1R - 123

REPORTS

DATE:

03-24-1998

ANALYTICAL REPORT 1-80691

for

K.E.I. Consultants, Inc.

Project Manager: Theresa Nix

Project Name: Monument Site #17

Project Id: 610057-6-17-0

March 24, 1998

HOUSTON - DALLAS - SAN ANTONIO

11381 Meadowglen Lane Suite L * Houston, Texas 77082-2647
Phone (281) 589-0692 Fax (281) 589-0695

XENCO Laboratories

11381 Meadowglen Suite L
Houston, Texas 77082-2647
(281) 589-0692 Fax: (281) 589-0695
Houston - Dallas - San Antonio - Latin America

March 24, 1998

Project Manager: Theresa Nix
K.E.I. Consultants, Inc.
5309 Wurzbach Rd. Suite 100
San Antonio, TX 78238

Reference: **XENCO Report No.: 1-80691**
Project Name: Monument Site #17
Project ID: 610057-6-17-0
Project Address: Monument, NM

Dear Theresa Nix:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with XENCO Chain of Custody Number 1-80691. All results being reported to you apply only to the samples analyzed, properly identified with a Laboratory ID number. This letter documents the official transmission of the contents of the report and validates the information contained within.

All the results for the quality control samples passed thorough examination. Also, all parameters for data reduction and validation checked satisfactorily. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, completeness or properly flagged.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 3 years in our archives and after that time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. 1-80691 will be filed for 60 days, and after that time they will be properly disposed of without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

XENCO operates under the A2LA guidelines. Our Quality System meets ISO/IEC Guide 25 requirements which is strictly implemented and enforced through our standard QA/QC procedures.

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Sincerely,

Eddie Yonemoto, Ph.D.
Technical Director

XENCO Laboratories

11381 Meadowglen Suite L Houston, Texas 77082
(713) 589-0692 Fax (713) 589-0695

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Page 1 of

Lab. Batch #18069-88

Contractor: Kei | Phone: (210) 680-3767

Address: 5309 WURZBACH RD, STE 100

Project Name: MONUMENT SITE #17 | Project Director: MIKE HAWTHORNE

Project Location: MONUMENT, NM | Project Manager: THERESA NIX

Sampler Signature: [signature] | Project No.: 61057-6-17-0

No. coolers this shipment: | Carrier: UPS | Airbill No.

Contractor COC #: | Quote #: | P.O. No: 8641

SAMPLE CHARACTERIZATION

	Field ID	Date	Time	Depth	Soil	Water	Comp	Grab	Container Size	Container Type P,G	Preservative Ice	Preservative Other	No of Containers Total	BTEX (EPA Method 5030/8020-602)	TPH (418.1)	PAH	TCLP SCAN	CATIONS/ANIONS	TDS	Please Hold	Lab ID #
1	MW-1	8 FEB 98	1232			X		X			X		2	X							1
2	MW-2		1218			X		X			X		2	X							2
3	MW-3		1300			X		X			X		2	X							3
4	MW-4		1241			X		X			X		6	X		X	X	X			4
5	MW-5		1310			X		X			X		6	X		X	X	X			5
6																					6
7																					7
8																					8
9																					9
10																					10

Unl Dies Ker Unknown

Waste Oil

PIT No: Tank No:

Sample Description

Turn-around: * ASAP * 24 hrs 48 hrs (Standard)

Remarks

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ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	DATE	TIME
[signature]					
			Received For Laboratory by: LLyorkey	4/23/98	930

Remarks: Please fax analytical to Theresa at 210-680-3763 and STAN Glover at 505-392-2065

Pink (Contractor), Yellow & White (Lab).

* Pre-scheduling is recommended

Precision Analytical Services

XENCO Laboratories

ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

K.E.I. Consultants, Inc.

Project ID: 610057-6-17-0
Project Manager: Theresa Nix
Project Location: Monument, NM

Project Name: Monument Site #17

XENCO COC#: 1-80691
Date Received in Lab: Feb 23, 1998 09:30 by LY
XENCO contact : Carlos Castro/Edward Yonemoto

	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Date and Time: Sample Collected	Date and Time: Addition Requested	Date and Time: Extraction	Date and Time: Analysis
1	MW-1	180691-001	BTEX	SW-846	ppm	Standard	Feb 19, 1998 12:32		Feb 23, 1998 by HL	Feb 23, 1998 18:58 by HL
2	MW-2	180691-002	BTEX	SW-846	ppm	Standard	Feb 19, 1998 12:18		Feb 23, 1998 by HL	Feb 23, 1998 19:18 by HL
3	MW-3	180691-003	BTEX	SW-846	ppm	Standard	Feb 19, 1998 13:00		Feb 23, 1998 by HL	Feb 23, 1998 17:23 by HL
4	MW-4	180691-004	BTEX	SW-846	ppm	Standard	Feb 19, 1998 12:41		Feb 23, 1998 by HL	Feb 23, 1998 19:37 by HL
5			PAHs	SW846-8270	mg/L	Standard	Feb 19, 1998 12:41		Feb 25, 1998 by SS	Feb 28, 1998 12:27 by LC
6			Mercury, Tot	SW846-7470	mg/L	Standard	Feb 19, 1998 12:41		Feb 26, 1998 by AO	Feb 26, 1998 15:21 by AO
7			Carbonate	SM4500CO2D	ppm	Standard	Feb 19, 1998 12:41		Feb 25, 1998 by IF	Feb 25, 1998 15:20 by IF
8			Bicarbonate	SM 4500CO2D	mg/L	Standard	Feb 19, 1998 12:41		Feb 25, 1998 by IF	Feb 25, 1998 15:20 by IF
9			TDS	EPA 160.1	mg/L	Standard	Feb 19, 1998 12:41		Feb 25, 1998 by IF	Feb 26, 1998 10:40 by IF
10			Anions	EPA 300.0	mg/L	7 days	Feb 19, 1998 12:41		Mar 2, 1998 by OR	Mar 2, 1998 19:01 by OR
11			Metals (ICP)	EPA 6010	mg/L	Standard	Feb 19, 1998 12:41		Feb 26, 1998 by AO	Mar 10, 1998 17:23 by CG
12			RCRA Metals	SW846/6010	mg/L	7 days	Feb 19, 1998 12:41	Mar12,1998 16:00	Mar 16, 1998 by AO	Mar 18, 1998 15:39 by CG
13	MW-5	180691-005	BTEX	SW-846	ppm	Standard	Feb 19, 1998 13:10		Feb 23, 1998 by HL	Feb 23, 1998 19:56 by HL
14			PAHs	SW846-8270	mg/L	Standard	Feb 19, 1998 13:10		Feb 25, 1998 by SS	Feb 28, 1998 13:13 by LC
15			Carbonate	SM4500CO2D	ppm	Standard	Feb 19, 1998 13:10		Feb 25, 1998 by IF	Feb 25, 1998 15:30 by IF
16			Bicarbonate	SM 4500CO2D	mg/L	Standard	Feb 19, 1998 13:10		Feb 25, 1998 by IF	Feb 25, 1998 15:30 by IF
17			Mercury, Tot	SW846-7470	mg/L	Standard	Feb 19, 1998 13:10		Feb 26, 1998 by AO	Feb 26, 1998 15:32 by AO
18			TDS	EPA 160.1	mg/L	Standard	Feb 19, 1998 13:10		Feb 25, 1998 by IF	Feb 26, 1998 10:50 by IF
19			Anions	EPA 300.0	mg/L	7 days	Feb 19, 1998 13:10		Mar 2, 1998 by OR	Mar 2, 1998 19:10 by OR
20			Metals (ICP)	EPA 6010	mg/L	Standard	Feb 19, 1998 13:10		Feb 26, 1998 by AO	Mar 10, 1998 18:45 by CG
21			RCRA Metals	SW846/6010	mg/L	7 days	Feb 19, 1998 13:10	Mar12,1998 16:00	Mar 16, 1998 by AO	Mar 18, 1998 15:53 by CG

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-80691

K.E.I. Consultants, Inc.

Project ID: 610057-6-17-0
Project Name: *Monument Site #17*
Project Manager: Theresa Nix
Project Location: Monument, NM

Date Received in Lab : Feb 23, 1998 09:30
Date Report Faxed: Mar 24, 1998
XENCO contact : Carlos Castro/Edward Yonemoto

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:* / *Matrix:* / *Sampled:*	180691 001 MW-1 Liquid 02/19/98 12:32	180691 002 MW-2 Liquid 02/19/98 12:18	180691 003 MW-3 Liquid 02/19/98 13:00	180691 004 MW-4 Liquid 02/19/98 12:41	180691 005 MW-5 Liquid 02/19/98 13:10
Metals by ICP EPA 6010	*Analyzed:* / *Units:*				03/10/98 mg/L R.L.	03/10/98 mg/L R.L.
Aluminum					< 0.56 (0.56)	< 0.56 (0.56)
Barium					0.12 (0.09)	0.16 (0.09)
Beryllium					< 0.022 (0.022)	< 0.022 (0.022)
Boron					< 0.22 (0.22)	< 0.22 (0.22)
Calcium					128 (2.2)	110 (2.2)
Chromium					< 0.05 (0.05)	< 0.05 (0.05)
Cobalt					< 0.05 (0.05)	< 0.05 (0.05)
Copper					< 0.11 (0.11)	< 0.11 (0.11)
Iron					< 0.22 (0.22)	< 0.11 (0.11)
Magnesium					19.1 (0.2)	23.1 (0.2)
Manganese					< 0.06 (0.06)	0.19 (0.06)
Molybdenum					< 0.56 (0.56)	< 0.56 (0.56)
Nickel					< 0.11 (0.11)	< 0.11 (0.11)
Potassium					3.86 (1.11)	5.21 (1.11)
Silicon					22.7 (0.2)	22.2 (0.2)
Silver					< 0.05 (0.05)	< 0.05 (0.05)
Sodium					65.4 (2.2)	87.9 (2.2)
Strontium					1.20 (0.22)	1.42 (0.22)
Tin					< 0.22 (0.22)	< 0.22 (0.22)
Vanadium					< 0.11 (0.11)	< 0.11 (0.11)
Zinc					< 0.56 (0.56)	< 0.56 (0.56)
RCRA Metals EPA 6010	*Analyzed:* / *Units:*				03/18/98 mg/L R.L.	03/18/98 mg/L R.L.

Edward H. Yonemoto, Ph.D.
Technical Director

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-80691

K.E.I. Consultants, Inc.

Project ID: 610057-6-17-0 | ***Project Name: Monument Site #17*** | **Date Received in Lab :** Feb 23, 1998 09:30

Project Manager: Theresa Nix | **Date Report Faxed:** Mar 24, 1998

Project Location: Monument, NM | **XENCO contact :** Carlos Castro/Edward Yonemoto

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:* / *Matrix:* / *Sampled:*	180691 001 MW-1 Liquid 02/19/98 12:32	180691 002 MW-2 Liquid 02/19/98 12:18	180691 003 MW-3 Liquid 02/19/98 13:00	180691 004 MW-4 Liquid 02/19/98 12:41	180691 005 MW-5 Liquid 02/19/98 13:10
EPA 6010	*Analyzed:* / *Units:*				03/18/98 mg/L R.L.	03/18/98 mg/L R.L.
Arsenic					< 0.10 (0.10)	< 0.10 (0.10)
Cadmium					< 0.010 (0.010)	< 0.010 (0.010)
Lead					< 0.050 (0.050)	< 0.050 (0.050)
Selenium					< 0.050 (0.050)	< 0.050 (0.050)
Total Mercury EPA 7470	*Analyzed:* / *Units:*				02/26/98 mg/L R.L.	02/26/98 mg/L R.L.
Mercury					< 0.0011 (0.0011)	< 0.0011 (0.0011)
BTEX EPA 8020	*Analyzed:* / *Units:*	02/23/98 ppm R.L.	02/23/98 ppm R.L.	02/23/98 ppm R.L.	02/23/98 ppm R.L.	02/23/98 ppm R.L.
Benzene		0.043 (0.001)	0.174 (0.001)	0.436 (0.004)	< 0.001 (0.001)	< 0.004 (0.004)
Toluene		0.001 (0.001)	0.066 (0.001)	0.015 (0.004)	< 0.001 (0.001)	< 0.004 (0.004)
Ethylbenzene		0.002 (0.001)	0.047 (0.001)	0.045 (0.004)	< 0.001 (0.001)	< 0.004 (0.004)
m,p-Xylenes		< 0.002 (0.002)	0.018 (0.002)	0.015 (0.008)	< 0.002 (0.002)	< 0.008 (0.008)
o-Xylene		< 0.001 (0.001)	0.007 (0.001)	< 0.004 (0.004)	< 0.001 (0.001)	< 0.004 (0.004)
Total BTEX		0.046	0.312	0.511	N.D.	N.D.
PAHs by GC-MS (610 List) EPA 8270	*Analyzed:* / *Units:*				02/28/98 mg/L R.L.	02/28/98 mg/L R.L.
Acenaphthene					< 0.002 (0.002)	< 0.002 (0.002)
Acenaphthylene					< 0.002 (0.002)	< 0.002 (0.002)
Anthracene					< 0.002 (0.002)	< 0.002 (0.002)
Benzo(a)anthracene					< 0.002 (0.002)	< 0.002 (0.002)
Benzo(a)pyrene					< 0.002 (0.002)	< 0.002 (0.002)

Edward H. Yonemoto, Ph.D.
Technical Director

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-80691

K.E.I. Consultants, Inc.

Project ID: 610057-6-17-0
Project Manager: Theresa Nix
Project Location: Monument, NM

Project Name: Monument Site #17

Date Received in Lab : Feb 23, 1998 09:30
Date Report Faxed: Mar 24, 1998
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Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:* / *Matrix:* / *Sampled:*	180691 001 MW-1 Liquid 02/19/98 12:32	180691 002 MW-2 Liquid 02/19/98 12:18	180691 003 MW-3 Liquid 02/19/98 13:00	180691 004 MW-4 Liquid 02/19/98 12:41	180691 005 MW-5 Liquid 02/19/98 13:10
EPA 8270	*Analyzed:* / *Units:*				02/28/98 mg/L R.L.	02/28/98 mg/L R.L.
Benzo(b)fluoranthene					< 0.002 (0.002)	< 0.002 (0.002)
Benzo(g,h,i)perylene					< 0.002 (0.002)	< 0.002 (0.002)
Benzo(k)fluoranthene					< 0.002 (0.002)	< 0.002 (0.002)
Chrysene					< 0.002 (0.002)	< 0.002 (0.002)
Dibenzo(a,h)anthracene					< 0.002 (0.002)	< 0.002 (0.002)
Fluoranthene					< 0.002 (0.002)	< 0.002 (0.002)
Fluorene					< 0.002 (0.002)	< 0.002 (0.002)
Indeno(1,2,3-cd)pyrene					< 0.002 (0.002)	< 0.002 (0.002)
Naphthalene					< 0.002 (0.002)	< 0.002 (0.002)
Phenanthrene					< 0.002 (0.002)	< 0.002 (0.002)
Pyrene					< 0.002 (0.002)	< 0.002 (0.002)
Bicarbonate SM 4500CO2D	*Analyzed:* / *Units:*				02/25/98 mg/L R.L.	02/25/98 mg/L R.L.
Bicarbonate					265 (1.0)	300 (1.0)
Carbonate SM4500CO2D	*Analyzed:* / *Units:*				02/25/98 ppm R.L.	02/25/98 ppm R.L.
Carbonate					< 1.0 (1.0)	< 1.0 (1.0)
Total Dissolved Solids EPA 160.1	*Analyzed:* / *Units:*				02/26/98 mg/L R.L.	02/26/98 mg/L R.L.
Total Dissolved Solids					724 (4.0)	785 (4.0)

Edward H. Yonemoto, Ph.D.
Technical Director

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-80691

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Anions by Ion Chromatography EPA 300.0	Analyzed: / Units:				03/02/98 mg/L R.L.	03/02/98 mg/L R.L.	
Chloride					138 (2.0)	148 (2.0)	
Sulfate					62.9 (2.0)	51.9 (2.0)	

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OIL CONSERVATION DIVISION

Edward H. Yonemoto, Ph.D.
Technical Director

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A18B95

SW846/6010 RCRA Metals

Date Validated: Mar 23, 1998 17:45
Date Analyzed: Mar 18, 1998 14:37
QA/QC Manager: Sunil Ajai, M.S.

Analyst: CG
Matrix: Liquid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Amount mg/L	[D] Detection Limit mg/L	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Arsenic	< 0.100	0.915	1.000	0.100	91.5	70-125	
Cadmium	< 0.0100	0.1935	0.2000	0.0100	96.8	70-125	
Lead	< 0.0500	0.9630	1.0000	0.0500	96.3	75-125	
Selenium	< 0.1000	0.9660	1.0000	0.1000	96.6	70-125	

Blank Spike Recovery [E] = 100*(B-A)/(C)
N[redacted] Not calculated, data below detection limit
N.[redacted] Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
Technical Director

Xenco Laboratories

Certificate Of Quality Control for Batch : 18A18B95

SW846/6010 RCRA Metals

Date Validated: Mar 23, 1998 17:45
Date Analyzed: Mar 18, 1998 15:45
QA/QC Manager: Sunil Ajai, M.S.

Analyst: CG
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					MATRIX SPIKE ANALYSIS				
Q.C. Sample ID 180691- 004	[A] Sample Result	[B] Duplicate Result	[C]	[D] QC	[E] LIMITS	[F] Matrix Spike Result	[G] Matrix Spike Amount	[H] QC	[I] LIMITS	[G]
Parameter			Detection Limit	Relative Difference	Relative Difference			Matrix Spike Recovery	Recovery Range	Qualifier
	mg/L	mg/L	mg/L	%	%	mg/L	mg/L	%	%	
Arsenic	< 0.100	< 0.100	0.100	N.C	25.0	0.984	1.00	98.4	70-125	
Cadmium	< 0.0100	< 0.0100	0.0100	N.C	25.0	0.1920	0.200	96.0	70-125	
Lead	< 0.0500	< 0.0500	0.0500	N.C	25.0	0.9015	1.000	90.2	75-125	
Selenium	< 0.1000	< 0.1000	0.1000	N.C	25.0	1.0085	1.000	100.9	70-125	

Relative Difference [D] = 200*(B-A)/(B+A)
Matrix Spike Recovery [H] = 100*(F-A)/[G]
N C = Not calculated, data below detection limit
N D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Sunil S. Ajai
Edward H. Yonemoto, Ph.D.
Technical Director

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A05A63

SW846- 7470 Total Mercury

Date Validated: Feb 26, 1998 16:20
Date Analyzed: Feb 26, 1998 15:19
QA/QC Manager: Sunil Ajai, M.S.

