3R - 377

REPORTS

DATE:

MAR 2006

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

3R0377

March 27, 2006

Mr. Glenn Von Gonten, Hydrologist
New Mexico Oil Conservation Division-NMOCD
Environmental Bureau
1220 St. Francis Drive
Santa Fe, New Mexico 87505

Re: BP America Production Company (formerly BP Amoco)
Groundwater Monitoring Report
Cooper GC # 1E, Unit J, Sec. 15, T29N, R11W, NMPM
San Juan County, New Mexico

Dear Mr. Von Gonten:

BP America Production Company (BP) has retained Blagg Engineering, Inc. (BEI) to conduct environmental monitoring and reclamation of groundwater at the Cooper GC # 1E currently operated by XTO Energy Inc. (XTO - formerly Cross Timbers Operating Company). XTO acquired the well site in January, 1998, however, BP has and is currently accepting the environmental obligation associated with the soil and groundwater contamination.

The last BEI correspondence concerning the above reference well site was a similar report with letter dated, January 19, 2001. Since then, BP has followed its NMOCD approved groundwater management plan and continues groundwater monitoring. No permanent closure is requested at this time.

If you have any questions concerning this document, please contact either myself or Jeffrey C. Blagg at the address or phone number listed above. Thank you for your cooperation and assistance.

Respectfully submitted:
Blagg Engineering, Inc.

Nelson J. Velez
Staff Geologist

cc: Mr. Denny Foust, Environmental Geologist, NMOCD District III Office, Aztec, NM
Mr. Don Brooks, Environmental Coordinator, BP, Farmington, NM (without document)
Ms. Lisa Winn, Environmental Specialist, XTO, Farmington, NM

NJV/njv

COOPER GC 1E 03-27-06.CVL.WPD

3R0377

BP AMERICA PRODUCTION CO.

SUPPLEMENTAL GROUNDWATER REMEDIATION REPORT

2001-2005

COOPER GC #1E
(J) SECTION 15, T29N, R11W, NMPM
SAN JUAN COUNTY, NEW MEXICO

PREPARED FOR:
MR. GLENN VON GONTEN
NEW MEXICO OIL CONSERVATION DIVISION

DECEMBER 2005

PREPARED BY:
BLAGG ENGINEERING, INC.

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

BP AMERICA PRODUCTION COMPANY
Cooper GC #1E
Nw/4 Se/4 Sec. 15, T29N, R11W

Historical Information:

Pit Closure Dates:	Oct. / Nov. 1993 & Aug. / Sept. 1997
Monitor Well Installation Dates:	Apr. 1996, Sept. 1996, Mar. / Apr. 1998
Reclamation Procedures:	Excavation (Jul. / Aug. 1997) Air Sparging (Apr 1998 to Sep 2002)
Monitor Well Sampling Dates:	9/94; 12/94; 3/95; 6/95; 9/95; 12/95; 6/96; 9/96;6/97; 4/98; 5/98; 9/98; 12/98; 2/99; 5/99; 8/99; 12/99; 2/00; 5/00; 11/00; 3/01; 5/01; 9/01; 11/01; 2/02; 5/02; 8/02; 11/02; 2/03; 5/03; 8/03; 11/03; 3/04; 5/04; 9/04; 12/04; 3/05; 6/05; 9/05

Groundwater Monitor Well Sampling Procedures:

Groundwater samples were collected from site monitor wells following US EPA: SW-846 protocol. Samples were collected using new disposable bailers, placed in laboratory supplied forty (40) milliliter glass vials with teflon septa caps. The samples were preserved cool and with mercuric chloride or hydrochloric acid and express delivered to a qualified laboratory for testing. Analytical testing included benzene, toluene, ethylbenzene, and total xylenes (BTEX) by US EPA Method 8021B. Waste generated during monitor well sampling and development was disposed of utilizing the separator tank pit located on the well site.

Groundwater Quality & Flow Direction Information:

Quarterly and/or annual groundwater monitor well sampling has been ongoing to quantify gradient and water quality. A summary of the historical laboratory BTEX analytical results is included in the table on the following pages.

Since May, 2002, laboratory analytical data indicates that groundwater impacts in excess of NMWQCC standards has been identified in only one (1) site monitor well (MW #3R). Reported BTEX in MW #3R has been variable, with the final three quarterly events indicating values at below closure standards. All other monitor wells have either established termination of sampling based on BP's NMOCD approved groundwater management plan (GMP) or had been removed and not addressed since the July / August, 1997 soil excavation activity (namely MW #1 and MW #4).

Groundwater contour maps of relative water table elevations for sample events with sufficient data is included (Figures 2 through 6). The general groundwater flow direction tends to be either in the south-southwest or southwest directions.

Summary and Recommendations:

Hydrocarbon impacted soil and groundwater at the site that could not be accessed by excavation below the buried concrete ditch was being remediated with BEI's air sparge system. Operation of the air sparge system has been terminated since September, 2002.

It is recommended to install one (1) monitor well in the area of the previously removed monitor wells MW #1 and MW #4 in order to confirm that soil and groundwater has been remediated. These two wells (installed approximately seven (7) feet apart in the original contamination source area) were removed during the extensive excavation effort in 1997. Following installation of this proposed well, it is suggested to follow the sampling criteria outlined in section 2.0 of BP's NMOCD approved GMP. It is also recommended to continue sampling MW #3R until section 2.1 of the GMP has been achieved.

BP AMERICA PROD. CO. GROUNDWATER LAB RESULTS

SUBMITTED BY BLAGG ENGINEERING, INC.

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

REVISED DATE: MARCH 16 , 2006
FILENAME: (CO-3Q-05.WK4) NJV

SAMPLE DATE	MONITOR WELL #	D.T.W. (ft)	T.D. (ft)	TDS mg/L	COND. (umhos/cm)	pH	PRODUCT (ft)	BTEX EPA METHOD 8021B (ppb) Benzene	Toluene	Ethyl Benzene	Total Xylene
03-Oct-94	MW #1	22.04	27.30		2,400	7.3		2,032	940	282	2,595
15-Dec-94		23.45			2,400	7.0		2,010	268	337	1,749
10-Mar-95		27.21			2,600	6.9		1,860	31.9	147	326
12-Jun-95		26.74			2,600	6.8		1,082	1,300	156	1,678
08-Sep-95		22.07			1,700	7.0		661	786	606	1,748
05-Dec-95		24.46			2,100	6.7		8,130	1,250	638	4,035
March 96	Remediation System Installed - Well Not Usable										
07-Jun-96	MW #2	21.16	30.00	1,110	900	7.3		ND	ND	ND	ND
09-Apr-98	MW #2R	22.67	26.00	586		6.6		2.4	9.9	2.7	16.2
07-Jun-96	MW #3	22.22	30.00	2,090	200	6.9		2,290	5,410	1,460	16,010
27-Jun-97		26.19	30.00		2,100	7.4		14.3	29.6	97.9	498
09-Apr-98	MW #3R	25.59	34.03	7,780		7.1		43.3	222	8.3	134.6
30-May-98		25.48			5,900	7.2		110	81.3	1.5	24.2
29-Sep-98		21.16			2,900	7.2		895	587	165	919
18-Dec-98		22.04			6,000	7.6		301	44.2	49.9	169.6
18-Feb-99		23.62			4,300	7.3		329	125	94.8	258.5
26-May-99		21.37			1,200	6.9		628	733	106	393
23-Aug-99		18.33			1,100	7.0		270	33.7	85.4	289
06-Dec-99		17.82			1,200	7.1		103	410	98.5	1,005
24-Feb-00		21.62			2,500	7.6		290	790	130	1,420
15-May-00		20.49			6,600	7.2		140	110	8.3	640
28-Nov-00		15.56			900	7.6		220	880	74	1,010
14-Mar-01		21.11			1,900	7.42		680	2,500	170	2,470
23-May-01		16.50			1,000	7.11		36	99	13	239
19-Sep-01		14.85			900	7.60		50	120	62	612
27-Nov-01		15.40			900	7.44		31	170	58	1,080
22-Feb-02		19.60			900	7.51		23	89	46	74
	DUP.	-			-	-		26	93	48	74
30-May-02		21.37			900	7.17		18	38	14	74
23-Aug-02		21.37			800	7.23		16	40	36	700
29-Nov-02		21.37			600	7.52		20	49	59	707
24-Feb-03		20.38			600	7.48		15	13	45	659
27-May-03		21.35			600	7.38		6.2	8.3	31	440
19-Aug-03		17.60			900	7.31		11	16	14	160
11-Nov-03		16.69			900	7.15		12	9.1	13	170
18-Mar-04		21.97			1,000	7.14		9.6	1.9	13	120
27-May-04		18.46			1,000	7.18		4.4	1.9	3.3	33
30-Sep-04		15.80			800	7.17		14	1.8	15	280
12-Dec-04		19.30			900	7.15		19	2.2	31	450
28-Mar-05		22.53			800	7.00		8.9	1.4	17	190
23-Jun-05		21.17			700	6.99		5.4	ND	5.3	66
20-Sep-05		17.70			700	6.95		5.1	0.75	2.3	30
NMWQCC GROUNDWATER STANDARDS								10	750	750	620

BP AMERICA PROD. CO. GROUNDWATER LAB RESULTS

SUBMITTED BY BLAGG ENGINEERING, INC.

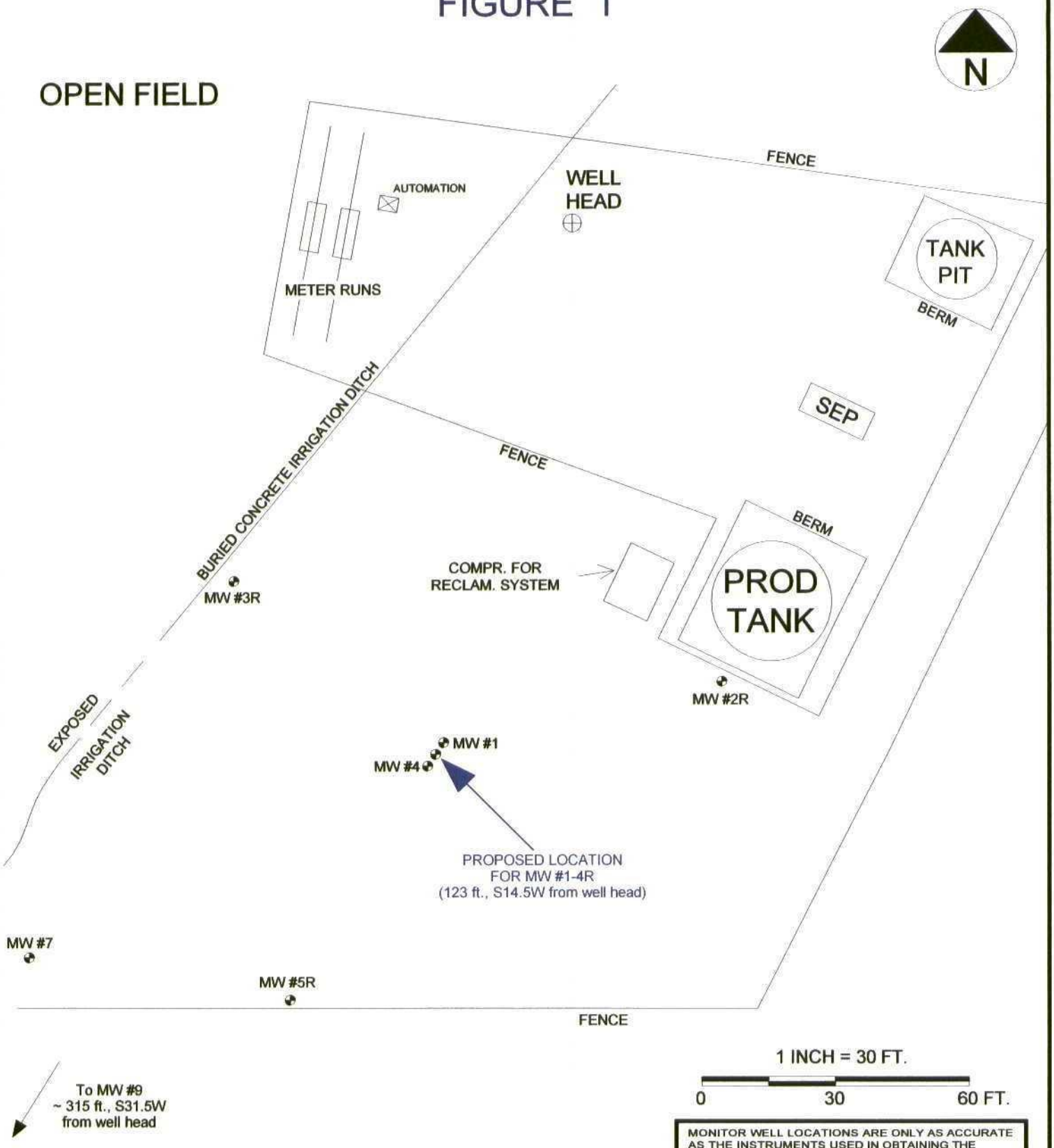
COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

REVISED DATE: MARCH 16 , 2006
FILENAME: (CO-3Q-05.WK4) NJV

SAMPLE DATE	MONITOR WELL #	D.T.W. (ft)	T.D. (ft)	TDS mg/L	COND. (umhos/cm)	pH	PRODUCT (ft)	BTEX EPA METHOD 8021B (ppb) Benzene	Toluene	Ethyl Benzene	Total Xylene
07-Jun-96	MW #4	24.15	30.00	323	800	6.8		**2,900**	**18,220**	**937**	**13,920**
27-Jun-97		27.73	30.00		1,200	7.3		**1,215**	**71.7**	**1,620**	**5,726**
07-Jun-96	MW #5	19.81	23.77	595	1,100	6.8		**9,940**	**24,260**	**962**	**10,250**
27-Jun-97		22.70	23.68	595	1,300	7.5		**1,720**	**635**	**72.8**	**965**
30-May-98	MW #5R	30.03	31.00		2,500	7.3		**1.1**	**1.1**	**1.0**	**2.0**
29-Sep-98		22.04			3,200	7.0		**4.7**	**2.3**	**ND**	**29.2**
18-Dec-98		22.34			4,250	7.1		**9.1**	**1.4**	**0.8**	**4.5**
18-Feb-99		23.92			2,400	6.9		**3.0**	**1.8**	**0.5**	**4.7**
26-May-99		20.37			1,200	7.4		**20.3**	**22.7**	**2.1**	**30.8**
23-Aug-99		17.93			1,600	7.0		**1.0**	**2.4**	**0.2**	**11.3**
06-Dec-99		17.05			1,800	7.0		**5.4**	**ND**	**ND**	**50.9**
24-Feb-00		21.66			1,000	7.6		**ND**	**ND**	**ND**	**ND**
15-May-00		20.30			1,200	7.2		**ND**	**ND**	**ND**	**ND**
23-Sep-96	MW #7	15.00	20.00		NA	NA		**3,500**	**2,100**	319	**2,126**
23-May-01		15.21			1,700	7.19		**ND**	**ND**	ND	**ND**
19-Sep-01		14.50			2,900	7.01		**ND**	**ND**	1	**ND**
27-Nov-01		15.11			3,000	7.20		**ND**	**ND**	ND	**ND**
30-May-02		14.91			700	7.30		**ND**	**ND**	ND	**ND**
23-Sep-96	MW #9	14.00	20.00		NA	NA		**14**	1.05	ND	ND
23-May-01		13.97			900	7.58		**ND**	ND	ND	ND
19-Sep-01		12.53			700	7.53		**ND**	ND	ND	ND
27-Nov-01		13.74			900	7.51		**ND**	ND	ND	ND
22-Feb-02		18.26			1,200	7.21		**ND**	ND	ND	ND
		NMWQCC GROUNDWATER STANDARDS						10	750	750	620

NOTES : 1) RESULTS IN BOLD RED TYPE INDICATE EXCEEDING NMWQCC STANDARDS .
2) RESULTS IN BOLD BLUE TYPE INDICATE BELOW NMWQCC STANDARDS AFTER PROCEEDING RESULTS EXCEEDED .

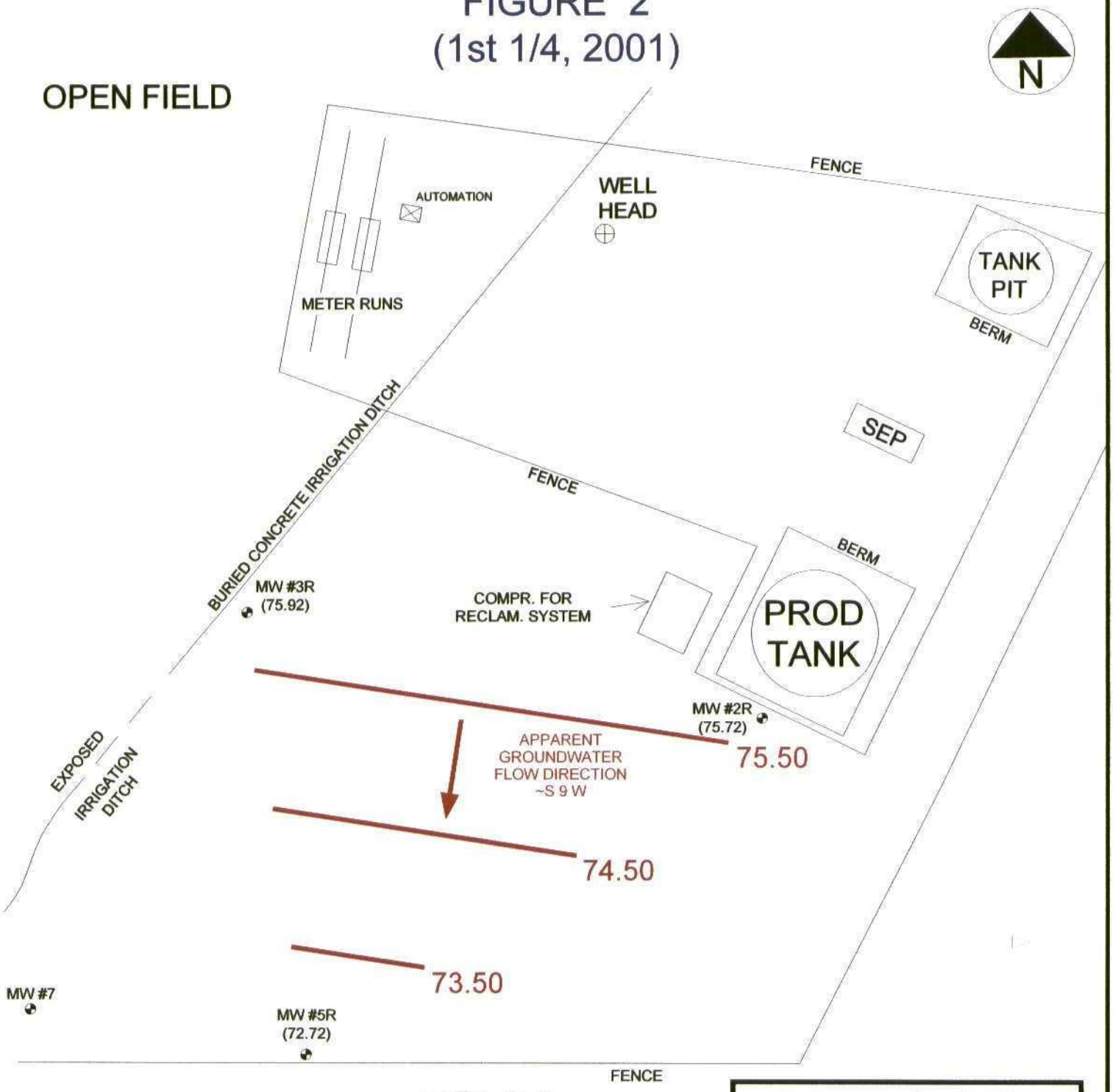
FIGURE 1



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 MAY NOT BE TO SCALE.

BP AMERICA PRODUCTION COMPANY COOPER GC #1E NW/4 SE/4 SEC. 15, 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: 05-15-00-SM REVISED: 10/04/05 NJV	SITE MAP 05/00

FIGURE 2
(1st 1/4, 2001)



1 INCH = 30 FT.

0 30 60 FT.

To MW #9
~ 315 ft., S31.5W
from well head

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 MAY NOT BE TO SCALE.

	Top of Well Elevation
MW #2R	(94.29)
MW #3R	(97.03)
MW #5R	(94.12)
MW #2R (75.72)	Groundwater Elevation as of 03/14/01.

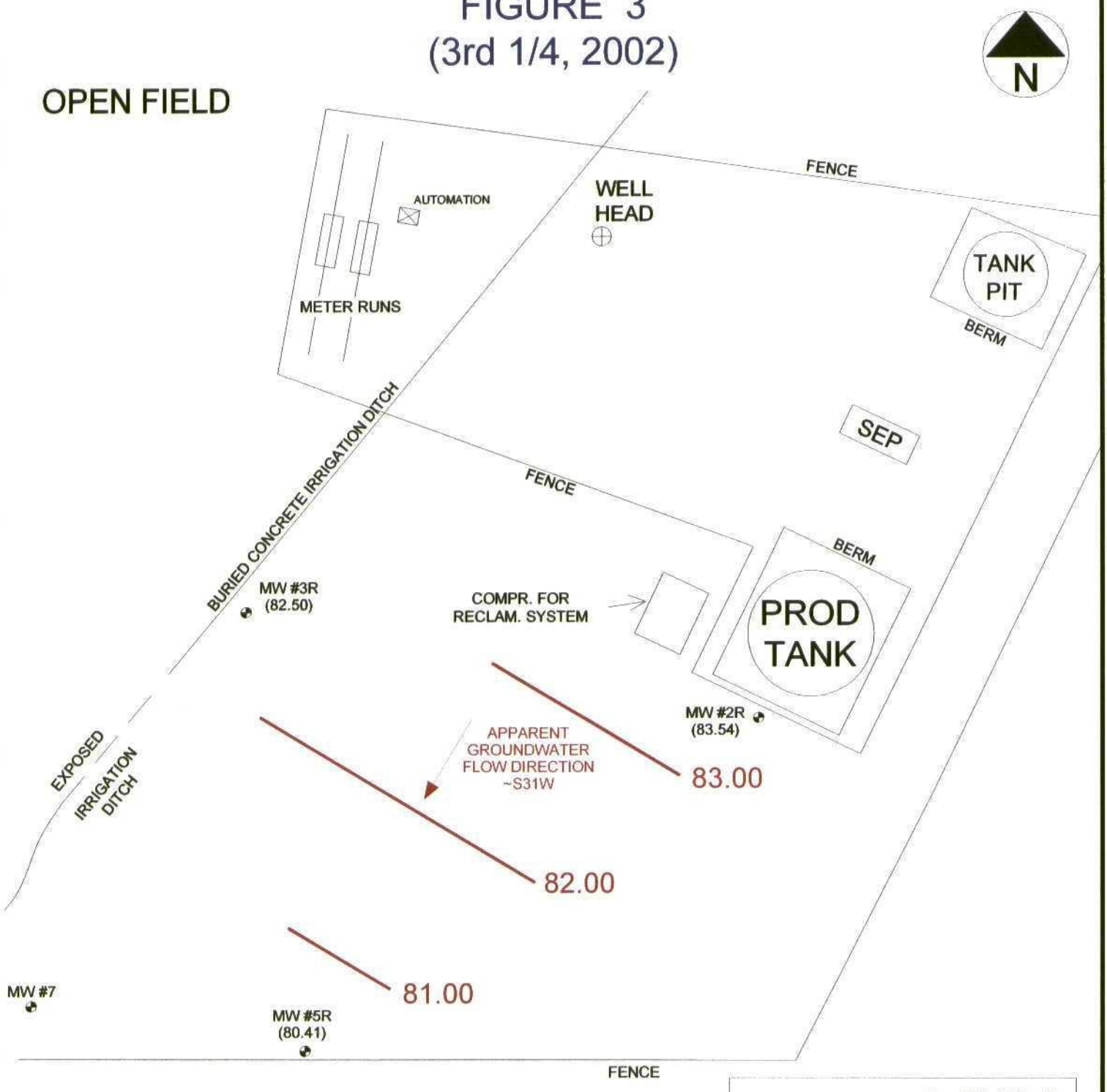
AMOCO PRODUCTION COMPANY
COOPER GC #1E
NW/4 SE/4 SEC. 15, T29N, R11W
SAN JUAN COUNTY, NEW MEXICO

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: 03-14-01-GW
REVISED: 10/04/05 NJV

GROUNDWATER CONTOUR MAP
03/01

FIGURE 3
(3rd 1/4, 2002)



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 MAY NOT BE TO SCALE.

Top of Well Elevation	
MW #2R	(94.29)
MW #3R	(97.03)
MW #5R	(94.12)

MW #2R (83.54) — Groundwater Elevation as of 08/23/02.

