

GR0005



ROUTE 3 BOX 7  
GALLUP  
NEW MEXICO 87301

November 15, 2005

Hope Monzeglio  
Environmental Specialist  
New Mexico Environment Department  
Hazardous Waste Bureau  
2905 Rodeo Park Drive East, BLDG 1  
Santa Fe NM 87505



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

Re: Request For Waste Determination At The Giant Ciniza Refinery

Dear Hope Monzeglio:

Giant is requesting a "contained in" determination as per 40CFR 268.7(e) regarding soil excavated to remediate releases of oily water from the oil water separator and its inlet box on August 3 and 15, 2005. The amount excavated was approximately 17 cubic yards from the August 3, 2005 spill and 13 cubic yards from the August 15, 2005 spill.

Composite samples of the two piles of soil were taken and analytics for EPA Method 8260B and 8270C were run and the results are attached. The 8270C results indicate non-detect for the full suite except for Bis(2-ethylhexyl)phthalate which was reported as .21 mg/Kg which is below the EPA Region 6 Residential Soil Screening Levels. The 8260B results indicate the August 3, 2005 analytics reported .055 mg/kg of xylene and all other results were non detect or below the Residential New Mexico Soil Screening Levels. The 8260B results indicate the August 15, 2005 analytics reported .071 mg/kg of benzene, .32 mg/kg of toluene, .13 mg/kg of ethylbenzene, and 1.4 mg/kg of xylene which are all below the Residential New Mexico Soil Screening Levels. All other 8260B results for the August 15, 2005 spill were either non detect or below the Residential New Mexico Soil Screening Levels.

These results demonstrate the soil is not hazardous waste because the contaminant concentrations are low enough that they do not pose a threat of migrating into the environment. Giant would like to dispose of the soil in a non hazardous waste landfill. Thank you for your review.

Sincerely,

A handwritten signature in black ink, appearing to read "Ed Riege".

Ed Riege  
Environmental Superintendent

C: Ed Rios  
James Romero



COVER LETTER

September 06, 2005

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

RE: Soil Samples From 8/15/05 Event

Order No.: 0508182

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 1 sample on 8/17/2005 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".

Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager



# Hall Environmental Analysis Laboratory

Date: 06-Sep-05

CLIENT: Giant Refining Co  
 Lab Order: 0508182  
 Project: Soil Samples From 8/15/05 Event  
 Lab ID: 0508182-01

Client Sample ID: Soil 8 15 05  
 Collection Date: 8/16/2005 11:30:00 AM  
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: BDH
Benzene	0.071	0.050		mg/Kg	1	8/22/2005
Toluene	0.32	0.050		mg/Kg	1	8/22/2005
Ethylbenzene	0.13	0.050		mg/Kg	1	8/22/2005
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	8/22/2005
1,2,4-Trimethylbenzene	0.46	0.050		mg/Kg	1	8/22/2005
1,3,5-Trimethylbenzene	0.11	0.050		mg/Kg	1	8/22/2005
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	8/22/2005
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	8/22/2005
Naphthalene	0.13	0.10		mg/Kg	1	8/22/2005
1-Methylnaphthalene	0.20	0.20		mg/Kg	1	8/22/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	8/22/2005
Acetone	ND	0.50		mg/Kg	1	8/22/2005
Bromobenzene	ND	0.050		mg/Kg	1	8/22/2005
Bromochloromethane	ND	0.050		mg/Kg	1	8/22/2005
Bromodichloromethane	ND	0.050		mg/Kg	1	8/22/2005
Bromoform	ND	0.050		mg/Kg	1	8/22/2005
Bromomethane	ND	0.10		mg/Kg	1	8/22/2005
2-Butanone	ND	0.50		mg/Kg	1	8/22/2005
Carbon disulfide	ND	0.50		mg/Kg	1	8/22/2005
Carbon tetrachloride	ND	0.10		mg/Kg	1	8/22/2005
Chlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
Chloroethane	ND	0.10		mg/Kg	1	8/22/2005
Chloroform	ND	0.050		mg/Kg	1	8/22/2005
Chloromethane	ND	0.050		mg/Kg	1	8/22/2005
2-Chlorotoluene	ND	0.050		mg/Kg	1	8/22/2005
4-Chlorotoluene	ND	0.050		mg/Kg	1	8/22/2005
cis-1,2-DCE	ND	0.050		mg/Kg	1	8/22/2005
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	8/22/2005
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	8/22/2005
Dibromochloromethane	ND	0.050		mg/Kg	1	8/22/2005
Dibromomethane	ND	0.10		mg/Kg	1	8/22/2005
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	8/22/2005
1,1-Dichloroethane	ND	0.050		mg/Kg	1	8/22/2005
1,1-Dichloroethene	ND	0.050		mg/Kg	1	8/22/2005
1,2-Dichloropropane	ND	0.050		mg/Kg	1	8/22/2005
1,3-Dichloropropane	ND	0.050		mg/Kg	1	8/22/2005
2,2-Dichloropropane	ND	0.050		mg/Kg	1	8/22/2005
1,1-Dichloropropene	ND	0.050		mg/Kg	1	8/22/2005

