3R - 123

REPORTS

DATE:

Feb. 19, 1999

B0044

District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Drawer DD, Artesia, NM 88211
District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTA FE OFFICE

RECEIVED
FEB 19 1999
ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

APPROVED

PIT REMEDIATION AND CLOSURE REPORT

Operator: Amoco Production Company **Telephone:** (505) - 326-9200

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: Well Name: ROMERO GC A1

Location: Unit or Qtr/Qtr Sec K Sec 27 T 29N R 10W County SAN JUAN

Pit Type: Separator X Dehydrator ___ Other ___

Land Type: BLM ___, State ___, Fee X, Other ___

Pit Location: (Attach diagram)
Pit dimensions: length 30', width 27', depth 6'
Reference: wellhead X, other ___
Footage from reference: 118'
Direction from reference: 80 Degrees ___ East North ___ of X West South X

Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water)	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 Points)	20
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources)	Yes (20 points) No (0 points)	20
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet (20 points) 200 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)	20
	RANKING SCORE (TOTAL POINTS):	60

Date Remediation Started: _____ **Date Completed:** 8/10/94

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 90

Landfarmed X Insitu Bioremediation ___

Other _____

Remediation Location: (ie. landfarmed onsite, name and location of offsite facility) Onsite X Offsite _____

General Description Of Remedial Action: Excavation

Ground Water Encountered: No ___ Yes X Depth 3-5'

Final Pit: Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location see Attached Documents

Sample depth 5'

Sample date 8/9/94 Sample time 1124

Sample Results

Benzene(ppm) 0.010

Total BTEX(ppm) 0.117

Field headspace(ppm) _____

TPH _____

Ground Water Sample: Yes X No ___ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 8/10/94

SIGNATURE B J Shaw

PRINTED NAME AND TITLE Buddy D. Shaw Environmental Coordinator

P 6

CLIENT: AMOCO	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: 80044 C.O.C. NO: 1685

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: ROMERO GC WELL #: A1 PIT: SEP

QUAD/UNIT: K SEC: 27 TWP: 29N RNG: 10W PM: NM CNTY: SJ ST: NM

QTR/FOOTAGE: NE/4 SW/4 CONTRACTOR: P. VELASQUEZ

DATE STARTED: 8/9/94

DATE FINISHED: 8/9/94

ENVIRONMENTAL SPECIALIST: NV

SOIL REMEDIATION: EXCAVATION APPROX. 30 FT. x 27 FT. x 6 FT. DEEP.

DISPOSAL FACILITY: LANDFARMED ON-SITE CUBIC YARDAGE: 90

LAND USE: RANGE/AGRIC. LEASE:

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 118 FEET S80W FROM WELLHEAD.

DEPTH TO GROUNDWATER: <50 NEAREST WATER SOURCE: <1000 NEAREST SURFACE WATER: <200

NMOCD RANKING SCORE: 60 NMOCD TPH CLOSURE STD: 100 PPM FORMATION: CK/MV

SOIL AND EXCAVATION DESCRIPTION: GW PUMPED PRIOR TO ARRIVAL. ACTUAL GW DEPTH APPROX. 3-3½' BELOW GROUND SURFACE. SLIGHT SHEEN OBSERVED ON SURFACE.

GW PUMPED & DISPOSED OF DURING THE PAST WEEK BY TRIPLE SSS.

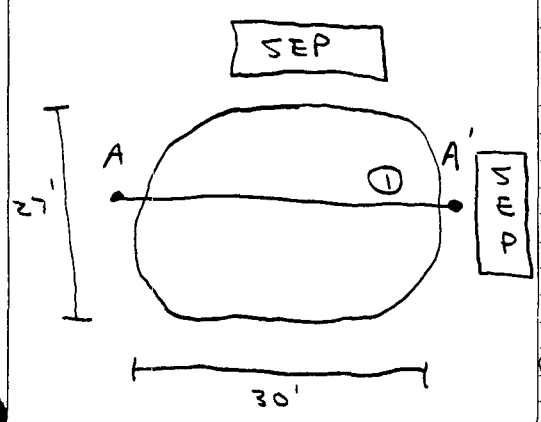
FIELD 418.1 CALCULATIONS

SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

SCALE

0 FT

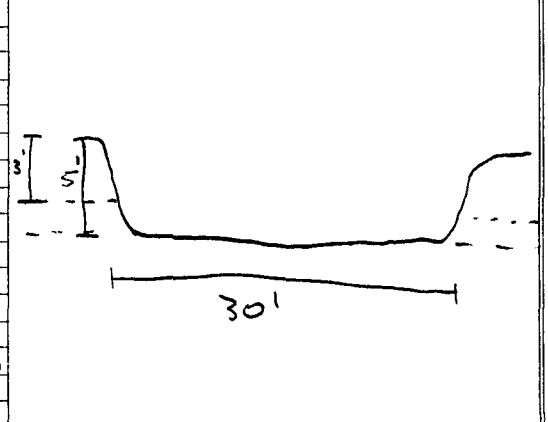
PIT PERIMETER



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1	
2	
3	
4	
5	
	LAB SAMPLES
1@GW(5')	BTEX (8020)

PIT PROFILE



TRAVEL NOTES: CALLOUT: 8/9/94 ONSITE: 8/9/94

ROMERO GC A # 1 - Separator Pit
Ne/4 Sw/4 Sec. 27, T29N, R10W

Pit closure Date:	**August 9, 1994 (Documentation Included)**
Monitor Well Installation Date:	**May 16, 1996**
Monitor Well Sampling Date:	**June 12, 1996**

Groundwater Monitor Well Sampling Procedures:

Groundwater samples were collected from site monitor wells following USEPA: SW-846 protocol. The samples were collected using new disposable bailers and placed in new laboratory supplied 40 ml glass vials with teflon septa caps. Samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) per USEPA Method 8020. When applicable, additional groundwater was collected and place in laboratory supplied 250 or 500 ml plastic containers and analyzed for general water quality per USEPA Method 600/4-79-020. The samples were preserved cool (BTEX samples also preserved with mercuric chloride) and hand delivered to a qualified laboratory for testing. Waste generated during monitor well sampling and development was disposed of utilizing the separator tank pit located on the well site.

Water Quality Information:

The BTEX results for all three (3) monitor wells during the June 13, 1997 sampling event were non detectable or below 25% of the New Mexico Water Quality Control Commission's allowable concentration for groundwater. The general water quality results revealed total dissolved solids within the separator pit area (MW #2) and down gradient direction (MW #3) to be below the natural background level (MW #1).

Summary and/or Recommendations:

Based on the enclosed documentation, the groundwater within the separator pit area appears to meet all the criteria for permanent closure. In addition, pit closure/landfarm documentation at the site has been included. Therefore, Amoco is requesting permanent closure status for the separator pit.

All aspects of the Amoco groundwater plan dated October 22, 1996 (approved by NMOCD with letter dated February 7, 1997) has been adhered to.

ON SITE TECHNOLOGIES, LTD.

AROMATIC VOLATILE ORGANICS

Attn:	*Nelson Velez*	Date:	8/9/94
Company:	*Blagg Engineering*	*Lab ID:*	*1685*
Address:	*P.O. Box 87*	*Sample ID:*	*2417*
City, State:	*Bloomfield, NM 87413*	*Job No.*	*2-1000*

Project Name:	***Romero GC A1***				
Project Location:	***1 @ GW (5') - Sep Pit***				
Sampled by:	NV	Date:	8/9/94	Time:	11:24
Analyzed by:	DLA	Date:	8/10/94		
Sample Matrix:	*Liquid*				

Aromatic Volatile Organics

Component	****Measured Concentration ug/L***
Benzene	*10.2*
Toluene	*28.1*
Ethylbenzene	*8.9*
m,p-Xylene	*51.1*
o-Xylene	*18.4*
TOTAL	*117 ug/L*

ND - Not Detectable
*** - Method Detection Limit, 2 ug/L*

Method *- SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: Bill Vollrath RLD.
Date: 8/10/94

FAX: (505) 327-1496 ▪ 24 HR. – (505) 327-7105 ▪ OFF.: (505) 325-8786
3005 NORTHRIDGE DRIVE ▪ SUITE F ▪ P. O. BOX 2606 ▪ FARMINGTON, NEW MEXICO 87499

ON SITE TECHNOLOGIES LIMITED

657 W. Maple • P. O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

CHAIN OF CUSTODY RECORD

No. 1585

Date: 8/9/94

Page 1 of 1

80044

Purchase Order No.:	Reference No.:

SEND INVOICE TO
- Name:
- Company: BLAGG ENGINEERING — Dept.:
- Address: P.O. BOX 87
- City, State, Zip: BLOOMFIELD, NM. 87413

REPORT RESULTS TO
- Name: NELSON VELEZ — Title: PG
- Company: SAME
- Mailing Address: SAME
- City, State, Zip: SAME
- Telephone No.: 632-1199 — Telefax No.:

Special Instructions: ROMERO GC A1

Sampler: Nelson Velez

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE/ GRAB	PRESERVATIVES	Number of Containers	BTEX (8020)										Remarks (matrix)
(1) @ GW (5') - SEP PIT	8/9/94 1124	GRAB	HgCl	2	✓		2417-1685								

Relinquished by:	Date/Time	Received by:	Date/Time
Nelson Velez	8/9/94 1404	[signature]	8/9/94 1404

Method of Shipment:

Rush | 5 Working Days | 10 Working Days | Sampling Location:

Authorized by: ____________ Date ______
(Client Signature Must Accompany Request)

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

AMOCO GROUNDWATER MONITOR WELL LABORATORY RESULTS

SUBMITTED BY BLAGG ENGINEERING, INC.

