

**GIANT**  
REFINING COMPANY

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

Certified Mail: 7004 2510 0005 1641 4675

December 28, 2005

**Re: Giant Refining Company, Bloomfield Refinery**  
**EPA ID# NMD089416416**  
**GW - 001**

Dear Ms Monzeglio,

Please find attached analytical results for the November 9, 2005 and December 13, 2005 sampling events for wells MW #48 and MW #49 located on the river terrace at the Giant Refining-Bloomfield facility. Note that the results for well MW #49, located down gradient of the barrier wall, had a detection of benzene at a concentration of 39 ug/L for November and 27 ug/L for December. BTEX samples were taken out of the San Juan River adjacent to MW #49 during each sampling event. The results of both of those samples were non detect. We will continue to monitor the wells and evaluate the concentration trends.

Due to the ongoing installation of the Bioventing Project at the River Terrace, Giant personnel were unable to sample MW #48 during the December event.

Tank #33 and Fresh Water Pond samples were pulled on December 5, 2005. Analytical results are included with this packet. Tank #33 and Fresh Water Pond results were non detect.

If you need additional information, please contact me at (505) 632-4161.

Sincerely,

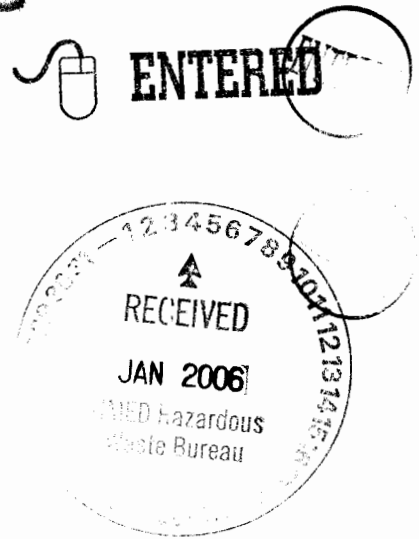


Cindy Hurtado  
Environmental Coordinator  
Giant Refining – Bloomfield

Cc: Wayne Price - NMOCD  
Ed Riege – Environmental Superintendent – Giant Refining  
Randy Schmaltz – Environmental Manager – Giant Refining

PHONE  
505-632-8013  
FAX  
505-632-3911

50 ROAD 4990  
P.O. BOX 159  
BLOOMFIELD  
NEW MEXICO  
87413



COVER LETTER

December 01, 2005

Cindy Hurtado  
San Juan Refining  
#50 CR 4990  
Bloomfield, NM 87413  
TEL: (505) 632-4161  
FAX (505) 632-3911

RE: River Terrace - 11/05

Order No.: 0511103

Dear Cindy Hurtado:


Hall Environmental Analysis Laboratory received 3 samples on 11/10/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

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

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

Sincerely,

  
Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager



# Hall Environmental Analysis Laboratory

Date: 01-Dec-05

CLIENT: San Juan Refining  
 Lab Order: 0511103  
 Project: River Terrace - 11/05  
 Lab ID: 0511103-01

Client Sample ID: MW #48  
 Collection Date: 11/9/2005 11:05:00 AM  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: <b>SCC</b>
Diesel Range Organics (DRO)	3.3	1.0		mg/L	1	11/17/2005 10:47:10 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/17/2005 10:47:10 PM
Surr: DNOP	139	58-140		%REC	1	11/17/2005 10:47:10 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	14	2.0		mg/L	40	11/14/2005 10:41:17 PM
Surr: BFB	117	79.7-118		%REC	40	11/14/2005 10:41:17 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	100		µg/L	40	11/14/2005 10:41:17 PM
Benzene	400	20		µg/L	40	11/14/2005 10:41:17 PM
Toluene	ND	20		µg/L	40	11/14/2005 10:41:17 PM
Ethylbenzene	910	20		µg/L	40	11/14/2005 10:41:17 PM
Xylenes, Total	4000	20		µg/L	40	11/14/2005 10:41:17 PM
Surr: 4-Bromofluorobenzene	110	82.2-119		%REC	40	11/14/2005 10:41:17 PM
<b>EPA METHOD 8310: PAHS</b>						Analyst: <b>JMP</b>
Naphthalene	95	2.5		µg/L	1	11/29/2005 7:25:34 PM
1-Methylnaphthalene	34	2.5		µg/L	1	11/29/2005 7:25:34 PM
2-Methylnaphthalene	36	2.5		µg/L	1	11/29/2005 7:25:34 PM
Acenaphthylene	ND	2.5		µg/L	1	11/29/2005 7:25:34 PM
Acenaphthene	ND	2.5		µg/L	1	11/29/2005 7:25:34 PM
Fluorene	1.2	0.80		µg/L	1	11/29/2005 7:25:34 PM
Phenanthrene	1.7	0.60		µg/L	1	11/29/2005 7:25:34 PM
Anthracene	ND	0.60		µg/L	1	11/29/2005 7:25:34 PM
Fluoranthene	ND	0.30		µg/L	1	11/29/2005 7:25:34 PM
Pyrene	ND	0.30		µg/L	1	11/29/2005 7:25:34 PM
Benz(a)anthracene	ND	0.020		µg/L	1	11/29/2005 7:25:34 PM
Chrysene	ND	0.20		µg/L	1	11/29/2005 7:25:34 PM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	11/29/2005 7:25:34 PM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	11/29/2005 7:25:34 PM
Benzo(a)pyrene	ND	0.020		µg/L	1	11/29/2005 7:25:34 PM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	11/29/2005 7:25:34 PM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	11/29/2005 7:25:34 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	11/29/2005 7:25:34 PM
Surr: Benzo(e)pyrene	73.7	54-102		%REC	1	11/29/2005 7:25:34 PM

