

3R - 238

REPORTS

DATE:

2002

Certified Mail: #7001 1940 0002 1371 7676

February 28, 2003

RECEIVED

MAR 05 2003

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Mr. William C. Olson
New Mexico Oil Conservation Division
1220 St. Francis Dr.
Santa Fe, NM 87504

RE: 2002 Pit Project Annual Groundwater Report

Dear Mr. Olson:

In accordance with reporting requirements, El Paso Field Services (EPFS) has enclosed annual reports for the 30 remaining groundwater impacted sites that were identified during our pit closure project of 1994 / 1995.

EPFS has organized the 30 Annual Reports (Volumes 1, 2 and 3) by land type. Volume 1 contains Annual Reports for sites found on Federal land. Volume 2 contains Non Federal sites and Volume 3 contains sites on Navajo land. Of the 30 reports submitted, EPFS is requesting closure of three sites located on Navajo lands. Of the three Navajo sites submitted for closure OCD has closed the Charley Pah #4 and the John Charles #8. The Rementa et al #1 has not been closed by either agency and EPFS reiterates request for closure of this site. EPFS understands closure of groundwater sites on Navajo land falls under jurisdiction of the Navajo Nation Environmental Protection Agency and original documents have been submitted to them for review. Other Navajo sites are included in the report for your information.

Three additional sites were submitted for closure in 2002. EPFS recently has received closure on the W.D. Heath B-5. Closure approval is pending on the D Loop Line Drip and Hammond # 41A. All of these sites are included in the 2002 Annual Report.

If you have any questions concerning the enclosed reports, please call me at (505) 599-2124.

Sincerely,



Scott T. Pope P.G.
Senior Environmental Scientist

xc: Mr. Denny Foust, NMOCD, Aztec - w / enclosures; **Certified Mail # 7001 1940 0002 1371 7669**
Mr. Bill Liesse, BLM - w / enclosures (federal sites only), **Certified Mail # 7001 1940 0002 1371 7652**



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MAR 05 2003

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

El Paso Field Services

San Juan Basin Pit Program Groundwater Sites Project

2002 Annual Report Non-Federal Sites (Volume 2)

March 2003



MWH

10619 South Jordan Gateway, Suite 100
Salt Lake City, Utah 84095

EL PASO FIELD SERVICES ANNUAL GROUNDWATER REPORT

NON-FEDERAL SITES VOLUME II

TABLE OF CONTENTS

Site Map

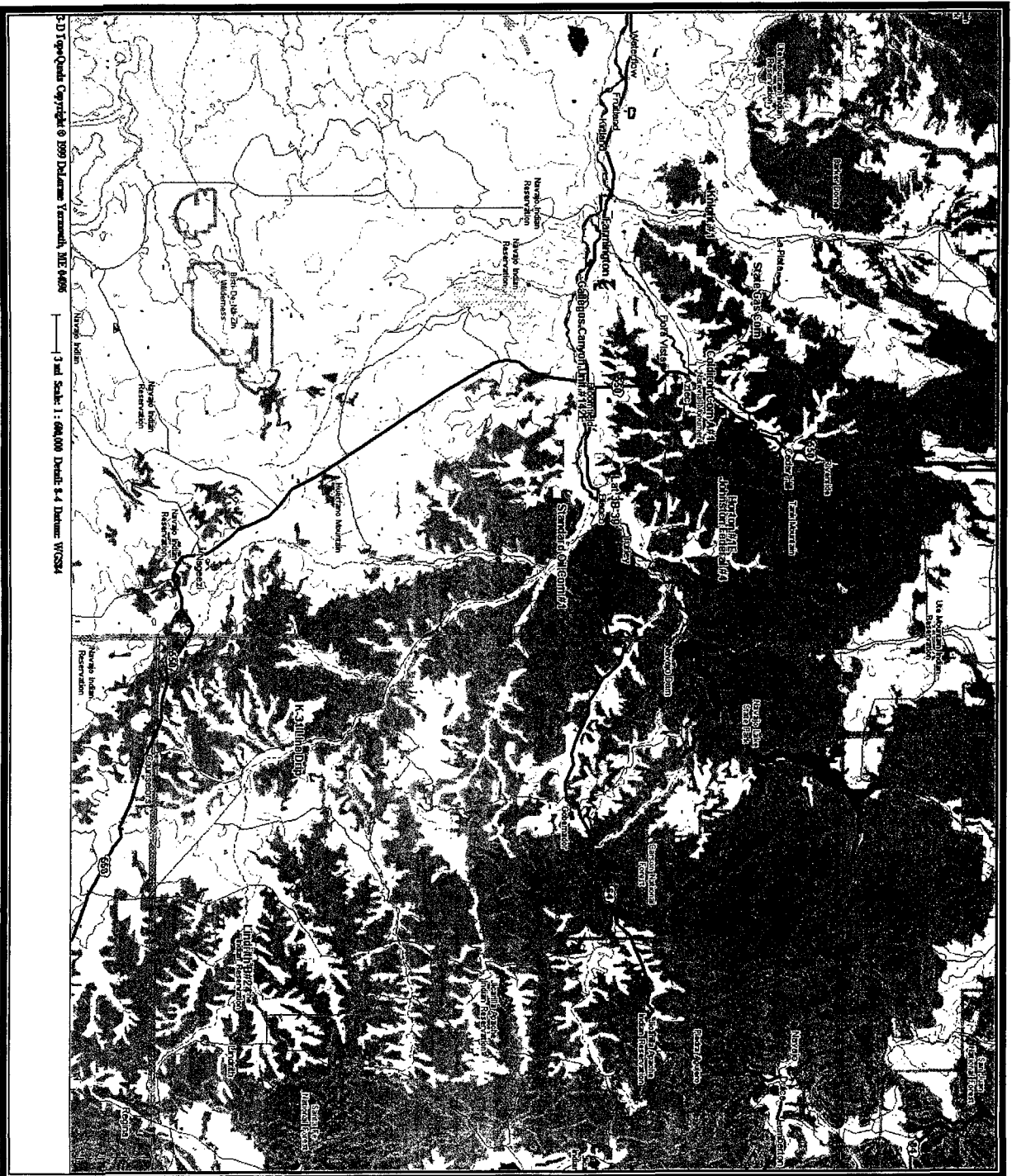
METER or LINE ID	SITE NAME	TOWNSHIP	RANGE	SECTION	UNIT
71669	State Gas Com N #1	31N	12W	16	H
70194	Johnston Fed #4	31N	09W	33	H
93388	Horton #1E	31N	09W	28	H
72556	Knight #1	30N	13W	5	A
73551	Coldiron A #1	30N	11W	2	K
03906	GCU Com A #142E	29N	12W	25	G
70445	Standard Oil Com #1	29N	09W	36	N
LD146	Lat 3B-39 Line Drip	29N	09W	10	M
LD087	K-31 Line Drip	25N	06W	16	N
94967	Lindrith B #24	24N	03W	9	N



MWH

MONTGOMERY WATSON HARZA

Non - Federal Groundwater Site Map



**EPFS GROUNDWATER SITES
2002 ANNUAL GROUNDWATER REPORT**

**Standard Oil Com #1
Meter Code: 70445**

SITE DETAILS

LEGAL DESCRIPTION: **Twn:** 29N **Rng:** 9W **Sec:** 36 **Unit:** N
NMOCD Haz Ranking: 30 **Land Type:** State **Operator:** Burlington Resources

PREVIOUS ACTIVITIES

Site Assessment: 5/94 **Excavation:** 5/94 (60 cy) **Soil Boring:** 9/95
Monitor Well: 9/95 **Geoprobe:** 7/97 **Additional MWs:** 12/01
Downgradient MWs: 12/01 **Replace MW:** NA **Quarterly Initiated:** 11/96
ORC Nutrient Injection: NA **Re-Excavation:** NA **PSH Removal Initiated:** NA
Annual Initiated: NA **Quarterly Resumed:** NA

SUMMARY OF 2002 ACTIVITIES

MW-1: Quarterly groundwater sampling and water level monitoring was performed during 2002.
MW-2: Quarterly water level monitoring was performed during 2002.
MW-3: Quarterly water level monitoring was performed during 2002.
MW-4: Quarterly water level monitoring was performed during 2002.
Site-Wide Activities: No other activities were performed at this site during 2002.

SUMMARY TABLES AND GRAPHS

- Analytical data is summarized in Table 1 and shown graphically in Figure 4.
- Laboratory reports are presented in Attachment 1.
- Field documentation are presented in Attachment 2.

SITE MAP

Site maps are attached as Figures 1 through 4.

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

No subsurface activities were performed at this site during 2002.

DISPOSITION OF GENERATED WASTES

No wastes were generated at this site during 2002.

**EPFS GROUNDWATER SITES
2002 ANNUAL GROUNDWATER REPORT**

**Standard Oil Com #1
Meter Code: 70445**

ISOCONCENTRATION MAPS

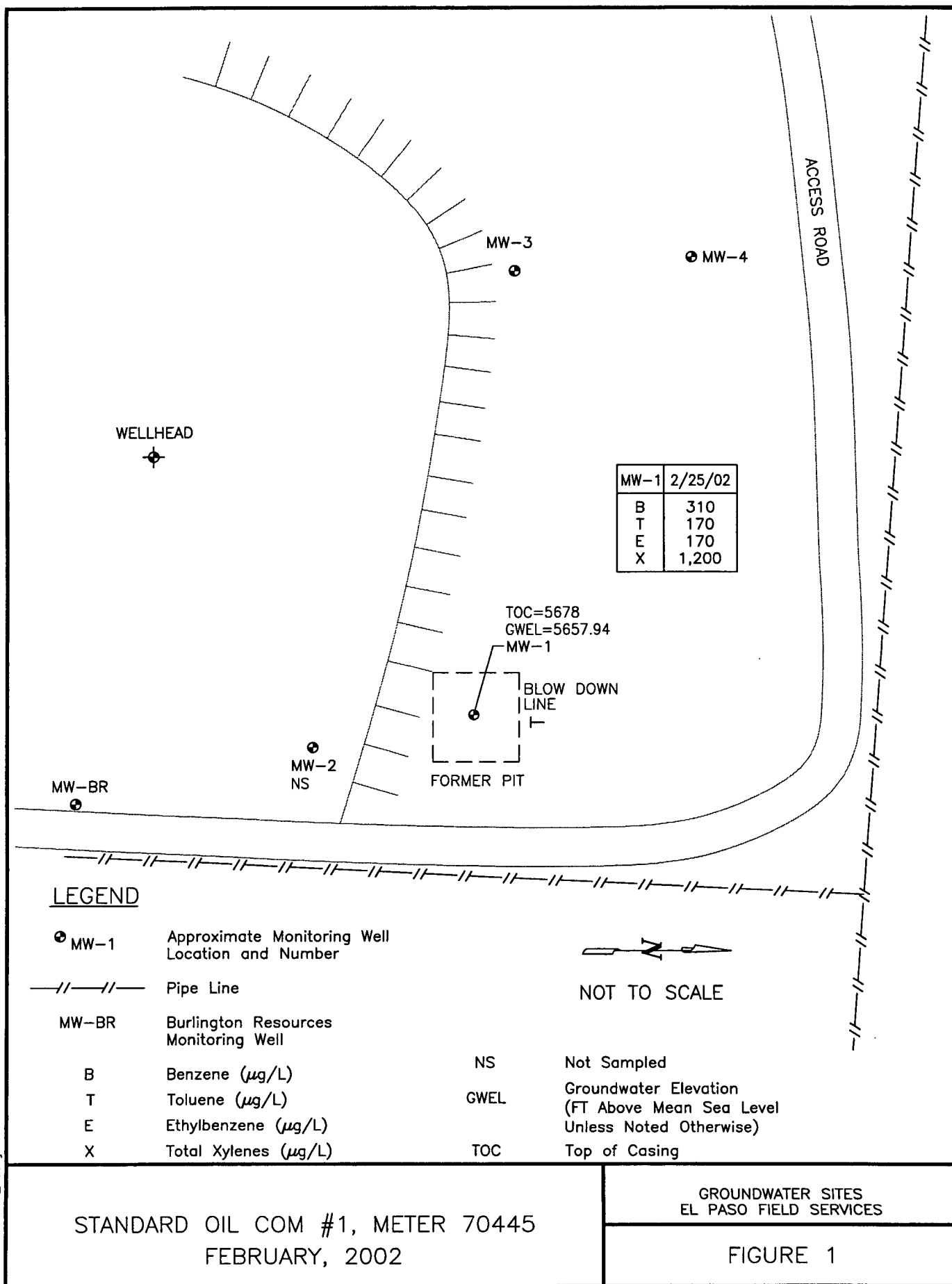
No isoconcentration maps were prepared for this site, however, the attached site maps present the potentiometric surface and analytical data collected during 2002.

