re: vel: 'imits
 J - Analyte detected below quantitation limit I RF outside reported: over limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

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



Hall Environmental Analysis Laboratory

Date: 26-Aug-05

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

Hall Environmental Analysis Laboratory

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
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	S	%REC	100	8/21/2005 6:45:24 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range 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-butyl 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 PM
Surr: 4-Bromofluorobenzene	109	87.5-115		%REC	20	8/23/2005 11:21:34 PM
EPA METHOD 8270C: SEMIVOLATILES						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-Chlorophenol	ND	0.20		mg/Kg	1	8/23/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	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

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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
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	ND	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

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

Hall Environmental Analysis Laboratory

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

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
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
Surr: 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 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

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508234
Project: R.R. Rack Lagoon Additional SE Wall Excavati
Lab ID: 0508234-02

Client Sample ID: South Wall
Collection Date: 8/19/2005 10:30:00 AM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						
Diesel Range Organics (DRO)	3800	1000		mg/Kg	100	8/21/2005 7:16:33 PM
Motor Oil Range Organics (MRO)	ND	5000		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 8015B: GASOLINE RANGE						
Gasoline Range 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						
Methyl tert-butyl 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-Bromofluorobenzene	105	87.5-115		%REC	50	8/23/2005 11:52:19 PM
EPA METHOD 8270C: SEMIVOLATILES						
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)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 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-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
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

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

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
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 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
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	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
Naphthalene	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

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

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-Fluorophenol	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

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

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: North BTM.

Lab Order: 0508234

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

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 RANGE 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 RANGE						Analyst: NSB
Gasoline Range 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-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
Ethylbenzene	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: SEMIVOLATILES						Analyst: BL
Acenaphthene	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
Benidine	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 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-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

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: North BTM.

Lab Order: 0508234

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

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

Lab ID: 0508234-03

Matrix: SOIL

Analyses	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 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	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

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

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: North BTM.

Lab Order: 0508234

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

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

Lab ID: 0508234-03

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	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

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

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: South BTM.

Lab Order: 0508234

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

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

Lab ID: 0508234-04

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	15	10		mg/Kg	1	8/21/2005 10:25:32 AM
Motor Oil Range 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 RANGE						Analyst: NSB
Gasoline Range 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: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	8/24/2005 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
Ethylbenzene	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
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	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-Chlorophenol	ND	0.20		mg/Kg	1	8/23/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	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

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

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: South BTM.

Lab Order: 0508234

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

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

Lab ID: 0508234-04

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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
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

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

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: South BTM.

Lab Order: 0508234

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

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

Lab ID: 0508234-04

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	93.6	35.5-141		%REC	1	8/23/2005
Surr: 2-Fluorobiphenyl	63.9	30.4-128		%REC	1	8/23/2005
Surr: 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 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

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Work Order: 0508234

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

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8573	Batch ID:	8573	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/21/2005 1:58:54 AM	Prep Date	8/19/2005
Client ID:		Run ID:	FID(17A) 2_050820A	SeqNo:	390355						
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	10.5	0	10	0	105	60	124	0			

Sample ID	mb-8571	Batch ID:	8571	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/22/2005 6:42:39 PM	Prep Date	8/19/2005
Client ID:		Run ID:	PIDFID_050822A	SeqNo:	391043						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5									
Surr: BFB	914.7	0	1000	0	91.5	83.1	124	0			

Sample ID	mb-8571	Batch ID:	8571	Test Code:	SW8021	Units:	mg/Kg	Analysis Date	8/22/2005 6:42:39 PM	Prep Date	8/19/2005
Client ID:		Run ID:	PIDFID_050822A	SeqNo:	391004						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	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-Bromofluorobenzene	0.9884	0	1	0	98.8	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

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

QC SUMMARY REPORT

Method Blank

Sample ID	MB-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:	391145						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	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									J
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	0.06733	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-Chloroaniline	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	0.257	0.25									
Di-n-octyl phthalate	ND	0.5									

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: 0508234
 Project: R.R. Rack Lagoon Additional SE Wall Excavati

QC SUMMARY REPORT

Method Blank

Dibenz(a,h)anthracene	ND	0.25
Dibenzofuran	ND	0.5
1,2-Dichlorobenzene	ND	0.2
1,3-Dichlorobenzene	ND	0.2
1,4-Dichlorobenzene	ND	0.2
3,3'-Dichlorobenzidine	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
Hexachloroethane	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-Nitroaniline	ND	0.5
4-Nitroaniline	ND	0.25
Nitrobenzene	ND	0.2
2-Nitrophenol	ND	0.2

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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
 Work Order: 0508234
 Project: R.R. Rack Lagoon Additional SE Wall Excavati

QC SUMMARY 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-Trichlorobenzene	ND	0.2							
2,4,5-Trichlorophenol	ND	0.2							
2,4,6-Trichlorophenol	ND	0.2							
Surr: 2,4,6-Tribromophenol	2.838	0	3.33	0	85.2	35.5	141	0	
Surr: 2-Fluorobiphenyl	1.208	0	1.67	0	72.4	30.4	128	0	
Surr: 2-Fluorophenol	2.164	0	3.33	0	65.0	28.1	129	0	
Surr: 4-Terphenyl-d14	1.483	0	1.67	0	88.8	34.6	151	0	
Surr: Nitrobenzene-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	

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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

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

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

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-8573	Batch ID: 8573	Test Code: SW8015	Units: mg/Kg	Analysis Date	8/21/2005 2:31:43 AM	Prep Date	8/19/2005			
Client ID:			Run ID: FID(17A) 2_050820A		SeqNo:	390356					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53.51	10	50	0	107	67.4	117	0			

Sample ID	LCSD-8573	Batch ID: 8573	Test Code: SW8015	Units: mg/Kg	Analysis Date	8/21/2005 3:04:32 AM	Prep Date	8/19/2005			
Client ID:			Run ID: FID(17A) 2_050820A		SeqNo:	390357					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58.49	10	50	0	117	67.4	117	53.51	8.89	17.4	

Sample ID	lcs-8571	Batch ID: 8571	Test Code: SW8015	Units: mg/Kg	Analysis Date	8/22/2005 7:45:44 PM	Prep Date	8/19/2005			
Client ID:			Run ID: PIDFID_050822A		SeqNo:	391059					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24.66	5	25	0	98.6	84	120	0			

Sample ID	GRO lcs 2.5ug	Batch ID: 8571	Test Code: SW8015	Units: mg/Kg	Analysis Date	8/23/2005 12:52:35 PM	Prep Date				
Client ID:			Run ID: PIDFID_050823A		SeqNo:	391457					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22.13	5	25	0.0156	88.5	84	120	0			

Sample ID	GRO lcs 2.5ug	Batch ID: 8571	Test Code: SW8015	Units: mg/Kg	Analysis Date	8/24/2005 4:49:06 PM	Prep Date				
Client ID:			Run ID: PIDFID_050824A		SeqNo:	392009					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22.35	5	25	0.0214	89.3	84	120	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: 0508234
Project: R.R. Rack Lagoon Additional SE Wall Excavati

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID	ics-8571	Batch ID:	8571	Test Code:	SW8021	Units:	mg/Kg	Analysis Date	8/22/2005 7:45:44 PM	Prep Date	8/19/2005
Client ID:		Run ID:	PIDFID_050822A	SeqNo:	391005						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	2.093	0.1	2	0	105	65	132	0			
Benzene	0.4507	0.025	0.42	0.01303	104	85.6	116	0			
Toluene	2.111	0.025	2	0.01188	105	82.4	120	0			
Ethylbenzene	0.4324	0.025	0.41	0.01603	102	86.4	111	0			
Xylenes, Total	2.185	0.025	2	0.02385	108	78.4	125	0			

Sample ID	BTEX Ics 100ng	Batch ID:	8571	Test Code:	SW8021	Units:	mg/Kg	Analysis Date	8/23/2005 1:55:24 PM	Prep Date	
Client ID:		Run ID:	PIDFID_050823A	SeqNo:	391323						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.9565	0.1	1	0	95.6	65	132	0			
Benzene	1.04	0.025	1	0	104	85.6	116	0			
Toluene	1.027	0.025	1	0	103	82.4	120	0			
Ethylbenzene	1.036	0.025	1	0	104	86.4	111	0			
Xylenes, Total	2.1	0.025	2	0	105	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: 0508234
 Project: R.R. Rack Lagoon Additional SE Wall Excavati

QC SUMMARY REPORT

Laboratory Control Spike - generic

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

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.344	0.2	1.67	0	80.5	24	125	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			
1,4-Dichlorobenzene	0.9777	0.2	1.67	0	58.5	23.6	118	0			
2,4-Dinitrotoluene	1.402	0.2	1.67	0	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	1.67	0	77.1	29	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 Analysis Date 8/22/2005 Prep Date 8/19/2005
 Client ID: Run ID: ELMO_050822A SeqNo: 391147

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
 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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

8/19/2005

Work Order Number 0508234

Received by AMF

Checklist completed by

B. Schleppe
Signature

8-19-05
Date

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	

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 _____

CHAIN-OF-CUSTODY RECORD

Client: Giant Refining
Company - Ciniza
 Address: Route 3 Box 7
Gallup, NM 87301

Phone #: 5057223833
 Fax #: 5057220210

QA/QC Package:
 Std ☐ Level 4 ☐
 Other: _____
 Project Name: RR Rack Lagoon
SE Wall Excavation
 Project #: _____
 Project Manager: _____
 Sampler: Steve Morris
 Sample Temperature: _____



**HALL ENVIRONMENTAL
 ANALYSIS LABORATORY**
 4901 Hawkins NE, Suite D
 Albuquerque, New Mexico 87109
 Tel. 505.345.3975 Fax 505.345.4107
 www.hallenvironmental.com

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative			HEAL No.	BTEX + MT	BTEX + MT	TPH Method	TPH (Method	EDB (Method	EDC (Method	8310 (PNA	RCRA 8 Meth	Anions (F, Cl	8081 Pesticid	8260B (VO	8270 (Semi	8022						Air Bubbles o
					HgCl ₂	HNO ₃																					
8/19/05	1000	Soil	North Wall	2/48				0508234			X									X	X						
"	1030	"	South Wall	"				1			X									X	X						
"	1015	"	North Btm -	"				2			X									X	X						
"	1045	"	South Btm.	"				3			X									X	X						
								4			X									X	X						
																</											

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



Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508272
Project: RR Rock Lagoon NW Add. Excav.
Lab ID: 0508272-01

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/29/2005 8:05:54 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/29/2005 8:05:54 AM
Surr: DNOP	86.2	60-124		%REC	1	8/29/2005 8:05:54 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range 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-butyl 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 6:08:35 PM
Ethylbenzene	ND	0.025		mg/Kg	1	8/30/2005 6:08:35 PM
Xylenes, Total	ND	0.025		mg/Kg	1	8/30/2005 6:08:35 PM
Surr: 4-Bromofluorobenzene	99.0	87.5-115		%REC	1	8/30/2005 6:08:35 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
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	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 phthalate	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-Chloronaphthalene	ND	0.20		mg/Kg	1	8/25/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/25/2005
4-Chlorophenyl phenyl ether	ND	0.20		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
* - Value exceeds Maximum Contaminant Level

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

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

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
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 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-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-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

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

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

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-d5	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

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508272
Project: 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
EPA METHOD 8015B: DIESEL RANGE 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 RANGE						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
Ethylbenzene	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
Surr: 4-Bromofluorobenzene	102	87.5-115		%REC	1	8/30/2005 6:40:19 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
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
Benidine	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	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 phthalate	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-Chloronaphthalene	ND	0.20		mg/Kg	1	8/25/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/25/2005
4-Chlorophenyl phenyl ether	ND	0.20		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
* - Value exceeds Maximum Contaminant Level

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

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508272
Project: 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
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-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		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-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-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
* - Value exceeds Maximum Contaminant Level

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

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: North BTM

Lab Order: 0508272

Collection Date: 8/22/2005 1:15:00 PM

Project: RR Rock Lagoon NW Add. Excav.

Lab ID: 0508272-02

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
Surr: 2-Fluorobiphenyl	70.4	30.4-128		%REC	1	8/25/2005
Surr: 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
Surr: 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

Hall Environmental Analysis Laboratory

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
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/29/2005 9:11:30 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/29/2005 9:11:30 AM
Surr. DNOP	70.1	60-124		%REC	1	8/29/2005 9:11:30 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range 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-butyl 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-Bromofluorobenzene	98.9	87.5-115		%REC	1	8/30/2005 7:43:24 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
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	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 phthalate	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-Chloronaphthalene	ND	0.20		mg/Kg	1	8/25/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/25/2005
4-Chlorophenyl phenyl ether	ND	0.20		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
* - Value exceeds Maximum Contaminant Level

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

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: South Wall

Lab Order: 0508272

Collection Date: 8/22/2005 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
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
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 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-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-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

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

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: South Wall

Lab Order: 0508272

Collection Date: 8/22/2005 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
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

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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	60-124		%REC	1	8/29/2005 10:17:43 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/30/2005 8:14:49 PM
Surr: BFB	104	83.1-124		%REC	1	8/30/2005 8:14:49 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	8/30/2005 8:14:49 PM
Benzene	ND	0.025		mg/Kg	1	8/30/2005 8:14:49 PM
Toluene	ND	0.025		mg/Kg	1	8/30/2005 8:14:49 PM
Ethylbenzene	ND	0.025		mg/Kg	1	8/30/2005 8:14:49 PM
Xylenes, Total	ND	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
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	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 phthalate	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-Chloronaphthalene	ND	0.20		mg/Kg	1	8/25/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/25/2005
4-Chlorophenyl phenyl ether	ND	0.20		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
* - Value exceeds Maximum Contaminant Level

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

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

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

Analyses	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 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-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-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
* - Value exceeds Maximum Contaminant Level

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

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: South BTM

Lab Order: 0508272

Collection Date: 8/22/2005 1:45:00 PM

Project: RR Rock Lagoon NW Add. Excav.

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

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

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

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

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8603	Batch ID:	8603	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/25/2005 4:13:11 PM	Prep Date	8/24/2005
Client ID:		Run ID:	FID(17A) 2_050824A	SeqNo:	392317						
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	8.098	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 Date	8/24/2005
Client ID:		Run ID:	PIDFID_050830A	SeqNo:	393964						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5									
Surr: BFB	1012	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 Date	8/24/2005
Client ID:		Run ID:	PIDFID_050830A	SeqNo:	393927						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.1									
Benzene	ND	0.025									
Toluene	ND	0.025									
Ethylbenzene	ND	0.025									
Xylenes, Total	ND	0.025									
Surr: 4-Bromofluorobenzene	0.9898	0	1	0	99.0	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

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

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8613	Batch ID:	8613	Test Code:	SW8270C	Units:	mg/Kg	Analysis Date	8/25/2005	Prep Date	8/24/2005
Client ID:		Run ID:	ELMO_050825A	SeqNo:	392429						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	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	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									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-Chloroaniline	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	0.1017	0.25									J
Di-n-octyl phthalate	ND	0.5									

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
 Project: RR Rock Lagoon NW Add. Excav.

QC SUMMARY REPORT

Method Blank

Dibenz(a,h)anthracene	ND	0.25
Dibenzofuran	ND	0.5
1,2-Dichlorobenzene	ND	0.2
1,3-Dichlorobenzene	ND	0.2
1,4-Dichlorobenzene	ND	0.2
3,3'-Dichlorobenzidine	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
Hexachloroethane	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-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
 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
 Project: RR Rock Lagoon NW Add. Excav.

QC SUMMARY 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-Trichlorobenzene	ND	0.2							
2,4,5-Trichlorophenol	ND	0.2							
2,4,6-Trichlorophenol	ND	0.2							
Surr: 2,4,6-Tribromophenol	3.006	0	3.33	0	90.3	35.5	141	0	
Surr: 2-Fluorobiphenyl	1.251	0	1.67	0	74.9	30.4	128	0	
Surr: 2-Fluorophenol	2.686	0	3.33	0	80.7	28.1	129	0	
Surr: 4-Terphenyl-d14	1.586	0	1.67	0	95.0	34.6	151	0	
Surr: Nitrobenzene-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	

16/21

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

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

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

QC SUMMARY REPORT

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 Date	8/24/2005
Client ID	North Wall	Run ID	PIDFID_050830A	SeqNo	393971						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	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	0			

Sample ID	0508272-01a msd	Batch ID	8607	Test Code	SW8015	Units	mg/Kg	Analysis Date	8/30/2005 9:17:21 PM	Prep Date	8/24/2005
Client ID	North Wall	Run ID	PIDFID_050830A	SeqNo	393972						
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	
Surr: 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 Date	8/24/2005
Client ID	North Wall	Run ID	PIDFID_050830A	SeqNo	393939						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	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

17/21

CLIENT: Giant Refining Co
Work Order: 0508272
Project: 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	Analysis Date	8/30/2005 9:17:21 PM	Prep Date	8/24/2005
Client ID:	North Wall	Run ID:	PIDFID_050830A	SeqNo:	393940						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.697	0.1	2	0	84.8	65	132	1.746	2.86	28	
Benzene	0.4188	0.025	0.42	0	99.7	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	

18/21

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

Hall Environmental Analysis Laboratory

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: SW8015	Units: mg/Kg	Analysis Date	8/25/2005 5:19:21 PM	Prep Date	8/24/2005			
Client ID:			Run ID:	FID(17A) 2_050824A	SeqNo:	392318					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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 Date	8/26/2005 7:29:18 AM	Prep Date	8/24/2005			
Client ID:			Run ID:	FID(17A) 2_050824A	SeqNo:	392319					
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 Date	8/24/2005			
Client ID:			Run ID:	PIDFID_050830A	SeqNo:	393965					
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	Ics-8607	Batch ID: 8607	Test Code: SW8021	Units: mg/Kg	Analysis Date	8/30/2005 5:05:02 PM	Prep Date	8/24/2005			
Client ID:			Run ID:	PIDFID_050830A	SeqNo:	393929					
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
 Project: RR Rock Lagoon NW Add. Excav.

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-8613	Batch ID: 8613	Test Code: SW8270C	Units: mg/Kg	Analysis Date 8/25/2005				Prep Date 8/24/2005		
Client ID:	Run ID: ELMO_050825A			SeqNo: 392430							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	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	0			
2-Chlorophenol	2.195	0.2	3.33	0	65.9	13.3	149	0			
1,4-Dichlorobenzene	0.987	0.2	1.67	0	59.1	23.6	118	0			
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	0	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	20.1	139	0			
Phenol	2.247	0.2	3.33	0	67.5	17.3	141	0			
Pyrene	1.315	0.2	1.67	0	78.7	29	131	0			
1,2,4-Trichlorobenzene	1.15	0.2	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 Date	8/24/2005			
Client ID:	Run ID: ELMO_050825A			SeqNo:		392431					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	0	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	
1,4-Dichlorobenzene	0.922	0.2	1.67	0	55.2	23.6	118	0.987	6.81	25	
2,4-Dinitrotoluene	1.237	0.2	1.67	0	74.1	28	136	1.288	4.07	25	
N-Nitrosodi-n-propylamine	1.011	0.2	1.67	0	60.5	28	114	1.043	3.15	25	
4-Nitrophenol	2.316	0.2	3.33	0	69.6	13.1	150	2.444	5.36	25	
Pentachlorophenol	2.941	0.5	3.33	0	88.3	20.1	139	3.074	4.44	25	
Phenol	2.271	0.2	3.33	0	68.2	17.3	141	2.247	1.08	25	
Pyrene	1.243	0.2	1.67	0	74.4	29	131	1.315	5.63	25	
1,2,4-Trichlorobenzene	1.08	0.2	1.67	0	64.7	17.9	126	1.15	6.28	25	

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

8/24/2005

Work Order Number 0508272

Received by AT

Checklist completed by

Signature

Date

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/> Not Shipped <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
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 _____

Client: Giant Refining
Company - Arizona
Address: Route 3 Box 7
Gallup, NM 87301

Phone #: 505 722 3833
Fax #: 505 722 0210

Std ☐ Level 4 ☐

Other:

Project Name: RR Rock Lagoon
NW Additional Excavation

Project #:

Project Manager:

Sampler: Steve Morris

Sample Temperature:

[illegible]

Date: 8/24/05	Time: 0900	Relinquished By: (Signature) <i>[Signature]</i>
---------------	------------	---

Date:	Time:	Relinquished By: (Signature)
-------	-------	------------------------------

Received By: (Signature) 8/24/05
0900

Received By: (Signature)



4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

ANALYSIS REQUEST

																				BTEX + MTBE + TMB's (8021)
																				BTEX + MTBE + TPH (Gasoline Only)
			X	X	X	X														TPH Method 8015B (Gas/Diesel)
																				TPH (Method 418.1)
																				EDB (Method 504.1)
																				EDC (Method 802.1)
																				8310 (PNA or PAH)
																				RCPA 8 Metals
																				Anions (F, Cl, NO ₃ , PO ₄ , SO ₄)
																				8081 Pesticides / PCB's (8082)
																				8260B (VOA)
			X	X	X	X														8270 (Semi-VOA)
			X	X	X	X														8021B
																				Air Bubbles or Headspace (Y or N)

Remarks: Rush

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



Hall Environmental Analysis Laboratory

Date: 02-Sep-05

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 Matrix: SOLID

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	ND	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
Surr: 4-Bromofluorobenzene	106	84.5-121		%REC	1	8/29/2005
Surr: Dibromofluoromethane	97.2	79.9-120		%REC	1	8/29/2005
Surr: Toluene-d8	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

Hall Environmental Analysis Laboratory

Date: 02-Sep-05

CLIENT: Giant Refining Co
Work Order: 0508273
Project: RR Rack Lagoon Concrete Pipe TCLP

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8623	Batch ID:	8623	Test Code:	SW8260B	Units:	mg/L	Analysis Date	8/29/2005	Prep Date	8/25/2005
Client ID:		Run ID:	NEPTUNE_050829A	SeqNo:	393367						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	0			
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	Analysis Date	9/1/2005	Prep Date	9/1/2005
Client ID:		Run ID:	MI-LA254_050901A	SeqNo:	394830						
Analyte	Result	PQL	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
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: 0508273
Project: RR Rack Lagoon Concrete Pipe TCLP

QC SUMMARY REPORT
 Method Blank

Sample ID: MB-8663		Batch ID: 8663		Test Code: SW1311/6010		Units: mg/L		Analysis Date: 9/2/2005 9:41:04 AM		Prep Date: 9/1/2005	
Client ID:		Run ID: ICP_050902B		SeqNo: 394972							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium		ND	1									

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: 02-Sep-05

CLIENT: Giant Refining Co
Work Order: 0508273
Project: RR Rack Lagoon Concrete Pipe TCLP

QC SUMMARY REPORT

Sample Duplicate

Sample ID	0508273-01B DUP	Batch ID:	8666	Test Code:	SW7470	Units:	mg/L	Analysis Date	9/1/2005	Prep Date	9/1/2005	
Client ID:	Concrete Pipe	Run ID:	MI-LA254_050901A	SeqNo:	394833							
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	

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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: 02-Sep-05

CLIENT: Giant Refining Co
Work Order: 0508273
Project: RR Rack Lagoon Concrete Pipe TCLP

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0508273-01B MS	Batch ID:	8666	Test Code:	SW7470	Units:	mg/L	Analysis Date	9/1/2005	Prep Date	9/1/2005
Client ID:	Concrete Pipe	Run ID:	MI-LA254_050901A	SeqNo:	394834						
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	0508273-01B MSD	Batch ID:	8666	Test Code:	SW7470	Units:	mg/L	Analysis Date	9/1/2005	Prep Date	9/1/2005
Client ID:	Concrete Pipe	Run ID:	MI-LA254_050901A	SeqNo:	394835						
Analyte	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

1

Hall Environmental Analysis Laboratory

Date: 02-Sep-05

CLIENT: Giant Refining Co
 Work Order: 0508273
 Project: RR Rack Lagoon Concrete Pipe TCLP

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID	LCS-8666	Batch ID: 8666	Test Code: SW7470	Units: mg/L	Analysis Date	9/1/2005	Prep Date	9/1/2005			
Client ID:			Run ID:	MI-LA254_050901A	SeqNo:	394831					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004336	0.002	0.005	0	86.7	80	120	0			

Sample ID	LCSD-8666	Batch ID: 8666	Test Code: SW7470	Units: mg/L	Analysis Date	9/1/2005	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	Qual
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	9/2/2005 9:44:10 AM	Prep Date	9/1/2005			
Client ID:			Run ID:	ICP_050902B	SeqNo:	394973					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	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			

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: 0508273
 Project: RR Rack Lagoon Concrete Pipe TCLP

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID	LCSD-8663	Batch ID: 8663	Test Code: SW1311/6010	Units: mg/L	Analysis Date	9/2/2005 9:48:26 AM	Prep Date	9/1/2005			
Client ID:		Run ID:	ICP_050902B		SeqNo:	394974					
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	
Barium	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 Date	9/2/2005 11:25:32 AM	Prep Date	9/1/2005			
Client ID:			Run ID: ICP_050902B		SeqNo:	395131					
Analyte	Result	PQL	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	9/2/2005 11:31:06 AM	Prep Date				
Client ID:		Run ID:	ICP_050902B		SeqNo:	395133					
Analyte	Result	PQL	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	

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

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

8/24/2005

Work Order Number 0508273

Received by AT

Checklist completed by

Signature

Date

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>

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 _____

Client: Giant Refining
Company - Linza
Address: Route 3 Box 7
Fallup, NM 87391

Phone #: 505 722 9833
Fax #: 505 722 0210

Std ☐ Level 4 ☐

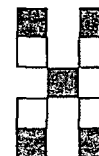
Other:

Project Name: RR Rack Lagoon
Concrete Pipe TCLP

Project #:

Project Manager:

Sampler:	Steve Morris
Sample Temperature:	10°C



4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

ANALYSIS REQUEST

[illegible]

Date: 8/24/05	Time: 0900	Relinquished By: (Signature) <i>[Signature]</i>
Date:	Time:	Relinquished By: (Signature)

Received By: (Signature)	8/24/05
Received By: (Signature)	0900

Remarks:



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



Hall Environmental Analysis Laboratory

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.