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

# Hall Environmental Analysis Laboratory

Date: 01-Dec-05

CLIENT: San Juan Refining  
 Lab Order: 0511103  
 Project: River Terrace - 11/05  
 Lab ID: 0511103-02

Client Sample ID: MW #49  
 Collection Date: 11/9/2005 1:30:00 AM  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	1.4	1.0		mg/L	1	11/17/2005 11:19:39 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/17/2005 11:19:39 PM
Surr: DNOP	138	58-140		%REC	1	11/17/2005 11:19:39 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	0.60	0.050		mg/L	1	11/15/2005 12:14:48 AM
Surr: BFB	120	79.7-118	S	%REC	1	11/15/2005 12:14:48 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/15/2005 12:14:48 AM
Benzene	39	0.50		µg/L	1	11/15/2005 12:14:48 AM
Toluene	0.55	0.50		µg/L	1	11/15/2005 12:14:48 AM
Ethylbenzene	9.9	0.50		µg/L	1	11/15/2005 12:14:48 AM
Xylenes, Total	1.4	0.50		µg/L	1	11/15/2005 12:14:48 AM
Surr: 4-Bromofluorobenzene	109	82.2-119		%REC	1	11/15/2005 12:14:48 AM
<b>EPA METHOD 8310: PAHS</b>						Analyst: JMP
Naphthalene	12	2.5		µg/L	1	11/29/2005 9:01:34 PM
1-Methylnaphthalene	ND	2.5		µg/L	1	11/29/2005 9:01:34 PM
2-Methylnaphthalene	ND	2.5		µg/L	1	11/29/2005 9:01:34 PM
Acenaphthylene	ND	2.5		µg/L	1	11/29/2005 9:01:34 PM
Acenaphthene	ND	2.5		µg/L	1	11/29/2005 9:01:34 PM
Fluorene	ND	0.80		µg/L	1	11/29/2005 9:01:34 PM
Phenanthrene	ND	0.60		µg/L	1	11/29/2005 9:01:34 PM
Anthracene	ND	0.60		µg/L	1	11/29/2005 9:01:34 PM
Fluoranthene	ND	0.30		µg/L	1	11/29/2005 9:01:34 PM
Pyrene	ND	0.30		µg/L	1	11/29/2005 9:01:34 PM
Benz(a)anthracene	ND	0.020		µg/L	1	11/29/2005 9:01:34 PM
Chrysene	ND	0.20		µg/L	1	11/29/2005 9:01:34 PM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	11/29/2005 9:01:34 PM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	11/29/2005 9:01:34 PM
Benzo(a)pyrene	ND	0.020		µg/L	1	11/29/2005 9:01:34 PM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	11/29/2005 9:01:34 PM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	11/29/2005 9:01:34 PM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	11/29/2005 9:01:34 PM
Surr: Benzo(e)pyrene	83.6	54-102		%REC	1	11/29/2005 9:01:34 PM

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

# Hall Environmental Analysis Laboratory

Date: 01-Dec-05

CLIENT: San Juan Refining  
Lab Order: 0511103  
Project: River Terrace - 11/05  
Lab ID: 0511103-03

Client Sample ID: River Near MW #49  
Collection Date: 11/9/2005 10:45:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	11/15/2005 12:45:40 AM
Benzene	ND	0.50		µg/L	1	11/15/2005 12:45:40 AM
Toluene	ND	0.50		µg/L	1	11/15/2005 12:45:40 AM
Ethylbenzene	ND	0.50		µg/L	1	11/15/2005 12:45:40 AM
Xylenes, Total	ND	0.50		µg/L	1	11/15/2005 12:45:40 AM
Surr: 4-Bromofluorobenzene	99.9	82.2-119		%REC	1	11/15/2005 12:45:40 AM

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

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

Hall Environmental Analysis Laboratory

Date: 01-Dec-05

CLIENT: San Juan Refining  
 Work Order: 0511103  
 Project: River Terrace - 11/05

**QC SUMMARY REPORT**  
 Method Blank

Sample ID	MB-9211	Batch ID:	9211	Test Code:	SW8015	Units:	mg/L	Analysis Date	11/17/2005 8:38:48 PM	Prep Date	11/16/2005
Client ID:		Run ID:	FID(17A) 2_051116A	SeqNo:	423450						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1									
Motor Oil Range Organics (MRO)	ND	5									
Surr: DNOP	1.297	0	1	0	130	58	140	0			