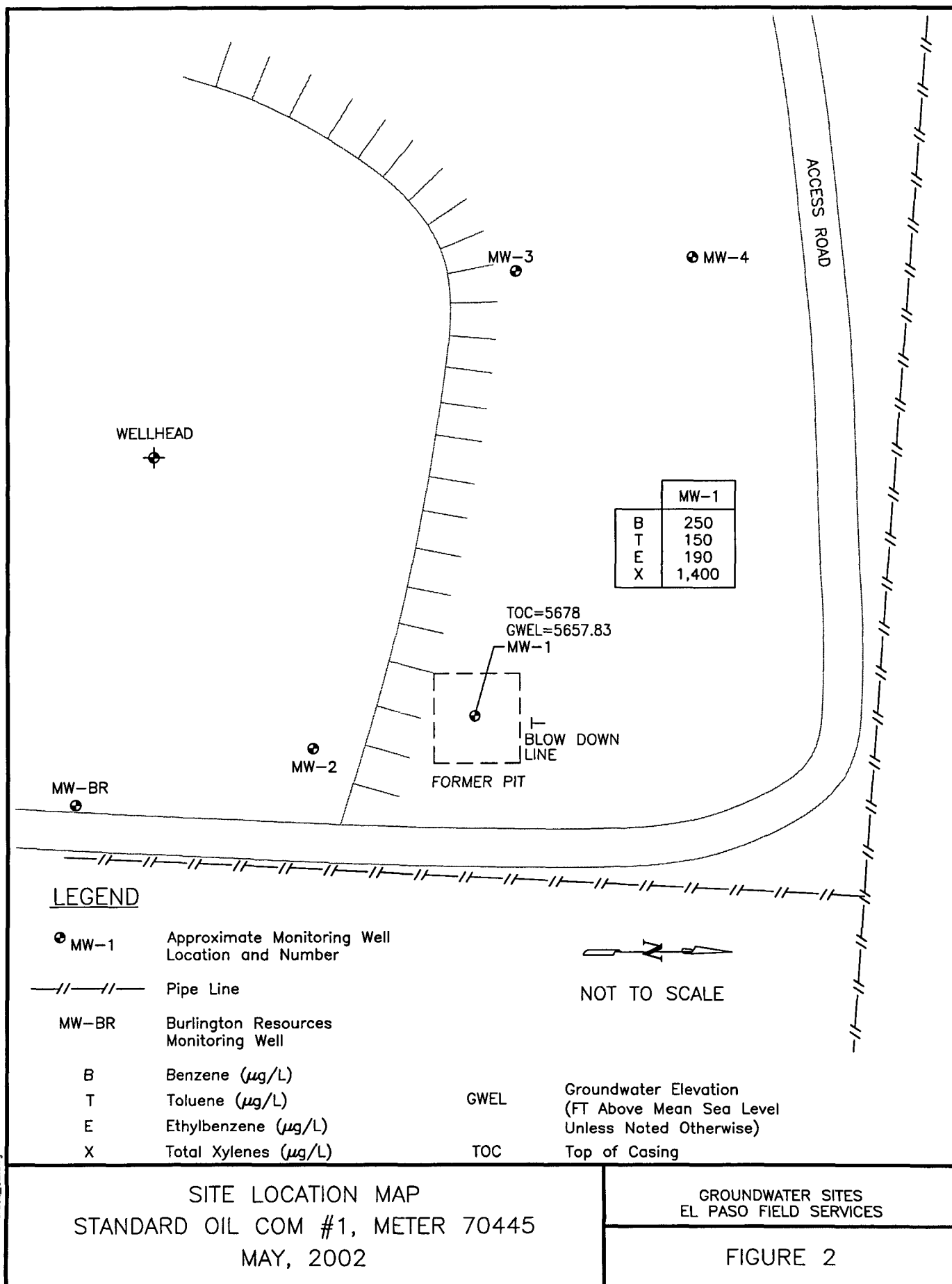
CONCLUSIONS

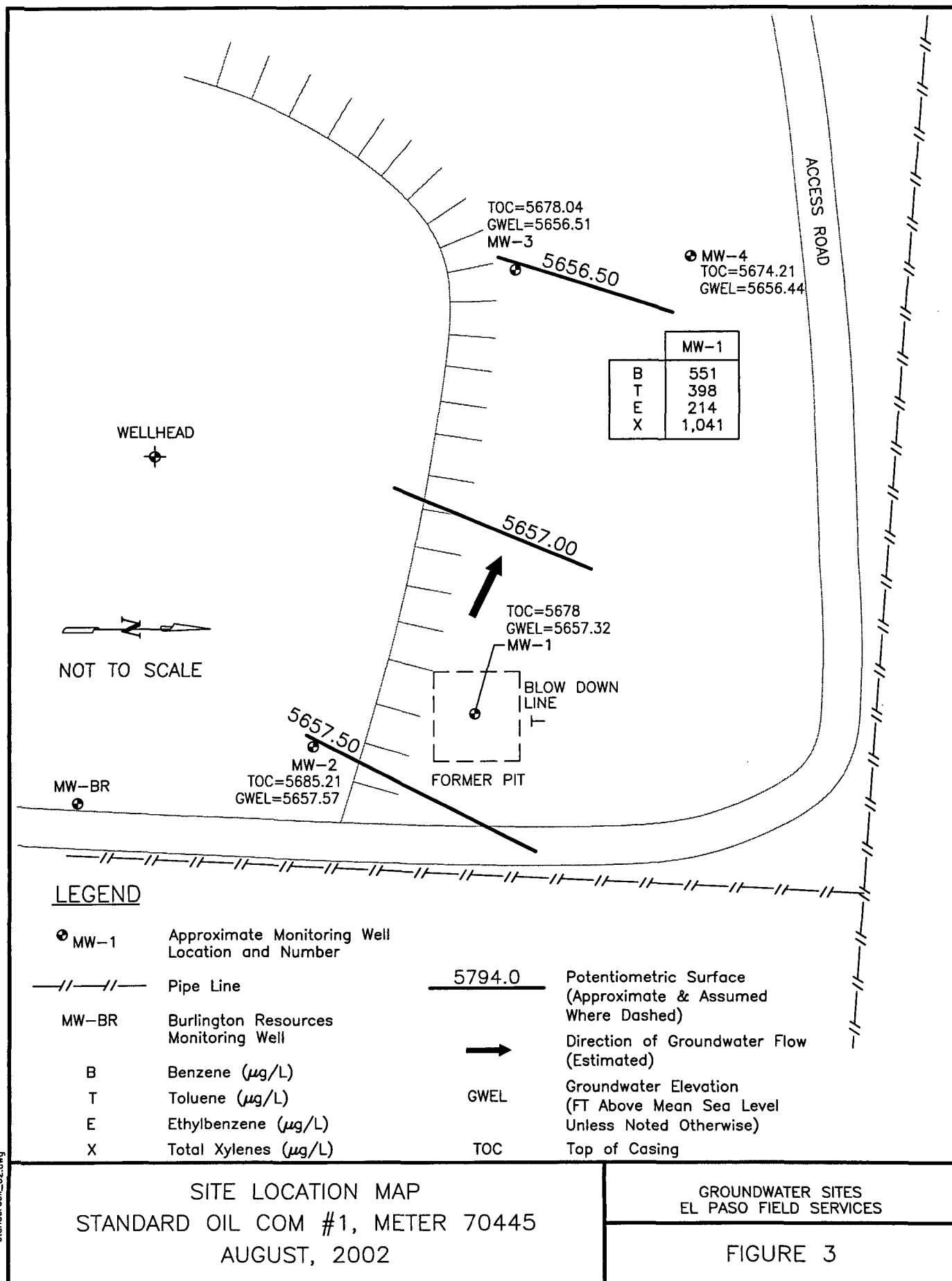
- The groundwater flow direction at this site trends to the west.
- Benzene concentrations in samples collected from MW-1 during 2002 ranged from 250 µg/l (May 02) to 551 µg/l (August 02).

RECOMMENDATIONS

- EPFS recommends that sampling at MW-1 be performed on an annual basis until BTEX concentrations approach closure criteria. This well will then be scheduled for either quarterly or semi-annual sampling until four consecutive samples are below closure standards
- EPFS recommends that an annual groundwater sample be collected at MW-2.
- EPFS recommends that quarterly water level monitoring continue during 2002 at this site.







