3R - 239

REPORTS

DATE:

2003

3R239

elpaso Field Services

Certified Mail: #7002 0510 0000 0307 7497

February 26, 2004

RECEIVED

MAR 03 2004

Oil Conservation Division
Environmental Bureau

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

RE: 2003 Pit Project Annual Groundwater Report

Dear Mr. Olson:

In accordance with reporting requirements, El Paso Field Services (EPFS) has enclosed annual reports for the 24 remaining groundwater impacted sites that were identified during our pit closure project of 1994 / 1995.

EPFS has organized the 24 Annual Reports (Volumes 1, 2 and 3) by land type. Volume 1 contains Annual Reports for sites found on Federal land. Volume 2 contains Non Federal sites and Volume 3 contains sites on Navajo land. Of the 24 reports submitted, EPFS is requesting closure of one site located on Navajo lands (Jennepah #1). EPFS understands closure of groundwater sites on Navajo lands falls under jurisdiction of the Navajo Nation Environmental Protection Agency and original documents have been submitted to them for review. Other Navajo sites are included in the report for your information.

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

Sincerely,

Scott T. Pope P.G.
Senior Environmental Scientist

xc: Mr. Denny Foust, NMOCD, Aztec - w / enclosures; **Certified Mail # 7002 0510 0000 0307 7473**
Mr. Bill Liesse, BLM – w / enclosures (federal sites only), **Certified Mail # 7002 0510 0000 0307 7466**

2003 ANNUAL GROUNDWATER REPORT
NON-FEDERAL SITES VOLUME II

EL PASO FIELD SERVICES

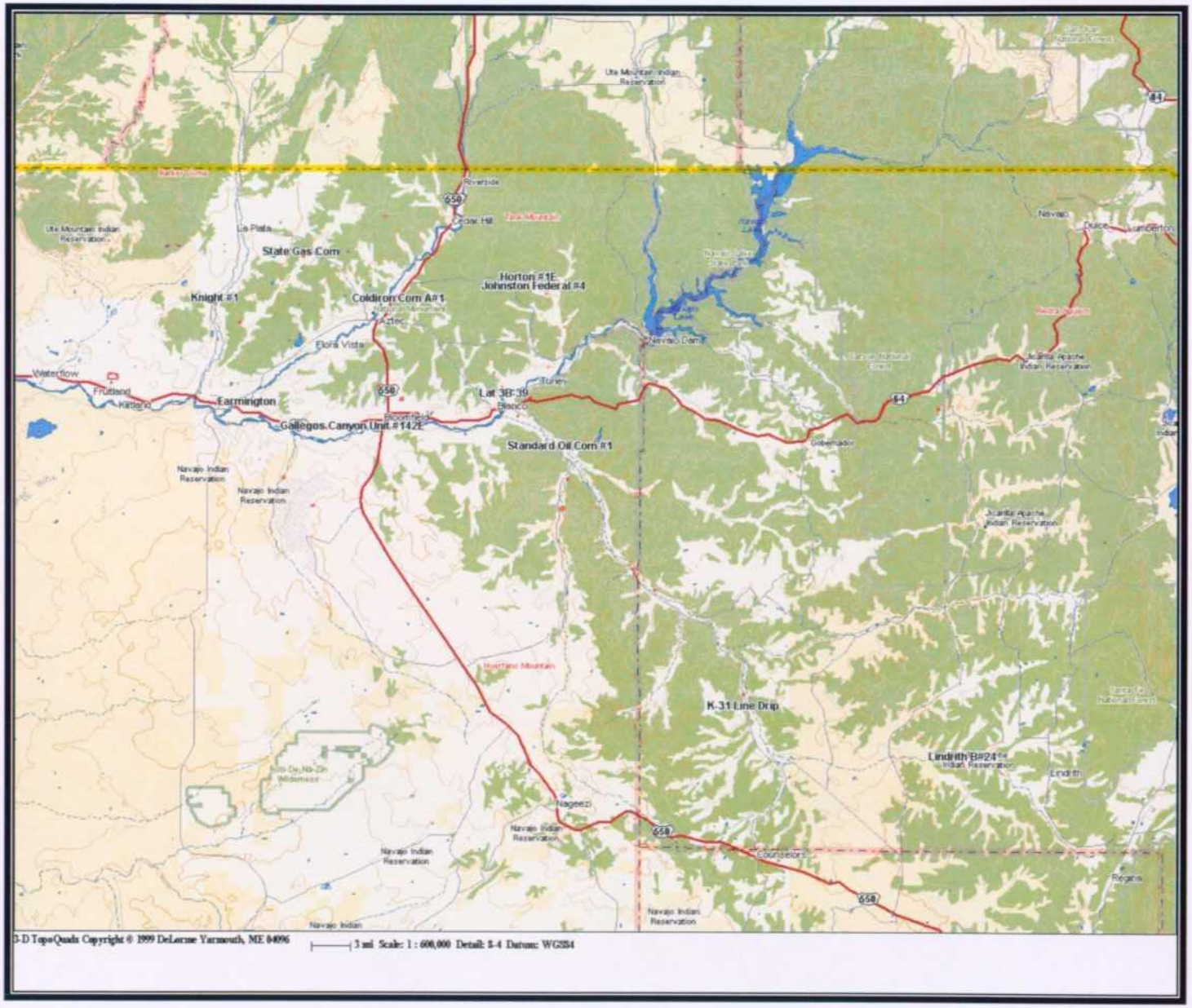
TABLE OF CONTENTS

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

elpaso

MWH
MONTGOMERY WATSON HARZA

Non - Federal Groundwater Site Map



LIST OF ACRONYMS

B	benzene
btoc	below top of casing
E	ethylbenzene
EPFS	El Paso Field Services
ft	foot/feet
GWEL	groundwater elevation
ID	identification
MW	monitoring well
PSH	phase-separated hydrocarbons
NMWQCC	New Mexico Water Quality Control Commission
T	toluene
TOC	top of casing
NA	not applicable
NE	not established
NM	not measured
NMOCD	New Mexico Oil Conservation Division
NS	not sampled
ORC	oxygen-releasing compound
ppb	parts per billion
µg/L	micrograms per liter
X	total xylenes

EPFS GROUNDWATER SITES
2003 ANNUAL GROUNDWATER REPORT

State Gas Com N #1
Meter Code: 71669

SITE DETAILS

Legal Description: **Town:** 31N **Range:** 12W **Sec:** 16 **Unit:** H

NMOCD Haz Ranking: 30 **Land Type:** State **Operator:** Amoco Production Company

PREVIOUS ACTIVITIES

Site Assessment:	3/94	**Excavation:**	5/94 (80 cy)	**Soil Boring:**	10/95
Monitor Well:	10/95	**Geoprobe:**	NA	**Additional MWs:**	12/01
Downgradient MWs:	11/95	**Replace MW:**	NA	**Quarterly Initiated:**	NA
ORC Nutrient Injection:	NA	**Re-Excavation:**	NA	**PSH Removal Initiated:**	NA
Annual Initiated:	NA	**Quarterly Resumed:**	NA		

SUMMARY OF 2003 ACTIVITIES

MW-1: Quarterly free-product recovery and/or water level monitoring were performed during 2003.

MW-2: Quarterly free-product recovery and/or water level monitoring were performed during 2003. MW-2 was redeveloped in June 2003 in an attempt to enhance free-product recovery.

MW-3: Quarterly free-product recovery and water level monitoring were performed during 2003. MW-3 was redeveloped in June 2003 in an attempt to enhance free-product recovery.

MW-4: Annual groundwater sampling (September) and quarterly water level monitoring were performed during 2003.

MW-5: Annual groundwater sampling (September) and quarterly water level monitoring were performed during 2003.

MW-6: Quarterly free-product recovery and water level monitoring were performed during 2003. MW-6 was redeveloped in June 2003 in an attempt to enhance free-product recovery.

Site-Wide Activities: No other activities were performed at this site during 2003.

SITE MAPS

Site maps (June and September) are attached in Figures 1 and 2.

SUMMARY TABLES AND GRAPHS

- Analytical data from 2003 are summarized in Table 1, and historic data are presented graphically in Figures 3 through 8.
- Free-product recovery data from 2003 are summarized in Table 2, and historic data are presented graphically in Figures 9 through 12.
- Laboratory reports are presented in Attachment 1.
- Field documentation is presented in Attachment 2.

GEOLOGIC LOGS AND WELL COMPLETION DIAGRAMS

No subsurface activities were performed at this site during 2003.

DISPOSITION OF GENERATED WASTES

All phase-separated hydrocarbons were disposed of at the EPFS Kutz Separator located in Bloomfield, New Mexico.

ISOCONCENTRATION MAPS

No isoconcentration maps were prepared for this site, however, the attached site maps present the water level and analytical data collected during 2003.

CONCLUSIONS

- The groundwater flow direction at this site trends toward the southeast.
- Free-product recovery efforts resulted in removal of approximately 0.01 gallons of free-phase hydrocarbons during 2003 bringing the cumulative total volume removed to 79.61 gallons.
- Free-product recovery efforts at MW-2 resulted in removal of approximately 0.02 gallons of free-phase hydrocarbons during 2003 bringing the cumulative total recovered to date to 133.19 gallons.
- Free-product recovery efforts at MW-3 resulted in removal of approximately 0.16 gallons of free-phase hydrocarbons during 2003 bringing the cumulative total volume removed to 61.62 gallons.

- Laboratory results from the annual groundwater sample collected at MW-4 indicate that BTEX concentrations remain elevated at this well. Benzene results for the sample collected in September indicated a concentration of 24,000 µg/L.

- Laboratory results from the annual groundwater sample collected at MW-5 indicate that BTEX concentrations remain elevated at this well. Benzene results for the sample collected in September indicate a concentration of 23,100 µg/L.

