GW - 32

MONITORING REPORTS

DATE:

LANDFARM

1998

American Environmental Network, Inc.

AEN I.D. 806365

June 26, 1998

GIANT REFINING COMPANY
ROUTE 3 BOX 7
GALLUP, NM 87301

Project Name OCD LTA
Project Number (none)

Attention: STEVE MORRIS

On 6/19/98 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.

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.

GAS CHROMOTOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED (DIRECT INJECT)
CLIENT : GIANT REFINING COMPANY AEN I.D.: 806365
PROJECT # : (none)
PROJECT NAME : OCD LTA

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
04	OCD-15-61898	NON-AQ	6/18/98	6/23/98	6/23/98	10

PARAMETER	DET. LIMIT	UNITS	04
FUEL HYDROCARBONS, C6-C10	10	MG/KG	< 100
FUEL HYDROCARBONS, C10-C22	5.0	**MG/KG**	**1300**
FUEL HYDROCARBONS, C22-C36	5.0	**MG/KG**	**1900**
CALCULATED SUM:			**3200**
SURROGATE:			
O-TERPHENYL (%)			134
SURROGATE LIMITS	(66 - 151)		

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

CLIENT	: GIANT REFINING COMPANY	AEN I.D.	: 806365
PROJECT #	: (none)	DATE RECEIVED	: 6/19/98
PROJECT NAME	: OCD LTA	REPORT DATE	: 6/26/98

AEN ID. #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	OCD-137-61898	NON-AQ	6/18/98
02	OCD-93-61898	NON-AQ	6/18/98
03	OCD-39-61898	NON-AQ	6/18/98
04	OCD-15-61898	NON-AQ	6/18/98

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS

ΞST : EPA 8015 MODIFIED (DIRECT INJECT)
LIENT : GIANT REFINING COMPANY AEN I.D.: 806365
ROJECT # : (none)
ROJECT NAME : OCD LTA

AMPLE). #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
l	OCD-137-61898	NON-AQ	6/18/98	6/23/98	6/23/98	10
?	OCD-93-61898	NON-AQ	6/18/98	6/23/98	6/23/98	10
3	OCD-39-61898	NON-AQ	6/18/98	6/23/98	6/23/98	10

ARAMETER	DET. LIMIT	UNITS	01	02	03
JEL HYDROCARBONS, C6-C10	10	MG/KG	< 100	< 100	< 100
JEL HYDROCARBONS, C10-C22	5.0	**MG/KG**	**1800**	**1900**	**1500**
JEL HYDROCARBONS, C22-C36	5.0	**MG/KG**	**2900**	**2800**	**3200**
ALCULATED SUM:			**4700**	**4700**	**4700**
JRROGATE:					
-TERPHENYL (%)			130	127	130
JRROGATE LIMITS	(66 - 151)				

-IEMIST NOTES:
'A

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8015 MODIFIED (DIRECT INJECT)		
BLANK I.D.	: 062398	AEN I.D.	: 806365
CLIENT	: GIANT REFINING COMPANY	DATE EXTRACTED	: 6/23/98
PROJECT #	: (none)	DATE ANALYZED	: 6/23/98
PROJECT NAME	: OCD LTA	SAMPLE MATRIX	: NON-AQ

PARAMETER	UNITS	
FUEL HYDROCARBONS, C6-C10	MG/KG	< 10
FUEL HYDROCARBONS, C10-C22	MG/KG	< 5.0
FUEL HYDROCARBONS, C22-C36	MG/KG	< 5.0
SURROGATE:		
O-TERPHENYL (%)		88
SURROGATE LIMITS	(80 - 151)	

CHEMIST NOTES:
N/A

American Environmental Network, Inc.

GAS CHROMOTOGRAPHY QUALITY CONTROL
MSMSD

TEST	: EPA 8015 MODIFIED (DIRECT INJECT)		
MSMSD #	: 806364-02	AEN I.D.	: 806365
CLIENT	: GIANT REFINING COMPANY	DATE EXTRACTED	: 6/23/98
PROJECT #	: (none)	DATE ANALYZED	: 6/23/98
PROJECT NAME	: OCD LTA	SAMPLE MATRIX	: NON-AQ
		UNITS	: MG/KG

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
FUEL HYDROCARBONS	<5.0	100	104	104	119	119	13	(56 - 148)	20

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 (NM), Inc.
Albuquerque • Phoenix • Pensacola • Portland • Pleasant Hills • Columbia

CHAIN OF CUSTODY

DATE: 6-18-98 PAGE: 1 OF 1

AEN LAB I.D.: 806365

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER:

COMPANY: Giant Refining Company
ADDRESS: Route 3, Box 7
Gallup, NM 87301
PHONE: 505-722-3833
FAX: 505-722-0210

BILL TO: Giant Refining Co./Ciniza
COMPANY: Same
ADDRESS:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct/Inject	TPH Diesel Range 8015	(M8015) Gasoline/BTEX & MTBE (M8015/8020)	BTXE/MTBE (8020)	BTEX & Chlorinated Aromatics (602/8020)	BTEX/MTBE/EDC & EDB (8020/8010/Short)	Chlorinated Hydrocarbons (601/8010)	504 EDB☐ / DBCP☐	Polynuclear Aromatics (610/8310)	Volatile Organics (624/8240) GC/MS	Volatile Organics (8260) GC/MS	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC/MS (625/8270)	General Chemistry:	Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:	NUMBER OF CONTAINERS
OCD-137-61898	6/18/98	1325	Soil	01			X																			4
OCD-93-61898	"	1330	"	02			X																			4
OCD-39-61898	"	1335	"	03			X																			4
OCD-15-61898	"	1340	"	04			X																			4

PROJECT INFORMATION

PROJ. NO.:
PROJ. NAME: OCD LTA
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS: 4
CUSTODY SEALS: 0 IN / N/A
RECEIVED INTACT: Y
BLUE ICE/ICE: ICE

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☒

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

RELINQUISHED BY: 1.

Signature: Steve Morris Time: 9:55
Printed Name: Steve Morris Date: 6-19-98
Company:

RECEIVED BY: 1.

Signature: Time:
Printed Name: Date:
Company:

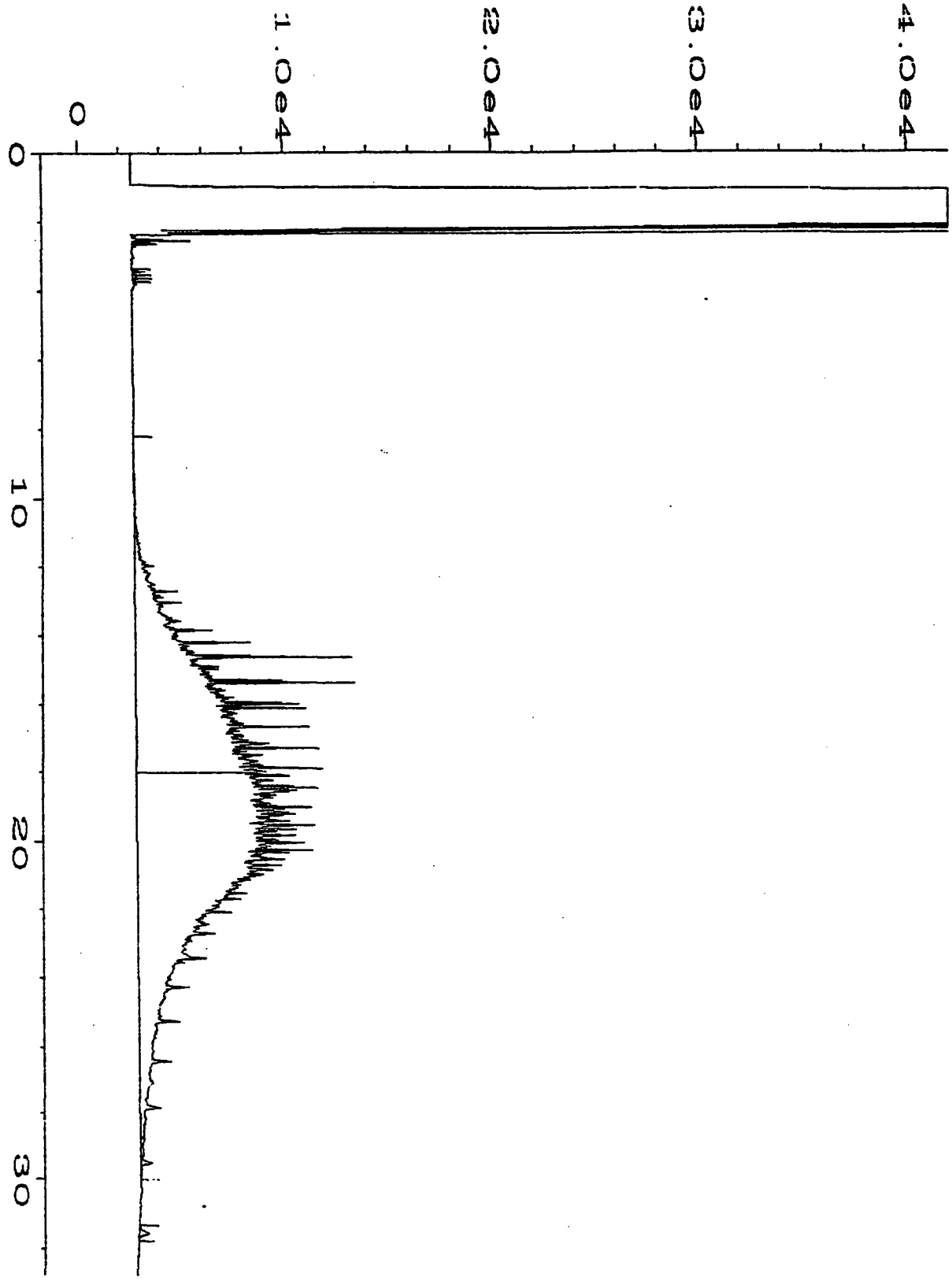
RELINQUISHED BY: 2.

Signature: Time:
Printed Name: Date:
Company:

RECEIVED BY (LAB): 2.

Signature: Time: 1:55
Printed Name: Date: 6/19/98
American Environmental Network (NM), Inc.

DISTRIBUTION: White, Canary - AEN Pink - ORIGINATOR



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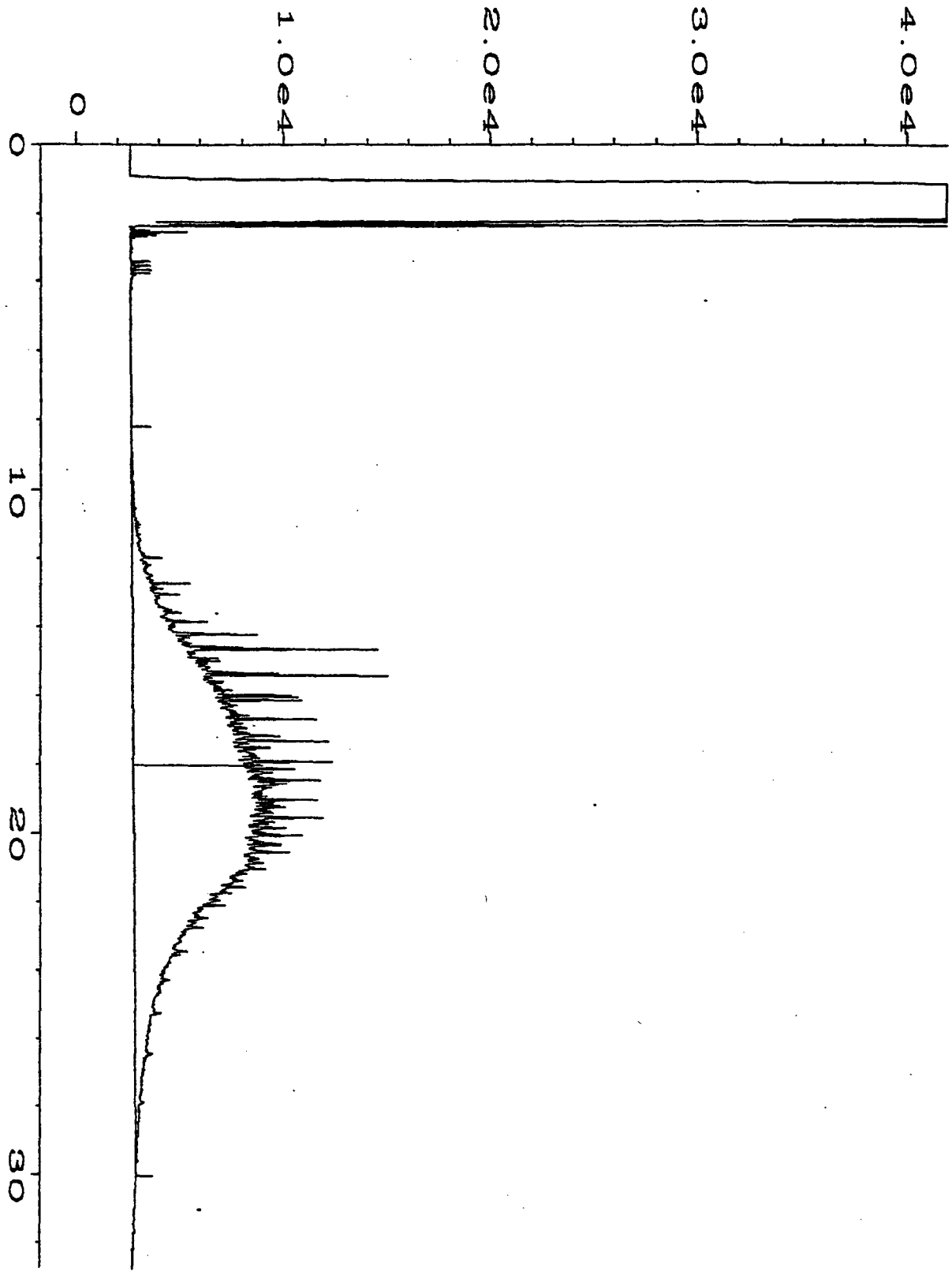
Operator	: AEN NM GC #1 FID DI	Page Number	: 1
Instrument	: GC 1	Vial Number	: 11
Sample Name	: 806365-01*10	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 23 Jun 98 05:46 PM	Instrument Method:	RT061698.MTH
Report Created on:	24 Jun 98 01:56 PM	Analysis Method	: RT061698.MTH



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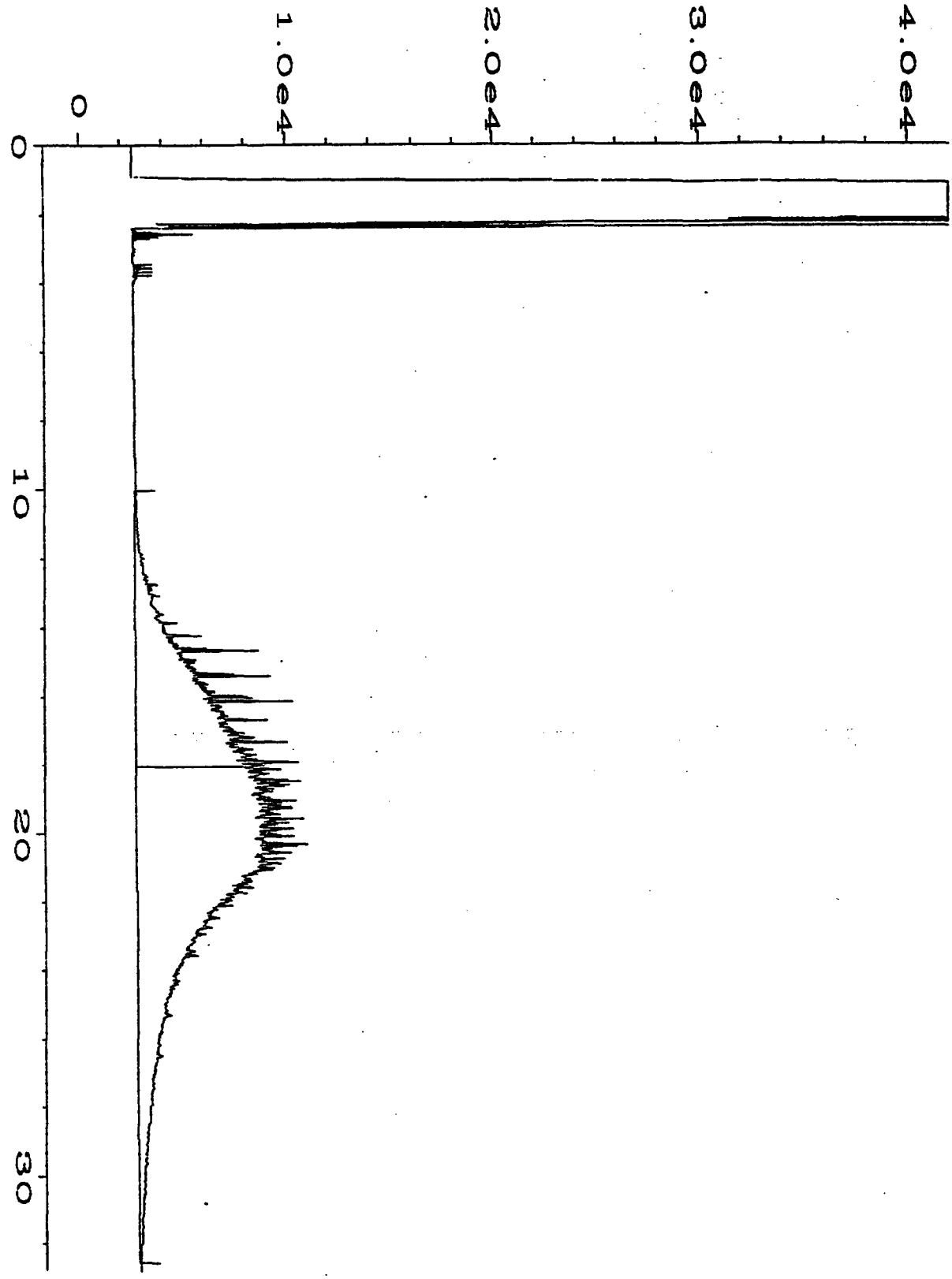
Operator	: AEN NM GC #1 FID DI	Page Number	: 1
Instrument	: GC 1	Vial Number	: 14
Sample Name	: 806365-02*10	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 23 Jun 98 08:12 PM	Instrument Method:	RT061698.MTH
Report Created on:	24 Jun 98 01:59 PM	Analysis Method	: RT061698.MTH



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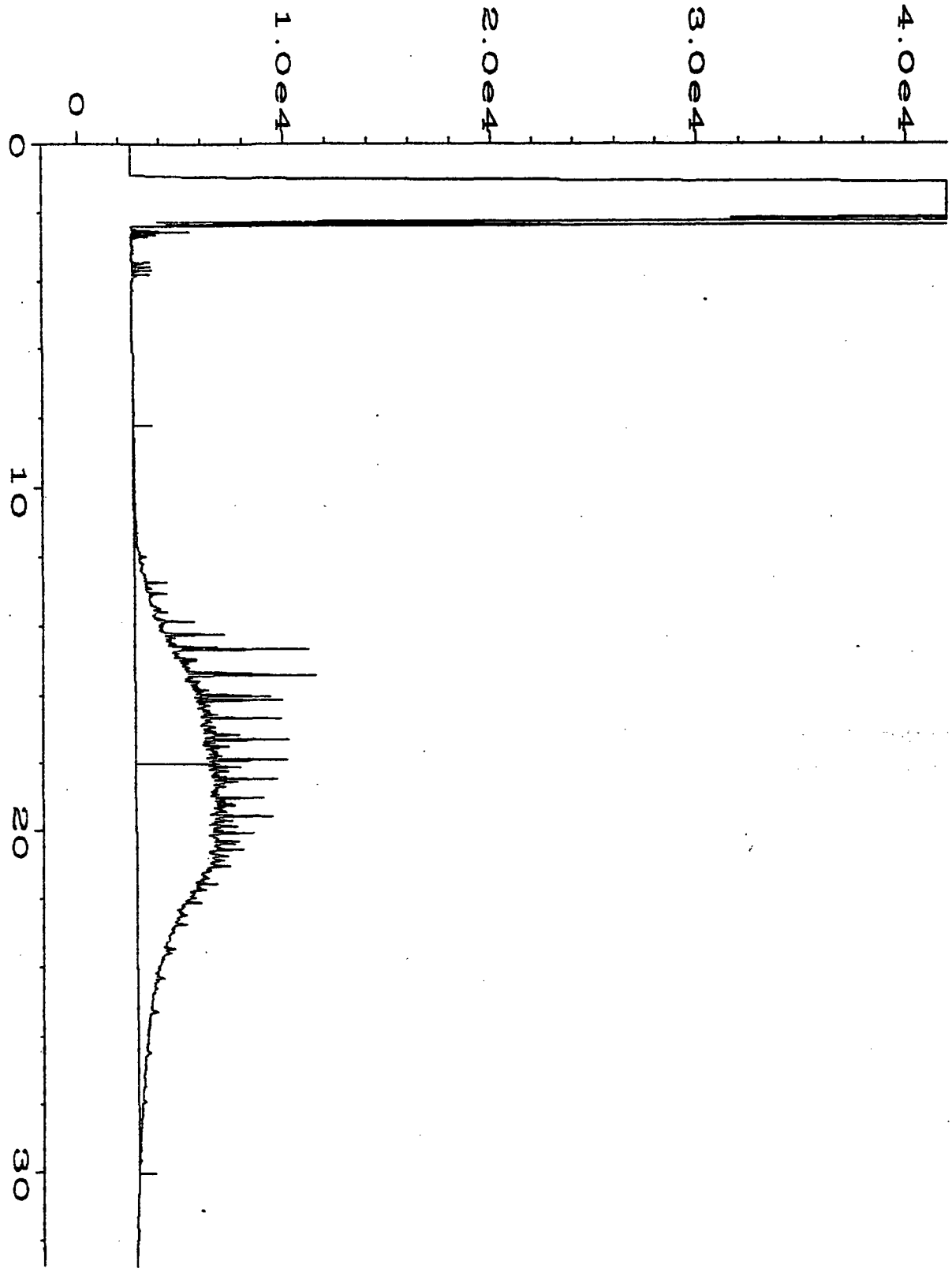
Operator	: AEN NM GC #1 FID DI	Page Number	: 1
Instrument	: GC 1	Vial Number	: 16
Sample Name	: 806365-03*10	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 23 Jun 98 09:44 PM	Instrument Method:	RT061698.MTH
Report Created on:	24 Jun 98 02:01 PM	Analysis Method	: RT061698.MTH



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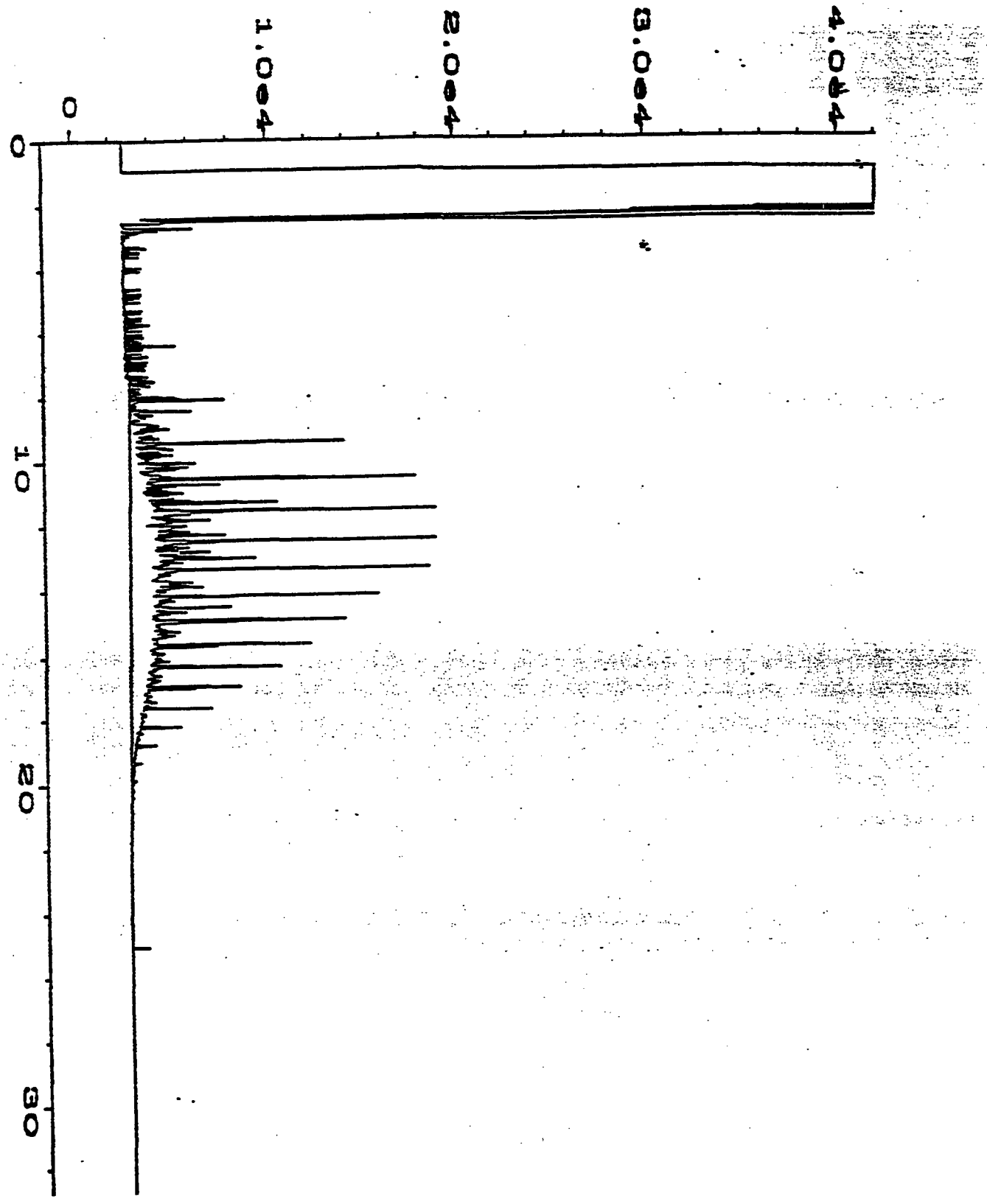
Operator	: AEN NM GC #1 FID DI	Page Number	: 1
Instrument	: GC 1	Vial Number	: 18
Sample Name	: 806365-04*10	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 23 Jun 98 11:13 PM	Instrument Method:	RT061698.MTH
Report Created on:	24 Jun 98 02:03 PM	Analysis Method	: RT061698.MTH