	MW-1
B	464
T	207
E	235
X	1,085

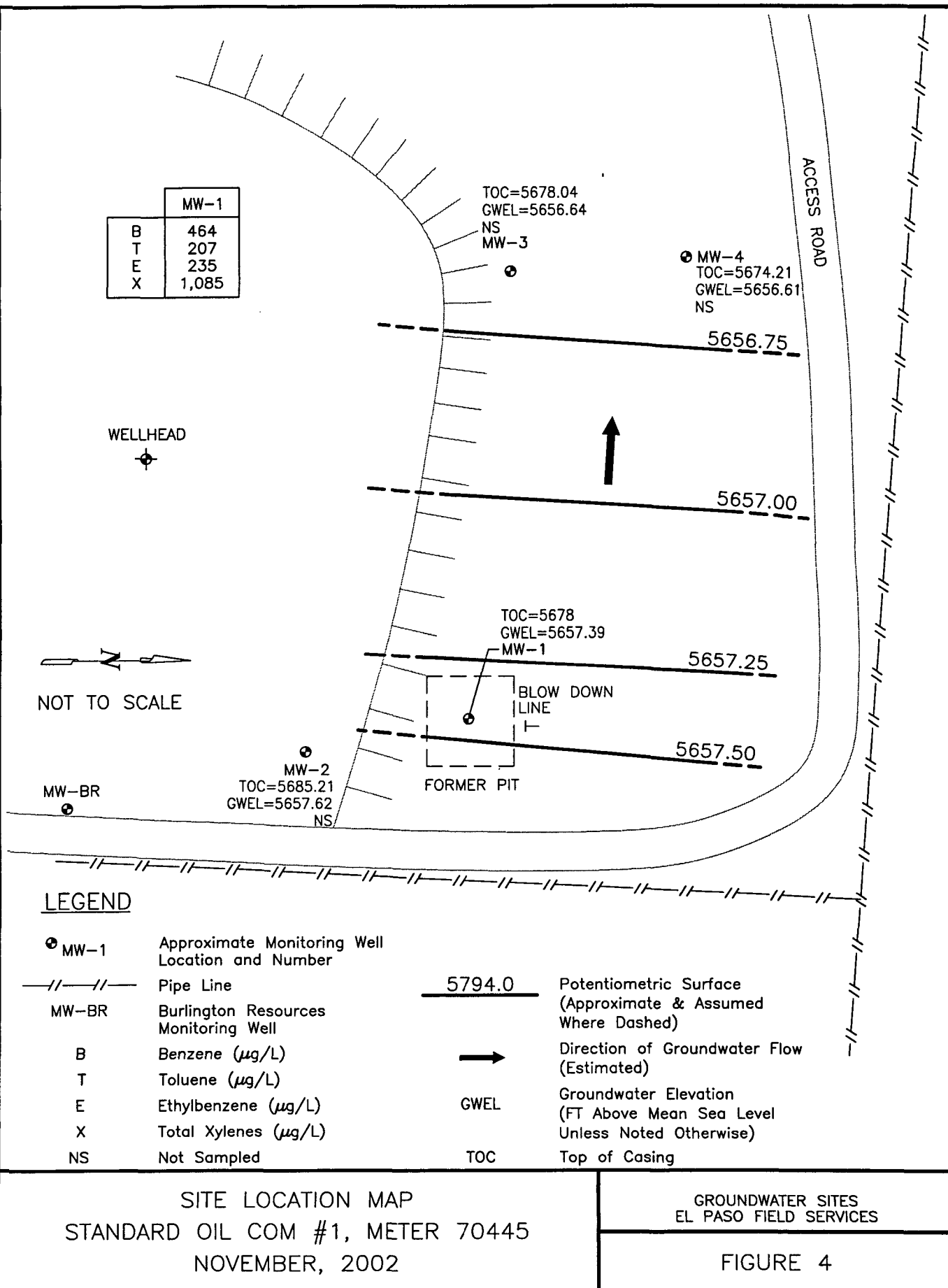


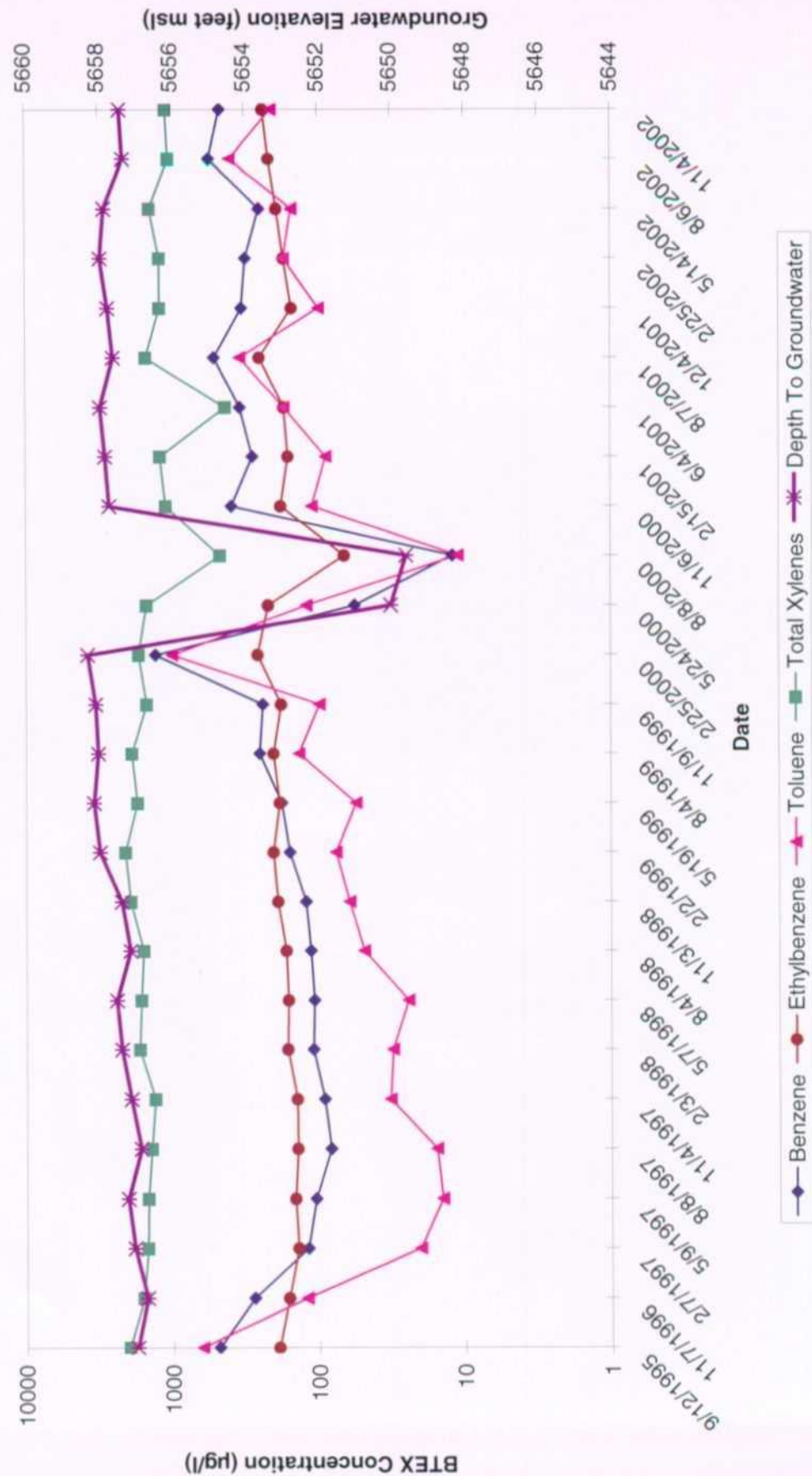
TABLE 1

SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER
STANDARD OIL COM #1 (METER #70445)

(Page 1 of 1)

Sample Identification	Sample Date	MW Identification	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	m,p-Xylene (µg/l)	o-Xylene (µg/l)	Total Xylenes (µg/l)
STA-0202-MW1	25-Feb-2002	1	310	170	170	NA	NA	1200
STA-0205-MW1	14-May-2002	1	250	150	190	NA	NA	1400
02-4281-1	06-Aug-2002	1	551	398	214	704	337	1041
02-5860-3	04-Nov-2002	1	464	207	235	720	365	1085

Figure 5
BTEX Concentration and Groundwater Elevation vs. Time
Standard Oil Com #1 (Meter #70445)
MW-1



ATTACHMENT 1

LABORATORY REPORTS

(Page 1 of 2)

Field Replicate Parent(s): None

Trish Butters 12-10-02
(Date/Signature)

[illegible]

DATA VALIDATION WORKSHEET

(Page 2 of 2)

Analytical Method: SW-846 8021B (BTEX) MWH Job Number: EPC-SJRB (Groundwater)

Laboratory: APCL Batch Identification: 02-05860

Validation Criteria								
Sample ID	Fogelson MW-1	Hamner MW-1	Standard Oil MW-1	TB 02110401				
Lab ID	02-05860- 01	02-05860- 02	02-05860- 03	02-05860- 04				
Hardcopy vs. Chain-of-Custody	A	A	A	A				
Holding Time	A	A	A	A				
Analyte List	A	A	A	A				
Reporting Limits	A	A	A	A				
Method Blank	A	A	A	A				
Trip Blank	A ¹	A ¹	A ¹	A ¹				
Equipment Rinseate Blanks	N/A	N/A	N/A	N/A				
Field Duplicate/Replicate	N/A	N/A	N/A	N/A				
Initial Calibration	N	N	N	N				
Initial Calibration Verification (ICV)	N	N	N	N				
Continuing Calibration Verification (CCV)	A	A	A	A				
Laboratory Control Sample (LCS)	A	A	A	A				
Laboratory Control Sample Duplicate (LCSD)	N	N	N	N				
Matrix Spike/Matrix Spike Dup. (MS/MSD)	N/A	N/A	N/A	N/A				
Surrogate Spike Recovery	A	A	A	A				
Retention Time Window	N	N	N	N				
Injection Time(s)	N	N	N	N				
EDD vs. Hardcopy	N	N	N	N				
EDD vs. Chain of Custody	N	N	N	N				

(a) List QC batch identification if different than Batch ID

A indicates validation criteria were met

A/L indicates validation criteria met based upon Laboratory's QC Summary Form

X indicates validation criteria were not met

N indicates data review were not a project specific requirement

N/A indicates criteria are not applicable for the specified analytical method or sample

N/R indicates data not available for review

NOTES:

1) The following analytes were detected in the trip blank:

- a) Ethylbenzene @ 0.8 µg/L, qualify all sample concentrations less than or equal to 4.0 µg/L with a "UB" flag and all sample concentrations greater than 4.0 µg/l with a "B" flag.
- b) Toluene @ 0.3T µg/L, qualify all sample concentrations less than or equal to 1.5 µg/L with a "UB" flag and all sample concentrations greater than 1.5 µg/l with a "B" flag.
- c) m/p-Xylene @ 0.9T µg/L, qualify all sample concentrations less than or equal to 4.5 µg/L with a "UB" flag and all sample concentrations greater than 4.5 µg/l with a "B" flag.

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

Submitted to:

Montgomery Watson Harza

Attention: Brian Buttars

10619 South Jordan Gateway

Salt Lake City UT 84095

Tel: (801)617-3200 Fax: (801)617-4200

APCL Analytical Report

Service ID #: 801-025860

Collected by: Ashley Lowe.

Collected on: 11/04/02

Sample Description: Water

Project Description: 220013

Received: 11/05/02

Extracted: N/A

Tested: 11/08-11/02

Reported: 11/15/02

San Juan River Basin

Groundwater

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result	
				MW-1 GW Fogelson	MW-1 GW Hamner
				02-05860-1	02-05860-2
BTXE					
Dilution Factor				25	1
BENZENE	8021B	µg/L	0.5	625	72.5
ETHYLBENZENE	8021B	µg/L	0.5	862	47.0
TOLUENE	8021B	µg/L	0.5	370	50.0
O-XYLENE	8021B	µg/L	0.5	1,130	60.6
M,P-XYLENE	8021B	µg/L	1	4,080	118

Component Analyzed	Method	Unit	PQL	Analysis Result	
				MW-1 GW Standard Oil	TB02110401
				02-05860-3	02-05860-4
BTXE					
Dilution Factor				5	1
BENZENE	8021B	µg/L	0.5	464	<0.5
ETHYLBENZENE	8021B	µg/L	0.5	235	0.8
TOLUENE	8021B	µg/L	0.5	207	0.3J
O-XYLENE	8021B	µg/L	0.5	365	<0.5
M,P-XYLENE	8021B	µg/L	1	720	0.9J

PQL: Practical Quantitation Limit.

MDL: Method Detection Limit.

CRDL: Contract Required Detection Limit

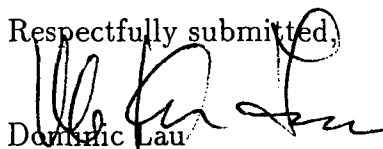
N.D.: Not Detected or less than the practical quantitation limit.

"-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,


Dominic Lau

Laboratory Director

Applied P & Ch Laboratory

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

APCL QA/QC Report

Submitted to:

Montgomery Watson Harza

Attention: Brian Buttars

10619 South Jordan Gateway

Salt Lake City, UT 84095

Tel: (801)617-3200 Fax: (801)617-4200

Service ID #: 801-025860

Collected by: Ashley Lowe.

