3R - 212

AGWMR

2009

El Paso Tennessee
Pipeline Company

San Juan Basin Pit Program
Groundwater Sites Project

Final 2009 Annual Report
Federal Sites (Volume 1)

April 2010

MWH

1801 California Street, Suite 2900
Denver, Colorado 80202

2009 ANNUAL GROUNDWATER REPORT
FEDERAL SITES VOLUME I

EL PASO TENNESSEE PIPELINE COMPANY

TABLE OF CONTENTS

METER or LINE ID	NMOCD CASE NO	SITE NAME	TOWNSHIP	RANGE	SECTION	UNIT
87640	3RP-155-0	Canada Mesa #2	24N	06W	24	I
89961	3RP-170-0	Fields A#7A	32N	11W	34	E
73220	3RP-068-0	Fogelson 4-1 Com. #14	29N	11W	4	P
89894	3RP-186-0	Hammond #41A	27N	08W	25	O
97213	3RP-190-0	Hamner #9	29N	09W	20	A
94715	3RP-196-0	James F. Bell #1E	30N	13W	10	P
89232	3RP-202-0	Johnston Fed #6A	31N	09W	35	F
LD072	3RP-204-0	K27 LD072	25N	06W	4	E
LD174	3RP-212-0	LAT L 40	28N	04W	13	H
LD151	3RP-213-0	Lat 0-21 Line Drip	30N	09W	12	O
94810	3RP-223-0	Miles Fed 1A	26N	07W	5	F
89620	3RP-235-0	Sandoval GC A #1A	30N	09W	35	C

* The Hamner #9 site was submitted for closure in January 2009 and is pending approval from NMOCD. There were no monitoring activities for this site in 2009.

elpaso MWH

MWH

BUILDING A BETTER WORLD

RECEIVED OCD

2010 APR 19 A 10:39

April 16, 2010

Mr. Glenn von Gonten
New Mexico Oil Conservation Division (NMOCD)
1220 South St., Francis Drive
Santa Fe, New Mexico 87505

RE: El Paso Tennessee Pipeline Company Pit Groundwater Remediation Sites 2009 Annual Reports

Dear Mr. Von Gonten:

MWH Americas, Inc., on behalf of El Paso Tennessee Pipeline Company (EPTPC), is submitting the enclosed 2009 Annual Reports for each of EPTPC's 21 remaining San Juan River Basin pit groundwater remediation sites. The reports present the 2009 sampling and product recovery data and include recommendations for 2010 activities at these sites.

The 2009 Annual Reports are divided into three volumes based on location type. The volumes are as follows:

Volume	Location Type
1	Federal Land
2	Non-Federal Land (Excl. Navajo Nation)
3	Navajo Nation

If you have any questions concerning the enclosed reports, please call either Doug Stavinoha of EPTPC (713-420-5150), Ian Yanagisawa of EPTPC (713-420-7361), or me (303-291-2276).

Sincerely,

Jed Smith
Project Manager

encl.

cc: Bill Freeman – NNEPA, Shiprock, NM (Volume 3 Only)
Bill Liese – BLM, Farmington, NM (Volume 1 Only)
Brandon Powell – NMOCD, Aztec, NM (Volumes 1, 2, and 3)
Doug Stavinoha – EPTPC (Volumes 1, 2, and 3)

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Suite 2900
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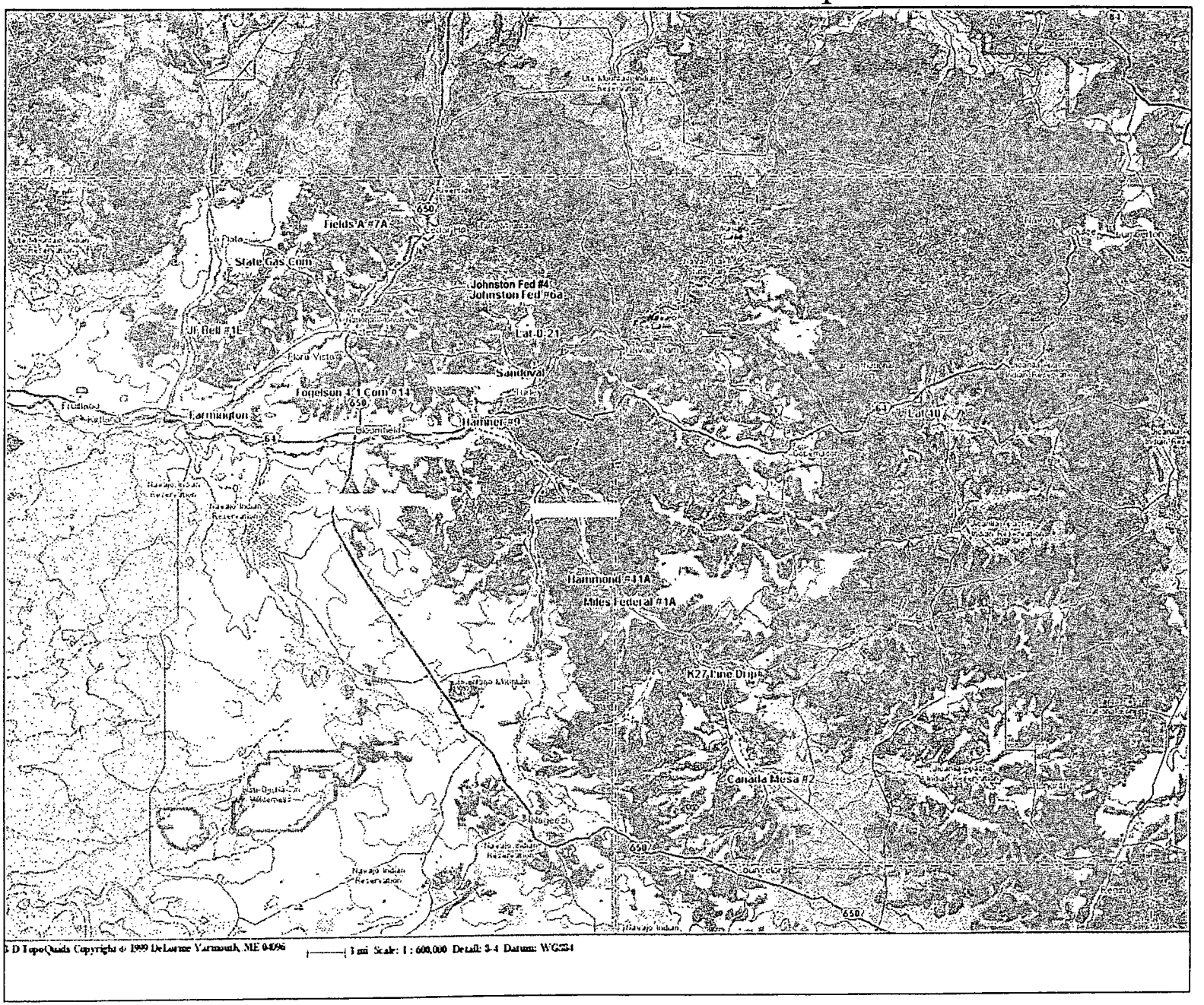
www.mwhglobal.com