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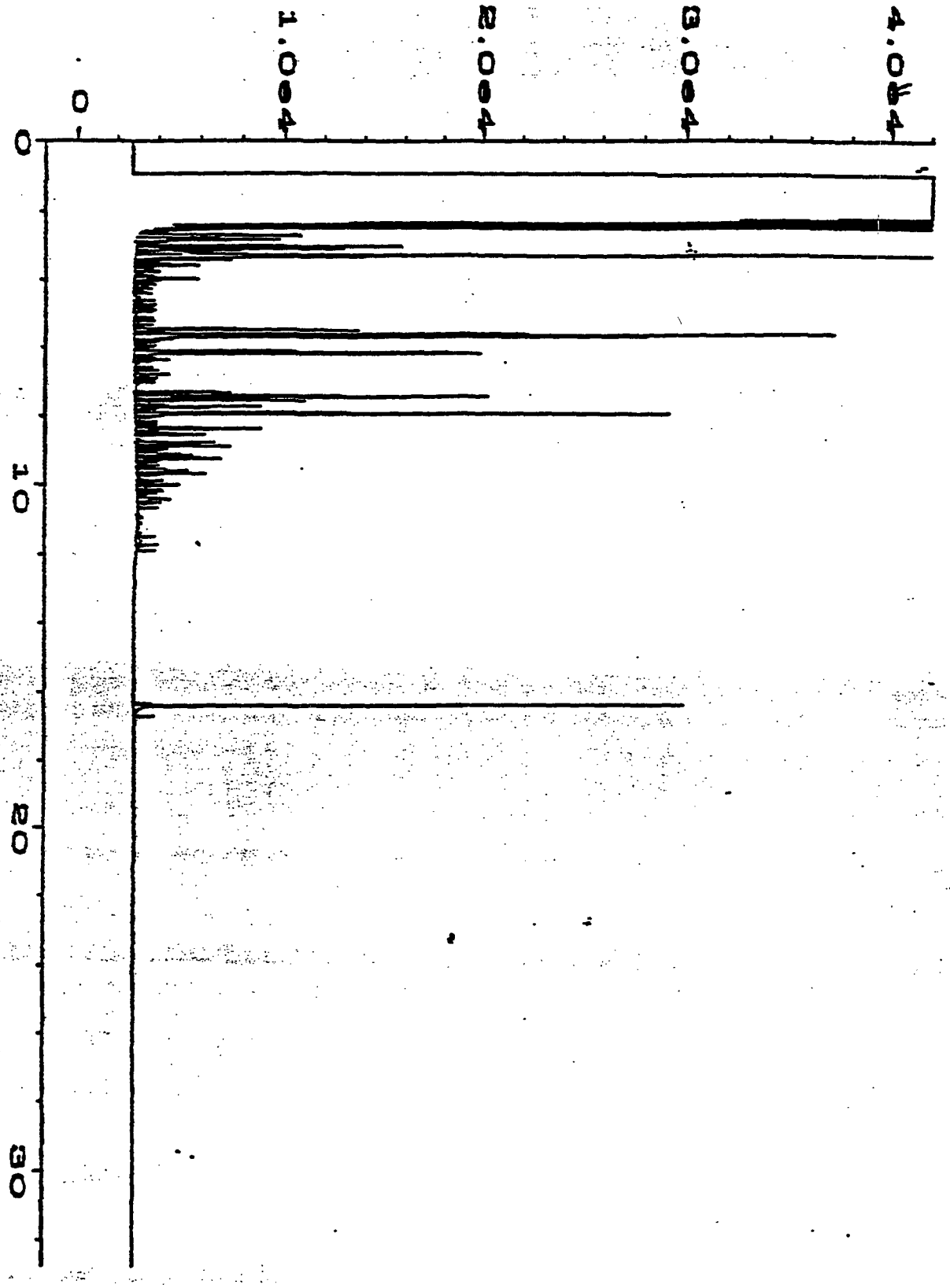
Operator	: AEN NM GC #1 FID DI	Page Number	: 1
Instrument	: INSTRUMEN	Vial Number	: 11
Sample Name	: DSL GC3-103-15	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 1
Acquired on	: 16 Sep 97 08:50 PM	Instrument Method	: SDF0820.MTH
Report Created on	: 17 Sep 97 11:19 AM	Analysis Method	: SDF0820.MTH



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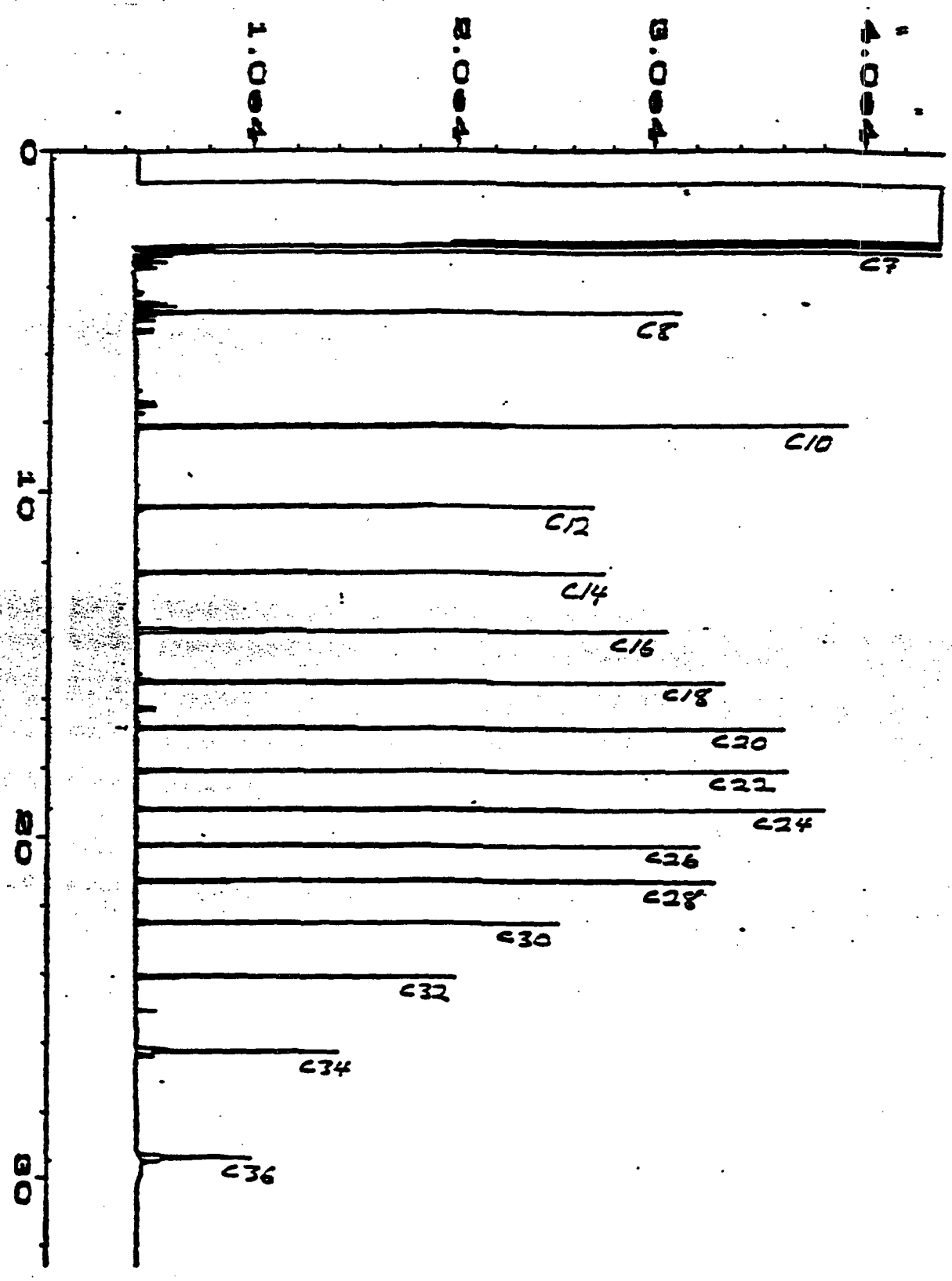
Operator	: AEN NM GC #1 FID DI	Page Number	: 1
Instrument	: INSTRUMEN	Vial Number	: 19
Sample Name	: GAS GC3-103-16	Injection Number	: 1
Run Time Bar Code:		Sequence Line	: 2
Acquired on	: 17 Sep 97 02:37 AM	Instrument Method	: SGF0820.MTH
Report Created on	: 17 Sep 97 10:45 AM	Analysis Method	: SGF0820.MTH



Data File Name : C:\HPCHEM\1\DATA\11APR96\004F0101.D
Operator : DJ
Instrument : GC#1 5890
Sample Name : RE: TINE STAND
Run Time Bar Code:
Acquired on : 11 Apr 96 10:17 AM
Report Created on: 11 Apr 96 01:53 PM

Page Number : 1
Vial Number : 4
Injection Number : 1
Sequence Line : 1
Instrument Method: SDF6211.MTH
Analysis Method : SDF6211.MTH

ASSAIGAI ANALYTICAL LABORATORIES, INC.

7300 Jefferson, NE • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259
3332 Wedgewood, E-5 • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820
127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-2558

GIANT REFINERY
attn: **LYNN SHELTON**
ROUTE 3 BOX 7
GALLUP, NM 87301

* 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
1-9	see footnote

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **GIANT REFINERY**
Project: **9807078 OCD-LTU-7898**

William P. Biava: President of Assaigai Analytical Laboratories, Inc.

Client Sample ID: ***OCD-NORTH-7898*** Sample Matrix: ***SOIL*** Sample Collected: ***07/08/98 13:00:00***

Fraction	QC Group	CAS #		Result	Units	Dilution Factor	Detection Limit	*	Sequence	Run Date
			Test: SW846 8015A							
9807078-01A	X98351		Diesel Range Organics	1700	mg / Kg	5	25		XG.1998.614-14	07/17/98

Client Sample ID: ***OCD-SOUTH-7898*** Sample Matrix: ***SOIL*** Sample Collected: ***07/08/98 13:05:00***

Fraction	QC Group	CAS #		Result	Units	Dilution Factor	Detection Limit	*	Sequence	Run Date
			Test: SW846 8015A							
9807078-02A	X98351		Diesel Range Organics	3000	mg / Kg	10	25		XG.1998.614-15	07/17/98

**** Sample specific analytical Detection Limit is determined by multiplying the sample Dilution Factor by the listed method Detection Limit. ****

ACCREDITED

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

Pinnacle Lab ID number **911008**
November 05, 1999

GIANT REFINING COMPANY
ROUTE 3 BOX 7
GALLUP, NM 87301

Project Name OCD LAND FARM
Project Number (none)

Attention: STEVE MORRIS

On 11/3/99 Pinnacle Laboratories, Inc. Inc., (ADHS License No. AZ0592 pending), 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.

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: jt

Enclosure

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

CLIENT	: GIANT REFINING COMPANY	PINNACLE ID	: 911008
PROJECT #	: (none)	DATE RECEIVED	: 11/3/99
PROJECT NAME	: OCD LAND FARM	REPORT DATE	: 11/5/99

PIN ID. #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	OCD NORTH	NON-AQ	11/1/99
02	OCD SOUTH	NON-AQ	11/1/99

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8015 MODIFIED (DIRECT INJECT)
CLIENT : GIANT REFINING COMPANY PINNACLE I.D.: 911008
PROJECT # : (none)
PROJECT NAME : OCD LAND FARM

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	OCD NORTH	NON-AQ	11/1/99	11/4/99	11/4/99	1
02	OCD SOUTH	NON-AQ	11/1/99	11/4/99	11/4/99	1

PARAMETER	DET. LIMIT	UNITS	OCD NORTH	OCD SOUTH
FUEL HYDROCARBONS, C6-C10	10	MG/KG	< 10	< 10
FUEL HYDROCARBONS, C10-C22	5.0	**MG/KG**	**560**	**320**
FUEL HYDROCARBONS, C22-C36	5.0	**MG/KG**	**960**	**750**
CALCULATED SUM:			**1520**	**1070**
SURROGATE:				
O RPHENYL (%)			101	91
SURROGATE LIMITS	(66 - 151)			

CHEMIST NOTES:
N/A

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

DATE: 11-1-99 PAGE: 1 OF 1

PLI Accession #: 9911 78

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER:

COMPANY: Giant Refining Company
ADDRESS: Route 3, Box 7
Gallup NM 87301
PHONE: 505-722-3833
FAX: 505-722-0210

BILL TO: Same
COMPANY:
ADDRESS:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct Inject	(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline) MTBE	8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ / DBCP ☐	8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081/8082)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310/8270-SIMS)	General Chemistry:		Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:		MBER OF CONTAINERS
OCD North	11-1-99	1005	Soil	01		X																								1
OCD South	"	1000	"	02		X																								1

PROJECT INFORMATION

PROJ. NO.:
PROJ. NAME: OCD Land Farm
~~P.O. NO.:~~
SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS	2
CUSTODY SEALS	(Y) N
RECEIVED INTACT	YES
BLUE ICE/ICE	ICE

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☐

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

RELINQUISHED BY: 1.

Signature: [signature] Time: 0930
Printed Name: Steve Morris Date: 11-2-99
Company: Giant Ciniza
See reverse side (Force Magure)

RECEIVED BY: 1.

Signature: Time:
Printed Name: Date:
Company:

RELINQUISHED BY: 2.

Signature: Time:
Printed Name: Date:
Company:

RECEIVED BY: (LAB) 2.

Signature: [signature] Time: 0905
Printed Name: Francine Lanno Date: 11/3/99
Pinnacle Laboratories Inc.

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

Pinnacle Lab ID number **008012**
August 08, 2000

GIANT REFINING COMPANY
ROUTE 3 BOX 7
GALLUP, NM 87301

Project Name OCD-LANDFARM
Project Number (none)

Attention: DORINDA MANCINI

On 08/02/00 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), 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.

If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: jt

Enclosure

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

LIENT	: GIANT REFINING COMPANY	PINNACLE ID	: 008012
ROJECT #	: (none)	DATE RECEIVED	: 08/02/00
ROJECT NAME	: OCD-LANDFARM	REPORT DATE	: 08/08/00

IN). #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
1	OCD-LF-EAST 8200	NON-AQ	08/02/00
2	OCD-LF-WEST 8200	NON-AQ	08/02/00

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS

EST : EPA 8015 MODIFIED (DIRECT INJECT)
LIENT : GIANT REFINING COMPANY PINNACLE I.D.: 008012
ROJECT # : (none)
ROJECT NAME : OCD-LANDFARM

AMPLE). #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
1	OCD-LF-EAST 8200	NON-AQ	08/02/00	08/03/00	08/03/00	5
2	OCD-LF-WEST 8200	NON-AQ	08/02/00	08/03/00	08/03/00	5

ARAMETER	DET. LIMIT	UNITS	OCD-LF-EAST 8200	OCD-LF-WEST 8200
UEL HYDROCARBONS, C6-C10	10	MG/KG	< 50	< 50
UEL HYDROCARBONS, C10-C22	10	**MG/KG**	**690**	**610**
UEL HYDROCARBONS, C22-C36	10	**MG/KG**	**1400**	**1300**
ALCULATED SUM:			**2090**	**1910**
URROGATE:				
-TERPHENYL (%)			126	117
URROGATE LIMITS	(66 - 151)			

HEMIST NOTES:
/A

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

EST	: EPA 8015 MODIFIED (DIRECT INJECT)		
LANK I.D.	: 080300	PINNACLE I.D.	: 008012
:LIENT	: GIANT REFINING COMPANY	DATE EXTRACTED	: 08/03/00
'ROJECT #	: (none)	DATE ANALYZED	: 08/03/00
'ROJECT NAME	: OCD-LANDFARM	SAMPLE MATRIX	: NON-AQ

'ARAMETER	UNITS	
UEL HYDROCARBONS, C6-C10	MG/KG	< 10
UEL HYDROCARBONS, C10-C22	MG/KG	< 10
UEL HYDROCARBONS, C22-C36	MG/KG	< 10

:URROGATE:		
)-TERPHENYL (%)		81
:URROGATE LIMITS	(80 - 151)	

:HEMIST NOTES:
I/A

PINNACLE LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY QUALITY CONTROL
MSMSD

EST	: EPA 8015 MODIFIED (DIRECT INJECT)		
SMSD #	: 080300	PINNACLE I.D.	: 008012
LIENT	: GIANT REFINING COMPANY	DATE EXTRACTED	: 08/03/00
ROJECT #	: (none)	DATE ANALYZED	: 08/03/00
ROJECT NAME	: OCD-LANDFARM	SAMPLE MATRIX	: NON-AQ
		UNITS	: MG/KG

ARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
JEL HYDROCARBONS	<10	200	180	90	188	94	4	(56 - 148)	20

HEMIST NOTES:
/A

$$\text{, Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{PD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

Pinnacle Laboratories Inc.

CHAIN OF CUSTODY

DATE: _____ PAGE: ___ OF ___

PLI Accession #: 008012

SHADED AREAS ARE FOR LAB USE ONLY

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER:

COMPANY: Giant Refining Company
ADDRESS: Rt 3 Box 7
Gallup NM 87301
PHONE: 505 722 3833
FAX:
BILL TO: Same
COMPANY:
ADDRESS:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct Inject	TPH - Diesel Range	(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline) MTBE	8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ / DBCP ☐	8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081/8082)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310/8270-SIMS)	General Chemistry:		Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:		NO. OF CONTAINERS
~~OCD-LF~~																																
OCD-LF-East 8200	8/2/00	0915	Soil	01			X																									2
OCD-LF West 8200	8/2/00	0930	Soil	02			X																									2

PROJECT INFORMATION

PROJ. NO.:
PROJ. NAME: OCD - hand dug
P.O. NO.:
SHIPPED VIA: Hand carried

SAMPLE RECEIPT

NO. CONTAINERS	4
CUSTODY SEALS	Y / N / (NA)
RECEIVED INTACT	Y
BLUE ICE/ICE	ICE

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☒

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

RELINQUISHED BY: 1.

Signature: [signature] Time: 3:30
Printed Name: D. Mancini Date: 8/2/00
Company: Giant-Ciniza
See reverse side (Force Majeure)

RECEIVED BY: 1.

Signature: Time:
Printed Name: Date:
Company:

RELINQUISHED BY:

Signature: Time:
Printed Name: Date:
Company:

RECEIVED BY: (LAB) 2.

Signature: [signature] Time: 3:30
Printed Name: Cindy Fochich Date: 8/2/00
Pinnacle Laboratories Inc.

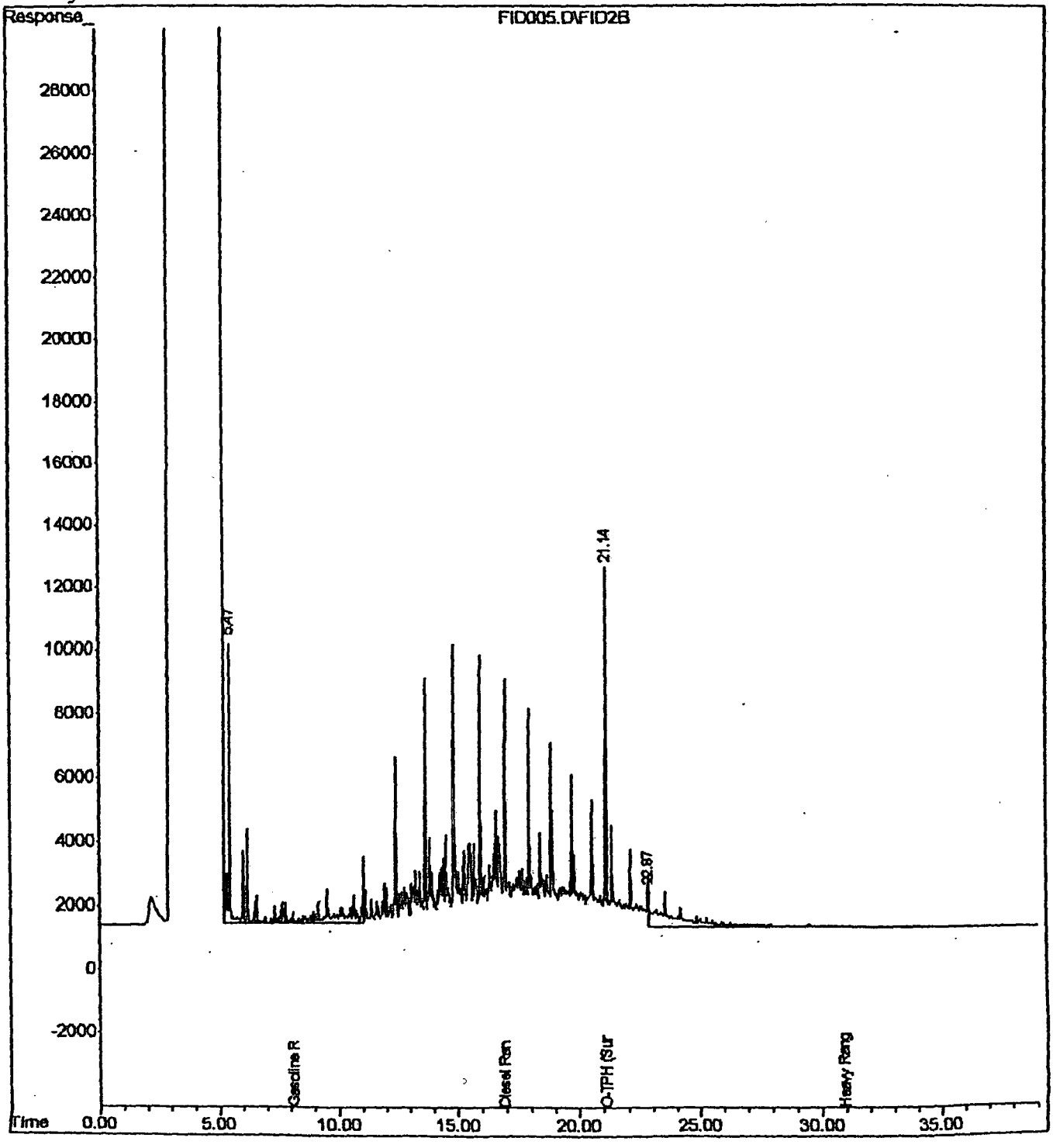
Acq On : 28 Mar 2000 12:29
Sample : DSL CCV
Misc :
IntFile : EVENTS.E

Operator: cff
Inst : FID-1
Multiplr: 1.00

Quant Time: Mar 28 13:16 2000 Quant Results File: NM032100.RES

Quant Method : C:\HPCHEM\2\METHODS\NM032100.M (Chemstation Integrator)
Title : NM 8015
Last Update : Thu Mar 23 08:47:45 2000
Response via : Multiple Level Calibration
DataAcq Meth : NM03200D.M

Volume Inj. : 2ul
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

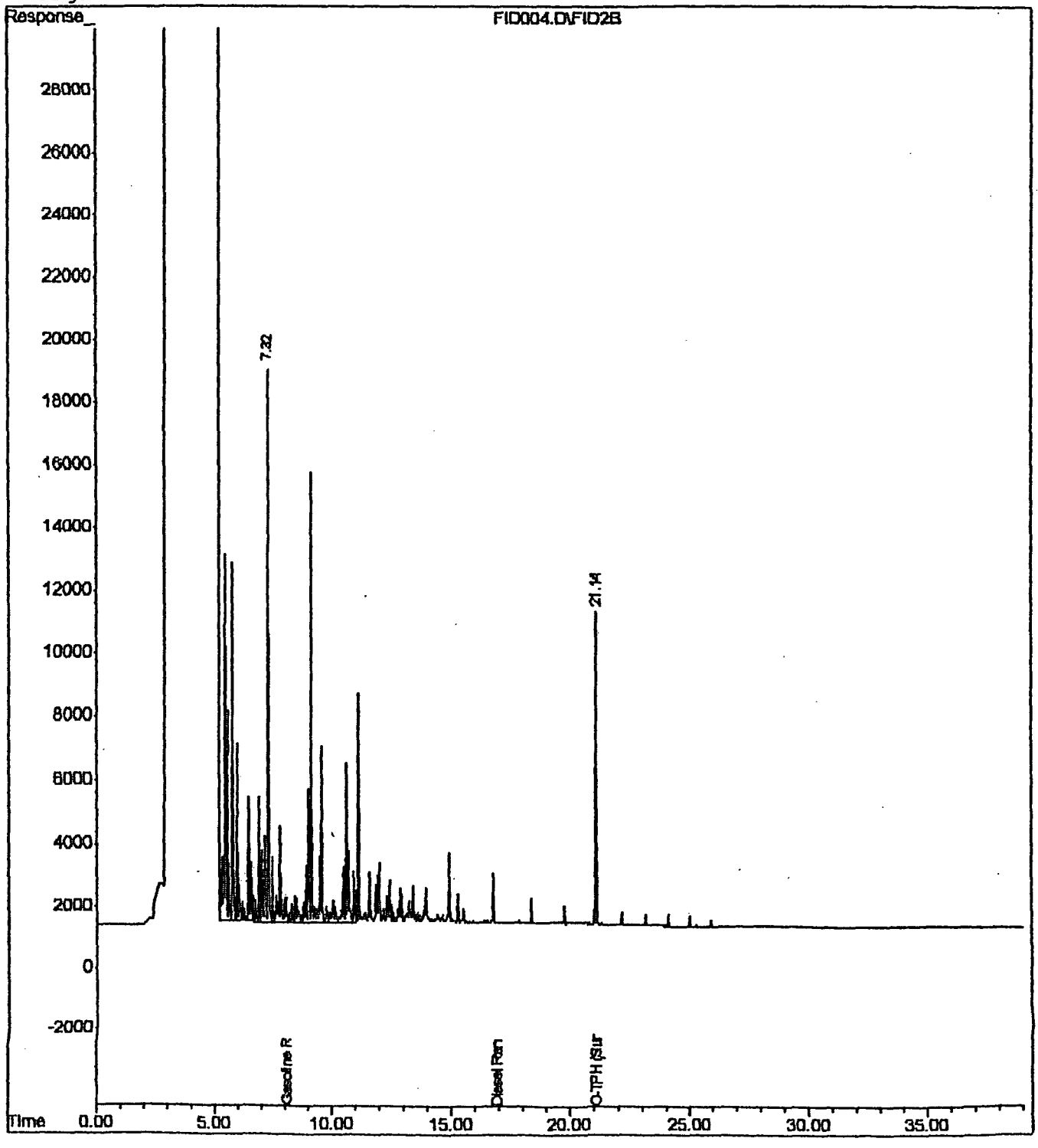
Data File : C:\HPCHEM\2\DATA\032800\FID004.D
Acq On : 28 Mar 00 11:05
Sample : GAS CCV
Misc :
IntFile : EVENTS.E