Analyst: AO
Matrix: Liquid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Amount mg/L	[D] Method Detection Limit mg/L	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Mercury	< 0.0011	0.0022	0.0028	0.0011	78.6	70-125	

Blank Spike Recovery [E] = 100*(B-A)/(C)
N[redacted] Not calculated, data below detection limit
N[redacted] Below detection limit
All results are based on MDL and validated for QC purposes only

Sunil S. Ajai
Edward H. Yonemoto, Ph.D.
Technical Director

Xenco Laboratories

Certificate Of Quality Control for Batch : 18A05A63

SW846- 7470 Total Mercury

Date Validated: Feb 26, 1998 16:20
Date Analyzed: Feb 26, 1998 15:22
QA/QC Manager: Sunil Ajai, M.S.

Analyst: AO
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					MATRIX SPIKE ANALYSIS				
Q.C. Sample ID 180691- 004	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC Relative Difference	[E] LIMITS Relative Difference	[F] Matrix Spike Result	[G] Matrix Spike Amount	[H] QC Matrix Spike Recovery	[I] LIMITS Recovery Range	[G] Qualifier
Parameter	mg/L	mg/L	mg/L	%	%	mg/L	mg/L	%	%	
Mercury	< 0.0011	< 0.0011	0.0011	N.C	20.0	0.0020	0.0028	71.4	70-125	

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OIL CONSERVATION DIVISION

Relative Difference [D] = 200*(B-A)/(B+A)
Matrix Spike Recovery [H] = 100*(F-A)/[G]
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Sunil S. Ajai
Edward H. Yonemoto, Ph.D.
Technical Director

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A25A62

SW- 846 5030/8020 BTEX

Date Validated: Feb 24, 1998 14:00
Date Analyzed: Feb 23, 1998 12:00
QA/QC Manager: Sunil Ajai, M.S.

Analyst: HL
Matrix: Liquid

BLANK SPIKE ANALYSIS

Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Amount ppm	[D] Method Detection Limit ppm	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Benzene	< 0.0010	0.1070	0.1000	0.0010	107.0	65-135	
Toluene	< 0.0010	0.0976	0.1000	0.0010	97.6	65-135	
Ethylbenzene	< 0.0010	0.1000	0.1000	0.0010	100.0	65-135	
m,p-Xylenes	< 0.0020	0.2040	0.2000	0.0020	102.0	65-135	
o-Xylene	< 0.0010	0.1030	0.1000	0.0010	103.0	65-135	

Blank Spike Recovery [E] = 100*(B-A)/(C)
N Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
Technical Director

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A25A62

SW- 846 5030/8020 BTEX

Date Validated: Feb 24, 1998 14:00
Date Analyzed: Feb 23, 1998 18:01
QA/QC Manager: Sunil Ajai, M.S.

Analyst: HL
Matrix: Liquid

MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY

Q.C. Sample ID 180692- 001 / Parameter	[A] Sample Result ppm	[B] Matrix Spike Result ppm	[C] Matrix Spike Duplicate Result ppm	[D] Matrix Spike Amount ppm	[E] Method Detection Limit ppm	Matrix Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Matrix Spike Recovery %	[H] QC M.S.D. Recovery %	[I] Matrix Spike Recovery Range %	[J] Qualifier
Benzene	< 0.0010	0.0912	0.0918	0.1000	0.0010	20.0	0.7	91.2	91.8	65-135	
Toluene	< 0.0010	0.0950	0.0968	0.1000	0.0010	20.0	1.9	95.0	96.8	65-135	
Ethylbenzene	< 0.0010	0.0977	0.1010	0.1000	0.0010	20.0	3.3	97.7	101.0	65-135	
m,p-Xylenes	< 0.0020	0.2010	0.2070	0.2000	0.0020	20.0	2.9	100.5	103.5	65-135	
o-Xylene	< 0.0010	0.0995	0.1030	0.1000	0.0010	20.0	3.5	99.5	103.0	65-135	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Matrix Spike Recovery [G] = 100*(B-A)/[D]
M.S.D. = Matrix Spike Duplicate
M.S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Edward H. Yonemoto, Ph.D.
Technical Director

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A02B08

SW846-8270 PAHs by GC-MS (610 List)

Date Validated: Mar 3, 1998 09:57
Date Analyzed: Feb 28, 1998 04:38
QA/QC Manager: Sunil Ajai, M.S.

Analyst: LC
Matrix: Liquid

BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY

Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Duplicate Result mg/L	[D] Blank Spike Amount mg/L	[E] Method Detection Limit mg/L	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifier
Acenaphthene	< 0.0040	0.1028	0.1076	0.1000	0.0040	31.0	4.6	102.6	107.4	46-118	
4-Chloro-3-Methylphenol	< 0.0040	0.0782	0.0846	0.1000	0.0040	42.0	7.9	78.2	84.6	23-97	
2-Chlorophenol	< 0.0040	0.0732	0.0798	0.1000	0.0040	40.0	8.6	73.2	79.8	27-123	
1,4-Dichlorobenzene	< 0.0040	0.0908	0.0942	0.1000	0.0040	28.0	3.7	90.8	94.2	36-97	
2,4-Dinitrotoluene	< 0.0040	0.0936	0.0946	0.1000	0.0040	38.0	1.1	93.6	94.6	24-96	
N-Nitroso-di-n-propylamine	< 0.0080	0.0804	0.0902	0.1000	0.0080	38.0	11.5	80.4	90.2	41-116	
4-Nitrophenol	< 0.0080	0.0218	0.0234	0.1000	0.0080	50.5	7.1	21.8	23.4	10-80	
Pentachlorophenol	< 0.0020	0.0752	0.0794	0.1000	0.0020	50.0	5.4	75.2	79.4	9-103	
Phenol	< 0.0020	0.0332	0.0360	0.1000	0.0020	42.0	8.1	33.2	36.0	12-89	
Pyrene	< 0.0040	0.1262	0.1252	0.1000	0.0040	31.0	0.8	126.2	125.2	26-127	
1,2,4-Trichlorobenzene	< 0.0020	0.0972	0.0964	0.1000	0.0020	28.0	0.8	97.2	96.4	39-98	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Blank Spike Recovery [G] = 100*(B-A)/[D]
B.S.D. = Blank Spike Duplicate
B.S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Edward H. Yonemoto, Ph.D.
Technical Director

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A20A19

SM 4500CO2D Bicarbonate

Date Validated: Feb 25, 1998 15:45
Date Analyzed: Feb 25, 1998 14:00
QA/QC Manager: Sunil Ajai, M.S.

Analyst: IF
Matrix: Liquid

BLANK SPIKE ANALYSIS

Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Amount mg/L	[D] Method Detection Limit mg/L	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Bicarbonate	< 1.00	256	250	1.00	102.4	70-125	

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OIL CONSERVATION DIVISION

Blank Spike Recovery [E] = 100*(B-A)/(C)
[illegible] Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward T. Yonemoto, Ph.D.
Technical Director

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A20A19

SM 4500CO2D Bicarbonate

Date Validated: Feb 25, 1998 15:45
Date Analyzed: Feb 25, 1998 14:30
QA/QC Manager: Sunil Ajai, M.S.

Analyst: IF
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 180726- 002	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	mg/L	mg/L	mg/L	%	%	
Bicarbonate	202	203	1.00	0.5	25.0	

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OIL CONSERVATION DIVISION

Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward T. Yonemoto, Ph.D.
Technical Director

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A20A18

SM4500CO2D Carbonate

Date Validated: Feb 25, 1998 15:40
Date Analyzed: Feb 25, 1998 14:30
QA/QC Manager: Sunil Ajai, M.S.

Analyst: IF
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 180726- 002	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	ppm	ppm	ppm	%	%	
Carbonate	< 1.00	< 1.00	1.00	N.C	25.0	

Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward T. Yonemoto, Ph.D.
Technical Director

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A19A72

EPA 160.1 Total Dissolved Solids

Date Validated: Feb 26, 1998 17:10
Date Analyzed: Feb 26, 1998 10:40
QA/QC Manager: Sunil Ajai, M.S.

Analyst: IF
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 180691- 004	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	mg/L	mg/L	mg/L	%	%	
Total Dissolved Solids	724	732	4.00	1.1	25.0	

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OIL CONSERVATION DIVISION

Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Tonemoto, Ph.D.
Technical Director

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A10A36

EPA 300.0 Anions by Ion Chromatography

Date Validated: Mar 3, 1998 08:45
Date Analyzed: Mar 2, 1998 15:57
QA/QC Manager: Sunil Ajai, M.S.

Analyst: OR
Matrix: Liquid

	BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY										
Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Duplicate Result mg/L	[D] Blank Spike Amount mg/L	[E] Method Detection Limit mg/L	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifier
Chloride	< 0.05	4.73	5.17	5.00	0.05	20.0	8.9	94.6	103.4	70-125	
Sulfate	< 0.10	4.67	4.94	5.00	0.10	20.0	5.6	93.4	98.8	70-125	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Blank Spike Recovery [G] = 100*(B-A)/[D]
B.S.D. = Blank Spike Duplicate
B.S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Edward H. Yonemoto, Ph.D.
Technical Director

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A10A36

EPA 300.0 Anions by Ion Chromatography

Date Validated: Mar 3, 1998 08:45
Date Analyzed: Mar 2, 1998 17:45
QA/QC Manager: Sunil Ajai, M.S.

Analyst: OR
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 180726- 005	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	mg/L	mg/L	mg/L	%	%	
Chloride	142	144	0.05	1.4	20.0	
Sulfate	85.78	85.28	0.10	0.6	20.0	

Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
Technical Director

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A18B85

EPA 6010 Metals by ICP

Date Validated: Mar 11, 1998 11:10
Date Analyzed: Mar 10, 1998 18:23
QA/QC Manager: Sunil Ajai, M.S.

Analyst: CG
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					MATRIX SPIKE ANALYSIS				
Q.C. Sample ID 180691- 004	[A] Sample Result	[B] Duplicate Result	[C]	[D] QC	[E] LIMITS	[F] Matrix Spike Result	[G] Matrix Spike Amount	[H] QC	[I] LIMITS	[G]
Parameter			Detection Limit	Relative Difference	Relative Difference			Matrix Spike Recovery	Recovery Range	Qualifier
	mg/L	mg/L	mg/L	%	%	mg/L	mg/L	%	%	
Aluminum	< 0.222	< 0.222	0.222	N.C	25.0	2.121	2.22	95.4	70-125	
Barium	0.123	0.118	0.022	4.1	25.0	0.996	1.11	78.6	70-125	
Beryllium	< 0.0222	< 0.0222	0.0222	N.C	25.0	0.3556	0.444	80.0	70-125	
Calcium	128	128	0.06	0.0	25.0	126	4.4	45.0	70-125	A,B
Chromium	< 0.111	< 0.111	0.111	N.C	25.0	0.876	1.11	78.8	70-125	
Cobalt	< 0.022	< 0.022	0.022	N.C	25.0	0.858	1.11	77.2	70-125	
Copper	< 0.033	< 0.033	0.033	N.C	25.0	0.902	1.11	81.2	70-125	
Iron	0.070	0.060	0.028	15.4	25.0	2.037	2.22	88.5	70-125	
Magnesium	19.10	18.94	0.06	0.8	25.0	21.34	4.4	50.4	70-125	B
Manganese	< 0.028	< 0.028	0.028	N.C	25.0	2.009	2.22	90.4	70-125	
Nickel	< 0.111	< 0.111	0.111	N.C	25.0	0.843	1.11	75.9	70-125	
Potassium	3.858	4.043	0.111	4.7	25.0	8.186	4.44	97.5	70-125	
Silicon	22.67	23.86	0.22	5.1	25.0	24.79	2.2	95.4	70-125	

(A) High analyte concentration affects spike recovery.
(B) Post-digestion spike within acceptance limits.
Relative Difference [D] = 200*(B-A)/(B+A)
Matrix Spike Recovery [H] = 100*(F-A)/[G]
N C. = Not calculated, data below detection limit
N D = Below detection limit
All results are based on MDL and validated for QC purposes only

Houston - Dallas - San Antonio

Edward H. Yonemoto, Ph.D.
Technical Director

Xenco Laboratories

Certificate Of Quality Control for Batch : 18A18B85

EPA 6010 Metals by ICP

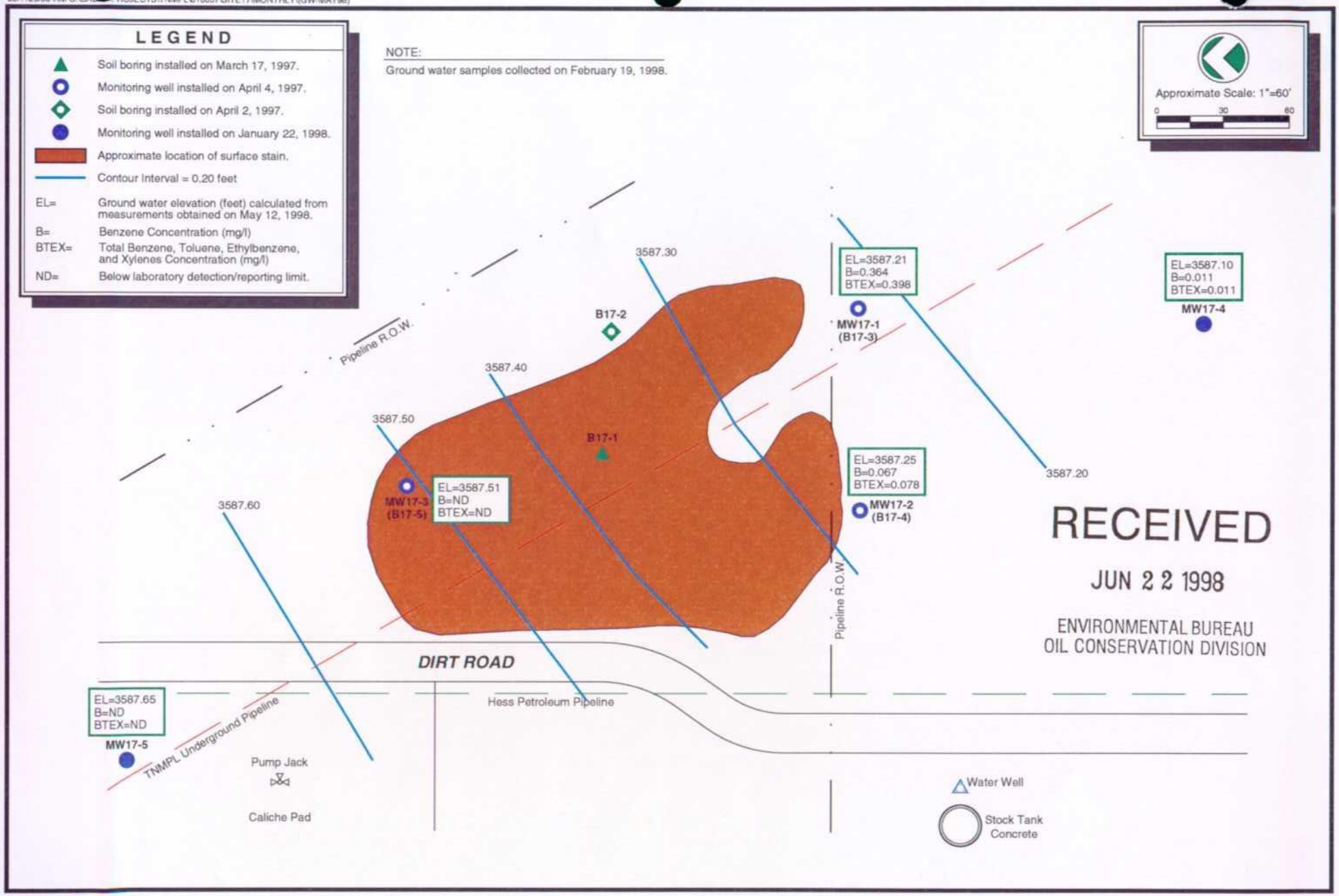
Date Validated: Mar 11, 1998 11:10
Date Analyzed: Mar 10, 1998 18:23
QA/QC Manager: Sunil Ajai, M.S.