Sample ID	Reagent Blank 5m	Batch ID:	R17290	Test Code:	SW8015	Units:	mg/L	Analysis Date	11/14/2005 7:37:31 AM	Prep Date	
Client ID:		Run ID:	PIDFID_051114B	SeqNo:	422264						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.05									
Surr: BFB	23.29	0	20	0	116	79.7	118	0			

Sample ID	Reagent Blank 5m	Batch ID:	R17290	Test Code:	SW8021	Units:	µg/L	Analysis Date	11/14/2005 7:37:31 AM	Prep Date	
Client ID:		Run ID:	PIDFID_051114B	SeqNo:	422075						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	21.77	0	20	0	109	82.2	119	0			

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

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CLIENT: San Juan Refining  
 Work Order: 0511103  
 Project: River Terrace - 11/05

**QC SUMMARY REPORT**  
 Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MB-9173	9173	SW8310	µg/L	11/29/2005 3:25:32 PM	11/11/2005						
Client ID:		Run ID:	HUGO_051128A	SeqNo:	426863						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	2.5									
1-Methylnaphthalene	ND	2.5									
2-Methylnaphthalene	ND	2.5									
Acenaphthylene	ND	2.5									
Acenaphthene	ND	2.5									
Fluorene	ND	0.8									
Phenanthrene	ND	0.6									
Anthracene	ND	0.6									
Fluoranthene	ND	0.3									
Pyrene	ND	0.3									
Benz(a)anthracene	ND	0.02									
Chrysene	ND	0.2									
Benzo(b)fluoranthene	ND	0.05									
Benzo(k)fluoranthene	ND	0.02									
Benzo(a)pyrene	ND	0.02									
Dibenz(a,h)anthracene	ND	0.04									
Benzo(g,h,i)perylene	ND	0.03									
Indeno(1,2,3-cd)pyrene	ND	0.08									
Surr: Benzo(e)pyrene	8.32	0	10	0	83.2	54	102	0			

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

Hall Environmental Analysis Laboratory

Date: 01-Dec-05

CLIENT: San Juan Refining  
 Work Order: 0511103  
 Project: River Terrace - 11/05

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
0511103-02a ms	R17290	SW8015	mg/L	11/15/2005 1:16:31 AM							
Client ID: MW #49		Run ID: PIDFID_051114B		SeqNo: 422300							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	1.079	0.05	0.5	0.5976	96.3	82.6	114	0			
Surr: BFB	28.82	0	25	0	115	79.7	118	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
0511103-02a msd	R17290	SW8015	mg/L	11/15/2005 1:47:34 AM							
Client ID: MW #49		Run ID: PIDFID_051114B		SeqNo: 422301							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	1.067	0.05	0.5	0.5976	93.8	82.6	114	1.079	1.14	8.39	
Surr: BFB	28.59	0	25	0	114	79.7	118	28.82	0.801	0	

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



Hall Environmental Analysis Laboratory

Date: 01-Dec-05

CLIENT: San Juan Refining  
 Work Order: 0511103  
 Project: River Terrace - 11/05

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

Sample ID	<b>LCS-9211</b>	Batch ID:	<b>9211</b>	Test Code:	<b>SW8015</b>	Units:	<b>mg/L</b>	Analysis Date	<b>11/17/2005 9:11:21 PM</b>	Prep Date	<b>11/16/2005</b>					
Client ID:		Run ID:	<b>FID(17A) 2_051116A</b>	SeqNo:	<b>423451</b>											
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		5.935		1		5		0		119	81.2	149	0			

Sample ID	<b>LCS-9211</b>	Batch ID:	<b>9211</b>	Test Code:	<b>SW8015</b>	Units:	<b>mg/L</b>	Analysis Date	<b>11/17/2005 9:42:12 PM</b>	Prep Date	<b>11/16/2005</b>					
Client ID:		Run ID:	<b>FID(17A) 2_051116A</b>	SeqNo:	<b>423452</b>											
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		5.612		1		5		0		112	81.2	149	5.935	5.61	23	

Sample ID	<b>GRO Ics 2.5ug</b>	Batch ID:	<b>R17290</b>	Test Code:	<b>SW8015</b>	Units:	<b>mg/L</b>	Analysis Date	<b>11/15/2005 2:49:19 AM</b>	Prep Date						
Client ID:		Run ID:	<b>PIDFID_051114B</b>	SeqNo:	<b>422285</b>											
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		0.545		0.05		0.5		0		109	82.6	114	0			

Sample ID	<b>BTEX Ics 100ng</b>	Batch ID:	<b>R17290</b>	Test Code:	<b>SW8021</b>	Units:	<b>µg/L</b>	Analysis Date	<b>11/14/2005 8:05:39 PM</b>	Prep Date						
Client ID:		Run ID:	<b>PIDFID_051114B</b>	SeqNo:	<b>422077</b>											
Analyte		Result		PQL		SPK value		SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)		41.32		2.5		40		0		103	64.5	133	0			
Benzene		20.91		0.5		20		0		105	88.5	114	0			
Toluene		18.83		0.5		20		0		94.2	87.2	114	0			
Ethylbenzene		19.49		0.5		20		0		97.5	88.6	113	0			
Xylenes, Total		57.38		0.5		60		0		95.6	83.3	114	0			