BP AMERICA PRODUCTION COMPANY

COOPER GC #1E

NW/4 SE/4 SEC. 15, 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

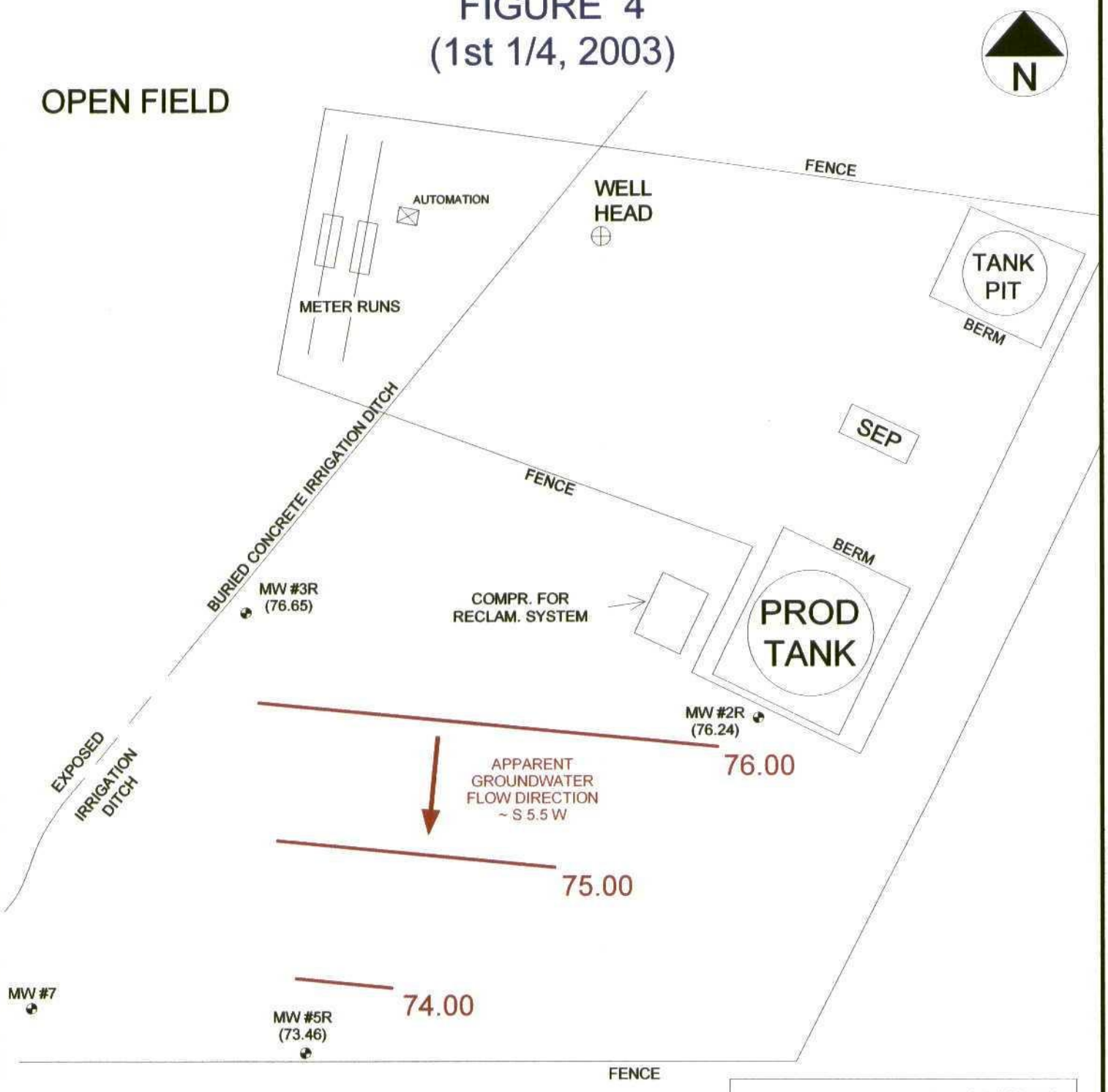
FILENAME: 08-23-02-GW

REVISED: 08/27/02 NJV

GROUNDWATER CONTOUR MAP

08/02

FIGURE 4
(1st 1/4, 2003)



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 MAY NOT BE TO SCALE.

	Top of Well Elevation
MW #2R	(94.29)
MW #3R	(97.03)
MW #5R	(94.12)
MW #2R (76.24)	Groundwater Elevation as of 02/24/03.

BP AMERICA PRODUCTION COMPANY

COOPER GC #1E

NW/4 SE/4 SEC. 15, 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

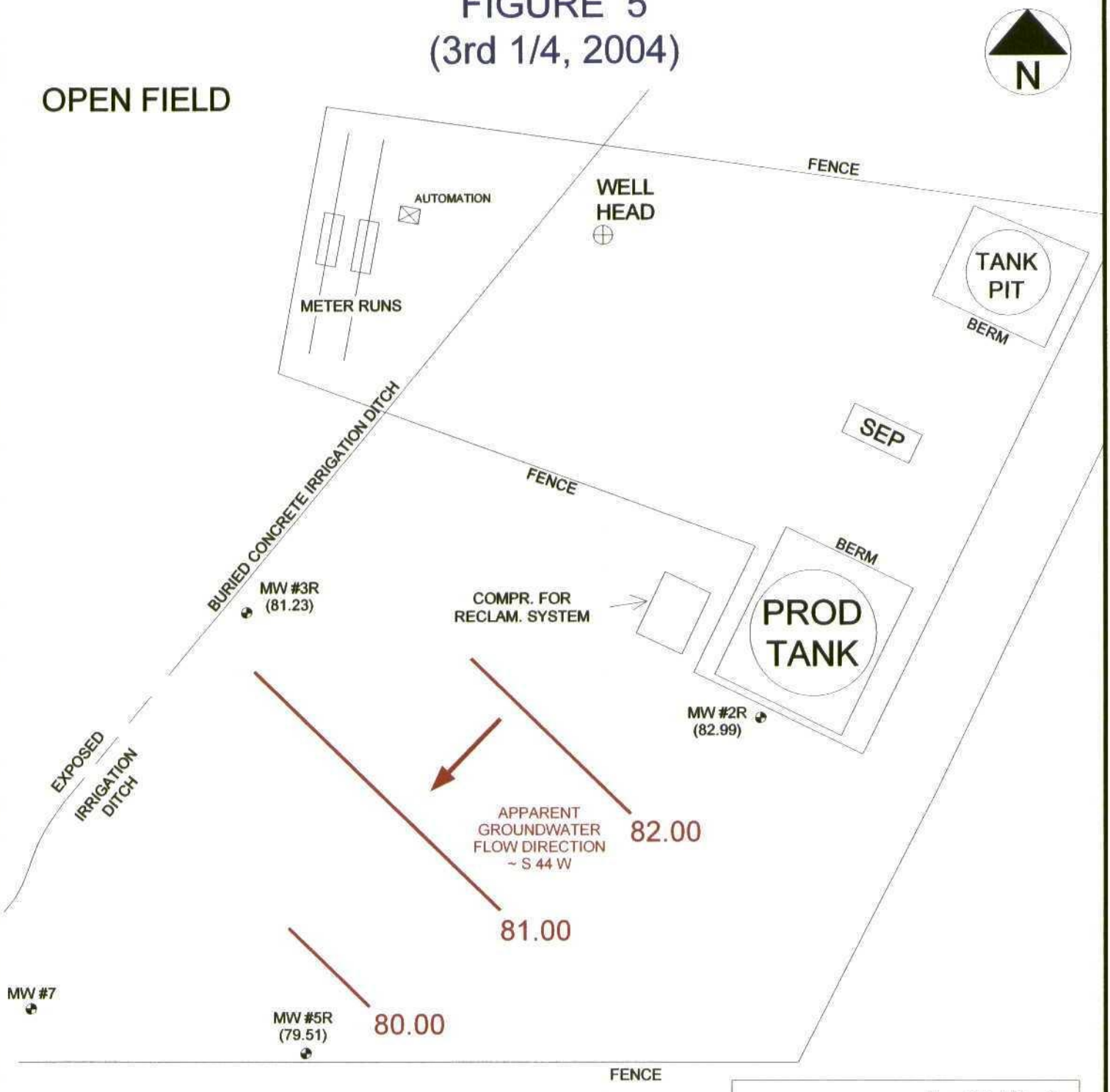
FILENAME: 02-24-03-GW

REVISED: 10/05/05 NJV

GROUNDWATER CONTOUR MAP

02/03

FIGURE 5
(3rd 1/4, 2004)



BP AMERICA PRODUCTION COMPANY

COOPER GC #1E

NW/4 SE/4 SEC. 15, 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

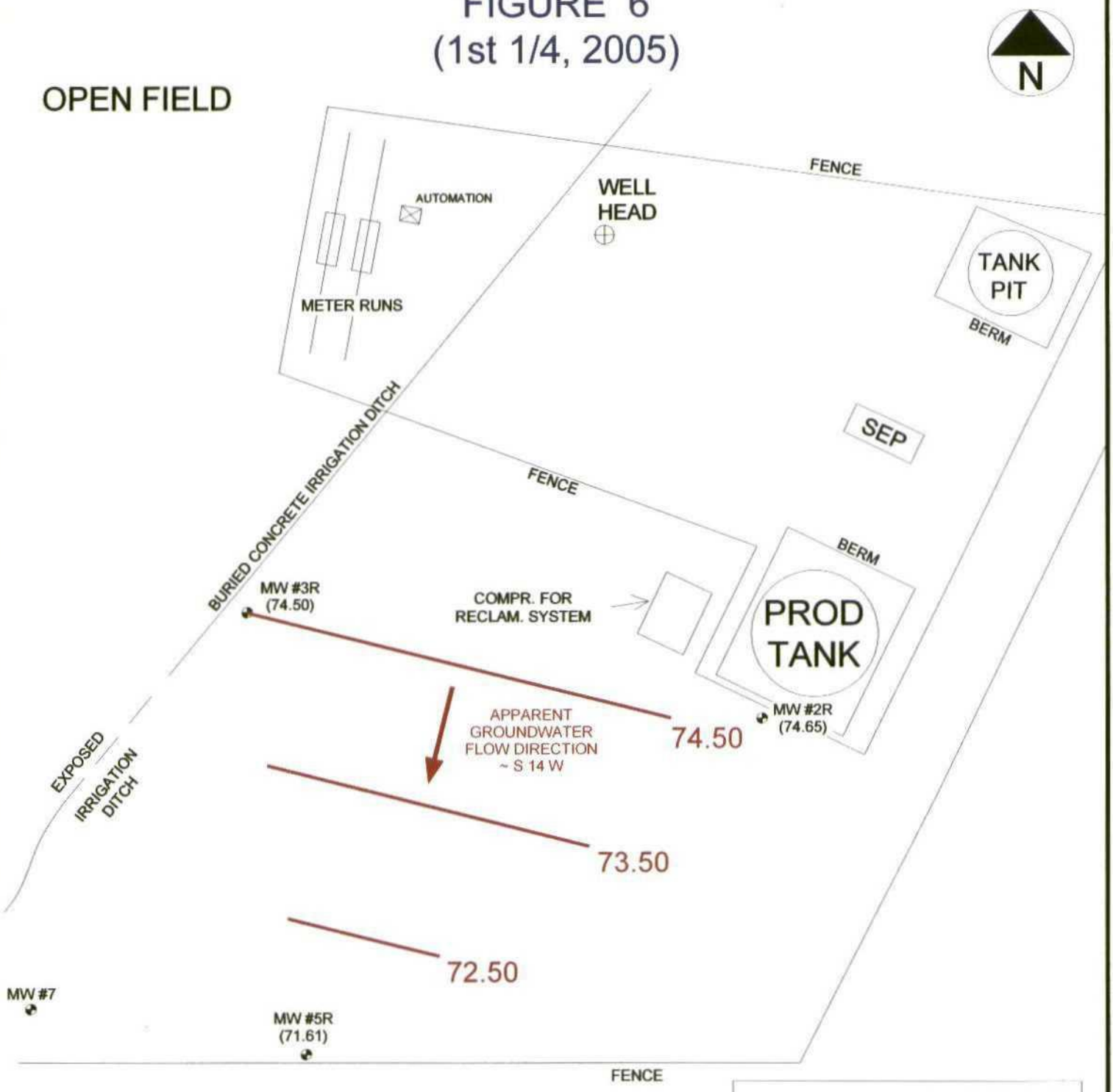
FILENAME: 09-30-04-GW

REVISED: 10/05/05 NJV

GROUNDWATER CONTOUR MAP

09/04

FIGURE 6
(1st 1/4, 2005)



BP AMERICA PRODUCTION COMPANY

COOPER GC #1E

NW/4 SE/4 SEC. 15, 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: 03-28-05-GW

REVISED: 10/05/05 NJV

GROUNDWATER CONTOUR MAP

03/05

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : BP AMOCO

CHAIN-OF-CUSTODY # : 10781

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : ON - SITE TECH.

Date : March 14, 2001

SAMPLER : N J V

Filename : 03-14-01.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)
MW - 2R	94.29	75.72	18.57	26.00	-	-	-	-	-
MW - 3R	97.03	75.92	21.11	34.03	0920	7.42	1,900	6.25	-
MW - 5R	94.12	72.72	21.40	31.00	-	-	-	-	-
MW - 7			DRY	20.00	-	-	-	-	-
MW - 9			DRY	20.00	-	-	-	-	-

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 samples from MW # 3R only . BEI reclamation system operating @ time of sampling . Irrigation ditch and wash (east side) were dry . Switched air flow to deeper seated air sparge points . Good suction through intake @ compressor prior to switch . Fair suction after switching and increasing . Collected sample @ approx. 27.50 ft. depth . Heard air movement (water fizzling / bubbling) within monitor well .

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

ON SITE TECHNOLOGIES, LTD.

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

ANALYTICAL REPORT

Date: *23-Mar-01*

Client:	Blagg Engineering	**Client Sample Info:**	Cooper GC #1E
Work Order:	0103011	**Client Sample ID:**	MW #3R
Lab ID:	0103011-01A **Matrix:** AQUEOUS	**Collection Date:**	3/14/2001 9:20:00 AM
Project:	BP Amoco - Cooper GC #1E	**COC Record:**	10781

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	680	5		µg/L	10	3/15/2001
Toluene	2500	10		µg/L	20	3/21/2001
Ethylbenzene	170	5		µg/L	10	3/15/2001
m,p-Xylene	1900	10		µg/L	10	3/15/2001
o-Xylene	570	5		µg/L	10	3/15/2001

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

CHAIN OF CUSTODY RECORD

10987

ON SITE TECHNOLOGIES, LTD.

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

Date: 3/14/01

Page: 1 of 1

Purchase Order No.:	Project No.		
SEND INVOICE TO — Name: Jeff Blagg		REPORT RESULTS TO — Name: Nelson Velez	Title
Company: Blagg Engineering, Inc.	Dept.	Company: Same	
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No.: 632-1199	Telefax No.: 632-3903

PROJECT LOCATION: BP - Cooper GC #1E

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 #3R	3/14/01	0920	WATER	HCl + Cool	2	✓	0103011-01A

Relinquished by: Nelson Velez	Date/Time 3/14/01 1221	Received by: David D. Martin	Date/Time 3/14/01 1222
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

On Site Technologies, LTD.

Date: *23-Mar-01*

CLIENT: Blagg Engineering
Work Order: 0103011
Project: BP Amoco - Cooper GC #1E

QC SUMMARY REPORT
Method Blank

Sample ID: **MB1** Batch ID: **GC-1_010315** Test Code: **SW8021B** Units: **µg/L** Analysis Date **3/15/2001** Prep Date:
Client ID: **0103011** Run ID: **GC-1_010315A** SeqNo: **35735**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.0501	0.5									J
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	.2356	0.5									J

Sample ID: **MB1** Batch ID: **GC-1_010321** Test Code: **SW8021B** Units: **µg/L** Analysis Date **3/21/2001** Prep Date:
Client ID: **0103011** Run ID: **GC-1_010321A** SeqNo: **35873**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	.0794	0.5									J
m,p-Xylene	.5522	1									J
Methyl tert-Butyl Ether	ND	1									
o-Xylene	.1977	0.5									J
Toluene	.154	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: *23-Mar-01*

CLIENT: Blagg Engineering
Work Order: 0103011
Project: BP Amoco - Cooper GC #1E

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **0103008-01AMS** Batch ID: **GC-1_010315** Test Code: **SW8021B** Units: **µg/L** Analysis Date **3/15/2001** Prep Date:

Client ID: **0103011** Run ID: **GC-1_010315A** SeqNo: **35736**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	4847	50	4000	760	102.2%	84	111				
Ethylbenzene	4577	50	4000	340	105.9%	84	111				
m,p-Xylene	9100	100	8000	600	106.3%	84	108				
Methyl tert-Butyl Ether	3712	100	4000	110	90.0%	80	117				
o-Xylene	4370	50	4000	120	106.3%	89	107				
Toluene	4308	50	4000	69	106.0%	90	107				

Sample ID: **0103008-01AMSD** Batch ID: **GC-1_010315** Test Code: **SW8021B** Units: **µg/L** Analysis Date **3/15/2001** Prep Date:

Client ID: **0103011** Run ID: **GC-1_010315A** SeqNo: **35737**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	4646	50	4000	756	97.2%	84	111	4847	4.3%	8	
Ethylbenzene	4383	50	4000	337.9	101.1%	84	111	4577	4.3%	7	
m,p-Xylene	8719	100	8000	601.4	101.5%	84	108	9100	4.3%	7	
Methyl tert-Butyl Ether	3605	100	4000	111.2	87.3%	80	117	3712	2.9%	6	
o-Xylene	4217	50	4000	115.8	102.5%	89	107	4370	3.6%	6	
Toluene	4109	50	4000	68.94	101.0%	90	107	4308	4.7%	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: 0103011
Project: BP Amoco - Cooper GC #1E

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: **0103008-01AMS** Batch ID: **GC-1_010321** Test Code: **SW8021B** Units: **µg/L** Analysis Date **3/21/2001** Prep Date:
Client ID: **0103011** Run ID: **GC-1_010321A** SeqNo: **35874**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1070	5	400	710	90.1%	84	111				
Ethylbenzene	733.1	5	400	320	103.3%	84	111				
m,p-Xylene	1386	10	800	560	103.2%	84	108				
Methyl tert-Butyl Ether	444.8	10	400	110	83.7%	80	117				
o-Xylene	517.8	5	400	110	102.0%	89	107				
Toluene	468.4	5	400	54	103.6%	90	107				

Sample ID: **0103008-01AMSD** Batch ID: **GC-1_010321** Test Code: **SW8021B** Units: **µg/L** Analysis Date **3/21/2001** Prep Date:
Client ID: **0103011** Run ID: **GC-1_010321A** SeqNo: **35875**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1064	5	400	710	88.6%	84	111	1070	0.6%	8	
Ethylbenzene	709.4	5	400	320	97.3%	84	111	733.1	3.3%	7	
m,p-Xylene	1343	10	800	560	97.9%	84	108	1386	3.1%	7	
Methyl tert-Butyl Ether	449.2	10	400	110	84.8%	80	117	444.8	1.0%	6	
o-Xylene	502.9	5	400	110	98.2%	89	107	517.8	2.9%	6	
Toluene	449.4	5	400	54	98.8%	90	107	468.4	4.2%	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: *23-Mar-01*

CLIENT: Blagg Engineering
Work Order: 0103011
Project: BP Amoco - Cooper GC #1E

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS WATER** Batch ID: **GC-1_010315** Test Code: **SW8021B** Units: **µg/L** Analysis Date **3/15/2001** Prep Date:

Client ID: **0103011** Run ID: **GC-1_010315A** SeqNo: **35734**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.16	0.5	40	0.0501	100.3%	92	109				
Ethylbenzene	41.7	0.5	40	0	104.3%	92	112				
m,p-Xylene	83.66	1	80	0	104.6%	91	108				
Methyl tert-Butyl Ether	39.77	1	40	0	99.4%	89	116				
o-Xylene	41.82	0.5	40	0	104.6%	93	109				
Toluene	41.23	0.5	40	0.2356	102.5%	93	108				

Sample ID: **LCS WATER** Batch ID: **GC-1_010321** Test Code: **SW8021B** Units: **µg/L** Analysis Date **3/21/2001** Prep Date:

Client ID: **0103011** Run ID: **GC-1_010321A** SeqNo: **35872**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.67	0.5	40	0	99.2%	92	109				
Ethylbenzene	41.4	0.5	40	0.0794	103.3%	92	112				
m,p-Xylene	82.98	1	80	0.5522	103.0%	91	108				
Methyl tert-Butyl Ether	40.98	1	40	0	102.4%	89	116				
o-Xylene	41.51	0.5	40	0.1977	103.3%	93	109				
Toluene	40.7	0.5	40	0.154	101.4%	93	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

On Site Technologies, LTD.

Date: *23-Mar-01*

CLIENT: Blagg Engineering
Work Order: 0103011
Project: BP Amoco - Cooper GC #1E

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: **CCV1 BTEX_0103** Batch ID: **GC-1_010315** Test Code: **SW8021B** Units: **µg/L** Analysis Date **3/15/2001** Prep Date:

Client ID: **0103011** Run ID: **GC-1_010315A** SeqNo: **35731**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.3	0.5	20	0	101.5%	85	115				
Ethylbenzene	20.95	0.5	20	0	104.7%	85	115				
m,p-Xylene	42.07	1	40	0	105.2%	85	115				
Methyl tert-Butyl Ether	20.11	1	20	0	100.6%	85	115				
o-Xylene	21.02	0.5	20	0	105.1%	85	115				
Toluene	20.92	0.5	20	0	104.6%	85	115				
1,4-Difluorobenzene	78.18	0	80	0	97.7%	85	103				
4-Bromochlorobenzene	74.84	0	80	0	93.6%	93	108				
Fluorobenzene	78.56	0	80	0	98.2%	88	103				

Sample ID: **CCV2 BTEX_0103** Batch ID: **GC-1_010315** Test Code: **SW8021B** Units: **µg/L** Analysis Date **3/15/2001** Prep Date:

Client ID: **0103011** Run ID: **GC-1_010315A** SeqNo: **35732**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.51	0.5	20	0	102.5%	85	115				
Ethylbenzene	21.29	0.5	20	0	106.5%	85	115				
m,p-Xylene	42.76	1	40	0	106.9%	85	115				
Methyl tert-Butyl Ether	19.68	1	20	0	98.4%	85	115				
o-Xylene	21.51	0.5	20	0	107.5%	85	115				
Toluene	21.07	0.5	20	0	105.3%	85	115				
1,4-Difluorobenzene	78.41	0	80	0	98.0%	85	103				
4-Bromochlorobenzene	76.03	0	80	0	95.0%	93	108				
Fluorobenzene	78.31	0	80	0	97.9%	88	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: 0103011
Project: BP Amoco - Cooper GC #1E

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV3 BTEX_0103** Batch ID: **GC-1_010315** Test Code: **SW8021B** Units: **µg/L** Analysis Date **3/15/2001** Prep Date:
Client ID: **0103011** Run ID: **GC-1_010315A** SeqNo: **35733**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.02	0.5	40	0	100.1%	85	115				
Ethylbenzene	41.36	0.5	40	0	103.4%	85	115				
m,p-Xylene	83.01	1	80	0	103.8%	85	115				
Methyl tert-Butyl Ether	38.04	1	40	0	95.1%	85	115				
o-Xylene	41.77	0.5	40	0	104.4%	85	115				
Toluene	41.15	0.5	40	0	102.9%	85	115				
1,4-Difluorobenzene	78.27	0	80	0	97.8%	85	103				
4-Bromochlorobenzene	77.23	0	80	0	96.5%	93	108				
Fluorobenzene	77.82	0	80	0	97.3%	88	103				

Sample ID: **CCV1 BTEX_0103** Batch ID: **GC-1_010321** Test Code: **SW8021B** Units: **µg/L** Analysis Date **3/21/2001** Prep Date:
Client ID: **0103011** Run ID: **GC-1_010321A** SeqNo: **35869**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.15	0.5	20	0	100.7%	85	115				
Ethylbenzene	21.03	0.5	20	0	105.2%	85	115				
m,p-Xylene	42.36	1	40	0	105.9%	85	115				
Methyl tert-Butyl Ether	19.21	1	20	0	96.1%	85	115				
o-Xylene	21.15	0.5	20	0	105.8%	85	115				
Toluene	20.66	0.5	20	0	103.3%	85	115				
1,4-Difluorobenzene	78.38	0	80	0	98.0%	85	103				
4-Bromochlorobenzene	77.29	0	80	0	96.6%	93	108				
Fluorobenzene	78.25	0	80	0	97.8%	88	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: 0103011
Project: BP Amoco - Cooper GC #1E

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV2 BTEX_0103** Batch ID: **GC-1_010321** Test Code: **SW8021B** Units: **µg/L** Analysis Date **3/21/2001** Prep Date:
Client ID: **0103011** Run ID: **GC-1_010321A** SeqNo: **35870**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.36	0.5	20	0	96.8%	85	115				
Ethylbenzene	20.17	0.5	20	0	100.8%	85	115				
m,p-Xylene	40.64	1	40	0	101.6%	85	115				
Methyl tert-Butyl Ether	17.97	1	20	0	89.8%	85	115				
o-Xylene	20.4	0.5	20	0	102.0%	85	115				
Toluene	19.89	0.5	20	0	99.5%	85	115				
1,4-Difluorobenzene	78.33	0	80	0	97.9%	85	103				
4-Bromochlorobenzene	76.34	0	80	0	95.4%	93	108				
Fluorobenzene	78.14	0	80	0	97.7%	88	103				

Sample ID: **CCV3 BTEX_0103** Batch ID: **GC-1_010321** Test Code: **SW8021B** Units: **µg/L** Analysis Date **3/21/2001** Prep Date:
Client ID: **0103011** Run ID: **GC-1_010321A** SeqNo: **35871**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.51	0.5	40	0	96.3%	85	115				
Ethylbenzene	39.82	0.5	40	0	99.5%	85	115				
m,p-Xylene	79.8	1	80	0	99.7%	85	115				
Methyl tert-Butyl Ether	38.07	1	40	0	95.2%	85	115				
o-Xylene	40.31	0.5	40	0	100.8%	85	115				
Toluene	39.43	0.5	40	0	98.6%	85	115				
1,4-Difluorobenzene	78.66	0	80	0	98.3%	85	103				
4-Bromochlorobenzene	75.38	0	80	0	94.2%	93	108				
Fluorobenzene	77.44	0	80	0	96.8%	88	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

On Site Technologies, LTD.

