3R-026

Ground Water Remediation Report

DATE: Sept 2008



BP AMERICA PRODUCTION CO.

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GROUNDWATER REMEDIATION REPORT

JACQUES COM A #1 (M) SECTION 25, T30N, R9W, NMPM SAN JUAN COUNTY, NEW MEXICO

PREPARED FOR: NEW MEXICO OIL CONSERVATION DIVISION 1220 ST. FRANCIS DRIVE SANTA FE, NEW MEXICO 87504

SEPTEMBER 2008

PREPARED BY: BLAGG ENGINEERING, INC.

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

BP AMERICA PRODUCTION COMPANY Jacques Com A #1 SW/4 SW/4, Sec. 25, T30N, R9W

Well Site Plugged & Abandoned:	March 1993
Pit Closure Date:	March 2000 (abandoned pit II)
Monitor Well Installation Date:	November 2007
Monitor Well Sampling Dates:	11/29/07, 04/04/08, 06/23/08, 08/25/08

Site History:

Groundwater was encountered at a depth of approximately 12 feet below surface grade during excavation of impacted soils from an abandoned pit in March 2000 (documentation attached). The excavation perimeter was measured at approximately 48 X 37 X 15 feet depth. Approximately 950 cubic yards of soils were removed and transported BP America Production Company (**BP**) Crouch Mesa facility. The groundwater within the excavation perimeter was pumped via water hauling trucks and disposed at an approved facility. Afterwards, the exposed groundwater was sampled and tested for benzene, toluene, ethylbenzene, and total xylenes (**BTEX**) per US EPA method 8020. The discovery of confirmed groundwater impact during the pit closure activity was transmitted via telecommunication to the New Mexico Oil Conservation Division's (**NMOCD**) Santa Fe office on May 11, 2000. NMOCD was notified with letter dated May 11, 2000 of the groundwater impact (attached). Resampling of the groundwater in a subsequent event was conducted in April 2000. The BTEX results of the groundwater sampling from the excavation and adjacent test hole in the suspected down gradient direction are as follows;

Sample ID	Date	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Total Xylenes (ppb)
Pit Water	03/06/00	130	31	69	789
Pit Water	04/19/00	16.0	ND	7.2	43
TW1 (gw)	03/06/00	ND	ND	ND	1.2
NMWQCC regulatory standards		10	750	750	620

Note: gw = groundwater, NMWQCC = New Mexico Water Quality Control Commission, ppb = parts per billion, ND = Not detectable at reported limits (less than regulatory standards by at least a magnitude of 10).

Groundwater Investigation and Soil Lithology:

Groundwater monitor wells were installed in November 2007 to test groundwater quality (see Figure 1). Boring logs for all three (3) monitor wells along with well completion information are contained within this report. There are no known receptors impacted by the previous discovery of impacted soil and/or groundwater.

Soil lithology at the site consists of primarily coarse grained sand with varying size gravel at greater depths, non cohesive, and firm. Medium dark gray sand phasing into sand and gravel with an apparent hydrocarbon odor was observed from the drill cuttings at an estimated 12-20 feet below grade within the source area boring only (MW #2).

Blagg Engineering, Inc. Consulting Engineers

BP America Production Company Jacques Com A #1 Monitoring Report

Groundwater Monitor Well Sampling Procedures:

Monitor wells were developed by hand-bailing, using new disposable bailers after installation. Prior to sample collections, the monitor wells were purged approximately three (3) well bore volumes with new disposable bailers. The groundwater samples were collected following US EPA: SW-846 protocol, were placed into laboratory supplied containers with appropriate preservative, and stored in an ice chest for express delivery to an analytical laboratory for testing under strict chain-of-custody procedures. Analytical testing included BTEX by US EPA Method 8021B or Method 8260B and general water quality parameters.

Fluids generated during monitor well development and purging were managed by discarding into a tank pit located at the adjacent Jacques #1 well site. The tank pit contents are then disposed through approved NMOCD operational procedures for removal of produced fluids.

Groundwater Quality & Flow Direction Information:

Quarterly groundwater monitor well sampling was initiated in November 2007. Summary of laboratory BTEX and general water chemistry analytical results are included in the table on the following pages. The data indicates all BTEX constituents tested at non-detectable or very low levels for four (4) consecutive sampling events within the source and down gradient areas. All field data and laboratory reports for each quarterly sampling event are contained within this report.

Groundwater elevations have consistently been measured with a gradient towards the south and southwest directions (Figure 2 through Figure 5).

Summary and Recommendations:

Hydrocarbon impacted soil and groundwater at the site appear to have been remediated via excavation of impacted soils. All site wells tested at non-detectable or low levels for BTEX; therefore, meeting NMWQCC standards for groundwater. Permanent site closure is recommended. Following approval by the NMOCD, site monitor wells will be abandoned pursuant to the approved BP Ground Water Management Plan.

BP AMERICA PROD. CO. GROUNDWATER LAB RESULTS

SUBMITTED BY BLAGG ENGINEERING, INC.

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REVISED DATE: September 8, 2008 FILENAME: (JA1-3Q08.WK4) NJV

			, <u> </u>					BTEX	EPA METH	OD 8021B (ppb)
SAMPLE	WELL	D.T.W.	T.D.	TDS	COND.	pН	PRODUCT	Benzene	Toluene	Ethyl	Total
DATE	NAME or No.	(ft)	(ft)	(mg/L)	umhos		(ft)			Benzene	Xylene
				1	r						
29-Nov-07	MW #1	15.22	22.50	4,800	3,800	7.27		ND	ND	ND	ND
29-Nov-07	MW #2	13.59	21.50	5,800	4,800	7.39		ND	ND	16	19
04-Apr-08		13.12			4,700	6.99		ND	ND	1.3	ND
23-Jun-08		12.35			2,400	7.42		ND	ND	ND	ND
25-Aug-08		13.02			3,100	7.23		ND	ND	ND	ND
29-Nov-07	MW #3	13.97	22.50	4,500	3,700	7.42		ND	ND	ND	ND
04-Apr-08		13.48			3,400	7.09		ND	ND	ND	ND
23-Jun-08		12.75			2,600	7.30		ND	ND	ND	ND
25-Aug-08		13.43			2,500	7.26		ND	ND	ND	ND
		NMW	QCC GF	ROUNDV	VATER S	TAND	ARDS	10	750	750	620

NOTES: 1) ND INDICATES NOT DETECTED AT THE REPORTING LIMITS (less than regulatory standards of at least a magnitude of 10).

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GENERAL WATER QUALITY

BP AMERICA PRODUCTION COMPANY

JACQUES COM A #1

Sample Date : November 29, 2007

PARAMETERS	MW # 1	MW # 2	MW # 3	NMWQCC STANDARDS	Units
LAB pH	7.32	7.43	7.31	6 - 9	s. u.
TOTAL DISSOLVED SOLIDS	4,800	5,800	4,500	1,000	mg / L
NITROGEN, NITRITE	ND	ND	ND	10.0	mg / L
NITROGEN, NITRATE	1.1	ND	1.5	10.0	mg / L
CHLORIDE	89	230	71	250	mg / L
FLUORIDE	1.2	1.0	ND	1.6	mg / L
SULFATE	2,900	3,900	2,600	600	mg / L
IRON	ND	ND	ND	1.0	mg / L

Notes :

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1) NMWQCC - New Mexico Water Quality Control Commission.

2) s. u. - stanadard unit.

3) mg/L - milligrams per liter or otherwise known as parts per million (ppm).

4) New Mexico Oil Conservation Division (NMOCD) recognizes the NMWQCC or background levels (statistical equivalence) as the standards for each site specific scenario.