Vial: 4
Operator: cff
Inst : FID-1
Multiplr: 1.00

Quant Time: Mar 28 12:32 2000 Quant Results File: NM032100.RES

Quant Method : C:\HPCHEM\2\METHODS\NM032100.M (Chemstation Integrator)
Title : NM 8015
Last Update : Thu Mar 23 08:47:45 2000
Response via : Multiple Level Calibration
DataAcq Meth : NM03200D.M

Volume Inj. : 2ul
Signal Phase :
Signal Info :



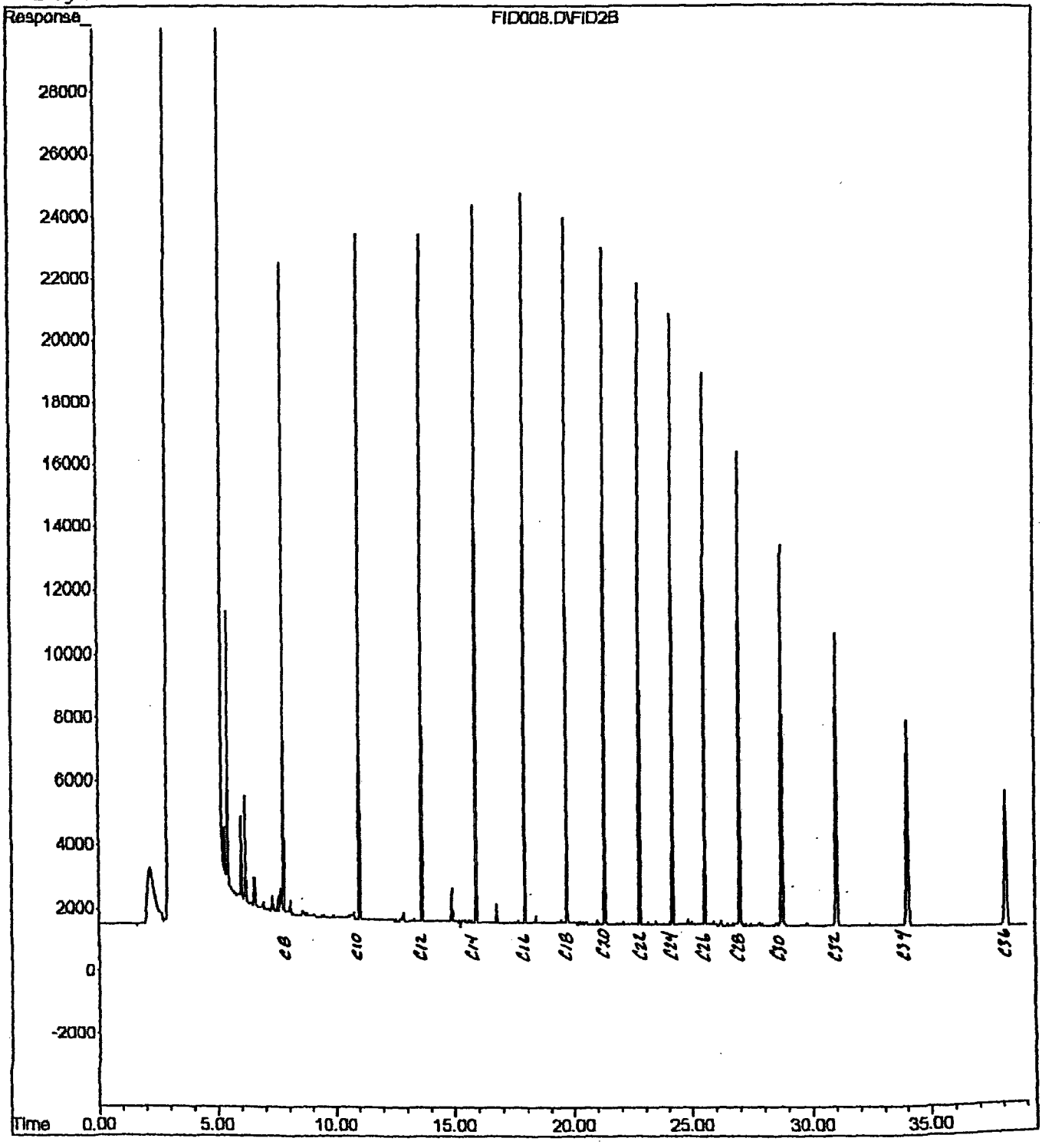
Data File : C:\HPCHEM\2\DATA\032000\FID008.D
Acq On : 20 Mar 000 16:33
Sample : rt std c8 to c40
Misc :
IntFile : EVENTS.E

Vial: 8
Operator: cff
Inst : FID-1
Multiplr: 1.00

Quant Time: Mar 22 10:00 2000 Quant Results File: NM03200D.RES

Quant Method : C:\HPCHEM\2\METHODS\NM03200D.M (Chemstation Integrator)
Title : NM 8015
Last Update : Mon Mar 20 16:31:55 2000
Response via : Multiple Level Calibration
DataAcq Meth : NM03200D.M

Volume Inj. : 2ul
Signal Phase :
Signal Info :



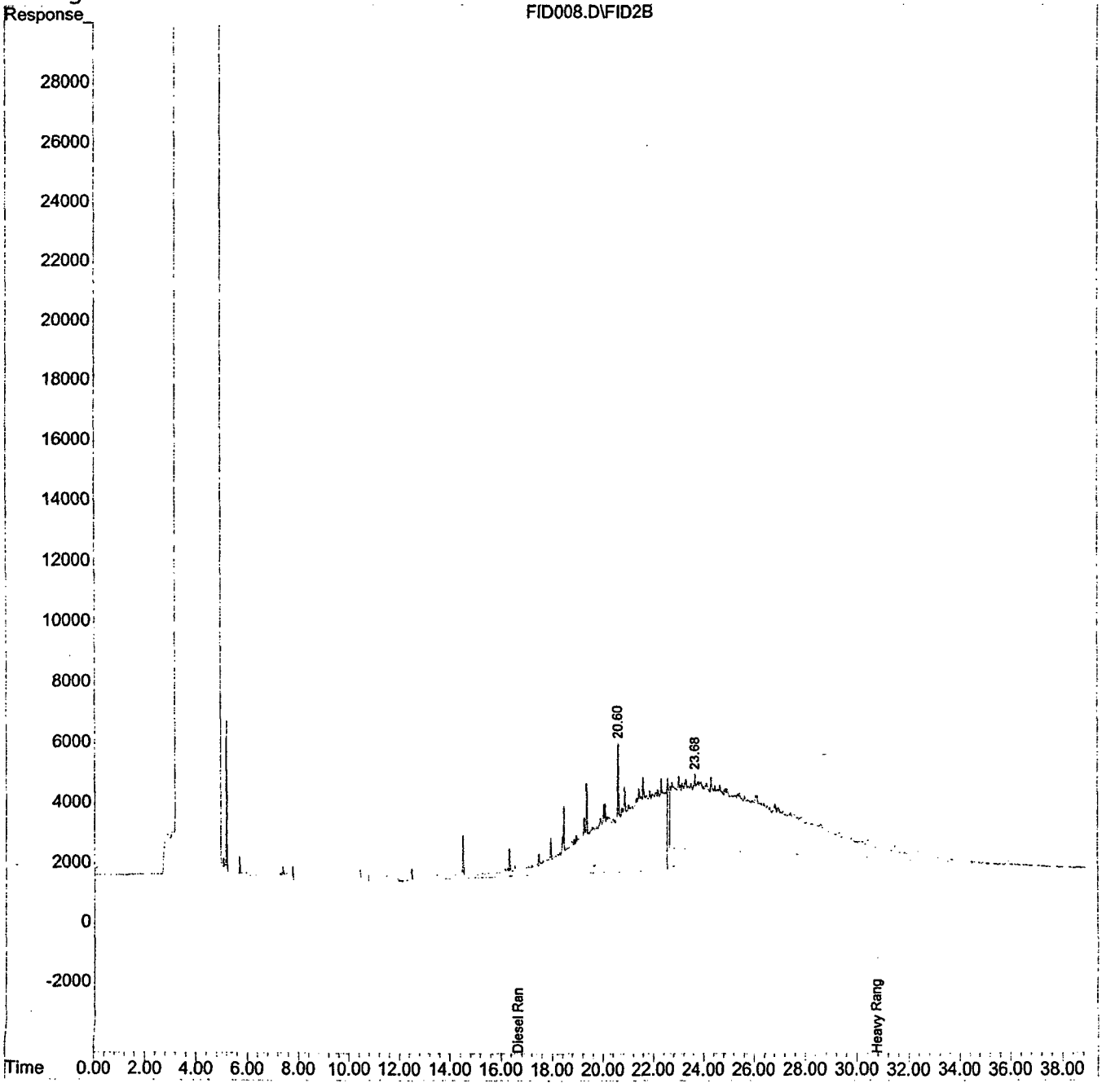
Quantitation Report

Data File : C:\HPCHEM\2\DATA\080300\FID008.D Vial: 8
Acq On : 3 Aug 2000 17:49 Operator:
Sample : 008012-01*5 Inst : FID-1
Misc : Multiplr: 1.00
IntFile : EVENTS.E

Quant Time: Aug 7 11:24 2000 Quant Results File: NM032100.RES

Quant Method : C:\HPCHEM\2\METHODS\NM032100.M (Chemstation Integrator)
Title : NM 8015
Last Update : Wed Jul 19 15:36:59 2000
Response via : Multiple Level Calibration
DataAcq Meth : NM032100.M

Volume Inj. : 2ul
Signal Phase :
Signal Info :



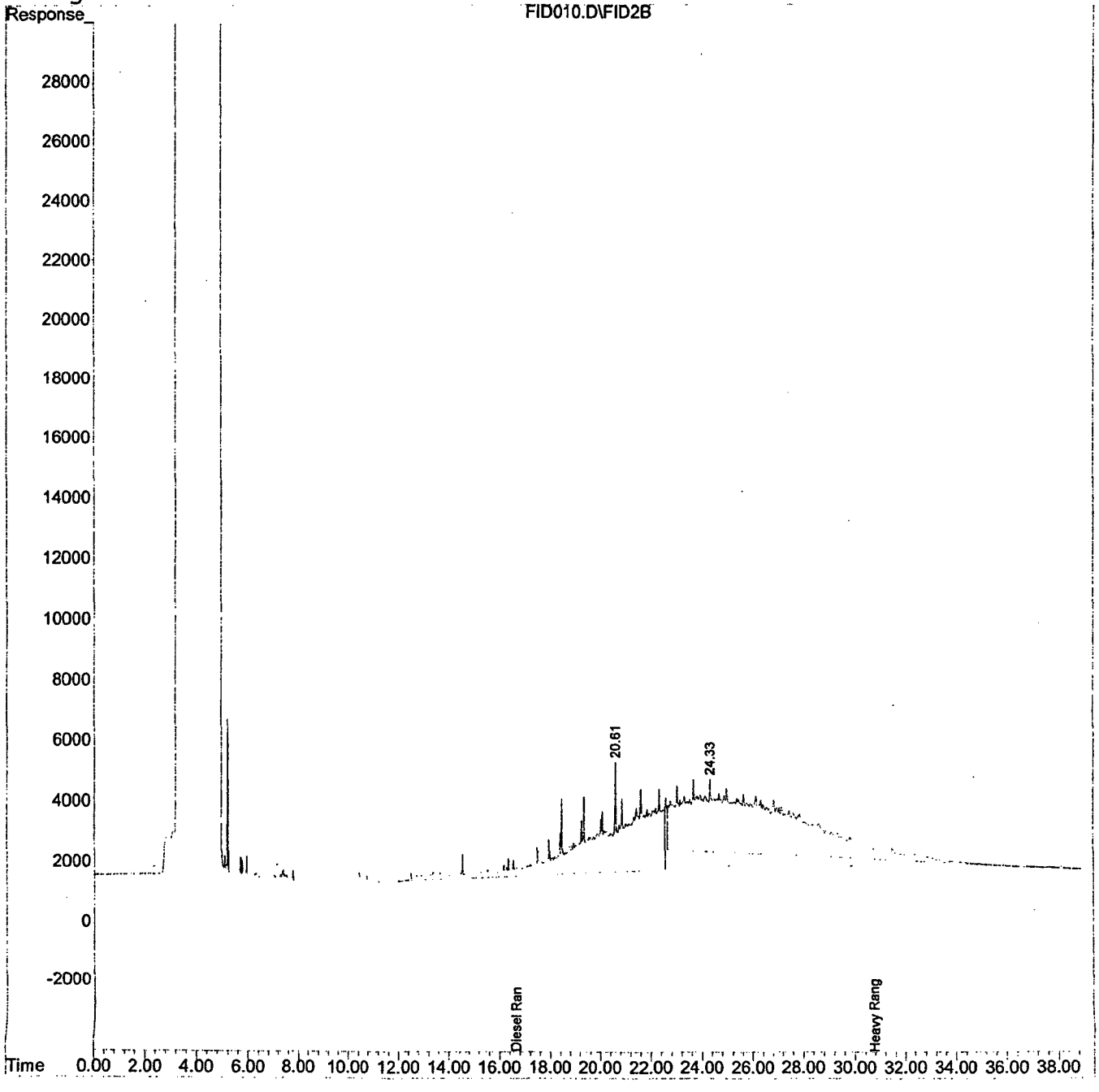
Quantitation Report

Data File : C:\HPCHEM\2\DATA\080300\FID010.D Vial: 10
Acq On : 3 Aug 2000 19:39 Operator:
Sample : 008012-02*5 Inst : FID-1
Misc : Multiplr: 1.00
IntFile : EVENTS.E

Quant Time: Aug 7 11:24 2000 Quant Results File: NM032100.RES

Quant Method : C:\HPCHEM\2\METHODS\NM032100.M (Chemstation Integrator)
Title : NM 8015
Last Update : Wed Jul 19 15:36:59 2000
Response via : Multiple Level Calibration
DataAcq Meth : NM032100.M

Volume Inj. : 2ul
Signal Phase :
Signal Info :



iml

Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

February 19, 2001

Dorinda Mancini
Giant Refining Company
Rt. 3, Box 7
Gallup, NM 87301

Ms. Mancini:

Enclosed please find the reports for the samples received by our laboratory for analysis on February 1, 2001.

If you have any questions about the results of these analyses, please don't hesitate to call at your convenience.

Thank you for choosing IML for your analytical needs!

Sincerely,

Sharon Williams
Organic Analyst/IML-Farmington

Enclosure

xc: File

iml Inter-Mountain Laboratories, Inc.
Phone (505) 326-4737 Fax (505) 325-4182
2506 West Main Street, Farmington, NM 87401

GIANT REFINING COMPANY
GALLUP

Case Narrative

On February 1, 2001, two samples were submitted to Inter-Mountain Laboratories - Farmington for analysis. The parameters performed on the samples are indicated on the accompanying Chain of Custody.

It is the policy of this laboratory to employ, whenever possible, preparatory and analytical methods which have been approved by regulatory agencies. The methods used in the analysis of the samples reported herein are found in: SW-846 – "Test Methods for Evaluating Solid Waste: Physical/Chemcial Methods", U.S.E.P.A., November, 1986.

Quality control data appear at the end of the analytical package and may be identified by title. If there are any questions regarding the information presented in the report package, please feel free to contact us at your convenience.

Sincerely,

Sharon Williams
Organic Analyst/IML-Farmington

Inter-Mountain Laboratories, Inc.

2506 West Main Street
Farmington, NM 87401

Client: Giant Refining Co. (Gallup)
Project: Ciniza Refinery
Sample ID: OCDLTU-13001-N
Lab ID: 0301W00708
Matrix: Soil
Condition: Cool/Intact

Date Reported: 02/19/01
Date Sampled: 01/30/01
Date Received: 02/01/01

Date Analyzed: 02/13/01

Parameter	Analytical Result	PQL	MCL	Units
TCLP METALS - METHOD 1311				
Arsenic	<0.1	0.1	5.0	mg/L
Barium	0.7	0.5	100	mg/L
Cadmium	<0.01	0.01	1.0	mg/L
Chromium	<0.02	0.02	5.0	mg/L
Lead	<0.1	0.1	5.0	mg/L
Mercury	<0.01	0.01	0.2	mg/L
Selenium	<0.1	0.1	1.0	mg/L
Silver	<0.05	0.05	5.0	mg/L

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.

Reviewed By: 

Inter-Mountain Laboratories, Inc.

2506 West Main Street
Farmington, NM 87401

Client: Giant Refining Co. (Gallup)
Project: Ciniza Refinery
Sample ID: OCDLTU-13001-N
Lab ID: 0301W00708
Matrix: Soil
Condition: Cool/Intact

Date Reported: 02/19/01
Date Sampled: 01/30/01
Date Received: 02/01/01

Date Analyzed: 02/13/01

Parameter	Analytical Result	PQL	MCL	Units
TOTAL METALS - METHOD 3050				
Arsenic	12	6	100	mg/Kg
Barium	396	1	2000	mg/Kg
Cadmium	0.8	0.5	20	mg/Kg
Chromium	19	1	100	mg/Kg
Lead	30	5	100	mg/Kg
Mercury	3.02	0.06	4	mg/Kg
Selenium	<4	4	20	mg/Kg
Silver	<2	2	100	mg/Kg

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.
SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By: _____

Inter-Mountain Laboratories, Inc.

2506 West Main Street
Farmington, NM 87401

Client: Giant Refining Co. (Gallup)
Project: Ciniza Refinery
Sample ID: OCDLTU-13001-S
Lab ID: 0301W00709
Matrix: Soil
Condition: Cool/Intact

Date Reported: 02/19/01
Date Sampled: 01/30/01
Date Received: 02/01/01

Date Analyzed: 02/13/01

Parameter	Analytical Result	PQL	MCL	Units
TCLP METALS - METHOD 1311				
Arsenic	<0.1	0.1	5.0	mg/L
Barium	0.7	0.5	100	mg/L
Cadmium	<0.01	0.01	1.0	mg/L
Chromium	<0.02	0.02	5.0	mg/L
Lead	<0.1	0.1	5.0	mg/L
Mercury	<0.01	0.01	0.2	mg/L
Selenium	<0.1	0.1	1.0	mg/L
Silver	<0.05	0.05	5.0	mg/L

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.

Reviewed By: 

Inter·Mountain Laboratories, Inc.

2506 West Main Street
Farmington, NM 87401

Client: Giant Refining Co. (Gallup)
Project: Ciniza Refinery
Sample ID: OCDLTU-13001-S
Lab ID: 0301W00709
Matrix: Soil
Condition: Cool/Intact

Date Reported: 02/19/01
Date Sampled: 01/30/01
Date Received: 02/01/01
Date Analyzed: 02/13/01

Parameter	Analytical Result	PQL	MCL	Units
TOTAL METALS - METHOD 3050				
Arsenic	10	6	100	mg/Kg
Barium	254	1	2000	mg/Kg
Cadmium	<0.5	0.5	20	mg/Kg
Chromium	17	1	100	mg/Kg
Lead	27	5	100	mg/Kg
Mercury	0.30	0.06	4	mg/Kg
Selenium	<4	4	20	mg/Kg
Silver	<2	2	100	mg/Kg

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.
SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By: _____

imL

Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

QUALITY CONTROL / QUALITY ASSURANCE

Inter-Mountain Laboratories, Inc.
Phone (505) 326-4737 Fax (505) 325-4182
2506 West Main Street, Farmington, NM 87401

Quality Control / Quality Assurance

Spike Analysis / Blank Analysis

TOXICITY CHARACTERISTIC LEACHING PROCEDURE

Client:	**Giant Refining**	Date Reported:	02/19/01
Project:	Ciniza Refinery	Date Analyzed:	02/13/01
Sample Matrix:	Extract	Date Received:	02/01/01

Spike Analysis

Parameter	Spike Result (mg/L)	Sample Result (mg/L)	Spike Added (mg/L)	Percent Recovery
Arsenic	0.10	<0.1	0.10	**99%**
Barium	0.96	<0.5	1.00	**96%**
Cadmium	0.99	<0.01	1.00	**99%**
Chromium	0.10	<0.02	0.10	**103%**
Lead	0.11	<0.1	0.10	**106%**
Mercury	0.002	<0.01	0.002	**100%**
Selenium	0.96	<0.1	1.00	**96%**
Silver	0.10	<0.05	0.10	**98%**

Method Blank Analysis

Parameter	Result	Detection Limit	Units
Arsenic	**ND**	0.1	mg/L
Barium	**ND**	0.5	mg/L
Cadmium	**ND**	0.01	mg/L
Chromium	**ND**	0.02	mg/L
Lead	**ND**	0.1	mg/L
Mercury	**ND**	0.01	mg/L
Selenium	**ND**	0.1	mg/L
Silver	**ND**	0.05	mg/L

References:

Method 1311: Toxicity Characteristic Leaching Procedure, SW-846, Rev. 0, July 1992.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, Rev. 1, July 1992.

Comments:

Reported by _____

Reviewed by _____

Inter-Mountain Laboratories, Inc.
Phone (505) 326-4737 Fax (505) 325-4182
2506 West Main Street, Farmington, NM 87401

Quality Control / Quality Assurance

Known Analysis

TOXICITY CHARACTERISTIC LEACHING PROCEDURE

Client:	**Giant Refining**	Date Reported:	02/19/01
Project:	Ciniza Refinery	Date Analyzed:	02/13/01
Sample Matrix:	Extract	Date Received:	02/01/01

Known Analysis

Parameter	Found Result	Known Result	Percent Recovery	Units
Arsenic	2.18	2.00	**109%**	mg/L
Barium	1.98	2.00	**99%**	mg/L
Cadmium	1.91	2.00	**96%**	mg/L
Chromium	1.94	2.00	**97%**	mg/L
Lead	1.90	2.00	**95%**	mg/L
Mercury	0.002	0.003	**92%**	mg/L
Selenium	1.95	2.00	**98%**	mg/L
Silver	0.026	0.025	**102%**	mg/L

References:

Method 1311: Toxicity Characteristic Leaching Procedure, SW-846, Rev. 0, July 1992.

Method 3010A: Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, Rev. 1, July 1992.

Comments:

Reported by _____

Reviewed by _____

imL
Inter- Mountain Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSES / PARAMETERS
Giant-Ciniza / OCD-LTU-Soil-01	Ciniza	
Sampler: (Signature)	**Chain of Custody Tape No.**	**Remarks**

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	RCRA Metals TCLP	RCRA Metals Total			
OCDLTU-13001-M	1-30-01	1315	70810	Soil	1	X	X			
OCDLTU-13001-S	1-30-01	1330	7091	Soil	1	X	X			

	Date	Time		Date	Time
Relinquished by: (Signature)	1/31/01	0900	**Received by: (Signature)**		
Relinquished by: (Signature)			**Received by: (Signature)**		
Relinquished by: (Signature)			**Received by laboratory: (Signature)**		

Inter-Mountain Laboratories, Inc.

☐ 555 Absaraka
Sheridan, Wyoming 82801
Telephone (307) 674-7506

☐ 1633 Terra Avenue
Sheridan, Wyoming 82801
Telephone (307) 672-8945

☐ 1701 Phillips Circle
Gillette, Wyoming 82718
Telephone (307) 682-8945

☑ 2506 West Main Street
Farmington, NM 87401
Telephone (505) 326-4737

☐ 11183 State Hwy. 30
College Station, TX 77845
Telephone (979) 776-8945

69524

ASSAIGAI
ANALYTICAL
LABORATORIES, INC.
7300 Jefferson, NE • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259
3332 Wedgewood Dr., Suite N • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820
127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-255

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
1-9	see footnote

GIANT REFINERY
attn: **DORINDA MANCINI**
ROUTE 3 BOX 7
GALLUP, NM 87301

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **GIANT REFINERY**
Project: **0101032 OCD LAND FARM SOIL 010401**

William P. Biava: President of Assaigai Analytical Laboratories, Inc.