Collected on: 11/04/02

Sample description:

Water

Project: San Juan River Basin /220013

Received: 11/05/02

Tested: 11/08-11/02

Reported: 12/03/02

Analysis of Water

801-025860QC

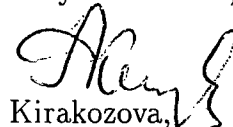
Component Name	Analysis Batch #	CCV (µg/L)	CCV %Rec	M-Blank	Conc. Unit	SP Level	LCS %Rec	MS %Rec	MSD %Rec	MS/MSD %RPD	Control Limit %Rec	%Diff
BTXE												
Benzene	02G4612	100	100	N.D.	µg/L	18.0	85	91	91	0	68-130	31
Toluene	02G4612	100	100	N.D.	µg/L	70.0	89	95	94	1	66-133	33
Ethylbenzene	02G4612	100	103	N.D.	µg/L	18.0	96	97	98	0	65-134	35
m/p-Xylene	02G4612	200	95	N.D.	µg/L	70.0	92	97	96	1	65-134	35
o-Xylene	02G4612	100	96	N.D.	µg/L	25.0	91	100	102	2	65-134	35

Component Name	Analysis Batch #	CCV (µg/L)	CCV %Rec	M-Blank	Conc. Unit	SP Level	LCS %Rec	MS %Rec	MSD %Rec	MS/MSD %RPD	Control Limit %Rec	%Diff
BTXE												
Benzene	02G4636	100	100	N.D.	µg/L	18.0	88	91	90	0	68-130	31
Toluene	02G4636	100	100	N.D.	µg/L	70.0	91	94	94	1	66-133	33
Ethylbenzene	02G4636	100	103	N.D.	µg/L	18.0	96	92	93	0	65-134	35
m/p-Xylene	02G4636	200	95	N.D.	µg/L	70.0	92	94	93	1	65-134	35
o-Xylene	02G4636	100	97	N.D.	µg/L	25.0	92	95	94	1	65-134	35

Notation: ICV - Initial Calibration Verification
CCV - Continuation Calibration Verification
LCS - Lab Control Spike
MS - Matrix Spike
MSD - Matrix Spike Duplicate
ICS - Interference Check Standard
MD - Matrix Duplicate
N.D. - Not detected or less than PQL

CCB - Continuation Calibration Blank
M-blank - Method Blank
SP Level - Spike Level
%Rec - Recovery Percent
%RPD - Relative Percent Differences
%Diff - Control Limit for %RPD
ICP-SD - ICP Serial Dilution
N.A. - Not Applicable

Respectfully submitted,


Regina Kirakozova,
Associate QA/QC Director
Applied P & Ch Laboratory

FORM-2A

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method 8021B

Client Name: Montgomery Watson Harza

Contract No:

Lab Code: APCL

Case No:

SAS No:

SDG Number: 025860

Project ID: San Juan River Basin

Project No: 220013

Sample Matrix: Water

Batch No: 02G4636

#	Client Sample No	Lab Sample ID	S1 % #	TOT OUT
1		02G4636-LCS-01	88	0
2		02G4636-LSD-01	85	0
3		02G4636-MB-02	87	0
4	MW-1 GW FOGELSON	02-5860-1	94	0
5	MW-1 GW STANDARD OIL	02-5860-3	105	0
6	821818-0500	02-5971-1MS	86	0
7	821818-0500	02-5971-1MSD	86	0
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

QC Control Limit

S1 = 4-BROMO-FLUOROBENZENE (PID)

65-134

Column to be used to flag recovery values:

* - Values outside of contract required QC Limits

D - Surrogate diluted out

I - Matrix Interference

FORM-2A

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method 8021B

Client Name: Montgomery Watson Harza

Contract No:

Lab Code: APCL

Case No:

SAS No:

Service ID: 025860

Project ID: San Juan River Basin

Project No: 220013

Sample Matrix: Water

Batch No: 02G4612

#	Client Sample No	Lab Sample ID	S1 % #	TOT OUT
1		02G4612-LCS-01	82	0
2		02G4612-LSD-01	83	0
3		02G4612-MB-02	87	0
4	TB02110401	02-5860-4	87	0
5	VR-1	02-5869-4MS	84	0
6	VR-1	02-5869-4MSD	85	0
7	MW-1 GW HAMNER	02-5860-2	104	0
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

QC Control Limit
65-134

S1 = 4-BROMO-FLUOROBENZENE (PID)

Column to be used to flag recovery values:

* - Values outside of contract required QC Limits

D - Surrogate diluted out

I - Matrix Interference

CHAIN OF CUSTODY RECORD/LAB WORK REQUEST

LABORATORY APCL

Contract El Paso Corp., San Juan River Basin

MWH

Phone (801) 617-3200 FAX (801) 617-4200

MWH Contact Brian Butters

Project San Juan River Basin

Project Number 220013

Date Due 21 days

Sampler's Name Ashley Lowe

(print clearly)

Chain of Custody ID 021104 AL01
Page 1 of 1
Air Bill No. 836381676598

Location ID	Sample ID	Depth Interval (ft)	Date Collected	Time Collected	Matrix (a)	Sampling Technique (b)	ANALYSES REQUESTED													
							BTEX SW-846 8021B	Alkalinity SM 2320B	TDS USEPA 160.1	NM WQCC Metals SW-846 6010B & 7470A	Cations SW-846 6010B	Anions USEPA 300.0	Nitrate USEPA 300.0	Nitrite USEPA 300.0	No Preservative					
GW Standard Oil Com	MW-1		11-04-02 13:28		WG B	✓														
GW Hammer	MW-1		11-04-02 11:57		WG B	✓														
GW Fogelson	MW-1		11-04-02 10:45		WG B	✓														
TB02110401			11-04-02			✓														

5860

(a) Matrix:

SO - Soil
WS - Surface Water
WG - Ground Water

AA - Air

WQ - Trip Blank/
Equipment Blanks
WW - Wastewater

(b) Sampling Technique:

Composite=C
Grab=G
Hand Auger=HA

Submersible Pump=SP
Bladder Pump=BP
Bailer=B
Wellhead Faucet=WF
Hydropunch=HP

Location IDs:

Groundwater Sites=GW
Bist=B1
Jaquez=JA

North Flare Pit=NF
South Flare Pit=SF
San Juan River Plant=SU

Relinquished by/Affiliation	Received by/Affiliation	Date	Time
<u>Adley & Pearce/AESE</u>	<u>Paul</u>	11-04-02	4:00
		11/5/02	1000

LABORATORY USE ONLY

SAMPLES WERE:

1 Shipped or hand delivered
Notes:

2 Ambient or Chilled
Notes:

3 Temperature _____

4 Received Broken/Leaking (Improperly Sealed)
Notes:

5 Properly Preserved
Notes:

6 Received Within Holding Times
Notes:

COC Tape Was:

1 Present on Outer Package
Y N NA

2 Unbroken on Outer Package
Y N NA

3 Present on Sample
Y N NA

4 Unbroken on Sample
Y N NA

Discrepancies Between Sample Labels and COC Record?
Y N

Notes:

DATA VALIDATION WORKSHEET

Analytical Method: SW-846 8021B (BTEX)

MWH Job Number: EPC-SJRB (Groundwater)

Laboratory: APCL

Batch Identification: 02-04277, 02-04279,
& 02-04281

Validation Criteria							
Sample ID	Trip Blank	D Loop Line Drip MW-1	Standard Oil Com MW-1				
Lab ID	02-04277-01	02-04279-01	02-04281-01				
Hardcopy vs. Chain-of-Custody	A	A	A				
Holding Time	A	A	A				
Analyte List	A	A	A				
Reporting Limits	A	A	A				
Method Blank	A ¹	A ¹	A ¹				
Trip Blank	A ²	A ²	A ²				
Equipment Rinseate Blanks	N/A	N/A	N/A				
Field Duplicate/Replicate	N/A	N/A	N/A				
Surrogate Spike Recovery	A	A	A				
Laboratory Control Sample (LCS)	A	A	A				
Laboratory Control Sample Duplicate (LCSD)	N	N	N				
Matrix Spike/Matrix Spike Dup. (MS/MSD)	N/A	N/A	N/A				
Initial Calibration	N	N	N				
Initial Calibration Verification (ICV)	N	N	N				
Continuing Calibration Verification (CCV)	A	A	A				
Retention Time Window	N	N	N				
Injection Time(s)	N	N	N				
EDD vs. Hardcopy	N	N	N				
EDD vs. Chain of Custody	N	N	N				

(a) List QC batch identification if different than Batch ID

A indicates validation criteria were met

A/L indicates validation criteria met based upon Laboratory's QC Summary Form

X indicates validation criteria were not met

N indicates data review were not a project specific requirement

N/A indicates criteria are not applicable for the specified analytical method or sample

N/R indicates data not available for review

NOTES:

1) The following analytes were detected in the Method Blank:

- Ethylbenzene @ 0.9 µg/L, qualify all sample concentrations less than or equal to 4.5 µg/L with a "UB" flag and all sample concentrations greater than 4.5 µg/L with a "B" flag.
- Toluene @ 0.4J µg/L, qualify all sample concentrations less than or equal to 2.0 µg/L with a "UB" flag and all sample concentrations greater than 2.0 µg/L with a "B" flag.
- m/p-Xylene @ 0.9J µg/L, qualify all sample concentrations less than or equal to 4.5 µg/L with a "UB" flag and all sample concentrations greater than 4.5 µg/L with a "B" flag.

All detected analytes in the trip blank are attributable to laboratory contamination. See Note 1.

Applied P & Ch Laboratory

13760 Magnolia Ave. Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:

Montgomery Watson Harza

Attention: Brain Buttars

10619 South Jordan Gateway

Salt Lake City UT 84095

Tel: (801)617-3200 Fax: (801)617-4200

Service ID #: 801-024281

Collected by: Ashley Lowe

Collected on: 08/06/02

Sample Description: Water

Project Description: 220013 San Juan River Basin

Received: 08/08/02

Extracted: N/A

Tested: 08/12/02

Reported: 08/15/02

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result
				Standard Oil Com=GW
				02-04281-1
BTXE				
Dilution Factor				10
BENZENE	8021B	µg/L	0.5	551
ETHYLBENZENE	8021B	µg/L	0.5	214
TOLUENE	8021B	µg/L	0.5	398
O-XYLENE	8021B	µg/L	0.5	337
M,P-XYLENE	8021B	µg/L	1	704

PQL: Practical Quantitation Limit.

MDL: Method Detection Limit.

CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit.

"-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

Respectfully submitted,



Dominic Lau

Laboratory Director

Applied P & Ch Laboratory

Sample Receiving Checklist

APCL ServiceID: 4281Client Name/Project: San Juan River

1. Sample Arrival

Date/Time Received 8/8/02 1000 Date/Time Opened 8/8/02 1000 By (name): PRC
Custody Transfer: ☐ Client ☐ Golden State ☐ UPS ☐ US Mail ☒ FedEx ☐ APCL Empl: _____

2. Chain-of-Custody (CoC)

☒ With Samples? ☐ Faxed? ☐ Client has Copy? ☒ Signed, dated? By: Asdy Lora
☒ Project ID? ☒ Analyses Clear? ☐ Hold Samples? ☐ #on Hold _____ # Received 3
☒ CoC/Docs Zip-Locked under lid? ☐ Compos.#: _____ ☒ #Samples OK? _____
☐ Discrepancies? ☐ Client notified? ☐ Response (attach docs): _____

3. Shipping Container/Cooler

☒ Cooler Used? # of 1 Cooled by: ☒ Ice ☐ Blue Ice ☐ Dry Ice ☐ None
Temp °C 29
(Cooler temperature measured from temp blank if present, otherwise measured from the cooler).
Cooler Custody Seal? ☐ Absent ☒ Intact ☐ Tampered?

4. Sample Preservation

☐ pH <2 ☐ pH >12
If Not, pH = _____ Preserved by: ☐ Client ☐ APCL ☐ Third Party _____

5. Holding-time Requirements

☐ pH 24hr ☐ BACT 6/24hr ☐ Cr^{VI} 24hr ☐ NO₃⁻ 48hr ☐ BOD 48hr
☐ Cl₂ ASAP ☐ Turbidity 48hr ☐ DO ASAP ☐ Fe(II) ASAP
☐ HT Expired? ☐ Client notified?

6. Sample Container Condition

☒ Intact? ☐ Broken? ☐ Documented? Number: _____
Type: ☐ plastic ☒ glass ☐ Tube: brass/SS ☐ Tedlar Bag
☐ Quantity OK? ☐ Leaking? ☐ Anomaly?
☐ Caps tight? ☐ Air Bubbles? ☐ Anomaly?
Labels: ☐ Unique ID? ☐ Date/Time ☐ Preserved?

7. Turn Around Time

☒ RUSH TAT: 5 ☐ Std (7-10 days) ☐ Not Marked

8. Sample Matrix

☐ Drinking H₂O ☐ Other Liq ☐ Soil ☐ Wipe ☐ Polymer ☐ Air ☐ Other: _____
☒ Ground H₂O ☐ Sludge ☐ Filter ☐ Oil/Petro ☐ Paint ☐ W. Water ☐ Extract ☐ Unknown

9. Pre-Login Check List Completed & OK?

☒ ALL OK? (if not, attach docs) ☐ Client Contact? (Name: _____) Date/Time: _____

Received/Checked by: [Signature] Date: 8 Aug 2002 Time: 9:05 a.m.

Samples must be analyzed for results to reflect total concentrations. Results generated outside required of holding times are considered minimal values and may be used to define waste as hazardous but not as non-hazardous.