Analyst: CG
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					MATRIX SPIKE ANALYSIS				
Q.C. Sample ID 180691- 004	[A] Sample Result	[B] Duplicate Result	[C] Detection Limit	[D] QC Relative Difference	[E] LIMITS Relative Difference	[F] Matrix Spike Result	[G] Matrix Spike Amount	[H] QC Matrix Spike Recovery	[I] LIMITS Recovery Range	[G] Qualifier
Parameter	mg/L	mg/L	mg/L	%	%	mg/L	mg/L	%	%	
Silver	< 0.044	< 0.044	0.044	N.C	25.0	< 0.044	0.89	N.C.	70-125	B
Sodium	65.37	68.23	0.11	4.3	25.0	69.21	8.9	43.2	70-125	A,B
Strontium	1.204	1.236	0.111	2.6	25.0	2.977	2.22	79.8	70-125	
Vanadium	< 0.033	< 0.033	0.033	N.C	25.0	0.930	1.11	83.7	70-125	
Zinc	< 0.033	< 0.033	0.033	N.C	25.0	0.923	1.11	83.1	70-125	

(A) High analyte concentration affects spike recovery.
(B) Post-digestion spike within acceptance limits.
Relative Difference [D] = 200*(B-A)/(B+A)
Matrix Spike Recovery [H] = 100*(F-A)/[G]
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
Technical Director



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OIL CONSERVATION DIVISION

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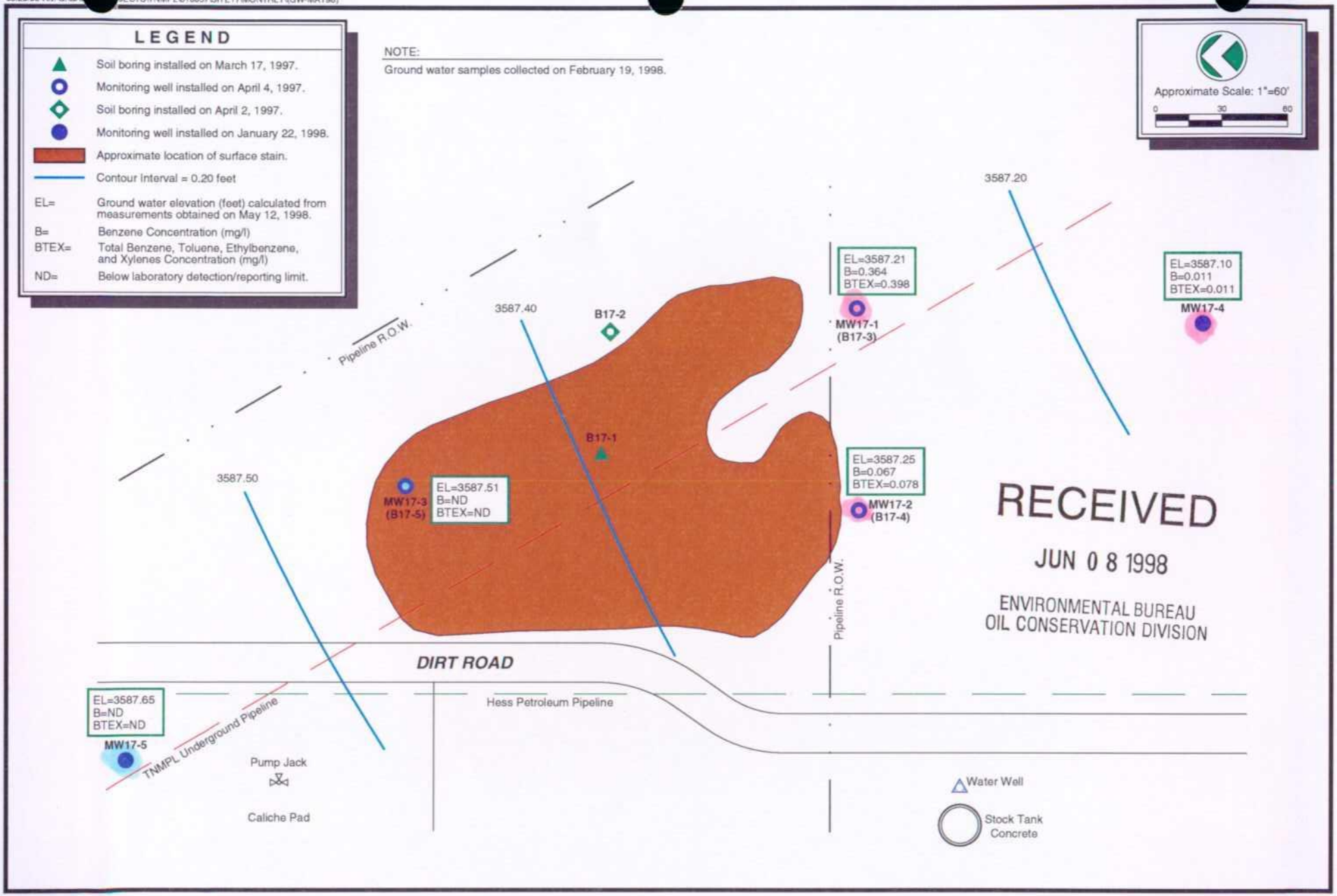
GROUND WATER CONTOURS / CONCENTRATION MAP - MAY 1998	610057
TEXAS - NEW MEXICO PIPE LINE CO. MONUMENT SITE NO. 17 LEA COUNTY, NEW MEXICO	FIG 1



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GROUND WATER CONTOURS / CONCENTRATION MAP - MAY 1998	610057
TEXAS - NEW MEXICO PIPE LINE CO. MONUMENT SITE NO. 17 LEA COUNTY, NEW MEXICO	FIG 1

GENERAL NOTES

ND - Indicates constituent was not detected above the method detection limit.
PSH - Phase-separated hydrocarbons.

Depth to water is referenced from the top of PVC elevation.

Ground water elevations in monitoring wells containing PSH have been corrected for PSH density. (Correction Factor = 0.85)

Method detection limits: BTEX - 0.001 to 0.008 mg/l

Laboratory test methods: BTEX - EPA Method SW846-8020, 5030

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TABLE I

SUMMARY OF LABORATORY RESULTS - GROUND WATER
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

MONITORING WELL NO.	DATE SAMPLED	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYL-BENZENE (mg/l)	XYLENES (mg/l)	BTEX (mg/l)
MW17-1	05/02/97	ND	ND	ND	ND	ND
MW17-1	08/27/97	0.740	0.013	0.221	0.046	1.020
MW17-1	11/01/97	0.143	0.003	0.021	0.015	0.182
MW17-1	02/19/98	0.043	0.001	0.002	ND	0.046
MW17-1	05/12/98	0.364	0.007	0.019	0.008	0.398
MW17-2	05/02/97	ND	ND	ND	ND	ND
MW17-2	08/27/97	0.980	0.278	0.229	0.091	1.578
MW17-2	11/01/97	0.194	0.050	0.049	0.033	0.326
MW17-2	02/19/98	0.174	0.066	0.047	0.025	0.312
MW17-2	05/12/98	0.067	0.009	0.002	ND	0.078
MW17-3	05/02/97	0.685	ND	0.071	0.016	0.772
MW17-3	08/27/97	0.828	ND	0.096	0.016	0.940
MW17-3	11/01/97	0.438	0.006	0.068	0.025	0.537
MW17-3	02/19/98	0.436	0.015	0.045	0.015	0.511
MW17-3	05/12/98	ND	ND	ND	ND	ND
MW17-4	02/19/98	ND	ND	ND	ND	ND
MW17-4	05/12/98	0.011	ND	ND	ND	0.011
MW17-5	02/19/98	ND	ND	ND	ND	ND
MW17-5	05/12/98	ND	ND	ND	ND	ND

TABLE II

MONITORING WELL MW17-1
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
04/30/97	3,607.03	19.82	3587.21	---	---
08/27/97	3,607.03	19.92	3587.11	---	---
10/23/97	3,607.03	19.85	3587.18	---	---
11/01/97	3,607.03	19.88	3587.15	---	---
12/03/97	3,607.03	20.87	3586.16	---	---
01/02/98	3,607.16	19.85	3587.31	---	---
02/06/98	3,607.16	19.87	3587.29	---	---
02/19/98	3,607.16	19.92	3587.24	---	---
03/04/98	3,607.16	19.89	3587.27	---	---
04/07/98	3,607.16	19.94	3587.22	---	---
05/12/98	3,607.16	19.95	3587.21	---	---

TABLE II
(continued)

MONITORING WELL MW17-2
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
04/30/97	3,606.96	19.69	3587.27	---	---
08/27/97	3,606.96	19.79	3587.17	---	---
10/23/97	3,606.96	19.70	3587.26	---	---
11/01/97	3,606.96	19.75	3587.21	---	---
12/03/97	3,606.96	19.75	3587.21	---	---
01/02/98	3,607.08	19.71	3587.37	---	---
02/06/98	3,607.08	19.74	3587.34	---	---
02/19/98	3,607.08	19.77	3587.31	---	---
03/04/98	3,607.08	19.74	3587.34	---	---
04/07/98	3,607.08	19.80	3587.28	---	---
05/12/98	3,607.08	19.83	3587.25	---	---

TABLE II
(continued)

MONITORING WELL MW17-3
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
04/30/97	3,608.31	20.79	3587.52	---	---
08/27/97	3,608.31	20.89	3587.42	---	---
10/23/97	3,608.31	20.81	3587.50	---	---
11/01/97	3,608.31	20.85	3587.46	---	---
12/03/97	3,608.31	19.89	3588.42	---	---
01/02/98	3,608.43	20.83	3587.60	---	---
02/06/98	3,608.43	20.86	3587.57	---	---
02/19/98	3,608.43	20.91	3587.52	---	---
03/04/98	3,608.43	20.85	3587.58	---	---
04/07/98	3,608.43	20.92	3587.51	---	---
05/12/98	3,608.43	20.92	3587.51	---	---

TABLE II
(continued)

MONITORING WELL MW17-4
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
02/06/98	3,606.12	18.95	3587.17	---	---
02/19/98	3,606.12	18.98	3587.14	---	---
03/04/98	3,606.12	18.96	3587.16	---	---
04/07/98	3,606.12	19.00	3587.12	---	---
05/12/98	3,606.12	19.02	3587.10	---	---

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OIL CONSERVATION DIVISION

TABLE II
(continued)

MONITORING WELL MW17-5
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
02/06/98	3,610.17	22.46	3587.71	---	---
02/19/98	3,610.17	22.49	3587.68	---	---
03/04/98	3,610.17	22.46	3587.71	---	---
04/07/98	3,610.17	22.52	3587.65	---	---
05/12/98	3,610.17	22.52	3587.65	---	---

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OIL CONSERVATION DIVISION

ANALYTICAL REPORT 1-81807

for

K.E.I. Consultants, Inc.

Project Manager: Theresa Nix

Project Name: TNMPL Monument St.#17

Project Id: 610057-6-17-0

May 19, 1998

XENCO Laboratories

HOUSTON - DALLAS - SAN ANTONIO

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Houston - Dallas - San Antonio - Latin America

May 19, 1998

Project Manager: Theresa Nix
K.E.I. Consultants, Inc.
5309 Wurzbach Rd. Suite 100
San Antonio, TX 78238

Reference: **XENCO Report No.: 1-81807**
Project Name: TNMPL Monument St.#17
Project ID: 610057-6-17-0
Project Address: Monument, NM

Dear Theresa Nix:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with XENCO Chain of Custody Number 1-81807. All results being reported to you apply only to the samples analyzed, properly identified with a Laboratory ID number. This letter documents the official transmission of the contents of the report and validates the information contained within.

All the results for the quality control samples passed thorough examination. Also, all parameters for data reduction and validation checked satisfactorily. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, completeness or properly flagged.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 3 years in our archives and after that time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. 1-81807 will be filed for 60 days, and after that time they will be properly disposed of without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

XENCO operates under the A2LA guidelines. Our Quality System meets ISO/IEC Guide 25 requirements which is strictly implemented and enforced through our standard QA/QC procedures.

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Sincerely,

Sunil Ajai, M.S.
Technical Director

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-81807

K.E.I. Consultants, Inc.

Project ID: 610057-6-17-0
Project Name: TNMPL Monument St.#17
Date Received in Lab : May 13, 1998 09:55
Project Manager: Theresa Nix
Date Report Faxed: May 19, 1998
Project Location: Monument, NM
XENCO contact : Carlos Castro/Edward Yonemoto

Analysis Requested	*Lab ID:*	181807 001	181807 002	181807 003	181807 004	181807 005
	Field ID:	MW-1	MW-2	MW-3	MW-4	MW-5
	Depth:					
	Matrix:	Liquid	Liquid	Liquid	Liquid	Liquid
	Sampled:	05/12/98 12:18	05/12/98 12:09	05/12/98 12:25	05/12/98 12:44	05/12/98 12:35
BTEX EPA 8020	*Analyzed:*	05/15/98	05/15/98	05/15/98	05/15/98	05/15/98
	Units:	ppm R.L.	ppm R.L.	ppm R.L.	ppm R.L.	ppm R.L.
Benzene		0.364 (0.004)	0.067 (0.001)	< 0.004 (0.004)	0.011 (0.001)	< 0.001 (0.001)
Toluene		0.007 (0.004)	0.009 (0.001)	< 0.004 (0.004)	< 0.001 (0.001)	< 0.001 (0.001)
Ethylbenzene		0.019 (0.004)	0.002 (0.001)	< 0.004 (0.004)	< 0.001 (0.001)	< 0.001 (0.001)
m,p-Xylenes		0.008 (0.008)	< 0.002 (0.002)	< 0.008 (0.008)	< 0.002 (0.002)	< 0.002 (0.002)
o-Xylene		< 0.004 (0.004)	< 0.001 (0.001)	< 0.004 (0.004)	< 0.001 (0.001)	< 0.001 (0.001)
Total BTEX		0.398	0.078	N.D.	0.011	N.D.

RECEIVED

JUN 0 8 1998

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Sunil Ajai, M.S.
Technical Director

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A25B46

SW- 846 5030/8020 BTEX

Date Validated: May 18, 1998 11:45
Date Analyzed: May 15, 1998 10:12
QA/QC Manager: Eddie Clemons, B.S.

Analyst: HL
Matrix: Liquid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Amount ppm	[D] Detection Limit ppm	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Benzene	< 0.0010	0.0970	0.1000	0.0010	97.0	65-135	
Toluene	< 0.0010	0.0957	0.1000	0.0010	95.7	65-135	
Ethylbenzene	< 0.0010	0.0979	0.1000	0.0010	97.9	65-135	
m,p-Xylenes	< 0.0020	0.2010	0.2000	0.0020	100.5	65-135	
o-Xylene	< 0.0010	0.0981	0.1000	0.0010	98.1	65-135	

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Spike Recovery [E] = 100*(B-A)/(C)
Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Sunil Ajai, M.S.
Technical Director

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A25B46

SW- 846 5030/8020 BTEX

Date Validated: May 18, 1998 11:45
Date Analyzed: May 15, 1998 10:51
QA/QC Manager: Eddie Clemons, B.S.

Analyst: HL
Matrix: Liquid

	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY										
Q.C. Sample ID 181807- 002 / **Parameter**	[A] Sample Result ppm	[B] Matrix Spike Result ppm	[C] Matrix Spike Duplicate Result ppm	[D] Matrix Spike Amount ppm	[E] Detection Limit ppm	Matrix Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Matrix Spike Recovery %	[H] QC M.S.D. Recovery %	[I] Matrix Spike Recovery Range %	[J] Qualifier
Benzene	0.0673	0.1600	0.1650	0.1000	0.0010	20.0	3.1	92.7	97.7	65-135	
Toluene	0.0088	0.1080	0.1130	0.1000	0.0010	20.0	4.5	99.2	104.2	65-135	
Ethylbenzene	0.0023	0.1020	0.1060	0.1000	0.0010	20.0	3.8	99.7	103.7	65-135	
m,p-Xylenes	< 0.0020	0.2030	0.2120	0.2000	0.0020	20.0	4.3	101.5	106.0	65-135	
o-Xylene	< 0.0010	0.0997	0.1040	0.1000	0.0010	20.0	4.2	99.7	104.0	65-135	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Matrix Spike Recovery [G] = 100*(B-A)/[D]
M.S.D. = Matrix Spike Duplicate
M.S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Sunil Ajai, M.S.
Technical Director

ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

K.E.I. Consultants, Inc.

Project ID: 610057-6-17-0
Project Manager: Theresa Nix
Project Location: Monument, NM

Project Name: TNMPL Monument St.#17

XENCO COC#: 1-81807
Date Received in Lab: May 13, 1998 09:55 by DH
XENCO contact : Carlos Castro/Edward Yonemoto

							Date and Time			
	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Sample Collected	Addition Requested	Extraction	Analysis
1	MW-1	181807-001	BTEX	SW-846	ppm	3 days	May 12, 1998 12:18		May 15, 1998 by HL	May 15, 1998 18:12 by HL
2	MW-2	181807-002	BTEX	SW-846	ppm	3 days	May 12, 1998 12:09		May 15, 1998 by HL	May 15, 1998 10:51 by HL
3	MW-3	181807-003	BTEX	SW-846	ppm	3 days	May 12, 1998 12:25		May 15, 1998 by HL	May 15, 1998 18:31 by HL
4	MW-4	181807-004	BTEX	SW-846	ppm	3 days	May 12, 1998 12:44		May 15, 1998 by HL	May 15, 1998 12:27 by HL
5	MW-5	181807-005	BTEX	SW-846	ppm	3 days	May 12, 1998 12:35		May 15, 1998 by HL	May 15, 1998 12:46 by HL

XENCO Laboratories

11381 Meadowglen Suite L Houston, Texas 77082
(713) 589-0692 Fax (713) 589-0695

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Page 1 of 1

Lab. Batch # 181607-SA

Contractor: Kleinfelder Consultants — Phone (210) 680-3767
Address: 5309 Interlock, Ste. 108 San Antonio, TX 78238
Project Name: TNMPL Monument Site 17 — Project Director: Mike Hawthorne
Project Location: Monument, NM — Project Manager: Theresa Nix
Sampler Signature: Stanley Flores — Project No.: 610057-6-17-0

No. coolers this shipment:
Carrier: UPS
Airbill No.
Contractor COC # 139
Quote #:
P.O. No.: 8968

SAMPLE CHARACTERIZATION

	Field ID	Date	Time	Depth	Soil	Water	Comp	Grab	Container Size	Container Type P, G	Preservative Ice	Preservative Other	No of Containers Total	BTEX (8020-602)	TPH (418.1)	Please Hold	Lab ID #
1	MW-1	12 may 98	12:18			X		X	40	ml	X	HCl	2	X			1
2	MW-2	12 may 98	12:09			X		X	40	ml	X	HCl	2	X			2
3	MW-3	12 may 98	12:25			X		X	40	ml	X	HCl	2	X			3
4	MW-4	12 may 98	12:44			X		X	40	ml	X	HCl	2	X			4
5	MW-5	12 may 98	12:35			X		X	40	ml	X	HCl	2	X			5
6																	6
7																	7
8																	8
9																	9
10																	10

Unl Dies Ker Unknown
Waste Oil
PIT No: Tank No:
Sample Description

Turn-around
* ASAP
* 24 hrs
48 hrs
Standard

Remarks

LAB ONLY

RECEIVED
JUN 08 1998
ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Relinquished by: (Signature)	DATE	TIME	Received by: (Signature)	DATE	TIME
Stanley Flores	5-12-98	1600			
			Received For Laboratory by:		
			[illegible]	5/13/98	0850

Remarks
FAX Analytical Result to Theresa Nix at: 210-680-3763
* BTEX EPA METHOD SW846-8020
(VIA UPS)

Pink (Contractor), Yellow & White (Lab).

* Pre-scheduling is recommended

Precision Analytical Services

5309 Wurzbach, Suite 100
San Antonio, Texas 78238
(210) 680-3767
(210) 680-3763 FAX

October 29, 1998

Mr. Tony Savoie
TEXAS - NEW MEXICO PIPE LINE COMPANY
P. O. Box 1030
Jal, New Mexico 88252

Re: Groundwater Monitoring Event
Texas - New Mexico Pipe Line Company
Monument Site No. 17
Monument, New Mexico
KEI Job No. 610057-6-17

Dear Mr. Savoie:

Transmitted with this letter is the ground water binder update packet for the third quarter of 1998 ground water monitoring event conducted at Monument Site No. 17, located near Monument, New Mexico. One copy has been submitted to OCD Hobbs and OCD Santa Fe.

