

# BENZENE TRACKING - 2005

## Stripping Columns

### Benzene Strippers at Lagoons - Inlet

Date	Result mg/l
8/16/2005	7.3

### Benzene Strippers at Lagoons - Outlet:

Highlighted cells are for levels exceeding regulatory limits.

Date	Result mg/l
11/16/2005	2



## COVER LETTER

November 30, 2005

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

RE: Old & New API Sep Eff & AL-2-EP-1 SP.

Order No.: 0511192

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 3 samples on 11/17/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

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

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager



# Hall Environmental Analysis Laboratory

Date: 30-Nov-05

CLIENT: Giant Refining Co  
 Lab Order: 0511192  
 Project: Old & New API Sep Eff & AL-2-EP-1 SP.  
 Lab ID: 0511192-01

Client Sample ID: Old API Effluent  
 Collection Date: 11/16/2005 10:40:00 AM  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	7.7	1.0		mg/L	1	11/23/2005 9:13:32 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/23/2005 9:13:32 AM
Surr: DNOP	126	58-140		%REC	1	11/23/2005 9:13:32 AM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: KTM
Benzene	170	10		µg/L	10	11/29/2005
Toluene	240	10		µg/L	10	11/29/2005
Ethylbenzene	24	10		µg/L	10	11/29/2005
Methyl tert-butyl ether (MTBE)	15	10		µg/L	10	11/29/2005
Xylenes, Total	570	10		µg/L	10	11/29/2005
Surr: 4-Bromofluorobenzene	87.2	71.2-123		%REC	10	11/29/2005

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

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

# Hall Environmental Analysis Laboratory

Date: 30-Nov-05

CLIENT: Giant Refining Co  
 Lab Order: 0511192  
 Project: Old & New API Sep Eff & AL-2-EP-1 SP.  
 Lab ID: 0511192-02

Client Sample ID: New API Effluent  
 Collection Date: 11/16/2005 10:45:00 AM  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	90	3.0		mg/L	1	11/23/2005 9:46:20 AM
Motor Oil Range Organics (MRO)	ND	15		mg/L	1	11/23/2005 9:46:20 AM
Surr: DNOP	132	58-140		%REC	1	11/23/2005 9:46:20 AM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: KTM
Benzene	2000	50		µg/L	50	11/29/2005
Toluene	1100	50		µg/L	50	11/29/2005
Ethylbenzene	110	10		µg/L	10	11/29/2005
Methyl tert-butyl ether (MTBE)	1800	10		µg/L	10	11/29/2005
Xylenes, Total	560	10		µg/L	10	11/29/2005
Surr: 4-Bromofluorobenzene	83.7	71.2-123		%REC	10	11/29/2005

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

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

# Hall Environmental Analysis Laboratory

Date: 30-Nov-05

**CLIENT:** Giant Refining Co **Client Sample ID:** AL-2 to EP-1  
**Lab Order:** 0511192 **Collection Date:** 11/16/2005 10:50:00 AM  
**Project:** Old & New API Sep Eff & AL-2-EP-1 SP.  
**Lab ID:** 0511192-03 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: SCC
Diesel Range Organics (DRO)	43	1.0		mg/L	1	11/23/2005 10:18:51 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	11/23/2005 10:18:51 AM
Surr: DNOP	85.4	58-140		%REC	1	11/23/2005 10:18:51 AM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: KTM
Benzene	11	5.0		µg/L	5	11/30/2005
Toluene	7.3	5.0		µg/L	5	11/30/2005
Ethylbenzene	ND	5.0		µg/L	5	11/30/2005
Methyl tert-butyl ether (MTBE)	17	5.0		µg/L	5	11/30/2005
Xylenes, Total	ND	5.0		µg/L	5	11/30/2005
Surr: 4-Bromofluorobenzene	87.6	71.2-123		%REC	5	11/30/2005

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

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

Hall Environmental Analysis Laboratory

Date: 30-Nov-05

CLIENT: Giant Refining Co  
 Work Order: 0511192  
 Project: Old & New API Sep Eff & AL-2-EP-1 SP.

