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

45-26454

April 23, 2001

Mr. James Miles
Bureau of Indian Affairs
1400 La Plata Highway
Farmington, New Mexico 87401

Re: Request for Closure of Earthen Pit
Dugan Production Corporation - Lucky Billy Charlie No. 2
(M) Sec. 22 - T27N - R13W
San Juan County, New Mexico

Dear Mr. Miles:

On behalf of Dugan Production Corporation, Blagg Engineering, Inc. (BEI) is requesting closure of an earthen pit at the Lucky Billy Charlie No. 2, (M) Sec. 22 - T27N - R13W, San Juan County, New Mexico. The earthen pit was used as a separator pit for water disposal at this location. The well was recently plugged and abandon and remediation of the earthen pit was conducted as part of the site closure operations.

A total of approximately 48 cubic yards of soil was excavated from the pit on February 28, 2001 and placed into an onsite landfarm for remediation. The landfarm soils contained mostly volatile organics and were mixed with clean soils during the excavation process. The landfarm was sampled for closure on April 17, 2001. Documentation supporting closure of the pit and landfarm, including laboratory reports, is included with the attached BLM sundry notice.

Questions or comments concerning this request for closure may be directed to Jeff Blagg at (505)632-1199.

Respectfully submitted:
Blagg Engineering, Inc.

Jeffrey C. Blagg, P.E.
President

cc: Mr. Denny Foust - NMOCD Aztec
Mr. William Olson - NMOCD Santa Fe
Mr. Bill Liess - BLM Farmington (2)
Mr. Tom Blair - Dugan Production Corp.

Attachements: BLM Sundry, Field Closure Reports, Laboratory Test Reports

CROSS TIMBERS GROUNDWATER MONITOR WELL LABORATORY RESULTS

SUBMITTED BY BLAGG ENGINEERING, INC.

45-23550

STATE GC BS #1 - SEPARATOR PIT
UNIT K, SEC. 23, T29N, R11W

REVISED DATE: AUGUST 28, 2000
FILENAME: (ST-2Q-00.WK4) NJV

								BTEX EPA METHOD 8020 or 8021 (PPB)			
SAMPLE DATE	MONITOR WELL No:	D.T.W. (ft)	T.D. (ft)	TDS mg/L	COND. umhos	pH	PRODUCT (in)	Benzene	Toluene	Ethyl Benzene	Total Xylene
05-Jun-96	MW #1	5.60	8.43	4660	3200	6.8		ND	ND	ND	ND
13-May-99		5.77		4275	8550	7.5		-	-	-	-
29-Jun-00		7.11			NA	NA		-	-	-	-
05-Jun-96	MW #2	5.57	8.43	5120	4400	6.7		57.2	ND	277	2804
11-Sep-96		6.36			3800	7.4		17.3	19.7	177	197.23
23-Jun-97		5.82	8.42		4000	7.6		8.6	3.6	4.8	26.5
22-Sep-97		5.50			2900	7.4		0.4	4.4	ND	14.8
18-Dec-97		5.29			3300	6.9		ND	0.7	2.7	11.2
30-May-98		5.27			3200	7.2		1.2	1.9	2.7	5.5
13-May-99		6.15		4860	9740	7.6		-	-	-	-
05-Jun-96	MW #3	5.75	8.62	13000	6500	7.0		ND	ND	ND	ND
13-May-99		6.40		8050	16200	7.5		-	-	-	-
29-Jun-00		7.67			4300	7.3		ND	ND	ND	ND
23-Jun-97	MW #4	6.74	8.95	4119	3800	7.2		26.4	86.5	186	1062
26-Jun-98	MW #4R	5.56	10.00		2600	7.7		17.1	10.2	8.7	47.0
13-May-99		4.87		4700	9450	7.3		3.9	4.5	2.9	8.3
25-Aug-99		3.35			3200	7.0		8.6	2.0	0.5	2.6
30-Nov-99		4.22			3300	7.1		10.5	0.8	7.5	8.2
29-Jun-00		6.13			3400	7.1		ND	ND	ND	ND
18-Dec-97	MW #5	6.45	9.00	1870	3200	6.9		ND	0.4	ND	0.6
13-May-99	MW #5R	7.65	10.00	4790	9600	7.3		-	-	-	-
29-Jun-00		8.90			3400	7.1		ND	ND	ND	ND
25-Aug-00	MW #6	5.30	10.00	8070	4000	7.1		-	-	-	-