The packet contains the following:

- Revised Table of Contents
- Updated gauging tables and general notes
- Updated ground water laboratory results tables
- Updated figures
- A copy of the laboratory ground water results and chain-of-custody documentation
- A dated "tab" for the new event

Please remove and replace the former Table of Contents and tables. Add the new dated tab and place the updated figures, laboratory reports, and chain-of-custody documentation behind this tab.

Please call me at (210) 680-3767 if you have any questions or comments.

Respectfully,

Theresa Nix

Theresa Nix
Project Manager

Enclosure

cc: Marc Oler, Equilon
J. Michael Hawthorne, KEI
OCD Hobbs
OCD Santa Fe, William Olson ✓

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GROUND WATER GRADIENT
PSH MONITORING

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CERTIFIED LABORATORY REPORTS
CHAIN-OF-CUSTODY DOCUMENTATION

TABLE I

SUMMARY OF LABORATORY RESULTS - GROUND WATER
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

MONITORING WELL NO.	DATE SAMPLED	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYL-BENZENE (mg/l)	XYLENES (mg/l)	BTEX (mg/l)
MW17-1	05/02/97	ND	ND	ND	ND	ND
MW17-1	08/27/97	0.740	0.013	0.221	0.046	1.020
MW17-1	11/01/97	0.143	0.003	0.021	0.015	0.182
MW17-1	02/19/98	0.043	0.001	0.002	ND	0.046
MW17-1	05/12/98	0.364	0.007	0.019	0.008	0.398
MW17-1	08/25/98	0.260	0.007	0.036	0.049	0.352
MW17-2	05/02/97	ND	ND	ND	ND	ND
MW17-2	08/27/97	0.980	0.278	0.229	0.091	1.578
MW17-2	11/01/97	0.194	0.050	0.049	0.033	0.326
MW17-2	02/19/98	0.174	0.066	0.047	0.025	0.312
MW17-2	05/12/98	0.067	0.009	0.002	ND	0.078
MW17-2	08/25/98	0.024	0.003	ND	ND	0.027
MW17-3	05/02/97	0.685	ND	0.071	0.016	0.772
MW17-3	08/27/97	0.828	ND	0.096	0.016	0.940
MW17-3	11/01/97	0.438	0.006	0.068	0.025	0.537
MW17-3	02/19/98	0.436	0.015	0.045	0.015	0.511
MW17-3	05/12/98	ND	ND	ND	ND	ND
MW17-3	08/25/98	0.084	0.002	0.001	ND	0.087
MW17-4	02/19/98	ND	ND	ND	ND	ND
MW17-4	05/12/98	0.011	ND	ND	ND	0.011
MW17-4	08/25/98	ND	ND	ND	ND	ND
MW17-5	02/19/98	ND	ND	ND	ND	ND
MW17-5	05/12/98	ND	ND	ND	ND	ND
MW17-5	08/25/98	ND	ND	ND	ND	ND
MW17-6	08/25/98	ND	ND	ND	ND	ND
MW17-7	08/25/98	0.086	ND	0.008	ND	0.094
MW17-8	08/25/98	ND	ND	ND	ND	ND
Windmill	08/25/98	ND	ND	ND	ND	ND

TABLE II

MONITORING WELL MW17-1
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
04/30/97	3,607.03	19.82	3587.21	—	—
08/27/97	3,607.03	19.92	3587.11	—	—
10/23/97	3,607.03	19.85	3587.18	—	—
11/01/97	3,607.03	19.88	3587.15	—	—
12/03/97	3,607.03	20.87	3586.16	—	—
01/02/98	3,607.16	19.85	3587.31	—	—
02/06/98	3,607.16	19.87	3587.29	—	—
02/19/98	3,607.16	19.92	3587.24	—	—
03/04/98	3,607.16	19.89	3587.27	—	—
04/07/98	3,607.16	19.94	3587.22	—	—
05/12/98	3,607.16	19.95	3587.21	—	—
06/01/98	3,607.16	19.94	3587.22	—	—
07/01/98	3,607.16	20.01	3587.15	—	—
08/25/98	3,607.16	20.04	3587.12	—	—
09/01/98	3,607.16	20.04	3587.12	—	—
09/23/98	3,607.16	20.08	3587.08	—	—
10/09/98	3,607.16	20.09	3587.07	—	—

TABLE II
(continued)

MONITORING WELL MW17-2
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
04/30/97	3,606.96	19.69	3587.27	—	—
08/27/97	3,606.96	19.79	3587.17	—	—
10/23/97	3,606.96	19.70	3587.26	—	—
11/01/97	3,606.96	19.75	3587.21	—	—
12/03/97	3,606.96	19.75	3587.21	—	—
01/02/98	3,607.08	19.71	3587.37	—	—
02/06/98	3,607.08	19.74	3587.34	—	—
02/19/98	3,607.08	19.77	3587.31	—	—
03/04/98	3,607.08	19.74	3587.34	—	—
04/07/98	3,607.08	19.80	3587.28	—	—
05/12/98	3,607.08	19.83	3587.25	—	—
06/01/98	3,607.08	19.82	3587.26	—	—
07/01/98	3,607.08	19.88	3587.20	—	—
08/25/98	3,607.08	19.91	3587.17	—	—
09/01/98	3,607.08	19.91	3587.17	—	—
09/23/98	3,607.08	19.96	3587.12	—	—
10/09/98	3,607.08	19.97	3587.11	—	—

TABLE II
(continued)

MONITORING WELL MW17-3
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
04/30/97	3,608.31	20.79	3587.52	—	—
08/27/97	3,608.31	20.89	3587.42	—	—
10/23/97	3,608.31	20.81	3587.50	—	—
11/01/97	3,608.31	20.85	3587.46	—	—
12/03/97	3,608.31	19.89	3588.42	—	—
01/02/98	3,608.43	20.83	3587.60	—	—
02/06/98	3,608.43	20.86	3587.57	—	—
02/19/98	3,608.43	20.91	3587.52	—	—
03/04/98	3,608.43	20.85	3587.58	—	—
04/07/98	3,608.43	20.92	3587.51	—	—
05/12/98	3,608.43	20.92	3587.51	—	—
06/01/98	3,608.43	20.92	3587.51	—	—
07/01/98	3,608.43	20.99	3587.44	—	—
08/25/98	3,608.43	21.04	3587.39	—	—
09/01/98	3,608.43	21.02	3587.41	—	—
09/23/98	3,608.43	21.06	3587.37	—	—
10/09/98	3,608.43	21.09	3587.34	—	—

TABLE II
(continued)

MONITORING WELL MW17-4
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
02/06/98	3,606.12	18.95	3587.17	—	—
02/19/98	3,606.12	18.98	3587.14	—	—
03/04/98	3,606.12	18.96	3587.16	—	—
04/07/98	3,606.12	19.00	3587.12	—	—
05/12/98	3,606.12	19.02	3587.10	—	—
06/01/98	3,606.12	19.02	3587.10	—	—
07/01/98	3,606.12	19.08	3587.04	—	—
08/25/98	3,606.12	19.11	3587.01	—	—
09/01/98	3,606.12	19.11	3587.01	—	—
09/23/98	3,606.12	19.14	3586.98	—	—
10/09/98	3,606.12	19.15	3586.97	—	—

TABLE II
(continued)

MONITORING WELL MW17-5
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
02/06/98	3,610.17	22.46	3587.71	—	—
02/19/98	3,610.17	22.49	3587.68	—	—
03/04/98	3,610.17	22.46	3587.71	—	—
04/07/98	3,610.17	22.52	3587.65	—	—
05/12/98	3,610.17	22.52	3587.65	—	—
06/01/98	3,610.17	22.51	3587.66	—	—
07/01/98	3,610.17	22.59	3587.58	—	—
08/25/98	3,610.17	22.65	3587.52	—	—
09/01/98	3,610.17	22.65	3587.52	—	—
09/23/98	3,610.17	22.66	3587.51	—	—
10/09/98	3,610.17	22.70	3587.47	—	—

TABLE II
(continued)

MONITORING WELL MW17-6
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
08/25/98	3,604.44	17.70	3586.74	—	—
09/01/98	3,604.44	17.71	3586.73	—	—
09/23/98	3,604.44	17.73	3586.71	—	—
10/09/98	3,604.44	17.75	3586.69	—	—

TABLE II
(continued)

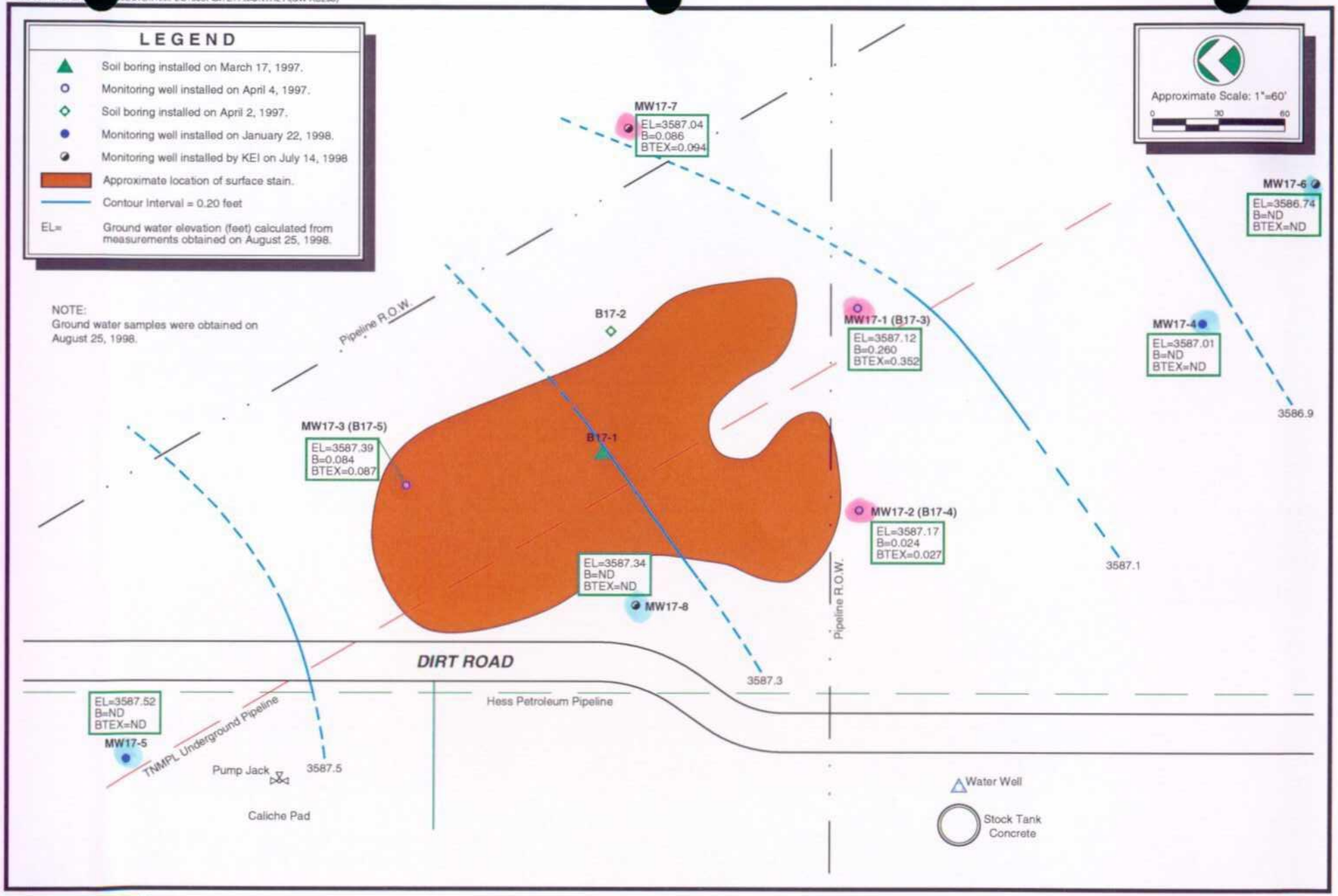
MONITORING WELL MW17-7
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
08/25/98	3,607.38	20.34	3587.04	—	—
09/01/98	3,607.38	20.35	3587.03	—	—
09/23/98	3,607.38	20.36	3587.02	—	—
10/09/98	3,607.38	20.30	3587.08	—	—

TABLE II
(continued)

MONITORING WELL MW17-8
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

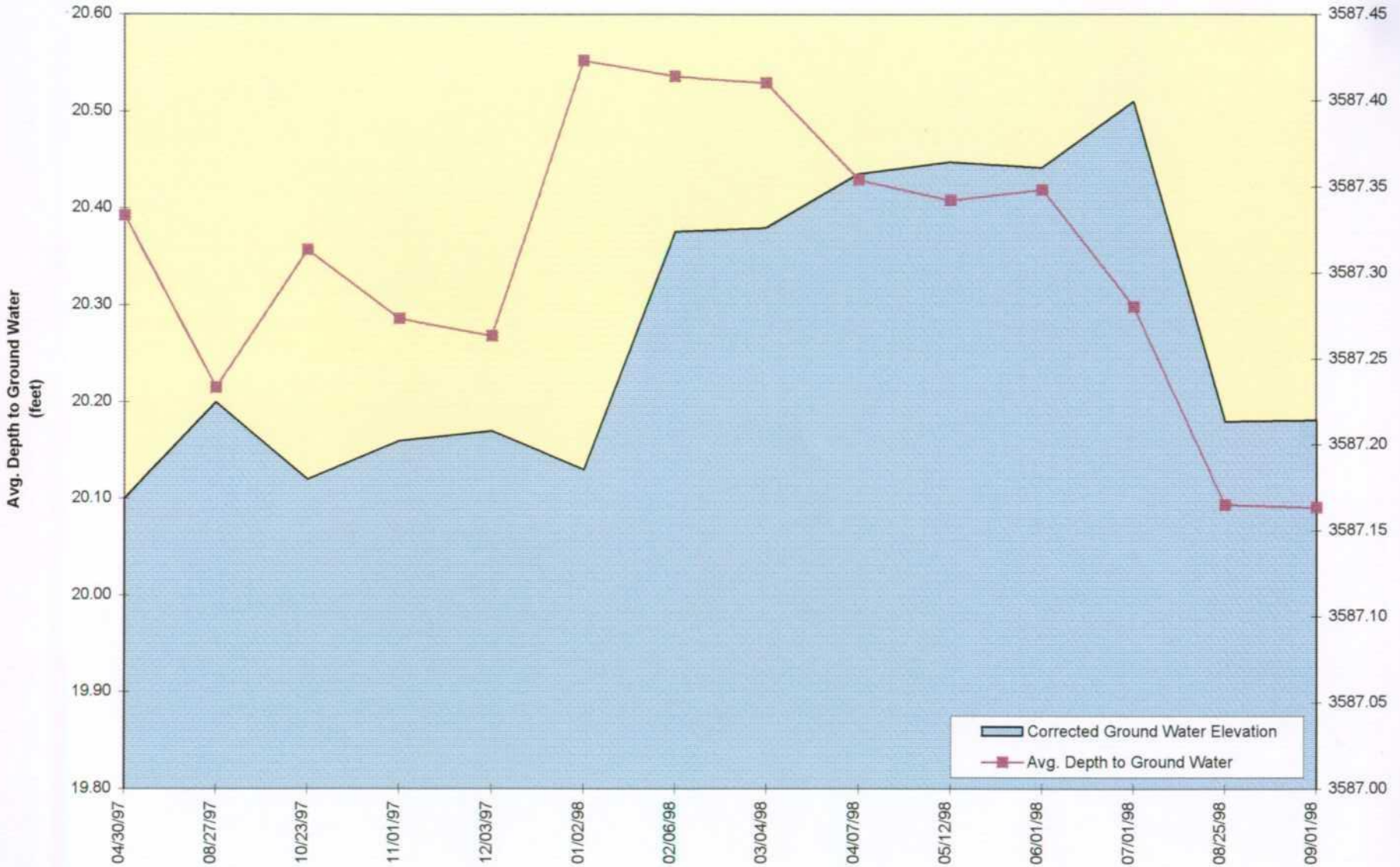
DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
08/25/98	3,607.99	20.65	3587.34	—	—
09/01/98	3,607.99	20.66	3587.33	—	—
09/23/98	3,607.99	20.68	3587.31	—	—
10/09/98	3,607.99	20.70	3587.29	—	—



k·e·i

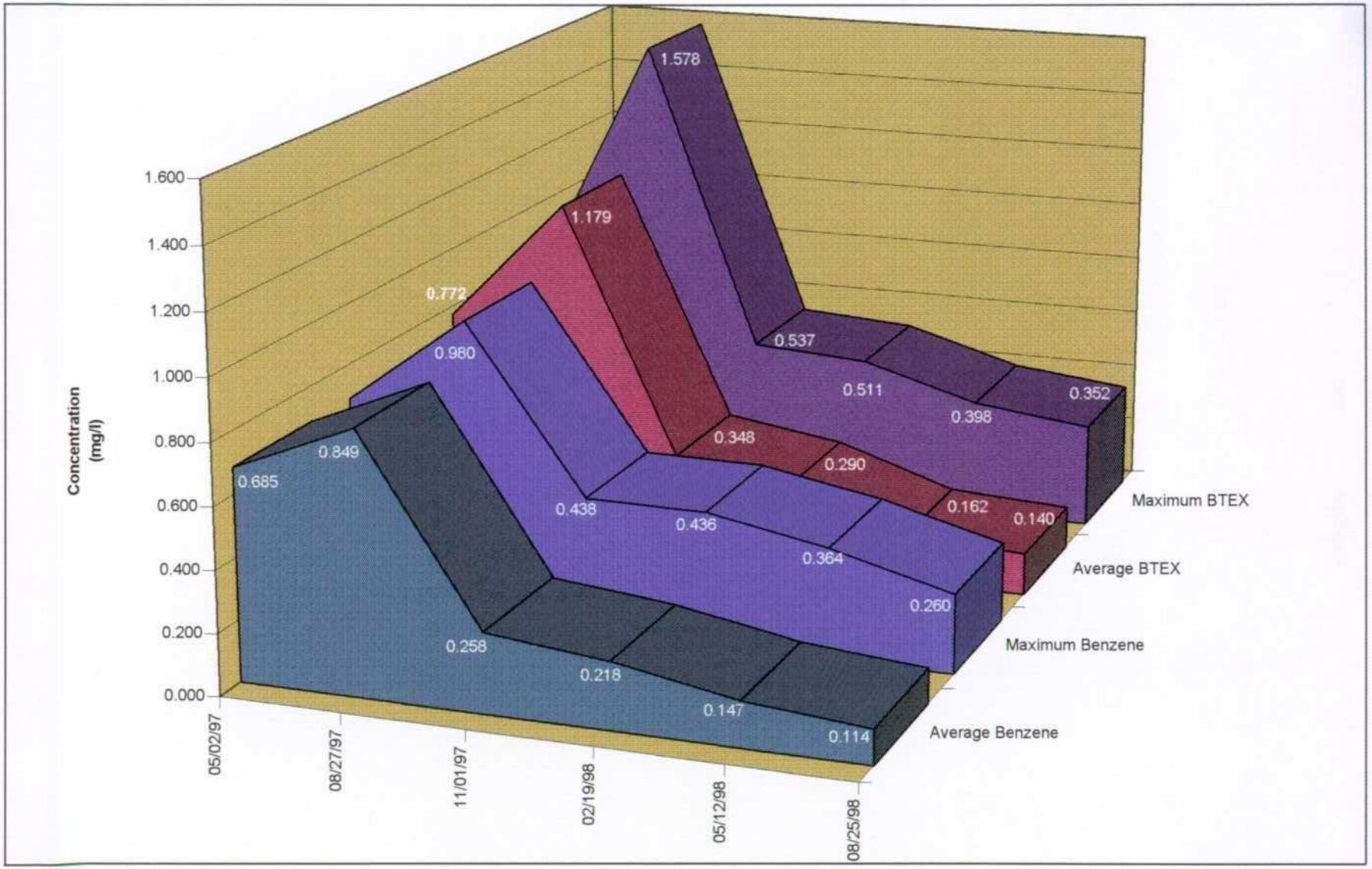
GROUND WATER CONTOURS / CONCENTRATION MAP - AUGUST 1998	610057
TEXAS - NEW MEXICO PIPE LINE CO. MONUMENT SITE NO. 17 LEA COUNTY, NEW MEXICO	FIG 1

FIGURE 2
AVERAGE GROUND WATER DATA



Site No. 17
Lea County, New Mexico
KEI Job No. 610057-6-17
p\tnmpl\610057\site17\monitor\sumaverg.xls

FIGURE 3
DISSOLVED PHASE CONCENTRATIONS



Site No. 17
Lea County, New Mexico
KEI Job No. 610057-6-17
p\tnmp\610057\site17\monitor\sumaverg.xls

ANALYTICAL REPORT 1-83308

for

K.E.I. Consultants, Inc.