ROMERO GC A # 1 - SEPARATOR PIT
UNIT K, SEC. 27, T29N, R10W

REVISED DATE: JANUARY 13, 1997

FILENAME: (RM-2Q-96.WK3) NJV

SAMPLE DATE	MONITOR WELL No:	D.T.W. (ft)	T.D. (ft)	TDS mg/L	COND. umhos	pH	PRODUCT (in)	BTEX EPA METHOD 8020 (PPB) Benzene	Toluene	Ethyl Benzene	Total Xylene
12-Jun-96	MW #1	4.48	10.05	1580	1500	7.0		ND	ND	ND	ND
12-Jun-96	MW #2	5.87	10.05	1180	1400	6.9		ND	1	ND	ND
12-Jun-96	MW #3	5.33	10.05	1120	1400	6.9		ND	ND	ND	ND

GENERAL WATER QUALITY

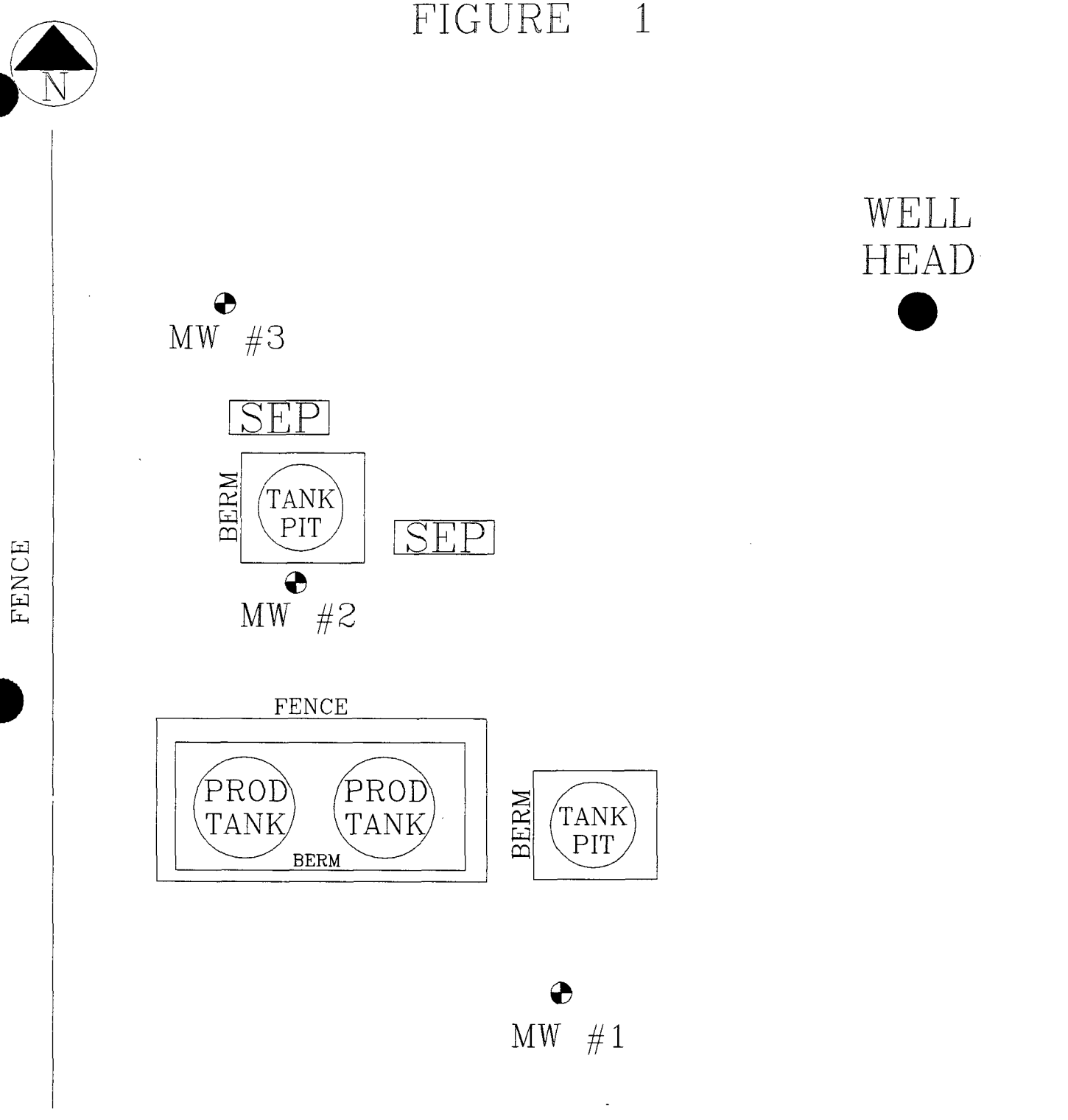
AMOCO PRODUCTION COMPANY

ROMERO GC A # 1

SAMPLE DATE : JUNE 12, 1996

PARAMETERS		MW # 1	MW # 2	MW # 3	Units
GENERAL	LAB pH	7.1	7.2	7.2	s. u.
	LAB CONDUCTIVITY (25 DEG. CELCIUS)	1,840	1,580	1,550	umhos cm
	TOTAL DISSOLVED SOLIDS (180 DEG. CELCIUS)	1,580	1,180	1,120	mg / L
	TOTAL DISSOLVED SOLIDS (CALCULATED)	1,440	1,090	1,090	mg / L
ANIONS	TOTAL ALKALINITY AS CaCO3	263	382	263	mg / L
	BICARBONATE ALKALINITY (AS CaCO3)	263	382	263	mg / L
	CARBONATE ALKALINITY (AS CaCO3)	NA	NA	NA	mg / L
	HYDROXIDE ALKALINITY (AS CaCO3)	NA	NA	NA	mg / L
	CHLORIDE	37.5	40.0	15.0	mg / L
	SULFATE	796	434	556	mg / L
	NITRATE + NITRITE – N	NA	NA	NA	
	NITRATE – N	NA	NA	NA	
	NITRITE – N	NA	NA	NA	
CATIONS	TOTAL HARDNESS AS CaCO3	597	308	403	mg / L
	CALCIUM	231	116	152	mg / L
	MAGNESIUM	4.84	4.84	6.04	mg / L
	POTASSIUM	<5.0	<5.0	<5.0	mg / L
	SODIUM	210	260	200	mg / L
DATA VALIDATION					ACCEPTANCE LEVEL
	CATION/ANION DIFFERENCE	3.91	0.73	1.14	+/– 5 %
	TDS (180):TDS (CALCULATED)	1.1	1.1	1.0	1.0 – 1.2

