

GW - 1

**MONITORING
REPORTS**

DATE:

2004

Section 18.0 Chemical Analytical Reports

<u>Title</u>	<u>Tab Number</u>
First Half 2004 Semi-Annual Monitoring Wells	1
Fuel Fingerprinting.....	2
2004 Annual Monitoring Wells.....	3
River Sampling and Analysis.....	4
River Terrace – Temporary Piezometers.....	5
Monitoring Well #48.....	6
Monitoring Well #49.....	7

COVER LETTER

March 12, 2004

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

RE: 1st Half 2004 Semi-Annual Monitor Wells

Order No.: 0403060

Dear Cindy Hurtado:

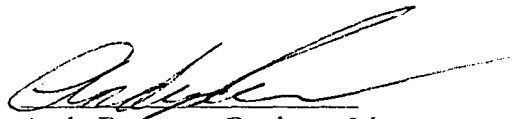
Hall Environmental Analysis Laboratory received 9 samples on 3/5/2004 for the analyses presented in the following report.

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: 12-Mar-04

CLIENT: San Juan Refining
Project: 1st Half 2004 Semi-Annual Monitor Wells

Lab Order: 0403060

Lab ID: 0403060-01 **Collection Date:** 3/4/2004 8:00:00 AM
Client Sample ID: MW #20 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	95000	2500		µg/L	1000	3/10/2004 7:04:03 PM
Benzene	21000	100		µg/L	200	3/9/2004 7:43:04 PM
Toluene	1200	100		µg/L	200	3/9/2004 7:43:04 PM
Ethylbenzene	100	100		µg/L	200	3/9/2004 7:43:04 PM
Xylenes, Total	500	100		µg/L	200	3/9/2004 7:43:04 PM
Surr: 4-Bromofluorobenzene	101	74-118		%REC	200	3/9/2004 7:43:04 PM

Lab ID: 0403060-02 **Collection Date:** 3/4/2004 8:20:00 AM
Client Sample ID: P-#6 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	26000	500		µg/L	200	3/9/2004 8:13:19 PM
Benzene	13000	100		µg/L	200	3/9/2004 8:13:19 PM
Toluene	620	100		µg/L	200	3/9/2004 8:13:19 PM
Ethylbenzene	9100	100		µg/L	200	3/9/2004 8:13:19 PM
Xylenes, Total	31000	100		µg/L	200	3/9/2004 8:13:19 PM
Surr: 4-Bromofluorobenzene	132	74-118	S	%REC	200	3/9/2004 8:13:19 PM

Lab ID: 0403060-03 **Collection Date:** 3/4/2004 9:10:00 AM
Client Sample ID: P-#4 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	3/9/2004 9:44:03 PM
Benzene	4500	50		µg/L	100	3/9/2004 9:44:03 PM
Toluene	300	50		µg/L	100	3/9/2004 9:44:03 PM
Ethylbenzene	3600	50		µg/L	100	3/9/2004 9:44:03 PM
Xylenes, Total	15000	50		µg/L	100	3/9/2004 9:44:03 PM
Surr: 4-Bromofluorobenzene	106	74-118		%REC	100	3/9/2004 9:44:03 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: 12-Mar-04

CLIENT: San Juan Refining
Project: 1st Half 2004 Semi-Annual Monitor Wells

Lab Order: 0403060

Lab ID: 0403060-07

Collection Date: 3/3/2004 10:30:00 AM

Client Sample ID: MW #45

Matrix: PRODUCT

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8021B: VOLATILES

Analyst: NSB

Methyl tert-butyl ether (MTBE)	ND	4300		mg/Kg	800	3/10/2004 9:34:57 PM
Benzene	1000	860		mg/Kg	800	3/10/2004 9:34:57 PM
Toluene	ND	860		mg/Kg	800	3/10/2004 9:34:57 PM
Ethylbenzene	7500	860		mg/Kg	800	3/10/2004 9:34:57 PM
Xylenes, Total	28000	860		mg/Kg	800	3/10/2004 9:34:57 PM
Surr: 4-Bromofluorobenzene	108	74-118		%REC	800	3/10/2004 9:34:57 PM

Lab ID: 0403060-08

Collection Date: 3/3/2004 9:30:00 AM

Client Sample ID: MW #13

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8021B: VOLATILES

Analyst: NSB

Methyl tert-butyl ether (MTBE)	20	2.5		µg/L	1	3/10/2004 2:00:32 PM
Benzene	ND	0.50		µg/L	1	3/10/2004 2:00:32 PM
Toluene	ND	0.50		µg/L	1	3/10/2004 2:00:32 PM
Ethylbenzene	ND	0.50		µg/L	1	3/10/2004 2:00:32 PM
Xylenes, Total	ND	0.50		µg/L	1	3/10/2004 2:00:32 PM
Surr: 4-Bromofluorobenzene	100	74-118		%REC	1	3/10/2004 2:00:32 PM

Lab ID: 0403060-09

Collection Date: 3/3/2004 11:10:00 AM

Client Sample ID: MW #47

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8021B: VOLATILES

Analyst: NSB

Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	3/10/2004 1:15:03 AM
Benzene	560	50		µg/L	100	3/10/2004 1:15:03 AM
Toluene	ND	50		µg/L	100	3/10/2004 1:15:03 AM
Ethylbenzene	900	50		µg/L	100	3/10/2004 1:15:03 AM
Xylenes, Total	7900	50		µg/L	100	3/10/2004 1:15:03 AM
Surr: 4-Bromofluorobenzene	103	74-118		%REC	100	3/10/2004 1:15:03 AM

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

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

Hall Environmental Analysis Laboratory

Date: 12-Mar-04

CLIENT: San Juan Refining
Work Order: 0403060
Project: 1st Half 2004 Semi-Annual Monitor Wells

QC SUMMARY REPORT

Method Blank

Sample ID	MB-5353	Batch ID:	5353	Test Code:	SW8021	Units:	mg/Kg	Analysis Date	3/10/2004 9:04:50 PM	Prep Date	3/8/2004
Client ID:		Run ID:	PIDFID_040310A	SeqNo:	258002						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	6.3									
Benzene	ND	1.3									
Toluene	ND	1.3									
Ethylbenzene	ND	1.3									
Xylenes, Total	ND	1.3									
Surr: 4-Bromofluorobenzene	49.84	0	50	0	99.7	74	118	0			

Sample ID	Reagent Blank 5m	Batch ID:	R11247	Test Code:	SW8021	Units:	µg/L	Analysis Date	3/9/2004 8:36:01 AM	Prep Date	
Client ID:		Run ID:	PIDFID_040309A	SeqNo:	257587						
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	0.50									
Toluene	ND	0.50									
Ethylbenzene	ND	0.50									
Xylenes, Total	ND	0.50									
Surr: 4-Bromofluorobenzene	19.47	0	20	0	97.4	74	118	0			

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

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
 Work Order: 0403060
 Project: 1st Half 2004 Semi-Annual Monitor Wells

Sample ID	Reagent Blank 5m	Batch ID: R11259	Test Code: SW8021	Units: µg/L	Analysis Date 3/10/2004 9:55:35 AM	Prep Date
Client ID:	Run ID: PIDFID_040310A	PQL	SPK value	SPK Ref Val	SeqNo: 257853	
Analyte	Result	%REC	LowLimit	HighLimit	RPD Ref Val	RPDLimit Qual
Methyl tert-butyl ether (MTBE)	ND	2.5				
Benzene	ND	0.50				
Toluene	ND	0.50				
Ethylbenzene	ND	0.50				
Xylenes, Total	ND	0.50				
Surr: 4-Bromofluorobenzene	20.44	0	20	0	102	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: 12-Mar-04

CLIENT: San Juan Refining
Work Order: 0403060
Project: 1st Half 2004 Semi-Annual Monitor Wells

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0403060-05aMSD	Batch ID:	R11247	Test Code:	SW8021	Units:	µg/L	Analysis Date	3/9/2004 11:14:35 PM	Prep Date	
Client ID:	Outfall #2	Run ID:	PIDFID_040309A	SeqNo:	257740						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	39.99	2.5	40	0	100	65	132	0			
Benzene	20.68	0.50	20	0	103	77	122	0			
Toluene	20.28	0.50	20	0	101	81	115	0			
Ethylbenzene	19.88	0.50	20	0	99.4	84	117	0			
Xylenes, Total	59.89	0.50	60	0.2246	99.4	84	116	0			

Sample ID	0403060-05aMSD	Batch ID:	R11247	Test Code:	SW8021	Units:	µg/L	Analysis Date	3/9/2004 11:44:43 PM	Prep Date	
Client ID:	Outfall #2	Run ID:	PIDFID_040309A	SeqNo:	257743						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	39.97	2.5	40	0	99.9	65	132	39.99	0.0495	28	
Benzene	20.68	0.50	20	0	103	77	122	20.68	0.00290	27	
Toluene	19.88	0.50	20	0	99.4	81	115	20.28	1.97	19	
Ethylbenzene	19.63	0.50	20	0	98.2	84	117	19.88	1.24	10	
Xylenes, Total	58.26	0.50	60	0.2246	96.7	84	116	59.89	2.76	13	

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: 12-Mar-04

QC SUMMARY REPORT
Laboratory Control Spike - generic

CLIENT: San Juan Refining
Work Order: 0403060
Project: 1st Half 2004 Semi-Annual Monitor Wells

Sample ID BTEX STD 100ng Batch ID: 5353 Test Code: SW8021 Units: mg/Kg Analysis Date 3/10/2004 11:35:13 PM Prep Date
Client ID: PIDFID_040310A Run ID: PIDFID_040310A SeqNo: 258006

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	94.68	6.3	100	0	94.7	65	132	0			
Benzene	50.74	1.3	50	0	101	77	122	0			
Toluene	49.66	1.3	50	0	99.3	81	115	0			
Ethylbenzene	49.23	1.3	50	0	98.5	84	117	0			
Xylenes, Total	147.5	1.3	150	0	98.3	84	116	0			

Sample ID BTEX STD 100ng Batch ID: R11247 Test Code: SW8021 Units: µg/L Analysis Date 3/9/2004 7:12:46 PM Prep Date
Client ID: PIDFID_040309A Run ID: PIDFID_040309A SeqNo: 257604

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	45.29	2.5	40	0	113	54.9	142	0			
Benzene	20.48	0.50	20	0	102	81.3	121	0			
Toluene	20.1	0.50	20	0	100	84.9	118	0			
Ethylbenzene	19.67	0.50	20	0	98.4	53.8	149	0			
Xylenes, Total	58.7	0.50	60	0	97.8	83.1	122	0			

Sample ID BTEX STD 100ng Batch ID: R11259 Test Code: SW8021 Units: µg/L Analysis Date 3/10/2004 8:34:41 PM Prep Date
Client ID: PIDFID_040310A Run ID: PIDFID_040310A SeqNo: 258001

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	43.96	2.5	40	0	110	54.9	142	0			
Benzene	21.17	0.50	20	0	106	81.3	121	0			
Toluene	21.12	0.50	20	0	106	84.9	118	0			
Ethylbenzene	20.74	0.50	20	0	104	53.8	149	0			
Xylenes, Total	64.09	0.50	60	0	107	83.1	122	0			

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

3/5/2004

Work Order Number 0403060

Received by AT

Checklist completed by

[Handwritten Signature]
Signature

3/5/04
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?

6°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

CHAIN-OF-CUSTODY RECORD

Client: SAN Juan Refining
 Project Name: 3rd Half 2004
Semi-Annual Monitor Wells
 Address: #50 CR 4990
Blomfield, NM
87413
 Project Manager:
 Sampler: Cindy Hurtado
 Phone #: 505-632-4161
 Fax #: 505-632-3911

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.
					HCl	H2O2	
3/04/04	8AM	H2O	MW #20	2-VOA			0403000-1
	8:30AM		P-#6	7			-2
	9:10AM		P-#4				-3
	9:30AM		P-#5				-4
	9:45AM		Outfall #2				-5
	10AM		Outfall #3				-6

Date: 3/04/04 Time: 10:30AM
 Relinquished By: (Signature) Cindy Hurtado
 Received By: (Signature) Cindy Hurtado 3/5/04
 Date: 3/5/04 Time: 1:50
 Relinquished By: (Signature)
 Received By: (Signature)

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 (Gasoline Only)	BTEX + MTBE (TMS (8021))	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, NO3, NO2, PO4, SO4)	8081 Pesticides / PCBs (8082)	8260 (VOA)	8270 (Semi-VOA)	Air Bubbles or Headspace (Y or N)
X	X													
X	X													
X	X													
X	X													
X	X													

Remarks:

COVER LETTER

March 12, 2004

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

RE: 1st Half 2004 Semi-Annual Monitor Wells

Order No.: 0403040

Dear Cindy Hurtado:


Hall Environmental Analysis Laboratory received 7 samples on 3/3/2004 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: 12-Mar-04

CLIENT: San Juan Refining
Project: 1st Half 2004 Semi-Annual Monitor Wells

Lab Order: 0403040

Lab ID: 0403040-01 **Collection Date:** 3/2/2004 1:40:00 PM
Client Sample ID: MW#1 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8021B: VOLATILES

Analyst: NSB

Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/8/2004 7:03:05 PM
Benzene	ND	0.50		µg/L	1	3/8/2004 7:03:05 PM
Toluene	ND	0.50		µg/L	1	3/8/2004 7:03:05 PM
Ethylbenzene	ND	0.50		µg/L	1	3/8/2004 7:03:05 PM
Xylenes, Total	ND	0.50		µg/L	1	3/8/2004 7:03:05 PM
Surr: 4-Bromofluorobenzene	103	74-118		%REC	1	3/8/2004 7:03:05 PM

Lab ID: 0403040-02 **Collection Date:** 3/2/2004 1:15:00 PM
Client Sample ID: MW#12 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8021B: VOLATILES

Analyst: NSB

Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/8/2004 7:33:22 PM
Benzene	ND	0.50		µg/L	1	3/8/2004 7:33:22 PM
Toluene	ND	0.50		µg/L	1	3/8/2004 7:33:22 PM
Ethylbenzene	ND	0.50		µg/L	1	3/8/2004 7:33:22 PM
Xylenes, Total	ND	0.50		µg/L	1	3/8/2004 7:33:22 PM
Surr: 4-Bromofluorobenzene	103	74-118		%REC	1	3/8/2004 7:33:22 PM

Lab ID: 0403040-03 **Collection Date:** 3/2/2004 8:40:00 AM
Client Sample ID: MW#32 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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EPA METHOD 8021B: VOLATILES

Analyst: NSB

Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/8/2004 8:03:33 PM
Benzene	ND	0.50		µg/L	1	3/8/2004 8:03:33 PM
Toluene	ND	0.50		µg/L	1	3/8/2004 8:03:33 PM
Ethylbenzene	ND	0.50		µg/L	1	3/8/2004 8:03:33 PM
Xylenes, Total	ND	0.50		µg/L	1	3/8/2004 8:03:33 PM
Surr: 4-Bromofluorobenzene	104	74-118		%REC	1	3/8/2004 8:03:33 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: 12-Mar-04

CLIENT: San Juan Refining
 Project: 1st Half 2004 Semi-Annual Monitor Wells

Lab Order: 0403040

Lab ID: 0403040-04

Collection Date: 3/2/2004 9:15:00 AM

Client Sample ID: MW#33

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	3/8/2004 9:33:58 PM
Benzene	ND	0.50		µg/L	1	3/8/2004 9:33:58 PM
Toluene	ND	0.50		µg/L	1	3/8/2004 9:33:58 PM
Ethylbenzene	ND	0.50		µg/L	1	3/8/2004 9:33:58 PM
Xylenes, Total	ND	0.50		µg/L	1	3/8/2004 9:33:58 PM
Surr: 4-Bromofluorobenzene	101	74-118		%REC	1	3/8/2004 9:33:58 PM

Lab ID: 0403040-05

Collection Date: 3/2/2004 10:45:00 AM

Client Sample ID: MW#35

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	11	2.5		µg/L	1	3/9/2004 10:36:36 AM
Benzene	0.59	0.50		µg/L	1	3/9/2004 10:36:36 AM
Toluene	ND	0.50		µg/L	1	3/9/2004 10:36:36 AM
Ethylbenzene	ND	0.50		µg/L	1	3/9/2004 10:36:36 AM
Xylenes, Total	3.3	0.50		µg/L	1	3/9/2004 10:36:36 AM
Surr: 4-Bromofluorobenzene	101	74-118		%REC	1	3/9/2004 10:36:36 AM

Lab ID: 0403040-06

Collection Date: 3/2/2004 11:00:00 AM

Client Sample ID: MW#37

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	3.8	2.5		µg/L	1	3/8/2004 10:33:58 PM
Benzene	ND	0.50		µg/L	1	3/8/2004 10:33:58 PM
Toluene	ND	0.50		µg/L	1	3/8/2004 10:33:58 PM
Ethylbenzene	ND	0.50		µg/L	1	3/8/2004 10:33:58 PM
Xylenes, Total	0.59	0.50		µg/L	1	3/8/2004 10:33:58 PM
Surr: 4-Bromofluorobenzene	102	74-118		%REC	1	3/8/2004 10:33:58 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

Hall Environmental Analysis Laboratory

Date: 12-Mar-04

CLIENT: San Juan Refining
 Project: 1st Half 2004 Semi-Annual Monitor Wells

Lab Order: 0403040

Lab ID: 0403040-07

Collection Date: 3/2/2004 12:35:00 PM

Client Sample ID: MW#38

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						
Methyl tert-butyl ether (MTBE)	15	2.5		µg/L	1	3/8/2004 11:04:01 PM
Benzene	ND	0.50		µg/L	1	3/8/2004 11:04:01 PM
Toluene	ND	0.50		µg/L	1	3/8/2004 11:04:01 PM
Ethylbenzene	ND	0.50		µg/L	1	3/8/2004 11:04:01 PM
Xylenes, Total	1.4	0.50		µg/L	1	3/8/2004 11:04:01 PM
Surr: 4-Bromofluorobenzene	103	74-118		%REC	1	3/8/2004 11:04:01 PM

Analyst: NSB

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: 12-Mar-04

CLIENT: San Juan Refining
Work Order: 0403040
Project: 1st Half 2004 Semi-Annual Monitor Wells

QC SUMMARY REPORT

Method Blank

Sample ID	Reagent Blank 5m	Batch ID: R11237	Test Code: SW8021	Units: µg/L	Analysis Date 3/8/2004 7:49:46 AM	Prep Date
Client ID:	Run ID: PIDFID_040308B	PQL	SPK value	SPK Ref Val	SeqNo: 257279	
Analyte	Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Methyl tert-butyl ether (MTBE)	ND					
Benzene	ND					
Toluene	ND					
Ethylbenzene	ND					
Xylenes, Total	ND					
Surr: 4-Bromofluorobenzene	20.53	103	74	118	0	

Sample ID	Reagent Blank 5m	Batch ID: R11247	Test Code: SW8021	Units: µg/L	Analysis Date 3/9/2004 8:36:01 AM	Prep Date
Client ID:	Run ID: PIDFID_040309A	PQL	SPK value	SPK Ref Val	SeqNo: 257587	
Analyte	Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Methyl tert-butyl ether (MTBE)	ND					
Benzene	ND					
Toluene	ND					
Ethylbenzene	ND					
Xylenes, Total	ND					
Surr: 4-Bromofluorobenzene	19.47	97.4	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: 12-Mar-04

QC SUMMARY REPORT
Laboratory Control Spike - generic

CLIENT: San Juan Refining
Work Order: 0403040
Project: 1st Half 2004 Semi-Annual Monitor Wells

Sample ID	BTEX STD 100ng	Batch ID: R11237	Test Code: SW8021	Units: µg/L	Analysis Date 3/8/2004 8:50:24 AM	Prep Date			
Client ID:	Run ID:	PIDFID_040308B	PQL	SPK value	SPK Ref Val	SeqNo: 257298			
Analyte	Result								
			%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	41.78	2.5	104	54.9	142	0			
Benzene	21.43	0.50	107	81.3	121	0			
Toluene	20.35	0.50	102	84.9	118	0			
Ethylbenzene	20.23	0.50	101	53.8	149	0			
Xylenes, Total	60.37	0.50	101	83.1	122	0			

Sample ID	BTEX STD 100ng	Batch ID: R11247	Test Code: SW8021	Units: µg/L	Analysis Date 3/9/2004 7:12:46 PM	Prep Date			
Client ID:	Run ID:	PIDFID_040309A	PQL	SPK value	SPK Ref Val	SeqNo: 257604			
Analyte	Result								
			%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	45.29	2.5	113	54.9	142	0			
Benzene	20.48	0.50	102	81.3	121	0			
Toluene	20.1	0.50	100	84.9	118	0			
Ethylbenzene	19.67	0.50	98.4	53.8	149	0			
Xylenes, Total	58.7	0.50	97.8	83.1	122	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 SJR

Date and Time Received:

Work Order Number 0403040

Received by AMG

Checklist completed by [Signature] 03/03/04
Signature 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
- 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? 2° 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: #50 Rd 4990
Bloomfield, NM
87413

Phone #: 505-632-4161
 Fax #: 505-632-3911

Date	Time	Matrix	Sample I.D. No.
1/02/04	140pm	H2O	MW #1
	115pm	}	MW #12
	840Am		MW #32
	915A		MW #33
	1045A		MW #35
	11AM		MW #37
	1235P		MW #38

Accreditation Applied:

NELAC USACE

Other:

Project Name: 1st Half 2004
Semi-Annual Monitor Wells

Project #:

Project Manager:

Sampler: Cindy Hurtado
 Sample Temperature: 20

Number/Volume	Preservative		HEAL No.
	HgCl ₂	HNO ₃	
2-V0A	X		0703070
}	X		1
	X		2
	X		3
	X		4
	X		5
	X		6
	X		7

Date: 3/02/04 Time: 2:30pm
 Relinquished By: (Signature) Cindy Hurtado

Received By: (Signature) Cindy Hurtado
 Received By: (Signature) 1548

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

ANALYSIS REQUEST

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

Remarks:

COVER LETTER

August 19, 2004

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

RE: Fuel Fingerprinting

Order No.: 0408137

Dear Cindy Hurtado:

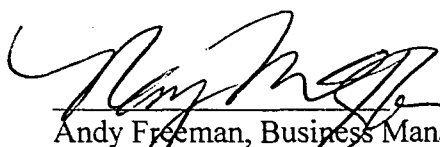
Hall Environmental Analysis Laboratory received 4 samples on 8/17/2004 for the analyses presented in the following report.