Hall Environmental Analysis Laboratory

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
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	640	10		mg/Kg	1	9/2/2005 2:55:36 AM
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
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-Bromofluorobenzene	102	72.9-143		%REC	1	9/4/2005
Surr: Dibromofluoromethane	103	85.2-118		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	0.56	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)anthracene	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)fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(g,h,i)perylene	ND	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
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	9/4/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-ethylhexyl)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 phthalate	ND	0.20		mg/Kg	1	9/4/2005
Carbazole	ND	0.20		mg/Kg	1	9/4/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	9/4/2005
2-Chloronaphthalene	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 phthalate	ND	0.25		mg/Kg	1	9/4/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	9/4/2005
Dibenz(a,h)anthracene	ND	0.25		mg/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
* - Value exceeds Maximum Contaminant Level

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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

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

Lab ID: 0508346-01

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/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	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
Isophorone	ND	0.20		mg/Kg	1	9/4/2005
2-Methylnaphthalene	7.9	1.0		mg/Kg	5	9/6/2005
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	1.0	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	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

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

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

Lab ID: 0508346-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr: 2-Fluorobiphenyl	107	30.4-128		%REC	1	9/4/2005
Surr: 2-Fluorophenol	76.7	28.1-129		%REC	1	9/4/2005
Surr: 4-Terphenyl-d14	78.3	34.6-151		%REC	1	9/4/2005
Surr: Nitrobenzene-d5	78.3	26.5-122		%REC	1	9/4/2005
Surr: Phenol-d6	84.5	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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co
Lab Order: 0508346
Project: RR Rock Lagoon Add. Exc. 8-30-05
Lab ID: 0508346-02

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	1900	100		mg/Kg	10	9/3/2005 12:54:13 AM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	9/3/2005 12:54:13 AM
Surr: DNOP	105	60-124		%REC	10	9/3/2005 12:54:13 AM
EPA METHOD 8260B: VOLATILES SHORT 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	1	9/4/2005
Xylenes, Total	0.41	0.050		mg/Kg	1	9/4/2005
Surr: 4-Bromofluorobenzene	126	72.9-143		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						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)anthracene	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)fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(g,h,i)perylene	ND	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
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	9/4/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-ethylhexyl)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 phthalate	ND	0.20		mg/Kg	1	9/4/2005
Carbazole	ND	0.20		mg/Kg	1	9/4/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	9/4/2005
2-Chloronaphthalene	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 phthalate	0.26	0.25	B	mg/Kg	1	9/4/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	9/4/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Dibenzofuran	ND	0.50		mg/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
* - Value exceeds Maximum Contaminant Level

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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-2-83005

Lab Order: 0508346

Collection Date: 8/30/2005 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
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-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
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-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	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

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

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-2-83005

Lab Order: 0508346

Collection Date: 8/30/2005 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-Fluorophenol	78.2	28.1-129		%REC	1	9/4/2005
Surr: 4-Terphenyl-d14	85.0	34.6-151		%REC	1	9/4/2005
Surr: Nitrobenzene-d5	82.8	26.5-122		%REC	1	9/4/2005
Surr: Phenol-d6	89.6	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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-3-83005

Lab Order: 0508346

Collection Date: 8/30/2005 7:40:00 AM

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

Lab ID: 0508346-03

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	2900	100		mg/Kg	10	9/3/2005 1:27:00 AM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	9/3/2005 1:27:00 AM
Surr: DNOP	122	60-124		%REC	10	9/3/2005 1:27:00 AM
EPA METHOD 8260B: VOLATILES SHORT 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	1	9/4/2005
Xylenes, Total	2.8	0.050		mg/Kg	1	9/4/2005
Surr: 4-Bromofluorobenzene	97.2	72.9-143		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	2.0		mg/Kg	10	9/4/2005
Acenaphthylene	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)anthracene	ND	2.5		mg/Kg	10	9/4/2005
Benzidine	ND	2.0		mg/Kg	10	9/4/2005
Benzo(a)pyrene	ND	2.0		mg/Kg	10	9/4/2005
Benzo(b)fluoranthene	ND	2.0		mg/Kg	10	9/4/2005
Benzo(g,h,i)perylene	ND	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)ether	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
4-Chloroaniline	ND	2.0		mg/Kg	10	9/4/2005
2-Chloronaphthalene	ND	2.0		mg/Kg	10	9/4/2005
2-Chlorophenol	ND	2.0		mg/Kg	10	9/4/2005
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	10	9/4/2005
Chrysene	ND	2.0		mg/Kg	10	9/4/2005
Di-n-butyl phthalate	ND	2.5		mg/Kg	10	9/4/2005
Di-n-octyl phthalate	ND	5.0		mg/Kg	10	9/4/2005
Dibenz(a,h)anthracene	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 outside accepted recovery 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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-3-83005

Lab Order: 0508346

Collection Date: 8/30/2005 7:40:00 AM

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

Lab ID: 0508346-03

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		mg/Kg	10	9/4/2005
2,4-Dimethylphenol	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/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		mg/Kg	10	9/4/2005
Hexachlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
Hexachlorobutadiene	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-propylamine	ND	2.0		mg/Kg	10	9/4/2005
N-Nitrosodiphenylamine	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/Kg	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

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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-3-83005

Lab Order: 0508346

Collection Date: 8/30/2005 7:40:00 AM

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

Lab ID: 0508346-03

Matrix: SOIL

Analyses	Result	PQL	Qual	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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

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

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	4000	200		mg/Kg	20	9/3/2005 1:59:51 AM
Motor Oil Range Organics (MRO)	ND	1000		mg/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 SHORT LIST						Analyst: BDH
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
Surr: 4-Bromofluorobenzene	121	72.9-143		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	2.0		mg/Kg	10	9/4/2005
Acenaphthylene	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)anthracene	ND	2.5		mg/Kg	10	9/4/2005
Benidine	ND	2.0		mg/Kg	10	9/4/2005
Benzo(a)pyrene	ND	2.0		mg/Kg	10	9/4/2005
Benzo(b)fluoranthene	ND	2.0		mg/Kg	10	9/4/2005
Benzo(g,h,i)perylene	ND	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)ether	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
4-Chloroaniline	ND	2.0		mg/Kg	10	9/4/2005
2-Chloronaphthalene	ND	2.0		mg/Kg	10	9/4/2005
2-Chlorophenol	ND	2.0		mg/Kg	10	9/4/2005
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	10	9/4/2005
Chrysene	ND	2.0		mg/Kg	10	9/4/2005
Di-n-butyl phthalate	ND	2.5		mg/Kg	10	9/4/2005
Di-n-octyl phthalate	ND	5.0		mg/Kg	10	9/4/2005
Dibenz(a,h)anthracene	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
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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-4-83005

Lab Order: 0508346

Collection Date: 8/30/2005 7:50:00 AM

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

Lab ID: 0508346-04

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		mg/Kg	10	9/4/2005
2,4-Dimethylphenol	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/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	3.2	2.0		mg/Kg	10	9/4/2005
Hexachlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
Hexachlorobutadiene	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	20	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	4.2	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	7.1	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	108	35.5-141		%REC	10	9/4/2005
Surr: 2-Fluorobiphenyl	97.4	30.4-128		%REC	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

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-4-83005

Lab Order: 0508346

Collection Date: 8/30/2005 7:50:00 AM

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

Lab ID: 0508346-04

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr: 2-Fluorophenol	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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-5-83005

Lab Order: 0508346

Collection Date: 8/30/2005 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
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	1000	20		mg/Kg	2	9/3/2005 2:32:52 AM
Motor Oil Range 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: 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	1	9/4/2005
Xylenes, Total	0.33	0.050		mg/Kg	1	9/4/2005
Surr: 4-Bromofluorobenzene	97.2	72.9-143		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	0.29	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)anthracene	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)fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	9/4/2005
Benzo(k)fluoranthene	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-chloroethoxy)methane	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	9/4/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-ethylhexyl)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 phthalate	ND	0.20		mg/Kg	1	9/4/2005
Carbazole	ND	0.20		mg/Kg	1	9/4/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	9/4/2005
2-Chloronaphthalene	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 phthalate	ND	0.25		mg/Kg	1	9/4/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	9/4/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Dibenzofuran	ND	0.50		mg/Kg	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

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-5-83005

Lab Order: 0508346

Collection Date: 8/30/2005 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
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	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-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	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

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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-5-83005

Lab Order: 0508346

Collection Date: 8/30/2005 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
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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co
Lab Order: 0508346
Project: RR Rock Lagoon Add. Exc. 8-30-05
Lab ID: 0508346-06

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	5300	200		mg/Kg	20	9/2/2005 11:48:37 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	9/2/2005 11:48:37 PM
Surr: DNOP	0	60-124	S	%REC	20	9/2/2005 11:48:37 PM
EPA METHOD 8260B: VOLATILES SHORT 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	1	9/4/2005
Xylenes, Total	1.8	0.050		mg/Kg	1	9/4/2005
Surr: 4-Bromofluorobenzene	111	72.9-143		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						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)anthracene	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)fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(g,h,i)perylene	ND	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
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	9/4/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-ethylhexyl)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 phthalate	ND	0.20		mg/Kg	1	9/4/2005
Carbazole	ND	0.20		mg/Kg	1	9/4/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	9/4/2005
2-Chloronaphthalene	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 phthalate	ND	0.25		mg/Kg	1	9/4/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	9/4/2005
Dibenz(a,h)anthracene	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 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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-6-83005

Lab Order: 0508346

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

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

Lab ID: 0508346-06

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-Dinitrotoluene	ND	0.20		mg/Kg	1	9/4/2005
Fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Fluorene	0.34	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	36	2.0		mg/Kg	10	9/6/2005
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	3.8	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	8.0	2.0		mg/Kg	10	9/6/2005
Phenol	ND	0.20		mg/Kg	1	9/4/2005
Pyrene	0.41	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	60.1	35.5-141		%REC	1	9/4/2005
Surr: 2-Fluorobiphenyl	79.0	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

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-6-83005

Lab Order: 0508346

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

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

Lab ID: 0508346-06

Matrix: SOIL

Analyses	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

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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-7-83005

Lab Order: 0508346

Collection Date: 8/30/2005 8:20:00 AM

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

Lab ID: 0508346-07

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	9000	200		mg/Kg	20	9/3/2005 12:21:25 AM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	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
Toluene	ND	0.050		mg/Kg	1	9/4/2005
Ethylbenzene	ND	0.050		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
Acenaphthylene	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)anthracene	ND	2.5		mg/Kg	10	9/4/2005
Benzidine	ND	2.0		mg/Kg	10	9/4/2005
Benzo(a)pyrene	ND	2.0		mg/Kg	10	9/4/2005
Benzo(b)fluoranthene	ND	2.0		mg/Kg	10	9/4/2005
Benzo(g,h,i)perylene	ND	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)ether	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
4-Chloroaniline	ND	2.0		mg/Kg	10	9/4/2005
2-Chloronaphthalene	ND	2.0		mg/Kg	10	9/4/2005
2-Chlorophenol	ND	2.0		mg/Kg	10	9/4/2005
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	10	9/4/2005
Chrysene	ND	2.0		mg/Kg	10	9/4/2005
Di-n-butyl phthalate	ND	2.5		mg/Kg	10	9/4/2005
Di-n-octyl phthalate	ND	5.0		mg/Kg	10	9/4/2005
Dibenz(a,h)anthracene	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 outside accepted recovery 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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-7-83005

Lab Order: 0508346

Collection Date: 8/30/2005 8:20:00 AM

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

Lab ID: 0508346-07

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		mg/Kg	10	9/4/2005
2,4-Dimethylphenol	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/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		mg/Kg	10	9/4/2005
Hexachlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
Hexachlorobutadiene	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	39	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

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

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-7-83005

Lab Order: 0508346

Collection Date: 8/30/2005 8:20:00 AM

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

Lab ID: 0508346-07

Matrix: SOIL

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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/2/2005 6:12:34 AM
Motor Oil Range Organics (MRO)	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
EPA METHOD 8260B: VOLATILES SHORT 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	1	9/4/2005
Xylenes, Total	ND	0.050		mg/Kg	1	9/4/2005
Surr: 4-Bromofluorobenzene	106	72.9-143		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						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)anthracene	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)fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(g,h,i)perylene	ND	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
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	9/4/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-ethylhexyl)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 phthalate	ND	0.20		mg/Kg	1	9/4/2005
Carbazole	ND	0.20		mg/Kg	1	9/4/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	9/4/2005
2-Chloronaphthalene	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 phthalate	ND	0.25		mg/Kg	1	9/4/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	9/4/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Dibenzofuran	ND	0.50		mg/Kg	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

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

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

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-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	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	89.7	35.5-141		%REC	1	9/4/2005
Surr: 2-Fluorobiphenyl	67.9	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

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

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

Analyses	Result	PQL	Qual	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	1	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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-9-83005

Lab Order: 0508346

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

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

Lab ID: 0508346-09

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/2/2005 6:45:22 AM
Motor Oil Range Organics (MRO)	ND	50		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 8260B: VOLATILES SHORT LIST						
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-Bromofluorobenzene	115	72.9-143		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						
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)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Benididine	ND	0.20		mg/Kg	1	9/4/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(g,h,i)perylene	ND	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
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	9/4/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-ethylhexyl)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 phthalate	ND	0.20		mg/Kg	1	9/4/2005
Carbazole	ND	0.20		mg/Kg	1	9/4/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	9/4/2005
2-Chloronaphthalene	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 phthalate	ND	0.25		mg/Kg	1	9/4/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	9/4/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Dibenzofuran	ND	0.50		mg/Kg	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

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-9-83005

Lab Order: 0508346

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

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

Lab ID: 0508346-09

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
4,8-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-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
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	88.3	35.5-141		%REC	1	9/4/2005
Surr: 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

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-9-83005

Lab Order: 0508346

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

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

Lab ID: 0508346-09

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr: 2-Fluorophenol	67.7	28.1-129		%REC	1	9/4/2005
Surr: 4-Terphenyl-d14	86.0	34.6-151		%REC	1	9/4/2005
Surr: Nitrobenzene-d5	72.5	26.5-122		%REC	1	9/4/2005
Surr: Phenol-d6	74.3	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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co Client Sample ID: RR-10-83005
 Lab Order: 0508346 Collection Date: 8/30/2005 9:00:00 AM
 Project: RR Rock Lagoon Add. Exc. 8-30-05
 Lab ID: 0508346-10 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/2/2005 7:18:10 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/2/2005 7:18:10 AM
Surr: DNOP	97.5	60-124		%REC	1	9/2/2005 7:18:10 AM
EPA METHOD 8260B: VOLATILES SHORT 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	1	9/4/2005
Xylenes, Total	ND	0.050		mg/Kg	1	9/4/2005
Surr: 4-Bromofluorobenzene	94.9	72.9-143		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						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)anthracene	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)fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	9/4/2005
Benzo(k)fluoranthene	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-chloroethoxy)methane	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	9/4/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-ethylhexyl)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 phthalate	ND	0.20		mg/Kg	1	9/4/2005
Carbazole	ND	0.20		mg/Kg	1	9/4/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	9/4/2005
2-Chloronaphthalene	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 phthalate	ND	0.25		mg/Kg	1	9/4/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	9/4/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Dibenzofuran	ND	0.50		mg/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
 * - Value exceeds Maximum Contaminant Level

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

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-10-83005

Lab Order: 0508346

Collection Date: 8/30/2005 9:00:00 AM

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

Lab ID: 0508346-10

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-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	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

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-10-83005

Lab Order: 0508346

Collection Date: 8/30/2005 9:00:00 AM

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

Lab ID: 0508346-10

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr: 2-Fluorophenol	53.5	28.1-129		%REC	1	9/4/2005
Surr: 4-Terphenyl-d14	85.5	34.6-151		%REC	1	9/4/2005
Surr: Nitrobenzene-d5	61.6	26.5-122		%REC	1	9/4/2005
Surr: Phenol-d6	62.7	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

Hall Environmental Analysis Laboratory

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 Date	9/1/2005 9:27:29 PM	Prep Date	8/31/2005
Client ID:		Run ID:	FID(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 (MRO)	ND	50									
Surr: DNOP	9.957	0	10	0	99.6	60	124	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

1

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

QC SUMMARY REPORT

Method Blank

Sample ID MB-8545	Batch ID: 8545	Test Code: SW8270C	Units: mg/Kg	Analysis Date 9/4/2005	Prep Date 8/31/2005						
Client ID:	Run ID: ELMO_050904A	SeqNo: 395725									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	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	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-Chloroaniline	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									

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

QC SUMMARY REPORT

Method Blank

Dibenz(a,h)anthracene	ND	0.25
Dibenzofuran	ND	0.5
1,2-Dichlorobenzene	ND	0.2
1,3-Dichlorobenzene	ND	0.2
1,4-Dichlorobenzene	ND	0.2
3,3'-Dichlorobenzidine	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
Hexachloroethane	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-Nitroaniline	ND	0.5
4-Nitroaniline	ND	0.25
Nitrobenzene	ND	0.2
2-Nitrophenol	ND	0.2

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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
Work Order: 0508346
Project: RR Rock Lagoon Add. Exc. 8-30-05

QC SUMMARY 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-Trichlorobenzene	ND	0.2							
2,4,5-Trichlorophenol	ND	0.2							
2,4,6-Trichlorophenol	ND	0.2							
Surr: 2,4,6-Tribromophenol	2.551	0	3.33	0	76.6	35.5	141	0	
Surr: 2-Fluorobiphenyl	1.208	0	1.67	0	72.3	30.4	128	0	
Surr: 2-Fluorophenol	2.424	0	3.33	0	72.8	28.1	129	0	
Surr: 4-Terphenyl-d14	1.411	0	1.67	0	84.5	34.6	151	0	
Surr: Nitrobenzene-d5	1.161	0	1.67	0	69.5	26.5	122	0	
Surr: Phenol-d6	2.484	0	3.33	0	74.6	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

Hall Environmental Analysis Laboratory

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-8648	Batch ID	8648	Test Code	SW8260B	Units	mg/Kg	Analysis Date	9/3/2005	Prep Date	8/31/2005
Client ID:		Run ID:	THOR_050903A	SeqNo:	395596						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.05	0	0	0	0	0	0			
Toluene	ND	0.05	0	0	0	0	0	0			
Ethylbenzene	ND	0.05	0	0	0	0	0	0			
Xylenes, Total	ND	0.05	0	0	0	0	0	0			
Surr: 4-Bromofluorobenzene	0.5104	0	0.5	0	102	72.9	143	0			
Surr: Dibromofluoromethane	0.4749	0	0.5	0	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

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Hall Environmental Analysis Laboratory

Date: 07-Sep-05

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

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID	LCS-8649	Batch ID:	8649	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	9/1/2005 10:00:21 PM	Prep Date	8/31/2005			
Client ID:		Run ID:	FID(17A) 2_050901A	SeqNo:	395110									
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	Analysis Date	9/1/2005 11:05:57 PM	Prep Date	8/31/2005			
Client ID:		Run ID:	FID(17A) 2_050901A	SeqNo:	395112									
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		49.38		10	50	0		98.8	67.4	117	45.26	8.70	17.4	

Sample ID	lcs-8648	Batch ID:	8648	Test Code:	SW8260B	Units:	mg/Kg	Analysis Date	9/3/2005	Prep Date	8/31/2005			
Client ID:		Run ID:	THOR_050903A	SeqNo:	395601									
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		0.8733		0.05	1	0		87.3	78	126	0			
Toluene		1.016		0.05	1	0		102	79.4	117	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: 0508346
 Project: RR Rock Lagoon Add. Exc. 8-30-05

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID LCS-8646 Batch ID: 8646 Test Code: SW8270C Units: mg/Kg Analysis Date 9/4/2005 Prep Date 8/31/2005
 Client ID: Run ID: ELMO_050904A SeqNo: 395726

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.264	0.2	1.67	0	75.7	24	125	0			
4-Chloro-3-methylphenol	2.484	0.2	3.33	0	74.6	14.6	154	0			
2-Chlorophenol	2.206	0.2	3.33	0	66.2	13.3	149	0			
1,4-Dichlorobenzene	1.053	0.2	1.67	0	63.1	23.6	118	0			
2,4-Dinitrotoluene	1.257	0.2	1.67	0	75.2	28	136	0			
N-Nitrosodi-n-propylamine	1.099	0.2	1.67	0	65.8	28	114	0			
4-Nitrophenol	2.786	0.2	3.33	0	83.7	13.1	150	0			
Pentachlorophenol	2.67	0.5	3.33	0	80.2	20.1	139	0			
Phenol	2.236	0.2	3.33	0	67.2	17.3	141	0			
Pyrene	1.306	0.2	1.67	0	78.2	29	131	0			
1,2,4-Trichlorobenzene	1.096	0.2	1.67	0	65.6	17.9	126	0			

Sample ID LCSD-8646 Batch ID: 8646 Test Code: SW8270C Units: mg/Kg Analysis Date 9/4/2005 Prep Date 8/31/2005
 Client ID: Run ID: ELMO_050904A SeqNo: 395728

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	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	
Pentachlorophenol	2.888	0.5	3.33	0	86.7	20.1	139	2.67	7.85	25	
Phenol	2.534	0.2	3.33	0	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	

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

8/31/2005

Work Order Number 0508346

Received by AT

Checklist completed by

Signature

Date

8/31/05

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	

Container/Temp Blank temperature?

3°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

CHAIN-OF-CUSTODY RECORD

Client: Giant Refining
Company - Aniza
 Address: Route 3 Box 7
Gallup, NM 87391

Phone #: 505 722 3833
 Fax #: 505 722 0210

QA / QC Package:

Std ☐ Level 4 ☐

Other:

Project Name: RR Rock Lagoon
Additional Excavation 8-30-05

Project #:

Project Manager:

Sampler: Steve Mena

Sample Temperature: 3



HALL ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE, Suite D
 Albuquerque, New Mexico 87109
 Tel. 505.345.3975 Fax 505.345.4107
 www.hallenvironmental.com

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative			HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 41B.1)	ED8 (Method 504.1)	EDC (Method 8021)	B310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	8021-BTEX	Air Bubbles or Headspace (Y or N)
					HgCl ₂	HNO ₃																
8/30/05	0715		RR-1-83005	2-4 oz				0508346-1			X								X	X		
"	0730		RR-2-83005	"				-2			X								X	X		
"	0740		RR-3-83005	"				-3			X								X	X		
"	0750		RR-4-83005	"				-4			X								X	X		
"	0800		RR-5-83005	"				-5			X								X	X		
"	0810		RR-6-83005	"				-6			X								X	X		
"	0820		RR-7-83005	"				-7			X								X	X		
"	0830		RR-8-83005	"				-8			X								X	X		
"	0840		RR-9-83005	"				-9			X								X	X		
"	0900		RR-10-83005	"				-10			X								X	X		

Date: 8/31/05 Time: 0855 Relinquished By: (Signature) Steve Mena

Received By: (Signature) Steve Mena 8/31/05
 Date: 8/31/05 Time: 0855

Remarks: RUSH

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,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



Hall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co
Lab Order: 0509181
Project: RR Rock Lagoon Add. Exc. 9/15/05
Lab ID: 0509181-01

Client Sample ID: RR-1A-91505
Collection Date: 9/15/2005 2:30:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range 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 SHORT LIST						Analyst: BDH
Methyl tert-butyl 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-Bromofluorobenzene	109	72.9-143		%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

Hall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT:	Giant Refining Co	Client Sample ID:	RR-2A-91505
Lab Order:	0509181	Collection Date:	9/15/2005 2:35:00 PM
Project:	RR Rock Lagoon Add. Exc. 9/15/05		
Lab ID:	0509181-02	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	130	10		mg/Kg	1	9/22/2005 11:57:56 AM
Motor Oil Range Organics (MRO)	ND	50		mg/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 SHORT LIST						Analyst: BDH
Methyl tert-butyl 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-Bromofluorobenzene	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

Hall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-3A-91505

Lab Order: 0509181

Collection Date: 9/15/2005 2:40:00 PM

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

Lab ID: 0509181-03

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						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 SHORT LIST						Analyst: BDH
Methyl tert-butyl 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-Bromofluorobenzene	113	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

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

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

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 Add. Exc. 9/15/05

Lab ID: 0509181-04

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/22/2005 1:04:05 PM
Motor Oil Range 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 SHORT LIST						Analyst: BDH
Methyl tert-butyl 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-Bromofluorobenzene	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

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

Hall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co
Lab Order: 0509181
Project: RR Rock Lagoon Add. Exc. 9/15/05
Lab ID: 0509181-05

Client Sample ID: RR-5A-91505
Collection Date: 9/15/2005 2:50:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/22/2005 1:37:09 PM
Motor Oil Range 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 SHORT LIST						Analyst: BDH
Methyl tert-butyl 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-Bromofluorobenzene	110	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

Hall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co
Lab Order: 0509181
Project: RR Rock Lagoon Add. Exc. 9/15/05
Lab ID: 0509181-06

Client Sample ID: RR-6A-91505
Collection Date: 9/15/2005 2:55:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/22/2005 2:10:14 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/22/2005 2:10:14 PM
Surr: DNOP	101	60-124		%REC	1	9/22/2005 2:10:14 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Methyl tert-butyl 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-Bromofluorobenzene	90.5	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

Hall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co
Lab Order: 0509181
Project: RR Rock Lagoon Add. Exc. 9/15/05
Lab ID: 0509181-07

Client Sample ID: RR-7A-91505
Collection Date: 9/15/2005 3:00:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/22/2005 3:16:27 PM
Motor Oil Range 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 SHORT LIST						Analyst: BDH
Methyl tert-butyl 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-Bromofluorobenzene	104	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



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LABORATORY ANALYTICAL REPORT

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

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
PHYSICAL CHARACTERISTICS							
Moisture	7.6	wt%		0.01		SW3550A	09/22/05 13:31 / mwc
SEMI-VOLATILE ORGANIC COMPOUNDS							
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-Methylnaphthalene	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-Chlorophenyl 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		SW8270C	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)Ether	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

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.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

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

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SEMI-VOLATILE ORGANIC COMPOUNDS							
Dibenzo(a,h)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Diethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Dimethyl phthalate	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		SW8270C	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-Nitrosodimethylamine	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
n-Nitroso-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
Phenanthrene	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
Surr: 2-Fluorophenol	81.5	%REC			25-121	SW8270C	09/22/05 15:01 / dsm
Surr: Nitrobenzene-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	SW8270C	09/22/05 15:01 / dsm

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

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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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

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
PHYSICAL CHARACTERISTICS							
Moisture	7.9	wt%		0.01		SW3550A	09/22/05 13:31 / mwc
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4-Trichlorobenzene	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		SW8270C	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-Dinitrotoluene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
2,6-Dinitrotoluene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
2-Chloronaphthalene	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-Methylnaphthalene	0.11	mg/kg	J	0.33		SW8270C	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-methylphenol	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
Acenaphthene	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)fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Benzo(g,h,i)perylene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Benzo(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-chloroisopropyl)Ether	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
bis(2-ethylhexyl)Phthalate	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

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.

ND - Not detected at the reporting limit.



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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

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SEMI-VOLATILE ORGANIC COMPOUNDS							
Dibenzo(a,h)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Diethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Dimethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Di-n-butyl phthalate	0.13	mg/kg	J	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
Fluorene	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
Hexachlorocyclopentadiene	ND	mg/kg		0.67		SW8270C	09/22/05 15:44 / dsm
Hexachloroethane	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	J	0.33		SW8270C	09/22/05 15:44 / dsm
Nitrobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
n-Nitrosodimethylamine	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
n-Nitroso-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		SW8270C	09/22/05 15:44 / dsm
Pentachlorophenol	ND	mg/kg		1.7		SW8270C	09/22/05 15:44 / dsm
Phenanthrene	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			19-122	SW8270C	09/22/05 15:44 / dsm
Surr: 2-Fluorobiphenyl	77.5	%REC			30-115	SW8270C	09/22/05 15:44 / dsm
Surr: 2-Fluorophenol	84.0	%REC			25-121	SW8270C	09/22/05 15:44 / dsm
Surr: Nitrobenzene-d5	74.9	%REC			23-120	SW8270C	09/22/05 15:44 / dsm
Surr: Phenol-d5	84.0	%REC			24-113	SW8270C	09/22/05 15:44 / dsm
Surr: Terphenyl-d14	91.9	%REC			18-137	SW8270C	09/22/05 15:44 / 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.

ND - Not detected at the reporting limit.



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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

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
PHYSICAL CHARACTERISTICS							
Moisture	11	wt%		0.01		SW3550A	09/22/05 13:32 / mwc
SEMI-VOLATILE ORGANIC COMPOUNDS							
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-Chlorophenol	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-methylphenol	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-methylphenol	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
4-Chlorophenol	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
4-Nitrophenol	ND	mg/kg		1.7		SW8270C	09/22/05 16:27 / dsm
Acenaphthene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Acenaphthylene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Azobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Benzidine	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)fluoranthene	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-chloroisopropyl)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
Butylbenzylphthalate	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Chrysene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm

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

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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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

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SEMI-VOLATILE ORGANIC COMPOUNDS							
Dibenzo(a,h)anthracene	ND	mg/kg		0.33		SW8270C	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		0.33		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
Hexachlorobutadiene	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		SW8270C	09/22/05 16:27 / dsm
Naphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Nitrobenzene	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
Pentachlorophenol	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-Tribromophenol	99.5	%REC			19-122	SW8270C	09/22/05 16:27 / dsm
Surr: 2-Fluorobiphenyl	81.5	%REC			30-115	SW8270C	09/22/05 16:27 / dsm
Surr: 2-Fluorophenol	84.5	%REC			25-121	SW8270C	09/22/05 16:27 / dsm
Surr: Nitrobenzene-d5	79.7	%REC			23-120	SW8270C	09/22/05 16:27 / dsm
Surr: Phenol-d5	85.5	%REC			24-113	SW8270C	09/22/05 16:27 / dsm
Surr: Terphenyl-d14	95.1	%REC			18-137	SW8270C	09/22/05 16:27 / 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.

ND - Not detected at the reporting limit.