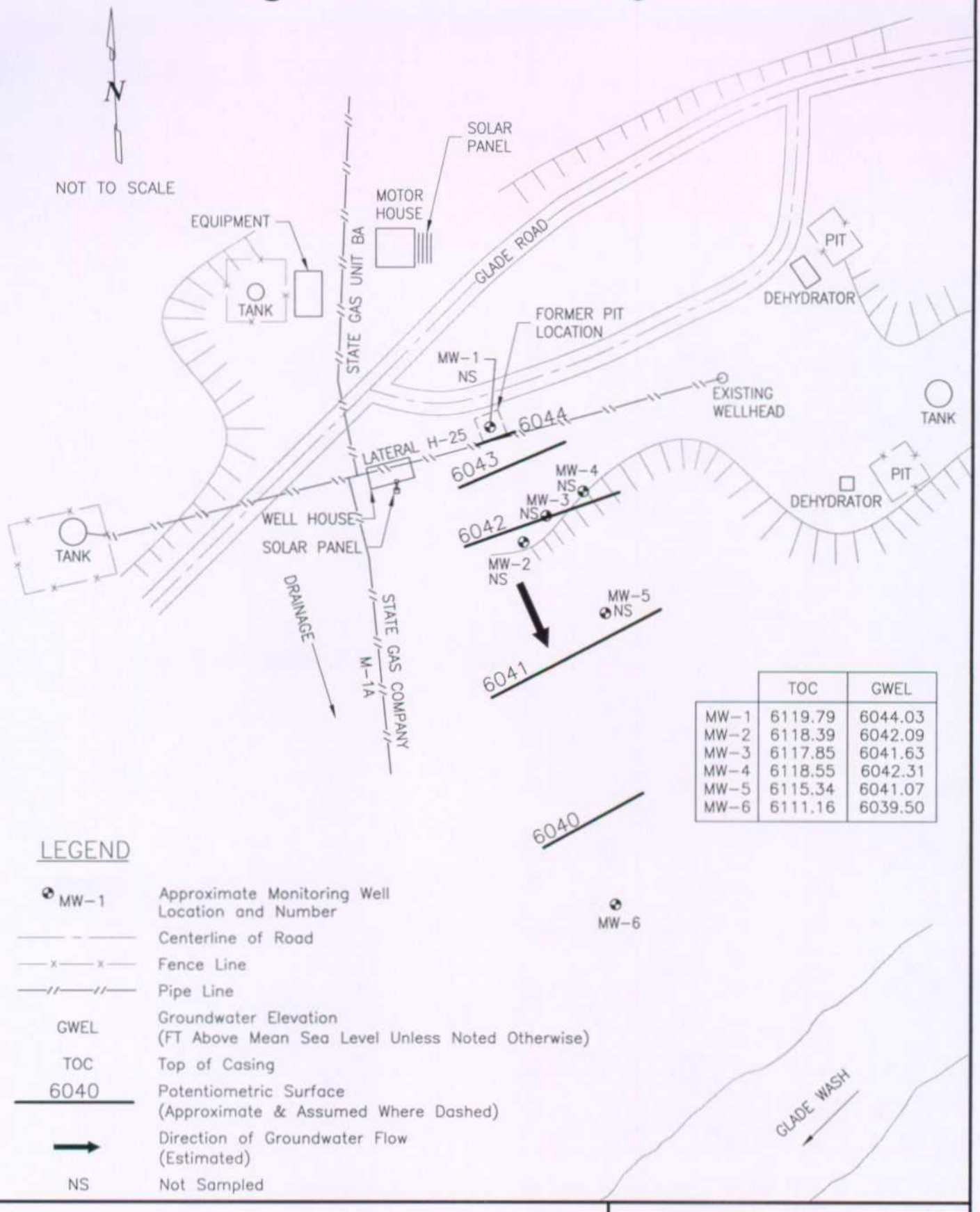
- Free-product recovery efforts at MW-6 resulted in removal of approximately 0.63 gallons of free-phase hydrocarbons during 2003 bringing the cumulative total volume removed to 3.35 gallons.

RECOMMENDATIONS

- EPFS recommends to continue free-product recovery efforts at MW-1, MW-2, MW-3 and MW-6. EPFS will evaluate passive free-product removal methodologies (i.e., hand bailing, passive skimmers, or hydrocarbon-absorbent material socks) and frequencies for most efficient free-product removal from these wells during 2004.

- EPFS recommends annual groundwater sampling at wells MW-4 and MW-5.

- EPFS recommends semi-annual water level measurements at all wells.



	TOC	GWEL
MW-1	6119.79	6044.03
MW-2	6118.39	6042.09
MW-3	6117.85	6041.63
MW-4	6118.55	6042.31
MW-5	6115.34	6041.07
MW-6	6111.16	6039.50

LEGEND

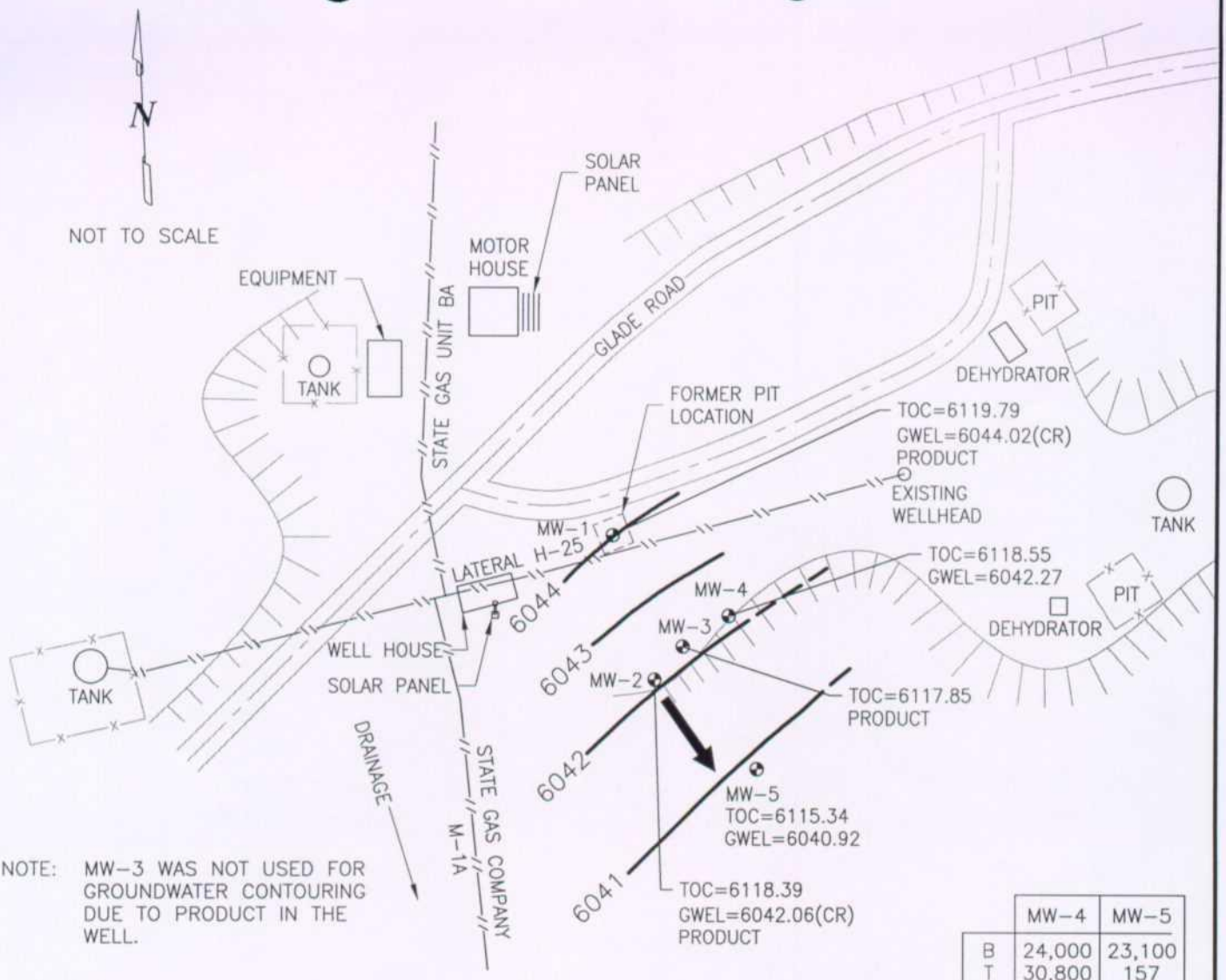
MW-1	Approximate Monitoring Well Location and Number
——— - ———	Centerline of Road
——x——x——	Fence Line
——//——//——	Pipe Line
GWEL	Groundwater Elevation (FT Above Mean Sea Level Unless Noted Otherwise)
TOC	Top of Casing
6040	Potentiometric Surface (Approximate & Assumed Where Dashed)
→	Direction of Groundwater Flow (Estimated)
NS	Not Sampled

STATE GAS COM N#1, METER 71669
JUNE 2003

GROUNDWATER SITES
EL PASO FIELD SERVICES

FIGURE 1

stategas_03.dwg



NOTE: MW-3 WAS NOT USED FOR GROUNDWATER CONTOURING DUE TO PRODUCT IN THE WELL.

	MW-4	MW-5
B	24,000	23,100
T	30,800	157
E	4,670	2,480
X	73,200	11,300

LEGEND

MW-1	Approximate Monitoring Well Location and Number
——— - ———	Centerline of Road
——x——x——	Fence Line
——//——//——	Pipe Line
6040	Potentiometric Surface (Assumed Where Dashed)
→	Direction of Groundwater Flow (Estimated)
NS	Not Sampled
GWEL	Groundwater Elevation (FT Above Mean Sea Level Unless Noted Otherwise)
PRODUCT	Free-Product Measured in Well
TOC	Top of Casing
CR	Water Level Has Been Corrected for Free-Product

STATE GAS COM N#1, METER 71669
SEPTEMBER 2003

GROUNDWATER SITES
EL PASO FIELD SERVICES

FIGURE 2

stategas_03.dwg

TABLE 1

SUMMARY OF BTEX COMPOUNDS IN 2003 GROUNDWATER SAMPLES
STATE GAS COM N#1 (METER #71669)

Site Name	Monitoring Well	Sample Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	Depth to Water (ft btoc)
State Gas Com N #1	MW-4	9/14/2003	24,000	30,800	4,670	73,200	76.28
State Gas Com N #1	MW-5	9/14/2003	23,100	157	2,480	11,300	74.42

TABLE 2

SUMMARY OF FREE-PRODUCT REMOVAL DURING 2003
STATE GAS COM N#1 (METER #71669)