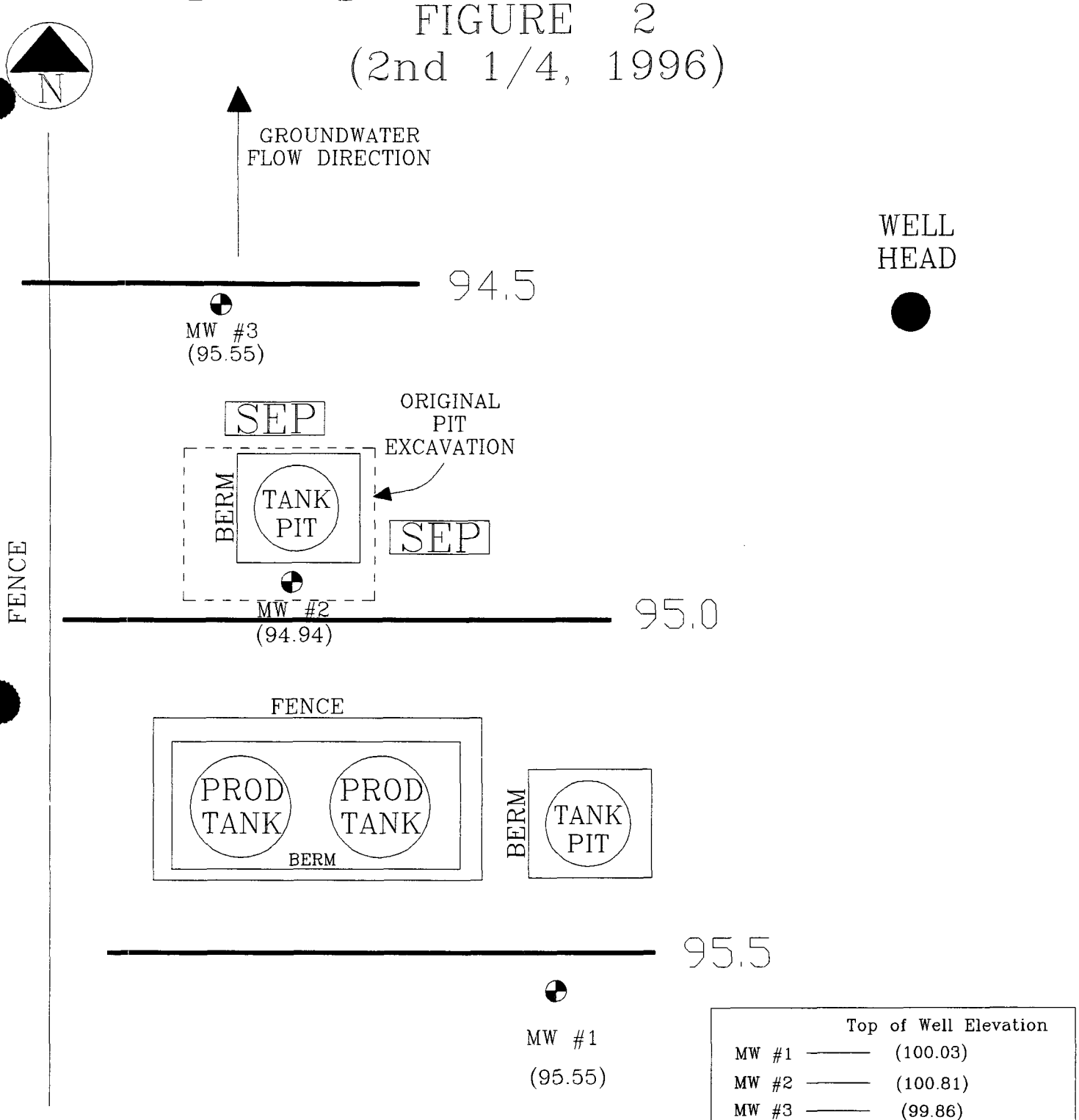
FIGURE 1



MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (BRUNTON COMPASS AND LASER RANGE FINDER). ALL OTHER STRUCTURES DISPLAYED ON THE SITE MAP ARE SOLELY FOR REFERENCE AND ARE NOT TO SCALE.

AMOCO PRODUCTION COMPANY ROMERO GC A1 NE/4 SW/4 SEC. 27, T29N, R10W SAN JUAN COUNTY, NEW MEXICO	BLAGG ENGINEERING, INC. CONSULTING PETROLEUM / RECLAMATION SERVICES P.O. BOX 87 BLOOMFIELD, NEW MEXICO 87413 PHONE: (505) 632-1199	PROJECT: MW INSTALL. DRAWN BY: NJV FILENAME: ROMERO	SITE MAP 6/96

FIGURE 2
(2nd 1/4, 1996)



	Top of Well Elevation
MW #1	(100.03)
MW #2	(100.81)
MW #3	(99.86)

MW #1 (95.55) Groundwater Elevation as of 6/12/96.

MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (BRUNTON COMPASS AND LASER RANGE FINDER). ALL OTHER STRUCTURES DISPLAYED ON THE SITE MAP ARE SOLELY FOR REFERENCE AND ARE NOT TO SCALE.

0 25 50 FT.

AMOCO PRODUCTION COMPANY ROMERO GC A1 NE/4 SW/4 SEC. 27, T29N, R10W SAN JUAN COUNTY, NEW MEXICO	BLAGG ENGINEERING, INC. CONSULTING PETROLEUM / RECLAMATION SERVICES P.O. BOX 87 BLOOMFIELD, NEW MEXICO 87413 PHONE: (505) 632-1199	PROJECT: 1/4ly MONITOR. DRAWN BY: NJV FILENAME: ROMERO REVISED: 2/10/97 NJV	GROUNDWATER GRADIENT MAP 6/96

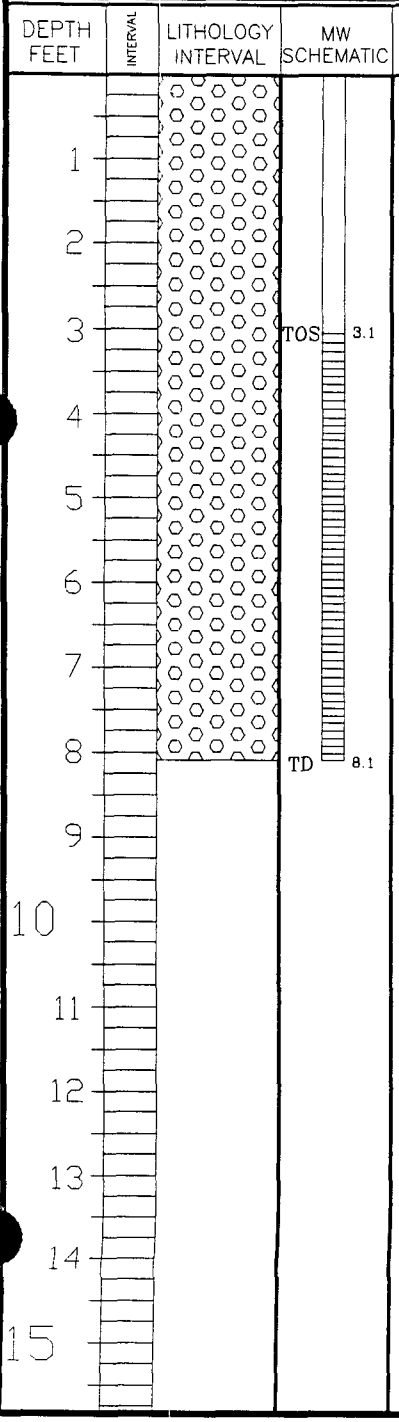
BLAGG ENGINEERING, Inc.

P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

BORE / TEST HOLE REPORT

LOCATION NAME:	ROMERO GC A # 1
CLIENT:	AMOCO PRODUCTION COMPANY
CONTRACTOR:	BLAGG ENGINEERING, INC. / PAUL & SONS
EQUIPMENT USED:	BACKHOE
BORING LOCATION:	S28W, 135 FEET FROM WELL HEAD.

BORING #.....	BH - 1
MW #.....	1
PAGE #.....	1
DATE STARTED	5/17/96
DATE FINISHED	5/17/96
OPERATOR.....	BM
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 1.90 FT. ABOVE GROUND SURFACE.

DARK YELLOWISH BROWN SAND AND GRAVEL CONTINUOUS THROUGHOUT ENTIRE BORING, NON COHESIVE, SLIGHTLY MOIST TO SATURATED (AT GROUNDWATER), FIRM, NO APPARENT HYDROCARBON ODOR OBSERVED (0.0 - 8.1 FT. INTERVAL).

▼ GW DEPTH ON 6/12/96 = 3.43 FT. (APPROX.) FROM GROUND SURFACE.

NOTES:
- SAND & GRAVEL (VARYING SIZES).
- TOS - TOP OF SCREEN FROM GROUND SURFACE.
- TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
- GW - GROUND WATER.

DRAWING: ROMERO-1	DATE: 2/25/97	DWN BY: NJV

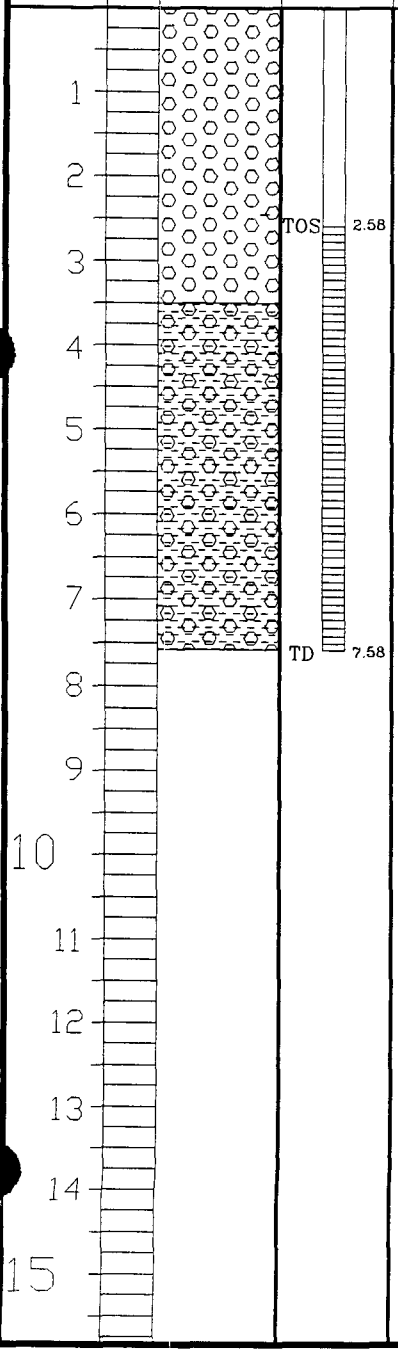
BLAGG ENGINEERING, Inc.