Applied P & Ch Laboratory

3760 Magnolia Ave. Chino CA 91710

Tel: (909) 590-1828 Fax: (909) 590-1498

Sample Login: Check List

02-04281 (0984_ 943) (2721900_ 943)

08/08/02

Part 1: General Information

☒	Company Information	Name:	Montgomery Watson Harza
		Address:	10619 South Jordan Gateway ,Salt Lake City ,UT 84095
☐	Project Information	Project Description:	San Juan River Basin
			F42650-98-D-0066
		Project #:	220013
☐	Billing Information	P.O. #:	7339 OF
		Bill Address:	10619 South Jordan Gateway ,Salt Lake City ,UT 84095
		Lab Project ID:	1999-0768
		Client Database #:	15-04 (LP 08/15/02)
☐	Receiving Information	Who Received Sample?	Eric Wendland
		Receiving Date/Time:	08/08/02 1000
		COC No.	
☐	Shipping Information	Shipping Company	Express
		Packing Information:	Cooler/Ice Chester
		Cooler Temperature:	2.9 °C
☐	Container Information	Container Provider:	Client
☐	Sampling Information	Sampling Person:	
		Sampling Company:	Client
☐	Turn-Around-Time Option:		Rush 5 working day(s)
☐	QC Option:		Army Corps. E.
☐	Disposal Option:		Not specify

Part 2: Sample Information

Seq. #	Sample ID (on COC)	Sample APCL Sub-ID	Sample ID	Matrix	Cont- tainer	Preser- vative	Vol, ml Am. g	# of Replica	Condition G, L, B	Collected mmddyy	Hold ?	Composite Group	TAT Days
1	Standard Oil Com=GW	BTXE	02-04281-1	W	V		40	2	G	080602	N	0	7

Part 3: Analysis Information

Test Items: ☒ 8021B BTXE

Seq. #	Client's Sample ID (as given on COC)	Sample Sub-ID	APCL Sample ID	Matrix	BTXE
1	Standard Oil Com=GW	BTXE	02-04281-1	W	X

☐ Client's Requirement: BTXE UNPRESERVED, 7 DAY HOLDING TIME

Login By En-Yu Paul Kou

Check By 

Applied P & Ch Laboratory
Organic Analysis Results for Method 8021B

Client Name: Montgomery Watson Harza	Project No: 220013	Collection Date: 08/12/2002
Project ID: San Juan River Basin	Service ID: 024281	Collected by:
Sample ID:	Lab Sample ID: 02G3487-MB-02	Received Date: 08/12/2002
Sample Type: Method Blank	Sample Matrix: Water	Moisture %: -
Anal. Method: 8021B	Prep. Method: 5030	Instrument ID: GC: B
Batch No: 02G3487	Prep. Date: 08/12/02	Anal. Date: 08/12/02
Data File Name: 3487G.K02	Prep. No: -	Anal. Time: 11:41
Methanol Vol. -	Sample Amount: 5.0 mL	Dilution Factor: 1
Test Level: Low	Sparge Size: 5 mL	Heated Purge: (Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/L	0.5	<0.5	U
2	ETHYLBENZENE	100-41-4	µg/L	0.5	0.9	
3	TOLUENE	108-88-3	µg/L	0.5	0.4	J
4	O-XYLENE	95-47-6	µg/L	0.5	<0.5	U
5	M,P-XYLENE	108-38-3	µg/L	1	0.9	J

Surrogates		Control Limit, %	Surro. Rec. %
1	4-BROMO-FLUOROBENZENE (PID)	460-00-4	65-134
# of out-of-control			83
			0

Internal Standard		Control Limit, %	IS Rec. %
1	1,1,1-TRIFLUOROTOLUENE	98-08-8	50-200
# of out-of-control			91
			0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL/IDL E - Exceed calibration range
 T - Less than RL (PQL, EQL or CRDL), but greater than MDL B - Analyte is detected in the associated method blank

File : c:\data\0802\02g3487\3487g.k02
Method : c:\ezchrom\methods\luft079.b00
Sample ID : mb f=1
Acquired : Aug 12, 2002 11:41:53
Printed : Aug 13, 2002 08:50:52
User : Jason Nario

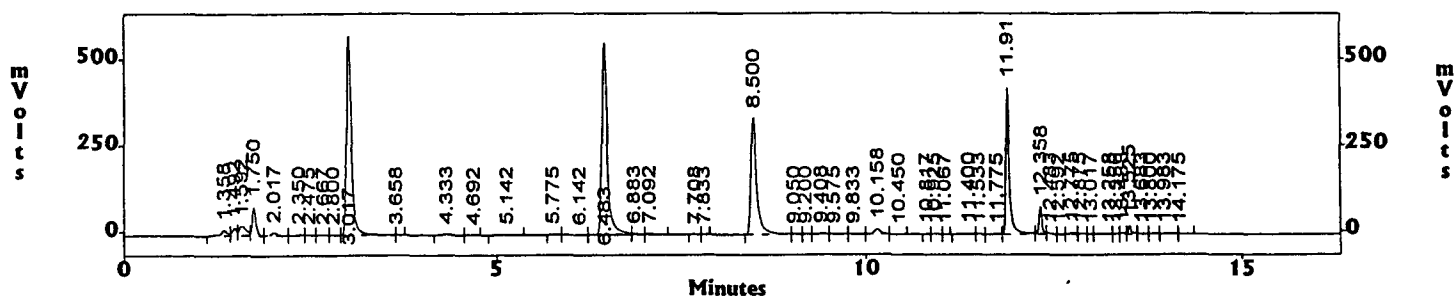
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
10	2. TFT	3.02	2815247	576675	0.00000	0.0
17	11. Chlorobenzene	6.48	2950042	554614	35460.60156	83.2
22	7. BFB	8.50	1821490	339066	22999.56445	79.2
36	10. 3-Br-cl-bz	11.92	1420163	424283	0.00000	0.0
G1	1. Gasoline		808099		31259.43555	25.9

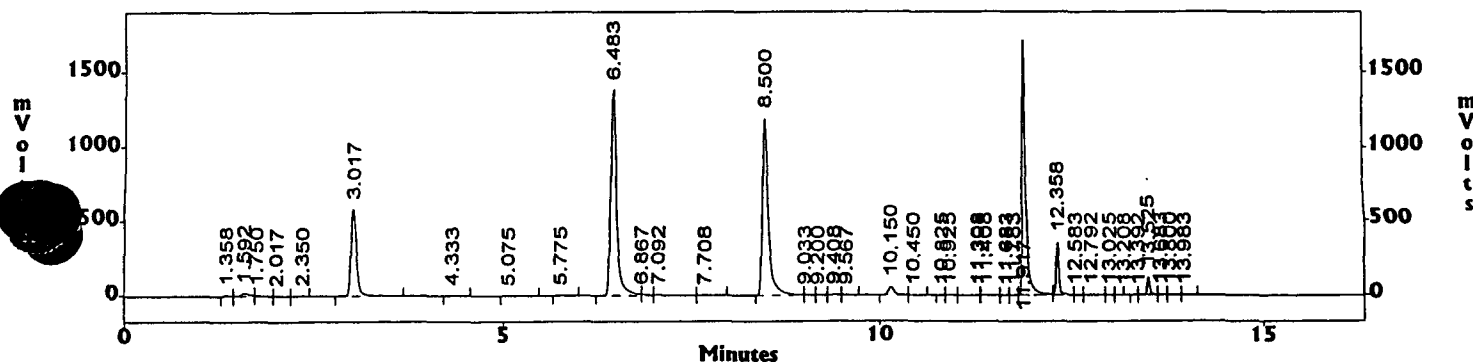
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
2	9. MTBE	1.59	162636	22483	0.87948	6.44
5	1. Benzene W 20	2.35	9176	2254	3.54949	0.09
6	2. TFT (Int.)	3.02	2873327	582284	1.00000	100.00
7	3. Toluene W 80	4.33	33337	5555	3.28251	0.35
10	4. Ch-bz	6.48	7501715	1383790	0.00000	0.00
11	5. Et-Bz W 19	6.87	68872	10961	2.80822	0.85
12	6. P/M xylene W 82	7.09	93045	9092	3.59720	0.90
13	7. O-xylene W 27	7.71	17611	2407	3.02044	0.20
14	8. BFB (Surr.)	8.50	6507524	1193193	2.73711	82.74
27	10. 3-Br-cl-bz	11.92	5658956	1714860	2.28305	86.27

c:\data\0802\02g3487\3487g.k02 -- Channel A



c:\data\0802\02g3487\3487g.k02 -- Channel B



Applied P & Ch Laboratory
Organic Analysis Results for Method 8021B

Client Name: Montgomery Watson Harza	Project No: 220013	Collection Date: 08/06/2002
Project ID: San Juan River Basin	Service ID: 024281	Collected by: Ashley Lowe
	Lab Sample ID: 02-4281-1	Received Date: 08/08/2002
Sample ID: STANDARD OIL COM=GW	Sample Matrix: Water	Moisture %: -
Sample Type: Field Sample	Prep. Method: 5030	Instrument ID: GC: B
Anal. Method: 8021B	Prep. Date: 08/12/02	Anal. Date: 08/12/02
Batch No: 02G3487	Prep. No: -	Anal. Time: 13:54
Data File Name: 4281.001	Sample Amount: 0.5 mL	Dilution Factor: 10
Methanol Vol. -		

Spurge Size: 5 mL Heated Purge: (Y/N) Y

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	BENZENE	71-43-2	µg/L	5	551	
2	ETHYLBENZENE	100-41-4	µg/L	5	214	
3	TOLUENE	108-88-3	µg/L	5	398	
4	O-XYLENE	95-47-6	µg/L	5	337	
5	M,P-XYLENE	108-38-3	µg/L	10	704	

Surrogates	Control Limit, %	Surro. Rec. %
1 4-BROMO-FLUOROBENZENE (PID) 460-00-4	65-134	97
# of out-of-control		0

Internal Standard	Control Limit, %	IS Rec. %
1 1,1,1-TRIFLUOROTOLUENE 98-08-8	50-200	96
# of out-of-control		0

Qualifier: U - Not Detected or less than MDL/IDL E - Exceed calibration range
 T - Less than RL (PQL, EQL or CRDL), but greater than MDL. B - Analyte is detected in the associated method blank

File : c:\data\0802\02g3487\4281.001
Method : c:\ezchrom\methods\luft079.b00
Sample ID : 4281-1 f=10
Acquired : Aug 12, 2002 13:54:29
Printed : Aug 13, 2002 08:51:01
User : Jason Nario

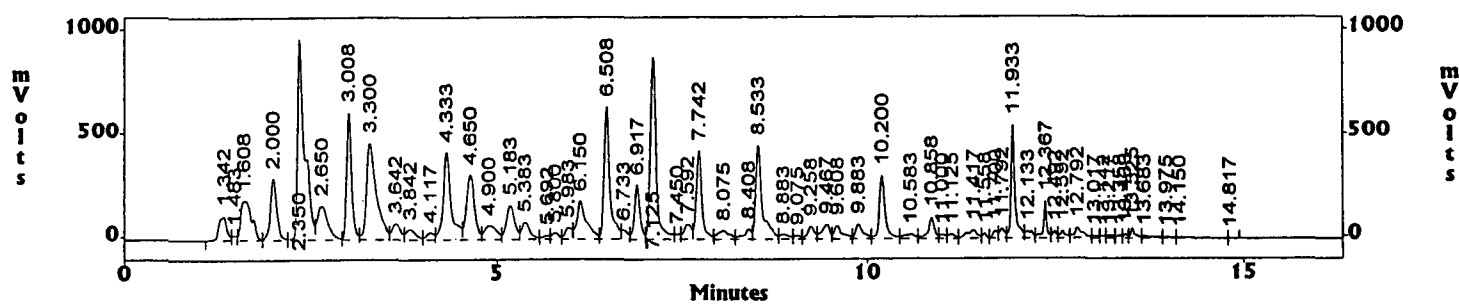
Channel A Results

No.	Name	RT, min	Area	H, V	Ave RF	ESTD (ppb)
7	2. TFT	3.01	2962560	614834	0.00000	0.0
21	11. Chlorobenzene	6.51	3543058	638080	35460.60156	99.9
30	7. BFB	8.53	2823518	454243	22999.56445	122.8
46	10. 3-Br-cl-bz	11.93	1876795	546602	0.00000	0.0
G1	1. Gasoline		39659696		31259.43555	1268.7

