

3R - 27

REPORTS

DATE:

6/29/1994

BLAGG ENGINEERING, INC.

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

June 29, 1994

Mr. William C. Olson
Hydrogeologist
Environmental Bureau
New Mexico Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87504

RE: Groundwater sampling
Amoco Production Company
Jaquez GC C1/E1 Well Locations
San Juan County, New Mexico
Unit O, Section 06, T29N, R09W

Dear Mr. Olson:

Per the instructions of Mr. Buddy Shaw, Amoco Production Company, the attached report on groundwater monitoring at the above referenced well locations is being submitted for your review. A copy of this report is also being submitted to Mr. Denny Foust at the Aztec OCD office. Please refer to the original report submitted to you with a March 25, 1994 cover letter for additional information.

Table 1 summarizes all sampling results since initial installation of 15 wellpoints in March 1994. The wellpoints were installed after contaminated pits were excavated for site remediation. Additional excavation was done in the area of wellpoint #7 after initial sampling was completed to remove a small area of remaining contamination. Wellpoint #7 was destroyed in the process. The attached site diagram also indicates the most recent groundwater elevations.

If you have any questions or comments concerning this report, please contact Blagg Engineering at 632-1199.

Respectfully submitted,
Blagg Engineering, Inc.

Robert E. O'Neill

Robert E. O'Neill, M.S.
Civil Engineering, Environmental

Attachments: Table 1 - Sample Results
Site Diagram
Laboratory Reports

xc: Buddy Shaw, Amoco
Denny Foust, NMOCD Aztec Office

REO/reo

JAQ-6-94.RPT

TABLE 1
AMOCO PRODUCTION COMPANY
JAQUEZ GC C1/E1
GROUNDWATER SAMPLING

June 29, 1994

WELL POINT	DATE	pH	COND. umhos/cm	BENZENE ug/L	TOLUENE ug/L	E-BENZENE ug/L	T-XYLENE ug/L
#1	3-4-94	7.6	900	ND	0.8	ND	1.3
	6-15-94	6.9	700	0.8	ND	ND	ND
#2	3-4-94	7.1	300	ND	0.7	ND	0.6
	6-15-94	7.2	500	ND	ND	ND	ND
#3	3-4-94	7.5	300	ND	0.5	ND	0.6
	6-15-94	7.0	500	ND	ND	ND	ND
#4	3-4-94	7.2	400	ND	1.4	ND	2.0
	6-15-94	7.0	500	ND	ND	ND	ND
#5	3-4-94	7.5	400	ND	ND	ND	ND
	6-15-94	7.0	600	ND	ND	ND	ND
#6	3-4-94	7.3	400	ND	0.7	ND	ND
	6-15-94	7.1	500	ND	1.1	ND	1.4
#7	3-4-94	7.5	500	2.6	0.8	0.9	700.0
#8	3-4-94	7.3	400	ND	ND	ND	0.8
	6-15-94	7.0	500	ND	ND	ND	ND
#9	3-4-94	7.4	2100	1.2	0.7	0.4	20.0
	6-15-94	7.0	800	8.4	1.8	2.7	46.2
#10	3-4-94	7.2	500	0.7	ND	ND	151.0
	6-15-94	7.1	400	ND	ND	ND	16.0
#11	3-4-94	7.4	600	ND	ND	ND	0.7
	6-15-94	7.2	400	ND	ND	ND	ND
#12	3-4-94	7.4	300	ND	ND	ND	ND
	6-15-94	7.3	400	0.8	0.6	ND	ND
#13	3-4-94	7.5	500	ND	ND	ND	1.1
	6-15-94	7.3	600	1.0	1.0	0.4	ND
#14	3-4-94	7.4	400	ND	0.9	1.6	19.7
	6-15-94	7.8	400	ND	ND	ND	ND
#15	3-4-94	7.5	400	ND	ND	0.3	0.4
	6-15-94	7.6	400	ND	ND	ND	ND