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

**CLIENT:** San Juan Refining  
**Work Order:** 0511103  
**Project:** River Terrace - 11/05

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

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
LCS-9173	9173	SW8310	µg/L	11/29/2005 4:13:31 PM	11/11/2005						
Client ID:	Run ID:	SeqNo:									
	HUGO_051128A	426866									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	21.35	2.5	40	0	53.4	34.8	97.4	0			
1-Methylnaphthalene	23.96	2.5	40.1	0	59.8	34.7	100	0			
2-Methylnaphthalene	23.61	2.5	40	0	59.0	35	98.1	0			
Acenaphthylene	26.96	2.5	40.1	0	67.2	48.3	95.1	0			
Acenaphthene	26.62	2.5	40	0	66.6	45	95	0			
Fluorene	2.81	0.8	4.01	0	70.1	46.8	93.4	0			
Phenanthrene	1.43	0.6	2.01	0	71.1	48.7	104	0			
Anthracene	1.46	0.6	2.01	0	72.6	47.5	102	0			
Fluoranthene	2.94	0.3	4.01	0	73.3	46.3	108	0			
Pyrene	2.74	0.3	4.01	0	68.3	43.8	109	0			
Benz(a)anthracene	0.29	0.02	0.401	0	72.3	40.3	115	0			
Chrysene	1.53	0.2	2.01	0	76.1	42.6	107	0			
Benzo(b)fluoranthene	0.35	0.05	0.501	0	69.9	48.6	107	0			
Benzo(k)fluoranthene	0.18	0.02	0.25	0	72.0	23.3	136	0			
Benzo(a)pyrene	0.18	0.02	0.251	0	71.7	33.4	117	0			
Dibenz(a,h)anthracene	0.39	0.04	0.501	0	77.8	27.3	139	0			
Benzo(g,h,i)perylene	0.41	0.03	0.5	0	82.0	38.2	117	0			
Indeno(1,2,3-cd)pyrene	0.779	0.08	1.002	0	77.7	39.9	125	0			

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



Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

11/10/2005

Work Order Number 0511103

Received by AT

Checklist completed by

Signature

Date

11/10/05

Matrix

Carrier name Greyhound

- 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?

4°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

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

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

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

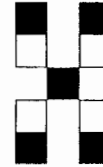
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Corrective Action \_\_\_\_\_

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# CHAIN-OF-CUSTODY RECORD

QA / QC Package:  
 Std  Level 4   
 Other: \_\_\_\_\_



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

Client: San Juan Refining  
 Address: #50 CR 4990  
Bloomfield, NM  
87413  
 Phone #: 505-632-4161  
 Fax #: 505-632-3911

Project Name: River Terrace - 11/05  
 Project #: \_\_\_\_\_  
 Project Manager: \_\_\_\_\_  
 Sampler: Cindy Huntado / Angela Folk  
 Sample Temperature: 4°

## ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.	BTEX + MTBE + THP's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PAH or PAH)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles or Headspace (Y or N)	
					HgCl <sub>2</sub>	HNO <sub>3</sub>															
11/09/05	1105A	H <sub>2</sub> O	MW#48	2-VOA	X		CS1103-1	X													
				2-VOA	X					X											
				1-liter			Arken							X							
11/09/05	130A	H <sub>2</sub> O	MW#49	2-VOA	X		-2	X													
				2-VOA	X					X											
				1-liter			Arken							X							
11/09/05	1045A	H <sub>2</sub> O	River Near MW#49	2-VOA	X		-3	X													

Date: 11/09/05 Time: 3pm  
 Relinquished By: (Signature) Cindy Huntado

Received By: (Signature) [Signature] 11/10/05 @ 1205  
 Received By: (Signature) \_\_\_\_\_

Remarks: \_\_\_\_\_

COVER LETTER

December 27, 2005

Cindy Hurtado  
San Juan Refining  
#50 CR 4990  
Bloomfield, NM 87413  
TEL: (505) 632-4161  
FAX (505) 632-3911

RE: River Terrace - 12/05

Order No.: 0512175

Dear Cindy Hurtado:


Hall Environmental Analysis Laboratory received 2 samples on 12/14/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

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

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

Sincerely,



Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager



# Hall Environmental Analysis Laboratory

Date: 27-Dec-05

CLIENT: San Juan Refining  
 Lab Order: 0512175  
 Project: River Terrace - 12/05  
 Lab ID: 0512175-01