Project Manager: Theresa Nix

Project Name: Monument Site 17

Project Id: 610057-6-17-0

September 18, 1998

XENCO Laboratories

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XENCO Laboratories

11381 Meadowglen Suite L
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Houston - Dallas - San Antonio - Latin America

September 18, 1998

Project Manager: Theresa Nix
K.E.I. Consultants, Inc.
5309 Wurzbach Rd. Suite 100
San Antonio, TX 78238

Reference: **XENCO Report No.: 1-83308**
Project Name: Monument Site 17
Project ID: 610057-6-17-0
Project Address: Monument, NM.

Dear Theresa Nix:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with XENCO Chain of Custody Number 1-83308. All results being reported to you apply only to the samples analyzed, properly identified with a Laboratory ID number. This letter documents the official transmission of the contents of the report and validates the information contained within.

All the results for the quality control samples passed thorough examination. Also, all parameters for data reduction and validation checked satisfactorily. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, completeness or properly flagged.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 3 years in our archives and after that time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. 1-83308 will be filed for 60 days, and after that time they will be properly disposed of without further notice. unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste. sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

XENCO operates under the A2LA guidelines. Our Quality System meets ISO/IEC Guide 25 requirements which is strictly implemented and enforced through our standard QA/QC procedures.

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Sincerely,

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-83308

K.E.I. Consultants, Inc.

Project ID: 610057-6-17-0 | ***Project Name: Monument Site 17*** | **Date Received in Lab :** Aug 26, 1998 11:50

Project Manager: Theresa Nix | **Date Report Faxed:** Sep 18, 1998

Project Location: Monument, NM. | **XENCO contact :** Carlos Castro/Eddie Clemons

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:* / *Matrix:* / *Sampled:*	183308 001 MW-1 Liquid 08/25/98	183308 002 MW-2 Liquid 08/25/98	183308 003 MW-3 Liquid 08/25/98	183308 004 MW-4 Liquid 08/25/98	183308 005 MW-5 Liquid 08/25/98	183308 006 MW-6 Liquid 08/25/98	
Metals by ICP EPA 6010	*Analyzed:* / *Units:*						09/04/98 mg/L	R.L.
Aluminum							< 0.5	(0.5)
Arsenic							< 0.10	(0.10)
Barium							0.22	(0.04)
Beryllium							< 0.02	(0.02)
Boron							< 0.20	(0.20)
Cadmium							< 0.01	(0.01)
Calcium							760	(0.5)
Chromium							< 0.05	(0.05)
Cobalt							< 0.05	(0.05)
Copper							< 0.10	(0.10)
Iron							0.27	(0.20)
Lead							< 0.05	(0.05)
Magnesium							24.1	(0.5)
Manganese							< 0.10	(0.10)
Molybdenum							< 0.40	(0.40)
Nickel							< 0.10	(0.10)
Potassium							4.69	(0.50)
Selenium							< 0.05	(0.05)
Silicon							22.8	(0.5)
Silver							< 0.04	(0.04)
Sodium							69.0	(0.5)
Strontium							1.93	(0.20)
Tin							< 0.20	(0.20)
Vanadium							< 0.10	(0.10)

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-83308

K.E.I. Consultants, Inc.

Project ID: 610057-6-17-0
Project Manager: Theresa Nix
Project Location: Monument, NM.

Project Name: Monument Site 17

Date Received in Lab : Aug 26, 1998 11:50
Date Report Faxed: Sep 18, 1998
XENCO contact : Carlos Castro/Eddie Clemons

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:* / *Matrix:* / *Sampled:*	183308 001 MW-1 Liquid 08/25/98	183308 002 MW-2 Liquid 08/25/98	183308 003 MW-3 Liquid 08/25/98	183308 004 MW-4 Liquid 08/25/98	183308 005 MW-5 Liquid 08/25/98	183308 006 MW-6 Liquid 08/25/98
Metals by ICP **EPA 6010**	*Analyzed:* / *Units:*						09/04/98 mg/L R.L.
Zinc							< 0.10 (0.10)
Total Mercury **EPA 7470**	*Analyzed:* / *Units:*						09/04/98 mg/L R.L.
Mercury							< 0.0011 (0.0011)
BTEX **EPA 8021B**	*Analyzed:* / *Units:*	08/27/98 ppm R.L.	08/27/98 ppm R.L.	08/27/98 ppm R.L.	08/27/98 ppm R.L.	08/27/98 ppm R.L.	08/27/98 ppm R.L.
Benzene		0.260 (0.001)	0.024 (0.001)	0.084 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)
Toluene		0.007 (0.001)	0.003 (0.001)	0.002 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)
Ethylbenzene		0.036 (0.001)	< 0.001 (0.001)	0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)
m,p-Xylenes		0.043 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)	< 0.002 (0.002)
o-Xylene		0.006 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)	< 0.001 (0.001)
Total BTEX		0.352	0.027	0.087	N.D.	N.D.	N.D.
PAHs by GC-MS **EPA 8270**	*Analyzed:* / *Units:*						08/30/98 mg/L R.L.
Acenaphthene							< 0.002 (0.002)
Acenaphthylene							< 0.002 (0.002)
Anthracene							< 0.002 (0.002)
Benz(a)anthracene							< 0.002 (0.002)
Benzo(a)pyrene							< 0.002 (0.002)
Benzo(b)fluoranthene							< 0.002 (0.002)
Benzo(g,h,i)perylene							< 0.002 (0.002)
Benzo(k)fluoranthene							< 0.002 (0.002)

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-83308

K.E.I. Consultants, Inc.

Project ID: 610057-6-17-0 | ***Project Name: Monument Site 17*** | **Date Received in Lab :** Aug 26, 1998 11:50

Project Manager: Theresa Nix | **Date Report Faxed:** Sep 18, 1998

Project Location: Monument, NM. | **XENCO contact :** Carlos Castro/Eddie Clemons

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:* / *Matrix:* / *Sampled:*	183308 001 MW-1 Liquid 08/25/98	183308 002 MW-2 Liquid 08/25/98	183308 003 MW-3 Liquid 08/25/98	183308 004 MW-4 Liquid 08/25/98	183308 005 MW-5 Liquid 08/25/98	183308 006 MW-6 Liquid 08/25/98	
PAHs by GC-MS **EPA 8270**	*Analyzed:* / *Units:*						08/30/98 mg/L	R.L.
Chrysene							< 0.002	(0.002)
Dibenz(a,h)anthracene							< 0.002	(0.002)
Fluoranthene							< 0.002	(0.002)
Fluorene							< 0.002	(0.002)
Indeno(1,2,3-cd)pyrene							< 0.002	(0.002)
Naphthalene							< 0.002	(0.002)
Phenanthrene							< 0.002	(0.002)
Pyrene							< 0.002	(0.002)
Bicarbonate **SM 4500CO2D**	*Analyzed:* / *Units:*						08/28/98 mg/L	R.L.
Bicarbonate							235	(4.0)
Carbonate **SM4500CO2D**	*Analyzed:* / *Units:*						08/28/98 mg/L	R.L.
Carbonate							< 4.0	(4.0)
Total Dissolved Solids **EPA 160.1**	*Analyzed:* / *Units:*						08/31/98 mg/L	R.L.
Total Dissolved Solids							772	(5.0)
Anions by Ion Chromatography **EPA 300.0**	*Analyzed:* / *Units:*						08/28/98 mg/L	R.L.
Chloride							164	(2)
Sulfate							67	(2)

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-83308

K.E.I. Consultants, Inc.

Project ID: 610057-6-17-0
Project Manager: Theresa Nix
Project Location: Monument, NM.

Project Name: Monument Site 17

Date Received in Lab : Aug 26, 1998 11:50
Date Report Faxed: Sep 18, 1998
XENCO contact : Carlos Castro/Eddie Clemons

Analysis Requested	*Lab ID:*	183308 007		183308 008		183308 009			
	Field ID:	MW-7		MW-8		Windmill			
	Depth:								
	Matrix:	Liquid		Liquid		Liquid			
	Sampled:	08/25/98		08/25/98		08/25/98			
Metals by ICP EPA 6010	*Analyzed:*	09/04/98		09/04/98					
	Units:	mg/L	R.L.	mg/L	R.L.				
Aluminum		< 0.50	(0.50)	0.69	(0.50)				
Arsenic		< 0.10	(0.10)	< 0.10	(0.10)				
Barium		0.18	(0.04)	0.50	(0.04)				
Beryllium		< 0.02	(0.02)	< 0.02	(0.02)				
Boron		0.21	(0.20)	0.20	(0.20)				
Cadmium		< 0.01	(0.01)	< 0.01	(0.01)				
Calcium		170	(0.5)	155	(0.5)				
Chromium		< 0.05	(0.05)	< 0.05	(0.05)				
Cobalt		< 0.05	(0.05)	< 0.05	(0.05)				
Copper		< 0.10	(0.10)	< 0.10	(0.10)				
Iron		< 0.20	(0.20)	0.45	(0.20)				
Lead		< 0.05	(0.05)	< 0.05	(0.05)				
Magnesium		21.2	(0.5)	28.0	(0.5)				
Manganese		< 0.10	(0.10)	0.26	(0.10)				
Molybdenum		< 0.40	(0.40)	< 0.40	(0.40)				
Nickel		< 0.10	(0.10)	< 0.10	(0.10)				
Potassium		4.22	(0.50)	3.96	(0.50)				
Selenium		< 0.05	(0.05)	< 0.05	(0.05)				
Silicon		19.8	(0.5)	20.5	(0.5)				
Silver		< 0.04	(0.04)	< 0.04	(0.04)				
Sodium		71.7	(0.5)	96.7	(0.5)				
Strontium		1.26	(0.20)	1.36	(0.20)				
Tin		< 0.20	(0.20)	< 0.20	(0.20)				
Vanadium		< 0.10	(0.10)	< 0.10	(0.10)				

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-83308

K.E.I. Consultants, Inc.

Project ID: 610057-6-17-0
Project Manager: *Theresa Nix*
Project Location: Monument, NM.

Project Name: Monument Site 17

Date Received in Lab : Aug 26, 1998 11:50
Date Report Faxed: Sep 18, 1998
XENCO contact : Carlos Castro/Eddie Clemons

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:* / *Matrix:* / *Sampled:*	183308 007 MW-7 Liquid 08/25/98	183308 008 MW-8 Liquid 08/25/98	183308 009 Windmill Liquid 08/25/98			
Metals by ICP EPA 6010	*Analyzed:* / *Units:*	09/04/98 mg/L R.L.	09/04/98 mg/L R.L.				
Zinc		0.28 (0.10)	< 0.10 (0.10)				
Total Mercury EPA 7470	*Analyzed:* / *Units:*	09/04/98 mg/L R.L.	09/04/98 mg/L R.L.				
Mercury		< 0.0011 (0.0011)	< 0.0011 (0.0011)				
BTEX EPA 8021B	*Analyzed:* / *Units:*	08/27/98 ppm R.L.	08/27/98 ppm R.L.	08/27/98 ppm R.L.			
Benzene		0.086 (0.004)	< 0.001 (0.001)	< 0.001 (0.001)			
Toluene		< 0.004 (0.004)	< 0.001 (0.001)	< 0.001 (0.001)			
Ethylbenzene		0.008 (0.004)	< 0.001 (0.001)	< 0.001 (0.001)			
m,p-Xylenes		< 0.008 (0.008)	< 0.002 (0.002)	< 0.002 (0.002)			
o-Xylene		< 0.004 (0.004)	< 0.001 (0.001)	< 0.001 (0.001)			
Total BTEX		0.094	N.D.	N.D.			
PAHs by GC-MS EPA 8270	*Analyzed:* / *Units:*	08/30/98 mg/L R.L.	08/30/98 mg/L R.L.				
Acenaphthene		< 0.002 (0.002)	< 0.002 (0.002)				
Acenaphthylene		< 0.002 (0.002)	< 0.002 (0.002)				
Anthracene		< 0.002 (0.002)	< 0.002 (0.002)				
Benz(a)anthracene		< 0.002 (0.002)	< 0.002 (0.002)				
Benzo(a)pyrene		< 0.002 (0.002)	< 0.002 (0.002)				
Benzo(b)fluoranthene		< 0.002 (0.002)	< 0.002 (0.002)				
Benzo(g,h,i)perylene		< 0.002 (0.002)	< 0.002 (0.002)				
Benzo(k)fluoranthene		< 0.002 (0.002)	< 0.002 (0.002)				

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-83308

K.E.I. Consultants, Inc.

Project ID: 610057-6-17-0
Project Manager: Theresa Nix
Project Location: Monument, NM.

Project Name: Monument Site 17

Date Received in Lab : Aug 26, 1998 11:50
Date Report Faxed: Sep 18, 1998
XENCO contact : Carlos Castro/Eddie Clemons

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:* / *Matrix:* / *Sampled:*	183308 007 MW-7 Liquid 08/25/98	183308 008 MW-8 Liquid 08/25/98	183308 009 Windmill Liquid 08/25/98			
PAHs by GC-MS EPA 8270	*Analyzed:* / *Units:*	08/30/98 mg/L R.L.	08/30/98 mg/L R.L.				
Chrysene		< 0.002 (0.002)	< 0.002 (0.002)				
Dibenz(a,h)anthracene		< 0.002 (0.002)	< 0.002 (0.002)				
Fluoranthene		< 0.002 (0.002)	< 0.002 (0.002)				
Fluorene		< 0.002 (0.002)	< 0.002 (0.002)				
Indeno(1,2,3-cd)pyrene		< 0.002 (0.002)	< 0.002 (0.002)				
Naphthalene		0.003 (0.002)	< 0.002 (0.002)				
Phenanthrene		< 0.002 (0.002)	< 0.002 (0.002)				
Pyrene		< 0.002 (0.002)	< 0.002 (0.002)				
Bicarbonate SM 4500CO2D	*Analyzed:* / *Units:*	08/28/98 mg/L R.L.	08/28/98 mg/L R.L.				
Bicarbonate		325 (4.0)	273 (4.0)				
Carbonate SM4500CO2D	*Analyzed:* / *Units:*	08/28/98 mg/L R.L.	08/28/98 mg/L R.L.				
Carbonate		< 4.0 (4.0)	< 4.0 (4.0)				
Total Dissolved Solids EPA 160.1	*Analyzed:* / *Units:*	08/31/98 mg/L R.L.	08/31/98 mg/L R.L.				
Total Dissolved Solids		719 (5.0)	743 (5.0)				
Anions by Ion Chromatography EPA 300.0	*Analyzed:* / *Units:*	08/28/98 mg/L R.L.	08/28/98 mg/L R.L.				
Chloride		177 (2)	86 (20)				
Sulfate		48 (2)	1550 (20)				

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A25C95

SW- 846 5030/8021B BTEX

Date Validated: Aug 28, 1998 11:30
Date Analyzed: Aug 27, 1998 11:08

Analyst: HL
Matrix: Liquid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Amount ppm	[D] Detection Limit ppm	[E] QC LIMITS Blank Spike Recovery %	[F] Recovery Range %	[G] Qualifier
Benzene	< 0.0010	0.1030	0.1000	0.0010	103.0	65-135	
Toluene	< 0.0010	0.1010	0.1000	0.0010	101.0	65-135	
Ethylbenzene	< 0.0010	0.0993	0.1000	0.0010	99.3	65-135	
m,p-Xylenes	< 0.0020	0.2080	0.2000	0.0020	104.0	65-135	
o-Xylene	< 0.0010	0.1050	0.1000	0.0010	105.0	65-135	

[redacted]pike Recovery [E] = 100*(B-A)/(C)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A25C95