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TWEZ COM A	WELL #:	ا ک pw	PIT: ABA	ST ST. NM	DATE : DATE :	STARTED: <u>3</u> FINISHED:	16/00
FSL/ 990'FWL 5	CONTRAC	CTOR:	P + 5		ENVIRC	NMENTAL	NV
-BP CROUCH m	37 FT. ESA 27 E F-7-29	x _15	FT. DE Remediati	EP. CUBI ON METH	IC YAR	DAGE:	950
GE	_ LEASE:	Æ	EDERAL 1	EE TO	ORMATI	0N:	۰
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CRONEC WIN	GW), WRIGAT	LOCA	-H APPROX	- 435 FT. F 3/6/93	Rom S	outit PERI	הבידפת סג
TIME S	AMPLE I.D. L	AB No:	WEIGHT (g)	mL. FREON	DILUTION	READING C	ALC. ppm
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	P.O. BC P.O. BC P.O. BC P.O. BC PORT in C QUES RECTORE	$\begin{array}{c c} & \text{BLAGG EI} \\ \hline P.O. BOX 87, B \\ (505) \\ \hline ORT & CLOSUR \\ \hline CLOSUR \\ \hline CLOSUR \\ \hline CLOSUR \\ \hline CONTRACT \\ \hline CONSULT \\ \hline CONTRACT \\ \hline CONSULT $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	DLAGG ENGINEERING, P.O. BOX 87, BLOOMFIELD, N (505) 632-1199 PORT: CLOSURE VERIFIC QUES RECE CON A WELL #: 1 PIT: 1444 CONTRACTOR: P + 5 $\frac{1995}{FW}$ SOUSON CONTRACTOR: P + 5 $\frac{1995}{FW}$ REMEDIATI $\frac{575}{FW}$ REAREST WATER SOURCE: $\frac{1000}{N}$ NMOCD TPH CLOSURE STD: $\frac{100}{N}$ PPM ATION DESCRIPTION: $\frac{1000}{FW}$ SOUSON RATES DURCE OF ANY HE D $\frac{1000}{FW}$ OF MISTLY ADD. TO DK. YELL. CONSISTED OF MISTLY ADD. TO DK. YELL. CONSTRUCTION OF MISTLY	DLAGG ENGINEELING, INC. P.O. BOX 87, BLOOMFIELD, NM 8741: (505) 632-1199 PORT: CLOSURE VERIFICATION RECT COM A WELL #: 1 PIT: ARAMONG (I) RECT COMPANY SOLON RACTOR: P + S 48 FT x 37 FT x 15 FT. DEEP. CUBI ATTOM MESA 2FT x 15 FT. DEEP. CUBI ATTOM MESA 2FT REMEDIATION METH CONSISTED OF MISTRY ADD. TO DR. YELL. BADWA SA RELEASE: SOLO PPM ATTION DESCRIPTION: CONSISTED OF MISTRY ADD. TO DR. YELL. BADWA SA RELEASE APPEAR RECE OF ANY HE DOAL & DISE LEASE CONSISTED OF MISTRY ADD. TO DR. YELL. BADWA SA RELEASE APPEAR RECE OF ANY HE DOAL & DISE LEASE CONSISTED OF MISTRY ADD. TO DR. YELL BADWA SA RELEASE CONSTRUCT ON STRY ADD. TO DR. YELL BADWA SA RELEASE CONSTRUCTION OF SCIENCE APPEAR RECE OF ANY HE DOAL & DISE LEASE CONSISTED OF MISTRY ADD. TO DR. YELL BADWA SA RELEASE CONSTRUCTION OF SCIENCE APPEAR RECE OF ANY HE DOAL & DISE LEASE CONSISTED OF MISTRY ADD. TO DR. YELL BADWA SA RELEASE DEPTH, 10-12 INTERNAL RECOM GROME FOR X. Y35 FT. F RECENT SOMPLES APPEAR RECE OF ANY HE DOAL & DISE LEASE DEPTH, 10-12 INTERNAL RECOM CONSTRUCT SOLE SOLE EXCEPT MAD, GUPY DISCOURDATION OF SECURED WHEN SOM ANS E GRAVEL WING W), KRIGATION OF SECURED WHEN SOM ANS FIELD 418.1 CALCULATIONS TIME SAMPLE I.D. LAB NO: WEIGHT (g) ML FREDN TIME SAMPLE I.D. LAB NO: WEIGHT (g) ML FREDN TIME SAMPLE I.D. LAB NO: WEIGHT (g) ML FREDN TIME SAMPLE I.D. LAB NO: WEIGHT (g) ML FREDN	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

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LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 08-Mar-00

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Client: Work Order:	Blagg Engineering 0003005	atrix. AOUE	2110	Client Sample Client Samp Collection	Info: Jaquez C le ID: PW1 @ Date: 3/6/2000	Com A#1 - Abandoned GW (12ft) 0 9:55:00 AM	Pit (IL)
Project:	BP Amoco - Lacquez	Com A 1		COC Re	ecord: 10365		
Parameter		Result	PQL	Qual Units	DF	Date Analyzed	
AROMATIC VOL	ATILES BY GC/PID	sv	V8021B			Analyst: DM	

AROMATIC VOLATILES BY GC/PID	SM	V8021B			Analyst:	DN
Benzene	130	0.5	µg/L	1	3/7/2000	
Toluene	31	0.5	µg/L	1	3/7/2000	
Ethylbenzene	69	0.5	µg/L	1	3/7/2000	
m,p-Xylene	720	5	µg/L	- 5	3/7/2000	
o-Xylene	69	0.5	µg/L	1	3/7/2000	

Qualifiers:

PQL - Practical Quantitation Limit

S - Spike Recovery outside accepted recovery limits

1 of 1

R - RPD outside accepted recovery limits E - Value above quantitation range

J - Analyte detected below Practical Quantitation Limit B - Analyte detected in the associated Method Blank

ND - Not Detected at Practical Quantitation Limit

Surr: - Surrogate

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P.O. BOX 2606 • FARMINGTON, NM 87499

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

ANALYTICAL REPORT

Date: 26-Apr-00

	ANALYTICAL	REPORT 91	ACQUES
Client:	Blagg Engineering	Client Sample Info:	Laquez Com A#1, Abandoned Pit
Work Order:	0004047	Client Sample ID:	PW2 @ GW (14ft.)
Lab ID:	0004047-01A Matrix: AQUEOUS	Collection Date:	4/19/2000 1:20:00 PM
Project:	BP Amoco - Laquez Com A#1	COC Record:	10579

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Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SI	W8021B			Analyst: DM
Benzene	16	0.5	μg/L	1	4/24/2000
Toluene	ND	0.5	µg/L	1	4/24/2000
Ethylbenzene	7.2	0.5	µg/L	1	4/24/2000
m,p-Xylene	42	1	µg/L	1	4/24/2000
o-Xylene	1	0.5	µg/L	1	4/24/2000



PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

B - Analyte detected in the associated Method Blank

Surr: - Surrogate

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LAB: (505) 325-1556

ANALYTICAL REPORT

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TACONES

Date: 08-Mar-00

Client:	Blagg Engineering	Client Sample Info: Jaquez Com A#1 - Abandoned Pit (I)
Work Order:	0003005	Client Sample ID: TW1 @ GW (12ft)
Lab ID:	0003005-02A Matrix: AQUEOUS	Collection Date: 3/6/2000 10:20:00 AM
Project:	BP Amoco - Jacquez Com A 1	COC Record: 10365

Parameter	Result	PQL Q	ual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	sv	V8021B			Analyst: DM
Benzene	ND	0.5	µg/L	1	3/7/2000
Toluene	ND	0.5	μg/L	1	3/7/2000
Ethylbenzene	ND	0.5	µg/L	1	3/7/2000
m,p-Xylene	1.2	1	µg/L	1	3/7/2000
o-Xylene	ND	0.5	µg/L	1	3/7/2000

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit J - Analyte detected below Practical Quantitation Limit

B - Analyte detected below Practical Quantitation Elim 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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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

CATION / ANION ANALYSIS

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	PW 1 @ GW (12')	Date Reported:	03-07-00
Laboratory Number:	G895	Date Sampled:	03-06-00
Chain of Custody:	7462	Date Received:	03-06-00
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	03-07-00
Condition:	Cool & Intact		

	Analytical			
Parameter	Result	Units		Units
рН	7.46	s.u.		
Conductivity @ 25° C	13,500	umhos/cm		
Total Dissolved Solids @ 180C	6,700	mg/L		
Total Dissolved Solids (Calc)	6,660	mg/L		
SAR	14.3	ratio		
Total Alkalinity as CaCO3	410	mg/L		
Total Hardness as CaCO3	1,960	mg/L		
Bicarbonate as HCO3	410	mg/L	6.71	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	0.1	mg/L	0.00	meq/L
Nitrite Nitrogen	<0.001	mg/L	0.00	meq/L
Chloride	390	mg/L	11.00	meq/L
Fluoride	1.76	mg/L	0.09	meq/L
Phosphate	1.1	mg/L	0.03	meg/L
Sulfate	3,890	mg/L	80.99	meg/L
Iron	0.007	mg/L		
Calcium	636	mg/L	31.74	meg/L
Magnesium	65.9	mg/L	5.42	meq/L
Potassium	4.5	mg/L	0.12	meq/L
Sodium	1,420	mg/L	61.77	meq/L
Cations			99 04	mea/l
Anions			98.83	meq/l
			00.00	meqre
Cation/Anion Difference			0.21%	