Client Sample ID: ***OCD-LTA-SOIL-010401*** Sample Matrix: ***SOIL*** Sample Collected: ***01/04/01 10:30:00***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
0101032-01A		**SW846 8260A Purgeable VOCs by GC/MS**							
X0127	XG.2001.69-2	71-43-2	Benzene	ND	mg / Kg	1	0.005		01/18/01
X0127	XG.2001.69-2	100-41-4	Ethylbenzene	ND	mg / Kg	1	0.005		01/18/01
X0127	XG.2001.69-2	95-47-6	o-Xylene	ND	mg / Kg	1	0.005		01/18/01
X0127	XG.2001.69-2	108-38-3/106-42	p/m Xylenes	ND	mg / Kg	1	0.01		01/18/01
X0127	XG.2001.69-2	108-88-3	Toluene	ND	mg / Kg	1	0.005		01/18/01
0101032-01B		**SW846 3050A/6010A ICP**							
M0123	MW.2001.33-6	7440-38-2	Arsenic	ND	mg / Kg	1	3		01/10/01
M0123	MW.2001.30-21	7440-39-3	Barium	303	mg / Kg	1	0.5		01/09/01
M0123	MW.2001.30-21	7440-43-9	Cadmium	0.50	mg / Kg	1	0.2		01/09/01
M0123	MW.2001.30-21	7440-47-3	Chromium	23.8	mg / Kg	1	1		01/09/01
M0123	MW.2001.30-21	7782-49-2	Selenium	ND	mg / Kg	1	2.5		01/09/01
M0123	MW.2001.30-21	7440-22-4	Silver	ND	mg / Kg	1	1		01/09/01
0101032-01B		**SW846 3050A/7000 series AA-FL**							
M0123	MW.2001.31-14	7439-92-1	Lead	32.3	mg / Kg	1	5		01/10/01
0101032-01B		**SW846 7471 CVAA**							
M0124	MW.2001.54-10	7439-97-6	Mercury	1.66	mg / Kg	10	0.05		01/16/01
0101032-01C		**SW846 ME/8015A Diesel Range Organics by GC/FID**							
X018	XG.2001.41-4		Diesel Range Organics	920	mg / Kg	10	25		01/09/01

Certificate of Analysis

Client: **GIANT REFINERY**

Project: **0101032 OCD LAND FARM SOIL 010401**

0101032-01D **SW846 5030A/8015A GRO by GC/FID**

X0114	XG.2001.56-2		Gasoline Range Organics	ND	mg / Kg	10	0.25	01/10/01

**** Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. ****

**** ND = Not detected: less than the sample specific Detection Limit. Results relate only to the items tested. ****

ASSAIGAI ANALYTICAL LABORATORIES, INC.

GIAO1 1/18/01 FR1644C → N-5

Chain of Custody Record

7300 JEFFERSON N.E.
ALBUQUERQUE, NEW MEXICO 87109
(505) 345-8964

3332 WEDGEWOOD
EL PASO, TEXAS 79925
(915) 593-6000

127 EASTGATE DRIVE, 212-C
LOS ALAMOS, NEW MEXICO 87544
(505) 662-2558

Lab job No. 0101032 Date 1-4-01

Page 1 of 1

Client: Giant Refining Company

Address: Route 3 Box 7

City / State / Zip: Gallup, NM 87301

Project Name / Number: OCD Land Farm Soil 010401

Contract / Purchase Order / Quote:

Project Manager / Contact: Steve Morris

Telephone No. 505 7220258

Fax No. 505 7229210

Samplers: (signature) SC Morris

AAL Fraction Number	Field Sample Number / Location	Date	Time	Sample Type	Type / Size of Container	Preservation Temp.	Preservation Chemical	No. of Containers	BTEX mtbe (8260)	Total RCRA 8 metals	(Habu 7471)	8015 for Gro & DRO					Remarks
1A,B,C,D	OCD-LTA-Soil-010401	1-4-01	1030	Soil	4 oz + 8 oz Glass		NONE	4	X	X	X	X					

Analysis Required (by 6010)

Relinquished by:
Signature: D Mancini
Printed: D. Mancini
Company: Giant Refining
Reason: Hand Carried

Date: 1-4-01
Time: 16:18

Received by:
Signature: [signature]
Printed: Byron Crandell
Company: AAL
Reason: Analysis

Relinquished by:
Signature
Printed
Company
Reason

Date
Time

Received by:
Signature
Printed
Company
Reason

Method of Shipment: Hand Carried
Shipment No.
Special Instructions:

Comments: Please call ASAP if any questions regarding analytical request, methods, etc.

After analysis, samples are to be:
- ☐ Disposed of (additional fee)
- ☐ Stored (30 days max)
- ☐ Stored over 30 days (additional fee)
- ☐ Returned to customer

ASSAIGAI
ANALYTICAL
LABORATORIES, INC.
7300 Jefferson, NE • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259
3332 Wedgewood Dr., Suite N • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820
127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-2555

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
1-9	see footnote

GIANT REFINERY
attn: **DORINDA MANCINI**
ROUTE 3 BOX 7
GALLUP, NM 87301

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **GIANT REFINERY**
Project: **0101032 OCD LAND FARM SOIL 010401**

William P. Biava: President of Assaigai Analytical Laboratories, Inc.

Client Sample ID: ***OCD-LTA-SOIL-010401*** Sample Matrix: ***SOIL*** Sample Collected: ***01/04/01 10:30:00***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
0101032-01A		**SW846 8260A Purgeable VOCs by GC/MS**							
X0127	XG.2001.69-2	71-43-2	Benzene	ND	mg / Kg	1	0.005		01/18/01
X0127	XG.2001.69-2	100-41-4	Ethylbenzene	ND	mg / Kg	1	0.005		01/18/01
X0127	XG.2001.69-2	95-47-6	o-Xylene	ND	mg / Kg	1	0.005		01/18/01
X0127	XG.2001.69-2	108-38-3/106-42	p/m Xylenes	ND	mg / Kg	1	0.01		01/18/01
X0127	XG.2001.69-2	108-88-3	Toluene	ND	mg / Kg	1	0.005		01/18/01
0101032-01B		**SW846 3050A/6010A ICP**							
M0123	MW.2001.33-6	7440-38-2	Arsenic	ND	mg / Kg	1	3		01/10/01
M0123	MW.2001.30-21	7440-39-3	Barium	303	mg / Kg	1	0.5		01/09/01
M0123	MW.2001.30-21	7440-43-9	Cadmium	0.50	mg / Kg	1	0.2		01/09/01
M0123	MW.2001.30-21	7440-47-3	Chromium	23.8	mg / Kg	1	1		01/09/01
M0123	MW.2001.30-21	7782-49-2	Selenium	ND	mg / Kg	1	2.5		01/09/01
M0123	MW.2001.30-21	7440-22-4	Silver	ND	mg / Kg	1	1		01/09/01
0101032-01B		**SW846 3050A/7000 series AA-FL**							
M0123	MW.2001.31-14	7439-92-1	Lead	32.3	mg / Kg	1	5		01/10/01
0101032-01B		**SW846 7471 CVAA**							
M0124	MW.2001.54-10	7439-97-6	Mercury	1.66	mg / Kg	10	0.05		01/16/01
0101032-01C		**SW846 ME/8015A Diesel Range Organics by GC/FID**							
X018	XG.2001.41-4		Diesel Range Organics	920	mg / Kg	10	25		01/09/01

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **GIANT REFINERY**

Project: **0101032 OCD LAND FARM SOIL 010401**

0101032-01D **SW846 5030A/8015A GRO by GC/FID**

X0114	XG.2001.56-2		Gasoline Range Organics	ND	mg / Kg	10	0.25	01/10/01

**** Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. ****

**** ND = Not detected: less than the sample specific Detection Limit. Results relate only to the items tested. ****

Quality Control Summary

Client: **GIANT REFINERY**

Project: **0101032 OCD LAND FARM SOIL 010401**

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

QC Type **LCS: Lab Control Spike** QC Matrix **SOLID**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
M0123-002		**SW846 3050A/6010A ICP**							
M0123	MW.2001.30-16	7440-38-2	Arsenic	102	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-16	7440-39-3	Barium	103	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-16	7440-43-9	Cadmium	99	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-16	7440-47-3	Chromium	103	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-16	7782-49-2	Selenium	96	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-16	7440-22-4	Silver	91	(%) Recov	1	NA		01/09/01
M0123-002		**SW846 3050A/7000 series AA-FL**							
M0123	MW.2001.31-9	7439-92-1	Lead	100	(%) Recov	1	NA		01/10/01
M0124-002		**SW846 7471 CVAA**							
M0124	MW.2001.35-11	7439-97-6	Mercury	100	% Recovery	1	NA		01/10/01
X0114-002		**SW846 5030A/8015A GRO by GC/FID**							
X0114	XG.2001.43-2		Gasoline Range Organics	110	% Recovery	1	NA		01/09/01
X0127-005		**SW846 8260A Purgeable VOCs by GC/MS**							
X0127	XG.2001.69-5	71-43-2	Benzene	113	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-5	108-88-3	Toluene	108	% Recovery	1	NA		01/18/01
X018-002		**SW846 ME/8015A Diesel Range Organics by GC/FID**							
X018	XG.2001.41-2		Diesel Range Organics	94	% Recovery	1	NA		01/09/01

QC Type **LCSD: Lab Control Spike Duplicate Accuracy** QC Matrix **SOLID**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
M0123-003		**SW846 3050A/6010A ICP**							
M0123	MW.2001.30-17	7440-38-2	Arsenic	97	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-17	7440-39-3	Barium	98	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-17	7440-43-9	Cadmium	95	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-17	7440-47-3	Chromium	98	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-17	7782-49-2	Selenium	96	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-17	7440-22-4	Silver	89	(%) Recov	1	NA		01/09/01
M0123-003		**SW846 3050A/7000 series AA-FL**							
M0123	MW.2001.31-10	7439-92-1	Lead	103	(%) Recov	1	NA		01/10/01
M0124-003		**SW846 7471 CVAA**							
M0124	MW.2001.35-12	7439-97-6	Mercury	100	% Recovery	1	NA		01/10/01
X0114-003		**SW846 5030A/8015A GRO by GC/FID**							
X0114	XG.2001.43-3		Gasoline Range Organics	106	% Recovery	1	NA		01/09/01
X0127-006		**SW846 8260A Purgeable VOCs by GC/MS**							
X0127	XG.2001.69-6	71-43-2	Benzene	115	% Recovery	1	NA		01/18/01

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Client: **GIANT REFINERY**

Project: **0101032 OCD LAND FARM SOIL 010401**

X0127	XG.2001.69-6	108-88-3	Toluene	113	% Recovery	1	NA		01/18/01
X018-003		**SW846 ME/8015A Diesel Range Organics by GC/FID**							
X018	XG.2001.41-3		Diesel Range Organics	104	% Recovery	1	NA		01/09/01

QC Type **LCSD: Lab Control Spike Duplicate Precision** QC Matrix **SOLID**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
M0123-003		**SW846 3050A/6010A ICP**							
M0123	MW.2001.30-17	7440-38-2	Arsenic	5	(%) RPD	1	NA		01/09/01
M0123	MW.2001.30-17	7440-39-3	Barium	5	(%) RPD	1	NA		01/09/01
M0123	MW.2001.30-17	7440-43-9	Cadmium	4	(%) RPD	1	NA		01/09/01
M0123	MW.2001.30-17	7440-47-3	Chromium	5	(%) RPD	1	NA		01/09/01
M0123	MW.2001.30-17	7782-49-2	Selenium	< 1	(%) RPD	1	NA		01/09/01
M0123	MW.2001.30-17	7440-22-4	Silver	3	(%) RPD	1	NA		01/09/01
M0123-003		**SW846 3050A/7000 series AA-FL**							
M0123	MW.2001.31-10	7439-92-1	Lead	4	(%) RPD	1	NA		01/10/01
M0124-003		**SW846 7471 CVAA**							
M0124	MW.2001.35-12	7439-97-6	Mercury	< 1	RPD	1	NA		01/10/01
X0114-003		**SW846 5030A/8015A GRO by GC/FID**							
X0114	XG.2001.43-3		Gasoline Range Organics	4	RPD	1	NA		01/09/01
X0127-006		**SW846 8260A Purgeable VOCs by GC/MS**							
X0127	XG.2001.69-6	71-43-2	Benzene	2	RPD	1	NA		01/18/01
X0127	XG.2001.69-6	108-88-3	Toluene	5	RPD	1	NA		01/18/01
X018-003		**SW846 ME/8015A Diesel Range Organics by GC/FID**							
X018	XG.2001.41-3		Diesel Range Organics	10	RPD	1	NA		01/09/01

QC Type **MB: Method Blank** QC Matrix **SOLID**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
M0123-001		**SW846 3050A/6010A ICP**							
M0123	MW.2001:30-15	7440-38-2	Arsenic	ND	mg / Kg	1	3		01/09/01
M0123	MW.2001.30-15	7440-39-3	Barium	ND	mg / Kg	1	0.5		01/09/01
M0123	MW.2001.30-15	7440-43-9	Cadmium	ND	mg / Kg	1	0.2		01/09/01
M0123	MW.2001.30-15	7440-47-3	Chromium	ND	mg / Kg	1	1		01/09/01
M0123	MW.2001.30-15	7782-49-2	Selenium	ND	mg / Kg	1	2.5		01/09/01
M0123	MW.2001.30-15	7440-22-4	Silver	ND	mg / Kg	1	1		01/09/01
M0123-001		**SW846 3050A/7000 series AA-FL**							
M0123	MW.2001.31-8	7439-92-1	Lead	ND	mg / Kg	1	5		01/10/01
M0124-001		**SW846 7471 CVAA**							
M0124	MW.2001.35-10	7439-97-6	Mercury	ND	mg / Kg	1	0.05		01/10/01

Quality Control Summary

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Client: **GIANT REFINERY**

Project: **0101032 OCD LAND FARM SOIL 010401**

X0114-001		**SW846 5030A/8015A GRO by GC/FID**							
X0114	XG.2001.43-1		Gasoline Range Organics	ND	mg / Kg	1	0.25		01/09/01
X0114-010		**SW846 5030A/8015A GRO by GC/FID**							
X0114	XG.2001.56-1		Gasoline Range Organics	ND	mg / Kg	1	0.25		01/10/01
X0127-001		**SW846 8260A Purgeable VOCs by GC/MS**							
X0127	XG.2001.69-1	71-43-2	Benzene	ND	mg / Kg	1	0.005		01/18/01
X0127	XG.2001.69-1	100-41-4	Ethylbenzene	ND	mg / Kg	1	0.005		01/18/01
X0127	XG.2001.69-1	95-47-6	o-Xylene	ND	mg / Kg	1	0.005		01/18/01
X0127	XG.2001.69-1	108-38-3/106-42	p/m Xylenes	ND	mg / Kg	1	0.01		01/18/01
X0127	XG.2001.69-1	108-88-3	Toluene	ND	mg / Kg	1	0.005		01/18/01
X018-001		**SW846 ME/8015A Diesel Range Organics by GC/FID**							
X018	XG.2001.41-1		Diesel Range Organics	ND	mg / Kg	1	25		01/09/01

QC Type **MS: Matrix Spike** QC Matrix **SOLID**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
M0123-005		**SW846 3050A/6010A ICP**							
M0123	MW.2001.30-19	7440-38-2	Arsenic	86	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-19	7440-39-3	Barium	105	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-19	7440-43-9	Cadmium	96	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-19	7440-47-3	Chromium	99	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-19	7782-49-2	Selenium	96	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-19	7440-22-4	Silver	87	(%) Recov	1	NA		01/09/01
M0123-005		**SW846 3050A/7000 series AA-FL**							
M0123	MW.2001.31-12	7439-92-1	Lead	109	(%) Recov	1	NA		01/10/01
M0124-008		**SW846 7471 CVAA**							
M0124	MW.2001.35-19	7439-97-6	Mercury	102	% Recovery	1	NA		01/10/01
X0114-012		**SW846 5030A/8015A GRO by GC/FID**							
X0114	XG.2001.56-3		Gasoline Range Organics	112	% Recovery	10	NA		01/10/01
X0127-003		**SW846 8260A Purgeable VOCs by GC/MS**							
X0127	XG.2001.69-3	71-43-2	Benzene	117	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-3	108-88-3	Toluene	117	% Recovery	1	NA		01/18/01
X018-005		**SW846 ME/8015A Diesel Range Organics by GC/FID**							
X018	XG.2001.41-5		Diesel Range Organics	73	% Recovery	10	NA		01/09/01

QC Type **MSD: Matrix Spike Duplicate Accuracy** QC Matrix **SOLID**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
M0123-006		**SW846 3050A/6010A ICP**							
M0123	MW.2001.30-20	7440-38-2	Arsenic	85	(%) Recov	1	NA		01/09/01

Quality Control Summary

Explanation of codes	
D	*Not applicable due to sample dilution*
L	*Not applicable due to MDL proximity*

Client: **GIANT REFINERY**

Project: **0101032 OCD LAND FARM SOIL 010401**

M0123	MW.2001.30-20	7440-39-3	Barium	101	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-20	7440-43-9	Cadmium	95	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-20	7440-47-3	Chromium	98	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-20	7782-49-2	Selenium	93	(%) Recov	1	NA		01/09/01
M0123	MW.2001.30-20	7440-22-4	Silver	91	(%) Recov	1	NA		01/09/01
M0123-006		**SW846 3050A/7000 series AA-FL**							
M0123	MW.2001.31-13	7439-92-1	Lead	112	(%) Recov	1	NA		01/10/01
M0124-009		**SW846 7471 CVAA**							
M0124	MW.2001.35-20	7439-97-6	Mercury	116	% Recovery	1	NA		01/10/01
X0114-013		**SW846 5030A/8015A GRO by GC/FID**							
X0114	XG.2001.56-4		Gasoline Range Organics	112	% Recovery	10	NA		01/10/01
X0127-004		**SW846 8260A Purgeable VOCs by GC/MS**							
X0127	XG.2001.69-4	71-43-2	Benzene	116	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-4	108-88-3	Toluene	116	% Recovery	1	NA		01/18/01
X018-006		**SW846 ME/8015A Diesel Range Organics by GC/FID**							
X018	XG.2001.41-6		Diesel Range Organics	76	% Recovery	10	NA		01/09/01

QC Type **MSD: Matrix Spike Duplicate Precision** QC Matrix **SOLID**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
M0123-006		**SW846 3050A/6010A ICP**							
M0123	MW.2001.30-20	7440-38-2	Arsenic	< 1	(%) RPD	1	NA		01/09/01
M0123	MW.2001.30-20	7440-39-3	Barium	4	(%) RPD	1	NA		01/09/01
M0123	MW.2001.30-20	7440-43-9	Cadmium	1	(%) RPD	1	NA		01/09/01
M0123	MW.2001.30-20	7440-47-3	Chromium	< 1	(%) RPD	1	NA		01/09/01
M0123	MW.2001.30-20	7782-49-2	Selenium	3	(%) RPD	1	NA		01/09/01
M0123	MW.2001.30-20	7440-22-4	Silver	5	(%) RPD	1	NA		01/09/01
M0123-006		**SW846 3050A/7000 series AA-FL**							
M0123	MW.2001.31-13	7439-92-1	Lead	3	(%) RPD	1	NA		01/10/01
M0124-009		**SW846 7471 CVAA**							
M0124	MW.2001.35-20	7439-97-6	Mercury	13	RPD	1	NA		01/10/01
X0114-013		**SW846 5030A/8015A GRO by GC/FID**							
X0114	XG.2001.56-4		Gasoline Range Organics	< 1	RPD	10	NA		01/10/01
X0127-004		**SW846 8260A Purgeable VOCs by GC/MS**							
X0127	XG.2001.69-4	71-43-2	Benzene	1	RPD	1	NA		01/18/01
X0127	XG.2001.69-4	108-88-3	Toluene	< 1	RPD	1	NA		01/18/01
X018-006		**SW846 ME/8015A Diesel Range Organics by GC/FID**							
X018	XG.2001.41-6		Diesel Range Organics	5	RPD	10	NA		01/09/01

Surrogate Summary: QC

Client: **GIANT REFINERY**

Project: **0101032 OCD LAND FARM SOIL 010401**

QC Type **LCS** QC Matrix **SOLID**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
X0114-002		**GRO**							
X0114	XG.2001.43-2	NA	4-Bromofluorobenzene-FID	106	% Recovery	1	NA		01/09/01
X0114	XG.2001.43-2	NA	4-Bromofluorobenzene-PID	ND	% Recovery	1	NA		01/09/01
X0114	XG.2001.43-2	NA	aaa-Trifluorotoluene-FID	105	% Recovery	1	NA		01/09/01
X0114	XG.2001.43-2	NA	aaa-Trifluorotoluene-PID	ND	% Recovery	1	NA		01/09/01
X0127-005		**8260**							
X0127	XG.2001.69-5	NA	1,2 Dichloroethane-D4 (SS)	87	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-5	NA	4-Bromofluorobenzene (SS)	96	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-5	NA	Dibromofluoromethane (SS)	101	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-5	NA	Toluene-D8 (SS)	102	% Recovery	1	NA		01/18/01
X018-002		**DRO**							
X018	XG.2001.41-2	NA	O-terphenyl	106	% Recovery	1	NA		01/09/01

QC Type **LCSD** QC Matrix **SOLID**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
X0114-003		**GRO**							
X0114	XG.2001.43-3	NA	4-Bromofluorobenzene-FID	106	% Recovery	1	NA		01/09/01
X0114	XG.2001.43-3	NA	4-Bromofluorobenzene-PID	ND	% Recovery	1	NA		01/09/01
X0114	XG.2001.43-3	NA	aaa-Trifluorotoluene-FID	105	% Recovery	1	NA		01/09/01
X0114	XG.2001.43-3	NA	aaa-Trifluorotoluene-PID	ND	% Recovery	1	NA		01/09/01
X0127-006		**8260**							
X0127	XG.2001.69-6	NA	1,2 Dichloroethane-D4 (SS)	91	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-6	NA	4-Bromofluorobenzene (SS)	98	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-6	NA	Dibromofluoromethane (SS)	101	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-6	NA	Toluene-D8 (SS)	102	% Recovery	1	NA		01/18/01
X018-003		**DRO**							
X018	XG.2001.41-3	NA	O-terphenyl	113	% Recovery	1	NA		01/09/01

QC Type **MB** QC Matrix **SOLID**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
X0114-001		**GRO**							
X0114	XG.2001.43-1	NA	4-Bromofluorobenzene-FID	93	% Recovery	1	NA		01/09/01
X0114	XG.2001.43-1	NA	4-Bromofluorobenzene-PID	ND	% Recovery	1	NA		01/09/01
X0114	XG.2001.43-1	NA	aaa-Trifluorotoluene-FID	104	% Recovery	1	NA		01/09/01

Surrogate Summary: QC

Client: **GIANT REFINERY**

Project: **0101032 OCD LAND FARM SOIL 010401**

X0114	XG.2001.43-1	NA	aaa-Trifluorotoluene-PID	ND	% Recovery	1	NA		01/09/01
X0114-010		**GRO**							
X0114	XG.2001.56-1	NA	4-Bromofluorobenzene-FID	92	% Recovery	1	NA		01/10/01
X0114	XG.2001.56-1	NA	4-Bromofluorobenzene-PID	ND	% Recovery	1	NA		01/10/01
X0114	XG.2001.56-1	NA	aaa-Trifluorotoluene-FID	102	% Recovery	1	NA		01/10/01
X0114	XG.2001.56-1	NA	aaa-Trifluorotoluene-PID	ND	% Recovery	1	NA		01/10/01
X0127-001		**8260**							
X0127	XG.2001.69-1	NA	1,2 Dichloroethane-D4 (SS)	85	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-1	NA	4-Bromofluorobenzene (SS)	96	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-1	NA	Dibromofluoromethane (SS)	98	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-1	NA	Toluene-D8 (SS)	100	% Recovery	1	NA		01/18/01
X018-001		**DRO**							
X018	XG.2001.41-1	NA	O-terphenyl	96	% Recovery	1	NA		01/09/01

QC Type **MS** QC Matrix **SOLID**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
X0114-012		**GRO**							
X0114	XG.2001.56-3	NA	4-Bromofluorobenzene-FID	105	% Recovery	10	NA		01/10/01
X0114	XG.2001.56-3	NA	4-Bromofluorobenzene-PID	ND	% Recovery	10	NA		01/10/01
X0114	XG.2001.56-3	NA	aaa-Trifluorotoluene-FID	106	% Recovery	10	NA		01/10/01
X0114	XG.2001.56-3	NA	aaa-Trifluorotoluene-PID	ND	% Recovery	10	NA		01/10/01
X0127-003		**8260**							
X0127	XG.2001.69-3	NA	1,2 Dichloroethane-D4 (SS)	93	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-3	NA	4-Bromofluorobenzene (SS)	92	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-3	NA	Dibromofluoromethane (SS)	103	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-3	NA	Toluene-D8 (SS)	96	% Recovery	1	NA		01/18/01
X018-005		**DRO**							
X018	XG.2001.41-5	NA	O-terphenyl	138	% Recovery	10	NA		01/09/01

QC Type **MSD** QC Matrix **SOLID**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
X0114-013		**GRO**							
X0114	XG.2001.56-4	NA	4-Bromofluorobenzene-FID	106	% Recovery	10	NA		01/10/01
X0114	XG.2001.56-4	NA	4-Bromofluorobenzene-PID	ND	% Recovery	10	NA		01/10/01
X0114	XG.2001.56-4	NA	aaa-Trifluorotoluene-FID	107	% Recovery	10	NA		01/10/01
X0114	XG.2001.56-4	NA	aaa-Trifluorotoluene-PID	ND	% Recovery	10	NA		01/10/01
X0127-004		**8260**							
X0127	XG.2001.69-4	NA	1,2 Dichloroethane-D4 (SS)	94	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-4	NA	4-Bromofluorobenzene (SS)	93	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-4	NA	Dibromofluoromethane (SS)	104	% Recovery	1	NA		01/18/01

Surrogate Summary: QC

Client: **GIANT REFINERY**

Project: **0101032 OCD LAND FARM SOIL 010401**

X0127	XG.2001.69-4	NA	Toluene-D8 (SS)	96	% Recovery	1	NA	01/18/01
X018-006		**DRO**						
X018	XG.2001.41-6	NA	O-terphenyl	138	% Recovery	10	NA	01/09/01

Assaigai Analytical Laboratories, Inc.