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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

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
PHYSICAL CHARACTERISTICS							
Moisture	9.2	wt%		0.01		SW3550A	09/22/05 13:32 / mwc
SEMI-VOLATILE ORGANIC COMPOUNDS							
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-Methylnaphthalene	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-Bromophenyl phenyl 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-Chlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
4-Chlorophenyl phenyl ether	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
Anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Azobenzene	ND	mg/kg		0.33		SW8270C	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)fluoranthene	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)fluoranthene	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
Butylbenzylphthalate	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

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

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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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

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SEMI-VOLATILE ORGANIC COMPOUNDS							
Dibenzo(a,h)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Diethyl phthalate	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-butyl 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
Fluoranthene	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		SW8270C	09/22/05 17:10 / dsm
Naphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Nitrobenzene	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-Fluorobiphenyl	77.8	%REC			30-115	SW8270C	09/22/05 17:10 / dsm
Surr: 2-Fluorophenol	78.0	%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 RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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Toll Free 800.735.4489 * 406.252.6325 * FAX 406.252.6069 * ell@energylab.com

LABORATORY ANALYTICAL REPORT

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

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
PHYSICAL CHARACTERISTICS							
Moisture	6.2	wt%		0.01		SW3550A	09/22/05 13:32 / mwc
SEMI-VOLATILE ORGANIC COMPOUNDS							
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-Methylnaphthalene	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-Dinitrotoluene	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-Methylnaphthalene	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
Acenaphthene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Acenaphthylene	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(k)fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
bis(-2-chloroethoxy)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
bis(2-chloroisopropyl)Ether	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
bis(2-ethylhexyl)Phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Butylbenzylphthalate	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Chrysene	ND	mg/kg		0.33		SW8270C	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.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

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

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SEMI-VOLATILE ORGANIC COMPOUNDS							
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		SW8270C	09/22/05 17:53 / dsm
Di-n-octyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Fluoranthene	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
Hexachloroethane	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
Naphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Nitrobenzene	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	SW8270C	09/22/05 17:53 / dsm
Surr: 2-Fluorobiphenyl	80.7	%REC			30-115	SW8270C	09/22/05 17:53 / dsm
Surr: 2-Fluorophenol	85.0	%REC			25-121	SW8270C	09/22/05 17:53 / dsm
Surr: Nitrobenzene-d5	76.3	%REC			23-120	SW8270C	09/22/05 17:53 / dsm
Surr: Phenol-d5	81.0	%REC			24-113	SW8270C	09/22/05 17:53 / dsm
Surr: Terphenyl-d14	95.5	%REC			18-137	SW8270C	09/22/05 17:53 / dsm

Report RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

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MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

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

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

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

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

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

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SEMI-VOLATILE ORGANIC COMPOUNDS							
Dibenzo(a,h)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Diethyl phthalate	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-butyl 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
Hexachlorobutadiene	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: 2,4,6-Tribromophenol	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	SW8270C	09/22/05 18:36 / dsm

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

MCL - Maximum contaminant level.
ND - Not detected at the reporting 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

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
PHYSICAL CHARACTERISTICS							
Moisture	10	wt%		0.01		SW3550A	09/22/05 13:32 / mwc
SEMI-VOLATILE ORGANIC COMPOUNDS							
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-Dinitrotoluene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
2-Chloronaphthalene	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-Nitrophenol	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
3,3'-Dichlorobenzidine	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-Chlorophenol	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
Acenaphthene	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
Anthracene	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)perylene	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
Butylbenzylphthalate	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

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

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



ENERGY LABORATORIES, INC. * 1120 S 27th St * PO Box 30916 * Billings, MT 59107-0916
Toll Free 800.735.4489 * 406.252.6325 * FAX 406.252.6069 * ell@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Hall Environmental-Albuquerque

Report Date: 09/23/05

Project:

Collection Date: 09/15/05 15:00

Lab ID: B05091262-007

Date Received: 09/20/05

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

Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SEMI-VOLATILE ORGANIC COMPOUNDS							
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
Hexachlorobutadiene	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
Naphthalene	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			18-122	SW8270C	09/22/05 19:19 / dsm
Surr: 2-Fluorobiphenyl	73.3	%REC			30-115	SW8270C	09/22/05 19:19 / dsm
Surr: 2-Fluorophenol	74.0	%REC			25-121	SW8270C	09/22/05 19:19 / dsm
Surr: Nitrobenzene-d5	66.2	%REC			23-120	SW8270C	09/22/05 19:19 / dsm
Surr: Phenol-d5	70.0	%REC			24-113	SW8270C	09/22/05 19:19 / dsm
Surr: Terphenyl-d14	83.4	%REC			18-137	SW8270C	09/22/05 19:19 / dsm

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

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

Hall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co
Work Order: 0509181
Project: RR Rock Lagoon Add. Exc. 9/15/05

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8794	Batch ID	8794	Test Code	SW8015	Units	mg/Kg	Analysis Date	9/20/2005 8:51:53 PM	Prep Date	9/20/2005
Client ID:		Run ID:	FID(17A) 2_050920A	SeqNo:	402214						
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 Date	9/19/2005
Client ID:		Run ID:	THOR_050923A	SeqNo:	403371						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	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	0	0	0			
Ethylbenzene	ND	0.05	0	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: 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

22/26

Hall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co
Work Order: 0509181
Project: RR Rock Lagoon Add. Exc. 9/15/05

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0509181-03a ms	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	403373						
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	0			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 Date	9/24/2005	Prep Date	9/19/2005
Client ID	RR-3A-91505	Run ID	THOR_050923A	SeqNo	403374						
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	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

Hall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co
Work Order: 0509181
Project: RR Rock Lagoon Add. Exc. 9/15/05

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0509181-03a ms	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:	403373						
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	0			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 Date	9/24/2005	Prep Date	9/19/2005
Client ID:	RR-3A-91505	Run ID:	THOR_050923A	SeqNo:	403374						
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	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

24/26

Hall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co
Work Order: 0509181
Project: RR Rock Lagoon Add. Exc. 9/15/05

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID	LCS-8794	Batch ID: 8794	Test Code: SW8015	Units: mg/Kg	Analysis Date	9/20/2005 9:24:58 PM	Prep Date	9/20/2005			
Client ID:			Run ID: FID(17A) 2_050920A		SeqNo:	402215					
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	Batch ID: 8794	Test Code: SW8015	Units: mg/Kg	Analysis Date	9/20/2005 9:58:02 PM	Prep Date	9/20/2005			
Client ID:			Run ID: FID(17A) 2_050920A		SeqNo:	402216					
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	lcs-8782	Batch ID: 8782	Test Code: SW8260B	Units: mg/Kg	Analysis Date	9/24/2005	Prep Date	9/19/2005			
Client ID:			Run ID: THOR_050923A		SeqNo:	403372					
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			
Toluene	1.034	0.05	1	0	103	79.4	117	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

25/26

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

9/19/2005

Work Order Number 0509181

Received by GLS

Checklist completed by JScheppe 9-19-05
Signature Date

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	

Container/Temp Blank temperature?

4° 4° C ± 2 Acceptable
If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

Client: *Giant Refining*
Company - Ciniza
Address: *Route 3 Box 7*
Gallup, NM 87301

Phone #: 505 722 3833

Fax #: 505 722 0210

QA / QC Package:

Std ☐ Level 4 ☐

Other:

Project Name: RR Rack Lagoon
Additional Excavation 8/15/05

~~Project #~~

Project Manager:

Sampler:

Sample Temperature: 40

[illegible]

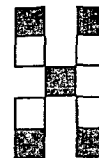
Date: 9/19/05	Time: 0845	Relinquished By: (Signature) [Signature]
---------------	------------	--

Date:	Time:	Relinquished By: (Signature)
-------	-------	------------------------------

Received By: (Signature)

Schiffe

Received By: (Signature)



4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

ANALYSIS REQUEST

[illegible]

Remarks:

RUSH 5 DAY

Price, Wayne, EMNRD

From: James Romero [jromero@giant.com]

Sent: Tue 8/30/2005 4:13 PM

To: James Romero; Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Foust, Denny, EMNRD

Cc: Steve Morris

Subject: RE: Spill Report (daily update for 8/

Attachments:

Daily update for 8/30/05

- 1) New techniques were used today in an effort to suck more oil and less water
- 2) Water is being drained from the water tank and is being put back into the api system
- 3) The oil tank will be pumped out later this week and oil reintroduced into the process
- 4) Conducted our second weekly grab sampled per NMED (tests results on the first sample have not been received)
- 5) visual inspection thru the night were good

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

From: James Romero

Sent: Monday, August 29, 2005 2:37 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/

Daily update for 8/29/05

- 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 wayne.price@state.nm.us
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 wayne.price@state.nm.us
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 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.

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 Division
1220 S. Saint Francis
Santa Fe, NM 87505
E-mail wayne.price@state.nm.us
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

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Price, Wayne, EMNRD

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

Daily update for 8/29/05

- 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 wayne.price@state.nm.us
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 wayne.price@state.nm.us
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 emergency 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.

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E-mail wayne.price@state.nm.us
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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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	
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	
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

Price, Wayne, EMNRD

From: James Romero [jromero@giant.com]
To: 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
Attachments: 0829104719_001.pdf(247KB)

Sent: Mon 8/29/2005 11:18 AM

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

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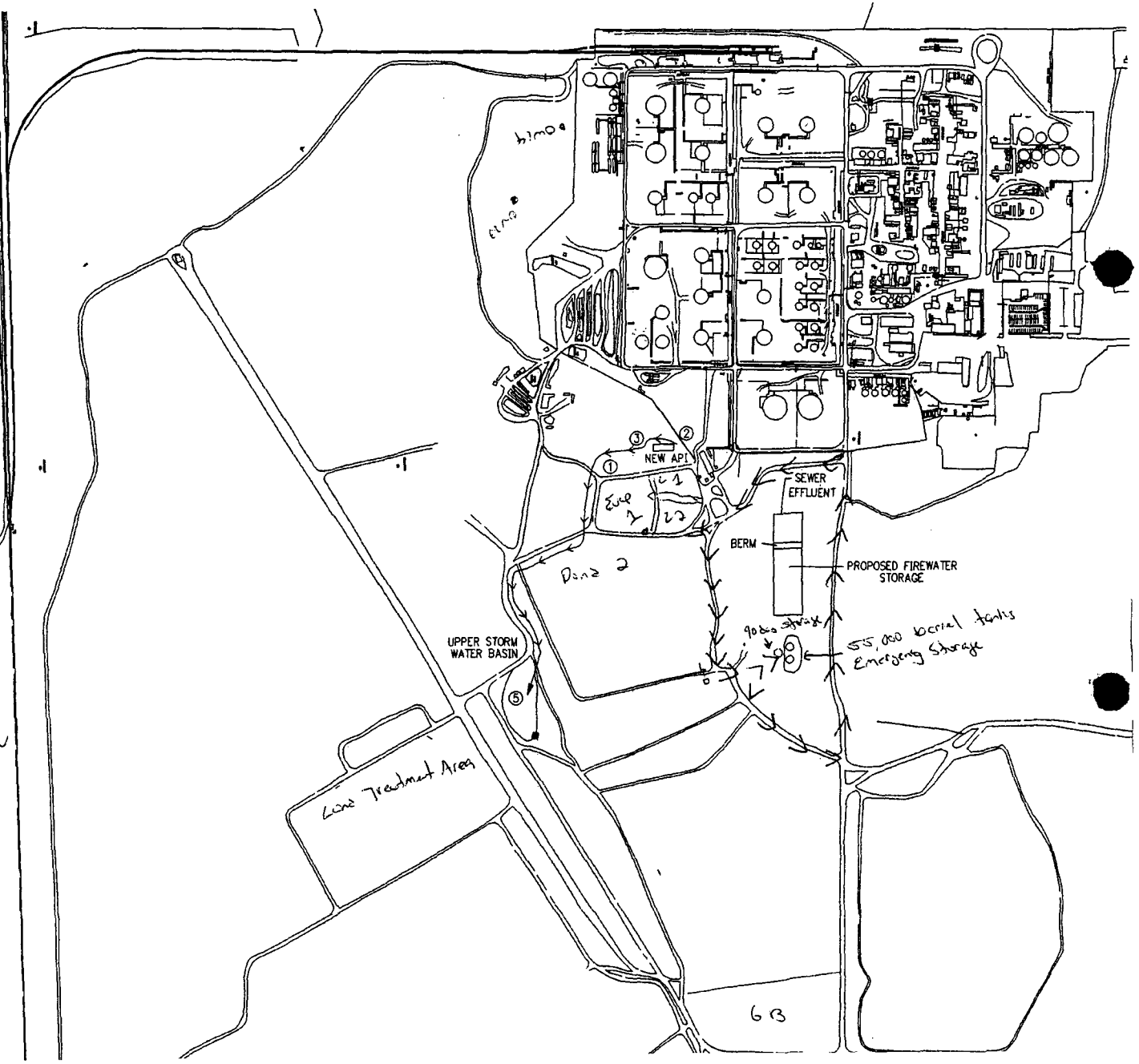
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←← Spill Flow

Truck Route



63

Price, Wayne, EMNRD

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

Sent: Fri 8/26/2005 11:14 AM

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

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Price, Wayne, EMNRD


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

Sent: Thu 8/25/2005 2:18 PM

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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Price, Wayne, EMNRD

From: James Romero [jromero@giant.com] **Sent:** Tue 8/23/2005 3:56 PM
To: James Romero; Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; Foust, Denny, EMNRD
Cc: Steve Morris
Subject: RE: Spill Report (daily update for 8/22/05 and 8/23/05)
Attachments:  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.

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Sent: Thursday, August 18, 2005 3:17 PM
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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
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-----Original Message-----

From: Price, Wayne, EMNRD [mailto:wayne.price@state.nm.us]
Sent: Thursday, August 18, 2005 7:30 AM
To: James Romero
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Tele: 505-476-3487
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Wayne, Hope:

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Toluene .35
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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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If you have any questions please feel free to call me anytime, James

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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

Wayne Price-Senior Environmental Engr.
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87505
E-mail wayne.price@state.nm.us
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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API AND POND CLEAN UP

22-Aug-05

Start

Stop

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

From: Monzeglio, Hope, NMENV
To: eriege@giant.com; James Romero [jromero@giant.com]
Cc: Cobrain, Dave, NMENV; Price, Wayne, EMNRD
Subject: Spill sampling
Attachments:

Sent: Mon 8/22/2005 2:10 PM

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

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Price, Wayne, EMNRD

From: James Romero [jromero@giant.com]

Sent: Mon 8/22/2005 2:01 PM

To: Monzeglio, Hope, NMENV; Price, Wayne, EMNRD

Cc:

Subject: Daily Report for August 19-21

Attachments:  [API Clean Up 21Aug05.xls\(24KB\)](#)  [API Clean Up 20Aug05.xls\(27KB\)](#)  [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.

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API AND POND CLEAN UP

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

API AND POND CLEAN UP

20-Aug-05

Start		Stop	
Truck 40	10:18AM		10:28AM
Truck 41	10:30AM		10:40AM
Truck 42	10:50AM		11:00AM
Truck 43	11:08AM		11:15AM
Truck 44	11:17AM		11:33AM
Truck 45	11:36AM		11:49AM
Truck 46	1:17PM		1:29PM
Truck 47	1:35PM		1:46PM
Truck 48	1:50PM		2:07PM
Truck 49	2:12PM		2:26PM
Truck 50	2:40PM		2:54PM
Truck 51	3:07PM		3:15PM
Truck 52	3:28PM		3:37PM
Truck 53	4:22PM		4:32PM
Truck 54	4:41PM		4:51PM
Truck 55	5:00PM		5:11PM
Truck 56	5:21PM		5:34PM
Truck 57	5:45PM		5:53PM
Truck 58	6:00PM		6:10PM
Truck 59	6:19PM		6:35PM
Truck 60	6:40PM		7:00PM

API AND POND CLEAN UP

19-Aug-05

Start

Stop

Truck 8		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

API AND POND CLEAN UP

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

From: Monzeglio, Hope, NMENV
To: 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.

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Phone: (505) 428-2545
Fax: (505)-428-2567
hope.monzeglio@state.nm.us

From: James Romero [jromero@giant.com]
To: 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:

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

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 wayne.price@state.nm.us
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 wayne.price@state.nm.us
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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However, as an interim measure, and with your approval, we are taking the following actions:

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

From: Price, Wayne, EMNRD
To: James Romero
Cc: Ed Rios; Ed Riege; Steve Morris; Johnny Sanchez; David Kirby
Subject: RE: Spill Report (daily update for 8/17/05)
Attachments:

Sent: Thu 8/18/2005 8:30 AM

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 wayne.price@state.nm.us
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)

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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

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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.
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E-mail wayne.price@state.nm.us
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To: James Romero; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'
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MTBE	88 ppb	60 ppb
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Toluene
Ethylbenzene

8.7 ppb
<2.5 ppb

76 ppb
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Subject: RE: Spill Report

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Price, Wayne, EMNRD

From: James Romero [jromero@giant.com]
To: Price, Wayne, EMNRD; Monzeglio, Hope, NMENV
Cc: Ed Rios; Ed Riege; Steve Morris; David Kirby
Subject: RE: Spill Report
Attachments:

Sent: Tue 8/16/2005 3:21 PM

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 wayne.price@state.nm.us
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 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.

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 Division
1220 S. Saint Francis
Santa Fe, NM 87505
E-mail wayne.price@state.nm.us
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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From: Ed Riege [eriege@giant.com]
To: Monzeglio, Hope, NMENV; Price, Wayne, EMNRD
Cc: Steve Morris; James Romero
Subject: RR Rack Lagoon
Attachments:

Sent: Tue 8/16/2005 12:18 PM

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, Wayne, EMNRD

From: Price, Wayne, EMNRD **Sent:** Tue 8/16/2005 9:00 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
Attachments:

Wayne Price-Senior Environmental Engr.
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87505
E-mail wayne.price@state.nm.us
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 wayne.price@state.nm.us
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,

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

- (1) Vac-trucks will be used to pump and clean out the aeration lagoons/API sump
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- (3) A chopper pump will be installed and has been ordered (replacement of old API pump)

LAB RESULTS	Lagoon 2	Evap Pond 1
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Price, Wayne, EMNRD

From: James Romero [jromero@giant.com]
To: Price, Wayne, EMNRD; Monzeglio, Hope, NMENV; 'foust.denny@state.nm.us'
Cc: Ed Riege; Steve Morris; Johnny Sanchez; Ed Rios
Subject: Spill Report
Attachments:

Sent: Mon 8/15/2005 5:12 PM

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.

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From: James Romero [jromero@giant.com]
To: 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 re-submit 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
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E-mail wayne.price@state.nm.us
Tele: 505-476-3487
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Price, Wayne, EMNRD

From: Price, Wayne, EMNRD
To: Jromero@Giant.com
Cc: Foust, Denny, EMNRD; Erieger@giant.com
Subject: Giant Ciniza API spill report
Attachments:

Sent: Fri 8/12/2005 3:08 PM

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 re-submit 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 wayne.price@state.nm.us
Tele: 505-476-3487
Fax: 505-4763462

Price, Wayne, EMNRD

From: Steve Morris [smorris@giant.com]
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:  [Well Depth to Water 2005.xls\(11KB\)](#)

Sent: Thu 8/11/2005 12:08 PM


<<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

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Price, Wayne, EMNRD

From: Ed Riege [eriege@giant.com]
To: Monzeglio, Hope, NMENV; Price, Wayne, EMNRD
Cc: James Romero; Steve Morris
Subject: FW: GWM-1
Attachments:  [GWM-1.xls\(43KB\)](#)

Sent: Wed 8/10/2005 11:29 AM

Sorry I missed that Hope. Here is Bills response and a corrected copy of GWM-1 boring log.

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

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 1

Precision Engineering Inc.
P.O. Box 422
Las Cruces, NM 88004
505-523-7674

File #: 03-118
Site: Ciniza
Boundry Wells

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

Log of Test Borings

Elevation: TBD
Date: 7/8/2004


[illegible]

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

LOGGED BY: NS

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

Price, Wayne, EMNRD

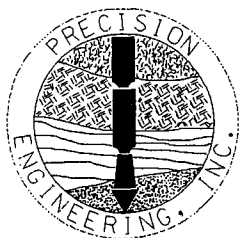
From: Ed Riege [eriege@giant.com]
To: Monzeglio, Hope, NMENV; Price, Wayne, EMNRD
Cc: Steve Morris; Ed Rios; James Romero
Subject: GWM-1.xls (corrected)
Attachments:  [GWM-1.xls\(39KB\)](#)

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

<<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

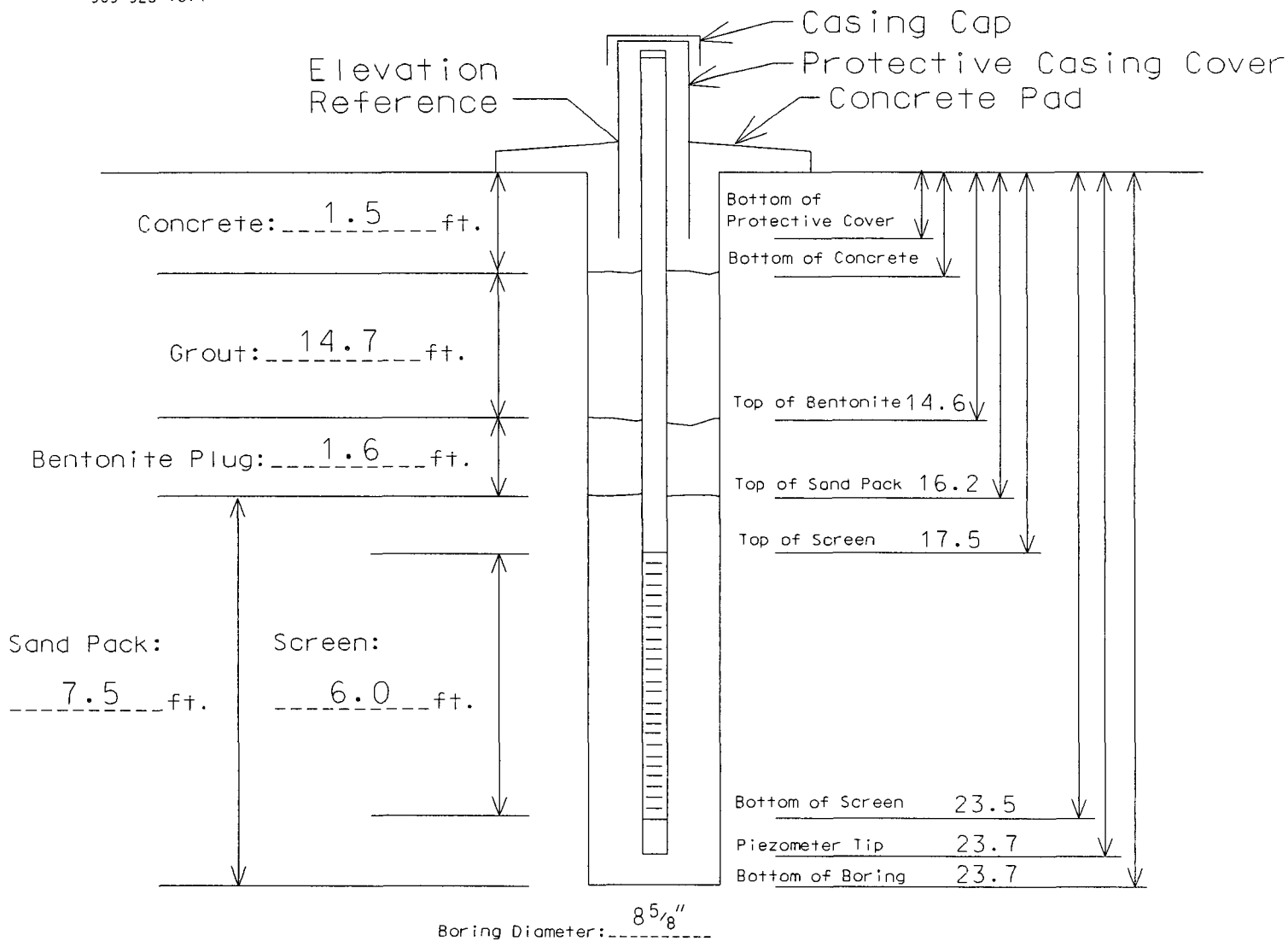
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505-523-7674

Installation Diagram

Monitoring Well No. GWM-1



Sand Type: 20-40 SILICA

Bollards, Type/Size: NONE INSTALLED

Bentonite: 3/8" CHIPS

Screen Type/Size: 2", #10 SLOT, SCH 40 PVC

Cement/Grout: 6% BENTONITE/CEMENT

Riser Type/Size: 2", SCH 40 PVC

Water: NONE

Locking Expandable Casing Plug? YES

Site Northing: TBD

Other: ---

Bottom Cap Used? YES

Site Easting: TBD

Project #: 03-118

Project Name: POND 1 GROUNDWATER OBSERVATION

Elevation: TBD

Sheet: 1 OF 2
Bore Point: SW corner of Pond 1

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

File #: 03-118
Site: Ciniza
Boundry Wells

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

Log of Test Borings

Elevation: TBD
Date: 7/8/2004

[illegible]

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

LOGGED BY: NS

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

Sheet: 2 OF 2
Bore Point: SW corner of Pond 1

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

File #: 03-118
Site: Ciniza
Boundry Wells

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

Log of Test Borings

Elevation: TBD
Date: 7/8/2004

LAB #	DEPTH	BLOW COUNT	PLOT	SCALE	MATERIAL CHARACTERISTICS (MOISTURE, CONDITION, COLOR, ETC.)	%M	LL	PI	CLASS.
	21.5-24.0		///////// /////////	22.0	Sand, gravelly				
	22.5-24.0		///////// ///////// /////////		Petrified Forest Formation, Painted Desert Member, Mudstone, weathered, red-purple, reduction spots, hard, moist, blocky/crumbly				
	24.0			25.0	T.D.				
					Screened interval 18-24'				
				30.0					
				35.0					
				40.0					
					Clay, black, wet,				

SIZE & TYPE OF BORING: 4-1/4" ID Hollow Stemmed Auger

LOGGED BY: NS

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 diagram, 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, Wayne, EMNRD

From: Price, Wayne, EMNRD
To: 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
Attachments:

Sent: Mon 8/8/2005 2:38 PM

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 wayne.price@state.nm.us
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
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

310 spill
Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Giant Industries, Inc.	Contact	James Romero/Steve Morris
Address	Rt. 3, Box 7	Telephone No.	505-722-3833
Facility Name	Giant Industries, Inc.	Facility Type	Refinery

Surface Owner	Giant Industries, Inc.	Mineral Owner	Giant Industries, Inc.	Lease No.	
---------------	------------------------	---------------	------------------------	-----------	--

LOCATION OF RELEASE

Unit Letter	Section 33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 30° 29' 30" Longitude 108° 24' 40"

NATURE OF RELEASE

Type of Release	Wastewater	Volume of Release	1,152,000 gal	Volume Recovered	Ongoing
Source of Release	API	Date and Hour of Occurrence	Est. 1-3 days prior to sampling Est. (Aug 7, 2005)	Date and Hour of Discovery	8/15/05 Received Lab Results 8/15/05 Notified OCD/NMENV
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Phone call to Wayne Price, Denny Foust (OCD), and Hope Monzeglio		
By Whom?	James Romero and Steve Morris	Date and Hour	8/9/05 Sample Date	8/12/05 Lab Results	
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.* N/A


Describe Cause of Problem and Remedial Action Taken.*

The API sump pump was not working properly (20-30% capacity) which resulted in a reportable discharge into our aeration lagoons/ponds
***See attached Remediation Plan**

Describe Area Affected and Cleanup Action Taken.

***See attached Remediation Plan**

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 		OIL CONSERVATION DIVISION	
Printed Name: JAMES ROMERO		Approved by District Supervisor:	
Title: Environmental Engineer		Approval Date:	Expiration Date:
E-mail Address: Jromero@Giant.com		Conditions of Approval:	
Date: Phone: 505-722-0227 <u>Aug 17, 2005</u>		Attached <input checked="" type="checkbox"/>	

* Attach Additional Sheets If Necessary

REMEDIATION PLAN

API/LAGOON/POND SPILL

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 15th. 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 inclement weather conditions, and associated safety concerns, work may 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 as 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 and forwarded to OCD.

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







COVER LETTER

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

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



Hall Environmental Analysis Laboratory

Date: 08-Dec-04

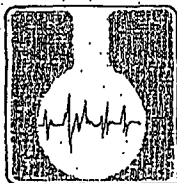
CLIENT: Giant Refining Co
Lab Order: 0411219
Project: Evap. Pond #2 Inlet 111904
Lab ID: 0411219-01

Client Sample ID: Pond #2 Inlet
Collection Date: 11/19/2004 11:00:00 AM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	110	100		µg/L	40	11/24/2004 3:19:09 PM
Benzene	24	20		µg/L	40	11/24/2004 3:19:09 PM
Toluene	72	20		µg/L	40	11/24/2004 3:19:09 PM
Ethylbenzene	20	20		µg/L	40	11/24/2004 3:19:09 PM
Xylenes, Total	110	20		µg/L	40	11/24/2004 3:19:09 PM
Surr: 4-Bromofluorobenzene	103	74-118		%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: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	12/2/2004 9:20:49 AM
Barium	0.14	0.020		mg/L	1	12/2/2004 9:20:49 AM
Cadmium	ND	0.0020		mg/L	1	12/2/2004 9:20:49 AM
Chromium	0.012	0.0060		mg/L	1	12/2/2004 9:20:49 AM
Lead	0.0075	0.0050		mg/L	1	12/2/2004 9:20:49 AM
Selenium	ND	0.050		mg/L	1	12/7/2004 8:56:19 AM
Silver	ND	0.0050		mg/L	1	12/2/2004 9:20:49 AM
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	3800	200		mg/L	4	11/24/2004

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

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



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
attn: ANDY FREEMAN
4901 HAWKINS NE, SUITE D
ALBUQUERQUE NM 87109-4372

Explanation of codes	
B	analyte detected in Method Blank
E	result is estimated
H	analyzed out of hold time
N	tentatively identified compound
S	subcontracted
1-8	see footnote

Assaigai Analytical Laboratories, Inc.
Certificate of Analysis

STANDARD

Client: HALL ENVIRONMENTAL
Project: EVAP POND2
Order: 0411487 HAL03 Receipt: 11-19-04

William P. Bieve
William P. Bieve, President of Assaigai Analytical Laboratories, Inc.