GENERAL WATER QUALITY

CROSS TIMBERS OIL COMPANY

STATE GC BS # 1

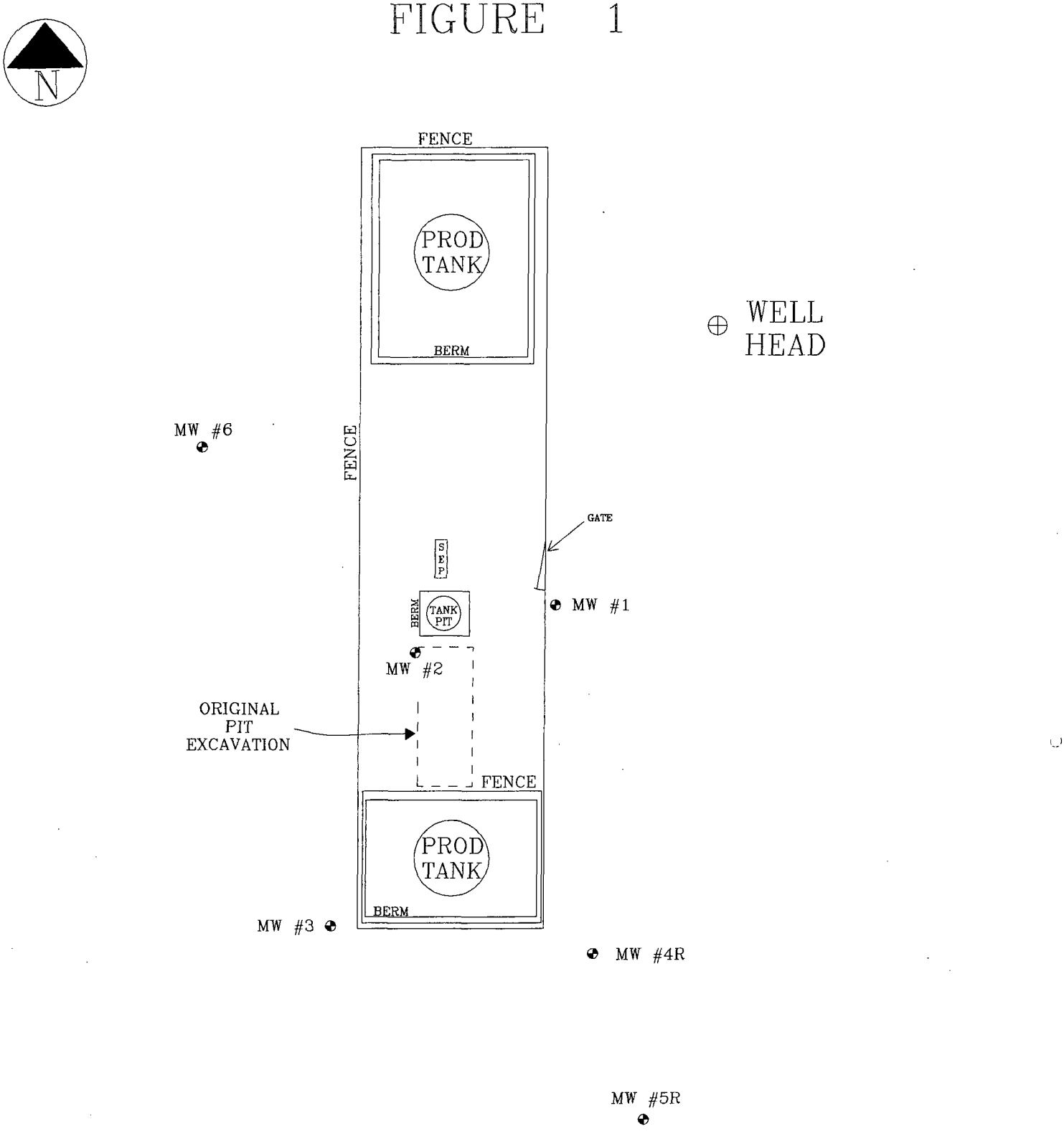
SAMPLE DATE : May 13 , 1999

PARAMETERS	MW # 1	MW # 2	MW # 3	MW # 4R	MW # 5R	Units
LAB pH	7.46	7.58	7.50	7.32	7.31	s. u.
LAB CONDUCTIVITY @ 25 C	8,550	9,740	16,200	9,450	9,600	umhos / cm
TOTAL DISSOLVED SOLIDS @ 180 C	4,275	4,860	8,050	4,700	4,790	mg / L
TOTAL DISSOLVED SOLIDS (Calc)	4,264	4,841	8,004	4,669	4,755	mg / L
SODIUM ABSORPTION RATIO	8.7	12.2	25.2	11.1	11.7	ratio
TOTAL ALKALINITY AS CaCO3	364	568	876	316	332	mg / L
TOTAL HARDNESS AS CaCO3	1,445	1,325	1,295	1,350	1,320	mg / L
BICARBONATE as HCO3	364	568	876	316	332	mg / L
CARBONATE AS CO3	< 1	< 1	< 1	< 1	< 1	mg / L
HYDROXIDE AS OH	< 1	< 1	< 1	< 1	< 1	mg / L
NITRATE NITROGEN	< 0.1	< 0.1	< 0.1	0.7	3.1	mg / L
NITRITE NITROGEN	0.029	0.015	0.007	0.024	0.094	mg / L
CHLORIDE	15.5	50.0	56.5	17.0	13.5	mg / L
FLUORIDE	1.25	1.52	1.69	1.31	1.26	mg / L
PHOSPHATE	0.3	0.2	0.1	< 0.1	< 0.1	mg / L
SULFATE	2,690	2,910	4,840	2,990	3,040	mg / L
IRON	0.553	0.038	0.029	0.207	0.001	mg / L
CALCIUM	504	446	428	494	480	mg / L
MAGNESIUM	45.2	51.3	55.0	28.1	29.3	mg / L
POTASSIUM	26.5	17.5	11.0	6.0	6.0	mg / L
SODIUM	760	1020	2,080	940	980	mg / L
CATION / ANION DIFFERENCE	0.20	0.14	0.14	0.02	0.13	%