LIST OF ACRONYMS

AMSL	above mean sea level
B	benzene
btoc	below top of casing
E	ethylbenzene
EPTPC	El Paso Tennessee Pipeline Company
ft	foot/feet
GWEL	groundwater elevation
ID	identification
MW	monitor well
NMWQCC	New Mexico Water Quality Control Commission
T	toluene
TOC	top of casing
NA	not applicable
NMOCD	New Mexico Oil Conservation Division
NS	not sampled
ORC	oxygen-releasing compound
µg/L	micrograms per liter
X	total xylenes

Federal Groundwater Site Map



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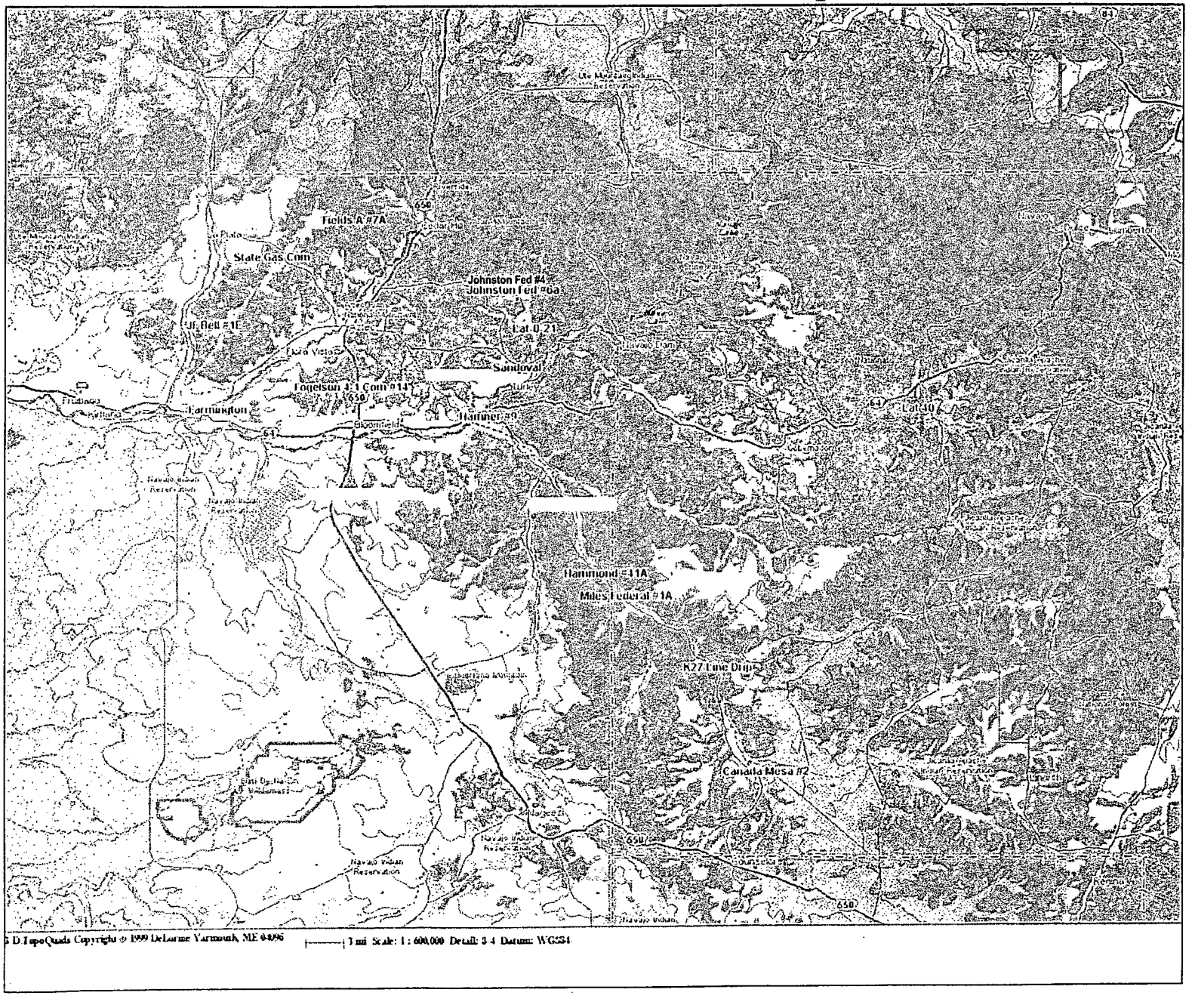
Federal Groundwater Site Map