Cation/Anion Difference

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

0	Comments:	JACQUES Jaquez Com A #1	Abandoned Pit. (II)	
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CATION / ANION ANALYSIS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Client:	Blagg / AMOCO	Project #:	403410
Sample ID:	TH - 1 @ GW (12')	Date Reported:	03-07-00
Laboratory Number:	G896	Date Sampled:	03-06-00
Chain of Custody:	7462	Date Received:	03-06-00
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	03-07-00
Condition:	Cool & Intact		

	Analytical			
Parameter	Result	Units		Units
рН	7.50	s.u.		
Conductivity @ 25° C	12,700	umhos/cm		
Total Dissolved Solids @ 180C	6,320	mg/L		
Total Dissolved Solids (Calc)	6,280	mg/L		
SAR	13.6	ratio		
Total Alkalinity as CaCO3	333	mg/L		
Total Hardness as CaCO3	1,760	mg/L		
Bicarbonate as HCO3	333	mg/L	5.46	meq/L
Carbonate as CO3	<0.1	mg/L	0.00	meq/L
Hydroxide as OH	<0.1	mg/L	0.00	meq/L
Nitrate Nitrogen	<0.1	mg/L	0.00	meq/L
Nitrite Nitrogen	<0.001	mg/L	0.00	meq/L
Chloride	90.0	mg/L	2.54	meq/L
Fluoride	1.57	mg/L	0.08	meq/L
Phosphate	1.0	mg/L	0.03	meq/L
Sulfate	4,040	mg/L	84.11	meq/L
Iron	0.020	mg/L		
Calcium	504	mg/L	25.15	meq/L
Magnesium	122	mg/L	10.05	meq/L
Potassium	4.5	mg/L	0.12	meq/L
Sodium	1,310	mg/L	56.99	meq/L
Cations			92.30	mea/l
Anions			92.23	mea/L
Cation/Anion Difference			0.08%	

Cation/Anion Difference

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

<i>JACQUES</i> ∧ Comments: Jaquez Com A #1	Abandoned Pit. $(\#)^{n}$
Alexa L. Queen	Christin mulach
Analyst	Review

CHAIN OF CUSTODY RECORD Date: 7/00 Contration NM 87499 Date: 7	Project No. Project No. Name Newson News Z Tritle	Ekine Dept. Dept. 1 Presc City, State, Zip 1 Avr. S. V.S. City, State, Zip	$\sum_{pres} A \neq l = Address p = T (\underline{II}) = p$ ANALYSIS REQUESTED ANALYSIS REQUESTED	imber of the second sec		8/6/00 2220 WATER FACE 2 / 1003000 0003000 - 011	7/60 1020 2026 2. 2 2 2. 0.2 A			Date/Time/(6,0/3/5 Received by) Date/Times/(2)	Date/Time Received by: Date/Time Date/Time	Date/Time Received by: Date/Time	Rush 🗙 24-48 Hours 10 Working Days By Date	Date 3/6/00 Special Instructions / Remarks:	ompany Request)
AIN OF C ^{47 Dr. • P.O. Box 2606 • Farm (505) 325-5667 • FAX: (505)}	ect No.	Dept.	- Address D.T		SAMPLE DATE TIME MATRIX	100 22300 WATER 4	102.02.0 WAEK 6			Date/Time	Date/Time	Date/Time		Date 3/6/20	
TECHNOLOGIES, LTD. 612 E. MUTRA	urchase Order No.: Proje	Company & 47GC Eventexine inc.	PROJECT LOCATION: JACQUES T	AMPLER'S SIGNATURE:		PWIE GW (12') 86.	7-2-2 E Gu (12')			elinquished by: 37/1/ em US	elinquished by:	elinquished by:	lethod of Shipment:	uthorized by: Man-	(Client Signature <u>Must</u> Accompany Request)

CHAIN OF CUSTODY RECORD 7462	10 CO NO TRACTUES PONDONED PIT (#) ANALYSIS / PARAMETERS	Client No.	Sample Sample Lab Number Sample 2 8 0 Carle V	z') 3/6/00 0955 C895 WATER 1 1 1 BOTH RESERVED	1 2 1 0 20 0 20 1 1 1 COOL			gnature) Date Time Received by: (Signature) Date Time Time Signature)	gnature) (Received by: (Signature) (gnature) Received by: (Signature)	EDVIROTECH INC. Sample Receipt	5796 U.S. Highway 64 Farmington, New Mexico 87401	
	Client / Project Name BLAGG / ANO CO	Sampler: $\mathcal{N} \mathcal{V}$	Sample No./ Sample Identification Date	PW1 EGW(12) 3/6/00				Relinquished by: (Signature)	Relinquished by: (Signature)	Relinquished by: (Signature)			

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	OF CUS	J. Box 2606 ∙ Farmington, 5-5667 ∙ FAX: (505) 327-14			Dept.	4-1-4-1 	(H) LAB OBRACH		SAMPLE TIME AATBIV DEEC	3 CO CURTER COOL						Date/Time//// 10-1	Date/Time	Date/Time			
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	ON SITE CH	TECHNOLOGIES, LTD.	Purchase Order No.: Proj	SE Name PErr Surce	EDIC Company Service & Contraction of Address P. C. S. S. S. S.	City, State, Zip St. 200 Mpr 1	PROJECT LOCATIONTIN TACQUES	SAMPLER'S SIGNATURE:		Pura con (141) M						Relinquished by:	Relinquished by:	Relinquished by:	Method of Shipment:	Authorized bv:	(Client Signature <u>Must</u> Accompany Request)

BLAGG ENGINEERING, INC.

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

May 11, 2000

Mr. William C. Olson - Hydrologist State of New Mexico Oil Conservation Division 2040 So. Pacheco Santa Fe, New Mexico 87505

Dear Mr. Olson:

Initial groundwater sample analytical results at the above referenced well site during pit closure activity reveal hydrocarbon contamination to be above the State of New Mexico Water Quality Control Commission's regulatory standards for benzene and total xylenes. Sampling was conducted March 6, 2000. Depth to water is estimated at twelve (12) feet below grade. Listed below are summary analytical results for benzene, toluene, ethylbenzene, and total xylenes (BTEX):

Parameters	Abandoned Pit (parts per billion)
benzene	130
toluene	31
ethylbenzene	69
total xylenes	789

If you have any questions concerning this information, please do not hesitate to contact us at the aforementioned phone number. Thank you for your cooperation.

Respectfully submitted, Blagg Engineering, Inc.

elson

Nelson J. Velez Staff Geologist

cc: Denny Foust, Environmental Geologist, NMOCD, Aztec, NM Buddy Shaw, Environmental Coordinator, BP Amoco, Farmington, NM

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Location: 036.7778784° N 107.7373880° W Caption: JACQUES COM A #1 UNIT M, SEC. 25, T30N, R9W

Name: ARCHULETA Date: 11/23/2007 Scale: 1 inch equals 2000 feet











BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT: BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

JACQUES COM A #1 UNIT M, SEC. 25, T30N, R9W

Date : November 29, 2007

Filename : 11-29-07.WK4

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LABORATORY (S) USED : HALL ENVIRONMENTAL

SAMPLER : NJV

PROJECT MANAGER :

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WELL	WELL	WATER	DEPTH TO	TOTAL	SAMPLING	рН	CONDUCT	TEMP.	VOLUME
#	ELEV.	ELEV.	WATER	DEPTH	TIME		(umhos)	(celcius)	PURGED
	(ft)	(ft)	(ft)	(ft)					(gal.)
1	99.00	83.78	15.22	22.50	1310	7.27	3,800	16.5	3.50
2	97.37	83.78	13.59	21.50	1345	7.39	4,800	15.7	2.00
3	97.71	83.74	13.97	22.50	1325	7.42	3,700	15.9	4.25
			INSTRUM	ENT CALIE	BRATIONS =	7.00	2,800		
				DATI	E & TIME =	11/28/07	1410		

NOTES: <u>Volume of water purged from well prior to sampling</u>; $V = pi X r^2 X h X 7.48 gal./ft3) X 3 (wellbores).$ (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 ".

MW tops surveyed on 11/28/07.

Excellent recovery in MW #1, #3, poor recovery in MW #2. All showed murky brown appearance, slight hydrocarbon odor in MW #2. Collected BTEX, anions, pH, TDS, and iron samples from all MW's.

Top of casings : MW #1 ~ 3.20 ft., MW #2 ~ 2.10 ft., MW #3 ~ 2.60 ft. above grade .