Sample: POND #2 INLET Collected: 11-19-04 11:00:00 By:
Matrix: AQUEOUS

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Prep Date	Run Date
0411487-01A			EPA 405.1 Biochemical Oxygen Demand					By: CMS		
BOB04148	WC.2004.3313.18		Biochemical Oxygen Demand	1246	mg/L	1	2		11-19-04	11-24-04
0411487-01B			EPA 410.1 Chemical Oxygen Demand					By: NJL		
WC004040	WC.2004.3367.14		Chemical Oxygen Demand	2270	mg / L	10	10		12-03-04	12-06-04

Unless otherwise noted, all samples were received in acceptable condition and all sampling was performed by client or client representative. Sample result of ND indicates Not Detected, ie result is less than the sample specific Detection Limit. Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. All results relate only to the items tested. Any miscellaneous workorder information or footnotes will appear below.

Analytical results are not corrected for method blank or field blank contamination.

Hall Environmental Analysis Laboratory

Date: 08-Dec-04

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

QC SUMMARY REPORT

Method Blank

Sample ID	Reagent Blank 5m	Batch ID: R13881	Test Code: SW8021	Units: µg/L	Analysis Date	11/24/2004 8:25:04 AM	Prep Date				
Client ID:			Run ID: PIDFID_041124A		SeqNo:	322965					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	12/2/2004	Prep Date	12/2/2004			
Client ID:			Run ID: MI-LA254_041202A		SeqNo:	324028					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.0002									

Sample ID	MB-6980	Batch ID: 6980	Test Code: SW6010A	Units: mg/L	Analysis Date	12/2/2004 9:05:17 AM	Prep Date	12/1/2004			
Client ID:			Run ID: ICP_041202A		SeqNo:	323941					
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

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: 0411219
Project: 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	12/1/2004		
Client ID:		Run ID:	ICP_041207A	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	11/23/2004		
Client ID:		Run ID:	WC_041124C	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
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

Hall Environmental Analysis Laboratory

Date: 08-Dec-04

CLIENT: Giant Refining Co
Work Order: 0411219
Project: 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	Analysis Date	11/24/2004 2:19:21 PM	Prep Date				
Client ID:		Run ID: PIDFID_041124A			SeqNo:	323077					
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 Date	12/2/2004	Prep Date	12/2/2004			
Client ID:		Run ID:	MI-LA254_041202A		SeqNo:	324033					
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 Date	12/2/2004			
Client ID:		Run ID:	MI-LA254_041202A		SeqNo:	324034					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004943	0.0002	0.005	0	98.9	75.2	134	0.00542	9.21	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: 0411219
 Project: 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	12/2/2004 9:08:09 AM	Prep Date	12/1/2004			
Client ID:		Run ID:	ICP_041202A		SeqNo:	323942					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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 Date	12/1/2004			
Client ID:		Run ID:	ICP_041202A		SeqNo:	323943					
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	

Sample ID	LCS-6980	Batch ID: 6980	Test Code: SW6010A	Units: mg/L	Analysis Date	12/7/2004 8:02:19 AM	Prep Date	12/1/2004			
Client ID:		Run ID:	ICP_041207A		SeqNo:	324782					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	0.5304	0.05	0.5	0.0209	102	80	120	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: 0411219
Project: Evap. Pond #2 Inlet 111904

QC SUMMARY REPORT
Laboratory Control Spike Duplicate

Sample ID	LCSD-6980	Batch ID: 6980	Test Code: SW6010A	Units: mg/L	Analysis Date	12/7/2004 8:04:44 AM	Prep Date	12/1/2004				
Client ID:			Run ID: ICP_041207A		SeqNo:	324783						
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-6956	Batch ID: 6956	Test Code: E160.1	Units: mg/L	Analysis Date	11/24/2004	Prep Date	11/23/2004				
Client ID:			Run ID: WC_041124C		SeqNo:	323023						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids		982	50	1000	0	98.2	80	120	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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

Work Order Number 0411219

Received by AT

Checklist completed by

Signature

Date

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A	<input checked="" type="checkbox"/>

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 _____

Client: <i>Giant Refining</i>	Project Name: <i>Evap Pond # 2</i>
<i>Company - Arizona</i>	<i>Inlet 111904</i>
Address: <i>Route 3 Box 7</i>	Project #:
<i>Gallup, NM 87301</i>	
	Project Manager:
	<i>Steve Morris</i>
Phone #: <i>505 722 3833</i>	Sampler: <i>Steve Morris</i>
Fax #: <i>505 722 0210</i>	Samples Cold?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

[illegible][illegible]

Remarks:

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,

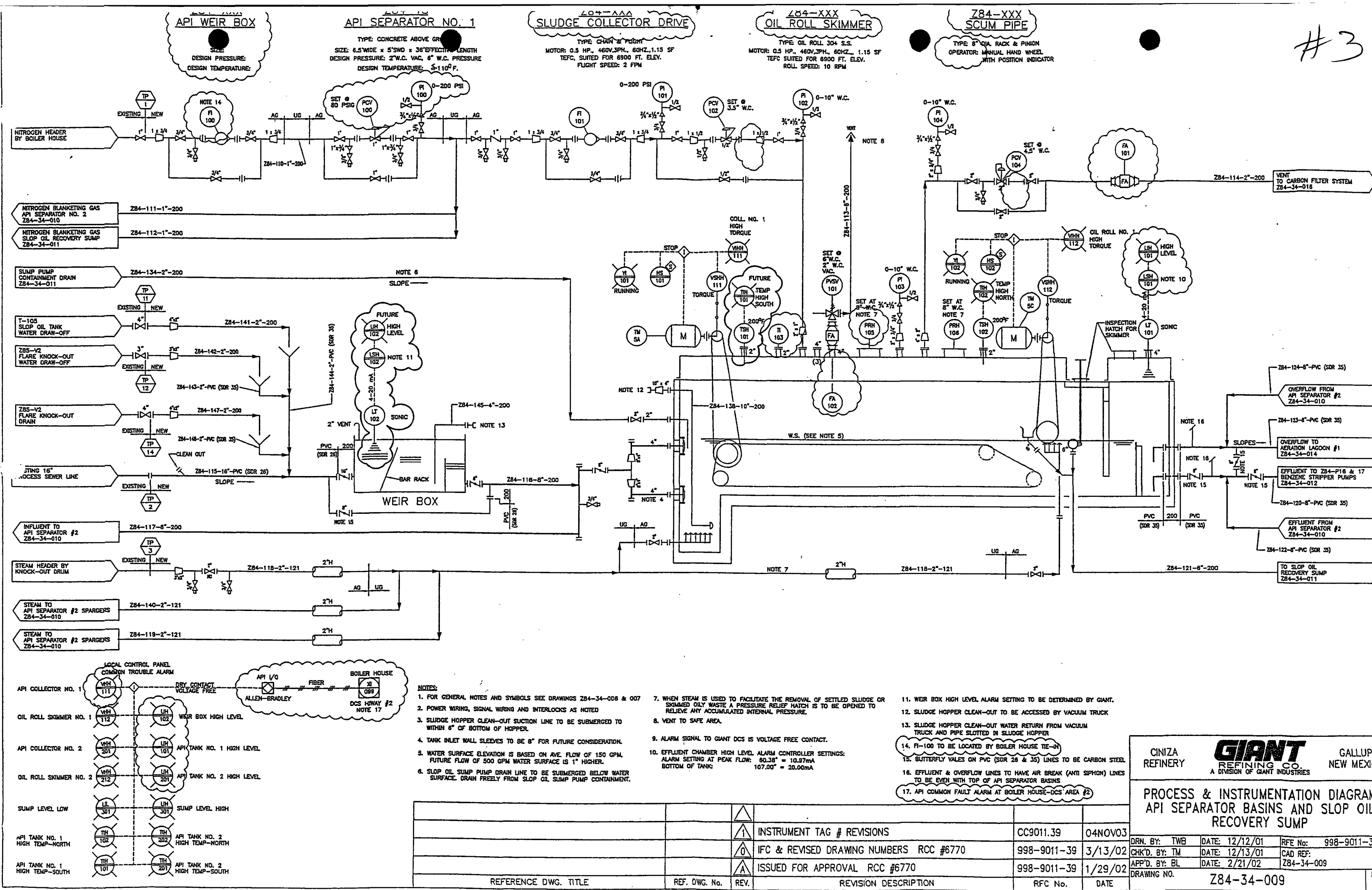
As we discussed via telephone today, our API pump motor is not working properly (20-30% capacity) which resulted in a reportable discharge into our aeration lagoons. Samples were gathered and lab results were received today on Lagoon 2, and Evap Pond 1 (see below). I will follow up this email with a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

#3



- NOTES:
1. FOR GENERAL NOTES AND SYMBOLS SEE DRAWINGS Z84-34-008 & 007
 2. POWER WIRING, SIGNAL WIRING AND INTERLOCKS AS NOTED
 3. SLUDGE HOPPER CLEAN-OUT SUCTION LINE TO BE SUBMERGED TO WITHIN 6" OF BOTTOM OF HOPPER.
 4. TANK INLET WALL SLEEVES TO BE 8" FOR FUTURE CONSIDERATION.
 5. WATER SURFACE ELEVATION IS BASED ON AVE. FLOW OF 150 GPM. FUTURE FLOW OF 500 GPM WATER SURFACE IS 1" HIGHER.
 6. SLOP OIL SUMP PUMP DRAIN LINE TO BE SUBMERGED BELOW WATER SURFACE. DRAIN FREELY FROM SLOP OIL SUMP PUMP CONTAINMENT.
 7. WHEN STEAM IS USED TO FACILITATE THE REMOVAL OF SETTLED SLUDGE OR SKIMMED OILY WASTE A PRESSURE RELIEF HATCH IS TO BE OPENED TO RELIEVE ANY ACCUMULATED INTERNAL PRESSURE.
 8. VENT TO SAFE AREA.
 9. ALARM SIGNAL TO GIANT DCS IS VOLTAGE FREE CONTACT.
 10. EFFLUENT CHAMBER HIGH LEVEL ALARM CONTROLLER SETTINGS:
ALARM SETTING AT PEAK FLOW: 60.38" = 10.97mA
BOTTOM OF TANK: 107.00" = 20.00mA
 11. WEIR BOX HIGH LEVEL ALARM SETTING TO BE DETERMINED BY GIANT.
 12. SLUDGE HOPPER CLEAN-OUT TO BE ACCESSED BY VACUUM TRUCK
 13. SLUDGE HOPPER CLEAN-OUT WATER RETURN FROM VACUUM TRUCK AND PIPE SLOTTED IN SLUDGE HOPPER
 14. FI-100 TO BE LOCATED BY BOILER HOUSE TIE-IN
 15. BUTTERFLY VALVES ON PVC (SDR 28 & 35) LINES TO BE CARBON STEEL
 16. EFFLUENT & OVERFLOW LINES TO HAVE AIR BREAK (ANTI SIPHON) LINES TO BE EVEN WITH TOP OF API SEPARATOR BASINS
 17. API COMMON FAULT ALARM AT BOILER HOUSE-DCS AREA #2

REFERENCE DWG. TITLE	REF. DWG. No.	REV.	REVISION DESCRIPTION	RFC No.	DATE
		1	INSTRUMENT TAG # REVISIONS	CC9011.39	04NOV03
		0	IFC & REVISED DRAWING NUMBERS RCC #6770	998-9011-39	3/13/02
		A	ISSUED FOR APPROVAL RCC #6770	998-9011-39	1/29/02

CINIZA
REFINERY

GIANT
REFINING CO.
A DIVISION OF GIANT INDUSTRIES

GALLUP
NEW MEXICO

PROCESS & INSTRUMENTATION DIAGRAM
API SEPARATOR BASINS AND SLOP OIL
RECOVERY SUMP

DRN. BY: TWB	DATE: 12/12/01	RFE No: 998-9011-3
CHK'D. BY: TM	DATE: 12/13/01	CAD REF:
APP'D. BY: BL	DATE: 2/21/02	Z84-34-009
DRAWING NO.	Z84-34-009	

Aeration Lagoon / Evaporation Pond / Clean Up and Remediation

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 inclement 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.

6

Riley Industrial Services, Inc.

New Mexico and
Four Corners Area Operations

ENVIRONMENTAL MANAGEMENT
SYSTEM

APRIL 2005

Price, Wayne, EMNRD

From: Monzeglio, Hope, NMENV
To: Ed Riege
Cc: Price, Wayne, EMNRD
Subject: RE: RR Rack Lagoon
Attachments:

Sent: Tue 8/16/2005 1:14 PM

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.

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1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	Giant Industries, Inc.	Contact	James Romero/Steve Morris
Address	Rt. 3, Box 7	Telephone No.	505-722-3833
Facility Name	Giant Industries, Inc.	Facility Type	Refinery
Surface Owner	Giant Industries, Inc.	Mineral Owner	Giant Industries, Inc.
		Lease No.	

LOCATION OF RELEASE

Unit Letter	Section 33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 30° 29' 30" Longitude 108° 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?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Phone call to Wayne Price, Denny Foust (OCD), and Hope Monzeglio		
By Whom?	James Romero and Steve Morris	Date and Hour	8/9/05	Sample Date	8/12/05
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Lab Results	If YES, Volume Impacting the Watercourse.		

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 gallons of wastewater onto the ground. The discharge was caused by a combination of heavy rains (>1") and debris blocking the process lines. The second API bay (which was down for maintenance) 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 berm near the API Separator. All flows were contained with the constructed berm area or within the upper storm water basin. An estimated 800 gallons of rainwater and waster water was captured and pumped via vac truck and reintroduced to the API Separator. Impacted soils/vegetation were piled on/in plastic and lab samples taken for lab analysis.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 		OIL CONSERVATION DIVISION	
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 <input checked="" type="checkbox"/>	
Date: 8/3/05 Phone: 505-722-0227			

* Attach Additional Sheets If Necessary

REMEDIATION PLAN

SPILL 8/15/05

Background: 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 was 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

1ST SPILL

MEMORANDUM

Date: August 23, 2005

TO: Denny Foust, Wayne Price, Hope Monzeglio

FROM: James Romero

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

RECEIVED
AUG 25 2005
OIL CONSERVATION
DIVISION

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
4625 N. French Dr., Hobbs, NM 88240
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State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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Revised October 10, 2003

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District Office in accordance
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Release Notification and Corrective Action

OPERATOR

☒ Amended Report ☐ Final Report

Name of Company Giant Industries, Inc.	Contact James Romero/Steve Morris
Address Rt. 3, Box 7	Telephone No. 505-722-3833
Facility Name Giant Industries, Inc.	Facility Type Refinery

Surface Owner Giant Industries, Inc.	Mineral Owner Giant Industries, Inc.	Lease No.
--------------------------------------	--------------------------------------	-----------

LOCATION OF RELEASE

Unit Letter	Section 33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 30° 29' 30" Longitude 108° 24' 40"

NATURE OF RELEASE

Type of Release Oily Water (wastewater)	Volume of Release 756 gallons	Volume Recovered 0
Source of Release API Separator pump valve	Date and Hour of Occurrence 8/3/08 @ 5-6 am	Date and Hour of Discovery 8/3/05 @ 6am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Phone call to Wayne Price, Denny Foust (OCD), and Hope Monzeglio	
By Whom? James Romero and Steve Morris	Date and Hour 8/9/05 Sample Date 8/12/05 Lab Results	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.* N/A

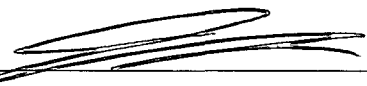
Describe Cause of Problem and Remedial Action Taken.*

The API separator pump valve broke causing approximately 756 gallons of wastewater containing 6 barrels of oil. The pump was immediately taken out of service and a work orders issued for new valve and clean up of impacted soil

Describe Area Affected and Cleanup Action Taken.

Approximately 756 gallons of wastewater was discharged traveling 1700' into the upper storm water basin. Work orders were immediately issued to remove impacted soil and repair API valve. All Impacted soil will be temporarily stored on plastic lining and tested for contaminants.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 		OIL CONSERVATION DIVISION	
Printed Name: JAMES ROMERO		Approved by District Supervisor:	
Title: Environmental Engineer		Approval Date:	Expiration Date:
E-mail Address: Jromero@Giant.com		Conditions of Approval:	
Date: 8/3/05 Phone: 505-722-0227		Attached <input checked="" type="checkbox"/>	

* Attach Additional Sheets If Necessary

District I
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Revised October 10, 2003

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Release Notification and Corrective Action

OPERATOR

☒ AMENDED Report ☐ Final Report

Name of Company	Giant Industries, Inc.	Contact	James Romero/Steve Morris
Address	Rt. 3, Box 7	Telephone No.	505-722-3833
Facility Name	Giant Industries, Inc.	Facility Type	Refinery
Surface Owner	Giant Industries, Inc.	Mineral Owner	Giant Industries, Inc.
		Lease No.	

LOCATION OF RELEASE

Unit Letter	Section 33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 30° 29' 30" Longitude 108° 24' 40"

NATURE OF RELEASE

Type of Release	Oily Water	Volume of Release	756 Gallons	Volume Recovered	756 Gallons
Source of Release	API Motor broke a valve	Date and Hour of Occurrence	8/3/05 @ 5-6am	Date and Hour of Discovery	8/3/05 @ 6am
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Phone call to Wayne Price, Denny Foust (OCD), and Hope Monzeglio			
By Whom?	James Romero and Steve Morris	Date and Hour 8/3/05 @ 9:00 am			
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.* N/A

Describe Cause of Problem and Remedial Action Taken.* **The API Pump broke a valve which caused approximately 756 gallons of oily water containing approximately 6 barrels of oil. The pump was immediately taken out of service and a work orders issued fro pump and clean up of impacted soil.**

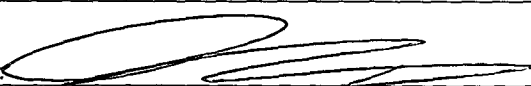
***See attached Remediation Plan**

Describe Area Affected and Cleanup Action Taken.*

Approximately 6 barrels of oily water was discharged which traveled 1700 feet into a storm-water basin. Work orders were immediately issued remove the impacted soil. Impacted soil will be temporarily stored on plastic lining and tested for contaminants. Lab results on soil samples have not been received as of the above date.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

OIL CONSERVATION DIVISION

Signature: 	Approved by District Supervisor:		
Printed Name: JAMES ROMERO			
Title: Environmental Engineer	Approval Date:	Expiration Date:	
E-mail Address: Jromero@Giant.com	Conditions of Approval:		Attached <input checked="" type="checkbox"/>
Date: 8/15/05 AMENDED TO 8/3/05 REPORT Phone: 505-722-3833			

* Attach Additional Sheets If Necessary

REMEDICATION 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:

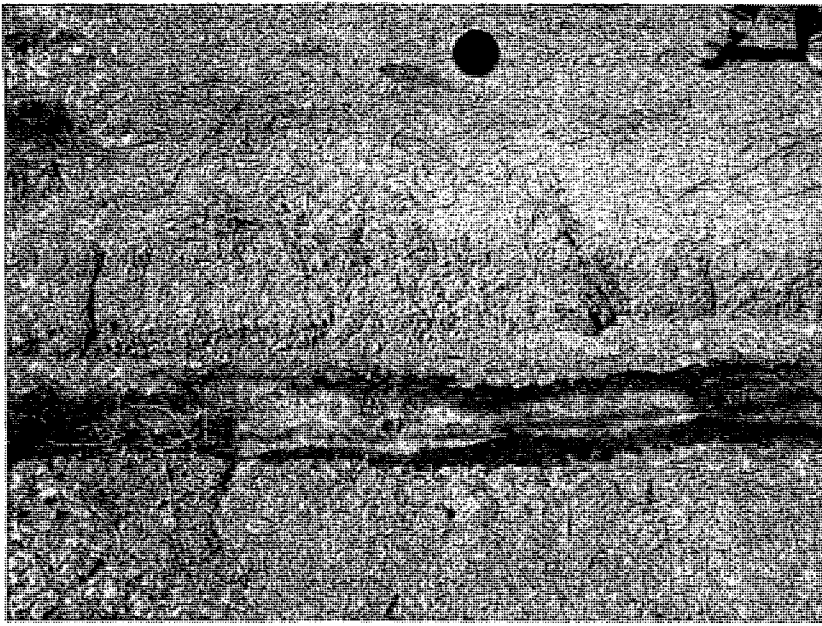
An estimated 756 gallons of water and oil were discharged into the environment traveling approximately 1700' (see attachment 1). The spill was contained within the property and no waterways were impacted (see attachment 2). All impacted soil was removed with a front-end loader and stored on plastic lining (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

RECOMMENDED ACTION:

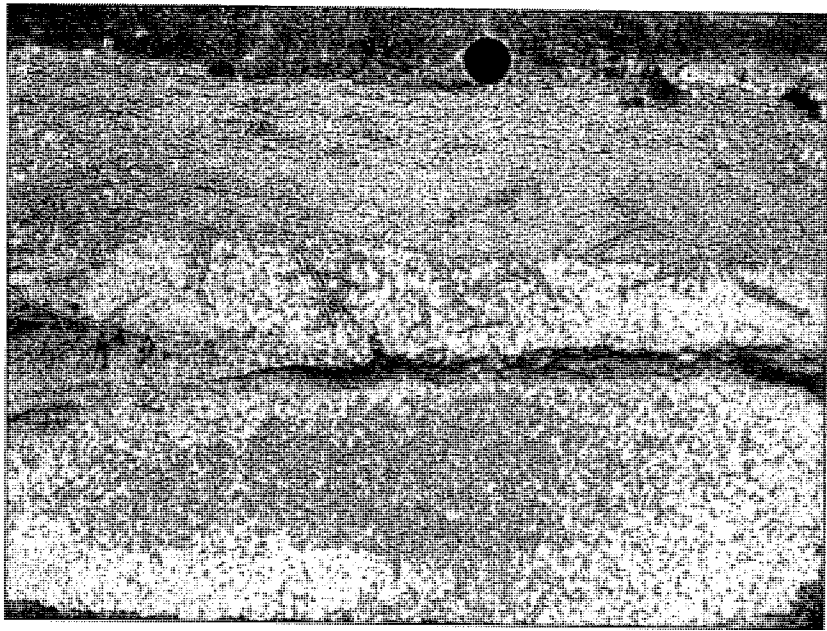
Soil samples were gathered to determine if the soil is contaminated (i.e., Benzene). If lab results show any contaminants, the soil will be disposed as hazardous waste. However, if lab results show no contamination, and soil meets the requirements in our OCD permit, it will be place on the OCD landfill.



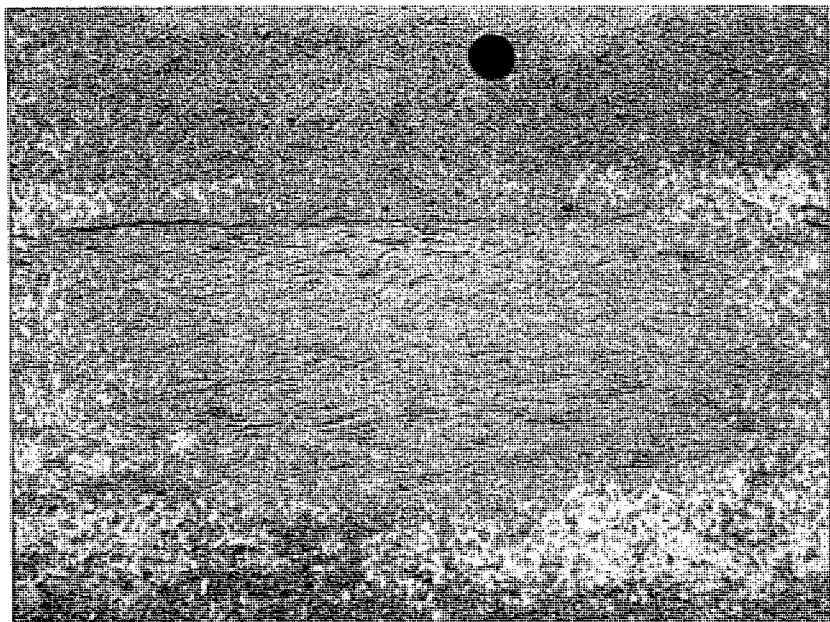
Attachment # 1



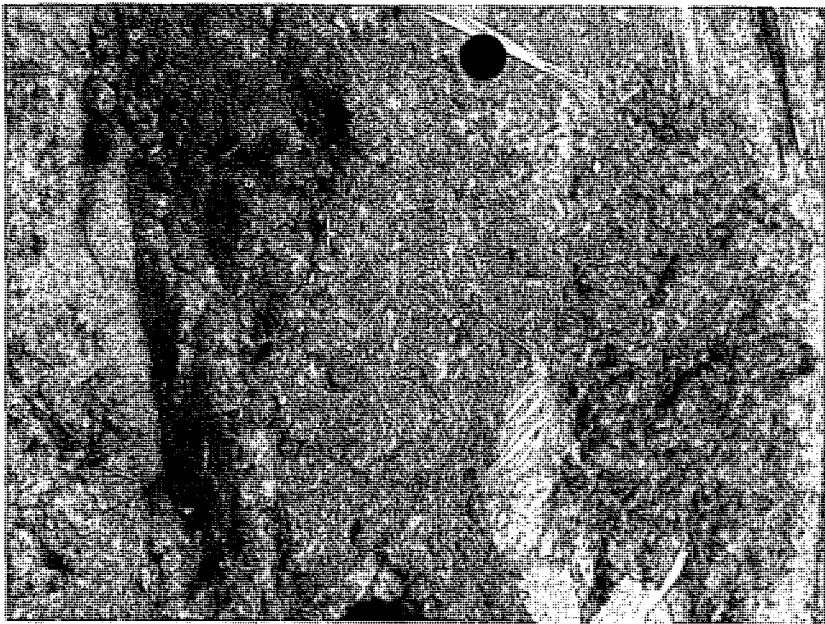
Attachment # 2



Attachment # 3



Attachment # 4



Attachment # 5
Impacted Soil Stockpiles

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
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District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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Energy Minerals and Natural Resources

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OIL CONSERVATION

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Giant Industries, Inc.	Contact James Romero/Steve Morris	
Address Rt. 3, Box 7	Telephone No. 505-722-3833	
Facility Name Giant Industries, Inc.	Facility Type Refinery	
Surface Owner Giant Industries, Inc.	Mineral Owner Giant Industries, Inc.	Lease No.

LOCATION OF RELEASE

Unit Letter	Section 33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	---------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 30° 29' 30" Longitude 108° 24' 40"

NATURE OF RELEASE

Type of Release Oily Water	Volume of Release 8 barrels	Volume Recovered Impacted soil
Source of Release API Motor broke a valve	Date and Hour of Occurrence 8/3/05 @ 5-6am	Date and Hour of Discovery 8/3/05 @ 6am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Phone call to Wayne Price and Denny Foust	
By Whom? James Romero and Steve Morris	Date and Hour 8/3/05 @ 9:00 am	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*


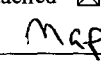
No watercourse was impacted

Describe Cause of Problem and Remedial Action Taken.* The API Pump broke a valve which caused approximately 6 barrels of oily water to be discharge onto the ground. The pump was immediately taken out of service and a work order issued.