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: 19-Aug-04

CLIENT: San Juan Refining
Lab Order: 0408137
Project: Fuel Fingerprinting
Lab ID: 0408137-01

Client Sample ID: Draw N of MW 45
Collection Date: 8/16/2004 8:45:00 AM

Matrix: PRODUCT

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DRO BY 8015B						Analyst: JPM
Diesel Range Organics (DRO)	79	5.0		wt%	10	8/17/2004 11:47:12 PM
Motor Oil Range Organics (MRO)	ND	50		wt%	10	8/17/2004 11:47:12 PM
Surr: DNOP	0	74-125	S	%REC	10	8/17/2004 11:47:12 PM
GRO BY 8015B						Analyst: NSB
Gasoline Range Organics (GRO)	9.3	0.047		wt%	1	8/18/2004 9:05:32 AM
Surr: BFB	89.7	74.5-122		%REC	1	8/18/2004 9:05:32 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: 19-Aug-04

CLIENT: San Juan Refining
 Lab Order: 0408137
 Project: Fuel Fingerprinting
 Lab ID: 0408137-02

Client Sample ID: MW #45
 Collection Date: 8/16/2004 9:10:00 AM
 Matrix: PRODUCT

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DRO BY 8015B						Analyst: JMP
Diesel Range Organics (DRO)	72	4.7		wt%	10	8/18/2004 12:17:19 AM
Motor Oil Range Organics (MRO)	ND	47		wt%	10	8/18/2004 12:17:19 AM
Surr: DNOP	0	74-125	S	%REC	10	8/18/2004 12:17:19 AM
GRO BY 8015B						Analyst: NSB
Gasoline Range Organics (GRO)	30	0.041		wt%	1	8/18/2004 9:35:55 AM
Surr: BFB	100	74.5-122		%REC	1	8/18/2004 9:35:55 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: 19-Aug-04

CLIENT: San Juan Refining
Lab Order: 0408137
Project: Fuel Fingerprinting
Lab ID: 0408137-03

Client Sample ID: MW #47
Collection Date: 8/16/2004 9:35:00 AM
Matrix: PRODUCT

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: JMP
DRO BY 8015B						
Diesel Range Organics (DRO)	10	4.9		wt%	10	8/18/2004 12:47:32 AM
Motor Oil Range Organics (MRO)	ND	49		wt%	10	8/18/2004 12:47:32 AM
Surr: DNOP	0	74-125	S	%REC	10	8/18/2004 12:47:32 AM
						Analyst: NSB
GRO BY 8015B						
Gasoline Range Organics (GRO)	84	0.051		wt%	1	8/18/2004 10:36:32 AM
Surr: BFB	100	74.5-122		%REC	1	8/18/2004 10:36:32 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 3 / 7

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 19-Aug-04

CLIENT: San Juan Refining
 Lab Order: 0408137
 Project: Fuel Fingerprinting
 Lab ID: 0408137-04

Client Sample ID: #2 SW Outfall
 Collection Date: 8/16/2004 9:55:00 AM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DRO BY 8015B						Analyst: JMP
Diesel Range Organics (DRO)	ND	0.50		wt%	1	8/18/2004 9:54:07 AM
Motor Oil Range Organics (MRO)	ND	5.0		wt%	1	8/18/2004 9:54:07 AM
Surr: DNOP	116	74-125		%REC	1	8/18/2004 9:54:07 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	2.4	0.25		mg/L	5	8/18/2004 1:12:17 PM
Surr: BFB	101	74-118		%REC	5	8/18/2004 1:12:17 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 4 / 7

Hall Environmental Analysis Laboratory

Date: 19-Aug-04

CLIENT: San Juan Refining
Work Order: 0408137
Project: Fuel Fingerprinting

QC SUMMARY REPORT

Method Blank

Sample ID	MB-6332	Batch ID:	6332	Test Code:	SW8015	Units:	wt%	Analysis Date	8/17/2004 9:44:18 PM	Prep Date	8/17/2004
Client ID:		Run ID:	FID(17A)_2_040817A <th>SeqNo:</th> <td>297452</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	SeqNo:	297452						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	0.5									
Motor Oil Range Organics (MRO)	ND	5									
Surr: DNOP	0.09745	0	0.1	0	97.5	74	125	0			

Sample ID	MB-6344	Batch ID:	6344	Test Code:	SW8015	Units:	wt%	Analysis Date	8/18/2004 12:10:16 PM	Prep Date	8/17/2004
Client ID:		Run ID:	PIDFID_040818A	SeqNo:	297569						
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	3661	0	4000	0	91.5	74.5	122	0			

Sample ID	Reagent Blank 5m	Batch ID:	R12814	Test Code:	SW8015	Units:	mg/L	Analysis Date	8/18/2004 7:59:44 AM	Prep Date	
Client ID:		Run ID:	PIDFID_040818A	SeqNo:	297566						
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	19.46	0	20	0	97.3	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: 19-Aug-04

CLIENT: San Juan Refining
 Work Order: 0408137
 Project: Fuel Fingerprinting

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCSD-6332	Batch ID:	6332	Test Code:	SW8015	Units:	wt%	Analysis Date	8/17/2004 10:15:15 PM	Prep Date	8/17/2004
Client ID:		Run ID:	FID(17A)_2_040817A <th>SeqNo:</th> <td>297453</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	SeqNo:	297453						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	0.4919	0.1	0.5	0	98.4	78	121	0			

Sample ID	LCSD-6332	Batch ID:	6332	Test Code:	SW8015	Units:	wt%	Analysis Date	8/17/2004 11:17:00 PM	Prep Date	8/17/2004
Client ID:		Run ID:	FID(17A)_2_040817A <th>SeqNo:</th> <td>297454</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	SeqNo:	297454						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	0.4992	0.1	0.5	0	99.8	78	121	0.4919	1.47	15	

Sample ID	GRO std 2.0ug	Batch ID:	6344	Test Code:	SW8015	Units:	mg/L	Analysis Date	8/18/2004 8:29:58 AM	Prep Date	
Client ID:		Run ID:	PIDFID_040818A <th>SeqNo:</th> <td>297575</td> <td></td> <td></td> <td></td> <td></td> <td></td>	SeqNo:	297575						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	82.2	0.05	80	0	103	80.3	116	0			

Sample ID	GRO std 2.0ug	Batch ID:	R12814	Test Code:	SW8015	Units:	mg/L	Analysis Date	8/19/2004 3:52:54 AM	Prep Date	
Client ID:		Run ID:	PIDFID_040818A <th>SeqNo:</th> <td>297584</td> <td></td> <td></td> <td></td> <td></td> <td></td>	SeqNo:	297584						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.4102	0.05	0.4	0	103	80.3	116	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 SJR

Date and Time Received:

8/17/2004

Work Order Number 0408137

Received by AT

Checklist completed by

[Handwritten Signature]

8/17/04

Signature

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? 4° *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: #50 CR 4990

Bloomfield, NM 87413

Phone #: 505-632-4161

Fax #: 505-632-3911

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.
					HgCl ₂	HNO ₃	
16 Aug 04	8:45 AM	H ₂ O	draw N of MW 45	2-VOA	X		04081371
	9:10 AM		MW # 45	2-VOA	X		-2
	9:35 AM		MW # 47	2-VOA	X		-2
	9:55 AM		#2 SW outfall	2-VOA	X		-4

Sampler: Cindy Hurtado / Daniel Haskin
 Sample Temperature: 60

Accreditation Applied:
 NELAC USACE

Other:

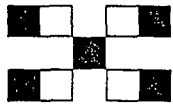
Project Name:

Fuel Fingerprinting

Project #:

Project Manager:

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



ANALYSIS REQUEST

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 802.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F ⁻ , Cl ⁻ , NO ₂ ⁻ , NO ₃ ⁻ , PO ₄ ³⁻ , SO ₄ ²⁻)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles or Headspace (Y or N)
		X										
		X										
		X										
		X										

Remarks:

24 TAT

Received By: (Signature) [Signature] 8/17/04

Received By: (Signature) [Signature] 8/22/04

Date: 8-16-04 3pm

Date: 8-16-04 3pm

Relinquished By: (Signature) Cindy Hurtado

Relinquished By: (Signature) [Signature]

COVER LETTER

August 27, 2004

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

RE: 2004 Annual Monitoring Wells

Order No.: 0408140

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 2 samples on 8/17/2004 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: 27-Aug-04

CLIENT: San Juan Refining
 Lab Order: 0408140
 Project: 2004 Annual Monitoring Wells
 Lab ID: 0408140-01

Client Sample ID: MW #11
 Collection Date: 8/16/2004 1:30:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
Fluoride	0.41	0.10		mg/L	1	8/17/2004 4:06:06 PM
Chloride	97	1.0		mg/L	10	8/18/2004 12:31:23 PM
Bromide	0.97	0.10		mg/L	1	8/17/2004 4:06:06 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/17/2004 4:06:06 PM
Sulfate	13	0.50		mg/L	1	8/17/2004 4:06:06 PM
Nitrate (As N)+Nitrite (As N)	ND	0.10		mg/L	1	8/17/2004 4:06:06 PM
EPA METHOD 310.1: ALKALINITY						
Alkalinity, Total (As CaCO3)	390	4.0		mg/L CaCO3	2	8/24/2004
Carbonate	40	4.0		mg/L CaCO3	2	8/24/2004
Bicarbonate	350	4.0		mg/L CaCO3	2	8/24/2004
EPA METHOD 8021B: VOLATILES						
Methyl tert-butyl ether (MTBE)	ND	100		µg/L	40	8/23/2004 11:46:57 AM
Benzene	1700	20		µg/L	40	8/23/2004 11:46:57 AM
Toluene	ND	20		µg/L	40	8/23/2004 11:46:57 AM
Ethylbenzene	64	20		µg/L	40	8/23/2004 11:46:57 AM
Xylenes, Total	150	20		µg/L	40	8/23/2004 11:46:57 AM
Surr: 4-Bromofluorobenzene	100	74-118		%REC	40	8/23/2004 11:46:57 AM
TOTAL CARBON DIOXIDE CALCULATION						
Total Carbon Dioxide	330	1.0		mg CO2/L	1	8/24/2004
EPA 120.1: SPECIFIC CONDUCTANCE						
Specific Conductance	2100	0.010		µmhos/cm	1	8/24/2004
EPA METHOD 7470: MERCURY						
Mercury	ND	0.00020		mg/L	1	8/18/2004
EPA METHOD 6010C: DISSOLVED METALS						
Arsenic	ND	0.020		mg/L	1	8/17/2004 3:13:22 PM
Barium	0.47	0.0020		mg/L	1	8/17/2004 3:13:22 PM
Cadmium	ND	0.0020		mg/L	1	8/17/2004 3:13:22 PM
Calcium	100	1.0		mg/L	1	8/20/2004 11:00:16 AM
Chromium	ND	0.0060		mg/L	1	8/17/2004 3:13:22 PM
Copper	0.021	0.0060		mg/L	1	8/17/2004 3:13:22 PM
Iron	6.9	0.020		mg/L	1	8/17/2004 3:13:22 PM
Lead	0.022	0.0050		mg/L	1	8/17/2004 3:13:22 PM
Magnesium	23	1.0		mg/L	1	8/20/2004 11:00:16 AM
Manganese	1.7	0.0020		mg/L	1	8/17/2004 3:13:22 PM
Potassium	1.5	1.0		mg/L	1	8/20/2004 11:00:16 AM
Selenium	ND	0.050		mg/L	1	8/17/2004 3:13:22 PM
Silver	ND	0.0050		mg/L	1	8/17/2004 3:13:22 PM
Sodium	390	10		mg/L	10	8/20/2004 11:08:46 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-Aug-04

CLIENT: San Juan Refining
 Lab Order: 0408140
 Project: 2004 Annual Monitoring Wells
 Lab ID: 0408140-01

Client Sample ID: MW #11
 Collection Date: 8/16/2004 1:30:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Uranium	ND	0.10		mg/L	1	8/17/2004 3:13:22 PM
Zinc	0.063	0.0050		mg/L	1	8/17/2004 3:13:22 PM
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/26/2004 9:24:15 AM
Barium	0.54	0.020		mg/L	1	8/26/2004 9:24:15 AM
Cadmium	ND	0.0020		mg/L	1	8/26/2004 9:24:15 AM
Chromium	ND	0.0060		mg/L	1	8/26/2004 9:24:15 AM
Lead	0.027	0.0050		mg/L	1	8/26/2004 9:24:15 AM
Selenium	ND	0.050		mg/L	1	8/26/2004 9:24:15 AM
Silver	ND	0.0050		mg/L	1	8/26/2004 9:24:15 AM
EPA METHOD 150.1: PH						Analyst: MAP
pH	8.56	0.010		pH units	1	8/24/2004
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	1500	50		mg/L	1	8/25/2004

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

Hall Environmental Analysis Laboratory

Date: 27-Aug-04

CLIENT: San Juan Refining
 Lab Order: 0408140
 Project: 2004 Annual Monitoring Wells
 Lab ID: 0408140-02

Client Sample ID: MW #12
 Collection Date: 8/16/2004 12:40:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						
						Analyst: MAP
Fluoride	0.52	0.10		mg/L	1	8/17/2004 4:22:54 PM
Chloride	130	2.5		mg/L	25	8/18/2004 12:48:11 PM
Bromide	0.78	0.10		mg/L	1	8/17/2004 4:22:54 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/17/2004 4:22:54 PM
Sulfate	680	13		mg/L	25	8/18/2004 12:48:11 PM
Nitrate (As N)+Nitrite (As N)	ND	0.10		mg/L	1	8/17/2004 4:22:54 PM
EPA METHOD 310.1: ALKALINITY						
						Analyst: MAP
Alkalinity, Total (As CaCO3)	1100	4.0		mg/L CaCO3	2	8/24/2004
Carbonate	ND	4.0		mg/L CaCO3	2	8/24/2004
Bicarbonate	1100	4.0		mg/L CaCO3	2	8/24/2004
EPA METHOD 8021B: VOLATILES						
						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	8/23/2004 12:17:15 PM
Benzene	ND	0.50		µg/L	1	8/23/2004 12:17:15 PM
Toluene	ND	0.50		µg/L	1	8/23/2004 12:17:15 PM
Ethylbenzene	ND	0.50		µg/L	1	8/23/2004 12:17:15 PM
Xylenes, Total	0.94	0.50		µg/L	1	8/23/2004 12:17:15 PM
Surr: 4-Bromofluorobenzene	102	74-118		%REC	1	8/23/2004 12:17:15 PM
TOTAL CARBON DIOXIDE CALCULATION						
						Analyst: IC
Total Carbon Dioxide	970	1.0		mg CO2/L	1	8/24/2004
EPA 120.1: SPECIFIC CONDUCTANCE						
						Analyst: MAP
Specific Conductance	1900	0.010		µmhos/cm	1	8/24/2004
EPA METHOD 7470: MERCURY						
						Analyst: GMC
Mercury	0.00052	0.00020		mg/L	1	8/18/2004
EPA METHOD 6010C: DISSOLVED METALS						
						Analyst: IC
Arsenic	ND	0.020		mg/L	1	8/17/2004 3:17:43 PM
Barium	0.060	0.0020		mg/L	1	8/17/2004 3:17:43 PM
Cadmium	ND	0.0020		mg/L	1	8/17/2004 3:17:43 PM
Calcium	130	1.0		mg/L	1	8/17/2004 3:17:43 PM
Chromium	ND	0.0060		mg/L	1	8/17/2004 3:17:43 PM
Copper	ND	0.0060		mg/L	1	8/17/2004 3:17:43 PM
Iron	0.044	0.020		mg/L	1	8/17/2004 3:17:43 PM
Lead	ND	0.0050		mg/L	1	8/17/2004 3:17:43 PM
Magnesium	31	1.0		mg/L	1	8/17/2004 3:17:43 PM
Manganese	0.55	0.0020		mg/L	1	8/17/2004 3:17:43 PM
Potassium	1.5	1.0		mg/L	1	8/17/2004 3:17:43 PM
Selenium	ND	0.050		mg/L	1	8/17/2004 3:17:43 PM
Silver	ND	0.0050		mg/L	1	8/17/2004 3:17:43 PM
Sodium	320	1.0		mg/L	1	8/17/2004 3:17:43 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: 27-Aug-04

CLIENT: San Juan Refining
 Lab Order: 0408140
 Project: 2004 Annual Monitoring Wells
 Lab ID: 0408140-02

Client Sample ID: MW #12
 Collection Date: 8/16/2004 12:40:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Uranium	ND	0.10		mg/L	1	8/17/2004 3:17:43 PM
Zinc	0.035	0.0050		mg/L	1	8/17/2004 3:17:43 PM
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/26/2004 9:28:34 AM
Barium	0.19	0.020		mg/L	1	8/26/2004 9:28:34 AM
Cadmium	0.0030	0.0020		mg/L	1	8/26/2004 9:28:34 AM
Chromium	0.11	0.0060		mg/L	1	8/26/2004 9:28:34 AM
Lead	0.18	0.0050		mg/L	1	8/26/2004 9:28:34 AM
Selenium	ND	0.050		mg/L	1	8/26/2004 9:28:34 AM
Silver	ND	0.0050		mg/L	1	8/26/2004 9:28:34 AM
EPA METHOD 150.1: PH						Analyst: MAP
pH	8.17	0.010		pH units	1	8/24/2004
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	1600	50		mg/L	1	8/25/2004

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

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

Hall Environmental Analysis Laboratory

Date: 27-Aug-04

CLIENT: San Juan Refining
 Work Order: 0408140
 Project: 2004 Annual Monitoring Wells

QC SUMMARY REPORT
 Method Blank

Sample ID	MBLK	Batch ID: R12798	Test Code: E300	Units: mg/L	Analysis Date 8/17/2004 11:20:38 AM	Prep Date					
Client ID:		Run ID: LC_040817A			SeqNo: 297220						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Bromide	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

Sample ID	MBLK	Batch ID: R12816	Test Code: E300	Units: mg/L	Analysis Date 8/18/2004 10:50:35 AM	Prep Date					
Client ID:		Run ID: LC_040818A			SeqNo: 297633						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Bromide	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

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

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
Work Order: 0408140
Project: 2004 Annual Monitoring Wells

Sample ID	MBLK	Batch ID:	R12816	Test Code:	E300	Units:	mg/L	Analysis Date	8/18/2004 5:46:07 PM	Prep Date	
Client ID:		Run ID:	LC_040818A	SeqNo:	297647						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Bromide	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

Sample ID	MBLK	Batch ID:	R12869	Test Code:	E310.1	Units:	mg/L CaCO3	Analysis Date	8/24/2004	Prep Date	
Client ID:		Run ID:	WC_040824A	SeqNo:	299026						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	ND	2									
Carbonate	ND	2									
Bicarbonate	ND	2									

Sample ID	Reagent Blank 5m	Batch ID:	R12859	Test Code:	SW8021	Units:	µg/L	Analysis Date	8/23/2004 8:01:48 AM	Prep Date	
Client ID:		Run ID:	PIDFID_040823A	SeqNo:	298631						
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	21.97	0	20	0	110	74	118	0			

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

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
Work Order: 0408140
Project: 2004 Annual Monitoring Wells

Sample ID MB-6341	Batch ID: 6341	Test Code: SW7470	Units: mg/L	Analysis Date 8/18/2004	Prep Date 8/18/2004
Client ID:	Run ID: MI-LA254_040818A	SeqNo: 297502			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Mercury	ND	0.0002			

Sample ID MB	Batch ID: R12802	Test Code: SW6010A	Units: mg/L	Analysis Date 8/17/2004 2:27:19 PM	Prep Date
Client ID:	Run ID: ICP_040817C	SeqNo: 297397			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.02									
Barium	ND	0.002									
Cadmium	ND	0.002									
Calcium	ND	1									
Chromium	ND	0.006									
Copper	ND	0.006									
Iron	0.01275	0.02									J
Lead	ND	0.005									
Magnesium	0.02637	1									J
Manganese	ND	0.002									
Potassium	ND	1									
Selenium	ND	0.05									
Silver	ND	0.005									
Sodium	ND	1									
Uranium	ND	0.1									
Zinc	ND	0.005									

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

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining

Work Order: 0408140

Project: 2004 Annual Monitoring Wells

Sample ID MB #1 Batch ID: R12802 Test Code: SW6010A Units: mg/L Analysis Date 8/17/2004 4:29:59 PM Prep Date
 Client ID: Run ID: ICP_040817C SeqNo: 297410

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.01236	0.02									J
Lead	0.001631	0.005									J
Manganese	ND	0.002									

Sample ID MB Batch ID: R12840 Test Code: SW6010A Units: mg/L Analysis Date 8/20/2004 10:51:36 AM Prep Date
 Client ID: Run ID: ICP_040820B SeqNo: 298090

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	0.01828	1									J
Iron	0.01479	0.02									J
Lead	ND	0.005									
Magnesium	0.02933	1									J
Manganese	ND	0.002									
Potassium	ND	1									
Sodium	0.01843	1									J

Sample ID MB-6369 Batch ID: 6369 Test Code: SW6010A Units: mg/L Analysis Date 8/26/2004 9:10:03 AM Prep Date 8/24/2004
 Client ID: Run ID: ICP_040826A SeqNo: 299548

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.02									
Barium	ND	0.02									
Cadmium	ND	0.002									
Chromium	ND	0.006									
Lead	ND	0.005									
Selenium	ND	0.05									
Silver	ND	0.005									

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

QC SUMMARY REPORT
Method Blank

CLIENT: San Juan Refining
 Work Order: 0408140
 Project: 2004 Annual Monitoring Wells

Sample ID MB-6365 Batch ID: 6365 Test Code: E160.1 Units: mg/L Analysis Date 8/25/2004 Prep Date 8/23/2004
 Client ID: Run ID: WC_040825A SeqNo: 299155
 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
 Total Dissolved Solids ND 50

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

Hall Environmental Analysis Laboratory

Date: 27-Aug-04

QC SUMMARY REPORT

Sample Duplicate

CLIENT: San Juan Refining
 Work Order: 0408140
 Project: 2004 Annual Monitoring Wells

Sample ID	0408140-01E DUP	Batch ID:	R12869	Test Code:	E310.1	Units:	mg/L CaCO3	Analysis Date	8/24/2004	Prep Date			
Client ID:	MW #11	Run ID:	WC_040824A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte		Result		4	0	0	0	0	0	390	3.66	15	
Alkalinity, Total (As CaCO3)		376		4	0	0	0	0	0	40	0	15	
Carbonate		336		4	0	0	0	0	0	350	4.08	15	
Bicarbonate													

Sample ID	0408140-01E DUP	Batch ID:	R12878	Test Code:	mg CO2/L	Units:	mg CO2/L	Analysis Date	8/24/2004	Prep Date			
Client ID:	MW #11	Run ID:	WC_040824D	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte		Result		1	0	0	0	0	0	328	4.04	20	
Total Carbon Dioxide		315											

Sample ID	0408140-01B DUP	Batch ID:	R12870	Test Code:	E120.1	Units:	µmhos/cm	Analysis Date	8/24/2004	Prep Date			
Client ID:	MW #11	Run ID:	WC_040824C	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte		Result		0.01	0	0	0	0	0	2110	0.943	20	
Specific Conductance		2130											