Surrogate Summary: Fraction

Client: **GIANT REFINERY**

Project: **0101032 OCD LAND FARM SOIL 010401**

Client Sample ID: **OCD-LTA-SOIL-010401** Sample Matrix: **SOIL**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
0101032-01A		**8260**							**X0127-002**
X0127	XG.2001.69-2	NA	1,2 Dichloroethane-D4 (SS)	91	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-2	NA	4-Bromofluorobenzene (SS)	89	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-2	NA	Dibromofluoromethane (SS)	103	% Recovery	1	NA		01/18/01
X0127	XG.2001.69-2	NA	Toluene-D8 (SS)	94	% Recovery	1	NA		01/18/01
0101032-01C		**DRO**							**X018-004**
X018	XG.2001.41-4	NA	O-terphenyl	120	% Recovery	10	NA		01/09/01
0101032-01D		**GRO**							**X0114-011**
X0114	XG.2001.56-2	NA	4-Bromofluorobenzene-FID	93	% Recovery	10	NA		01/10/01
X0114	XG.2001.56-2	NA	4-Bromofluorobenzene-PID	ND	% Recovery	10	NA		01/10/01
X0114	XG.2001.56-2	NA	aaa-Trifluorotoluene-FID	108	% Recovery	10	NA		01/10/01
X0114	XG.2001.56-2	NA	aaa-Trifluorotoluene-PID	ND	% Recovery	10	NA		01/10/01

Chain of Custody Record

ASSAIGAI ANALYTICAL LABORATORIES, INC.

7300 JEFFERSON N.E.
ALBUQUERQUE, NEW MEXICO 87109
(505) 345-8964

3332 WEDGEWOOD
EL PASO, TEXAS 79925
(915) 593-6000

127 EASTGATE DRIVE, 212-C
LOS ALAMOS, NEW MEXICO 87544
(505) 662-2558

Lab Job No. 010132 Date 1-4-01

Page 1 of 1

Client Giant Refining Company

Address Route 3 Box 7

City / State / Zip Gallup, NM 87301

Project Name / Number OCD Land Farm Soil 010401

Contract / Purchase Order / Quote

Project Manager / Contact Steve Hobbs

Telephone No. 505 7220258

Fax No. 505 722 9210

Samplers : (signature) SC Hobbs

AAL Fraction Number	Field Sample Number / Location	Date	Time	Sample Type	Type / Size of Container	Preservation Temp.	Preservation Chemical	No. of Containers	Analysis Required: BTEX (EPA 8021)	TPH (EPA 418.1)	Chlorides (EPA 325.3)								Remarks
1	OCD-LTA-Soil-010401	1-4-01	1030	Soil	4oz & 8oz Glass		None	2	X	X	X								
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Relinquished by:	Date	Received by:	Relinquished by:	Date	Received by:
Signature	1-4-01	Signature	Signature		Signature
Printed D. Mccann	Time 15:12	Printed	Printed	Time	Printed
Company Giant Refining		Company AAL	Company		Company
Reason Final Report		Reason	Reason		Reason

Method of Shipment: Hand Delivered

Shipment No.

Special Instructions:

Comments: Please call ASAP if any questions re Garbers analytical Results, Practices, etc.

After analysis, samples are to be:

- ☐ Disposed of (additional fee)
- ☐ Stored (30 days max)
- ☐ Stored over 30 days (additional fee)
- ☐ Returned to customer

COURIER

Hall Environmental Analysis Laboratory

COVER LETTER

December 31, 2002

Dorinda Mancini
Giant Refining Co
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 772-3833
FAX (505) 722-0210

RE: Dec 2002 Soil Samples TPH

Order No.: 0212128

Dear Dorinda Mancini:

Hall Environmental Analysis Laboratory received 6 samples on 12/20/2002 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-Dec-02*

CLIENT: Giant Refining Co
Project: Dec 2002 Soil Samples TPH
Lab Order: 0212128

CASE NARRATIVE

Analytical Comments for METHOD 8015DRO_S, SAMPLES 0212128-1,2,3,6: Surrogates not recoverabledue to matrix interference.

Hall Environmental Analysis Laboratory

Date: *31-Dec-02*

CLIENT: Giant Refining Co
Project: Dec 2002 Soil Samples TPH
Lab Order: 0212128

Lab ID: 0212128-01 **Collection Date:** 12/19/2002 9:15:00 AM
Client Sample ID: RRR-36-121902 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	5600	50		mg/Kg	10	12/26/2002 2:28:16 PM
Motor Oil Range Organics (MRO)	1100	500		mg/Kg	10	12/26/2002 2:28:16 PM
Surr: DNOP	0	60-124	S	%REC	10	12/26/2002 2:28:16 PM

Lab ID: 0212128-02 **Collection Date:** 12/19/2002 9:25:00 AM
Client Sample ID: RRR-76-121902 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	3500	50		mg/Kg	10	12/26/2002 2:57:02 PM
Motor Oil Range Organics (MRO)	820	500		mg/Kg	10	12/26/2002 2:57:02 PM
Surr: DNOP	0	60-124	S	%REC	10	12/26/2002 2:57:02 PM

Lab ID: 0212128-03 **Collection Date:** 12/19/2002 9:35:00 AM
Client Sample ID: RRR-125-121902 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	2700	50		mg/Kg	10	12/26/2002 3:25:49 PM
Motor Oil Range Organics (MRO)	700	500		mg/Kg	10	12/26/2002 3:25:49 PM
Surr: DNOP	0	60-124	S	%REC	10	12/26/2002 3:25:49 PM

Lab ID: 0212128-04 **Collection Date:** 12/19/2002 9:50:00 AM
Client Sample ID: OCD-59-121902 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	720	50		mg/Kg	10	12/26/2002 3:54:36 PM
Motor Oil Range Organics (MRO)	600	500		mg/Kg	10	12/26/2002 3:54:36 PM
Surr: DNOP	117	60-124		%REC	10	12/26/2002 3:54:36 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: *31-Dec-02*

CLIENT: Giant Refining Co
Project: Dec 2002 Soil Samples TPH
Lab Order: 0212128

Lab ID: 0212128-05
Collection Date: 12/19/2002 10:10:00 AM
Client Sample ID: OCD-63-121902
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	880	50		mg/Kg	10	12/26/2002 4:23:53 PM
Motor Oil Range Organics (MRO)	680	500		mg/Kg	10	12/26/2002 4:23:53 PM
Surr: DNOP	121	60-124		%REC	10	12/26/2002 4:23:53 PM

Lab ID: 0212128-06
Collection Date: 12/19/2002 10:25:00 AM
Client Sample ID: OCD-112-121902
Matrix: SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	1200	50		mg/Kg	10	12/26/2002 4:52:56 PM
Motor Oil Range Organics (MRO)	980	500		mg/Kg	10	12/26/2002 4:52:56 PM
Surr: DNOP	0	60-124	S	%REC	10	12/26/2002 4:52:56 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: *31-Dec-02*

CLIENT: Giant Refining Co
Work Order: 0212128
Project: Dec 2002 Soil Samples TPH

QC SUMMARY REPORT
Method Blank

Sample ID **MB-2929** Batch ID: **2929** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **12/26/2002 1:30:07 PM** Prep Date **12/23/2002**

Client ID: Run ID: **FID(17A)_021226A** SeqNo: **156108**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	5.0									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	11.87	0	10	0	119	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

Hall Environmental Analysis Laboratory

Date: *31-Dec-02*

CLIENT: Giant Refining Co
Work Order: 0212128
Project: Dec 2002 Soil Samples TPH

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **LCS-2929** Batch ID: **2929** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **12/26/2002 1:59:14 PM** Prep Date **12/23/2002**

Client ID: Run ID: **FID(17A)_021226A** SeqNo: **156109**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51.35	5.0	50	0	103	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

CHAIN-OF-CUSTODY RECORD

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

Client: Giant Refining Company - Ciniza
Address: Rt 3 Box 7 Gallup, NM 87301
Phone #: 505 722 3833
Fax #: 505 722 0210

Project Name: Dec 2002 soil samples for TPH
Project #:
Project Manager: Dorinda Moreni
Sampler: [signature]
Samples Cold?: ☑ Yes ☐ No

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: $HgCl_2$	Preservative: HCl	Preservative: None	HEAL No.
12/19/02	0915	Soil	RRR-36-121902	1			X	0212128-1
"	0925	"	RRR-76-121902	1			X	-2
"	0935	"	RRR-125-121902	1			X	-3
"	0950	"	OCD-59-121902	1			X	-4
"	1010	"	OCD-63-121902	1			X	-5
"	1025	"	OCD-112-121902	1			X	-6

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)	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)	TPH - DRO		Air Bubbles or Headspace (Y or N)
														X		
														X		
														X		
														X		
														X		
														X		

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	
12/19/02	1100	[signature]	[signature]	12/20/02 12:15
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	

Remarks:

10

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

May 18, 2004

Dorinda Mancini
Giant Refining Co
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0227
FAX (505) 722-0210

RE: Ciniza Central OCD Landfarm Order No.: 0405115

Dear Dorinda Mancini:

Hall Environmental Analysis Laboratory received 2 samples on 5/14/2004 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: *18-May-04*

CLIENT: Giant Refining Co
Client Sample ID: Central OCD LF-No
Lab Order: 0405115
Collection Date: 5/13/2004 1:30:00 PM
Project: Ciniza Central OCD Landfarm
Lab ID: 0405115-01
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	610	10		mg/Kg	1	5/17/2004 11:44:03 AM
Motor Oil Range Organics (MRO)	570	50		mg/Kg	1	5/17/2004 11:44:03 AM
Surr: DNOP	107	60-124		%REC	1	5/17/2004 11:44:03 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/16/2004 6:16:50 PM
Surr: BFB	97.0	74-118		%REC	1	5/16/2004 6:16:50 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: *18-May-04*

CLIENT:	Giant Refining Co	**Client Sample ID:**	Central OCD LF-So
Lab Order:	0405115	**Collection Date:**	5/13/2004 1:45:00 PM
Project:	Ciniza Central OCD Landfarm		
Lab ID:	0405115-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	850	10		mg/Kg	1	5/17/2004 12:14:14 PM
Motor Oil Range Organics (MRO)	990	50		mg/Kg	1	5/17/2004 12:14:14 PM
Surr: DNOP	108	60-124		%REC	1	5/17/2004 12:14:14 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/16/2004 6:48:03 PM
Surr: BFB	102	74-118		%REC	1	5/16/2004 6:48:03 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: *18-May-04*

CLIENT: Giant Refining Co
Work Order: 0405115
Project: Ciniza Central OCD Landfarm

QC SUMMARY REPORT
Method Blank

Sample ID **MB-5785** Batch ID: **5785** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **5/17/2004 3:12:08 AM** Prep Date **5/16/2004**
Client ID: Run ID: **FID(17A) 2_040517A** SeqNo: **273951**

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	9.993	0	10	0	99.9	60	124	0			

Sample ID **MB-5784** Batch ID: **5784** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **5/16/2004 1:35:56 PM** Prep Date **5/14/2004**
Client ID: Run ID: **PIDFID_040516A** SeqNo: **273436**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	910.9	0	1000	0	91.1	74	118	0			

3 / 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

1

Hall Environmental Analysis Laboratory

Date: *18-May-04*

CLIENT: Giant Refining Co
Work Order: 0405115
Project: Ciniza Central OCD Landfarm

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID **LCS-5785**	Batch ID: **5785**	Test Code: **SW8015**	Units: **mg/Kg**	Analysis Date **5/17/2004 3:42:17 AM**	Prep Date **5/16/2004**
Client ID:		Run ID: **FID(17A) 2_040517A**		SeqNo: **273952**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50.35	10	50	0	101	67.4	117	0			

Sample ID **LCSD-5785**	Batch ID: **5785**	Test Code: **SW8015**	Units: **mg/Kg**	Analysis Date **5/17/2004 4:12:28 AM**	Prep Date **5/16/2004**
Client ID:		Run ID: **FID(17A) 2_040517A**		SeqNo: **273953**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51.59	10	50	0	103	67.4	117	50.35	2.42	17.4	

Sample ID **LCS-5784**	Batch ID: **5784**	Test Code: **SW8015**	Units: **mg/Kg**	Analysis Date **5/16/2004 3:09:50 PM**	Prep Date **5/14/2004**
Client ID:		Run ID: **PIDFID_040516A**		SeqNo: **273437**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24.84	5.0	25	0	99.4	73.8	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

1

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN | Date and Time Received:

Work Order Number 0405115 | Received by AMG

Checklist completed by Gonzales 05/14/04
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? **7°** *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

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

Client: Cenizo Refinery / Giant Refining Co

Address: ~~Rt 3 Box 7~~ Gallup, NM 87301

Phone #: 505-722-3833

Fax #: 505-722-0210

Project Name: Cenizo Central OCD Land Farm

Project #:

Project Manager: D. Mancini

Sampler: Steve Morris

Samples Cold?: ☒ Yes ☐ No 7.0

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HCl	Preservative	HEAL No. 0405115
5/13/04	1330	Soil	Central OCD LF-No	1/40z				1
5/13/04	1345	Soil	Central OCD LF-So					2

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)	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)			Air Bubbles or Headspace (Y or N)
		X														
		X														

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)
5/14/04	0800	Brenda Mancini	
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)
5/14/04	10:20		D. Gonzales 5/14/04 1030

Remarks:

Rush + please fax results

Dm

iml

Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

December 22, 2000

Dorinda Mancini
Giant Refining Company
Rt. 3, Box 7
Gallup, NM 87301

Ms. Mancini:

Enclosed please find the reports for the samples received by our laboratory for analysis on December 8, 2000.

If you have any questions about the results of these analyses, please don't hesitate to call at your convenience.

Thank you for choosing IML for your analytical needs!

Sincerely,

Shaton Williams
Organic Analyst/IML-Farmington

Enclosure

xc: File

iml

Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

GIANT REFINING COMPANY
CINIZA

Case Narrative

On December 8, 2000, two soil samples were submitted to Inter-Mountain Laboratories - Farmington for analysis. The parameters performed on the samples are indicated on the accompanying Chain of Custody.

It is the policy of this laboratory to employ, whenever possible, preparatory and analytical methods which have been approved by regulatory agencies. The methods used in the analysis of the samples reported herein are found in: "Test Methods for Evaluating Waste and Solid Waste", Physical/Chemical Methods, USEPA, SW-846, November 1996.

Quality control data appear at the end of the analytical package and may be identified by title. If there are any questions regarding the information presented in this report package, please feel free to contact us at your convenience.

Sincerely,

Sharon Williams

Sharon Williams
Organic Analyst/IML-Farmington

jml

Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

Client: Giant Refining Co. (Gallup)
Project: RRR Lagoon
Sample ID: RRR-LAG-120700
Lab ID: 0300W05432
Matrix: Sludge
Condition: Intact

Date Reported: 12/22/00
Date Sampled: 12/07/00
Date Received: 12/08/00
Date Analyzed: 12/14/00

Parameter	Analytical Result	PQL	MCL	Units
RCRA METALS - METHOD 3050				
Arsenic	0.6	0.5	100	mg/Kg
Barium	300	1	2000	mg/Kg
Cadmium	0.5	0.4	20	mg/Kg
Chromium	10	1	100	mg/Kg
Lead	10	5	100	mg/Kg
Mercury	0.21	0.06	4	mg/Kg
Selenium	<0.5	0.5	20	mg/Kg
Silver	<1	1	100	mg/Kg

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protectior Agency, Final Update 1, July 1992.

Reviewed By: _____
William Lipps

imL Inter-Mountain Laboratories, Inc.
Phone (505) 326-4737 Fax (505) 325-4182 2506 West Main Street, Farmington, NM 87401

EPA METHOD 8260B
VOLATILE ORGANIC COMPOUNDS BY GC/MS

Client:	**Giant Refining Company**	Date Reported:	12/21/00
Project ID:	Ciniza / RRR Lagoon	Date Sampled:	12/07/00
Sample ID:	RRR-LAG-120700	Date Received:	12/08/00
Laboratory ID:	0300S05432	Date Extracted:	12/19/00
Sample Matrix:	Sludge	Date Analyzed:	12/19/00

Parameter	Analytical Result	MDL	Units
Benzene	ND	0.5	mg/Kg
2-Butanone (MEK)	ND	2.0	mg/Kg
Carbon Disulfide	ND	0.5	mg/Kg
Chlorobenzene	ND	0.5	mg/Kg
Chloroform	ND	0.5	mg/Kg
Chloromethane	ND	0.5	mg/Kg
1,1-Dichloroethane	ND	0.5	mg/Kg
1,2-Dichloroethane	ND	0.5	mg/Kg
1,1-Dichloroethene	ND	0.5	mg/Kg
trans-1,2-Dichloroethene	ND	0.5	mg/Kg
1,4-Dioxane	ND	200	mg/Kg
Ethylbenzene	**1.0**	0.5	mg/Kg
Methylene Chloride	ND	2.0	mg/Kg
Styrene	ND	0.5	mg/Kg
1,1,2,2-Tetrachloroethane	ND	0.5	mg/Kg
Tetrachloroethene (PCE)	ND	0.5	mg/Kg
Toluene	**1.6**	0.5	mg/Kg
1,1,1-Trichloroethane	ND	0.5	mg/Kg
Trichloroethene (TCE)	ND	0.5	mg/Kg
m,p-Xylene	**5.4**	0.5	mg/Kg
o-Xylene	**2.2**	0.5	mg/Kg
Ethylene Dibromide	ND	0.5	mg/Kg
Acetone	ND	2.0	mg/Kg

ND - Compound not detected at stated Detection Limit.

Surrogate Recovery	%	Soil QC Limits
Dibromofluoromethane	105	80 - 120
Dichloroethane-d4	93	80 - 120
Toluene-d8	98	81 - 117
4-Bromofluorobenzene	114	74 - 121

Reference: Test Methods for Evaluating Water, Wastewater and Solid Waste, SW-846,U.S.E.P.A., Volume IB, Revision 2, December 1996.

Reveiwed By: _____ Analyst: _____

imL Inter-Mountain Laboratories, Inc.
Phone (505) 326-4737 Fax (505) 325-4182 2506 West Main Street, Farmington, NM 87401

EPA METHOD 8270B
GC/MS SEMI-VOLATILE COMPOUNDS
BASE/NEUTRAL/ACID EXTRACTABLES

Client:	**Giant Refining Company**	Date Reported:	12/21/00
Project ID:	Ciniza / RRR Lagoon	Date Sampled:	12/07/00
Sample ID:	RRR-LAG-120700	Date Received:	12/08/00
Laboratory ID:	0300S05432	Date Extracted:	12/14/00
Sample Matrix:	Sludge	Date Analyzed:	12/19/00

Parameter	Analytical Result	Detection Limit	Units
Anthracene	ND	33	mg/kg
Acenaphthene	ND	33	mg/kg
Benzo(a)anthracene	ND	33	mg/kg
Benzo(b)fluoranthene	ND	33	mg/kg
Benzo(k)fluoranthene	ND	33	mg/kg
Benzo(a)pyrene	ND	33	mg/kg
Butylbenzylphthalate	ND	33	mg/kg
Chrysene	ND	33	mg/kg
Diethylphthalate	ND	33	mg/kg
7,12-Dimethylbenz(a)anthracene	ND	33	mg/kg
Dimethylphthalate	ND	33	mg/kg
Di-n-Octylphthalate	ND	33	mg/kg
Fluoranthene	ND	33	mg/kg
Fluorene	ND	33	mg/kg
Indeno(1,2,3-cd)pyrene	ND	33	mg/kg
2-Methylnaphthalene	**82**	33	mg/kg
2-Methylphenol	ND	33	mg/kg
4-Methylphenol/3-Methylphenol **	ND	33	mg/kg
Naphthalene	ND	33	mg/kg
Nitrobenzene	ND	33	mg/kg
4-Nitrophenol	ND	165	mg/kg
Phenanthrene	**58**	33	mg/kg
Pyrene	ND	33	mg/kg
Pyridine	ND	33	mg/kg
Quinoline	ND	33	mg/kg
Benzenethiol	ND	33	mg/kg
Phenol	ND	33	mg/kg
bis(2-Ethylhexyl)phthalate	ND	33	mg/kg
Dibenz(a,j)acridine	ND	33	mg/kg
Dibenz(a,h)anthracene	ND	33	mg/kg
Dichlorobenzene	ND	33	mg/kg
1-Methylnapthalene	**63**	33	mg/kg
2,4-Dimethylphenol	ND	33	mg/kg
2,4-Dinitrotoluene	ND	33	mg/kg
2,4-Dinitrophenol	ND	165	mg/kg

Inter-Mountain Laboratories, Inc.
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2506 West Main Street, Farmington, NM 87401

EPA METHOD 8270B
GC/MS SEMI-VOLATILE COMPOUNDS
BASE/NEUTRAL/ACID EXTRACTABLES

Client:	**Giant Refining Company**	Date Reported:	12/21/00
Project ID:	Ciniza / RRR Lagoon	Date Sampled:	12/07/00
Sample ID:	RRR-LAG-120700	Date Received:	12/08/00
Laboratory ID:	0300S05432	Date Extracted:	12/14/00
Sample Matrix:	Sludge	Date Analyzed:	12/19/00

Parameter	Analytical Result	Detection Limit	Units
Benzo(j)fluoranthene	ND	33	mg/kg
2-Chlorophenol	ND	33	mg/kg
2,4,6-Trichlorophenol	ND	66	mg/kg
Di-n-Butylphthalate	ND	33	mg/kg
Benzyl Alcohol	ND	33	mg/kg
6-Methylchrysene	ND	33	mg/kg

ND - Compound not detected at stated Detection Limit.
** - Compounds Coelute

QUALITY CONTROL:

Surrogate Recoveries	%	Soil QC Limits
2-Fluorophenol	D	25 - 121
Phenol-d6	D	24 - 113
Nitrobenzene-d5	D	23 - 120
2-Fluorobiphenyl	D	30 - 115
2,4,6-Tribromophenol	D	19 - 122
Terphenyl-d14	D	18 - 137

D - Diluted Out

Reference: Test Methods for Evaluating Water, Wastewater and Solid Waste, SW-846,U.S.E.P.A., Volume IB, Revision 2, December 1996.

Reveiwed By: _____ Analyst: _____

jml

Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

Client: Giant Refining Co. (Gallup)
Project: RRR Lagoon
Sample ID: RRR-LAG-120700
Lab ID: 0300W05432
Matrix: Sludge
Condition: Intact

Date Reported: 12/22/00
Date Sampled: 12/07/00
Date Received: 12/08/00

Parameter	Analytical Result	PQL	Units
DRO - METHOD 8015AZ			
Diesel Range Organics (C10 - C22)	13,500	3000	mg/Kg
Diesel Range Organics as Diesel	13,500	3000	mg/Kg
Oil Range Organics (C22 - C32)	27,000	6000	mg/Kg

Quality Control - Surrogate Recovery	%	QC Limits
o-Terphenyl(SUR-8015)	113	70 - 130

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.
Method 8015AZ, C10 - C32 Hydrocarbons in Soil, Arizona Department of Health Services, Revision - 1.0, 09/25/98.

Reviewed By: _____
William Lipps

Inter- Mountain Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSES / PARAMETERS
Giant Refining Co / RRR lagoon	Ciniza	
Sampler: (Signature) S C Morris	**Chain of Custody Tape No.**	

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	8270 RCRA Metals GRO	8260 GRO	DRO	Remarks
RRR-LAG-120700	12/7/00	1130		Sludge		X	X	X	
BTZ under Landfarm per SMorris	other COC			RRR Sludge					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
S C Morris	12/7/00	1400			
Relinquished by: (Signature)	**Date**	**Time**	**Received by: (Signature)**	**Date**	**Time**
Relinquished by: (Signature)	**Date**	**Time**	**Received by laboratory: (Signature)**	**Date**	**Time**

Inter-Mountain Laboratories, Inc.

☐ 555 Absaraka, Sheridan, Wyoming 82801, Telephone (307) 674-7506

☐ 1633 Terra Avenue, Sheridan, Wyoming 82801, Telephone (307) 672-8945

☐ 1701 Phillips Circle, Gillette, Wyoming 82718, Telephone (307) 682-8945

☒ 2506 West Main Street, Farmington, NM 87401, Telephone (505) 326-4737

☐ 11183 State Hwy. 30, College Station, TX 77845, Telephone (979) 776-8945

70663

ASSAIGAI
ANALYTICAL
LABORATORIES, INC.
7300 Jefferson, NE • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259
3332 Wedgewood Dr., Suite N • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820
127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-255

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
1-9	see footnote

GIANT REFINERY
attn: **DORINDA MANCINI**
ROUTE 3 BOX 7
GALLUP, NM 87301

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **GIANT REFINERY**
Project: **0012199 RRR LAGOON**

William P. Biava: President of Assaigai Analytical Laboratories, Inc.