Date: 23-Mar-01

CLIENT: Blagg Engineering
Work Order: 0103011
Project: BP Amoco - Cooper GC #1E
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0103005-01A	97.6	93.6	98.5
0103005-02A	97.5	94.4	99
0103005-03A	98	94.7	98.4
0103005-04A	98	94.9	98.4
0103005-05A	98.9	94.4	99.3
0103006-01A	98.2	95.4	97.9
0103008-01A	95.3	96.8	95.2
0103008-01AMS	95.3	99.7	95
0103008-01AMSD	95.4	97.3	94.6
0103008-02A	98.6	93.9	98.3
0103008-03A	99.3	92.9 *	99
0103011-01A	97.9	99.2	96.6
0103012-01A	96.6	95.7	97.9
0103012-02A	98.6	95.8	99.6
0103014-01A	98.8	96.2	100
0103014-02A	98.2	95.8	98.2
0103014-03A	98.2	93.8	98.3
0103014-04A	97.3	91.6 *	97.5
0103015-01A	88.2	87.7 *	95.6
0103015-02A	98.5	97.7	98.5
0103017-01A	93.4	92.3 *	94
0103018-01A	96.7	95.6	95.8
0103019-01A	99.2	97.3	98.2
0103020-01A	96.4	91.7 *	96.4
0103020-02A	94.7	93.7	93.8
0103020-03A	98.9	96.6	97.8
0103021-01A	99	98.4	97.9

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	85-103
4BCBZ	=	4-Bromochlorobenzene	93-108
FLBZ	=	Fluorobenzene	88-103

*** Surrogate recovery outside acceptance limits**

CLIENT: Blagg Engineering
Work Order: 0103011
Project: BP Amoco - Cooper GC #1E
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0103022-01A	99.3	97.7	98
0103022-02A	98.4	95.8	97.8
0103022-03A	96.1	93.4	99.2
0103023-06A	107 *	96.2	101
0103028-01A	98.3	95.6	98.8
CCV1 BTEX_01030	98	96.6	97.8
CCV2 BTEX_01030	97.9	95.4	97.7
CCV3 BTEX_01030	98.3	94.2	96.8
LCS WATER	97.3	97.4	97
MB1	98.7	96.7	98.3

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	85-103
4BCBZ	=	4-Bromochlorobenzene	93-108
FLBZ	=	Fluorobenzene	88-103

*** Surrogate recovery outside acceptance limits**

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : BP AMOCO

CHAIN-OF-CUSTODY # : 11146

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : ON - SITE TECH.

Date : May 23, 2001

SAMPLER : N J V

Filename : 05-23-01.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)
MW - 2R	94.29	83.90	10.39	26.00	-	-	-	-	-
MW - 3R	97.03	80.53	16.50	34.03	1045	7.11	1,000	8.50	-
MW - 5R	94.12	80.03	14.09	31.00	-	-	-	-	-
MW - 7	94.06	78.85	15.21	20.00	1020	7.19	1,700	1.25	-
MW - 9	90.94	76.97	13.97	20.00	0835	7.58	900	3.75	-

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 ".

Purposely overdeveloped MW # 7 & 9 - no detection of hydrocarbon odor or physical observation of contamination . BEI reclamation system operational @ time of sampling . Excellent recovery in MW # 7 & 9 . Bailed MW # 3R to depth of 29.50 ft. @ end of purging , allowed recovery to 16.90 ft. then sampled . Audibly and visually witness air movement in MW # 3R during DTW check & prior to sampling . Collected BTEX samples in MW 's # 3R , 7 , & 9 only .

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

ON SITE TECHNOLOGIES, LTD.

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

ANALYTICAL REPORT

Date: *31-May-01*

Client:	Blagg Engineering	**Client Sample Info:**	BP - Cooper GC #1E
Work Order:	0105051	**Client Sample ID:**	MW #3R
Lab ID:	0105051-01A **Matrix:** AQUEOUS	**Collection Date:**	5/23/2001 10:45:00 AM
Project:	BP - Cooper GC #1E	**COC Record:**	11146

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **HR**
Benzene	36	0.5		µg/L	1	5/29/2001
Toluene	99	0.5		µg/L	1	5/29/2001
Ethylbenzene	13	0.5		µg/L	1	5/29/2001
m,p-Xylene	190	1		µg/L	1	5/29/2001
o-Xylene	49	0.5		µg/L	1	5/29/2001

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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LAB: (505) 325-1556
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ANALYTICAL REPORT

Date: *31-May-01*

Client:	Blagg Engineering	**Client Sample Info:**	BP - Cooper GC #1E
Work Order:	0105051	**Client Sample ID:**	MW #7
Lab ID:	0105051-02A **Matrix:** AQUEOUS	**Collection Date:**	5/23/2001 10:20:00 AM
Project:	BP - Cooper GC #1E	**COC Record:**	11146

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **HR**
Benzene	ND	0.5		µg/L	1	5/28/2001
Toluene	ND	0.5		µg/L	1	5/28/2001
Ethylbenzene	ND	0.5		µg/L	1	5/28/2001
m,p-Xylene	ND	1		µg/L	1	5/28/2001
o-Xylene	ND	0.5		µg/L	1	5/28/2001

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

ANALYTICAL REPORT

Date: *31-May-01*

Client:	Blagg Engineering	**Client Sample Info:**	BP - Cooper GC #1E
Work Order:	0105051	**Client Sample ID:**	MW #9
Lab ID:	0105051-03A **Matrix:** AQUEOUS	**Collection Date:**	5/23/2001 8:35:00 AM
Project:	BP - Cooper GC #1E	**COC Record:**	11146

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **HR**
Benzene	ND	0.5		µg/L	1	5/28/2001
Toluene	ND	0.5		µg/L	1	5/28/2001
Ethylbenzene	ND	0.5		µg/L	1	5/28/2001
m,p-Xylene	ND	1		µg/L	1	5/28/2001
o-Xylene	ND	0.5		µg/L	1	5/28/2001

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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11146

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

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Date: 5/23/01

Page: 1 of 1

Purchase Order No.:	Project No.		
SEND INVOICE TO: Name	Jeff Blagg	REPORT RESULTS TO: Name	Nelson Velez / Title
Company	Blagg Engineering, Inc. / Dept.	Company	Same
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No.	632-1199 / Telefax No. 632-3903

PROJECT LOCATION: BP - Cooper EC #1E

SAMPLER'S SIGNATURE: Nelson Vel

SAMPLE IDENTIFICATION	SAMPLE DATE	TIME	MATRIX	PRES.	Number of Containers	ANALYSIS REQUESTED: BTEX (8021)	LAB ID
MW # 3R	5/23/01	1045	WATER	HCl & COOL	2	✓	010509-01A
MW # 7	5/23/01	1020	WATER	HCl & COOL	2	✓	-02A
MW # 9	5/23/01	0835	WATER	HCl & COOL	2	✓	-03A

Relinquished by: Nelson Vel	Date/Time 5/23/01 1509	Received by:	Date/Time 5/23/01 1509
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

On Site Technologies, LTD.

Date: *31-May-01*

CLIENT: Blagg Engineering
Work Order: 0105051
Project: BP - Cooper GC #1E

QC SUMMARY REPORT

Method Blank

Sample ID: **MB1** Batch ID: **GC-1_010528** Test Code: **SW8021B** Units: **µg/L** Analysis Date **5/28/2001** Prep Date:

Client ID: **0105051** Run ID: **GC-1_010528A** SeqNo: **38468**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	.1045	0.5									J

Sample ID: **MB1** Batch ID: **GC-1_010529** Test Code: **SW8021B** Units: **µg/L** Analysis Date **5/29/2001** Prep Date:

Client ID: **0105051** Run ID: **GC-1_010529A** SeqNo: **38494**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.0648	0.5									J
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	.1722	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: *31-May-01*

CLIENT: Blagg Engineering
Work Order: 0105051
Project: BP - Cooper GC #1E

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **0105046-05AMS** Batch ID: **GC-1_010528** Test Code: **SW8021B** Units: **µg/L** Analysis Date **5/28/2001** Prep Date:

Client ID: **0105051** Run ID: **GC-1_010528A** SeqNo: **38469**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2164	25	2000	260	95.2%	70	130				
Ethylbenzene	1972	25	2000	40	96.6%	70	130				
m,p-Xylene	3720	50	4000	20	92.5%	70	130				
Methyl tert-Butyl Ether	6369	50	2000	4600	88.5%	70	130				
o-Xylene	1913	25	2000	0	95.7%	70	130				
Toluene	1905	25	2000	8	94.8%	70	130				

Sample ID: **0105046-05AMSD** Batch ID: **GC-1_010528** Test Code: **SW8021B** Units: **µg/L** Analysis Date **5/28/2001** Prep Date:

Client ID: **0105051** Run ID: **GC-1_010528A** SeqNo: **38470**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2243	25	2000	260	99.1%	70	130	2164	3.6%	8	
Ethylbenzene	2059	25	2000	40	101.0%	70	130	1972	4.3%	7	
m,p-Xylene	3879	50	4000	20	96.5%	70	130	3720	4.2%	7	
Methyl tert-Butyl Ether	6499	50	2000	4600	95.0%	70	130	6369	2.0%	6	
o-Xylene	1985	25	2000	0	99.2%	70	130	1913	3.7%	6	
Toluene	1977	25	2000	8	98.4%	70	130	1905	3.7%	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: 0105051
Project: BP - Cooper GC #1E

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: **0105046-17AMS** Batch ID: **GC-1_010529** Test Code: **SW8021B** Units: **µg/L** Analysis Date **5/29/2001** Prep Date:
Client ID: **0105051** Run ID: **GC-1_010529A** SeqNo: **38495**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	3902	50	4000	120.3	94.5%	70	130				
Ethylbenzene	3830	50	4000	52.46	94.4%	70	130				
m,p-Xylene	7228	100	8000	1.939	90.3%	70	130				
Methyl tert-Butyl Ether	12140	100	4000	7021	128.1%	70	130				
o-Xylene	3733	50	4000	0.8645	93.3%	70	130				
Toluene	3732	50	4000	2.609	93.2%	70	130				

Sample ID: **0105046-17AMSD** Batch ID: **GC-1_010529** Test Code: **SW8021B** Units: **µg/L** Analysis Date **5/29/2001** Prep Date:
Client ID: **0105051** Run ID: **GC-1_010529A** SeqNo: **38496**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	3961	50	4000	120.3	96.0%	70	130	3902	1.5%	8	
Ethylbenzene	3894	50	4000	52.46	96.0%	70	130	3830	1.7%	7	
m,p-Xylene	7364	100	8000	1.939	92.0%	70	130	7228	1.9%	7	
Methyl tert-Butyl Ether	12190	100	4000	7021	129.3%	70	130	12140	0.4%	6	
o-Xylene	3802	50	4000	0.8645	95.0%	70	130	3733	1.8%	6	
Toluene	3790	50	4000	2.609	94.7%	70	130	3732	1.5%	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: *31-May-01*

CLIENT: Blagg Engineering
Work Order: 0105051
Project: BP - Cooper GC #1E

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS WATER** Batch ID: **GC-1_010528** Test Code: **SW8021B** Units: **µg/L** Analysis Date **5/28/2001** Prep Date:

Client ID: **0105051** Run ID: **GC-1_010528A** SeqNo: **38467**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.85	0.5	40	0	99.6%	80	120				
Ethylbenzene	40.16	0.5	40	0	100.4%	80	120				
m,p-Xylene	76.97	1	80	0	96.2%	80	120				
Methyl tert-Butyl Ether	40.72	1	40	0	101.8%	80	120				
o-Xylene	39.65	0.5	40	0	99.1%	80	120				
Toluene	39.52	0.5	40	0.1045	98.5%	80	120				

Sample ID: **LCS WATER** Batch ID: **GC-1_010529** Test Code: **SW8021B** Units: **µg/L** Analysis Date **5/29/2001** Prep Date:

Client ID: **0105051** Run ID: **GC-1_010529A** SeqNo: **38493**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.77	0.5	40	0.0648	99.3%	80	120				
Ethylbenzene	40.41	0.5	40	0	101.0%	80	120				
m,p-Xylene	77.06	1	80	0	96.3%	80	120				
Methyl tert-Butyl Ether	40.77	1	40	0	101.9%	80	120				
o-Xylene	39.25	0.5	40	0	98.1%	80	120				
Toluene	39.3	0.5	40	0.1722	97.8%	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: *31-May-01*

CLIENT: Blagg Engineering
Work Order: 0105051
Project: BP - Cooper GC #1E

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: **CCV1 BTEX_0105** Batch ID: **GC-1_010528** Test Code: **SW8021B** Units: **µg/L** Analysis Date **5/28/2001** Prep Date:

Client ID: **0105051** Run ID: **GC-1_010528A** SeqNo: **38464**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.2	0.5	20	0	96.0%	85	115				
Ethylbenzene	19.4	0.5	20	0	97.0%	85	115				
m,p-Xylene	37.34	1	40	0	93.3%	85	115				
Methyl tert-Butyl Ether	20.15	1	20	0	100.7%	85	115				
o-Xylene	19.13	0.5	20	0	95.6%	85	115				
Toluene	19.1	0.5	20	0	95.5%	85	115				
1,4-Difluorobenzene	74.82	0	80	0	93.5%	70	130				
4-Bromochlorobenzene	83.66	0	80	0	104.6%	70	130				
Fluorobenzene	75.7	0	80	0	94.6%	70	130				

Sample ID: **CCV2 BTEX_0105** Batch ID: **GC-1_010528** Test Code: **SW8021B** Units: **µg/L** Analysis Date **5/28/2001** Prep Date:

Client ID: **0105051** Run ID: **GC-1_010528A** SeqNo: **38465**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.14	0.5	40	0	97.8%	85	115				
Ethylbenzene	39.38	0.5	40	0	98.4%	85	115				
m,p-Xylene	75.5	1	80	0	94.4%	85	115				
Methyl tert-Butyl Ether	41.01	1	40	0	102.5%	85	115				
o-Xylene	38.85	0.5	40	0	97.1%	85	115				
Toluene	38.83	0.5	40	0	97.1%	85	115				
1,4-Difluorobenzene	74.6	0	80	0	93.2%	70	130				
4-Bromochlorobenzene	80.22	0	80	0	100.3%	70	130				
Fluorobenzene	74.83	0	80	0	93.5%	70	130				

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: 0105051
Project: BP - Cooper GC #1E

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV3 BTEX_0105** Batch ID: **GC-1_010528** Test Code: **SW8021B** Units: **µg/L** Analysis Date **5/28/2001** Prep Date:
Client ID: **0105051** Run ID: **GC-1_010528A** SeqNo: **38466**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.66	0.5	20	0	98.3%	85	115				
Ethylbenzene	19.63	0.5	20	0	98.2%	85	115				
m,p-Xylene	37.82	1	40	0	94.6%	85	115				
Methyl tert-Butyl Ether	20.48	1	20	0	102.4%	85	115				
o-Xylene	19.31	0.5	20	0	96.5%	85	115				
Toluene	19.4	0.5	20	0	97.0%	85	115				
1,4-Difluorobenzene	74.61	0	80	0	93.3%	70	130				
4-Bromochlorobenzene	83.44	0	80	0	104.3%	70	130				
Fluorobenzene	75.53	0	80	0	94.4%	70	130				

Sample ID: **CCV1 BTEX_0105** Batch ID: **GC-1_010529** Test Code: **SW8021B** Units: **µg/L** Analysis Date **5/29/2001** Prep Date:
Client ID: **0105051** Run ID: **GC-1_010529A** SeqNo: **38491**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.94	0.5	20	0	99.7%	85	115				
Ethylbenzene	20.21	0.5	20	0	101.0%	85	115				
m,p-Xylene	38.76	1	40	0	96.9%	85	115				
Methyl tert-Butyl Ether	21.06	1	20	0	105.3%	85	115				
o-Xylene	19.71	0.5	20	0	98.6%	85	115				
Toluene	19.86	0.5	20	0	99.3%	85	115				
1,4-Difluorobenzene	75.4	0	80	0	94.3%	70	130				
4-Bromochlorobenzene	83.7	0	80	0	104.6%	70	130				
Fluorobenzene	76.03	0	80	0	95.0%	70	130				

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: 0105051
Project: BP - Cooper GC #1E

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV2 BTEX_0105** Batch ID: **GC-1_010529** Test Code: **SW8021B** Units: **µg/L** Analysis Date **5/29/2001** Prep Date:

Client ID: **0105051** Run ID: **GC-1_010529A** SeqNo: **38492**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.45	0.5	40	0	98.6%	85	115				
Ethylbenzene	39.68	0.5	40	0	99.2%	85	115				
m,p-Xylene	75.9	1	80	0	94.9%	85	115				
Methyl tert-Butyl Ether	41	1	40	0	102.5%	85	115				
o-Xylene	38.78	0.5	40	0	97.0%	85	115				
Toluene	39.19	0.5	40	0	98.0%	85	115				
1,4-Difluorobenzene	74.59	0	80	0	93.2%	70	130				
4-Bromochlorobenzene	83.04	0	80	0	103.8%	70	130				
Fluorobenzene	75.64	0	80	0	94.6%	70	130				

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: 31-May-01

CLIENT: Blagg Engineering
Work Order: 0105051
Project: BP - Cooper GC #1E
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0105025-01A	92.9	102	93.7
0105045-04A	95.1	104	95.7
0105045-05A	92	105	93.3
0105045-06A	93.1	102	93.2
0105046-05A	93.6	101	95.5
0105046-05AMS	93.7	104	94
0105046-05AMSD	92.5	103	94
0105046-06A	93.7	104	95
0105046-16A	94.3	105	111
0105046-17A	93.9	104	95.2
0105046-17AMS	92.9	104	94.6
0105046-17AMSD	94.1	106	94.4
0105046-19A	94.4	107	99.2
0105046-28A	94.5	105	95.1
0105047-01A	94.6	102	96.4
0105047-02A	92.9	98.4	94.3
0105047-03A	95	102	96.1
0105047-04A	94	101	95.8
0105049-01A	93.3	102	94
0105049-02A	95.3	101	96.8
0105049-03A	88.2	96.6	89.8
0105049-04A	91.9	102	92.7
0105049-05A	94.1	103	95.3
0105051-01A	87.7	89.7	90.9
0105051-02A	94.8	99.3	96.2
0105051-03A	94.5	102	96.4
0105052-01A	94.9	102	96.4

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	70-130
4BCBZ	=	4-Bromochlorobenzene	70-130
FLBZ	=	Fluorobenzene	70-130

*** Surrogate recovery outside acceptance limits**

CLIENT: Blagg Engineering
Work Order: 0105051
Project: BP - Cooper GC #1E
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0105052-02A	93.4	104	94.5
0105053-01A	93.2	107	94.4
CCV1 BTEX_01052	94.2	105	95
CCV2 BTEX_01052	93.2	104	94.6
CCV3 BTEX_01052	93.3	104	94.4
LCS WATER	93.5	105	95.2
MB1	95.1	102	95.2

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	70-130
4BCBZ	=	4-Bromochlorobenzene	70-130
FLBZ	=	Fluorobenzene	70-130

*** Surrogate recovery outside acceptance limits**

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : BP AMOCO

CHAIN-OF-CUSTODY # : 11153

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : ON - SITE TECH.

Date : Sept. 19, 2001

SAMPLER : N J V

Filename : 09-19-01.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)
MW - 2R	94.29	82.82	11.47	26.00	-	-	-	-	-
MW - 3R	97.03	82.18	14.85	34.03	1135	7.62	900	9.50	-
MW - 5R	94.12	79.86	14.26	31.00	-	-	-	-	-
MW - 7	94.06	79.56	14.50	20.00	1245	7.01	2,900	1.00	-
MW - 9	90.94	78.41	12.53	20.00	1030	7.53	700	3.75	-

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 ".

BEI reclamation system operational @ time of sampling . Excellent recovery in MW # 7 & 9 . Bailed MW # 3R to depth of 28.50 ft. @ end of purging , allowed recovery to MW # 7 & 9 . Bailed MW # 3R to depth of 29.50 ft. @ end of purging , allowed recovery to 21.00 ft. then sampled . Visually witness air movement in MW # 3R during DTW check & prior to sampling . Collected BTEX samples in MW 's # 3R , 7 , & 9 only .

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

ON SITE
TECHNOLOGIES, LTD.

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

ANALYTICAL REPORT

Date: *24-Sep-01*

Client:	Blagg Engineering	**Client Sample Info:**	Cooper GC #1E
Work Order:	0109022	**Client Sample ID:**	MW #3R
Lab ID:	0109022-01A **Matrix:** AQUEOUS	**Collection Date:**	9/19/2001 11:35:00 AM
Project:	BP Amoco; Cooper GC #1E	**COC Record:**	11153

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	50	0.5		µg/L	1	9/19/2001
Toluene	120	0.5		µg/L	1	9/19/2001
Ethylbenzene	62	0.5		µg/L	1	9/19/2001
m,p-Xylene	520	5		µg/L	5	9/21/2001
o-Xylene	92	0.5		µg/L	1	9/19/2001

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
EMAIL: ONSITE@ONSITELTD.COM

OFF: (505) 325-5667
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ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556
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ANALYTICAL REPORT

Date: *24-Sep-01*

Client:	Blagg Engineering	**Client Sample Info:**	Cooper GC #1E
Work Order:	0109022	**Client Sample ID:**	MW #7
Lab ID:	0109022-02A **Matrix:** AQUEOUS	**Collection Date:**	9/19/2001 12:45:00 PM
Project:	BP Amoco; Cooper GC #1E	**COC Record:**	11153

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	ND	0.5		µg/L	1	9/19/2001
Toluene	ND	0.5		µg/L	1	9/19/2001
Ethylbenzene	1	0.5		µg/L	1	9/19/2001
m,p-Xylene	ND	1		µg/L	1	9/19/2001
o-Xylene	ND	0.5		µg/L	1	9/19/2001

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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ON SITE TECHNOLOGIES, LTD.

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ANALYTICAL REPORT

Date: *24-Sep-01*

Client:	Blagg Engineering	**Client Sample Info:**	Cooper GC #1E
Work Order:	0109022	**Client Sample ID:**	MW #9
Lab ID:	0109022-03A **Matrix:** AQUEOUS	**Collection Date:**	9/19/2001 10:30:00 AM
Project:	BP Amoco; Cooper GC #1E	**COC Record:**	11153

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	ND	0.5		µg/L	1	9/19/2001
Toluene	ND	0.5		µg/L	1	9/19/2001
Ethylbenzene	ND	0.5		µg/L	1	9/19/2001
m,p-Xylene	ND	1		µg/L	1	9/19/2001
o-Xylene	ND	0.5		µg/L	1	9/19/2001

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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1153

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: 9/19/01

Page: 1 of 1

Purchase Order No.:	Project No.		
SEND INVOICE TO: Name	JEFF BLAGG	REPORT RESULTS TO: Name	NELSON VELEZ
Company	BLAGG ENGINEERING, INC. Dept.	Company	SAME
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No.	Telefax No.

PROJECT LOCATION: BP - COOPER GC #1E

SAMPLER'S SIGNATURE: Nelson Vel

SAMPLE IDENTIFICATION	SAMPLE DATE	TIME	MATRIX	PRES.	Number of Containers	BTEX (8021)	LAB ID
MW # 3R	9/19/01	1135	WATER	HCl & COOL	2	✓	0109022-01A
MW # 7	9/19/01	1245	WATER	HCl & COOL	2	✓	-02A
MW # 9	9/19/01	1030	WATER	HCl & COOL	2	✓	-03A

ANALYSIS REQUESTED

Relinquished by: Nelson Vel	Date/Time 9/19/01 1373	Received by: David D. Martin	Date/Time 9/19/01 1334
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

On Site Technologies, LTD.