P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

BORE / TEST HOLE REPORT

BORING #..... BH - 2
MW #..... 2
PAGE #..... 2
DATE STARTED 5/17/96
DATE FINISHED 5/17/96
OPERATOR..... BM
PREPARED BY NJV

LOCATION NAME: ROMERO GC A # 1
CLIENT: AMOCO PRODUCTION COMPANY
CONTRACTOR: BLAGG ENGINEERING, INC. / PAUL & SONS
EQUIPMENT USED: BACKHOE
BORING LOCATION: S67W, 120 FEET FROM WELL HEAD.



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.42 FT. ABOVE GROUND SURFACE.

DARK YELLOWISH BROWN SAND AND GRAVEL, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT HYDROCARBON ODOR OBSERVED (0.0 - 3.5 FT. INTERVAL).

▼ GW DEPTH ON 6/12/96 = 3.45 FT. (APPROX.) FROM GROUND SURFACE.

DARK GRAY SAND AND GRAVEL, NON COHESIVE, SATURATED, FIRM TO LOOSE, NO APPARENT HYDROCARBON ODOR OBSERVED (3.5 - 7.58 FT. INTERVAL).

NOTES:
- SAND & GRAVEL (VARYING SIZES).
- SAND & GRAVEL (VARYING SIZES) DISCOLORED.
- TOS - TOP OF SCREEN FROM GROUND SURFACE.
- TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
- GW - GROUND WATER.

DRAWING: ROMERO-2 | DATE: 2/25/97 | DWN BY: NJV

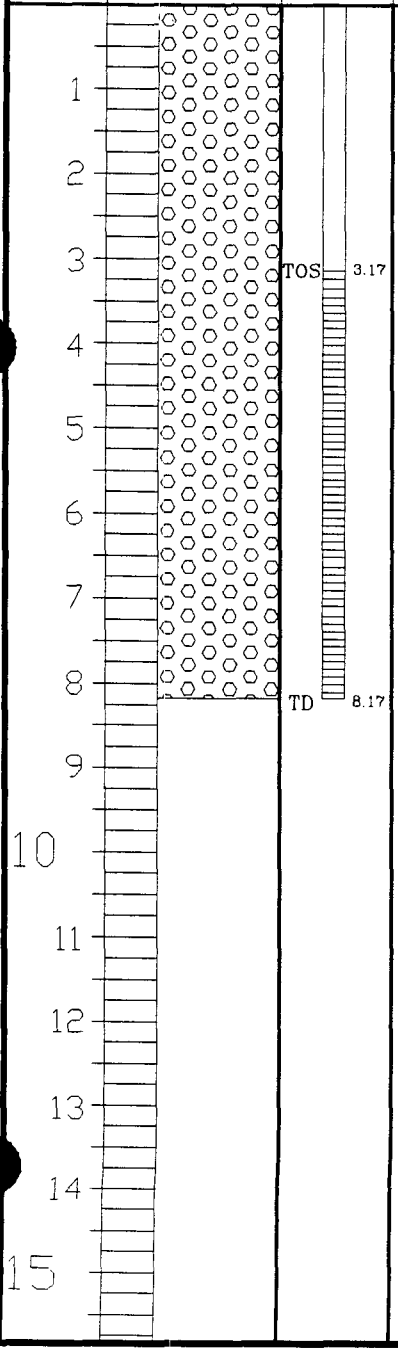
BLAGG ENGINEERING, Inc.

P.O. BOX 87
BLOOMFIELD, NM 87413
(505) 632-1199

BORE / TEST HOLE REPORT

LOCATION NAME:	ROMERO GC A # 1
CLIENT:	AMOCO PRODUCTION COMPANY
CONTRACTOR:	BLAGG ENGINEERING, INC. / PAUL & SONS
EQUIPMENT USED:	BACKHOE
BORING LOCATION:	N89W, 123 FEET FROM WELL HEAD.

BORING #.....	BH - 3
MW #.....	3
PAGE #.....	3
DATE STARTED	5/17/96
DATE FINISHED	5/17/96
OPERATOR.....	BM
PREPARED BY	NJV



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 1.83 FT. ABOVE GROUND SURFACE.

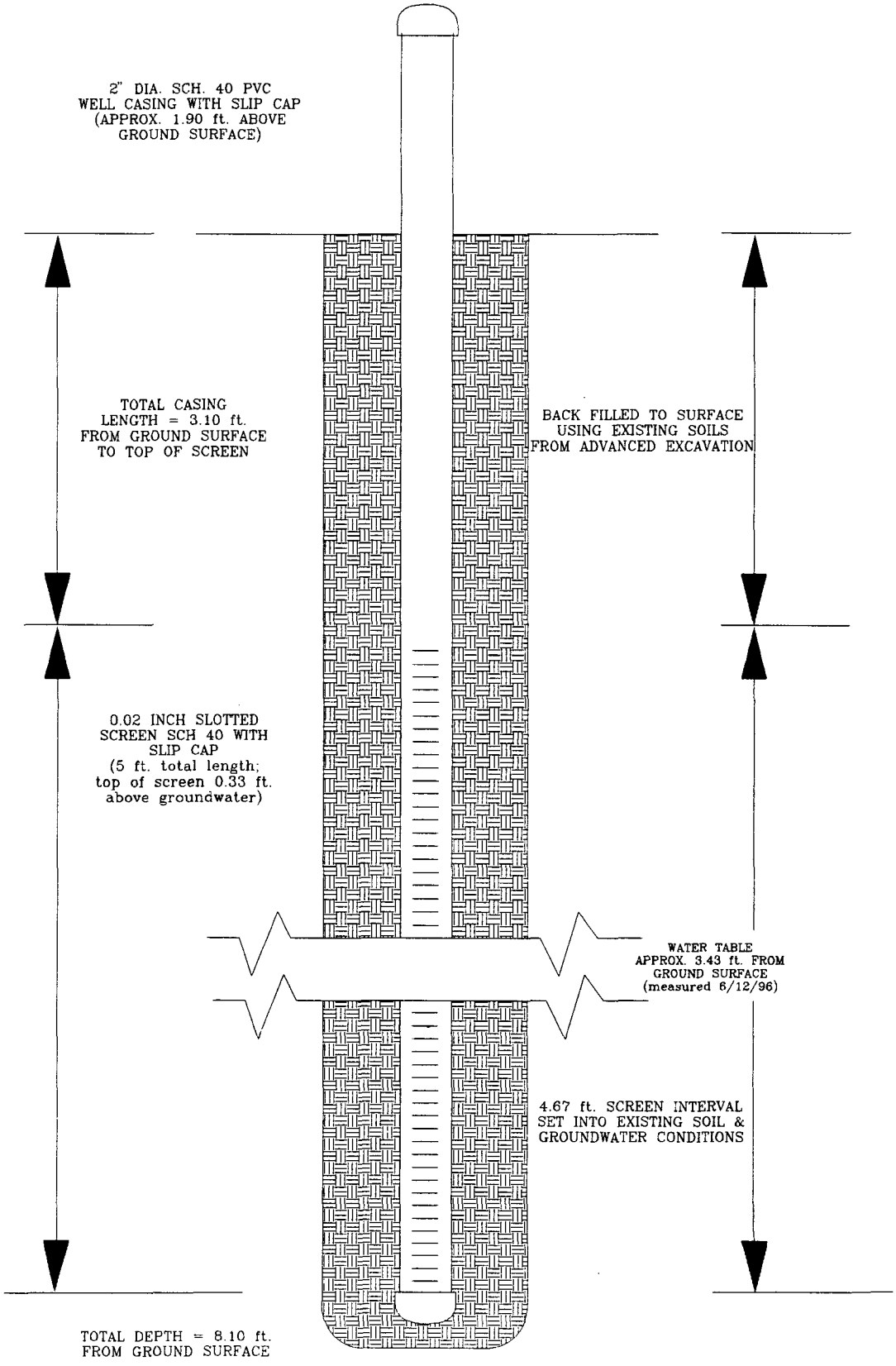
DARK YELLOWISH BROWN SAND AND GRAVEL CONTINUOUS THROUGHOUT ENTIRE BORING, NON COHESIVE, SLIGHTLY MOIST TO SATURATED (AT GROUNDWATER), FIRM, NO APPARENT HYDROCARBON ODOR OBSERVED (0.0 - 8.17 FT. INTERVAL).

▼ GW DEPTH ON 6/12/96 = 3.50 FT. (APPROX.) FROM GROUND SURFACE.

NOTES:
- SAND & GRAVEL (VARYING SIZES).
- TOS - TOP OF SCREEN FROM GROUND SURFACE.
- TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
- GW - GROUND WATER.