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

# Hall Environmental Analysis Laboratory

Date: 06-Sep-05

CLIENT: Giant Refining Co  
 Lab Order: 0508182  
 Project: Soil Samples From 8/15/05 Event  
 Lab ID: 0508182-01

Client Sample ID: Soil 8 15 05  
 Collection Date: 8/16/2005 11:30:00 AM  
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Hexachlorobutadiene	ND	0.050		mg/Kg	1	8/22/2005
2-Hexanone	ND	0.50		mg/Kg	1	8/22/2005
Isopropylbenzene	ND	0.050		mg/Kg	1	8/22/2005
4-Isopropyltoluene	ND	0.050		mg/Kg	1	8/22/2005
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	8/22/2005
Methylene chloride	ND	0.15		mg/Kg	1	8/22/2005
n-Butylbenzene	0.062	0.050		mg/Kg	1	8/22/2005
n-Propylbenzene	ND	0.050		mg/Kg	1	8/22/2005
sec-Butylbenzene	ND	0.050		mg/Kg	1	8/22/2005
Styrene	ND	0.050		mg/Kg	1	8/22/2005
tert-Butylbenzene	ND	0.050		mg/Kg	1	8/22/2005
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	8/22/2005
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	8/22/2005
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	8/22/2005
trans-1,2-DCE	ND	0.050		mg/Kg	1	8/22/2005
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	8/22/2005
1,2,3-Trichlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	8/22/2005
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	8/22/2005
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	8/22/2005
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	8/22/2005
Trichlorofluoromethane	ND	0.050		mg/Kg	1	8/22/2005
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	8/22/2005
Vinyl chloride	ND	0.050		mg/Kg	1	8/22/2005
Xylenes, Total	1.4	0.050		mg/Kg	1	8/22/2005
Surr: 1,2-Dichloroethane-d4	98.5	82.3-110		%REC	1	8/22/2005
Surr: 4-Bromofluorobenzene	103	87.4-120		%REC	1	8/22/2005
Surr: Dibromofluoromethane	102	82.8-110		%REC	1	8/22/2005
Surr: Toluene-d8	91.5	81.5-114		%REC	1	8/22/2005

**EPA METHOD 7471: MERCURY**

Analyst: CMC

Mercury	0.091	0.033		mg/Kg	1	8/22/2005
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**EPA METHOD 6010C: SOIL METALS**

Analyst: NMO

Arsenic	ND	2.5		mg/Kg	1	8/24/2005 3:09:46 PM
Barium	450	1.0		mg/Kg	10	8/26/2005 4:51:35 PM
Cadmium	ND	0.10		mg/Kg	1	8/24/2005 3:09:46 PM
Chromium	7.7	0.30		mg/Kg	1	8/24/2005 3:09:46 PM
Lead	5.2	0.25		mg/Kg	1	8/24/2005 3:09:46 PM
Selenium	ND	2.5		mg/Kg	1	8/24/2005 3:09:46 PM
Silver	ND	0.25		mg/Kg	1	8/24/2005 3:09:46 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: 06-Sep-05