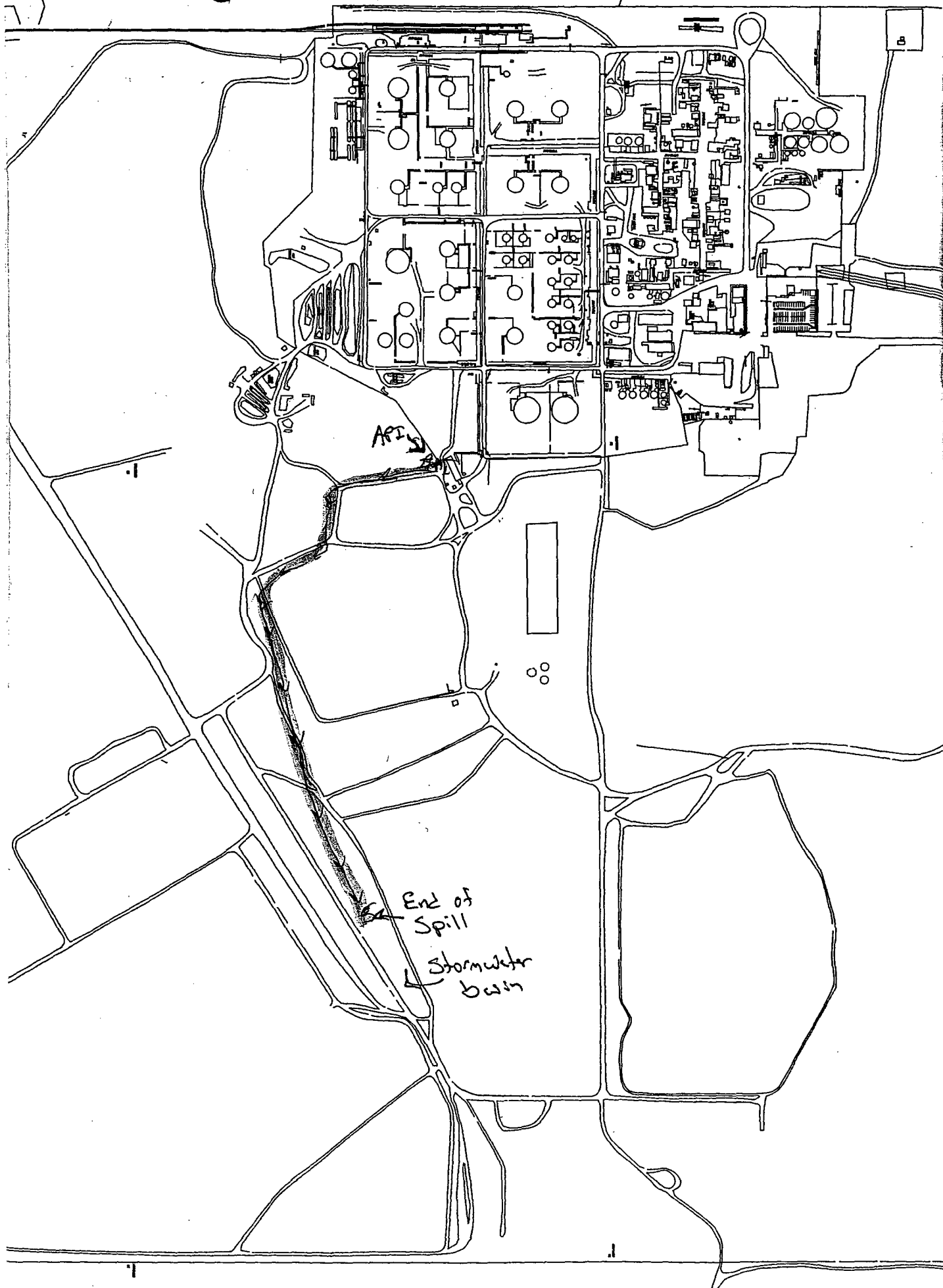
Describe Area Affected and Cleanup Action Taken.*

Approximately 6 barrels of oily water was discharged which traveled 1700 feet into a storm-water basin (see attached map). Work orders were immediately issued remove the impacted soil. Impacted soil will be temporarily stored on plastic lining and tested for contaminants.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 		OIL CONSERVATION DIVISION	
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 <input checked="" type="checkbox"/>
Date: 8/3/05	Phone: 505-722-3833		

* Attach Additional Sheets If Necessary



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Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Giant Refining Company - Ciniza	Contact Stephen C. Morris
Address Route 3 Box 7 Gallup, NM 87301	Telephone No. 505-722-3833
Facility Name Giant Refining Company - Ciniza Refinery	Facility Type Oil Refinery

Surface Owner Giant Industries, Inc.	Mineral Owner Giant Industries, Inc.	Lease No.
--------------------------------------	--------------------------------------	-----------

LOCATION OF RELEASE

Unit Letter	Section 23 & 33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	--------------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 35° 29' 30" Longitude 108° 24' 40"

NATURE OF RELEASE

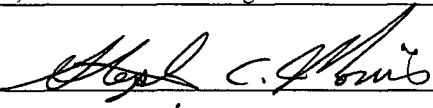
Type of Release Diesel spill	Volume of Release 630 gallons	Volume Recovered 630 gallons
Source of Release: Diesel marketing tank #1	Date and Hour of Occurrence 7/20/05 1935 hrs.	Date and Hour of Discovery 7/20/05 1935 hrs.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Wayne Price and Steve Hayden	
By Whom? Stephen C. Morris	Date and Hour 7/21/05 0930 hrs.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* An electrical step-down unit failed causing the auto fill circuit to experience a malfunction which allowed the diesel marketing tank #1 to over fill.
Tank farm operators shut down the pump and blocked in the valve to tank #1. They also verified that the spill was contained in the bermed area at the marketing tanks. A work order was written and clean up of the oily soil began at about 0800 hrs. 7/21/05. Soil is to be placed in OCD land farm onsite.

Describe Area Affected and Cleanup Action Taken.*
The affected area is the bermed portion of the Ciniza marketing tanks.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOC marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOC acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 		OIL CONSERVATION DIVISION	
Printed Name: Stephen C. Morris		Approved by District Supervisor:	
Title: ENV. ENGINEER		Approval Date:	Expiration Date:
E-mail Address: smorris@giant.com		Conditions of Approval:	
Date: 7-21-05 Phone: 505 722 0258		Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED

JUL 26 2005

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Giant Refining Company - Ciniza	Contact Stephen C. Morris
Address Route 3 Box 7 Gallup, NM 87301	Telephone No. 505-722-3833
Facility Name Giant Refining Company - Ciniza Refinery	Facility Type Oil Refinery

Surface Owner Giant Industries, Inc.	Mineral Owner Giant Industries, Inc.	Lease No.
--------------------------------------	--------------------------------------	-----------

LOCATION OF RELEASE

Unit Letter	Section 23 & 33	Township 15N	Range 15W	Feet from the	North/South Line	Feet from the	East/West Line	County McKinley
-------------	--------------------	-----------------	--------------	---------------	------------------	---------------	----------------	--------------------

Latitude 35° 29' 30" Longitude 108° 24' 40"

NATURE OF RELEASE

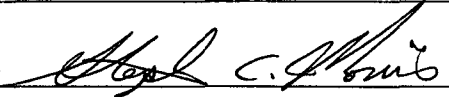
Type of Release Diesel spill	Volume of Release 630 gallons	Volume Recovered 630 gallons
Source of Release: Diesel marketing tank #1	Date and Hour of Occurrence 7/20/05 1935 hrs.	Date and Hour of Discovery 7/20/05 1935 hrs.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Wayne Price and Steve Hayden	
By Whom? Stephen C. Morris	Date and Hour 7/21/05 0930 hrs.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* An electrical step-down unit failed causing the auto fill circuit to experience a malfunction which allowed the diesel marketing tank #1 to over fill.
Tank farm operators shut down the pump and blocked in the valve to tank #1. They also verified that the spill was contained in the bermed area at the marketing tanks. A work order was written and clean up of the oily soil began at about 0800 hrs. 7/21/05. Soil is to be placed in OCD land farm onsite.

Describe Area Affected and Cleanup Action Taken.*
The affected area is the bermed portion of the Ciniza marketing tanks.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Stephen C. Morris	Approved by District Supervisor:		
Title: ENV. ENGINEER	Approval Date:	Expiration Date:	
E-mail Address: smorris@giant.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 7-21-05	Phone: 505 722 0258		

* Attach Additional Sheets If Necessary



COVER LETTER

July 05, 2005

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,

A handwritten signature in black ink, appearing to read "Andy Freeman", written over a horizontal line.

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



Hall Environmental Analysis Laboratory

Date: 05-Jul-05

CLIENT: Giant Refining Co
Lab Order: 0506293
Project: GWM-1-2nd Qtr. 2005
Lab ID: 0506293-01

Client Sample ID: GWM-1-2Q-05
Collection Date: 6/28/2005 12:30:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
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: 4-Bromofluorobenzene	101	83.3-121		%REC	5	6/30/2005 7:39:06 PM

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

Hall Environmental Analysis Laboratory

Date: 05-Jul-05

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

QC SUMMARY REPORT

Method Blank

Sample ID	Reagent Blank 5m	Batch ID: R15863	Test Code: SW8021	Units: µg/L	Analysis Date	6/30/2005 10:30:22 AM	Prep Date				
Client ID:		Run ID: PIDFID_050630A			SeqNo:	376231					
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 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: 05-Jul-05

CLIENT: Giant Refining Co
Work Order: 0506293
Project: 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 Date	6/30/2005 12:03:37 PM	Prep Date				
Client ID:		Run ID: PIDFID_050630A			SeqNo:	376239					
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			
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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

6/30/2005

Work Order Number 0506293

Received by AT

Checklist completed by

Signature

Date

6/30/05

Matrix

Carrier name FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	

Container/Temp Blank temperature?

5°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

Client: GIANT REFINING COMPANY
CINIZA

Address: Route 3 Box 7
Gallup, NM 87301

Phone #: 505-722-3833
Fax #: 505-722-0310

NELAC ☐ USACE ☐

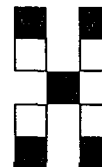
Other:

Project Name: GWM-1-2nd QTR 2005

Project #:

Project Manager:
ED RIEGE

Sampler: LOUNNY SANCHEZ JEFF
Sample Temperature: 5



4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

[illegible]

6/28/05	1230 hrs	H ₂ O	GWM-1-2Q-05	3 VOA's	.	✓	0506243
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Date: 6/29/05	Time: 0800	Relinquished By: (Signature) <i>Steve J. [illegible]</i>
---------------	------------	--

Remarks:	 6/30/05
Remarks:	1016

Remarks:



BILL RICHARDSON
GOVERNOR

State of New Mexico
ENVIRONMENT DEPARTMENT

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

Ed Riege
Giant Refining Company Ciniza
June 1, 2005
Page 2

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."

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 semi-annual 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 µg/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 µg/l. The Permittee must clarify if the data presented in the "Fall 2002" and "Fall 2003" tables represent concentrations in mg/l or µg/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.

Ed Riege
Giant Refining Company Ciniza
June 1, 2005
Page 12

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

Sincerely,



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



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 McDuffie, Laboratory Manager



Hall Environmental Analysis Laboratory

Date: 23-Feb-05

CLIENT: Giant Refining Co
Lab Order: 0502178
Project: GWM-1-1st Qtr. 2005
Lab ID: 0502178-01

Client Sample ID: GWM-1-1Q-05
Collection Date: 2/15/2005 2:30:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	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
Surr: 4-Bromofluorobenzene	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

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

Hall Environmental Analysis Laboratory

Date: 23-Feb-05

CLIENT: Giant Refining Co
 Work Order: 0502178
 Project: GWM-1-1st Qtr. 2005

QC SUMMARY REPORT

Method Blank

Sample ID	Reagent Blank 5m	Batch ID: R14637	Test Code: SW8021	Units: µg/L	Analysis Date 2/21/2005 9:04:53 AM				Prep Date		
Client ID:		Run ID:	PIDFID_050221A		SeqNo: 340815						
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	19.5	0	20	0	97.5	83.3	121	0			

Sample ID	Reagent Blank 5m	Batch ID: R14648	Test Code: SW8021	Units: µg/L	Analysis Date 2/22/2005 7:49:45 AM				Prep Date		
Client ID:		Run ID:	PIDFID_050222A		SeqNo: 341024						
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	20.33	0	20	0	102	83.3	121	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 I - Analyte detected below quantitation limits

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

D - Analyte detected in the associated Method Blank

1

Hall Environmental Analysis Laboratory

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	Test Code: SW8021	Units: µg/L	Analysis Date	2/21/2005 11:21:58 AM	Prep Date				
Client ID:		Run ID: PIDFID_050221A			SeqNo:	340816					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	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	89.4	112	0			

Sample ID	BTEX std 100ng	Batch ID: R14648	Test Code: SW8021	Units: µg/L	Analysis Date	2/22/2005 7:22:24 PM	Prep Date				
Client ID:		Run ID:	PIDFID_050222A		SeqNo:	341035					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	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	0	100	88.6	113	0			
Xylenes, Total	60.68	0.5	60	0	101	89.4	112	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

D - Analyte detected in the associated Method Blank

1

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Data and Time Received:

2/18/2005

Work Order Number 0502178

Received by AT

Checklist completed by

Signature

Date

2/18/05

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	

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 _____

Ed Riege

From: Steve Morris
Sent: Thursday, January 06, 2005 3:55 PM
To: Ed Riege
Subject: FW: Railroad Rack Lagoon

RECEIVED

JAN 10 2005

OIL CONSERVATION
DIVISION

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

From: Steve Morris
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



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.

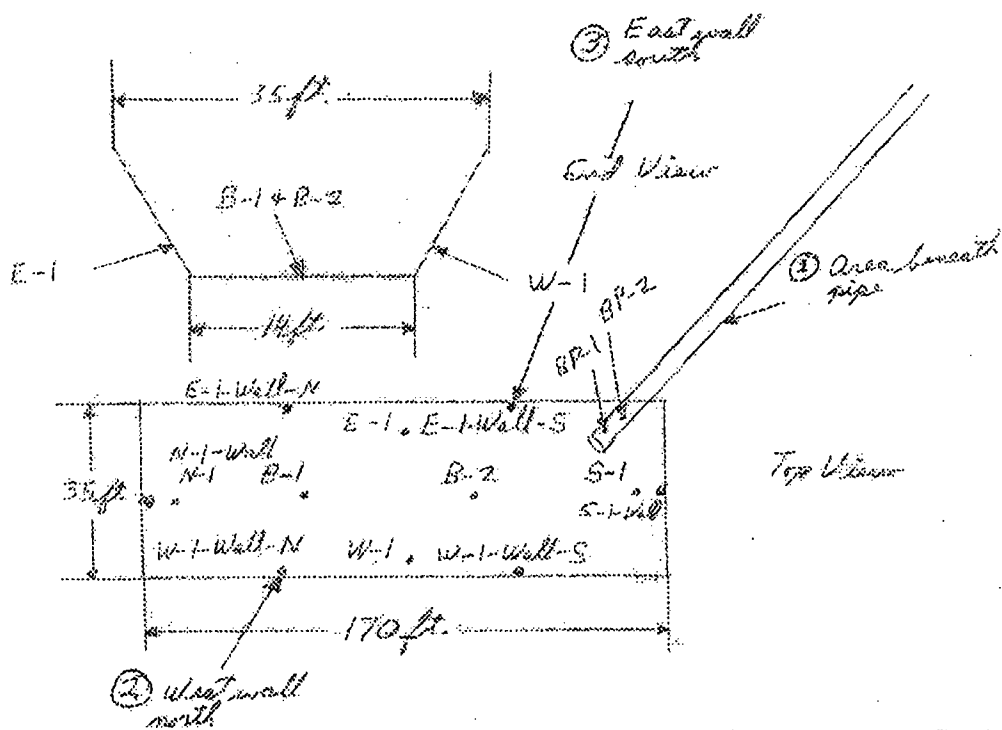
Please let us know if this plan meets your approval. If there are any questions or concerns with this portion of the project, please give me a call at 505-722-0258, or Ed Riege at 505-722-0217.

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
RR-S-1-WALL	11/18/2004	4.7	16	ND	380	ND	ND	ND	ND	ND	ND	ND	ND	ND
RR-E-1-WALL N	11/18/2004	36	16	6.6	270	ND	ND	150	ND	ND	ND	ND	ND	ND
RR-E-1-WALL S	11/20/2004	ND	57	ND	ND	ND	ND	6300	ND	ND	0.57	0.86	14	83
RR-W-1-WALL N	11/18/2004	14	290	4.3	860	ND	ND	450	140	ND	ND	ND	ND	ND
RR-W-1-WALL S	11/18/2004	7.9	33	ND	39	ND	ND	310	ND	ND	ND	ND	ND	ND
RR-B-1	11/18/2004	4.5	34	ND	ND	ND	ND	99	ND	ND	ND	ND	ND	0.52
RR-B-2	11/18/2004	7.5	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
Sample ID #	Date	Mercury	Arsenic	Barium	Cadmium	Calcium	Chromium	Lead	Magnesium	Potassium	Selenium	Silver	Sodium	pH
RR-N-1	11/18/2004	ND	ND	250	ND	18000	7	14	5200	2100	ND	ND	2000	8.25
RR-E-1	11/18/2004	ND	ND	290	ND	16000	5.8	5.7	4600	1300	ND	ND	1300	9.23
RR-S-1	11/18/2004	ND	ND	300	ND	17000	5.6	5.1	4400	1400	ND	ND	870	9.05
RR-W-1	11/18/2004	ND	ND	310	ND	16000	7	7.8	4800	1300	ND	ND	1300	9.13
RR-N-1 WALL	11/18/2004	ND	ND	280	ND	18000	7.6	5.3	5800	2700	ND	ND	1500	8.37
RR-S-1-WALL	11/18/2004	ND	ND	300	ND	17000	6.9	5.9	5400	2000	ND	ND	1000	8.55
RR-E-1-WALL N	11/18/2004	ND	ND	260	ND	15000	6.3	6.2	4600	1700	ND	ND	1200	8.58
RR-E-1-WALL S	11/20/2004	ND	ND	250	ND	28000	4.5	7.7	4200	690	ND	ND	ND	8.88
RR-W-1-WALL N	11/18/2004	0.037	ND	460	ND	32000	27	11	4300	1200	ND	ND	1100	8.21
RR-W-1-WALL S	11/18/2004	ND	ND	320	ND	17000	3.1	2.9	4200	1000	ND	ND	920	8.89
RR-B-1	11/18/2004	ND	ND	260	ND	15000	5.9	5.6	4600	1300	ND	ND	1400	9.06
RR-B-2	11/18/2004	ND	ND	320	ND	17000	5.1	5.1	4200	1000	ND	ND	1300	8.75
RR-BP-1	11/18/2004	0.082	ND	240	0.1	16000	5.5	12	3300	1000	ND	ND	590	8.25
RR-BP-2	11/18/2004	ND	ND	170	ND	13000	4.4	7.4	3000	940	ND	ND	570	8.51
Background														
BG-1	5/23/1997	0.02	ND	240	ND	-	8	7	-	-	ND	ND	-	8.79
BG-2	5/24/1997	ND	ND	240	ND	-	13	8	-	-	ND	ND	-	9.04
BG-3	5/25/1997	ND	ND	310	ND	-	13	10	-	-	ND	ND	-	8.94
BG-4	5/26/1997	ND	ND	240	ND	-	13	7	-	-	ND	ND	-	8.7



Drawing # 11704-1
by H. H. H. H.
November 17th, 2004
Revision # 2 for 6th 05

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



Hall Environmental Analysis Laboratory

Date: 03-Dec-04

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

CASE NARRATIVE

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

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT:	Giant Refining Co	Client Sample ID:	RR-N-1
Lab Order:	0411218	Collection Date:	11/18/2004 8:00:00 AM
Project:	Railroad Rack Lagoon 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/Kg	10	11/30/2004 11:48:28 AM
Nitrogen, Nitrate (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
pH	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	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co
Lab Order: 0411218
Project: Railroad Rack Lagoon SWMU
Lab ID: 0411218-02

Client Sample ID: RR-E-1
Collection Date: 11/18/2004 8:15:00 AM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: 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 PM
Sulfate	74	15		mg/Kg	10	11/30/2004 12:05:17 PM
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 12:05:17 PM
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 12:05:17 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (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 8021B: 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-Bromofluorobenzene	103	74-118		%REC	2	11/23/2004 4:07:37 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 12:20:55 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 PM
Lead	5.7	0.25		mg/Kg	1	11/23/2004 12:20:55 PM
Magnesium	4600	25		mg/Kg	1	11/23/2004 12:20:55 PM
Potassium	1300	50		mg/Kg	1	11/23/2004 12:20:55 PM
Selenium	ND	2.5		mg/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 150.1: PH						Analyst: CMC
pH	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

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

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co **Client Sample ID:** RR-S-1
Lab Order: 0411218 **Collection Date:** 11/18/2004 8:30:00 AM
Project: Railroad Rack Lagoon SWMU
Lab ID: 0411218-03 **Matrix:** 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 12:22:06 PM
Chloride	27	3.0		mg/Kg	10	11/30/2004 12:22:06 PM
Nitrogen, Nitrate (As N)	ND	3.0		mg/Kg	10	11/30/2004 12:22:06 PM
Sulfate	28	15		mg/Kg	10	11/30/2004 12:22:06 PM
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 12:22:06 PM
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 12:22:06 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	31	10		mg/Kg	1	11/22/2004 8:57:58 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/22/2004 8:57:58 PM
Surr: DNOP	94.8	60-124		%REC	1	11/22/2004 8:57:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	11/23/2004 4:37:38 PM
Benzene	ND	0.025		mg/Kg	1	11/23/2004 4:37:38 PM
Toluene	ND	0.025		mg/Kg	1	11/23/2004 4:37:38 PM
Ethylbenzene	ND	0.025		mg/Kg	1	11/23/2004 4:37:38 PM
Xylenes, Total	0.082	0.025		mg/Kg	1	11/23/2004 4:37:38 PM
Surr: 4-Bromofluorobenzene	104	74-118		%REC	1	11/23/2004 4:37:38 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 12:29:00 PM
Barium	300	0.96		mg/Kg	10	11/24/2004 4:34:44 PM
Cadmium	ND	0.10		mg/Kg	1	11/23/2004 12:29:00 PM
Calcium	17000	250		mg/Kg	10	11/23/2004 5:02:14 PM
Chromium	5.6	0.30		mg/Kg	1	11/23/2004 12:29:00 PM
Lead	5.1	0.25		mg/Kg	1	11/23/2004 12:29:00 PM
Magnesium	4400	25		mg/Kg	1	11/23/2004 12:29:00 PM
Potassium	1400	50		mg/Kg	1	11/23/2004 12:29:00 PM
Selenium	ND	2.5		mg/Kg	1	11/23/2004 12:29:00 PM
Silver	ND	0.25		mg/Kg	1	11/23/2004 12:29:00 PM
Sodium	870	25		mg/Kg	1	11/23/2004 12:29:00 PM
EPA METHOD 150.1: PH						Analyst: CMC
pH	9.05	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 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co **Client Sample ID:** RR-W-1
Lab Order: 0411218 **Collection Date:** 11/18/2004 8:45:00 AM
Project: Railroad Rack Lagoon SWMU
Lab ID: 0411218-04 **Matrix:** 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 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, Orthophosphate (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 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 8021B: 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-Bromofluorobenzene	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 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
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 PM
Sodium	1300	50		mg/Kg	2	11/24/2004 2:11:48 PM
EPA METHOD 150.1: PH						Analyst: CMC
pH	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
 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

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co **Client Sample ID:** RR-N-1-Wall
Lab Order: 0411218 **Collection Date:** 11/18/2004 9:00:00 AM
Project: Railroad Rack Lagoon SWMU
Lab ID: 0411218-05 **Matrix:** 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 (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, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 12:55:42 PM
Phosphorus, Orthophosphate (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 Range 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-butyl 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-Bromofluorobenzene	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 PM
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 PM
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 PM
Sodium	1500	25		mg/Kg	1	11/23/2004 12:40:59 PM
EPA METHOD 150.1: PH						Analyst: CMC
pH	8.37	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 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co **Client Sample ID:** RR-S-1-Wall
Lab Order: 0411218 **Collection Date:** 11/18/2004 9:15:00 AM
Project: Railroad Rack Lagoon SWMU
Lab ID: 0411218-06 **Matrix:** SOIL

Analyses	Result	PQL	Qual	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
pH	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

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

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co **Client Sample ID:** RR-W-1-Wall N
Lab Order: 0411218 **Collection Date:** 11/18/2004 10:45:00 AM
Project: Railroad Rack Lagoon SWMU
Lab ID: 0411218-09 **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
pH	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

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

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co
Lab Order: 0411218
Project: Railroad Rack Lagoon SWMU
Lab 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)	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: 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
Potassium	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
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

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co

Client Sample ID: RR-B-1

Lab Order: 0411218

Collection Date: 11/18/2004 11:30:00 AM

Project: Railroad Rack Lagoon SWMU

Lab ID: 0411218-11

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
pH	9.06	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

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co **Client Sample ID:** RR-B-2
Lab Order: 0411218 **Collection Date:** 11/18/2004 12:30:00 PM
Project: Railroad Rack Lagoon SWMU
Lab ID: 0411218-12 **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
pH	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 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co Client Sample ID: RR-BP-1
 Lab Order: 0411218 Collection Date: 11/18/2004 1:00:00 PM
 Project: Railroad Rack Lagoon 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
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
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
pH	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 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co **Client Sample ID:** RR-BP-2
Lab Order: 0411218 **Collection Date:** 11/18/2004 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 (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, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 5:41:22 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	2700	100		mg/Kg	10	11/29/2004 8:50:00 PM
Motor Oil Range 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-butyl 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 PM
Xylenes, Total	100	1.3		mg/Kg	50	11/23/2004 10:07:11 PM
Surr: 4-Bromofluorobenzene	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: 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 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co
Work Order: 0411218
Project: Railroad Rack Lagoon SWMU

QC SUMMARY REPORT

Method Blank

Sample ID	MB-6967	Batch ID:	6967	Test Code:	E300	Units:	mg/Kg	Analysis Date	11/30/2004 10:41:18 A	Prep Date	11/30/2004
Client ID:		Run ID:	LC_041130A	SeqNo:	323552						
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-6969	Batch ID:	6969	Test Code:	E300	Units:	mg/Kg	Analysis Date	11/30/2004 3:26:53 PM	Prep Date	11/30/2004
Client ID:		Run ID:	LC_041130A	SeqNo:	323569						
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	11/22/2004 5:41:51 PM	Prep Date	11/22/2004
Client ID:		Run ID:	FID(17A) 2_041122A	SeqNo:	322601						
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
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: 0411218
Project: Railroad Rack Lagoon SWMU

QC SUMMARY REPORT

Method Blank

Sample ID	MB-6930	Batch ID:	6930	Test Code:	SW8021	Units:	mg/Kg	Analysis Date	11/23/2004 12:37:21 P	Prep Date	11/19/2004
Client ID:		Run ID:	PIDFID_041123A	SeqNo:	322790						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.1									
Benzene	ND	0.025									
Toluene	ND	0.025									
Ethylbenzene	ND	0.025									
Xylenes, Total	ND	0.025									
Surr: 4-Bromofluorobenzene	0.9942	0	1	0	99.4	74	118	0			

Sample ID	MB-6972	Batch ID:	6972	Test Code:	SW7471	Units:	mg/Kg	Analysis Date	11/30/2004	Prep Date	11/30/2004
Client ID:		Run ID:	MI-LA254_041130A	SeqNo:	323375						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.033									

Sample ID	MB-6954	Batch ID:	6954	Test Code:	SW6010A	Units:	mg/Kg	Analysis Date	11/23/2004 11:10:00 A	Prep Date	11/22/2004
Client ID:		Run ID:	ICP_041123A	SeqNo:	322690						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	2.5									
Cadmium	0.05491	0.1									J
Calcium	12.41	25									J
Chromium	ND	0.3									
Lead	ND	0.25									
Magnesium	ND	25									
Potassium	ND	50									
Selenium	ND	2.5									
Silver	ND	0.25									

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: 0411218
Project: Railroad Rack Lagoon SWMU

QC SUMMARY REPORT

Method Blank

Sample ID	MB-6954	Batch ID:	6954	Test Code:	SW6010A	Units:	mg/Kg	Analysis Date	11/24/2004 4:05:08 PM	Prep Date	11/22/2004		
Client ID:		Run ID:	ICP_041124A	SeqNo:	323121								
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium		ND		0.1									

Sample ID	MB-6954	Batch ID:	6954	Test Code:	SW6010A	Units:	mg/Kg	Analysis Date	11/24/2004 2:15:41 PM	Prep Date	11/22/2004		
Client ID:		Run ID:	ICP_041123B	SeqNo:	323162								
Analyte		Result		PQL	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
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

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co
Work Order: 0411218
Project: 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:	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 P)	ND	7.5	0	0	0	0	0	0	0	20	

18/23

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

Hall Environmental Analysis Laboratory

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:	mg/Kg	Analysis Date	11/30/2004 10:58:07 A	Prep Date	11/30/2004
Client ID:		Run ID:	LC_041130A	SeqNo:	323553						
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	Analysis Date	11/30/2004 3:43:42 PM	Prep Date	11/30/2004
Client ID:		Run ID:	LC_041130A	SeqNo:	323570						
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	11/22/2004 6:14:46 PM	Prep Date	11/22/2004
Client ID:		Run ID:	FID(17A) 2_041122A	SeqNo:	322602						
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			

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: 0411218
Project: Railroad Rack Lagoon SWMU

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID	LCSD-6944	Batch ID:	6944	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	11/22/2004 6:47:44 PM	Prep Date	11/22/2004	
Client ID:		Run ID:	FID(17A) 2_041122A	SeqNo:	322603							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	11/23/2004 1:07:20 PM	Prep Date	11/19/2004
Client ID:		Run ID:	PIDFID_041123A	SeqNo:	322792						
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-6972	Batch ID:	6972	Test Code:	SW7471	Units:	mg/Kg	Analysis Date	11/30/2004	Prep Date	11/30/2004	
Client ID:		Run ID:	MI-LA254_041130A	SeqNo:	323376							
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 11/30/2004				Prep Date 11/30/2004		
Client ID:		Run ID: MI-LA254_041130A			SeqNo: 323394						
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 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
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 Date	11/23/2004 11:22:33 A	Prep Date	11/22/2004
Client ID:		Run ID:	ICP_041123A	SeqNo:	322691						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	11/23/2004 11:25:36 A	Prep Date	11/22/2004
Client ID:		Run ID:	ICP_041123A	SeqNo:	322692						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	
Selenium	26.92	2.5	25	0	108	80	120	27.77	3.13	20	
Silver	25.74	0.25	25	0	103	80	120	25.75	0.0495	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

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 Date **11/23/2004 11:22:33 A** Prep Date **11/22/2004**
 Client ID: Run ID: **ICP_041123B** SeqNo: **322871**

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 **11/23/2004 11:25:36 A** Prep Date **11/22/2004**
 Client ID: Run ID: **ICP_041123B** SeqNo: **322872**

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 **11/24/2004 4:23:50 PM** Prep Date **11/22/2004**
 Client ID: Run ID: **ICP_041124A** SeqNo: **323122**

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 **11/24/2004 4:26:06 PM** Prep Date **11/22/2004**
 Client ID: Run ID: **ICP_041124A** SeqNo: **323123**

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

Work Order Number 0411218

Received by AT

Checklist completed by

Signature

Date

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	

Container/Temp Blank temperature?