Date: *24-Sep-01*

CLIENT: Blagg Engineering
Work Order: 0109022
Project: BP Amoco; Cooper GC #1E

QC SUMMARY REPORT

Method Blank

Sample ID: **MB1** Batch ID: **GC-1_010919** Test Code: **SW8021B** Units: **µg/L** Analysis Date **9/19/2001** Prep Date:
Client ID: **0109022** Run ID: **GC-1_010919A** SeqNo: **42447**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	.0974	0.5									J

Sample ID: **MB1** Batch ID: **GC-1_010921** Test Code: **SW8021B** Units: **µg/L** Analysis Date **9/21/2001** Prep Date:
Client ID: **0109022** Run ID: **GC-1_010921A** SeqNo: **42520**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	.1082	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: *24-Sep-01*

CLIENT: Blagg Engineering
Work Order: 0109022
Project: BP Amoco; Cooper GC #1E

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **0109001-01AMS** Batch ID: **GC-1_010919** Test Code: **SW8021B** Units: **µg/L** Analysis Date **9/19/2001** Prep Date:
Client ID: **0109022** Run ID: **GC-1_010919A** SeqNo: **42448**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	42.98	0.5	40	0	107.5%	70	130				
Ethylbenzene	53.68	0.5	40	11	106.7%	70	130				
m,p-Xylene	189.6	1	80	110	99.5%	70	130				
Methyl tert-Butyl Ether	41.71	1	40	0	104.3%	70	130				
o-Xylene	117.5	0.5	40	75	106.2%	70	130				
Toluene	96.26	0.5	40	54	105.6%	70	130				

Sample ID: **0109001-01AMSD** Batch ID: **GC-1_010919** Test Code: **SW8021B** Units: **µg/L** Analysis Date **9/19/2001** Prep Date:
Client ID: **0109022** Run ID: **GC-1_010919A** SeqNo: **42449**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	41.88	0.5	40	0	104.7%	70	130	42.98	2.6%	8	
Ethylbenzene	52.17	0.5	40	11	102.9%	70	130	53.68	2.9%	7	
m,p-Xylene	184.4	1	80	110	92.9%	70	130	189.6	2.8%	7	
Methyl tert-Butyl Ether	41.52	1	40	0	103.8%	70	130	41.71	0.5%	6	
o-Xylene	114.6	0.5	40	75	99.1%	70	130	117.5	2.5%	6	
Toluene	93.67	0.5	40	54	99.2%	70	130	96.26	2.7%	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: 0109022
Project: BP Amoco; Cooper GC #1E

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: **0109021-07AMS** Batch ID: **GC-1_010921** Test Code: **SW8021B** Units: **µg/L** Analysis Date **9/21/2001** Prep Date:
Client ID: **0109022** Run ID: **GC-1_010921A** SeqNo: **42521**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	15740	50	4000	11000	118.4%	70	130				
Ethylbenzene	4890	50	4000	800	102.2%	70	130				
m,p-Xylene	14000	100	8000	6000	100.0%	70	130				
Methyl tert-Butyl Ether	4005	100	4000	0	100.1%	70	130				
o-Xylene	5279	50	4000	1100	104.5%	70	130				
Toluene	11440	50	4000	7100	108.4%	70	130				

Sample ID: **0109021-07AMSD** Batch ID: **GC-1_010921** Test Code: **SW8021B** Units: **µg/L** Analysis Date **9/21/2001** Prep Date:
Client ID: **0109022** Run ID: **GC-1_010921A** SeqNo: **42522**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	15300	50	4000	11000	107.4%	70	130	15740	2.8%	8	
Ethylbenzene	4752	50	4000	800	98.8%	70	130	4890	2.9%	7	
m,p-Xylene	13610	100	8000	6000	95.1%	70	130	14000	2.8%	7	
Methyl tert-Butyl Ether	3952	100	4000	0	98.8%	70	130	4005	1.3%	6	
o-Xylene	5137	50	4000	1100	100.9%	70	130	5279	2.7%	6	
Toluene	11120	50	4000	7100	100.6%	70	130	11440	2.8%	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: *24-Sep-01*

CLIENT: Blagg Engineering
Work Order: 0109022
Project: BP Amoco; Cooper GC #1E

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS WATER** Batch ID: **GC-1_010919** Test Code: **SW8021B** Units: **µg/L** Analysis Date **9/19/2001** Prep Date:

Client ID: **0109022** Run ID: **GC-1_010919A** SeqNo: **42446**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	45.07	0.5	40	0	112.7%	80	120				
Ethylbenzene	42.93	0.5	40	0	107.3%	80	120				
m,p-Xylene	84.42	1	80	0	105.5%	80	120				
Methyl tert-Butyl Ether	44.56	1	40	0	111.4%	80	120				
o-Xylene	42.75	0.5	40	0	106.9%	80	120				
Toluene	43.03	0.5	40	0.0974	107.3%	80	120				

Sample ID: **LCS WATER** Batch ID: **GC-1_010921** Test Code: **SW8021B** Units: **µg/L** Analysis Date **9/21/2001** Prep Date:

Client ID: **0109022** Run ID: **GC-1_010921A** SeqNo: **42519**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	42.32	0.5	40	0	105.8%	80	120				
Ethylbenzene	42.38	0.5	40	0	106.0%	80	120				
m,p-Xylene	83.35	1	80	0	104.2%	80	120				
Methyl tert-Butyl Ether	39.44	1	40	0	98.6%	80	120				
o-Xylene	42.63	0.5	40	0	106.6%	80	120				
Toluene	41.98	0.5	40	0.1082	104.7%	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: *24-Sep-01*

CLIENT: Blagg Engineering
Work Order: 0109022
Project: BP Amoco; Cooper GC #1E

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: **CCV1 BTEX_0107** Batch ID: **GC-1_010919** Test Code: **SW8021B** Units: **µg/L** Analysis Date **9/19/2001** Prep Date:

Client ID: **0109022** Run ID: **GC-1_010919A** SeqNo: **42443**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	42.46	0.5	40	0	106.2%	85	115				
Ethylbenzene	42.36	0.5	40	0	105.9%	85	115				
m,p-Xylene	83.22	1	80	0	104.0%	85	115				
Methyl tert-Butyl Ether	40.78	1	40	0	101.9%	85	115				
o-Xylene	42.29	0.5	40	0	105.7%	85	115				
Toluene	41.93	0.5	40	0	104.8%	85	115				
1,4-Difluorobenzene	111	0	120	0	92.5%	70	130				
4-Bromochlorobenzene	134.4	0	120	0	112.0%	70	130				
Fluorobenzene	107	0	120	0	89.2%	70	130				

Sample ID: **CCV2 BTEX_0107** Batch ID: **GC-1_010919** Test Code: **SW8021B** Units: **µg/L** Analysis Date **9/19/2001** Prep Date:

Client ID: **0109022** Run ID: **GC-1_010919A** SeqNo: **42444**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	41.77	0.5	40	0	104.4%	85	115				
Ethylbenzene	41.55	0.5	40	0	103.9%	85	115				
m,p-Xylene	81.61	1	80	0	102.0%	85	115				
Methyl tert-Butyl Ether	41.47	1	40	0	103.7%	85	115				
o-Xylene	41.76	0.5	40	0	104.4%	85	115				
Toluene	41.25	0.5	40	0	103.1%	85	115				
1,4-Difluorobenzene	111	0	120	0	92.5%	70	130				
4-Bromochlorobenzene	134.5	0	120	0	112.1%	70	130				
Fluorobenzene	107	0	120	0	89.2%	70	130				

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: 0109022
Project: BP Amoco; Cooper GC #1E

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV3 BTEX_0107** Batch ID: **GC-1_010919** Test Code: **SW8021B** Units: **µg/L** Analysis Date **9/19/2001** Prep Date:
Client ID: **0109022** Run ID: **GC-1_010919A** SeqNo: **42445**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	42.77	0.5	40	0	106.9%	85	115				
Ethylbenzene	42.56	0.5	40	0	106.4%	85	115				
m,p-Xylene	83.42	1	80	0	104.3%	85	115				
Methyl tert-Butyl Ether	40.61	1	40	0	101.5%	85	115				
o-Xylene	42.69	0.5	40	0	106.7%	85	115				
Toluene	42.22	0.5	40	0	105.6%	85	115				
1,4-Difluorobenzene	110.5	0	120	0	92.1%	70	130				
4-Bromochlorobenzene	135.9	0	120	0	113.3%	70	130				
Fluorobenzene	107.2	0	120	0	89.3%	70	130				

Sample ID: **CCV1 BTEX_0107** Batch ID: **GC-1_010921** Test Code: **SW8021B** Units: **µg/L** Analysis Date **9/21/2001** Prep Date:
Client ID: **0109022** Run ID: **GC-1_010921A** SeqNo: **42516**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	42.48	0.5	40	0	106.2%	85	115				
Ethylbenzene	42.58	0.5	40	0	106.4%	85	115				
m,p-Xylene	84.09	1	80	0	105.1%	85	115				
Methyl tert-Butyl Ether	39.48	1	40	0	98.7%	85	115				
o-Xylene	42.85	0.5	40	0	107.1%	85	115				
Toluene	42.1	0.5	40	0	105.3%	85	115				
1,4-Difluorobenzene	114.2	0	120	0	95.2%	70	130				
4-Bromochlorobenzene	134.4	0	120	0	112.0%	70	130				
Fluorobenzene	114.2	0	120	0	95.2%	70	130				

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: 0109022
Project: BP Amoco; Cooper GC #1E

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV2 BTEX_0107** Batch ID: **GC-1_010921** Test Code: **SW8021B** Units: **µg/L** Analysis Date **9/21/2001** Prep Date:
Client ID: **0109022** Run ID: **GC-1_010921A** SeqNo: **42517**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	41	0.5	40	0	102.5%	85	115				
Ethylbenzene	41.1	0.5	40	0	102.7%	85	115				
m,p-Xylene	80.86	1	80	0	101.1%	85	115				
Methyl tert-Butyl Ether	40.04	1	40	0	100.1%	85	115				
o-Xylene	41.23	0.5	40	0	103.1%	85	115				
Toluene	40.82	0.5	40	0	102.1%	85	115				
1,4-Difluorobenzene	113.5	0	120	0	94.6%	70	130				
4-Bromochlorobenzene	124.4	0	120	0	103.7%	70	130				
Fluorobenzene	113.9	0	120	0	94.9%	70	130				

Sample ID: **CCV3 BTEX_0107** Batch ID: **GC-1_010921** Test Code: **SW8021B** Units: **µg/L** Analysis Date **9/21/2001** Prep Date:
Client ID: **0109022** Run ID: **GC-1_010921A** SeqNo: **42518**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	41.35	0.5	40	0	103.4%	85	115				
Ethylbenzene	41.25	0.5	40	0	103.1%	85	115				
m,p-Xylene	80.99	1	80	0	101.2%	85	115				
Methyl tert-Butyl Ether	40.19	1	40	0	100.5%	85	115				
o-Xylene	41.57	0.5	40	0	103.9%	85	115				
Toluene	41.08	0.5	40	0	102.7%	85	115				
1,4-Difluorobenzene	113.5	0	120	0	94.6%	70	130				
4-Bromochlorobenzene	124.4	0	120	0	103.7%	70	130				
Fluorobenzene	114.4	0	120	0	95.3%	70	130				

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: 24-Sep-01

CLIENT: Blagg Engineering
Work Order: 0109022
Project: BP Amoco; Cooper GC #1E
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0109001-01A	93.2	111	90.2
0109001-01AMS	91.9	112	89.4
0109001-01AMSD	92.1	112	89.3
0109005-01A	81.5	97.4	80.4
0109009-01A	93.7	112	90.6
0109009-02A	93.4	111	90.5
0109009-03A	93.2	112	90.9
0109017-04B	93	112	90
0109019-01A	92.7	110	90.8
0109020-01A	95.2	101	97
0109021-01A	91.6	113	89.2
0109021-02A	89.9	110	87.8
0109021-03A	93.6	112	90.5
0109021-04A	93.2	112	90.4
0109021-05A	91.9	111	89.4
0109021-06A	93.3	111	90.7
0109021-07A	93.2	102	94.1
0109021-07AMS	92.7	103	93.5
0109021-07AMSD	93.2	103	93.4
0109021-08A	93.2	110	90.8
0109021-09A	92.9	111	90.7
0109022-01A	94.6	102	95.6
0109022-02A	93.4	118	90.6
0109022-03A	93	112	90.6
0109023-01A	95.9	111	96.6
0109023-02A	95.8	111	96.3
0109023-03A	95.5	112	96.6

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	70-130
4BCBZ	=	4-Bromochlorobenzene	70-130
FLBZ	=	Fluorobenzene	70-130

*** Surrogate recovery outside acceptance limits**

CLIENT: Blagg Engineering
Work Order: 0109022
Project: BP Amoco; Cooper GC #1E
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0109023-04A	96.5	99.8	97.3
0109023-05A	95.4	101	96.6
0109023-06A	96.2	101	96.5
0109023-07A	95.8	101	96.6
0109023-08A	96	101	96.5
0109023-09A	95.4	102	94.3
0109025-01A	96.1	96.8	96.8
0109025-02A	95.9	105	96.7
0109025-03A	96.2	111	97.3
0109025-04A	95.5	105	96.7
0109025-05A	95.5	105	96.5
0109025-06A	94	104	96.2
0109025-07A	95.5	101	96.9
0109025-08A	95.7	101	96.3
CCV1 BTEX_01070	95.2	112	95.2
CCV2 BTEX_01070	94.6	104	94.9
CCV3 BTEX_01070	94.6	104	95.3
LCS WATER	94.8	106	95.3
MB1	95.9	106	96.3

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	70-130
4BCBZ	=	4-Bromochlorobenzene	70-130
FLBZ	=	Fluorobenzene	70-130

*** Surrogate recovery outside acceptance limits**

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : BP AMOCO

CHAIN-OF-CUSTODY # : 11158

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : ON - SITE TECH.

Date : Nov. 27, 2001

SAMPLER : N J V

Filename : 11-27-01.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)
MW - 2R	94.29	81.89	12.40	26.00	-	-	-	-	-
MW - 3R	97.03	81.63	15.40	34.03	1000	7.44	900	9.25	-
MW - 5R	94.12	78.80	15.32	31.00	-	-	-	-	-
MW - 7	94.06	78.95	15.11	20.00	0900	7.20	3,000	1.00	-
MW - 9	90.94	77.20	13.74	20.00	1045	7.51	900	3.00	-

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 ".

BEI reclamation system not operational @ time of sampling . Excellent recovery in MW # 7 & 9 , good / fair in # 3R . Allowed recovery in MW # 3R to reach 16.05 ft. before sampling . Collected BTEX samples from MW #'s 3R , 7 , & 9 .

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ANALYTICAL REPORT

Date: *13-Dec-01*

Client:	Blagg Engineering	**Client Sample Info:**	BP - Cooper GC #1E
Work Order:	0111021	**Client Sample ID:**	MW #3R
Lab ID:	0111021-01A **Matrix:** AQUEOUS	**Collection Date:**	11/27/2001 10:00:00 AM
Project:	BP - Cooper GC #1E	**COC Record:**	11158

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DDM**
Benzene	31	2.5		µg/L	5	12/4/2001
Toluene	170	2.5		µg/L	5	12/4/2001
Ethylbenzene	58	2.5		µg/L	5	12/4/2001
m,p-Xylene	900	5		µg/L	5	12/4/2001
o-Xylene	180	2.5		µg/L	5	12/4/2001

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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ANALYTICAL REPORT

Date: *13-Dec-01*

Client:	Blagg Engineering	**Client Sample Info:**	BP - Cooper GC #1E
Work Order:	0111021	**Client Sample ID:**	MW #7
Lab ID:	0111021-02A **Matrix:** AQUEOUS	**Collection Date:**	11/27/2001 9:00:00 AM
Project:	BP - Cooper GC #1E	**COC Record:**	11158

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DDM**
Benzene	ND	0.5		µg/L	1	12/4/2001
Toluene	ND	0.5		µg/L	1	12/4/2001
Ethylbenzene	ND	0.5		µg/L	1	12/4/2001
m,p-Xylene	ND	1		µg/L	1	12/4/2001
o-Xylene	ND	0.5		µg/L	1	12/4/2001

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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ANALYTICAL REPORT

Date: *13-Dec-01*

Client:	Blagg Engineering	**Client Sample Info:**	BP - Cooper GC #1E
Work Order:	0111021	**Client Sample ID:**	MW #9
Lab ID:	0111021-03A **Matrix:** AQUEOUS	**Collection Date:**	11/27/2001 10:45:00 AM
Project:	BP - Cooper GC #1E	**COC Record:**	11158

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DDM**
Benzene	ND	0.5		µg/L	1	12/4/2001
Toluene	ND	0.5		µg/L	1	12/4/2001
Ethylbenzene	ND	0.5		µg/L	1	12/4/2001
m,p-Xylene	ND	1		µg/L	1	12/4/2001
o-Xylene	ND	0.5		µg/L	1	12/4/2001

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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11158

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

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Date: 11/27/01

Page: 1 of 1

Purchase Order No.:	Project No.		
SEND INVOICE TO: Name: JEFF BLAGG		REPORT RESULTS TO: Name: NELSON VELEZ	Title
Company: BLAGG ENGINEERING, INC.	Dept.	Company: SAME	
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No. 632-1199	Telefax No. 632-3903

PROJECT LOCATION: BP - COOPER GC #1E

SAMPLER'S SIGNATURE: Nelson Vel

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	SAMPLE PRES.	Number of Containers	ANALYSIS REQUESTED: BTEX (8021)	LAB ID
MW #3R	11/27/01	1000	WATER	HCl & COOL	2	✓	011127-01A
MW #7	11/27/01	0900	WATER	HCl & COOL	2	✓	-02A
MW #9	11/27/01	1045	WATER	HCl & COOL	2	✓	-03A

Relinquished by: Nelson Vel	Date/Time 11/27/01 1503	Received by: Dan Curtis	Date/Time 11/27/01 1508
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

Special Instructions / Remarks:

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

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

On Site Technologies, LTD.

Date: *13-Dec-01*

CLIENT: Blagg Engineering
Work Order: 0111021
Project: BP - Cooper GC #1E

QC SUMMARY REPORT
Method Blank

Sample ID: **MB_011204** Batch ID: **GC-1_011204** Test Code: **SW8021B** Units: **µg/L** Analysis Date **12/4/2001** Prep Date: **12/4/01**

Client ID: **0111021** Run ID: **GC-1_011204A** SeqNo: **45652**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	ND	0.5									
1,4-Difluorobenzene	100	0									
4-Bromochlorobenzene	118.7	0									
Fluorobenzene	98.1	0									

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-Dec-01*

CLIENT: Blagg Engineering
Work Order: 0111021
Project: BP - Cooper GC #1E

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **0111041-26AMS** Batch ID: **GC-1_011204** Test Code: **SW8021B** Units: **µg/L** Analysis Date **12/4/2001** Prep Date: **12/4/01**
Client ID: **0111021** Run ID: **GC-1_011204A** SeqNo: **45653**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	918.3	10	800	176.5	92.7%	78	117				
Ethylbenzene	1558	10	800	780	97.2%	79	121				
m,p-Xylene	7381	20	1600	5688	105.8%	80	115				
Methyl tert-Butyl Ether	823.4	20	800	0	102.9%	84	114				
o-Xylene	1731	10	800	914.8	102.0%	88	116				
Toluene	941.4	10	800	180.6	95.1%	88	113				
1,4-Difluorobenzene	1955	0	2200	0	88.9%	77	112				
4-Bromochlorobenzene	2528	0	2200	0	114.9%	88	116				
Fluorobenzene	1900	0	2200	0	86.4%	87	102				S

Sample ID: **0111041-26AMSD** Batch ID: **GC-1_011204** Test Code: **SW8021B** Units: **µg/L** Analysis Date **12/4/2001** Prep Date: **12/4/01**
Client ID: **0111021** Run ID: **GC-1_011204A** SeqNo: **45654**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	918.8	10	800	176.5	92.8%	78	117	918.3	0.1%	6	
Ethylbenzene	1513	10	800	780	91.6%	79	121	1558	2.9%	7	
m,p-Xylene	7160	20	1600	5688	92.0%	80	115	7381	3.0%	6	
Methyl tert-Butyl Ether	850.2	20	800	0	106.3%	84	114	823.4	3.2%	5	
o-Xylene	1696	10	800	914.8	97.6%	88	116	1731	2.1%	5	
Toluene	912.7	10	800	180.6	91.5%	88	113	941.4	3.1%	6	
1,4-Difluorobenzene	1987	0	2200	0	90.3%	77	112	0	0.0%	0	
4-Bromochlorobenzene	2588	0	2200	0	117.6%	88	116	0	0.0%	0	S
Fluorobenzene	1930	0	2200	0	87.7%	87	102	0	0.0%	0	

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-Dec-01*

CLIENT: Blagg Engineering
Work Order: 0111021
Project: BP - Cooper GC #1E

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS_011204** Batch ID: **GC-1_011204** Test Code: **SW8021B** Units: **µg/L** Analysis Date **12/4/2001** Prep Date: **12/4/01**

Client ID: **0111021** Run ID: **GC-1_011204A** SeqNo: **45651**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	37.98	0.5	40	0	95.0%	80	120				
Ethylbenzene	37.48	0.5	40	0	93.7%	80	120				
m,p-Xylene	77.69	1	80	0	97.1%	80	120				
Methyl tert-Butyl Ether	40.45	1	40	0	101.1%	80	120				
o-Xylene	39.02	0.5	40	0	97.6%	80	120				
Toluene	37.4	0.5	40	0	93.5%	80	120				
1,4-Difluorobenzene	98.65	0	110	0	89.7%	77	112				
4-Bromochlorobenzene	127.2	0	110	0	115.6%	88	116				
Fluorobenzene	96.76	0	110	0	88.0%	87	102				

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-Dec-01*

CLIENT: Blagg Engineering
Work Order: 0111021
Project: BP - Cooper GC #1E

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: **CCV1_011204** Batch ID: **GC-1_011204** Test Code: **SW8021B** Units: **µg/L** Analysis Date **12/4/2001** Prep Date: **12/4/01**
Client ID: **0111021** Run ID: **GC-1_011204A** SeqNo: **45648**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.25	0.5	20	0	96.3%	85	115				
Ethylbenzene	19.2	0.5	20	0	96.0%	85	115				
m,p-Xylene	39.53	1	40	0	98.8%	85	115				
Methyl tert-Butyl Ether	21.13	1	20	0	105.7%	85	115				
o-Xylene	20.19	0.5	20	0	100.9%	85	115				
Toluene	18.99	0.5	20	0	95.0%	85	115				
1,4-Difluorobenzene	100.2	0	110	0	91.1%	77	112				
4-Bromochlorobenzene	120.4	0	110	0	109.5%	88	116				
Fluorobenzene	97.89	0	110	0	89.0%	87	102				

Sample ID: **CCV2_011204** Batch ID: **GC-1_011204** Test Code: **SW8021B** Units: **µg/L** Analysis Date **12/4/2001** Prep Date: **12/4/01**
Client ID: **0111021** Run ID: **GC-1_011204A** SeqNo: **45649**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.67	0.5	20	0	93.4%	85	115				
Ethylbenzene	19.08	0.5	20	0	95.4%	85	115				
m,p-Xylene	39.4	1	40	0	98.5%	85	115				
Methyl tert-Butyl Ether	20.92	1	20	0	104.6%	85	115				
o-Xylene	19.79	0.5	20	0	98.9%	85	115				
Toluene	19.01	0.5	20	0	95.1%	85	115				
1,4-Difluorobenzene	99.53	0	110	0	90.5%	77	112				
4-Bromochlorobenzene	123.7	0	110	0	112.5%	88	116				
Fluorobenzene	96.07	0	110	0	87.3%	87	102				

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: 0111021
Project: BP - Cooper GC #1E

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: **CCV3_011204** Batch ID: **GC-1_011204** Test Code: **SW8021B** Units: **µg/L** Analysis Date **12/4/2001** Prep Date: **12/4/01**

Client ID: **0111021** Run ID: **GC-1_011204A** SeqNo: **45650**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	37.02	0.5	40	0	92.6%	85	115				
Ethylbenzene	36.87	0.5	40	0	92.2%	85	115				
m,p-Xylene	76.94	1	80	0	96.2%	85	115				
Methyl tert-Butyl Ether	40.41	1	40	0	101.0%	85	115				
o-Xylene	38.81	0.5	40	0	97.0%	85	115				
Toluene	37.2	0.5	40	0	93.0%	85	115				
1,4-Difluorobenzene	100.2	0	110	0	91.0%	77	112				
4-Bromochlorobenzene	120	0	110	0	109.1%	88	116				
Fluorobenzene	96.47	0	110	0	87.7%	87	102				

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-Dec-01

CLIENT: Blagg Engineering
Work Order: 0111021
Project: BP - Cooper GC #1E
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0111021-01A	90.3	116 *	87.5
0111021-02A	90.7	110	88.4
0111021-03A	92.9	116	89.8
0111041-06A	90.8	106	89.5
0111041-16A	90.4	112	89
0111041-17A	91.3	116 *	88.4
0111041-18A	97.9	113	93.4
0111041-19A	89.8	105	87.9
0111041-21A	86.6	110	86.8 *
0111041-26A	91.2	113	88.8
0111041-26AMS	88.9	115	86.4 *
0111041-26AMSD	90.3	118 *	87.7
0111041-27A	88.8	126 *	87.3
0111041-32A	91.1	116 *	89
0111041-33A	95.1	112	92.2
0111041-34A	91.2	106	84.8 *
CCV1_011204	91.1	109	89
CCV2_011204	90.5	112	87.3
CCV3_011204	91	109	87.7
LCS_011204	89.7	116	88
MB_011204	90.9	108	89.2

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	77-112
4BCBZ	=	4-Bromochlorobenzene	88-116
FLBZ	=	Fluorobenzene	87-102

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : BP AMOCO

CHAIN-OF-CUSTODY # : 11768

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : ON - SITE TECH.

Date : February 22, 2002

SAMPLER : N J V

Filename : 02-22-02.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)
MW - 2R	94.29	77.34	16.95	26.00	-	-	-	-	-
MW - 3R	97.03	77.43	19.60	34.03	1635	7.51	900	7.00	-
MW - 5R	94.12	74.24	19.88	31.00	-	-	-	-	-
MW - 7	94.06	75.07	18.99	20.00	-	-	-	-	-
MW - 9	90.94	72.68	18.26	20.00	1235	7.21	1,200	1.00	-

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 ".

BEI reclamation system operational @ time of sampling . Air movement observed within MW # 3R prior to collecting DTW information & purging . Water quantity inadequate for sampling in MW # 7 . Collected BTEX samples from MW # 3R & # 9 (collected duplicate from MW # 3R & labeled it MW # 7D) . Switched air to deeper sparge points . Purged # 3R down to 29.30 ft. , DTW approx. 23.00 ft. @ time 1415 , DTW approx. 20.35 ft. @ time 1633 .