Lian Dhynonial Analysis Daboratory, the	Hall	Environmental	Analysis	Laboratory,	Inc.
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Date: 11-Dec-07

CLIENT:Blagg EngineeringLab Order:0711488Project:Jacquez Com A #1 (Jacques #1)Lab ID:0711488-01

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Client Sample ID: MW #1 Collection Date: 11/29/2007 1:10:00 PM Date Received: 11/30/2007 Matrix: AQUEOUS

Analyses	Result	PQL	Qua	l Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	1.0		µg/L	1	12/5/2007 5:09:19 PM
Toluene	ND	1.0		µg/L	1	12/5/2007 5:09:19 PM
Ethylbenzene	ND	1.0		µg/L	1	12/5/2007 5:09:19 PM
Xylenes, Total	ND	2.0		µg/L	1	12/5/2007 5:09:19 PM
Surr: 4-Bromofluorobenzene	86.6	70.2-105		%REC	1	12/5/2007 5:09:19 PM
EPA METHOD 300.0: ANIONS						Analyst: SMP
Fluoride	1.2	1.0		mg/L	10	12/8/2007 12:35:11 PM
Chloride	89	1.0		mg/L	10	12/8/2007 12:35:11 PM
Nitrogen, Nitrite (As N)	ND	1.0	н	mg/L	10	12/8/2007 12:35:11 PM
Nitrogen, Nitrate (As N)	1.1	1.0	н	mg/L	10	12/8/2007 12:35:11 PM
Phosphorus, Orthophosphate (As P)	ND	5.0	н	mg/L	10	12/8/2007 12:35:11 PM
Sulfate	2900	25		mg/L	50	12/8/2007 1:27:25 PM
FERROUS IRON						Anałyst: SLB
Ferrous Iron	ND	0.10		mg/L	1	12/3/2007
SM4500-H+B: PH						Analyst: LMM
рН	7.32	0.1		pH units	1	11/30/2007
SM 2540C: TDS						Analyst: TAF
Total Dissolved Solids	4800	400		mg/L	1	12/4/2007

Qua	lifiers:	
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- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

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CLIENT:	Blagg Engineering			C	Client Sample ID:	MW	#2
Lab Order:	0711488				Collection Date:	11/29	/2007 1:45:00 PM
Project:	Jacquez Com A #1 (Ja	cques #1)			Date Received:	11/30	/2007
Lab ID:	0711488-02				Matrix:	AQU	EOUS
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8021B: VOLATILES			· ·			Analyst: NSB
Benzene		ND	1.0		µg/L	1	12/5/2007 6:09:34 PM
Toluene		ND	1.0		µg/L	1	12/5/2007 6:09:34 PM
Ethylbenzene		16	1.0		µg/L	1	12/5/2007 6:09:34 PM
Xylenes, Total		19	2.0		µg/L	1	12/5/2007 6:09:34 PM
Surr: 4-Brom	ofluorobenzene	107	70.2-105	S	%REC	1	12/5/2007 6:09:34 PM
EPA METHOD	300.0: ANIONS						Analyst: SMP
Fluoride		1.0	1.0		mg/L	10	12/8/2007 12:52:35 PM
Chloride		230	1.0		mg/L	10	12/8/2007 12:52:35 PM
Nitrogen, Nitrite	(As N)	ND	1.0	н	mg/L	10	12/8/2007 12:52:35 PM
Nitrogen, Nitrate	e (As N)	ND	1.0	н	mg/L	10	12/8/2007 12:52:35 PM
Phosphorus, Or	thophosphate (As P)	ND	5.0	н	mg/L	10	12/8/2007 12:52:35 PM
Sulfate		3900	25		mg/L	50	12/8/2007 1:44:49 PM
FERROUS IRO	N						Analyst: SLB
Ferrous Iron		ND	0.10		mg/L	1	12/3/2007
SM4500-H+B: F	эн						Analyst: LMM
рН		7.43	0.1		pH units	1	11/30/2007
SM 2540C: TDS	5						Analyst: TAF
Total Dissolved	Solids	5800	400		mg/L	1	12/4/2007

Hall Environmental Analysis Laboratory, Inc.

Date: 11-Dec-07

Qualifiers:	*	Value exceeds Maximum Contaminant Level		в	Analyte detected in the associated Method	Blank
	Ε	Value above quantitation range		Н	Holding times for preparation or analysis en	kceeded
	J	Analyte detected below quantitation limits		MCL	Maximum Contaminant Level	
	ND	Not Detected at the Reporting Limit		RL	Reporting Limit	-
	S	Spike recovery outside accepted recovery limits				Page
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CLIENT:	Blagg Engineering			(Client Sample ID:	MW #	#3 .
Lab Order:	0711488				Collection Date:	11/29	/2007 1:25:00 PM
Project:	Jacquez Com A #1 (Ja	cques #1)			Date Received:	11/30	/2007
Lab ID:	0711488-03				Matrix:	AQU	EOUS
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8	021B: VOLATILES				······		Analyst: NSE
Benzene		ND	1.0		µg/L	1	12/5/2007 6:39:37 PM
Toluene		ND	1.0		µg/L	1	12/5/2007 6:39:37 PM
Ethylbenzene		ND	1.0		µg/L	1	12/5/2007 6:39:37 PM
Xylenes, Total		ND	2.0		µg/L	1	12/5/2007 6:39.37 PM
Surr: 4-Bromo	fluorobenzene	89.5	70.2-105		%REC	1	12/5/2007 6:39:37 PM
EPA METHOD 3	00.0: ANIONS						Analyst: SMP
Fluoride		ND	1.0		mg/L	10	12/8/2007 1:10:00 PM
Chloride		71	1.0		mg/L	10	12/8/2007 1:10:00 PM
Nitrogen, Nitrite ((As N)	ND	1.0	н	mg/L	10	12/8/2007 1:10:00 PM
Nitrogen, Nitrate	(As N)	1.5	1.0	н	mg/L	10	12/8/2007 1:10:00 PM
Phosphorus, Orti	hophosphate (As P)	ND	5.0	Н	mg/L	10	12/8/2007 1:10:00 PM
Sulfate		2600	25		mg/L	50	12/8/2007 2:02:14 PM
	I						Analyst: SLB
Ferrous Iron		ND	0.10		mg/L	1	12/3/2007
6M4500-H+B: Pl	н						Analyst: LMN
рН		7.31	0.1		pH units	1	11/30/2007
SM 2540C: TDS							Analyst: TAF
Total Dissolved S	Solids	4500	200		ma/L	1	12/4/2007

Hall Environmental Analysis Laboratory, Inc.

Date: 11-Dec-07

Qualifiers:

ND

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- Analyte detected below quantitation limits J
- S Spike recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

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0711488

Work Order:

QA/QC SUMMARY REPORT

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Blagg Engineering

Jacquez Com	A	#1	(Jacques #1)
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Analyte	Result	Units	PQL	%Rec	LowLimit H	lighLimit	%RPD R	PDLimit Qual
Method: EPA Method 300.0: Anio	ons						<u> </u>	
Sample ID: MBLK		MBLK			Batch ID	: R26423	Analysis Date	: 12/8/2007 12:00:23 PI
Fluoride	ND	mg/L	0.10					
Chloride	ND	mg/L	0.10					
Nitrogen, Nitrite (As N)	ND	mg/L	0.10					
Nitrogen, Nitrate (As N)	ND	mg/L	0.10					
Phosphorus, Orthophosphate (As P)	ND	mg/L	0.50					
Sulfate	ND	mg/L	0.50					
Method: Ferrous Iron								
Sample ID: 0711488-03C MSD		MSD			Batch ID	R26321	Analysis Date:	12/3/200
Ferrous Iron	0.9240	mg/L	0.10	92.4	50	150	4.55	20
Sample ID: 0711488-03C MS		MS			Batch ID	R26321	Analysis Date:	12/3/200
Ferrous Iron	0.9670	mg/L	0.10	96.7	50	150		
Method: EPA Method 8021B: Vol	latiles		_					
Sample ID: 5ML RB		MBLK			Batch ID	R26381	Analysis Date:	12/5/2007 8:29:31 AM
Benzene	ND	µg/L	1.0					
Toluene	ND	µg/L	1.0					
Ethylbenzene	ND	μg/L	1.0					
Xylenes, Total	ND	µg/L	2.0					
Sample ID: 100NG BTEX LCS		LCS			Batch ID	R26381	Analysis Date:	12/5/2007 11:44:35 PN
Benzene	19.64	µg/L	1.0	98.2	85.9	113		
Toluene	19.43	µg/L	1.0	96.6	86.4	113		
Ethylbenzene	19.64	µg/L	1.0	98.2	83.5	118		
Xylenes, Total	59.27	µg/L	2.0	98.8	83.4	122		
Sample ID: 100NG BTEX LCSD		LCSD			Batch ID	R26381	Analysis Date:	12/6/2007 12:14:45 AN
Benzene	20.41	µg/L	1.0	102	85.9	113	3.85	27
Toluene	20.15	µg/L	1.0	100	86.4	113	3.66	19
Ethylbenzene	20.53	µg/L	1.0	103	83.5	118	4.42	10
Xylenes, Total	61.86	µg/L	2.0	103	83.4	122	4.28	13
Method: SM 2540C: TDS								
Sample ID: MB-14556		MBLK			Batch ID:	14556	Analysis Date:	12/4/2007
Total Dissolved Solids	ND	mg/L	20					
Sample ID: LCS-14556		LCS			Batch ID:	14556	Analysis Date:	12/4/2007
Total Dissolved Solids	1037	mg/L	20	103	80	120		