Sample ID	0408140-01C DUP	Batch ID:	6341	Test Code:	SW7470	Units:	mg/L	Analysis Date	8/18/2004	Prep Date			
Client ID:	MW #11	Run ID:	MI-LA254_040818A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte		Result		0.0002	0	0	0	0	0	0.0001091	0	20	J
Mercury		0.0001029											

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: 27-Aug-04

QC SUMMARY REPORT

Sample Matrix Spike

CLIENT: San Juan Refining
 Work Order: 0408140
 Project: 2004 Annual Monitoring Wells

Sample ID	0408140-02a ms	Batch ID: R12859	Test Code: SW8021	Units: µg/L	Analysis Date	8/23/2004 10:55:20 PM	Prep Date				
Client ID:	MW #12	Run ID:	PIDFID_040823A	SeqNo:	298732						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	44.85	2.5	40	0	112	65	132	0			
Benzene	20.95	0.5	20	0	105	77	122	0			
Toluene	22.06	0.5	20	0	110	81	115	0			
Ethylbenzene	21.43	0.5	20	0	107	84	117	0			
Xylenes, Total	65.36	0.5	60	0.935	107	84	116	0			
Surr: 4-Bromofluorobenzene	25.28	0	24	0	105	74	118	0			

Sample ID	0408140-02a msd	Batch ID: R12859	Test Code: SW8021	Units: µg/L	Analysis Date	8/23/2004 11:25:42 PM	Prep Date				
Client ID:	MW #12	Run ID:	PIDFID_040823A	SeqNo:	298733						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	44.76	2.5	40	0	112	65	132	44.85	0.200	28	
Benzene	21.25	0.5	20	0	106	77	122	20.95	1.46	27	
Toluene	22.22	0.5	20	0	111	81	115	22.06	0.729	19	
Ethylbenzene	22.1	0.5	20	0	110	84	117	21.43	3.06	10	
Xylenes, Total	65.78	0.5	60	0.935	108	84	116	65.36	0.643	13	
Surr: 4-Bromofluorobenzene	25.68	0	24	0	107	74	118	25.28	1.58	0	

Sample ID	0408140-01C MS	Batch ID: 6341	Test Code: SW7470	Units: mg/L	Analysis Date	8/18/2004	Prep Date				
Client ID:	MW #11	Run ID:	MI-LA254_040818A	SeqNo:	297506						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005107	0.0002	0.005	0.0001091	100	75.2	134	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

QC SUMMARY REPORT

Sample Matrix Spike Duplicate

CLIENT: San Juan Refining
 Work Order: 0408140
 Project: 2004 Annual Monitoring Wells

Sample ID 0408140-01C MSD Batch ID: 6341 Test Code: SW7470 Units: mg/L Analysis Date 8/18/2004 Prep Date 8/18/2004

Client ID: MW #11 Run ID: MI-LA254_040818A SeqNo: 297507

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005217	0.0002	0.005	0.0001091	102	75.2	134	0.005107	2.12	20	

Sample ID 0408140-01D MS Batch ID: R12840 Test Code: SW6010A Units: mg/L Analysis Date 8/20/2004 11:11:42 AM Prep Date

Client ID: MW #11 Run ID: ICP_040820B SeqNo: 298096

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	148.5	1	50.5	102.2	91.6	75	125	0			
Magnesium	70.71	1	50.5	22.74	95.0	75	125	0			
Potassium	52.87	1	55	1.53	93.3	75	125	0			
Sodium	400.7	1	50.5	361.6	77.5	75	125	0			

Sample ID 0408140-01D MSD Batch ID: R12840 Test Code: SW6010A Units: mg/L Analysis Date 8/20/2004 11:15:57 AM Prep Date

Client ID: MW #11 Run ID: ICP_040820B SeqNo: 298097

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	149.3	1	50.5	102.2	93.3	75	125	148.5	0.590	20	
Magnesium	71	1	50.5	22.74	95.6	75	125	70.71	0.406	20	
Potassium	53.18	1	55	1.53	93.9	75	125	52.87	0.594	20	
Sodium	403.7	1	50.5	361.6	83.3	75	125	400.7	0.739	20	

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

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

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 27-Aug-04

QC SUMMARY REPORT
Laboratory Control Spike - generic

CLIENT: San Juan Refining
Work Order: 0408140
Project: 2004 Annual Monitoring Wells

Sample ID	LCS	Batch ID: R12798	Test Code: E300	Units: mg/L	Analysis Date 8/17/2004 11:37:26 AM	Prep Date					
Client ID:		Run ID: LC_040817A			SeqNo: 297221						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4514	0.1	0.5	0	90.3	90	110	0			
Chloride	4.764	0.1	5	0	95.3	90	110	0			
Bromide	2.3	0.1	2.5	0	92.0	90	110	0			
Phosphorus, Orthophosphate (As P)	4.613	0.5	5	0	92.3	90	110	0			
Sulfate	9.728	0.5	10	0	97.3	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.281	0.1	3.5	0	93.7	90	110	0			

Sample ID	LCS	Batch ID: R12816	Test Code: E300	Units: mg/L	Analysis Date 8/18/2004 11:07:23 AM	Prep Date					
Client ID:		Run ID: LC_040818A			SeqNo: 297634						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4545	0.1	0.5	0	90.9	90	110	0			
Chloride	4.881	0.1	5	0	97.6	90	110	0			
Bromide	2.268	0.1	2.5	0	90.7	90	110	0			
Phosphorus, Orthophosphate (As P)	4.518	0.5	5	0	90.4	90	110	0			
Sulfate	9.728	0.5	10	0	97.3	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.321	0.1	3.5	0	94.9	90	110	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

QC SUMMARY REPORT
Laboratory Control Spike - generic

CLIENT: San Juan Refining
Work Order: 0408140
Project: 2004 Annual Monitoring Wells

Sample ID	LCS	Batch ID	R12816	Test Code	E300	Units	mg/L	Analysis Date	8/18/2004 6:02:55 PM	Prep Date	
Client ID:		Run ID:	LC_040818A	SeqNo:	297648						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4618	0.1	0.5	0	92.4	90	110	0			
Chloride	4.838	0.1	5	0	96.8	90	110	0			
Bromide	2.319	0.1	2.5	0	92.8	90	110	0			
Phosphorus, Orthophosphate (As P)	4.716	0.5	5	0	94.3	90	110	0			
Sulfate	9.835	0.5	10	0	98.4	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.342	0.1	3.5	0	95.5	90	110	0			

Sample ID	BTEX std 100ng	Batch ID	R12859	Test Code	SW6021	Units	µg/L	Analysis Date	8/24/2004 3:27:49 AM	Prep Date	
Client ID:		Run ID:	PIDFID_040823A	SeqNo:	298734						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	43.89	2.5	40	0	110	54.9	142	0			
Benzene	20.74	0.5	20	0	104	81.3	121	0			
Toluene	21.66	0.5	20	0	108	84.9	118	0			
Ethylbenzene	21.14	0.5	20	0	106	53.8	149	0			
Xylenes, Total	65.02	0.5	60	0	108	83.1	122	0			

Sample ID	LCS-6341	Batch ID	6341	Test Code	SW7470	Units	mg/L	Analysis Date	8/18/2004	Prep Date	8/18/2004
Client ID:		Run ID:	MI-LA254_040818A	SeqNo:	297503						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005076	0.0002	0.005	0	102	75.2	134	0			

Sample ID	LCSD-6341	Batch ID	6341	Test Code	SW7470	Units	mg/L	Analysis Date	8/18/2004	Prep Date	8/18/2004
Client ID:		Run ID:	MI-LA254_040818A	SeqNo:	297509						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004979	0.0002	0.005	0	99.6	75.2	134	0.005076	1.94	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

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining

Work Order: 0408140

Project: 2004 Annual Monitoring Wells

Sample ID LCS

Batch ID: R12802

Test Code: SW6010A

Units: mg/L

Run ID: ICP_040817C

Analysis Date 8/17/2004 2:33:11 PM

Prep Date

Client ID:

SeqNo: 297398

SPK value

PQL

Result

Analyte

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5286	0.02	0.5	0	106	80	120	0			
Barium	0.5256	0.002	0.5	0	105	80	120	0			
Cadmium	0.5262	0.002	0.5	0	105	80	120	0			
Chromium	0.52	0.006	0.5	0	104	80	120	0			
Copper	0.5254	0.006	0.5	0	105	80	120	0			
Iron	0.4858	0.02	0.5	0.01275	94.6	80	120	0			
Lead	0.5324	0.005	0.5	0	106	80	120	0			
Manganese	0.5112	0.002	0.5	0	102	80	120	0			
Selenium	0.5473	0.05	0.5	0	109	80	120	0			
Silver	0.5312	0.005	0.5	0	106	80	120	0			
Uranium	5.021	0.1	5	0	100	80	120	0			
Zinc	0.5311	0.005	0.5	0	106	80	120	0			

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

Work Order Number 0408140

Received by AMG

Checklist completed by Abonzales 08/17/04
Signature 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
- 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? 1° 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: #50 CR4990

Bloomfield, NM 87413

Phone #: 505-632-4161

Fax #: 505-632-3911

Accreditation Applied
 NELAC USAEC

Other:

Project Name: Annual Monitoring Wells
 2004

Project #:

Project Manager:

Sampler: Cindy Hurtado / Daniel J. Hankins

Sample Temperature: 13°C

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.
					HgCl ₂	HNO ₃	
6 Aug 04	1300 PM	H ₂ O	MW #11	2 VOA	X	X	0408140
				1-125ml	X	X	
				1-500ml	X	X	
				1-125ml		H ₂ SO ₄	
				1-250ml			
				1-500ml			
6 Aug 04	1240 PM	H ₂ O	MW #12	2 VOA	X	X	2
				1-125ml	X	X	
				1-500ml	X	X	
				1-125ml		H ₂ SO ₄	
				1-250ml			
				1-500ml			

Date: 8/16/04 Time: 3pm
 Relinquished By: (Signature) Cindy Hurtado
 Received By: (Signature) [Signature] 8/17/04
 Relinquished By: (Signature) [Signature]
 Received By: (Signature) [Signature] 1347

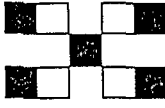
Remarks:

ANALYSIS REQUEST

BTEX + MTBE + TPH (Gasoline Only)	BTEX + MTBE + TPH (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F ⁻ , Cl ⁻ , NO ₃ ⁻ , NO ₂ ⁻ , PO ₄ ⁻³ , SO ₄ ⁻²)	8091 Pesticides/PDB's (8082)	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles or Headspace (Y or N)
X						X	X	X		X	
							X			X	
							X	X		X	
							X			X	
							X	X		X	
							X			X	
							X			X	

Metals - Dissolved WRC
 Carbon Dioxide
 Action

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



COVER LETTER

September 01, 2004

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

RE: Annual Monitoring Wells 2004

Order No.: 0408168

Dear Cindy Hurtado:


Hall Environmental Analysis Laboratory received 5 samples on 8/19/2004 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

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

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

Sincerely,


Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



Fall Environmental Analysis Laboratory

Date: 01-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408168
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408168-01

Client Sample ID: MW #13
 Collection Date: 8/18/2004 9:32:00 AM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.20	0.10		mg/L	1	8/19/2004 4:10:49 PM
Chloride	330	2.0		mg/L	20	8/20/2004 1:53:26 PM
Nitrogen, Nitrite (As N)	1.6	0.10		mg/L	1	8/19/2004 4:10:49 PM
Bromide	4.3	0.10		mg/L	1	8/19/2004 4:10:49 PM
Nitrogen, Nitrate (As N)	6.6	0.10		mg/L	1	8/19/2004 4:10:49 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/19/2004 4:10:49 PM
Sulfate	950	10		mg/L	20	8/20/2004 1:53:26 PM
EPA METHOD 310.1: ALKALINITY						Analyst: MAP
Alkalinity, Total (As CaCO3)	950	2.0		mg/L CaCO3	1	8/26/2004
Carbonate	ND	2.0		mg/L CaCO3	1	8/26/2004
Bicarbonate	950	2.0		mg/L CaCO3	1	8/26/2004
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	27	2.5		µg/L	1	8/23/2004 6:52:36 PM
Benzene	ND	0.50		µg/L	1	8/23/2004 6:52:36 PM
Toluene	ND	0.50		µg/L	1	8/23/2004 6:52:36 PM
Ethylbenzene	ND	0.50		µg/L	1	8/23/2004 6:52:36 PM
Xylenes, Total	ND	0.50		µg/L	1	8/23/2004 6:52:36 PM
Surr: 4-Bromofluorobenzene	103	74-118		%REC	1	8/23/2004 6:52:36 PM
TOTAL CARBON DIOXIDE CALCULATION						Analyst: MAP
Total Carbon Dioxide	860	1.0		mg CO2/L	1	8/26/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	3400	0.010		µmhos/cm	1	8/25/2004
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	8/20/2004
EPA METHOD 6010C: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/31/2004 9:04:29 AM
Barium	0.022	0.0020		mg/L	1	8/31/2004 9:04:29 AM
Cadmium	ND	0.0020		mg/L	1	8/31/2004 9:04:29 AM
Calcium	210	10		mg/L	10	8/31/2004 12:33:17 PM
Chromium	ND	0.0060		mg/L	1	8/31/2004 9:04:29 AM
Copper	ND	0.0060		mg/L	1	8/31/2004 9:04:29 AM
Iron	0.046	0.020		mg/L	1	8/31/2004 9:04:29 AM
Lead	ND	0.0050		mg/L	1	8/31/2004 9:04:29 AM
Magnesium	80	1.0		mg/L	1	8/31/2004 9:04:29 AM
Manganese	0.58	0.0020		mg/L	1	8/31/2004 9:04:29 AM
Potassium	3.6	1.0		mg/L	1	8/31/2004 9:04:29 AM
Selenium	ND	0.050		mg/L	1	8/31/2004 9:04:29 AM
Silver	ND	0.0050		mg/L	1	8/31/2004 9:04:29 AM

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-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408168
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408168-01

Client Sample ID: MW #13
 Collection Date: 8/18/2004 9:32:00 AM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Sodium	610	10		mg/L	10	8/31/2004 12:33:17 PM
Uranium	ND	0.10		mg/L	1	8/31/2004 9:04:29 AM
Zinc	0.021	0.0050		mg/L	1	8/31/2004 9:04:29 AM
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/26/2004 10:00:58 AM
Barium	0.028	0.020		mg/L	1	8/26/2004 10:00:58 AM
Cadmium	ND	0.0020		mg/L	1	8/26/2004 10:00:58 AM
Chromium	0.085	0.0060		mg/L	1	8/26/2004 10:00:58 AM
Lead	ND	0.0050		mg/L	1	8/26/2004 10:00:58 AM
Selenium	ND	0.050		mg/L	1	8/26/2004 10:00:58 AM
Silver	ND	0.0050		mg/L	1	8/26/2004 10:00:58 AM
EPA METHOD 150.1: PH						Analyst: MAP
pH	8.02	0.010		pH units	1	8/26/2004
EPA METHOD 160.1: TDS						Analyst: JEB
Total Dissolved Solids	2800	50		mg/L	1	8/25/2004

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

Hall Environmental Analysis Laboratory

Date: 01-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408168
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408168-02

Client Sample ID: MW #27
 Collection Date: 8/18/2004 1:05:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.20	0.10		mg/L	1	8/19/2004 4:27:37 PM
Chloride	290	1.0		mg/L	10	8/20/2004 2:10:13 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/19/2004 4:27:37 PM
Bromide	3.1	0.10		mg/L	1	8/19/2004 4:27:37 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/19/2004 4:27:37 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/19/2004 4:27:37 PM
Sulfate	120	5.0		mg/L	10	8/20/2004 2:10:13 PM
EPA METHOD 310.1: ALKALINITY						Analyst: MAP
Alkalinity, Total (As CaCO ₃)	970	2.0		mg/L CaCO ₃	1	8/26/2004
Carbonate	ND	2.0		mg/L CaCO ₃	1	8/26/2004
Bicarbonate	970	2.0		mg/L CaCO ₃	1	8/26/2004
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	13		µg/L	5	8/24/2004 12:19:28 PM
Benzene	ND	2.5		µg/L	5	8/24/2004 12:19:28 PM
Toluene	ND	2.5		µg/L	5	8/24/2004 12:19:28 PM
Ethylbenzene	ND	2.5		µg/L	5	8/24/2004 12:19:28 PM
Xylenes, Total	ND	2.5		µg/L	5	8/24/2004 12:19:28 PM
Surr: 4-Bromofluorobenzene	104	74-118		%REC	5	8/24/2004 12:19:28 PM
TOTAL CARBON DIOXIDE CALCULATION						Analyst: MAP
Total Carbon Dioxide	890	1.0		mg CO ₂ /L	1	8/26/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	2400	0.010		µmhos/cm	1	8/25/2004
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	8/20/2004
EPA METHOD 6010C: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/31/2004 9:08:46 AM
Barium	0.083	0.0020		mg/L	1	8/31/2004 9:08:46 AM
Cadmium	ND	0.0020		mg/L	1	8/31/2004 9:08:46 AM
Calcium	170	1.0		mg/L	1	8/31/2004 9:08:46 AM
Chromium	ND	0.0060		mg/L	1	8/31/2004 9:08:46 AM
Copper	ND	0.0060		mg/L	1	8/31/2004 9:08:46 AM
Iron	0.15	0.020		mg/L	1	8/31/2004 9:08:46 AM
Lead	ND	0.0050		mg/L	1	8/31/2004 9:08:46 AM
Magnesium	26	1.0		mg/L	1	8/31/2004 9:08:46 AM
Manganese	0.94	0.0020		mg/L	1	8/31/2004 9:08:46 AM
Potassium	2.6	1.0		mg/L	1	8/31/2004 9:08:46 AM
Selenium	ND	0.050		mg/L	1	8/31/2004 9:08:46 AM
Silver	ND	0.0050		mg/L	1	8/31/2004 9:08:46 AM

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

Hall Environmental Analysis Laboratory

Date: 01-Sep-04

CLIENT: San Juan Refining
Lab Order: 0408168
Project: Annual Monitoring Wells 2004
Lab ID: 0408168-02

Client Sample ID: MW #27
Collection Date: 8/18/2004 1:05:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Sodium	390	10		mg/L	10	8/31/2004 12:36:11 PM
Uranium	ND	0.10		mg/L	1	8/31/2004 9:08:46 AM
Zinc	0.011	0.0050		mg/L	1	8/31/2004 9:08:46 AM
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/26/2004 10:05:12 AM
Barium	0.13	0.020		mg/L	1	8/26/2004 10:05:12 AM
Cadmium	ND	0.0020		mg/L	1	8/26/2004 10:05:12 AM
Chromium	0.019	0.0060		mg/L	1	8/26/2004 10:05:12 AM
Lead	ND	0.0050		mg/L	1	8/26/2004 10:05:12 AM
Selenium	ND	0.050		mg/L	1	8/26/2004 10:05:12 AM
Silver	ND	0.0050		mg/L	1	8/26/2004 10:05:12 AM
EPA METHOD 150.1: PH						Analyst: MAP
pH	7.72	0.010		pH units	1	8/26/2004
EPA METHOD 160.1: TDS						Analyst: JEB
Total Dissolved Solids	1700	50		mg/L	1	8/25/2004

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

Hall Environmental Analysis Laboratory

Date: 01-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408168
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408168-03

Client Sample ID: MW #36
 Collection Date: 8/17/2004 1:30:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.40	0.10		mg/L	1	8/19/2004 5:34:44 PM
Chloride	100	1.0		mg/L	10	8/20/2004 3:00:35 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/19/2004 5:34:44 PM
Bromide	1.0	0.10		mg/L	1	8/19/2004 5:34:44 PM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/19/2004 5:34:44 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/19/2004 5:34:44 PM
Sulfate	16	0.50		mg/L	1	8/19/2004 5:34:44 PM
EPA METHOD 310.1: ALKALINITY						Analyst: MAP
Alkalinity, Total (As CaCO3)	970	2.0		mg/L CaCO3	1	8/26/2004
Carbonate	ND	2.0		mg/L CaCO3	1	8/26/2004
Bicarbonate	970	2.0		mg/L CaCO3	1	8/26/2004
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	8.5	2.5		µg/L	1	8/24/2004 1:19:59 PM
Benzene	0.93	0.50		µg/L	1	8/24/2004 1:19:59 PM
Toluene	ND	0.50		µg/L	1	8/24/2004 1:19:59 PM
Ethylbenzene	ND	0.50		µg/L	1	8/24/2004 1:19:59 PM
Xylenes, Total	4.0	0.50		µg/L	1	8/24/2004 1:19:59 PM
Surr: 4-Bromofluorobenzene	114	74-118		%REC	1	8/24/2004 1:19:59 PM
TOTAL CARBON DIOXIDE CALCULATION						Analyst: MAP
Total Carbon Dioxide	880	1.0		mg CO2/L	1	8/26/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	1700	0.010		µmhos/cm	1	8/25/2004
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	0.00031	0.00020		mg/L	1	8/20/2004
EPA METHOD 6010C: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/31/2004 9:12:59 AM
Barium	0.59	0.0020		mg/L	1	8/31/2004 9:12:59 AM
Cadmium	ND	0.0020		mg/L	1	8/31/2004 9:12:59 AM
Calcium	150	1.0		mg/L	1	8/31/2004 9:12:59 AM
Chromium	ND	0.0060		mg/L	1	8/31/2004 9:12:59 AM
Copper	ND	0.0060		mg/L	1	8/31/2004 9:12:59 AM
Iron	3.1	0.020		mg/L	1	8/31/2004 9:12:59 AM
Lead	ND	0.0050		mg/L	1	8/31/2004 9:12:59 AM
Magnesium	30	1.0		mg/L	1	8/31/2004 9:12:59 AM
Manganese	4.1	0.0020		mg/L	1	8/31/2004 9:12:59 AM
Potassium	7.2	1.0		mg/L	1	8/31/2004 9:12:59 AM
Selenium	ND	0.050		mg/L	1	8/31/2004 9:12:59 AM
Silver	ND	0.0050		mg/L	1	8/31/2004 9:12:59 AM

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-Sep-04

CLIENT: San Juan Refining

Client Sample ID: MW #36

Lab Order: 0408168

Collection Date: 8/17/2004 1:30:00 PM

Project: Annual Monitoring Wells 2004

Lab ID: 0408168-03

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Sodium	180	1.0		mg/L	1	8/31/2004 9:12:59 AM
Uranium	ND	0.10		mg/L	1	8/31/2004 9:12:59 AM
Zinc	0.018	0.0050		mg/L	1	8/31/2004 9:12:59 AM
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/26/2004 10:09:30 AM
Barium	2.6	0.20		mg/L	10	8/26/2004 11:24:31 AM
Cadmium	ND	0.0020		mg/L	1	8/26/2004 10:09:30 AM
Chromium	0.025	0.0060		mg/L	1	8/26/2004 10:09:30 AM
Lead	0.0072	0.0050		mg/L	1	8/26/2004 10:09:30 AM
Selenium	ND	0.050		mg/L	1	8/26/2004 10:09:30 AM
Silver	ND	0.0050		mg/L	1	8/26/2004 10:09:30 AM
EPA METHOD 150.1: PH						Analyst: MAP
pH	7.80	0.010		pH units	1	8/26/2004
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	1200	50		mg/L	1	8/25/2004