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ANALYTICAL REPORT

Date: *07-Mar-02*

Client:	Blagg Engineering	**Client Sample Info:**	BP - Cooper GC #1E
Work Order:	0202031	**Client Sample ID:**	MW #3R
Lab ID:	0202031-02A **Matrix:** AQUEOUS	**Collection Date:**	02/22/2002 4:35:00 PM
Project:	BP - Cooper GC #1E	**COC Record:**	11768

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DDM**
Benzene	23	2.5		µg/L	5	03/01/2002
Toluene	89	2.5		µg/L	5	03/01/2002
Ethylbenzene	46	2.5		µg/L	5	03/01/2002
m,p-Xylene	400	5		µg/L	5	03/01/2002
o-Xylene	68	2.5		µg/L	5	03/01/2002

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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ANALYTICAL REPORT

Date: *07-Mar-02*

Client:	Blagg Engineering	**Client Sample Info:**	BP - Cooper GC #1E
Work Order:	0202031	**Client Sample ID:**	MW #7D
Lab ID:	0202031-03A **Matrix:** AQUEOUS	**Collection Date:**	02/22/2002 1:00:00 PM
Project:	BP - Cooper GC #1E	**COC Record:**	11768

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DDM**
Benzene	26	0.5		µg/L	1	03/01/2002
Toluene	93	0.5		µg/L	1	03/01/2002
Ethylbenzene	48	0.5		µg/L	1	03/01/2002
o-Xylene	74	0.5		µg/L	1	03/01/2002
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **HNR**
m,p-Xylene	430	5		µg/L	5	03/02/2002

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
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R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

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ANALYTICAL REPORT

Date: *07-Mar-02*

Client:	Blagg Engineering	**Client Sample Info:**	BP - Cooper GC #1E
Work Order:	0202031	**Client Sample ID:**	MW #9
Lab ID:	0202031-01A **Matrix:** AQUEOUS	**Collection Date:**	02/22/2002 12:35:00 PM
Project:	BP - Cooper GC #1E	**COC Record:**	11768

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DDM**
Benzene	ND	0.5		µg/L	1	03/01/2002
Toluene	ND	0.5		µg/L	1	03/01/2002
Ethylbenzene	ND	0.5		µg/L	1	03/01/2002
m,p-Xylene	ND	1		µg/L	1	03/01/2002
o-Xylene	ND	0.5		µg/L	1	03/01/2002

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
EMAIL: ONSITE@ONSITELTD.COM

11768

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: 2/22/02

Page: 1 of 1

Purchase Order No.:	Project No.		
SEND INVOICE TO: Name	Jeff Kuggo	REPORT RESULTS TO: Name	Jackson Velez — Title
Company	Kuggo Engineering, Inc. — Dept.	Company	Same
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No.	632-1199 — Telefax No. 632-7403

PROJECT LOCATION: BP - Dodson CC 1E

SAMPLER'S SIGNATURE: [signature]

SAMPLE IDENTIFICATION	SAMPLE DATE	TIME	MATRIX	PRES.	Number of Containers	BTEX (8021B)	LAB ID
MW #9	2/20/02	1235	WATER	HCl & COOL	2	✓	
MW #7R	2/20/02	1635	WATER	HCl & COOL	2	✓	
MW #7D	2/20/02	1300	WATER	HCl & COOL	2	✓	
↑							
AS IN DOGWOOD							

ANALYSIS REQUESTED

Relinquished by: [signature]	Date/Time 2/20/02	Received by: [signature]	Date/Time 2/20/02 1417
Relinquished by:	Date/Time 1417	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

On Site Technologies, LTD.

Date: *07-Mar-02*

CLIENT: Blagg Engineering
Work Order: 0202031
Project: BP - Cooper GC #1E

QC SUMMARY REPORT
Method Blank

Sample ID: **MB_020301** Batch ID: **GC-1_020301** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **03/01/2002** Prep Date:
Client ID: **0202031** Run ID: **GC-1_020301A** SeqNo: **48217**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	.092	0.5									J
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	.0755	0.5									J
1,4-Difluorobenzene	106.2	0									
4-Bromochlorobenzene	118.7	0									
Fluorobenzene	107	0									

Sample ID: **MB_020302** Batch ID: **GC-1_020302** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **03/02/2002** Prep Date:
Client ID: **0202031** Run ID: **GC-1_020302A** SeqNo: **48245**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	.0886	0.5									J
1,4-Difluorobenzene	105	0									
4-Bromochlorobenzene	120.4	0									
Fluorobenzene	105.1	0									

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: *07-Mar-02*

CLIENT: Blagg Engineering
Work Order: 0202031
Project: BP - Cooper GC #1E

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: **0202036-01AMS** Batch ID: **GC-1_020301** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **03/01/2002** Prep Date:
Client ID: **0202031** Run ID: **GC-1_020301A** SeqNo: **48218**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1256	5	400	893	90.8%	70	130				
Ethylbenzene	740.5	5	400	371	92.4%	70	130				
m,p-Xylene	1667	10	800	909.8	94.7%	70	130				
Methyl tert-Butyl Ether	566.4	10	400	153	103.3%	70	130				
o-Xylene	491.6	5	400	117.2	93.6%	70	130				
Toluene	449	5	400	89.86	89.8%	70	130				
1,4-Difluorobenzene	1044	0	1100	0	95.0%	70	130				
4-Bromochlorobenzene	1162	0	1100	0	105.7%	70	130				
Fluorobenzene	1054	0	1100	0	95.9%	70	130				

Sample ID: **0202036-01AMSD** Batch ID: **GC-1_020301** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **03/01/2002** Prep Date:
Client ID: **0202031** Run ID: **GC-1_020301A** SeqNo: **48219**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1241	5	400	893	87.1%	70	130	1256	1.2%	15	
Ethylbenzene	732.2	5	400	371	90.3%	70	130	740.5	1.1%	15	
m,p-Xylene	1650	10	800	909.8	92.5%	70	130	1667	1.1%	15	
Methyl tert-Butyl Ether	587	10	400	153	108.5%	70	130	566.4	3.6%	15	
o-Xylene	487.7	5	400	117.2	92.6%	70	130	491.6	0.8%	15	
Toluene	452.3	5	400	89.86	90.6%	70	130	449	0.7%	15	
1,4-Difluorobenzene	1050	0	1100	0	95.4%	70	130	0	0.0%	0	
4-Bromochlorobenzene	1165	0	1100	0	105.9%	70	130	0	0.0%	0	
Fluorobenzene	1057	0	1100	0	96.1%	70	130	0	0.0%	0	

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: 0202031
Project: BP - Cooper GC #1E

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: **0202031-03AMS** Batch ID: **GC-1_020302** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **03/02/2002** Prep Date:
Client ID: **MW #7D** **0202031** Run ID: **GC-1_020302A** SeqNo: **48246**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	212.3	2.5	200	25.8	93.2%	70	130				
Ethylbenzene	241.7	2.5	200	48.24	96.7%	70	130				
m,p-Xylene	829.2	5	400	383.1	111.5%	70	130				
Methyl tert-Butyl Ether	197.3	5	200	0.1615	98.6%	70	130				
o-Xylene	265.2	2.5	200	73.63	95.8%	70	130				
Toluene	280	2.5	200	93.43	93.3%	70	130				
1,4-Difluorobenzene	517.5	0	550	0	94.1%	70	130				
4-Bromochlorobenzene	605.3	0	550	0	110.1%	70	130				
Fluorobenzene	516.5	0	550	0	93.9%	70	130				

Sample ID: **0202031-03AMSD** Batch ID: **GC-1_020302** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **03/02/2002** Prep Date:
Client ID: **MW #7D** **0202031** Run ID: **GC-1_020302A** SeqNo: **48247**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	205.8	2.5	200	25.8	90.0%	70	130	212.3	3.1%	15	
Ethylbenzene	237.6	2.5	200	48.24	94.7%	70	130	241.7	1.7%	15	
m,p-Xylene	809.9	5	400	383.1	106.7%	70	130	829.2	2.3%	15	
Methyl tert-Butyl Ether	193.7	5	200	0.1615	96.8%	70	130	197.3	1.8%	15	
o-Xylene	258	2.5	200	73.63	92.2%	70	130	265.2	2.8%	15	
Toluene	271.6	2.5	200	93.43	89.1%	70	130	280	3.0%	15	
1,4-Difluorobenzene	518.4	0	550	0	94.3%	70	130	0	0.0%	0	
4-Bromochlorobenzene	601.8	0	550	0	109.4%	70	130	0	0.0%	0	
Fluorobenzene	515.4	0	550	0	93.7%	70	130	0	0.0%	0	

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: *07-Mar-02*

CLIENT: Blagg Engineering
Work Order: 0202031
Project: BP - Cooper GC #1E

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS_020301** Batch ID: **GC-1_020301** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **03/01/2002** Prep Date:
Client ID: **0202031** Run ID: **GC-1_020301A** SeqNo: **48216**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	36.94	0.5	40	0	92.4%	80	120				
Ethylbenzene	38.42	0.5	40	0.092	95.8%	80	120				
m,p-Xylene	76.65	1	80	0	95.8%	80	120				
Methyl tert-Butyl Ether	38.68	1	40	0	96.7%	80	120				
o-Xylene	37.73	0.5	40	0	94.3%	80	120				
Toluene	36.66	0.5	40	0.0755	91.5%	80	120				
1,4-Difluorobenzene	105.6	0	110	0	96.0%	70	130				
4-Bromochlorobenzene	120.1	0	110	0	109.2%	70	130				
Fluorobenzene	106.4	0	110	0	96.7%	70	130				

Sample ID: **LCS_020302** Batch ID: **GC-1_020302** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **03/02/2002** Prep Date:
Client ID: **0202031** Run ID: **GC-1_020302A** SeqNo: **48244**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	37.93	0.5	40	0	94.8%	80	120				
Ethylbenzene	39.7	0.5	40	0	99.3%	80	120				
m,p-Xylene	79.28	1	80	0	99.1%	80	120				
Methyl tert-Butyl Ether	39.67	1	40	0	99.2%	80	120				
o-Xylene	39.01	0.5	40	0	97.5%	80	120				
Toluene	37.91	0.5	40	0.0886	94.6%	80	120				
1,4-Difluorobenzene	103.7	0	110	0	94.3%	70	130				
4-Bromochlorobenzene	121.7	0	110	0	110.6%	70	130				
Fluorobenzene	103.8	0	110	0	94.3%	70	130				

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: *07-Mar-02*

CLIENT: Blagg Engineering
Work Order: 0202031
Project: BP - Cooper GC #1E

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: **CCV1_020301** Batch ID: **GC-1_020301** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **03/01/2002** Prep Date:

Client ID: **0202031** Run ID: **GC-1_020301A** SeqNo: **48213**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.72	0.5	20	0	93.6%	85	115				
Ethylbenzene	19.44	0.5	20	0	97.2%	85	115				
m,p-Xylene	38.99	1	40	0	97.5%	85	115				
Methyl tert-Butyl Ether	19.24	1	20	0	96.2%	85	115				
o-Xylene	18.92	0.5	20	0	94.6%	85	115				
Toluene	18.51	0.5	20	0	92.5%	85	115				
1,4-Difluorobenzene	105.4	0	110	0	95.9%	70	130				
4-Bromochlorobenzene	119.3	0	110	0	108.5%	70	130				
Fluorobenzene	106.8	0	110	0	97.1%	70	130				

Sample ID: **CCV2_020301** Batch ID: **GC-1_020301** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **03/01/2002** Prep Date:

Client ID: **0202031** Run ID: **GC-1_020301A** SeqNo: **48214**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.47	0.5	20	0	92.4%	85	115				
Ethylbenzene	19.16	0.5	20	0	95.8%	85	115				
m,p-Xylene	38.48	1	40	0	96.2%	85	115				
Methyl tert-Butyl Ether	19.5	1	20	0	97.5%	85	115				
o-Xylene	18.86	0.5	20	0	94.3%	85	115				
Toluene	18.38	0.5	20	0	91.9%	85	115				
1,4-Difluorobenzene	106.2	0	110	0	96.6%	70	130				
4-Bromochlorobenzene	118.5	0	110	0	107.7%	70	130				
Fluorobenzene	107	0	110	0	97.2%	70	130				

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: 0202031
Project: BP - Cooper GC #1E

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV3_020301** Batch ID: **GC-1_020301** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **03/01/2002** Prep Date:
Client ID: **0202031** Run ID: **GC-1_020301A** SeqNo: **48215**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	36.97	0.5	40	0	92.4%	85	115				
Ethylbenzene	38.2	0.5	40	0	95.5%	85	115				
m,p-Xylene	76.2	1	80	0	95.3%	85	115				
Methyl tert-Butyl Ether	38.09	1	40	0	95.2%	85	115				
o-Xylene	37.67	0.5	40	0	94.2%	85	115				
Toluene	36.71	0.5	40	0	91.8%	85	115				
1,4-Difluorobenzene	104.9	0	110	0	95.4%	70	130				
4-Bromochlorobenzene	116.8	0	110	0	106.2%	70	130				
Fluorobenzene	106.3	0	110	0	96.6%	70	130				

Sample ID: **CCV1_020302** Batch ID: **GC-1_020302** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **03/02/2002** Prep Date:
Client ID: **0202031** Run ID: **GC-1_020302A** SeqNo: **48242**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.92	0.5	20	0	94.6%	85	115				
Ethylbenzene	19.72	0.5	20	0	98.6%	85	115				
m,p-Xylene	39.64	1	40	0	99.1%	85	115				
Methyl tert-Butyl Ether	19.52	1	20	0	97.6%	85	115				
o-Xylene	19.24	0.5	20	0	96.2%	85	115				
Toluene	18.91	0.5	20	0	94.6%	85	115				
1,4-Difluorobenzene	104.1	0	110	0	94.7%	70	130				
4-Bromochlorobenzene	121	0	110	0	110.0%	70	130				
Fluorobenzene	104.2	0	110	0	94.7%	70	130				

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: 0202031
Project: BP - Cooper GC #1E

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV2_020302** Batch ID: **GC-1_020302** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **03/02/2002** Prep Date:

Client ID: **0202031** Run ID: **GC-1_020302A** SeqNo: **48243**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	37.98	0.5	40	0	95.0%	85	115				
Ethylbenzene	39.69	0.5	40	0	99.2%	85	115				
m,p-Xylene	79.22	1	80	0	99.0%	85	115				
Methyl tert-Butyl Ether	39.55	1	40	0	98.9%	85	115				
o-Xylene	39.16	0.5	40	0	97.9%	85	115				
Toluene	37.99	0.5	40	0	95.0%	85	115				
1,4-Difluorobenzene	104.2	0	110	0	94.7%	70	130				
4-Bromochlorobenzene	120.2	0	110	0	109.3%	70	130				
Fluorobenzene	103.6	0	110	0	94.2%	70	130				

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: 07-Mar-02

CLIENT: Blagg Engineering
Work Order: 0202031
Project: BP - Cooper GC #1E
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0202029-15A	98.7	107	107
0202029-16A	97	108	98.3
0202029-19A	97.1	104	98.9
0202029-20A	97.4	112	95.6
0202029-21A	94.4	105	95.7
0202029-23A	95.3	108	95.1
0202029-24A	94.7	110	94.3
0202029-25A	94.6	112	94.4
0202029-26A	96.4	105	99.2
0202029-28A	95.7	105	97.2
0202029-30A	93.3	109	94
0202029-31A	98	107	98.9
0202029-32A	96.5	108	98
0202029-33A	97	105	98.6
0202029-34A	96.6	108	98.3
0202031-01A	97.7	106	98.3
0202031-02A	94.9	102	96.1
0202031-03A	95	109	95.4
0202031-03AMS	94.1	110	93.9
0202031-03AMSD	94.3	109	93.7
0202032-01A	96.1	105	96.7
0202036-01A	95.5	105	95.9
0202036-01AMS	95	106	95.8
0202036-01AMSD	95.4	106	96.1
0202036-02A	96.6	106	97.5
CCV1_020301	95.8	108	97
CCV1_020302	94.7	110	94.7

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	70-130
4BCBZ	=	4-Bromochlorobenzene	70-130
FLBZ	=	Fluorobenzene	70-130

*** Surrogate recovery outside acceptance limits**

CLIENT:	Blagg Engineering
Work Order:	0202031
Project:	BP - Cooper GC #1E
Test No:	SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
CCV2_020301	96.6	108	97.2
CCV2_020302	94.7	109	94.2
CCV3_020301	95.4	106	96.6
LCS_020301	96	109	96.7
LCS_020302	94.3	111	94.3
MB_020301	96.6	108	97.3
MB_020302	95.5	109	95.5

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	70-130
4BCBZ	=	4-Bromochlorobenzene	70-130
FLBZ	=	Fluorobenzene	70-130

*** Surrogate recovery outside acceptance limits**

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : BP AMOCO

CHAIN-OF-CUSTODY # : 11772

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : ON - SITE TECH.

Date : May 30, 2002

Filename : 05-30-02.WK4

SAMPLER : N J V

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)
MW - 2R	94.29	84.45	9.84	26.00	-	-	-	-	-
MW - 3R	97.03	82.33	14.70	34.03	0855	7.17	900	11.00	-
MW - 5R	94.12	80.78	13.34	31.00	-	-	-	-	-
MW - 7	94.06	79.15	14.91	20.00	0820	7.3	700	1.00	-

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 ".

BEI reclamation system operational @ time of sampling . Air movement observed within MW # 3R prior to collecting DTW information & purging . No discoloration observed during purging of MW # 3R . Bailed # 3R to 30 ft. @ time 0735 . DTW approx. 15.03 ft. @ time of sampling (no air mvmt. observed) . Collected BTEX from MW # 3R & # 7 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-Jun-02*

Client:	Blagg Engineering	**Client Sample Info:**	BP - Cooper GC #1E
Work Order:	0205049	**Client Sample ID:**	MW #3R
Lab ID:	0205049-02A **Matrix:** AQUEOUS	**Collection Date:**	05/30/2002 8:55:00 AM
Project:	BP - Cooper GC #1E	**COC Record:**	11772

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DWC**
Benzene	18	0.5		µg/L	1	06/11/2002
Toluene	38	0.5		µg/L	1	06/11/2002
Ethylbenzene	14	0.5		µg/L	1	06/11/2002
m,p-Xylene	220	1		µg/L	1	06/11/2002
o-Xylene	48	0.5		µg/L	1	06/11/2002

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 precision limits
- E - Value above quantitation range
- Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499
EMAIL: ONSITE@ONSITELTD.COM

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

ANALYTICAL REPORT

Date: *18-Jun-02*

Client:	Blagg Engineering	**Client Sample Info:**	BP - Cooper GC #1E
Work Order:	0205049	**Client Sample ID:**	MW #7
Lab ID:	0205049-01A **Matrix:** AQUEOUS	**Collection Date:**	05/30/2002 8:20:00 AM
Project:	BP - Cooper GC #1E	**COC Record:**	11772

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DWC**
Benzene	ND	0.5		µg/L	1	06/11/2002
Toluene	ND	0.5		µg/L	1	06/11/2002
Ethylbenzene	ND	0.5		µg/L	1	06/11/2002
m,p-Xylene	ND	1		µg/L	1	06/11/2002
o-Xylene	ND	0.5		µg/L	1	06/11/2002

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 precision limits
E - Value above quantitation range
Surr: - Surrogate

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1772

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

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LAB: (505) 325-5667 • FAX: (505) 327-1496

Date: MAY 30, 2002

Page: 1 of 1

Purchase Order No.:	Project No.		
SEND INVOICE TO: Name	JEFF BLAGG	REPORT RESULTS TO: Name	NELSON VELEZ / Title
Company	BLAGG ENGINEERING, INC. / Dept.	Company	SAME
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No.	652-1199 / Telefax No. 652-3903

PROJECT LOCATION: BP - COOPER GC #1E

SAMPLER'S SIGNATURE: Nelson Vlz

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	SAMPLE PRES.	Number of Containers	ANALYSIS REQUESTED: BTEX (8021B)	LAB ID
MW # 7	5/30/02	0820	WATER	HCl & COOL	2	/	0205049-01A
MW # 3R	5/30/02	0855	WATER	HCl & COOL	2	/	-02A

Relinquished by: Nelson Vlz	Date/Time 5/30/02 3:55	Received by: Heidi K	Date/Time 5/30/02 1455
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

On Site Technologies, LTD.

Date: *18-Jun-02*

CLIENT: Blagg Engineering
Work Order: 0205049
Project: BP - Cooper GC #1E

QC SUMMARY REPORT
Method Blank

Sample ID: **MB_020611** Batch ID: **GC-1_020610** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **06/11/2002** Prep Date: **06/11/2002**

Client ID: **0205049** Run ID: **GC-1_020610A** SeqNo: **51629**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	ND	0.5									
m,p-Xylene	.1219	1									J
o-Xylene	.0438	0.5									J
Toluene	.1198	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-Jun-02*

CLIENT: Blagg Engineering
Work Order: 0205049
Project: BP - Cooper GC #1E

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **0206002-01AMS** Batch ID: **GC-1_020610** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **06/11/2002** Prep Date: **06/11/2002**
Client ID: **0205049** Run ID: **GC-1_020610A** SeqNo: **51630**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	224.3	2.5	200	32.2	96.1%	70	130				
Ethylbenzene	198.9	2.5	200	2.346	98.3%	70	130				
m,p-Xylene	413.5	5	400	24	97.4%	70	130				
o-Xylene	197.2	2.5	200	5.974	95.6%	70	130				
Toluene	209.4	2.5	200	18.41	95.5%	70	130				

Sample ID: **0206002-01AMSD** Batch ID: **GC-1_020610** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **06/11/2002** Prep Date: **06/11/2002**
Client ID: **0205049** Run ID: **GC-1_020610A** SeqNo: **51631**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	221.4	2.5	200	32.2	94.6%	70	130	224.3	1.3%	15	
Ethylbenzene	196	2.5	200	2.346	96.8%	70	130	198.9	1.5%	15	
m,p-Xylene	407.2	5	400	24	95.8%	70	130	413.5	1.5%	15	
o-Xylene	194.9	2.5	200	5.974	94.5%	70	130	197.2	1.2%	15	
Toluene	206.3	2.5	200	18.41	93.9%	70	130	209.4	1.5%	15	

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-Jun-02*

CLIENT: Blagg Engineering
Work Order: 0205049
Project: BP - Cooper GC #1E

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS_020611** Batch ID: **GC-1_020610** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **06/11/2002** Prep Date: **06/11/2002**

Client ID: **0205049** Run ID: **GC-1_020610A** SeqNo: **51627**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	37.31	0.5	40	0	93.3%	80	120				
Ethylbenzene	38.48	0.5	40	0	96.2%	80	120				
m,p-Xylene	76.48	1	80	0.1219	95.4%	80	120				
o-Xylene	37.39	0.5	40	0.0438	93.4%	80	120				
Toluene	37.02	0.5	40	0.1198	92.2%	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: *18-Jun-02*

CLIENT: Blagg Engineering
Work Order: 0205049
Project: BP - Cooper GC #1E

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: **CCV1_020611** Batch ID: **GC-1_020610** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **06/11/2002** Prep Date: **06/11/2002**
Client ID: **0205049** Run ID: **GC-1_020610A** SeqNo: **51622**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.82	0.5	20	0	94.1%	85	115				
Ethylbenzene	19.6	0.5	20	0	98.0%	85	115				
m,p-Xylene	38.8	1	40	0	97.0%	85	115				
o-Xylene	18.88	0.5	20	0	94.4%	85	115				
Toluene	18.74	0.5	20	0	93.7%	85	115				
1,4-Difluorobenzene	106.6	0	110	0	96.9%	70	130				
4-Bromochlorobenzene	108.7	0	110	0	98.9%	70	130				
Fluorobenzene	108	0	110	0	98.2%	70	130				

Sample ID: **CCV2_020611** Batch ID: **GC-1_020610** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **06/11/2002** Prep Date: **06/11/2002**
Client ID: **0205049** Run ID: **GC-1_020610A** SeqNo: **51623**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.1	0.5	20	0	95.5%	85	115				
Ethylbenzene	19.58	0.5	20	0	97.9%	85	115				
m,p-Xylene	39.22	1	40	0	98.1%	85	115				
o-Xylene	19.06	0.5	20	0	95.3%	85	115				
Toluene	18.9	0.5	20	0	94.5%	85	115				
1,4-Difluorobenzene	107.1	0	110	0	97.4%	70	130				
4-Bromochlorobenzene	122.2	0	110	0	111.1%	70	130				
Fluorobenzene	108.6	0	110	0	98.8%	70	130				

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: 0205049
Project: BP - Cooper GC #1E

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV3_020611** Batch ID: **GC-1_020610** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **06/11/2002** Prep Date: **06/11/2002**
Client ID: **0205049** Run ID: **GC-1_020610A** SeqNo: **51624**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.56	0.5	40	0	96.4%	85	115				
Ethylbenzene	39.34	0.5	40	0	98.3%	85	115				
m,p-Xylene	77.76	1	80	0	97.2%	85	115				
o-Xylene	38.17	0.5	40	0	95.4%	85	115				
Toluene	38.04	0.5	40	0	95.1%	85	115				
1,4-Difluorobenzene	106.2	0	110	0	96.6%	70	130				
4-Bromochlorobenzene	117.2	0	110	0	106.6%	70	130				
Fluorobenzene	107.8	0	110	0	98.0%	70	130				

Sample ID: **CCV4_020611** Batch ID: **GC-1_020610** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **06/12/2002** Prep Date: **06/12/2002**
Client ID: **0205049** Run ID: **GC-1_020610A** SeqNo: **51625**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.76	0.5	20	0	93.8%	85	115				
Ethylbenzene	19.45	0.5	20	0	97.3%	85	115				
m,p-Xylene	38.91	1	40	0	97.3%	85	115				
o-Xylene	18.83	0.5	20	0	94.2%	85	115				
Toluene	18.61	0.5	20	0	93.0%	85	115				
1,4-Difluorobenzene	107.8	0	110	0	98.0%	70	130				
4-Bromochlorobenzene	108.9	0	110	0	99.0%	70	130				
Fluorobenzene	109.3	0	110	0	99.4%	70	130				

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: 0205049
Project: BP - Cooper GC #1E

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV5_020611** Batch ID: **GC-1_020610** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **06/12/2002** Prep Date: **06/12/2002**

Client ID: **0205049** Run ID: **GC-1_020610A** SeqNo: **51626**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	18.63	0.5	20	0	93.2%	85	115				
Ethylbenzene	18.96	0.5	20	0	94.8%	85	115				
m,p-Xylene	37.88	1	40	0	94.7%	85	115				
o-Xylene	18.32	0.5	20	0	91.6%	85	115				
Toluene	18.22	0.5	20	0	91.1%	85	115				
1,4-Difluorobenzene	107.4	0	110	0	97.7%	70	130				
4-Bromochlorobenzene	119.1	0	110	0	108.3%	70	130				
Fluorobenzene	109.6	0	110	0	99.6%	70	130				

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-Jun-02

CLIENT: Blagg Engineering
Work Order: 0205049
Project: BP - Cooper GC #1E
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0205047-01A	97.8	108	99.6
0205047-02A	95.9	111	98
0205047-03A	97.2	110	99
0205049-01A	98	117	99.7
0205049-02A	96.9	105	99.1
0206001-01A	95.7	105	97.5
0206002-01A	96.4	105	98.4
0206002-01AMS	95.8	115	97.7
0206002-01AMSD	95.9	112	97.4
0206012-01A	96	103	98.4
0206012-02A	97.8	102	99.7
0206012-03A	97.8	107	100
0206013-01A	97.8	106	99
0206014-01A	96.7	106	98.6
0206014-02A	97.1	106	99.9
0206014-03A	98.2	107	101
CCV1_020611	96.9	98.8	98.2
CCV2_020611	97.4	111	98.8
CCV3_020611	96.6	106	98
CCV4_020611	98	99	99.4
CCV5_020611	97.6	108	99.6
LCS_020611	96.9	103	98.1
MB_020611	98.4	105	99.5

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	70-130
4BCBZ	=	4-Bromochlorobenzene	70-130
FLBZ	=	Fluorobenzene	70-130

*** Surrogate recovery outside acceptance limits**

/

BLAGG ENGINEERING, INC.