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Qualifiers:

- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc. Sample Receipt Checklist 11/30/2007 Date Received: Client Name BLAGG Received by: TLS Work Order Number 0711488 Sample ID labels checked by nijoShomin Checklist completed by: UPS Matrix Carrier name No 🗍 Shipping container/cooler in good condition? Yes 🗸 Not Present Yes 🖌 No 🗌 Custody seals intact on shipping container/cooler? Not Present Not Shipped Yes No 🗌 N/A Custody seals intact on sample bottles? Yes 🗹 No 🗌 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? Sufficient sample volume for indicated test? Yes 🗹 No All samples received within holding time? No 🗌 Yes 🗸 Yes 🗹 No 🗌 No VOA vials submitted Water - VOA vials have zero headspace? Yes 🗹 No 🗌 N/A Water - Preservation labels on bottle and cap match? Yes 🔽 No 🗌 N/A Water - pH acceptable upon receipt? Container/Temp Blank temperature? 3° <6° C Acceptable If given sufficient time to cool. COMMENTS: Client contacted Date contacted: Person contacted Contacted by: Regarding Comments:

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Corrective Action

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BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT: BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : 156387

JACQUES COM A #1

UNIT M, SEC. 25, T30N, R9W

Date : April 4, 2008

Filename : 04-04-08.WK4

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LABORATORY (S) USED : PACE ANALYTICAL

SAMPLER : NJV

PROJECT MANAGER :

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WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	рН	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	99.00	84.26	14.74	22.50	-	_	-		-
2	97.37	84.25	13.12	21.50	1230	6.99	4,700	17.8	2.00
3	97.71	84.23	13.48	22.50	1150	7.09	3,400	19.0	4.50
L			INSTRUM	ENT CALIE	NT CALIBRATIONS = 4.01/7		2,800		<u></u>
				DAT	e & Time =	04/03/08	1030		

NOTES: <u>Volume of water purged from well prior to sampling</u>: V = pi X r 2 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 ".

Excellent recovery in MW ##3, fair / poor recovery in MW #2. Both showed murky brown appearance, no apparent hydrocarbon odor in MW #2. Collected samples for BTEX per US EPA Method 8260 from MW #2 & #3 only.

Top of casings : MW #1 ~ 3.20 ft., MW #2 ~ 2.10 ft., MW #3 ~ 2.60 ft. above grade.



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ANALYTICAL RESULTS

Project: JACQUEZ COM A #1

Pace Project No.: 6038273

Sample: MW #2	Lab ID: 60382	7 3001 Co	ollected: 04	4/04/0	8 12:30	Received:	04/08/08 08:45	Matrix: Water	
Parameters	Results	Units	Report Li	imit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Metho	d: EPA 8260							
Benzene	ND ug/L			1.0	1		04/12/08 08:41	71-43-2	
Ethylbenzene	1.3 ug/L			1.0	1		04/12/08 08:41	100-41-4	
Toluene	ND ug/L			1.0	1		04/12/08 08:41	108-88-3	
Xylene (Total)	ND ug/L			3.0	1		04/12/08 08:41	1330-20-7	
Dibromofluoromethane (S)	99 %		85-	-114	1		04/12/08 08:41	1868-53-7	
Toluene-d8 (S)	102 %		82-	-114	1		04/12/08 08:41	2037-26-5	
4-Bromofluorobenzene (S)	100 %		85-	-119	1		04/12/08 08:41	460-00-4	
1,2-Dichloroethane-d4 (S)	107 %		81-	-118	1		04/12/08 08:41	17060-07-0	
Preservation pH	1.0			1.0	1		04/12/08 08:41		

Date: 04/15/2008 05:50 PM

REPORT OF LABORATORY ANALYSIS

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Page 5 of 9



ANALYTICAL RESULTS

Project: JACQUEZ COM A #1

Pace Project No.:

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ect No.: 6038273

Sample: MW #3	Lab ID: 6038273002	Collected: 04/04/08	Collected: 04/04/08 11:50		04/08/08 08:45	Matrix: Water	
Parameters	Results Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 820	60					
Benzene	ND ug/L	1.0	1		04/12/08 08:57	71-43-2	
Ethylbenzene	ND ug/L	1.0	1		04/12/08 08:57	100-41-4	
Toluene	ND ug/L	1.0	1		04/12/08 08:57	108-88-3	
Xylene (Total)	ND ug/L	3.0	1		04/12/08 08:57	1330-20-7	
Dibromofluoromethane (S)	99 %	85-114	1		04/12/08 08:57	1868-53-7	
Toluene-d8 (S)	99 %	82-114	1		04/12/08 08:57	2037-26-5	
4-Bromofluorobenzene (S)	92 %	85-119	1		04/12/08 08:57	460-00-4	
1,2-Dichloroethane-d4 (S)	106 %	81-118	1		04/12/08 08:57	17060-07-0	
Preservation pH	1.0	1.0	1		04/12/08 08:57		

Date: 04/15/2008 05:50 PM

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Page 6 of 9

	Page of / On-site //: つ Temp: S 2 P Off-site //: つ Temp: S 2 P Sky Conditions: Sun N Y Temp: S 2 P Sky Conditions: Sun N Y Temp: S 2 P Meteorological Events: Wind Speed: O-S MPH Direction: WEST	Consultant/Contractor: Reventle Address: //O //O Address: //O //O Consultant/Contractor Project No.: //O Consultant/Contractor PM: //O Consultant/Contractor PM: //O Consultant/Contractor PM: //O Tele/Fax: 553 Tele/Fax: 553 Report Type & QC Level: 577 Report Type & QC Level: 577 Invoice to:: 60 Report Type & QC Level: 577 Report Type & QC Level: 577 Invoice to:: Consultant or BP or Gilgnitic Richifieht Co. Ceircle one) Requested Analysis (eb. 3) 27 3 Address 0 Address 0	Internet and the second
		BTEX/Oxy/TPH BTEX/Oxy/TPH	
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SAMPLE SUMMARY

Project: JACQUEZ COM A #1

Pace Project No.:	6038273
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Lab ID	Sample ID	Matrix	Date Collected	Date Received
6038273001	 MW #2	Water	04/04/08 12:30	04/08/08 08:45
6038273002	MW #3	Water	04/04/08 11:50	04/08/08 08:45

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SAMPLE ANALYTE COUNT

Project: JACQUEZ COM A #1 Pace Project No.: 6038273

Lab ID	Sample ID	Method	Analysts	Analytes Reported
6038273001	WW #2	EPA 8260	JKL	9
6038273002	MW #3	EPA 8260	JKL	9

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PROJECT NARRATIVE

JACQUEZ COM A #1 Project: Pace Project No .: 6038273 Method: EPA 8260 Description: 8260 MSV UST, Water **Client: BP-Blagg Engineering** Date: April 15, 2008 General Information: 2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below. Hold Time: The samples were analyzed within the method required hold times with any exceptions noted below. Initial Calibrations (including MS Tune as applicable): All criteria were within method requirements with any exceptions noted below. **Continuing Calibration:** All criteria were within method requirements with any exceptions noted below. Internal Standards: All internal standards were within QC limits with any exceptions noted below. Surrogates: All surrogates were within QC limits with any exceptions noted below. Method Blank: All analytes were below the report limit in the method blank with any exceptions noted below. Laboratory Control Spike: All laboratory control spike compounds were within QC limits with any exceptions noted below. Matrix Spikes: All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below. QC Batch: MSV/13967 A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume. **Duplicate Sample:** All duplicate sample results were within method acceptance criteria with any exceptions noted below. Additional Comments: This data package has been reviewed for quality and completeness and is approved for release.