Site Name	Monitoring Well	Removal Date	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Product Thickness (feet)	Volume of Product Removed (gallons)	Cummulative Volume of Product Removed (gallons)
State Gas Com N #1	MW-1	3/20/03	NA	76.025	0.00	0.00	79.60
State Gas Com N #1	MW-1	6/26/03	NA	75.76	0.00	0.00	79.60
State Gas Com N #1	MW-1	9/14/03	75.77	75.79	0.02	0.01	79.61
State Gas Com N #1	MW-1	12/9/03	NA	75.62	0.00	0.00	79.61
State Gas Com N #1	MW-2	3/20/03	NA	76.27	0.00	0.00	133.17
State Gas Com N #1	MW-2	6/26/03	76.33	76.35	0.02	0.01	133.18
State Gas Com N #1	MW-2	9/14/03	76.33	76.35	0.02	0.01	133.19
State Gas Com N #1	MW-2	12/9/03	NA	76.22	0.00	0.00	133.19
State Gas Com N #1	MW-3	3/20/03	76.28	76.32	0.04	0.05	61.51
State Gas Com N #1	MW-3	6/26/03	76.19	76.22	0.03	0.01	61.52
State Gas Com N #1	MW-3	9/14/03	76.306	76.36	0.054	0.04	61.56
State Gas Com N #1	MW-3	12/9/03	76.15	76.22	0.07	0.06	61.62
State Gas Com N #1	MW-6	3/20/03	70.90	71.43	0.53	0.33	3.05
State Gas Com N #1	MW-6	6/26/03	71.035	71.66	0.625	0.10	3.15
State Gas Com N #1	MW-6	9/14/03	71.04	72.25	1.21	0.20	3.35
State Gas Com N #1	MW-6	12/9/03	NA	74.32	0.00	0.00	3.35

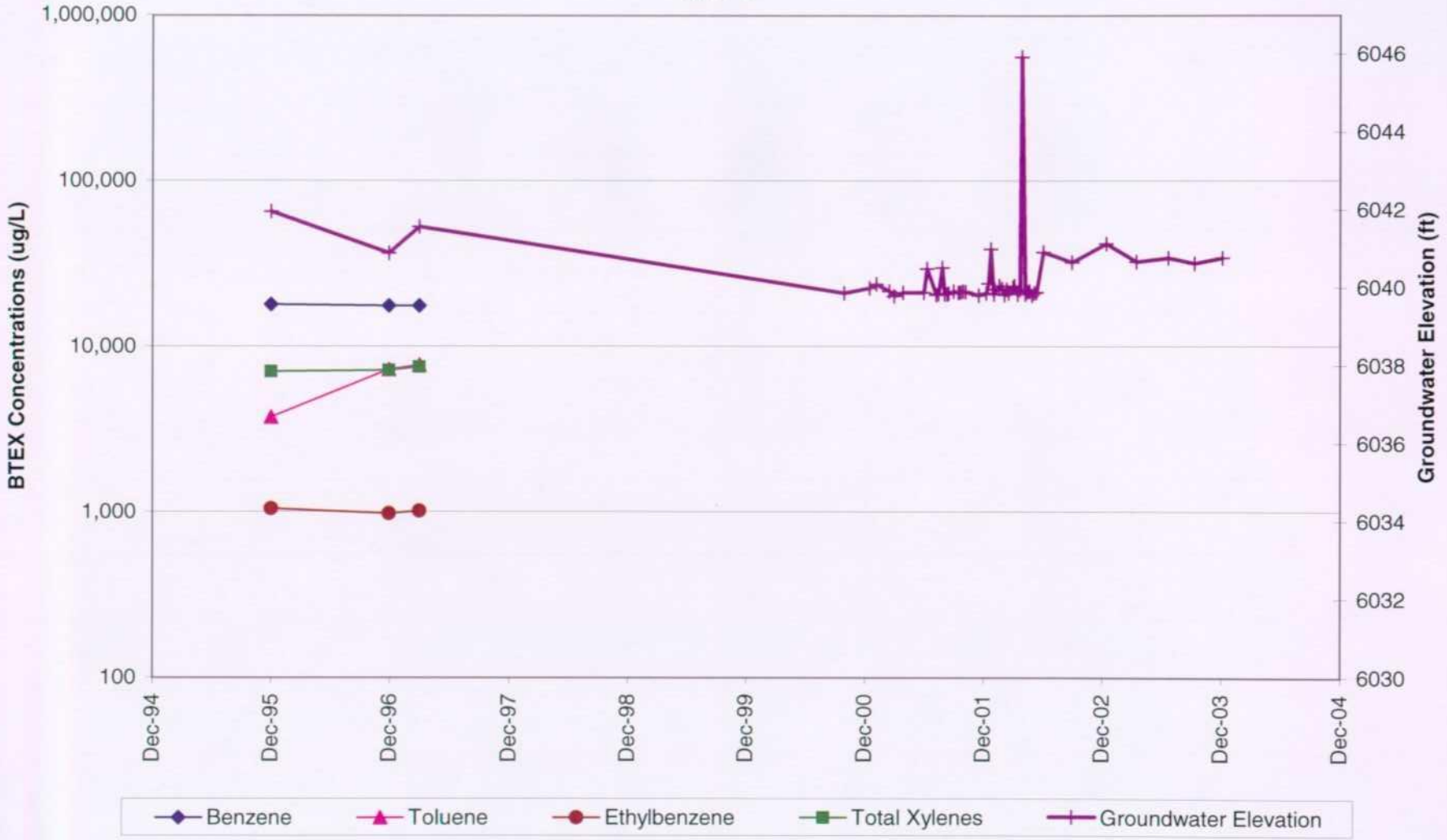
FIGURE 3
HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
STATE GAS COM N#1
MW-1

2003 State Gas Com.xls,StGasCom MW1

FIGURE 4
HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
STATE GAS COM N#1
MW-2

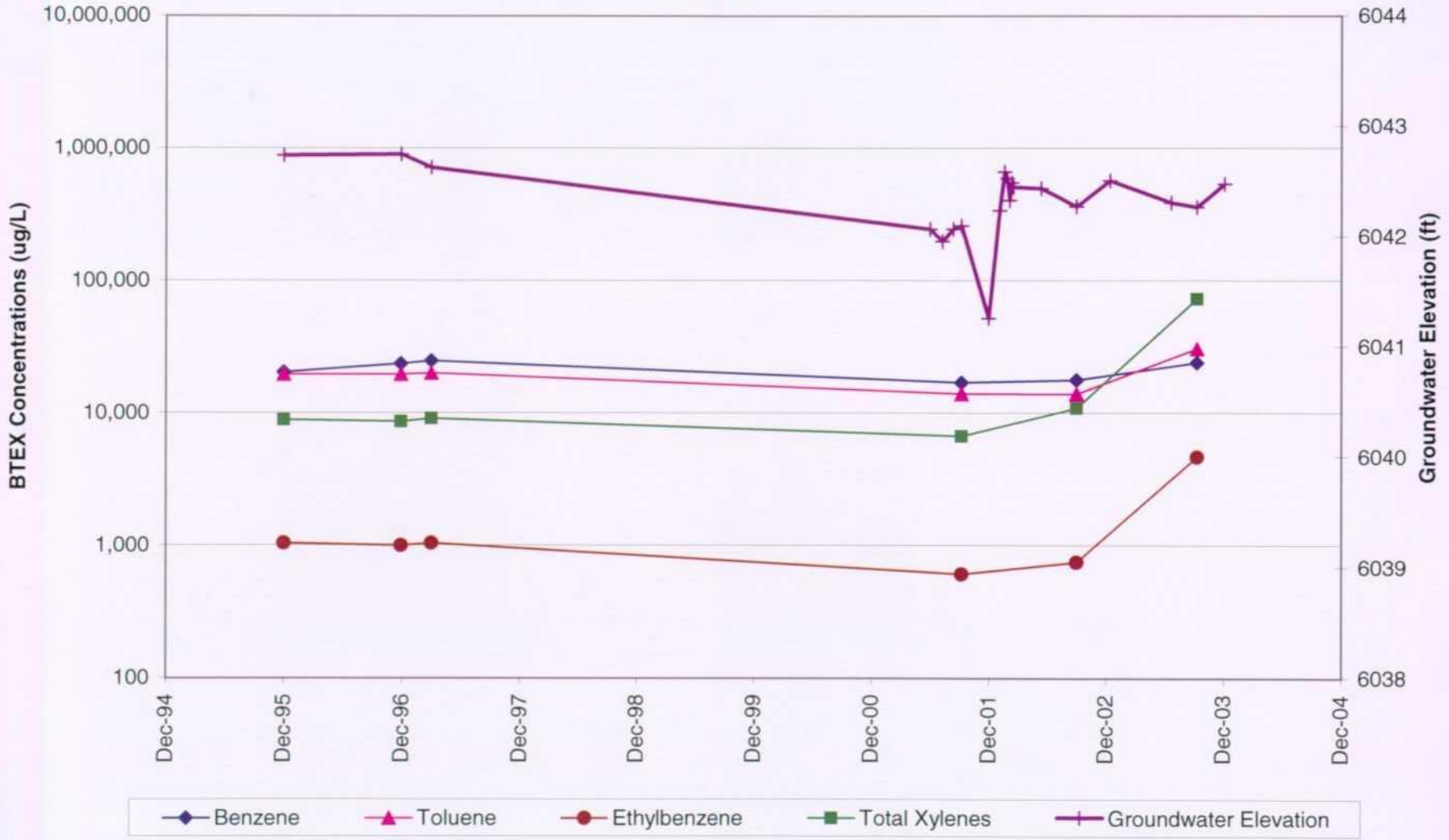
2003 State Gas Com.xls,StGasCom MW2

FIGURE 5
HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
STATE GAS COM N#1
MW-3