6°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

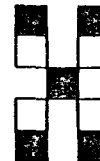
Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

CHAIN-OF-CUSTODY RECORD

Client: Giant Refining Company - Cimiza
 Address: Route 3 Box 7 Gallup, NM 87301
 Project Name: Railroad Rack Lagoon SWMU
 Project #: _____
 Project Manager: Steve Morris
 Phone #: 505 722 3833
 Fax #: 505 722 0210
 Sampler: Steve Morris
 Samples Cold?: 6 ☐ Yes ☐ No



HALL ENVIRONMENTAL ANALYSIS LABORATORY
 4901 Hawkins NE, Suite D
 Albuquerque, New Mexico 87109
 Tel. 505.345-3975 Fax 505.345.4107
 www.hallenvironmental.com

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative			HEAL No.	BTEX + MTBE + TMBs (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B MOD (Gas/Diesel)	TPH (Method 418.1)	Volatile Full List (4021) 8021B	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)	8015 DROXERO	Soil pH	Air Bubbles or Head Space (Y or N)
					HgCl ₂	HCl																			
11/18/04	0800	Soil	RR-N-1	2				0411218					X				X	X	X				X	X	
"	0815	"	RR-E-1	2				2					X				X	X	X				X	X	
"	0830	"	RR-S-1	2				3					X				X	X	X				X	X	
"	0845	"	RR-W-1	2				4					X				X	X	X				X	X	
"	0900	"	RR-N-1-Wall	2				5					X				X	X	X				X	X	
"	0915	"	RR-S-1-Wall	2				6					X				X	X	X				X	X	
"	0930	"	RR-E-1-Wall N	2				AG 7					X				X	X	X				X	X	
"	1030	"	RR-E-1-Wall S	2				8					X				X	X	X				X	X	
"	1045	"	RR-W-1-Wall N	2				9					X				X	X	X				X	X	
"	1100	"	RR-W-1-Wall S	2				10					X				X	X	X				X	X	
"	1130	"	RR-B-1	2				11					X				X	X	X				X	X	
"	1230	"	RR-B-2	2				12					X				X	X	X				X	X	

11/19/04 Date: 1340 Time: Relinquished By: (Signature) Steve Morris
 11/19/04 Date: 1340 Time: Relinquished By: (Signature) _____
 Received By: (Signature) [Signature] 11/19/04
 Received By: (Signature) _____ 1340

Remarks: Gen Chem = Cations, Anions, and Soil pH
per S.M. dilute RR-E-1-Wall S 11/19/04

Client: <i>Giant Refining Company - Aniga</i>	Project Name: <i>Railroad Rock Lagoon SWMU</i>
Address: <i>Route 3 Box 7 Gallup, NM 87301</i>	Project #:
	Project Manager: <i>Steve Morris</i>
Phone #: <i>505 722 5833</i>	Sampler: <i>Steve Morris</i>
Fax #: <i>505 722 0210</i>	Samples Cold?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Phone #: 505 722 5833

Fax #: 505 722 0210

Project Name: *Railroad Rock*
Lagoon SWMU

~~Project #:~~

Project Manager:

Sampler: Steve Morris

Samples Cold?/ ☐ Yes ☐ No

[illegible]

Date:	Time:	Relinquished By: (Signature)
-------	-------	------------------------------

7/04	1340	John Min
------	------	----------

Received By: (Signature) *[Signature]* 11/19/02

John Doe

Date:	Time:	Relinquished By: (Signature)
-------	-------	------------------------------

Received By: (Signature) 13110



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4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345-3975 Fax 505.345.4107
www.hallenvironmental.com

ANALYSIS REQUEST

[illegible]

Remarks:

Client: <i>Giant Refining Company - Ciniza</i>	Project Name: <i>Railroad Rock Lager SWMU</i>
Address: <i>Route 3 Box 7 Gallup, NM 87301</i>	Project #:
	Project Manager: <i>Steve Morris</i>
Phone #: <i>505 722 3833</i>	Sampler: <i>Steve Morris</i>
Fax #:	Samples Cold?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Phone #: 505 722 3333

Fax #: _____ Samples Cold?: 7° ☒ Yes ☐ No

[illegible]

Date: 22/04	Time: 1150	Relinquished By: (Signature) <i>[Signature]</i>
Date:	Time:	Relinquished By: (Signature)

Received By: (Signature) 11-22-04
 Received By: (Signature) @ 11:30



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Tel. 505.345-3975 Fax 505.345.4107
www.hallenvironmental.com

	BTEX + MTBE + TMB's (8021)	
	BTEX + MTBE + TPH (Gasoline Only)	
	TPH Method 8015B MOD (Gas/Diesel)	
	TPH (Method 418.1)	
X	Volatile Compounds (8021) SO ₂ /SIB	
	EDB (Method 504.1)	
	EDC (Method 8021)	
	8310 (PNA or PAH)	
X	PCRA 8 Metals Total	
X	Cations (Na, K, Ca, Mg)	
X	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	
	8081 Pesticides / PCB's (8082)	
	8260 (VOA)	
	8270 (Semi-VOA)	
X	SO ₂ /SIB 080+080	
X	Sail pH	
	Air Bubbles or Headspace (Y or N)	

Remarks: Gen Chem = Cations, Anions, and Soil pH



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 Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



Hall Environmental Analysis Laboratory

Date: 13-Dec-04

CLIENT: Giant Refining Co
Project: Railroad Rack Lagoon SWMU
Lab Order: 0411234

CASE NARRATIVE

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

Hall Environmental Analysis Laboratory

Date: 13-Dec-04

CLIENT: Giant Refining Co

Client Sample ID: RR-E-1 Wall S

Lab Order: 0411234

Collection Date: 11/20/2004 11:00:00 AM

Project: Railroad Rack Lagoon SWMU

Lab ID: 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
Chloride	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
Sulfate	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, Orthophosphate (As P)	ND	15		mg/Kg	10	12/2/2004 2:40:18 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range 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
Surr: DNOP	0	60-124	S	%REC	20	12/8/2004 2:16:56 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-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 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
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

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

GIANT

INDUSTRIES, INC.

Ciniza Refinery

Route 3, Box 7

Gallup, New Mexico 87301

Phone: 505/722-3833 Fax: 505/722-0210

DATE: 1/20/04 TIME: _____ AM / PM

TO: <u>Wayne Price</u> <u>Debra Foust</u> <u>David Collier</u>	FROM: <u>Lorenda Mancini</u>
Company: _____	DEPT: _____
FAX #: _____	EXTENSION: _____
PHONE #: _____	

WE ARE TRANSMITTING 5 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:

GW-37Drugs Discharge Permit
Response to 12/19/03 letter

COMMENTS:

Please call or email with
comments or questions.Thanks,After all the details are worked out Giant
will submit a revised SP Application with
the agreed documents (land form correspondence)
and changes included.



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 dmancini@giant.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Dorinda Mancini". The signature is fluid and cursive, with the first name being more prominent.

Dorinda Mancini

Enclosure

c: Denny Foust
David Cobrain
File

PHONE
505-722-3833
FAX
505-722-0210

ROUTE 3
BOX 7
GALLUP
NEW MEXICO
87301

Draft Permit Comments**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

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.

ATTACHMENT 1.6.b.**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.

TRANSACTION REPORT

P. 01

JAN-20-2004 TUE 12:37 PM

FOR:

RECEIVE

DATE	START	SENDER	RX TIME	PAGES	TYPE	NOTE	M#	DP
JAN-20	12:36 PM		1'08"	6	RECEIVE	OK		

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:

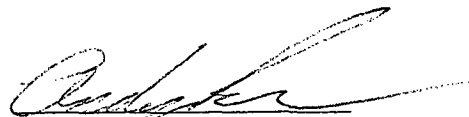
Hall Environmental Analysis Laboratory received 1 sample on 7/29/2004 for the analyses presented in the following report.

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



Hall Environmental Analysis Laboratory

Date: 03-Aug-04

CLIENT: Giant Refining Co

Client Sample ID: EP-1-New Well

Lab Order: 0407300

Collection Date: 7/28/2004 8:00:00 AM

Project: EP-1 New Well

Lab ID: 0407300-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
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-Bromofluorobenzene	105	74-118		%REC	2	8/2/2004 8:46:10 PM

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

Hall Environmental Analysis Laboratory

Date: 03-Aug-04

CLIENT: Giant Refining Co

Work Order: 0407300

Project: EP-1 New Well

QC SUMMARY REPORT

Method Blank

Sample ID	Reagent Blank 5m	Batch ID: R12630	Test Code: SW8021	Units: µg/L	Analysis Date	8/2/2004 8:00:14 AM	Prep Date				
Client ID:		Run ID: PIDFID_040802A			SeqNo:	292874					
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	20.61	0	20	0	103	74	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

Hall Environmental Analysis Laboratory

Date: 03-Aug-04

CLIENT: Giant Refining Co
Work Order: 0407300
Project: EP-1 New Well

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID	BTEX Std 100ng	Batch ID: R12630	Test Code: SW8021	Units: µg/L	Analysis Date	8/2/2004 9:00:53 AM	Prep Date				
Client ID:		Run ID: PIDFID_040802A	SeqNo: 292886								
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			

3 / 4

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

1

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

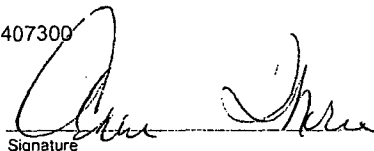
Date and Time Received:

7/29/2004

Work Order Number 0407300

Received by AT

Checklist completed by



7/29/04

Signature

Date

Matrix

Carrier name FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>	Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
Container/Temp Blank temperature?	8°	4° C ± 2 Acceptable		If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

Client: <u>Giant Refining</u>	Project Name: <u>EP-1-New Well</u>
<u>Company - Ciniza</u>	
Address: <u>Route 3 Box 7</u>	Project #:
<u>Gallup, NM 87301</u>	
	Project Manager:
	<u>Steve Morris</u>
Phone #: <u>505 722 3833</u>	Sampler: <u>Steve Morris</u>
Fax #: <u>505 722 0210</u>	Samples Cold?: <u>8</u> <input type="checkbox"/> Yes <input type="checkbox"/> No

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345-3975 Fax 505.345.4107
www.hallenvironmental.com

[illegible]

Date: 7/28/04	Time: 0830	Relinquished By: (Signature) <i>[Signature]</i>	Received By: (Signature) <i>[Signature]</i> 7/29/04
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks:

Price, Wayne

From: Price, Wayne
Sent: Thursday, October 14, 2004 8:50 AM
To: '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:eriego@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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Price, Wayne

From: Price, Wayne
Sent: Wednesday, October 13, 2004 3:50 PM
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Subject: Giant Ciniza GW-032 plan amendments

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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 17 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,

A handwritten signature in cursive script, appearing to read "Ed Riege".

Ed Riege
Environmental Superintendent

C: Matt Davis w/o report
Denny Foust, OCD, Aztec Office w/report
Hope Monzeglio, NMED



ROUTE 3 BOX 7
GALLUP
NEW MEXICO 87301

RECEIVED

CERTIFIED MAIL 7099 3220 0001 1425 4951

PHONE
505-722-3833
INTERNET
WWW.GIANT.COM

August 30, 2004

SEP 07 2004

Oil Conservation Division
Environmental Bureau

Mr. Roger Anderson
Environmental Bureau Chief
New Mexico Oil Conservation Division
1220 South Street Francis Drive
Santa Fe, NM 87505

Re: 2003 OCD Annual Reports

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,



Ed Riege
Environmental Superintendent

C: Matt Davis w/o report
Denny Foust, OCD, Aztec Office w/report

Price, Wayne

From: Price, Wayne
Sent: Wednesday, September 29, 2004 3:57 PM
To: 'Ed Riege'
Subject: 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:eriego@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 quarter 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

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Price, Wayne

From: Ed Riege [eriege@giant.com]
Sent: Friday, September 24, 2004 8:37 AM
To: 'wprice@state.nm.us'
Subject: 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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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 well 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 cut or otherwise removed from the concrete and disposed in the recycle storage area. The well site 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.

FaxBack # 11626

MEMORANDUM

FROM: Sylvia K. Lowrance
Off ice of Solid Waste

Regions I - X

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 non-listed 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

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 solid waste management units.

A second option for addressing these pond sludges is to regulate the wastes as hazardous based on their

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

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; operation 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 (<.1mm) is non-cohesive and highly susceptible to resuspension.

Price, Wayne, EMNRD

From: Monzeglio, Hope, NMENV **Sent:** Wed 9/21/2005 9:49 AM
To: James Romero; Price, Wayne, EMNRD; Foust, Denny, EMNRD; Cobrain, Dave, NMENV; Price, Wayne, EMNRD
Cc: Steve Morris; Ed Riege; Johnny Sanchez
Subject: RE: Proposal for new monitoring wells (GWM-2 and GWM-3)
Attachments:

NMED hereby approves the well and boring installation procedures as presented in the attachments to this email.

Hope Monzeglio

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: 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 formally 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>>

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.



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,

A handwritten signature in cursive script, appearing to read "Steve Morris".

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:

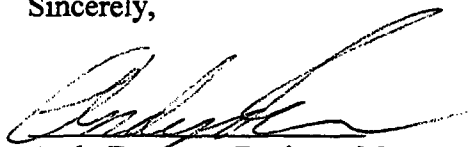
Hall Environmental Analysis Laboratory received 1 sample on 7/2/2004 for the analyses presented in the following report.

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,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



Hall Environmental Analysis Laboratory

Date: 21-Jul-04

CLIENT: Giant Refining Co
Lab Order: 0407021
Project: 2004 Cooling Tower Sludge
Lab ID: 0407021-01

Client Sample ID: Cooling Tower Sludge
Collection Date: 6/28/2004 9:10:00 AM
Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS						Analyst: MAP
Fluoride	ND	150		mg/Kg	500	7/20/2004 7:59:22 PM
Chloride	510000	1500		mg/Kg	5000	7/21/2004
Nitrogen, Nitrate (As N)	ND	150		mg/Kg	500	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
Mercury	0.041	0.040		mg/L	20	7/12/2004
EPA METHOD 6010C: SOIL METALS						Analyst: NMO
Calcium	960	25		mg/Kg	1	7/9/2004 2:15:40 PM
Iron	620	10		mg/Kg	10	7/12/2004 1:55:51 PM
Magnesium	130	25		mg/Kg	1	7/9/2004 2:15:40 PM
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	ND	5.0		mg/L	5	7/9/2004 9:32:03 AM
Lead	ND	5.0		mg/L	5	7/9/2004 9:32:03 AM
Selenium	ND	1.0		mg/L	5	7/9/2004 9:32:03 AM
Silver	ND	5.0		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

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

Hall Environmental Analysis Laboratory

Date: 21-Jul-04

CLIENT: Giant Refining Co

Work Order: 0407021

Project: 2004 Cooling Tower Sludge

QC SUMMARY REPORT

Method Blank

Sample ID	MB-6124	Batch ID:	6124	Test Code:	E300	Units:	mg/Kg	Analysis Date	7/19/2004 9:43:40 PM	Prep Date	7/15/2004	
Client ID:		Run ID:	LC_040719A	SeqNo:	288696							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	0.3									
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 Date	7/12/2004	
Client ID:		Run ID:	MI-LA254_040712A	SeqNo:	286208							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		ND	0.02									

Sample ID	MB-6069	Batch ID:	6069	Test Code:	SW6010A	Units:	mg/Kg	Analysis Date	7/9/2004 11:20:30 AM	Prep Date	7/7/2004	
Client ID:		Run ID:	ICP_040709B	SeqNo:	285877							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium		ND	25									
Iron		ND	1									
Magnesium		ND	25									
Manganese		ND	0.1									
Potassium		ND	50									
Sodium		ND	25									
Zinc		ND	2.5									

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: 0407021
Project: 2004 Cooling Tower Sludge

QC SUMMARY REPORT
Method Blank

Sample ID	MB-6073	Batch ID:	6073	Test Code:	SW1311/6010	Units:	mg/L	Analysis Date	7/9/2004 8:19:52 AM	Prep Date	7/7/2004	
Client ID:		Run ID:	ICP_040709A	SeqNo:	285705							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		ND	5									
Barium		ND	100									
Cadmium		ND	1									
Chromium		ND	5									
Lead		ND	5									
Selenium		ND	1									
Silver		ND	5									

8/8

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: 21-Jul-04

CLIENT: Giant Refining Co
Work Order: 0407021
Project: 2004 Cooling Tower Sludge

QC SUMMARY REPORT

Sample Duplicate

Sample ID	0407021-01A	Batch ID	6124	Test Code	E300	Units	mg/Kg	Analysis Date	7/20/2004 8:32:58 PM	Prep Date	7/15/2004
Client ID	Cooling Tower SI	Run ID	LC_040720A	SeqNo	289125						
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	0	0	0	0	0	0			J
Nitrogen, Nitrite (As N)	ND	150	0	0	0	0	0	0			
Phosphorus, Orthophosphate (As P)	ND	750	0	0	0	0	0	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

1

Hall Environmental Analysis Laboratory

Date: 21-Jul-04

CLIENT: Giant Refining Co
Work Order: 0407021
Project: 2004 Cooling Tower Sludge

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 Date	7/15/2004
Client ID:		Run ID:	LC_040719A	SeqNo:	288697						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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			B
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)	15.18	1.5	15	0	101	90	110	0			

Sample ID	LCS-6089	Batch ID:	6089	Test Code:	SW7470	Units:	mg/L	Analysis Date	7/12/2004	Prep Date	7/12/2004
Client ID:		Run ID:	MI-LA254_040712A	SeqNo:	286209						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	Analysis Date	7/12/2004	Prep Date	7/12/2004
Client ID:		Run ID:	MI-LA254_040712A	SeqNo:	286220						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004533	0.002	0.005	0	90.7	80	120	0.004998	9.75	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

CLIENT: Giant Refining Co
Work Order: 0407021
Project: 2004 Cooling Tower Sludge

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID	LCS-6069	Batch ID:	6069	Test Code:	SW6010A	Units:	mg/Kg	Analysis Date	7/9/2004 11:23:20 AM	Prep Date	7/7/2004
Client ID:		Run ID:	ICP_040709B	SeqNo:	285878						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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	7/9/2004 11:26:32 AM	Prep Date	7/7/2004
Client ID:		Run ID:	ICP_040709B	SeqNo:	285879						
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	2477	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	
Potassium	2484	50	2500	0	99.4	80	120	2452	1.31	20	
Sodium	2729	25	2500	0	109	80	120	2723	0.215	20	
Zinc	ND	2.5	25	0	0	80	120	0	0	20	S

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: 0407021
 Project: 2004 Cooling Tower Sludge

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-6073	Batch ID: 6073	Test Code: SW1311/6010	Units: mg/L	Analysis Date	7/9/2004 8:22:43 AM			Prep Date	7/7/2004		
Client ID:			Run ID: ICP_040709A		SeqNo:	285706						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Arsenic	0.4585	0.4	0.5	0	91.7	80	120	0				
Barium	0.4732	0.4	0.5	0	94.6	80	120	0				
Cadmium	0.4502	0.4	0.5	0	90.0	80	120	0				
Chromium	0.4818	0.4	0.5	0	96.4	80	120	0				
Lead	0.4668	0.4	0.5	0	93.4	80	120	0				
Selenium	0.3995	0.2	0.5	0	79.9	80	120	0			S	
Silver	0.4658	0.4	0.5	0	93.2	80	120	0				

Sample ID	LCSD-6073	Batch ID: 6073	Test Code: SW1311/6010	Units: mg/L	Analysis Date 7/9/2004 8:25:57 AM				Prep Date 7/7/2004		
Client ID:			Run ID: ICP_040709A		SeqNo: 285707						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.4691	0.4	0.5	0	93.8	80	120	0.4585	2.28	20	
Barium	0.4712	0.4	0.5	0	94.2	80	120	0.4732	0.425	20	
Cadmium	0.45	0.4	0.5	0	90.0	80	120	0.4502	0.0554	20	
Chromium	0.4803	0.4	0.5	0	96.1	80	120	0.4818	0.300	20	
Lead	0.4665	0.4	0.5	0	93.3	80	120	0.4668	0.0654	20	
Selenium	0.3982	0.2	0.5	0	79.6	80	120	0.3995	0.317	20	S
Silver	0.4652	0.4	0.5	0	93.0	80	120	0.4658	0.140	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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTRERIN

Date and Time Received:

7/2/2004

Work Order Number 0407021

Received by AT

Checklist completed by

Signature

Date

Matrix

Carrier name FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/> Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>
Container/Temp Blank temperature?	3°	4° C ± 2 Acceptable	If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

Client: <i>Ciniza Refining Heart Refining Co</i>	Project Name: <i>2004 Cooling Tower Sludge</i>
Address: <i>Rt 3, Box P Gallup, NM, 87301</i>	Project #: <i>Waste + Disposal Determination</i>
	Project Manager:
Phone #: <i>505-722-3833</i>	Sampler: <i>Ed Riege</i>
Fax #: <i>505-722-0210</i>	Samples Cold?: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>3</i>

Fax #: 505-722-0210

Project Name: 2004 Cooling Tower Sludge

Project #: Waste + Disposal Determination

Project Manager.

Sampler: Es Riegel

Samples Cold?: ☒ Yes ☐ No 3

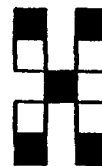
[illegible]

Date: 1-28-99	Time: 0830	Relinquished By: (Signature) <i>[Signature]</i> to Fed. Ex
---------------	------------	--

Date:	Time:	Relinquished By: (Signature)
-------	-------	------------------------------

Received By: (Signature) *[Signature]*

Received By: (Signature) 7/2/04
1320



Unne, Nancy Overberg
HALL ENVIRONMENTAL ANALYSIS LABORATORY
 4901 Hawkins NE, Suite A
 Albuquerque, New Mexico 87109
 Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

ANALYSIS REQUEST

	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 or PAH)	
X	RCRA 8 Metals <i>TRIP</i>	
X	Cations (Na, K, Ca, Mg) <i>Zn, Mn</i>	
X	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	
	8081 Pesticides / PCB's (8082)	
	8260 (VQA) Fe	
	8270 (Semi-VQA)	
	<i>Zinc Pb Ni Ag</i>	
	Pb Cd Hg	
	Air Bubbles or Hexagone (Y or N)	

Remarks: May have pathogens (biological) ~~with~~ gloves & HEPA Mask, wear

Price, Wayne

From: Price, Wayne
Sent: Tuesday, July 27, 2004 3:12 PM
To: Dorinda Manncina (E-mail); Ed Rigie (E-mail)
Cc: hope Monzeglio (E-mail)
Subject: 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

Price, Wayne

From: Ed Riege [eriege@giant.com]
Sent: Wednesday, July 21, 2004 4:01 PM
To: 'rcanderson@state.nm.us'
Cc: 'wprice@state.nm.us'
Subject: 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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Price, Wayne

From: Ed Riege [eriege@giant.com]
Sent: Wednesday, July 21, 2004 3:54 PM
To: 'randerson@state.nm.us'
Cc: 'wprice@state.nm.us'; Dorinda Mancini
Subject: 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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Price, Wayne

From: Ed Riege [eriege@giant.com]
Sent: Thursday, July 01, 2004 4:12 PM
To: 'Price, Wayne'
Subject: 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 is 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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Price, Wayne

From: Price, Wayne
Sent: Thursday, July 01, 2004 3:40 PM
To: 'Eriege@giant.com'
Cc: Dorinda Manncina (E-mail)
Subject: 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 is 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



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

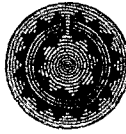
IYANBITO CHAPTER

P.O. Box 498
Fort Wingate, New Mexico 87316
(505) 488-5650
(505) 488-6115 (Fax)

Lori Wrotenberg
Director
Oil Conservation Division

Lawrence E. Morgan
Council Delegate

Edward J. Duffy
Vice-President



Boyd Brodie
Land Board Member

Leonard Francisco, Jr.
President

Dorothy Rogers
Secretary/Treasurer

Memorandum of Meeting or Conversation

Telephone _____
Personal XXX
E-Mail _____

Time: 9am-12 noon
Date: 6/24/04

New Mexico State Senate



SENATOR LIDIO G. RAINALDI

Originating Party: Navajo Tribe Chapter House

Other Parties: Wprice-OCD see list

1101 Martinelli
Gallup, NM 87301

Home: (505) 863-3643
Fax: (505) 863-2554

Subject: Water quality problems at the Navajo Yanbito Chapter House area.

Discussion: Meeting of Tribal Members and invited guest to start a process to determine water quality problems.

Conclusions or Agreements:

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.

Signed: _____


CC: _____

Lidio G. Rainaldi

JERRY SILAGO
WATER/WASTE WATER FOREMAN
CROWNPOINT SUB-OFFICE

Office: 505-786-5566
Fax: 520-729-6295
Email: jerrys@ntua.com

NAVAJO TRIBAL UTILITY AUTHORITY
P.O. Box 1825 CROWNPOINT, NEW MEXICO 87313



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”

SHADED AREA: CORE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

[illegible]

PROJECT INFORMATION		PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS		RELINQUISHED BY: 1		RELINQUISHED BY: 2	
PROJ. NO.		(RUSH) <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 1 WEEK (NORMAL) <input checked="" type="checkbox"/>		Signature: _____ Time: 17.42		Signature: _____ Time: _____	
PROJ. NAME: <u>Iyanbo Water Well</u>		CERTIFICATION REQUIRED: <input type="checkbox"/> NM <input type="checkbox"/> SDWA <input type="checkbox"/> OTHER		Printed Name: _____ Date: _____		Printed Name: _____ Date: _____	
P.O. NO.:		METHANOL PRESERVATION <input type="checkbox"/>		Company: _____		Company: _____	
SHIPPED VIA:		COMMENTS: FIXED FEE <input type="checkbox"/>		See reverse side. (Force Majeure)			
SAMPLE RECEIPT		8270 is not Preserved		RECEIVED BY: 1		RECEIVED BY: (LAB) 2	
NO. CONTAINERS: 11 + 1		I-666 = N. Water Well		Signature: _____ Time: _____		Signature: _____ Time: 17.42	
CUSTODY SEALS: 40/NA		I-668 = S. Water Well		Printed Name: _____ Date: _____		Printed Name: _____ Date: 06.24	
RECEIVED INTACT: 405				Company: _____		Pinnacle Laboratories Inc.	
BLUE ICE: 5.1/2							



Water samples collected by Navajo Tribe members. Clear water with settleable solids. No hydrocarbon was observed.



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 # 666-



Well House # 668



Well House #666 looking southeast. Giant Ciniza Refinery in background approximately 2 miles away.



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.



Picture of drum of chemical clearification used to treat the water.



Same as above.



Well House #668 looking east. Giant Ciniza Refinery in background approximately 2 miles away. Railroad tracks located nearby.



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,

A handwritten signature in cursive script that reads "Dorinda Mancini".

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

GW-032

**NEW MEXICO OIL CONSERVATION DIVISION
HAZARDOUS MATERIALS EMERGENCY RESPONSE GUIDELINES**

Hazardous Materials Incident Notification Information Checklist

The following information should be given to dispatch. Dispatch should be instructed to give all information received to response agencies.