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QUALITY CONTROL DATA

Project: JACQUEZ COM A #1

Pace Project No.: 6038273

QC Batch:	MSV/13967		Analysis Me	ethod:	EPA 8260	
QC Batch Method:	EPA 8260		Analysis De	escription:	8260 MSV UST-WATER	
Associated Lab Sa	mples: 6038273001,	6038273002				
METHOD BLANK:	311355					
Associated Lab Sa	mples: 6038273001,	6038273002				
Para	meter	Units	Blank Result	Reporting Limit	Qualifiers	

i didificici	Office	Result	C.m.m.	quantoro	
Benzene	 ug/L		1.0		
Ethylbenzene	ug/L	ND	1.0		
Toluene	ug/L	ND	1.0		
Xylene (Total)	ug/L	ND	3.0		
1,2-Dichloroethane-d4 (S)	%	108	81-118		
4-Bromofluorobenzene (S)	%	93	85-119		
Dibromofluoromethane (S)	%	99	85-114		
Toluene-d8 (S)	%	101	82-114		

LABORATORY CONTROL SAMPLE: 311356

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Benzene	 ug/L	10	9.2	92	87-117	
Ethylbenzene	ug/L	10	8.9	89	84-123	
Toluene	ug/L	10	8.7	87	81-124	
Xylene (Total)	ug/L	30	26.7	89	83-125	
1,2-Dichloroethane-d4 (S)	%			106	81-118	
4-Bromofluorobenzene (S)	%			91	85-119	
Dibromofluoromethane (S)	%			101	85-114	
Toluene-d8 (S)	%			101	82-114	

Date: 04/15/2008 05:50 PM

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QUALIFIERS

Project: JACQUEZ COM A #1

Pace Project No.: 6038273

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

BATCH QUALIFIERS

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Batch: MSV/13967

[1] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Date: 04/15/2008 05:50 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:JACQUEZ COM A #1Pace Project No.:6038273

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
6038273001 6038273002	MW #2 MW #3	EPA 8260 EPA 8260	MSV/13967 MSV/13967		

Date: 04/15/2008 05:50 PM

REPORT OF LABORATORY ANALYSIS

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			7
Client Name	: <u>Brok</u>	<u>s</u>	Project # 6038273
1			Optional
	nt Commercial	Pace Other	Proj. Due Date: Proj. Name: 4/18/03
Tracking #: 474 454 7 73			
Custody Seal on Cooler/Box Present: Aryes		sintact: Le≰yes [no Francez Gr
Packing Material: 🔲 Bubble Wrap 🛛 🖉 Bubble	Bags [None	Other	
Thermometer Used T-168 (1-169)	Type of Ice: No	Blue None E	Samples on ice, cooling process has begun
Cooler Temperature <u>36</u>	Biological Tissu	e is Frozen: Yes No	contents:
Femp should be above freezing to 6°C		Comments:	has no
Chain of Custody Present:	28 Yes 10 No 101	1.	
Chain of Custody.Filled Out:		2.	
Chain of Custody Relinquished:	AYes ONO ON	3.	
Sampler Name & Signature on COC:	BYes DNo DNA	4	
Samples Arrived within Hold Time:	AYes ONO ON	5	·
Short Hold Time Analysis (<72hr):		6.	·
Rush Turn Around Time Requested:	DYes 21No DN/	7.	·····
Sufficient Volume:	1976s DNo DN/	8.	
Correct Containers Used:	Res CINO CIN/	9.	
-Pace Containers Used:	BYes DNo DN/	<u> </u>	····
Containers Intact:		10.	
Filtered volume received for Dissolved tests		11.	
Sample Labels match COC:	Ørres □No □N/	12	
-Includes date/time/ID/Analysis Matrix:	LT_		
All containers needing preservation have been checked.	□Yes □No ØN/	13.	
All containers needing preservation are found to be in	OYes ONO RN/		
	al nu	Initial when	Lot # of added
exceptions: VOK, collform, TOC, O&G, WI-DRO (water)	MAXes LINo	completed	preservative
Samples checked for dechlorination:	OYes ONo DAN	14	
Headspace in VOA Vials (>6mm):		15.	· · · · · · · · · · · · · · · · · · ·
Trip Blank Present:	Kyres []No []N/	16. 3 TTS Sont	w/ while proto
Trip Blank Custody Seals Present	CYes Carlo CIN	A .	
Pace Trip Blank Lot # (if purchased): 6 27.	8-3	<u> </u>	
Client Notification/ Resolution:			Field Data Required? Y / N
Person Contacted:	Date	/Time:	
Comments/ Resolution:			
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Project Manager Deviewer VI/IVI) LVI			

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BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT: BP AMERICA PROD. CO.

CHAIN-OF-CUSTODY # : N / A

JACQUES COM A #1

LABORATORY (S) USED : PACE ANALYTICAL

UNIT M, SEC. 25, T30N, R9W

Date : June 23, 2008

Filename : 06-23-08.WK4

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SAMPLER: NJV

PROJECT MANAGER:

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WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	рН	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	99.00	85.00	14.00	22.50	-	_	-	-	· -
2	97.37	85.02	12.35	21.50	1050	7.42	2,400	20.9	2.00
3	97.71	84.96	12.75	22.50	1030	7.30	2,600	18.8	4.75
	INSTRUMENT CALIBRATIONS =					4.01/7.00/10.00	2,800		
				DATI	E & TIME =	06/23/08	0634		

NOTES: <u>Volume of water purged from well prior to sampling</u>; $V = pi X r_2 X h X 7.48 gal./ft3$) 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".

Excellent recovery in MW ##3, fair / poor recovery in MW #2. Both showed murky brown appearance, no apparent hydrocarbon odor in MW #2. Collected samples for BTEX per US EPA Method 8260 from MW #2 & #3 only.

Top of casings : MW #1 ~ 3.20 ft., MW #2 ~ 2.10 ft., MW #3 ~ 2.60 ft. above grade .

on-site	9:49	temp	82
off-site	11:00	temp	86
sky cond.	sunny		
wind speed	0-5	direct.	north



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ANALYTICAL RESULTS

Project: JACQUES COM A 1

Pace Project No.: 6042387

Sample: MW #2	Lab ID: 6042387001	Collected: 06/23/	08 10:50	Received:	06/25/08 09:00	Matrix: Water	
Parameters	Results Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 82	260					
Benzene	ND ug/L	1.0	1		06/27/08 01:32	71-43-2	
Ethylbenzene	ND ug/L	1.0	1		06/27/08 01:32	100-41-4	
Toluene	ND ug/L	1.0	1		06/27/08 01:32	108-88-3	
Xylene (Total)	ND ug/L	3.0	1		06/27/08 01:32	1330-20-7	
Dibromofluoromethane (S)	95 %	85-114	1		06/27/08 01:32	1868-53-7	
Toluene-d8 (S)	102 %	82-114	1		06/27/08 01:32	2037-26-5	
4-Bromofluorobenzene (S)	100 %	85-119	1		06/27/08 01:32	460-00-4	
1,2-Dichloroethane-d4 (S)	93 %	81-118	1		06/27/08 01:32	17060-07-0	
Preservation pH	1.0	1.0	1		06/27/08 01:32	2	

Date: 06/27/2008 04:26 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: JACQUES COM A 1

Pace Project No.: 6042387

Sample: MW #3	Lab ID: 6042387002	Collected: 06/23/0	8 10:30	Received: 0	6/25/08 09:00	Matrix: Water	
Parameters	Results Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST, Water	Analytical Method: EPA 8	260					
Benzene	ND ug/L	1.0	1		06/27/08 01:47	71-43-2	
Ethylbenzene	ND ug/L	1.0	1		06/27/08 01:47	100-41-4	
Toluene	ND ug/L	1.0	1		06/27/08 01:47	108-88-3	
Xyiene (Total)	ND ug/L	3.0	1		06/27/08 01:47	1330-20-7	
Dibromofluoromethane (S)	97 %	85-11 4	1		06/27/08 01:47	1868-53-7	
Toluene-d8 (S)	101 %	82-114	1		06/27/08 01:47	2037-26-5	
4-Bromofluorobenzene (S)	100 %	85-119	1		06/27/08 01:47	460-00-4	
1,2-Dichloroethane-d4 (S)	97 %	81-118	1		06/27/08 01:47	17060-07-0	
Preservation pH	1.0	1.0	1		06/27/08 01:47		