CLIENT: Giant Refining Co  
 Work Order: 0508182  
 Project: Soil Samples From 8/15/05 Event

QC SUMMARY REPORT  
 Method Blank

Sample ID	MB-8591	Batch ID:	8591	Test Code:	SW7471	Units:	mg/Kg	Analysis Date	8/22/2005	Prep Date	8/22/2005		
Client ID:		Run ID:	MI-LA254_050822B	SeqNo:	390821								
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		ND		0.033									

Sample ID	MB-8583	Batch ID:	8583	Test Code:	SW6010A	Units:	mg/Kg	Analysis Date	8/24/2005 2:00:56 PM	Prep Date	8/22/2005		
Client ID:		Run ID:	ICP_050824A	SeqNo:	392723								
Analyte		Result		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		ND		2.5									
Barium		ND		0.1									
Cadmium		ND		0.1									
Chromium		ND		0.3									
Lead		ND		0.25									
Selenium		ND		2.5									
Silver		ND		0.25									

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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: 06-Sep-05

CLIENT: Giant Refining Co  
 Work Order: 0508182  
 Project: Soil Samples From 8/15/05 Event

QC SUMMARY REPORT  
 Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
mb-8554	8554	SW8260B	mg/Kg	8/22/2005	8/18/2005						
Client ID	Run ID	SeqNo									
	THOR_050822A	390910									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.0162	0.05									J
Toluene	0.0186	0.05									J
Ethylbenzene	0.0119	0.05									J
Methyl tert-butyl ether (MTBE)	ND	0.05									
1,2,4-Trimethylbenzene	ND	0.05									
1,3,5-Trimethylbenzene	ND	0.05									
1,2-Dichloroethane (EDC)	0.0168	0.05									J
1,2-Dibromoethane (EDB)	ND	0.05									
Naphthalene	ND	0.1									
1-Methylnaphthalene	ND	0.2									
2-Methylnaphthalene	ND	0.2									
Acetone	ND	0.5									
Bromobenzene	ND	0.05									
Bromochloromethane	ND	0.05									
Bromodichloromethane	ND	0.05									
Bromoform	ND	0.05									
Bromomethane	ND	0.1									
2-Butanone	0.4807	0.5									J
Carbon disulfide	ND	0.5									
Carbon tetrachloride	ND	0.1									
Chlorobenzene	ND	0.05									
Chloroethane	ND	0.1									
Chloroform	ND	0.05									
Chloromethane	ND	0.05									
2-Chlorotoluene	ND	0.05									
4-Chlorotoluene	ND	0.05									
cis-1,2-DCE	ND	0.05									

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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

CLIENT: Giant Refining Co  
 Work Order: 0508182  
 Project: Soil Samples From 8/15/05 Event

QC SUMMARY REPORT

Method Blank

cis-1,3-Dichloropropene	ND	0.05	
1,2-Dibromo-3-chloropropane	ND	0.1	
Dibromochloromethane	ND	0.05	
Dibromomethane	ND	0.1	
1,2-Dichlorobenzene	ND	0.05	
1,3-Dichlorobenzene	ND	0.05	
1,4-Dichlorobenzene	ND	0.05	
Dichlorodifluoromethane	ND	0.05	
1,1-Dichloroethane	ND	0.05	
1,1-Dichloroethene	ND	0.05	
1,2-Dichloropropane	0.0162	0.05	J
1,3-Dichloropropane	ND	0.05	
2,2-Dichloropropane	ND	0.05	
1,1-Dichloropropene	ND	0.05	
Hexachlorobutadiene	ND	0.05	
2-Hexanone	ND	0.5	
Isopropylbenzene	ND	0.05	
4-Isopropyltoluene	ND	0.05	
4-Methyl-2-pentanone	0.0973	0.5	J
Methylene chloride	ND	0.15	
n-Butylbenzene	ND	0.05	
n-Propylbenzene	ND	0.05	
sec-Butylbenzene	ND	0.05	
Styrene	ND	0.05	
tert-Butylbenzene	ND	0.05	
1,1,1,2-Tetrachloroethane	ND	0.05	
1,1,2,2-Tetrachloroethane	ND	0.05	
Tetrachloroethene (PCE)	0.0231	0.05	J
trans-1,2-DCE	ND	0.05	
trans-1,3-Dichloropropene	ND	0.05	
1,2,3-Trichlorobenzene	ND	0.05	
1,2,4-Trichlorobenzene	0.0057	0.05	J
1,1,1-Trichloroethane	ND	0.05	