QC SUMMARY REPORT  
 Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
MB-9247	9247	SW8015	mg/L	11/23/2005 7:35:10 AM	11/22/2005						
Client ID:		Run ID:	FID(17A) 2_051122A	SeqNo:	425190						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1									
Motor Oil Range Organics (MRO)	ND	5									
Surr: DNOP	1.18	0	1	0	118	58	140	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
5mL rb-b	R17450	SW8260B	µg/L	11/29/2005							
Client ID:		Run ID:	NEPTUNE_051129A	SeqNo:	426506						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	1									
Toluene	ND	1									
Ethylbenzene	ND	1									
Methyl tert-butyl ether (MTBE)	ND	1									
Xylenes, Total	ND	1									
Surr: 4-Bromofluorobenzene	9.612	0	10	0	96.1	71.2	123	0			

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
5mL rb-b	R17458	SW8260B	µg/L	11/30/2005							
Client ID:		Run ID:	NEPTUNE_051130A	SeqNo:	426786						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	1									
Toluene	ND	1									
Ethylbenzene	ND	1									
Methyl tert-butyl ether (MTBE)	ND	1									
Xylenes, Total	ND	1									
Surr: 4-Bromofluorobenzene	9.368	0	10	0	93.7	71.2	123	0			

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

Hall Environmental Analysis Laboratory

Date: 30-Nov-05

CLIENT: Giant Refining Co  
 Work Order: 0511192  
 Project: Old & New API Sep Eff & AL-2-EP-1 SP.

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

Sample ID	LCS-9247	Batch ID:	9247	Test Code:	SW8015	Units:	mg/L	Analysis Date	11/23/2005 8:07:57 AM	Prep Date	11/22/2005			
Client ID:		Run ID:	FID(17A) 2_051122A	SeqNo:	425191									
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		5.706		1	5	0		114	81.2	149	0			

Sample ID	LCSD-9247	Batch ID:	9247	Test Code:	SW8015	Units:	mg/L	Analysis Date	11/23/2005 8:40:45 AM	Prep Date	11/22/2005			
Client ID:		Run ID:	FID(17A) 2_051122A	SeqNo:	425275									
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		6.086		1	5	0		122	81.2	149	5.706	6.44	23	

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Sample ID	100ng lcs	Batch ID:	R17450	Test Code:	SW8260B	Units:	µg/L	Analysis Date	11/29/2005	Prep Date				
Client ID:		Run ID:	NEPTUNE_051129A	SeqNo:	426508									
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		19.31		1	20	0		96.6	80	130	0			
Toluene		18.39		1	20	0		92.0	77	121	0			

Sample ID	100NG LCS	Batch ID:	R17458	Test Code:	SW8260B	Units:	µg/L	Analysis Date	11/30/2005	Prep Date				
Client ID:		Run ID:	NEPTUNE_051130A	SeqNo:	426787									
Analyte		Result		PQL	SPK value	SPK Ref Val		%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		19.3		1	20	0		96.5	80	130	0			
Toluene		19.23		1	20	0		96.1	77	121	0			

Qualifiers: ND - Not Detected at the Reporting Limit  
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S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

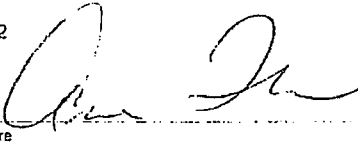
Date and Time Received:

11/17/2005

Work Order Number 0511192

Received by AT

Checklist completed by



Signature

Date

11/17/05

Matrix

Carrier name Client drop-off

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present  Not Shipped
- Custody seals intact on sample bottles? Yes  No  N/A
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No
- Water - pH acceptable upon receipt? Yes  No  N/A
- Container/Temp Blank temperature? 6° 4° C ± 2 Acceptable  
If given sufficient time to cool.