EPTPC GROUNDWATER SITES
2009 ANNUAL GROUNDWATER REPORT

Lat L-40
Meter Code: LD174

SITE DETAILS

Legal Description:	**Town:**	28N	**Range:**	4W	**Sec:** 13	**Unit:**	H
NMOCD Haz Ranking:	20	**Land Type:**	Federal	**Operator:**	Enterprise		

PREVIOUS ACTIVITIES

Site Assessment:	2/95	**Excavation:**	3/95	**Soil Boring:**	9/95
Monitor Well:	9/95	**Geoprobe:**	NA	**Additional MWs:**	*
Downgradient MWs:	*	**Replace MW:**	NA	**Quarterly Initiated:**	NA
ORC Nutrient Injection:	NA	**Re-Excavation:**	NA	**PSH Removal Initiated:**	1/98
Annual Initiated:	NA	**Quarterly Resumed:**	NA	**PSH Removal in 2009?**	No

* Attempts were made to install additional monitoring wells at this Site during July 2000. All efforts were met with refusal.

SUMMARY OF 2009 ACTIVITIES

MW-1: Annual groundwater sampling (April) and quarterly water level monitoring were performed during 2009.

Site-Wide Activities: No other activities were performed at this Site during 2009.

SITE MAP

A Site map (April) is attached as Figure 1.

SUMMARY TABLES AND GRAPHS

- Historical analytical and water level data are summarized in Table 1 and presented graphically in Figure 2. Where applicable, static water level elevations were corrected for measurable thicknesses of free-product (specific gravity of 0.8).
- Historical free-product recovery data are summarized in Table 2 and presented graphically in Figure 2.
- The 2009 laboratory report is presented in Attachment 1 (included on CD).
- The 2009 field documentation is presented in Attachment 2 (included on CD).

EPTPC GROUNDWATER SITES
2009 ANNUAL GROUNDWATER REPORT

Lat L-40
Meter Code: LD174

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

No subsurface activities were performed at this Site during 2009.

DISPOSITION OF GENERATED WASTES

All purge water was taken to the El Paso Natural Gas Rio Vista Compressor Station.

ISOCONCENTRATION MAPS

No isoconcentration maps were prepared for this Site; however, the attached Site map presents the water level data collected during 2009.