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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:** 0508182  
**Project:** Soil Samples From 8/15/05 Event

## QC SUMMARY REPORT

Method Blank

1,1,2-Trichloroethane	ND	0.05							
Trichloroethene (TCE)	ND	0.05							
Trichlorofluoromethane	ND	0.05							
1,2,3-Trichloropropane	ND	0.1							
Vinyl chloride	ND	0.05							
Xylenes, Total	ND	0.05							
Surr: 1,2-Dichloroethane-d4	0.5414	0	0.5	0	108	82.3	110	0	
Surr: 4-Bromofluorobenzene	0.5253	0	0.5	0	105	87.4	120	0	
Surr: Dibromofluoromethane	0.5481	0	0.5	0	110	82.8	110	0	
Surr: Toluene-d8	0.4536	0	0.5	0	90.7	81.5	114	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: 06-Sep-05

CLIENT: Giant Refining Co  
 Work Order: 0508182  
 Project: Soil Samples From 8/15/05 Event

QC SUMMARY REPORT

Sample Duplicate

Sample ID 0508182-01B DUP Batch ID: 8583 Test Code: SW6010A Units: mg/Kg Analysis Date 8/24/2005 3:12:14 PM Prep Date 8/22/2005  
 Client ID: Soil 8 15 05 Run ID: ICP\_050824A SeqNo: 392739

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	2.005	2.4	0	0	0	0	0	1.832	0	30	J
Cadmium	ND	0.097	0	0	0	0	0	0	0	30	
Chromium	6.18	0.29	0	0	0	0	0	7.707	22.0	30	
Lead	3.836	0.24	0	0	0	0	0	5.232	30.8	30	R
Selenium	ND	2.4	0	0	0	0	0	0	0	30	
Silver	ND	0.24	0	0	0	0	0	0	0	30	

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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: 06-Sep-05

CLIENT: Giant Refining Co  
 Work Order: 0508182  
 Project: Soil Samples From 8/15/05 Event

**QC SUMMARY REPORT**  
 Laboratory Control Spike - generic

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
Ics-8554	8554	SW8260B	mg/Kg	8/22/2005	8/18/2005						
Client ID:		Run ID: THOR_050822A		SeqNo: 390944							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.9753	0.05	1	0.0162	95.9	84	119	0			
Toluene	0.9313	0.05	1	0.0186	91.3	88.4	124	0			
Chlorobenzene	1.105	0.05	1	0	110	93.2	120	0			
1,1-Dichloroethene	0.9496	0.05	1	0	95.0	59	122	0			
Trichloroethene (TCE)	0.7693	0.05	1	0	76.9	69.4	120	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
Icsd-8554	8554	SW8260B	mg/Kg	8/22/2005	8/18/2005						
Client ID:		Run ID: THOR_050822A		SeqNo: 390946							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.011	0.05	1	0.0162	99.5	84	119	0.9753	3.61	20	
Toluene	0.9179	0.05	1	0.0186	89.9	88.4	124	0.9313	1.45	20	
Chlorobenzene	1.001	0.05	1	0	100	93.2	120	1.105	9.85	20	
1,1-Dichloroethene	0.941	0.05	1	0	94.1	59	122	0.9496	0.910	20	
Trichloroethene (TCE)	0.7953	0.05	1	0	79.5	69.4	120	0.7693	3.32	20	

