3R - 132

REPORTS

DATE:

1999

BLAGG ENGINEERING, INC.
P.O. Box 87, Bloomfield, New Mexico 87413
Phone: (505)632-1199 Fax: (505)632-3903

February 21, 2000

Mr. William C. Olson - Hydrologist
State of New Mexico Oil Conservation Division
2040 South Pacheco
State Land Office Building
Santa Fe, NM 87505

RE: 1999 ANNUAL GROUNDWATER REPORTS
SAN JUAN COUNTY, NEW MEXICO
PERMANENT CLOSURE REQUESTED

Dear Mr. Olson:

Blagg Engineering, Inc., on behalf of Cross Timbers Oil Company, respectfully submits the attached 1999 annual groundwater reports in which permanent closure is requested. This reporting adheres to the NMOCD's previously approved groundwater management plan.

A total of ten (10) well sites, listed on the following page, are associated with this correspodence. All work performed on the these well sites have been incorporated into individual packets.

The summary, conclusions, and/or recommendations made within these reports are based on information made available from the enclosed material. Any site specific inquiries should be examined within the individual packets.

If you have questions, please call and contact either myself or Jeffrey C. Blagg. Thank you for your cooperation and assistance.

Sincerely,
BLAGG ENGINEERING, INC.

Nelson Velez
Staff Geologist

Reviewed by:

Jeffrey C. Blagg, P.E.
President

Attachments: Individual Well site packets

cc: Denny Foust, Deputy Oil & Gas Inspector, New Mexico Oil Conservation Division, Aztec, NM
Bill Liese, Regional Environmental Officer, Bureau of Land Management, Farmington, NM (2 copies)
Nina Hutton, Environmental & Safety Manager, Cross Timbers Oil Company, Ft. Worth, TX

NV/nv PERM-99.CVL

Groundwater Sites Requesting Permanent Closure

1.	Baca GC A #1A	Unit G, Sec. 26, T29N, R10W
2.	Haney GC B #1E	Unit M, Sec. 20, T29N, R10W
3.	Hare GC C #1	Unit M, Sec. 25, T29N, R10W
4.	Masden GC # 1E	Unit D, Sec. 28, T29N, R11W
5.	McDaniel GC B # 1E	Unit F, Sec. 26, T29N, R10W
6.	Pearce GC # 1E	Unit J, Sec. 23, T29N, R11W
7.	Sanchez GC # 1	Unit G, Sec. 28, T29N, R10W
8.	Snyder GC # 1A	Unit F, Sec. 19, T29N, R9W
9.	Sullivan Frame A # 1E	Unit A, Sec. 30, T29N, R10W
10.	Texas National GC # 1	Unit K, Sec. 19, T29N, R9W

CROSS TIMBERS OIL COMPANY

GROUNDWATER REMEDIATION REPORT

1999

TEXAS NATIONAL GC #1
(K) SECTION 19, T29N, R9W, NMPM
SAN JUAN COUNTY, NEW MEXICO

PREPARED FOR:
MR. WILLIAM C. OLSON
NEW MEXICO OIL CONSERVATION DIVISION

FEBRUARY 2000

PREPARD BY:
BLAGG ENGINEERING, INC.

Consulting Petroleum / Reclamation Services
P.O. Box 87
Bloomfield, New Mexico 87413

Cross Timbers Oil Company (CTOC)
Texas National GC # 1 - Blow Pit
Nw/4 Sw/4 Sec. 19, T29N, R9W

Site Assessment Date:	**September 17, 1992 (Documentation Included)**
Pit closure Date:	**March 3, 1994 (Documentation Included)**
Monitor Well Installation Date:	**September 28, 1999**
Monitor Well Sampling Date:	**October 4, 1999**

Groundwater Monitor Well Sampling Procedures:

Groundwater samples were collected from site monitor wells (MW's) 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 8021. Additional groundwater was collected and place in laboratory supplied 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) MW's during the October 4, 1999 sampling event were non detectable at practical quantitation limits or was below 25% of the New Mexico Water Quality Control Commission's allowable concentration for groundwater as addressed in the NMOCD previously approved groundwater management plan. The general water quality results within the source area did meet New Mexico Water Quality Control Commission's allowable concentration for groundwater. However, the results did reveal elevated levels of total dissolved solids, fluoride, sulfate, and sodium within MW #3. It is not evident that these findings obtained in MW #3 are in anyway associated with the source area based upon the determined groundwater gradient and its relative position from the source area (see figure 2).

Summary and/or Recommendations:

Based on the enclosed documentation, the groundwater within the blow pit area appears to meet all the criteria for permanent closure. All aspects of the NMOCD previously approved groundwater management plan has been adhered to. Therefore, CTOC is requesting permanent closure status for this pit.

CROSS TIMBERS OIL CO. GROUNDWATER MONITOR WELL LAB RESULTS

SUBMITTED BY BLAGG ENGINEERING, INC.

TEXAS NATIONAL GC #1 - BLOW PIT
UNIT K, SEC. 19, T29N, R9W

DRAFTED : DECEMBER 4, 1999

FILENAME: (TN-4Q-99.WK4) 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
04-Oct-99	MW #1	10.46	15.00	1,520	3,050	7.5		ND	ND	ND	ND
04-Oct-99	MW #2	9.41	15.00	840	1,690	7.1		ND	ND	ND	0.5
04-Oct-99	MW #3	9.77	15.00	3,350	6,990	7.4		ND	ND	ND	ND

GENERAL WATER QUALITY

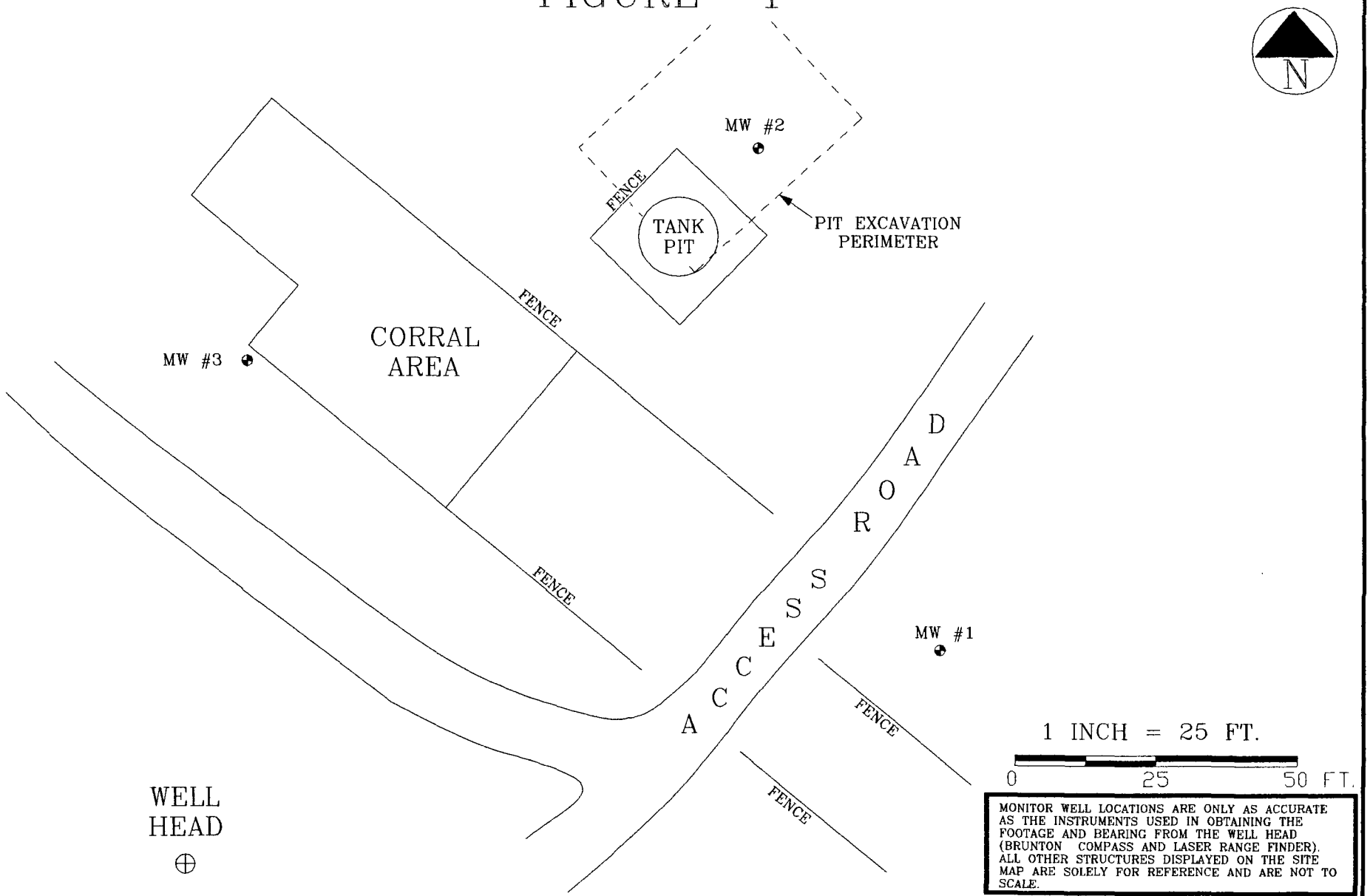
CROSS TIMBERS OIL COMPANY

TEXAS NATIONAL GC # 1

SAMPLE DATE : October 4 , 1999

PARAMETERS	MW # 1	MW # 2	MW # 3	Units
LAB pH	7.52	7.14	7.43	s. u.
LAB CONDUCTIVITY @ 25 C	3,050	1,690	6,990	umhos / cm
TOTAL DISSOLVED SOLIDS @ 180 C	1,520	840	3,480	mg / L
TOTAL DISSOLVED SOLIDS (Calc)	1,510	780	3,350	mg / L
SODIUM ABSORPTION RATIO	3.9	3.4	12.7	ratio
TOTAL ALKALINITY AS CaCO3	308	134	174	mg / L
TOTAL HARDNESS AS CaCO3	596	294	718	mg / L
BICARBONATE as HCO3	308	134	174	mg / L
CARBONATE AS CO3	< 1	< 1	< 1	mg / L
HYDROXIDE AS OH	< 1	< 1	< 1	mg / L
NITRATE NITROGEN	< 0.1	< 0.1	0.2	mg / L
NITRITE NITROGEN	0.003	0.004	0.003	mg / L
CHLORIDE	2.8	2.0	3.1	mg / L
FLUORIDE	1.13	0.90	1.78	mg / L
PHOSPHATE	< 0.1	< 0.1	0.8	mg / L
SULFATE	828	450	2,180	mg / L
IRON	0.004	0.001	0.014	mg / L
CALCIUM	223	100	238	mg / L
MAGNESIUM	9.3	10.7	30.3	mg / L
POTASSIUM	35.0	2.0	8.5	mg / L
SODIUM	220	132	780	mg / L
CATION / ANION DIFFERENCE	0.30	0.05	0.10	%

FIGURE 1



CROSS TIMBERS OIL COMPANY

TEXAS NATIONAL GC # 1

NW/4 SW/4 SEC. 19, T29N, R9W

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.