NOTE : Chloride & TDS samples collected on June 29, 2000 ; TDS sample collected from newly installed MW # 6 on August 25, 2000 ; results are as follows:

	TDS	CHLORIDE	
MW # 3	5,180	23.0	mg / L
MW # 4R	-	11.0	mg / L
MW # 5R	-	12.9	mg / L
MW # 6	8,070	-	mg / L

FIGURE 1



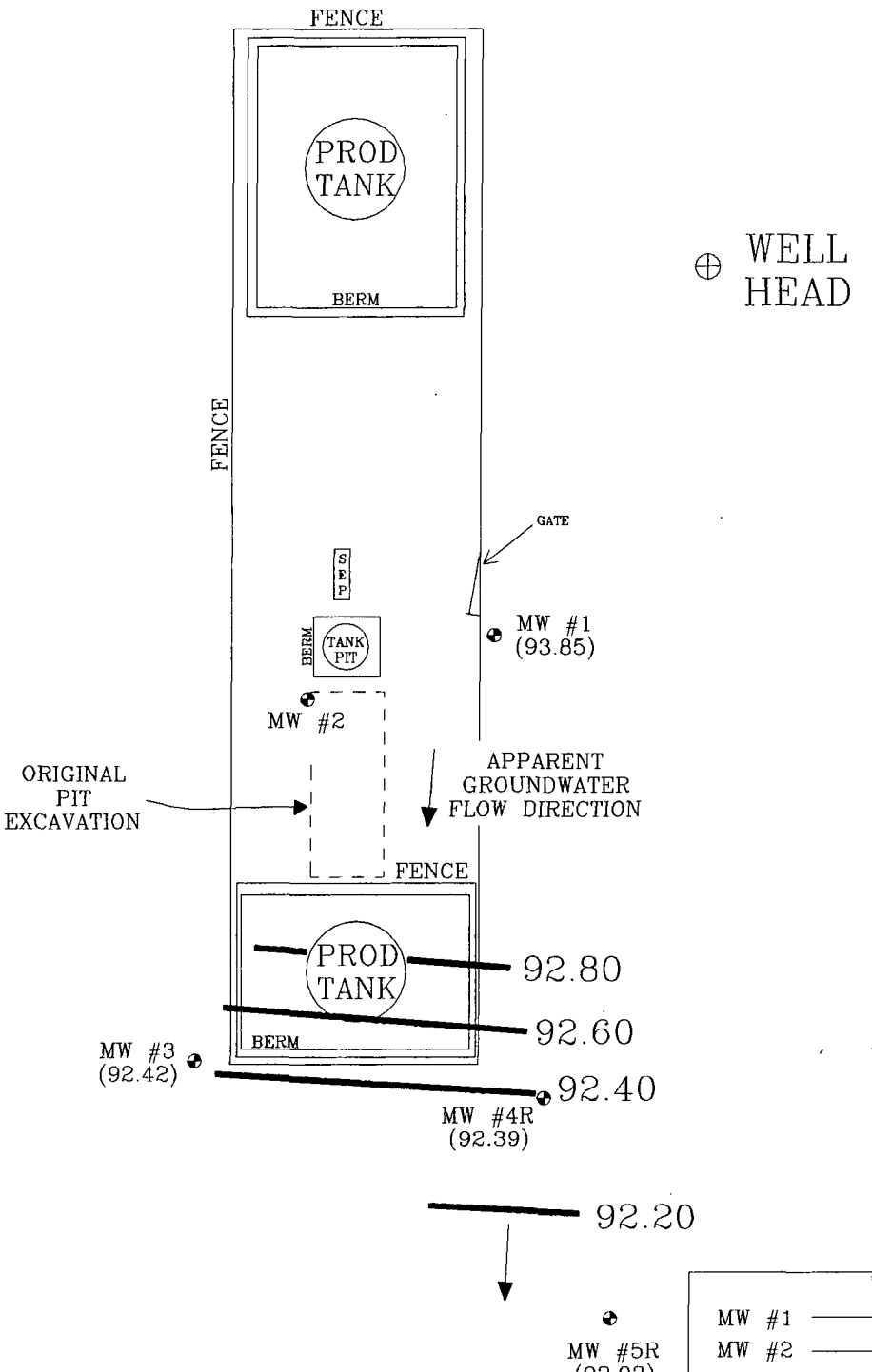
MONITOR WELL LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (BRUNTON COMPASS AND LASER RANGE FINDER). ALL OTHER STRUCTURES DISPLAYED ON THE SITE MAP ARE SOLELY FOR REFERENCE AND ARE NOT TO SCALE.

ONE INCH = 50 FEET

0 50 100 FT.

AMOCO PRODUCTION COMPANY STATE GC BS 1 NE/4 NW/4 SEC. 23, T29N, R11W 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: 08-25-SM.SKD REVISED: 4/04/01 NJV	SITE MAP 08/00

FIGURE 2
(2nd 1/4, 2000)



Top of Well Elevation	
MW #1	(100.96)
MW #2	(100.99)
MW #3	(100.09)
MW #4R	(98.52)
MW #5R	(100.93)

MW #1 (93.85) Groundwater Elevation as of 6/29/00.