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

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

Hall Environmental Analysis Laboratory

Date: 01-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408168
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408168-04

Client Sample ID: MW #32
 Collection Date: 8/17/2004 1:50:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.24	0.10		mg/L	1	8/19/2004 6:58:47 PM
Chloride	650	2.0		mg/L	20	8/20/2004 3:17:18 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/19/2004 6:58:47 PM
Bromide	2.9	0.10		mg/L	1	8/19/2004 6:58:47 PM
Nitrogen, Nitrate (As N)	5.0	0.10		mg/L	1	8/19/2004 6:58:47 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/19/2004 6:58:47 PM
Sulfate	580	10		mg/L	20	8/20/2004 3:17:18 PM
EPA METHOD 310.1: ALKALINITY						Analyst: MAP
Alkalinity, Total (As CaCO3)	310	2.0		mg/L CaCO3	1	8/26/2004
Carbonate	ND	2.0		mg/L CaCO3	1	8/26/2004
Bicarbonate	310	2.0		mg/L CaCO3	1	8/26/2004
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	8/23/2004 9:24:36 PM
Benzene	ND	0.50		µg/L	1	8/23/2004 9:24:36 PM
Toluene	ND	0.50		µg/L	1	8/23/2004 9:24:36 PM
Ethylbenzene	ND	0.50		µg/L	1	8/23/2004 9:24:36 PM
Xylenes, Total	ND	0.50		µg/L	1	8/23/2004 9:24:36 PM
Surr: 4-Bromofluorobenzene	104	74-118		%REC	1	8/23/2004 9:24:36 PM
TOTAL CARBON DIOXIDE CALCULATION						Analyst: MAP
Total Carbon Dioxide	280	1.0		mg CO2/L	1	8/26/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	3300	0.010		µmhos/cm	1	8/25/2004
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	8/20/2004
EPA METHOD 6010C: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/31/2004 9:16:16 AM
Barium	0.022	0.0020		mg/L	1	8/31/2004 9:16:16 AM
Cadmium	ND	0.0020		mg/L	1	8/31/2004 9:16:16 AM
Calcium	170	1.0		mg/L	1	8/31/2004 9:16:16 AM
Chromium	ND	0.0060		mg/L	1	8/31/2004 9:16:16 AM
Copper	ND	0.0060		mg/L	1	8/31/2004 9:16:16 AM
Iron	0.056	0.020		mg/L	1	8/31/2004 9:16:16 AM
Lead	ND	0.0050		mg/L	1	8/31/2004 9:16:16 AM
Magnesium	26	1.0		mg/L	1	8/31/2004 9:16:16 AM
Manganese	ND	0.0020		mg/L	1	8/31/2004 9:16:16 AM
Potassium	2.7	1.0		mg/L	1	8/31/2004 9:16:16 AM
Selenium	ND	0.050		mg/L	1	8/31/2004 9:16:16 AM
Silver	ND	0.0050		mg/L	1	8/31/2004 9:16:16 AM

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 7 / 28

Hall Environmental Analysis Laboratory

Date: 01-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408168
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408168-04

Client Sample ID: MW #32
 Collection Date: 8/17/2004 1:50:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Sodium	550	10		mg/L	10	8/31/2004 12:39:05 PM
Uranium	ND	0.10		mg/L	1	8/31/2004 9:16:16 AM
Zinc	0.019	0.0050		mg/L	1	8/31/2004 9:16:16 AM
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/26/2004 10:13:48 AM
Barium	0.049	0.020		mg/L	1	8/26/2004 10:13:48 AM
Cadmium	ND	0.0020		mg/L	1	8/26/2004 10:13:48 AM
Chromium	ND	0.0060		mg/L	1	8/26/2004 10:13:48 AM
Lead	ND	0.0050		mg/L	1	8/26/2004 10:13:48 AM
Selenium	ND	0.050		mg/L	1	8/26/2004 10:13:48 AM
Silver	ND	0.0050		mg/L	1	8/26/2004 10:13:48 AM
EPA METHOD 150.1: PH						Analyst: MAP
pH	7.84	0.010		pH units	1	8/26/2004
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	2400	50		mg/L	1	8/25/2004

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

Hall Environmental Analysis Laboratory

Date: 01-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408168
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408168-05

Client Sample ID: MW #33
 Collection Date: 8/17/2004 2:15:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.21	0.10		mg/L	1	8/19/2004 7:15:36 PM
Chloride	550	2.5		mg/L	25	8/20/2004 3:34:07 PM
Bromide	3.2	0.10		mg/L	1	8/19/2004 7:15:36 PM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/19/2004 7:15:36 PM
Sulfate	1600	13		mg/L	25	8/20/2004 3:34:07 PM
Nitrate (As N)+Nitrite (As N)	25	0.50		mg/L	5	8/24/2004 7:50:37 PM
EPA METHOD 310.1: ALKALINITY						Analyst: MAP
Alkalinity, Total (As CaCO3)	150	2.0		mg/L CaCO3	1	8/26/2004
Carbonate	ND	2.0		mg/L CaCO3	1	8/26/2004
Bicarbonate	150	2.0		mg/L CaCO3	1	8/26/2004
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	8/23/2004 9:54:48 PM
Benzene	ND	0.50		µg/L	1	8/23/2004 9:54:48 PM
Toluene	ND	0.50		µg/L	1	8/23/2004 9:54:48 PM
Ethylbenzene	ND	0.50		µg/L	1	8/23/2004 9:54:48 PM
Xylenes, Total	ND	0.50		µg/L	1	8/23/2004 9:54:48 PM
Surr: 4-Bromofluorobenzene	101	74-118		%REC	1	8/23/2004 9:54:48 PM
TOTAL CARBON DIOXIDE CALCULATION						Analyst: MAP
Total Carbon Dioxide	140	1.0		mg CO2/L	1	8/26/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	4400	0.010		µmhos/cm	1	8/25/2004
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	0.00069	0.00020		mg/L	1	8/20/2004
EPA METHOD 6010C: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/31/2004 9:20:34 AM
Barium	0.020	0.0020		mg/L	1	8/31/2004 9:20:34 AM
Cadmium	ND	0.0020		mg/L	1	8/31/2004 9:20:34 AM
Calcium	350	10		mg/L	10	8/31/2004 3:09:25 PM
Chromium	ND	0.0060		mg/L	1	8/31/2004 9:20:34 AM
Copper	0.0062	0.0060		mg/L	1	8/31/2004 9:20:34 AM
Iron	0.11	0.020		mg/L	1	8/31/2004 2:38:40 PM
Lead	ND	0.0050		mg/L	1	8/31/2004 9:20:34 AM
Magnesium	54	1.0		mg/L	1	8/31/2004 9:20:34 AM
Manganese	0.013	0.0020		mg/L	1	8/31/2004 9:20:34 AM
Potassium	5.3	1.0		mg/L	1	8/31/2004 9:20:34 AM
Selenium	ND	0.050		mg/L	1	8/31/2004 9:20:34 AM
Silver	ND	0.0050		mg/L	1	8/31/2004 9:20:34 AM
Sodium	670	10		mg/L	10	8/31/2004 3:09:25 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 9 / 28

Hall Environmental Analysis Laboratory

Date: 01-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408168
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408168-05

Client Sample ID: MW #33
 Collection Date: 8/17/2004 2:15:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Uranium	ND	0.10		mg/L	1	8/31/2004 9:20:34 AM
Zinc	0.031	0.0050		mg/L	1	8/31/2004 9:20:34 AM
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/26/2004 10:27:30 AM
Barium	0.038	0.020		mg/L	1	8/26/2004 10:27:30 AM
Cadmium	ND	0.0020		mg/L	1	8/26/2004 10:27:30 AM
Chromium	ND	0.0060		mg/L	1	8/26/2004 10:27:30 AM
Lead	0.0067	0.0050		mg/L	1	8/26/2004 10:27:30 AM
Selenium	ND	0.050		mg/L	1	8/26/2004 10:27:30 AM
Silver	ND	0.0050		mg/L	1	8/26/2004 10:27:30 AM
EPA METHOD 150.1: PH						Analyst: MAP
pH	7.78	0.010		pH units	1	8/26/2004
EPA METHOD 160.1: TDS						Analyst: MAP
Total Dissolved Solids	3700	50		mg/L	1	8/25/2004

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

Hall Environmental Analysis Laboratory

Date: 01-Sep-04

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
 Work Order: 0408168
 Project: Annual Monitoring Wells 2004

Sample ID: MBLK Batch ID: R12828 Test Code: E300 Units: mg/L Analysis Date: 8/19/2004 11:34:57 AM Prep Date
 Client ID: LC_040819A Run ID: LC_040819A SeqNo: 297905

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Nitrogen, Nitrite (As N)	ND	0.1									
Bromide	ND	0.1									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

Sample ID: MBLK Batch ID: R12828 Test Code: E300 Units: mg/L Analysis Date: 8/19/2004 6:25:10 PM Prep Date
 Client ID: LC_040819A Run ID: LC_040819A SeqNo: 297929

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Nitrogen, Nitrite (As N)	ND	0.1									
Bromide	ND	0.1									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

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

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
 Work Order: 0408168
 Project: Annual Monitoring Wells 2004

Sample ID	MBLK	Batch ID: R12848	Test Code: E300	Units: mg/L	Analysis Date 8/20/2004 11:36:03 AM	Prep Date
Client ID:	Run ID: LC_040820A	PQL	SPK value	SPK Ref Val	SeqNo: 298287	
Analyte	Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Fluoride	ND		0.1			
Chloride	ND		0.1			
Nitrogen, Nitrite (As N)	ND		0.1			
Bromide	ND		0.1			
Nitrogen, Nitrate (As N)	ND		0.1			
Phosphorus, Orthophosphate (As P)	ND		0.5			
Sulfate	ND		0.5			
Nitrate (As N)+Nitrite (As N)	ND		0.1			

Sample ID	MBLK	Batch ID: R12848	Test Code: E300	Units: mg/L	Analysis Date 8/20/2004 6:22:07 PM	Prep Date
Client ID:	Run ID: LC_040820A	PQL	SPK value	SPK Ref Val	SeqNo: 298308	
Analyte	Result	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD RPDLimit Qual
Fluoride	ND		0.1			
Chloride	ND		0.1			
Nitrogen, Nitrite (As N)	ND		0.1			
Bromide	ND		0.1			
Nitrogen, Nitrate (As N)	ND		0.1			
Phosphorus, Orthophosphate (As P)	ND		0.5			
Sulfate	ND		0.5			
Nitrate (As N)+Nitrite (As N)	ND		0.1			

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
 2

QC SUMMARY REPORT
Method Blank

CLIENT: San Juan Refining
Work Order: 0408168
Project: Annual Monitoring Wells 2004

Sample ID	MBLK	Batch ID:	R12867	Test Code:	E300	Units:	mg/L	Analysis Date	8/24/2004 10:33:38 AM	Prep Date		
Client ID:		Run ID:	LC_040824A	SeqNo:	298902							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride		ND	0.1									
Chloride		ND	0.1									
Nitrogen, Nitrite (As N)		ND	0.1									
Bromide		ND	0.1									
Nitrogen, Nitrate (As N)		ND	0.1									
Phosphorus, Orthophosphate (As P)		ND	0.5									
Sulfate		ND	0.5									
Nitrate (As N)+Nitrite (As N)		ND	0.1									

Sample ID	MBLK	Batch ID:	R12921	Test Code:	E310.1	Units:	mg/L CaCO3	Analysis Date	8/26/2004	Prep Date		
Client ID:		Run ID:	WC_040826D	SeqNo:	300227							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)		ND	2									
Carbonate		ND	2									
Bicarbonate		ND	2									

Sample ID	Reagent Blank 5m	Batch ID:	R12859	Test Code:	SW8021	Units:	µg/L	Analysis Date	8/23/2004 8:01:48 AM	Prep Date		
Client ID:		Run ID:	PIDFID_040823A	SeqNo:	298631							
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		21.97	0	20	0	110	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

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
Work Order: 0408168
Project: Annual Monitoring Wells 2004

Sample ID Reagent Blank 5m **Batch ID:** R12868 **Test Code:** SW8021 **Units:** µg/L **Analysis Date:** 8/24/2004 9:14:46 AM **Prep Date:**
Client ID: PIDFID_040824A **Run ID:** 298954 **SeqNo:**

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	21.2	0	20	0	106	74	118	0			

Sample ID MB-6359 **Batch ID:** 6359 **Test Code:** SW7470 **Units:** mg/L **Analysis Date:** 8/20/2004 **Prep Date:** 8/20/2004
Client ID: MI-LA254_040820B **Run ID:** 298062 **SeqNo:**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.0002									

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

QC SUMMARY REPORT
Method Blank

CLIENT: San Juan Refining
Work Order: 0408168
Project: Annual Monitoring Wells 2004

Sample ID MB Batch ID: R12949 Test Code: SW6010A Units: mg/L Analysis Date 8/31/2004 8:07:01 AM Prep Date
Client ID: Run ID: ICP_040831A SeqNo: 300881

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.02									
Barium	ND	0.002									
Cadmium	ND	0.002									
Calcium	ND	1									
Chromium	ND	0.006									
Copper	ND	0.006									
Iron	ND	0.02									
Lead	ND	0.005									
Magnesium	ND	1									
Manganese	ND	0.002									
Potassium	ND	1									
Selenium	ND	0.05									
Silver	ND	0.005									
Sodium	ND	1									
Uranium	ND	0.1									
Zinc	ND	0.005									

Sample ID MB-6369 Batch ID: 6369 Test Code: SW6010A Units: mg/L Analysis Date 8/26/2004 9:10:03 AM Prep Date 8/24/2004
Client ID: Run ID: ICP_040826A SeqNo: 299548

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.02									
Barium	ND	0.02									
Cadmium	ND	0.002									
Chromium	ND	0.006									
Lead	ND	0.005									
Selenium	ND	0.05									
Silver	ND	0.005									

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

QC SUMMARY REPORT
Method Blank

CLIENT: San Juan Refining
Work Order: 0408168
Project: Annual Monitoring Wells 2004

Sample ID MB-6365 Batch ID: 6365 Test Code: E160.1 Units: mg/L Analysis Date 8/25/2004 Prep Date 8/23/2004
Client ID: WC_040825A Run ID: 299155 SeqNo:
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Total Dissolved Solids ND 50

Sample ID MB-6378 Batch ID: 6378 Test Code: E160.1 Units: mg/L Analysis Date 8/25/2004 Prep Date 8/25/2004
Client ID: WC_040825E Run ID: 300595 SeqNo:
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Total Dissolved Solids ND 50

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

Hall Environmental Analysis Laboratory

Date: 01-Sep-04

CLIENT: San Juan Refining

Work Order: 0408168

Project: Annual Monitoring Wells 2004

QC SUMMARY REPORT

Sample Duplicate

Sample ID	0408168-02B DUP	Batch ID:	R12828	Test Code:	E300	Units:	mg/L	Run ID:	LC_040819A	SeqNo:	297923	Analysis Date	8/19/2004 4:44:21 PM	Prep Date
Client ID:	MW #27	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Analyte														
Fluoride		0.2084	0.1	0	0	0	0	0	0.2046	1.87	20	20		
Nitrogen, Nitrite (As N)		ND	0.1	0	0	0	0	0	0	0	20	20		
Bromide		3.154	0.1	0	0	0	0	3.086	3.086	2.21	20	20		
Nitrogen, Nitrate (As N)		ND	0.1	0	0	0	0	0	0	0	20	20		
Phosphorus, Orthophosphate (As P)		ND	0.5	0	0	0	0	0	0	0	20	20		

Sample ID	0408168-01E DUP	Batch ID:	R12921	Test Code:	E310.1	Units:	mg/L CaCO3	Run ID:	WC_040826D	SeqNo:	300228	Analysis Date	8/26/2004	Prep Date
Client ID:	MW #13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Analyte														
Alkalinity, Total (As CaCO3)		964	2	0	0	0	0	0	954	1.04	15	15		
Carbonate		ND	2	0	0	0	0	0	0	0	15	15		
Bicarbonate		964	2	0	0	0	0	0	954	1.04	15	15		

Sample ID	0408168-01E DUP	Batch ID:	R12922	Test Code:		Units:	mg CO2/L	Run ID:	WC_040826E	SeqNo:	300235	Analysis Date	8/26/2004	Prep Date
Client ID:	MW #13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Analyte														
Total Carbon Dioxide		866	1	0	0	0	0	0	858	0.928	20	20		

Sample ID	0408168-01B DUP	Batch ID:	R12879	Test Code:	E120.1	Units:	µmhos/cm	Run ID:	WC_040825B	SeqNo:	299292	Analysis Date	8/25/2004	Prep Date
Client ID:	MW #13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Analyte														
Specific Conductance		3560	0.01	0	0	0	0	0	3380	5.19	20	20		

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

QC SUMMARY REPORT

Sample Duplicate

CLIENT: San Juan Refining
 Work Order: 0408168
 Project: Annual Monitoring Wells 2004

Sample ID	0408168-05D DUP	Batch ID:	R12949	Test Code:	SW6010A	Units:	mg/L	Analysis Date	8/31/2004 9:32:17 AM	Prep Date	
Client ID:	MW #33	Run ID:	ICP_040831A	SeqNo:	300902						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.02	0	0	0	0	0	0.00644	0	20	
Barium	0.02024	0.002	0	0	0	0	0	0.01964	3.01	20	
Cadmium	ND	0.002	0	0	0	0	0	0	0	20	
Chromium	ND	0.006	0	0	0	0	0	0	0	20	
Copper	0.006323	0.006	0	0	0	0	0	0.00616	2.61	20	
Lead	0.001335	0.005	0	0	0	0	0	0	0	20	J
Magnesium	54.07	1	0	0	0	0	0	53.97	0.180	20	
Manganese	0.01301	0.002	0	0	0	0	0	0.01314	1.04	20	
Potassium	5.387	1	0	0	0	0	0	5.283	1.94	20	
Selenium	ND	0.05	0	0	0	0	0	0	0	20	
Silver	ND	0.005	0	0	0	0	0	0	0	20	
Uranium	0.01159	0.1	0	0	0	0	0	0.01128	0	20	J
Zinc	0.03097	0.005	0	0	0	0	0	0.03084	0.412	20	

Sample ID	0408168-05D DUP	Batch ID:	R12964	Test Code:	SW6010A	Units:	mg/L	Analysis Date	8/31/2004 2:55:56 PM	Prep Date	
Client ID:	MW #33	Run ID:	ICP_040831F	SeqNo:	301163						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	0.09766	0.02	0	0	0	0	0	0.1102	12.1	20	

Sample ID	0408168-05D DUP	Batch ID:	R12964	Test Code:	SW6010A	Units:	mg/L	Analysis Date	8/31/2004 3:06:33 PM	Prep Date	
Client ID:	MW #33	Run ID:	ICP_040831F	SeqNo:	301165						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	347.5	10	0	0	0	0	0	346.6	0.263	20	
Sodium	670.9	10	0	0	0	0	0	671	0.0148	20	

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

QC SUMMARY REPORT

Sample Duplicate

CLIENT: San Juan Refining
 Work Order: 0408168
 Project: Annual Monitoring Wells 2004

Sample ID: 0408168-05C DUP Batch ID: 6369 Test Code: SW6010A Units: mg/L Analysis Date: 8/26/2004 11:05:52 AM Prep Date: 8/24/2004
 Client ID: MW #33 Run ID: ICP_040826A SeqNo: 299571

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.0133	0.02	0	0	0	0	0	0.01795	0	30	J
Barium	0.04052	0.02	0	0	0	0	0	0.03776	7.04	30	
Cadmium	0.0007903	0.002	0	0	0	0	0	0.0007771	0	30	J
Chromium	0.001891	0.006	0	0	0	0	0	0.002497	0	30	J
Lead	0.007308	0.005	0	0	0	0	0	0.006746	7.99	30	
Selenium	ND	0.05	0	0	0	0	0	0	0	30	
Silver	ND	0.005	0	0	0	0	0	0	0	30	

Sample ID: 0408168-01B DUP Batch ID: R12924 Test Code: E150.1 Units: pH units Analysis Date: 8/26/2004 Prep Date:
 Client ID: MW #13 Run ID: WC_040826F SeqNo: 300242

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	8.03	0.01	0	0	0	0	0	0	0	0	

Sample ID: 0408168-05B dup Batch ID: 6365 Test Code: E160.1 Units: mg/L Analysis Date: 8/25/2004 Prep Date: 8/23/2004
 Client ID: MW #33 Run ID: WC_040825A SeqNo: 299167

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	3693	1.5	0	0	0	0	0	3693	0	20	

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

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

B - Analyte detected in the associated Method Blank
 3

Hall Environmental Analysis Laboratory

Date: 03-Sep-04

CLIENT: San Juan Refining

Work Order: 0408168

Project: Annual Monitoring Wells 2004

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS	Batch ID: R12828	Test Code: E300	Units: mg/L	Analysis Date	8/19/2004 11:51:46 AM	Prep Date				
Client ID:		Run ID: LC_040819A			SeqNo: 297906						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4515	0.1	0.5	0	90.3	90	110	0			
Chloride	4.828	0.1	5	0	96.6	90	110	0			
Nitrogen, Nitrite (As N)	0.9201	0.1	1	0	92.0	90	110	0			
Bromide	2.339	0.1	2.5	0	93.5	90	110	0			
Nitrogen, Nitrate (As N)	2.378	0.1	2.5	0	95.1	90	110	0			
Phosphorus, Orthophosphate (As P)	4.533	0.5	5	0	90.7	90	110	0			
Sulfate	9.677	0.5	10	0	96.8	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.298	0.1	3.5	0	94.2	90	110	0			

Sample ID	LCS	Batch ID: R12828	Test Code: E300	Units: mg/L	Analysis Date	8/19/2004 6:41:58 PM	Prep Date				
Client ID:		Run ID: LC_040819A			SeqNo: 297930						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4622	0.1	0.5	0	92.4	90	110	0			
Chloride	4.856	0.1	5	0	97.1	90	110	0			
Nitrogen, Nitrite (As N)	0.922	0.1	1	0	92.2	90	110	0			
Bromide	2.364	0.1	2.5	0	94.6	90	110	0			
Nitrogen, Nitrate (As N)	2.395	0.1	2.5	0	95.8	90	110	0			
Phosphorus, Orthophosphate (As P)	4.786	0.5	5	0	95.7	90	110	0			
Sulfate	9.811	0.5	10	0	98.1	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.317	0.1	3.5	0	94.8	90	110	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