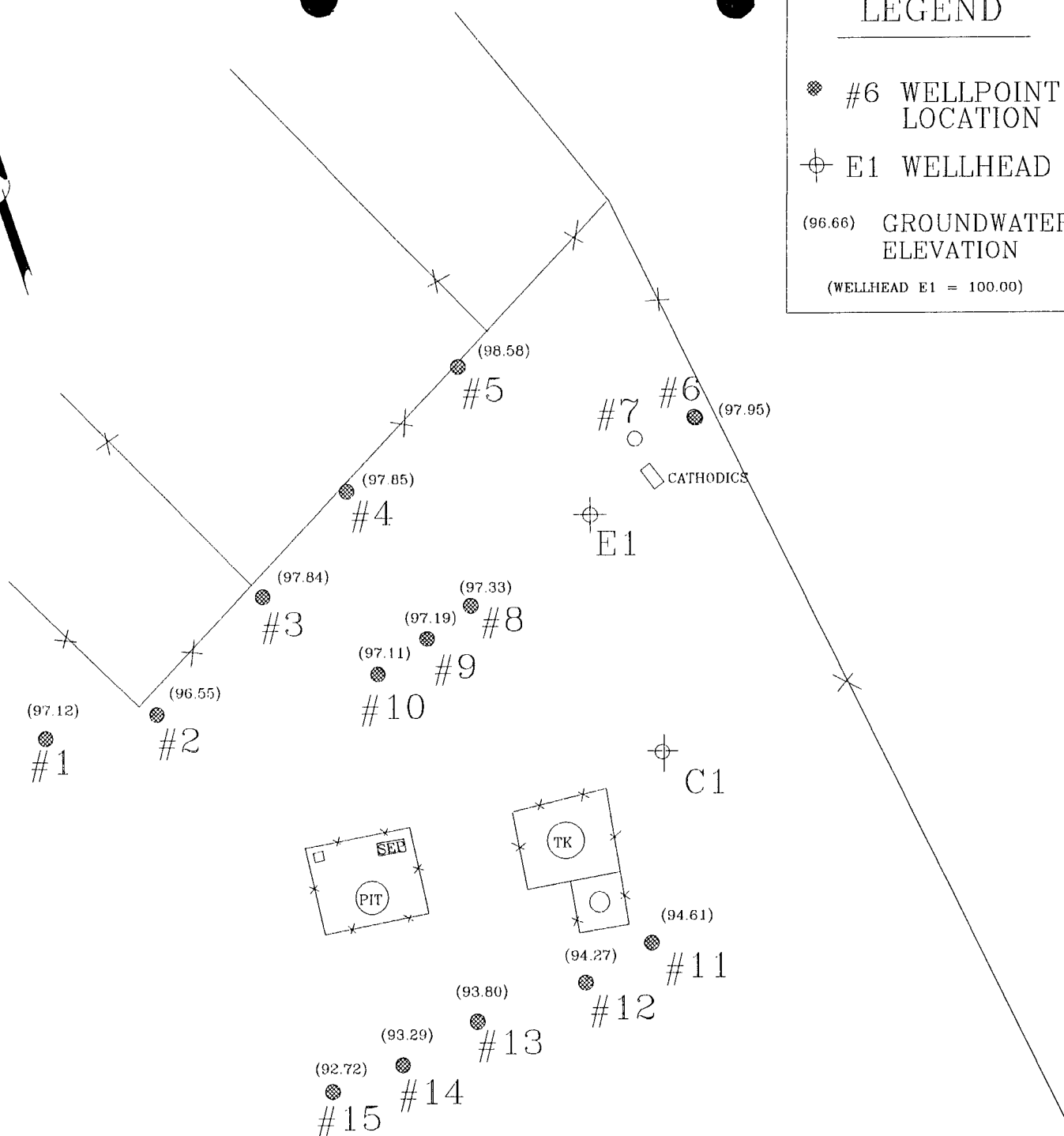
LEGEND

● #6 WELLPOINT LOCATION

⊕ E1 WELLHEAD

(96.66) GROUNDWATER ELEVATION

(WELLHEAD E1 = 100.00)



JAQ-6-94.DWG

AMOCO PRODUCTION
COMPANY

JAQUEZ C1/E1

(O) S06-T29N-R09W

BLAGG ENGINEERING, INC.