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.

1 inch = 50 ft.

0 50 100 FT.

AMOCO PRODUCTION COMPANY

STATE GC BS 1

NE/4 NW/4 SEC. 23, T29N, R11W

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: 06-29-GW.SKD

REVISED: 4/4/01 NJV

GROUNDWATER GRADIENT MAP 06/00

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

April 21, 1999

CERTIFIED MAIL
RETURN RECEIPT NO: Z-274-520-641

Ms. Nina Hutton
Cross Timbers Oil Company
810 Houston St., Suite 2000
Fort Worth, Texas 76102-6298

RE: SAN JUAN BASIN GROUND WATER MONITORING REPORTS

Dear Ms. Hutton:

The New Mexico Oil Conservation Division (OCD) has reviewed Cross Timbers Oil Company's (CTOC) February 11, 1999 "CROSS TIMBERS OIL CO. GROUNDWATER MONITORING (AMOCO) 1996-1998 REPORTS, SAN JUAN COUNTY, NEW MEXICO" which was submitted on behalf of CTOC by their consultant Blagg Engineering, Inc. This document contains the results of CTOC's investigation, remediation and monitoring of ground water contamination related to the disposal of oilfield wastes in unlined pits at 7 sites in the San Juan Basin.

Based upon a review of the above referenced documents, the OCD has the following comments and requirements:

1. The downgradient and/or lateral extent of chloride and/or total dissolved solids contamination at the sites listed below has not been completely defined. The OCD requires that CTOC completely define the extent of these contaminants at each site pursuant to the previously approved ground water management plan for these sites.

   - Bergin GC #1E — Unit F, Sec. 21, T29N, R11W
   - Rowland GC #1 — Unit P, Sec. 25, T30N, R12W
   - State GC BS #1 — Unit F, Sec. 21, T29N, R11W
   - Sullivan GC D#1 — Unit B, Sec. 26, T29N, R11W

2. The downgradient and/or lateral extent of benzene, toluene, ethylbenzene, xylene (BTEX), chloride and/or total dissolved solids contamination at the sites listed below has not been completely defined. The OCD requires that CTOC completely define the extent of these contaminants at each site pursuant to the previously approved ground water management plan for these sites.

   - Bruington GC #1 — Unit E, Sec. 14, T29N, R11W
   - Valdez A #1E — Unit G, Sec. 24, T29N, R11W

3. A review of the sampling data shows that during some samplings only ground water from the monitor wells at the source is sampled and there is no downgradient monitoring to show that contaminated ground water is contained. In order to effectively monitor contaminant migration, the OCD requires that the ground water monitoring plan be modified to include additional ground water sampling of all monitor wells at each site on an annual basis. During the annual sampling event ground water from all monitor wells will be sampled and analyzed for BTEX, TDS, polynuclear aromatic hydrocarbons (PAH) and New Mexico Water Quality Control Commission (WQCC) cations and anions and metals using EPA approved methods and quality assurance/quality control procedures. Specific analytes may be dropped from the annual sampling event for certain sites if that analyte has not been found to be above WQCC standard in the sites source areas and the reasons for dropping those analytes are included in the annual reports. This sampling requirement will also be added to the ground water monitoring plan for all future ground water sampling at all CTOC sites with contaminated ground water.

4. CTOC recently purchased a number of well sites in the San Juan Basin from Amoco. Some of these sites were found to have ground water contamination which was discovered by Amoco during pit closure activities. The OCD does not have a listing of status of these sites. Please provide the OCD with a listing of all CTOC well sites in the San Juan Basin at which the presence of ground water was discovered during pit assessment or closure activities and the status of each site.

If you have any questions, please contact me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Denny Foust, OCD Aztec District Office
Nelson Velez, Blagg Engineering, Inc.

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : CROSS TIMBERS OIL CO.

CHAIN-OF-CUSTODY # : 10608
7025

STATE GC BS # 1 - SEPARATOR PIT
UNIT K, SEC. 23, T29N, R11W

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

Date : June 29, 2000

SAMPLER : N J V

Filename : 06-29-00.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	100.96	93.85	7.11	8.43	-	-	-	-	-
2	100.99		-	8.42	-	-	-	-	-
3	100.09	92.42	7.67	8.62	1125	7.3	4,300	0.50	-
4R	98.52	92.39	6.13	10.00	1055	7.1	3,400	2.00	-
5R	100.93	92.03	8.90	10.00	1105	7.1	3,400	0.50	-

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 ".

Very low quantity in all MW 's . Collected BTEX & chloride samples from MW #'s 3, 4R, & 5R .

Collected TDS sample from MW # 3 only .