COMMENTS:

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

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

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

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







COVER LETTER

August 23, 2005

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

RE: API Separator Outlet Water 8/16/05

Order No.: 0508181

Dear Steve Morris:

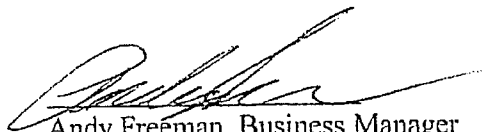
Hall Environmental Analysis Laboratory received 1 sample on 8/17/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

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

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

Sincerely,



Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager



# Hall Environmental Analysis Laboratory

Date: 23-Aug-05

CLIENT: Giant Refining Co  
 Lab Order: 0508181  
 Project: API Separator Outlet Water 8/16/05  
 Lab ID: 0508181-01

Client Sample ID: API Sep. Outlet  
 Collection Date: 8/16/2005 12:00:00 PM  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES</b>						Analyst: HLM
Benzene	7300	100		µg/L	100	8/19/2005
Toluene	11000	250		µg/L	250	8/22/2005
Ethylbenzene	670	100		µg/L	100	8/19/2005
Methyl tert-butyl ether (MTBE)	15000	100		µg/L	100	8/19/2005
1,2,4-Trimethylbenzene	410	100		µg/L	100	8/19/2005
1,3,5-Trimethylbenzene	ND	100		µg/L	100	8/19/2005
1,2-Dichloroethane (EDC)	ND	100		µg/L	100	8/19/2005
1,2-Dibromoethane (EDB)	ND	100		µg/L	100	8/19/2005
Naphthalene	360	200		µg/L	100	8/19/2005
1-Methylnaphthalene	ND	400		µg/L	100	8/19/2005
2-Methylnaphthalene	ND	400		µg/L	100	8/19/2005
Acetone	7800	1000		µg/L	100	8/19/2005
Bromobenzene	ND	100		µg/L	100	8/19/2005
Bromochloromethane	ND	100		µg/L	100	8/19/2005
Bromodichloromethane	ND	100		µg/L	100	8/19/2005
Bromoform	ND	100		µg/L	100	8/19/2005
Bromomethane	ND	200		µg/L	100	8/19/2005
2-Butanone	2300	1000		µg/L	100	8/19/2005
Carbon disulfide	ND	1000		µg/L	100	8/19/2005
Carbon Tetrachloride	ND	100		µg/L	100	8/19/2005
Chlorobenzene	ND	100		µg/L	100	8/19/2005
Chloroethane	ND	200		µg/L	100	8/19/2005
Chloroform	ND	100		µg/L	100	8/19/2005
Chloromethane	ND	100		µg/L	100	8/19/2005
2-Chlorotoluene	ND	100		µg/L	100	8/19/2005
4-Chlorotoluene	ND	100		µg/L	100	8/19/2005
cis-1,2-DCE	ND	100		µg/L	100	8/19/2005
cis-1,3-Dichloropropene	ND	100		µg/L	100	8/19/2005
1,2-Dibromo-3-chloropropane	ND	200		µg/L	100	8/19/2005
Dibromochloromethane	ND	100		µg/L	100	8/19/2005
Dibromomethane	ND	200		µg/L	100	8/19/2005
1,2-Dichlorobenzene	ND	100		µg/L	100	8/19/2005
1,3-Dichlorobenzene	ND	100		µg/L	100	8/19/2005
1,4-Dichlorobenzene	ND	100		µg/L	100	8/19/2005
Dichlorodifluoromethane	ND	100		µg/L	100	8/19/2005
1,1-Dichloroethane	ND	100		µg/L	100	8/19/2005
1,1-Dichloroethene	ND	100		µg/L	100	8/19/2005
1,2-Dichloropropane	ND	100		µg/L	100	8/19/2005
1,3-Dichloropropane	ND	100		µg/L	100	8/19/2005
2,2-Dichloropropane	ND	100		µg/L	100	8/19/2005
1,1-Dichloropropene	ND	100		µg/L	100	8/19/2005