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
 Work Order: 0408168
 Project: Annual Monitoring Wells 2004

Sample ID	LCS	Batch ID: R12848	Test Code: E300	Units: mg/L	Analysis Date	8/20/2004 11:52:52 AM	Prep Date				
Client ID:		Run ID: LC_040820A	SeqNo: 298288								
Analyte		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride		0.1	0.5	0	90.5	90	110	0			
Chloride		0.1	5	0	97.2	90	110	0			
Nitrogen, Nitrite (As N)		0.1	1	0	95.5	90	110	0			
Bromide		0.1	2.5	0	91.1	90	110	0			
Nitrogen, Nitrate (As N)		0.1	2.5	0	94.7	90	110	0			
Phosphorus, Orthophosphate (As P)		0.5	5	0	90.1	90	110	0			
Sulfate		0.5	10	0	96.7	90	110	0			
Nitrate (As N)+Nitrite (As N)		0.1	3.5	0	94.9	90	110	0			

Sample ID	LCS	Batch ID: R12848	Test Code: E300	Units: mg/L	Analysis Date	8/20/2004 6:38:56 PM	Prep Date				
Client ID:		Run ID: LC_040820A	SeqNo: 298309								
Analyte		PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride		0.1	0.5	0	93.4	90	110	0			
Chloride		0.1	5	0	98.1	90	110	0			
Nitrogen, Nitrite (As N)		0.1	1	0	94.5	90	110	0			
Bromide		0.1	2.5	0	92.7	90	110	0			
Nitrogen, Nitrate (As N)		0.1	2.5	0	95.5	90	110	0			
Phosphorus, Orthophosphate (As P)		0.5	5	0	93.0	90	110	0			
Sulfate		0.5	10	0	97.8	90	110	0			
Nitrate (As N)+Nitrite (As N)		0.1	3.5	0	95.2	90	110	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

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
 Work Order: 0408168
 Project: Annual Monitoring Wells 2004

Sample ID	LCS	Batch ID: R12867	Test Code: E300	Units: mg/L	Analysis Date 8/24/2004 10:50:27 AM	Prep Date
Client ID:	Run ID: LC_040824A	PQL	SPK value	SPK Ref Val	SeqNo: 298903	
Analyte	Result	%REC	LowLimit	HighLimit	RPD Ref Val	RPDLimit
Fluoride	0.4652	93.0	90	110	0	0
Chloride	4.87	97.4	90	110	0	0
Nitrogen, Nitrite (As N)	0.9544	95.4	90	110	0	0
Bromide	2.336	93.4	90	110	0	0
Nitrogen, Nitrate (As N)	2.442	97.7	90	110	0	0
Phosphorus, Orthophosphate (As P)	4.52	90.4	90	110	0	0
Sulfate	9.807	98.1	90	110	0	0
Nitrate (As N)+Nitrite (As N)	3.396	97.0	90	110	0	0

Sample ID	BTEX std 100ng	Batch ID: SW8021	Test Code: PIDFID_040823A	Units: µg/L	Analysis Date 8/24/2004 3:27:49 AM	Prep Date
Client ID:	Run ID: PIDFID_040823A	PQL	SPK value	SPK Ref Val	SeqNo: 298734	
Analyte	Result	%REC	LowLimit	HighLimit	RPD Ref Val	RPDLimit
Methyl tert-butyl ether (MTBE)	43.89	110	54.9	142	0	0
Benzene	20.74	104	81.3	121	0	0
Toluene	21.66	108	84.9	118	0	0
Ethylbenzene	21.14	106	53.8	149	0	0
Xylenes, Total	65.02	108	83.1	122	0	0
Surr: 4-Bromofluorobenzene	24.21	101	74	118	0	0

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

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
 Work Order: 0408168
 Project: Annual Monitoring Wells 2004

Sample ID	BTEX std 100ng	Batch ID: R12868	Test Code: SW8021	Units: µg/L	Analysis Date 8/25/2004 6:27:36 AM	Prep Date					
Client ID:	Run ID: PIDFID_040824A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result										
Methyl tert-butyl ether (MTBE)	40.43	2.5	40	0	101	54.9	142	0			
Benzene	19.41	0.5	20	0	97.0	81.3	121	0			
Toluene	20.39	0.5	20	0	102	84.9	118	0			
Ethylbenzene	19.7	0.5	20	0	98.5	53.8	149	0			
Xylenes, Total	59.65	0.5	60	0	99.4	83.1	122	0			
Surr: 4-Bromofluorobenzene	24.66	0	24	0	103	74	118	0			

Sample ID	LCS-6359	Batch ID: 6359	Test Code: SW7470	Units: mg/L	Analysis Date 8/20/2004	Prep Date 8/20/2004					
Client ID:	Run ID: MI-LA254_040820B	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result										
Mercury	0.005405	0.0002	0.005	0	108	75.2	134	0			

Sample ID	LCSD-6359	Batch ID: 6359	Test Code: SW7470	Units: mg/L	Analysis Date 8/20/2004	Prep Date 8/20/2004					
Client ID:	Run ID: MI-LA254_040820B	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result										
Mercury	0.005314	0.0002	0.005	0	106	75.2	134	0.005405	1.70	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

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining

Work Order: 0408168

Project: Annual Monitoring Wells 2004

Sample ID LCS Batch ID: R12949 Test Code: SW6010A Units: mg/L Analysis Date 8/31/2004 8:09:53 AM Prep Date

Client ID: Run ID: ICP_040831A SeqNo: 300882

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5275	0.02	0.5	0	106	80	120	0			
Barium	0.4933	0.002	0.5	0	98.7	80	120	0			
Cadmium	0.5008	0.002	0.5	0	100	80	120	0			
Calcium	51.9	1	50.5	0	103	80	120	0			
Chromium	0.5034	0.006	0.5	0	101	80	120	0			
Copper	0.4792	0.006	0.5	0	95.8	80	120	0			
Iron	0.4916	0.02	0.5	0	98.3	80	120	0			
Lead	0.5042	0.005	0.5	0	101	80	120	0			
Magnesium	51.94	1	50.5	0	103	80	120	0			
Manganese	0.4953	0.002	0.5	0	99.1	80	120	0			
Potassium	51.7	1	55	0	94.0	80	120	0			
Selenium	0.499	0.05	0.5	0	99.8	80	120	0			
Silver	0.4891	0.005	0.5	0	97.8	80	120	0			
Sodium	48.15	1	50.5	0	95.4	80	120	0			
Zinc	0.5249	0.005	0.5	0	105	80	120	0			

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

QC SUMMARY REPORT
Laboratory Control Spike Duplicate

CLIENT: San Juan Refining
Work Order: 0408168
Project: Annual Monitoring Wells 2004

Sample ID: LCSD Batch ID: R12949 Test Code: SW6010A Units: mg/L Analysis Date: 8/31/2004 8:13:06 AM Prep Date
Client ID: Run ID: ICP_040831A SeqNo: 300883

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5242	0.02	0.5	0	105	80	120	0.5275	0.624	20	
Barium	0.4853	0.002	0.5	0	97.1	80	120	0.4933	1.64	20	
Cadmium	0.4917	0.002	0.5	0	98.3	80	120	0.5008	1.82	20	
Calcium	52.47	1	50.5	0	104	80	120	51.9	1.10	20	
Chromium	0.4947	0.006	0.5	0	98.9	80	120	0.5034	1.74	20	
Copper	0.4688	0.006	0.5	0	93.8	80	120	0.4792	2.20	20	
Iron	0.4933	0.02	0.5	0	98.7	80	120	0.4916	0.333	20	
Lead	0.4948	0.005	0.5	0	99.0	80	120	0.5042	1.88	20	
Magnesium	52.4	1	50.5	0	104	80	120	51.94	0.866	20	
Manganese	0.4855	0.002	0.5	0	97.1	80	120	0.4953	1.98	20	
Potassium	52.05	1	55	0	94.6	80	120	51.7	0.679	20	
Selenium	0.4963	0.05	0.5	0	99.3	80	120	0.499	0.557	20	
Silver	0.4801	0.005	0.5	0	96.0	80	120	0.4891	1.84	20	
Sodium	48.52	1	50.5	0	96.1	80	120	48.15	0.759	20	
Zinc	0.5181	0.005	0.5	0	104	80	120	0.5249	1.32	20	

Sample ID: LCS U5 Batch ID: R12949 Test Code: SW6010A Units: mg/L Analysis Date: 8/31/2004 12:27:30 PM Prep Date
Client ID: Run ID: ICP_040831A SeqNo: 300932

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Uranium	4.933	0.1	5	0	98.7	80	120	0			

Sample ID	LCSD U 5	Batch ID	R12949	Test Code	SW6010A	Units	mg/L	Analysis Date	8/31/2004 12:30:22 PM	Prep Date
Client ID:		Run ID:	ICP_040831A	SeqNo:	300933					

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Uranium	5.011	0.1	5	0	100	80	120	4.933	1.57	20	

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

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
 Work Order: 0408168
 Project: Annual Monitoring Wells 2004

Sample ID	LCS-6369	Batch ID: 6369	Test Code: SW6010A	Units: mg/L	Analysis Date	8/26/2004 9:12:34 AM	Prep Date	8/24/2004			
Client ID:			Run ID: ICP_040826A		SeqNo:	299549					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5777	0.02	0.5	0	116	80	120	0			
Barium	0.5069	0.02	0.5	0	101	80	120	0			
Cadmium	0.5343	0.002	0.5	0	107	80	120	0			
Chromium	0.5052	0.006	0.5	0	101	80	120	0			
Lead	0.5242	0.005	0.5	0	105	80	120	0			S
Selenium	0.6003	0.05	0.5	0	120	80	120	0			
Silver	0.5215	0.005	0.5	0	104	80	120	0			

Sample ID	LCSD-6369	Batch ID: 6369	Test Code: SW6010A	Units: mg/L	Analysis Date	8/26/2004 9:15:33 AM	Prep Date	8/24/2004			
Client ID:			Run ID: ICP_040826A		SeqNo:	299550					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5728	0.02	0.5	0	115	80	120	0.5777	0.858	20	
Barium	0.5069	0.02	0.5	0	101	80	120	0.5069	0.00132	20	
Cadmium	0.5349	0.002	0.5	0	107	80	120	0.5343	0.119	20	
Chromium	0.5081	0.006	0.5	0	102	80	120	0.5052	0.556	20	
Lead	0.5288	0.005	0.5	0	106	80	120	0.5242	0.863	20	
Selenium	0.6026	0.05	0.5	0	121	80	120	0.6003	0.384	20	S
Silver	0.5227	0.005	0.5	0	105	80	120	0.5215	0.239	20	

Sample ID	LCS-6365	Batch ID: 6365	Test Code: E160.1	Units: mg/L	Analysis Date	8/25/2004	Prep Date	8/23/2004			
Client ID:			Run ID: WC_040825A		SeqNo:	299156					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	1003	50	1000	0	100	80	120	0			

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

QC SUMMARY REPORT
 Laboratory Control Spike - generic

CLIENT: San Juan Refining
Work Order: 0408168
Project: Annual Monitoring Wells 2004

Sample ID LCS-6378 **Batch ID:** 6378 **Test Code:** E160.1 **Units:** mg/L **Analysis Date** 8/25/2004 **Prep Date** 8/25/2004
Client ID: WC_040825E **Run ID:** WC_040825E **SeqNo:** 300596

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	1074	50	1000	0	107	80	120	0			

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

8/19/2004

Work Order Number 0408168

Received by AMG

Checklist completed by Bonzalus 08/19/04
Signature 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? 4° *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: #50 CR 4990
Bloomfield, NM 87413

Phone #: 505-632-4161
Fax #: 505-632-3911

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.
					HgCl ₂	HNO ₃	
18 Aug 04	9:30 AM	H ₂ O	MW #13	2-VOA	X		068168
				1-125	X		
				1-500	X		
				1-125			H ₂ SO ₄
				1-250			
				1-500			
18 Aug 04	10:51 AM	H ₂ O	MW #27	2-VOA	X		2-
				1-125	X		
				1-500	X		
				1-125			H ₂ SO ₄
				1-250			
				1-500			

Date: 8-18-04 Time: 2:35 PM
Relinquished By: (Signature) Cindy Hurtado
Relinquished By: (Signature) [Signature]

Received By: (Signature) [Signature]
Received By: (Signature) [Signature]
1037

Accreditation Applied:
NELAC USACE

Other:
Project Name: Annual Monitoring Wells 2004

Project #:
Project Manager:

Sampler: Cindy Hurtado / David [Signature]
Sample Temperature: 4.0 [Signature]

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

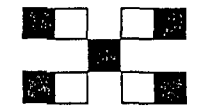
ANALYSIS REQUEST

BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	PCRA 8 Metals	Anions (F, Cl, NO ₂ , NO ₃ , PO ₄ , SO ₄)	8081 Pesticides / PCB's (8082)	8268B (VOA) Cations	8270 (Semi-VOA)	Metals - Dissolved Metals	Carbon Dioxide	EC, pH, TDS, Alk	Air Bubbles or Headspace (Y or N)
X						X	X		X		X			
							X							
							X							
							X							
							X							
							X							
							X							
							X							
							X							
							X							
							X							

Remarks:



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 Albuquerque, New Mexico 87109
 Tel. 505.345.3975 Fax 505.345.4107
 www.hallenvironmental.com



Accreditation Applied:
 NELAC USACE

Other:
 Project Name:
Annual Monitoring Wells 2004

CHAIN-OF-CUSTODY RECORD
 Client: **SAN JUAN Refining**
 Address: **#50 CR 4990 Bloomfield, NM 87413**
 Phone #: **505-632-4161**
 Fax #: **505-632-3911**

Project #: _____
 Project Manager: **Cindy Hurtado**
 Sample Temperature: **14.0**
 Sample: **Cindy Hurtado**
 Sample Volume: **2-VOA**
 Number: **1-125**
 Volume: **1-500**
 Matrix: **H₂O**
 Sample I.D. No.: **MW #36**
 Date: **8-17-04**
 Time: **1:00pm**

Date	Time	Matrix	Sample I.D. No.	Number	Volume	Preservative		HEAL No.
						HgCl ₂	HNO ₃	
8-17-04	1:00pm	H ₂ O	MW #36	2-VOA	X		X	0408168
				1-125			X Flood	3
				1-500			X	
				1-125			H ₂ SO ₄	
				1-250				
				1-500				
8-17-04	1:50pm	H ₂ O	MW #32	2-VOA	X		X Flood	4
				1-125			X Flood	
				1-500			X	
				1-125			H ₂ SO ₄	
				1-250				
				1-500				

Date		Time	Signature
8-17-04	3:55pm	Cindy Hurtado	Relinquished By: (Signature)
		Cindy Hurtado	Relinquished By: (Signature)

ANALYSIS REQUEST

BTEX + MTBE + PAH's (80215)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₂ , NO ₃ , PO ₄ , SO ₄)	8081 Pesticides / PCB's (8082)	8268B (VOA) (CATIONS)	8270 (Semi-VOA)	Metals-Dissolved Zn, Mn, Ni, Cu	Carbon Dioxide	Eq, pH, TDS, Alk	Air Bubbles or Headspace (Y or N)
X							X					X			
							X					X			
							X					X			
							X					X			
							X					X			
							X					X			

Remarks:

CHAIN-OF-CUSTODY RECORD

Client: *SAN JUAN Refining*

Address: *#50 CR 4990*

Bloomfield, NM

89413

Phone #: *505-632-4161*

Fax #: *505-632-3911*

Accreditation Applied
NELAC USACE

Other:

Project Name:
*Annual Monitoring Wells
2004*

Project #:

Project Manager:

Sampler: *Cindy Nantado / David Anderson*

Sample Temperature: *40*

Number/Volume
2-VOA X
1-125 X Filled
1-500 X
1-125 H2O
1-250
1-500

Matrix
H2O

Sample I.D. No.
MW # 33

Preservative
HgCl₂ HNO₃

HEAL No.
0608169

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 + TPA's (8021B)	X
BTEX + MTBE + TPA's (Gasoline Only)	
TPH Method 8015B (Gas/Diesel)	
TPH (Method 418.1)	
EDB (Method 504.1)	
EDC (Method 8021)	
8310 (PNA or PAH)	
HCRA 8-Metals	X
Anions (F ⁻ , Cl ⁻ , NO ₂ ⁻ , NO ₃ ⁻ , PO ₄ ³⁻ , SO ₄ ²⁻)	X
8081 Pesticides / PCB's (8082)	
8260B (VOA) (ATIONS)	X
8270 (Semi-VOA)	
Metals-Dissolved (AOC 20)	X
Carbon Dioxide	
EC, PH, TDS, AIK	
Air Bubbles or Headspace (Y or N)	

Remarks:

Received By: (Signature)
Donna

Received By: (Signature)

Date: *5-17-04* Time: *3:50pm*

Relinquished By: (Signature)
Cindy Nantado

Relinquished By: (Signature)

COVER LETTER

September 01, 2004

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

RE: Annual Monitoring Wells 2004

Order No.: 0408193

Dear Cindy Hurtado:

Hall Environmental Analysis Laboratory received 8 samples on 8/20/2004 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: 01-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408193
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408193-01

Client Sample ID: P4
 Collection Date: 8/18/2004 3:10:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.29	0.10		mg/L	1	8/21/2004 12:15:05 AM
Chloride	77	0.50		mg/L	5	8/23/2004 2:36:18 PM
Bromide	0.77	0.10		mg/L	1	8/21/2004 12:15:05 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/21/2004 12:15:05 AM
Sulfate	4.9	0.50		mg/L	1	8/21/2004 12:15:05 AM
Nitrate (As N)+Nitrite (As N)	ND	0.50		mg/L	5	8/24/2004 8:07:26 PM
EPA METHOD 310.1: ALKALINITY						Analyst: CMC
Alkalinity, Total (As CaCO3)	1500	2.0		mg/L CaCO3	1	8/27/2004
Carbonate	ND	2.0		mg/L CaCO3	1	8/27/2004
Bicarbonate	1500	2.0		mg/L CaCO3	1	8/27/2004
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	8/30/2004 6:46:37 PM
Benzene	4100	50		µg/L	100	8/30/2004 6:46:37 PM
Toluene	ND	50		µg/L	100	8/30/2004 6:46:37 PM
Ethylbenzene	3300	50		µg/L	100	8/30/2004 6:46:37 PM
Xylenes, Total	12000	50		µg/L	100	8/30/2004 6:46:37 PM
Surr: 4-Bromofluorobenzene	102	74-118		%REC	100	8/30/2004 6:46:37 PM
TOTAL CARBON DIOXIDE CALCULATION						Analyst: CMC
Total Carbon Dioxide	1300	1.0		mg CO2/L	1	8/27/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	2300	0.010		µmhos/cm	1	8/25/2004
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	8/26/2004
EPA METHOD 6010C: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/31/2004 9:50:55 AM
Barium	0.43	0.0020		mg/L	1	8/31/2004 9:50:55 AM
Cadmium	ND	0.0020		mg/L	1	8/31/2004 9:50:55 AM
Calcium	84	1.0		mg/L	1	8/31/2004 9:50:55 AM
Chromium	ND	0.0060		mg/L	1	8/31/2004 9:50:55 AM
Copper	ND	0.0060		mg/L	1	8/31/2004 9:50:55 AM
Iron	0.067	0.020		mg/L	1	8/31/2004 9:50:55 AM
Lead	ND	0.0050		mg/L	1	8/31/2004 9:50:55 AM
Magnesium	19	1.0		mg/L	1	8/31/2004 9:50:55 AM
Manganese	0.021	0.0020		mg/L	1	8/31/2004 9:50:55 AM
Potassium	4.0	1.0		mg/L	1	8/31/2004 9:50:55 AM
Selenium	ND	0.050		mg/L	1	8/31/2004 9:50:55 AM
Silver	ND	0.0050		mg/L	1	8/31/2004 9:50:55 AM
Sodium	510	10		mg/L	10	8/31/2004 1:03:45 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-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408193
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408193-01

Client Sample ID: P4
 Collection Date: 8/18/2004 3:10:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Uranium	ND	0.10		mg/L	1	8/31/2004 9:50:55 AM
Zinc	0.016	0.0050		mg/L	1	8/31/2004 9:50:55 AM
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	9/1/2004 8:40:58 AM
Barium	0.58	0.020		mg/L	1	9/1/2004 8:40:58 AM
Cadmium	ND	0.0020		mg/L	1	9/1/2004 8:40:58 AM
Chromium	ND	0.0060		mg/L	1	9/1/2004 8:40:58 AM
Lead	0.0082	0.0050		mg/L	1	9/1/2004 8:40:58 AM
Selenium	ND	0.050		mg/L	1	9/1/2004 8:40:58 AM
Silver	ND	0.0050		mg/L	1	9/1/2004 8:40:58 AM
EPA METHOD 160.1: TDS						Analyst: JEB
Total Dissolved Solids	1700	50		mg/L	1	8/25/2004

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

Hall Environmental Analysis Laboratory

Date: 01-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408193
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408193-02

Client Sample ID: P5
 Collection Date: 8/18/2004 3:35:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.29	0.10		mg/L	1	8/21/2004 12:31:54 AM
Chloride	100	1.0		mg/L	10	8/23/2004 2:53:06 PM
Bromide	0.94	0.10		mg/L	1	8/21/2004 12:31:54 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	8/21/2004 12:31:54 AM
Sulfate	6.5	0.50		mg/L	1	8/21/2004 12:31:54 AM
Nitrate (As N)+Nitrite (As N)	0.74	0.50		mg/L	5	8/24/2004 8:24:14 PM
EPA METHOD 310.1: ALKALINITY						Analyst: CMC
Alkalinity, Total (As CaCO3)	1200	2.0		mg/L CaCO3	1	8/27/2004
Carbonate	ND	2.0		mg/L CaCO3	1	8/27/2004
Bicarbonate	1200	2.0		mg/L CaCO3	1	8/27/2004
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	8/30/2004 7:16:59 PM
Benzene	1000	50		µg/L	100	8/30/2004 7:16:59 PM
Toluene	ND	50		µg/L	100	8/30/2004 7:16:59 PM
Ethylbenzene	1600	50		µg/L	100	8/30/2004 7:16:59 PM
Xylenes, Total	5800	50		µg/L	100	8/30/2004 7:16:59 PM
Surr. 4-Bromofluorobenzene	104	74-118		%REC	100	8/30/2004 7:16:59 PM
TOTAL CARBON DIOXIDE CALCULATION						Analyst: CMC
Total Carbon Dioxide	1000	1.0		mg CO2/L	1	8/27/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	2000	0.010		µmhos/cm	1	8/25/2004
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	8/26/2004
EPA METHOD 6010C: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/31/2004 9:55:08 AM
Barium	0.42	0.0020		mg/L	1	8/31/2004 9:55:08 AM
Cadmium	ND	0.0020		mg/L	1	8/31/2004 9:55:08 AM
Calcium	150	1.0		mg/L	1	8/31/2004 9:55:08 AM
Chromium	ND	0.0060		mg/L	1	8/31/2004 9:55:08 AM
Copper	ND	0.0060		mg/L	1	8/31/2004 9:55:08 AM
Iron	1.0	0.020		mg/L	1	8/31/2004 9:55:08 AM
Lead	ND	0.0050		mg/L	1	8/31/2004 9:55:08 AM
Magnesium	31	1.0		mg/L	1	8/31/2004 9:55:08 AM
Manganese	0.26	0.0020		mg/L	1	8/31/2004 9:55:08 AM
Potassium	3.7	1.0		mg/L	1	8/31/2004 9:55:08 AM
Selenium	ND	0.050		mg/L	1	8/31/2004 9:55:08 AM
Silver	ND	0.0050		mg/L	1	8/31/2004 9:55:08 AM
Sodium	330	10		mg/L	10	8/31/2004 1:06:33 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: 01-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408193
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408193-02