MONITOR WELL SAMPLING DATA

CLIENT : BP AMOCO

CHAIN-OF-CUSTODY # : 11998

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : ON - SITE TECH.

Date : August 23, 2002

SAMPLER : N J V

Filename : 08-23-02.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)
MW - 2R	94.29	83.54	10.75	26.00	-	-	-	-	-
MW - 3R	97.03	82.50	14.53	34.03	1243	7.23	800	9.50	-
MW - 5R	94.12	80.41	13.71	31.00	-	-	-	-	-

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 ".

BEI reclamation system operational @ time of sampling . Air movement observed within MW # 3R prior to collecting DTW information & purging . No discoloration observed during purging of MW # 3R . Bailed # 3R to 28.10 ft. @ time 1147 . DTW approx. 15.12 ft. @ time of sampling (air mvmt. observed) . Collected BTEX from MW # 3R only .

612 E. Murray Drive
Farmington, NM 87401

Off: (505) 327-1072

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P.O. Box 2606
Farmington, NM 87499

Fax: (505) 327-1496

ANALYTICAL REPORT

Date: *30-Aug-02*

Client:	Blagg Engineering	**Client Sample Info:**	BP - Cooper GC #1E
Work Order:	0208015	**Client Sample ID:**	MW #3R
Lab ID:	0208015-01A **Matrix:** AQUEOUS	**Collection Date:**	08/23/2002 12:43:00 PM
Project:	BP - Cooper GC #1E	**COC Record:**	11998

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **HNR**
Benzene	16	0.5		µg/L	1	08/28/2002
Toluene	40	0.5		µg/L	1	08/28/2002
Ethylbenzene	36	0.5		µg/L	1	08/28/2002
m,p-Xylene	590	5		µg/L	5	08/28/2002
o-Xylene	110	0.5		µg/L	1	08/28/2002

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 precision limits
E - Value above quantitation range
Surr: - Surrogate

11998

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

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LAB: (505) 325-5667 • FAX: (505) 327-1496

Date: 8/23/02

Page: 1 of 1

Purchase Order No.:	Project No.		
SEND INVOICE TO — Name: JEFF BLAGG		REPORT RESULTS TO — Name: NELSON VELEZ	Title
Company: BLAGG ENGINEERING, INC	Dept.	Company: SAME	
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No.: 632-1199	Telefax No.: 632-3903

PROJECT LOCATION: BP - COOPER GC #1E

SAMPLER'S SIGNATURE: Nelson Velez

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	SAMPLE PRES.	Number of Containers	BTEX (8021B)	LAB ID
MW #3R	8/22/02	1245	WATER	HCl + COOL	3	✓	020-015 01N

ANALYSIS REQUESTED

Relinquished by: Nelson Velez	Date/Time 8/23/02 1520	Received by:	Date/Time 8/23/02 1520
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

iiná bá, Ltd.

Date: *30-Aug-02*

CLIENT: Blagg Engineering
Work Order: 0208015
Project: BP - Cooper GC #1E

QC SUMMARY REPORT
Method Blank

Sample ID: **MB_020828** Batch ID: **GC-1_020828** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/28/2002** Prep Date: **08/28/2002**

Client ID: **0208015** Run ID: **GC-1_020828A** SeqNo: **57449**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.1393	0.5									J
Ethylbenzene	ND	0.5									
m,p-Xylene	.1102	1									J
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	.2127	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

iiná bá, Ltd.

Date: *30-Aug-02*

CLIENT: Blagg Engineering
Work Order: 0208015
Project: BP - Cooper GC #1E

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: **0208021-01AMS** Batch ID: **GC-1_020828** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/28/2002** Prep Date: **08/28/2002**
Client ID: **0208015** Run ID: **GC-1_020828A** SeqNo: **57450**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	171.6	2.5	200	0.5	85.5%	70	130				
Ethylbenzene	195.5	2.5	200	15	90.2%	70	130				
m,p-Xylene	722.5	5	400	420	75.6%	70	130				
Methyl tert-Butyl Ether	177.3	5	200	0	88.7%	70	130				
o-Xylene	180.3	2.5	200	0	90.2%	70	130				
Toluene	192.7	2.5	200	0	96.4%	70	130				

Sample ID: **0208021-01AMSD** Batch ID: **GC-1_020828** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/28/2002** Prep Date: **08/28/2002**
Client ID: **0208015** Run ID: **GC-1_020828A** SeqNo: **57451**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	174.5	2.5	200	0.5	87.0%	70	130	171.6	1.7%	15	
Ethylbenzene	195.1	2.5	200	15	90.1%	70	130	195.5	0.2%	15	
m,p-Xylene	717.6	5	400	420	74.4%	70	130	722.5	0.7%	15	
Methyl tert-Butyl Ether	176	5	200	0	88.0%	70	130	177.3	0.8%	15	
o-Xylene	175.3	2.5	200	0	87.6%	70	130	180.3	2.8%	15	
Toluene	196.9	2.5	200	0	98.5%	70	130	192.7	2.2%	15	

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

iiná bá, Ltd.

Date: *30-Aug-02*

CLIENT: Blagg Engineering
Work Order: 0208015
Project: BP - Cooper GC #1E

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS_020828** Batch ID: **GC-1_020828** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/28/2002** Prep Date: **08/28/2002**

Client ID: **0208015** Run ID: **GC-1_020828A** SeqNo: **57448**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.56	0.5	40	0.1393	98.6%	80	120				
Ethylbenzene	38.77	0.5	40	0	96.9%	80	120				
m,p-Xylene	77.39	1	80	0.1102	96.6%	80	120				
Methyl tert-Butyl Ether	37.04	1	40	0	92.6%	80	120				
o-Xylene	37.02	0.5	40	0	92.5%	80	120				
Toluene	37.18	0.5	40	0.2127	92.4%	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

iiná bá, Ltd.

Date: *30-Aug-02*

CLIENT: Blagg Engineering
Work Order: 0208015
Project: BP - Cooper GC #1E

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: **CCV1_020828** Batch ID: **GC-1_020828** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/28/2002** Prep Date: **08/28/2002**
Client ID: **0208015** Run ID: **GC-1_020828A** SeqNo: **57444**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.75	0.5	40	0	96.9%	85	115				
Ethylbenzene	38.46	0.5	40	0	96.1%	85	115				
m,p-Xylene	76.89	1	80	0	96.1%	85	115				
Methyl tert-Butyl Ether	38.29	1	40	0	95.7%	85	115				
o-Xylene	36.62	0.5	40	0	91.6%	85	115				
Toluene	36.86	0.5	40	0	92.1%	85	115				
1,4-Difluorobenzene	107.9	0	110	0	98.1%	70	130				
4-Bromochlorobenzene	126	0	110	0	114.6%	70	130				
Fluorobenzene	105.7	0	110	0	96.1%	70	130				

Sample ID: **CCV2_020828** Batch ID: **GC-1_020828** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/28/2002** Prep Date: **08/28/2002**
Client ID: **0208015** Run ID: **GC-1_020828A** SeqNo: **57445**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	37.06	0.5	40	0	92.6%	85	115				
Ethylbenzene	37.84	0.5	40	0	94.6%	85	115				
m,p-Xylene	76.89	1	80	0	96.1%	85	115				
Methyl tert-Butyl Ether	37.71	1	40	0	94.3%	85	115				
o-Xylene	36.64	0.5	40	0	91.6%	85	115				
Toluene	36.28	0.5	40	0	90.7%	85	115				
1,4-Difluorobenzene	106.3	0	110	0	96.6%	70	130				
4-Bromochlorobenzene	124.8	0	110	0	113.5%	70	130				
Fluorobenzene	103.8	0	110	0	94.3%	70	130				

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: 0208015
Project: BP - Cooper GC #1E

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV3_020828** Batch ID: **GC-1_020828** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/28/2002** Prep Date: **08/28/2002**
Client ID: **0208015** Run ID: **GC-1_020828A** SeqNo: **57446**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	37.35	0.5	40	0	93.4%	85	115				
Ethylbenzene	39.34	0.5	40	0	98.3%	85	115				
m,p-Xylene	78.68	1	80	0	98.3%	85	115				
Methyl tert-Butyl Ether	36.67	1	40	0	91.7%	85	115				
o-Xylene	37.64	0.5	40	0	94.1%	85	115				
Toluene	37.48	0.5	40	0	93.7%	85	115				
1,4-Difluorobenzene	104.8	0	110	0	95.3%	70	130				
4-Bromochlorobenzene	125.6	0	110	0	114.1%	70	130				
Fluorobenzene	102.5	0	110	0	93.2%	70	130				

Sample ID: **CCV4_020828** Batch ID: **GC-1_020828** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **08/28/2002** Prep Date: **08/28/2002**
Client ID: **0208015** Run ID: **GC-1_020828A** SeqNo: **57447**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	35.72	0.5	40	0	89.3%	85	115				
Ethylbenzene	37.14	0.5	40	0	92.8%	85	115				
m,p-Xylene	74.08	1	80	0	92.6%	85	115				
Methyl tert-Butyl Ether	37.36	1	40	0	93.4%	85	115				
o-Xylene	35.72	0.5	40	0	89.3%	85	115				
Toluene	35.44	0.5	40	0	88.6%	85	115				
1,4-Difluorobenzene	105.3	0	110	0	95.7%	70	130				
4-Bromochlorobenzene	130.9	0	110	0	119.0%	70	130				
Fluorobenzene	101.8	0	110	0	92.5%	70	130				

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

iina ba, Ltd.

Date: 30-Aug-02

CLIENT: Blagg Engineering
Work Order: 0208015
Project: BP - Cooper GC #1E
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0208015-01A	96.2	113	93.4
0208016-01A	96.7	119	95.9
0208016-02A	96.4	112	94.3
0208016-03A	96.8	115	95.4
0208018-01A	93	113	91
0208018-02A	96.4	117	98.2
0208020-01A	96.5	115	95.2
0208021-01A	95.4	116	94.4
0208021-01AMS	89.2	112	87.6
0208021-01AMSD	89.1	107	86.9
0208022-01A	97	116	95.2
CCV1_020828	98.1	114	96.1
CCV2_020828	96.6	113	94.3
CCV3_020828	95.3	114	93.2
CCV4_020828	95.7	119	92.5
LCS_020828	95.5	114	96.7
MB_020828	97.4	114	96

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	70-130
4BCBZ	=	4-Bromochlorobenzene	70-130
FLBZ	=	Fluorobenzene	70-130

*** Surrogate recovery outside acceptance limits**

/

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMER. PROD. CO.

CHAIN-OF-CUSTODY # : 12149

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : ON - SITE TECH.

Date : November 29, 2002

SAMPLER : N J V

Filename : 11-29-02.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)
MW - 2R	94.29	80.63	13.66	26.00	-	-	-	-	-
MW - 3R	97.03	81.30	15.73	34.03	1334	7.52	600	9.00	-
MW - 5R	94.12	77.95	16.17	31.00	-	-	-	-	-

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 ".

BEI reclamation system not operational @ time of sampling. Bailed # 3R to 28.60 ft. @ time 1248. DTW approx. 18.85 ft. @ time of sampling. Collected BTEX from MW # 3R only.

612 E. Murray Drive
Farmington, NM 87401

Off: (505) 327-1072

iiná bá

P.O. Box 2606
Farmington, NM 87499

Fax: (505) 327-1496

Date: *05-Dec-02*

CLIENT:	Blagg Engineering	**Client Sample Info:**	BP - Cooper GC #1E
Work Order:	0212001	**Client Sample ID:**	MW #3R
Project:	BP - Cooper GC #1E	**Collection Date:**	11/29/2002 1:34:00 PM
Lab ID:	0212001-001A	**Matrix:**	AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **JEM**
Benzene	20	0.5		µg/L	1	12/4/2002
Ethylbenzene	49	2.5		µg/L	5	12/4/2002
m,p-Xylene	610	5.0		µg/L	5	12/4/2002
o-Xylene	97	2.5		µg/L	5	12/4/2002
Toluene	59	2.5		µg/L	5	12/4/2002

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

1249

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: 11/29/02

Page: 1 of 1

Purchase Order No.:	Project No.	REPORT RESULTS TO: Name Nelson Velez	Title
SEND INVOICE TO: Name Jeff Blagg		Company SPMF	
Company Blagg Engineering, Inc.	Dept.	Mailing Address	
Address		City, State, Zip	
City, State, Zip		Telephone No. 632-1199	Telefax No. 632-7903

PROJECT LOCATION: BP - Cooper GC #1E

SAMPLER'S SIGNATURE: Nelson Velez

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	SAMPLE PRES.	Number of Containers	ANALYSIS REQUESTED: BTEX (8021B)	LAB ID
MW #2R	11/26/02	1334	WATER	HCl & Cool	2	✓	021201-001

Relinquished by: Nelson Velez	Date/Time 12/2/02	Received by: Q Moore	Date/Time 12/2/02 09:15
Relinquished by:	Date/Time 0913	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: cm to 2 cool

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

iina ba, Ltd.

Date: *05-Dec-02*

CLIENT: Blagg Engineering
Work Order: 0212001
Project: BP - Cooper GC #1E

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEX_W

Sample ID **MB_021204**	SampType: **MBLK**	TestCode: **BTEX_W**	Units: **µg/L**	Prep Date:	Run ID: **GC-1_021204A**
Client ID: **ZZZZZ**	Batch ID: **R4123**	TestNo: **SW8021B**		Analysis Date: **12/4/2002**	SeqNo: **60581**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Ethylbenzene	ND	0.50									
m,p-Xylene	0.0903	1.0									J
o-Xylene	ND	0.50									
Toluene	0.1618	0.50									J

Sample ID **LCS_021204**	SampType: **LCS**	TestCode: **BTEX_W**	Units: **µg/L**	Prep Date:	Run ID: **GC-1_021204A**
Client ID: **ZZZZZ**	Batch ID: **R4123**	TestNo: **SW8021B**		Analysis Date: **12/4/2002**	SeqNo: **60580**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.64	0.50	40	0	99.1	88	105	0	0		
Ethylbenzene	38.23	0.50	40	0	95.6	91	107	0	0		
m,p-Xylene	75.88	1.0	80	0.0903	94.7	86	110	0	0		
o-Xylene	37.87	0.50	40	0	94.7	89	105	0	0		
Toluene	39.4	0.50	40	0.1618	98.1	87	105	0	0		

Sample ID **0212001-001AMS**	SampType: **MS**	TestCode: **BTEX_W**	Units: **µg/L**	Prep Date:	Run ID: **GC-1_021204A**
Client ID: **MW #3R**	Batch ID: **R4123**	TestNo: **SW8021B**		Analysis Date: **12/4/2002**	SeqNo: **60582**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	214.4	2.5	200	19.44	97.5	84	106	0	0		
Ethylbenzene	243	2.5	200	48.92	97	84	111	0	0		
m,p-Xylene	962.4	5.0	400	607.6	88.7	80	118	0	0		
o-Xylene	287.5	2.5	200	96.54	95.5	83	108	0	0		
Toluene	248.8	2.5	200	58.79	95	86	105	0	0		

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: 0212001
Project: BP - Cooper GC #1E

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEX_W

Sample ID 0212001-001AMSD	SampType: MSD	TestCode: BTEX_W	Units: µg/L	Prep Date:	Run ID: GC-1_021204A
Client ID: MW #3R	Batch ID: R4123	TestNo: SW8021B		Analysis Date: 12/4/2002	SeqNo: 60583

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	210.5	2.5	200	19.44	95.5	80	106	214.4	1.83	5	
Ethylbenzene	235.5	2.5	200	48.92	93.3	82	108	243	3.14	5	
m,p-Xylene	941	5.0	400	607.6	83.4	80	113	962.4	2.24	5	
o-Xylene	283.1	2.5	200	96.54	93.3	82	105	287.5	1.57	4	
Toluene	244.5	2.5	200	58.79	92.9	83	105	248.8	1.75	5	

Sample ID CCV1_021204	SampType: CCV	TestCode: BTEX_W	Units: µg/L	Prep Date:	Run ID: GC-1_021204A
Client ID: ZZZZZ	Batch ID: R4123	TestNo: SW8021B		Analysis Date: 12/4/2002	SeqNo: 60578

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.93	0.50	20	0	99.6	85	115	0	0		
Ethylbenzene	19.81	0.50	20	0	99.1	85	115	0	0		
m,p-Xylene	39.19	1.0	40	0	98	85	115	0	0		
o-Xylene	19.73	0.50	20	0	98.6	85	115	0	0		
Toluene	19.53	0.50	20	0	97.7	85	115	0	0		

Sample ID CCV2_021204	SampType: CCV	TestCode: BTEX_W	Units: µg/L	Prep Date:	Run ID: GC-1_021204A
Client ID: ZZZZZ	Batch ID: R4123	TestNo: SW8021B		Analysis Date: 12/4/2002	SeqNo: 60579

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.58	0.50	20	0	97.9	85	115	0	0		
Ethylbenzene	19.49	0.50	20	0	97.5	85	115	0	0		
m,p-Xylene	38.67	1.0	40	0	96.7	85	115	0	0		
o-Xylene	19.47	0.50	20	0	97.3	85	115	0	0		
Toluene	19.23	0.50	20	0	96.1	85	115	0	0		

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

iina ba, Ltd.

Date: 05-Dec-02

CLIENT: Blagg Engineering
Work Order: 0212001
Project: BP - Cooper GC #1E
Test No: SW8021B **Matrix:** W

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	14FBZ	4BCBZ	FLBZ
0212001-001A	92.0	103	89.5
0212001-001A	91.8	102	89.4
0212001-001A	92.2	102	89.9
0212001-001AMS	92.0	103	89.5
0212001-001AMSD	91.8	102	89.4
CCV1_021204	91.8	103	90.1
CCV2_021204	92.6	105	90.1
LCS_021204	92.5	99.1	90.2
MB_021204	92.0	102	90.8

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	82-114
4BCBZ	=	4-Bromochlorobenzene	90-125
FLBZ	=	Fluorobenzene	89-112

*** Surrogate recovery outside acceptance limits**

iina ba, Ltd.

Sample Receipt Checklist

Client Name: **BLA1002** Date and Time Received: **12/2/2002**

Work Order Number: **0212001** Received by: JEM

Checklist completed by: J Moore 12/02/02 (Signature / Date) Reviewed by: KR 12/4/02 (Initials / Date)

Matrix: Carrier name: Courier

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Adjusted? _____ Checked by: _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted: _____ Date contacted: _____ Person contacted: _____

Contacted by: _____ Regarding: _____

Comments: on ice

Corrective Action: _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMER. PROD. CO.

CHAIN-OF-CUSTODY # : 12157

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : ON - SITE TECH.

Date : **February 24, 2003**

SAMPLER : N J V

Filename : **02-24-03.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)
MW - 2R	94.29	76.24	18.05	26.00	-	-	-	-	-
MW - 3R	97.03	76.65	20.38	34.03	1355	7.48	600	6.75	-
MW - 5R	94.12	73.46	20.66	31.00	-	-	-	-	-

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 ".

BEI reclamation system not operational @ time of sampling . Bailed # 3R to 30.42 ft. @ time 1232 . DTW approx. 20.40 ft. @ time of sampling . Collected BTEX from MW # 3R only .

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Farmington, NM 87499

Fax: (505) 327-1496

Date: *28-Feb-03*

CLIENT:	Blagg Engineering	**Client Sample Info:**	BP - Cooper GC #1E
Work Order:	0302026	**Client Sample ID:**	MW #3R
Project:	BP - Cooper GC #1E	**Collection Date:**	2/24/2003
Lab ID:	0302026-001A	**Matrix:**	AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: JEM
Benzene	15	0.5		µg/L	1	2/27/2003
Ethylbenzene	45	0.5		µg/L	1	2/27/2003
m,p-Xylene	570	5.0		µg/L	5	2/27/2003
o-Xylene	89	0.5		µg/L	1	2/27/2003
Toluene	13	0.5		µg/L	1	2/27/2003

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted precision limits

E - Value above Upper Quantitation Limit - UQL

1257

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: 2/24/03

Page: 1 of 1

Purchase Order No.:	Project No.		
SEND INVOICE TO: Name: Terry Black		REPORT RESULTS TO: Name: Nelson Velez	Title
Company: Black Eng.	Dept.	Company: Same	
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No. 632-1199	Telefax No. 632-8905

PROJECT LOCATION: BP - Cooper GC #1E

SAMPLER'S SIGNATURE: Nelson Velez

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	SAMPLE PRES.	Number of Containers	BTEX (8021)	LAB ID
							030226-001A
MW 11 SR	2/24/03		WATER	HCl & COOL	2	✓	

Relinquished by: Nelson Velez	Date/Time 2/24/03	Received by: G Moore	Date/Time 3/05/03 8:15
Relinquished by:	Date/Time 0810	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

iina ba, Ltd.

Date: *28-Feb-03*

CLIENT: Blagg Engineering
Work Order: 0302026
Project: BP - Cooper GC #1E

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEX_W

Sample ID **MB_030227**	SampType: **MBLK**	TestCode: **BTEX_W**	Units: **µg/L**	Prep Date: **2/27/2003**	Run ID: **GC-1_030227A**
Client ID: **ZZZZZ**	Batch ID: **R4258**	TestNo: **SW8021B**		Analysis Date: **2/27/2003**	SeqNo: **62131**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Ethylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
o-Xylene	ND	0.50									
Toluene	0.1025	0.50									J

Sample ID **LCS_030227**	SampType: **LCS**	TestCode: **BTEX_W**	Units: **µg/L**	Prep Date: **2/27/2003**	Run ID: **GC-1_030227A**
Client ID: **ZZZZZ**	Batch ID: **R4258**	TestNo: **SW8021B**		Analysis Date: **2/27/2003**	SeqNo: **62130**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.07	0.50	40	0	100	88	110	0	0		
Ethylbenzene	39.86	0.50	40	0	99.6	90	110	0	0		
m,p-Xylene	79.46	1.0	80	0	99.3	86	110	0	0		
o-Xylene	39.02	0.50	40	0	97.5	89	110	0	0		
Toluene	39.26	0.50	40	0.1025	97.9	87	110	0	0		

Sample ID **0302024-001AMS**	SampType: **MS**	TestCode: **BTEX_W**	Units: **µg/L**	Prep Date: **2/27/2003**	Run ID: **GC-1_030227A**
Client ID: **ZZZZZ**	Batch ID: **R4258**	TestNo: **SW8021B**		Analysis Date: **2/27/2003**	SeqNo: **62132**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	197.7	2.5	200	0	98.8	84	106	0	0		
Ethylbenzene	196.6	2.5	200	1.324	97.6	84	111	0	0		
m,p-Xylene	391.5	5.0	400	2.582	97.2	80	118	0	0		
o-Xylene	192.2	2.5	200	1.134	95.5	83	108	0	0		
Toluene	193.7	2.5	200	1.454	96.1	86	105	0	0		

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: 0302026
Project: BP - Cooper GC #1E

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEX_W

Sample ID 0302024-001AMSD	SampType: MSD	TestCode: BTEX_W	Units: µg/L	Prep Date: 2/27/2003	Run ID: GC-1_030227A
Client ID: ZZZZZ	Batch ID: R4258	TestNo: SW8021B		Analysis Date: 2/27/2003	SeqNo: 62133

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	191.8	2.5	200	0	95.9	80	106	197.7	3.05	5	
Ethylbenzene	190.3	2.5	200	1.324	94.5	82	108	196.6	3.23	5	
m,p-Xylene	379.2	5.0	400	2.582	94.2	80	113	391.5	3.20	5	
o-Xylene	187.2	2.5	200	1.134	93	82	105	192.2	2.65	4	
Toluene	188	2.5	200	1.454	93.3	83	105	193.7	2.95	5	

Sample ID CCV1_030227	SampType: CCV	TestCode: BTEX_W	Units: µg/L	Prep Date: 2/27/2003	Run ID: GC-1_030227A
Client ID: ZZZZZ	Batch ID: R4258	TestNo: SW8021B		Analysis Date: 2/27/2003	SeqNo: 62127

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.98	0.50	20	0	99.9	85	115	0	0		
Ethylbenzene	19.81	0.50	20	0	99.1	85	115	0	0		
m,p-Xylene	39.17	1.0	40	0	97.9	85	115	0	0		
o-Xylene	19.37	0.50	20	0	96.8	85	115	0	0		
Toluene	19.44	0.50	20	0	97.2	85	115	0	0		

Sample ID CCV2_030227	SampType: CCV	TestCode: BTEX_W	Units: µg/L	Prep Date: 2/27/2003	Run ID: GC-1_030227A
Client ID: ZZZZZ	Batch ID: R4258	TestNo: SW8021B		Analysis Date: 2/27/2003	SeqNo: 62128

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.41	0.50	20	0	97	85	115	0	0		
Ethylbenzene	19.19	0.50	20	0	96	85	115	0	0		
m,p-Xylene	37.99	1.0	40	0	95	85	115	0	0		
o-Xylene	18.96	0.50	20	0	94.8	85	115	0	0		
Toluene	18.92	0.50	20	0	94.6	85	115	0	0		

Sample ID CCV3_030227	SampType: CCV	TestCode: BTEX_W	Units: µg/L	Prep Date: 2/27/2003	Run ID: GC-1_030227A
Client ID: ZZZZZ	Batch ID: R4258	TestNo: SW8021B		Analysis Date: 2/27/2003	SeqNo: 62129

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.73	0.50	40	0	96.8	85	115	0	0		

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: 0302026
Project: BP - Cooper GC #1E

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEX_W

Sample ID	CCV3_030227	SampType:	CCV	TestCode:	BTEX_W	Units:	µg/L	Prep Date:	2/27/2003	Run ID:	GC-1_030227A
Client ID:	ZZZZZ	Batch ID:	R4258	TestNo:	SW8021B			Analysis Date:	2/27/2003	SeqNo:	62129

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	38.6	0.50	40	0	96.5	85	115	0	0		
m,p-Xylene	77.08	1.0	80	0	96.4	85	115	0	0		
o-Xylene	38.12	0.50	40	0	95.3	85	115	0	0		
Toluene	38.11	0.50	40	0	95.3	85	115	0	0		

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

iina ba, Ltd.