DRAWING: ROMERO-3 | DATE: 2/25/97 | DWN BY: NJV

MONITOR WELL #1



AMOCO PRODUCTION COMPANY

ROMERO GC A # 1

MONITOR WELL CONSTRUCTION & COMPLETION

INSTALLED WITH BACKHOE

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

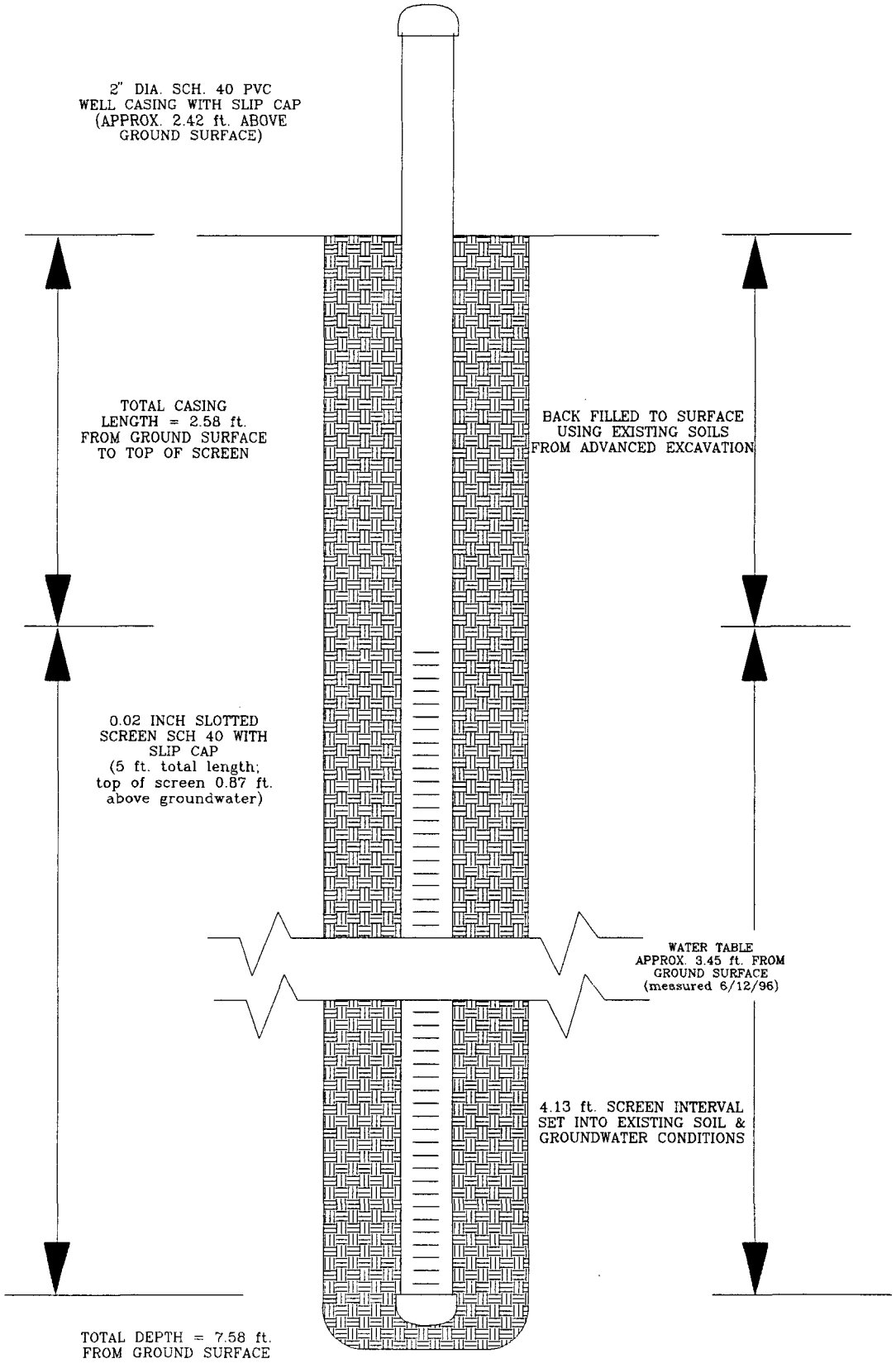
MONITOR WELL SCHEMATIC

DRAFTED BY: NJV

DATE: MAR. '97

FILENAME: MW-1

MONITOR WELL #2



AMOCO PRODUCTION COMPANY

ROMERO GC A # 1

MONITOR WELL CONSTRUCTION & COMPLETION

INSTALLED WITH BACKHOE

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

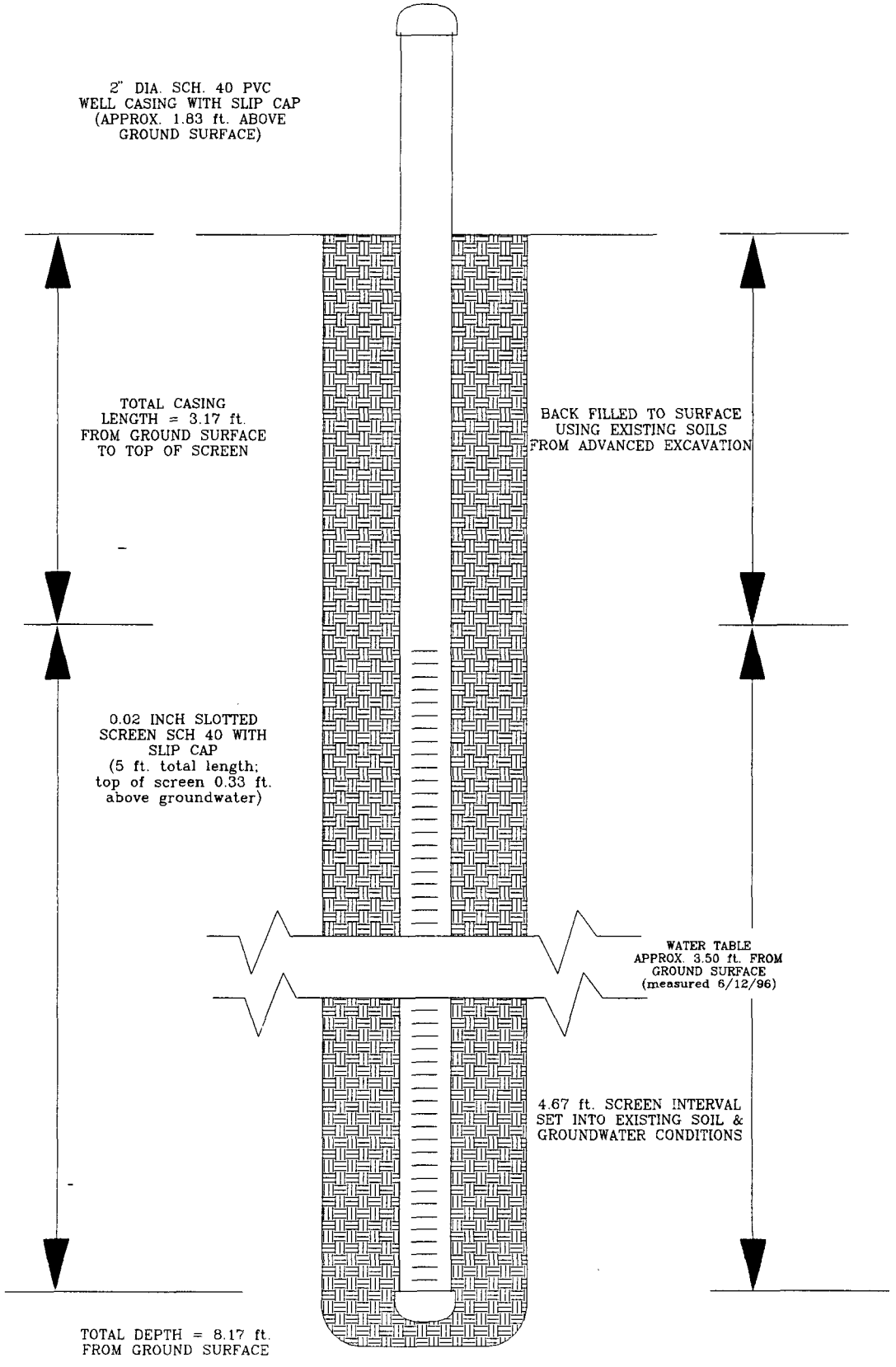
MONITOR WELL SCHEMATIC

DRAFTED BY: NJV

DATE: MAR. '97

FILENAME: MW-2

MONITOR WELL #3



AMOCO PRODUCTION COMPANY

ROMERO GC A # 1

MONITOR WELL CONSTRUCTION & COMPLETION

INSTALLED WITH BACKHOE

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

MONITOR WELL SCHEMATIC

DRAFTED BY: NJV

DATE: MAR. '97

FILENAME: MW-3

BLAGG ENGINEERING INC.