RESULTS

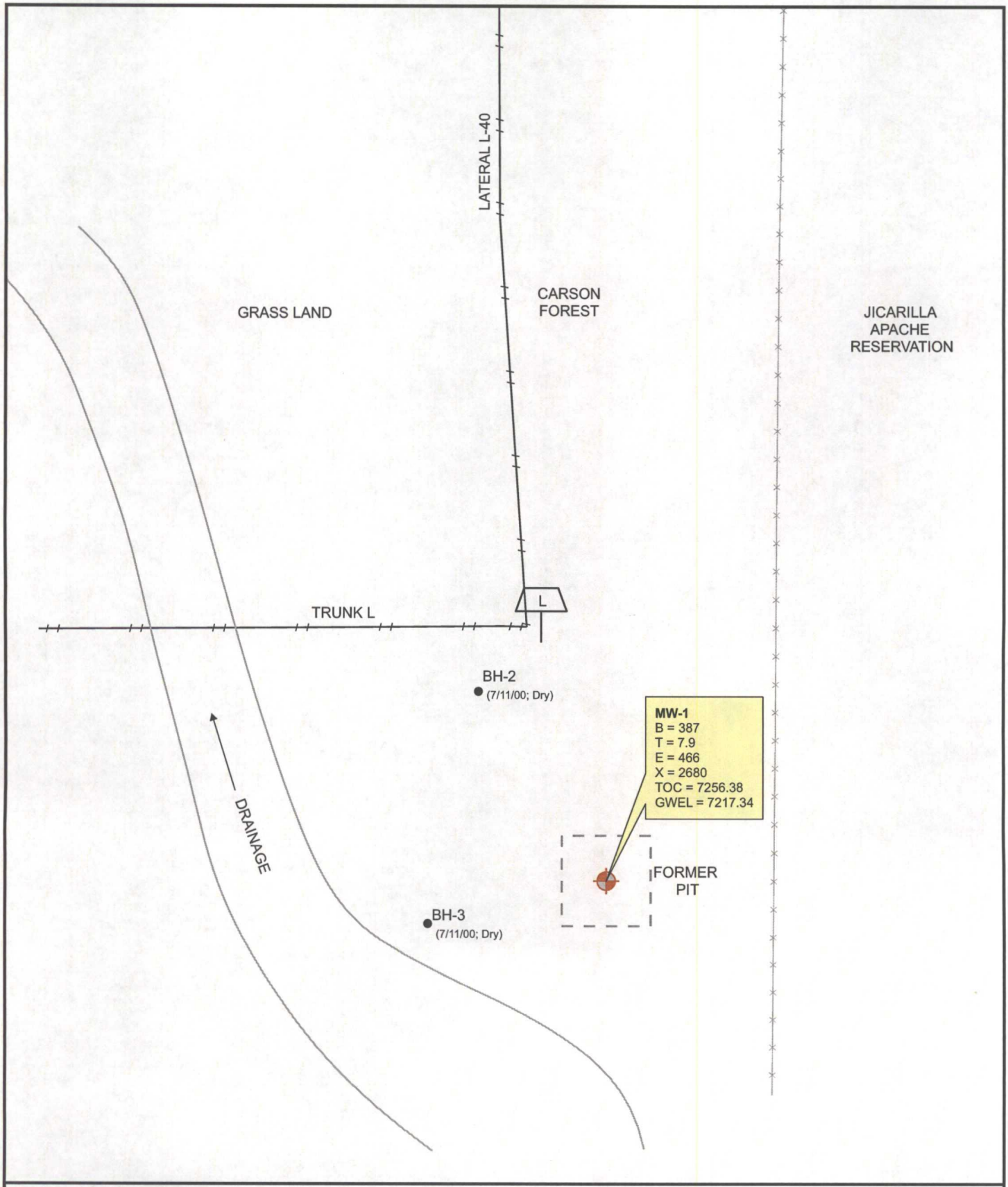
- Free-product was not observed during the 2009 quarterly water level monitoring events. Free-product was most recently observed in July 2006 (i.e., hydrocarbon had been absorbed into the product recovery sock).

- Monitor well MW-1 was sampled in April 2009, and the benzene and total xylenes concentrations, 387 µg/L and 2,680 µg/L, respectively exceeded their NMWQCC standards. Toluene was detected at 7.9 µg/L; and ethylbenzene was detected at 466 µg/L, both below their respective standards. The observed BTEX concentrations are well below the highs observed in 1997, prior to the product recovery efforts implemented for this Site.

RECOMMENDATIONS

- EPTPC recommends quarterly water level monitoring to check for product reappearance. If free-product is observed, oil absorbent sock use will be re-initiated.

- Unless product reappears, EPTPC will sample MW-1 on an annual basis until sample results approach closure criteria. Sampling would then proceed at quarterly intervals until the closure criteria are met.



LEGEND

MW-4	Existing Monitoring / Observation Well	B	Benzene (ug/L)
	Groundwater Flow Direction	T	Toluene (ug/L)
1275	Potentiometric Surface Contour (Inferred Where Dashed)	E	Ethylbenzene (ug/L)
ND	Not Detected; Reporting Limit Shown In Parenthesis	X	Total Xylenes (ug/L)
		TOC	Top of Casing (ft. AMSL)
		GWEL	Groundwater Elevation (ft. AMSL)

N

0 15 30 Feet

MWH

elpaso

PROJECT: LATERAL L-40

TITLE: Groundwater Potentiometric Surface Map, and BTEX Concentrations - April 8, 2009