Date: 06/27/2008 04:26 PM

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.1 Time Invoice to: Consultant or BP of Atlantic Richfield Co. Xcircle one 202 Sample Point Lat/Long and Direction: NortH 6042387 BP COC Rev. 5 10/11/2006 ¥ H 6/25 MS/MSD Sample Submitted: Yes (Nb) Date 34, Comments 80 Page / of Temp: Temp: Tole: (505) 632-1199 Fax: (505) 632-3903 COUNTY, N.M. E-Mail EDD To: blagg-njv dyahoo.com Consultant/Contractor PM: Nelson Velez Accepted By / Affiliation Consultant/Contractor: Blagg/URS Bloomfield, NM 87413 Consultant/Contractor Project No.: とくくろい Report Type & QC Level: STD Q 1:00 Meteorological Events: Wind Speed: D-S Address: 110 N. Forth St. 9:5 Sky Conditions: Off-site Time: **Dn-site** Time: 3[0494 Requested Analysis TURN Ð Trip Blank:/Yes// No SAA SP168/1645 Time 80112, Date , (0928) XHT8 >South Cooler Temp on Receipt: 3.5 "FIC) lonenteM Preservative NMOCD ЮH Relinquished By / Affiliation ^EONH 5700 00194-0001 Requested Due Date (mm/dd/yy): 'os'h rovision or OOC (circle one) Carsyments ouch Unpreserved California Global ID No.: BP/AR Facility Address: Project Name: JACQUES COM A 1 BP BU/AR Region/Eafos Segment: 5 No. of Containers mm de BP/AR Facility No .: Enfos Project No.: Laboratory No. Sub Phase/Task: 202 80 Site Lat/Long: Cost Element: Chain of Custody Record Phase/WBS: State or Lead Regulatory Agency: Ç Custody Seals in Place: (Feb/No | Temp Blank: Feb/No Matrix цA 9490 biupi.I\reatsW Srr X Fax: (281) 366-7094 して bilo2/lio2 Project Name: 030 16/23/08 643/65 318(I 741 6004 ENGR. VELEZ 1050 (EPORT Ц Х 80 0 əmîT Lab Name: Pace Analytical Services, Inc. Rm28, 144B Houston, TX 77079 FED. E 8643 5 Sampler's Company: BLAGG E ddr. ess: 501 Westlake Park Blvd. hield Company Sample Description A BP affiliated company Lenexa, KS 66219 9609 Loiret Blvd у # BP/AR EMB: Mike Whelan M Cele/Fax: 913-563-1401 Shipment Tracking No: # Lab Bottle Order No: pecial Instructions: ele: (281) 366-7485 ab PM: MJ Walls MUN Shipment Method: 200 Sampler's Name: Address: Item No. 2 4 ¢ ۲ ø 5 00 6

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SAMPLE SUMMARY

Project: JACQUES COM A 1

Pace Project No.:	6042387
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Lab ID	Sample ID	Matrix	Date Collected	Date Received
6042387001	MW #2	Water	06/23/08 10:50	06/25/08 09:00
6042387002	MW #3	Water	06/23/08 10:30	06/25/08 09:00

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SAMPLE ANALYTE COUNT

Project: JACQUES COM A 1 Pace Project No.: 6042387

Lab ID	Sample ID	Method	Analysts	Analytes Reported
6042387001	MW #2	EPA 8260	SSM	9
6042387002	MW #3	EPA 8260	SSM	9

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PROJECT NARRATIVE

Project: JACQUES COM A 1 6042387 Pace Project No .: Method: EPA 8260 Description: 8260 MSV UST. Water **BP-Blagg Engineering Client:** Date: June 27, 2008 **General Information:** 2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below. Hold Time: The samples were analyzed within the method required hold times with any exceptions noted below. Initial Calibrations (including MS Tune as applicable): All criteria were within method requirements with any exceptions noted below. **Continuing Calibration:** All criteria were within method requirements with any exceptions noted below. Internal Standards: All internal standards were within QC limits with any exceptions noted below. Surrogates: All surrogates were within QC limits with any exceptions noted below. Method Blank: All analytes were below the report limit in the method blank with any exceptions noted below. Laboratory Control Spike: All laboratory control spike compounds were within QC limits with any exceptions noted below. Matrix Spikes: All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below. QC Batch: MSV/15384 A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume. **Duplicate Sample:** All duplicate sample results were within method acceptance criteria with any exceptions noted below. Additional Comments: This data package has been reviewed for quality and completeness and is approved for release.

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QUALITY CONTROL DATA

Project: JACQUES COM A 1

Pace Project No.: 6042387

QC Batch:	MSV/	15384	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8	260	Analysis Description:	8260 MSV UST-WATER
Associated Lab Samp	oles:	6042387001, 6042387002		

METHOD BLANK: 344275

Associated Lab Samples: 6042387001, 6042387002

– .		Blank	Reporting	
Parameter	Units	Result	Limit	Qualifiers
Benzene	ug/L	ND	1.0	
Ethylbenzene	ug/L	ND	1.0	
Toluene	ug/L	ND	1.0	
Xylene (Total)	ug/L	ND	3.0	
1,2-Dichloroethane-d4 (S)	%	95	81-118	
4-Bromofluorobenzene (S)	%	101	85-119	
Dibromofluoromethane (S)	%	94	85-114	
Toluene-d8 (S)	%	103	82-114	

LABORATORY CONTROL SAMPLE: 344276

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers	
Benzene	ug/L		9.1	91	87-117		
Ethylbenzene	ug/L	10	9.6	96	84-123		
Toluene	ug/L	10	9.4	94	81-124		
Xylene (Total)	ug/L	30	27.3	91	83-125		
1,2-Dichloroethane-d4 (S)	%			94	81-118		
4-Bromofluorobenzene (S)	%			103	85-119		
Dibromofluoromethane (S)	%			97	85-114		
Toluene-d8 (S)	%			101	82-114		

Date: 06/27/2008 04:26 PM

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: JACQUES COM A 1

Pace Project No.: 6042387

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

BATCH QUALIFIERS

Batch: MSV/15384

[1] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

Date: 06/27/2008 04:26 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: JACQUES COM A 1 Pace Project No.: 6042387

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
6042387001 6042387002	MW #2 NW #3	EPA 8260 EPA 8260	MSV/15384 MSV/15384		

Date: 06/27/2008 04:26 PM

REPORT OF LABORATORY ANALYSIS

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Page 9 of 9

Courier: Tracking Custody Packing Thermon Cooler 1 Temp sho Chain of Chain of Chain of Chain of Chain of Chain of Chain of Samples Short H Rush Tu Sufficier Correct Containe Filtered Sample Sample Containe Filtered Sample		UPS USPS Clie oc Box Present: Versent: Versent	ent Cx ie Bags inc Biologi Inc ØYes Inc	51. 000000000000000000000000000000000000		□ Pace Other intact: □ yes □ Other □ Blue None is Frozen: Yes No Comments: 1. 2. 3. 4. 5. 6. 7. 2.0.4% 8. 9.		mples on icc Date and i contents	ional Due Date Name: a CG4 C cooling p nitials of p c E	$\frac{710}{6/27}$ $\frac{710}{6/27}$ $\frac{75}{000}$ $\frac{7}{6}$
Courier: Tracking Custody Packing Chain of Chain of		UPS USPS Clie <u>ec</u> Box Present: vyes bble Wrap Bubbl T-169 (4179) 3-5 ng to 6°C 	ent CC S C no le Bags [Type of Biologi DYes C DYes C	Domme D N Fice: ical T No		□ Pace Other intact: □ yes □ Other		mples on ice Date and it contents S · ic	a CGA	$\frac{710}{6/27}$ $\frac{710}{6/27}$ $\frac{100}{100}$ $\frac{100}{100}$
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All contair All contair Complian	JUES GAMERINGER IN	Applycic Matrix	5765 L		LJIWA	12.				
All contai complian	ners needing preserva	ation have been checked.	∏Ves [No	- PTN/A	13				· · · · · · · · · · · · · · · · · · ·
complian	iners needing preser	vation are found to be in		 						
	ce with EPA recomm	endation.	Lites L				· 			
exceptions	Coliform, TOC,	O&G, WI-DRO (water)	ElYes (completed	pre	# of added		
Samples	s checked for dech	lorination:	⊡Yes (14.				
Headspa	ace in VOA Vials (>6mm):	⊡Yes E			15.				
Ìinp Bla	nk Present:		⊡Yes (<u> Ino</u>	⊡n/a	16.				
Trip Bla	nk Custody Seals	Present	□Yes [3No	DN/A					
Pace Tri	ip Blank Lot # (if p	urchased):				<u> </u>			·····	
Cilent N	lotification/ Reso	lution:					Fie	ld Data Req	uired?	Y / N
Р	erson Contacted:				Date/	Time:				
Comm	nents/ Resolution:									
Comm	nents/ Resolution:									
				<u></u>						
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Proje	ect Manager Revie	ew: Mult	25/08					Date:		

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BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT: BP AMERICA PROD. CO.

N/A CHAIN-OF-CUSTODY # :

LABORATORY (S) USED : HALL ENVIRONMENTAL

UNIT M, SEC. 25, T30N, R9W

Date : August 25, 2008

Filename : 08-25-08.WK4

JACQUES COM A #1

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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	рН	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
1	99.00	84.35	14.65	22.50	-	-	-	-	-
2	97.37	84.35	13.02	21.50	1210	7.23	3,100	22.5	2.00
3	97.71	84.28	13.43	22.50	1150	7.26	2,500	23.4	4.50
			INSTRUM	ENT CALIE	BRATIONS =	4.01/7.00/10.00	2,800		
				DAT	F & TIMF =	08/25/08	0730		

DATE & TIME = 08/25/08

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".