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-8591	8591	SW7471	mg/Kg	8/22/2005	8/22/2005						
Client ID:		Run ID: MI-LA254_050822B		SeqNo: 390822							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.1532	0.033	0.1667	0	91.9	75	125	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSd-8591	8591	SW7471	mg/Kg	8/22/2005	8/22/2005						
Client ID:		Run ID: MI-LA254_050822B		SeqNo: 390837							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.1558	0.033	0.1667	0	93.6	75	125	0.1532	1.70	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

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CLIENT: Giant Refining Co  
 Work Order: 0508182  
 Project: Soil Samples From 8/15/05 Event

**QC SUMMARY REPORT**  
 Laboratory Control Spike - generic

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-8583	8583	SW6010A	mg/Kg	8/24/2005 2:03:59 PM	8/22/2005						
Client ID:	Run ID:	ICP_050824A	SeqNo:	392724							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	24.43	2.5	25	0	97.7	80	120	0			
Barium	22.41	0.1	25	0	89.6	80	120	0			
Cadmium	23.64	0.1	25	0	94.6	80	120	0			
Chromium	22.99	0.3	25	0	92.0	80	120	0			
Lead	23.06	0.25	25	0	92.2	80	120	0			
Selenium	23.5	2.5	25	0	94.0	80	120	0			
Silver	24.55	0.25	25	0	98.2	80	120	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCSD-8583	8583	SW6010A	mg/Kg	8/24/2005 2:07:14 PM	8/22/2005						
Client ID:	Run ID:	ICP_050824A	SeqNo:	392725							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	24.85	2.5	25	0	99.4	80	120	24.43	1.70	20	
Barium	22.84	0.1	25	0	91.4	80	120	22.41	1.92	20	
Cadmium	23.89	0.1	25	0	95.6	80	120	23.64	1.04	20	
Chromium	23.21	0.3	25	0	92.8	80	120	22.99	0.939	20	
Lead	23.15	0.25	25	0	92.6	80	120	23.06	0.401	20	
Selenium	23.61	2.5	25	0	94.4	80	120	23.5	0.468	20	
Silver	24.89	0.25	25	0	99.5	80	120	24.55	1.38	20	

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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

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

8/17/2005

Work Order Number 0508182

Received by SSB

Checklist completed by

*M. Schlogge*  
Signature

8-17-05  
Date

Matrix

Carrier name Client drop-off

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

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

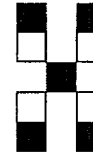
Corrective Action \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

# CHAIN-OF-CUSTODY RECORD

Client: *Giant Refining Company - Arizona*  
 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: *Soil samples from 8-15-05 event*  
 Project #:  
 Project Manager: *Steve Morris*  
 Sampler: *Steve Morris*  
 Sample Temperature: *50*



**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.	BTX + MTBE + TMB's (8021)	BTX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	PCRA 8 Metals	Anions (F, Cl, NO <sub>2</sub> , NO <sub>3</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VDA)										Air Bubbles or Headspace (Y or N)		
					HgCl <sub>2</sub>	HNO <sub>3</sub>																									
<i>8/16/05</i>	<i>1130</i>	<i>Soil</i>	<i>Soil 81505</i>				<i>5508182</i>																								

Date: *8/17/05* Time: *0800* Relinquished By: (Signature) *Steve Morris*

Received By: (Signature) *[Signature]*  
 Received By: (Signature) *[Signature]*  
*8/17/05*  
*08:02*

Remarks:



COVER LETTER

October 25, 2005

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

RE: Soil from Spills on 8-3-05 & 8-15-05

Order No.: 0510137

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 2 samples on 10/14/2005 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".

Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager



# Hall Environmental Analysis Laboratory

Date: 25-Oct-05

**CLIENT:** Giant Refining Co **Client Sample ID:** Soil-8-3-05 spill  
**Lab Order:** 0510137 **Collection Date:** 8/13/2005 3:00:00 PM  
**Project:** Soil from Spills on 8-3-05 & 8-15-05  
**Lab ID:** 0510137-01 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8270C: SEMIVOLATILES</b>						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	10/21/2005
Acenaphthylene	ND	0.20		mg/Kg	1	10/21/2005
Aniline	ND	0.20		mg/Kg	1	10/21/2005
Anthracene	ND	0.20		mg/Kg	1	10/21/2005
Azobenzene	ND	0.20		mg/Kg	1	10/21/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	10/21/2005
Benzidine	ND	0.20		mg/Kg	1	10/21/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/21/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/21/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	10/21/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	10/21/2005
Benzoic acid	ND	0.50		mg/Kg	1	10/21/2005
Benzyl alcohol	ND	1.0		mg/Kg	1	10/21/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	10/21/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	10/21/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	10/21/2005
Bis(2-ethylhexyl)phthalate	0.21	0.20		mg/Kg	1	10/21/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	10/21/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/21/2005
Carbazole	ND	0.20		mg/Kg	1	10/21/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	10/21/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	10/21/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	10/21/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	10/21/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2005
Chrysene	ND	0.20		mg/Kg	1	10/21/2005
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/21/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	10/21/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	10/21/2005
Dibenzofuran	ND	0.50		mg/Kg	1	10/21/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	10/21/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	10/21/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/21/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	10/21/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	10/21/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/21/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	10/21/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	10/21/2005

**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: 25-Oct-05

CLIENT: Giant Refining Co

Client Sample ID: Soil-8-3-05 spill

Lab Order: 0510137

Collection Date: 8/13/2005 3:00:00 PM

Project: Soil from Spills on 8-3-05 & 8-15-05

Lab ID: 0510137-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	10/21/2005
Fluoranthene	ND	0.20		mg/Kg	1	10/21/2005
Fluorene	ND	0.20		mg/Kg	1	10/21/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/21/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/21/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	10/21/2005
Hexachloroethane	ND	0.50		mg/Kg	1	10/21/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/21/2005
Isophorone	ND	0.20		mg/Kg	1	10/21/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2005
2-Methylphenol	ND	0.20		mg/Kg	1	10/21/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/21/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/21/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/21/2005
Naphthalene	ND	0.20		mg/Kg	1	10/21/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	10/21/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	10/21/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	10/21/2005
Nitrobenzene	ND	0.20		mg/Kg	1	10/21/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	10/21/2005
Phenanthrene	ND	0.20		mg/Kg	1	10/21/2005
Phenol	ND	0.20		mg/Kg	1	10/21/2005
Pyrene	ND	0.20		mg/Kg	1	10/21/2005
Pyridine	ND	0.50		mg/Kg	1	10/21/2005
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/21/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2005
Surr: 2,4,6-Tribromophenol	97.5	35.5-141		%REC	1	10/21/2005
Surr: 2-Fluorobiphenyl	79.9	30.4-128		%REC	1	10/21/2005
Surr: 2-Fluorophenol	71.6	28.1-129		%REC	1	10/21/2005
Surr: 4-Terphenyl-d14	99.6	34.6-151		%REC	1	10/21/2005
Surr: Nitrobenzene-d5	78.6	26.5-122		%REC	1	10/21/2005
Surr: Phenol-d6	79.0	37.6-118		%REC	1	10/21/2005

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: 25-Oct-05

CLIENT: Giant Refining Co  
 Lab Order: 0510137  
 Project: Soil from Spills on 8-3-05 & 8-15-05  
 Lab ID: 0510137-02

Client Sample ID: Soil-8-15-05 spill  
 Collection Date: 8/13/2005 3:15:00 PM  
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8270C: SEMIVOLATILES</b>						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	10/21/2005
Acenaphthylene	ND	0.20		mg/Kg	1	10/21/2005
Aniline	ND	0.20		mg/Kg	1	10/21/2005
Anthracene	ND	0.20		mg/Kg	1	10/21/2005
Azobenzene	ND	0.20		mg/Kg	1	10/21/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	10/21/2005
Benzidine	ND	0.20		mg/Kg	1	10/21/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/21/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/21/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	10/21/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	10/21/2005
Benzoic acid	ND	0.50		mg/Kg	1	10/21/2005
Benzyl alcohol	ND	1.0		mg/Kg	1	10/21/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	10/21/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	10/21/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	10/21/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	10/21/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	10/21/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/21/2005
Carbazole	ND	0.20		mg/Kg	1	10/21/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	10/21/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	10/21/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	10/21/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	10/21/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2005
Chrysene	ND	0.20		mg/Kg	1	10/21/2005
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/21/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	10/21/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	10/21/2005
Dibenzofuran	ND	0.50		mg/Kg	1	10/21/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	10/21/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	10/21/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/21/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	10/21/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	10/21/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/21/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	10/21/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	10/21/2005