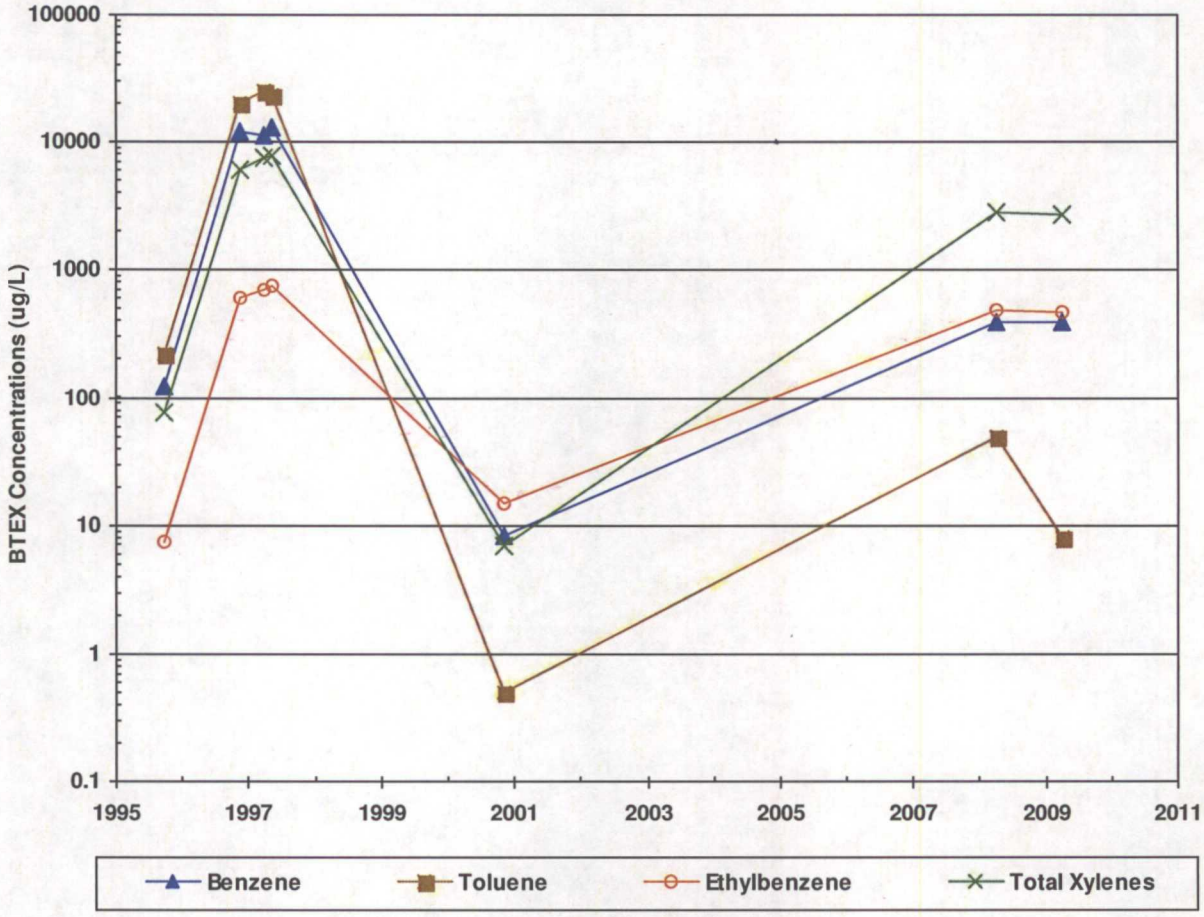
FIGURE: 1

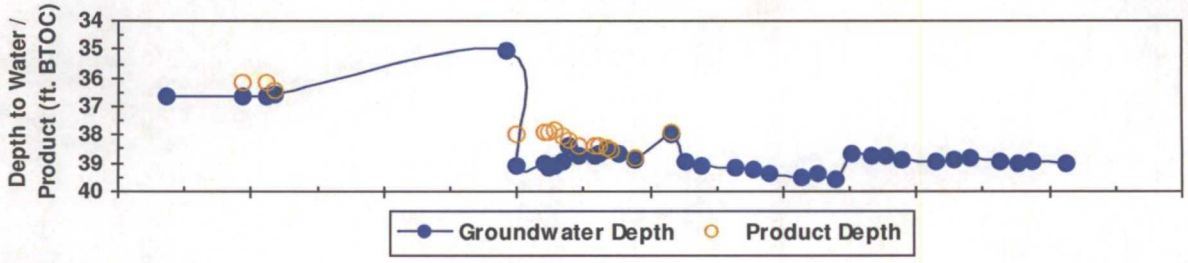
FIGURE 2

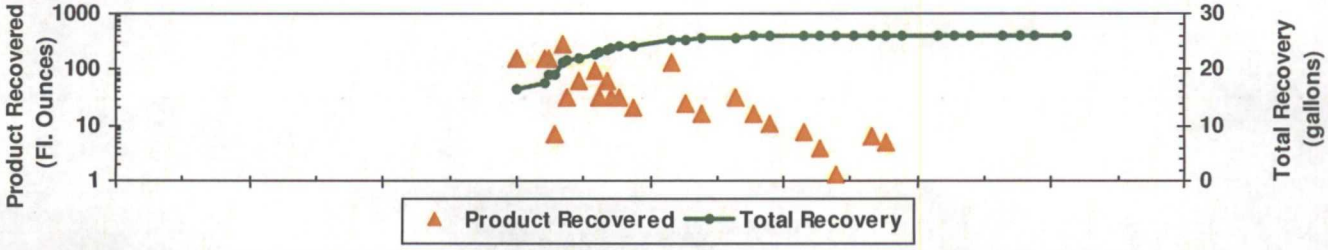
SUMMARY OF GROUNDWATER BTEX CONCENTRATIONS, FLUID LEVELS, AND PRODUCT RECOVERY

LAT L-40 (METER #LD174)

MW01







**In some cases, older recovery event data are not available. However, the cumulative totals still include all historic recovery.*

TABLE 1

SUMMARY OF BTEX COMPOUNDS IN GROUNDWATER SAMPLES
LAT L-40 (METER #LD174)

Monitor Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (ft BTOC)	Corrected GW Elevation (ft AMSL)
NMWQCC GW Std.:		**10**	**750**	**750**	**620**		
MW01	9/26/1995	**121**	218	7.4	75.1	36.68	7219.70
MW01	11/11/1996	**12000**	**20400**	612	**6075**	36.62	7220.13
MW01	3/31/1997	**11100**	**24700**	702	**7440**	36.68	7220.10
MW01	5/9/1997	**12900**	**22900**	**761**	**7730**	36.57	7219.91
MW01	11/6/2000	8.2	<0.5	15	6.9	35.06	7221.32
MW01	4/17/2008	**396**	<50	484	**2770**	38.98	7217.40
MW01	4/8/2009	**387**	7.9J	466	**2680**	39.04	7217.34

Notes:

Results shown in bold typeface exceed their respective New Mexico Water Quality Control Commission standards.