SW- 846 5030/8021B BTEX

Date Validated: Aug 28, 1998 11:30
Date Analyzed: Aug 27, 1998 11:40

Analyst: HL
Matrix: Liquid

MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY

Q.C. Sample ID 183286- 001 / Parameter	[A] Sample Result ppm	[B] Matrix Spike Result ppm	[C] Matrix Spike Duplicate Result ppm	[D] Matrix Spike Amount ppm	[E] Detection Limit ppm	Matrix Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Matrix Spike Recovery %	[H] QC M.S.D. Recovery %	[I] Matrix Spike Recovery Range %	[J] Qualifier
Benzene	< 0.0010	0.1020	0.1060	0.1000	0.0010	20.0	3.8	102.0	106.0	65-135	
Toluene	< 0.0010	0.1140	0.1190	0.1000	0.0010	20.0	4.3	114.0	119.0	65-135	
Ethylbenzene	< 0.0010	0.1120	0.1170	0.1000	0.0010	20.0	4.4	112.0	117.0	65-135	
m,p-Xylenes	< 0.0020	0.2340	0.2430	0.2000	0.0020	20.0	3.8	117.0	121.5	65-135	
o-Xylene	< 0.0010	0.1180	0.1230	0.1000	0.0010	20.0	4.1	118.0	123.0	65-135	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Matrix Spike Recovery [G] = 100*(B-A)/[D]
M.S.D. = Matrix Spike Duplicate
M.S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A25C85

EPA 602 BTEX

Date Validated: Aug 20, 1998 17:30
Date Analyzed: Aug 20, 1998 10:17

Analyst: HL
Matrix: Liquid

BLANK SPIKE ANALYSIS

Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Amount ppm	[D] Detection Limit ppm	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Benzene	< 0.0010	0.0959	0.1000	0.0010	95.9	70-125	
Toluene	< 0.0010	0.0925	0.1000	0.0010	92.5	70-125	
Ethylbenzene	< 0.0010	0.1000	0.1000	0.0010	100.0	70-125	
m,p-Xylenes	< 0.0020	0.1970	0.2000	0.0020	98.5	70-125	
o-Xylene	< 0.0010	0.0924	0.1000	0.0010	92.4	70-125	

Bla[redacted]pike Recovery [E] = 100*(B-A)/(C)
N.C[redacted]lot calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A25C85

EPA 602 BTEX

Date Validated: Aug 20, 1998 17:30
Date Analyzed: Aug 20, 1998 11:22

Analyst: HL
Matrix: Liquid

	MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY										
Q.C. Sample ID 183195- 001	[A] Sample Result	[B] Matrix Spike Result	[C] Matrix Spike Duplicate Result	[D] Matrix Spike Amount	[E] Detection Limit	Matrix Limit Relative Difference	[F] QC Spike Relative Difference	[G] QC Matrix Spike Recovery	[H] QC M.S.D. Recovery	[I] Matrix Spike Recovery Range	[J] Qualifier
Parameter	ppm	ppm	ppm	ppm	ppm	%	%	%	%	%	
Benzene	< 0.0010	0.0918	0.0952	0.1000	0.0010	20.0	3.6	91.8	95.2	70-125	
Toluene	< 0.0010	0.0912	0.0941	0.1000	0.0010	20.0	3.1	91.2	94.1	70-125	
Ethylbenzene	< 0.0010	0.0960	0.0995	0.1000	0.0010	20.0	3.6	96.0	99.5	70-125	
m,p-Xylenes	< 0.0020	0.1920	0.2000	0.2000	0.0020	20.0	4.1	96.0	100.0	70-125	
o-Xylene	< 0.0010	0.0906	0.0945	0.1000	0.0010	20.0	4.2	90.6	94.5	70-125	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Matrix Spike Recovery [G] = 100*(B-A)/[D]
M S D. = Matrix Spike Duplicate
M S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A34D97

SW846-8270 PAHs by GC-MS (610 List)

Date Validated: Sep 1, 1998 14:05
Date Analyzed: Aug 29, 1998 16:35

Analyst: LC
Matrix: Liquid

BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY

Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Duplicate Result mg/L	[D] Blank Spike Amount mg/L	[E] Detection Limit mg/L	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifier
Acenaphthene	< 0.0020	0.0355	0.0382	0.0500	0.0020	31.0	7.3	71.0	76.4	46-118	
4-Chloro-3-methylphenol	< 0.0020	0.0318	0.0356	0.0500	0.0020	42.0	11.3	63.6	71.2	23-97	
2-Chlorophenol	< 0.0020	0.0403	0.0429	0.0500	0.0020	40.0	6.3	80.6	85.8	27-123	
1,4-Dichlorobenzene	< 0.0020	0.0427	0.0454	0.0500	0.0020	28.0	6.1	85.4	90.8	36-97	
2,4-Dinitrotoluene	< 0.0020	0.0344	0.0371	0.0500	0.0020	38.0	7.6	68.8	74.2	24-96	
N-Nitrosodi-n-propylamine	< 0.0040	0.0445	0.0492	0.0500	0.0040	38.0	10.0	89.0	98.4	41-116	
4-Nitrophenol	< 0.0040	0.0303	0.0327	0.0500	0.0040	50.5	7.6	60.6	65.4	10-80	
Pentachlorophenol	< 0.0010	0.0314	0.0350	0.0500	0.0010	50.0	10.8	62.8	70.0	9-103	
Phenol	< 0.0010	0.0349	0.0380	0.0500	0.0010	42.0	8.5	69.8	76.0	12-89	
Pyrene	< 0.0020	0.0393	0.0442	0.0500	0.0020	31.0	11.7	78.6	88.4	26-127	
1,2,4-Trichlorobenzene	< 0.0010	0.0387	0.0407	0.0500	0.0010	28.0	5.0	77.4	81.4	39-98	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Blank Spike Recovery [G] = 100*(B-A)/[D]
B.S.D. = Blank Spike Duplicate
B.S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A20B52

SM 4500C02D Bicarbonate

Date Validated: Aug 28, 1998 16:58
Date Analyzed: Aug 28, 1998 14:15

Analyst: IF
Matrix: Liquid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Amount mg/L	[D] Detection Limit mg/L	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Bicarbonate	< 4.00	240	250	4.00	96.0	70-125	

Blank Spike Recovery [E] = 100*(B-A)/(C)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A20B52

SM 4500CO2D Bicarbonate

Date Validated: Aug 28, 1998 16:58
Date Analyzed: Aug 28, 1998 15:05

Analyst: IF
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 183308- 006	[A] Sample Result	[B] Duplicate Result	[C]	[D] QC	[E] LIMITS	[F]
Parameter			Detection Limit	Relative Difference	Relative Difference	Qualifier
	mg/L	mg/L	mg/L	%	%	
Bicarbonate	235	232	4.00	1.3	25.0	

Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch - 18A20B53

SM4500CO2D Carbonate

Date Validated: Aug 28, 1998 16:58
Date Analyzed: Aug 28, 1998 14:55

Analyst: IF
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 183308- 006	[A] Sample Result	[B] Duplicate Result	[C] Detection Limit	[D] QC Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	mg/L	mg/L	mg/L	%	%	
Carbonate	< 4.00	< 4.00	4.00	N.C	25.0	

Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch = 18A19C65

EPA 160.1 Total Dissolved Solids

Date Validated: Aug 31, 1998 17:40
Date Analyzed: Aug 31, 1998 10:25

Analyst: IF
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 183308- 006	[A] Sample Result	[B] Duplicate Result	[C]	[D] QC	[E] LIMITS	[F]
Parameter			Detection Limit	Relative Difference	Relative Difference	Qualifier
	mg/L	mg/L	mg/L	%	%	
Total Dissolved Solids	772	729	5.00	5.7	25.0	

Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A19C65

EPA 160.1 Total Dissolved Solids

Date Validated: Aug 31, 1998 17:40
Date Analyzed: Aug 31, 1998 09:35

Analyst: IF
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 183232- 002	[A] Sample Result	[B] Duplicate Result	[C] Detection Limit	[D] QC Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	mg/L	mg/L	mg/L	%	%	
Total Dissolved Solids	867	813	5.00	6.4	25.0	

Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A10C03

EPA 300.0 Anions by Ion Chromatography

Date Validated: Aug 29, 1998 09:53
Date Analyzed: Aug 27, 1998 23:48

Analyst: OR
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 183312- 004	[A] Sample Result	[B] Duplicate Result	[C] Detection Limit	[D] QC Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	mg/L	mg/L	mg/L	%	%	
Nitrate	< 1.00	< 1.00	1.00	N.C	20.0	
Sulfate	100	94.50	1.00	5.7	20.0	

Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A10C03

EPA 300.0 Anions by Ion Chromatography

Date Validated: Aug 29, 1998 09:53
Date Analyzed: Aug 28, 1998 02:06

Analyst: OR
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 183308- 008	[A] Sample Result	[B] Duplicate Result	[C] Detection Limit	[D] QC Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	mg/L	mg/L	mg/L	%	%	
Chloride	86	91	20	5.6	20.0	
Sulfate	1550	1640	20	5.6	20.0	

Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A10C03

EPA 300.0 Anions by Ion Chromatography

Date Validated: Aug 29, 1998 09:53
Date Analyzed: Aug 27, 1998 19:49

Analyst: OR
Matrix: Liquid

BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY

Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Duplicate Result mg/L	[D] Blank Spike Amount mg/L	[E] Detection Limit mg/L	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifier
Chloride	< 0.20	5.64	5.94	5.00	0.20	20.0	5.2	112.8	118.8	70-125	
Nitrate	< 0.20	4.64	5.11	5.00	0.20	20.0	9.6	92.8	102.2	70-125	
Sulfate	< 0.20	5.07	5.60	5.00	0.20	20.0	9.9	101.4	112.0	70-125	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Blank Spike Recovery [G] = 100*(B-A)/[D]
B.S.D. = Blank Spike Duplicate
B.S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

ANALYTICAL CHAIN CUSTODY REPORT
CHRONOLOGY OF SAMPLES

K.E.I. Consultants, Inc.

Project ID: 610057-6-17-0
Project Manager: Theresa Nix
Project Location: Monument, NM.

Project Name: Monument Site 17

XENCO COC#: 1-83308
Date Received in Lab: Aug 26, 1998 11:50 by JO
XENCO contact : Carlos Castro/Eddie Clemons

	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Date and Time: Sample Collected	Date and Time: Addition Requested	Date and Time: Extraction	Date and Time: Analysis
1	MW-1	183308-001	BTEX	SW-846	ppm	10 days	Aug 25, 1998		Aug 27, 1998 by HL	Aug 27, 1998 14:28 by HL
2	MW-2	183308-002	BTEX	SW-846	ppm	10 days	Aug 25, 1998		Aug 27, 1998 by HL	Aug 27, 1998 17:57 by HL
3	MW-3	183308-003	BTEX	SW-846	ppm	10 days	Aug 25, 1998		Aug 27, 1998 by HL	Aug 27, 1998 17:09 by HL
4	MW-4	183308-004	BTEX	SW-846	ppm	10 days	Aug 25, 1998		Aug 27, 1998 by HL	Aug 27, 1998 16:04 by HL
5	MW-5	183308-005	BTEX	SW-846	ppm	10 days	Aug 25, 1998		Aug 27, 1998 by HL	Aug 27, 1998 17:25 by HL
6	MW-6	183308-006	BTEX	SW-846	ppm	10 days	Aug 25, 1998		Aug 27, 1998 by HL	Aug 27, 1998 16:20 by HL
7			PAHs	SW846-8270	mg/L	10 days	Aug 25, 1998		Aug 27, 1998 by SS	Aug 30, 1998 03:15 by LC
8			Metals (ICP)	EPA 6010	mg/L	10 days	Aug 25, 1998		Sep 2, 1998 by AO	Sep 4, 1998 13:33 by CG
9			TDS	EPA 160.1	mg/L	10 days	Aug 25, 1998		Aug 28, 1998 by IF	Aug 31, 1998 10:20 by IF
10			Carbonate	SM4500CO2D	mg/L	10 days	Aug 25, 1998		Aug 28, 1998 by IF	Aug 28, 1998 14:55 by IF
11			Bicarbonate	SM 4500CO2D	mg/L	10 days	Aug 25, 1998		Aug 28, 1998 by IF	Aug 28, 1998 14:55 by IF
12			Anions	EPA 300.0	mg/L	10 days	Aug 25, 1998		Aug 28, 1998 by OR	Aug 28, 1998 01:22 by OR
13			Mercury, Tot	SW846-7470	mg/L	Standard	Aug 25, 1998		Sep 2, 1998 by AO	Sep 4, 1998 19:21 by CG
14	MW-7	183308-007	BTEX	SW-846	ppm	10 days	Aug 25, 1998		Aug 27, 1998 by HL	Aug 27, 1998 18:13 by HL
15			PAHs	SW846-8270	mg/L	10 days	Aug 25, 1998		Aug 27, 1998 by SS	Aug 30, 1998 06:59 by LC
16			Metals (ICP)	EPA 6010	mg/L	10 days	Aug 25, 1998		Sep 2, 1998 by AO	Sep 4, 1998 14:00 by CG
17			TDS	EPA 160.1	mg/L	10 days	Aug 25, 1998		Aug 28, 1998 by IF	Aug 31, 1998 10:30 by IF
18			Carbonate	SM4500CO2D	mg/L	10 days	Aug 25, 1998		Aug 28, 1998 by IF	Aug 28, 1998 15:15 by IF
19			Bicarbonate	SM 4500CO2D	mg/L	10 days	Aug 25, 1998		Aug 28, 1998 by IF	Aug 28, 1998 15:15 by IF
20			Anions	EPA 300.0	mg/L	10 days	Aug 25, 1998		Aug 28, 1998 by OR	Aug 28, 1998 02:53 by OR
21			Mercury, Tot	SW846-7470	mg/L	Standard	Aug 25, 1998		Sep 2, 1998 by AO	Sep 4, 1998 19:20 by CG
22	MW-8	183308-008	BTEX	SW-846	ppm	10 days	Aug 25, 1998		Aug 27, 1998 by HL	Aug 27, 1998 16:36 by HL
23			PAHs	SW846-8270	mg/L	10 days	Aug 25, 1998		Aug 27, 1998 by SS	Aug 30, 1998 04:00 by LC
24			Metals (ICP)	EPA 6010	mg/L	10 days	Aug 25, 1998		Sep 2, 1998 by AO	Sep 4, 1998 14:09 by CG
25			TDS	EPA 160.1	mg/L	10 days	Aug 25, 1998		Aug 28, 1998 by IF	Aug 31, 1998 10:35 by IF
26			Carbonate	SM4500CO2D	mg/L	10 days	Aug 25, 1998		Aug 28, 1998 by IF	Aug 28, 1998 15:25 by IF
27			Bicarbonate	SM 4500CO2D	mg/L	10 days	Aug 25, 1998		Aug 28, 1998 by IF	Aug 28, 1998 15:25 by IF
28			Anions	EPA 300.0	mg/L	10 days	Aug 25, 1998		Aug 28, 1998 by OR	Aug 28, 1998 02:06 by OR

XENCO Laboratories

ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

K.E.I. Consultants, Inc.

Project ID: 610057-6-17-0
Project Manager: Theresa Nix
Project Location: Monument, NM.

Project Name: Monument Site 17

XENCO COC#: 1-83308
Date Received in Lab: Aug 26, 1998 11:50 by JO
XENCO contact : Carlos Castro/Eddie Clemons

	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Date and Time: Sample Collected	Date and Time: Addition Requested	Date and Time: Extraction	Date and Time: Analysis
29			Mercury, Tot	SW846-7470	mg/L	Standard	Aug 25, 1998		Sep 2, 1998 by AO	Sep 4, 1998 19:22 by CG
30	Windmill	183308-009	BTEX	SW-846	ppm	10 days	Aug 25, 1998		Aug 27, 1998 by HL	Aug 27, 1998 16:52 by HL

XENCC Laboratories

☐ 11381 Meadowglen, Suite L, Houston TX 77082 281-589-0692
☑ 5309 Wurzbach Road, Suite 104, San Antonio, TX 78238 210-509-3334
☐ 11078 Morrison Road, Suite D, Dallas, TX 75229 972-481-9999

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

On-LINE Help & Technical Services at XENCO.com

Company COC No: 176 **Work Order No:** 0063 Page 1 of 1

Company K·e·i	**Phone** 210-680-3767
Project Name Monument Site 17 ☑ Previously done at XENCO	**Project ID** 610057-6-17-0
Location Monument, NM	
Project Manager (PM) Theresa Nix	**Project Director (PD)** Mike Hawthorne
Fax Results to ☑ PM and / or	**Fax** 512-364-3556
Invoice to ☑ Accounting ☐ Include Invoice with Final Report Attn PM ☐ Invoice must have a P.O Bill to: 610057-6-17-0	
Quote No.	**P.O No** 610057-6-17 ☐ Call for a P.O.
Special DLs (RR I RR II DW QAPP See Lab PM Call Proj. PM)	
Specifications	

Lab Only: 183308-SA

TAT: 5h 12h 20h 24h 48h 3d 5d 7d 14d 21d (Standard TAT is 10 Working Days unless otherwise agreed in writing. But often reported in 5-7 Working Days)

Sampler Name Stas Grovel Signature Stas Grovel

	Sample ID	Sampling Date	Time	Depth (ft/in)	Matrix (A P S W)	Composite	Grab	# Containers	Container Size	Type	Preservatives	BTEX by 8021 / 8260	BTEX-MTBE by 8020 / 8021 / 8260	TPH by TX1005 / 418.1 / 8015GRO / 8015DRO / 8015JetF	PAHs by 8270 / 8100 / 8310	METALS by 6010 8RCRA Tot Pb TCLP8 13PP 23TAL See List / 1133 SCAN	VOAs by 8260 624 BTEX MTBE PPs TCL See List Call PM	SVOAs by 8270 625 PAHs BN&A TCL PPs See List Call PM	Other 624 602	Other 624 602	TDS - 160.1	Cations/Anions
1	MW-1	8-25-98						2	40mL													
2	MW-2							2														
3	MW-3							2														
4	MW-4							2														
5	MW-5							2														
6	MW-6							6	40mL 3-1 Liters													
7	MW-7							6	VOA, P													
8	MW-8	↓					↓	6				↓			↓	↓					↓	↓
9	Windmill	↓					↓	2	VOAs			↓										
10																						

	Relinquished by (Initials and Signature)	Relinquished to (Initials and Signature)	Date & Time
1			8/25/98 1600
2			
3		Lab: Johnny Orona	8/26/98 11:50

Total Containers per COC:
Rush TATs Fax Due: Final Fax Due:
Final Report Data Package Due Date:
Rush Charges are Pre-Approved upon Requesting them. All Terms Apply

Remarks

C.C.