Client Sample ID: ***RRR-LAG-SL*** Sample Matrix: ***SL*** Sample Collected: ***12/07/00 11:30:00***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
0012199-01A		**Oil Range Organics by 8015M**							
00.1649	TT.2000.1649-9		Oil Range Organics	7400	mg/kg	1	100		12/22/00
0012199-01A		**SW846 3050A/6010A ICP**							
M0114	MW.2001.25-12	7440-38-2	Arsenic	ND	mg / Kg	1	3		01/08/01
M0114	MW.2001.25-12	7440-39-3	Barium	560	mg / Kg	1	0.5		01/08/01
M0114	MW.2001.25-12	7440-43-9	Cadmium	0.41	mg / Kg	1	0.2		01/08/01
M0114	MW.2001.25-12	7440-47-3	Chromium	42.4	mg / Kg	1	1		01/08/01
M0114	MW.2001.25-12	7782-49-2	Selenium	ND	mg / Kg	1	2.5		01/08/01
0012199-01A		**SW846 3050A/7000 series AA-FL**							
M0114	MW.2001.19-37	7439-92-1	Lead	77.6	mg / Kg	1	5		01/05/01
M0114	MW.2001.21-69	7440-22-4	Silver	ND	mg / Kg	1	0.5		01/05/01
0012199-01A		**SW846 3550A/8270B SVOCs by GC/MS**							
X00482	XG.2001.6-11	120-82-1	1,2,4-Trichlorobenzene	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	95-50-1	1,2-Dichlorobenzene	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	541-73-1	1,3-Dichlorobenzene	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	106-46-7	1,4-Dichlorobenzene	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	90-12-0	1-Methylnaphthalene	25	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	58-90-2	2,3,4,6-Tetrachlorophenol	ND	mg / Kg	18	1.5	1	12/28/00
X00482	XG.2001.6-11	95-95-4	2,4,5-Trichlorophenol	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-11	88-06-2	2,4,6-Trichlorophenol	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-11	120-83-2	2,4-Dichlorophenol	ND	mg / Kg	18	0.3	1	12/28/00

Certificate of Analysis

Client: **GIANT REFINERY**

Project: **0012199 RRR LAGOON**

X00482	XG.2001.6-11	105-67-9	2,4-Dimethylphenol	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	51-28-5	2,4-Dinitrophenol	ND	mg / Kg	18	0.67	1	12/28/00
X00482	XG.2001.6-11	121-14-2	2,4-Dinitrotoluene	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-11	606-20-2	2,6-Dinitrotoluene	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-11	91-58-7	2-Chloronaphthalene	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	95-57-8	2-Chlorophenol	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	91-57-6	2-Methylnaphthalene	39	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	95-48-7	2-Methylphenol	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	88-74-4	2-Nitroaniline	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-11	88-75-5	2-Nitrophenol	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-11		3+4 Methylphenol	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	91-94-1	3,3-Dichlorobenzidine	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-11	99-09-2	3-Nitroaniline	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-11	534-52-1	4,6-Dinitro-2-methylphenol	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-11	101-55-3	4-Bromophenyl-phenylether	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	59-50-7	4-Chloro-3-methylphenol	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-11	106-47-8	4-Chloroaniline	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-11	7005-72-3	4-Chlorophenyl-phenylether	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	100-01-6	4-Nitroaniline	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-11	100-02-7	4-Nitrophenol	ND	mg / Kg	18	0.6	1	12/28/00
X00482	XG.2001.6-11	83-32-9	Acenaphthene	3.3	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.26-2	208-96-8	Acenaphthylene	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	208-96-8	Acenaphthylene	0.65	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	62-53-3	Aniline	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-11	120-12-7	Anthracene	0.91	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11		Azobenzene&1,2-Diphenylhydrazine	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	56-55-3	Benzo (a) anthracene	1.5	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-23	50-32-8	Benzo(a)pyrene	ND	mg / Kg	90	0.03	1	12/29/00
X00482	XG.2001.6-23		Benzo(b & k)fluoranthene	ND	mg / Kg	90	0.03	1	12/29/00
X00482	XG.2001.6-23	191-24-2	Benzo(g,h,i)perylene	ND	mg / Kg	90	0.3	1	12/29/00
X00482	XG.2001.6-11	64-85-0	Benzoic acid	ND	mg / Kg	18	3	1	12/28/00
X00482	XG.2001.6-11	100-51-6	Benzyl alcohol	ND	mg / Kg	18	1.5	1	12/28/00
X00482	XG.2001.6-11	111-44-4	bis (2-Chloroethyl) ether	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	111-91-1	bis(2-Chloroethoxy)methane	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	108-60-1	bis(2-Chloroisopropyl)ether	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	117-81-7	bis(2-Ethylhexyl)phthalate	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-11	85-68-7	Butylbenzylphthalate	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	218-01-9	Chrysene	3.9	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	84-74-2	di-n-Butylphthalate	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-23	117-84-0	di-n-Octylpthalate	ND	mg / Kg	90	0.3	1	12/29/00
X00482	XG.2001.6-23	53-70-3	Dibenz(a,h)anthracene	ND	mg / Kg	90	0.3	1	12/29/00
X00482	XG.2001.6-11	132-64-9	Dibenzofuran	2.2	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	84-66-2	Diethylphthalate	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	131-11-3	Dimethylphthalate	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	206-44-0	Fluoranthene	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	86737	Fluorene	7.9	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	118-74-1	Hexachlorobenzene	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	87-68-3	Hexachlorobutadiene	ND	mg / Kg	18	0.03	1	12/28/00

Certificate of Analysis

Client: **GIANT REFINERY**

Project: **0012199 RRR LAGOON**

X00482	XG.2001.6-11	77-47-4	Hexachlorocyclopentadiene	ND	mg / Kg	18	1.5	1	12/28/00
X00482	XG.2001.6-11	67-72-1	Hexachloroethane	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-23	193-39-5	Indeno(1,2,3-cd)pyrene	ND	mg / Kg	90	0.3	1	12/29/00
X00482	XG.2001.6-11	78-59-1	Isophorone	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	621-64-7	n-Nitroso-di-n-propylamine	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	62-75-9	n-Nitroso-dimethyl-amine	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-11	86-30-6	n-Nitrosodiphenylamine	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	91-20-3	Naphthalene	6.1	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	98-95-3	Nitrobenzene	ND	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	87-86-5	Pentachlorophenol	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-11	85-01-8	Phenanthrene	27	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	108-95-2	Phenol	ND	mg / Kg	18	0.3	1	12/28/00
X00482	XG.2001.6-11	129-00-0	Pyrene	4.8	mg / Kg	18	0.03	1	12/28/00
X00482	XG.2001.6-11	110-86-1	Pyridine	ND	mg / Kg	18	0.3	1	12/28/00

0012199-01A **SW846 7471 CVAA**

M0124	MW.2001.54-9	7439-97-6	Mercury	1.18	mg / Kg	9	0.05		01/16/01

0012199-01A **SW846 ME/8015A Diesel Range Organics by GC/FID**

X00459	XG.2000.1385-4		Diesel Range Organics	17000	mg / Kg	100	25		12/18/00

0012199-01B **SW846 5030A/8015A GRO by GC/FID**

X00457	XG.2000.1391-5		Gasoline Range Organics	760	mg / Kg	200	0.25		12/21/00

0012199-01B **SW846 8260A Purgeable VOCs by GC/MS**

X00486	XG.2000.1403-10	75-34-3	1,1 Dichloroethane	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	75-34-3	1,1 Dichloroethene	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	71-55-6	1,1,1 Trichloroethane	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	630-20-6	1,1,1,2 Tetrachloroethane	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	79-00-5	1,1,2 Trichloroethane	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	79-34-5	1,1,2,2 Tetrachloroethane	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	106-93-4	1,2 Dibromoethane (EDB)	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	95-50-1	1,2 Dichlorobenzene	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	107-06-2	1,2 Dichloroethane	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	78-87-5	1,2 Dichloropropane	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	96-18-4	1,2,3 Trichloropropane	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	95-63-6	1,2,4-Trimethylbenzene	24	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	541-73-1	1,3 Dichlorobenzene	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	108-67-8	1,3,5-Trimethylbenzene	7.4	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	764-41-0	1,4 Dichloro-2-butene	ND	mg / Kg	100	0.05		12/22/00
X00486	XG.2000.1403-10	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	78-93-3	2-Butanone (MEK)	ND	mg / Kg	100	0.025		12/22/00
X00486	XG.2000.1403-10	110-75-8	2-Chloroethylvinylether	ND	mg / Kg	100	0.025		12/22/00
X00486	XG.2000.1403-10	591-78-6	2-Hexanone (MBK)	ND	mg / Kg	100	0.025		12/22/00
X00486	XG.2000.1403-10	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	mg / Kg	100	0.025		12/22/00
X00486	XG.2000.1403-10	67-64-1	Acetone	ND	mg / Kg	100	0.05		12/22/00
X00486	XG.2000.1403-10	107-02-8	Acrolein	ND	mg / Kg	100	0.1		12/22/00
X00486	XG.2000.1403-10	107-13-1	Acrylonitrile	ND	mg / Kg	100	0.1		12/22/00
X00486	XG.2000.1403-10	71-43-2	Benzene	0.58	mg / Kg	100	0.005		12/22/00

Certificate of Analysis

Client: **GIANT REFINERY**

Project: **0012199 RRR LAGOON**

X00486	XG.2000.1403-10	75-27-4	Bromodichloromethane	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	75-25-2	Bromoform	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	74-83-9	Bromomethane	ND	mg / Kg	100	0.025		12/22/00
X00486	XG.2000.1403-10	75-15-0	Carbon disulfide	ND	mg / Kg	100	0.025		12/22/00
X00486	XG.2000.1403-10	56-23-5	Carbon tetrachloride	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	108-90-7	Chlorobenzene	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	124-48-1	Chlorodibromomethane	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	75-00-3	Chloroethane	ND	mg / Kg	100	0.025		12/22/00
X00486	XG.2000.1403-10	67-66-3	Chloroform	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	74-87-3	Chloromethane	ND	mg / Kg	100	0.025		12/22/00
X00486	XG.2000.1403-10	156-59-2	cis-1,2 dichloroethene	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	10061-01-5	cis-1,3 dichloropropene	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	74-95-3	Dibromomethane	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	97-63-2	Ethyl methacrylate	ND	mg / Kg	100	0.025		12/22/00
X00486	XG.2000.1403-10	100-41-4	Ethylbenzene	3.1	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10		Freon 113	ND	mg / Kg	100	0.025		12/22/00
X00486	XG.2000.1403-10	75-71-8	Freon 12	ND	mg / Kg	100	0.05		12/22/00
X00486	XG.2000.1403-10	74-88-4	Iodomethane	ND	mg / Kg	100	0.025		12/22/00
X00486	XG.2000.1403-10	1634-04-4	Methyl t-butyl ether (MTBE)	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	75-09-2	Methylene chloride	ND	mg / Kg	100	0.05		12/22/00
X00486	XG.2000.1403-10	91-20-3	Naphthalene	25	mg / Kg	100	0.025		12/22/00
X00486	XG.2000.1403-10	95-47-6	o-Xylene	5.6	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	108-38-3/106-42	p/m Xylenes	15	mg / Kg	100	0.01		12/22/00
X00486	XG.2000.1403-10	100-42-5	Styrene	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	156-60-5	t-1,2 Dichloroethene	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	10061-02-6	t-1,3 Dichloropropene	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	127-18-4	Tetrachloroethene	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	108-88-3	Toluene	3.1	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	79-01-6	Trichloroethene	ND	mg / Kg	100	0.005		12/22/00
X00486	XG.2000.1403-10	75-69-4	Trichlorofluoromethane	ND	mg / Kg	100	0.025		12/22/00
X00486	XG.2000.1403-10	108-05-4	Vinyl acetate	ND	mg / Kg	100	0.025		12/22/00
X00486	XG.2000.1403-10	75-01-4	Vinyl chloride	ND	mg / Kg	100	0.025		12/22/00

**** Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. ****

**** ND = Not detected: less than the sample specific Detection Limit. Results relate only to the items tested. ****

footnote [1] Some of the surrogate recoveries were out of criteria due to matrix interference and dilution.

Chain of Custody Record

ANALYTICAL LABORATORIES, INC.

7300 JEFFERSON N.E.
ALBUQUERQUE, NEW MEXICO 87109
(505) 345-8964

3332 WEDGEWOOD
EL PASO, TEXAS 79925
(915) 593-6000

127 EASTGATE DRIVE, 212-C
LOS ALAMOS, NEW MEXICO 87544
(505) 662-2558

Lab Job No.: _____ Date 12-7-00

Page 1 of 1

Client Giant Refining Company - Ciniza

Address Route 3 Box 7

City / State / Zip Gallup NM 87301

Project Name / Number RRR Lagoon

Contract / Purchase Order / Quote _____

Project Manager / Contact Steve Morris

Telephone No. 505 722 0258

Fax No. 505 722 0210

Samplers : (signature) SC Morris

AAL Fraction Number	Field Sample Number / Location	Date	Time	Sample Type	Type / Size of Container	Preservation: Temp.	Preservation: Chemical	No. of Containers	Analysis Required: 8270 TCL Volatiles	Analysis Required: 418.1 TPH	Analysis Required: 8015 GRO	Analysis Required: 8015 DRO	Analysis Required	Analysis Required	Analysis Required	Analysis Required	Analysis Required	Analysis Required	Remarks
	RRR-LAG-SL.	12/7/00	1130	SL.	Glass 8oz 4oz	4°C	Cold	3	X	X	X								

Relinquished by:
Signature SC Morris
Printed Steve Morris
Company Giant-Ciniza
Reason SHIP

Date 12/7/00
Time 1400

Received by:
Signature _____
Printed _____
Company _____
Reason _____

Relinquished by:
Signature _____
Printed _____
Company _____
Reason _____

Date _____
Time _____

Received by:
Signature _____
Printed _____
Company _____
Reason _____

Method of Shipment: _____
Shipment No. _____
Special Instructions: _____

Comments: _____

After analysis, samples are to be:
- ☐ Disposed of (additional fee)
- ☐ Stored (30 days max)
- ☐ Stored over 30 days (additional fee)
- ☐ Returned to customer

COURIER

Chain of Custody Record

ASSAIGAI ANALYTICAL LABORATORIES, INC.

7300 JEFFERSON N.E.
ALBUQUERQUE, NEW MEXICO 87109
(505) 345-8964

3332 WEDGEWOOD
EL PASO, TEXAS 79925
(915) 593-6000

127 EASTGATE DRIVE, 212-C
LOS ALAMOS, NEW MEXICO 87544
(505) 662-2558

Lab Job No.: 001194 Date: 12-7-00

Page 1 of 1

Client: Giant Refining Company - Ciniza

Address: Route 3 Box 7

City / State / Zip: Gallup NM 87301

Project Name / Number: RRR Lagoon

Contract / Purchase Order / Quote:

Project Manager / Contact: Steve Morris

Telephone No.: 505 722 0251

Fax No.: 505 722 0210

Samplers: (signature)

AAL Fraction Number	Field Sample Number / Location	Date	Time	Sample Type	Type / Size of Container	Preservation: Temp.	Preservation: Chemical	No. of Containers	Analysis Required: 8270 Target List + TPH-GRO + DRO	Remarks
01 A B	RRR-LAG-SL	12/7/00	1130	SL	Glass 8oz	4°C	Cold	3	X X X	

INCLUDE COC

Relinquished by:	Date	Received by:	Relinquished by:	Date	Received by:
Signature	12/7/00	Signature	Signature	12/8/00	Signature
Printed	Time	Printed	Printed	Time	Printed
Company	1400	Company	Company	SUR	Company
Reason		Reason	Reason		Reason

Method of Shipment:

Shipment No.

Special Instructions:

Comments:

After analysis, samples are to be:

- ❑ Disposed of (additional fee)
- ❑ Stored (30 days max)
- ❑ Stored over 30 days (additional fee)
- ❑ Returned to customer

FIELD FILE

iml

Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

December 22, 2000

Dorinda Mancini
Giant Refining Company
Rt. 3, Box 7
Gallup, NM 87301

Ms. Mancini:

Enclosed please find the reports for the samples received by our laboratory for analysis on December 8, 2000.

If you have any questions about the results of these analyses, please don't hesitate to call at your convenience.

Thank you for choosing IML for your analytical needs!

Sincerely,

Sharon Williams
Organic Analyst/IML-Farmington

Enclosure

xc: File

iml

Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

GIANT REFINING COMPANY
CINIZA

Case Narrative

On December 8, 2000, two soil samples were submitted to Inter-Mountain Laboratories - Farmington for analysis. The parameters performed on the samples are indicated on the accompanying Chain of Custody.

It is the policy of this laboratory to employ, whenever possible, preparatory and analytical methods which have been approved by regulatory agencies. The methods used in the analysis of the samples reported herein are found in: "Test Methods for Evaluating Waste and Solid Waste", Physical/Chemical Methods, USEPA, SW-846, November 1996.

Quality control data appear at the end of the analytical package and may be identified by title. If there are any questions regarding the information presented in this report package, please feel free to contact us at your convenience.

Sincerely,

Sharon Williams

Sharon Williams
Organic Analyst/IML-Farmington

jml

Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

Client: Giant Refining Co. (Gallup)
Project: RRR Landfarm
Sample ID: BTZ-RRR-120700
Lab ID: 0300W05431
Matrix: Soil
Condition: Intact

Date Reported: 12/22/00
Date Sampled: 12/07/00
Date Received: 12/08/00
Date Analyzed: 12/14/00

Parameter	Analytical Result	PQL	MCL	Units
RCRA - TOTAL METALS 3050				
Arsenic	0.6	0.5	100	mg/Kg
Barium	326	1	2000	mg/Kg
Cadmium	<0.5	0.5	20	mg/Kg
Chromium	10	1	100	mg/Kg
Lead	11	5	100	mg/Kg
Mercury	<0.06	0.06	4	mg/Kg
Selenium	<0.5	0.5	20	mg/Kg
Silver	<2	2	100	mg/Kg

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.
SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By: _____
William Lipps

Inter-Mountain Laboratories, Inc.
Phone (505) 326-4737 Fax (505) 325-4182
2506 West Main Street, Farmington, NM 87401

EPA METHOD 8260B
VOLATILE ORGANIC COMPOUNDS BY GC/MS

Client:	**Giant Refining Company**	Date Reported:	12/21/00
Project ID:	Ciniza / RRR Landfarm	Date Sampled:	12/07/00
Sample ID:	BT2-RRR-120700	Date Received:	12/08/00
Laboratory ID:	0300S05431	Date Extracted:	12/19/00
Sample Matrix:	Soil	Date Analyzed:	12/19/00

Parameter	Analytical Result	MDL	Units
Benzene	ND	0.5	mg/Kg
2-Butanone (MEK)	ND	2.0	mg/Kg
Carbon Disulfide	ND	0.5	mg/Kg
Chlorobenzene	ND	0.5	mg/Kg
Chloroform	ND	0.5	mg/Kg
Chloromethane	ND	0.5	mg/Kg
1,1-Dichloroethane	ND	0.5	mg/Kg
1,2-Dichloroethane	ND	0.5	mg/Kg
1,1-Dichloroethene	ND	0.5	mg/Kg
trans-1,2-Dichloroethene	ND	0.5	mg/Kg
1,4-Dioxane	ND	200	mg/Kg
Ethylbenzene	ND	0.5	mg/Kg
Methylene Chloride	ND	2.0	mg/Kg
Styrene	ND	0.5	mg/Kg
1,1,2,2-Tetrachloroethane	ND	0.5	mg/Kg
Tetrachloroethene (PCE)	ND	0.5	mg/Kg
Toluene	ND	0.5	mg/Kg
1,1,1-Trichloroethane	ND	0.5	mg/Kg
Trichloroethene (TCE)	ND	0.5	mg/Kg
m,p-Xylene	ND	0.5	mg/Kg
o-Xylene	ND	0.5	mg/Kg
Ethylene Dibromide	ND	0.5	mg/Kg
Acetone	ND	2.0	mg/Kg

ND - Compound not detected at stated Detection Limit.

Surrogate Recovery	%	Soil QC Limits
Dibromofluoromethane	102	80 - 120
Dichloroethane-d4	92	80 - 120
Toluene-d8	98	81 - 117
4-Bromofluorobenzene	118	74 - 121

Reference: Test Methods for Evaluating Water, Wastewater and Solid Waste, SW-846,U.S.E.P.A., Volume IB, Revision 2, December 1996.

Reveiwed By: _____

Analyst: _____

Inter-Mountain Laboratories, Inc.
Phone (505) 326-4737 Fax (505) 325-4182
2506 West Main Street, Farmington, NM 87401

EPA METHOD 8270B
GC/MS SEMI-VOLATILE COMPOUNDS
BASE/NEUTRAL/ACID EXTRACTABLES

Client:	**Giant Refining Company**	Date Reported:	12/21/00
Project ID:	Ciniza / RRR Landfarm	Date Sampled:	12/07/00
Sample ID:	BT2-RRR-120700	Date Received:	12/08/00
Laboratory ID:	0300S05431	Date Extracted:	12/14/00
Sample Matrix:	Soil	Date Analyzed:	12/19/00

Parameter	Analytical Result	Detection Limit	Units
Anthracene	ND	0.33	mg/kg
Acenaphthene	ND	0.33	mg/kg
Benzo(a)anthracene	ND	0.33	mg/kg
Benzo(b)fluoranthene	ND	0.33	mg/kg
Benzo(k)fluoranthene	ND	0.33	mg/kg
Benzo(a)pyrene	ND	0.33	mg/kg
Butylbenzylphthalate	ND	0.33	mg/kg
Chrysene	ND	0.33	mg/kg
Diethylphthalate	ND	0.33	mg/kg
7,12-Dimethylbenz(a)anthracene	ND	0.33	mg/kg
Dimethylphthalate	ND	0.33	mg/kg
Di-n-Octylphthalate	ND	0.33	mg/kg
Fluoranthene	ND	0.33	mg/kg
Fluorene	ND	0.33	mg/kg
Indeno(1,2,3-cd)pyrene	ND	0.33	mg/kg
2-Methylnaphthalene	ND	0.33	mg/kg
2-Methylphenol	ND	0.33	mg/kg
4-Methylphenol/3-Methylphenol **	ND	0.33	mg/kg
Naphthalene	ND	0.33	mg/kg
Nitrobenzene	ND	0.33	mg/kg
4-Nitrophenol	ND	1.7	mg/kg
Phenanthrene	ND	0.33	mg/kg
Pyrene	ND	0.33	mg/kg
Pyridine	ND	0.33	mg/kg
Quinoline	ND	0.33	mg/kg
Benzenethiol	ND	0.33	mg/kg
Phenol	ND	0.33	mg/kg
bis(2-Ethylhexyl)phthalate	ND	0.33	mg/kg
Dibenz(a,j)acridine	ND	0.33	mg/kg
Dibenz(a,h)anthracene	ND	0.33	mg/kg
Dichlorobenzene	ND	0.33	mg/kg
1-Methylnapthalene	ND	0.33	mg/kg
2,4-Dimethylphenol	ND	0.33	mg/kg
2,4-Dinitrotoluene	ND	0.33	mg/kg
2,4-Dinitrophenol	ND	1.7	mg/kg

jml

Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

EPA METHOD 8270B
GC/MS SEMI-VOLATILE COMPOUNDS
BASE/NEUTRAL/ACID EXTRACTABLES

Client:	**Giant Refining Company**	Date Reported:	12/21/00
Project ID:	Ciniza / RRR Landfarm	Date Sampled:	12/07/00
Sample ID:	BT2-RRR-120700	Date Received:	12/08/00
Laboratory ID:	0300S05431	Date Extracted:	12/14/00
Sample Matrix:	Soil	Date Analyzed:	12/19/00

Parameter	Analytical Result	Detection Limit	Units
Benzo(j)fluoranthene	ND	0.33	mg/kg
2-Chlorophenol	ND	0.33	mg/kg
2,4,6-Trichlorophenol	ND	0.66	mg/kg
Di-n-Butylphthalate	ND	0.33	mg/kg
Benzyl Alcohol	ND	0.33	mg/kg
6-Methylchrysene	ND	0.33	mg/kg

ND - Compound not detected at stated Detection Limit.
** - Compounds Coelute

QUALITY CONTROL:

Surrogate Recoveries	%	Soil QC Limits
2-Fluorophenol	33	25 - 121
Phenol-d6	47	24 - 113
Nitrobenzene-d5	39	23 - 120
2-Fluorobiphenyl	50	30 - 115
2,4,6-Tribromophenol	93	19 - 122
Terphenyl-d14	89	18 - 137

Reference: Test Methods for Evaluating Water, Wastewater and Solid Waste, SW-846,U.S.E.P.A., Volume IB, Revision 2, December 1996.

Reveiwed By: _____

Analyst: _____

Inter-Mountain Laboratories, Inc.
Phone (505) 326-4737 Fax (505) 325-4182
2506 West Main Street, Farmington, NM 87401

Client: Giant Refining Co. (Gallup)
Project: RRR Landfarm
Sample ID: BTZ-RRR-120700
Lab ID: 0300W05431
Matrix: Soil
Condition: Intact

Date Reported: 12/22/00
Date Sampled: 12/07/00
Date Received: 12/08/00

Parameter	Analytical Result	PQL	Units
DRO - METHOD 8015AZ			
Diesel Range Organics (C10 - C22)	<30	30	mg/Kg
Diesel Range Organics as Diesel	<30	30	mg/Kg

Quality Control - Surrogate Recovery	%	QC Limits
o-Terphenyl(SUR-8015)	99	70 - 130

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.

Reviewed By: William Lipps

imL

Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

Client: Giant Refining Co. (Gallup)
Project: RRR Landfarm
Sample ID: BTZ-RRR-120700
Lab ID: 0300W05431
Matrix: Soil
Condition: Intact

Date Reported: 12/22/00
Date Sampled: 12/07/00
Date Received: 12/08/00

Parameter	Analytical Result	PQL	Units
GRO - METHOD 8015AZ			
Gasoline Range Organics(C6-C10)	<5	5	mg/Kg
Gasoline Range Organics as Gasoline	<5	5	mg/Kg

Quality Control - Surrogate Recovery	%	QC Limits
4-Bromofluorobenzene(SUR-8015B)	110	70 - 130
a,a,a-Trifluorotoluene(SUR-8021B)	104	70 - 130

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.
Method 8021b, Volatile Organic Compounds, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, United States Environmental

Reviewed By: _____
William Lipps

imi
Inter- Mountain
Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSES / PARAMETERS
Sampler: (Signature)	Chain of Custody Tape No.	Remarks

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	DRO - GRO RCRA Metals	8260	8270		
BTZ-RRR-120700	12/7/00	1000		Soil		X	X	X		

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
SC Johnson	12/7/00	1400			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by laboratory: (Signature)	Date	Time

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70662

ASSAIGAI
ANALYTICAL
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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*
1-9	*see footnote*

GIANT REFINERY
attn: **DORINDA MANCINI**
ROUTE 3 BOX 7
GALLUP, NM 87301

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **GIANT REFINERY**
Project: **0012204 RRRLTA**

William P. Biava: President of Assaigai Analytical Laboratories, Inc.