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: 25-Oct-05

CLIENT: Giant Refining Co  
 Lab Order: 0510137  
 Project: Soil from Spills on 8-3-05 & 8-15-05  
 Lab ID: 0510137-02

Client Sample ID: Soil-8-15-05 spill  
 Collection Date: 8/13/2005 3:15:00 PM  
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	10/21/2005
Fluoranthene	ND	0.20		mg/Kg	1	10/21/2005
Fluorene	ND	0.20		mg/Kg	1	10/21/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/21/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/21/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	10/21/2005
Hexachloroethane	ND	0.50		mg/Kg	1	10/21/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/21/2005
Isophorone	ND	0.20		mg/Kg	1	10/21/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2005
2-Methylphenol	ND	0.20		mg/Kg	1	10/21/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/21/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/21/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/21/2005
Naphthalene	ND	0.20		mg/Kg	1	10/21/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	10/21/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	10/21/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	10/21/2005
Nitrobenzene	ND	0.20		mg/Kg	1	10/21/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	10/21/2005
Phenanthrene	ND	0.20		mg/Kg	1	10/21/2005
Phenol	ND	0.20		mg/Kg	1	10/21/2005
Pyrene	ND	0.20		mg/Kg	1	10/21/2005
Pyridine	ND	0.50		mg/Kg	1	10/21/2005
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/21/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2005
Surr: 2,4,6-Tribromophenol	70.7	35.5-141		%REC	1	10/21/2005
Surr: 2-Fluorobiphenyl	65.1	30.4-128		%REC	1	10/21/2005
Surr: 2-Fluorophenol	62.8	28.1-129		%REC	1	10/21/2005
Surr: 4-Terphenyl-d14	94.2	34.6-151		%REC	1	10/21/2005
Surr: Nitrobenzene-d5	62.8	26.5-122		%REC	1	10/21/2005
Surr: Phenol-d6	65.9	37.6-118		%REC	1	10/21/2005

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: 25-Oct-05

CLIENT: Giant Refining Co  
 Work Order: 0510137  
 Project: Soil from Spills on 8-3-05 & 8-15-05

QC SUMMARY REPORT

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MB-8989	8989	SW8270C	mg/Kg	10/21/2005	10/18/2005						
Client ID:		Run ID: ELMO_051019B		SeqNo: 413333							
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	1									
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	ND	0.2									
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	ND	0.5									

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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

**CLIENT:** Giant Refining Co  
**Work Order:** 0510137  
**Project:** Soil from Spills on 8-3-05 & 8-15-05

**QC SUMMARY REPORT**

Method Blank

Di-n-octyl phthalate	ND	0.5
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

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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:** 0510137  
**Project:** Soil from Spills on 8-3-05 & 8-15-05

**QC SUMMARY REPORT**

Method Blank

2-Nitrophenol	ND	0.2							
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	2.821	0	3.33	0	84.7	35.5	141	0	
Surr: 2-Fluorobiphenyl	1.055	0	1.67	0	63.2	30.4	128	0	
Surr: 2-Fluorophenol	1.939	0	3.33	0	58.2	28.1	129	0	
Surr: 4-Terphenyl-d14	1.675	0	1.67	0	100	34.6	151	0	
Surr: Nitrobenzene-d5	1.093	0	1.67	0	65.5	26.5	122	0	
Surr: Phenol-d6	2.17	0	3.33	0	65.2	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: 25-Oct-05

CLIENT: Giant Refining Co  
 Work Order: 0510137  
 Project: Soil from Spills on 8-3-05 & 8-15-05