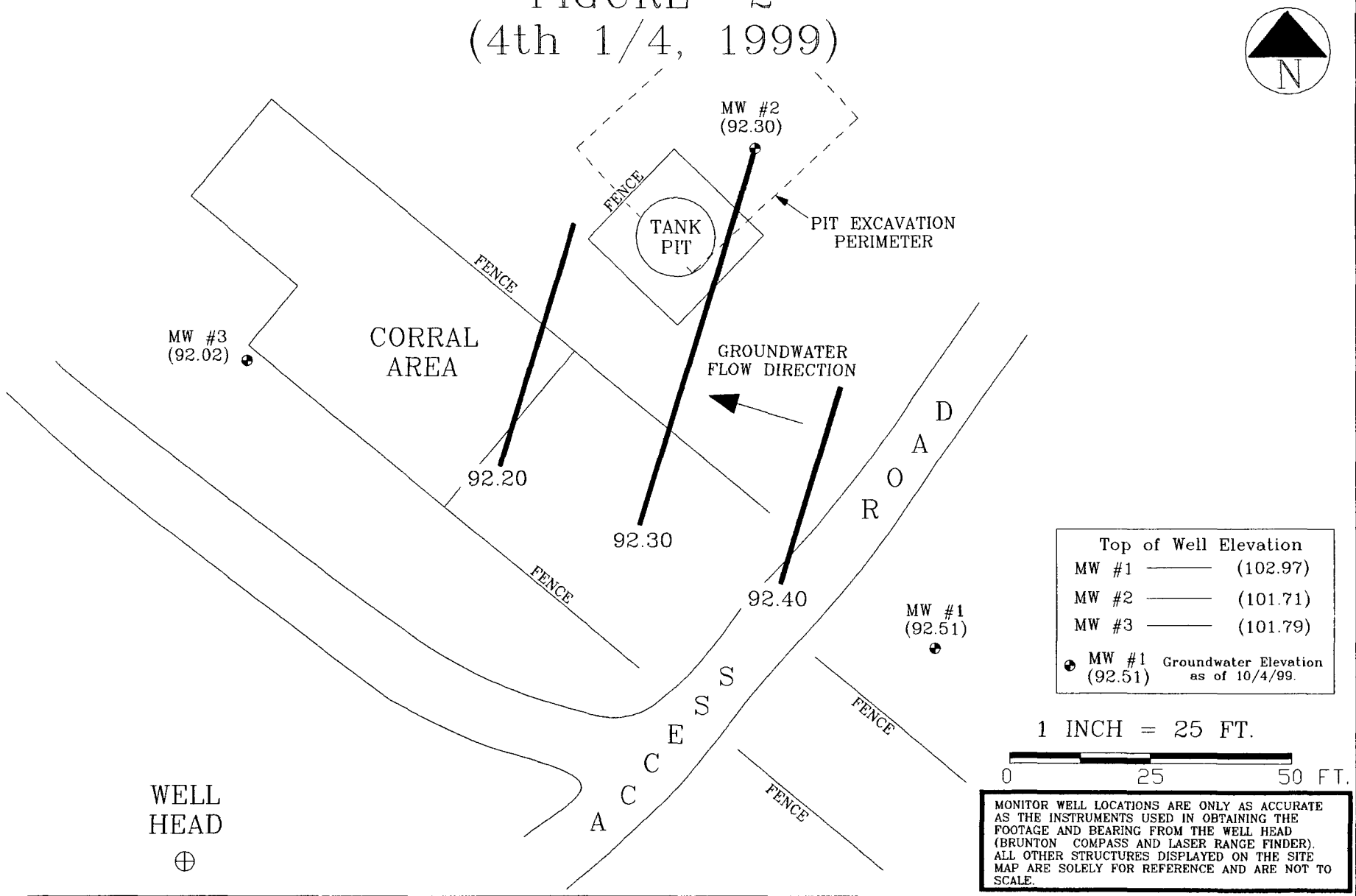
DRAWN BY: NJV

FILENAME: TEX-SM.SKD

SITE MAP

09/99

FIGURE 2
(4th 1/4, 1999)



CROSS TIMBERS OIL COMPANY TEXAS NATIONAL GC # 1 NW/4 SW/4 SEC. 19, T29N, R9W 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 SAMPLING DRAWN BY: NJV FILENAME: TEX-GW.SKD	GROUNDWATER GRADIENT MAP 10/99

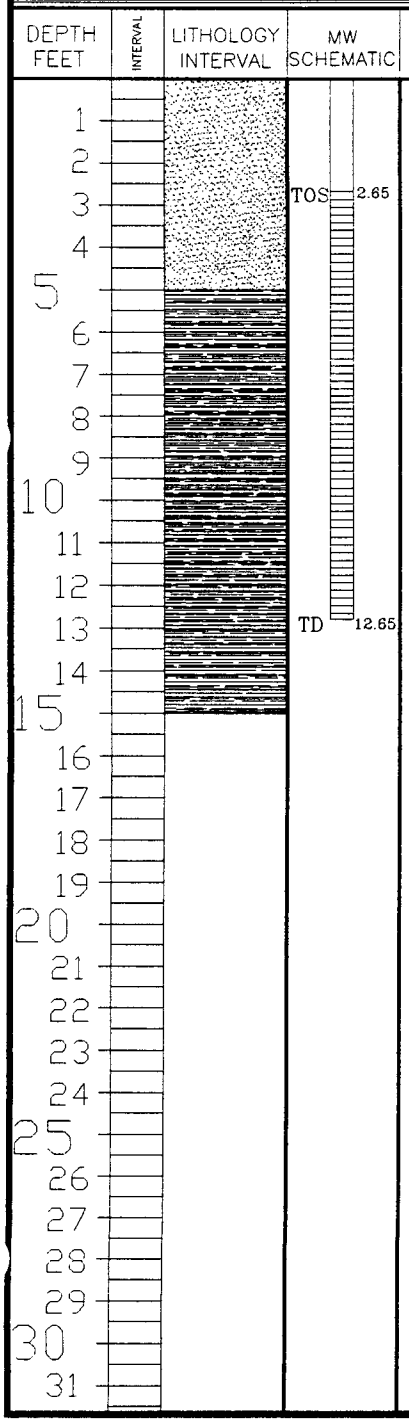
BLAGG ENGINEERING, Inc.

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

BORE / TEST HOLE REPORT

BORING # BH - 1
MW # 1
PAGE # 1
DATE STARTED 9/28/99
DATE FINISHED 9/28/99
OPERATOR REP
PREPARED BY NJV

CLIENT: CROSS TIMBERS OIL COMPANY
LOCATION NAME: TEXAS NATIONAL GC #1
CONTRACTOR: BLAGG ENGINEERING, INC.
EQUIPMENT USED: MOBILE DRILL RIG (EARTHPROBE)
BORING LOCATION: 138 FT., N74E FEET FROM WELL HEAD.



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.35 FT. ABOVE GROUND SURFACE.

DARK YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT DISCOLORATION OBSERVED OR HYDROCARBON ODOR DETECTED PHYSICALLY (0.00 - 5.00 FT. INTERVAL).

▼ GW DEPTH ON 10/4/99 = 8.11 FT. (APPROX.) FROM GROUND SURFACE.

DARK YELLOWISH BROWN SILTY CLAY, COHESIVE TO SLIGHTLY PLASTIC, SLIGHTLY MOIST TO SATURATED, FIRM TO STIFF, NO APPARENT DISCOLORATION OBSERVED OR HYDROCARBON ODOR DETECTED PHYSICALLY (5.00 - 15.00 FT. INTERVAL).

NOTE: ▨ - SAND.
▨ - SILTY CLAY.

TOS - TOP OF SCREEN FROM GROUND SURFACE.
TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW - GROUND WATER.

DRAWING: BH-1.SKD | DATE: 1/28/00 | DWN BY: NJV

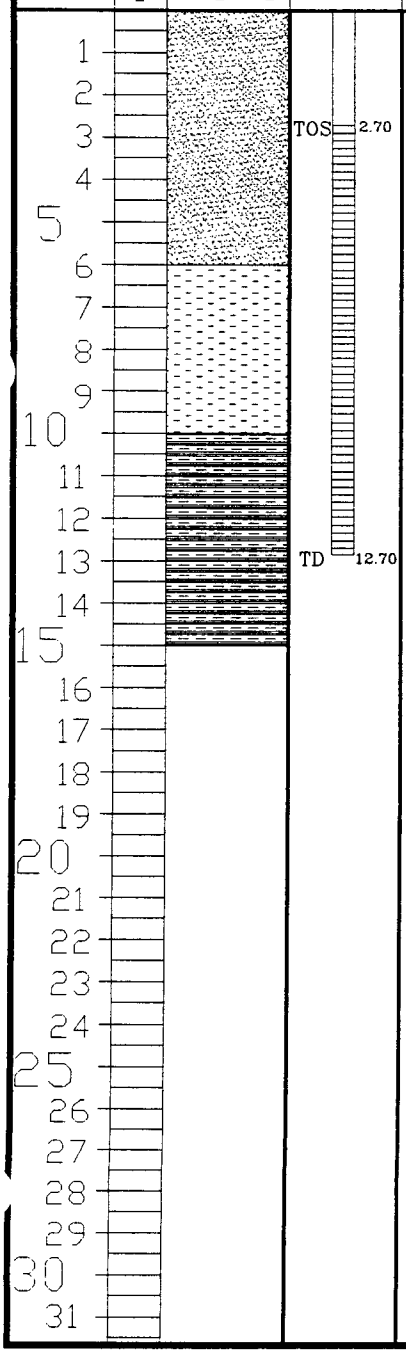
BLAGG ENGINEERING, Inc.