Client Sample ID: MW #49  
 Collection Date: 12/13/2005 2:20:00 PM  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	1.1	1.0		mg/L	1	12/20/2005 2:40:01 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	12/20/2005 2:40:01 PM
Surr: DNOP	125	58-140		%REC	1	12/20/2005 2:40:01 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	0.46	0.050		mg/L	1	12/22/2005 4:02:52 PM
Surr: BFB	113	79.7-118		%REC	1	12/22/2005 4:02:52 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	12/22/2005 4:02:52 PM
Benzene	27	1.0		µg/L	1	12/22/2005 4:02:52 PM
Toluene	ND	1.0		µg/L	1	12/22/2005 4:02:52 PM
Ethylbenzene	8.5	1.0		µg/L	1	12/22/2005 4:02:52 PM
Xylenes, Total	ND	3.0		µg/L	1	12/22/2005 4:02:52 PM
Surr: 4-Bromofluorobenzene	110	82.2-119		%REC	1	12/22/2005 4:02:52 PM
<b>EPA METHOD 8310: PAHS</b>						Analyst: JMP
Naphthalene	8.9	2.5		µg/L	1	12/22/2005 1:09:29 AM
1-Methylnaphthalene	ND	2.5		µg/L	1	12/22/2005 1:09:29 AM
2-Methylnaphthalene	ND	2.5		µg/L	1	12/22/2005 1:09:29 AM
Acenaphthylene	ND	2.5		µg/L	1	12/22/2005 1:09:29 AM
Acenaphthene	ND	2.5		µg/L	1	12/22/2005 1:09:29 AM
Fluorene	ND	0.80		µg/L	1	12/22/2005 1:09:29 AM
Phenanthrene	ND	0.60		µg/L	1	12/22/2005 1:09:29 AM
Anthracene	ND	0.60		µg/L	1	12/22/2005 1:09:29 AM
Fluoranthene	ND	0.30		µg/L	1	12/22/2005 1:09:29 AM
Pyrene	ND	0.30		µg/L	1	12/22/2005 1:09:29 AM
Benz(a)anthracene	ND	0.020		µg/L	1	12/22/2005 1:09:29 AM
Chrysene	ND	0.20		µg/L	1	12/22/2005 1:09:29 AM
Benzo(b)fluoranthene	ND	0.050		µg/L	1	12/22/2005 1:09:29 AM
Benzo(k)fluoranthene	ND	0.020		µg/L	1	12/22/2005 1:09:29 AM
Benzo(a)pyrene	ND	0.020		µg/L	1	12/22/2005 1:09:29 AM
Dibenz(a,h)anthracene	ND	0.040		µg/L	1	12/22/2005 1:09:29 AM
Benzo(g,h,i)perylene	ND	0.030		µg/L	1	12/22/2005 1:09:29 AM
Indeno(1,2,3-cd)pyrene	ND	0.080		µg/L	1	12/22/2005 1:09:29 AM
Surr: Benzo(e)pyrene	66.8	54-102		%REC	1	12/22/2005 1:09:29 AM

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

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

**Hall Environmental Analysis Laboratory**

Date: 27-Dec-05

CLIENT: San Juan Refining  
 Lab Order: 0512175  
 Project: River Terrace - 12/05  
 Lab ID: 0512175-02

Client Sample ID: River Near MW #49  
 Collection Date: 12/13/2005 2:30:00 PM

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	12/22/2005 1:32:07 PM
Benzene	ND	1.0		µg/L	1	12/22/2005 1:32:07 PM
Toluene	ND	1.0		µg/L	1	12/22/2005 1:32:07 PM
Ethylbenzene	ND	1.0		µg/L	1	12/22/2005 1:32:07 PM
Xylenes, Total	ND	3.0		µg/L	1	12/22/2005 1:32:07 PM
Surr: 4-Bromofluorobenzene	98.7	82.2-119		%REC	1	12/22/2005 1:32:07 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: 27-Dec-05

CLIENT: San Juan Refining  
 Work Order: 0512175  
 Project: River Terrace - 12/05

QC SUMMARY REPORT  
 Method Blank

Sample ID: MB-9435	Batch ID: 9435	Test Code: SW8015	Units: mg/L	Analysis Date: 12/20/2005 1:01:49 PM	Prep Date: 12/20/2005						
Client ID:		Run ID: FID(17A) 2_051219A		SeqNo: 434124							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1									
Motor Oil Range Organics (MRO)	ND	5									
Surr: DNOP	1.202	0	1	0	120	58	140	0			

Sample ID: Reagent Blank 5m	Batch ID: R17704	Test Code: SW8015	Units: mg/L	Analysis Date: 12/22/2005 9:00:09 AM	Prep Date:						
Client ID:		Run ID: PIDFID_051222A		SeqNo: 435099							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.05									
Surr: BFB	21.79	0	20	0	109	79.7	118	0			

Sample ID: Reagent Blank 5m	Batch ID: R17704	Test Code: SW8021	Units: µg/L	Analysis Date: 12/22/2005 9:00:09 AM	Prep Date:						
Client ID:		Run ID: PIDFID_051222A		SeqNo: 435104							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	1									
Toluene	ND	1									
Ethylbenzene	ND	1									
Xylenes, Total	ND	3									
Surr: 4-Bromofluorobenzene	20.79	0	20	0	104	82.2	119	0			

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

CLIENT: San Juan Refining  
 Work Order: 0512175  
 Project: River Terrace - 12/05