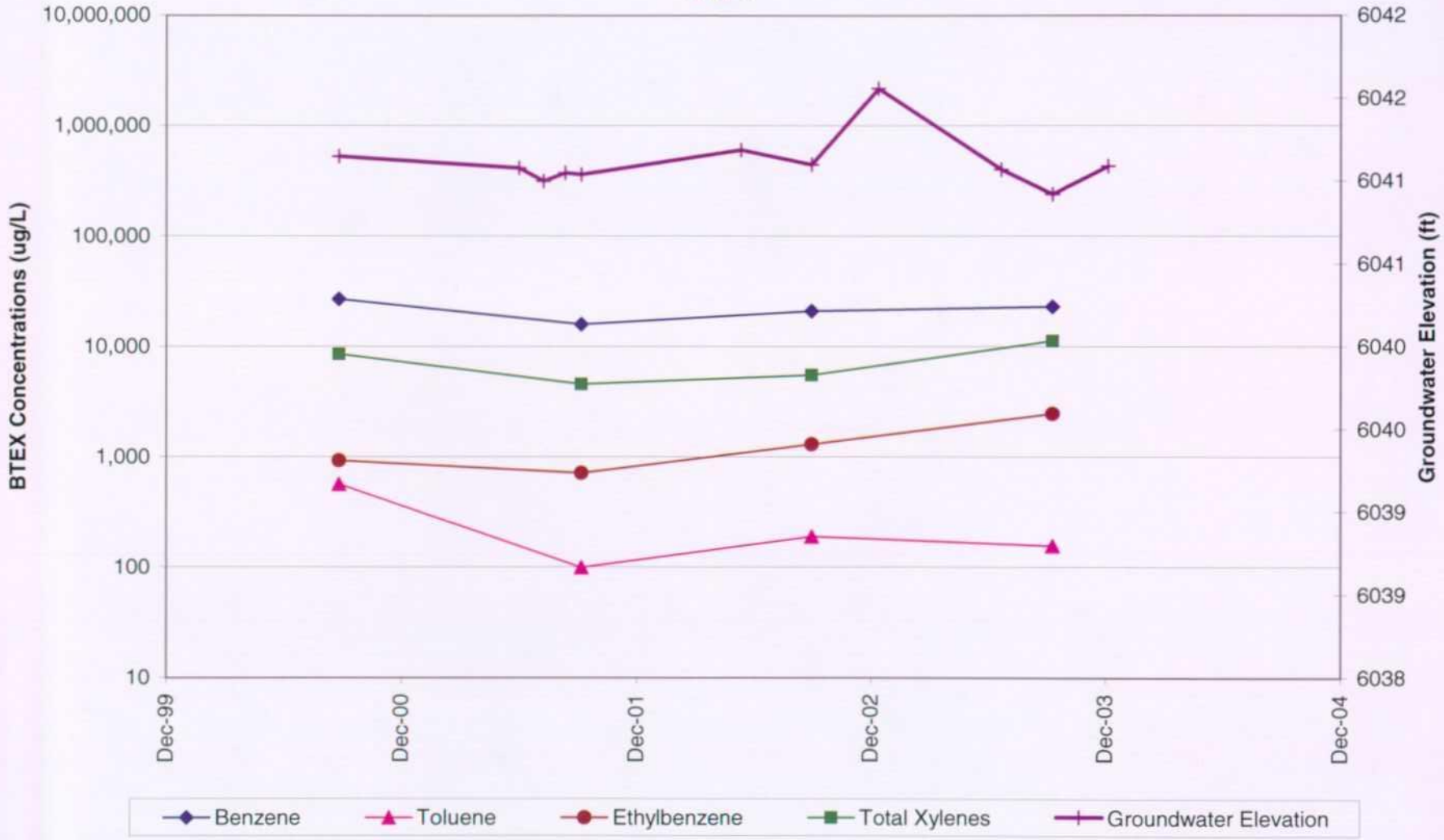
2003 State Gas Com.xls,StGasCom MW3

FIGURE 6
HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
STATE GAS COM N#1
MW-4



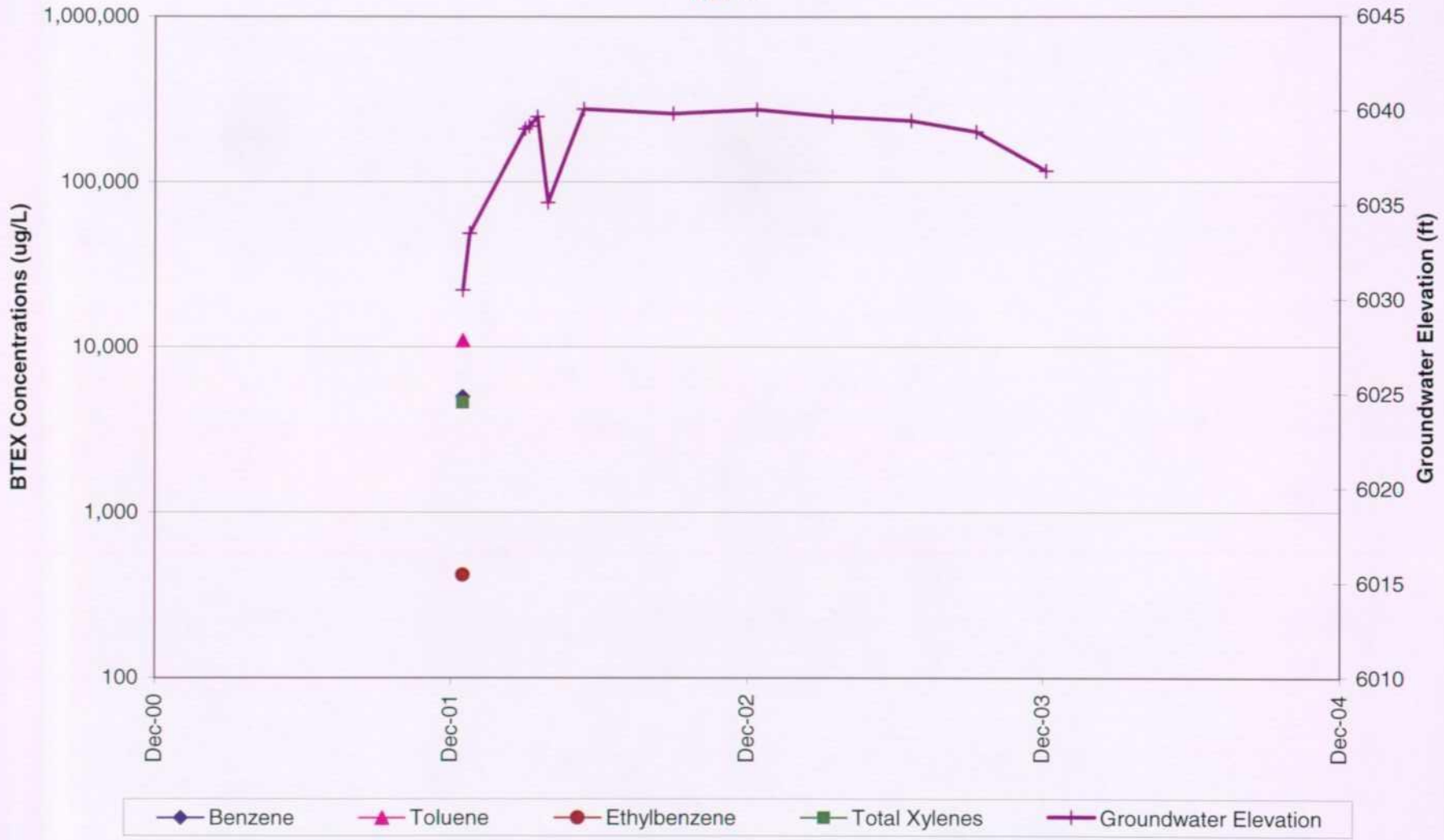
2003 State Gas Com.xls,StGasCom MW4

FIGURE 7
HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
STATE GAS COM N#1
MW-5