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

BORE / TEST HOLE REPORT

BORING #..... B- - 2
MW #..... 2
PAGE #..... 2
DATE STARTED 9/28/99
DATE FINISHED 9/28/99
OPERATOR..... REP
PREPARED BY NJV

CLIENT: CROSS TIMBERS OIL COMPANY
LOCATION NAME: TEXAS NATIONAL GC #1
CONTRACTOR: BLAGG ENGINEERING, INC.
EQUIPMENT USED: MOBILE DRILL RIG (EARTHPROBE)
BORING LOCATION: 162 FT., N38.5E FEET FROM WELL HEAD.



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.30 FT. ABOVE GROUND SURFACE.

DARK YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT DISCOLORATION OBSERVED OR HYDROCARBON ODOR DETECTED PHYSICALLY (0.00 – 6.00 FT. INTERVAL).

▼ GW DEPTH ON 10/4/99 = 7.11 FT. (APPROX.) FROM GROUND SURFACE.

BLACK SILTY SAND TO SILTY CLAY, COHESIVE TO SLIGHTLY PLASTIC, SLIGHTLY MOIST TO SATURATED, FIRM TO STIFF, SLIGHT HYDROCARBON ODOR DETECTED PHYSICALLY (6.00 – 10.00 FT. INTERVAL).

DARK YELLOWISH BROWN SILTY CLAY TO CLAY, PLASTIC, SATURATED, FIRM TO STIFF, NO APPARENT DISCOLORATION OBSERVED OR HYDROCARBON ODOR DETECTED PHYSICALLY (10.00 – 15.00 FT. INTERVAL).

NOTE:
- SAND.
- SILTY SAND TO SILTY CLAY.
- SILTY CLAY TO CLAY.

TOS – TOP OF SCREEN FROM GROUND SURFACE.
TD – TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW – GROUND WATER.

DRAWING: BH-2.SKD | DATE: 1/28/00 | DWN BY: NJV

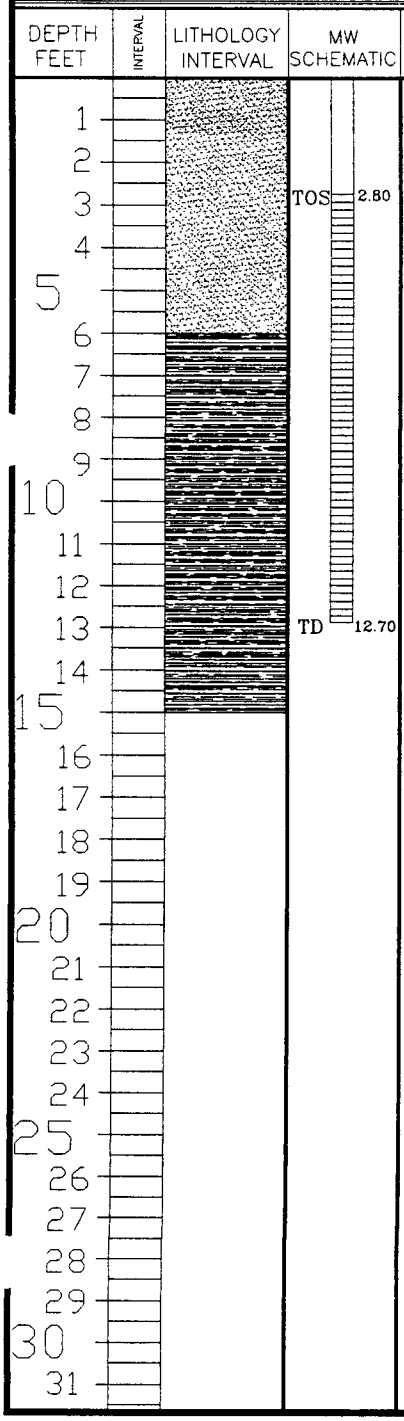
BLAGG ENGINEERING, Inc.

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

BORE / TEST HOLE REPORT

BORING #..... BH - 3
MW #..... 3
PAGE #..... 3
DATE STARTED 9/28/99
DATE FINISHED 9/28/99
OPERATOR..... REP
PREPARED BY NJV

CLIENT: CROSS TIMBERS OIL COMPANY
LOCATION NAME: TEXAS NATIONAL GC #1
CONTRACTOR: BLAGG ENGINEERING, INC.
EQUIPMENT USED: MOBILE DRILL RIG (EARTHPROBE)
BORING LOCATION: 90 FT., N7E FEET FROM WELL HEAD.



FIELD CLASSIFICATION AND REMARKS

GROUND SURFACE

TOP OF CASING APPROX. 2.20 FT. ABOVE GROUND SURFACE.

DARK YELLOWISH BROWN SAND, NON COHESIVE, SLIGHTLY MOIST, FIRM, NO APPARENT DISCOLORATION OBSERVED OR HYDROCARBON ODOR DETECTED PHYSICALLY (0.00 - 6.00 FT. INTERVAL).

▼ GW DEPTH ON 10/4/99 = 7.57 FT. (APPROX.) FROM GROUND SURFACE.

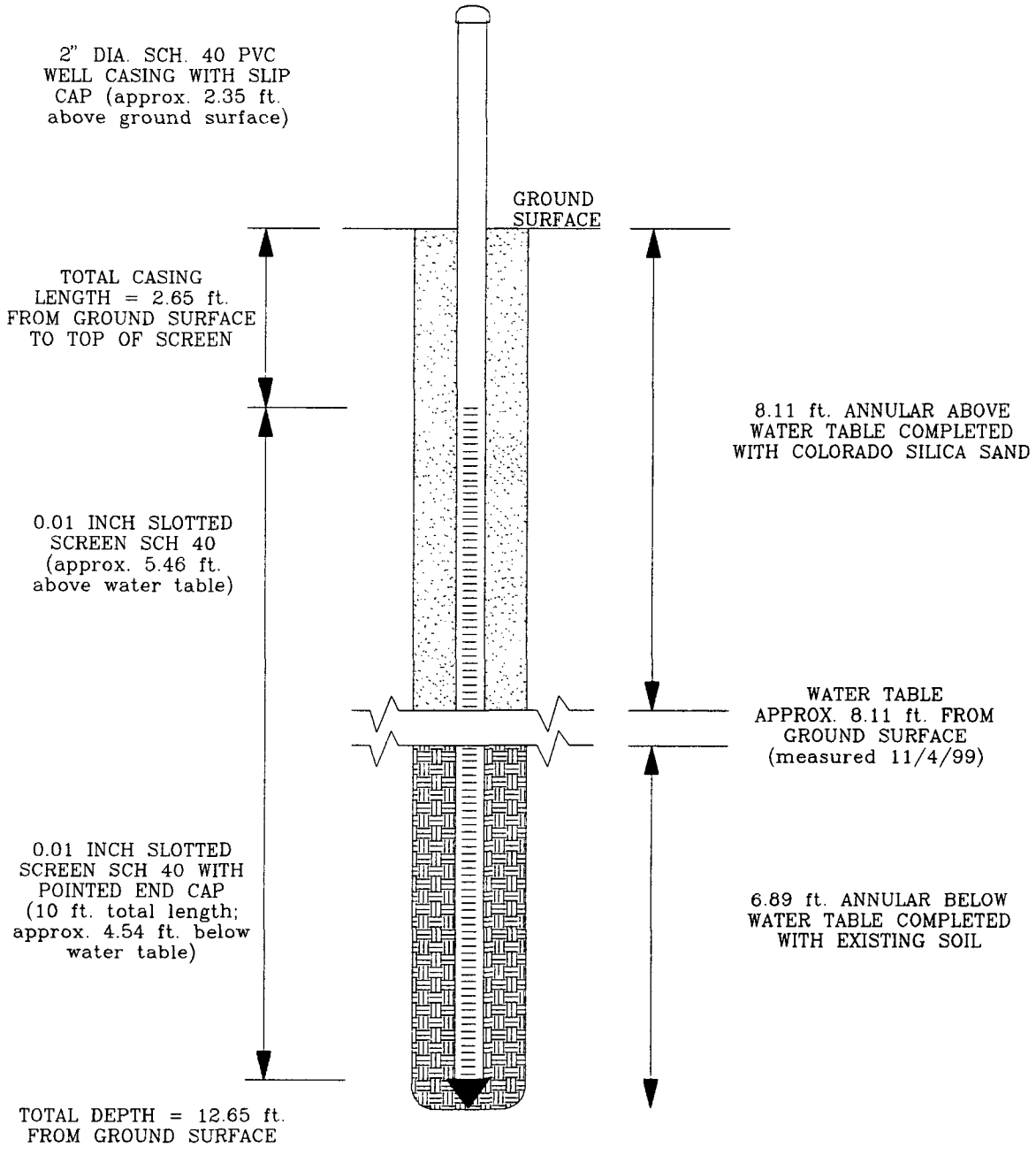
DARK YELLOWISH BROWN SILTY CLAY, COHESIVE TO SLIGHTLY PLASTIC, SLIGHTLY MOIST TO SATURATED, FIRM TO STIFF, NO APPARENT DISCOLORATION OBSERVED OR HYDROCARBON ODOR DETECTED PHYSICALLY (6.00 - 15.00 FT. INTERVAL).

NOTE:
- SAND.
- SILTY SAND TO SILTY CLAY.
- SILTY CLAY TO CLAY.

TOS - TOP OF SCREEN FROM GROUND SURFACE.
TD - TOTAL DEPTH OF MONITOR WELL FROM GROUND SURFACE.
GW - GROUND WATER.