OFF: (505) 325-5667
FAX: (505) 327-1496

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: *18-Jul-00*

Client:	Blagg Engineering	**Client Sample Info:**	State GC BS #1
Work Order:	0006069	**Client Sample ID:**	MW #3
Lab ID:	0006069-01A **Matrix:** AQUEOUS	**Collection Date:**	6/29/2000 11:25:00 AM
Project:	Cross Timbers - State GC BS #1	**COC Record:**	10608

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DC**
Benzene	ND	0.5		µg/L	1	7/12/2000
Toluene	ND	0.5		µg/L	1	7/12/2000
Ethylbenzene	ND	0.5		µg/L	1	7/12/2000
m,p-Xylene	ND	1		µg/L	1	7/12/2000
o-Xylene	ND	0.5		µg/L	1	7/12/2000

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

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FAX: (505) 327-1496

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: *18-Jul-00*

Client:	Blagg Engineering	**Client Sample Info:**	State GC BS #1
Work Order:	0006069	**Client Sample ID:**	MW #4R
Lab ID:	0006069-02A **Matrix:** AQUEOUS	**Collection Date:**	6/29/2000 10:55:00 AM
Project:	Cross Timbers - State GC BS #1	**COC Record:**	10608

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	ND	0.5		µg/L	1	7/11/2000
Toluene	ND	0.5		µg/L	1	7/11/2000
Ethylbenzene	ND	0.5		µg/L	1	7/11/2000
m,p-Xylene	ND	1		µg/L	1	7/11/2000
o-Xylene	ND	0.5		µg/L	1	7/11/2000

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

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FAX: (505) 327-1496

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: *18-Jul-00*

Client:	Blagg Engineering	**Client Sample Info:**	State GC BS #1
Work Order:	0006069	**Client Sample ID:**	MW #5R
Lab ID:	0006069-03A **Matrix:** AQUEOUS	**Collection Date:**	6/29/2000 11:05:00 AM
Project:	Cross Timbers - State GC BS #1	**COC Record:**	10608

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	ND	0.5		µg/L	1	7/11/2000
Toluene	ND	0.5		µg/L	1	7/11/2000
Ethylbenzene	ND	0.5		µg/L	1	7/11/2000
m,p-Xylene	ND	1		µg/L	1	7/11/2000
o-Xylene	ND	0.5		µg/L	1	7/11/2000

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

Water Analysis

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW # 3	Date Reported:	06-30-00
Laboratory Number:	H632	Date Sampled:	06-29-00
Sample Matrix:	Water	Date Received:	06-29-00
Preservative:	Cool	Date Analyzed:	06-30-00
Condition:	Cool & Intact	Chain of Custody:	7025

Parameter	Analytical Result	Units
Total Dissolved Solids @ 180C	**5,180**	mg/L
Chloride	**23.0**	mg/L

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: **State GC BS #1.**

Analyst

Review

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

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Water Analysis

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW # 4R	Date Reported:	06-30-00
Laboratory Number:	H633	Date Sampled:	06-29-00
Sample Matrix:	Water	Date Received:	06-29-00
Preservative:	Cool	Date Analyzed:	06-30-00
Condition:	Cool & Intact	Chain of Custody:	7025

Parameter	Analytical Result	Units
Chloride	**11.0**	mg/L

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: **State GC BS #1.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Water Analysis

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW # 5R	Date Reported:	06-30-00
Laboratory Number:	H634	Date Sampled:	06-29-00
Sample Matrix:	Water	Date Received:	06-29-00
Preservative:	Cool	Date Analyzed:	06-30-00
Condition:	Cool & Intact	Chain of Custody:	7025

Parameter	Analytical Result	Units
Chloride	**12.9**	mg/L

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: **State GC BS #1.**

Analyst

Review

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

10608

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: 6/29/00

Page: 1 of 1

Purchase Order No.:	Project No.		
SEND INVOICE TO: Name T. BURGE		REPORT RESULTS TO: Name N. VENEZ	Title
Company BURGE ENGINEERING INC.	Dept.	Company SAME	
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No. 632-1199	Telefax No. 632-3903

PROJECT LOCATION: CROSS TIMBERS - TIME GC 85 #1

SAMPLER'S SIGNATURE: Nelson Velez

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	SAMPLE PRES.	Number of Containers	ANALYSIS REQUESTED: BTEX (8021)	LAB ID
MW #3	6/29/00	1125	H2O WATER	HCl & COOL	2	✓	006040-01A
MW #4R	6/29/00	1055	WATER	HCl & COOL	2	✓	-02A
MW #5R	6/29/00	1105	WATER	HCl & COOL	2	✓	-03A

Relinquished by: Nelson Velez	Date/Time 6/29/00 1423	Received by:	Date/Time 6/29/00 1423
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:

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

CHAIN OF CUSTODY RECORD

7025

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG/CROSS TIMBERS	STATE GC BS #1	
Sampler: NJV	Client No. 403410	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	CHLORIDE	TDS					Remarks
												ALL SAMPLES PRESERV. - COOL
MW # 3	6/29/00	1125	H632	WATER	1	✓	✓					
MW # 4R	6/29/00	1055	H633	WATER	1	✓						
MW #5R	6/29/00	1105	H634	WATER	1	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Velez	6/29/00	1441	[signature]	6.29.00	1441
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: *18-Jul-00*

CLIENT: Blagg Engineering
Work Order: 0006069
Project: Cross Timbers - State GC BS #1