Client Sample ID: P5
 Collection Date: 8/18/2004 3:35:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Uranium	ND	0.10		mg/L	1	8/31/2004 9:55:08 AM
Zinc	0.029	0.0050		mg/L	1	8/31/2004 9:55:08 AM
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	9/1/2004 8:45:11 AM
Barium	0.52	0.020		mg/L	1	9/1/2004 8:45:11 AM
Cadmium	ND	0.0020		mg/L	1	9/1/2004 8:45:11 AM
Chromium	ND	0.0060		mg/L	1	9/1/2004 8:45:11 AM
Lead	0.011	0.0050		mg/L	1	9/1/2004 8:45:11 AM
Selenium	ND	0.050		mg/L	1	9/1/2004 8:45:11 AM
Silver	ND	0.0050		mg/L	1	9/1/2004 8:45:11 AM
EPA METHOD 160.1: TDS						Analyst: JEB
Total Dissolved Solids	1400	50		mg/L	1	8/25/2004

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

Hall Environmental Analysis Laboratory

Date: 01-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408193
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408193-03

Client Sample ID: MW#31
 Collection Date: 8/19/2004 10:40:00 AM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.19	0.10		mg/L	1	8/21/2004 1:22:20 AM
Chloride	370	2.0		mg/L	20	8/23/2004 4:00:19 PM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/21/2004 1:22:20 AM
Bromide	7.2	0.10		mg/L	1	8/21/2004 1:22:20 AM
Nitrogen, Nitrate (As N)	0.14	0.10		mg/L	1	8/21/2004 1:22:20 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/21/2004 1:22:20 AM
Sulfate	750	10		mg/L	20	8/23/2004 4:00:19 PM
EPA METHOD 310.1: ALKALINITY						Analyst: CMC
Alkalinity, Total (As CaCO ₃)	1100	2.0		mg/L CaCO ₃	1	8/27/2004
Carbonate	ND	2.0		mg/L CaCO ₃	1	8/27/2004
Bicarbonate	1100	2.0		mg/L CaCO ₃	1	8/27/2004
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	250		µg/L	100	8/30/2004 7:47:22 PM
Benzene	3700	50		µg/L	100	8/30/2004 7:47:22 PM
Toluene	400	50		µg/L	100	8/30/2004 7:47:22 PM
Ethylbenzene	320	50		µg/L	100	8/30/2004 7:47:22 PM
Xylenes, Total	1200	50		µg/L	100	8/30/2004 7:47:22 PM
Surr: 4-Bromofluorobenzene	101	74-118		%REC	100	8/30/2004 7:47:22 PM
TOTAL CARBON DIOXIDE CALCULATION						Analyst: CMC
Total Carbon Dioxide	980	1.0		mg CO ₂ /L	1	8/27/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	3700	0.010		µmhos/cm	1	8/25/2004
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	0.00022	0.00020		mg/L	1	8/26/2004
EPA METHOD 6010C: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/31/2004 9:59:24 AM
Barium	0.35	0.0020		mg/L	1	8/31/2004 9:59:24 AM
Cadmium	ND	0.0020		mg/L	1	8/31/2004 9:59:24 AM
Calcium	220	10		mg/L	10	8/31/2004 1:08:36 PM
Chromium	ND	0.0060		mg/L	1	8/31/2004 9:59:24 AM
Copper	ND	0.0060		mg/L	1	8/31/2004 9:59:24 AM
Iron	0.46	0.020		mg/L	1	8/31/2004 9:59:24 AM
Lead	ND	0.0050		mg/L	1	8/31/2004 9:59:24 AM
Magnesium	67	1.0		mg/L	1	8/31/2004 9:59:24 AM
Manganese	0.58	0.0020		mg/L	1	8/31/2004 9:59:24 AM
Potassium	4.8	1.0		mg/L	1	8/31/2004 9:59:24 AM
Selenium	ND	0.050		mg/L	1	8/31/2004 9:59:24 AM
Silver	ND	0.0050		mg/L	1	8/31/2004 9:59:24 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-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408193
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408193-03

Client Sample ID: MW#31
 Collection Date: 8/19/2004 10:40:00 AM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Sodium	640	10		mg/L	10	8/31/2004 1:08:36 PM
Uranium	ND	0.10		mg/L	1	8/31/2004 9:59:24 AM
Zinc	0.019	0.0050		mg/L	1	8/31/2004 9:59:24 AM
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	9/1/2004 8:49:26 AM
Barium	0.35	0.020		mg/L	1	9/1/2004 8:49:26 AM
Cadmium	ND	0.0020		mg/L	1	9/1/2004 8:49:26 AM
Chromium	0.0088	0.0060		mg/L	1	9/1/2004 8:49:26 AM
Lead	ND	0.0050		mg/L	1	9/1/2004 8:49:26 AM
Selenium	ND	0.050		mg/L	1	9/1/2004 8:49:26 AM
Silver	ND	0.0050		mg/L	1	9/1/2004 8:49:26 AM
EPA METHOD 160.1: TDS						Analyst: JEB
Total Dissolved Solids	2800	50		mg/L	1	8/25/2004

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

Hall Environmental Analysis Laboratory

Date: 01-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408193
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408193-04

Client Sample ID: MW#8
 Collection Date: 8/19/2004 2:50:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.64	0.10		mg/L	1	8/21/2004 1:39:09 AM
Chloride	250	2.0		mg/L	20	8/23/2004 4:33:52 PM
Bromide	1.2	0.10		mg/L	1	8/21/2004 1:39:09 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/21/2004 1:39:09 AM
Sulfate	920	10		mg/L	20	8/23/2004 4:33:52 PM
Nitrate (As N)+Nitrite (As N)	24	0.50		mg/L	5	8/27/2004 11:20:57 AM
EPA METHOD 310.1: ALKALINITY						Analyst: CMC
Alkalinity, Total (As CaCO3)	230	2.0		mg/L CaCO3	1	8/27/2004
Carbonate	ND	2.0		mg/L CaCO3	1	8/27/2004
Bicarbonate	230	2.0		mg/L CaCO3	1	8/27/2004
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	8/30/2004 8:18:04 PM
Benzene	ND	0.50		µg/L	1	8/30/2004 8:18:04 PM
Toluene	ND	0.50		µg/L	1	8/30/2004 8:18:04 PM
Ethylbenzene	ND	0.50		µg/L	1	8/30/2004 8:18:04 PM
Xylenes, Total	ND	0.50		µg/L	1	8/30/2004 8:18:04 PM
Surr: 4-Bromofluorobenzene	102	74-118		%REC	1	8/30/2004 8:18:04 PM
TOTAL CARBON DIOXIDE CALCULATION						Analyst: CMC
Total Carbon Dioxide	210	1.0		mg CO2/L	1	8/27/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	2600	0.010		µmhos/cm	1	8/25/2004
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	8/26/2004
EPA METHOD 6010C: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/31/2004 10:03:40 AM
Barium	0.021	0.0020		mg/L	1	8/31/2004 10:03:40 AM
Cadmium	ND	0.0020		mg/L	1	8/31/2004 10:03:40 AM
Calcium	210	10		mg/L	10	8/31/2004 1:12:43 PM
Chromium	ND	0.0060		mg/L	1	8/31/2004 10:03:40 AM
Copper	ND	0.0060		mg/L	1	8/31/2004 10:03:40 AM
Iron	0.059	0.020		mg/L	1	8/31/2004 10:03:40 AM
Lead	ND	0.0050		mg/L	1	8/31/2004 10:03:40 AM
Magnesium	35	1.0		mg/L	1	8/31/2004 10:03:40 AM
Manganese	0.57	0.0020		mg/L	1	8/31/2004 10:03:40 AM
Potassium	3.0	1.0		mg/L	1	8/31/2004 10:03:40 AM
Selenium	ND	0.050		mg/L	1	8/31/2004 10:03:40 AM
Silver	ND	0.0050		mg/L	1	8/31/2004 10:03:40 AM
Sodium	360	10		mg/L	10	8/31/2004 1:12:43 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-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408193
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408193-04

Client Sample ID: MW#8
 Collection Date: 8/19/2004 2:50:00 PM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Uranium	ND	0.10		mg/L	1	8/31/2004 10:03:40 AM
Zinc	0.022	0.0050		mg/L	1	8/31/2004 10:03:40 AM
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	9/1/2004 9:06:22 AM
Barium	0.071	0.020		mg/L	1	9/1/2004 9:06:22 AM
Cadmium	ND	0.0020		mg/L	1	9/1/2004 9:06:22 AM
Chromium	1.9	0.030		mg/L	5	9/1/2004 2:13:06 PM
Lead	ND	0.0050		mg/L	1	9/1/2004 9:06:22 AM
Selenium	ND	0.050		mg/L	1	9/1/2004 9:06:22 AM
Silver	ND	0.0050		mg/L	1	9/1/2004 9:06:22 AM
EPA METHOD 160.1: TDS						Analyst: JEB
Total Dissolved Solids	2100	50		mg/L	1	8/25/2004

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

Hall Environmental Analysis Laboratory

Date: 01-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408193
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408193-05

Client Sample ID: MW#26
 Collection Date: 8/19/2004 8:45:00 AM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.29	0.10		mg/L	1	8/21/2004 12:48:43 AM
Chloride	230	1.0		mg/L	10	8/24/2004 11:23:59 AM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/21/2004 12:48:43 AM
Bromide	4.2	0.10		mg/L	1	8/21/2004 12:48:43 AM
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	8/21/2004 12:48:43 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/21/2004 12:48:43 AM
Sulfate	ND	0.50		mg/L	1	8/21/2004 12:48:43 AM
EPA METHOD 310.1: ALKALINITY						Analyst: CMC
Alkalinity, Total (As CaCO3)	1000	2.0		mg/L CaCO3	1	8/27/2004
Carbonate	ND	2.0		mg/L CaCO3	1	8/27/2004
Bicarbonate	1000	2.0		mg/L CaCO3	1	8/27/2004
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	130		µg/L	50	8/30/2004 8:48:21 PM
Benzene	740	25		µg/L	50	8/30/2004 8:48:21 PM
Toluene	ND	25		µg/L	50	8/30/2004 8:48:21 PM
Ethylbenzene	460	25		µg/L	50	8/30/2004 8:48:21 PM
Xylenes, Total	190	25		µg/L	50	8/30/2004 8:48:21 PM
Surr: 4-Bromofluorobenzene	96.9	74-118		%REC	50	8/30/2004 8:48:21 PM
TOTAL CARBON DIOXIDE CALCULATION						Analyst: CMC
Total Carbon Dioxide	910	1.0		mg CO2/L	1	8/27/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	2200	0.010		µmhos/cm	1	8/25/2004
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	8/26/2004
EPA METHOD 6010C: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/31/2004 10:07:55 AM
Barium	1.8	0.020		mg/L	10	8/31/2004 1:10:42 PM
Cadmium	ND	0.0020		mg/L	1	8/31/2004 10:07:55 AM
Calcium	75	1.0		mg/L	1	8/31/2004 10:07:55 AM
Chromium	ND	0.0060		mg/L	1	8/31/2004 10:07:55 AM
Copper	ND	0.0060		mg/L	1	8/31/2004 10:07:55 AM
Iron	5.1	0.020		mg/L	1	8/31/2004 10:07:55 AM
Lead	0.0056	0.0050		mg/L	1	8/31/2004 10:07:55 AM
Magnesium	27	1.0		mg/L	1	8/31/2004 10:07:55 AM
Manganese	2.0	0.0020		mg/L	1	8/31/2004 10:07:55 AM
Potassium	2.6	1.0		mg/L	1	8/31/2004 10:07:55 AM
Selenium	ND	0.050		mg/L	1	8/31/2004 10:07:55 AM
Silver	ND	0.0050		mg/L	1	8/31/2004 10:07:55 AM

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-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408193
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408193-05

Client Sample ID: MW#26
 Collection Date: 8/19/2004 8:45:00 AM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Sodium	440	10		mg/L	10	8/31/2004 1:10:42 PM
Uranium	ND	0.10		mg/L	1	8/31/2004 10:07:55 AM
Zinc	0.013	0.0050		mg/L	1	8/31/2004 10:07:55 AM
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	9/1/2004 9:18:04 AM
Barium	2.0	0.20		mg/L	10	9/1/2004 9:40:53 AM
Cadmium	ND	0.0020		mg/L	1	9/1/2004 9:18:04 AM
Chromium	ND	0.0060		mg/L	1	9/1/2004 9:18:04 AM
Lead	ND	0.0050		mg/L	1	9/1/2004 9:18:04 AM
Selenium	ND	0.050		mg/L	1	9/1/2004 9:18:04 AM
Silver	ND	0.0050		mg/L	1	9/1/2004 9:18:04 AM
EPA METHOD 160.1: TDS						Analyst: JEB
Total Dissolved Solids	1600	50		mg/L	1	8/25/2004

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

Hall Environmental Analysis Laboratory

Date: 01-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408193
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408193-06

Client Sample ID: MW#29
 Collection Date: 8/19/2004 11:20:00 AM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MAP
Fluoride	0.31	0.10		mg/L	1	8/21/2004 1:05:31 AM
Chloride	35	0.10		mg/L	1	8/21/2004 1:05:31 AM
Nitrogen, Nitrite (As N)	ND	0.10		mg/L	1	8/21/2004 1:05:31 AM
Bromide	ND	0.10		mg/L	1	8/21/2004 1:05:31 AM
Nitrogen, Nitrate (As N)	0.60	0.10		mg/L	1	8/21/2004 1:05:31 AM
Phosphorus, Orthophosphate (As P)	ND	0.50		mg/L	1	8/21/2004 1:05:31 AM
Sulfate	150	2.5		mg/L	5	8/23/2004 3:43:30 PM
EPA METHOD 310.1: ALKALINITY						Analyst: CMC
Alkalinity, Total (As CaCO3)	240	2.0		mg/L CaCO3	1	8/27/2004
Carbonate	ND	2.0		mg/L CaCO3	1	8/27/2004
Bicarbonate	240	2.0		mg/L CaCO3	1	8/27/2004
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	2.6	2.5		µg/L	1	8/30/2004 9:18:41 PM
Benzene	ND	0.50		µg/L	1	8/30/2004 9:18:41 PM
Toluene	ND	0.50		µg/L	1	8/30/2004 9:18:41 PM
Ethylbenzene	ND	0.50		µg/L	1	8/30/2004 9:18:41 PM
Xylenes, Total	ND	0.50		µg/L	1	8/30/2004 9:18:41 PM
Surr: 4-Bromofluorobenzene	99.3	74-118		%REC	1	8/30/2004 9:18:41 PM
TOTAL CARBON DIOXIDE CALCULATION						Analyst: CMC
Total Carbon Dioxide	210	1.0		mg CO2/L	1	8/27/2004
EPA 120.1: SPECIFIC CONDUCTANCE						Analyst: CMC
Specific Conductance	760	0.010		µmhos/cm	1	8/25/2004
EPA METHOD 7470: MERCURY						Analyst: CMC
Mercury	ND	0.00020		mg/L	1	8/26/2004
EPA METHOD 6010C: DISSOLVED METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	8/31/2004 12:10:33 PM
Barium	0.025	0.0020		mg/L	1	8/31/2004 12:10:33 PM
Cadmium	ND	0.0020		mg/L	1	8/31/2004 12:10:33 PM
Calcium	55	1.0		mg/L	1	8/31/2004 12:10:33 PM
Chromium	ND	0.0060		mg/L	1	8/31/2004 12:10:33 PM
Copper	ND	0.0060		mg/L	1	8/31/2004 12:10:33 PM
Iron	ND	0.020		mg/L	1	8/31/2004 12:10:33 PM
Lead	ND	0.0050		mg/L	1	8/31/2004 12:10:33 PM
Magnesium	15	1.0		mg/L	1	8/31/2004 12:10:33 PM
Manganese	0.82	0.0020		mg/L	1	8/31/2004 12:10:33 PM
Potassium	2.7	1.0		mg/L	1	8/31/2004 12:10:33 PM
Selenium	ND	0.050		mg/L	1	8/31/2004 12:10:33 PM
Silver	ND	0.0050		mg/L	1	8/31/2004 12:10:33 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-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408193
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408193-06

Client Sample ID: MW#29
 Collection Date: 8/19/2004 11:20:00 AM
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Sodium	100	1.0		mg/L	1	8/31/2004 12:10:33 PM
Uranium	ND	0.10		mg/L	1	8/31/2004 12:10:33 PM
Zinc	0.017	0.0050		mg/L	1	8/31/2004 12:10:33 PM
EPA 6010C: TOTAL RECOVERABLE METALS						Analyst: NMO
Arsenic	ND	0.020		mg/L	1	9/1/2004 9:22:23 AM
Barium	0.039	0.020		mg/L	1	9/1/2004 9:22:23 AM
Cadmium	ND	0.0020		mg/L	1	9/1/2004 9:22:23 AM
Chromium	ND	0.0060		mg/L	1	9/1/2004 9:22:23 AM
Lead	ND	0.0050		mg/L	1	9/1/2004 9:22:23 AM
Selenium	ND	0.050		mg/L	1	9/1/2004 9:22:23 AM
Silver	ND	0.0050		mg/L	1	9/1/2004 9:22:23 AM
EPA METHOD 160.1: TDS						Analyst: JEB
Total Dissolved Solids	550	50		mg/L	1	8/25/2004

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

Hall Environmental Analysis Laboratory

Date: 02-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408193
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408193-07

Client Sample ID: MW#25
 Collection Date: 8/19/2004 1:50:00 PM
 Matrix: PRODUCT

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DRO BY 8015B						Analyst: JMP
Diesel Range Organics (DRO)	77	5.0		wt%	10	8/31/2004 3:39:14 PM
Motor Oil Range Organics (MRO)	ND	50		wt%	10	8/31/2004 3:39:14 PM
Surr: DNOP	129	74-125	S	%REC	10	8/31/2004 3:39:14 PM
GRO BY 8015B						Analyst: NSB
Gasoline Range Organics (GRO)	6.2	0.048		wt%	1	8/31/2004 10:57:44 PM
Surr: BFB	87.7	74.5-122		%REC	1	8/31/2004 10:57:44 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-Sep-04

CLIENT: San Juan Refining
 Lab Order: 0408193
 Project: Annual Monitoring Wells 2004
 Lab ID: 0408193-08

Client Sample ID: Trip Blank
 Collection Date:
 Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	8/30/2004 9:49:11 PM
Surr: BFB	80.1	74-118		%REC	1	8/30/2004 9:49:11 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	8/30/2004 9:49:11 PM
Benzene	ND	0.50		µg/L	1	8/30/2004 9:49:11 PM
Toluene	ND	0.50		µg/L	1	8/30/2004 9:49:11 PM
Ethylbenzene	ND	0.50		µg/L	1	8/30/2004 9:49:11 PM
Xylenes, Total	ND	0.50		µg/L	1	8/30/2004 9:49:11 PM
Surr: 4-Bromofluorobenzene	99.6	74-118		%REC	1	8/30/2004 9:49:11 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

Date: 01-Sep-04

Hall Environmental Analysis Laboratory

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
Work Order: 0408193
Project: Annual Monitoring Wells 2004

Sample ID	MBLK	Batch ID: R12848	Test Code: E300	Units: mg/L	Analysis Date 8/20/2004 11:36:03 AM	Prep Date					
Client ID:	Run ID: LC_040820A	SeqNo: 298287	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Nitrogen, Nitrite (As N)	ND	0.1									
Bromide	ND	0.1									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

Sample ID	MBLK	Batch ID: R12848	Test Code: E300	Units: mg/L	Analysis Date 8/20/2004 6:22:07 PM	Prep Date					
Client ID:	Run ID: LC_040820A	SeqNo: 298308	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Nitrogen, Nitrite (As N)	ND	0.1									
Bromide	ND	0.1									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

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

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
 Work Order: 0408193
 Project: Annual Monitoring Wells 2004

Sample ID	MBLK	Batch ID: R12860	Test Code: E300	Units: mg/L	Analysis Date	Prep Date
Client ID:	Run ID: LC_040823A	PQL	SPK value	SPK Ref Val	SeqNo: 298660	
Analyte	Result	%REC	LowLimit	HighLimit	RPD Ref Val	RPDLimit
Fluoride	ND		0.1			
Chloride	ND		0.1			
Nitrogen, Nitrite (As N)	ND		0.1			
Bromide	ND		0.1			
Nitrogen, Nitrate (As N)	ND		0.1			
Phosphorus, Orthophosphate (As P)	ND		0.5			
Sulfate	ND		0.5			
Nitrate (As N)+Nitrite (As N)	ND		0.1			

Sample ID	MBLK	Batch ID: R12867	Test Code: E300	Units: mg/L	Analysis Date	Prep Date
Client ID:	Run ID: LC_040824A	PQL	SPK value	SPK Ref Val	SeqNo: 298902	
Analyte	Result	%REC	LowLimit	HighLimit	RPD Ref Val	RPDLimit
Fluoride	ND		0.1			
Chloride	ND		0.1			
Nitrogen, Nitrite (As N)	ND		0.1			
Bromide	ND		0.1			
Nitrogen, Nitrate (As N)	ND		0.1			
Phosphorus, Orthophosphate (As P)	ND		0.5			
Sulfate	ND		0.5			
Nitrate (As N)+Nitrite (As N)	ND		0.1			

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

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
 Work Order: 0408193
 Project: Annual Monitoring Wells 2004

Sample ID MBLK Batch ID: R12925 Test Code: E300 Units: mg/L Analysis Date 8/26/2004 10:07:20 AM Prep Date
 Client ID: LC_040826A Run ID: 300274 SeqNo: 300274