Notification	Time Dispatch Notified <u>10:15 AM 4/8/07</u>
Caller	Caller Name <u>DORMA MAUNICHA - GIANT</u> Caller Location <u>CINIZA REFINERY</u> Caller Phone Number <u>505-722-0227</u>
Hazardous Materials Information	Incident location (address or nearest milepost or exit) <u>16 MI E of GALLUP, NM</u> <u>1/4 MI N of I-40 BEARD AUTO TRAVEL CENTER</u> Time incident occurred <u>~ 9 AM</u> Container type <u>ISO BUTANE PROCESS UNIT</u> (truck, train car, drum, storage tank, pipeline, etc.) Substance <u>LPG</u> UN Identification Number <u>1075</u> Other identification (placards, shipping papers, etc.) _____ Amount of material spilled/released <u>UNKNOWN</u> Current condition of material <u>FIRE IS OUT (EXCEPT FLARE)</u> (flowing, on fire, vapors present, etc.)
Scene Description	Weather conditions <u>COOL - OVERCAST</u> (i.e., sunny, overcast, wet, dry, etc.) Wind direction <u>NOVE - CALM</u> Wind speed <u>CALM</u> Terrain _____ (i.e., valley, stream bed, depression, asphalt, etc.) Environmental Concerns <u>NONE AT THIS TIME</u> (streams, sewers, etc.)
Affected Population	Number of people affected <u>0</u> Condition of people affected _____
Resources	Resources required <u>LEPC - 911</u> <u>ERD ON SITE AT GATE</u> (EMS, HazMat Team, Fire Department, etc.) <u>McKINLEY SHERIFF DEPT.</u> <u>GALLUP FIRE DEPT</u>
Response	Response actions anticipated And/or in progress <u>REFINERY HAZ-MAT TEAM ACTIVATED</u> (i.e., rescue, fire suppression, containment, etc.)
Comments	<u>GIANT</u> <u>CORP # 1-800-937-4937 x 8836</u> <u>LI</u> <u>MARK GAY - AZ</u>

3 REFINERY EMPLOYEES INJURED

(SEE BACK)

4/8/04

11:20 AM

CALLED EOC - ADY OFFICER JEN 476-9635
UNIFIED COMMAND BEING ORGANIZED, GIANT, MCKINLEY, STAFF, GALT
GALLOP FIRE DEPT. - NMSA EOM ON SITE

11:45 AM

(WP, RA, CL)
REC CALL FROM DORIANA (GIANT) CONFIRMED ONLY 3 PEOPLE INJURED
TAKEN TO MCM-HOS ERO - STROD HOFFMAN 863-9353
GIANT IC IS CHARLIE ARNOLD 722-0241 - THERE IS
COMMUNICATION BETWEEN GIANT & ERO.

~ 11:50 AM

CALLED OCA DIST III - CHARLIE PATTIN - DISCUSSED INCIDENT
CP WILL CALL GIANT

LUNCH

12:23 PM

DAVE CORBRAIN WHEN CALLED LEFT MESSAGE

1:15 PM

CALL DC & LEFT MESSAGE -

15:13 PM

WP/CL

GIANT-
POND #2 FIRE WATER FLOWING PROCESS AREA
TO STORMWATER DRAINAGE - OFF SITE MIXING
WITH RAIN WATER EPA #6 SODIUM (CONTRACTOR WESTON)
NMSA EPA IS ON SITE ALM (STATE) + TRIAL LAND!

(LAST 1:00 PM) (PILOT TRAVEL CENTER -) WAS SHUT DOWN
ERO

4 INJURIES (PH, Cond, FROM TEST)

API - OVER FLOWING -

NO DOWN STREAM WATER SUPPLIES THAT
WOULD BE IMPACTED - (OCD RECOMMEND STOP FLOW)

15:30 PM

Called ~~for~~ left message DAVE CORBRAIN - WHEN

17:04 PM

WP/DM

5.5-722-7877 Home Loublo

all 870-2711-CL

WATER IS NOT REACHING R/O PLANT - THEY HAVE STOPPED USING
FIRE WATER.

Price, Wayne

From: Price, Wayne
Sent: Thursday, April 08, 2004 11:16 AM
To: Prukop, Joanna; Leach, Carol; Mills, Tom; Wrotenbery, 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 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:

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: Price, Wayne
Sent: Thursday, April 08, 2004 10:28 AM
To: Anderson, Roger
Subject: FW: KOBTV.com - At least three injured in oil refinery explosions.txt



KOBTV.com - At
least three inj...

Dorinda Manncina of Giant Cinza Oil Refinery located 16 miles east of Gallup NM called 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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At least 4 injured in oil refinery explosions east of Gallup



Last Update: 04/08/2004 10:24:59 AM

By: Kurt Christopher

Two explosions rocked an oil refinery east of Gallup this morning, injuring at least four people.

Witnesses reported seeing a fireball rising from the east side of the Giant Industries gasoline refinery, some 15 miles east of Gallup around 9 a.m.

Monica Greene of Rehoboth McKinley Christian Hospital says her facility has received four victims from the scene. McKinley County sheriff's Lieutenant John Yearly says at least three of those victims suffered third-degree burns and have life-threatening injuries.

Greene said she also expected an additional ten other people to be transported to the hospital.

State police Lieutenant Jimmy Glascock says a processor unit used to make high-octane fuel exploded, and that caused a secondary blast. He says there's a propane tank or pipeline nearby that's being vented, and the propane is being burned as a precaution.

The fire has been doused, but officials are fearful of additional explosions. Bill Donovan of the Gallup Independent says a quarter-mile perimeter has been evacuated, including about 100 employees at the refinery and customers at the nearby Giant Travel Center south of the refinery.

Mike Kerstein was at the travel center at the time of the blast. He said you could feel the entire building shake. Kerstein said a huge fireball could be seen burning above the refinery as he and other customers were evacuated.

Interstate 40 is still open, but police are discouraging travel in the area.

Stay tuned to Eyewitness News 4 and KOBTV.com for the latest on developing story.

The Associated Press contributed to this report.

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NM TO

• At least 4 injured in refinery explosion east of Gallup

• Rain may cause havoc in communities

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Price, Wayne

From: Perrin, Charlie
Sent: Thursday, April 08, 2004 2:32 PM
To: Price, Wayne
Subject: RE: 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 center.

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 Message-----

From: Price, Wayne
Sent: Thursday, April 08, 2004 11:16 AM
To: Prukop, Joanna; Leach, Carol; Mills, Tom; Wrotenbery, 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 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:

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

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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 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:

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: Price, Wayne
Sent: Friday, April 09, 2004 8:17 AM
To: Mulry, Laura J; Anderson, Roger; Chavez, Frank; Martin, Ed; Perrin, Charlie
Cc: Prukop, Joanna; Leach, Carol; Wrotenbery, Lori; Mills, Tom
Subject: RE: gentle reminder

I will have you a status report around 9am.

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

From: Mulry, Laura J
Sent: Thursday, April 08, 2004 5:09 PM
To: Anderson, Roger; Chavez, Frank; Price, Wayne; Martin, Ed; Perrin, Charlie
Subject: 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

Price, Wayne

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
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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. **Please submit by no later than 11am today.**

Sincerely:

Wayne Price
New Mexico Oil Conservation Division
1220 S. Saint Francis Drive
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fax: 505-476-3462
E-mail: WPRICE@state.nm.us

Price, Wayne

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

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.

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Price, Wayne

From: Price, Wayne
Sent: Friday, April 09, 2004 10:00 AM
To: 'dbennett@cybermesa.COM'
Subject: FW: Giant Ciniza Refinery Explosion Status Report

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

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
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From: Price, Wayne
Sent: Friday, April 09, 2004 10:01 AM
To: 'dbennett@cybermesa.com'
Subject: FW: Giant Ciniza Refinery Explosion Environmental Impacts?

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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)
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fax: 505-476-3462
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Price, Wayne

From: Perrin, Charlie
Sent: Thursday, April 08, 2004 2:32 PM
To: Price, Wayne
Subject: RE: 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 center.

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 Message-----

From: Price, Wayne
Sent: Thursday, April 08, 2004 11:16 AM
To: Prukop, Joanna; Leach, Carol; Mills, Tom; Wrotenbery, 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 center.

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Price, Wayne

From: Mulry, Laura J
Sent: Thursday, April 08, 2004 5:09 PM
To: Anderson, Roger; Chavez, Frank; Price, Wayne; Martin, Ed; Perrin, Charlie
Subject: gentle reminder

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Have a great weekend.

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cell: (505) 690-1689
www.emnrd.state.nm.us

Price, Wayne

From: Mulry, Laura J
Sent: Friday, April 09, 2004 8:23 AM
To: Price, Wayne
Subject: RE: gentle reminder

Thanks!

Laura J. Mulry
Public Information Officer
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State of New Mexico
1220 South St. Francis Drive
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cell: (505) 690-1689
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To: Mulry, Laura J; Anderson, Roger; Chavez, Frank; Martin, Ed; Perrin, Charlie
Cc: Prukop, Joanna; Leach, Carol; Wrotenbery, Lori; Mills, Tom
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Price, Wayne

From: Wrotenbery, Lori
Sent: Friday, April 09, 2004 8:58 AM
To: Davidson, Florene; Anderson, Roger; Arrant, Bryan; Brooks, David K; Chavez, Frank; Ezeanyim, Richard; Gum, Tim; MacQuesten, Gail; Perrin, Charlie; Prouty, Jane; Stone, Ben; Williams, Chris; Price, Wayne
Cc: Leach, Carol; Weimer, Brenda
Subject: RE: Activity Report

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: 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 >>

Price, Wayne

From: Wrotenbery, Lori
Sent: Friday, April 09, 2004 9:14 AM
To: Perrin, Charlie
Cc: Price, Wayne; Anderson, Roger
Subject: 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.

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

From: Perrin, Charlie
Sent: Friday, April 09, 2004 9:08 AM
To: Wrotenbery, Lori
Subject: 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, Lori
Sent: Friday, April 09, 2004 8:58 AM
To: Davidson, Florene; Anderson, Roger; Arrant, Bryan; Brooks, David K; Chavez, Frank; Ezeanyim, Richard; Gum, Tim; MacQuesten, Gail; Perrin, Charlie; Prouty, Jane; Stone, Ben; Williams, Chris; Price, Wayne
Cc: Leach, Carol; Weimer, Brenda
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Subject: Activity Report

<< File: April5Activity.doc >>

Price, Wayne

From: Dorinda Mancini [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

Wayne,
Please see my reply below.

Dorinda Mancini
Environmental Manager, Ciniza Refinery
505.722.0227
dmancini@giant.com

-----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:,

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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:

1. ANALYZE SAMPLES AND REPORT RESULTS AS SOON AS AVAILABLE
2. 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.
3. TAKE DIGITAL PHOTOS OF AREA OF IMPACTS IF POSSIBLE.
4. WALK THE RIO PUERCO TRIBUTARY NORTH AND WEST OF FACILITY AS SOON AS WEATHER AND SURFACE CONDITIONS (MUD) ALLOWS.
5. 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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For more information please visit <http://www.messagelabs.com/email>

Price, Wayne

From: Price, Wayne
Sent: Friday, April 09, 2004 10:51 AM
To: 'Dorinda Mancini'; Price, Wayne
Cc: Ed Riege; Matt Davis; David Kirby; Dave Cobrain (E-mail)
Subject: 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-----

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Importance: High

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Dorinda Mancini
Environmental Manager, Ciniza Refinery
505.722.0227
dmancini@giant.com

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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)
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Sincerely:

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Dorinda Mancini
Environmental Manager, Ciniza Refinery

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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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GIANT**INDUSTRIES, INC.****GI**
Listed
NYSE

NEWS RELEASE

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

Bloomfield refinery has a crude oil throughput capacity of 16,000 barrels 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."

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.



FAX COVER SHEET

From: Lynn Miles TO: Wayne Price
COMPANY: Oil 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

I AM TRANSMITTING 5
PAGES FOLLOWING THIS COVER SHEET

DATE: April 20, 2004 TIME: 10:00 AM

REGARDING: _____

Have a nice day !



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

RE: Ciniza Incident 4/8/04 Stormwater

Order No.: 0404094

Dear Dorinda Mancini:


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.

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 Environmental Analysis Laboratory

Date: 16-Apr-04

CLIENT: Giant Refining Co
Project: Ciniza Incident 4/8/04 Stormwater
Lab Order: 0404094

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.

Hall Environmental Analysis Laboratory

Date: 16-Apr-04

CLIENT: Giant Refining Co**Client Sample ID:** E Side Arroyo**Lab Order:** 0404094**Collection Date:** 4/8/2004 3:30:00 PM**Project:** Ciniza Incident 4/8/04 Stormwater**Lab ID:** 0404094-01**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	6500	25		mg/L	250	Analyst: JDC 4/15/2004 12:48:05 PM
EPA METHOD 8015B: DIESEL RANGE						
Diesel Range Organics (DRO)	ND	0.50		mg/L	1	Analyst: JMP 4/13/2004 8:52:02 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/13/2004 8:52:02 PM
Surr: DNOP	121	58-140		%REC	1	4/13/2004 8:52:02 PM
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	Analyst: NSB 4/13/2004 9:57:09 AM
Surr: BFB	98.6	74.5-115		%REC	1	4/13/2004 9:57:09 AM
EPA METHOD 8021B: VOLATILES						
Benzene	ND	0.50		µg/L	1	Analyst: NSB 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
Surr: 4-Bromofluorobenzene	100	74-118		%REC	1	4/13/2004 9:57:09 AM
EPA 120.1: SPECIFIC CONDUCTANCE						
Specific Conductance	150000	0.010		µmhos/cm	1	Analyst: MAP 4/13/2004
MERCURY, DISSOLVED						
Mercury	0.0019	0.0010		mg/L	5	Analyst: IC 4/15/2004
EPA METHOD 8010C: DISSOLVED METALS						
Arsenic	ND	0.020		mg/L	1	Analyst: NMO 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	0.0080		mg/L	1	4/15/2004 12:13:45 PM
Copper	ND	0.0080		mg/L	1	4/15/2004 12:13:45 PM
Iron	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	0.026	0.0050		mg/L	1	4/15/2004 12:13:45 PM
EPA METHOD 150.1: PH						
pH	7.92	0.010		pH units	1	Analyst: MAP 4/13/2004
EPA METHOD 160.2: TSS						
Suspended Solids	720	1.0		mg/L	1	Analyst: MAP 4/13/2004

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

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

Hall Environmental Analysis Laboratory

Date: 16-Apr-04

CLIENT: Giant Refining Co**Client Sample ID:** Outfall #2**Lab Order:** 0404094**Collection Date:** 4/8/2004 3:00:00 PM**Project:** Ciniza Incident 4/8/04 Stormwater**Lab ID:** 0404094-02**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Chloride	7900	25		mg/L	250	Analyst: JDC 4/15/2004 1:04:53 PM
EPA METHOD 8015B: DIESEL RANGE						
Diesel Range Organics (DRO)	0.52	0.50		mg/L	1	Analyst: JMP 4/13/2004 7:22:31 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/13/2004 7:22:31 PM
Surr: DNOP	120	58-140		%REC	1	4/13/2004 7:22:31 PM
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	Analyst: NSB 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						
Benzene	ND	0.50		µg/L	1	Analyst: NSB 4/13/2004 10:27:19 AM
Toluene	ND	0.50		µg/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
Surr: 4-Bromofluorobenzene	103	74-118		%REC	1	4/13/2004 10:27:19 AM
EPA 120.1: SPECIFIC CONDUCTANCE						
Specific Conductance	150000	0.010		µmhos/cm	1	Analyst: MAP 4/13/2004
MERCURY, DISSOLVED						
Mercury	ND	0.0010		mg/L	5	Analyst: IC 4/15/2004
EPA METHOD 6010C: DISSOLVED METALS						
Arsenic	ND	0.020		mg/L	1	Analyst: NMO 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		mg/L	1	4/15/2004 12:17:23 PM
Chromium	ND	0.0080		mg/L	1	4/15/2004 12:17:23 PM
Copper	ND	0.0080		mg/L	1	4/15/2004 12:17:23 PM
Iron	0.061	0.020		mg/L	1	4/15/2004 1:34:08 PM
Lead	ND	0.0050		mg/L	1	4/15/2004 12:17:23 PM
Manganese	0.64	0.0020		mg/L	1	4/15/2004 12:17:23 PM
Selenium	0.097	0.020		mg/L	1	4/15/2004 12:17:23 PM
Silver	ND	0.0050		mg/L	1	4/15/2004 12:17:23 PM
Uranium	ND	0.10		mg/L	1	4/16/2004 7:43:12 AM
Zinc	0.062	0.0060		mg/L	1	4/15/2004 12:17:23 PM
EPA METHOD 150.1: PH						
pH	7.81	0.010		pH units	1	Analyst: MAP 4/13/2004
EPA METHOD 160.2: TSS						
Suspended Solids	420	1.0		mg/L	1	Analyst: MAP 4/13/2004

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

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

Client: GIANT IND, d/b/a
GIANT Refining Co - Ceniza
 Address: Rt 3 Box 7
Gallup, NM 87301

NEAC ☐ USACE ☐

Other:

Project Name: Cruz Incident
4/8/04 - Stormwater

Project #:

Project Manager:

Dorinda Mancini

Phone #: 505-722-3833

Sampler: Steve Morris

Fax #: 505-722-0210

Sample Temperature: 5°C

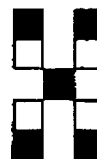
[illegible]

Date:	Time:	Relinquished By: (Signature)
4-13-04	8:45	Lynn Miles Lynn Miles
Date:	Time:	Relinquished By: (Signature)

Remarks: Delivered in Person

Remarks: *[Signature]* 4/13/04 8:45

Remarks: Samples need filtering before analyses. RUS#1-



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

ANALYSIS REQUEST

	X	BTEX + MTBE ± TOLUENE's (8021)
		BTEX + MTBE + TPH (Gasoline Only)
	X	TPH Method 8015B MOD (Gas/Diesel) ✓
		TPH (Method 418.1)
		EDB (Method 604.1)
		EDC (Method 8021)
		8310 (PNA or PAH)
		HCPA & Metals
		Cations (Na, K, Ca, Mg)
	X X	Anions (Cl^- , NO_3^- , NO_2^- , PO_4^{3-} , SO_4^{2-})
		8081 Pesticides / PCB's (8082)
		8260 (VDA)
	X X	8280 (SEM-VBA) conductivity
	X X	phenols
	X X	WQCC dissolved metals
	X X	TSS
	X	Air Bubbles or Headspace Gas NO-

Jan. 5. 1996 8:32PM

No. 0191 P. 6/6

Price, Wayne

From: Dorinda Mancini [dmancini@giant.com]
Sent: Tuesday, April 13, 2004 9:18 AM
To: 'RAnderson@state.nm.us'; 'WPrice@state.nm.us'
Cc: David Kirby; Matt Davis; Ed Riege
Subject: FW: North Outfall 041204



No Outfall 41204
1.jpg



No Outfall 41204
2.jpg



No Outfall 41204
3.jpg

> -----Original Message-----

> From: Steve Morris
> Sent: Tuesday, April 13, 2004 8:38 AM
> 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

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For more information please visit <http://www.messagelabs.com/email>







Price, Wayne

From: Mulry, Laura J
Sent: Friday, April 09, 2004 12:05 PM
To: Price, Wayne; Prukop, Joanna; Leach, Carol; Mills, Tom
Cc: Wrotenbery, Lori; 'dbennette@cybermesa.com'; Perrin, Charlie; Chavez, Frank; Davidson, Florene
Subject: 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, 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

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: Price, Wayne
Sent: Friday, December 19, 2003 11:21 AM
To: Dorinda Mannicina (E-mail); Tom Atwood (E-mail)
Subject: 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.



Ciniza 01 DPAPP
Draft.DOC

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

DRAFT #2

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

DRAFT #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
1220 South Saint Francis Drive
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

DRAFT #2

ATTACHMENT TO THE DISCHARGE PERMIT GW-032 APPROVAL
Giant Refining Company, Ciniza Refinery
DISCHARGE PERMIT APPROVAL CONDITIONS
December 05, 2003

1. Payment of Discharge Permit Fees: The \$100.00 filing fee and \$8400.00 flat fee has been received by the OCD.
2. Commitments: 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. Process Areas: 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. Above Ground Tanks: 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. Above Ground Saddle Tanks: 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. Below Grade Tanks/Sumps/Pits/Ponds: 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

DRAFT #2

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.

API Separator(s): A closure plan for OCD approval shall be filed by March 15, 2004 for the Old API separator.

New Wastewater (Total Plant) API Separator: 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.

DRAFT #2

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. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116. and WQCC 1203. to the OCD Aztec District Office.
13. Waste Disposal: 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. Rule 712 Waste: 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. OCD Inspections: Additional requirements may be placed on the facility based upon results from OCD inspections.
15. Storm Water Permit: 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. Vadose Zone and Water Pollution: 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.

DRAFT #2

A. ANNUAL Groundwater REPORT: 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 phase-separated 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. Electronic filing: 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. refineries, an

DRAFT #2

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. Refinery Land farm: 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. Railroad Rack Lagoon Land farm: 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. Railroad Rack Lagoon: 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. Pond Inspections: Evaporation ponds shall be inspected monthly and after any major

DRAFT #2

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

DRAFT #2

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/sub-surface 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.
 4. Giant shall design, implement and maintain a sampling and metering station on the incoming line from the travel center/truck stop. 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 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. Aeration Basins: 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:

DRAFT #2

- A. A summary of all major refinery activities or events.
- B. Results of all sampling and monitoring events.
- C. Summary of all waste and wastewater disposed of, sold, or treated on-site, including a refinery wastewater 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. **Transfer of Discharge Permit:** 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. **Closure:** 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

Date _____
Company Representative- Sign

Title _____

DRAFT #2

Ms. Mancini
December 19, 2003
Page 11

facsimile transmittal

Denny Frost 505-334-6170
 To: Wayne Price Fax: 505-476-3462
 From: Brenda Mancini Date: 8/14/03
 Re: Pond Water Usage Pages: 5 total
 CC:

☐ Urgent ☒ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

Phone: 505-722-0227

Notes:

I found the attached info in our files. It looks like the OCD Aztec Office approved the use by Ballou Construction in July 1994. Ed Harst, Env. Manager at the time prepared a letter for Ballou to use in their request to OCD.

There is an approval letter from District III dated 7/11/96 which states the conditions to be met. I believe this is the same language that WW Construction was to agree to in order to use pond water currently.

It seems that Harst failed to have the county &/or contractors obtain permission each time pond water was used. We apologize for this and as you know, it has been corrected. All potential pond water users in the future will send a request to OCD in SF & copy the District prior to any use.

FIANT
REFINING CO. **FAXED**
7-10-96
Route 3, Box 7
Gallup, New Mexico
87301

DATE: 7-10-96

TIME: _____

505
722-3833

TO: <u>Don</u>	FROM: <u>ED HORST</u>
FIRM: <u>BAIRD CONST. COMP.</u>	DEPARTMENT: <u>ENVDIR.</u>
FAX #: <u>913-825-7036</u>	PHONE EXTENSION: <u>722-0227</u>
SPEED DIAL #: _____	FAXED BY: _____

We are transmitting 1 pages FOLLOWING this cover sheet.

IF YOU DO NOT RECEIVE ALL THE PAGES, PLEASE INFORM US AS SOON AS POSSIBLE AT 505/722-3833.

=====

OUR MACHINE IS: RAPICOM 3100 at 505/722-0210

Standard — Detail —

FILE REFERENCE:

COMMENTS:

I hope this will help.— Ed —RETURN: ✓

DO NOT RETURN: _____

[MJF\WPDOCS\FORMS\FAX-COV]

GIANT
REFINING CO.

July 8, 1996

Mr. Frank T. Chavez
District III Supervisor
State of New Mexico
Energy, Minerals and Natural Resources Department
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

Giant Refining Company has been approached by Ballou Construction Company, a road construction company presently under contract 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 be 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.

Sincerely,


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.

DATE: 7-16-96

TIME: _____

Route 3, Box 7
Gallup, New Mexico
87301505
722-3833**FAXED**
7-16-96

TO: <u>DAVID ACOSTA</u>	FROM: <u>Ed Horst</u>
FIRM: <u>McKinley County Roads</u>	DEPARTMENT: <u>ENVI</u>
FAX #: <u>(505) 722-9380</u>	PHONE EXTENSION: <u>722-0227</u>
SPEED DIAL #: _____	FAXED BY: _____

We are transmitting 2 pages FOLLOWING this cover sheet.

IF YOU DO NOT RECEIVE ALL THE PAGES, PLEASE INFORM US AS SOON AS POSSIBLE AT 505/722-3833.

OUR MACHINE IS: RAPICOM 3100 at 505/722-0210

Standard _____ Detail _____

FILE REFERENCE:

COMMENTS:

A DRAFT LETTER AND RESPONSE FROM OCD.RETURN: ✓

DO NOT RETURN: _____

[MJF\WPDOCS\FORMS\FAX-COV]



AUG 14 '03 08:08AM

P.5

**NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT**

AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 834-8170 Fax (505) 334-8170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALSBURY
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.

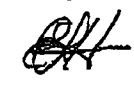
You may use this water as proposed with the following conditions:

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

Rec. 7-15-96


FTC/sh

cc: Roger Anderson - Santa Fe
Giant Refinery, Ciniza
Denny Foust, District Environmentalist

facsimile transmittal

Denny Trust 505-334-6170
To: Wanda Price Fax: 505-476-3462
From: Wanda Manum Date: 8/13/03
Re: Pond Water - Pages: 3 total
CC: WV Construction

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

Notes:

In July 2002, WV Construction proposed to move pond water via a pipeline (temporary) in order to ~~move~~ move water faster in greater volume than trucking it only. These letters are the correspondence regarding the pipeline. There have been no spills, leaks or pipeline breaks of this line since it was installed.
Call if more info needed
Dorinda
505-722-0227

GIANT

REFINING COMPANY

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:

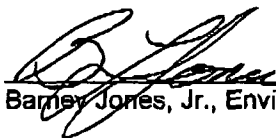
- One of your site staff will walk the length of the pipeline at least once per day to ensure pipeline integrity. If any leaks or problems are found, the pump will be shut off and Ciniza will be notified immediately at 722-3833 (Security).
- If the pump is running and any interruption in flow at your 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,

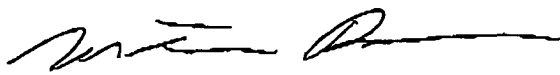


Matthew R. Davis
General Manager, Ciniza Refinery
Giant Refining Co.



Barney Jones, Jr., Environmental and Safety Compliance Officer, W. W. Construction

Date: 7/15/02



Miles Brown, Superintendent, W. W. Construction

Date: 7/15/02

PHONE

505-722-3833

FAX

505-722-0210

ROUTE 3

BOX 7

GALLUP

NEW MEXICO

87301

W. W. Construction, Inc.

P.O. Box 6487 • 1000 Gebaldon N.W.

Albuquerque, New Mexico 87104

Phone: (505) 842-8136 • Fax: (505) 843-4614

July 12, 2002

Mr. Matt Davis
General Manager Ciniza Refinery
Giant 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 Giant Refinery Company harmless against any and all claims, suits, or damages resulting from the use of the water.

Sincerely,

Samuel A. Francis

Samuel A. Francis

CC: RF
PF



RECEIVED

JUL 30 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 @ dmancini@giant.com with any questions or concerns.
Thank you for your assistance.

Sincerely,

A handwritten signature in cursive script, reading "Dorinda Mancini".

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

GIANT**INDUSTRIES, INC.**23733 N. Scottsdale Rd.
Scottsdale, AZ
85255-9969480
585-8888

Page

1

Check #

Vendor #

: 84592

Check Date

: 7/25/2003

Inv. Date	Invoice Number	Description	Gross	Discount	Net
7/24/2003	STMT-07-24-03GW-032		8,400.00	0.00	8,400.00

Total: \$8,400.00

THE FACE OF THIS CHECK IS PRINTED BLUE - THE BACK CONTAINS A SIMULATED WATERMARK

GIANT**INDUSTRIES, INC.**23733 N. Scottsdale Rd.
Scottsdale, AZ
85255-9969480
585-8888

Date 7/25/2003

Bank of America
Bank of America
North Carolina

68-15

535

Valid for 180 Days From Date of Issue

\$ 8,400.00

Amount

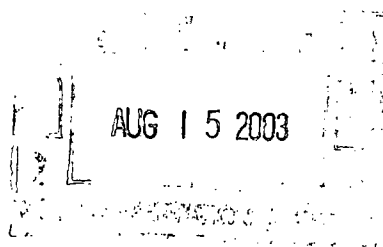
Eight thousand four hundred and 00/100 Dollars

To the Order of
Water Quality Management Fund
c/o Oil Conservation Division
2040 S Pacheco St
Santa Fe NM 87505*Fredric L. Halliger*

W. W. Construction, Inc.
1000 Gabaldon N. W.
Albuquerque, New Mexico 87104
Phone (505) 842-8136

Wayne Price

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.