QC SUMMARY REPORT  
 Method Blank

Sample ID: MB-9419	Batch ID: 9419	Test Code: SW8310	Units: µg/L	Analysis Date: 12/21/2005 7:33:25 PM	Prep Date: 12/16/2005						
Client ID:	Run ID: HUGO_051221A	SeqNo: 434880									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	2.5									
1-Methylnaphthalene	ND	2.5									
2-Methylnaphthalene	ND	2.5									
Acenaphthylene	ND	2.5									
Acenaphthene	ND	2.5									
Fluorene	ND	0.8									
Phenanthrene	ND	0.6									
Anthracene	ND	0.6									
Fluoranthene	ND	0.3									
Pyrene	ND	0.3									
Benzo(a)anthracene	ND	0.02									
Chrysene	ND	0.2									
Benzo(b)fluoranthene	ND	0.05									
Benzo(k)fluoranthene	ND	0.02									
Benzo(a)pyrene	ND	0.02									
Dibenz(a,h)anthracene	ND	0.04									
Benzo(g,h,i)perylene	ND	0.03									
Indeno(1,2,3-cd)pyrene	ND	0.08									
Surr: Benzo(e)pyrene	7.13	0	10	0	71.3	54	102	0			

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

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

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 27-Dec-05

CLIENT: San Juan Refining  
 Work Order: 0512175  
 Project: River Terrace - 12/05

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0512175-02a ms	Batch ID: R17704	Test Code: SW8021	Units: µg/L	Analysis Date: 12/22/2005 2:02:09 PM	Prep Date:						
Client ID: River Near MW #4	Run ID: PIDFID_051222A	SeqNo: 435113									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19.93	2.5	20	0	99.7	64.5	133	0			
Benzene	18.65	1	20	0	93.2	88.5	114	0			
Toluene	18.97	1	20	0	94.9	87.2	114	0			
Ethylbenzene	19.35	1	20	0	96.8	88.6	113	0			
Xylenes, Total	39.12	3	40	0	97.8	83.3	114	0			
Surr: 4-Bromofluorobenzene	21.37	0	20	0	107	82.2	119	0			

Sample ID: 0512175-02a msd	Batch ID: R17704	Test Code: SW8021	Units: µg/L	Analysis Date: 12/22/2005 3:32:42 PM	Prep Date:						
Client ID: River Near MW #4	Run ID: PIDFID_051222A	SeqNo: 435114									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	19.32	2.5	20	0	96.6	64.5	133	19.93	3.11	28	
Benzene	18.48	1	20	0	92.4	88.5	114	18.65	0.897	27	
Toluene	19.03	1	20	0	95.1	87.2	114	18.97	0.291	19	
Ethylbenzene	19.64	1	20	0	98.2	88.6	113	19.35	1.49	10	
Xylenes, Total	39.33	3	40	0	98.3	83.3	114	39.12	0.540	13	
Surr: 4-Bromofluorobenzene	21.64	0	20	0	108	82.2	119	21.37	1.23	0	

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

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

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 27-Dec-05

CLIENT: San Juan Refining  
 Work Order: 0512175  
 Project: River Terrace - 12/05

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

Sample ID: LCS-9435	Batch ID: 9435	Test Code: SW8015	Units: mg/L	Analysis Date: 12/20/2005 1:34:36 PM	Prep Date: 12/20/2005						
Client ID:		Run ID: FID(17A) 2_051219A		SeqNo: 434125							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.334	1	5	0	127	81.2	149	0			

Sample ID: LCSD-9435	Batch ID: 9435	Test Code: SW8015	Units: mg/L	Analysis Date: 12/20/2005 2:07:19 PM	Prep Date: 12/20/2005						
Client ID:		Run ID: FID(17A) 2_051219A		SeqNo: 434161							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.393	1	5	0	128	81.2	149	6.334	0.915	23	

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Sample ID: GRO Ics 2.5ug	Batch ID: R17704	Test Code: SW8015	Units: mg/L	Analysis Date: 12/22/2005 10:30:33 A	Prep Date:						
Client ID:		Run ID: PIDFID_051222A		SeqNo: 435100							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.5288	0.05	0.5	0	106	82.6	114	0			

Sample ID: GRO Icsd 2.5ug	Batch ID: R17704	Test Code: SW8015	Units: mg/L	Analysis Date: 12/22/2005 11:00:45 A	Prep Date:						
Client ID:		Run ID: PIDFID_051222A		SeqNo: 435101							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.5524	0.05	0.5	0	110	82.6	114	0.5288	4.37	8.39	

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

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

B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining  
 Work Order: 0512175  
 Project: River Terrace - 12/05

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

Sample ID: BTEX lcs 100ng	Batch ID: R17704	Test Code: SW8021	Units: µg/L	Analysis Date: 12/22/2005 11:30:58 A	Prep Date:						
Client ID:	Run ID: PIDFID_051222A	SeqNo: 435105									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	22.01	2.5	20	0	110	64.5	133	0			
Benzene	19.71	1	20	0	98.5	88.5	114	0			
Toluene	19.68	1	20	0	98.4	87.2	114	0			
Ethylbenzene	20.63	1	20	0	103	88.6	113	0			
Xylenes, Total	40.68	3	40	0	102	83.3	114	0			