QC SUMMARY REPORT

Method Blank

Sample ID: **MB1** Batch ID: **GC-1_000711** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/11/2000** Prep Date:
Client ID: **0006069** Run ID: **GC-1_000711A** SeqNo: **29854**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.0595	0.5									J
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	.0916	0.5									J

Sample ID: **MB1** Batch ID: **GC-1_000712** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/12/2000** Prep Date:
Client ID: **0006069** Run ID: **GC-1_000712A** SeqNo: **29926**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	.1388	0.5									J
m,p-Xylene	.4757	1									J
Methyl tert-Butyl Ether	ND	1									
o-Xylene	.1557	0.5									J
Toluene	.2024	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: *18-Jul-00*

CLIENT: Blagg Engineering
Work Order: 0006069
Project: Cross Timbers - State GC BS #1

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: **0006072-29AMS** Batch ID: **GC-1_000711** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/11/2000** Prep Date:
Client ID: **0006069** Run ID: **GC-1_000711A** SeqNo: **29855**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	10880	100	8000	2621	103.3%	73	126				
Ethylbenzene	9217	100	8000	919.5	103.7%	88	113				
m,p-Xylene	16530	200	16000	844.8	98.1%	83	112				
Methyl tert-Butyl Ether	37240	200	8000	30020	90.2%	81	125				
o-Xylene	8424	100	8000	62.34	104.5%	93	110				
Toluene	8474	100	8000	86.84	104.8%	76	126				

Sample ID: **0006072-29AMSD** Batch ID: **GC-1_000711** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/11/2000** Prep Date:
Client ID: **0006069** Run ID: **GC-1_000711A** SeqNo: **29856**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	10610	100	8000	2621	99.9%	73	126	10880	2.5%	6	
Ethylbenzene	8993	100	8000	919.5	100.9%	88	113	9217	2.5%	5	
m,p-Xylene	16140	200	16000	844.8	95.6%	83	112	16530	2.4%	7	
Methyl tert-Butyl Ether	36330	200	8000	30020	78.8%	81	125	37240	2.5%	9	S
o-Xylene	8255	100	8000	62.34	102.4%	93	110	8424	2.0%	6	
Toluene	8278	100	8000	86.84	102.4%	76	126	8474	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

CLIENT: Blagg Engineering
Work Order: 0006069
Project: Cross Timbers - State GC BS #1

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: **0006074-03AMS** Batch ID: **GC-1_000712** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/12/2000** Prep Date:
Client ID: **0006069** Run ID: **GC-1_000712A** SeqNo: **29927**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2059	25	2000	46.08	100.7%	88	112				
Ethylbenzene	2805	25	2000	776.7	101.4%	86	113				
m,p-Xylene	9997	50	4000	6132	96.6%	85	108				
Methyl tert-Butyl Ether	2166	50	2000	46.08	106.0%	86	117				
o-Xylene	2352	25	2000	299.2	102.6%	92	110				
Toluene	2130	25	2000	38.93	104.5%	88	116				

Sample ID: **0006074-03AMSD** Batch ID: **GC-1_000712** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/12/2000** Prep Date:
Client ID: **0006069** Run ID: **GC-1_000712A** SeqNo: **29928**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2001	25	2000	46.08	97.8%	88	112	2059	2.9%	6	
Ethylbenzene	2725	25	2000	776.7	97.4%	86	113	2805	2.9%	6	
m,p-Xylene	9715	50	4000	6132	89.6%	85	108	9997	2.9%	6	
Methyl tert-Butyl Ether	2137	50	2000	46.08	104.6%	86	117	2166	1.3%	7	
o-Xylene	2285	25	2000	299.2	99.3%	92	110	2352	2.9%	6	
Toluene	2040	25	2000	38.93	100.1%	88	116	2130	4.3%	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: *18-Jul-00*

CLIENT: Blagg Engineering
Work Order: 0006069
Project: Cross Timbers - State GC BS #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS WATER** Batch ID: **GC-1_000711** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/11/2000** Prep Date:

Client ID: **0006069** Run ID: **GC-1_000711A** SeqNo: **29853**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	41.66	0.5	40	0.0595	104.0%	89	112				
Ethylbenzene	41.39	0.5	40	0	103.5%	93	112				
m,p-Xylene	78.06	1	80	0	97.6%	88	108				
Methyl tert-Butyl Ether	41.46	1	40	0	103.7%	87	115				
o-Xylene	41.44	0.5	40	0	103.6%	93	112				
Toluene	41.62	0.5	40	0.0916	103.8%	92	111				

Sample ID: **LCS WATER** Batch ID: **GC-1_000712** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/12/2000** Prep Date:

Client ID: **0006069** Run ID: **GC-1_000712A** SeqNo: **29925**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.32	0.5	40	0	100.8%	96	111				
Ethylbenzene	40.29	0.5	40	0.1388	100.4%	96	111				
m,p-Xylene	76.04	1	80	0.4757	94.4%	92	105				
Methyl tert-Butyl Ether	40.39	1	40	0	101.0%	93	113				
o-Xylene	40.55	0.5	40	0.1557	101.0%	97	110				
Toluene	40.52	0.5	40	0.2024	100.8%	97	109				