DRAWING: BH-3.SKD | DATE: 1/28/00 | DWN BY: NJV

MONITOR WELL #1



CROSS TIMBERS OIL COMPANY

TEXAS NATIONAL GC # 1

MONITOR WELL CONSTRUCTION & COMPLETION

INSTALLED WITH MOBILE RIG

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: JAN. '00

FILENAME: MW-1

MONITOR WELL #2

CROSS TIMBERS OIL COMPANY

TEXAS NATIONAL GC # 1

MONITOR WELL CONSTRUCTION & COMPLETION

INSTALLED WITH MOBILE RIG

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

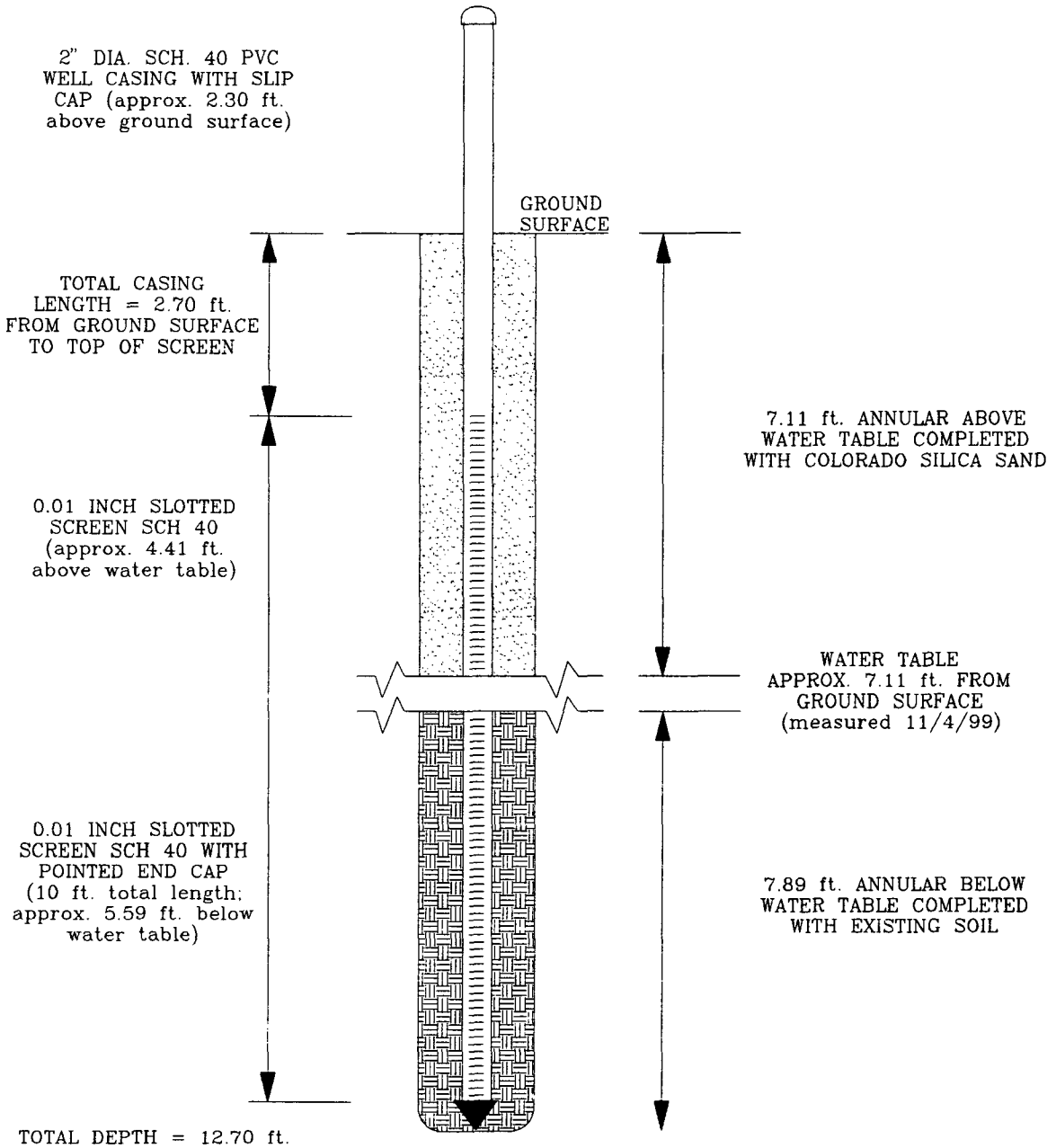
PHONE: (505) 632-1199

MONITOR WELL SCHEMATIC

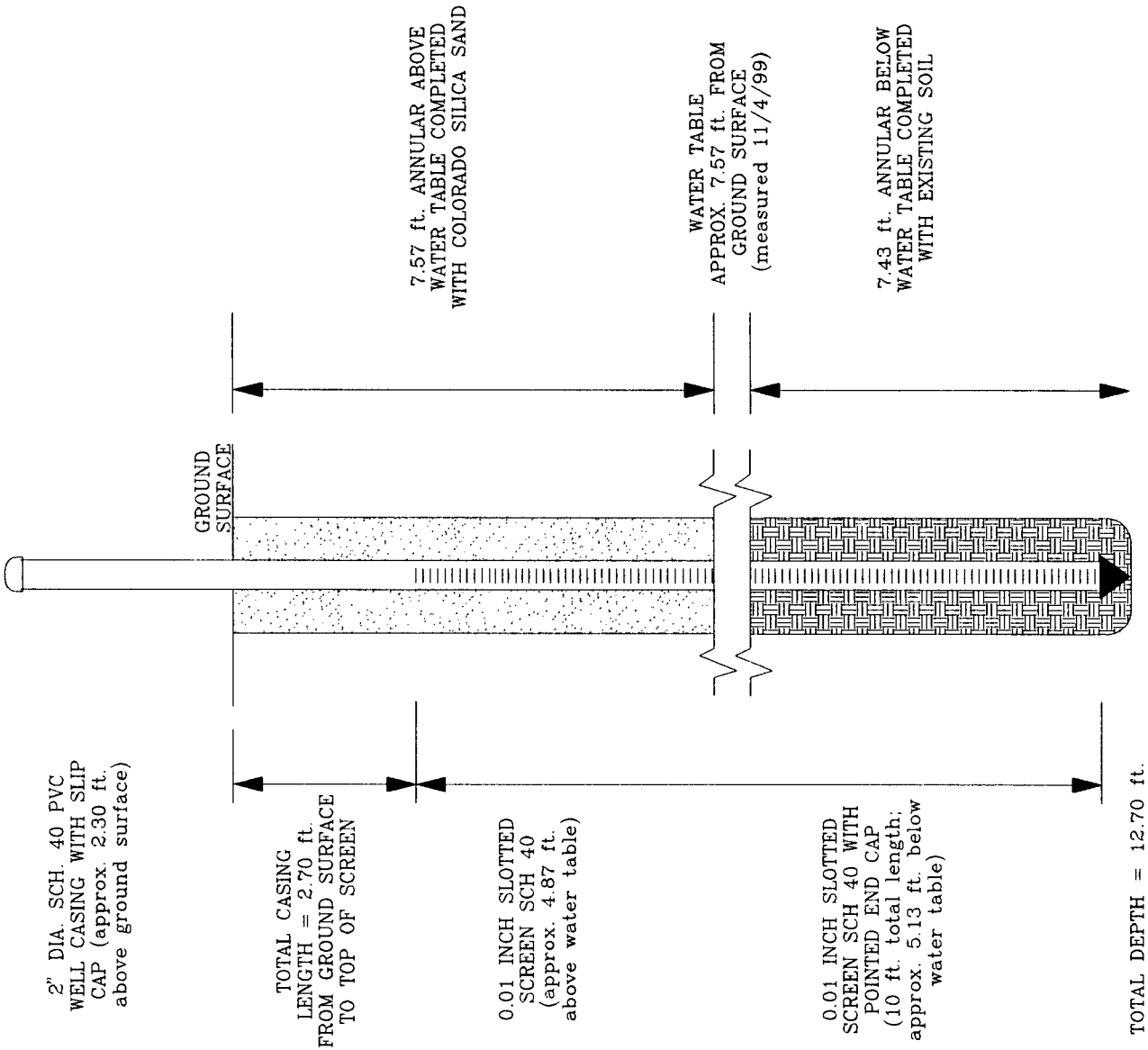
DRAFTED BY: NJV

DATE: JAN. '00

FILENAME: MW-2



MONITOR WELL #3



CROSS TIMBERS OIL COMPANY

TEXAS NATIONAL GC # 1

MONITOR WELL CONSTRUCTION & COMPLETION

INSTALLED WITH MOBILE RIG

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: JAN. '00

FILENAME: MW-3

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : CROSS TIMBERS OIL CO.

CHAIN-OF-CUSTODY # : 7302
10063

LOCATION : TEXAS NATIONAL GC # 1

LABORATORY (S) USED : ENVIROTECH, INC.
ON - SITE TECH.

Date : October 4, 1999

SAMPLER : R E P

Filename : 10-04-99.WK4

PROJECT MANAGER : N J V

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	VOLUME PURGED (gal.)	FREE PRODUCT (ft)
1	102.97	92.51	10.46	15.00	0945	7.9	1100	2.25	-
2	101.71	92.30	9.41	15.00	1000	7.8	900	3.00	-
3	101.79	92.02	9.77	15.00	1030	7.7	2300	2.50	-

NOTES : Volume of water purged from well prior to sampling: V = pi X r2 X h X 7.48 gal./ft3) X 3 (wellbores).

(i.e. 2" MW r = (1/12) ft. h = 1 ft.) (i.e. 4" MW r = (2/12) ft. h = 1 ft.)

Ideally a minimum of three (3) wellbore volumes:

1.25 " well diameter = 0.19 gallons per foot of water (or 24 oz.).

2 bails per foot - small teflon bailer.

3 bails per foot - 3 / 4 " teflon bailer.

2.00 " well diameter = 0.49 gallons per foot of water.