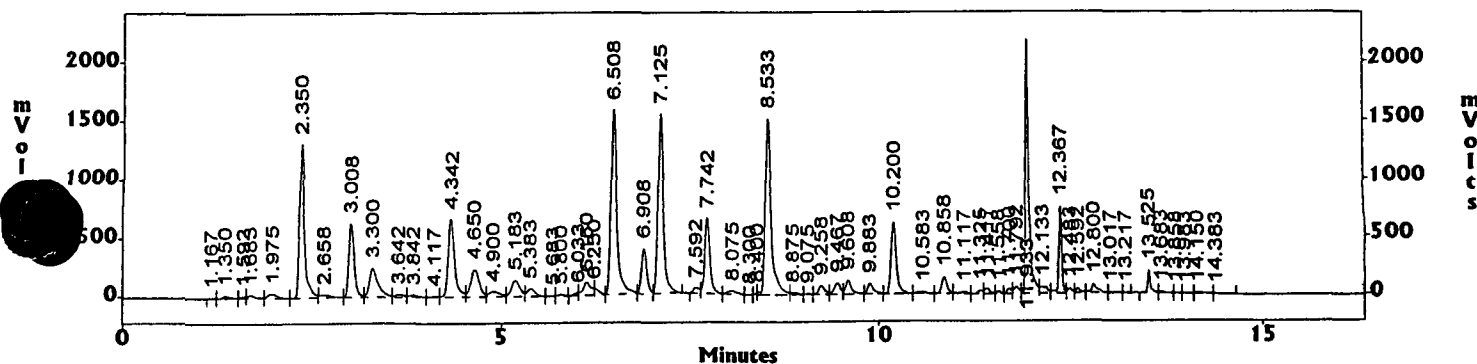
Channel B Results

No.	Name	Rt. min	Area	H, V	Ave. Rf	ISTD (ppb)
3	9. MTBE	1.59	76259	16052	0.87948	2.87
6	1. Benzene W 20	2.35	5912631	1316724	3.54949	55.06
8	2. TFT (Int.)	3.01	3025112	629973	1.00000	100.00
13	3. Toluene W 80	4.34	3953113	664209	3.28251	39.81
23	4. Ch-bz	6.51	8434463	1580965	0.00000	0.00
24	5. Et-Bz W 19	6.91	1819851	391124	2.80822	21.42
25	6. P/M xylene W 82	7.13	7655518	1536330	3.59720	70.35
27	7. O-xylene W 27	7.74	3074914	646865	3.02044	33.65
31	8. BFB (Surr.)	8.53	7999973	1505590	2.73711	96.62
47	10. 3-Br-cl-bz	11.93	6742073	2174907	2.28305	97.62

c:\data\0802\02g3487\4281.001 -- Channel A



c:\data\0802\02g3487\4281.001 -- Channel B



38108

FORM-2A

Applied P & Ch Laboratory

Surrogate Recovery Summary for Method 8021B

Client Name: Montgomery Watson Harza

Contract No:

Lab Code: APCL

Case No:

SAS No:

SDG Number: 024281

Project ID: San Juan River Basin

Project No: 220013

Sample Matrix: Water

Batch No: 02G3487

#	Client Sample No	Lab Sample ID	S1 % #	TOT OUT
1		02G3487-LCS-01	88	0
2		02G3487-LSD-01	82	0
3		02G3487-MB-02	83	0
4	STANDARD OIL COM=GW	02-4281-1	97	0
5	036Q1020	02-4261-5MS	88	0
6	036Q1020	02-4261-5MSD	91	0
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

QC Control Limit

S1 = 4-BROMO-FLUOROBENZENE (PID)

65-134

Column to be used to flag recovery values:

* - Values outside of contract required QC Limits

D - Surrogate diluted out

I - Matrix Interference

FORM-3A

Applied P & Ch Laboratory

Lab Control Spike/Lab Control Spike Duplicate Recovery for Method 8021B

Client Name: Montgomery Watson Harza
Case No:
Project ID: San Juan River Basin

Contract No:
SAS No:
Project No: 220013
Batch No: 02G3487

Lab Code: APCL
Service ID: 024281
Sample Matrix: Water

LCS Filename: 3487G.L01
LCSD Filename: 3487G.J01

Date Analyzed: 081202 Time Analyzed: 10:35
Date Analyzed: 081202 Time Analyzed: 10:57

Spiked Components	Unit	Spike Added	Concentration		LCS Rec% #	QC Limit, % REC
			Unspiked	LCS		
BENZENE	µg/L	18	0	15.9	88	65-129
ETHYLBENZENE	µg/L	18	0	18.3	102	82-134
TOLUENE	µg/L	70	0	64.9	93	72-134
O-XYLENE	µg/L	25	0	24.7	99	83-134
M,P-XYLENE	µg/L	70	0	67.7	97	73-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	LCSD Concentration	LCSD Rec% #	RPD% #	QC Limit, %	
						RPD	REC
BENZENE	µg/L	18	15.9	88	0	31	65-129
ETHYLBENZENE	µg/L	18	17.4	97	5	35	82-134
TOLUENE	µg/L	70	64.0	91	2	33	72-134
O-XYLENE	µg/L	25	23.1	92	7	32	83-134
M,P-XYLENE	µg/L	70	64.7	92	5	35	73-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits

D - Spiked components diluted out

Comments: _____

FORM-3A

Applied P & Ch Laboratory

Matrix Spike/Matrix Spike Duplicate Recovery for Method 8021B

Client Name: Montgomery Watson Harza
 Case No:
 Project ID: San Juan River Basin

Contract No:
 SAS No:
 Project No: 220013
 Batch No: 02G3487

Lab Code: APCL
 Service ID: 024281
 Sample Matrix: Water

MS Filename: 3487G.M02
 MSD Filename: 3487G.N02
 MS Sample No: 036Q1020

Date Analyzed: 081202
 Date Analyzed: 081202
 Sample Lab ID: 02-4261-5

Time Analyzed: 19:37
 Time Analyzed: 19:59

Spiked Components	Unit	Spike Added	Concentration		MS Rec% #	QC Limit, % REC
			Unspiked	MS		
BENZENE	µg/L	18	1.5	18.3	93	68-130
ETHYLBENZENE	µg/L	18	0	17.9	99	65-134
TOLUENE	µg/L	70	0	66.5	95	66-133
O-XYLENE	µg/L	25	0.6	26.4	103	68-132
M,P-XYLENE	µg/L	70	0.6	66.8	95	65-134
# of Out-of-control					0	

Spiked Components	Unit	Spike Added	MSD Concentration	MSD Rec% #	RPD% #	QC Limit, %	
						RPD	REC
BENZENE	µg/L	18	18.4	94	1	31	68-130
ETHYLBENZENE	µg/L	18	18.1	101	2	35	65-134
TOLUENE	µg/L	70	66.4	95	0	33	66-133
O-XYLENE	µg/L	25	25.1	98	5	32	68-132
M,P-XYLENE	µg/L	70	68.0	96	1	35	65-134
# of Out-of-control				0	0		

Column to be used to flag recovery and RPD values:

* - Values outside of contract required QC Limits

D - Spiked components diluted out

Comments: _____

FORM-4A

Applied P & Ch Laboratory

Method Blank Summary for Method 8021B

Client Name: Montgomery Watson Harza

Contract No:

Lab Code: APCL

Case No:

SAS No:

Service ID: 024281

Project ID: San Juan River Basin

Project No: 220013

Analysis Date: 08/12/02

Sample Matrix: Water

Analysis Time: 11:41

Sample ID:

Batch No: 02G3487

Instrument ID: GC: B

Lab Sample ID: 02G3487-MB-02

Data File Name: 3487G.K02

GC Column: RTX-5

Heated Purge: (Y/N) Y

Column ID: 0.53 mm

This Method Blank applies to the following samples and QC samples:

#	Client Sample No	Lab Sample ID	Sample Type	Data Filename	Analysis Date	Analysis Time
1		02G3487-LCS-01	Lab Control Spike	3487G.L01	08/12/02	10:35
2		02G3487-LSD-01	Lab Control Spike Duplicate	3487G.J01	08/12/02	10:57
3	STANDARD OIL COM=GW	02-4281-1	Field Sample	4281.001	08/12/02	13:54
4	036Q1020	02-4261-5MS	Matrix Spike	3487G.M02	08/12/02	19:37
5	036Q1020	02-4261-5MSD	Matrix Spike Duplicate	3487G.N02	08/12/02	19:59
6						
7						
8						
9						
10						
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20						
21						
22						
23						
24						
25						

PINNACLE
LABORATORIES

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

Pinnacle Lab ID number **205133**
May 24, 2002

AMEC EARTH & ENVIRONMENTAL
2060 AFTON PLACE
FARMINGTON, NM 87401

EL PASO FIELD SERVICES
614 RIELLY STREET
FARMINGTON, NM 87401

Project Name STANDARD OIL #1
Project Number 1517000121

Attention: LISA WINN/SCOTT POPE

On 05/17/02 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

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



H. Mitchell Rubenstein, Ph. D.
General Manager

MR: jt

Enclosure

PINNACLE
LABORATORIES

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

CLIENT	: AMEC EARTH & ENVIRONMENTAL	PINNACLE ID	: 205133
PROJECT #	: 1517000121	DATE RECEIVED	: 05/17/02
PROJECT NAME	: STANDARD OIL #1	REPORT DATE	: 05/24/02
PINNACLE			DATE
ID #	CLIENT DESCRIPTION	MATRIX	COLLECTED
205133 - 01	STA-0205-MW1	AQUEOUS	05/14/02

PINNACLE
LABORATORIES

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

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : AMEC EARTH & ENVIRONMENTAL
PROJECT # : 1517000121
PROJECT NAME : STANDARD OIL #1

PINNACLE I.D.: 205133

SAMPLE	DATE	DATE	DATE	DIL.		
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	STA-0205-MW1	AQUEOUS	05/14/02	NA	05/21/02	25

PARAMETER	DET. LIMIT	UNITS	STA-0205-MW1
BENZENE	0.5	UG/L	250
TOLUENE	0.5	UG/L	150
ETHYLBENZENE	0.5	UG/L	190
TOTAL XYLENES	1.0	UG/L	1400

SURROGATE:

BROMOFLUOROBENZENE (%) 104

SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:

N/A

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LABORATORIES

2709-D Pan American Freeway NE
Albuquerque, New Mexico 87107
Phone (505) 344-3777
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GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 205133
BLANK I. D.	: 052102	DATE EXTRACTED	: N/A
CLIENT	: AMEC EARTH & ENVIRONMENTAL	DATE ANALYZED	: 05/21/02
PROJECT #	: 1517000121	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: STANDARD OIL #1		

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
TOTAL XYLENES	UG/L	<1.0

SURROGATE:

BROMOFLUOROBENZENE (%)

102

SPURIOUS LIMITS: (80 - 120)

COMMENTS:

N/A

↑
PINNACLE
LABORATORIES

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

GAS CHROMATOGRAPHY QUALITY CONTROL
LCS/LCSD

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 205133
BATCH #	: 052102	DATE EXTRACTED	: N/A
CLIENT	: AMEC EARTH & ENVIRONMENTAL	DATE ANALYZED	: 05/21/02
PROJECT #	: 1517000121	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: STANDARD OIL #1	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	20.0	100	19.8	99	1	(80 - 120)	20
TOLUENE	<0.5	20.0	20.2	101	20.1	101	0	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	20.6	103	20.5	103	0	(80 - 120)	20
TOTAL XYLENES	<1.0	60.0	63.5	106	63.2	105	0	(80 - 120)	20