Client Sample ID: ***BTZ-RRR-LAG*** Sample Matrix: ***SOIL*** Sample Collected: ***12/07/0 10:00:0***

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
0012204-01A		**Oil Range Organics by 8015M**							
00.1649	TT.2000.1649-5		Oil Range Organics	ND	mg/kg	1	100		12/20/00
0012204-01A		**SW846 3050A/6010A ICP**							
M0114	MW.2001.25-11	7440-38-2	Arsenic	ND	mg / Kg	1	3		01/08/01
M0114	MW.2001.25-11	7440-39-3	Barium	333	mg / Kg	1	0.5		01/08/01
M0114	MW.2001.25-11	7440-43-9	Cadmium	0.24	mg / Kg	1	0.2		01/08/01
M0114	MW.2001.25-11	7440-70-2	Calcium	19200	mg / Kg	1	15		01/08/01
M0114	MW.2001.25-11	7440-47-3	Chromium	9.8	mg / Kg	1	1		01/08/01
M0114	MW.2001.25-11	7439-95-4	Magnesium	5160	mg / Kg	1	10		01/08/01
M0114	MW.2001.25-11	7440-09-7	Potassium	1390	mg / Kg	1	10		01/08/01
M0114	MW.2001.25-11	7782-49-2	Selenium	ND	mg / Kg	1	2.5		01/08/01
M0114	MW.2001.25-11	7440-21-3	Silicon	886	mg / Kg	1	25	E	01/08/01
M0114	MW.2001.25-11	7440-23-5	Sodium	995	mg / Kg	1	15		01/08/01
0012204-01A		**SW846 3050A/7000 series AA-FL**							
M0114	MW.2001.19-36	7439-92-1	Lead	9.8	mg / Kg	1	5		01/05/01
M0114	MW.2001.21-68	7440-22-4	Silver	ND	mg / Kg	1	0.5		01/05/01
0012204-01A		**SW846 3550A/8270B SVOCs by GC/MS**							
X00482	XG.2001.6-10	120-82-1	1,2,4-Trichlorobenzene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	95-50-1	1,2-Dichlorobenzene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	541-73-1	1,3-Dichlorobenzene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	106-46-7	1,4-Dichlorobenzene	ND	mg / Kg	1	0.03	1	12/28/00

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Client: **GIANT REFINERY**

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X00482	XG.2001.6-10	90-12-0	1-Methylnaphthalene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	58-90-2	2,3,4,6-Tetrachlorophenol	ND	mg / Kg	1	1.5	1	12/28/00
X00482	XG.2001.6-10	95-95-4	2,4,5-Trichlorophenol	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	88-06-2	2,4,6-Trichlorophenol	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	120-83-2	2,4-Dichlorophenol	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	105-67-9	2,4-Dimethylphenol	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	51-28-5	2,4-Dinitrophenol	ND	mg / Kg	1	0.67	1	12/28/00
X00482	XG.2001.6-10	121-14-2	2,4-Dinitrotoluene	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	606-20-2	2,6-Dinitrotoluene	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	91-58-7	2-Chloronaphthalene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	95-57-8	2-Chlorophenol	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	91-57-6	2-Methylnaphthalene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	95-48-7	2-Methylphenol	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	88-74-4	2-Nitroaniline	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	88-75-5	2-Nitrophenol	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10		3+4 Methylphenol	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	91-94-1	3,3-Dichlorobenzidine	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	99-09-2	3-Nitroaniline	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	534-52-1	4,6-Dinitro-2-methylphenol	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	101-55-3	4-Bromophenyl-phenylether	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	59-50-7	4-Chloro-3-methylphenol	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	106-47-8	4-Chloroaniline	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	7005-72-3	4-Chlorophenyl-phenylether	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	100-01-6	4-Nitroaniline	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	100-02-7	4-Nitrophenol	ND	mg / Kg	1	0.6	1	12/28/00
X00482	XG.2001.6-10	83-32-9	Acenaphthene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	208-96-8	Acenaphthylene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	62-53-3	Aniline	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	120-12-7	Anthracene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10		Azobenzene&1,2-Diphenylhydrazine	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	56-55-3	Benzo (a) anthracene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-17	50-32-8	Benzo(a)pyrene	ND	mg / Kg	7	0.03	1	12/28/00
X00482	XG.2001.6-17		Benzo(b & k)fluoranthene	ND	mg / Kg	7	0.03	1	12/28/00
X00482	XG.2001.6-17	191-24-2	Benzo(g,h,i)perylene	ND	mg / Kg	7	0.3	1	12/28/00
X00482	XG.2001.6-10	64-85-0	Benzoic acid	ND	mg / Kg	1	3	1	12/28/00
X00482	XG.2001.6-10	100-51-6	Benzyl alcohol	ND	mg / Kg	1	1.5	1	12/28/00
X00482	XG.2001.6-10	111-44-4	bis (2-Chloroethyl) ether	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	111-91-1	bis(2-Chloroethoxy)methane	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	108-60-1	bis(2-Chloroisopropyl)ether	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	117-81-7	bis(2-Ethylhexyl)phthalate	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	85-68-7	Butylbenzylphthalate	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	218-01-9	Chrysene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	84-74-2	di-n-Butylphthalate	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-17	117-84-0	di-n-Octylpthalate	ND	mg / Kg	7	0.3	1	12/28/00
X00482	XG.2001.6-17	53-70-3	Dibenz(a,h)anthracene	ND	mg / Kg	7	0.3	1	12/28/00
X00482	XG.2001.6-10	132-64-9	Dibenzofuran	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	84-66-2	Diethylphthalate	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	131-11-3	Dimethylphthalate	ND	mg / Kg	1	0.03	1	12/28/00

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X00482	XG.2001.6-10	206-44-0	Fluoranthene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	86737	Fluorene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	118-74-1	Hexachlorobenzene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	87-68-3	Hexachlorobutadiene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	77-47-4	Hexachlorocyclopentadiene	ND	mg / Kg	1	1.5	1	12/28/00
X00482	XG.2001.6-10	67-72-1	Hexachloroethane	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-17	193-39-5	Indeno(1,2,3-cd)pyrene	ND	mg / Kg	7	0.3	1	12/28/00
X00482	XG.2001.6-10	78-59-1	Isophorone	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	621-64-7	n-Nitroso-di-n-propylamine	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	62-75-9	n-Nitroso-dimethyl-amine	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	86-30-6	n-Nitrosodiphenylamine	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	91-20-3	Naphthalene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	98-95-3	Nitrobenzene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	87-86-5	Pentachlorophenol	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	85-01-8	Phenanthrene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	108-95-2	Phenol	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	129-00-0	Pyrene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	110-86-1	Pyridine	ND	mg / Kg	1	0.3	1	12/28/00
0012204-01A		**SW846 7471 CVAA**							
M0124	MW.2001.35-14	7439-97-6	Mercury	0.10	mg / Kg	1	0.05		01/10/01
0012204-01A		**SW846 ME/8015A Diesel Range Organics by GC/FID**							
X00459	XG.2000.1385-2		Diesel Range Organics	ND	mg / Kg	1	25		12/18/00
0012204-01A		**SW846-9045B**							
SPH011	TT.2001.42-4		pH	7.0	units	1	0.1		01/06/01
0012204-01B		**SW846 5030A/8015A GRO by GC/FID**							
X00457	XG.2000.1391-4		Gasoline Range Organics	ND	mg / Kg	1	0.25		12/21/00
0012204-01B		**SW846 8260A Purgeable VOCs by GC/MS**							
X00486	XG.2000.1403-4	75-34-3	1,1 Dichloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	75-34-3	1,1 Dichloroethene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	71-55-6	1,1,1 Trichloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	630-20-6	1,1,1,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	79-00-5	1,1,2 Trichloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	79-34-5	1,1,2,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	106-93-4	1,2 Dibromoethane (EDB)	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	95-50-1	1,2 Dichlorobenzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	107-06-2	1,2 Dichloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	78-87-5	1,2 Dichloropropane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	96-18-4	1,2,3 Trichloropropane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	95-63-6	1,2,4-Trimethylbenzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	541-73-1	1,3 Dichlorobenzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	108-67-8	1,3,5-Trimethylbenzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	764-41-0	1,4 Dichloro-2-butene	ND	mg / Kg	1	0.05		12/20/00
X00486	XG.2000.1403-4	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	78-93-3	2-Butanone (MEK)	ND	mg / Kg	1	0.025		12/20/00

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X00486	XG.2000.1403-4	110-75-8	2-Chloroethylvinylether	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	591-78-6	2-Hexanone (MBK)	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	67-64-1	Acetone	ND	mg / Kg	1	0.05	12/20/00
X00486	XG.2000.1403-4	107-02-8	Acrolein	ND	mg / Kg	1	0.1	12/20/00
X00486	XG.2000.1403-4	107-13-1	Acrylonitrile	ND	mg / Kg	1	0.1	12/20/00
X00486	XG.2000.1403-4	71-43-2	Benzene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	75-27-4	Bromodichloromethane	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	75-25-2	Bromoform	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	74-83-9	Bromomethane	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	75-15-0	Carbon disulfide	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	56-23-5	Carbon tetrachloride	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	108-90-7	Chlorobenzene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	124-48-1	Chlorodibromomethane	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	75-00-3	Chloroethane	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	67-66-3	Chloroform	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	74-87-3	Chloromethane	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	156-59-2	cis-1,2 dichloroethene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	10061-01-5	cis-1,3 dichloropropene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	74-95-3	Dibromomethane	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	97-63-2	Ethyl methacrylate	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	100-41-4	Ethylbenzene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4		Freon 113	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	75-71-8	Freon 12	ND	mg / Kg	1	0.05	12/20/00
X00486	XG.2000.1403-4	74-88-4	Iodomethane	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	1634-04-4	Methyl t-butyl ether (MTBE)	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	75-09-2	Methylene chloride	ND	mg / Kg	1	0.05	12/20/00
X00486	XG.2000.1403-4	91-20-3	Naphthalene	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	95-47-6	o-Xylene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	108-38-3/106-42	p/m Xylenes	ND	mg / Kg	1	0.01	12/20/00
X00486	XG.2000.1403-4	100-42-5	Styrene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	156-60-5	t-1,2 Dichloroethene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	10061-02-6	t-1,3 Dichloropropene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	127-18-4	Tetrachloroethene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	108-88-3	Toluene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	79-01-6	Trichloroethene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	75-69-4	Trichlorofluoromethane	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	108-05-4	Vinyl acetate	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	75-01-4	Vinyl chloride	ND	mg / Kg	1	0.025	12/20/00

0012204-01C **EPA 300.0**

W0113	MW.2001.52-13	16887-00-6	Chloride	73.2	mg / Kg	20	0.05	01/11/01
W0113	MW.2001.52-13	14797-65-0	Nitrate, as N	2.48	mg / Kg	20	0.05	01/11/01
W0113	MW.2001.52-13		Orthophosphate, as P	ND	mg / Kg	20	0.05	01/11/01
W0113	MW.2001.69-1		Sulfate	140	mg / Kg	20	0.05	01/11/01

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**** Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. ****

**** ND = Not detected: less than the sample specific Detection Limit. Results relate only to the items tested. ****

footnote [1] All surrogate recoveries were out of criteria, high. All reported compounds are non-detect. No bias apparent in sample. Data is valid as reported.

ASSAGAI ANALYTICAL LABORATORIES, INC.

Chain of Custody Record

7300 JEFFERSON N.E.
ALBUQUERQUE, NEW MEXICO 87109
(505) 345-8964

3332 WEDGEWOOD
EL PASO, TEXAS 79925
(915) 593-6000

127 EASTGATE DRIVE, 212-C
LOS ALAMOS, NEW MEXICO 87544
(505) 662-2558

Lab job No.: ______ Date 12-7-00

Page 1 of 1

Client Giant Refining Company - Ciniza

Address Route 3 Box 7

City / State / Zip Gallup NM 87301

Project Name / Number RRLTA

Contract / Purchase Order / Quote ______

Project Manager / Contact Steve Morris

Telephone No. 505-722-0258

Fax No. 505-722-0210

Samplers: (signature) S Morris

AAL Fraction Number	Field Sample Number / Location	Date	Time	Sample Type	Type / Size of Container	Preservation Temp.	Preservation Chemical	No. of Containers	Analysis Required 1	2	3	4	5	6	7	8	9	Remarks
OFFICE USE ONLY	BTZ-RRR-20A6	12/7/00	1000	Soil	Glass+Plastic	4°C	Cold	4	X	X	X	X						

Relinquished by:
Signature S Morris
Printed Steve Morris
Company Giant - Ciniza
Reason Ship
Date 12/7/00
Time 1400

Received by:
Signature ______
Printed ______
Company ______
Reason ______

Relinquished by:
Signature ______
Printed ______
Company ______
Reason ______
Date
Time

Received by:
Signature ______
Printed ______
Company ______
Reason ______

Method of Shipment: ______
Shipment No. ______
Special Instructions: ______

Comments: ______

After analysis, samples are to be:
- ☐ Disposed of (additional fee)
- ☐ Stored (30 days max)
- ☐ Stored over 30 days (additional fee)
- ☐ Returned to customer

COURIER

ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

Apr l 27, 2001

Clic n: Giant Refining Company (Gallup)
Adc ess: Route 3, Box 7
Gallup, NM 87301

Dat Collected: 4/17/01
Dat Received: 4/18/01
Pro ct #: N/A
Clic n ID #: Temp LTA
Lab ratory ID #: 011501-01
Mat i: Solid
Extu ction Method: 1311
Dat of Analysis: 4/24/01

TCLP Metals

Par meter	Detection Limit (mg/l)	Results (mg/l)	Regulatory Level (mg/l)
Ars nic	0.010	<0.01	5.0
Bar n	1.0	1.3	100.0
Cad nium	0.0050	<0.005	1.0
Chr nium	0.050	<0.05	5.0
Lea l	0.10	<0.1	5.0
Mer ury	0.0020	<0.002	0.20
Sel n um	0.020	<0.02	1.0
Silv r	0.010	<0.01	5.0

Lat o atory Manager: Bassam Youssef

SUMMIT
ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

2

April 27, 2001

Client: Giant Refining Company (Gallup)
Address: Route 3, Box 7
Gallup, NM 87301

Date Collected: 4/17/01
Date Received: 4/18/01
Project #: N/A
Client ID #: Temp LTA
Laboratory ID #: 011501-01
Matrix: Solid
Extraction Method: 1311
Date of Analysis: 4/24/01

TCLP Volatiles

Parameter	Detection Limit (mg/L)	Results (mg/L)	Regulatory Level (mg/L)
1,1-Dichloroethene	0.10	<0.1	0.70
1,2-Dichloroethane	0.10	<0.1	0.50
2-Butanone (MEK)	2.0	<2.0	200.0
Benzene	0.10	<0.1	0.50
Carbon tetrachloride	0.10	<0.1	0.50
Chlorobenzene	0.10	<0.1	100.0
Chloroform	0.10	<0.1	6.0
Tetrachloroethene	0.10	<0.1	0.70
Trichloroethene	0.10	<0.1	0.50
Vinyl Chloride	0.20	<0.2	0.20

Laboratory Manager: Bassam Youssef

ENVIRONMENTAL TECHNOLOGIES, INC
Analytical Laboratories

Apr l 27, 2001

3

Clie n : Giant Refining Company (Gallup)
Adc ress: Route 3, Box 7
Gallup, NM 87301

Dat : Collected: 4/17/01
Dat : Received: 4/18/01
Pro ect #: N/A
Clie n. ID #: Temp LTA
Lab oratory ID #: 011501-01
Ma rix: Solid
Ext action Method: 1311
Dat : of Analysis: 4/25/01

TCLP BNA

Parameter	Detection Limit (mg/l)	Results (mg/l)	Regulatory Level (mg/l)
1,4-Dichlorobenzene	0.10	<0.1	7.5
2,4,5-Trichlorophenol	0.25	<0.25	400.0
2,4,6-Trichlorophenol	0.25	<0.25	2.0
2,4-Dinitrotoluene	0.10	<0.1	0.13
Cresols	0.10	<0.1	200.0
Hexachloro-1,3-butadiene	0.10	<0.1	0.50
Hexachlorobenzene	0.10	<0.1	0.13
Hexachloroethane	0.10	<0.1	3.0
Nitrobenzene	0.10	<0.1	2.0
Pentachlorophenol	0.25	<0.25	100.0
Pyridine	0.25	<0.25	5.0

Laboratory Manager: Bassam Youssef

Summit Env. Tech. Inc.

PINNACLE LABORATORIES ~~Pinnacle Laboratories Inc.~~

CHAIN OF CUSTODY

DATE: 4-17-01 PAGE: 1 OF 1

PLI Accession #:

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER:

COMPANY: Giant Refining Company
ADDRESS: Route 3 Box 7
Gallup, NM 87301
PHONE: 505 722 3833
FAX: 505 722 0210
BILL TO: SAME
COMPANY:
ADDRESS:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.
Temp LTA-41701	4/17/01	0700	Soil	
RBR Lagoon-41701	4/17/01	0710	Sludge	
2ND O/I Skim-41701	4/17/01	0720	Soil	

SAMPLE ID	Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct Inject	TCLP Metals	(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline) MTBE	8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ / DBCP ☐	TCLP Volatiles + Semivols	8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081/8082)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310/8270-SIMS)	General Chemistry:		Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:	NUMBER OF CONTAINERS
Temp LTA-41701			X									X															
RBR Lagoon-41701			X									X															
2ND O/I Skim-41701			X									X															

PROJECT INFORMATION

PROJ. NO.:
PROJ. NAME:
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS	
CUSTODY SEALS	Y/N/NA
RECEIVED INTACT	
BLUE ICE	

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☐

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

RELINQUISHED BY: 1

Signature: Steve Morris Time: 10:00
Printed Name: Steve Morris Date: 4/17/01
Company: Giant - Ciniza
See reverse side (Force Majeure)

RECEIVED BY: 1

Signature: Time:
Printed Name: Date:
Company:

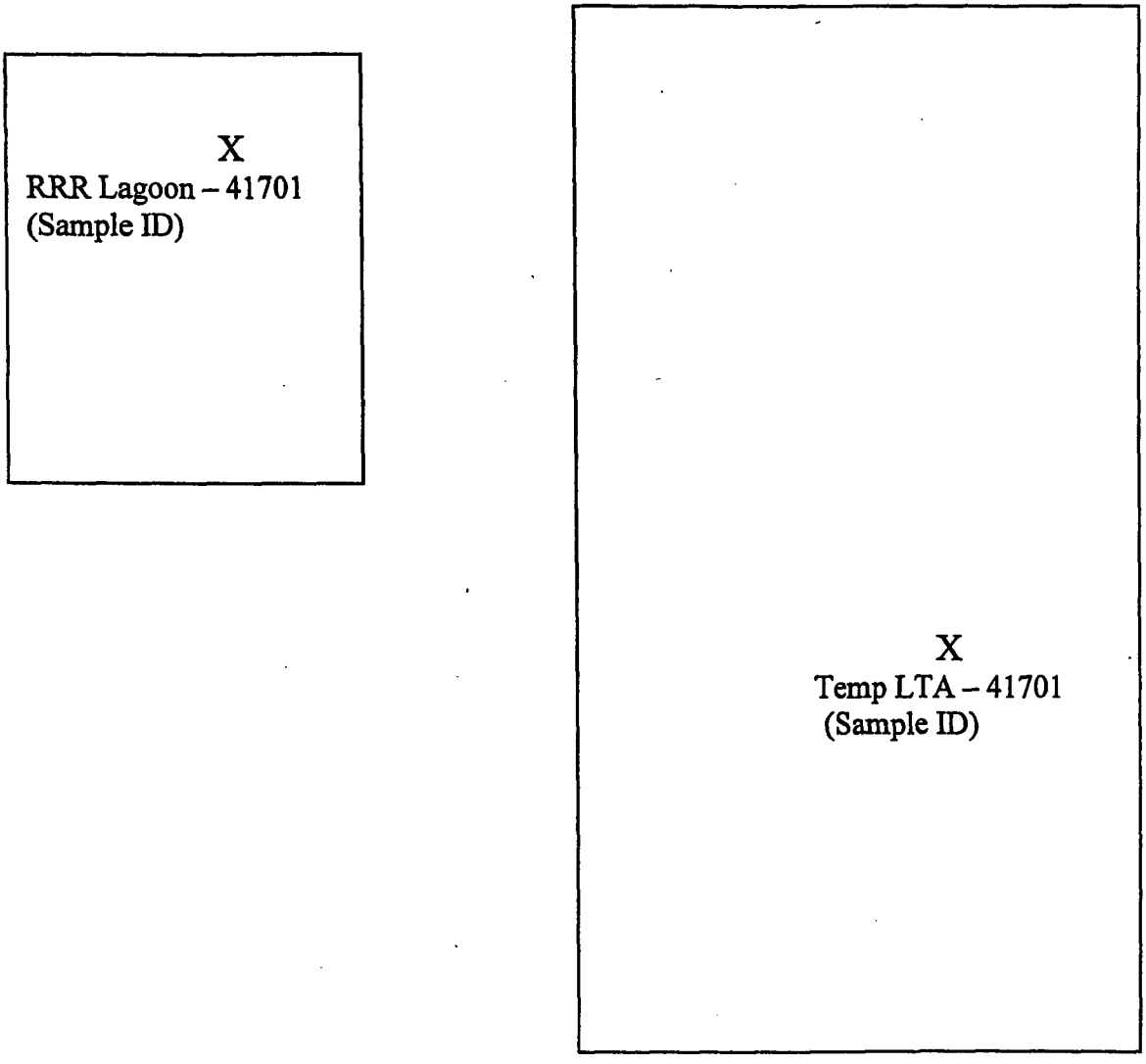
RELINQUISHED BY: 2

Signature: Time:
Printed Name: Date:
Company:

RECEIVED BY: (LAB) 2

Signature: Time:
Printed Name: Date:
Pinnacle Laboratories Inc.

April 17, 2001 samples from Railroad Rack Lagoon and
Temporary Land Treatment Area



sm/c/word/maps7/17/01

SUMMIT
ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

4

April 27, 2001

Client: Giant Refining Company (Gallup)
Address: Route 3, Box 7
Gallup, NM 87301

Date Collected: 4/17/01
Date Received: 4/18/01
Project #: N/A
Client ID #: RRR Lagoon
Laboratory ID #: 011501-02
Matrix: Solid
Extraction Method: 1311
Date of Analysis: 4/24/01

TCLP Metals

Parameter	Detection Limit (mg/l)	Results (mg/l)	Regulatory Level (mg/l)
Arsenic	0.010	<0.01	5.0
Barium	1.0	<1.0	100.0
Cadmium	0.0050	<0.005	1.0
Chromium	0.050	<0.05	5.0
Lead	0.10	<0.1	5.0
Mercury	0.0020	<0.002	0.20
Selenium	0.020	<0.02	1.0
Silver	0.010	<0.01	5.0

Laboratory Manager: Bassam Youssef

SUMMIT
ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

5

April 27, 2001

Client: Giant Refining Company (Gallup)
Address: Route 3, Box 7
Gallup, NM 87301

Date Collected: 4/17/01
Date Received: 4/18/01
Project #: N/A
Client ID #: RRR Lagoon
Laboratory ID #: 011501-02
Matrix: Solid
Extraction Method: 1311
Date of Analysis: 4/24/01

TCLP Volatiles

Parameter	Detection Limit (mg/L)	Results (mg/L)	Regulatory Level (mg/L)
1,1-Dichloroethene	0.10	<0.1	0.70
1,2-Dichloroethane	0.10	<0.1	0.50
2-Butanone (MEK)	2.0	<2.0	200.0
Benzene	0.10	<0.1	0.50
Carbon tetrachloride	0.10	<0.1	0.50
Chlorobenzene	0.10	<0.1	100.0
Chloroform	0.10	<0.1	6.0
Tetrachloroethene	0.10	<0.1	0.70
Trichloroethene	0.10	<0.1	0.50
Vinyl Chloride	0.20	<0.2	0.20

Laboratory Manager: Bassam Youssef

SUMMIT
ENVIRONMENTAL TECHNOLOGIES, INC.
Analytical Laboratories

6

Apr l 27, 2001

Clie n : Giant Refining Company (Gallup)
Ad r ss: Route 3, Box 7
Gallup, NM 87301

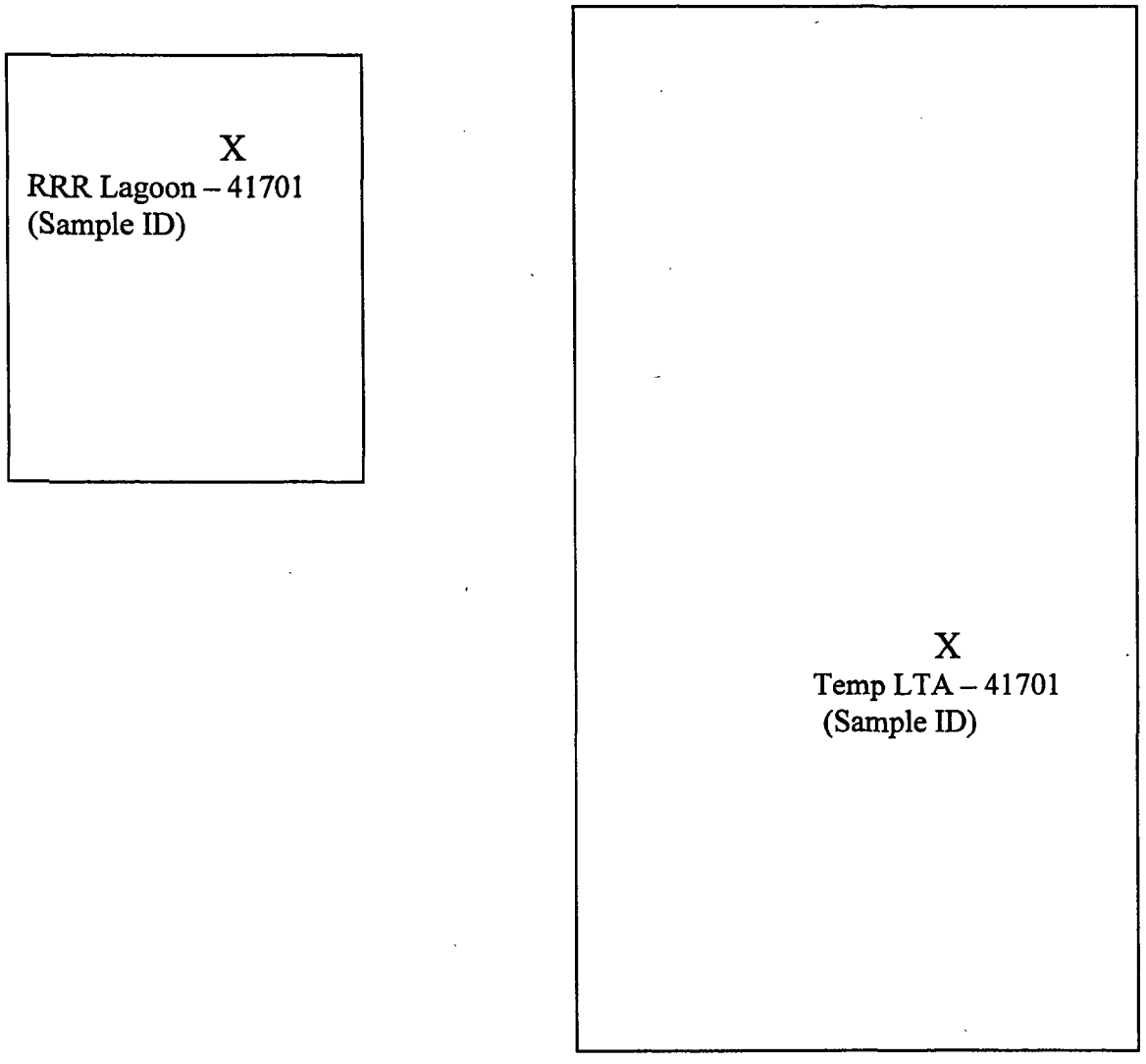
Dat : Collected: 4/17/01
Dat : Received: 4/18/01
Pro ect #: N/A
Clie n: ID #: RRR Lagoon
Lat o atory ID #: 011501-02
Ma rx: Solid
Ext action Method: 1311
Da e of Analysis: 4/26/01

TCLP BNA

Pa ameter	Detection Limit (mg/l)	Results (mg/l)	Regulatory Level (mg/l)
1,4-Dichlorobenzene	0.10	<0.1	7.5
2,4,5-Trichlorophenol	0.25	<0.25	400.0
2,4,6–Trichlorophenol	0.25	<0.25	2.0
2,4-Dinitrotoluene	0.10	<0.1	0.13
Cr s ls	0.10	<0.1	200.0
He achloro-1,3-butadiene	0.10	<0.1	0.50
He achlorobenzene	0.10	<0.1	0.13
He achloroethane	0.10	<0.1	3.0
Ni obenzene	0.10	<0.1	2.0
Pe tachlorophenol	0.25	<0.25	100.0
Py i line	0.25	<0.25	5.0

L ab oratory Manager: Bassam Youssef

April 17, 2001 samples from Railroad Rack Lagoon and
Temporary Land Treatment Area



sm/c/word/maps7/17/01

Summit Environ. Inc.