4.00 " well diameter = 1.95 gallons per foot of water.

Comments or note well diameter if not standard 2 ".

Collected BTEX and anion / cation samples for all MW's listed above .

OFF: (505) 325-5667

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: *13-Oct-99*

Client:	Blagg Engineering	**Client Sample Info:**	Texas National GC #1
Work Order:	9910005	**Client Sample ID:**	MW #1
Lab ID:	9910005-01A **Matrix:** AQUEOUS	**Collection Date:**	10/04/1999 9:45:00 AM
Project:	Texas National GC #1	**COC Record:**	10063

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	ND	0.5		µg/L	1	10/06/1999
Toluene	ND	0.5		µg/L	1	10/06/1999
Ethylbenzene	ND	0.5		µg/L	1	10/06/1999
m,p-Xylene	ND	1		µg/L	1	10/06/1999
o-Xylene	ND	0.5		µg/L	1	10/06/1999

Qualifiers:

- PQL - Practical Quantitation Limit
- ND - Not Detected at Practical Quantitation Limit
- J - Analyte detected below Practical Quantitation Limit
- B - Analyte detected in the associated Method Blank
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: *13-Oct-99*

Client:	Blagg Engineering	**Client Sample Info:**	Texas National GC #1
Work Order:	9910005	**Client Sample ID:**	MW #2
Lab ID:	9910005-02A **Matrix:** AQUEOUS	**Collection Date:**	10/04/1999 11:40:00 AM
Project:	Texas National GC #1	**COC Record:**	10063

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	ND	0.5		µg/L	1	10/06/1999
Toluene	ND	0.5		µg/L	1	10/06/1999
Ethylbenzene	ND	0.5		µg/L	1	10/06/1999
m,p-Xylene	ND	1		µg/L	1	10/06/1999
o-Xylene	0.5	0.5		µg/L	1	10/06/1999

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: *13-Oct-99*

Client:	Blagg Engineering	**Client Sample Info:**	Texas National GC #1
Work Order:	9910005	**Client Sample ID:**	MW #3
Lab ID:	9910005-03A **Matrix:** AQUEOUS	**Collection Date:**	10/04/1999 12:05:00 PM
Project:	Texas National GC #1	**COC Record:**	10063

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	ND	0.5		µg/L	1	10/06/1999
Toluene	ND	0.5		µg/L	1	10/06/1999
Ethylbenzene	ND	0.5		µg/L	1	10/06/1999
m,p-Xylene	ND	1		µg/L	1	10/06/1999
o-Xylene	ND	0.5		µg/L	1	10/06/1999

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW #1	Date Reported:	10-06-99
Laboratory Number:	G151	Date Sampled:	10-04-99
Chain of Custody:	7302	Date Received:	10-04-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-05-99
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		Units
pH	**7.52**	s.u.		
Conductivity @ 25° C	**3,050**	umhos/cm		
Total Dissolved Solids @ 180C	**1,520**	mg/L		
Total Dissolved Solids (Calc)	**1,510**	mg/L		
SAR	**3.9**	ratio		
Total Alkalinity as CaCO3	**308**	mg/L		
Total Hardness as CaCO3	**596**	mg/L		
Bicarbonate as HCO3	**308**	mg/L	5.05	meq/L
Carbonate as CO3	**<1**	mg/L	0.00	meq/L
Hydroxide as OH	**<1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**<0.1**	mg/L	0.00	meq/L
Nitrite Nitrogen	**0.003**	mg/L	0.00	meq/L
Chloride	**2.8**	mg/L	0.08	meq/L
Fluoride	**1.13**	mg/L	0.06	meq/L
Phosphate	**<0.1**	mg/L	0.00	meq/L
Sulfate	**828**	mg/L	17.24	meq/L
Iron	**0.004**	mg/L		
Calcium	**223**	mg/L	11.13	meq/L
Magnesium	**9.3**	mg/L	0.77	meq/L
Potassium	**35.0**	mg/L	0.90	meq/L
Sodium	**220**	mg/L	9.57	meq/L
Cations			22.36	meq/L
Anions			22.43	meq/L
Cation/Anion Difference			**0.30%**	

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

Comments: **Texas National GC #1.**

Analyst

Review

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

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW #2	Date Reported:	10-06-99
Laboratory Number:	G152	Date Sampled:	10-04-99
Chain of Custody:	7302	Date Received:	10-04-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-05-99
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		Units
pH	**7.14**	s.u.		
Conductivity @ 25° C	**1,690**	umhos/cm		
Total Dissolved Solids @ 180C	**840**	mg/L		
Total Dissolved Solids (Calc)	**780**	mg/L		
SAR	**3.4**	ratio		
Total Alkalinity as CaCO3	**134**	mg/L		
Total Hardness as CaCO3	**294**	mg/L		
Bicarbonate as HCO3	**134**	mg/L	2.20	meq/L
Carbonate as CO3	**<1**	mg/L	0.00	meq/L
Hydroxide as OH	**<1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**<0.1**	mg/L	0.00	meq/L
Nitrite Nitrogen	**0.004**	mg/L	0.00	meq/L
Chloride	**2.0**	mg/L	0.06	meq/L
Fluoride	**0.90**	mg/L	0.05	meq/L
Phosphate	**<0.1**	mg/L	0.00	meq/L
Sulfate	**450**	mg/L	9.37	meq/L
Iron	**0.001**	mg/L		
Calcium	**100**	mg/L	4.99	meq/L
Magnesium	**10.7**	mg/L	0.88	meq/L
Potassium	**2.0**	mg/L	0.05	meq/L
Sodium	**132**	mg/L	5.74	meq/L
Cations			11.66	meq/L
Anions			11.67	meq/L
Cation/Anion Difference			**0.05%**	

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

Comments: **Texas National GC #1.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW #3	Date Reported:	10-06-99
Laboratory Number:	G153	Date Sampled:	10-04-99
Chain of Custody:	7302	Date Received:	10-04-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	10-05-99
Condition:	Cool & Intact		

Parameter	Analytical Result	Units		Units
pH	**7.43**	s.u.		
Conductivity @ 25° C	**6,990**	umhos/cm		
Total Dissolved Solids @ 180C	**3,480**	mg/L		
Total Dissolved Solids (Calc)	**3,350**	mg/L		
SAR	**12.7**	ratio		
Total Alkalinity as CaCO3	**174**	mg/L		
Total Hardness as CaCO3	**718**	mg/L		
Bicarbonate as HCO3	**174**	mg/L	2.85	meq/L
Carbonate as CO3	**<1**	mg/L	0.00	meq/L
Hydroxide as OH	**<1**	mg/L	0.00	meq/L
Nitrate Nitrogen	**0.2**	mg/L	0.00	meq/L
Nitrite Nitrogen	**0.003**	mg/L	0.00	meq/L
Chloride	**3.1**	mg/L	0.09	meq/L
Fluoride	**1.78**	mg/L	0.09	meq/L
Phosphate	**0.8**	mg/L	0.03	meq/L
Sulfate	**2,180**	mg/L	45.39	meq/L
Iron	**0.014**	mg/L		
Calcium	**238**	mg/L	11.86	meq/L
Magnesium	**30.3**	mg/L	2.49	meq/L
Potassium	**8.5**	mg/L	0.22	meq/L
Sodium	**780**	mg/L	33.93	meq/L
Cations			48.50	meq/L
Anions			48.45	meq/L
Cation/Anion Difference			**0.10%**	

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

Comments: **Texas National GC #1.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

Date: 10.4.99

Page: 1 of 1

Purchase Order No.:	Project No.		
SEND INVOICE TO: Name	JEFF BLAGG		
Company	BLAGG ENG.	Dept.	
Address			
City, State, Zip			
REPORT RESULTS TO: Name		Title	
Company			
Mailing Address			
City, State, Zip			
Telephone No.		Telefax No.	

PROJECT LOCATION: TEXAS NATIONAL GC # 1

SAMPLER'S SIGNATURE: Ed Howell

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	SAMPLE PRES.	Number of Containers	ANALYSIS REQUESTED: BTEX (8021)	LAB ID
MW # 1	10.4.99	0945	W		2	V	9910005-01A
MW # 2	10.4.99	1000	W		2	V	-02A
MW # 3	10.4.99	1030	W		2	V	-03A

Relinquished by: Ed Howell	Date/Time 10/4/99 1255	Received by: Mindy Rec.	Date/Time 10/4/99 1255
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time
Method of Shipment:		Rush / 24-48 Hours / 10 Working Days / By Date	

Authorized by: _____ Date _____
(Client Signature Must Accompany Request)

Special Instructions / Remarks:
SAMPLES PRESERVE - HgCl2 / COOL

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

CHAIN OF CUSTODY RECORD

7302

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG / CROSS TIMBERS	TEXAS NATIONAL GC #1	

Sampler: REP

Client No. 403410

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	ANIONS/ CATIONS						Remarks
MW #1	10.4.99	0945	G151	WATER	1	✓						SAMPLES PRESERVE-
MW #2	10.4.99	1000	G152	WATER	1	✓						COOL
MW #3	10.4.99	1030	G153	WATER	1	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Ed Towe	10.4.99	1240	Allen L. Cofer	10.4.99	1240
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

On Site Technologies, LTD.