CLIENT NOTES:
N/A

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

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

↑
PINNACLE
LABORATORIES

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

GAS CHROMATOGRAPHY QUALITY CONTROL
MS/MSD

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 205133
MSMSD #	: 205132-02	DATE EXTRACTED	: N/A
CLIENT	: AMEC EARTH & ENVIRONMENTAL	DATE ANALYZED	: 05/21/02
PROJECT #	: 1517000121	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: STANDARD OIL #1	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	19.7	99	20.1	101	2	(80 - 120)	20
TOLUENE	<0.5	20.0	20.1	101	20.3	102	1	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	20.4	102	20.7	104	1	(80 - 120)	20
TOTAL XYLENES	<1.0	60.0	63.1	105	63.9	107	1	(80 - 120)	20

CHROMATIST NOTES:
N/A

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

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

PROJECT MANAGER: Lisa Winn	
ANALYSIS REQUEST	

COMPANY: AMEC

ADDRESS: 2060 AFTON PLACE
FARMINGTON N.M. 87401

PHONE: (505) 327-7928

FAX: (505) 326-5721

BILL TO: SCOTT POPE

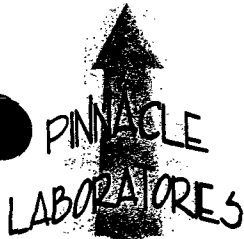
COMPANY: EL PASO FIELD SERVICES

ADDRESS: GIL REILLY A/E
FARMINGTON N.M. 87401

[illegible]

PROJECT INFORMATION		PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS				RELINQUISHED BY:	
PROJ. NO. 517000121		(RUSH) ☐ 24hr ☐ 48hr ☐ 72hr ☐ 1 WEEK	(NORMAL) ☒			Signature:	Time:
PROJ. NAME EPF5 G.V. pty		CERTIFICATION REQUIRED: ☐ NM ☐ SDWA ☐ OTHER				Printed Name:	Date:
P.O. NO.:		METHANOL PRESERVATION ☐				Company:	
SHIPPED VIA Greyhound		COMMENTS: FIXED FEE ☐					
SAMPLE RECEIPT							
NO. CONTAINERS	2						
CUSTOMER SEALS	10						
RECEIVED INTACT	YES						
BLUE DEVICE	6.12						

11/10/98 PLJ Inc.: Pinnacle Laboratories, Inc. • 2709-D Pan American Freeway, NE • Albuquerque, New Mexico 87107 • Fax (505) 344-3777 • E-mail: PIN_LAB@WORLDNET.ATT.NET
DISTRIBUTION: White - PLJ, Canary - Original



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

Pinnacle Lab ID number **202127**
March 07, 2002

AMEC EARTH & ENVIRONMENTAL
2060 AFTON PLACE
FARMINGTON, NM 87401

EL PASO FIELD SERVICES
614 RIELLY STREET
FARMINGTON, NM 87401

Project Name STANDARD OIL #1
Project Number 1517000121

Attention: LISA WINN/SCOTT POPE

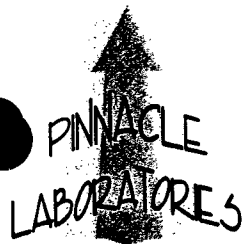
On 02/27/02 Pinnacle Laboratories, Inc., (ADHS License No. AZ0592 pending), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

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

H. Mitchell Rubenstein, Ph. D.
General Manager

MR: jt

Enclosure



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

CLIENT : AMEC EARTH & ENVIRONMENTAL
PROJECT # : 1517000121
PROJECT NAME : STANDARD OIL #1

PINNACLE ID : 202127
DATE RECEIVED : 02/27/02
REPORT DATE : 03/07/02

PINNACLE ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
202127 - 01	STA-0202-MW1	AQUEOUS	02/25/02

PINNACLE
LABORATORIES

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

GAS CHROMATOGRAPHY RESULTS

TEST : EPA 8021 MODIFIED
CLIENT : AMEC EARTH & ENVIRONMENTAL
PROJECT # : 1517000121
PROJECT NAME : STANDARD OIL #1

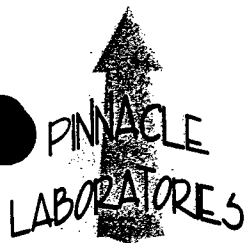
PINNACLE I.D.: 202127

SAMPLE	DATE	DATE	DATE	DIL.
ID. #	SAMPLED	EXTRACTED	ANALYZED	FACTOR
01	02/25/02	NA	02/27/02	25

PARAMETER	DET. LIMIT	UNITS	STA-0202-MW1
BENZENE	0.5	UG/L	310
TOLUENE	0.5	UG/L	170
ETHYLBENZENE	0.5	UG/L	170
TOTAL XYLENES	1.0	UG/L	1200

SURROGATE:
BROMOFLUOROBENZENE (%) 98
SURROGATE LIMITS (80 - 120)

CHEMIST NOTES:
N/A



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GAS CHROMATOGRAPHY RESULTS
REAGENT BLANK

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 202127
BLANK I. D.	: 022702	DATE EXTRACTED	: N/A
CLIENT	: AMEC EARTH & ENVIRONMENTAL	DATE ANALYZED	: 02/27/02
PROJECT #	: 1517000121	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: STANDARD OIL #1		

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
ETHYLBENZENE	UG/L	<0.5
TOTAL XYLENES	UG/L	<1.0

SURROGATE:

BROMOFLUOROBENZENE (%)

92

SURROGATE LIMITS: (80 - 120)

CHEMIST NOTES:

N/A

PINNACLE
LABORATORIES

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Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY QUALITY CONTROL
LCS/LCSD

TEST : EPA 8021 MODIFIED
BATCH # : 022702
CLIENT : AMEC EARTH & ENVIRONMENTAL
PROJECT # : 1517000121
PROJECT NAME : STANDARD OIL #1

PINNACLE I.D. : 202127
DATE EXTRACTED : N/A
DATE ANALYZED : 02/27/02
SAMPLE MATRIX : AQUEOUS
UNITS : UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	19.5	98	19.6	98	1	(80 - 120)	20
TOLUENE	<0.5	20.0	19.0	95	19.2	96	1	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	18.7	94	18.7	94	0	(80 - 120)	20
TOTAL XYLENES	<1.0	60.0	57.4	96	57.9	97	1	(80 - 120)	20

CHEMIST NOTES:
N/A

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

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

PINNACLE
LABORATORIES

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Albuquerque, New Mexico 87107
Phone (505) 344-3777
Fax (505) 344-4413

GAS CHROMATOGRAPHY QUALITY CONTROL
MS/MSD

TEST	: EPA 8021 MODIFIED	PINNACLE I.D.	: 202127
MSMSD #	: 202123-01	DATE EXTRACTED	: N/A
CLIENT	: AMEC EARTH & ENVIRONMENTAL	DATE ANALYZED	: 02/27/02
PROJECT #	: 1517000121	SAMPLE MATRIX	: AQUEOUS
PROJECT NAME	: STANDARD OIL #1	UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	20.0	20.1	101	19.5	98	3	(80 - 120)	20
TOLUENE	<0.5	20.0	19.7	99	19.1	96	3	(80 - 120)	20
ETHYLBENZENE	<0.5	20.0	19.2	96	18.7	94	3	(80 - 120)	20
TOTAL XYLENES	<1.0	60.0	59.2	99	57.5	96	3	(80 - 120)	20

CHEMIST NOTES:
N/A

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

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

2021

PROJECT MANAGER: Lisa Winn

COMPANY:

ADDRESS:

PHONE:

FAX:

BILL TO:

COMPANY:

ADDRESS:

SAMPLE ID	DATE	TIME	MATRIX	LAB ID
1	10/10/2010	10:00	100	100
2	10/10/2010	10:00	100	100
3	10/10/2010	10:00	100	100
4	10/10/2010	10:00	100	100
5	10/10/2010	10:00	100	100
6	10/10/2010	10:00	100	100
7	10/10/2010	10:00	100	100
8	10/10/2010	10:00	100	100
9	10/10/2010	10:00	100	100
10	10/10/2010	10:00	100	100
11	10/10/2010	10:00	100	100
12	10/10/2010	10:00	100	100
13	10/10/2010	10:00	100	100
14	10/10/2010	10:00	100	100
15	10/10/2010	10:00	100	100
16	10/10/2010	10:00	100	100
17	10/10/2010	10:00	100	100
18	10/10/2010	10:00	100	100
19	10/10/2010	10:00	100	100
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22	10/10/2010	10:00	100	100
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25	10/10/2010	10:00	100	100
26	10/10/2010	10:00	100	100
27	10/10/2010	10:00	100	100
28	10/10/2010	10:00	100	100
29	10/10/2010	10:00	100	100
30	10/10/2010	10:00	100	100
31	10/10/2010	10:00	100	100
32	10/10/2010	10:00	100	100
33	10/10/2010	10:00	100	100
34	10/10/2010	10:00	100	100
35	10/10/2010	10:00	100	100
36	10/10/2010	10:00	100	100
37	10/10/2010	10:00	100	100
38	10/10/2010	10:00	100	100
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61	10/10/2010	10:00	100	100
62	10/10/2010	10:00	100	100
63	10/10/2010	10:00	100	100
64	10/10/2010	10:00	100	100
65	10/10/2010	10:00	100	100
66	10/10/2010	10:00	100	100
67	10/10/2010	10:00	100	100
68	10/10/2010			

7A-0000-M1-1	3000	131	110	1
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[illegible][illegible]

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PROJECT INFORMATION

U.S. J. NO.: 1517000/21

NAME	DATE	CERTIFICATION REQUIRED:
		☐ NM

100% ☒ METALLIC PRESERVATION ☐

INVESTMENT RESEARCH

PPED VIA Greyhound

STANDARD 011 #1

CONTAINERS

STUDY SEALS (10)

SEVEN INCE

5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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THE

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[illegible]

ATTACHMENT 2
FIELD DOCUMENTATION

WELL DEVELOPMENT AND SAMPLING LOG

Project No: 220013 Project Name: San Juan River Basin Client: MWA
 Location: Std Oil Com Well No: MW-1 Development ☐ Sampling ☒
 Project Manager: A. Lowe Date: 11-4-02 Start Time: 12:42 Weather: 40° Cloudy
 Depth to Water: 20.605 Depth to Product: NA Product Thickness: NA Measuring Point: TOC
 Water Column Height: 12.26 Well Dia: 4" TD: 32.86

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐
 Bottom Valve Bailer ☒ Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐
 Criteria: 3 to 5 Casing Volumes of Water Removal ☒ Stabilization of Indicator Parameters ☐ Other: no bail/dry

Gal/ft x ft of water	Water Volume In Well		Gal/oz to be removed
	Gallons	Ounces	
<u>0.65 x 12.26</u>	<u>8</u>	<u>3</u>	<u>24 g</u>

Time (military)	pH	SC (umhos/cm)	Temp (°C)	Eh-ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gal.)	Comments/ Flow rate
<u>12:45</u>	<u>4.67</u>	<u>6410</u>	<u>13.4</u>				<u>1g</u>	<u>clear, tan color</u>
	<u>5.30</u>	<u>6640</u>	<u>14.6</u>				<u>3</u>	<u>sheen at top, v.s.</u>
	<u>5.38</u>	<u>6390</u>	<u>15.4</u>				<u>5</u>	<u>odor</u>
	<u>5.45</u>	<u>6320</u>	<u>14.9</u>				<u>7</u>	
	<u>5.39</u>	<u>6130</u>	<u>14.4</u>				<u>9</u>	
	<u>5.62</u>	<u>5930</u>	<u>13.9</u>				<u>13</u>	<u>cloudier, d. brown</u>
	<u>5.52</u>	<u>6250</u>	<u>14.1</u>				<u>15</u>	
	<u>5.62</u>	<u>6430</u>	<u>15.0</u>				<u>17</u>	
	<u>5.63</u>	<u>6480</u>	<u>15.7</u>				<u>19</u>	
	<u>5.64</u>	<u>6590</u>	<u>15.6</u>				<u>21</u>	
	<u>5.64</u>	<u>6620</u>	<u>15.7</u>				<u>23</u>	
	<u>5.64</u>	<u>6650</u>	<u>15.7</u>				<u>24</u>	

Final:
 Time: 13:28 pH: 5.64 SC: 6650 Temp: 15.7 Eh-ORP: _____ D.O.: _____ Turbidity: _____ Ferrous Iron: _____ Vol Evac.: 24 gal Comments/Flow rate: _____