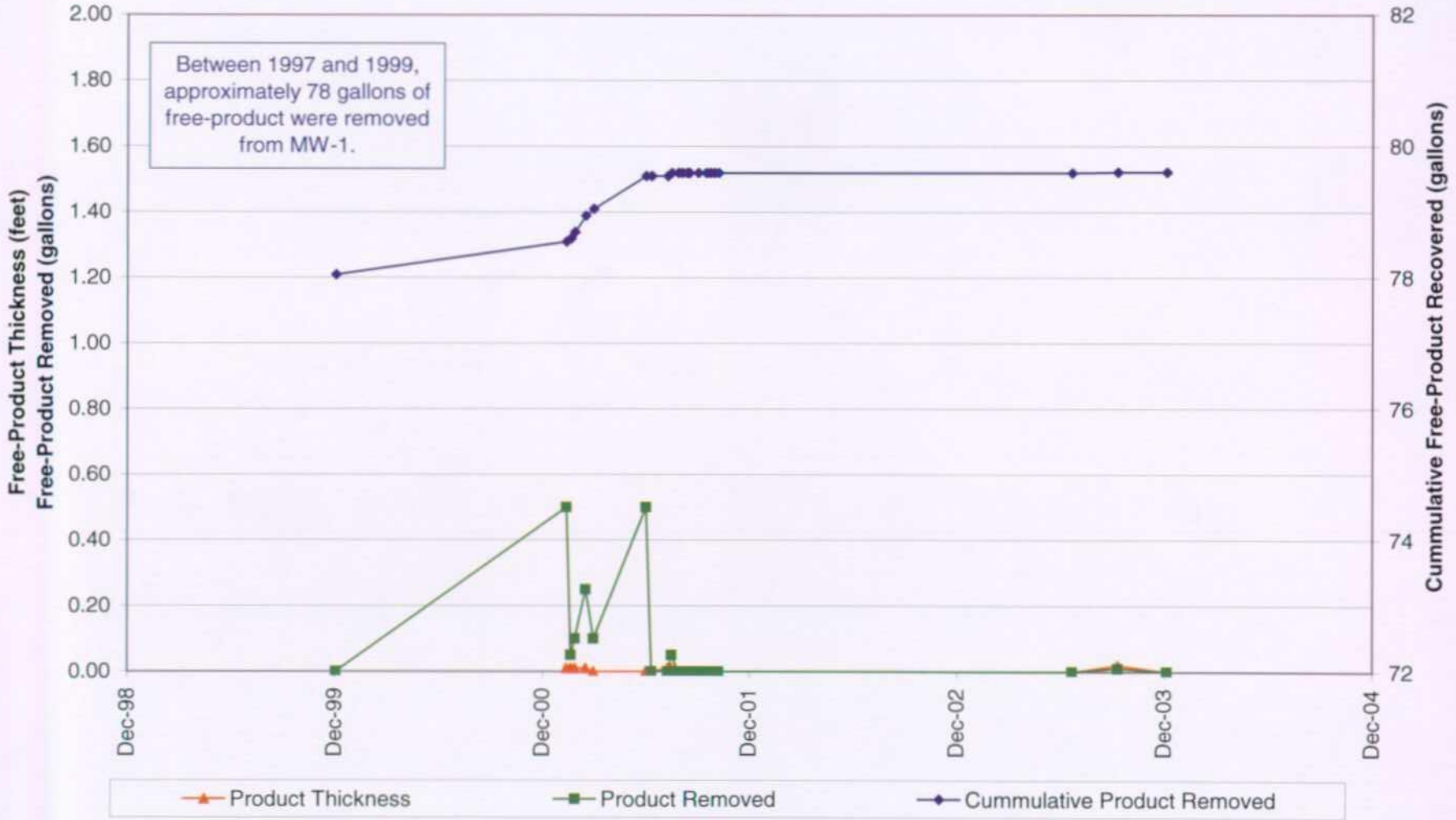
2003 State Gas Com.xls,StGasCom MW5

FIGURE 8
HISTORIC BTEX CONCENTRATIONS AND GROUNDWATER ELEVATIONS
STATE GAS COM N#1
MW-6



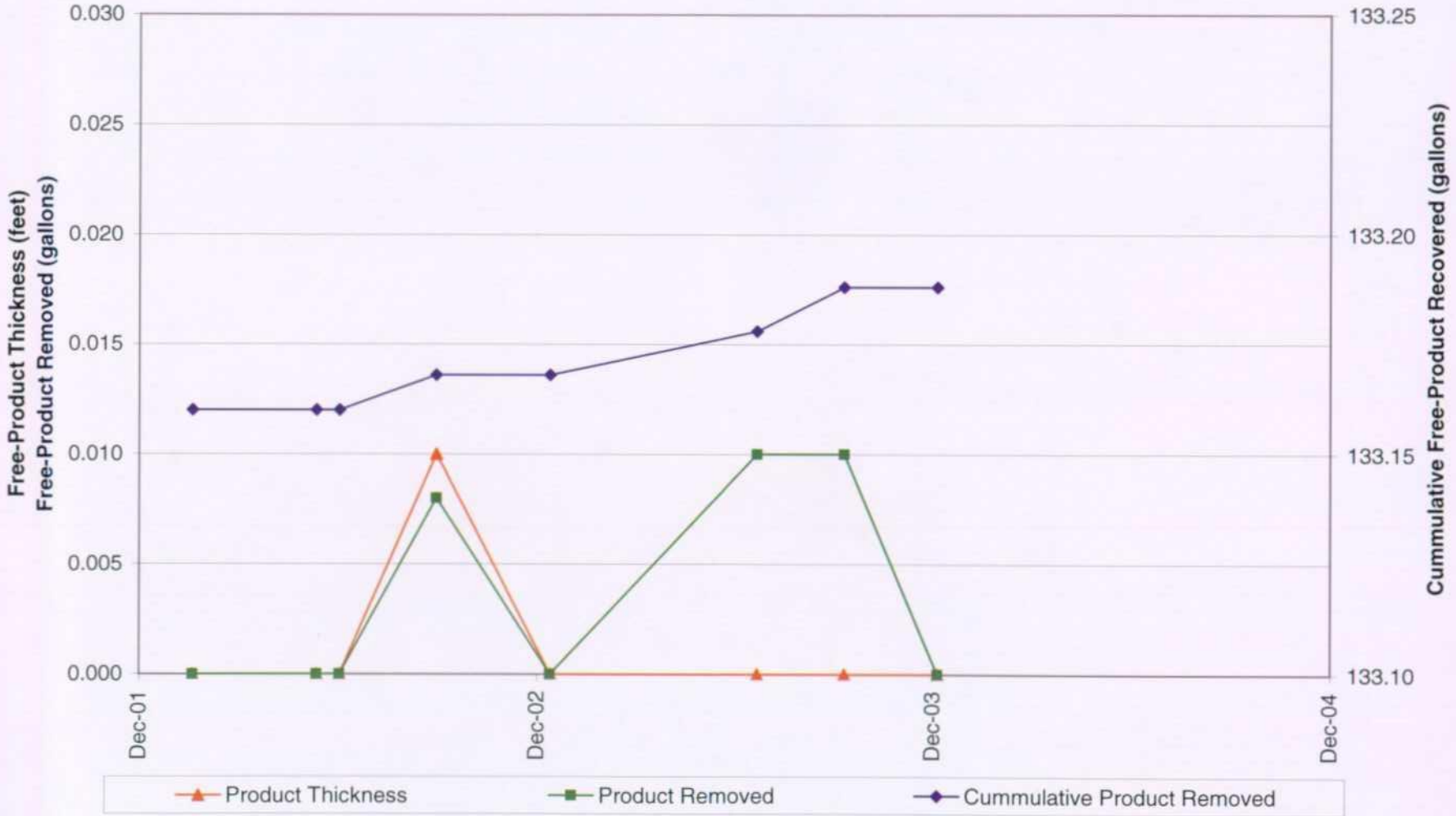
2003 State Gas Com.xls,StGasCom MW6

FIGURE 9
HISTORIC FREE-PRODUCT RECOVERY
STATE GAS COM N#1
MW-1



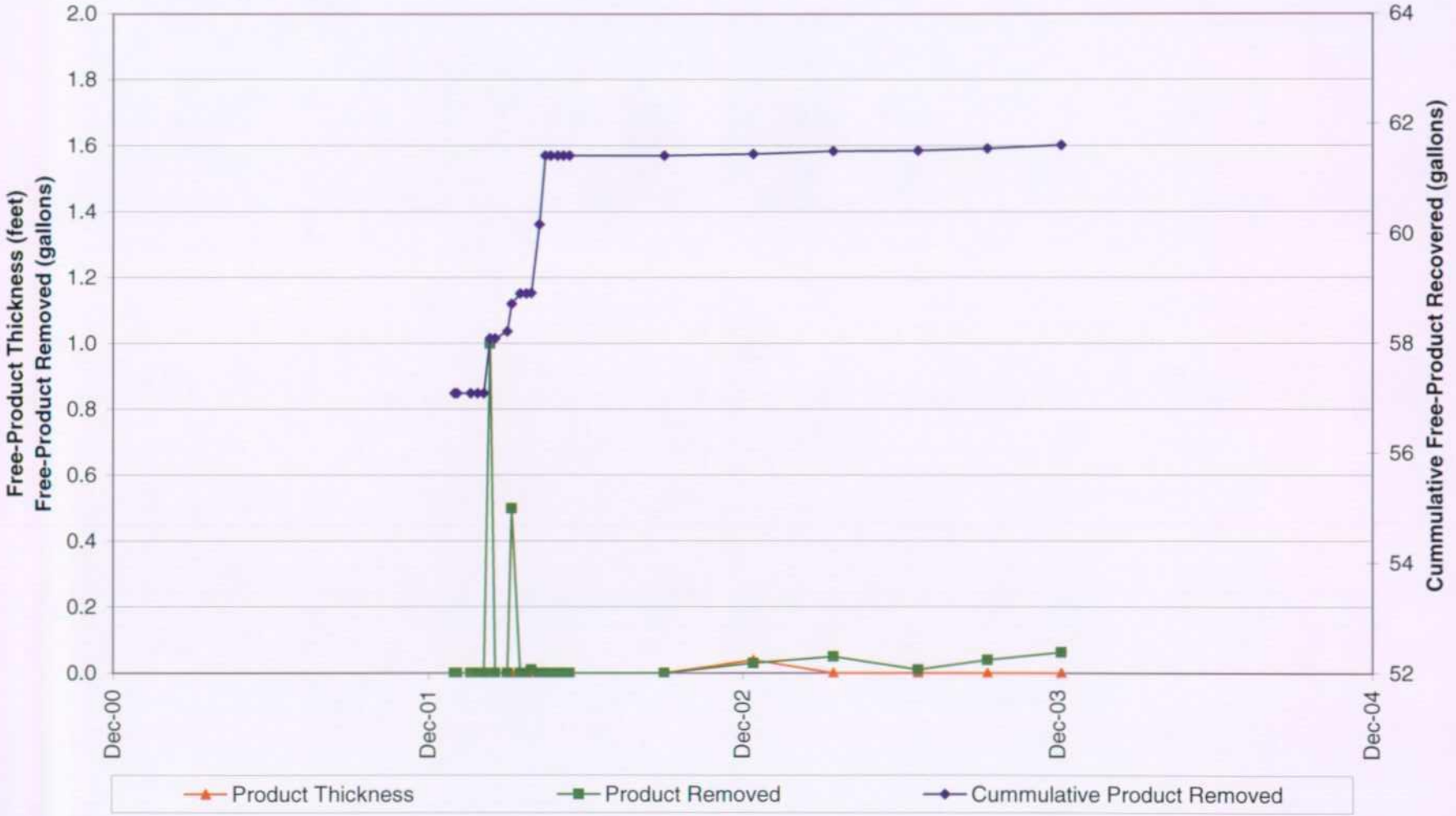
2003 State Gas Com.xls, StGasCom PR1

FIGURE 10
HISTORIC FREE-PRODUCT RECOVERY
STATE GAS COM N#1
MW-2



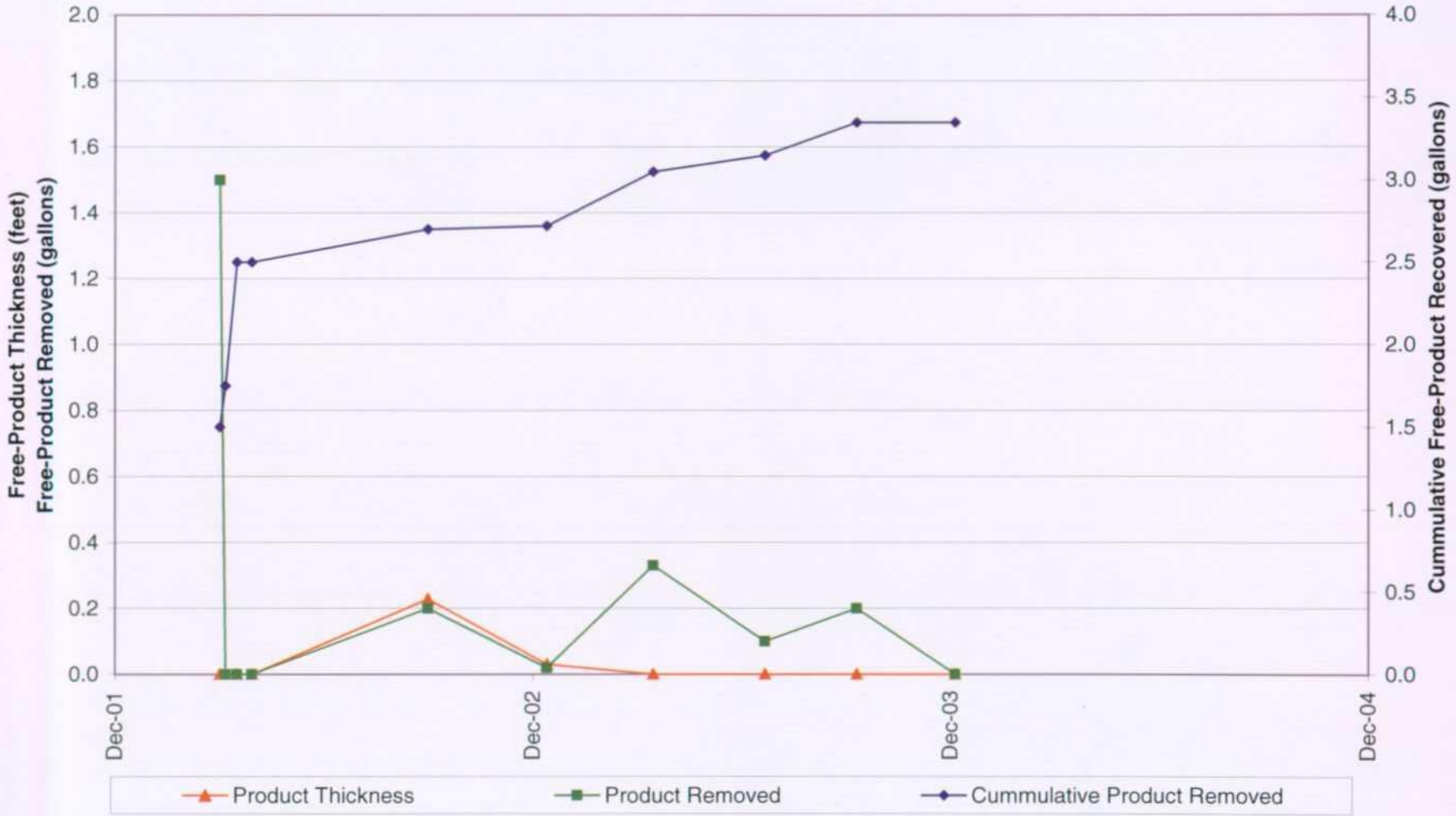
2003 State Gas Com.xls, StGasCom PR2

FIGURE 11
HISTORIC FREE-PRODUCT RECOVERY
STATE GAS COM N#1
MW-3



2003 State Gas Com.xls, StGasCom PR3

FIGURE 12
HISTORIC FREE-PRODUCT RECOVERY
STATE GAS COM N#1
MW-6



2003 State Gas Com.xls, StGasCom PR6

ATTACHMENT 1

LABORATORY REPORTS

DATA VALIDATION WORKSHEET

Analytical Method/Analytes: SW-846 8021B (BTEX) **Sample Collection Date(s):** 09/14/03

Laboratory: Accutest **MWH Job Number:** EPC-SJRB (Groundwater)

Batch Identification: T5377 **Matrix:** Water

MS/MSD Parent(s)[a]: None **Field Replicate Parent(s):** None

Validation Complete: Bryan Bytton 9-30-03 (Date/Signature)

Foot Notes	Site ID	Sample ID	Lab. ID	Hits (Y/N)	Quals.	Comments
1,2,3	State Gas Com.	MW-4	T5377-01	Y	J	Benzene @ 24000 µg/l
					J	Toluene @ 30800 µg/l
					J	Ethylbenzene @ 4670 µg/l
					J	Xylenes (total) @ 73200 µg/l
					J	o-Xylene @ 15500 µg/l
					J	m,p-Xylene @ 57800 µg/l
1,4	State Gas Com.	MW-5	T5377-02	Y	J	Benzene @ 23100 µg/l
					J	Toluene @ 157 µg/l
					J	Ethylbenzene @ 2480 µg/l
					J	Xylenes (total) @ 11300 µg/l
					J	o-Xylene @ 181 µg/l
					J	m,p-Xylene @ 11100 µg/l
None	Trip Blank	140903TB01	T5377-03	N		

DATA VALIDATION WORKSHEET

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

Laboratory: Accutest **Batch Identification:** T5377

Validation Criteria								
Sample ID	**State Gas Com. MW-4**	**State Gas Com. MW-5**	**140903TB 01**					
Lab ID	**T5377-01**	**T5377-02**	**T5377-03**					
Holding Time	A[1]	A[1]	A					
Analyte List	A	A	A					
Reporting Limits	A	A	A					
Trip Blank	A	A	A					
Equipment Rinseate Blanks	N/A	N/A	N/A					
Field Duplicate/Replicate	N/A	N/A	N/A					
Surrogate Spike Recovery	A[2,3]	A[4]	A					
Initial Calibration	N	N	N					
Initial Calibration Verification (ICV)	N	N	N					
Continuing Calibration Verification (CCV)	N	N	N					
Laboratory Control Sample (LCS)	A	A	A					
Laboratory Control Sample Duplicate (LCSD)	N	N	N					
Method Blank	A	A	A					
Matrix Spike/Matrix Spike Dup. (MS/MSD)	N/A	N/A	N/A					
Retention Time Window	N	N	N					
Injection Time(s)	N	N	N					
Hardcopy vs. Chain-of-Custody	A	A	A					
EDD vs. Hardcopy	N	N	N					
EDD vs. Chain of Custody	N	N	N					

(a) List QC batch identification if different than Batch ID
A indicates validation criteria were met
A/L indicates validation criteria met based upon Laboratory's QC Summary Form
X indicates validation criteria were not met
N indicates data review were not a project specific requirement
N/A indicates criteria are not applicable for the specified analytical method or sample
N/R indicates data not available for review

NOTES:

1) Non-preserved sample holding time of seven days exceeded by one day, indicating a possible low bias. Qualify associated sample hits with "J" flags to indicated the data are estimated and potentially biased low and qualify associated non-detects with "UJ" flags to indicate the results are possible false negatives.

2) Surrogate percent recovery outside acceptance criteria for the following (applies to ethylbenzene):
   a) 4-Bromofluorobenzene @ 145% (64-121), indicating a possible high bias. Qualify associate sample hits with "J" flags to inciate the data are estimated and potentially biased high.
   b) aaa-Trifluorotoluene @ 253% (71-121), indicating a possible high bias. Qualify associate sample hits with "J" flags to inciate the data are estimated and potentially biased high. Only one surrogate outside acceptance criteria, no data qualified.

DATA VALIDATION WORKSHEET

3) Surrogate percent recovery outside acceptance criteria for the following compounds (applies to all compounds but ethylbenzene):
   a) 4-Bromofluorobenzene @ 129% (64-121), indicating a possible high bias. Qualify associate sample hits with "J" flags to inciate the data are estimated and potentially biased high.