MONITOR WELL QUARTERLY MONITORING DATA

DATE: 6-12-96 PROJECT NO: _____

CLIENT: Amoco CHAIN-OF-CUSTODY NO: 2491

LOCATION: Romeeo 6C A1

PROJECT MANAGER: REG SAMPLER: REG

MONITOR WELL DATA

WELL #	WELL ELEV.	WATER ELEV.	DTW (FT)	T.D. (FT)	TIME	pH	COND. (uMHO)	BAIL (GAL)	PROD (IN)	
mw-1	100.03	95.55	4.48	10.05	1100	7.0	1500	1.0	—	CUT 0.12'
mw-2	100.81	94.94	5.87	10.05	1115	6.9	1400	1.0	—	CUT 0.12'
mw-3	99.86	94.53	5.33	10.05	1130	6.9	1400	1.0	—	CUT 0.12'

9,76
.29
10.05

Notes: Volume of water bailed from well prior to sampling.
Ideally a minimum of 3 well volumes:
1.25" well = 24 oz. per foot of water.
= 2 bails per foot - small teflon bailer
= 3 bails per foot - 3/4" disposable bailer
2" well = 0.49 gallons per foot of water.
4" well = 1.95 gallons per foot of water.
Note well diameter if not standard 2".

ANAITAS ENVIRONMENTAL LABS

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID:	Romero GC A1	Report Date:	06/28/96
Sample ID:	MW - 1	Date Sampled:	06/12/96
Lab ID:	3914	Date Received:	06/12/96
Sample Matrix:	Water	Date Analyzed:	06/24/96
Preservative:	Cool, $HgCl_2$		
Condition:	Intact		

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	1.00
o-Xylene	ND	0.50

Total BTEX	ND

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	101	88 - 110%
Bromofluorobenzene	100	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

ANAITAS ENVIRONMENTAL LABS

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID:	Romero GC A1	Report Date:	06/28/96
Sample ID:	MW - 2	Date Sampled:	06/12/96
Lab ID:	3915	Date Received:	06/12/96
Sample Matrix:	Water	Date Analyzed:	06/24/96
Preservative:	Cool, $HgCl_2$		
Condition:	Intact		

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	0.71	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	1.00
o-Xylene	ND	0.50

Total BTEX	0.71

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	101	88 - 110%
Bromofluorobenzene	101	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

ANAITAS ENVIRONMENTAL LABS

PURGEABLE AROMATICS

Blagg Engineering, Inc.

Project ID:	Romero GC A1	Report Date:	06/28/96
Sample ID:	MW - 3	Date Sampled:	06/12/96
Lab ID:	3916	Date Received:	06/12/96
Sample Matrix:	Water	Date Analyzed:	06/24/96
Preservative:	Cool, $HgCl_2$		
Condition:	Intact		

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	1.00
o-Xylene	ND	0.50

Total BTEX	ND

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	100	88 - 110%
Bromofluorobenzene	100	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

ANAITAS ENVIRONMENTAL LABS

General Water Quality

Blagg Engineering, Inc.

Project ID:	Romero GC A1	Date Reported:	06/28/96
Sample ID:	MW - 1	Date Sampled:	06/12/96
Laboratory ID:	3914	Time Sampled:	11:00
Sample Matrix:	Water	Date Received:	06/12/96

Parameter		Analytical Result	Units
General	Lab pH	7.1	s.u.
	Lab Conductivity @ 25° C	1,840	µmhos/cm
	Total Dissolved Solids @ 180°C	1,580	mg/L
	Total Dissolved Solids (Calc)	1,440	mg/L
Anions	Total Alkalinity as $CaCO_3$	263	mg/L
	Bicarbonate Alkalinity as $CaCO_3$	263	mg/L
	Carbonate Alkalinity as $CaCO_3$	NA	mg/L
	Hydroxide Alkalinity as $CaCO_3$	NA	mg/L
	Chloride	37.5	mg/L
	Sulfate	796	mg/L
	Nitrate + Nitrite - N	NA	
	Nitrate - N	NA	
	Nitrite - N	NA	
Cations	Total Hardness as $CaCO_3$	597	mg/L
	Calcium	231	mg/L
	Magnesium	4.84	mg/L
	Potassium	< 5.0	mg/L
	Sodium	210	mg/L
Data Validation			Acceptance Level
	Cation/Anion Difference	3.91	+/- 5 %
	TDS (180):TDS (calculated)	1.1	1.0 - 1.2

Reference U.S.E.P.A. 600/4-79-020, Methods for Chemical Analysis of Water and Wastes, 1983.
Standard Methods For The Examination Of Water And Wastewater, 18th ed., 1992.

Review

ANAITAS ENVIRONMENTAL LABS

General Water Quality

Blagg Engineering, Inc.

Project ID:	Romero GC A1	Date Reported:	06/28/96
Sample ID:	MW - 2	Date Sampled:	06/12/96
Laboratory ID:	3915	Time Sampled:	11:15
Sample Matrix:	Water	Date Received:	06/12/96

Parameter		Analytical Result	Units
General	Lab pH	7.2	s.u.
	Lab Conductivity @ 25° C	1,580	µmhos/cm
	Total Dissolved Solids @ 180°C	1,180	mg/L
	Total Dissolved Solids (Calc)	1,090	mg/L
Anions	Total Alkalinity as $CaCO_3$	382	mg/L
	Bicarbonate Alkalinity as $CaCO_3$	382	mg/L
	Carbonate Alkalinity as $CaCO_3$	NA	mg/L
	Hydroxide Alkalinity as $CaCO_3$	NA	mg/L
	Chloride	40.0	mg/L
	Sulfate	434	mg/L
	Nitrate + Nitrite - N	NA	
	Nitrate - N	NA	
	Nitrite - N	NA	
Cations	Total Hardness as $CaCO_3$	308	mg/L
	Calcium	116	mg/L
	Magnesium	4.84	mg/L
	Potassium	< 5.0	mg/L
	Sodium	260	mg/L
Data Validation			Acceptance Level
	Cation/Anion Difference	0.73	+/- 5 %
	TDS (180):TDS (calculated)	1.1	1.0 - 1.2

Reference U.S.E.P.A. 600/4-79-020, Methods for Chemical Analysis of Water and Wastes, 1983.
Standard Methods For The Examination Of Water And Wastewater, 18th ed., 1992.

Review

ANAITAS ENVIRONMENTAL LABS

General Water Quality

Blagg Engineering, Inc.

Project ID:	Romero GC A1	Date Reported:	06/28/96
Sample ID:	MW - 3	Date Sampled:	06/12/96
Laboratory ID:	3916	Time Sampled:	11:30
Sample Matrix:	Water	Date Received:	06/12/96

Parameter		Analytical Result	Units
General	Lab pH	7.2	s.u.
	Lab Conductivity @ 25° C	1,550	µmhos/cm
	Total Dissolved Solids @ 180°C	1,120	mg/L
	Total Dissolved Solids (Calc)	1,090	mg/L
Anions	Total Alkalinity as $CaCO_3$	263	mg/L
	Bicarbonate Alkalinity as $CaCO_3$	263	mg/L
	Carbonate Alkalinity as $CaCO_3$	NA	mg/L
	Hydroxide Alkalinity as $CaCO_3$	NA	mg/L
	Chloride	15.0	mg/L
	Sulfate	556	mg/L
	Nitrate + Nitrite - N	NA	
	Nitrate - N	NA	
	Nitrite - N	NA	
Cations	Total Hardness as $CaCO_3$	403	mg/L
	Calcium	152	mg/L
	Magnesium	6.04	mg/L
	Potassium	< 5.0	mg/L
	Sodium	200	mg/L
Data Validation			Acceptance Level
	Cation/Anion Difference	1.14	+/- 5 %
	TDS (180):TDS (calculated)	1.0	1.0 - 1.2

Reference U.S.E.P.A. 600/4-79-020, Methods for Chemical Analysis of Water and Wastes, 1983. Standard Methods For The Examination Of Water And Wastewater, 18th ed., 1992.

Review

ANAITAS
ENVIRONMENTAL LABS

June 28, 1996

Bob O'Neill
Blagg Engineering, Inc.
PO Box 87
Bloomfield, NM 87413

Dear Mr. O'Neill:

Enclosed are the results for the analysis of the samples received June 12, 1996. The samples were from the Romero GC A1 site. Analyses for Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) and general water quality parameters were performed on the samples, as per the accompanying chain of custody form.

Analysis was performed on the samples according to EPA Method 602, using a Hewlett-Packard 5890 gas chromatograph equipped with an OI Analytical purge and trap (model 4560) and a photoionization detector. Detectable levels of btex analytes were found in the samples, as reported.

Water parameters were determined for the samples according to the appropriate methodologies as outlined in Standard Methods for the Examination of Water and Wastewater, 18th edition, 1992.

Quality control reports appear at the end of the analytical package and can be identified by title. Should you have any questions regarding the analysis, feel free to call.