"J" = result is qualified as estimated. See laboratory report and/or supplemental data validation report for further detail.

"<" = analyte was not detected at the indicated reporting limit.

Static groundwater elevations have been corrected for product thickness where applicable. Specific gravity of 0.8 used.

TABLE 2

SUMMARY OF FREE-PRODUCT REMOVAL
LAT L-40 (METER #LD174)

Monitor Well	Removal Date	Depth to Product (ft BTOC)	Depth to Water (ft BTOC)	Product Thickness (feet)	Volume Removed (gallons)	Cumulative Removal (gallons)	Corrected GW Elevation (ft AMSL)
MW01	11/11/1996	36.16	36.62	0.46	NA	NA	7220.13
MW01	3/31/1997	36.18	36.68	0.50	NA	NA	7220.10
MW01	5/9/1997	36.45	36.57	0.12	NA	NA	7219.91
MW01	1/2/2001	37.95	39.08	1.13	1.25	16.43	7218.20
MW01	6/8/2001	37.89	39.00	1.11	1.25	17.68	7218.27
MW01	7/2/2001	37.93	39.14	1.21	1.25	18.93	7218.21
MW01	8/3/2001	37.83	39.10	1.27	0.05	18.98	7218.30
MW01	9/12/2001	38.02	38.96	0.94	2.25	21.23	7218.17
MW01	10/12/2001	38.19	38.43	0.24	0.25	21.48	7218.14
MW01	12/13/2001	38.40	38.75	0.35	0.50	21.98	7217.91
MW01	3/12/2002	38.42	38.76	0.34	0.75	22.73	7217.89
MW01	4/3/2002	38.39	38.66	0.27	0.25	22.98	7217.94
MW01	5/20/2002	38.46	38.56	0.10	0.50	23.48	7217.90
MW01	6/10/2002	38.51	38.56	0.05	0.25	23.73	7217.86
MW01	7/19/2002	--	38.64	0.00	0.25	23.98	7217.74
MW01	10/11/2002	38.84	38.87	0.03	0.16	24.14	7217.53
MW01	5/6/2003	37.94	37.97	0.03	1.00	25.14	7218.43
MW01	7/17/2003	--	38.95	0.00	0.20	25.34	7217.43
MW01	10/13/2003	--	39.06	0.00	0.13	25.47	7217.32
MW01	4/20/2004	--	39.18	0.00	0.24	25.71	7217.20
MW01	7/27/2004	--	39.22	0.00	0.13	25.84	7217.16
MW01	10/26/2004	--	39.35	0.00	0.08	25.92	7217.03
MW01	4/22/2005	--	39.52	0.00	0.06	25.98	7216.86
MW01	7/19/2005	--	39.34	0.00	0.03	26.01	7217.04
MW01	10/21/2005	--	39.57	0.00	0.01	26.02	7216.81
MW01	5/10/2006	--	38.72	0.00	0.05	26.07	7217.66
MW01	7/26/2006	--	38.72	0.00	0.04	26.11	7217.66

Notes:

"--" indicates either that product was not measurably detected or that product was not recovered.

"NA" indicates that the respective data point is not available.

Groundwater elevations may not be static due to removal of equipment. Corrections for product thickness utilize SG of 0.8.

Lodestar Services, Incorporated
PO Box 4465, Durango, CO 81302 Office (970) 946-1093

WATER LEVEL DATA

Project Name: San Juan Basin Groundwater **Date:** 04/08/2009
Project Manager: Ashley Ager
Client: MWH
Site Name: Lat L 40

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed	Comments
MW-1	9:22 AM	-	39.04	-	-	sampled for BTEX

Comments
Take site photos, review site map.

Signature: *Ashley L. Ager* Date: 04/08/2009

Lodestar Services, Incorporated
PO Box 4465, Durango, CO 81302 Office (970) 946-1093

WELL DEVELOPMENT AND SAMPLING LOG

Project Name: San Juan Basin | Location: Lat L 40 | Well No: MW-1
Client: MWH | Date: 4/8/2009 | Time: 9:35
Project Manager: Ashley Ager | Sampler's Name: Troy Urban

Measuring Point: TOC | Depth to Water: 39.04 ft | Depth to Product: ft
Well Diameter: 4" | Total Depth: 52.35 ft | Product Thickness: ft
Water Column Height: 13.31 ft

Sampling Method: ☐ Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other
☑ Bottom Valve Bailer ☐ Double Check Valve Bailer

Criteria: ☑ 3 to 5 Casing Volumes of Water Removal ☑ Stabilization of Indicator Parameters ☑ Other bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
13.31 x .65	8.65 x 3		25.95 gal

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. gal	Comments/Flow Rate
9:35	6.79	2.09	52.3				1.25	light gray, HC odor, yellow precipitate
	6.99	2.15	52.3				2.5	light gray, HC odor, yellow ppt
	7.06	2.14	52.5				3.75	light gray, HC odor, yellow ppt
	7.11	2.20	52.3				5	light gray, HC odor, yellow ppt
	7.21	2.28	52.5				10	light gray, HC odor, yellow ppt
	7.17	2.32	53.2				15	sheen, gray, HC odor
	7.18	2.31	25.2				20	sheen, gray, HC odor
	7.21	2.33	52.0				23.75	sheen, gray, HC odor
	7.21	2.29	51.8				25	sheen, gray, HC odor
Final:	7.27	2.36	51.8				26.25	sheen, HC odor, gray, yellow precipitate