Excellent recovery in MW ##3, fair / poor recovery in MW #2. Both showed murky brown appearance, no apparent hydrocarbon odor in MW #2. Collected samples for BTEX per US EPA Method 8021B from MW #2 & #3 only.

Top of casings : MW #1 ~ 3.20 ft. , MW #2 ~ 2.10 ft. , MW #3 ~ 2.60 ft. above grade .

on-site	11:14	temp	82
off-site	12:22	temp	86
sky cond.	Mostly	sunny	
wind speed	0-5	direct.	southwest

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Sep-08

CLIENT: Project:	Blagg Engineering Jacques Com A #1				Lab Orde	r: 0808411			
Lab ID: Client Sample	0808411-01 e ID: MW #2	Collection Date: 8/25/2008 12:10:00 P Matrix: AQUEOUS							
Analyses		Result	PQL Qu	al Units	DF	Date Analyzed			
EPA METHOD	8021B: VOLATILES					Analyst: DAM			
Benzene		ND	1.0	µg/L	1	9/5/2008 1:04:00 AM			
Toluene		ND	1.0	µg/L	1	9/5/2008 1:04:00 AM			
Ethylbenzene		ND	1.0	µg/L	· 1	9/5/2008 1:04:00 AM			
Xylenes, Total	I	ND	2.0	µg/L	1	9/5/2008 1:04:00 AM			
Surr: 4-Bror	nofluorobenzene	109	65.9-130	%REC	1	9/5/2008 1:04:00 AM			

Lab ID: 0808411-02

Client Sample ID: MW #3

Collection Date: 8/25/2008 11:50:00 AM

Matrix: AQUEOUS

Analyses	Result	PQL Qua	l Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: DAM
Benzene	ND	1.0	µg/L	1	9/5/2008 1:34:16 AM
Toluene	ND	1.0	µg/L	1	9/5/2008 1:34:16 AM
Ethylbenzene	ND	1.0	µg/L	1	9/5/2008 1:34:16 AM
Xylenes, Total	ND	2.0	µg/L	1	9/5/2008 1:34:16 AM
Surr: 4-Bromofluorobenzene	88.6	65.9-130	%REC	1	9/5/2008 1:34:16 AM

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Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
 - RL Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com wkins NE - Albuquerque, NM 87109 5-345-3975 Fax 505-345-4107	TPH (Method 504.1) EDB (Method 504.1) EDC (Method 504.1) 8310 (PUA or PAH) Anions (F,Cl,NO ₃ ,NO ₂ ,PO ₄ ,SO ₄) 8081 Pesticides / 8082 PCB's 8260B (VOA) 8270 (Semi-VOA) 8270 (Semi-VOA)	
4901 H¢ Tel. 50	BTEX + MTBE + TPH (Gas only) TPH Method 8015B (Gas/Diesel)	arks:
	BTEX) MTBE + TMBIS (80218)	
Id Time: Id □ Rush me: RUES Covr A # (nager: NELSUN VELEZ NELSUN VELEZ MELSON VELEZ MPERATURE UNO MPERATURE UN	1/Hc/tox 1 Hr/tox 2 Received by: 8/24/08/16:10 Received by: 8/24/08/16:10
Turn-Arour X Standa Project Nai Project #:	Project Ma Sampler:	2-40m
Custody Record SIGN, BP AMERICA BOX 87 NM 87413	 Level 4 (Full Validation) Sample Request ID 	MW # 2 MW # 3 Relinquished by: Relinquished by:
ain-of-(いかん E ん F 0. 8 2 F 0.	-ax#: ckage: ard Type) Time	12/0 1/50 1/50 1/50 1/50 1/50 1/50 1/50 1/
Client: Client:	email or F QA/QC Pa Cstandá Dther Date	8/25/08 8/25/08 Bate: Date:

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QA/QC SUMMARY REPORT

| Client:Blagg EProject:Jacques | ngineering
Com A #1 | | | | | | We | ork C | Order: 0808411 |
|-------------------------------|------------------------|-------|-----|------|----------|------------------|--------------|-------|-----------------------|
| Analyte | Result | Units | PQL | %Rec | LowLimit | HighLimit | %RPD | RPDI | _imit Qual |
| Method: EPA Method 802 | 1B: Volatiles | | | | | | | | |
| Sample ID: 5ML RB | | MBLK | | | Batch I | D: R30082 | Analysis Dat | e: | 9/4/2008 8:51:58 AM |
| Benzene | ND | µg/L | 1.0 | | | | | | |
| Toluene | ND | µg/L | 1.0 | | | | | | |
| Ethylbenzene | ND | µg/L | 1.0 | | | | | | |
| Xylenes, Total | ND | µg/L | 2.0 | | | | | | |
| Sample ID: 100NG BTEX LC | s | LCS | | | Batch I | D: R30082 | Analysis Dat | e: | 9/5/2008 3:05:27 AM |
| Benzene | 18.11 | µg/L | 1.0 | 90.6 | 85.9 | 113 | | | |
| Toluene | 17.59 | µg/L | 1.0 | 87.9 | 86.4 | 113 | | | |
| Ethylbenzene | 18.40 | µg/L | 1.0 | 92.0 | 83.5 | 118 | | | |
| Xylenes, Total | 55.02 | µg/L | 2.0 | 91.7 | 83.4 | 122 | | | |
| Sample ID: 100NG BTEX LC | SD | LCSD | | | Batch I | D: R30082 | Analysis Dat | e: | 9/5/2008 3:35:48 AM |
| Benzene | 17.66 | µg/L | 1.0 | 88.3 | 85.9 | 113 | 2.54 | 27 | |
| Toluene | 16.79 | µg/L | 1.0 | 84.0 | 86.4 | 113 | 4.62 | 19 | S |
| Ethylbenzene | 17.64 | µg/L | 1.0 | 88.2 | 83.5 | 118 | 4.23 | 10 | |
| Xylenes, Total | 52.31 | µg/L | 2.0 | 87.2 | 83.4 | 122 | 5.05 | 13 | |

Qualifiers:

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Page 1

Hall Environmental Analysis Laboratory, Inc.

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| | Sample | Rece | ept Che | ecklist | | | | |
|--|-------------------|------------|--------------|--------------------|---------------|--------------|-------------|-----|
| Client Name BLAGG | | | | Date Received | : | | 8/26/2008 | |
| Work Order Number 0808411 | X | | 1 1 | Received by: | ARS | | | |
| Checklist completed by: | \sum | | S 26
Date | Sample ID la | bels checked | by : | Initials | |
| Matrix: | Carrier name | <u>UPS</u> | | | | | | |
| Shipping container/cooler in good condition? | | Yes | \checkmark | Νο | Not Present | | | |
| Custody seals intact on shipping container/coole | er? | Yes | \checkmark | No 🗌 | Not Present | | Not Shipped | |
| Custody seals intact on sample bottles? | | Yes | | No 🗔 | N/A | \checkmark | | |
| Chain of custody present? | | Yes | \checkmark | No 🗌 | | | | |
| Chain of custody signed when relinquished and | received? | Yes | \checkmark | No 🗔 | | | | |
| Chain of custody agrees with sample labels? | | Yes | | No 🗌 | | | | |
| Samples in proper container/bottle? | | Yes | | No 🗌 | | | | |
| Sample containers intact? | | Yes | \checkmark | Νο | | | | |
| Sufficient sample volume for indicated test? | | Yes | | No 🗌 | | | | |
| All samples received within holding time? | | Yes | \checkmark | No 🗌 | | | | |
| Water - VOA vials have zero headspace? | No VOA vials subr | mitted | | Yes 🗹 | No 🗔 | | | |
| Water - Preservation labels on bottle and cap m | atch? | Yes | | No 🗋 | N/A 🗹 | | | |
| Water - pH acceptable upon receipt? | | Yes | | No 🗌 | N/A 🗹 | | | |
| Container/Temp Blank temperature? | | 4 | t° | <6° C Acceptable | 9 | | | · |
| COMMENTS: | · | | | f given sufficient | time to cool. | | | |
| | | | | | | | | |
| ======================================= | | - <u> </u> | | | | | | ==: |
| Client contacted | Date contacted: | | | Perso | on contacted | | | |
| Contacted by: | Regarding: | | | | | | | |
| | | | | | | | | |
| Comments: | | | | | | | | |
| Comments: | | | | | | | | |
| Comments: | | | | | | | | |