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Nitrogen, Nitrite (As N)	ND	0.1									
Bromide	ND	0.1									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

Sample ID MBLK Batch ID: R12931 Test Code: E300 Units: mg/L Analysis Date 8/27/2004 9:56:59 AM Prep Date
 Client ID: LC_040827B Run ID: 300412 SeqNo: 300412

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.1									
Chloride	ND	0.1									
Nitrogen, Nitrite (As N)	ND	0.1									
Bromide	ND	0.1									
Nitrogen, Nitrate (As N)	ND	0.1									
Phosphorus, Orthophosphate (As P)	ND	0.5									
Sulfate	ND	0.5									
Nitrate (As N)+Nitrite (As N)	ND	0.1									

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

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
 Work Order: 0408193
 Project: Annual Monitoring Wells 2004

Sample ID MB-6399 Batch ID: 6399 Test Code: SW8015 Units: wt% Analysis Date 8/30/2004 11:10:26 PM Prep Date 8/30/2004
 Client ID: FID(17A)_2_040830A Run ID: FID(17A)_2_040830A SeqNo: 300851

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	0.5									
Motor Oil Range Organics (MRO)	ND	5									
Surr: DNOP	0.07759	0	0.1	0	77.6	74	125	0			

Sample ID Reagent Blank 5m Batch ID: R12944 Test Code: SW8015 Units: mg/L Analysis Date 8/30/2004 9:12:21 AM Prep Date
 Client ID: PIDFID_040830A Run ID: PIDFID_040830A SeqNo: 300660

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	17.99	0	20	0	90.0	74	118	0			

Sample ID Reagent Blank 5m Batch ID: R12961 Test Code: SW8015 Units: mg/L Analysis Date 8/31/2004 8:27:03 AM Prep Date
 Client ID: PIDFID_040831A Run ID: PIDFID_040831A SeqNo: 301135

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	16.72	0	20	0	83.6	74	118	0			

Sample ID Reagent Blank 5m Batch ID: R12944 Test Code: SW8021 Units: µg/L Analysis Date 8/30/2004 9:12:21 AM Prep Date
 Client ID: PIDFID_040830A Run ID: PIDFID_040830A SeqNo: 300659

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	20.8	0	20	0	104	74	118	0			

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

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
Work Order: 0408193
Project: Annual Monitoring Wells 2004

Sample ID	Reagent Blank 5m	Batch ID: R12961	Test Code: SW8021	Units: µg/L	Analysis Date 8/31/2004 8:27:03 AM	Prep Date					
Client ID:	Run ID: PIDFID_040831A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)		2.5									
Benzene		0.5									
Toluene		0.5									
Ethylbenzene		0.5									
Xylenes, Total		0.5									
Surr: 4-Bromofluorobenzene	20.41	0	20	0	102	74	118	0			

Sample ID	MB-6386	Batch ID: 6386	Test Code: SW7470	Units: mg/L	Analysis Date 8/26/2004	Prep Date 8/26/2004					
Client ID:	Run ID: MI-LA254_040826A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		ND	0.0002								

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

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining
Work Order: 0408193
Project: Annual Monitoring Wells 2004

Sample ID MB Batch ID: R12949 Test Code: SW6010A Units: mg/L Analysis Date 8/31/2004 8:07:01 AM Prep Date
Client ID: Run ID: ICP_040831A SeqNo: 300881

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.02									
Barium	ND	0.002									
Cadmium	ND	0.002									
Calcium	ND	1									
Chromium	ND	0.006									
Copper	ND	0.006									
Iron	ND	0.02									
Lead	ND	0.005									
Magnesium	ND	1									
Manganese	ND	0.002									
Potassium	ND	1									
Selenium	ND	0.05									
Silver	ND	0.005									
Sodium	ND	1									
Uranium	ND	0.1									
Zinc	ND	0.005									

Sample ID MB-6387 Batch ID: 6387 Test Code: SW6010A Units: mg/L Analysis Date 8/31/2004 3:41:57 PM Prep Date 8/27/2004
Client ID: Run ID: ICP_040831G SeqNo: 301334

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.02									
Barium	ND	0.02									
Cadmium	ND	0.002									
Chromium	ND	0.006									
Lead	ND	0.005									
Selenium	ND	0.05									
Silver	ND	0.005									

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

QC SUMMARY REPORT

Method Blank

CLIENT: San Juan Refining

Work Order: 0408193

Project: Annual Monitoring Wells 2004

Sample ID MB-6378 Batch ID: 6378 Test Code: E160.1 Units: mg/L Analysis Date 8/25/2004 Prep Date 8/25/2004

Client ID: Run ID: WC_040825E SeqNo: 300595

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND			50							

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

Hall Environmental Analysis Laboratory

Date: 01-Sep-04

QC SUMMARY REPORT
Sample Duplicate

CLIENT: San Juan Refining
Work Order: 0408193
Project: Annual Monitoring Wells 2004

Sample ID	0408193-01B DUP	Batch ID: R12918	Test Code: E310.1	Units: mg/L CaCO3	Analysis Date 8/27/2004	Prep Date					
Client ID:	P4	Run ID: WC_040827E	SeqNo: 300192								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alkalinity, Total (As CaCO3)	1454	2	0	0	0	0	0	1462	0.549	15	
Carbonate	ND	2	0	0	0	0	0	0	0	15	
Bicarbonate	1454	2	0	0	0	0	0	1462	0.549	15	

Sample ID	0408193-01E DUP	Batch ID: R12919	Test Code:	Units: mg CO2/L	Analysis Date 8/27/2004	Prep Date					
Client ID:	P4	Run ID: WC_040827F	SeqNo: 300199								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Carbon Dioxide	1293	1	0	0	0	0	0	1302	0.694	20	

Sample ID	0408193-02C DUP	Batch ID: 6386	Test Code: SW7470	Units: mg/L	Analysis Date 8/26/2004	Prep Date 8/26/2004					
Client ID:	P5	Run ID: MI-LA254_040826A	SeqNo: 299631								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.0002	0	0	0	0	0	0	0	20	

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

QC SUMMARY REPORT

Sample Duplicate

CLIENT: San Juan Refining
 Work Order: 0408193
 Project: Annual Monitoring Wells 2004

Sample ID 0408193-06B DUP Batch ID: R12949 Test Code: SW6010A Units: mg/L Analysis Date 8/31/2004 12:13:46 PM Prep Date

Client ID: MW#29 Run ID: ICP_040831A SeqNo: 300928

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.02	0	0	0	0	0	0	0	20	
Barium	0.02514	0.002	0	0	0	0	0	0.02529	0.570	20	
Cadmium	ND	0.002	0	0	0	0	0	0	0	20	
Calcium	54.77	1	0	0	0	0	0	55.16	0.711	20	
Chromium	ND	0.006	0	0	0	0	0	0.00105	0	20	
Copper	ND	0.006	0	0	0	0	0	0	0	20	
Iron	0.008128	0.02	0	0	0	0	0	0.01576	0	20	J
Lead	ND	0.005	0	0	0	0	0	0.001701	0	20	
Magnesium	14.47	1	0	0	0	0	0	14.58	0.790	20	
Manganese	0.8168	0.002	0	0	0	0	0	0.8245	0.937	20	
Potassium	2.625	1	0	0	0	0	0	2.676	1.94	20	
Selenium	ND	0.05	0	0	0	0	0	0	0	20	
Silver	ND	0.005	0	0	0	0	0	0	0	20	
Sodium	104.3	1	0	0	0	0	0	104.4	0.0404	20	
Uranium	ND	0.1	0	0	0	0	0	0	0	20	
Zinc	0.01589	0.005	0	0	0	0	0	0.01669	4.97	20	

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

Hall Environmental Analysis Laboratory

Date: 01-Sep-04

CLIENT: San Juan Refining
 Work Order: 0408193
 Project: Annual Monitoring Wells 2004

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0408193-04a ms	Batch ID:	R12944	Test Code:	SW8021	Units:	µg/L	Analysis Date	8/30/2004 10:19:32 PM	Prep Date	
Client ID:	MW#8	Run ID:	PIDFID_040830A	SeqNo:	300706						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	40.14	2.5	40	0	100	65	132	0			
Benzene	20.84	0.5	20	0	104	77	122	0			
Toluene	21.33	0.5	20	0	107	81	115	0			
Ethylbenzene	21.21	0.5	20	0	106	84	117	0			
Xylenes, Total	64.81	0.5	60	0	108	84	116	0			
Surr: 4-Bromofluorobenzene	24.11	0	24	0	100	74	118	0			

Sample ID	0408193-04a msd	Batch ID:	R12944	Test Code:	SW8021	Units:	µg/L	Analysis Date	8/30/2004 10:49:40 PM	Prep Date	
Client ID:	MW#8	Run ID:	PIDFID_040830A	SeqNo:	300712						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	37.05	2.5	40	0	92.6	65	132	40.14	7.98	28	
Benzene	19.97	0.5	20	0	99.9	77	122	20.84	4.23	27	
Toluene	20.2	0.5	20	0	101	81	115	21.33	5.47	19	
Ethylbenzene	20.53	0.5	20	0	103	84	117	21.21	3.24	10	
Xylenes, Total	62.83	0.5	60	0	105	84	116	64.81	3.10	13	
Surr: 4-Bromofluorobenzene	23.68	0	24	0	98.7	74	118	24.11	1.77	0	

Sample ID	0408193-02C MS	Batch ID:	6386	Test Code:	SW7470	Units:	mg/L	Analysis Date	8/26/2004	Prep Date	
Client ID:	P5	Run ID:	MI-LA254_040826A	SeqNo:	299632						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005319	0.0002	0.005	0	106	75	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

QC SUMMARY REPORT

Sample Matrix Spike Duplicate

CLIENT: San Juan Refining
 Work Order: 0408193
 Project: Annual Monitoring Wells 2004

Sample ID 0408193-02C MSD Batch ID: 6386 Test Code: SW7470 Units: mg/L Analysis Date 8/26/2004 Prep Date 8/26/2004
 Client ID: P5 Run ID: MI-LA254_040826A SeqNo: 299633
 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
 Mercury 0.00536 0.0002 0.005 0 107 75 125 0.005319 0.773 20

Sample ID 0408193-06B MS Batch ID: R12949 Test Code: SW6010A Units: mg/L Analysis Date 8/31/2004 12:16:57 PM Prep Date
 Client ID: MW#29 Run ID: ICP_040831A SeqNo: 300929

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5243	0.02	0.5	0	105	75	125	0			
Barium	0.4868	0.002	0.5	0.02529	92.3	75	125	0			
Cadmium	0.4845	0.002	0.5	0	96.9	75	125	0			
Calcium	99.56	1	50.5	55.16	87.9	75	125	0			
Chromium	0.4659	0.006	0.5	0.00105	93.0	75	125	0			
Copper	0.4842	0.006	0.5	0	96.8	75	125	0			
Iron	0.4602	0.02	0.5	0.01576	88.9	75	125	0			
Lead	0.4595	0.005	0.5	0.001701	91.6	75	125	0			
Magnesium	62.87	1	50.5	14.58	95.6	75	125	0			
Manganese	1.252	0.002	0.5	0.8245	85.5	75	125	0			
Potassium	52.89	1	55	2.676	91.3	75	125	0			
Selenium	0.5268	0.05	0.5	0	105	75	125	0			
Silver	0.4738	0.005	0.5	0	94.8	75	125	0			
Sodium	147.9	1	50.5	104.4	86.2	75	125	0			
Uranium	4.467	0.1	5	0	89.3	75	125	0			
Zinc	0.4839	0.005	0.5	0.01669	93.4	75	125	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

QC SUMMARY REPORT

Sample Matrix Spike Duplicate

CLIENT: San Juan Refining

Work Order: 0408193

Project: Annual Monitoring Wells 2004

Sample ID	0408193-06B MSD	Batch ID: R12949	Test Code: SW6010A	Units: mg/L	Analysis Date	8/31/2004 12:23:59 PM	Prep Date				
Client ID:	MW#29	Run ID:	ICP_040831A	SeqNo:	300931						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5072	0.02	0.5	0	101	75	125	0.5243	3.32	20	
Barium	0.4866	0.002	0.5	0.02529	92.3	75	125	0.4868	0.0449	20	
Cadmium	0.4865	0.002	0.5	0	97.3	75	125	0.4845	0.401	20	
Calcium	99.79	1	50.5	55.16	88.4	75	125	99.56	0.225	20	
Chromium	0.4684	0.006	0.5	0.00105	93.5	75	125	0.4659	0.543	20	
Copper	0.4844	0.006	0.5	0	96.9	75	125	0.4842	0.0423	20	
Iron	0.4949	0.02	0.5	0.01576	95.8	75	125	0.4602	7.26	20	
Lead	0.4628	0.005	0.5	0.001701	92.2	75	125	0.4595	0.710	20	
Magnesium	63.55	1	50.5	14.58	97.0	75	125	62.87	1.07	20	
Manganese	1.24	0.002	0.5	0.8245	83.0	75	125	1.252	1.02	20	
Potassium	53.79	1	55	2.676	92.9	75	125	52.89	1.69	20	
Selenium	0.5226	0.05	0.5	0	105	75	125	0.5268	0.801	20	
Silver	0.4791	0.005	0.5	0	95.8	75	125	0.4738	1.11	20	
Sodium	147.9	1	50.5	104.4	86.2	75	125	147.9	0.0202	20	
Uranium	4.47	0.1	5	0	89.4	75	125	4.467	0.0688	20	
Zinc	0.4852	0.005	0.5	0.01669	93.7	75	125	0.4839	0.268	20	

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

Hall Environmental Analysis Laboratory

Date: 02-Sep-04

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
 Work Order: 0408193
 Project: Annual Monitoring Wells 2004

Sample ID	LCS	Batch ID: R12848	Test Code: E300	Units: mg/L	Analysis Date	8/20/2004 11:52:52 AM	Prep Date				
Client ID:		Run ID: LC_040820A	SPK value	SPK Ref Val	SeqNo:	298288					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4527	0.1	0.5	0	90.5	90	110	0			
Chloride	4.862	0.1	5	0	97.2	90	110	0			
Nitrogen, Nitrite (As N)	0.9548	0.1	1	0	95.5	90	110	0			
Bromide	2.278	0.1	2.5	0	91.1	90	110	0			
Nitrogen, Nitrate (As N)	2.368	0.1	2.5	0	94.7	90	110	0			
Phosphorus, Orthophosphate (As P)	4.505	0.5	5	0	90.1	90	110	0			
Sulfate	9.669	0.5	10	0	96.7	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.323	0.1	3.5	0	94.9	90	110	0			

Sample ID	LCS	Batch ID: R12848	Test Code: E300	Units: mg/L	Analysis Date	8/20/2004 6:38:56 PM	Prep Date				
Client ID:		Run ID: LC_040820A	SPK value	SPK Ref Val	SeqNo:	298309					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4668	0.1	0.5	0	93.4	90	110	0			
Chloride	4.906	0.1	5	0	98.1	90	110	0			
Nitrogen, Nitrite (As N)	0.9447	0.1	1	0	94.5	90	110	0			
Bromide	2.318	0.1	2.5	0	92.7	90	110	0			
Nitrogen, Nitrate (As N)	2.388	0.1	2.5	0	95.5	90	110	0			
Phosphorus, Orthophosphate (As P)	4.651	0.5	5	0	93.0	90	110	0			
Sulfate	9.78	0.5	10	0	97.8	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.333	0.1	3.5	0	95.2	90	110	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

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining

Work Order: 0408193

Project: Annual Monitoring Wells 2004

Sample ID	LCS	Batch ID: R12860	Test Code: E300	Units: mg/L	Analysis Date 8/23/2004 2:19:30 PM	Prep Date					
Client ID:		Run ID: LC_040823A	SeqNo: 298661								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4987	0.1	0.5	0	99.7	90	110	0			
Chloride	4.893	0.1	5	0	97.9	90	110	0			
Nitrogen, Nitrite (As N)	0.9585	0.1	1	0	95.8	90	110	0			
Bromide	2.366	0.1	2.5	0	94.6	90	110	0			
Nitrogen, Nitrate (As N)	2.439	0.1	2.5	0	97.6	90	110	0			
Phosphorus, Orthophosphate (As P)	4.654	0.5	5	0	93.1	90	110	0			
Sulfate	9.865	0.5	10	0	98.7	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.398	0.1	3.5	0	97.1	90	110	0			

Sample ID	LCS	Batch ID: R12867	Test Code: E300	Units: mg/L	Analysis Date 8/24/2004 10:50:27 AM	Prep Date					
Client ID:		Run ID: LC_040824A	SeqNo: 298903								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4652	0.1	0.5	0	93.0	90	110	0			
Chloride	4.87	0.1	5	0	97.4	90	110	0			
Nitrogen, Nitrite (As N)	0.9544	0.1	1	0	95.4	90	110	0			
Bromide	2.336	0.1	2.5	0	93.4	90	110	0			
Nitrogen, Nitrate (As N)	2.442	0.1	2.5	0	97.7	90	110	0			
Phosphorus, Orthophosphate (As P)	4.52	0.5	5	0	90.4	90	110	0			
Sulfate	9.807	0.5	10	0	98.1	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.396	0.1	3.5	0	97.0	90	110	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

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining

Work Order: 0408193

Project: Annual Monitoring Wells 2004

Sample ID	LCS	Batch ID: R12925	Test Code: E300	Units: mg/L	Analysis Date	8/26/2004 10:24:07 AM	Prep Date				
Client ID:		Run ID: LC_040826A	SeqNo: 300275								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4628	0.1	0.5	0	92.6	90	110	0			
Chloride	5.088	0.1	5	0	102	90	110	0			
Nitrogen, Nitrite (As N)	1.016	0.1	1	0	102	90	110	0			
Bromide	2.396	0.1	2.5	0	95.8	90	110	0			
Nitrogen, Nitrate (As N)	2.484	0.1	2.5	0	99.4	90	110	0			
Phosphorus, Orthophosphate (As P)	4.79	0.5	5	0	95.8	90	110	0			
Sulfate	10.16	0.5	10	0	102	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.501	0.1	3.5	0	100	90	110	0			

Sample ID	LCS	Batch ID: R12931	Test Code: E300	Units: mg/L	Analysis Date	8/27/2004 10:13:42 AM	Prep Date				
Client ID:		Run ID: LC_040827B	SeqNo: 300413								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	0.4781	0.1	0.5	0	95.6	90	110	0			
Chloride	5.131	0.1	5	0	103	90	110	0			
Nitrogen, Nitrite (As N)	0.9832	0.1	1	0	98.3	90	110	0			
Bromide	2.487	0.1	2.5	0	99.5	90	110	0			
Nitrogen, Nitrate (As N)	2.559	0.1	2.5	0	102	90	110	0			
Phosphorus, Orthophosphate (As P)	4.831	0.5	5	0	96.6	90	110	0			
Sulfate	10.33	0.5	10	0	103	90	110	0			
Nitrate (As N)+Nitrite (As N)	3.542	0.1	3.5	0	101	90	110	0			

Sample ID	LCS-6399	Batch ID: 6399	Test Code: SW8015	Units: wt%	Analysis Date	8/30/2004 10:09:18 PM	Prep Date				
Client ID:		Run ID: FID(17A) 2_040830A	SeqNo: 300849								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	0.473	0.01	0.5	0	94.6	78	121	0			
Surr: DNOP	0.0382	0	0.05	0	76.4	74	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

QC SUMMARY REPORT
Laboratory Control Spike Duplicate

CLIENT: San Juan Refining
Work Order: 0408193
Project: Annual Monitoring Wells 2004

Sample ID	LCSD-6399	Batch ID:	6399	Test Code:	SW8015	Units:	wt%	Analysis Date	8/31/2004 3:08:13 PM	Prep Date	8/30/2004
Client ID:		Run ID:	FID(17A) 2_040831A <th>SeqNo:</th> <td>301436</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	SeqNo:	301436						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	0.3739	0.2	0.5	0	74.8	78	121	0.473	23.4	15	SR
Surr: DNOP	0.03129	0	0.05	0	62.6	74	125	0.0382	19.9	0	S

Sample ID	GRO std 2.5ug	Batch ID:	R12961	Test Code:	SW8015	Units:	wt%	Analysis Date	9/1/2004 12:28:28 AM	Prep Date	
Client ID:		Run ID:	PIDFID_040831A <th>SeqNo:</th> <td>301319</td> <td></td> <td></td> <td></td> <td></td> <td></td>	SeqNo:	301319						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	92.04	0.05	100	0	92.0	80.3	116	0			
Surr: BFB	4420	0	5000	0	88.4	74.5	122	0			

Sample ID	GRO std 2.5ug	Batch ID:	R12961	Test Code:	SW8015	Units:	mg/L	Analysis Date	9/1/2004 4:00:01 AM	Prep Date	
Client ID:		Run ID:	PIDFID_040831A <th>SeqNo:</th> <td>301332</td> <td></td> <td></td> <td></td> <td></td> <td></td>	SeqNo:	301332						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.462	0.05	0.5	0	92.4	80.3	116	0			
Surr: BFB	21.51	0	20	0	108	74	118	0			

Sample ID	BTEX std 100ng	Batch ID:	R12944	Test Code:	SW8021	Units:	µg/L	Analysis Date	8/30/2004 6:16:14 PM	Prep Date	
Client ID:		Run ID:	PIDFID_040830A <th>SeqNo:</th> <td>300714</td> <td></td> <td></td> <td></td> <td></td> <td></td>	SeqNo:	300714						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	36.34	2.5	40	0	90.8	54.9	142	0			
Benzene	20.15	0.5	20	0	101	81.3	121	0			
Toluene	20.34	0.5	20	0	102	84.9	118	0			
Ethylbenzene	20.41	0.5	20	0	102	53.8	149	0			
Xylenes, Total	60.72	0.5	60	0	101	83.1	122	0			
Surr: 4-Bromofluorobenzene	23.81	0	24	0	99.2	74	118	0			

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

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining

Work Order: 0408193

Project: Annual Monitoring Wells 2004

Sample ID BTEX std 100ng Batch ID: R12961 Test Code: SW8021 Units: µg/L Analysis Date 8/31/2004 8:26:01 PM Prep Date

Client ID: PIDFID_040831A Run ID: SeqNo: 301216

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	37.08	2.5	40	0	92.7	54.9	142	0			
Benzene	20.92	0.5	20	0	105	81.3	121	0			
Toluene	21.42	0.5	20	0	107	84.9	118	0			
Ethylbenzene	21.33	0.5	20	0	107	53.8	149	0			
Xylenes, Total	63.47	0.5	60	0	106	83.1	122	0			
Surr: 4-Bromofluorobenzene	24.45	0	24	0	102	74	118	0			

Sample ID LCS-6386 Batch ID: 6386 Test Code: SW7470 Units: mg/L Analysis Date 8/26/2004 Prep Date 8/26/2004