Page 2
July 25, 2003

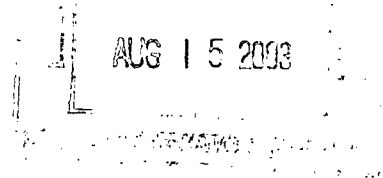


If there are any questions regarding this matter please feel free to call Barney Jones at (505)247-9336.

Sincerely

A handwritten signature in cursive script, appearing to read "Barney Jones".

Barney Jones
Safety & Environmental Officer

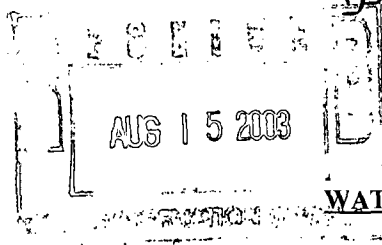


W. W. Construction, Inc.

1000 Gabaldon N. W.

Albuquerque, New Mexico 87104

Phone (505) 842-8136



WATER 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:

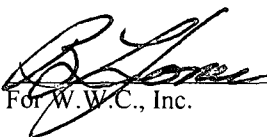
The water obtained from Giant has been used in industrial operations and has been in contact with septic system materials. As such, the water is not fit for consumption or agricultural use, and direct contact with the water or its mist should be avoided. Use or appropriate personal protective equipment 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:

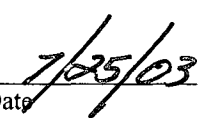
- 1.) The water will be applied so that no excess water runs off into roadside ditches or into any watercourse.
- 2.) At the end of each day's activities, unused water will be stored in trucks or tanks so the water does not drip or drain onto the ground overnight. Alternatively, the water may be returned 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.

Giant's 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 W.W.C., Inc.



Date

For Giant Refining

Date

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. [REDACTED] dated 7/25/03,

or cash received on _____ in the amount of \$ 8400-

from Giant Industries

for Ciniza Refinery GW-032

Submitted by: (Facility Name) Wayne P. [REDACTED] Date: 8-5-03 (DP No.)

Submitted to ASD by: _____ Date: _____

Received in ASD by: _____ Date: _____

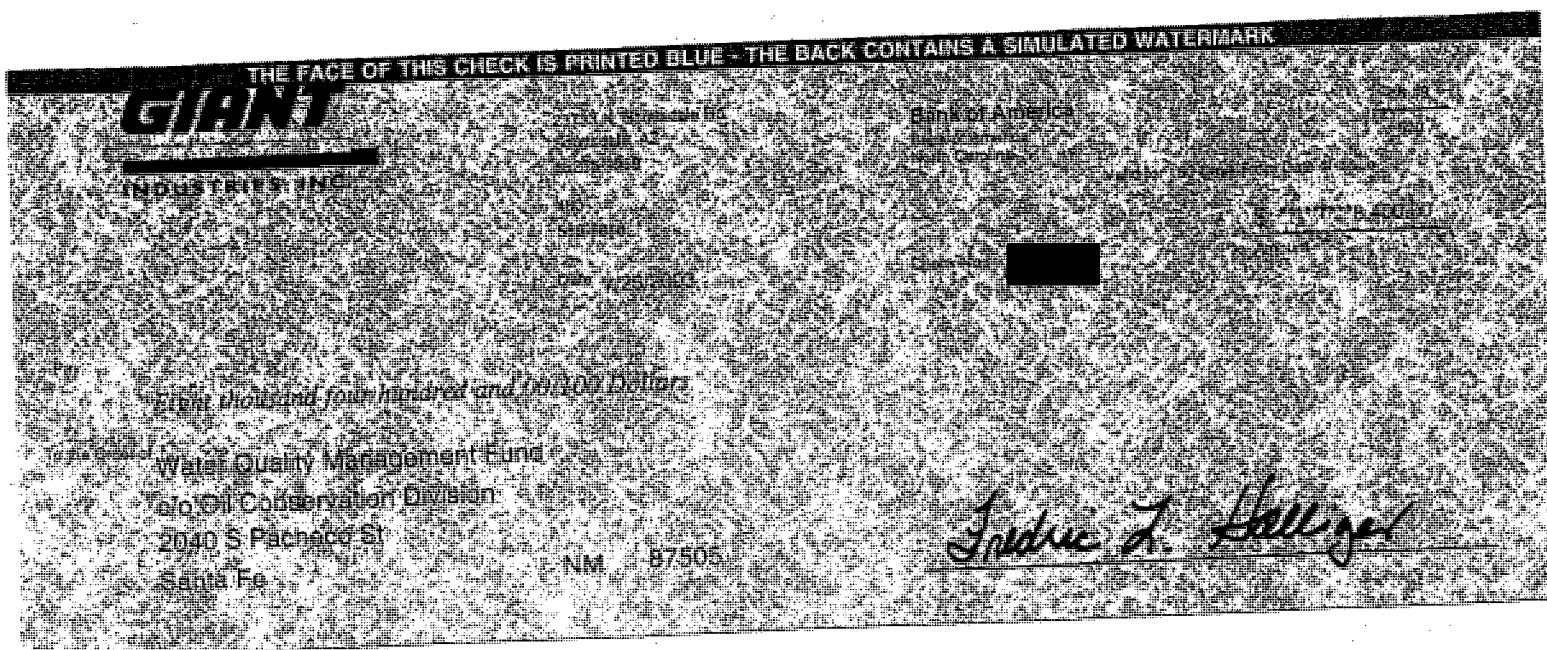
Filing Fee _____ New Facility _____ Renewal ☒

Modification _____ Other _____
(specify)

Organization Code 521.07 Applicable FY 2001

To be deposited in the Water Quality Management Fund.

Full Payment ☒ or Annual Increment _____





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 @ dmancini@giant.com with any questions or concerns.
Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Dorinda Mancini", with a stylized, flowing script.

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

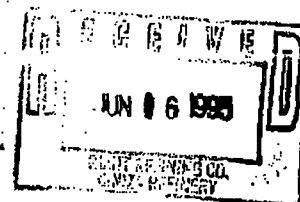
ROUTE 3
BOX 7
GALLUP
NEW MEXICO
87301



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
MAIL ROOM
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, McKinley 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 addition, 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.

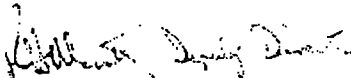
This modification approval to the existing discharge plan will expire August 14, 1996, and you should submit an application for renewal in ample time before this date.

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,



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 runoff for that portion of the facility containing contaminated soils.
4. 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 laboratory 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.

Mr. John J. Stokes

June 14, 1995

Page 4

9. 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 5

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 be 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 reseeded with indigenous grasses and allowed to return to its natural state. Closure will be pursuant to all OCD requirements in effect at the time of closure.



Route 3, Box 7
Gallup, New Mex co
87301

505
722 3832

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 Cinisa 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,

A handwritten signature in cursive script that reads "David C. Pavlich".

David C. Pavlich
Health, Safety, and Environmental Manager
Giant Refining Company

[SRP\WPDOCS\WJL1117.95]

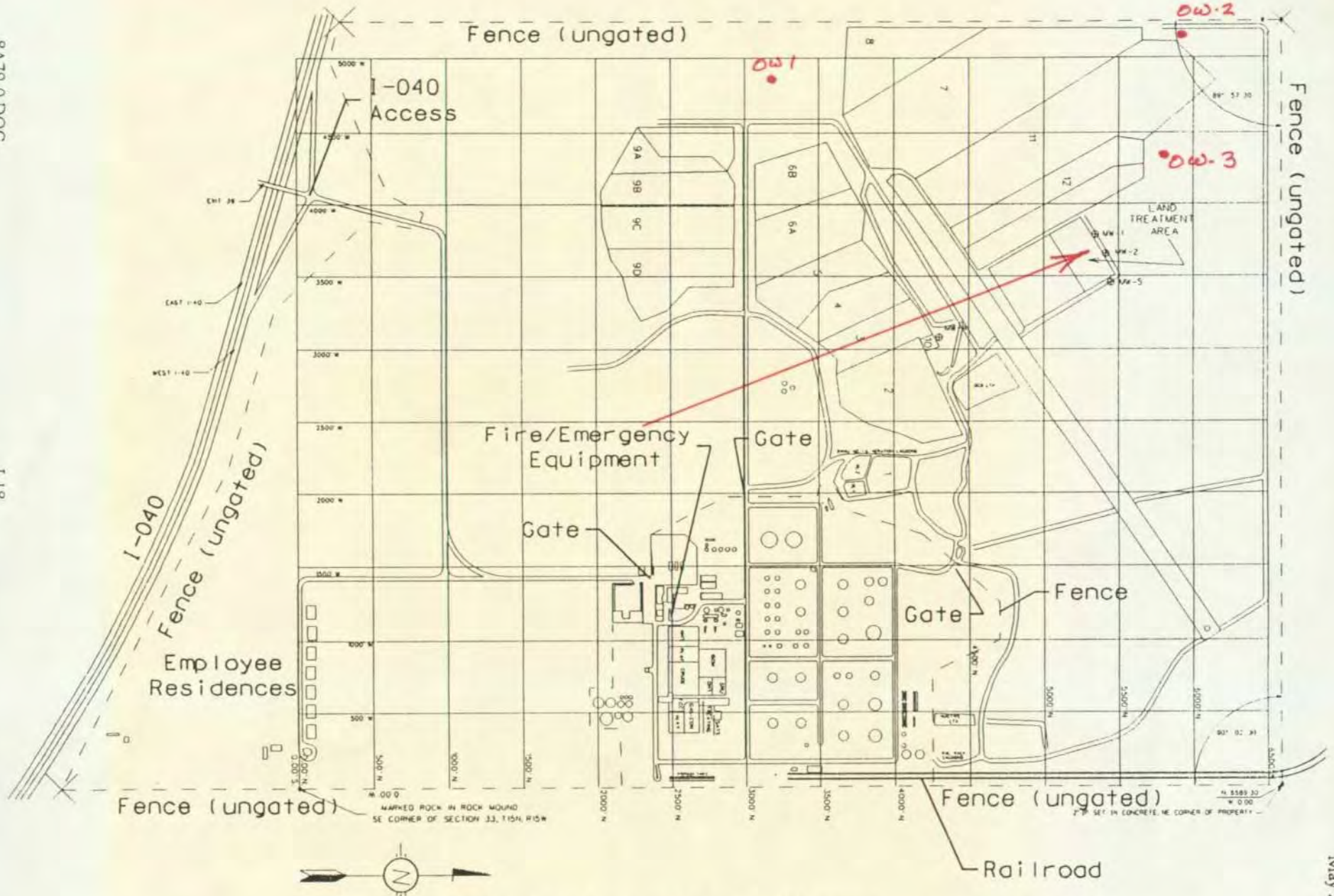


Figure I-2a. LTU, Location of Fence, and Warning Signs

American Environmental Network, Inc.

AEN I.D. 705350

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



H. Mitchell Rubenstein, Ph. D.
General Manager

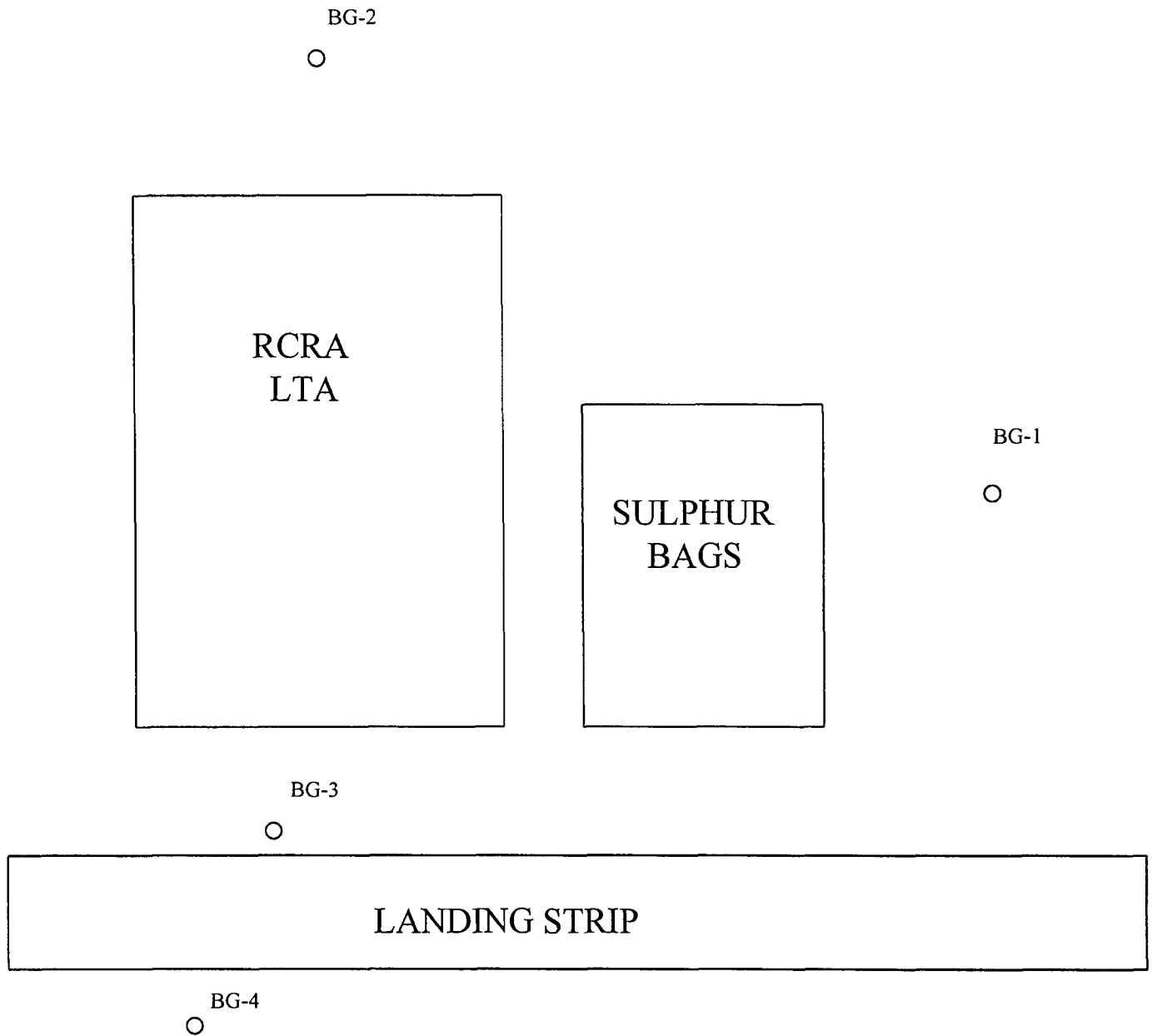
MR: mt

Enclosure

American Environmental Network Inc

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 ID. #	CLIENT DESCRIPTION	MATRIX	DATE 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



American Environmental Network Inc

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		
ID. #	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	5/23/97		
03	BG-3-51897	NON-AQ	5/18/97	5/23/97		
PARAMETER			UNITS	01	02	03
PH (SW846-9045B)			UNITS	8.79	9.04	8.94

CHEMIST NOTES:
N/A

American Environmental Network Inc

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
ID. #	CLIENT I.D.	MATRIX	SAMPLED	ANALYZED
04	BG-4-51897	NON-AQ	5/18/97	5/23/97
PARAMETER		UNITS	04	
PH (SW846-9045B)		UNITS	8.70	

CHEMIST NOTES:
N/A

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : GIANT REFINING CO. AEN I.D. : 705350
PROJECT # : (none) SAMPLE MATRIX : NON-AQ
PROJECT NAME : BCKGRD FOR RCRA LTA

PARAMETER	UNITS	AEN I.D.	SAMPLE RESULT	DUP. RESULT	% RPD
PH	UNITS	705350-01	8.79	8.86	0.8

CHEMIST NOTES:
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

American Environmental Network Inc

"FINAL REPORT FORMAT - MULTIPLE"

Accession: 705350
Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
Project Number: 705350
Project Name: GIANT REFINING
Project Location: N/S
Test: Group of Single Wetchem
QcLevel: II

Parameter:	Unit:	Result:	R.L:	Batch:	Q:
Client ID: 705350-01			Lab ID: 001		
WALKLEY BLACK TOC	%	0.29	0.05	WTS016	
Comments:					
Client ID: 705350-02			Lab ID: 002		
WALKLEY BLACK TOC	%	0.58	0.05	WTS016	
Comments:					
Client ID: 705350-03			Lab ID: 003		
WALKLEY BLACK TOC	%	0.58	0.05	WTS016	
Comments:					
Client ID: 705350-04			Lab ID: 004		
WALKLEY BLACK TOC	%	0.48	0.05	WTS016	
Comments:					

American Environmental Network Inc

"FINAL REPORT FORMAT - MULTIPLE"

Accession: 705350
Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
Project Number: 705350
Project Name: GIANT REFINING
Project Location: N/S
Test: Group of Single Wetchem

Client ID:	Lab Matrix: ID:	Date/Time Sampled:	Date 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

American Environmental Network Inc

"Method Report Summary"

Accession Number: 705350
Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
Project Number: 705350
Project Name: GIANT REFINING
Project Location: N/S
Test: Group of Single Wetchem

Client Sample Id:	Parameter:	Unit:	Result:
705350-01	WALKLEY BLACK TOC	%	0.29
705350-02	WALKLEY BLACK TOC	%	0.58
705350-03	WALKLEY BLACK TOC	%	0.58
705350-04	WALKLEY BLACK TOC	%	0.48

American Environmental Network Inc

"WetChem Quality Control Report"

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 Duplication

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 Spike

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

American Environmental Network Inc

----- 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 = TOTAL
G = 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)
P = ANALYTICAL (POST DIGESTION) SPIKE.
I = DUPLICATE INJECTION.
& = 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".
Z = 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 MICROBIOLOGICAL PROPERTIES, 2ND EDITION.

1. COLIFORM. COLIFORM PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN
THE LOGARITHM OF COLONIES PER 100 MLS OF SAMPLE ON DUPLICATE PLATES.
2. PH. PH PRECISION IS MEASURED BY THE ABSOLUTE DIFFERENCE BETWEEN THE
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.

DPH = DOLLY P. HWANG RB = REBECCA BROWN AB = ANDY BROTHERTON
JL = JAN LECLEAR NSB = NANCY S. BUTLER MM = MIKE MCKENZIE
ED = ESTHER DANTIN LV = LASSANDRA VON APPEN JTZ = JONATHAN T. ZIENTARSKI
PLD = PAULA L. DOUGHTY RH = RICKY HAGENDORFER

American Environmental Network Inc

"FINAL REPORT FORMAT - MULTIPLE"

Accession: 705350
Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
Project Number: 705350
Project Name: GIANT REFINING
Project Location: N/S
Test: RCRA METALS
QcLevel: II

Parameter:	Unit:	Result:	R.L:	Batch:	Q:
Client ID: 705350-01			Lab ID:001		
SILVER (6010)	MG/KG	ND	1	A6S054	
ARSENIC (6010)	MG/KG	ND	5	R6S054	
BARIUM (6010)	MG/KG	240	1	B6S054	
CADMIUM (6010)	MG/KG	ND	0.5	C6S054	
CHROMIUM (6010)	MG/KG	8	1	H6S054	
MERCURY (7471)	MG/KG	ND	0.02	M4S023	
LEAD (6010)	MG/KG	7	5	P6S054	
SELENIUM (6010)	MG/KG	ND	10	S6S054	

Comments:

Client ID: 705350-02			Lab ID:002		
SILVER (6010)	MG/KG	ND	1	A6S054	
ARSENIC (6010)	MG/KG	ND	5	R6S054	
BARIUM (6010)	MG/KG	240	1	B6S054	
CADMIUM (6010)	MG/KG	ND	0.5	C6S054	
CHROMIUM (6010)	MG/KG	13	1	H6S054	
MERCURY (7471)	MG/KG	ND	0.02	M4S023	
LEAD (6010)	MG/KG	8	5	P6S054	
SELENIUM (6010)	MG/KG	ND	10	S6S054	

Comments:

Client ID: 705350-03			Lab ID:003		
SILVER (6010)	MG/KG	ND	1	A6S054	
ARSENIC (6010)	MG/KG	ND	5	R6S054	
BARIUM (6010)	MG/KG	310	1	B6S054	
CADMIUM (6010)	MG/KG	ND	0.5	C6S054	
CHROMIUM (6010)	MG/KG	13	1	H6S054	
MERCURY (7471)	MG/KG	ND	0.02	M4S023	
LEAD (6010)	MG/KG	10	5	P6S054	
SELENIUM (6010)	MG/KG	ND	10	S6S054	

Comments:

Client ID: 705350-04			Lab ID:004		
SILVER (6010)	MG/KG	ND	1	A6S054	
ARSENIC (6010)	MG/KG	ND	5	R6S054	
BARIUM (6010)	MG/KG	240	1	B6S054	
CADMIUM (6010)	MG/KG	ND	0.5	C6S054	
CHROMIUM (6010)	MG/KG	13	1	H6S054	
MERCURY (7471)	MG/KG	ND	0.02	M4S023	
LEAD (6010)	MG/KG	7	5	P6S054	
SELENIUM (6010)	MG/KG	ND	10	S6S054	

Comments:

American Environmental Network Inc

"FINAL REPORT FORMAT - MULTIPLE"

Accession: 705350
Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
Project Number: 705350
Project Name: GIANT REFINING
Project Location: N/S
Test: RCRA METALS

Client Id:	Lab Matrix: Id:	Date/Time Sampled:	Date 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

American Environmental Network Inc

"Method Report Summary"

Accession Number: 705350
Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
Project Number: 705350
Project Name: GIANT REFINING
Project Location: N/S
Test: RCRA METALS

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

American Environmental Network Inc

"Metals Quality Control Report"

Parameter:	SILVER	ARSENIC	BARIUM	CADMIUM	CHROMIUM	MERCURY
Batch Id:	A6S054	R6S054	B6S054	C6S054	H6S054	M4S023
Blank Result:	<1	<5	<1	<0.5	<1	<0.02
Anal. Method:	6010	6010	6010	6010	6010	7471
Prep. Method:	3050	3050	3050	3050	3050	7471
Analysis Date:	22-MAY-97	22-MAY-97	22-MAY-97	22-MAY-97	22-MAY-97	23-MAY-97
Prep. Date:	21-MAY-97	21-MAY-97	21-MAY-97	21-MAY-97	21-MAY-97	23-MAY-97

Sample Duplication

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 Spike

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

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"Metals Quality Control Report"

Parameter:	LEAD	SELENIUM
Batch Id:	P6S054	S6S054
Blank Result:	<5	<10
Anal. Method:	6010	6010
Prep. Method:	3050	3050
Analysis Date:	22-MAY-97	22-MAY-97
Prep. Date:	21-MAY-97	21-MAY-97

Sample Duplication

Sample Dup:	705350-1	705350-1
Rept Limit:	<5	<10
Sample Result:	190	190
Dup Result:	200	200
Sample RPD:	5	5
Max RPD:	20	20
Dry Weight%	N/A	N/A

Matrix Spike

Sample Spiked:	705350-1	705350-1
Rept Limit:	<5	<10
Sample Result:	7	<10
Spiked Result:	190	190
Spike Added:	200	200
% Recovery:	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
% Recovery:	100	102
% Rec Limits:	90-110	90-110

LCS

LCS Result:	83	140
True Result:	86.4	129
% Recovery:	96	109
% Rec Limits:	67-133	73-128

"Quality Control Comments"

Batch Id: Comments:

A6S054	ANALYST: GJ
A6S054	The results reported under "Sample Duplication" are the MS/MSD.
R6S054	ANALYST: GJ
R6S054	The results reported under "Sample Duplication" are the MS/MSD.
B6S054	ANALYST: GJ
B6S054	The results reported under "Sample Duplication" are the MS/MSD.
C6S054	ANALYST: GJ
C6S054	The results reported under "Sample Duplication" are the MS/MSD.
H6S054	ANALYST: GJ
H6S054	The results reported under "Sample Duplication" are the MS/MSD.
M4S023	ANALYST: LV
M4S023	The results reported under "Sample Duplication" are the MS/MSD.
P6S054	ANALYST: GJ
P6S054	The results reported under "Sample Duplication" are the MS/MSD.
S6S054	ANALYST: GJ
S6S054	The results reported under "Sample Duplication" are the MS/MSD.

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----- Common Footnotes Metals -----

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 = REACTIVE
T = TOTAL
G = 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
F = SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.
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".
Z = 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:

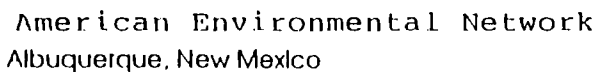
RPD= RELATIVE PERCENT DEVIATION.
RPT LIMIT= REPORTING LIMIT BASED ON METHOD DETECTION LIMIT STUDIES.

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.

GJ = GARY JACOBS
JLH = JAMES L. HERED
CD = CHRISTY DRAPER

JR = JOHN REED
LV = LASSANDRA VON APPEN



DATE: 5-19-97 PAGE: 1 OF 1

PROJECT INFORMATION		SAMPLE RECEIPT		SAMPLES SENT TO:		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.	
PROJECT NUMBER.	705350	TOTAL NUMBER OF CONTAINERS		SAN DIEGO		Signature:	Time:	Signature	Time
PROJECT NAME.	Liant Refining	CHAIN OF CUSTODY SEALS		Paragon		<i>B.P.</i>	1700		
QC LEVEL.	STD. IV	INTACT?		RENTON		Printed Name:	Date:	Printed Name	Date
QC REQUIRED:	MS MSD BLANK	RECEIVED GOOD COND./COLD		PENSACOLA	X	<i>Brim Price</i>	05-19-97		
QA	STANDARD RUSH	LAB NUMBER		PORTLAND		Albuquerque	NM	Company	
				PHOENIX		RECEIVED BY: 1.		RECEIVED BY: (LAB) 2.	
DUE DATE: 5-23-97						Signature:	Time:	Signature:	Time:
RUSH SURCHARGE:						<i>Kinda L. Kitt</i>	0825		
CLIENT DISCOUNT:						Printed Name:	Date:	Printed Name:	Date:
SPECIAL CERTIFICATION REQUIRED: <input type="checkbox"/> YES <input type="checkbox"/> NO						<i>Kinda L. Kitt</i>	5/20/97		
						Company:		Company:	
						<i>NEW 71</i>			

American Environmental Network of Florida

PROJECT SAMPLE INSPECTION FORM

Lab Accession #: 705350

Date Received: 20-May-97

- | | |
|---|--|
| <p>1. Was there a Chain of Custody? <input checked="" type="radio"/> Yes <input type="radio"/> No*</p> <p>2. Was Chain of Custody properly filled out and relinquished? <input checked="" type="radio"/> Yes <input type="radio"/> No*</p> <p>3. Were samples received cold? <input checked="" type="radio"/> Yes <input type="radio"/> No* N/A
(Criteria: 1° - 4°C: AEN-SOP 1055)</p> <p>4. Were all samples properly labeled and identified? <input checked="" type="radio"/> Yes <input type="radio"/> No*</p> <p>5. Did samples require splitting? <input type="radio"/> Yes* <input checked="" type="radio"/> No
Req By: PM Client Other*</p> <p>6. Were samples received in proper containers for analysis requested? <input checked="" type="radio"/> Yes <input type="radio"/> No*</p> <p>7. Were all sample containers received intact? <input checked="" type="radio"/> Yes <input type="radio"/> No*</p> | <p>8. Were samples checked for preservative? (Check pH of all H₂O requiring preservative except VOA vials that require zero headspace)* <input type="radio"/> Yes <input type="radio"/> No* <input checked="" type="radio"/> N/A</p> <p>9. Is there sufficient volume for analysis requested? <input checked="" type="radio"/> Yes <input type="radio"/> No*</p> <p>10. Were samples received within Holding Time? (REFER TO AEN-SOP 1040) <input checked="" type="radio"/> Yes <input type="radio"/> No*</p> <p>11. Is Headspace visible > 1/4" in diameter in VOA vials? If any headspace is evident, comment in out-of-control section. <input type="radio"/> Yes* <input type="radio"/> No <input checked="" type="radio"/> N/A</p> <p>12. If sent, were matrix spike bottles returned? <input type="radio"/> Yes <input type="radio"/> No* <input checked="" type="radio"/> N/A</p> <p>13. Was Project Manager notified of problems? (initials: _____) <input type="radio"/> Yes <input type="radio"/> No* <input checked="" type="radio"/> N/A</p> |
|---|--|

Airbill Number(s): 185 9358 593

Shipped By: Ydx

Cooler Number(s): N/A

Shipping Charges: N/A

Cooler Weight(s): N/A

Cooler Temp(s) (°C): 4°C

ACK 1
(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

Out of Control Events and Inspection Comments:

(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: S. Kitt Date: 20-May-97 Logged By: S. Kitt Date: 20-May-97

- * 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 Carolina, 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, 1/4" 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).