COMMENTS:

Instrumentation: ☑ pH Meter ☐ DO Monitor ☑ Conductivity Meter ☑ Temperature Meter ☐ Other

Water Disposal: Rio Vista

Sample ID: MW-1 | Sample Time: 10:23

Analysis Requested: ☑ BTEX ☐ VOCs ☐ Alkalinity ☐ TDS ☐ Cations ☐ Anions ☐ Nitrate ☐ Nitrite ☐ Metals
☐ Other

Trip Blank: 08042009TB01 | Duplicate Sample:

Gulf Coast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

04/14/09

Technical Report for

Montgomery Watson

San Juan Basin Pit Groundwater Remediation 2008-2009

Accutest Job Number: T26831

Sampling Date: 04/08/09

Report to:

MWH Americas
1801 California St. Suite 2900
Denver, CO 80202
jed.smith@mwhglobal.com; daniel.a.wade@mwhglobal.com;
craig.moore@mwhglobal.com; ala@lodestarservices.com
ATTN: Jed Smith

Total number of pages in report: 14

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro
Laboratory Director

ACCUTEST LABORATORIES 50 YEARS 1956-2006

Client Service contact: William Reeves 713-271-4700

Certifications: TX (T104704220-06-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004) OK (9103) UT(7132714700)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.

Sections: 1 2 3 4 5

Table of Contents

Accutest Laboratories

Sample Summary

Montgomery Watson

Job No: T26831

San Juan Basin Pit Groundwater Remediation 2008-2009

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
T26831-1	04/08/09	10:23	TU	04/09/09	AQ	Ground Water	LAT-L-40 MW-1
T26831-2	04/08/09	07:00	TU	04/09/09	AQ	Trip Blank Water	080409TB01

ACCUTEST Laboratories

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Montgomery Watson	**Job No**	T26831
Site:	San Juan Basin Pit Groundwater Remediation 2008-2009	**Report Date**	4/13/2009 4:34:20 PM

1 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 04/08/2009 and were received at Accutest on 04/09/2009 properly preserved, at 0.8 Deg. C and intact. These Samples received an Accutest job number of T26831. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GC By Method SW846 8021B

Matrix AQ **Batch ID:** GKK1471

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	LAT L 40 MW-1		
Lab Sample ID:	T26831-1	Date Sampled:	04/08/09
Matrix:	AQ - Ground Water	Date Received:	04/09/09
Method:	SW846 8021B	Percent Solids:	n/a
Project:	San Juan Basin Pit Groundwater Remediation 2008-2009		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK030505.D	25	04/10/09	FI	n/a	n/a	GKK1471
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	387	25	5.2	ug/l	
108-88-3	Toluene	7.9	25	5.6	ug/l	J
100-41-4	Ethylbenzene	466	25	8.7	ug/l	
1330-20-7	Xylenes (total)	2680	50	14	ug/l	
95-47-6	o-Xylene	69.7	25	14	ug/l	
	m,p-Xylene	2610	25	17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	97%		58-125%
98-08-8	aaa-Trifluorotoluene	80%		73-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	080409TB01		
Lab Sample ID:	T26831-2	Date Sampled:	04/08/09
Matrix:	AQ - Trip Blank Water	Date Received:	04/09/09
Method:	SW846 8021B	Percent Solids:	n/a
Project:	San Juan Basin Pit Groundwater Remediation 2008-2009		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK030504.D	1	04/10/09	FI	n/a	n/a	GKK1471
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.21	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.35	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	0.55	ug/l	
95-47-6	o-Xylene	ND	1.0	0.55	ug/l	
	m,p-Xylene	ND	1.0	0.66	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	97%		58-125%
98-08-8	aaa-Trifluorotoluene	75%		73-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST Laboratories

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

Page ___ of ___

FED-EX Tracking #: 8693-8851 2580 | Bottle Order Control #: | Accutest Quote #: | Accutest Job #: T26831

Client / Reporting Information

Company Name: MWH
Project Contact: Jed Smith — E-Mail: jed.smith@mwhglobal.com
Address: 1801 California Street, Suite 2900
City: Denver — State: CO — Zip: 80202
Phone No.: 303-291-2276 — Fax No.:
Sampler's Name: Troy Urban

Project Information

Project Name / No.: EPTPC San Juan Basin Pit GW Remediation 2008-2009
Bill to: El Paso Corp — Invoice Attn.: Norma Ramos
Address: 1001 Louisiana Street, Rm S1904B
City: Houston — State: TX — Zip: 77002
Phone No.: — Fax No.:
Client Purchase Order #: West-ALAB-GroundRem-007

Requested Analyses: BTEX (8021B)

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Wastewater; SO - Soil; SL - Sludge; OI - Oil; LIQ - Liquid; SOL - Other Solid