**QC SUMMARY REPORT**  
 Laboratory Control Spike - generic

Sample ID	Batch ID: 8989	Test Code: SW8270C	Units: mg/Kg	Analysis Date	10/21/2005	Prep Date	10/18/2005				
Client ID:	Run ID: ELMO_051019B	SeqNo:	413334								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.402	0.2	1.67	0	84.0	24	125	0			
4-Chloro-3-methylphenol	2.568	0.2	3.33	0	77.1	14.6	154	0			
2-Chlorophenol	2.441	0.2	3.33	0	73.3	13.3	149	0			
1,4-Dichlorobenzene	1.097	0.2	1.67	0	65.7	23.6	118	0			
2,4-Dinitrotoluene	1.373	0.2	1.67	0	82.2	28	136	0			
N-Nitrosodi-n-propylamine	1.151	0.2	1.67	0	68.9	28	114	0			
4-Nitrophenol	2.723	0.2	3.33	0	81.8	13.1	150	0			
Pentachlorophenol	2.451	0.5	3.33	0	73.6	20.1	139	0			
Phenol	2.329	0.2	3.33	0	69.9	17.3	141	0			
Pyrene	1.387	0.2	1.67	0	83.1	29	131	0			
1,2,4-Trichlorobenzene	1.115	0.2	1.67	0	66.8	17.9	126	0			

Sample ID	Batch ID: 8989	Test Code: SW8270C	Units: mg/Kg	Analysis Date	10/21/2005	Prep Date	10/18/2005				
Client ID:	Run ID: ELMO_051019B	SeqNo:	413335								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.356	0.2	1.67	0	81.2	24	125	1.402	3.31	25	
4-Chloro-3-methylphenol	2.374	0.2	3.33	0	71.3	14.6	154	2.568	7.85	25	
2-Chlorophenol	2.417	0.2	3.33	0	72.6	13.3	149	2.441	1.00	25	
1,4-Dichlorobenzene	1.211	0.2	1.67	0	72.5	23.6	118	1.097	9.91	25	
2,4-Dinitrotoluene	1.298	0.2	1.67	0	77.7	28	136	1.373	5.59	25	
N-Nitrosodi-n-propylamine	1.154	0.2	1.67	0	69.1	28	114	1.151	0.260	25	
4-Nitrophenol	2.388	0.2	3.33	0	71.7	13.1	150	2.723	13.1	25	
Pentachlorophenol	2.228	0.5	3.33	0	66.9	20.1	139	2.451	9.53	25	
Phenol	2.534	0.2	3.33	0	76.1	17.3	141	2.329	8.46	25	
Pyrene	1.277	0.2	1.67	0	76.4	29	131	1.387	8.31	25	
1,2,4-Trichlorobenzene	1.135	0.2	1.67	0	68.0	17.9	126	1.115	1.78	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

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Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

10/14/2005

Work Order Number 0510137

Received by AT

Checklist completed by

*[Handwritten Signature]*

*10/14/05*

Signature

Date

Matrix

Carrier name Client drop-off

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

Container/Temp Blank temperature? 5° 4° C ± 2 Acceptable  
If given sufficient time to cool.

COMMENTS:

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Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Corrective Action \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

# CHAIN-OF-CUSTODY RECORD

Accreditation Applied:  
 NELAC  USACE

Other: \_\_\_\_\_

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

Project Name: *Soil from spills on 8-3-05 and 8-15-05*

Project #: \_\_\_\_\_

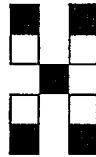
Project Manager: *Steve Morris*

Phone #: *505 722 3833*

Sampler: *Steve Morris*

Fax #: *505 722 0210*

Sample Temperature: *5°C*



## 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 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles or Headspace (Y or N)	
					HgCl <sub>2</sub>	HNO <sub>3</sub>															
10/13/05	1500	Soil	Soil-8-3-05 spill	2			0801371														
"	1515	"	Soil-8-15-05 spill	2			-2														

Date: *10/14/05* Time: *0840*  
 Relinquished By: (Signature) *Steve Morris*

Received By: (Signature) *[Signature]* *10/14/05*  
 Received By: (Signature) \_\_\_\_\_ *0840*

Remarks: *RUSH*