Date: *13-Oct-99*

CLIENT: Blagg Engineering
Work Order: 9910005
Project: Texas National GC #1

QC SUMMARY REPORT

Method Blank

Sample ID: **MB1** Batch ID: **GC-1_991006** Test Code: **SW8021B** Units: **µg/L** Analysis Date **10/06/1999** Prep Date:

Client ID: **9910005** Run ID: **GC-1_991006A** SeqNo: **20332**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.0555	0.5									J
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	.1301	0.5									J

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: *13-Oct-99*

CLIENT: Blagg Engineering
Work Order: 9910005
Project: Texas National GC #1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **9910007-02AMS** Batch ID: **GC-1_991006** Test Code: **SW8021B** Units: **µg/L** Analysis Date **10/06/1999** Prep Date:

Client ID: **9910005** Run ID: **GC-1_991006A** SeqNo: **20333**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2790	10	800	1984	100.8%	80	116				
Ethylbenzene	1659	10	800	819.1	105.0%	80	118				
m,p-Xylene	4054	20	1600	2489	97.8%	77	116				
Methyl tert-Butyl Ether	1170	20	800	372.6	99.7%	62	122				
o-Xylene	1288	10	800	458.3	103.7%	83	117				
Toluene	2414	10	800	1572	105.2%	80	116				

Sample ID: **9910007-02AMSD** Batch ID: **GC-1_991006** Test Code: **SW8021B** Units: **µg/L** Analysis Date **10/06/1999** Prep Date:

Client ID: **9910005** Run ID: **GC-1_991006A** SeqNo: **20334**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2720	10	800	1984	92.0%	80	116	2790	2.6%	7	
Ethylbenzene	1619	10	800	819.1	99.9%	80	118	1659	2.5%	7	
m,p-Xylene	3961	20	1600	2489	92.0%	77	116	4054	2.3%	7	
Methyl tert-Butyl Ether	1064	20	800	372.6	86.5%	62	122	1170	9.5%	7	R
o-Xylene	1260	10	800	458.3	100.2%	83	117	1288	2.2%	6	
Toluene	2357	10	800	1572	98.1%	80	116	2414	2.4%	6	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: *13-Oct-99*

CLIENT: Blagg Engineering
Work Order: 9910005
Project: Texas National GC #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS WATER** Batch ID: **GC-1_991006** Test Code: **SW8021B** Units: **µg/L** Analysis Date **10/06/1999** Prep Date:

Client ID: **9910005** Run ID: **GC-1_991006A** SeqNo: **20331**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.13	0.5	40	0.0555	95.2%	87	119				
Ethylbenzene	41.43	0.5	40	0	103.6%	89	117				
m,p-Xylene	77.3	1	80	0	96.6%	88	114				
Methyl tert-Butyl Ether	39.48	1	40	0	98.7%	69	129				
o-Xylene	41.01	0.5	40	0	102.5%	90	116				
Toluene	40.35	0.5	40	0.1301	100.6%	90	115				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: *13-Oct-99*

CLIENT: Blagg Engineering
Work Order: 9910005
Project: Texas National GC #1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: **CCV1 BTEX_9906** Batch ID: **GC-1_991006** Test Code: **SW8021B** Units: **µg/L** Analysis Date **10/06/1999** Prep Date:
Client ID: **9910005** Run ID: **GC-1_991006A** SeqNo: **20328**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.46	0.5	20	0	97.3%	85	115				
Ethylbenzene	21.39	0.5	20	0	107.0%	85	115				
m,p-Xylene	40.06	1	40	0	100.2%	85	115				
Methyl tert-Butyl Ether	20.2	1	20	0	101.0%	85	115				
o-Xylene	21.14	0.5	20	0	105.7%	85	115				
Toluene	20.71	0.5	20	0	103.6%	85	115				
1,4-Difluorobenzene	91.32	0	100	0	91.3%	80	120				
4-Bromochlorobenzene	88.82	0	100	0	88.8%	80	120				
Fluorobenzene	90.33	0	100	0	90.3%	80	120				

Sample ID: **CCV2 BTEX_9906** Batch ID: **GC-1_991006** Test Code: **SW8021B** Units: **µg/L** Analysis Date **10/06/1999** Prep Date:
Client ID: **9910005** Run ID: **GC-1_991006A** SeqNo: **20329**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.28	0.5	20	0	96.4%	85	115				
Ethylbenzene	21.01	0.5	20	0	105.0%	85	115				
m,p-Xylene	39.3	1	40	0	98.2%	85	115				
Methyl tert-Butyl Ether	20.1	1	20	0	100.5%	85	115				
o-Xylene	20.96	0.5	20	0	104.8%	85	115				
Toluene	20.43	0.5	20	0	102.2%	85	115				
1,4-Difluorobenzene	91.04	0	100	0	91.0%	80	120				
4-Bromochlorobenzene	92.74	0	100	0	92.7%	80	120				
Fluorobenzene	90.62	0	100	0	90.6%	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Blagg Engineering
Work Order: 9910005
Project: Texas National GC #1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: **CCV3 BTEX_9906** Batch ID: **GC-1_991006** Test Code: **SW8021B** Units: **µg/L** Analysis Date **10/06/1999** Prep Date:

Client ID: **9910005** Run ID: **GC-1_991006A** SeqNo: **20330**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.68	0.5	20	0	98.4%	85	115				
Ethylbenzene	21.58	0.5	20	0	107.9%	85	115				
m,p-Xylene	40.29	1	40	0	100.7%	85	115				
Methyl tert-Butyl Ether	20.59	1	20	0	102.9%	85	115				
o-Xylene	21.46	0.5	20	0	107.3%	85	115				
Toluene	20.96	0.5	20	0	104.8%	85	115				
1,4-Difluorobenzene	90.96	0	100	0	91.0%	80	120				
4-Bromochlorobenzene	90.59	0	100	0	90.6%	80	120				
Fluorobenzene	90.56	0	100	0	90.6%	80	120				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 13-Oct-99

CLIENT: Blagg Engineering
Work Order: 9910005
Project: Texas National GC #1
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
9910002-01A	92	90.9	91.3
9910002-03A	91.6	91.5	91.6
9910002-04A	92	91.3	91.5
9910002-05A	91.8	91.2	91.5
9910002-08A	92.2	91.7	91.6
9910002-09A	92.1	91	91.5
9910002-10A	91.7	90.2	91.7
9910002-11A	92.1	90.8	91.3
9910005-01A	91.8	91	91.3
9910005-02A	92	92.9	91.4
9910005-03A	91.9	91.3	91.2
9910006-01A	91.7	90.4	91.2
9910006-02A	91.7	91.1	91.5
9910006-03A	91.6	91.1	91.5
9910007-01A	92.6	90.5	91.9
9910007-02A	90.3	90.8	88
9910007-02AMS	90	91.3	87.2
9910007-02AMSD	90.1	92.2	87.6
9910007-03A	90.9	89.2	91.1
CCV1 BTEX_99061	91.3	88.8	90.3
CCV2 BTEX_99061	91	92.7	90.6
CCV3 BTEX_99061	91	90.6	90.6
LCS WATER	90.4	89.3	89.6
MB1	92	88.8	91.3

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	80-120
4BCBZ	=	4-Bromochlorobenzene	80-120
FLBZ	=	Fluorobenzene	80-120

*** Surrogate recovery outside acceptance limits**

94530

ENVIROTECH Inc.

5796 US HWY. 64, FARMINGTON, NM 87401
(505) 632-0615

1865

FIELD REPORT: SITE ASSESSMENT

JOB No: 92140
PAGE No: 1 of 1

PROJECT: PIT ASSESSMENTS & CLOSURE
CLIENT: AMOCO PRODUCTION COMPANY
CONTRACTOR: ENVIROTECH, INC.
EQUIPMENT USED: EXTENDAHOE

DATE STARTED: 9-17-92
DATE FINISHED: 9-17-92
ENVIRO. SPCLT: JW
OPERATOR: B.W.
ASSISTANT: L.T.

LOCATION: LSE: Texas Natl. Gas Com WELL: No.1 QD: NE 1/4 SW 1/4 K
SEC: 19 TWP: 29N RNG: 9W PM: NM CNTY: SJ ST: NM PIT: Aband. Blow
LAND USE: Private - Pasture
SURFACE CONDITIONS: EARTHEN Pit Approx. 5' deep.

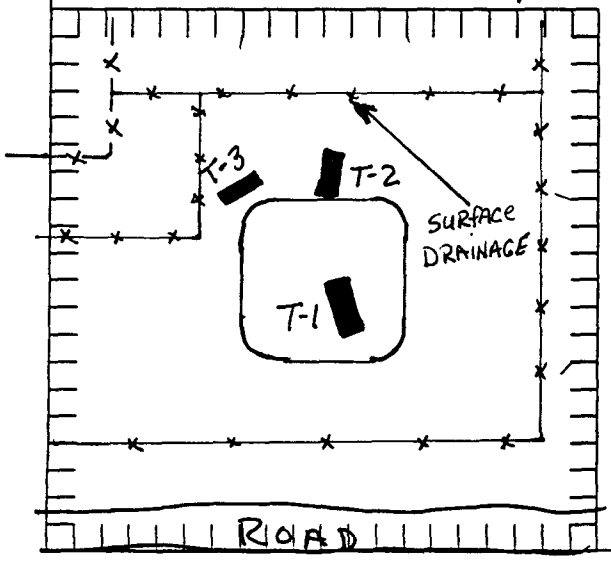
FIELD NOTES & REMARKS: Pit is located approx. 240' North and 70' East of well head. T-1 [redacted] is approx. 5' below Natural Ground Level. Soil is clay-sand, Brown in color until approx 6" above G.W. where it is stained black. T-2, Clayey-SAND Brown Soil. Hole kept caving in could not reach G.W. T-3 could not reach ground water. Pit is no longer being used. Further Assessment may be needed. Contamination seems to be in pit area.