PINNACLE LABORATORIES ~~Pinnacle Laboratories Inc.~~

CHAIN OF CUSTODY

DATE: 4-17-01 PAGE: 1 OF 1

PLI Accession #:

SHADED AREAS ARE FOR LAB USE ONLY.

PLEASE FILL THIS FORM IN COMPLETELY.

PROJECT MANAGER:

COMPANY: Giant Refining Company
ADDRESS: Route 3 Box 7
Gallup, NM 87301
PHONE: 505 722 3833
FAX: 505 722 0210
BILL TO: SAME
COMPANY:
ADDRESS:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.	Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct Inject	TCLP Metals	(M8015) Gas/Purge & Trap	8021 (BTEX)/8015 (Gasoline) MTBE	8021 (BTEX) ☐ MTBE ☐ TMB ☐ PCE	8021 (TCL)	8021 (EDX)	8021 (HALO)	8021 (CUST)	504.1 EDB ☐ / DBCP ☐	TCLP Volatiles	8260 (TCL) Volatile Organics	8260 (Full) Volatile Organics	8260 (CUST) Volatile Organics	8260 (Landfill) Volatile Organics	Pesticides /PCB (608/8081/8082)	Herbicides (615/8151)	Base/Neutral/Acid Compounds GC/MS (625/8270)	Polynuclear Aromatics (610/8310/8270-SIMS)	General Chemistry:		Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by TCLP (Method 1311)	Metals:		NUMBER OF CONTAINERS
Temp LTA-41701	4/17/01	0700	Soil				X									X	X															
RRR Lagoon-41701	4/17/01	0710	Sludge				X									X	X															
2ND O/Skim-41701	4/17/01	0720	Soil				X									X	X															

PROJECT INFORMATION

PROJ. NO.:
PROJ. NAME:
P.O. NO.:
SHIPPED VIA:

SAMPLE RECEIPT

NO. CONTAINERS	
CUSTODY SEALS	Y / N / NA
RECEIVED INTACT	
BLUE ICE	

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS

(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK (NORMAL) ☐

CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER

METHANOL PRESERVATION ☐

COMMENTS: FIXED FEE ☐

RELINQUISHED BY: 1

Signature: Sc Morris Time: 10:09
Printed Name: Steve Morris Date: 4/17/01
Company: Giant-Ciniza
See reverse side (Force Majeure)

RECEIVED BY: 1

Signature: Time:
Printed Name: Date:
Company:

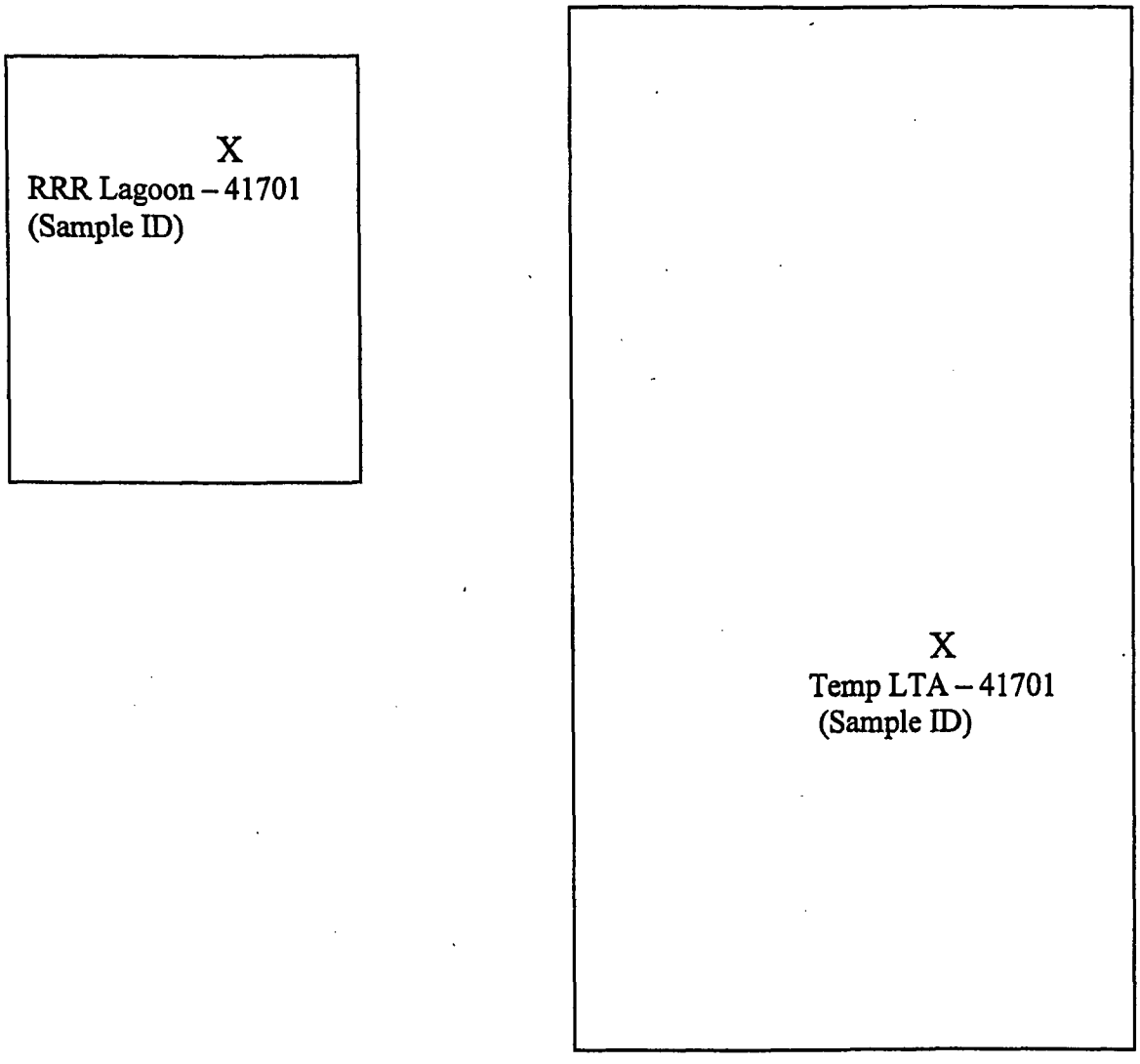
RELINQUISHED BY: 2

Signature: Time:
Printed Name: Date:
Company:

RECEIVED BY: (LAB) 2

Signature: Time:
Printed Name: Date:
Pinnacle Laboratories, Inc.

April 17, 2001 samples from Railroad Rack Lagoon and
Temporary Land Treatment Area



sm/c/word/maps7/17/01

iml

Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

December 22, 2000

Dorinda Mancini
Giant Refining Company
Rt. 3, Box 7
Gallup, NM 87301

Ms. Mancini:

Enclosed please find the reports for the samples received by our laboratory for analysis on December 8, 2000.

If you have any questions about the results of these analyses, please don't hesitate to call at your convenience.

Thank you for choosing IML for your analytical needs!

Sincerely,

Sharon Williams
Organic Analyst/IML-Farmington

Enclosure

xc: File

iml

Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

September 12, 2001

Dorinda Mancini
Giant Refining Company
Rt. 3, Box 7
Gallup, NM 87301

Ms. Mancini:

Enclosed please find the reports for the samples received by our laboratory for analysis on August 30, 2001.

If you have any questions about the results of these analyses, please don't hesitate to call at your convenience.

Thank you for choosing IML for your analytical needs!

Sincerely,

Sharon Williams
Organic Analyst/IML-Farmington

Enclosure

xc: File

iml

Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

GIANT REFINING - CINIZA
TEMP LTU

Case Narrative

On August 30, 2001, two soil samples were received at Inter-Mountain Labs - Farmington for analysis. Analysis for Total Petroleum Hydrocarbons 418.1 (TPH) were performed on the samples as per the accompanying Chain of Custody.

The samples were extracted by Method 3550, "Ultrasonic Extraction of Non-Volatile and Semi-Volatile Organic Compounds from Solids", with 1,1,2-trichloro 1,2,2-trifluoroethane (Freon) as the extraction solvent. Analysis was by Method 418.1, "Total Recoverable Petroleum Hydrocarbons", using a Buck Scientific Infrared Spectrophotometer.

Quality control data appear at the end of the analytical package and may be identified by title. If there are any questions regarding the information presented in this package, please feel free to call at your convenience.

Sincerely,

Sharon Williams

Sharon Williams
Organic Analyst/IML-Farmington

Inter-Mountain Laboratories, Inc.

2506 West Main Street
Farmington, NM 87401

Client: Giant Refining Co. (Gallup)
Project: Temp LTU
Sample ID: Temp LTU-N 82801
Lab ID: 0301W03761
Matrix: Soil
Condition: Cool/Intact

Date Received: 08/30/01
Date Reported: 09/12/01
Date Sampled: 08/28/01
Time Sampled: 1130

Parameter	Analytical Result	Units	Units	PQL	Method	Analysis Date	Time	Init.
Total Petroleum Hydrocarbons 418.1	205	mg/Kg		20	EPA 418.1	09/06/01	0710	SW

Reference: EPA - "Methods for Chemical Analysis of Water and Wastes (MCAWW)" - EPA/600/4-79-020 - March, 1983.

Reviewed By:

William Lipps

Inter·Mountain Laboratories, Inc.

2506 West Main Street
Farmington, NM 87401

Client: Giant Refining Co. (Gallup)
Project: Temp LTU
Sample ID: Temp LTU-S 82801
Lab ID: 0301W03762
Matrix: Soil
Condition: Cool/Intact

Date Received: 08/30/01
Date Reported: 09/12/01
Date Sampled: 08/28/01
Time Sampled: 1130

Parameter	Analytical Result	Units	Units	PQL	Method	Analysis Date	Time	Init.
Total Petroleum Hydrocarbons 418.1	100	mg/Kg		20	EPA 418.1	09/06/01	0710	SW

Reference: EPA - "Methods for Chemical Analysis of Water and Wastes (MCAWW)" - EPA/600/4-79-020 - March, 1983.

Reviewed By: William Lipps

QUALITY CONTROL / QUALITY ASSURANCE

Quality Assurance / Quality Control
Total Petroleum Hydrocarbons

Client:	**Giant Refining - Ciniza**	Date Reported:	09/12/01
Project:	Temp LTU	Date Sampled:	08/28/01
Matrix:	Soil	Date Received:	08/30/01
Condition:	Intact/Cool	Date Extracted:	09/06/01
		Date Analyzed:	09/06/01

Method Blank Analysis

Lab ID	Result	Units	Detection Limit
Method Blank	ND	mg/Kg	20.0

Spike Analysis

Lab ID	Found Conc. mg/Kg	Sample Conc. mg/Kg	Spike Amount mg/Kg	Percent Recovery	Acceptance Limits
MB	24	ND	25.0	96%	70-130%

Known Analysis

Lab ID	Found Conc. mg/Kg	Known Conc. mg/Kg	Percent Recovery	Acceptance Limits
QC	23.1	25.0	92%	70-130%

Method 418.1: Petroleum Hydrocarbons, Total Recoverable, USEPA Chemical Analysis of Water and Waste, 1978.

Method 3550: Ultrasonic Extraction of Non-Volatile and Semi-Volatile Organic Compounds from Solids, USEPA SW -846, rev.1, July 1992.

Reported By: _____ Reviewed By: _____

imL
Inter- Mountain
Laboratories, Inc.

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSES / PARAMETERS
Giant-Ciniza / Temp LTU	Ciniza	
Sampler: (Signature)	**Chain of Custody Tape No.**	**Remarks**
S Thomas		

Sample No./ Identification	Date	Time	Lab Number	Matrix	No. of Containers	TPH					Remarks
Temp LTU-N 82801	8-28-01	1130	3761	Soil	1	X					
Temp LTU-S 82801	8-28-01	1145	3762	Soil	1	X					
											Rec'd Cool + intact.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
S Thomas	8/29/01	1400			
Relinquished by: (Signature)	**Date**	**Time**	**Received by: (Signature)**	**Date**	**Time**
Relinquished by: (Signature)	**Date**	**Time**	**Received by laboratory: (Signature)**	**Date**	**Time**
			Sharon Williams	8/30/01	1100

Inter-Mountain Laboratories, Inc.

☐ 555 Absaraka
Sheridan, Wyoming 82801
Telephone (307) 674-7506

☐ 1633 Terra Avenue
Sheridan, Wyoming 82801
Telephone (307) 672-8945

☐ 1701 Phillips Circle
Gillette, Wyoming 82718
Telephone (307) 682-8945

☒ 2506 West Main Street
Farmington, NM 87401
Telephone (505) 326-4737

☐ 11183 State Hwy. 30
College Station, TX 77845
Telephone (979) 776-8945

72973

***** PACKING SLIP ***** 5826 PAGE: 1

INTER-MOUNTAIN LABORATORIES, INC.
P.O. BOX 4006
SHERIDAN, WY

(307) 674-7506

INVOICE NUMBER: 5826
INVOICE DATE: 09/12/2001
LAB LOCATION: 0003
2506 West Main Street
Farmington, NM 87401

Giant Refining Co. (Gallup)
Rt #3, Box 7

Gallup NM 87301

CUSTOMER NO: 030000799 IN
Customer P.O. :

TERMS: NET 30
ATTN: DORINDA MANCINI:

SALES CD	DESCRIPTION	QUANTITY	PRICE	AMOUNT
	COC#72973/CINIZA RCD:08/30/01 LAB#0301W03761-62 PS#5826			
301300	TPH-Method 418.1	2.00	55.00	110.00
900060	Sales Tax 6%	1.00	6.67	6.67

Balances past due are subject to a late payment charge of 1.5% or $2.00 minimum per month.

NET INVOICE: 116.67

iml

Inter•Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

Dear Client,

Wes Harvey is no longer laboratory director of the Farmington Laboratory. The new Laboratory Director is William Lipps. Mr. Lipps has been with IML for six years and with the Farmington laboratory three years. If you have any questions please feel free to contact William (Bill) at (505) 326-4737.

Hall Environmental Analysis Laboratory

COVER LETTER

December 31, 2002

Dorinda Mancini
Giant Refining Co
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 772-3833
FAX (505) 722-0210

RE: Dec 2002 Soil Samples TPH Order No.: 0212128

Dear Dorinda Mancini:

Hall Environmental Analysis Laboratory received 6 samples on 12/20/2002 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-Dec-02*

CLIENT: Giant Refining Co
Project: Dec 2002 Soil Samples TPH
Lab Order: 0212128

CASE NARRATIVE

Analytical Comments for METHOD 8015DRO_S, SAMPLES 0212128-1,2,3,6: Surrogates not recoverabledue to matrix interference.

Hall Environmental Analysis Laboratory

Date: *31-Dec-02*

CLIENT: Giant Refining Co
Project: Dec 2002 Soil Samples TPH
Lab Order: 0212128

Lab ID: 0212128-01 **Collection Date:** 12/19/2002 9:15:00 AM
Client Sample ID: RRR-36-121902 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	5600	50		mg/Kg	10	12/26/2002 2:28:16 PM
Motor Oil Range Organics (MRO)	1100	500		mg/Kg	10	12/26/2002 2:28:16 PM
Surr: DNOP	0	60-124	S	%REC	10	12/26/2002 2:28:16 PM

Lab ID: 0212128-02 **Collection Date:** 12/19/2002 9:25:00 AM
Client Sample ID: RRR-76-121902 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	3500	50		mg/Kg	10	12/26/2002 2:57:02 PM
Motor Oil Range Organics (MRO)	820	500		mg/Kg	10	12/26/2002 2:57:02 PM
Surr: DNOP	0	60-124	S	%REC	10	12/26/2002 2:57:02 PM

Lab ID: 0212128-03 **Collection Date:** 12/19/2002 9:35:00 AM
Client Sample ID: RRR-125-121902 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	2700	50		mg/Kg	10	12/26/2002 3:25:49 PM
Motor Oil Range Organics (MRO)	700	500		mg/Kg	10	12/26/2002 3:25:49 PM
Surr: DNOP	0	60-124	S	%REC	10	12/26/2002 3:25:49 PM

Lab ID: 0212128-04 **Collection Date:** 12/19/2002 9:50:00 AM
Client Sample ID: OCD-59-121902 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	720	50		mg/Kg	10	12/26/2002 3:54:36 PM
Motor Oil Range Organics (MRO)	600	500		mg/Kg	10	12/26/2002 3:54:36 PM
Surr: DNOP	117	60-124		%REC	10	12/26/2002 3:54:36 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: *31-Dec-02*

CLIENT: Giant Refining Co
Project: Dec 2002 Soil Samples TPH
Lab Order: 0212128

Lab ID: 0212128-05 **Collection Date:** 12/19/2002 10:10:00 AM
Client Sample ID: OCD-63-121902 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	880	50		mg/Kg	10	12/26/2002 4:23:53 PM
Motor Oil Range Organics (MRO)	680	500		mg/Kg	10	12/26/2002 4:23:53 PM
Surr: DNOP	121	60-124		%REC	10	12/26/2002 4:23:53 PM

Lab ID: 0212128-06 **Collection Date:** 12/19/2002 10:25:00 AM
Client Sample ID: OCD-112-121902 **Matrix:** SOIL

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	1200	50		mg/Kg	10	12/26/2002 4:52:56 PM
Motor Oil Range Organics (MRO)	980	500		mg/Kg	10	12/26/2002 4:52:56 PM
Surr: DNOP	0	60-124	S	%REC	10	12/26/2002 4:52:56 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: *31-Dec-02*

CLIENT: Giant Refining Co
Work Order: 0212128
Project: Dec 2002 Soil Samples TPH

QC SUMMARY REPORT
Method Blank

Sample ID **MB-2929** Batch ID: **2929** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **12/26/2002 1:30:07 PM** Prep Date **12/23/2002**

Client ID: Run ID: **FID(17A)_021226A** SeqNo: **156108**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	5.0									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	11.87	0	10	0	119	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

Hall Environmental Analysis Laboratory

Date: *31-Dec-02*

CLIENT: Giant Refining Co
Work Order: 0212128
Project: Dec 2002 Soil Samples TPH

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **LCS-2929** Batch ID: **2929** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **12/26/2002 1:59:14 PM** Prep Date **12/23/2002**

Client ID: Run ID: **FID(17A)_021226A** SeqNo: **156109**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51.35	5.0	50	0	103	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

CHAIN-OF-CUSTODY RECORD

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

Client: Giant Refining Company - Ciniza
Address: Rt 3 Box 7 Gallup, NM 87301
Phone #: 505 722 3833
Fax #: 505 722 0210

Project Name: Dec 2002 soil samples for TPH
Project #:
Project Manager: Brenda Mancini
Sampler: [signature]
Samples Cold?: ☑ Yes ☐ No

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative: $HgCl_2$	Preservative: HCl	Preservative: None	HEAL No.
12/19/02	0915	Soil	RRR-36-121902	1			X	0212128-1
"	0925	"	RRR-76-121902	1			X	-2
"	0935	"	RRR-125-121902	1			X	-3
"	0950	"	OCD-59-121902	1			X	-4
"	1010	"	OCD-63-121902	1			X	-5
"	1025	"	OCD-112-121902	1			X	-6

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)	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)	TPH - DRO		Air Bubbles or Headspace (Y or N)
														X		
														X		
														X		
														X		
														X		
														X		

Date: 12/19/02 Time: 1100 Relinquished By: (Signature) [signature]
Received By: (Signature) [signature] 12/20/02 12:15

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

Remarks: 0

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

May 18, 2004

Dorinda Mancini
Giant Refining Co
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0227
FAX (505) 722-0210

RE: Ciniza NE OCD Landfarm Order No.: 0405116

Dear Dorinda Mancini:

Hall Environmental Analysis Laboratory received 2 samples on 5/14/2004 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: *18-May-04*

CLIENT: Giant Refining Co
Client Sample ID: NE OCD LF-No
Lab Order: 0405116
Collection Date: 5/13/2004 2:00:00 PM
Project: Ciniza NE OCD Landfarm
Lab ID: 0405116-01
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	1400	100		mg/Kg	10	5/17/2004 3:17:04 PM
Motor Oil Range Organics (MRO)	910	500		mg/Kg	10	5/17/2004 3:17:04 PM
Surr: DNOP	121	60-124		%REC	10	5/17/2004 3:17:04 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/16/2004 7:19:18 PM
Surr: BFB	95.9	74-118		%REC	1	5/16/2004 7:19:18 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: *18-May-04*

CLIENT: Giant Refining Co
Client Sample ID: NE OCD LF-So
Lab Order: 0405116
Collection Date: 5/13/2004 2:15:00 PM
Project: Ciniza NE OCD Landfarm
Lab ID: 0405116-02
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	1000	100		mg/Kg	10	5/17/2004 3:47:35 PM
Motor Oil Range Organics (MRO)	800	500		mg/Kg	10	5/17/2004 3:47:35 PM
Surr: DNOP	122	60-124		%REC	10	5/17/2004 3:47:35 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/16/2004 7:50:36 PM
Surr: BFB	101	74-118		%REC	1	5/16/2004 7:50:36 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: *18-May-04*

CLIENT: Giant Refining Co
Work Order: 0405116
Project: Ciniza NE OCD Landfarm

QC SUMMARY REPORT
Method Blank

Sample ID **MB-5785** Batch ID: **5785** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **5/17/2004 3:12:08 AM** Prep Date **5/16/2004**
Client ID: Run ID: **FID(17A) 2_040517A** SeqNo: **273951**

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	9.993	0	10	0	99.9	60	124	0			

Sample ID **MB-5784** Batch ID: **5784** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **5/16/2004 1:35:56 PM** Prep Date **5/14/2004**
Client ID: Run ID: **PIDFID_040516A** SeqNo: **273436**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0									
Surr: BFB	910.9	0	1000	0	91.1	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: *18-May-04*

CLIENT: Giant Refining Co
Work Order: 0405116
Project: Ciniza NE OCD Landfarm

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **LCS-5785** Batch ID: **5785** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **5/17/2004 3:42:17 AM** Prep Date **5/16/2004**
Client ID: Run ID: **FID(17A) 2_040517A** SeqNo: **273952**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50.35	10	50	0	101	67.4	117	0			

Sample ID **LCSD-5785** Batch ID: **5785** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **5/17/2004 4:12:28 AM** Prep Date **5/16/2004**
Client ID: Run ID: **FID(17A) 2_040517A** SeqNo: **273953**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51.59	10	50	0	103	67.4	117	50.35	2.42	17.4	

Sample ID **LCS-5784** Batch ID: **5784** Test Code: **SW8015** Units: **mg/Kg** Analysis Date **5/16/2004 3:09:50 PM** Prep Date **5/14/2004**
Client ID: Run ID: **PIDFID_040516A** SeqNo: **273437**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24.84	5.0	25	0	99.4	73.8	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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN | Date and Time Received: 5/14/2004

Work Order Number 0405116 | Received by AMG

Checklist completed by Signature 05/14/04 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? 7° *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

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

Client: Ciniza Refinery / Giant Refining Co

Address: Rt 3 Box 7 Gallup, NM 87301

Phone #: 505-722-3833

Fax #: 505-722-0210

Project Name: Ciniza NE OCD Landfarm

Project #:

Project Manager: D. Mancini

Sampler: Steve Morris

Samples Cold?: ☒ Yes ☐ No 7.0

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HCl		HEAL No.
								HEAL No. 085116
5/13/04	1400	Soil	NE OCD LF-No. 1	1/4oz				-1
5/13/04	1415	Soil	NE OCD LF-So. 1	1/4oz				-2

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)	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)			Air Bubbles or Headspace (Y or N)
		X														
		X														

Date	Time	Relinquished By: (Signature)	Received By: (Signature)
5/14/04	0800	Dominic Mancini	
5/14/04	10:30		D. Gonzales 05/14/04 1030

Remarks: Rush 7 day results