COMMENTS: _____

INSTRUMENTATION: pH Meter ☒ Temperature Meter ☐
 DO Monitor ☐ Other ☐
 Conductivity Meter ☒

Water Disposal: Kutz Plant
 Sample ID: Standard Oil Com MW-1 Sample Time: 13:28 BTEX ☒ VOCs ☐ Alkalinity ☐
 Cations ☐ Anions ☐ Nitrate ☐ Nitrite ☐ Ammonia ☐ TKN ☐ NM WQCC Metals ☐
 Phosphorus ☐ _____
 MS/MSD: _____ BD: _____ BD Name/Time: _____ TB: 1202110401

Product Recovery and Well Observation Data

Project Name: San Juan River Basin

Project Manager: A. Lowe

Client Company: MWH

Site Name: Standard Oil Com

Project No: 220013

Date: 11-4-02

[illegible]

COMMENTS: _____

Signature: _____

Date: _____

LABORATORY APCL

Contract El Paso Corp., San Juan River Basin

НАМ

Phone (801) 617-3200 FAX (801) 617-4200

MWH Contact Brian Butlers

Project San Juan River Basin

Project Number 220613

Date Due 21 days

Sampler's Name Ashtley Lowe

(print/clearly)

[illegible]

Matrix:
 SO – Soil
 WS – Surface Water
 WG – Ground Water
 AA – Air
 WQ – Trip Blank/
 Equipment Blanks
 WW – Wastewater

Sampling Technique
Composite=C
Grab=G
Hand Auger=HA

Submersible Pump=SP
Bladder Pump=BP
Baller=B
Wellhead Faucet=WF
Hydropunch=HP

Location IDs:
Groundwater Sites=GW
Blisli=BI
Jaquez=JA

North Flare Pit=NF
South Flare Pit=SF
San Juan River Plant=SJ

Relinquished by/Affiliation	Received by/Affiliation	Date	Time
Dashley L Lowe / AEF		11-04-02	4:00

CHAIN OF CUSTODY RECORD/LAB WORK REQUEST

Chain of Custody ID 021104 AL01

Page-

Air Bill No. 836381676598

FEDEX USA Airbill
Express Tracking Number 836381676598

Form 1000 (Rev. 10-97)

Sender's Fedex Account Number 236245993

Sender's Name Ashley Lowe Phone 1505566-9116

Company AEESE

Address 906 San Juan Blvd, Ste D

City Farmington State NM ZIP 87401

Our Internal Billing Reference

Recipient's Name Eric Wendland Phone 1909, 590 1828

Company APCL

Address 13760 Magnolia Ave

City Chino State CA ZIP 91710

City Chino State CA ZIP 91710

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Form 1000 (Rev. 10-97)

4a Express Package Service

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☐ FedEx 1Day Freight*

☐ FedEx 2Day Freight

☐ FedEx 3Day Freight

☐ FedEx Envelope*

☐ FedEx Pak*

☒ Other

6 Special Handling

☐ Saturday Delivery

☐ Hold Weekend

☐ Hold Saturday

☐ Available ONLY for FedEx Priority Overnight and FedEx 2Day to select ZIP codes

☐ At FedEx Location

☐ At FedEx Location

☒ No

☐ Yes

☐ Dry Ice

7 Payment Bill to:

☐ Sender

☒ Recipient

☐ Credit Card

☐ Cash

☐ Third Party

☐ Credit Card

Total Packages 1

Total Weight 15.14

Total Declared Value \$ 00

8 Release Signature

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

446

RETAIN THIS COPY FOR YOUR RECORDS.

AESE

906 San Juan Blvd, Ste D
Farmington, NM 87401
505.566.9116(9120fax)

Well Number

Standard Oil Co
MW-1

Development
(Purging)

WELL DEVELOPMENT AND PURGING DATA

Page 1 of 2

Project Name San Juan River Basin
Client Company Montgomery Watson Harza
Site Name Standard Oil Co

Project Manager Ashley Lowe
Site Address

Project No. 220013
Phase/Task No.

Development Criteria
☒ 3 to 5 Casing Volumes of Water Removal
☐ Stabilization of Indicator Parameters
☐ Other

Water Volume Calculation
Initial Depth of Well (feet) 32.855' BTDC
Initial Depth to Water (feet) 20.687' BTDC
Height of Water Column in Well (feet) 12.17'
Diameter (inches): Well 4" Gravel Pack

Instruments
☒ pH Meter
☐ DO Monitor
Serial No. (if applicable)

Methods of Development
Pump
☐ Centrifugal
☐ Submersible
☐ Peristaltic
☐ Other
Bailer
☒ Bottom Valve
☐ Double Check Valve
☐ Stainless-steel Kemmerer

Gal/lft x ft of water	Water Volume in Well Gallons	Ounces	Gal/oz to be removed
$12.17 \times 0.65 =$	$7.9 \times 3 =$		23.79 gal
Total			

☒ Conductivity Meter
☒ Temperature Meter
☐ Other
Water Disposal
Kutz Separator

Water Removal Data

Date	Time	Development Method		Water Volume Removed (gallons) Increment	Cumulative	pH	Temperature °F	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Comments
		Pump	Bailer							
08/16/02	9:16		☒		19 gal	7.27	18.9	3160		grayish, cloudy, strong odor
					2	7.17	17.5	3080		
					3	7.10	17.1	3130		
					4	7.12	17.3	3110		
					5	7.17	17.4	3210		
					6	7.15	17.5	3200		dark gray in color
					7	7.09	17.9	3240		
					8	7.04	17.7	3220		bits of white flakes - maybe PVC from casing
					9	6.98	17.9	3240		

Circle the date and time that the development criteria are met.

Comments

Developer's Signature (s) Ashley Lowe

Date 08/16/02

Reviewer

Date

AESE

Well Number

Standard Q1 Com
MU-1Development
Purging

WELL DEVELOPMENT AND PURGING DATA

906 San Juan Blvd. Ste.D
Farmington, NM 87401
505.566.9116(9120fax)

Page 2 of 2

Project Name San Juan River Plant

Project Manager Ashley Lowe

Project No. 220013

Client Company Montgomery Watson Harza

Phase Task No.

Site Name

Site Address

Development Criteria

☒ 3 to 5 Casing Volumes of Water Removal☐ Stabilization of Indicator Parameters☐ Other

Water Volume Calculation

Initial Depth of Well (feet)

32.855'

Initial Depth to Water (feet)

20.687'

Height of Water Column in Well (feet)

12.17

Diameter (inches): Well 4" Gravel Pack

Methods of Development

☐ Pump☐ Centrifugal☐ Submersible☐ Peristaltic☒ Bailor☒ Bottom Valve☐ Double Check Valve☐ Stainless-steel Kemmerer☐ Other☐ Conductivity Meter☒ Temperature Meter☐ Other

Water Disposal

Instruments

☒ pH Meter☒ DO Monitor

Serial No. (if applicable)

Water Removal Data

Date	Time	Development Method		Water Volume Removed (gallons)	pH	T °C	Conductivity (umhos/cm)	Dissolved Oxygen (mg/L)	Comments
		Pump	Bailor	Incremental					
			☒						
				10 gal	6.92	17.7	3280		
				11	6.83	17.5	3290		emptied bucket
				13	6.64	18.7	3330		
				15	6.54	18.0	3300		
				17	6.50	18.5	3350		
				19	6.45	18.5	3340		clearer, contains less silt
				21	6.59	18.3	3380		
				22	6.60	18.2	3350		
				23	6.61	18.1	3370		
				24	6.60	18.3	3370		

Comments

Circle the date and time that the development criteria are met.

Sample collected at 10:22; Took 3 attempts to fill one of the vials w/ bubbles

Developer's Signature (s) Ashley Lowe

Date 08/06/02

Reviewer

Date

AESE**WELL OBSERVATION DATA**

906 San Juan Blvd.Ste.D
Farmington, NM 87401
505.566.9116(9120fax)

Project Name San Juan River BasinProject No. 220013Project Manager Ashley LoweDate 08/06/02Client Company Montgomery Watson HarzaSite Name Standard Oil Com

Well	Time	Depth to Water (ft)	Depth to Product (ft)	Total Well Depth (ft)	Product Thickness (ft)	Comments
MW-1	9:02	20.687	—	32.855	—	collected sample
MW-2	10:39	27.649	—	36.985	—	replaced ACE lock w/la Master 2532 lock
MW-4	10:48	21.532	—	32.338	—	not a solid bottom - viscous dark gray wet silt on probe changed ACE lock to Master 2532
MW-3	11:04	17.770	—	26.055	—	no well cap - replaced ACE lock w/Master 2532

Comments The map for this site given to us in the historical
notebook has labels for MW-3 & MW-4 which contradict
labels on the well pads on site. MW-3 is the northern-most
well.

Signature Ashley L LoweDate 08/06/02

APCL

El Paso Corp., San Juan River Basin

Phone (801) 617-3200 FAX (801) 617-4200

Project 2011 Juan River ~~Planning~~ Easement

Project Number 270013

Sampler's Name Ashley Lowe
(print clearly)

ANALYSES REQUESTED

SAMPLES WERE:

Shipped or hand delivered
Notes:

2 Ambient or Chilled
Notes:

3 Temperature

**4 Received Broken/Leaking
(Improperly Sealed)**

Notes:

5 Properly Preserved
Y **N**

Notes:

6 Received Within Holding Times

Notes:

COC Tape Was:

1. Present on Outer Package

Y
.

2 Unbroken on Outer

Package

Y
N
NA

3 Present on Sample
Y N NA

Y

4 Unbroken on Sample

人

Notes:

Discrepancies Between Sample Labels and COC Record?

人

Note:

Z

Page 7 of 1

Project Manager L. St. Winna

Project No. 15170000121

Client Company El Paso Field Services

Site Name STANDARD oil (II) (70445)

Site Address Kurawal Sanjayan CO

Development Criteria

☒ 3 to 5 Casing Volumes of Water Removal

☐ Other

Methods of Development

Pump

Bailer

□ Centrifugal

☒ Bottom Valve

☐ Submersible

☐ Double Check Valve

☐ Peristaltic

☐ Stainless-steel Kemmerer

☐ Other

Water Volume Calculation			
Initial Depth of Well (feet)	32.91		
Initial Depth to Water (feet)	20.06		
Height of Water Column in Well (feet)	12.85		
Diameter (inches): Well 4" Gravel Pack			
Item	Water Volume in Well		Gallons to be Removed
	Cubic Feet	Gallons	
Well Casing	12.85	8.39 x 3	25.14
Gravel Pack			
Drilling Fluids			
Total			25.14

Water Disposal

Kurt Soper Bloomfield NM

Water Removal Data

Date	Time	Development Method		Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water Volume Removed (gallons)		Product Volume Removed (gallons)		Temperature (°C)	pH	Conductivity (mmhos/cm)	Dissolved Oxygen (mg/L)	Comments
		Pump	Boiler				Increment	Cumulative	Increment	Cumulative					
2-25-02	1008						5.25	5.25			13.8	6.92	3526		Small amount of odor
	1013						5.25	10.5			13.9	7.07	3674		"
	1018						5.25	15.75			13.7	7.20	3672		Water Level OK
	1024						5.25	21			13.4	7.25	3665		"
	1029				21.72		5.25	26.25			13.4	7.32	3639		No change

Comments: Sampled for BTEX 1036 Could NOT GET H2O Levels from MW 2, 3 & 4 Different

Locke Thayer #2532

Developer's Signature(s) David M. [Signature]

Date 2-25-02

Reviewer

Date 31/02

SHADED AREAS ARE FOR LAB USE ONLY

CHAIN OF CUSTODY
 DATED 2-26-02 PAGE: 1 OF 1

DATE 2-26-02 PAGE: 1 OF 1

Pinnaide Laboratories, Inc., 2709 D. Pan Am/Freeway, NE Albuquerque, New Mexico 87106, U.S.A. Tel: 505/242-1111, Fax: 505/242-1112, Telex: 344337 L, Cable: 344337 L. E-mail: PINN@CWOX.UND.EDU