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: *18-Jul-00*

CLIENT: Blagg Engineering
Work Order: 0006069
Project: Cross Timbers - State GC BS #1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: **CCV1 BTEX_0007** Batch ID: **GC-1_000711** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/11/2000** Prep Date:

Client ID: **0006069** Run ID: **GC-1_000711A** SeqNo: **29850**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.97	0.5	20	0	109.8%	85	115				
Ethylbenzene	21.8	0.5	20	0	109.0%	85	115				
m,p-Xylene	41.3	1	40	0	103.2%	85	115				
Methyl tert-Butyl Ether	21.84	1	20	0	109.2%	85	115				
o-Xylene	21.96	0.5	20	0	109.8%	85	115				
Toluene	21.9	0.5	20	0	109.5%	85	115				
1,4-Difluorobenzene	89.22	0	100	0	89.2%	80	105				
4-Bromochlorobenzene	85.5	0	100	0	85.5%	78	108				
Fluorobenzene	87.73	0	100	0	87.7%	78	108				

Sample ID: **CCV2 BTEX_0007** Batch ID: **GC-1_000711** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/11/2000** Prep Date:

Client ID: **0006069** Run ID: **GC-1_000711A** SeqNo: **29851**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.06	0.5	20	0	105.3%	85	115				
Ethylbenzene	20.8	0.5	20	0	104.0%	85	115				
m,p-Xylene	39.43	1	40	0	98.6%	85	115				
Methyl tert-Butyl Ether	21.51	1	20	0	107.5%	85	115				
o-Xylene	21.03	0.5	20	0	105.2%	85	115				
Toluene	21.03	0.5	20	0	105.1%	85	115				
1,4-Difluorobenzene	89.09	0	100	0	89.1%	80	105				
4-Bromochlorobenzene	85.09	0	100	0	85.1%	78	108				
Fluorobenzene	87.47	0	100	0	87.5%	78	108				

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: 0006069
Project: Cross Timbers - State GC BS #1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: **CCV3 BTEX_0007** Batch ID: **GC-1_000711** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/11/2000** Prep Date:

Client ID: **0006069** Run ID: **GC-1_000711A** SeqNo: **29852**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	41.47	0.5	40	0	103.7%	85	115				
Ethylbenzene	41.06	0.5	40	0	102.7%	85	115				
m,p-Xylene	77.66	1	80	0	97.1%	85	115				
Methyl tert-Butyl Ether	43.51	1	40	0	108.8%	85	115				
o-Xylene	41.46	0.5	40	0	103.6%	85	115				
Toluene	41.6	0.5	40	0	104.0%	85	115				
1,4-Difluorobenzene	88.8	0	100	0	88.8%	80	105				
4-Bromochlorobenzene	84.38	0	100	0	84.4%	78	108				
Fluorobenzene	87.12	0	100	0	87.1%	78	108				

Sample ID: **CCV1 BTEX_0007** Batch ID: **GC-1_000712** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/12/2000** Prep Date:

Client ID: **0006069** Run ID: **GC-1_000712A** SeqNo: **29922**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.07	0.5	20	0	105.4%	85	115				
Ethylbenzene	21.12	0.5	20	0	105.6%	85	115				
m,p-Xylene	40.04	1	40	0	100.1%	85	115				
Methyl tert-Butyl Ether	20.54	1	20	0	102.7%	85	115				
o-Xylene	21.16	0.5	20	0	105.8%	85	115				
Toluene	21.21	0.5	20	0	106.1%	85	115				
1,4-Difluorobenzene	89.52	0	100	0	89.5%	79	101				
4-Bromochlorobenzene	85.38	0	100	0	85.4%	78	99				
Fluorobenzene	87.65	0	100	0	87.6%	76	103				

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: 0006069
Project: Cross Timbers - State GC BS #1

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV2 BTEX_0007** Batch ID: **GC-1_000712** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/12/2000** Prep Date:
Client ID: **0006069** Run ID: **GC-1_000712A** SeqNo: **29923**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.82	0.5	20	0	104.1%	85	115				
Ethylbenzene	20.84	0.5	20	0	104.2%	85	115				
m,p-Xylene	39.65	1	40	0	99.1%	85	115				
Methyl tert-Butyl Ether	21.62	1	20	0	108.1%	85	115				
o-Xylene	21.03	0.5	20	0	105.2%	85	115				
Toluene	20.94	0.5	20	0	104.7%	85	115				
1,4-Difluorobenzene	89.55	0	100	0	89.6%	79	101				
4-Bromochlorobenzene	84.58	0	100	0	84.6%	78	99				
Fluorobenzene	87.93	0	100	0	87.9%	76	103				

Sample ID: **CCV3 BTEX_0007** Batch ID: **GC-1_000712** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/12/2000** Prep Date:
Client ID: **0006069** Run ID: **GC-1_000712A** SeqNo: **29924**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.54	0.5	40	0	101.3%	85	115				
Ethylbenzene	40.45	0.5	40	0	101.1%	85	115				
m,p-Xylene	77.29	1	80	0	96.6%	85	115				
Methyl tert-Butyl Ether	35.83	1	40	0	89.6%	85	115				
o-Xylene	40.94	0.5	40	0	102.3%	85	115				
Toluene	40.74	0.5	40	0	101.8%	85	115				
1,4-Difluorobenzene	90.08	0	100	0	90.1%	79	101				
4-Bromochlorobenzene	88.66	0	100	0	88.7%	78	99				
Fluorobenzene	88.92	0	100	0	88.9%	76	103				

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

On Site Technologies, LTD.