Sample ID: LCS-9419	Batch ID: 9419	Test Code: SW8310	Units: µg/L	Analysis Date: 12/21/2005 8:21:25 PM	Prep Date: 12/16/2005						
Client ID:	Run ID: HUGO_051221A	SeqNo: 434892									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	24.36	2.5	40	0	60.9	34.8	97.4	0			
1-Methylnaphthalene	25.34	2.5	40.1	0	63.2	34.7	100	0			
2-Methylnaphthalene	25.12	2.5	40	0	62.8	35	98.1	0			
Acenaphthylene	27.19	2.5	40.1	0	67.8	48.3	95.1	0			
Acenaphthene	27.1	2.5	40	0	67.8	45	95	0			
Fluorene	2.84	0.8	4.01	0	70.8	46.8	93.4	0			
Phenanthrene	1.52	0.6	2.01	0	75.6	48.7	104	0			
Anthracene	1.54	0.6	2.01	0	76.6	47.5	102	0			
Fluoranthene	2.92	0.3	4.01	0	72.8	46.3	108	0			
Pyrene	2.87	0.3	4.01	0	71.6	43.8	109	0			
Benz(a)anthracene	0.28	0.02	0.401	0	69.8	40.3	115	0			
Chrysene	1.38	0.2	2.01	0	68.7	42.6	107	0			
Benzo(b)fluoranthene	0.31	0.05	0.501	0	61.9	48.6	107	0			
Benzo(k)fluoranthene	0.18	0.02	0.25	0	72.0	23.3	136	0			
Benzo(a)pyrene	0.19	0.02	0.251	0	75.7	33.4	117	0			
Dibenz(a,h)anthracene	0.39	0.04	0.501	0	77.8	27.3	139	0			
Benzo(g,h,i)perylene	0.36	0.03	0.5	0	72.0	38.2	117	0			
Indeno(1,2,3-cd)pyrene	0.87	0.08	1.002	0	86.8	39.9	125	0			

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

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

B - Analyte detected in the associated Method Blank

CLIENT: San Juan Refining  
 Work Order: 0512175  
 Project: River Terrace - 12/05

**QC SUMMARY REPORT**  
 Laboratory Control Spike Duplicate

Sample ID: LCSD-9419	Batch ID: 9419	Test Code: SW8310	Units: µg/L	Analysis Date: 12/21/2005 9:09:26 PM	Prep Date: 12/16/2005						
Client ID:	Run ID: HUGO_051221A	SeqNo: 434893									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	21.93	2.5	40	0	54.8	34.8	97.4	24.36	10.5	32.1	
1-Methylnaphthalene	23.41	2.5	40.1	0	58.4	34.7	100	25.34	7.92	32.7	
2-Methylnaphthalene	22.96	2.5	40	0	57.4	35	98.1	25.12	8.99	34	
Acenaphthylene	25.89	2.5	40.1	0	64.6	48.3	95.1	27.19	4.90	38.8	
Acenaphthene	25.9	2.5	40	0	64.8	45	95	27.1	4.53	38.6	
Fluorene	2.81	0.8	4.01	0	70.1	46.8	93.4	2.84	1.06	39.3	
Phenanthrene	1.59	0.6	2.01	0	79.1	48.7	104	1.52	4.50	25	
Anthracene	1.63	0.6	2.01	0	81.1	47.5	102	1.54	5.68	23.9	
Fluoranthene	3.18	0.3	4.01	0	79.3	46.3	108	2.92	8.52	15.7	
Pyrene	3.18	0.3	4.01	0	79.3	43.8	109	2.87	10.2	15.3	
Benz(a)anthracene	0.31	0.02	0.401	0	77.3	40.3	115	0.28	10.2	119	
Chrysene	1.44	0.2	2.01	0	71.6	42.6	107	1.38	4.26	16.6	
Benzo(b)fluoranthene	0.38	0.05	0.501	0	75.8	48.6	107	0.31	20.3	21.7	
Benzo(k)fluoranthene	0.2	0.02	0.25	0	80.0	23.3	136	0.18	10.5	19.4	
Benzo(a)pyrene	0.21	0.02	0.251	0	83.7	33.4	117	0.19	10.0	16.7	
Dibenz(a,h)anthracene	0.42	0.04	0.501	0	83.8	27.3	139	0.39	7.41	17.3	
Benzo(g,h,i)perylene	0.38	0.03	0.5	0	76.0	38.2	117	0.36	5.41	118	
Indeno(1,2,3-cd)pyrene	0.91	0.08	1.002	0	90.8	39.9	125	0.87	4.49	17.7	

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

12/14/2005

Work Order Number 0512175

Received by AT

Checklist completed by

*[Handwritten Signature]*  
Signature

*12/14/05*  
Date

Matrix

Carrier name UPS

- 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? 3° 4° C ± 2 Acceptable  
If given sufficient time to cool.