Client ID: MI-LA254_040826A Run ID: SeqNo: 299616

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005053	0.0002	0.005	0	101	80	120	0			

Sample ID LCSD-6386 Batch ID: 6386 Test Code: SW7470 Units: mg/L Analysis Date 8/26/2004 Prep Date 8/26/2004

Client ID: MI-LA254_040826A Run ID: SeqNo: 299629

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.005041	0.0002	0.005	0	101	80	120	0.005053	0.232	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

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
Work Order: 0408193
Project: Annual Monitoring Wells 2004

Sample ID LCS **Batch ID:** R12949 **Test Code:** SW6010A **Units:** mg/L **Analysis Date** 8/31/2004 8:09:53 AM **Prep Date**
Client ID: **Run ID:** ICP_040831A **SeqNo:** 300882

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5275	0.02	0.5	0	106	80	120	0			
Barium	0.4933	0.002	0.5	0	98.7	80	120	0			
Cadmium	0.5008	0.002	0.5	0	100	80	120	0			
Calcium	51.9	1	50.5	0	103	80	120	0			
Chromium	0.5034	0.006	0.5	0	101	80	120	0			
Copper	0.4792	0.006	0.5	0	95.8	80	120	0			
Iron	0.4916	0.02	0.5	0	98.3	80	120	0			
Lead	0.5042	0.005	0.5	0	101	80	120	0			
Magnesium	51.94	1	50.5	0	103	80	120	0			
Manganese	0.4953	0.002	0.5	0	99.1	80	120	0			
Potassium	51.7	1	55	0	94.0	80	120	0			
Selenium	0.499	0.05	0.5	0	99.8	80	120	0			
Silver	0.4891	0.005	0.5	0	97.8	80	120	0			
Sodium	48.15	1	50.5	0	95.4	80	120	0			
Zinc	0.5249	0.005	0.5	0	105	80	120	0			

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

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

CLIENT: San Juan Refining
 Work Order: 0408193
 Project: Annual Monitoring Wells 2004

Sample ID	LCSD	Batch ID: R12949	Test Code: SW6010A	Units: mg/L	Analysis Date	8/31/2004 8:13:06 AM	Prep Date				
Client ID:		Run ID: ICP_040831A	SeqNo: 300883								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5242	0.02	0.5	0	105	80	120	0.5275	0.624	20	
Barium	0.4853	0.002	0.5	0	97.1	80	120	0.4933	1.64	20	
Cadmium	0.4917	0.002	0.5	0	98.3	80	120	0.5008	1.82	20	
Calcium	52.47	1	50.5	0	104	80	120	51.9	1.10	20	
Chromium	0.4947	0.006	0.5	0	98.9	80	120	0.5034	1.74	20	
Copper	0.4688	0.006	0.5	0	93.8	80	120	0.4792	2.20	20	
Iron	0.4933	0.02	0.5	0	98.7	80	120	0.4916	0.333	20	
Lead	0.4948	0.005	0.5	0	99.0	80	120	0.5042	1.88	20	
Magnesium	52.4	1	50.5	0	104	80	120	51.94	0.866	20	
Manganese	0.4855	0.002	0.5	0	97.1	80	120	0.4953	1.98	20	
Potassium	52.05	1	55	0	94.6	80	120	51.7	0.679	20	
Selenium	0.4963	0.05	0.5	0	99.3	80	120	0.499	0.557	20	
Silver	0.4801	0.005	0.5	0	96.0	80	120	0.4891	1.84	20	
Sodium	48.52	1	50.5	0	96.1	80	120	48.15	0.759	20	
Zinc	0.5181	0.005	0.5	0	104	80	120	0.5249	1.32	20	

Sample ID	LCS U5	Batch ID: R12949	Test Code: SW6010A	Units: mg/L	Analysis Date	8/31/2004 12:27:30 PM	Prep Date				
Client ID:		Run ID: ICP_040831A	SeqNo: 300932								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Uranium	4.933	0.1	5	0	98.7	80	120	0			

Sample ID	LCSD U 5	Batch ID: R12949	Test Code: SW6010A	Units: mg/L	Analysis Date	8/31/2004 12:30:22 PM	Prep Date				
Client ID:		Run ID: ICP_040831A	SeqNo: 300933								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Uranium	5.011	0.1	5	0	100	80	120	4.933	1.57	20	

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

QC SUMMARY REPORT

Laboratory Control Spike - generic

CLIENT: San Juan Refining
 Work Order: 0408193
 Project: Annual Monitoring Wells 2004

Sample ID LCS-6387 Batch ID: 6387 Test Code: SW6010A Units: mg/L Analysis Date 8/31/2004 3:44:51 PM Prep Date 8/27/2004

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5171	0.02	0.5	0	103	80	120	0			
Barium	0.4856	0.02	0.5	0	97.1	80	120	0			
Cadmium	0.4881	0.002	0.5	0	97.6	80	120	0			
Chromium	0.4882	0.006	0.5	0	97.6	80	120	0			
Lead	0.4913	0.005	0.5	0	98.3	80	120	0			
Selenium	0.4625	0.05	0.5	0	92.5	80	120	0			
Silver	0.4981	0.005	0.5	0	99.6	80	120	0			

Sample ID LCSD-6387 Batch ID: 6387 Test Code: SW6010A Units: mg/L Analysis Date 8/31/2004 3:48:06 PM Prep Date 8/27/2004

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5436	0.02	0.5	0	109	80	120	0.5171	5.00	20	
Barium	0.5228	0.02	0.5	0	105	80	120	0.4856	7.37	20	
Cadmium	0.5221	0.002	0.5	0	104	80	120	0.4881	6.72	20	
Chromium	0.5232	0.006	0.5	0	105	80	120	0.4882	6.91	20	
Lead	0.524	0.005	0.5	0	105	80	120	0.4913	6.44	20	
Selenium	0.4884	0.05	0.5	0	97.7	80	120	0.4625	5.43	20	
Silver	0.5339	0.005	0.5	0	107	80	120	0.4981	6.94	20	

Sample ID LCS-6378 Batch ID: 6378 Test Code: E160.1 Units: mg/L Analysis Date 8/25/2004 Prep Date 8/25/2004

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids	1074	50	1000	0	107	80	120	0			

Client ID: 301335
 SeqNo: 300596

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name SJR

Date and Time Received:

8/20/2004

Work Order Number 0408193

Received by

Checklist completed by

[Handwritten Signature]

Date

8/20/04

Matrix

Carrier name

- 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?

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: #50 CR 4990

Bloomfield, NM 87413

Phone #: 505-632-4161

Fax #: 505-632-3911

Sampler: Cindy Hurtado / Daniel Hambro

Sample Temperature: 30

Accreditation Applied:
 NELAC USACE

Other:

Project Name: Annual Monitoring wells 2007

Project #:

Project Manager:

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.
					HgCl ₂	HNO ₃	
Aug	310PM	H ₂ O	P4	2-VDA	X		0408192-1
				1-125	X		
				1-500	X		
				1-125	X	H ₂ SO ₄	
				1-250	X		
				1-500	X		
Aug	335PM	H ₂ O	P5	2-VDA	X		-2
				1-125	X		
				1-500	X		
				1-125	X	H ₂ SO ₄	
				1-250	X		
				1-500	X		

Date: 9-04

Time: 3:01pm

Relinquished By: (Signature) Cindy Hurtado

Relinquished By: (Signature)

Received By: (Signature) [Signature]

8/20/04

Received By: (Signature)

ANALYSIS REQUEST

BTEX + MTBE + TPH (Gasoline Only)	BTEX + MTBE + TPH (Diesel)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F ⁻ , Cl ⁻ , NO ₂ ⁻ , NO ₃ ⁻ , PO ₄ ³⁻ , SO ₄ ²⁻)	8081 Pesticides / PCB's (8082)	8268B (VDA) Cations	8270 (Semi-VDA) Metals-Dissolved / WSCs	Carbon Dioxide	EC, pH, TDS, Aik	Air Bubbles or Headspace (Y or N)
X							X	X	X	X	X			
							X	X	X	X				
								X	X	X	X			
								X	X	X	X			
								X	X	X	X			

Remarks:

CHAIN-OF-CUSTODY RECORD

Client: San Juan Refining

Address: #50 CR 4990
Bloomfield, NM 87413

Phone #: 505-632-4161
Fax #: 505-632-3911

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative			HEAL No.
					HgCl ₂	HNO ₃		
19-04	1040am	H2O	MW #31	2-VOA	X	X		0408993-3
				1-125	X	X		
				1-500				
				1-125				H2SO4
				1-250				
				1500				
19-04	250pm	H2O	MW #8	2-VOA	X			-4
				1-125	X	X		
				1-500				
				1-125				H2SO4
				1-250				
				1-500				

Date: 19-04 3pm
Date: Relinquished By: (Signature) [Cynthia Huestada]
Date: Relinquished By: (Signature)

Received By: (Signature) [Cynthia Huestada] 8/20/04
Received By: (Signature) [Cynthia Huestada] 10/20/04

Accreditation Applied:
NELAC USACE

Other:

Project Name: Annual Monitoring wells 2004

Project #:

Project Manager:

Sampler: Cynthia Huestada / David Humber
Sample Temperature: 3.0

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

Remarks:

CHAIN-OF-CUSTODY RECORD

Client: San Juan Refining

Address: #50 CR 4990
Bloomfield, NM 87413

Phone #: 505-632-4161
Fax #: 505-632-3911

Sampler: Cindy Hurtado / David Hammond
Sample Temperature: 3-0

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.
					HgCl ₂	HNO ₃	
Aug 8 45 AM		H ₂ O	MW #26	2-VOA	X		2128192-5X
				1-125	X		
				1-500	X		
				1-125		H ₂ SO ₄	
				1-250			
				1-500			
Aug 11 20 AM		H ₂ O	MW #29	2-VOA	X		6
				1-125	X		
				1-500	X		
				1-125		H ₂ SO ₄	
				1-250			
				1-500			

Date: 04
Time: 3pm
Relinquished By: (Signature) Cindy Hurtado
Date: 04
Time: 10:50
Received By: (Signature) [Signature]
Received By: (Signature) [Signature]

Accreditation Applied:
NELAC USAACE

Other:

Project Name: Annual Monitoring Wells 2004

Project #:

Project Manager:

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 + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO ₂ , NO ₃ , PO ₄ , SO ₄)	8081 Pesticides / PCB's (8082)	8268B (VOA) - Cations	8270 (Semi-VOA)	Metals-Dissolved ^{MSDC}	Carbon Dioxide	EC, pH, TDS, Aik	Air Bubbles or Headspace (Y or N)
X						X					X			
							X							
							X							
								X						
									X					
										X				
											X			
												X		
													X	
														X

Remarks:

CHAIN-OF-CUSTODY RECORD

Client: San Juan Refining

Address: #50 CR 4990
Bloomfield, NM 87413

Phone #: 505-632-4161
Fax #: 505-632-3911

Date: Aug 04

Time: 1500H

Matrix: H₂O

Sample I.D. No.: MW#25

Date: Aug 04

Time: 1500H

Matrix: H₂O

Sample I.D. No.: MW#25

Matrix: TB

Accreditation Applied:
NELAC USACE

Other:

Project Name: Annual Monitoring
wells 2004

Project #:

Project Manager:

Sampler: Cindy Quintana / Daniel Hernandez
Sample Temperature: 30

Number/Volume

2-VOA

HEAL No.

0408RB7

Preservative

HgCl₂ HNO₃

X

-8

Date: 19-04

Time: 3pm

Relinquished By: (Signature)
Cindy Quintana

Date:

Time:

Relinquished By: (Signature)

Received By: (Signature)

Received By: (Signature)

Remarks:

8/22/04

1650

ANALYSIS REQUEST

BTEX + MTBE + MB's (8021)
BTEX + MTBE + TPH (Gasoline Only)
TPH Method 8015B (Gas/Diesel)

TPH (Method 418.1)

EDB (Method 504.1)

EDC (Method 8021)

8310 (PNA or PAH)

RCRA 8 Metals

Anions (F, Cl, NO₂, NO₃, PO₄, SO₄)

8081 Pesticides / PCB's (8082)

8260B (VOA)

8270 (Semi-VOA)

Air Bubbles or Headspace (Y or N)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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



Water Quality Field Measurements

Table 3

DATE	RW/MW	DEPTH TO LIQUID (ft)	SPH	WELL DEPTH	E.C.	pH	TEMP.	D.O	ORP
Aug-04	MW #1	17.15	0	21.56	927	6.90	63	5.4	-532
Mar-04		17.43	0	21.56	887	7.51	53	NR	NR
Aug-03		17.16	0	21.62	1001	7.41	63	6.5	105
Aug-04	MW #3	36.31	0	36.75	7558	6.96	64	NR	-11
Mar-04		36.33	0	36.75	NR	NR	NR	NR	NR
Aug-03		36.31	0	36.75	7818	6.96	66	NR	57
Aug-04	MW #4	27.96	27.31	30.5	SPH	SPH	SPH	SPH	SPH
Mar-04		27.86	27.24	30.5	SPH	SPH	SPH	SPH	SPH
Aug-03		27.95	27.07	30.5	SPH	SPH	SPH	SPH	SPH
Aug-04	MW #5	0	0	36.92	NS	NS	NS	NS	NS
Mar-04		0	0	36.92	NS	NS	NS	NS	NS
Aug-03		0	0	36.92	NS	NS	NS	NS	NS
Aug-04	MW #6	0	0	47.92	NS	NS	NS	NS	NS
Mar-04		0	0	47.92	NS	NS	NS	NS	NS
Aug-03		0	0	47.92	NS	NS	NS	NS	NS
Aug-04	MW #7	27.79	0	62.61	8693	7.00	63	2.8	84
Mar-04		27.36	0	62.61	NR	NR	NR	NR	NR
Aug-03		27.57	0	62.61	NR	NR	NR	NR	NR
Aug-04	MW #8	32.9	0	35.93	2600	7.02	62	2.9	142
Mar-04		32.77	0	35.93	NR	NR	NR	NR	NR
Aug-03		32.93	0	35.93	2654	6.98	60	7.1	176
Aug-04	MW #11	11.72	0	22.94	2093	6.81	68	13.8	-36
Mar-04		11.32	0	22.94	NR	NR	NR	NR	NR
Aug-03		11.69	0	22.93	2338	6.82	66	5.6	-53
Aug-04	MW #12	12.38	0	14.98	2164	6.85	66	9.3	151
Mar-04		11.95	0	14.98	1464	7.22	49	NR	NR
Aug-03		11.39	0	14.98	5920	7.06	64	5.8	81
Aug-04	MW #13	40.51	0	52.89	3638	6.79	62	5.0	158
Mar-04		40.41	0	52.89	3895	6.96	59	NR	NR
Aug-03		40.23	0	52.9	4573	6.77	64	5.6	86
Aug-04	MW #20	21.44	21.10	27.15	SPH	SPH	SPH	SPH	SPH
Mar-04		21.47	21.05	27.15	1576	7.05	62	NR	NR
Aug-03		21.87	20.99	27.15	SPH	SPH	SPH	SPH	SPH
Aug-04	MW #21	22.27	22.25	30.38	4405	6.81	63	4.0	-43
Mar-04		22.35	22.32	30.38	NR	NR	NR	NR	NR
Aug-03		22.46	22.33	30.38	NR	NR	NR	NR	NR

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Table 3

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Aug-03	MW #24	14.93	14.91	15.13	SPH	SPH	SPH	SPH	SPH
Mar-04		0	0	15.13	NS	NS	NS	NS	NS
Aug-03		14.93	14.91	15.13	SPH	SPH	SPH	SPH	SPH
Aug-04	MW #25	33.4	32.77	41.2	SPH	SPH	SPH	SPH	SPH
Mar-04		33.61	32.64	41.2	NR	NR	NR	NR	NR
Aug-03		33.57	32.42	41.2	NR	NR	NR	NR	NR
Aug-04	MW #26	17.39	0	25.11	2422	6.81	65	7.5	-33
Mar-04		17.32	0	25.11	NR	NR	NR	NR	NR
Aug-03		33.57	32.42	41.2	2267	6.65	68	4.9	-69
Aug-04	MW #27	18.70	0	24.42	2474	6.89	65	1.7	-143
Mar-04		18.71	0	24.42	NR	NR	NR	NR	NR
Aug-03		18.50	0	24.42	2776	6.73	65	4.1	-188
Aug-04	MW #29	23.15	0	28.62	850	7.03	62	4.7	115
Mar-04		23.32	0	28.62	NR	NR	NR	NR	NR
Aug-03		23.24	0	28.62	NR	NR	NR	NR	NR
Aug-04	MW #30	33.95	0	40.13	4480	6.90	62	over range	-196
Mar-04		33.96	0	40.13	NR	NR	NR	NR	NR
Aug-03		33.90	0	40.13	NR	NR	NR	NR	NR
Aug-03	MW #31	34.21	0	39.16	3945	7.07	64	3.4	-19
Mar-04		34.13	0	39.16	NR	NR	NR	NR	NR
Aug-03		34.02	0	39.16	NR	NR	NR	NR	NR
Aug-04	MW #32	24.93	0	27.51	3576	6.88	62	5.6	79
Mar-04		24.98	0	27.51	4898	6.71	58	NR	NR
Aug-03		24.8	0	27.51	5346	6.87	63	7.4	64
Aug-04	MW #33	22.29	0	25.51	4630	6.81	63	5.6	106
Mar-04		22.38	0	25.51	4950	7.35	57	NR	NR
Aug-03		22.11	0	25.51	4373	6.89	66	5.0	110
Aug-04	MW #34	14.24	0	20.96	2144	6.80	64	1.7	-51
Mar-04		14.5	0	20.96	NR	NR	NR	NR	NR
Aug-03		14.57	0	20.97	2220	6.75	70	4.9	-76
Aug-04	MW #35	22.81	0	26.45	2000	6.81	60	3.6	-63
Mar-04		22.98	0	26.45	2026	6.97	58	NR	NR
Aug-03		23.04	0	26.45	2005	6.72	66	5.4	-95
Aug-04	MW #36	21.30	0	23.26	1880	6.85	68	8.4	-111
Mar-04		21.23	0	23.26	NR	NR	NR	NR	NR
Aug-03		21.44	0	23.26	NR	NR	NR	NR	NR

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Aug-04	MW #37	23.99	0	27.58	2085	7.06	62	4.3	-103
Mar-04		22.94	0	27.58	2033	7.29	57	NR	NR
Aug-03		24.11	0	27.58	2061	7.16	68	6.4	-129
Aug-04	MW #38	24.51	0	26.82	2058	6.84	63	12.3	-124
Mar-04		24.32	0	26.82	1967	7.11	55	NR	NR
Aug-03		24.6	0	26.82	1866	6.90	69	4.7	-145
Aug-04	MW #39	24.59	0	38.34	5424	7.51	65	4.7	-162
Mar-04		24.45	0	38.34	NR	NR	NR	NR	NR
Aug-03		NR	NR	NR	NR	NR	NR	NR	NR
Aug-04	MW #40	29.76	28.94	30.07	SPH	SPH	SPH	SPH	SPH
Mar-04		29.95	29.05	30.07	SPH	SPH	SPH	SPH	SPH
Aug-03		29.99	28.85	30.07	SPH	SPH	SPH	SPH	SPH
Aug-04	MW #41	28.34	27.43	31.62	SPH	SPH	SPH	SPH	SPH
Mar-04		28.41	27.3	31.62	SPH	SPH	SPH	SPH	SPH
Aug-03		28.52	27.31	31.62	SPH	SPH	SPH	SPH	SPH
Aug-04	MW #44	33.8	0	50.91	5589	6.90	60	5.3	-52
Mar-04		33.4	0	50.91	NR	NR	NR	NR	NR
Aug-03		33.75	0	50.91	NR	NR	NR	NR	NR
Aug-03	MW #45	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH
Mar-04		15.85	9.32	16.92	SPH	SPH	SPH	SPH	SPH
Aug-03		13.19	9.35	16.92	SPH	SPH	SPH	SPH	SPH
Aug-04	MW #46	0	0	10.39	NS	NS	NS	NS	NS
Mar-04		0	0	10.39	NS	NS	NS	NS	NS
Aug-03		0	0	10.39	NS	NS	NS	NS	NS
Aug-04	MW #47	11.55	10.32	14.28	SPH	SPH	SPH	SPH	SPH
Mar-04		11.79	10.31	14.28	3440	7.01	52	NR	NR
Aug-03		10.58	0	14.39	3848	6.88	69	7.9	-75
Aug-03	P-#4	8.41	0	13.94	2316	6.92	69	8.4	-240
Mar-04		8.29	0	13.94	22398	7.56	46	NR	NR
Aug-03		8.22	0	13.94	2606	7.06	69	0.2	-284
Aug-04	P-#5	9.24	0	14.27	2014	6.93	67	5.4	-124
Mar-04		9.54	0	14.27	2097	7.38	46	NR	NR
Aug-03		10.29	0	14.27	2006	7.16	69	4.5	-104
Aug-04	O/F #2	NM	NM	NM	996	6.88	67	6.3	74
Mar-04		NM	NM	NM	1199	7.23	47	NR	NR
Aug-03		NS	NS	NS	NS	NS	NS	NS	NS

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Table 3

DATE	RW/MW	DEPTH TO LIQUID (ft)	SPH	WELL DEPTH	E.C.	pH	TEMP.	D.O	ORP
Aug-04	O/F #3	NM	NM	NM	980	6.81	64	9.8	103
Mar-04		NM	NM	NM	1224	7.36	49	NR	NR
Aug-03		NM	NM	NM	904	7.02	63	7.8	194
Aug-04	RW #3	22.74	22.71	34.57	3138	6.82	67	5.5	-47
Mar-04		22.49	22.43	34.57	NR	NR	NR	NR	NR
Aug-03		22.68	0	34.57	NR	NR	NR	NR	NR
Aug-04	RW #14	35.11	2.45	41.94	4422	6.87	62	6.4	-83
Mar-04		36.65	35.21	41.94	NR	NR	NR	NR	NR
Aug-03		35.14	0	41.94	NR	NR	NR	NR	NR
Aug-04	RW #15	34.92	0	43.43	3481	6.83	61	over range	-85
Mar-04		35.93	0	43.43	NR	NR	NR	NR	NR
Aug-03		34.93	0	43.43	NR	NR	NR	NR	NR
Aug-04	RW #16	34.03	0	41.94	3162	6.93	62	8.7	-139
Mar-04		35.04	0	41.94	NR	NR	NR	NR	NR
Aug-03		34.03	0	41.94	NR	NR	NR	NR	NR
Aug-04	RW #17	33.63	33.37	41.89	SPH	SPH	SPH	SPH	SPH
Mar-04		35.55	35.45	41.89	NR	NR	NR	NR	NR
Aug-03		33.34	33.29	41.89	NR	NR	NR	NR	NR

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