Sincerely,

Denise A. Bohemier
Lab Director

807 SOUTH CARLTON • FARMINGTON, NM 87401• (505) 326-2395 PH • 326-2486 FAX

PURGEABLE AROMATICS

Quality Control Report

Method Blank Analysis

Sample Matrix:	Water	Report Date:	06/28/96
Lab ID:	MB35240	Date Analyzed:	06/24/96

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	1.00
o-Xylene	ND	0.50

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	96	88 - 110%
Bromofluorobenzene	99	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Purgeable Aromatics

Matrix Spike Analysis

Lab ID:	3914Spk	Report Date:	06/28/96
Sample Matrix:	Water	Date Sampled:	06/12/96
Preservative:	Cool, $HgCl_2$	Date Received:	06/12/96
Condition:	Intact	Date Analyzed:	06/24/96

Target Analyte	Spike Added (ug/L)	Original Conc. (ug/L)	Spiked Sample Conc. (ug/L)	% Recovery	Acceptance Limits (%)
Benzene	10	ND	10.3	103%	39 -150
Toluene	10	ND	10.2	99%	46 - 148
Ethylbenzene	10	ND	10.4	103%	32 - 160
m,p-Xylenes	20	ND	20.9	102%	NE
o-Xylene	10	ND	10.4	102%	NE

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Spike acceptance range not established by the EPA.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	101	88 - 110%
Bromofluorobenzene	101	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Purgeable Aromatics

Duplicate Analysis

Lab ID:	3917Dup	Report Date:	06/28/96
Sample Matrix:	Water	Date Sampled:	06/12/96
Preservative:	Cool, HgCl2	Date Received:	06/12/96
Condition:	Intact	Date Analyzed:	06/24/96

Target Analyte	Original Conc. (ug/L)	Duplicate Conc. (ug/L)	Acceptance Range (ug/L)
Benzene	0.67	0.68	0 - 1.98
Toluene	6.44	6.56	4.37 - 8.63
Ethylbenzene	0.25	0.19	0 - 1.22
m,p-Xylenes	1.34	0.96	NE
o-Xylene	0.34	0.26	NE

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Duplicate acceptance range not established by the EPA.

	Surrogate	Percent Recovery	Acceptance Limits
Quality Control:	Trifluorotoluene	109	88 - 110%
	Bromofluorobenzene	107	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

General Water Quality

Quality Control Report

Blagg Engineering, Inc.

Report Date: 6/28/96

Parameter	Analytical Result	Certified Value	Acceptance Range	Units
Laboratory pH	9.03	9.09	8.89 - 9.29	s.u.
Conductivity	1313	1220	1040 - 1400	µmhos/cm
Total Dissolved Solids	820	913	794 - 1030	mg/L
Total Alkalinity	191	180	160 - 200	mg/L
Chloride	135	138	128 - 148	mg/L
Sulfate	128	124	107 - 141	mg/L
Total Hardness	239	254	218 - 290	mg/L
Calcium	57.8	54.6	47.0 - 62.2	mg/L
Magnesium	NA	NA	NA	mg/L
Potassium	120	123	105 - 141	mg/L
Sodium	170	173	147 - 199	mg/L

Reference: U.S.E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination Of Water And Wastewater, 18th ed., 1992.

Comments:

Review

ANAITAS ENVIRONMENTAL LABS

807 S. CARLTON • FARMINGTON, NM 87401 • (505) 326-2395

CHAIN OF CUSTODY

6191

Page 1 of 1

PROJECT MANAGER:
Anaitas Lab I.D.:

Company: BLAGG
Address:

Phone: 632-1199
Fax:

Bill To: SAME
Company:
Address:

Sample ID	Date	Time	Matrix	Lab ID	Petroleum Hydrocarbons (418.1)	Gasoline / Diesel (mod. 8015)	Gasoline (GRO)	Aromatic HCs BTEX/MTBE (602 / 8020)	Chlorinated Hydrocarbons (8010)	SDWA Volatiles (502.1 / 503.1)	Chlorinated Pesticides / PCBs (608 / 8080)	Herbicides (615 / 8150)	Volatiles GC/MS (624 / 8240 / 8260)	Base / Neutral / Acid GC/MS (625 / 8270)	Polynuclear Aromatic Hydrocarbons (8100)	TCLP Extraction	Other (specify):	Cation / Anion	Specific Cations (specify):	Specific Anions (specify):	BOD / Fecal / Total Coliform	Solids: TDS / TSS / SS	Nutrients: NH4+ / NO2- / NO3- / TKN	Oil and Grease	Other (specify):	Priority Pollutants	RCRA Metals (Total)	RCRA Metals TCLP (1311)	Other (specify):
MW-1	6-12	1100	WATER					✓										✓											
MW-2	"	1115	"					✓										✓											
MW-3	"	1130	"					✓										✓											

ORGANIC ANALYSES | WATER ANALYSES | METALS | COMMENTS

Project Information	Sample Receipt
Proj. #:	No. Containers:
Proj. Name: AMOCO	Custody Seals: Y / N / NA
P. O. No:	Received Intact:
Shipped Via: DEL'D	Received Cold:

Required Turnaround Time (Prior Authorization Required for Rush)

ROMERO GC A1

Sampled By:	Relinquished By:	Relinquished By:
Signature: REO	Signature: REO	Signature:
Date: 6-12-96	Date: 6-12-96	Date:
Company: BEI	Company: BEI	Company:
Time: —	Time: 1445	Time:
Received By:	**Received By:**	**Received By:**
Signature:	Signature:	Signature: Tonia Farmer 6/12
Date:	Date:	Date:
Company:	Company:	Company: Anaitas
Time:	Time:	Time: 2:50

Please Fill Out Thoroughly.

Shaded areas for lab use only.

White/Yellow: Anaitas
Pink: Client

CLIENT: AMOCO

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

LOCATION NO: 60044
C.O.C. NO: 5776

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: ROMERO GC A WELL #: 1 PITS: SEP
QUAD/UNIT: K SEC: 27 TWP: 29N RNG: 10W PM: NM CNTY: SJ ST: NM
QTR/FOOTAGE: NE/4 SW/4 CONTRACTOR: P&S

DATE STARTED: 5/8/98
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: NV

SOIL REMEDIATION:

REMEDIATION SYSTEM: LANDFARM APPROX. CUBIC YARDAGE: 90
LAND USE: RANGE LIFT DEPTH (ft): 6"-1'

FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: <50' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: <1000'
NMOCD RANKING SCORE: 30 NMOCD TPH CLOSURE STD: 100 PPM

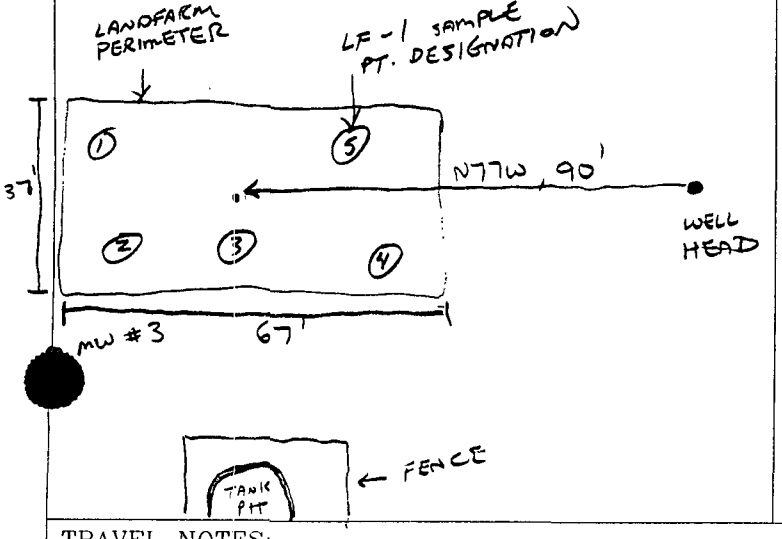
SOIL MOST SAND & GRAVEL - DK. YELL. BROWN, NON COHESIVE, SLIGHTLY MOIST FROM SMALL QUANTITY OF BLACK DISCOLORATION OBSERVED IN SAMPLE PT. ② NO APPARENT HC ODOR OBSERVED IN ANY OF THE SAMPLE PTS., SAMPLING DEPTHS RANGE FROM 3" TO 6", COLLECTED 5 PT. COMPOSITE FOR LAB ANALYSIS.