   b) aaa-Trifluorotoluene @ 132% (71-121), indicating a possible high bias. Qualify associate sample hits with "J" flags to inciate the data are estimated and potentially biased high.

4) Surrogate percent recovery outside acceptance criteria for the following compounds: (applies to toluene & o-xylene)
   a) 4-Bromofluorobenzene @ 138% (64-121), indicating a possible high bias. Qualify associate sample hits with "J" flags to inciate the data are estimated and potentially biased high.
   b) aaa-Trifluorotoluene @ 298% (71-121), indicating a possible high bias. Qualify associate sample hits with "J" flags to inciate the data are estimated and potentially biased high. Only one surrogate outside acceptance criteria, no data qualified.

CHAIN CUSTODY # 150903MN01

ACCUTEST. Laboratories
10165 Harwin Drive, Ste. 150, Houston, TX 77036
TEL. 713-271-4700 FAX: 713-271-4770
www.accutest.com

FED-EX Tracking # 786579605972 | Bottle Order Control #
Accutest Quote # | Accutest Job #

Client / Reporting Information

Company Name: MWH/El Paso
Address: 614 Reilly
City: Farmington State: NM Zip: 87401
Project Contact: Scott Pope E-mail:
Phone #: 505 599 2124
Sampler's Name: MJ Nee

Project Information

Project Name: Groundwater
Street:
City: State:
Project #:
Fax #: 505 599 2119
Client Purchase Order #:

Requested Analysis

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	BTEX
	State Gas Com MW-4		9/14/03	1150	MN	WG	2					2				X
	State Gas Com MW-5		9/14/03	1240	MN	WG	2					2				X
	140903TB01		9/14/03	0800	MN	WQ	1									X

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

LAB USE ONLY

Turnaround Time (Business Days)

- [x] 10 Day *STANDARD* — Approved By: / Date:
- [ ] 5 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*
- [ ] Other

Emergency & Rush T/A data available VIA LabLink

Data Deliverable Information

- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Tier 1
- [ ] TRRP13
- [ ] EDD Format _____

Commercial "A" = Results Only

Comments / Remarks

T5377

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received by:	Relinquished by	Date Time:	Received by:
1	9/15/03 1600	1	2		2
Relinquished by:	Date Time:	Received by:	Relinquished by:	Date Time:	Received by:
3	9/16/03 0850	3	4		4
Relinquished by:	Date Time:	Received by:	Custody Seal #	Preserved where applicable ☐	On Ice ☒ Cooler Temp. 4.0 °C
5		5			

Gulf Coast
ACCUTEST.
Laboratories

09/25/03

Technical Report for

Montgomery Watson

EPFS San Juan Basin Groundwater Site

Accutest Job Number: T5377

Report to:

MWH

pamela.j.anderson@us.mwhglobal.com

ATTN: Pam Anderson

State GW Com

Total number of pages in report: 9

ACCREDITED IN ACCORDANCE WITH nelac

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

Ron Martino
Laboratory Manager

Accutest Laboratories

Sample Summary

Montgomery Watson

Job No: T5377

EPFS San Juan Basin Groundwater Site

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
T5377-1	09/14/03	11:50	MN	09/16/03	AQ	Water	STATEGASCOM MW-4
T5377-2	09/14/03	12:40	MN	09/16/03	AQ	Water	STATEGASCOM MW-5
T5377-3	09/14/03	08:00	MN	09/16/03	AQ	Trip Blank Water	140903TB01

Accutest Laboratories

Report of Analysis

Client Sample ID:	STATEGASCOM MW-4		
Lab Sample ID:	T5377-1	Date Sampled:	09/14/03
Matrix:	AQ - Water	Date Received:	09/16/03
Method:	SW846 8021B	Percent Solids:	n/a
Project:	EPFS San Juan Basin Groundwater Site		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK005802.D	100	09/22/03	BC	n/a	n/a	GKK312
Run #2 [a]	KK005803.D	500	09/22/03	BC	n/a	n/a	GKK312

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	24000 [b]	500	ug/l	
108-88-3	Toluene	30800 [b]	500	ug/l	
100-41-4	Ethylbenzene	4670	100	ug/l	
1330-20-7	Xylenes (total)	73200 [b]	1500	ug/l	
95-47-6	o-Xylene	15500 [b]	500	ug/l	
	m,p-Xylene	57800 [b]	1000	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	145% [c]	129% [d]	64-121%
98-08-8	aaa-Trifluorotoluene	253% [c]	132% [d]	71-121%

(a) Sample was not preserved to a pH < 2; reported results are considered minimum values.
(b) Result is from Run# 2
(c) Outside control limits due to matrix interference.
(d) Outside control limits due to matrix interference. Confirmed by reanalysis.