Accutest Sample #	Field ID / Point of Collection	Collection Date	Collection Time	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	ENCORE	NaHSO4	MEOH	NONE	BTEX (8021B)	LAB USE ONLY
1	Lat L 40 MW-1	040809	1023	GW	3	X								X	
2	080409TB01	040809	0700	GW	2	X								X	

Turnaround Time (Business days)

- [X] 10 Day STANDARD
- [ ] 7 Day
- [ ] 4 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] Other

Approved By / Date:

Real time analytical data available via Lablink

Data Deliverable Information

- [ ] Commercial "A"
- [X] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Data Package
- [ ] TRRP-13
- [ ] EDD Format ______
- [ ] Other ______

Commercial "A" = Results Only
Commercial "B" = Results & Standard QC

Comments / Remarks

please copy results to ala@lodestar-services.com

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

Relinquished by	Date Time	Received By	Relinquished By	Date Time	Received By
1 [signature]	4/8/09 1403	1	2 Fed	4-9-9 9:15	2 [signature]
3		3	4		4
5		5	Custody Seal #	Preserved where applicable ☐	On Ice: ✓ Cooler Temp. 0.8°C

T26831: Chain of Custody
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SAMPLE INSPECTION FORM

Accutest Job Number: T26831 Client: MWH Date/Time Received: 4-9-9 915

# of Coolers Received: 1 Thermometer #: IR-1 Temperature Adjustment Factor: -0.4

Cooler Temps: #1: 0.8 #2: _____ #3: _____ #4: _____ #5: _____ #6: _____ #7: _____ #8: _____

Method of Delivery: (FEDEX) UPS Accutest Courier Greyhound Delivery Other

Airbill Numbers: _____

COOLER INFORMATION

- [ ] Custody seal missing or not intact
- [ ] Temperature criteria not met
- [ ] Wet ice received in cooler

CHAIN OF CUSTODY

- [ ] Chain of Custody not received
- [ ] Sample D/T unclear or missing
- [ ] Analyses unclear or missing
- [ ] COC not properly executed

SAMPLE INFORMATION

- [ ] Sample containers received broken
- [ ] VOC vials have headspace
- [ ] Sample labels missing or illegible
- [ ] ID on COC does not match label(s)
- [ ] D/T on COC does not match label(s)
- [ ] Sample/Bottles rcvd but no analysis on COC
- [ ] Sample listed on COC, but not received
- [ ] Bottles missing for requested analysis
- [ ] Insufficient volume for analysis
- [ ] Sample received improperly preserved

TRIP BLANK INFORMATION

- [ ] Trip Blank on COC but not received
- [ ] Trip Blank received but not on COC
- [ ] Trip Blank not intact
- [ ] Received Water Trip Blank
- [ ] Received Soil TB

Number of Encores? _____
Number of 5035 kits? _____
Number of lab-filtered metals? _____

Summary of Discrepancies:

TECHNICIAN SIGNATURE/DATE: _____ 4-9-9

INFORMATION AND SAMPLE LABELING VERIFIED BY: _____

CORRECTIVE ACTIONS

Client Representative Notified: _____ **Date:** _____

By Accutest Representative: _____ **Via:** Phone Email

Client Instructions:

I:\mwalker\forms\samplemanagement

4.1 4

T26831: Chain of Custody
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SAMPLE RECEIPT LOG

JOB #: T26831 DATE/TIME RECEIVED: 4-9-9 915

CLIENT: MWH INITIALS: EC

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH
1	1	MW-1	4-8-9 1023	W	40ml	1-3	WR	1 (2) 3 4 5 6 7 8	<2 >12
1	2	Trip Blank	—	—	"	1-2	"	1 (2) 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12

EC 4-9-9

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other

T26831: Chain of Custody
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GC Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T26831
Account: MWHCODE Montgomery Watson
Project: San Juan Basin Pit Groundwater Remediation 2008-2009

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK1471-MB	KK030503.D	1	04/10/09	FI	n/a	n/a	GKK1471

The QC reported here applies to the following samples: Method: SW846 8021B

T26831-1, T26831-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	0.55	ug/l	
95-47-6	o-Xylene	ND	1.0	0.55	ug/l	
	m,p-Xylene	ND	1.0	0.66	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	95%	58-125%
98-08-8	aaa-Trifluorotoluene	73%	73-139%

Blank Spike/Blank Spike Duplicate Summary

Job Number: T26831
Account: MWHCODE Montgomery Watson
Project: San Juan Basin Pit Groundwater Remediation 2008-2009

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK1471-BS	KK030499.D	1	04/10/09	FI	n/a	n/a	GKK1471
GKK1471-BSD	KK030500.D	1	04/10/09	FI	n/a	n/a	GKK1471

The QC reported here applies to the following samples: Method: SW846 8021B

T26831-1, T26831-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	19.2	96	18.9	95	2	86-121/30
100-41-4	Ethylbenzene	20	20.2	101	19.7	99	3	81-116/30
108-88-3	Toluene	20	20.0	100	19.6	98	2	87-117/30
1330-20-7	Xylenes (total)	60	60.1	100	58.6	98	3	85-115/30
95-47-6	o-Xylene	20	20.0	100	19.5	98	3	87-116/30
	m,p-Xylene	40	40.2	101	39.1	98	3	84-116/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	98%	95%	58-125%
98-08-8	aaa-Trifluorotoluene	74%	73%	73-139%