Lab Only Additions

From:	From:	From:	
Rcv by:	Rcv by:	Rcv by:	
Date	Date	Date	

Preservatives - Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO4 pH<2 (N), NaOH+Asbc Acid (NAA), ZnAc+NaOH (ZA), (Cool,<4C) (C4), None (N), See Label (SL), Other (O) _____

SIZE: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (V), 1l. (1), 500ml (.5), Tedlar Bag (B), Wipe (W), Other _____ **TYPE** Glass Amb (GA), Glass Clear (GC), Plastic (P), Other (O) _____

k·e·i
5309 Wurzbach, Suite 100
San Antonio, Texas 78238
(210) 680-3767
(210) 680-3763 FAX

December 28, 1998

Mr. Tony Savoie
TEXAS - NEW MEXICO PIPE LINE COMPANY
P. O. Box 1030
Jal, New Mexico 88252

Re: Groundwater Monitoring Event
Texas - New Mexico Pipe Line Company
Monument Site No. 17
Monument, New Mexico
KEI Job No. 610057-6-17

Dear Mr. Savoie:

Transmitted with this letter is the ground water binder update packet for the fourth quarter of 1998 ground water monitoring event conducted at Monument Site No. 17, located near Monument, New Mexico. One copy has been submitted to OCD Hobbs and OCD Santa Fe.

The packet contains the following:

- Updated gauging tables
- Updated ground water laboratory results tables
- Updated figures
- A copy of the laboratory ground water results and chain-of-custody documentation
- A dated "tab" for the new event

Please remove and replace the former tables. Add the new dated tab and place the updated figures, laboratory reports, and chain-of-custody documentation behind this tab.

Please call me at (210) 680-3767 if you have any questions or comments.

Respectfully,

Theresa Nix

Theresa Nix
Project Manager

Enclosure

cc: Marc Oler, Equilon
J. Michael Hawthorne, KEI
OCD Hobbs
OCD Santa Fe, William Olson

p:\tnmpl\610057\site17\monitor\cgwb4q98.doc

TABLE I

SUMMARY OF LABORATORY RESULTS - GROUND WATER
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

MONITORING WELL NO.	DATE SAMPLED	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYL-BENZENE (mg/l)	XYLENES (mg/l)	BTEX (mg/l)
MW17-1	05/02/97	ND	ND	ND	ND	ND
MW17-1	08/27/97	0.740	0.013	0.221	0.046	1.020
MW17-1	11/01/97	0.143	0.003	0.021	0.015	0.182
MW17-1	02/19/98	0.043	0.001	0.002	ND	0.046
MW17-1	05/12/98	0.364	0.007	0.019	0.008	0.398
MW17-1	08/25/98	0.260	0.007	0.036	0.049	0.352
MW17-1	11/04/98	0.206	0.01	0.025	0.04	0.281
MW17-2	05/02/97	ND	ND	ND	ND	ND
MW17-2	08/27/97	0.980	0.278	0.229	0.091	1.578
MW17-2	11/01/97	0.194	0.050	0.049	0.033	0.326
MW17-2	02/19/98	0.174	0.066	0.047	0.025	0.312
MW17-2	05/12/98	0.067	0.009	0.002	ND	0.078
MW17-2	08/25/98	0.024	0.003	ND	ND	0.027
MW17-2	11/04/98	0.018	0.004	0.002	0.004	0.028
MW17-3	05/02/97	0.685	ND	0.071	0.016	0.772
MW17-3	08/27/97	0.828	ND	0.096	0.016	0.940
MW17-3	11/01/97	0.438	0.006	0.068	0.025	0.537
MW17-3	02/19/98	0.436	0.015	0.045	0.015	0.511
MW17-3	05/12/98	ND	ND	ND	ND	ND
MW17-3	08/25/98	0.084	0.002	0.001	ND	0.087
MW17-3	11/04/98	0.026	ND	ND	ND	0.026
MW17-4	02/19/98	ND	ND	ND	ND	ND
MW17-4	05/12/98	0.011	ND	ND	ND	0.011
MW17-4	08/25/98	ND	ND	ND	ND	ND
MW17-4	11/04/98	ND	ND	ND	ND	ND
MW17-5	02/19/98	ND	ND	ND	ND	ND
MW17-5	05/12/98	ND	ND	ND	ND	ND
MW17-5	08/25/98	ND	ND	ND	ND	ND
MW17-5	11/04/98	ND	ND	ND	ND	ND
MW17-6	08/25/98	ND	ND	ND	ND	ND
MW17-6	11/04/98	ND	ND	ND	ND	ND

TABLE I
(continued)

SUMMARY OF LABORATORY RESULTS - GROUND WATER
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

MONITORING WELL NO.	DATE SAMPLED	BENZENE (mg/l)	TOLUENE (mg/l)	ETHYL-BENZENE (mg/l)	XYLENES (mg/l)	BTEX (mg/l)
MW17-7	08/25/98	0.086	ND	0.008	ND	0.094
MW17-7	11/04/98	0.5	ND	ND	ND	0.5
MW17-8	08/25/98	ND	ND	ND	ND	ND
MW17-8	11/04/98	ND	ND	ND	ND	ND
Windmill	08/25/98	ND	ND	ND	ND	ND

TABLE II

MONITORING WELL MW17-1
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
04/30/97	3,607.03	19.82	3587.21	---	---
08/27/97	3,607.03	19.92	3587.11	---	---
10/23/97	3,607.03	19.85	3587.18	---	---
11/01/97	3,607.03	19.88	3587.15	---	---
12/03/97	3,607.03	20.87	3586.16	---	---
01/02/98	3,607.16	19.85	3587.31	---	---
02/06/98	3,607.16	19.87	3587.29	---	---
02/19/98	3,607.16	19.92	3587.24	---	---
03/04/98	3,607.16	19.89	3587.27	---	---
04/07/98	3,607.16	19.94	3587.22	---	---
05/12/98	3,607.16	19.95	3587.21	---	---
06/01/98	3,607.16	19.94	3587.22	---	---
07/01/98	3,607.16	20.01	3587.15	---	---
08/25/98	3,607.16	20.04	3587.12	---	---
09/01/98	3,607.16	20.04	3587.12	---	---
09/23/98	3,607.16	20.08	3587.08	---	---
10/09/98	3,607.16	20.09	3587.07	---	---
11/04/98	3,607.16	20.11	3587.05	---	---

TABLE II
(continued)

MONITORING WELL MW17-2
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
04/30/97	3,606.96	19.69	3587.27	---	---
08/27/97	3,606.96	19.79	3587.17	---	---
10/23/97	3,606.96	19.70	3587.26	---	---
11/01/97	3,606.96	19.75	3587.21	---	---
12/03/97	3,606.96	19.75	3587.21	---	---
01/02/98	3,607.08	19.71	3587.37	---	---
02/06/98	3,607.08	19.74	3587.34	---	---
02/19/98	3,607.08	19.77	3587.31	---	---
03/04/98	3,607.08	19.74	3587.34	---	---
04/07/98	3,607.08	19.80	3587.28	---	---
05/12/98	3,607.08	19.83	3587.25	---	---
06/01/98	3,607.08	19.82	3587.26	---	---
07/01/98	3,607.08	19.88	3587.20	---	---
08/25/98	3,607.08	19.91	3587.17	---	---
09/01/98	3,607.08	19.91	3587.17	---	---
09/23/98	3,607.08	19.96	3587.12	---	---
10/09/98	3,607.08	19.97	3587.11	---	---
11/04/98	3,607.08	19.98	3587.10	---	---

TABLE II
(continued)

MONITORING WELL MW17-3
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
04/30/97	3,608.31	20.79	3587.52	---	---
08/27/97	3,608.31	20.89	3587.42	---	---
10/23/97	3,608.31	20.81	3587.50	---	---
11/01/97	3,608.31	20.85	3587.46	---	---
12/03/97	3,608.31	19.89	3588.42	---	---
01/02/98	3,608.43	20.83	3587.60	---	---
02/06/98	3,608.43	20.86	3587.57	---	---
02/19/98	3,608.43	20.91	3587.52	---	---
03/04/98	3,608.43	20.85	3587.58	---	---
04/07/98	3,608.43	20.92	3587.51	---	---
05/12/98	3,608.43	20.92	3587.51	---	---
06/01/98	3,608.43	20.92	3587.51	---	---
07/01/98	3,608.43	20.99	3587.44	---	---
08/25/98	3,608.43	21.04	3587.39	---	---
09/01/98	3,608.43	21.02	3587.41	---	---
09/23/98	3,608.43	21.06	3587.37	---	---
10/09/98	3,608.43	21.09	3587.34	---	---
11/04/98	3,608.43	21.07	3587.36	---	---

TABLE II
(continued)

MONITORING WELL MW17-4
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
02/06/98	3,606.12	18.95	3587.17	---	---
02/19/98	3,606.12	18.98	3587.14	---	---
03/04/98	3,606.12	18.96	3587.16	---	---
04/07/98	3,606.12	19.00	3587.12	---	---
05/12/98	3,606.12	19.02	3587.10	---	---
06/01/98	3,606.12	19.02	3587.10	---	---
07/01/98	3,606.12	19.08	3587.04	---	---
08/25/98	3,606.12	19.11	3587.01	---	---
09/01/98	3,606.12	19.11	3587.01	---	---
09/23/98	3,606.12	19.14	3586.98	---	---
10/09/98	3,606.12	19.15	3586.97	---	---
11/04/98	3,606.12	19.17	3586.95	---	---

TABLE II
(continued)

MONITORING WELL MW17-5
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
02/06/98	3,610.17	22.46	3587.71	---	---
02/19/98	3,610.17	22.49	3587.68	---	---
03/04/98	3,610.17	22.46	3587.71	---	---
04/07/98	3,610.17	22.52	3587.65	---	---
05/12/98	3,610.17	22.52	3587.65	---	---
06/01/98	3,610.17	22.51	3587.66	---	---
07/01/98	3,610.17	22.59	3587.58	---	---
08/25/98	3,610.17	22.65	3587.52	---	---
09/01/98	3,610.17	22.65	3587.52	---	---
09/23/98	3,610.17	22.66	3587.51	---	---
10/09/98	3,610.17	22.70	3587.47	---	---
11/04/98	3,610.17	22.70	3587.47	---	---

TABLE II
(continued)

MONITORING WELL MW17-6
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
08/25/98	3,604.44	17.70	3586.74	---	---
09/01/98	3,604.44	17.71	3586.73	---	---
09/23/98	3,604.44	17.73	3586.71	---	---
10/09/98	3,604.44	17.75	3586.69	---	---
11/04/98	3,604.44	17.76	3586.68	---	---

TABLE II
(continued)

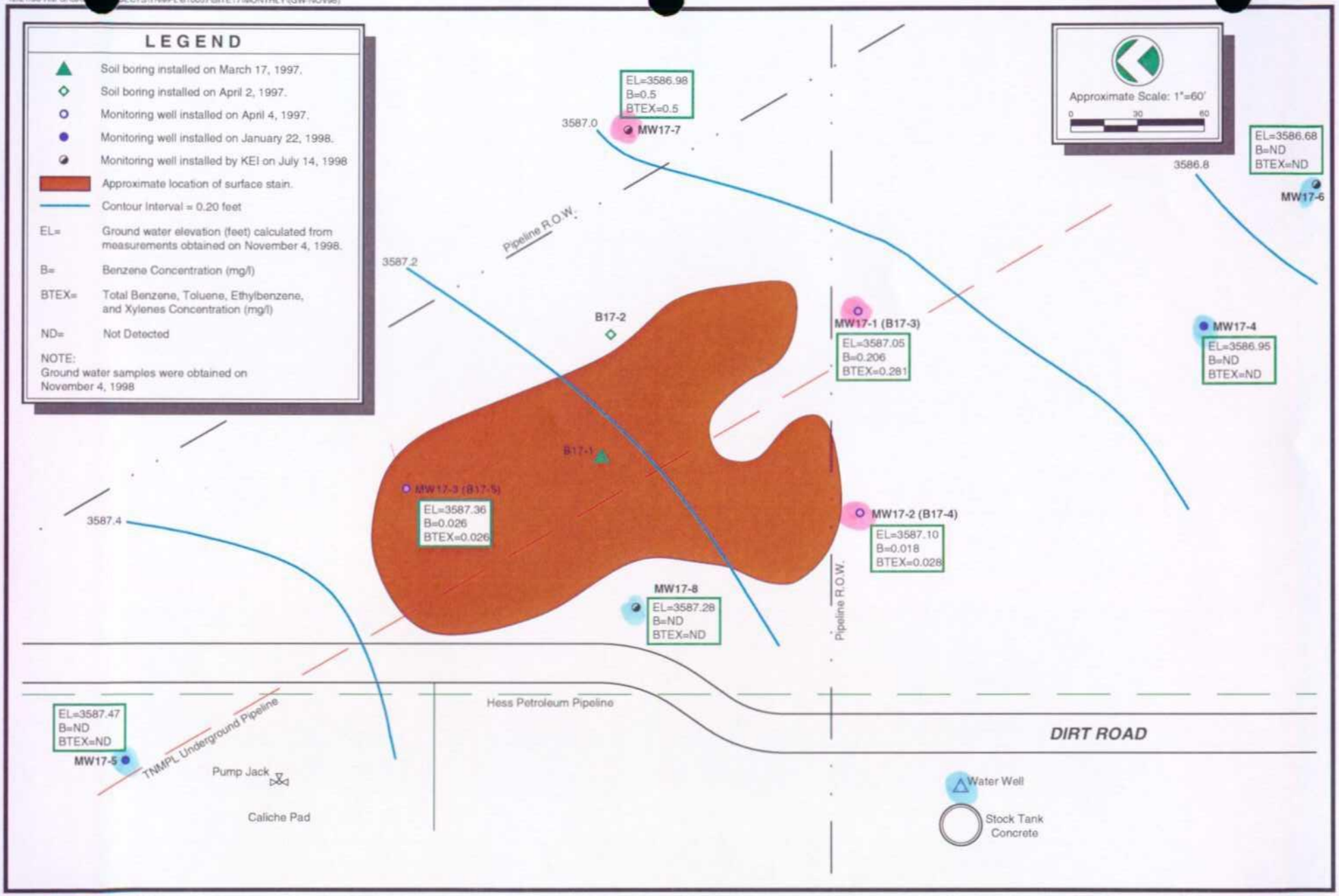
MONITORING WELL MW17-7
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
08/25/98	3,607.38	20.34	3587.04	---	---
09/01/98	3,607.38	20.35	3587.03	---	---
09/23/98	3,607.38	20.36	3587.02	---	---
10/09/98	3,607.38	20.30	3587.08	---	---
11/04/98	3,607.38	20.40	3586.98	---	---

TABLE II
(continued)

MONITORING WELL MW17-8
SUMMARY OF GROUND WATER MONITORING
TEXAS - NEW MEXICO PIPE LINE COMPANY
MONUMENT SITE NO. 17
LEA COUNTY, NEW MEXICO

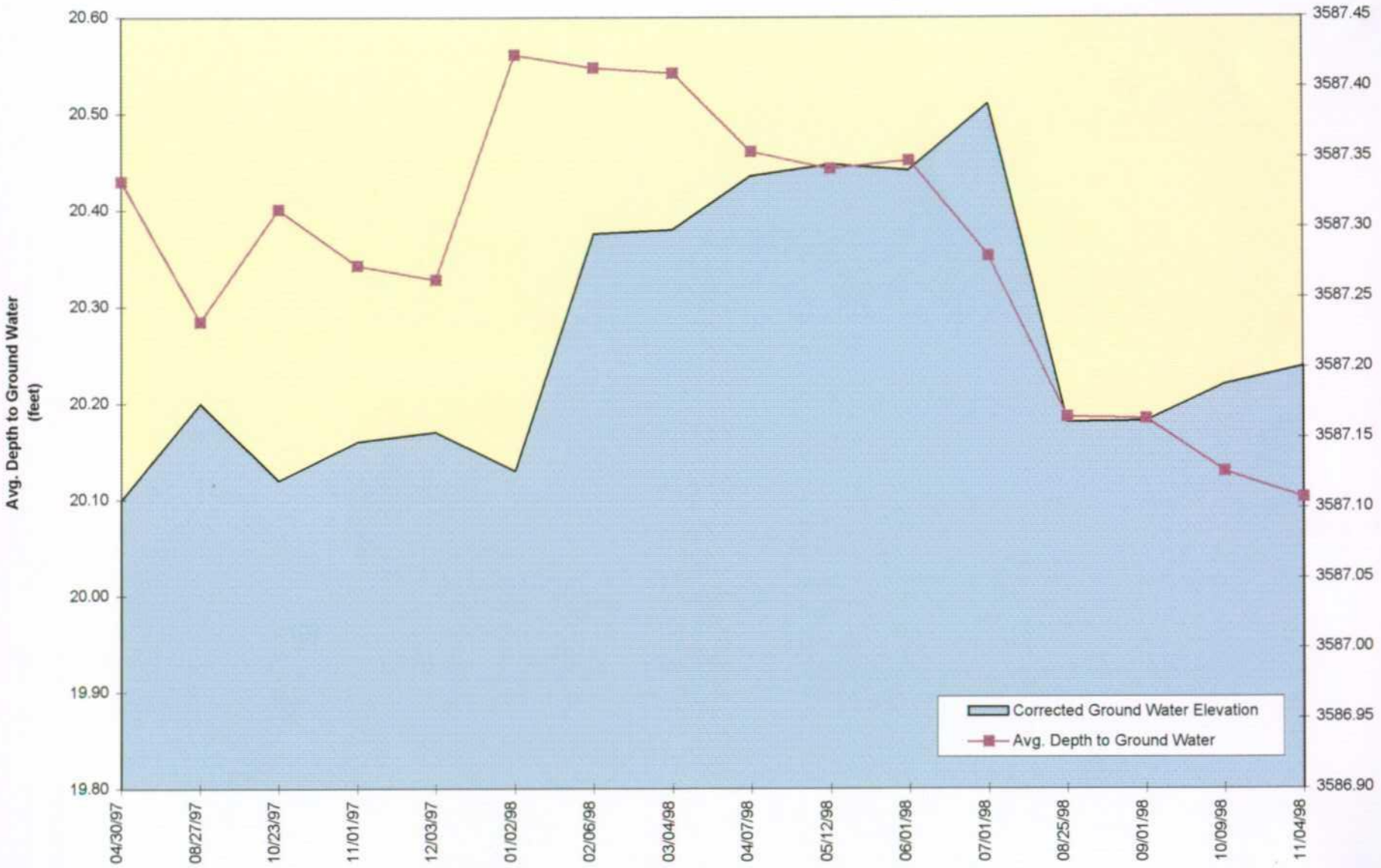
DATE MEASURED	PVC ELEVATION (feet)	DEPTH TO WATER (feet)	GROUND WATER ELEVATION		PSH THICKNESS (feet)
			Actual	Corrected	
08/25/98	3,607.99	20.65	3587.34	---	---
09/01/98	3,607.99	20.66	3587.33	---	---
09/23/98	3,607.99	20.68	3587.31	---	---
10/09/98	3,607.99	20.70	3587.29	---	---
11/04/98	3,607.99	20.71	3587.28	---	---