P.O. BOX 87

BLOOMFIELD, NM 87413

PHONE: 632-1199 FAX: 632-3903

WELL LOCATIONS
G.W. ELEVATIONS

FIGURE #1 DRWN: 3/94

P.M: REO REV'D 6/94

**ON SITE
TECHNOLOGIES, LTD.**
AROMATIC VOLATILE ORGANICS

Attn: *R. E. O'Neill*
Company: *Blagg Engineering Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/16/94*
Lab ID: *1669*
Sample ID: *1572*
Job No. *2-1000*

Project Name: *Jaquez C1/E1*
Project Location: *WP - 1*
Sampled by: *REO* Date: *6/15/94*
Analyzed by: *DLA* Date: *6/16/94*
Sample Matrix: *Liquid*

Time: *8:30*

Aromatic Volatile Organics

<i>Component</i>	<i>**Measured Concentration ug/L</i>
<i>Benzene</i>	<i>0.8</i>
<i>Toluene</i>	<i>ND</i>
<i>Ethylbenzene</i>	<i>ND</i>
<i>m,p-Xylene</i>	<i>ND</i>
<i>o-Xylene</i>	<i>ND</i>
	<i>TOTAL 0.8 ug/L</i>

ND - Not Detectable

*** - Method Detection Limit, 2 ug/L*

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

Approved by: *Jan H*

Date: *6/16/94*

**ON SITE
TECHNOLOGIES, LTD.**
AROMATIC VOLATILE ORGANICS

Attn: *R. E. O'Neill*
Company: *Blagg Engineering Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/16/94*
Lab ID: *1670*
Sample ID: *1572*
Job No. *2-1000*

Project Name: *Jaquez C1/E1*

Project Location: *WP - 2*

Sampled by: *REO* Date: *6/15/94*

Time: *8:50*

Analyzed by: *DLA* Date: *6/16/94*

Sample Matrix: *Liquid*

Aromatic Volatile Organics

Component	**Measured Concentration ug/L
<i>Benzene</i>	<i>ND</i>
<i>Toluene</i>	<i>ND</i>
<i>Ethylbenzene</i>	<i>ND</i>
<i>m,p-Xylene</i>	<i>ND</i>
<i>o-Xylene</i>	<i>ND</i>
<i>TOTAL</i>	<i>0.0 ug/L</i>

ND - Not Detectable

*** - Method Detection Limit, 2 ug/L*

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

Approved by: *Jan H*

Date: *6/16/94*

**ON SITE
TECHNOLOGIES, LTD.**

AROMATIC VOLATILE ORGANICS

Attn: *R. E. O'Neill*
Company: *Blagg Engineering Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/16/94*
Lab ID: *1671*
Sample ID: *1572*
Job No. *2-1000*

Project Name: *Jaquez C1/E1*
Project Location: *WP - 3*
Sampled by: *REO*
Analyzed by: *DLA*
Sample Matrix: *Liquid*

Date: *6/15/94*
Date: *6/16/94*

Time: *9:10*

Aromatic Volatile Organics

Component	**Measured Concentration ug/L
<i>Benzene</i>	<i>ND</i>
<i>Toluene</i>	<i>ND</i>
<i>Ethylbenzene</i>	<i>ND</i>
<i>m,p-Xylene</i>	<i>ND</i>
<i>o-Xylene</i>	<i>ND</i>
TOTAL	0.0 ug/L

ND - Not Detectable

*** - Method Detection Limit, 2 ug/L*

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

Approved by:
Date:

Ja H
6/16/94

**ON SITE
TECHNOLOGIES, LTD.**
AROMATIC VOLATILE ORGANICS

Attn: *R. E. O'Neill*
Company: *Blagg Engineering Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/16/94*
Lab ID: *1672*
Sample ID: *1572*
Job No. *2-1000*

Project Name: *Jaquez C1/E1*
Project Location: *WP - 4*
Sampled by: *REO*
Analyzed by: *DLA*
Sample Matrix: *Liquid*

Date: *6/15/94*
Date: *6/16/94*

Time: *9:45*

Aromatic Volatile Organics

<i>Component</i>	<i>**Measured Concentration ug/L</i>
<i>Benzene</i>	<i>ND</i>
<i>Toluene</i>	<i>ND</i>
<i>Ethylbenzene</i>	<i>ND</i>
<i>m,p-Xylene</i>	<i>ND</i>
<i>o-Xylene</i>	<i>ND</i>
<i>TOTAL</i>	<i>0.0 ug/L</i>

ND - Not Detectable

*** - Method Detection Limit, 2 ug/L*

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

Approved by: *[Signature]*
Date: *6/16/94*



ON SITE TECHNOLOGIES, LTD.