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

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

# Hall Environmental Analysis Laboratory

Date: 23-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: API Sep. Outlet

Lab Order: 0508181

Collection Date: 8/16/2005 12:00:00 PM

Project: API Separator Outlet Water 8/16/05

Lab ID: 0508181-01

Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Hexachlorobutadiene	ND	100		µg/L	100	8/19/2005
2-Hexanone	ND	1000		µg/L	100	8/19/2005
Isopropylbenzene	ND	100		µg/L	100	8/19/2005
4-Isopropyltoluene	ND	100		µg/L	100	8/19/2005
4-Methyl-2-pentanone	ND	1000		µg/L	100	8/19/2005
Methylene Chloride	ND	300		µg/L	100	8/19/2005
n-Butylbenzene	ND	100		µg/L	100	8/19/2005
n-Propylbenzene	ND	100		µg/L	100	8/19/2005
sec-Butylbenzene	ND	100		µg/L	100	8/19/2005
Styrene	ND	100		µg/L	100	8/19/2005
tert-Butylbenzene	ND	100		µg/L	100	8/19/2005
1,1,1,2-Tetrachloroethane	ND	100		µg/L	100	8/19/2005
1,1,2,2-Tetrachloroethane	ND	100		µg/L	100	8/19/2005
Tetrachloroethene (PCE)	ND	100		µg/L	100	8/19/2005
trans-1,2-DCE	ND	100		µg/L	100	8/19/2005
trans-1,3-Dichloropropene	ND	100		µg/L	100	8/19/2005
1,2,3-Trichlorobenzene	ND	100		µg/L	100	8/19/2005
1,2,4-Trichlorobenzene	ND	100		µg/L	100	8/19/2005
1,1,1-Trichloroethane	ND	100		µg/L	100	8/19/2005
1,1,2-Trichloroethane	ND	100		µg/L	100	8/19/2005
Trichloroethene (TCE)	ND	100		µg/L	100	8/19/2005
Trichlorofluoromethane	ND	100		µg/L	100	8/19/2005
1,2,3-Trichloropropane	ND	200		µg/L	100	8/19/2005
Vinyl chloride	ND	100		µg/L	100	8/19/2005
Xylenes, Total	3700	100		µg/L	100	8/19/2005
Surr: 1,2-Dichloroethane-d4	95.5	87.7-108		%REC	100	8/19/2005
Surr: 4-Bromofluorobenzene	104	88.8-113		%REC	100	8/19/2005
Surr: Dibromofluoromethane	103	84.1-111		%REC	100	8/19/2005
Surr: Toluene-d8	106	85.9-109		%REC	100	8/19/2005

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

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

Hall Environmental Analysis Laboratory

Date: 23-Aug-05

CLIENT: Giant Refining Co  
 Work Order: 0508181  
 Project: API Separator Outlet Water 8/16/05

QC SUMMARY REPORT  
 Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
B6	R16376	SW8260B	µg/L	8/19/2005							
Client ID:		Run ID: VAL_050819A		SeqNo: 390634							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	1									
Toluene	ND	1									
Ethylbenzene	ND	1									
Methyl tert-butyl ether (MTBE)	ND	1									
1,2,4-Trimethylbenzene	ND	1									
1,3,5-Trimethylbenzene	ND	1									
1,2-Dichloroethane (EDC)	ND	1									
1,2-Dibromoethane (EDB)	ND	1									
Naphthalene	0.796	2									J
1-Methylnaphthalene	ND	4									
2-Methylnaphthalene	ND	4									
Acetone	ND	10									
Bromobenzene	ND	1									
Bromochloromethane	ND	1									
Bromodichloromethane	ND	1									
Bromoform	ND	1									
Bromomethane	ND	2									
2-Butanone	ND	10									
Carbon disulfide	ND	10									
Carbon Tetrachloride	ND	1									
Chlorobenzene	ND	1									
Chloroethane	ND	2									
Chloroform	ND	1									
Chloromethane	ND	1									
2-Chlorotoluene	ND	1									
4-Chlorotoluene	ND	1									
cis-1,2-DCE	ND	1									

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Qualifiers: ND - Not Detected at the Reporting Limit  
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S - Spike Recovery outside accepted recovery limits  
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CLIENT: Giant Refining Co  
 Work Order: 0508181  
 Project: API Separator Outlet Water 8/16/05

QC SUMMARY REPORT  
 Method Blank

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cis-1,3-Dichloropropene	ND	1
1,2-Dibromo-3-chloropropane	ND	2
Dibromochloromethane	ND	1
Dibromomethane	ND	2
1,2-Dichlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
Dichlorodifluoromethane	ND	1
1,1-Dichloroethane	ND	1
1,1-Dichloroethene	ND	1
1,2-Dichloropropane	ND	1
1,3-Dichloropropane	ND	1
2,2-Dichloropropane	ND	1
1,1-Dichloropropene	ND	1
Hexachlorobutadiene	ND	1
2-Hexanone	ND	10
Isopropylbenzene	ND	1
4-Isopropyltoluene	ND	1
4-Methyl-2-pentanone	ND	10
Methylene Chloride	ND	3
n-Butylbenzene	ND	1
n-Propylbenzene	ND	1
sec-Butylbenzene	ND	1
Styrene	0.442	1
tert-Butylbenzene	ND	1
1,1,1,2-Tetrachloroethane	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Tetrachloroethene (PCE)	ND	1
trans-1,2-DCE	ND	1
trans-1,3-Dichloropropene	ND	1
1,2,3-Trichlorobenzene	ND	1
1,2,4-Trichlorobenzene	ND	1
1,1,1-Trichloroethane	ND	1