k·e·i

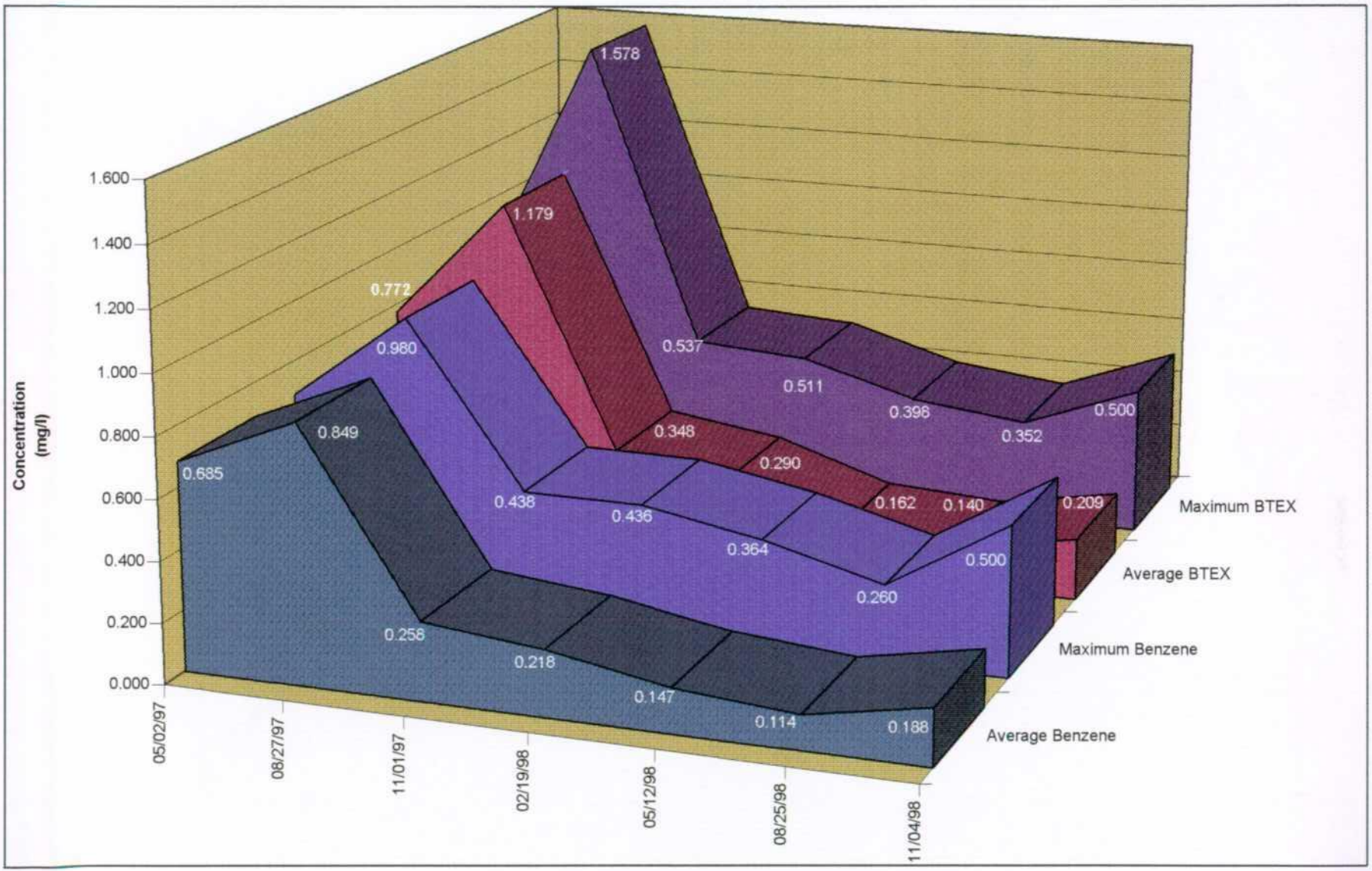
GROUND WATER CONTOURS / CONCENTRATION MAP - NOVEMBER 1998	610057-6-17
TEXAS - NEW MEXICO PIPE LINE CO. MONUMENT SITE NO. 17 LEA COUNTY, NEW MEXICO	FIG 1

FIGURE 2
AVERAGE GROUND WATER DATA



Site No. 17
Lea County, New Mexico
KEI Job No. 610057-6-17
p:\tnmp\610057\site17\monitor\sumaverg.xls

FIGURE 3
DISSOLVED PHASE CONCENTRATIONS



Site No. 17
Lea County, New Mexico
KEI Job No. 610057-6-17
p\tnmpl\610057\site17\monitor\sumaverg.xls

ANALYTICAL REPORT 1-84275

for

K.E.I. Consultants, Inc.

Project Manager: S. Grover

Project Name: Monument Site #17

Project Id: 610057-6-17

November 12, 1998

XENCO Laboratories

HOUSTON - DALLAS - SAN ANTONIO

11381 Meadowglen Lane Suite L * Houston, Texas 77082-2647
Phone (281) 589-0692 Fax (281) 589-0695

XENCO Laboratories

11381 Meadowglen Suite L
Houston, Texas 77082-2647
(281) 589-0692 Fax: (281) 589-0695
Houston - Dallas - San Antonio - Latin America

November 12, 1998

Project Manager: S. Grover
K.E.I. Consultants, Inc.
5309 Wurzbach Rd. Suite 100
San Antonio, TX 78238

Reference: **XENCO Report No.: 1-84275**
Project Name: Monument Site #17
Project ID: 610057-6-17
Project Address: Monument, NM.

Dear S. Grover:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with XENCO Chain of Custody Number 1-84275. All results being reported to you apply only to the samples analyzed, properly identified with a Laboratory ID number. This letter documents the official transmission of the contents of the report and validates the information contained within.

All the results for the quality control samples passed thorough examination. Also, all parameters for data reduction and validation checked satisfactorily. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, completeness or properly flagged.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 3 years in our archives and after that time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. 1-84275 will be filed for 60 days, and after that time they will be properly disposed of without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

XENCO operates under the A2LA guidelines. Our Quality System meets ISO/IEC Guide 25 requirements which is strictly implemented and enforced through our standard QA/QC procedures.

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Sincerely,

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-84275

K.E.I. Consultants, Inc.

Project ID: 610057-6-17
Project Name: Monument Site #17
Project Manager: S. Grover
Project Location: Monument, NM.

Date Received in Lab : Nov 5, 1998 10:10
Date Report Faxed: Nov 12, 1998
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:* / *Matrix:* / *Sampled:*	184275 001 MW-1 Liquid 11/04/98 09:45	184275 002 MW-2 Liquid 11/04/98 10:15	184275 003 MW-3 Liquid 11/04/98 10:45	184275 004 MW-4 Liquid 11/04/98 11:30	184275 005 MW-5 Liquid 11/04/98 12:15	184275 006 MW-6 Liquid 11/04/98 12:45
BTEX EPA 8021B	*Analyzed:* / *Units:*	11/06/98 ppm R.L.	11/06/98 ppm R.L.	11/06/98 ppm R.L.	11/06/98 ppm R.L.	11/06/98 ppm R.L.	11/06/98 ppm R.L.
Benzene		0.206 (0.001)	0.018 (0.001)	0.026 (0.004)	< 0.001 (0.001)	< 0.004 (0.004)	< 0.001 (0.001)
Toluene		0.010 (0.001)	0.004 (0.001)	< 0.004 (0.004)	< 0.001 (0.001)	< 0.004 (0.004)	< 0.001 (0.001)
Ethylbenzene		0.025 (0.001)	0.002 (0.001)	< 0.004 (0.004)	< 0.001 (0.001)	< 0.004 (0.004)	< 0.001 (0.001)
m,p-Xylene		0.031 (0.002)	0.002 (0.002)	< 0.008 (0.008)	< 0.002 (0.002)	< 0.008 (0.008)	< 0.002 (0.002)
o-Xylene		0.009 (0.001)	0.002 (0.001)	< 0.004 (0.004)	< 0.001 (0.001)	< 0.004 (0.004)	< 0.001 (0.001)
Total BTEX		0.281	0.028	0.026	N.D.	N.D.	N.D.

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-84275

K.E.I. Consultants, Inc.

Project ID: 610057-6-17
Project Manager: S. Grover
Project Location: Monument, NM.

Project Name: Monument Site #17

Date Received in Lab : Nov 5, 1998 10:10
Date Report Faxed: Nov 12, 1998
XENCO contact : Carlos Castro/Karen Olson

Analysis Requested	*Lab ID:*	184275 007		184275 008					
	Field ID:	MW-7		MW-8					
	Depth:								
	Matrix:	Liquid		Liquid					
	Sampled:	11/04/98 13:15		11/04/98 13:45					
BTEX	*Analyzed:*	11/07/98	R.L.	11/06/98	R.L.				
EPA 8021B	*Units:*	ppm		ppm					
Benzene		0.5	(0.1)	< 0.001	(0.001)				
Toluene		< 0.1	(0.1)	< 0.001	(0.001)				
Ethylbenzene		< 0.1	(0.1)	< 0.001	(0.001)				
m,p-Xylene		< 0.2	(0.2)	< 0.002	(0.002)				
o-Xylene		< 0.1	(0.1)	< 0.001	(0.001)				
Total BTEX			0.500		N.D.				

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch # 8A25D92

SW- 846 5030/8021B BTEX

Date Validated: Nov 9, 1998 11:45
Date Analyzed: Nov 6, 1998 17:12

Analyst: HL
Matrix: Liquid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Amount ppm	[D] Detection Limit ppm	[E] QC LIMITS Blank Spike Recovery %	[F] Recovery Range %	[G] Qualifier
Benzene	< 0.0010	0.1100	0.1000	0.0010	110.0	65-135	
Toluene	< 0.0010	0.1080	0.1000	0.0010	108.0	65-135	
Ethylbenzene	< 0.0010	0.1100	0.1000	0.0010	110.0	65-135	
m,p-Xylene	< 0.0020	0.2190	0.2000	0.0020	109.5	65-135	
o-Xylene	< 0.0010	0.1090	0.1000	0.0010	109.0	65-135	

Blank Spike Recovery [E] = 100*(B-A)/(C)
[ ] = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 18A25D92

SW- 846 5030/8021B BTEX

Date Validated: Nov 9, 1998 11:45
Date Analyzed: Nov 6, 1998 17:49

Analyst: HL
Matrix: Liquid

MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY

Q.C. Sample ID 184233- 001 / Parameter	[A] Sample Result ppm	[B] Matrix Spike Result ppm	[C] Matrix Spike Duplicate Result ppm	[D] Matrix Spike Amount ppm	[E] Detection Limit ppm	Matrix Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Matrix Spike Recovery %	[H] QC M.S.D. Recovery %	[I] Matrix Spike Recovery Range %	[J] Qualifier
Benzene	< 0.0010	0.1060	0.1080	0.1000	0.0010	20.0	1.9	106.0	108.0	65-135	
Toluene	< 0.0010	0.1050	0.1060	0.1000	0.0010	20.0	0.9	105.0	106.0	65-135	
Ethylbenzene	< 0.0010	0.1040	0.1060	0.1000	0.0010	20.0	1.9	104.0	106.0	65-135	
m,p-Xylene	< 0.0020	0.2110	0.2140	0.2000	0.0020	20.0	1.4	105.5	107.0	65-135	
o-Xylene	< 0.0010	0.1060	0.1080	0.1000	0.0010	20.0	1.9	106.0	108.0	65-135	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Matrix Spike Recovery [G] = 100*(B-A)/[D]
M.S.D. = Matrix Spike Duplicate
M.S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Eddie L. Clemons, II
QA/QC Manager

XENCO Laboratories

ANALYTICAL CHAIN CUSTODY REPORT
CHRONOLOGY OF SAMPLES

K.E.I. Consultants, Inc.

Project ID: 610057-6-17
Project Manager: S. Grover
Project Location: Monument, NM.

Project Name: Monument Site #17

XENCO COC#: 1-84275
Date Received in Lab: Nov 5, 1998 10:10 by JO
XENCO contact : Carlos Castro/Karen Olson

	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Date and Time: Sample Collected	Date and Time: Addition Requested	Date and Time: Extraction	Date and Time: Analysis
1	MW-1	184275-001	BTEX	SW-846	ppm	10 days	Nov 4, 1998 09:45		Nov 6, 1998 by HL	Nov 6, 1998 19:04 by HL
2	MW-2	184275-002	BTEX	SW-846	ppm	10 days	Nov 4, 1998 10:15		Nov 6, 1998 by HL	Nov 6, 1998 19:22 by HL
3	MW-3	184275-003	BTEX	SW-846	ppm	10 days	Nov 4, 1998 10:45		Nov 6, 1998 by HL	Nov 6, 1998 20:37 by HL
4	MW-4	184275-004	BTEX	SW-846	ppm	10 days	Nov 4, 1998 11:30		Nov 6, 1998 by HL	Nov 6, 1998 19:41 by HL
5	MW-5	184275-005	BTEX	SW-846	ppm	10 days	Nov 4, 1998 12:15		Nov 6, 1998 by HL	Nov 6, 1998 20:55 by HL
6	MW-6	184275-006	BTEX	SW-846	ppm	10 days	Nov 4, 1998 12:45		Nov 6, 1998 by HL	Nov 6, 1998 20:00 by HL
7	MW-7	184275-007	BTEX	SW-846	ppm	10 days	Nov 4, 1998 13:15		Nov 6, 1998 by HL	Nov 7, 1998 01:56 by HL
8	MW-8	184275-008	BTEX	SW-846	ppm	10 days	Nov 4, 1998 13:45		Nov 6, 1998 by HL	Nov 6, 1998 20:18 by HL

XENCO Laboratories

☐ 11381 Meadowglen, Suite L, Houston TX 77082 281-589-0692
☒ 5309 Wurzbach Road, Suite 104, San Antonio, TX 78238 210-509-3334
☐ 11078 Morrison Road, Suite D, Dallas, TX 75229 972-481-9999

ANALYSIS REQUEST & CHAIN OF CUSTODY RECORD

On-LINE Help & Technical Services at XENCO.com

10440

Company COC No: 21Ø Work Order No: 61ØØ57-6-17 Page 1 of 1

Company	KEI
Phone	(21Ø) 68Ø-3767
Project Name	☒ Previously done at XENCO — MONUMENT SITE 17
Project ID	61ØØ57-6-17
Location	MONUMENT, NM
Project Manager (PM)	S. GROVER
Project Director (PD)	M. HAWTHORNE
Fax Results to	☒ PM and / or
Fax	(21Ø) 68Ø-3763
Invoice to	☐ Accounting ☐ Include Invoice with Final Report Attn PM ☐ Invoice must have a P.O Bill to: 61ØØ57-6-17
Quote No.	P.O No ☐ Call for a P.O.
Special DLs	(RR I RR II DW QAPP See Lab PM Call Proj. PM)
Specifications	
Sampler Name	Ken Dutton
Signature	Ken Dutton

Lab Only: 184275-SA

TAT: 5h 12h 20h 24h 48h 3d 5d 7d 14d 21d Standard TAT is 10 Working Days unless otherwise agreed in writing. But often reported in 5-7 Working Days

Lab Only Additions: From: / Rcv by: / Date

	Sample ID	Sampling Date	Time	Depth ft" In" m	Matrix A P S W	Composite	Grab	# Containers	Container Size	Type	Preservatives	BTEX by 8020	BTEX-MTBE by 8020	TPH by TX1005 418.1 8015GRO 8015DRO 8015JetF	PAHs by 8270 8100 8310	METALS by 6010 8RCRA Tot Pb TCLP8 13PP 23TAL See List	VOAs by 8260 624 BTEX MTBE PPs TCL See List Call PM	SVOAs by 8270 625 PAHs BN&A TCL PPs See List Call PM	TAT 5h 12h 20h 24h 48h 3d 5d 7d 10d 14d 21d	Addn: PAH above mg/L W. mg/Kg S Highest Hit	Hold Analysis	Remarks
1	MW-1	Ø4 NOV 98	Ø945				X	2	V	GA	H	X										CALL S. GROVER IF THERE ARE QUESTIONS @ (21Ø) 68Ø-3767
2	" 2		1Ø15																			
3	" 3		1Ø45																			
4	" 4		1130																			
5	" 5		1215																			
6	" 6		1245																			
7	" 7		1315																			
8	" 8		1345																			
9																						
10																						

Relinquished by (Initials and Signature)	Relinquished to (Initials and Signature)	Date & Time	
1 KD Ken Dutton		Ø4NOV98/15ØØ	Total Containers per COC: 16
2		Via V.P.S.	Rush TATs Fax Due: Final Fax Due:
3	Lab: Johnny Orona	11/5/98 10:10	Final Report Data Package Due Date:
			Rush Charges are Pre-Approved upon Requesting them. All Terms Apply

Preservatives - Various (V), HCl pH<2 (H), H2SO4 pH<2 (S), HNO4 pH<2 (N), NaOH+Asbc Acid (NAA), ZnAc+NaOH (ZA), (Cool,<4C) (C4), None (N), See Label (SL), Other (O) _____

SIZE: 4oz (4), 8oz (8), 32oz (32), 40ml VOA (V), 1L (1), 500ml (.5), Tedlar Bag (B), Wipe (W), Other _____ **TYPE** Glass Amb (GA), Glass Clear (GC), Plastic (P), Other (O) _____