COMMENTS:

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

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

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

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

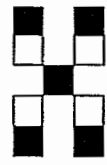
# CHAIN-OF-CUSTODY RECORD

Client: SAN Juan Refining  
 Address: #50CR4990  
Bloomfield, NM  
87413  
 Phone #: 505-632-4161  
 Fax #: 505-632-3911

Project Name: River Terrace - 12/05  
 Project #: \_\_\_\_\_  
 Project Manager: \_\_\_\_\_  
 Sampler: Cindy Hurtado / Angela Folk  
 Sample Temperature: 3

QA / GC Package:  
 Std  Level 4

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



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

## ANALYSIS REQUEST

BTEX + MTBE + PAH's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 PAH	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles or Headspace (Y or N)
X		X										
						X						
							X					
X												

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.
					HgCl <sub>2</sub>	HNO <sub>3</sub>	
12/13/05	2:00p	H <sub>2</sub> O	MW #49	2-VOA	X		0512175
				2-VOA	X		-1
				1-liter		Amber	-1
12/13/05	2:30p	H <sub>2</sub> O	River Near MW #49	2-VOA	X		-2
<del>12/12/05</del>	<del>2:30p</del>	<del>H<sub>2</sub>O</del>	<del>_____</del>				

Relinquished By: (Signature) Cindy Hurtado  
 Date: 12/13/05 Time: 3pm  
 Received By: (Signature) [Signature]  
 Date: 12/14/05 Time: 1225

Remarks:



COVER LETTER

December 15, 2005

Cindy Hurtado  
San Juan Refining  
#50 CR 4990  
Bloomfield, NM 87413  
TEL: (505) 632-4161  
FAX (505) 632-3911

RE: TK #33 Effluent - 12/05

Order No.: 0512076

Dear Cindy Hurtado:

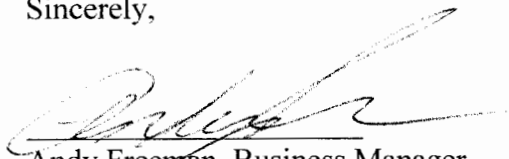
Hall Environmental Analysis Laboratory received 2 samples on 12/6/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

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

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

Sincerely,

  
Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager



# Hall Environmental Analysis Laboratory

Date: 15-Dec-05

**CLIENT:** San Juan Refining  
**Project:** TK #33 Effluent - 12/05

**Lab Order:** 0512076

**Lab ID:** 0512076-01 **Collection Date:** 12/5/2005 11:00:00 AM  
**Client Sample ID:** TK #33 Effluent **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.50		µg/L	1	12/14/2005 10:55:19 PM
Toluene	ND	0.50		µg/L	1	12/14/2005 10:55:19 PM
Ethylbenzene	ND	0.50		µg/L	1	12/14/2005 10:55:19 PM
Xylenes, Total	ND	0.50		µg/L	1	12/14/2005 10:55:19 PM
Surr: 4-Bromofluorobenzene	104	82.2-119		%REC	1	12/14/2005 10:55:19 PM

**Lab ID:** 0512076-02 **Collection Date:** 12/5/2005 11:10:00 AM  
**Client Sample ID:** Fresh Water Pond **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.50		µg/L	1	12/14/2005 11:25:37 PM
Toluene	ND	0.50		µg/L	1	12/14/2005 11:25:37 PM
Ethylbenzene	ND	0.50		µg/L	1	12/14/2005 11:25:37 PM
Xylenes, Total	ND	0.50		µg/L	1	12/14/2005 11:25:37 PM
Surr: 4-Bromofluorobenzene	99.7	82.2-119		%REC	1	12/14/2005 11:25:37 PM

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

Hall Environmental Analysis Laboratory

Date: 15-Dec-05

CLIENT: San Juan Refining  
 Work Order: 0512076  
 Project: TK #33 Effluent - 12/05

**QC SUMMARY REPORT**  
 Method Blank

Sample ID: <b>Reagent Blank 5m</b>	Batch ID: <b>R17607</b>	Test Code: <b>SW8021</b>	Units: <b>µg/L</b>	Analysis Date: <b>12/14/2005 9:37:13 AM</b>	Prep Date:						
Client ID:	Run ID: <b>PIDFID_051214A</b>	SeqNo: <b>432140</b>									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	21.29	0	20	0	106	82.2	119	0			

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

Hall Environmental Analysis Laboratory

Date: 15-Dec-05

CLIENT: San Juan Refining  
 Work Order: 0512076  
 Project: TK #33 Effluent - 12/05

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

Sample ID: BTEX lcs 100ng	Batch ID: R17607	Test Code: SW8021	Units: µg/L	Analysis Date: 12/14/2005 12:11:05 P	Prep Date:						
Client ID:	Run ID: PIDFID_051214A	SeqNo: 432141									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.14	0.5	20	0	95.7	88.5	114	0			
Toluene	19.4	0.5	20	0	97.0	87.2	114	0			
Ethylbenzene	20.12	0.5	20	0	101	88.6	113	0			
Xylenes, Total	40.25	0.5	40	0	101	83.3	114	0			

3 / 4

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

12/6/2005

Work Order Number 0512076

Received by GLS

Checklist completed by

*[Handwritten Signature]*  
Signature

12/6/05  
Date

Matrix

Carrier name UPS

- 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? Yes  No VOA vials submitted  Yes  No
- Water - pH acceptable upon receipt? Yes  No  N/A
- Container/Temp Blank temperature? **2°** *4° C ± 2 Acceptable*  
If given sufficient time to cool.

COMMENTS:

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

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

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

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

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