AROMATIC VOLATILE ORGANICS

Attn: *R. E. O'Neill*
Company: *Blagg Engineering Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: 6/16/94
Lab ID: 1673
Sample ID: 1572
Job No. 2-1000

Project Name: *Jaquez C1/E1*
Project Location: *WP - 5*
Sampled by: *REO*
Analyzed by: *DLA*
Sample Matrix: *Liquid*

Date: 6/15/94
Date: 6/16/94

Time: 10:10

Aromatic Volatile Organics

Component	**Measured Concentration ug/L
Benzene	ND
Toluene	ND
Ethylbenzene	ND
m,p-Xylene	ND
o-Xylene	ND
TOTAL	0.0 ug/L

ND - Not Detectable

** - Method Detection Limit, 2 ug/L

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

Approved by: *Jan G*

Date: 6/16/94

FAX: (505) 327-1496 • 24 HR. - (505) 327-7105 • OFF.: (505) 325-8786

3005 NORTHRIDGE DRIVE • SUITE F • P. O. BOX 2606 • FARMINGTON, NEW MEXICO 87499

**ON SITE
TECHNOLOGIES, LTD.**
AROMATIC VOLATILE ORGANICS

Attn: *R. E. O'Neill*
Company: *Blagg Engineering Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/16/94*
Lab ID: *1674*
Sample ID: *1572*
Job No. *2-1000*

Project Name: *Jaquez C1/E1*
Project Location: *WP - 6*
Sampled by: *REO*
Analyzed by: *DLA*
Sample Matrix: *Liquid*

Date: *6/15/94* Time: *10:30*
Date: *6/16/94*

Aromatic Volatile Organics

Component	**Measured Concentration ug/L
<i>Benzene</i>	<i>ND</i>
<i>Toluene</i>	<i>1.1</i>
<i>Ethylbenzene</i>	<i>ND</i>
<i>m,p-Xylene</i>	<i>1.4</i>
<i>o-Xylene</i>	<i>ND</i>
TOTAL	2.5 ug/L

ND - Not Detectable

*** - Method Detection Limit, 2 ug/L*

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

Approved by:
Date:

Ja GX
6/16/94



ON SITE TECHNOLOGIES, LTD.

AROMATIC VOLATILE ORGANICS

Attn: *R. E. O'Neill*
Company: *Blagg Engineering Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/16/94*
Lab ID: *1676*
Sample ID: *1572*
Job No. *2-1000*

Project Name: *Jaquez C1/E1*
Project Location: *WP - 8*
Sampled by: *REO* Date: *6/15/94*
Analyzed by: *DLA* Date: *6/16/94*
Sample Matrix: *Liquid*

Time: *11:00*

Aromatic Volatile Organics

Component	**Measured Concentration ug/L
<i>Benzene</i>	<i>ND</i>
<i>Toluene</i>	<i>ND</i>
<i>Ethylbenzene</i>	<i>ND</i>
<i>m,p-Xylene</i>	<i>ND</i>
<i>o-Xylene</i>	<i>ND</i>
<i>TOTAL</i>	<i>0.0 ug/L</i>

ND - Not Detectable

*** - Method Detection Limit, 2 ug/L*

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

Approved by: *[Signature]*
Date: *6/16/94*



ON SITE TECHNOLOGIES, LTD.

AROMATIC VOLATILE ORGANICS

Attn: *R. E. O'Neill*
Company: *Blagg Engineering Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/16/94*
Lab ID: *1677*
Sample ID: *1572*
Job No. *2-1000*

Project Name: *Jaquez C1/E1*
Project Location: *WP - 9*
Sampled by: *REO*
Analyzed by: *DLA*
Sample Matrix: *Liquid*

Date: *6/15/94*
Date: *6/16/94*

Time: *11:20*

Aromatic Volatile Organics

Component	**Measured Concentration ug/L
<i>Benzene</i>	<i>8.4</i>
<i>Toluene</i>	<i>1.8</i>
<i>Ethylbenzene</i>	<i>2.7</i>
<i>m,p-Xylene</i>	<i>45.2</i>
<i>o-Xylene</i>	<i>1.0</i>
<i>TOTAL</i>	<i>59 ug/L</i>

ND - Not Detectable

** - Method Detection Limit, 2 ug/L

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

Approved by: 