J

Qualifiers: ND - Not Detected at the Reporting Limit  
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 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co  
 Work Order: 0508181  
 Project: API Separator Outlet Water 8/16/05

**QC SUMMARY REPORT**  
 Method Blank

1,1,2-Trichloroethane	ND	1							
Trichloroethene (TCE)	ND	1							
Trichlorofluoromethane	ND	1							
1,2,3-Trichloropropane	0.522	2							J
Vinyl chloride	ND	1							
Xylenes, Total	0.984	1							J
Surr: 1,2-Dichloroethane-d4	9.542	0	10	0	95.4	87.7	108	0	
Surr: 4-Bromofluorobenzene	9.97	0	10	0	99.7	88.8	113	0	
Surr: Dibromofluoromethane	9.812	0	10	0	98.1	84.1	111	0	
Surr: Toluene-d8	9.418	0	10	0	94.2	85.9	109	0	

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Qualifiers: ND - Not Detected at the Reporting Limit  
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B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 23-Aug-05

CLIENT: Giant Refining Co  
 Work Order: 0508181  
 Project: API Separator Outlet Water 8/16/05

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

Sample ID	100ng lcs	Batch ID:	R16376	Test Code:	SW8260B	Units:	µg/L	Analysis Date	8/20/2005	Prep Date	
Client ID:		Run ID:	VAL_050819A	SeqNo:	390635						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.44	1	20	0	97.2	81.4	130	0			
Toluene	22.05	1	20	0	110	90.8	128	0			
Chlorobenzene	21.54	1	20	0	108	89.6	134	0			
1,1-Dichloroethene	18.75	1	20	0	93.8	75.1	120	0			
Trichloroethene (TCE)	17.67	1	20	0	88.3	75.8	110	0			

Sample ID	100ng lcs	Batch ID:	R16391	Test Code:	SW8260B	Units:	µg/L	Analysis Date	8/22/2005	Prep Date	
Client ID:		Run ID:	VAL_050822A	SeqNo:	390906						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.55	1	20	0	97.8	81.4	130	0			
Toluene	22.92	1	20	0	115	90.8	128	0			
Chlorobenzene	22.29	1	20	0	111	89.6	134	0			
1,1-Dichloroethene	20.13	1	20	0	101	75.1	120	0			
Trichloroethene (TCE)	18.58	1	20	0	92.9	75.8	110	0			

6/17

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



Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

8/17/2005

Work Order Number 0508181

Received by SSB

Checklist completed by

*[Handwritten Signature]*  
Signature

8-17-05  
Date

Matrix

Carrier name Client drop-off

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

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

COMMENTS:

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

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

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

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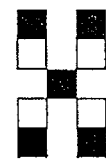
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Corrective Action \_\_\_\_\_

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# CHAIN-OF-CUSTODY RECORD

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



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**  
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 Albuquerque, New Mexico 87109  
 Tel. 505.345.3975 Fax 505.345.4107  
 www.hallenvironmental.com

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

Project Name: API Separator Outlet Water 8-16-05

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

Project #: \_\_\_\_\_  
 Project Manager: Steve Morris

Sampler: Steve Morris  
 Sample Temperature: 50

## 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 8021)	8310 (PNA or PAH)	PERA-8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / PCB's (8082)	8260B (Semi-VOA)	8270 (Semi-VOA)	Air Bubbles or Headspace (Y or N)
							X			X		

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.
					HgCl <sub>2</sub>	HNO <sub>3</sub>	
8/16/05	1209	H <sub>2</sub> O	API sep. Outlet				0308181 -1

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

Received By: (Signature) David O'Brien  
 Received By: (Signature) 07:58

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