Date: 28-Feb-03

CLIENT: Blagg Engineering
Work Order: 0302026
Project: BP - Cooper GC #1E
Test No: SW8021B **Matrix:** W

QC SUMMARY REPORT
SURROGATE RECOVERIES

Sample ID	14FBZ	4BCBZ	FLBZ
0302024-001AMS	103	111	102
0302024-001AMSD	102	112	102
0302026-001A	103	106	103
CCV1_030227	104	108	101
CCV2_030227	102	110	102
CCV3_030227	104	108	101
LCS_030227	102	109	102
MB_030227	103	108	102

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	70-130
4BCBZ	=	4-Bromochlorobenzene	70-130
FLBZ	=	Fluorobenzene	70-130

* Surrogate recovery outside acceptance limits

iina ba, Ltd.

Sample Receipt Checklist

Client Name: **BLA1002** Date and Time Received: **2/25/2003**

Work Order Number: **0302026** Received by: JEM

Checklist completed by: J. Moore (Signature) 2/25/03 (Date) Reviewed by: JDL (Initials) 2/25/03 (Date)

Matrix: Carrier name: Courier

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	

Adjusted? _____ Checked by: _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted: Date contacted: Person contacted:

Contacted by: Regarding:

Comments:

Corrective Action:

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMER. PROD. CO.

CHAIN-OF-CUSTODY # : N / A

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : HALL ENVIRON.

Date : **May 27, 2003**

SAMPLER : N J V

Filename : **05-27-03.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)
MW - 2R	94.29	-	-	26.00	-	-	-	-	-
MW - 3R	97.03	75.68	21.35	34.03	1500	7.38	600	6.25	-
MW - 5R	94.12	-	-	31.00	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	05/27/03	09:07		

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 ".

BEI reclamation system not operational @ time of sampling. Bailed # 3R to 31.10 ft. @ time 1328. DTW approx. 25.18 ft. @ time of sampling. Collected BTEX from MW # 3R only.

Hall Environmental Analysis Laboratory

Date: *05-Jun-03*

CLIENT: Blagg Engineering
Client Sample ID: MW#3R
Lab Order: 0305217
Collection Date: 5/27/2003 3:00:00 PM
Project: Cooper GC #1E
Lab ID: 0305217-01
Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	6.2	0.50		µg/L	1	6/3/2003 12:41:50 AM
Toluene	8.3	0.50		µg/L	1	6/3/2003 12:41:50 AM
Ethylbenzene	31	0.50		µg/L	1	6/3/2003 12:41:50 AM
Xylenes, Total	440	0.50		µg/L	1	6/3/2003 12:41:50 AM
Surr: 4-Bromofluorobenzene	119	74-120		%REC	1	6/3/2003 12:41:50 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

CHAIN-OF-CUSTODY RECORD

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite A
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: BLAGG ENGR. / BP AMERICA	Project Name: COOPER GC #1E
Address: P.O. BOX 87 BLOOMFIELD, NM 87413	Project #:
	Project Manager: NELSON VELEZ
Phone #: 505-632-1199	Sampler: NELSON VELEZ
Fax #: 505-632-3903	Samples Cold?: 2.3 ☒ Yes ☐ No

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HCl	Preservative	HEAL No.
								0305217
5/27/03	1500	WATER	MW #3R	2-40ml		✓		1

ANALYSIS REQUEST

(BTEX) MTBE + TMBs (8021B)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B MOD (Gas/Diesel)	TPH (Method 418.1)	Volatiles Full List (8021)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Cations (Na, K, Ca, Mg)	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260 (VOA)	8270 (Semi-VOA)			Air Bubbles or Headspace (Y or N)
✓																

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)
5/28/03	~~1715~~ 1720	Nelson Velez	
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)
			1655

Remarks:

Hall Environmental Analysis Laboratory

Date: *05-Jun-03*

CLIENT: Blagg Engineering
Work Order: 0305217
Project: Cooper GC #1E

QC SUMMARY REPORT
Method Blank

Sample ID **Reagent Blank 5m** Batch ID: **R8430** Test Code: **SW8021** Units: **µg/L** Analysis Date **6/2/2003 9:34:55 AM** Prep Date

Client ID: Run ID: **PIDFID_030602A** SeqNo: **190827**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Toluene	ND	0.50									
Ethylbenzene	ND	0.50									
Xylenes, Total	ND	0.50									
Surr: 4-Bromofluorobenzene	21.07	0	20	0	105	74	118	0			

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

Hall Environmental Analysis Laboratory

Date: *05-Jun-03*

CLIENT: Blagg Engineering
Work Order: 0305217
Project: Cooper GC #1E

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **BTEX Std 100ng** Batch ID: **R8430** Test Code: **SW8021** Units: **µg/L** Analysis Date **6/2/2003 8:54:19 PM** Prep Date

Client ID: Run ID: **PIDFID_030602A** SeqNo: **190886**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.02	0.50	20	0	100	81.3	121	0			
Toluene	20.35	0.50	20	0	102	84.9	118	0			
Ethylbenzene	20.23	0.50	20	0	101	53.8	149	0			
Xylenes, Total	61.24	0.50	60	0	102	83.1	122	0			

Sample ID **BTEX Std 100ng** Batch ID: **R8430** Test Code: **SW8021** Units: **µg/L** Analysis Date **6/2/2003 10:32:32 PM** Prep Date

Client ID: Run ID: **PIDFID_030602A** SeqNo: **190887**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.44	0.50	20	0	107	81.3	121	20.02	6.82	27	
Toluene	21.21	0.50	20	0	106	84.9	118	20.35	4.14	19	
Ethylbenzene	21.34	0.50	20	0	107	53.8	149	20.23	5.33	10	
Xylenes, Total	63.89	0.50	60	0	106	83.1	122	61.24	4.22	13	

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name **BLAGG** Date and Time Receive

Work Order Number **0305217** Received by AMG

Checklist completed by A Gonzales 5/30/03
Signature Date

Matrix: Carrier name: Greyhound

Shipping container/cooler in good condition?	Yes	☑	No	☐	Not Present	☐
Custody seals intact on shippping container/cooler?	Yes	☐	No	☐	Not Present	☑
Custody seals intact on sample bottles?	Yes	☐	No	☐	Not Present	☑
Chain of custody present?	Yes	☑	No	☐		
Chain of custody signed when relinquished and received?	Yes	☑	No	☐		
Chain of custody agrees with sample labels?	Yes	☑	No	☐		
Samples in proper container/bottle?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		
All samples received within holding time?	Yes	☑	No	☐		
Water - VOA vials have zero headspace?	No VOA vials submitted	☐	Yes	☑	No	☐
Water - pH acceptable upon receipt?	Yes	☐	No	☐	N/A	☑

Container/Temp Blank temperature? **23°** *4° C ± 2 Acceptable*

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **August 19, 2003**

SAMPLER : N J V

Filename : **08-19-03.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)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 2R	94.29	-	-	26.00	-	-	-	-	-
MW - 3R	97.03	79.43	17.60	34.03	1518	7.31	900	23.5	8.00
MW - 5R	94.12	-	-	31.00	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	08/19/03	1554		

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

Comments or note well diameter if not standard 2 ".

BEI reclamation system not operational @ time of sampling. Bailed # 3R to 30.15 ft. @ time 1330. DTW approx. 20.18 ft. @ time of sampling. Collected BTEX from MW # 3R only.

Hall Environmental Analysis Laboratory

Date: *28-Aug-03*

CLIENT: Blagg Engineering
Client Sample ID: MW #3R
Lab Order: 0308172
Collection Date: 8/19/2003 3:18:00 PM
Project: Cooper GC #1E
Lab ID: 0308172-01
Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	11	0.50		µg/L	1	8/26/2003 1:23:12 AM
Toluene	16	0.50		µg/L	1	8/26/2003 1:23:12 AM
Ethylbenzene	14	0.50		µg/L	1	8/26/2003 1:23:12 AM
Xylenes, Total	160	0.50		µg/L	1	8/26/2003 1:23:12 AM
Surr: 4-Bromofluorobenzene	110	74-118		%REC	1	8/26/2003 1:23:12 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

CHAIN-OF-CUSTODY RECORD

Accreditation Applied:
NELAC ☐ USACE ☐
Other: _____

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: Blagg Engr. / BP America
Project Name: Cooper GC #1E
Address: P.O. Box 87
Bloomfield, NM 87413
Project #:
Project Manager: Nelson Velez
Phone #: (505) 632-1199
Sampler: Nelson Velez
Fax #: (505) 632-3903
Sample Temperature: 8.0

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative H_gCl_2	Preservative HNO_3	HEAL No.
8/19/03	1518	water	MW #3R	2-40ml	✓		0308172-1

ANALYSIS REQUEST

(BTEX + MTBE + TMB's (8021B))	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B MOD (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Cations (Na, K, Ca, Mg)	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260 (VOA)	8270 (Semi-VOA)				Air Bubbles or Headspace (Y or N)
✓																

Date	Time	Relinquished By: (Signature)	Remarks:
8/21/03	0700	Nelson Velez	8/21/03 1725
Date:	Time:	Relinquished By: (Signature)	Remarks:

Remarks:

Hall Environmental Analysis Laboratory

Date: *28-Aug-03*

CLIENT: Blagg Engineering
Work Order: 0308172
Project: Cooper GC #1E

QC SUMMARY REPORT
Method Blank

Sample ID **Reagent Blank 5m** Batch ID: **R9343** Test Code: **SW8021** Units: **µg/L** Analysis Date **8/25/2003 9:16:56 AM** Prep Date

Client ID: Run ID: **PIDFID_030825A** SeqNo: **210719**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Toluene	ND	0.50									
Ethylbenzene	ND	0.50									
Xylenes, Total	ND	0.50									
Surr: 4-Bromofluorobenzene	21.19	0	20	0	106	74	118	0			

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

I

Hall Environmental Analysis Laboratory

Date: *28-Aug-03*

CLIENT: Blagg Engineering
Work Order: 0308172
Project: Cooper GC #1E

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **BTEX Std 100ng** Batch ID: **R9343** Test Code: **SW8021** Units: **µg/L** Analysis Date **8/25/2003 6:45:46 PM** Prep Date

Client ID: Run ID: **PIDFID_030825A** SeqNo: **210771**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.11	0.50	20	0	101	81.3	121	0			
Toluene	19.96	0.50	20	0	99.8	84.9	118	0			
Ethylbenzene	19.3	0.50	20	0	96.5	53.8	149	0			
Xylenes, Total	59.57	0.50	60	0	99.3	83.1	122	0			

Sample ID **BTEX Std 100ng** Batch ID: **R9343** Test Code: **SW8021** Units: **µg/L** Analysis Date **8/26/2003 1:53:40 AM** Prep Date

Client ID: Run ID: **PIDFID_030825A** SeqNo: **210773**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.82	0.50	20	0	104	81.3	121	20.11	3.47	27	
Toluene	20.92	0.50	20	0	105	84.9	118	19.96	4.70	19	
Ethylbenzene	20.17	0.50	20	0	101	53.8	149	19.3	4.38	10	
Xylenes, Total	61.91	0.50	60	0	103	83.1	122	59.57	3.85	13	

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name **BLAGG** Date and Time Receive **8/21/03**

Work Order Number **0308172** Received by AT

Checklist completed by _____ 8/21/03
Signature Date

Matrix: Carrier name: Greyhound

Shipping container/cooler in good condition?	Yes	☑	No ☐	Not Present	☐
Custody seals intact on shippping container/cooler?	Yes	☐	No ☐	Not Present	☑
Custody seals intact on sample bottles?	Yes	☐	No ☐	Not Present	☑
Chain of custody present?	Yes	☑	No ☐		
Chain of custody signed when relinquished and received?	Yes	☑	No ☐		
Chain of custody agrees with sample labels?	Yes	☑	No ☐		
Samples in proper container/bottle?	Yes	☑	No ☐		
Sample containers intact?	Yes	☑	No ☐		
Sufficient sample volume for indicated test?	Yes	☑	No ☐		
All samples received within holding time?	Yes	☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted	☐	Yes ☑	No	☐
Water - pH acceptable upon receipt?	Yes	☐	No ☐	N/A	☑

Container/Temp Blank temperature? **8°** *4° C ± 2 Acceptable*

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **November 11, 2003**

SAMPLER : N J V

Filename : **11-11-03.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)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 2R	94.29	-	-	26.00	-	-	-	-	-
MW - 3R	97.03	80.34	16.69	34.03	1215	7.15	900	16.3	8.50
MW - 5R	94.12	-	-	31.00	-	-	-	-	-

INSTRUMENT CALIBRATIONS =	7.00	2,800
DATE & TIME =	11/11/03	0730

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:

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

Comments or note well diameter if not standard 2 ".

BEI reclamation system not operational @ time of sampling. Bailed # 3R to 28.75 ft. @ time 0856. DTW approx. 17.04 ft. @ time of sampling. Collected BTEX from MW # 3R only.

Hall Environmental Analysis Laboratory

Date: *18-Nov-03*

CLIENT: Blagg Engineering
Client Sample ID: MW#3R
Lab Order: 0311094
Collection Date: 11/11/2003 12:15:00 PM
Project: Cooper GC #1E
Lab ID: 0311094-01
Matrix: AQUEOUS

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	13		µg/L	5	11/15/2003 4:15:24 AM
Benzene	12	2.5		µg/L	5	11/15/2003 4:15:24 AM
Toluene	9.1	2.5		µg/L	5	11/15/2003 4:15:24 AM
Ethylbenzene	13	2.5		µg/L	5	11/15/2003 4:15:24 AM
1,2,4-Trimethylbenzene	46	2.5		µg/L	5	11/15/2003 4:15:24 AM
1,3,5-Trimethylbenzene	19	2.5		µg/L	5	11/15/2003 4:15:24 AM
Xylenes, Total	170	2.5		µg/L	5	11/15/2003 4:15:24 AM
Surr: 4-Bromofluorobenzene	99.2	74-118		%REC	5	11/15/2003 4:15:24 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

CHAIN-OF-CUSTODY RECORD

Accreditation Applied:
NELAC ☐ USACE ☐
Other: _____

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: BLAGG ENER. / BP AMERICA
Address: P.O. BOX 87
BLOOMFIELD, NM 87413
Phone #: (505) 632-1199
Fax #: (505) 632-3903

Project Name: COOPER GC #1E
Project #:
Project Manager: NJV
Sampler: NJV
Sample Temperature: 10°

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative H_gCl_2	Preservative HNO_3	Preservative	HEAL No.
11/11/03	1215	WATER	MW #3R	2-40ml	✓			0311094 1

ANALYSIS REQUEST

(BTEX + ~~MTBE + TMB's~~ (8021B))	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B MOD (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Cations (Na, K, Ca, Mg)	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260 (VOA)	8270 (Semi-VOA)				Air Bubbles or Headspace (Y or N)
✓																

Date:	Time:	Relinquished By: (Signature)	Remarks:
11/12/03	0700		Bloomfield 11/12/03 1703
Date:	Time:	Relinquished By: (Signature)	Remarks:

Remarks:

Hall Environmental Analysis Laboratory

Date: *18-Nov-03*

CLIENT: Blagg Engineering
Work Order: 0311094
Project: Cooper GC #1E

QC SUMMARY REPORT
Method Blank

Sample ID **Reagent Blank 5m** Batch ID: **R10113** Test Code: **SW8021** Units: **µg/L** Analysis Date **11/14/2003 8:31:34 AM** Prep Date
Client ID: Run ID: **PIDFID_031114A** SeqNo: **226805**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Toluene	ND	0.50									
Ethylbenzene	ND	0.50									
Xylenes, Total	ND	0.50									
Surr: 4-Bromofluorobenzene	20.43	0	20	0	102	74	118	0			

Sample ID **Reagent Blank 5m** Batch ID: **R10113** Test Code: **SW8021** Units: **µg/L** Analysis Date **11/14/2003 6:04:51 PM** Prep Date
Client ID: Run ID: **PIDFID_031114A** SeqNo: **226874**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Toluene	ND	0.50									
Ethylbenzene	ND	0.50									
Xylenes, Total	ND	0.50									
Surr: 4-Bromofluorobenzene	20.1	0	20	0	100	74	118	0			

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

Hall Environmental Analysis Laboratory

Date: *18-Nov-03*

CLIENT: Blagg Engineering
Work Order: 0311094
Project: Cooper GC #1E

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **BTEX Std 100ng** Batch ID: **R10113** Test Code: **SW8021** Units: **µg/L** Analysis Date **11/14/2003 9:32:43 AM** Prep Date

Client ID: Run ID: **PIDFID_031114A** SeqNo: **226872**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.84	0.50	20	0	109	81.3	121	0			
Toluene	21.87	0.50	20	0	109	84.9	118	0			
Ethylbenzene	21.58	0.50	20	0	108	53.8	149	0			
Xylenes, Total	64.07	0.50	60	0	107	83.1	122	0			

Sample ID **BTEX Std 100ng** Batch ID: **R10113** Test Code: **SW8021** Units: **µg/L** Analysis Date **11/14/2003 8:07:05 PM** Prep Date

Client ID: Run ID: **PIDFID_031114A** SeqNo: **226873**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.2	0.50	20	0	106	81.3	121	21.84	2.98	27	
Toluene	20.17	0.50	20	0	101	84.9	118	21.87	8.09	19	
Ethylbenzene	19.71	0.50	20	0	98.6	53.8	149	21.58	9.04	10	
Xylenes, Total	59.71	0.50	60	0	99.5	83.1	122	64.07	7.04	13	

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name BLAGG

Date and Time Received:

Work Order Number 0311094

Received by AMG

Checklist completed by A Gonzales 11/12/03
Signature Date

Matrix

Carrier name Greyhound

Shipping container/cooler in good condition?	Yes	☑	No	☐	Not Present	☐	
Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	Not Present	☑	Not Shipped ☐
Custody seals intact on sample bottles?	Yes	☐	No	☐	N/A	☑	
Chain of custody present?	Yes	☑	No	☐			
Chain of custody signed when relinquished and received?	Yes	☑	No	☐			
Chain of custody agrees with sample labels?	Yes	☑	No	☐			
Samples in proper container/bottle?	Yes	☑	No	☐			
Sample containers intact?	Yes	☑	No	☐			
Sufficient sample volume for indicated test?	Yes	☑	No	☐			
All samples received within holding time?	Yes	☑	No	☐			
Water - VOA vials have zero headspace?	No VOA vials submitted	☐	Yes	☑	No	☐	
Water - pH acceptable upon receipt?	Yes	☐	No	☐	N/A	☑	

Container/Temp Blank temperature? **1°** *4° C ± 2 Acceptable*
If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **March 18, 2004**

SAMPLER : N J V

Filename : **03-18-04.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)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 2R	94.29	-	-	26.00	-	-	-	-	-
MW - 3R	97.03	75.06	21.97	34.03	0945	7.14	1,000	15.8	6.00
MW - 5R	94.12	-	-	31.00	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	03/18/04	0940		

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

Comments or note well diameter if not standard 2 ".

BEI reclamation system not operational @ time of sampling. Bailed # 3R to 30.15 ft. @ time 0709. DTW approx. 24.45 ft. @ time of sampling. Collected BTEX from MW # 3R only.

Hall Environmental Analysis Laboratory

Date: *22-Mar-04*

CLIENT: Blagg Engineering
Client Sample ID: MW #3R
Lab Order: 0403164
Collection Date: 3/18/2004
Project: Cooper GC #1E
Lab ID: 0403164-01
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	9.6	0.50		µg/L	1	3/19/2004 6:40:55 PM
Toluene	1.9	0.50		µg/L	1	3/19/2004 6:40:55 PM
Ethylbenzene	13	0.50		µg/L	1	3/19/2004 6:40:55 PM
Xylenes, Total	120	0.50		µg/L	1	3/19/2004 6:40:55 PM
Surr: 4-Bromofluorobenzene	99.3	74-118		%REC	1	3/19/2004 6:40:55 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

CHAIN-OF-CUSTODY RECORD

Accreditation Applied:
NELAC ☐ USACE ☐
Other:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: BLAGG / BP AMERICA

Project Name: COOPER EC #1E

Address: P.O. BOX 87
BLOOMFIELD, NM 87413

Project #:

Project Manager: NJV

Phone #: 505-632-1199

Sampler: NJV

Fax #: 505-632-3703

Sample Temperature: 5°

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	HEAL No.
3/18/04		WATER	MW #3R	2-40ml	✓		040364-1

ANALYSIS REQUEST

BTEX ~~+ MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles or Headspace (Y or N)
✓																

Date	Time	Relinquished By: (Signature)	Received By: (Signature)
3/18/04	1005		3/18/04 1709
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks:

Hall Environmental Analysis Laboratory

Date: *22-Mar-04*

CLIENT: Blagg Engineering
Work Order: 0403164
Project: Cooper GC #1E

QC SUMMARY REPORT
Method Blank

Sample ID **Reagent Blank 5m** Batch ID: **R11353** Test Code: **SW8021** Units: **µg/L** Analysis Date **3/19/2004 9:33:13 AM** Prep Date

Client ID: Run ID: **PIDFID_040319A** SeqNo: **260327**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.50									
Toluene	ND	0.50									
Ethylbenzene	ND	0.50									
Xylenes, Total	ND	0.50									
Surr: 4-Bromofluorobenzene	18.78	0	20	0	93.9	74	118	0			

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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

1

CLIENT: Blagg Engineering
Work Order: 0403164
Project: Cooper GC #1E

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **BTEX STD 100ng** Batch ID: **R11353** Test Code: **SW8021** Units: **µg/L** Analysis Date **3/19/2004 10:33:30 AM** Prep Date

Client ID: Run ID: **PIDFID_040319A** SeqNo: **260366**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.96	0.50	20	0	110	81.3	121	0			
Toluene	20.57	0.50	20	0	103	84.9	118	0			
Ethylbenzene	20.68	0.50	20	0	103	53.8	149	0			
Xylenes, Total	61.02	0.50	60	0	102	83.1	122	0			

Sample ID **BTEX STD 100ng** Batch ID: **R11353** Test Code: **SW8021** Units: **µg/L** Analysis Date **3/19/2004 7:11:14 PM** Prep Date

Client ID: Run ID: **PIDFID_040319A** SeqNo: **260367**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.82	0.50	20	0	104	81.3	121	21.96	5.34	27	
Toluene	20.85	0.50	20	0	104	84.9	118	20.57	1.32	19	
Ethylbenzene	20.92	0.50	20	0	105	53.8	149	20.68	1.18	10	
Xylenes, Total	64.66	0.50	60	0	108	83.1	122	61.02	5.80	13	

3 / 4

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name BLAGG | Date and Time Received: 3/18/2004

Work Order Number 0403164 | Received by AT

Checklist completed by _____ (Signature) 3/18/04 (Date)

Matrix | Carrier name Greyhound

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐	Not Shipped ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	

Container/Temp Blank temperature? **5°** *4° C ± 2 Acceptable* If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **May 27, 2004**

SAMPLER : N J V

Filename : **05-27-04.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)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 2R	94.29	-	-	26.00	-	-	-	-	-
MW - 3R	97.03	78.57	18.46	34.03	1540	7.18	1,000	18.2	7.75
MW - 5R	94.12	-	-	31.00	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	05/27/04	1245		

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

Comments or note well diameter if not standard 2 ".

BEI reclamation system not operational @ time of sampling. Bailed # 3R to 31.55 ft. @ time 1200. DTW approx. 19.58 ft. @ time of sampling. Collected BTEX from MW # 3R only.