Date: 18-Jul-00

CLIENT: Blagg Engineering
Work Order: 0006069
Project: Cross Timbers - State GC BS #1
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ					
0006066-03A	87.7	83.5	86.2					
0006066-04A	87.5	81.9	85.6					
0006066-06A	89.8	85.5	88.2					
0006066-07A	89.7	84.9	88.1					
0006069-01A	90	84.6	88.7					
0006069-02A	89.7	85.2	88.1					
0006069-03A	89.7	85.4	88.1					
0006070-01A	86.4	83.8	85.7					
0006070-02A	88.2	83.4	86.8					
0006072-29A	89	84.6	87.4					
0006072-29AMS	88.1	85.5	86.5					
0006072-29AMSD	88.4	86	86.8					
0006072-30A	88.6	84.3	86.9					
0006072-32A	89.4	85.6	87.9					
0006072-34A	88.8	85.6	87					
0006073-01A	89.1	84.5	87.9					
0006073-02A	90	84.8	88.6					
0006074-01A	89.4	84.4	88.2					
0006074-02A	89.7	84.9	88.2					
0006074-03A	89.8	83.4	88.2					
0006074-03AMS	87.5	84.5	86.8					
0006074-03AMSD	87.5	85.4	86.6					
0006074-04A	89.7	85.4	88.5					
0007003-01A	89.9	84.9	88.4					
0007005-01A	89.4	84.7	88.5					
0007006-01A	90.4	83.9	88.6					
0007006-02A	89.9	83.2	88.9					

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	80-105
14FBZ	=	1,4-Difluorobenzene	79-101
4BCBZ	=	4-Bromochlorobenzene	78-99
4BCBZ	=	4-Bromochlorobenzene	78-108
FLBZ	=	Fluorobenzene	78-108
FLBZ	=	Fluorobenzene	76-103

*** Surrogate recovery outside acceptance limits**

CLIENT: Blagg Engineering
Work Order: 0006069
Project: Cross Timbers - State GC BS #1
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ					
0007006-03A	90.1	85.1	88.5					
0007006-05A	90.4	85.1	88.5					
0007006-06A	89.6	85.4	88.8					
0007006-07A	89.7	84.8	88.6					
0007007-01A	89.3	84.8	88.7					
0007007-02A	107 *	86.4	88.8					
0007007-03A	90	84.9	88.8					
0007007-04A	149 *	85.4	103 *					
0007007-05A	89.7	84.6	88.6					
0007007-06A	89.8	84.8	88.4					
0007007-07A	89.3	85	88.4					
CCV1 BTEX_00070	89.5	85.4	87.6					
CCV2 BTEX_00070	89.6	84.6	87.9					
CCV3 BTEX_00070	90.1	88.7	88.9					
LCS WATER	88.9	85.5	87					
MB1	89.8	84.3	88.5					

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	80-105
14FBZ	=	1,4-Difluorobenzene	79-101
4BCBZ	=	4-Bromochlorobenzene	78-99
4BCBZ	=	4-Bromochlorobenzene	78-108
FLBZ	=	Fluorobenzene	78-108
FLBZ	=	Fluorobenzene	76-103

*** Surrogate recovery outside acceptance limits**

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : CROSS TIMBERS OIL CO.

CHAIN-OF-CUSTODY # : 7482

STATE GC BS # 1 - SEPARATOR PIT
UNIT K, SEC. 23, T29N, R11W

LABORATORY (S) USED : ENVIROTECH, INC.

Date : August 25, 2000

SAMPLER : N J V

Filename : 08-25-00.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)
6	-	-	5.30	10.00	0855	7.1	4,000	2.25	-

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 ".

Installed MW # 6 on July 13 , 2000 . 5 ft. casing , 5 ft. 0.020 slotted screen with pointed end cap , sanded annular with silica sand to surface . Top of casing approx. 2 ft. above ground surface . Developed MW # 6 prior to sampling . Poor recovery in MW # 6 . Collected TDS sample from MW # 6 only .

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Water Analysis

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	MW #6	Date Reported:	08-28-00
Laboratory Number:	I039	Date Sampled:	08-25-00
Sample Matrix:	Water	Date Received:	08-25-00
Preservative:	Cool	Date Analyzed:	08-25-00
Condition:	Cool & Intact	Chain of Custody:	7482

Parameter	Analytical Result	Units
Total Dissolved Solids @ 180C	**8,070**	mg/L

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

Comments: **State GC BS #1.**

Analyst

Review

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

CHAIN OF CUSTODY RECORD

7482

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG/ CROSS TIMBERS	STATE GC 85 #1	
Sampler: NJV	Client No. 403410	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TDS						Remarks
MW #6	8/25/00	0855	I039	WATER	1	✓						PRESERV. - COOL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Velez	8/25/00	0927	Theresa L. Ogburn	8-25-00	927
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	✓		