SAMPLE INVENTORY:

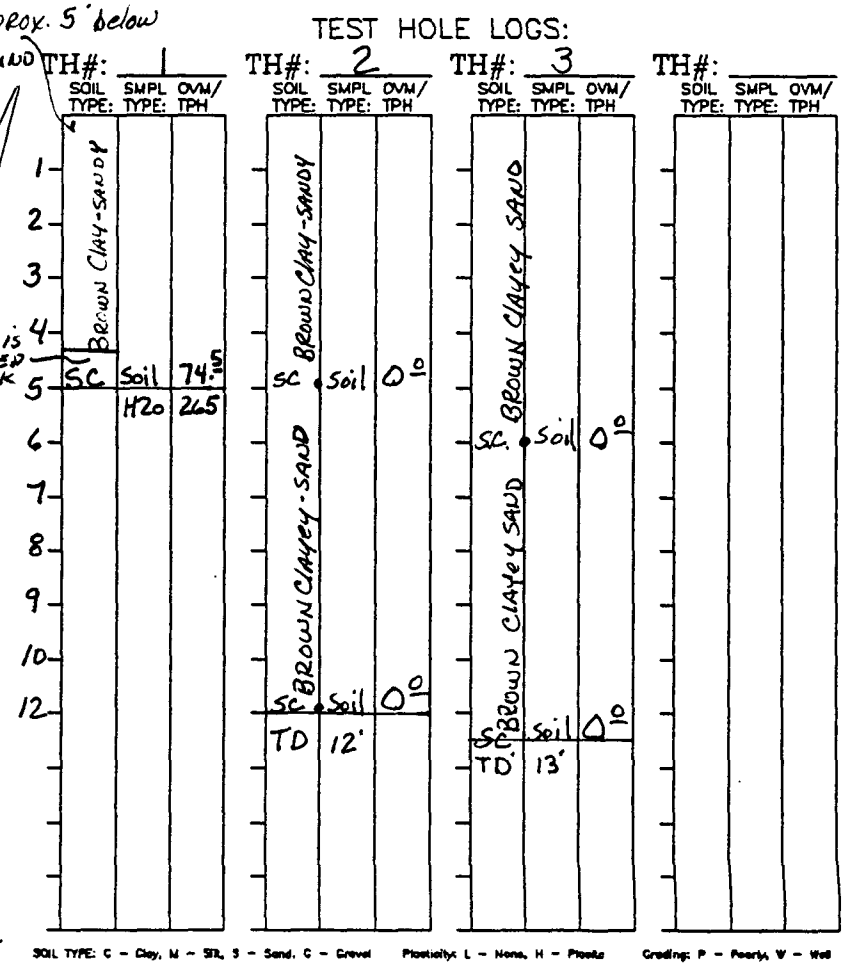
SMPL ID:	SMPL TYPE:	LABORATORY ANALYSIS:
T-1@5'	Soil	TPH - BTEX
T-1@5'	H2o	TPH
T-1@5'	H2o	BTEX
T-1@5'	H2o	BTEX
T-3@13'	Soil	Headspace

SCALE
0 5' 10' FEET

SITE DIAGRAM



TEST HOLE LOGS:



ENVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401
PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ 5'	Date Reported:	10-06-92
Laboratory Number:	3029	Date Sampled:	09-17-92
Sample Matrix:	Soil	Date Received:	09-17-92
Preservative:	Cool	Date Analyzed:	10-02-92
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	26.0	5.0

Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments: Texas National Gas Com 1 Abandoned Blow Pit. 94530

Analyst

Review

ENVIROTECH LABS

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PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ 5'	Date Reported:	11-09-92
Laboratory Number:	3029	Date Sampled:	09-17-92
Sample Matrix:	Soil	Date Received:	09-17-92
Preservative:	Cool	Date Extracted:	10-02-92
Condition:	Cool & Intact	Date Analyzed:	11-09-92
		Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	48.6
Toluene	448	117
Ethylbenzene	780	19.5
p,m-Xylene	8,100	78
o-Xylene	6,800	38.9

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	117 %

Method: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

ND - Parameter not detected at the stated detection limit.

Comments: Texas National GC No.1---Abandoned Blow Pit---94530

Analyst

Review

ENVIROTECH LABS

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PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ 5'	Date Reported:	11-03-92
Laboratory Number:	3031	Date Sampled:	09-17-92
Sample Matrix:	Water	Date Received:	09-17-92
Preservative:	Cool	Date Analyzed:	10-26-92
Condition:	Cool and intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	ND	1.0
Toluene	9.8	2.5
Ethylbenzene	47.1	1.5
p,m-Xylene	440	3.0
o-Xylene	120	1.5

SURROGATE RECOVERIES:

Parameter	Percent Recovery
Trifluorotoluene	98 %
Bromfluorobenzene	87 %

Method: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Texas National GC 1 Abandoned Blow Pit 94530

Analyst

Review

ENVIROTECH LABS

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PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ 5'	Date Reported:	10-15-92
Laboratory Number:	3030	Date Sampled:	09-17-92
Sample Matrix:	Water	Date Received:	09-17-92
Preservative:	Cool	Date Analyzed:	10-05-92
Condition:	Cool	Analysis Needed:	TPH

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
TPH	127	10.0

Method: Method 418.1, Total Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments: Texas Nat'l Gas Com. #1 Abandoned Blow Pit. 94530

Analyst

Review

ENVIROTECH LABS

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PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS
HEADSPACE EXTRACTION

Client:	Amoco	Project #:	92140
Sample ID:	T 3 @ 13'	Date Reported:	10-22-92
Laboratory Number:	3032	Date Sampled:	09-17-92
Sample Matrix:	Soil	Date Received:	09-17-92
Preservative:	Cool	Date Analyzed:	10-19-92
Condition:	Cool and Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	ND	1.6
Toluene	ND	4.8
Ethylbenzene	ND	1.6
p,m-Xylene	ND	6.4
o-Xylene	ND	4.8

Method: Method 3810, Headspace, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Texas National GC 1 Abandoned Blow Pit 94530

Analyst

Review

(1065)

94530

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
Amoco 92140	Abano. Blow Pit Texas Natl. Gas Com No.1	
Sampler: (Signature) Jim Weakfee	Chain of Custody Tape No.	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH	BTEX	HEADSPACE BTEX				Remarks
T-1 @ 5'	9-17-92	1400	3029	SOIL	1	✓	✓					
T-1 @ 5'	9-17-92	1405	3030	WATER	1	✓						
T-1 @ 5'	9-17-92	1410	3031	WATER	2		✓					
T-3 @ 13'	9-17-92	1535	3032	SOIL	1			✓				

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Jim Weakfee	9-17-92	1610	Linda Pruden	9-17-92	1610
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

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

5. Lease Designation and Serial No.: SW 584

6. If Indian, Allottee or Tribe Name:

SUBMIT IN TRIPLICATE

7. If Unit or CA, Agreement Designation: COM. AGMT,

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

8. Well Name and No.: TEXAS NATIONAL GC #1

2. Name of Operator: Amoco Production Company

9. API Well No.: 30045 20723

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

10. Field and Pool, or Exploratory Area: PICT-CLIFFS

4. Location of Well (Footage, Sec., T., R., M., or Survey Description): NW-SW S-19 T29N R9W NMPM

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.

SIT 2/15/00

① BLOW PIT - ABANDONED, GROUNDWATER IMPACT.

14. I hereby certify that the foregoing is true and correct

Signed R.A. Shaw Title ENVIRO. COORDINATOR Date 4/29/94

(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

PIT REMEDIATION AND CLOSURE REPORT

C4530

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

Address: 200 Amoco Court, Farmington, New Mexico 87401

Facility Or: Well Name TEXAS NATIONAL GC #1

Location: Unit or Qtr/Qtr Sec L Sec 19 T 29N R 9W County SAN JUAN

Pit Type: Separator ___ Dehydrator ___ Other ABANDONED BLOW

Land Type: BLM ___, State ___, Fee ___, Other COM AGMT

Pit Location: (Attach diagram)
Pit dimensions: length 40, width 30, depth 6'
Reference: wellhead X, other ___
Footage from reference: 180'
Direction from reference: 20 Degrees X East North X of ___ West South ___

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)	0
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)	0
	RANKING SCORE (TOTAL POINTS):	20

Date Remediation Started: _____ **Date Completed:** 3/15/94

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 270

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 GROUNDWATER IMPACT ok'd 2/15/94

Ground Water Encountered: No ___ Yes X **Depth** 4'

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

ok'd 2/15/94

Sample location REFER TO ATTACHED COMMENTS.

Sample depth _____

Sample date _____ Sample time _____

Sample Results

Benzene(ppm) _____

Total BTEX(ppm) _____

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 BES OF MY KNOWLEDGE AND BELIEF

DATE 4/29/94

SIGNATURE B J Shaw

PRINTED NAME AND TITLE Buddy D. Shaw Environmental Coordinator

F 60

3/14/94 Lab Results to P. Velasquez - No Recommendations - (Rmy)
3/4/94 - Reported field Results by telephone to P. Velasquez, he reported he will continue digging (Rmy)

ENVIROTECH Inc.

5796 US HWY. 64, FARMINGTON, NM 87401
(505) 632-0615

PIT NO. C4530
C.O.C. NO. 3388
COC # 3427 3/15

FIELD REPORT CLOSURE VERIFICATION

JOB No. 92140
PAGE No. 1 of 1

LOCATION: LEASE TEXAS ... GC WELL # 1 QD NW ... (L) Abandoned
SEC. ... TWP: ... RNG: ... BM NMPM CNTY. ... ST NM PIT Blow
CONTRACTOR: ...
EQUIPMENT USED: ...

DATE STARTED: 3/.../94
DATE FINISHED: ...

ENVIRONMENTAL SPECIALIST: ...

SOIL REMEDIATION: QUANTITY: 30'x30'x4' → (40' x 30' x 6' [3/15])
DISPOSAL FACILITY: ...
LAND USE: RANGE
SURFACE CONDITIONS: EXCAVATED UPON ARRIVAL - EQUIPMENT NOT ON SITE.

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 180 FEET N20°E FROM WELLHEAD.

Several inches of free-standing groundwater is present in bottom of excavated area.
Groundwater does not have any visible free product floating on it.
Excavation sidewalls appear to not contain any visible contamination.
Recommend additional excavation of sidewalls, pending laboratory results.