Hall Environmental Analysis Laboratory

Date: *07-Jun-04*

CLIENT: Blagg Engineering
Lab Order: 0405253
Project: Cooper GC #1E
Lab ID: 0405253-01

Client Sample ID: MW-3R
Collection Date: 5/27/2004 3:40:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	4.4	0.50		µg/L	1	6/4/2004 11:51:41 AM
Toluene	1.9	0.50		µg/L	1	6/4/2004 11:51:41 AM
Ethylbenzene	3.3	0.50		µg/L	1	6/4/2004 11:51:41 AM
Xylenes, Total	33	0.50		µg/L	1	6/4/2004 11:51:41 AM
Surr: 4-Bromofluorobenzene	99.2	74-118		%REC	1	6/4/2004 11:51:41 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

CHAIN-OF-CUSTODY RECORD

Accreditation Applied:
NELAC ☐ USACE ☐
Other:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: BLAGG ENGR. / BP AMERICA

Project Name: COOPER GC #1E

Address: P.O. BOX 87
BLOOMFIELD, NM 87413

Project #:

Project Manager: NJV

Phone #: 505-632-1199

Sampler: NJV

Fax #: 505-632-3903

Sample Temperature: 3.0

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	HEAL No.
5/27/04	1540	WATER	MW #3R	2 - 40 ml	✓		040523 1

BTEX + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles or Headspace (Y or N)
✓																

Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)
5/28/04	0700	Melissa Vaj	[signature] 05/28/04 1502
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks:

CLIENT: Blagg Engineering
Work Order: 0405253
Project: Cooper GC #1E

QC SUMMARY REPORT

Method Blank

Sample ID **Reagent Blank 5m** Batch ID: **R12078** Test Code: **SW8021** Units: **µg/L** Analysis Date **6/4/2004 10:07:58 AM** Prep Date

Client ID: Run ID: **PIDFID_040604A** SeqNo: **277970**

Analyte	Result	MQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND										
Toluene	ND										
Ethylbenzene	ND										
Xylenes, Total	ND										
Surr: 4-Bromofluorobenzene	19.89		20	0	99.4	74	118	0			

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

J

Hall Environmental Analysis Laboratory

Date: *07-Jun-04*

CLIENT: Blagg Engineering
Work Order: 0405253
Project: Cooper GC #1E

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID **BTEX std 100ng** Batch ID: **R12078** Test Code: **SW8021** Units: **µg/L** Analysis Date **6/5/2004 3:44:45 AM** Prep Date

Client ID: Run ID: **PIDFID_040604A** SeqNo: **278029**

Analyte	Result	MQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.9		20	0	99.5	81.3	121	0			
Toluene	20.1		20	0	101	84.9	118	0			
Ethylbenzene	20.17		20	0	101	53.8	149	0			
Xylenes, Total	61.75		60	0	103	83.1	122	0			

3 / 4

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

1

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name BLAGG

Date and Time Received:

Work Order Number 0405253

Received by AMG

Checklist completed by Signature 05/28/04 Date

Matrix

Carrier name Greyhound

Shipping container/cooler in good condition?		Yes ☑		No ☐		Not Present ☐	
Custody seals intact on shipping container/cooler?		Yes ☐		No ☐		Not Present ☑	Not Shipped ☐
Custody seals intact on sample bottles?		Yes ☐		No ☐		N/A ☑	
Chain of custody present?		Yes ☑		No ☐			
Chain of custody signed when relinquished and received?		Yes ☑		No ☐			
Chain of custody agrees with sample labels?		Yes ☑		No ☐			
Samples in proper container/bottle?		Yes ☑		No ☐			
Sample containers intact?		Yes ☑		No ☐			
Sufficient sample volume for indicated test?		Yes ☑		No ☐			
All samples received within holding time?		Yes ☑		No ☐			
Water - VOA vials have zero headspace?	No VOA vials submitted ☐			Yes ☑		No ☐	
Water - pH acceptable upon receipt?		Yes ☐		No ☐		N/A ☑	

Container/Temp Blank temperature? **3°** *4° C ± 2 Acceptable*
If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **September 30, 2004**

SAMPLER : N J V

Filename : **09-30-04.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)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 2R	94.29	82.99	11.30	26.00	-	-	-	-	-
MW - 3R	97.03	81.23	15.80	34.03	0835	7.17	800	14.1	9.00
MW - 5R	94.12	79.51	14.61	31.00	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	09/27/04	0720		

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:

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

Comments or note well diameter if not standard 2 ".

BEI reclamation system not operational @ time of sampling. Bailed # 3R to approx. 31.00 ft. @ time 1233 on 9 / 29 / 04. DTW approx. 15.91 ft. @ time 0833 on 9 / 30 / 04. Collected BTEX from MW # 3R only.

Hall Environmental Analysis Laboratory

Date: *07-Oct-04*

CLIENT: Blagg Engineering
Client Sample ID: MW#3R
Lab Order: 0409323
Collection Date: 9/30/2004 8:35:00 AM
Project: Cooper GC #1E
Lab ID: 0409323-01
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	14	0.50		µg/L	1	10/6/2004 3:19:28 AM
Toluene	1.8	0.50		µg/L	1	10/6/2004 3:19:28 AM
Ethylbenzene	15	0.50		µg/L	1	10/6/2004 3:19:28 AM
Xylenes, Total	280	0.50		µg/L	1	10/6/2004 3:19:28 AM
Surr: 4-Bromofluorobenzene	109	74-118		%REC	1	10/6/2004 3:19:28 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

CHAIN-OF-CUSTODY RECORD

Accreditation Applied:
NELAC ☐ USACE ☐
Other: _____

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: BLAGG ENER./BP AMERICA

Project Name: COOPER GC #1E

Address: P.O. BOX 87
BLFD., NM 87413

Project #:

Project Manager: NJV

Phone #: 505-632-1199

Sampler: NJV

Fax #: 505-632-3903

Sample Temperature: 1°

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No.
9/30/04	0835	WATER	MW #3R	2-40 ml	✓			0409323 1

ANALYSIS REQUEST

(BTEX) + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles or Headspace (Y or N)
✓																

Date	Time	Relinquished By: (Signature)	Received By: (Signature)	
9/30/04	0900			9/30/04
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	1800

Remarks:

Hall Environmental Analysis Laboratory

Date: *07-Oct-04*

CLIENT: Blagg Engineering
Work Order: 0409323
Project: Cooper GC #1E

QC SUMMARY REPORT
Method Blank

Sample ID **Reagent Blank 5m** Batch ID: **R13362** Test Code: **SW8021** Units: **µg/L** Analysis Date **10/5/2004 9:24:17 AM** Prep Date

Client ID: Run ID: **PIDFID_041005A** SeqNo: **310677**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	19.95	0	20	0	99.8	74	118	0			

2 / 4

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

I

Hall Environmental Analysis Laboratory

Date: *07-Oct-04*

CLIENT: Blagg Engineering
Work Order: 0409323
Project: Cooper GC #1E

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **BTEX std 100ng** Batch ID: **R13362** Test Code: **SW8021** Units: **µg/L** Analysis Date **10/6/2004 4:18:58 AM** Prep Date

Client ID: Run ID: **PIDFID_041005A** SeqNo: **310763**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.5	0.5	20	0	97.5	81.3	121	0			
Toluene	19.79	0.5	20	0	99.0	84.9	118	0			
Ethylbenzene	19.5	0.5	20	0	97.5	53.8	149	0			
Xylenes, Total	58.49	0.5	60	0	97.5	83.1	122	0			

3 / 4

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

I

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name BLAGG | Date and Time Received:

Work Order Number 0409323 | Received by AT

Checklist completed by Signature A Gonzales Date 09/30/04

Matrix | Carrier name Greyhound

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	1°	*4° C ± 2 Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **December 30, 2004**

SAMPLER : N J V

Filename : **12-30-04.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)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 2R	94.29	-	-	26.00	-	-	-	-	-
MW - 3R	97.03	77.73	19.30	34.03	1545	7.15	900	16.5	7.25
MW - 5R	94.12	-	-	31.00	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	12/30/04	1430		

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:

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

Comments or note well diameter if not standard 2 ".

BEI reclamation system not operational @ time of sampling. Bailed # 3R to approx.
31.40 ft. @ time 1410. DTW approx. 22.92 ft. @ time of sampling.
Collected BTEX from MW # 3R only.

Hall Environmental Analysis Laboratory

Date: *06-Jan-05*

CLIENT: Blagg Engineering
Lab Order: 0501003
Project: Cooper GC #1E
Lab ID: 0501003-01

Client Sample ID: MW #3R
Collection Date: 12/30/2004 3:45:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	19	0.50		µg/L	1	1/4/2005 11:43:29 AM
Toluene	2.2	0.50		µg/L	1	1/4/2005 11:43:29 AM
Ethylbenzene	31	0.50		µg/L	1	1/4/2005 11:43:29 AM
Xylenes, Total	450	5.0		µg/L	10	1/5/2005 2:25:55 PM
Surr: 4-Bromofluorobenzene	101	83.3-121		%REC	10	1/5/2005 2:25:55 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

CHAIN-OF-CUSTODY RECORD

Accreditation Applied:
NELAC ☐ USACE ☐
Other:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: BLAGG ENER. / BP AMERICA

Project Name: COOPER GC #1E

Address: P.O. BOX 87
BLFD. NM 87413

Project #:

Project Manager: NJV

Phone #: 505-632-1199

Sampler: NJV

Fax #: 505-632-3903

Sample Temperature: 2 °C

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No.
12/30/04	1545	WATER	MW #3R	1-40ml	✓			0501003-1

ANALYSIS REQUEST

(BTEX) + ~~MTBE + TMB's~~ (8021B)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles or Headspace (Y or N)
✓																

Date	Time	Relinquished By: (Signature)	Received By: (Signature)
12/30/04	1555	Nelson Velez	1/3/05 0940
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks:

Hall Environmental Analysis Laboratory

Date: *06-Jan-05*

CLIENT: Blagg Engineering
Work Order: 0501003
Project: Cooper GC #1E

QC SUMMARY REPORT
Method Blank

Sample ID **Reagent Blank 5m** Batch ID: **R14206** Test Code: **SW8021** Units: **µg/L** Analysis Date **1/4/2005 8:43:42 AM** Prep Date
Client ID: Run ID: **PIDFID_050104A** SeqNo: **330470**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	19.97	0	20	0	99.9	83.3	121	0			

Sample ID **Reagent Blank 5m** Batch ID: **R14214** Test Code: **SW8021** Units: **µg/L** Analysis Date **1/5/2005 8:53:08 AM** Prep Date
Client ID: Run ID: **PIDFID_050105A** SeqNo: **330765**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	19.27	0	20	0	96.3	83.3	121	0			

2 / 4

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

1

CLIENT: Blagg Engineering
Work Order: 0501003
Project: Cooper GC #1E

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **BTEX std 100ng** Batch ID: **R14206** Test Code: **SW8021** Units: **µg/L** Analysis Date **1/4/2005 7:42:37 PM** Prep Date

Client ID: Run ID: **PIDFID_050104A** SeqNo: **330511**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.16	0.5	20	0	101	88.7	114	0			
Toluene	19.44	0.5	20	0	97.2	89.3	112	0			
Ethylbenzene	20.19	0.5	20	0	101	88.6	113	0			
Xylenes, Total	59.17	0.5	60	0	98.6	89.4	112	0			

Sample ID **BTEX std 75ng** Batch ID: **R14214** Test Code: **SW8021** Units: **µg/L** Analysis Date **1/5/2005 9:52:33 AM** Prep Date

Client ID: Run ID: **PIDFID_050105A** SeqNo: **330774**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	15.03	0.5	15	0	100	88.7	114	0			
Toluene	14.57	0.5	15	0	97.2	89.3	112	0			
Ethylbenzene	14.78	0.5	15	0	98.5	88.6	113	0			
Xylenes, Total	44.49	0.5	45	0	98.9	89.4	112	0			

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

1

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name BLAGG | Date and Time Received: 1/3/2005

Work Order Number 0501003 | Received by AT

Checklist completed by _____ 1/3/05
Signature | Date

Matrix | Carrier name Greyhound

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐		
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑	Not Shipped ☐	
Custody seals intact on sample bottles?	Yes ☐	No ☑	N/A ☐		
Chain of custody present?	Yes ☑	No ☐			
Chain of custody signed when relinquished and received?	Yes ☑	No ☐			
Chain of custody agrees with sample labels?	Yes ☑	No ☐			
Samples in proper container/bottle?	Yes ☑	No ☐			
Sample containers intact?	Yes ☑	No ☐			
Sufficient sample volume for indicated test?	Yes ☑	No ☐			
All samples received within holding time?	Yes ☑	No ☐			
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐		
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑		
Container/Temp Blank temperature?	2°	*4° C ± 2 Acceptable* If given sufficient time to cool.			

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **March 28, 2005**

SAMPLER : N J V

Filename : **03-28-05.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)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 2R	94.29	74.65	19.64	26.00	-	-	-	-	-
MW - 3R	97.03	74.50	22.53	34.03	1824	7.00	800	17.4	5.75
MW - 5R	94.12	71.61	22.51	31.00	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	03/28/05	1255		

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

Comments or note well diameter if not standard 2 ".

BEI reclamation system not operational @ time of sampling. Bailed # 3R to approx. 30.45 ft. @ time 1425. DTW approx. 24.50 ft. @ time 1823. Collected BTEX from MW # 3R only.

Hall Environmental Analysis Laboratory

Date: *01-Apr-05*

CLIENT: Blagg Engineering
Lab Order: 0503264
Project: Cooper GC #1E
Lab ID: 0503264-01

Client Sample ID: MW #3R
Collection Date: 3/28/2005 6:24:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	8.9	0.50		µg/L	1	3/31/2005 11:57:10 PM
Toluene	1.4	0.50		µg/L	1	3/31/2005 11:57:10 PM
Ethylbenzene	17	0.50		µg/L	1	3/31/2005 11:57:10 PM
Xylenes, Total	190	0.50		µg/L	1	3/31/2005 11:57:10 PM
Surr: 4-Bromofluorobenzene	114	83.3-121		%REC	1	3/31/2005 11:57:10 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

CHAIN-OF-CUSTODY RECORD

Accreditation Applied:
NELAC ☐ USACE ☐
Other:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: ~~BURLESON ENER.~~ / BP AMERICA

Project Name: COOPER GC #1E

Address: P.O. BOX 87
BLFD., NM 87413

Project #:

Project Manager: NJV

Phone #: 505-632-1199

Sampler: NJV

Fax #: 505-632-3903

Sample Temperature: 5°C

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No.	(BTEX + ~~MTBE + TMB's~~ (8021B))	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO_3, NO_2, PO_4, SO_4)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles or Headspace (Y or N)
3/28/05	1824	WATER	MW #3R	2-40ml	✓			0503164-1	✓															

Date: 3/29/05 Time: 0915 Relinquished By: (Signature) Received By: (Signature) 3/29/05 1715

Date: Time: Relinquished By: (Signature) Received By: (Signature)

Remarks:

CLIENT: Blagg Engineering
Work Order: 0503264
Project: Cooper GC #1E

QC SUMMARY REPORT

Method Blank

Sample ID **Reagent Blank 5m** Batch ID: **R14975** Test Code: **SW8021** Units: **µg/L** Analysis Date **3/31/2005 8:26:57 AM** Prep Date

Client ID: Run ID: **PIDFID_050331A** SeqNo: **348320**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	20.23	0	20	0	101	83.3	121	0			

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

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CLIENT: Blagg Engineering
Work Order: 0503264
Project: Cooper GC #1E

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **BTEX lcs 100ng** Batch ID: **R14975** Test Code: **SW8021** Units: **µg/L** Analysis Date **4/1/2005 12:26:55 AM** Prep Date

Client ID: Run ID: **PIDFID_050331A** SeqNo: **348406**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.15	0.5	20	0	101	88.7	114	0			
Toluene	20.5	0.5	20	0	102	89.3	112	0			
Ethylbenzene	21.27	0.5	20	0	106	88.6	113	0			
Xylenes, Total	59.94	0.5	60	0	99.9	89.4	112	0			

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name BLAGG | Date and Time Received: 3/29/2005

Work Order Number 0503264 | Received by AT

Checklist completed by _____ 3/29/05
Signature | Date

Matrix | Carrier name Greyhound

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☑	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	

Container/Temp Blank temperature? **5°** *4° C ± 2 Acceptable* If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **June 23, 2005**

SAMPLER : N J V

Filename : **06-23-05.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)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 2R	94.29	94.29	-	26.00	-	-	-	-	-
MW - 3R	97.03	75.86	21.17	34.03	1545	6.99	700	20.2	6.25
MW - 5R	94.12	94.12	-	31.00	-	-	-	-	-
INSTRUMENT CALIBRATIONS =						7.00	2,800		
DATE & TIME =						06/23/04	0630		

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

Comments or note well diameter if not standard 2 ".

BEI reclamation system not operational @ time of sampling. Bailed # 3R to approx.
30.40 ft. @ time 1158. DTW approx. 22.94 ft. @ time 1545.
Collected BTEX from MW # 3R only.

Hall Environmental Analysis Laboratory

Date: *29-Jun-05*

CLIENT:	Blagg Engineering	**Client Sample ID:**	MW #3R
Lab Order:	0506236	**Collection Date:**	6/23/2005 3:45:00 PM
Project:	Cooper GC #1E		
Lab ID:	0506236-01	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **KTM**
Benzene	5.4	0.50		µg/L	1	6/29/2005 2:58:29 AM
Toluene	ND	0.50		µg/L	1	6/29/2005 2:58:29 AM
Ethylbenzene	5.3	0.50		µg/L	1	6/29/2005 2:58:29 AM
Xylenes, Total	66	0.50		µg/L	1	6/29/2005 2:58:29 AM
Surr: 4-Bromofluorobenzene	104	83.3-121		%REC	1	6/29/2005 2:58:29 AM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CHAIN-OF-CUSTODY RECORD

Accreditation Applied:
NELAC ☐ USACE ☐
Other: _____

HALL ENVIRONMENTAL ANALYSIS LABORATORY
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Albuquerque, New Mexico 87109
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www.hallenvironmental.com

Client: BLAGG ENER. / BP AMERICA

Project Name: COOPER GC #1E

Address: P.O. BOX 87
BLFD., NM 87413

Project #: NV

Project Manager: NV

Phone #: 632-1199

Sampler: NV

Fax #: 632-3903

Sample Temperature: 2.0

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No.	(BTEX + ~~MTBE + TMB's~~ (8021B))	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles or Headspace (Y or N)
6/23/05	1345	WATER	MW #3R	2-40ml	✓			0506236 -1	✓															

Date	Time	Relinquished By: (Signature)	Received By: (Signature)
6/24/05	0835		6/24/05 1641
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks:

CLIENT: Blagg Engineering
Work Order: 0506236
Project: Cooper GC #1E

QC SUMMARY REPORT
Method Blank

Sample ID **Reagent Blank 5m** Batch ID: **R15814** Test Code: **SW8021** Units: **µg/L** Analysis Date **6/27/2005 10:15:08 AM** Prep Date
Client ID: Run ID: **PIDFID_050627A** SeqNo: **374760**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	20.22	0	20	0	101	83.3	121	0			

Sample ID **Reagent Blank 5m** Batch ID: **R15826** Test Code: **SW8021** Units: **µg/L** Analysis Date **6/28/2005 10:11:52 AM** Prep Date
Client ID: Run ID: **PIDFID_050628A** SeqNo: **375119**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	18.15	0	20	0	90.7	83.3	121	0			

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

Hall Environmental Analysis Laboratory

Date: *29-Jun-05*

CLIENT: Blagg Engineering
Work Order: 0506236
Project: Cooper GC #1E

QC SUMMARY REPORT
Laboratory Control Spike - generic

Sample ID **BTEX LCS 2.5ug** Batch ID: **R15814** Test Code: **SW8021** Units: **µg/L** Analysis Date **6/27/2005 1:55:44 PM** Prep Date

Client ID: Run ID: **PIDFID_050627A** SeqNo: **374788**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.24	0.5	20	0	101	88.7	114	0			
Toluene	20.39	0.5	20	0	102	89.3	112	0			
Ethylbenzene	20.51	0.5	20	0	103	88.6	113	0			
Xylenes, Total	61.44	0.5	60	0	102	89.4	112	0			

Sample ID **BTEX LCS 100ng** Batch ID: **R15826** Test Code: **SW8021** Units: **µg/L** Analysis Date **6/29/2005 5:01:22 AM** Prep Date

Client ID: Run ID: **PIDFID_050628A** SeqNo: **375362**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.38	0.5	20	0	96.9	88.7	114	0			
Toluene	19.71	0.5	20	0	98.5	89.3	112	0			
Ethylbenzene	19.73	0.5	20	0	98.7	88.6	113	0			
Xylenes, Total	59.38	0.5	60	0	99.0	89.4	112	0			

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

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Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name **BLAGG** Date and Time Received:

Work Order Number **0506236** Received by AMG

Checklist completed by A Gonzales 6/24/05
Signature Date

Matrix: Carrier name: Greyhound

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	

Container/Temp Blank temperature? **2°** *4° C ± 2 Acceptable*
If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

COOPER GC # 1E - SEPARATOR PIT
UNIT J, SEC. 15, T29N, R11W

LABORATORY (S) USED : HALL ENVIRONMENTAL

Date : **September 20, 2005**

SAMPLER : N J V

Filename : **09-20-05.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)	TEMP. (celcius)	VOLUME PURGED (gal.)
MW - 2R	94.29	94.29	-	26.00	-	-	-	-	-
MW - 3R	97.03	79.33	17.70	34.03	1610	6.95	700	24.0	8.00
MW - 5R	94.12	94.12	-	31.00	-	-	-	-	-
					INSTRUMENT CALIBRATIONS =	7.00	2,800		
					DATE & TIME =	09/20/05	0845		

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:

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

Comments or note well diameter if not standard 2 ".

BEI reclamation system not operational @ time of sampling . Bailed # 3R to approx.
30.40 ft. @ time 1403 . DTW approx. 20.50 ft. @ time 1607 .
Collected BTEX from MW # 3R only .

Hall Environmental Analysis Laboratory

Date: *28-Sep-05*

CLIENT: Blagg Engineering
Lab Order: 0509222
Project: Cooper GC #1E
Lab ID: 0509222-01

Client Sample ID: MW#3R
Collection Date: 9/20/2005 4:10:00 PM
Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Methyl tert-butyl ether (MTBE)	ND	2.5		µg/L	1	9/23/2005 4:57:19 PM
Benzene	5.1	0.50		µg/L	1	9/23/2005 4:57:19 PM
Toluene	0.75	0.50		µg/L	1	9/23/2005 4:57:19 PM
Ethylbenzene	2.3	0.50		µg/L	1	9/23/2005 4:57:19 PM
1,2,4-Trimethylbenzene	15	0.50		µg/L	1	9/23/2005 4:57:19 PM
1,3,5-Trimethylbenzene	5.4	0.50		µg/L	1	9/23/2005 4:57:19 PM
Xylenes, Total	30	0.50		µg/L	1	9/23/2005 4:57:19 PM
Surr: 4-Bromofluorobenzene	104	82.2-119		%REC	1	9/23/2005 4:57:19 PM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

CHAIN-OF-CUSTODY RECORD

Accreditation Applied:
NELAC ☐ USACE ☐
Other: _____

HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

Client: BLAGG ENGR. / BP AMERICA

Project Name: COOPER GC #1E

Address: P.O. BOX 87
BLFD., NM 87413

Project #: NV

Project Manager: NV

Phone #: 505-632-1199

Sampler: NV

Fax #:

Sample Temperature: 3°

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative $HgCl_2$	Preservative HNO_3	Preservative	HEAL No.
9/20/05	1610	WATER	MW #3R	2-40ml	✓			0509222 -1

ANALYSIS REQUEST

BTEX + MTBE + TMB's (8021B)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)					Air Bubbles or Headspace (Y or N)
✓																

Date	Time	Relinquished By: (Signature)	Received By: (Signature)	
9/21/05	1000			9/21/05 @ 1700
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	

Remarks:

Hall Environmental Analysis Laboratory

Date: *28-Sep-05*

CLIENT: Blagg Engineering
Work Order: 0509222
Project: Cooper GC #1E

QC SUMMARY REPORT
Method Blank

Sample ID **Reagent Blank 5m** Batch ID: **R16759** Test Code: **SW8021** Units: **µg/L** Analysis Date **9/23/2005 9:37:19 AM** Prep Date

Client ID: Run ID: **PIDFID_050923A** SeqNo: **403397**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	2.5									
Benzene	ND	0.5									
Toluene	ND	0.5									
Ethylbenzene	ND	0.5									
1,2,4-Trimethylbenzene	ND	0.5									
1,3,5-Trimethylbenzene	ND	0.5									
Xylenes, Total	ND	0.5									
Surr: 4-Bromofluorobenzene	18.66	0	20	0	93.3	82.2	119	0			

2 / 4

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

1

Hall Environmental Analysis Laboratory

Date: *28-Sep-05*

CLIENT: Blagg Engineering
Work Order: 0509222
Project: Cooper GC #1E

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID **BTEX lcs 100ng** Batch ID: **R16759** Test Code: **SW8021** Units: **µg/L** Analysis Date **9/23/2005 10:09:01 PM** Prep Date

Client ID: Run ID: **PIDFID_050923A** SeqNo: **403402**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	23.97	2.5	20	0	120	64.5	133	0			
Benzene	18.83	0.5	20	0	94.1	88.5	114	0			
Toluene	19.17	0.5	20	0	95.9	87.2	114	0			
Ethylbenzene	19.35	0.5	20	0	96.7	88.6	113	0			
1,2,4-Trimethylbenzene	19.13	0.5	20	0	95.7	83.8	114	0			
1,3,5-Trimethylbenzene	18.83	0.5	20	0	94.1	82.8	114	0			
Xylenes, Total	39.79	0.5	40	0	99.5	83.3	114	0			

3 / 4

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

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name BLAGG | Date and Time Received: 9/21/2005

Work Order Number 0509223 | Received by GLS

Checklist completed by  9/21/05
Signature | Date

Matrix | Carrier name Greyhound

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☑	No ☐	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	
Container/Temp Blank temperature?	3°	*4° C ± 2 Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____