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	STATEGASCOM MW-5		
Lab Sample ID:	T5377-2	Date Sampled:	09/14/03
Matrix:	AQ - Water	Date Received:	09/16/03
Method:	SW846 8021B	Percent Solids:	n/a
Project:	EPFS San Juan Basin Groundwater Site		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	KK005796.D	10	09/22/03	BC	n/a	n/a	GKK312
Run #2 [a]	KK005804.D	500	09/22/03	BC	n/a	n/a	GKK312

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	23100 [b]	500	ug/l	
108-88-3	Toluene	157	10	ug/l	
100-41-4	Ethylbenzene	2480 [b]	500	ug/l	
1330-20-7	Xylenes (total)	11300 [b]	1500	ug/l	
95-47-6	o-Xylene	181	10	ug/l	
	m,p-Xylene	11100 [b]	1000	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	138% [c]	103%	64-121%
98-08-8	aaa-Trifluorotoluene	298% [c]	114%	71-121%

(a) Sample was not preserved to a pH < 2; reported results are considered minimum values.
(b) Result is from Run# 2
(c) Outside control limits due to matrix interference.

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	140903TB01		
Lab Sample ID:	T5377-3	Date Sampled:	09/14/03
Matrix:	AQ - Trip Blank Water	Date Received:	09/16/03
Method:	SW846 8021B	Percent Solids:	n/a
Project:	EPFS San Juan Basin Groundwater Site		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK005793.D	1	09/22/03	BC	n/a	n/a	GKK312
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
	m,p-Xylene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		64-121%
98-08-8	aaa-Trifluorotoluene	95%		71-121%

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

GC Volatiles

QC Data Summaries

Includes the following where applicable:

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

Blank Spike Summary

Job Number: T5377
Account: MWHSLCUT Montgomery Watson
Project: EPFS San Juan Basin Groundwater Site

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK312-BS	KK005791.D	1	09/22/03	BC	n/a	n/a	GKK312

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

T5377-1, T5377-2, T5377-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	22.9	115	74-119
100-41-4	Ethylbenzene	20	22.9	115	82-115
108-88-3	Toluene	20	22.4	112	77-116
1330-20-7	Xylenes (total)	60	67.7	113	79-115
95-47-6	o-Xylene	20	22.4	112	78-114
	m,p-Xylene	40	45.2	113	79-116

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	115%	64-121%
98-08-8	aaa-Trifluorotoluene	106%	71-121%

Method Blank Summary

Job Number: T5377
Account: MWHSLCUT Montgomery Watson
Project: EPFS San Juan Basin Groundwater Site

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK312-MB	KK005792.D	1	09/22/03	BC	n/a	n/a	GKK312

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

T5377-1, T5377-2, T5377-3

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
	m,p-Xylene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	104%	64-121%
98-08-8	aaa-Trifluorotoluene	101%	71-121%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T5377
Account: MWHSLCUT Montgomery Watson
Project: EPFS San Juan Basin Groundwater Site

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T5378-1MS	KK005800.D	10	09/22/03	BC	n/a	n/a	GKK312
T5378-1MSD	KK005801.D	10	09/22/03	BC	n/a	n/a	GKK312
T5378-1	KK005797.D	1	09/22/03	BC	n/a	n/a	GKK312
T5378-1	KK005799.D	10	09/22/03	BC	n/a	n/a	GKK312

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

T5377-1, T5377-2, T5377-3

CAS No.	Compound	T5378-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	125 [a]		200	345	110	346	111	0	64-124/16
100-41-4	Ethylbenzene	5.2		200	229	112	230	112	0	64-123/14
108-88-3	Toluene	2.6		200	228	113	227	112	0	64-120/13
1330-20-7	Xylenes (total)	3.0		600	700	116	697	116	0	66-118/18
95-47-6	o-Xylene	1.4		200	235	117	235	117	0	65-119/20
	m,p-Xylene	1.6	J	400	465	116	461	115	1	66-120/14

CAS No.	Surrogate Recoveries	MS	MSD	T5378-1	T5378-1	Limits
460-00-4	4-Bromofluorobenzene	111%	103%	103%	95%	64-121%
98-08-8	aaa-Trifluorotoluene	99%	90%	96%	89%	71-121%

(a) Result is from Run #2.

CHAIN CUSTODY # 150903MN01

ACCUTEST Laboratories
10165 Harwin Drive, Ste. 150, Houston, TX 77036
TEL. 713-271-4700 FAX: 713-271-4770
www.accutest.com

FED-EX Tracking # 736579005 92 | Bottle Order Control #
Accutest Quote # | Accutest Job #

Client / Reporting Information

Company Name: MWH / El Paso
Address: 614 Reilly
City: Farmington State: NM Zip: 87401
Project Contact: Scott Pope E-mail:
Phone #: 505 599 2124
Sampler's Name: M J Nee

Project Information

Project Name: Groundwater
Street:
City: State:
Project #:
Fax #: 505 599 2119
Client Purchase Order #:

Requested Analysis

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	EnCore	8TEX
	StateGasCom MW-4		9/14/03	1150	MN	WG	2					2				X
	StateGasCom MW-5		9/14/03	1240	MN	WG	2					2				X
	140903TB01		9/14/03	0800	MN	WQ	1									X

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
LAB USE ONLY

Turnaround Time (Business Days)

- [x] 10 Day *STANDARD*
- [ ] 5 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*
- [ ] Other

Approved By: / Date:

Emergency & Rush T/A data available VIA LabLink

Data Deliverable Information

- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] Reduced Tier 1
- [ ] Full Tier 1
- [ ] TRRP13
- [ ] EDD Format

Commercial "A" = Results Only

Comments / Remarks

T5377

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received by:	Relinquished by	Date Time:	Received by:
1	9/15/03 1000	1	2		2
Relinquished by:	Date Time:	Received by:	Relinquished by:	Date Time:	Received by:
3	9/16/03 0850	3	4		4
Relinquished by:	Date Time:	Received by:	Custody Seal #	Preserved where applicable	Cooler Temp.
5		5		[ ]	4.0 °C

ACCUTEST.

SAMPLE RECEIPT LOG

JOB #: T5377 DATE/TIME RECEIVED: 9/16/03 0850

CLIENT: EL PASO / MWH INITIALS: KV

Condition/Variance (Circle "Y" for yes and "N" for no. If "N" is circled, see variance for explanation):

1. (Y) N Sample received in undamaged condition.
2. (Y) N Samples received within temp. range.
3. Y N (NA) Sample received with proper pH.
4. (Y) N Sample received in proper containers.
5. (Y) N Sample volume sufficient for analysis.
6. (Y) N Sample received with chain of custody.
7. (Y) N Chain of Custody matches sample IDs on containers.
8. (Y) N Custody seal received intact and tamper evident on cooler.
9. Y (NA) Custody seal received intact and tamper evident on bottles.

SAMPLE or FIELD ID	BOTTLE #	DATE SAMPLED	MATRIX	VOLUME	LOCATION	PRESERV.	PH
1	1-2	9/14/03	WW	VOA	VREF	1,2,3,4,5,6	U, <2, >12, (NA)
2	1-2	↓	↓	↓	↓	1,2,3,4,5,6	U, <2, >12, (NA)
3	1	↓	↓	↓	↓	1,2,3,4,5,6	U, <2, >12, (NA)
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
			"			1,2,3,4,5,6	U, <2, >12, NA
		9/16/03				1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA

LOCATION: WI: Walk-In VR: Volatile Refrig. SUB: Subcontract EF: Encore Freezer

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: Other

pH of waters checked excluding volatiles

pH of soils N/A

Comments: _____

Delivery method: Courier: Fed Ex Tracking#: _____

COOLER TEMP: 4.0°C COOLER TEMP: _____

COOLER TEMP: _____ COOLER TEMP: _____

Method of sample disposal: (circle one) Accutest disposal Hold Return to Client

Form: SM012

ATTACHMENT 2

FIELD DOCUMENTATION

PRODUCT RECOVERY/WATER LEVEL DATA

Martin J. Nee
PO Box 3861
Farmington, NM 87499-3861
(505)334-2791 (505)320-9675cell

Project Name	**San Juan Basin Ground Water**	**Project No.**	**30001.0**
Project Manager	**MJN**		
Client Company	**MWH**	**Date**	**12-9-03**
Site Name	**State Gas Com**		

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed
MW-1	**1023**		**75.62**		
MW-2			**76.22**		
MW-3		**76.15**	**76.22**	**0.07**	**8 ounces**
			78.01		**2.5 gallons water**
MW-4			**76.07**		
MW-5			**74.25**		
MW-6		**71.10**	**71.75**	**0.65**	**14 ounces**
MW-6 final			**74.32**		**bailed 2gal water**

Comments
There was no product in MW-1 or MW-2 during this visit. There was product in both these wells last quarter. MW-5 is 169.7' N1E of MW-6.