Lab Samples:
Pit water @ 7' for BTEX
Center Bottom @ 7' for 418.1
3@6' for 418.1 ~~+ BTEX~~

LAB SAMPLES 3/15/94
② @ GW FOR BTEX TIME - 1017 915

FIELD 418.1 CALCULATIONS

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

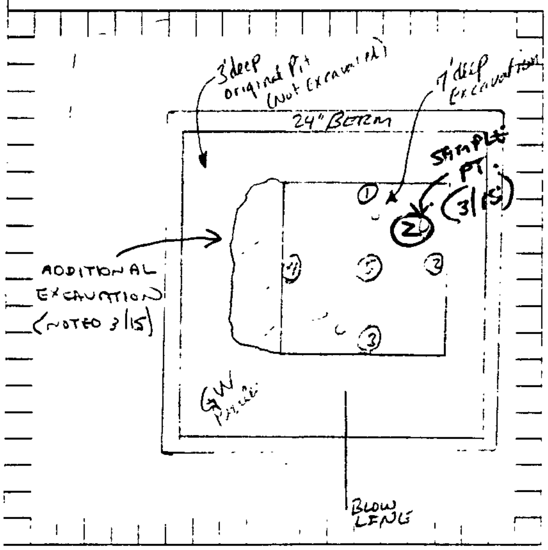
DEPTH TO GROUNDWATER 7'
NEAREST WATER SOURCE >1000'
NEAREST SURFACE WATER >1000'
NMOCD RANKING SCORE —
NMOCD TPH CLOSURE STD —

SCALE
0 10 20 FEET

N

GROUNDWATER AND SURFACE WATER FLOW SUSPECTED DIRECTION

PIT PERIMETER



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
① 5'	3.1 ppm
② 4'	12.2 ppm
③ 6'	1292 ppm
④ 6'	995 ppm
⑤ 7'	7.1 ppm
⑤ 7' GW - Lab Sample	

PIT PROFILE

UNIFORM PROFILE

0'-4' SM Silty Sand (Very Fine)
Dark yellowish brown, firm,
moist to wet, no ... odor,
no visible ...
SL Plastic when wet.
4'-7' ML Silty Sand and Clay.
Dark yellowish brown with
Black and gray areas, ...
cohesive, ...
visible ...

TRAVEL NOTES: CALLOUT: ______ ONSITE: ______

N

ENVIROTECH LABS

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EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	CB @ 7'	Date Sampled:	03-03-94
Laboratory Number:	6940	Date Received:	03-03-94
Sample Matrix:	Soil	Date Analyzed:	03-04-94
Preservative:	Cool	Date Reported:	03-04-94
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	ND	15.0

ND = Parameter not detected at the stated detection limit.
N/A = Not applicable

Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Texas National GC #1 Abandoned Blow Pit C4530

Tony Tristan
Analyst

David Young
Review

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EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	#3 @ 6' (South Wall)	Date Reported:	03-04-94
Laboratory Number:	6941	Date Sampled:	03-03-94
Sample Matrix:	Soil	Date Received:	03-03-94
Preservative:	Cool	Date Extracted:	03-04-94
Condition:	Cool & Intact	Date Analyzed:	03-04-94
		Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	19.8
Toluene	242	19.8
Ethylbenzene	319	19.8
p,m-Xylene	3,350	39.5
o-Xylene	3,850	19.8

SURROGATE RECOVERIES:

Parameter	Percent Recovery
Trifluorotoluene	102 %
Bromofluorobenzene	101 %

Method: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

ND - Parameter not detected at the stated detection limit.

Comments: Texas National GC #1 Abandoned Blow Pit C4530

Analyst

Review

ENVIROTECH LABS

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PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	#3 @ 6'(S Wall)	Date Sampled:	03-03-94
Laboratory Number:	6941	Date Received:	03-03-94
Sample Matrix:	Soil	Date Analyzed:	03-04-94
Preservative:	Cool	Date Reported:	03-04-94
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	71	15.0

ND = Parameter not detected at the stated detection limit.
N/A = Not applicable

Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

Comments: Texas National GC #1 Abandoned Blow Pit C4530

Tony Tristano
Analyst

Review

ENVIROTECH LABS

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PHONE: (505) 632-0615 • FAX: (505) 632-1865

EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	Pit Water @ 7'	Date Reported:	03-04-94
Laboratory Number:	6942	Date Sampled:	03-03-94
Sample Matrix:	Water	Date Received:	03-03-94
Preservative:	HgCl and Cool	Date Analyzed:	03-04-94
Condition:	Cool and Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	5.6	0.2
Toluene	60	0.2
Ethylbenzene	21.2	0.2
p,m-Xylene	142	0.4
o-Xylene	84	0.2

SURROGATE RECOVERIES:

Parameter	Percent Recovery
Trifluorotoluene	98 %
Bromofluorobenzene	102 %

Method: Method 5030A, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Texas National GC #1 Abandoned Blow Pit C4530

Analyst

Review

ENVIROTECH LABS

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EPA METHOD 8020
AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	2 @ GW	Date Reported:	03-16-94
Laboratory Number:	7057	Date Sampled:	03-15-94
Sample Matrix:	Water	Date Received:	03-15-94
Preservative:	HgCl and Cool	Date Analyzed:	03-15-94
Condition:	Cool and Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	ND	0.2
Toluene	1.3	0.4
Ethylbenzene	ND	0.2
p,m-Xylene	1.6	0.3
o-Xylene	11.0	0.3

SURROGATE RECOVERIES:

Parameter	Percent Recovery
Trifluorotoluene	100 %
Bromofluorobenzene	102 %

Method: Method 5030A, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Texas National GC #1 Abandoned Blow Pit C4530

Analyst

Review

CHAIN OF CUSTODY RECORD

Client/Project Name: Amoco/92140

Project Location: Texas National CC #1 Abandoned Blow Pit

C4530

Sampler (Signature): Robert M Young

Chain of Custody Tape No.:

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	418.1	BTEX					Remarks
CS@7'	3/3/94	0900	6940	SOIL	1	✓						
#3@6' (South Wall)	"	0900	6941	SOIL	1	✓	✓					
Pit Water@7'	"	0820	6942	WATER	2		✓					

ANALYSIS/PARAMETERS

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Robert M Young	3/3/94	1120	Denise L. Ojenson	3-3-94	1120
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

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Farmington, New Mexico 87401
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san juan repro Form 578-81

3427

CHAIN OF CUSTODY RECORD

C4530

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
AMOCO 92140	ABANDONED BLOW PIT TEXAS NATIONAL GC #1	
Sampler: (Signature) Nelson Velez	Chain of Custody Tape No.	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX (8020)						Remarks
(2) @ GW	3/15/94	1017	7057	WATER	2	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Velez	3/15/94	1233	Sherri L. Spencer	3-15-94	1253
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

san juan repro Form 578-81

CLIENT: AMOCO

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

LOCATION NO: C4530
C.O.C. NO: 5608

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LOCATION: NAME: TEXAS NATIONAL GC WELL #: 1 PITS: ABANDONED BLOW
QUAD/UNIT: K SEC: 19 TWP: 29N RNG: 9W PM: NM CNTY: SJ ST: NM
QTR/FOOTAGE: NE/4 SW/4 CONTRACTOR: P & S

DATE STARTED: 11/22/97
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: NV

SOIL REMEDIATION:

REMEDIATION SYSTEM: LANDFARM
APPROX. CUBIC YARDAGE:
LAND USE: RANGE
LIFT DEPTH (ft): NA

FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: <50' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'

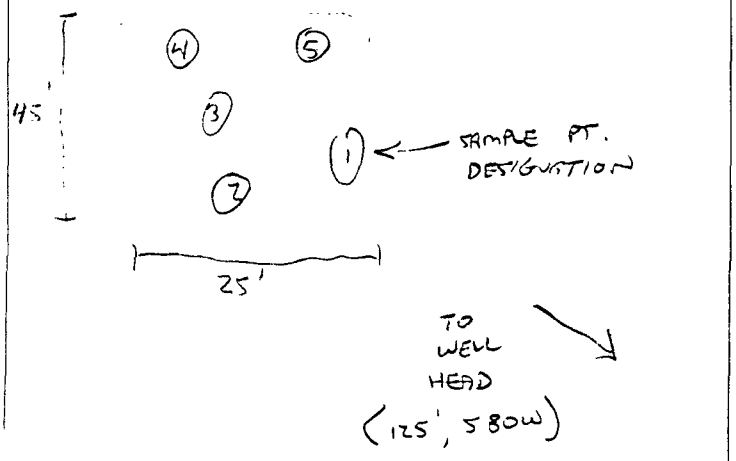
NMOCD RANKING SCORE: 20 NMOCD TPH CLOSURE STD: 100 PPM

NO ACTUAL LANDFARM OBSERVED ON LOCATION, COLLECTED SAMPLES W/ HAND AUGER @ DEPTHS RANGING FROM 6" - 18" BELOW GRADE, SOIL MOSTLY DK. YELL. BROWN SAND, SLIGHTLY MOIST TO MOIST FIRM, NO HC ODOR OR DISCOLORATION OBSERVED WITHIN ANY OF THE SAMPLE PTS, COLLECTED 5 PT. COMPOSITE FOR LAB ANALYSIS.

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)	1230	ND

SCALE
0 FT

TRAVEL NOTES: CALLOUT: NA ONSITE: 11/22/97

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:	11-26-97
Laboratory Number:	C565	Date Sampled:	11-22-97
Chain of Custody No:	5608	Date Received:	11-24-97
Sample Matrix:	Soil	Date Extracted:	11-24-97
Preservative:	Cool	Date Analyzed:	11-25-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**ND**	**0.2**
Diesel Range (C10 - C28)	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**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: **Texas National GC #1 Landfarm. 5 Pt. Composite.**

Analyst

Review

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

5608

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location	ANALYSIS/PARAMETERS
BLAGG / AMOCO	LANDFARM TEXAS NATIONAL GC #1	
Sampler: (Signature) Nelson Velez	Chain of Custody Tape No. 04034-10	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (8015)						Remarks
												PRESERV. - COOL
LF-1	11/22/97	1230	C565	SOIL	1	✓						5 PT. COMPOSITE
					Sample received cool & intact							

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Velez	11/24/97	0805	Andrew L. Robertson	11-24-97	0815
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

Ref COC's 5575 → 5584
5605 → 5615

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Farmington, New Mexico 87401
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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:	11-25-PM-TPH QA/QC	Date Reported:	11-26-97
Laboratory Number:	C561	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-25-97
Condition:	N/A	Analysis Requested:	TPH

Calibration	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	10-28-97	7.1898E-04	7.1469E-04	0.60%	0 - 15%
Diesel Range C10 - C28	10-28-97	6.1170E-04	6.1109E-04	0.10%	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	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	1.4	1.3	5.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	248	99%	75 - 125%
Diesel Range C10 - C28	1.4	250	250	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 C561 - C570.**

Analyst

Review

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