CLOSED

FIELD 418.1 CALCULATIONS

SAMP. TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

SKETCH/SAMPLE LOCATIONS



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
LF-1	0.0

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME	RESULTS
LF-1	TPH (8015)	1140	53.3

SCALE
0 FT

TRAVEL NOTES: CALLOUT: NA ONSITE: 5/8/98

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / AMOCO	Project #:	04034-10
Sample ID:	LF - 1	Date Reported:	05-12-98
Laboratory Number:	D249	Date Sampled:	05-08-98
Chain of Custody No:	5776	Date Received:	05-11-98
Sample Matrix:	Soil	Date Extracted:	05-12-98
Preservative:	Cool	Date Analyzed:	05-12-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**19.4**	**0.2**
Diesel Range (C10 - C28)	**33.9**	**0.1**
Total Petroleum Hydrocarbons	**53.3**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Romero GC A #1 Landfarm. 5 Pt. Composite.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

5776

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
BLAGG / AMOCO	LANDFARM ROMERO GC A #1	

Sampler: (Signature)	Chain of Custody Tape No.
Nelson Velez	04034-10

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (8015)						Remarks
												PRESERV. - COOL
LF-1	5/8/98	1140	D 249	SOIL	1	✓						5 PT. COMPOSITE
				SAMPLE RECEIVED COOL & INTACT DNL								

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Velez	5/11/98	1349	Denise L. Quinn	5-12-98	1349
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	05-12-TPH QA/QC	Date Reported:	05-12-98
Laboratory Number:	D249	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-12-98
Condition:	N/A	Analysis Requested:	TPH

Calibration	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	04-28-98	6.8900E-02	6.8866E-02	**0.05%**	**0 - 15%**
Diesel Range C10 - C28	04-28-98	5.4594E-02	5.4572E-02	**0.04%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**19.4**	**19.2**	**0.8%**	**0 - 30%**
Diesel Range C10 - C28	**33.9**	**33.6**	**0.8%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**19.4**	**250**	**269**	**100%**	**75 - 125%**
Diesel Range C10 - C28	**33.9**	**250**	**283**	**100%**	**75 - 125%**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Wast SW-846, USEPA, December 1996.

Comments: **QA/QC for samples D249 - D251.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

B0044

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator
Amoco Production Company

3. Address and Telephone No.
200 Amoco Court, Farmington, N.M. 87401 Tel: (505) 326-9200

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
NE/4 SW/4, SEC. 27, T29 N, R10 W, N.M.P.M.
1850' FSL / 1850' FWL

5. Lease Designation and Serial No.

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.
ROMERO GC A #1

9. API Well No.
3004525509

10. Field and Pool, or Exploratory Area
BLANCO MESAVERDE

11. County or Parish, State
SAN JUAN, N.M.

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☐ Notice of Intent	☐ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☒ Other Pit closure	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Pit closure verification - see attached documentation.

(1) SEPARATOR PIT - STEEL TANK INSTALLED, GROUNDWATER IMPACTED, CLOSED UNDER Amoco's GW PLAN (SEC. 2.3) - REVISED 5/11/98.

AMOCO LETTER CORRESPONDENCE DATED 12/12/96.

14. I hereby certify that the foregoing is true and correct
Signed RA Shaw Title ENVIRO. COORDINATOR Date 7/26/98

(This space for Federal or State office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*See Instruction on Reverse Side

District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Drawer DD, Artesia, NM 88211
District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTA FE OFFICE

Denied GW above limits

PIT REMEDIATION AND CLOSURE REPORT

Operator: Amoco Production Company **Telephone:** (505) 326-9200

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: ROMERO GC A1
Well Name

Location: Unit or Qtr/Qtr Sec K Sec 27 T 29N R 10W County SAN JUAN

Pit Type: Separator X Dehydrator ___ Other ___

Land Type: BLM ___, State ___, Fee X, Other ___

Pit Location: (Attach diagram)
Pit dimensions: length 30', width 27', depth 6'
Reference: wellhead X, other ___
Footage from reference: 118'
Direction from reference: 80 Degrees ___ East ___ North of X West ___ South X

Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water)	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 Points)	20
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources)	Yes (20 points) No (0 points)	20
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet (20 points) 200 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)	20
	RANKING SCORE (TOTAL POINTS):	60

Date Remediation Started: _____ **Date Completed:** 8/10/94

Remediation Method: (Check all appropriate sections)
Excavation X Approx. cubic yards 90
Landfarmed X Insitu Bioremediation ___
Other _____

Remediation Location: (ie. landfarmed onsite, name and location of offsite facility)
Onsite X Offsite _____

General Description Of Remedial Action: Excavation

Ground Water Encountered: No ___ Yes X Depth 3-5'

Final Pit:
Closure Sampling: (if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location see Attached Documents

Sample depth 5'

Sample date 8/9/94 Sample time 1124

Sample Results

Benzene(ppm) 0.010

Total BTEX(ppm) 0.117

Field headspace(ppm) _____

TPH _____

Ground Water Sample: Yes X No ___ (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

DATE 8/10/94

SIGNATURE B J Shaw

PRINTED NAME AND TITLE Buddy D. Shaw Environmental Coordinator

CLIENT: AMOCO	BLAGG ENGINEERING, INC. P.O. BOX 87, BLOOMFIELD, NM 87413 (505) 632-1199	LOCATION NO: 80044 C.O.C. NO: 1685

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: ROMERO GC WELL #: A1 PIT: SEP

QUAD/UNIT: K SEC: 27 TWP: 29N RNG: 10W PM: NM CNTY: SJ ST: NM

QTR/FOOTAGE: NE/4 SW/4 CONTRACTOR: P. VELASQUEZ

DATE STARTED: 8/9/94

DATE FINISHED: 8/9/94

ENVIRONMENTAL SPECIALIST: NV

SOIL REMEDIATION: EXCAVATION APPROX. 30 FT. x 27 FT. x 6 FT. DEEP.

DISPOSAL FACILITY: LANDFARMED ON-SITE CUBIC YARDAGE: 90

LAND USE: RANGE/AGRIC. LEASE: _____

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 118 FEET S80W FROM WELLHEAD.

DEPTH TO GROUNDWATER: <50 NEAREST WATER SOURCE: <1000 NEAREST SURFACE WATER: <200

NMOCD RANKING SCORE: 60 NMOCD TPH CLOSURE STD: 100 PPM FORMATION: CK/MV

SOIL AND EXCAVATION DESCRIPTION: GW PUMPED PRIOR TO ARRIVAL. ACTUAL GW DEPTH APPROX. 3-3½' BELOW GROUND SURFACE. SLIGHT SHEEN OBSERVED ON SURFACE.

GW PUMPED & DISPOSED OF DURING THE PAST WEEK BY TRIPLE 555.

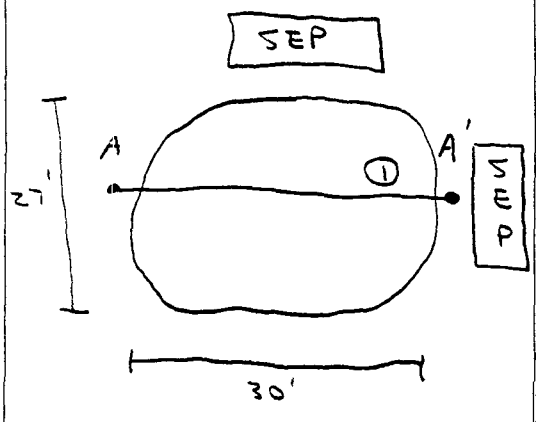
FIELD 418.1 CALCULATIONS

SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

SCALE

0 FT

PIT PERIMETER



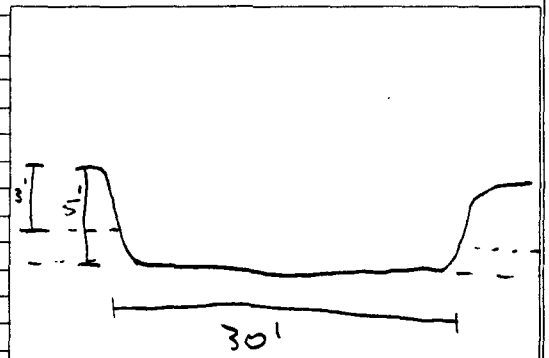
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1	
2	
3	
4	
5	

LAB SAMPLES

① @ GW (5') BTEX (8020)

PIT PROFILE



TRAVEL NOTES: CALLOUT: 8/9/94 ONSITE: 8/9/94

ON SITE TECHNOLOGIES, LTD.

AROMATIC VOLATILE ORGANICS

Attn:	*Nelson Velez*	Date:	8/9/94
Company:	*Blagg Engineering*	*Lab ID:*	*1685*
Address:	*P.O. Box 87*	*Sample ID:*	*2417*
City, State:	*Bloomfield, NM 87413*	*Job No.*	*2-1000*

Project Name:	***Romero GC A1***				
Project Location:	***1 @ GW (5') - Sep Pit***				
Sampled by:	NV	Date:	8/9/94	Time:	11:24
Analyzed by:	DLA	Date:	8/10/94		
Sample Matrix:	*Liquid*				

Aromatic Volatile Organics

Component	***Measured Concentration ug/L
Benzene	*10.2*
Toluene	*28.1*
Ethylbenzene	*8.9*
m,p-Xylene	*51.1*
o-Xylene	*18.4*
TOTAL	*117 ug/L*

ND - Not Detectable
*** - Method Detection Limit, 2 ug/L*

***Method** - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: Bill Vorhies BLD.
Date: 8/10/94

FAX: (505) 327-1496 ▪ 24 HR. – (505) 327-7105 ▪ OFF.: (505) 325-8786
3005 NORTHRIDGE DRIVE ▪ SUITE F ▪ P. O. BOX 2606 ▪ FARMINGTON, NEW MEXICO 87499