Signature: *Martin J. Nee* Date: December 9, 2003

WELL DEVELOPMENT AND SAMPLING LOG

Project No.:30001.0 Project Name: SJB Groundwater Client: MWH/EL Paso

Location: State Gas Com Well No: MW-5 Development **Sampling**

Project Manager MJN Date 9/14/03 Start Time 1210 Weather Sunny 70s

Depth to Water 74.42 Depth to Product na Product Thickness na Measuring Point TOC

Water Column Height 7.63 Well Dia. 2"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer x Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal X stabilization of Indicator Parameters X Other or bail dry

Gal/ft x ft of water	Water Volume in Well		Gal/oz to be removed
	Gallons	Ounces	
7.63 x .16	1.22 x 3		3.66

Time (military)	pH (su)	SC (umhos/cm)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gallons)	Comments/ Flow rate
1214	**6.45**	**7140**	**18.3**				**0.25**	**clear**
	6.49	**7470**	**17.7**				**0.5**	
	6.48	**7290**	**17.8**				**0.75**	
	6.51	**7320**	**17.8**				**1.75**	
	6.50	**7190**	**17.7**				**2.75**	**grey**
1239	**6.56**	**7190**	**17.5**				**3.75**	

Final: Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow Rate
1239	**6.56**	**7190**	**17.5**					**3.75**	

COMMENTS: no preservative to to RXN between carbonate in GW and HCL

INSTRUMENTATION: pH Meter X _____ Temperature Meter x

DO Monitor _____ Other _____

Conductivity Meter X _____

Water Disposal Kutz Sample ID State Gas Com MW-5 Sample Time 1240

BTEX VOCs Alkalinity TDS Cations Anions Nitrate Nitrite Ammonia TKN NMWQCC Metals Total Phosphorus

MS/MSD_____ BD_____ BD Name/Time_____ TB 140903tb01

WELL DEVELOPMENT AND SAMPLING LOG

Project No.: 30001.0 Project Name: SJB Groundwater Client: MWH/EL Paso

Location: State Gas Com Well No: MW-4 Development **Sampling**

Project Manager MJN Date 9/14/03 Start Time 1109 Weather Sunny 70s

Depth to Water 76.28 Depth to Product na Product Thickness na Measuring Point TOC

Water Column Height 6.40 Well Dia. 4"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer x Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal X stabilization of Indicator Parameters X Other or bail dry

Gal/ft x ft of water	Water Volume in Well		Gal/oz to be removed
	Gallons	Ounces	
6.40 x .65	4.16 x 3		12.47

Time (military)	pH (su)	SC (umhos/cm)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gallons)	Comments/ Flow rate
1120	**6.61**	**4590**	**20.1**				**0.75**	**clear**
	6.68	**5760**	**18.3**				**1.5**	
	6.68	**5260**	**17.4**				**2.25**	
1134	**6.71**	**5030**	**17.0**				**5.25**	**slight gray**
1146	**6.98**	**4670**	**16.8**				**7.5**	**well has bailed dry**

Final: Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow Rate
1146	**6.98**	**4670**	**16.8**					**7.5**	**well has bailed dry**

COMMENTS: no preservative to to RXN between carbonate in GW and HCL

INSTRUMENTATION: pH Meter X _____ Temperature Meter x

DO Monitor _____ Other _____

Conductivity Meter X _____

Water Disposal Kutz Sample ID State Gas Com MW-4 Sample Time 1150

BTEX VOCs Alkalinity TDS Cations Anions Nitrate Nitrite Ammonia TKN NMWQCC Metals Total Phosphorus

MS/MSD _____ BD _____ BD Name/Time _____ TB 140903tb01

PRODUCT RECOVERY/WATER LEVEL DATA

Martin J. Nee
PO Box 3861
Farmington, NM 87499-3861
(505)334-2791 (505)320-9675cell

Project Name_	**San Juan Basin Ground Water**	**Project No.**	**30001.0**
Project Manager	**MJN**		
Client Company	**MWH**	**Date**	**9-14-03**
Site Name	**State Gas Com**		

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed (gal)
MW-1	**1040**	**75.77**	**75.79**	**0.02**	**0.01**
MW-1 final			**76.84**		**bailed 2.25 gal grey water**
MW-2		**76.33**	**76.35**	**0.02**	**0.01**
MW-2 final			**77.91**		**bailed 1.75 gal water**
MW-3		**76.306**	**76.36**	**0.054**	**0.04**
			77.23		
MW-4			**76.28**		
MW-5			**74.42**		
MW-6		**71.04**	**72.25**	**1.21**	**0.2**
MW-6 final			**73.59**		**bailed 1.25 gal black water**

Comments
Product in MW-1 for first time. Also product thickness increased significantly in MW-6

Signature: *Martin J. Nee* Date: September 14, 2003

WELL DEVELOPMENT AND SAMPLING LOG

Project No: 30001.0 Project Name: San Juan Basin Groundwater Client: MWH

Location: State Gas 1 Well No: MW-6 Development ☒ Sampling ☐

Project Manager MJN Date 6/26/03 Start Time 0922 Weather Sunny 80s

Depth to Water 7.66 Depth to Product 7.05 Product Thickness .625 Measuring Point TOC

Water Column Height 12.1 Well Dia. 2"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer ☐ Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal ☐ Sabilization of Indicator Parameters ☐ Other _____

Gal/ft x ft of water	Water Volume In Well		Gal/oz to be removed
	Gallons	Ounces	
12.1 x .16	1.936 x 3		5.808 gal

Time (military)	pH	SC (umhos/cm)	Temp (°C)	Eh-ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gal.)	Comments/ Flow rate
0922	6.70	7670	196				.25	clear w/black floats
	6.79	7990	185				1	black translucent
	6.81	8390	191				2	
	6.83	8520	185				3	
	6.82	9430	191				4	
1004	6.88	8970	190				5	
1008	6.80	8860	191				6	Make good water

Final:

Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow rate
1008	6.80	8860	191					6	

COMMENTS: _____

INSTRUMENTATION: pH Meter ☒ _____ Temperature Meter ☒ _____

DO Monitor ☐ _____ Other ☐ _____

Conductivity Meter ☒ _____

Water Disposal Kurz

Sample ID _____ Sample Time _____ BTEX ☐ VOCs ☐ Alkilinity ☐

TDS ☐ Cations ☐ Anions ☐ Nitrate ☐ Nitrite ☐ Ammonia ☐ TKN ☐ NM WQCC Metals ☐

Total Phosphorus ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐

MS/MSD _____ BD _____ BD Name/Time _____ TB _____

WELL DEVELOPMENT AND SAMPLING LOG

Project No: 30001.0 Project Name: San Juan Basin Groundwater Client: MWH

Location: State Gas Com Well No: MW3 Development ☒ Sampling ☐

Project Manager MJN Date 6-26-03 Start Time 0830 Weather Sunny 80s

Depth to Water 76.22 Depth to Product 76.19 Product Thickness .03 Measuring Point TOC

Water Column Height 6.06 Well Dia. 4"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer ☒ Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal ☒ Sabilization of Indicator Parameters ☒ Other or bail dry

Gal/ft x ft of water	Water Volume In Well		Gal/oz to be removed
	Gallons	Ounces	
6.06x.65	3.39x3		11.817

Time (military)	pH	SC (umhos/cm)	Temp (°C)	Eh-ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gal.)	Comments/ Flow rate
0831	6.9	10780	18.2				1	clean w/product
	6.5	10780	18.7				5	grey silt translucent
	6.9	11820	18.7				6.5	well is bailing down
0910	6.49	10810	19.0				8	well is dry

Final:

Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow rate
0910	6.49	10810						8	

COMMENTS: Surged well vigorously. Removed silt from bottom of well

INSTRUMENTATION: pH Meter ☒ Temperature Meter ☒

DO Monitor ☐ Other ☐

Conductivity Meter ☒

Water Disposal Kutz

Sample ID NS Sample Time BTEX ☐ VOCs ☐ Alkilinity ☐

TDS ☐ Cations ☐ Anions ☐ Nitrate ☐ Nitrite ☐ Ammonia ☐ TKN ☐ NM WQCC Metals ☐

Total Phosphorus ☐ ☐ ☐ ☐ ☐

MS/MSD BD BD Name/Time TB

WELL DEVELOPMENT AND SAMPLING LOG

Project No: 30001.0 Project Name: San Juan Basin Client: MWH

Location: Hydrocarbon Well No: MW-2 Development ☑ Sampling ☐

Project Manager MJN Date 6-26-08 Start Time 0803 Weather Sunny 80s

Depth to Water 76.35 Depth to Product 76.33 Product Thickness .02 Measuring Point TOC

Water Column Height 7.24 Well Dia. 4"

Sampling Method: Submersible Pump ☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Other ☐

Bottom Valve Bailer ☒ Double Check Valve Bailer ☐ Stainless-Steel Kemmerer ☐

Criteria: 3 to 5 Casing Volumes of Water Removal ☒ Sabilization of Indicator Parameters ☒ Other colloid dry

Gal/ft x ft of water	Water Volume In Well		Gal/oz to be removed
	Gallons	Ounces	
7.24 x .65	4.706 x 3		14.12

Time (military)	pH	SC (umhos/cm)	Temp (°C)	Eh-ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. (gal.)	Comments/ Flow rate
0803	6.69	6510	18.4				.5	Clear
	6.64	7080	17.9				5	gray/copper
	6.70	6630	18.0				6	Very Silty
0825	6.68	6670	17.9				7.5	

Final:

Time	pH	SC	Temp	Eh-ORP	D.O.	Turbidity	Ferrous Iron	Vol Evac.	Comments/Flow rate
0825	6.68	6670	17.9					7.5	

COMMENTS: Surged vigorously Heavy Silt, Well build down. Could not regain flow. Removed silt from bottom of well

INSTRUMENTATION: pH Meter ☒ _____ Temperature Meter ☒ _____

DO Monitor ☐ _____ Other ☐ _____

Conductivity Meter ☒ _____

Water Disposal Kutz

Sample ID MW2 Sample Time _____ BTEX ☐ VOCs ☐ Alkilinity ☐

TDS ☐ Cations ☐ Anions ☐ Nitrate ☐ Nitrite ☐ Ammonia ☐ TKN ☐ NM WQCC Metals ☐

Total Phosphorus ☐ _____ ☐ _____ ☐ _____ ☐ _____ ☐

MS/MSD _____ BD _____ BD Name/Time _____ TB _____

PRODUCT RECOVERY/WATER LEVEL DATA

Martin J. Nee
PO Box 3861
Farmington, NM 87499-3861
(505)334-2791 (505)320-9675cell

Project Name_	**San Juan Basin Ground Water**	**Project No.**	**30001.0**
Project Manager	**MJN**		
Client Company	**MWH**	**Date**	**6-26-03**
Site Name	**State Gas Com**		

Well	Time	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Volume Removed
MW-1	0708		75.76	0	
MW-2		76.33	76.35	0.02	2 oz
MW-3		76.19	76.22	0.03	3 oz
MW-4			76.24		
MW-5			74.27		
MW-6		71.035	71.66	0.625	12 oz

Comments

Redeveloped MW-2, MW-3 and MW-6.

Signature: *Martin J. Nee* Date: June 26, 2003

Product Recovery and Well Observation Data

Project Name: San Juan Basin
Project Manager: MJN
Client Company: MWH
Site Name: State Gas Com N #1

Project No: 22013
Date: March 20, 2003

Well	Time	Depth to Water (ft)	Depth to Product (ft)	Total Well Depth (ft)	Product Thickness (ft)	Volume Removed	Comments
MW-1	1035	76.025	No				
MW-2		76.27	No				
MW-3		76.32	76.28		.044	1/2 gal	Product is pale yellow
		76.96	No			1.5 gal Water	End water level
MW-4		76.28	No				
MW-5		74.32	No				
MW-6		71.43	70.90		.53	.33	rem 2 gal water
		73.78	No				End water level

COMMENTS: MW-3 removed 1.5 gal water
MW-6 removed 2 gal water

Signature: [signature]

Date: March 20, 2003