Date: *6/16/94*

**ON SITE
TECHNOLOGIES, LTD.**
AROMATIC VOLATILE ORGANICS

Attn: *R. E. O'Neill*
Company: *Blagg Engineering Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/16/94*
Lab ID: *1678*
Sample ID: *1572*
Job No. *2-1000*

Project Name: *Jaquez C1/E1*
Project Location: *WP - 10*
Sampled by: *REO*
Analyzed by: *DLA*
Sample Matrix: *Liquid*

Date: *6/15/94*
Date: *6/16/94*

Time: *11:40*

Aromatic Volatile Organics

Component	**Measured Concentration ug/L
<i>Benzene</i>	<i>ND</i>
<i>Toluene</i>	<i>ND</i>
<i>Ethylbenzene</i>	<i>ND</i>
<i>m,p-Xylene</i>	<i>16.0</i>
<i>o-Xylene</i>	<i>ND</i>
TOTAL	16.0 ug/L

ND - Not Detectable

*** - Method Detection Limit, 2 ug/L*

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

Approved by:
Date:

Ja H
6/16/94

**ON SITE
TECHNOLOGIES, LTD.**
AROMATIC VOLATILE ORGANICS

Attn: *R. E. O'Neill*
Company: *Blagg Engineering Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: 6/16/94
Lab ID: 1679
Sample ID: 1572
Job No. 2-1000

Project Name: *Jaquez C1/E1*
Project Location: *WP - 11*
Sampled by: REO Date: 6/15/94
Analyzed by: DLA Date: 6/16/94
Sample Matrix: *Liquid*

Time: 12:15

Aromatic Volatile Organics

Component	**Measured Concentration ug/L
<i>Benzene</i>	<i>ND</i>
<i>Toluene</i>	<i>ND</i>
<i>Ethylbenzene</i>	<i>ND</i>
<i>m,p-Xylene</i>	<i>ND</i>
<i>o-Xylene</i>	<i>ND</i>
TOTAL	0.0 ug/L

ND - Not Detectable

*** - Method Detection Limit, 2 ug/L*

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

Approved by:
Date:

J. H. L.
6/16/94

**ON SITE
TECHNOLOGIES, LTD.**
AROMATIC VOLATILE ORGANICS

Attn: *R. E. O'Neill*
Company: *Blagg Engineering Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/17/94*
Lab ID: *1680*
Sample ID: *1572*
Job No. *2-1000*

Project Name: *Jaquez C1/E1*
Project Location: *WP - 12*
Sampled by: *REO*
Analyzed by: *DLA*
Sample Matrix: *Liquid*

Date: *6/15/94*
Date: *6/17/94*
Time: *12:40*

Aromatic Volatile Organics

Component	**Measured Concentration ug/L
<i>Benzene</i>	<i>0.8</i>
<i>Toluene</i>	<i>0.6</i>
<i>Ethylbenzene</i>	<i>ND</i>
<i>m,p-Xylene</i>	<i>ND</i>
<i>o-Xylene</i>	<i>ND</i>
<i>TOTAL</i>	<i>1.4 ug/L</i>

ND - Not Detectable

*** - Method Detection Limit, 2 ug/L*

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

Approved by: *Don H*

Date: *6/17/94*



ON SITE TECHNOLOGIES, LTD.

AROMATIC VOLATILE ORGANICS

Attn: *R. E. O'Neill*
Company: *Blagg Engineering Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/17/94*
Lab ID: *1681*
Sample ID: *1572*
Job No. *2-1000*

Project Name: *Jaquez C1/E1*
Project Location: *WP - 13*
Sampled by: *REO*
Analyzed by: *DLA*
Sample Matrix: *Liquid*

Date: *6/15/94*
Date: *6/17/94*

Time: *12:50*

Aromatic Volatile Organics

Component	**Measured Concentration ug/L
<i>Benzene</i>	<i>1.0</i>
<i>Toluene</i>	<i>1.0</i>
<i>Ethylbenzene</i>	<i>0.4</i>
<i>m,p-Xylene</i>	<i>ND</i>
<i>o-Xylene</i>	<i>ND</i>
<i>TOTAL</i>	<i>2.4 ug/L</i>

ND - Not Detectable

*** - Method Detection Limit, 2 ug/L*

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

Approved by:
Date:

Janet
6/17/94

**ON SITE
TECHNOLOGIES, LTD.**
AROMATIC VOLATILE ORGANICS

Attn: *R. E. O'Neill*
Company: *Blagg Engineering Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/17/94*
Lab ID: *1682*
Sample ID: *1573*
Job No. *2-1000*

Project Name: *Jaquez C1/E1*
Project Location: *WP - 14*
Sampled by: *REO*
Analyzed by: *DLA*
Sample Matrix: *Liquid*

Date: *6/15/94*
Date: *6/17/94*

Time: *13:10*

Aromatic Volatile Organics

<i>Component</i>	<i>**Measured Concentration ug/L</i>
<i>Benzene</i>	<i>ND</i>
<i>Toluene</i>	<i>ND</i>
<i>Ethylbenzene</i>	<i>ND</i>
<i>m,p-Xylene</i>	<i>ND</i>
<i>o-Xylene</i>	<i>ND</i>
<i>TOTAL</i>	<i>0.0 ug/L</i>

ND - Not Detectable

*** - Method Detection Limit, 2 ug/L*

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

Approved by: *Ja G*

Date: *6/17/94*

**ON SITE
TECHNOLOGIES, LTD.**
AROMATIC VOLATILE ORGANICS

Attn: *R. E. O'Neill*
Company: *Blagg Engineering Inc.*
Address: *P.O. Box 87*
City, State: *Bloomfield, NM 87413*

Date: *6/17/94*
Lab ID: *1683*
Sample ID: *1573*
Job No. *2-1000*

Project Name: *Jaquez C1/E1*
Project Location: *WP - 15*
Sampled by: *REO* Date: *6/15/94*
Analyzed by: *DLA* Date: *6/17/94*
Sample Matrix: *Liquid*

Time: *13:30*

Aromatic Volatile Organics

<i>Component</i>	<i>**Measured Concentration ug/L</i>
<i>Benzene</i>	<i>ND</i>
<i>Toluene</i>	<i>ND</i>
<i>Ethylbenzene</i>	<i>ND</i>
<i>m,p-Xylene</i>	<i>ND</i>
<i>o-Xylene</i>	<i>ND</i>
<i>TOTAL</i>	<i>0.0 ug/L</i>

ND - Not Detectable

*** - Method Detection Limit, 2 ug/L*

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

Approved by: *Joe H*

Date: *6/17/94*

ON SITE TECHNOLOGIES, LTD.

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 6/16/94

Internal QC No.: 0222-STD

Surrogate QC No.: 0223-STD

Reference Standard QC No.: 0300-STD

Method Blank

Analytes in Blank	Amount
Average Amount of All Analytes In Blank	< 1 ppb

Calibration Check

Calibration Standards	Units of Measure	*True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20	22	10	15%
Toluene	ppb	20	21	4	15%
Ethylbenzene	ppb	20	20	0	15%
m,p-Xylene	ppb	40	39	2	15%
o-Xylene	ppb	20	20	1	15%

Spike Results

Analyte	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	104	105	(39-150)	1	20%
Toluene	104	109	(46-148)	3	20%
Ethylbenzene	104	108	(32-160)	3	20%
m,p-Xylene	101	104	(35-145)	2	20%
o-Xylene	101	105	(35-145)	3	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	S3 Percent Recovered
Limits	(70-130)		
1669-1572	99		

S1: Fluorobenzene

ON SITE TECHNOLOGIES, LTD.

QUALITY ASSURANCE REPORT for EPA Method 8020

Date Analyzed: 6/17/94

Internal QC No.: 0222-STD
Surrogate QC No.: 0223-STD
Reference Standard QC No.: 0300-STD

Method Blank

Analytes in Blank	Amount
Average Amount of All Analytes In Blank	<1 ppb

Calibration Check

Calibration Standards	Units of Measure	*True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20	22	9	15%
Toluene	ppb	20	20	2	15%
Ethylbenzene	ppb	20	19	4	15%
m,p-Xylene	ppb	40	38	6	15%
o-Xylene	ppb	20	19	3	15%

Spike Results

Analyte	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	102	102	(39-150)	0	20%
Toluene	103	100	(46-148)	2	20%
Ethylbenzene	101	99	(32-160)	2	20%
m,p-Xylene	101	99	(35-145)	1	20%
o-Xylene	101	98	(35-145)	2	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	S3 Percent Recovered
Limits	(70-130)		
1680-1572	99		

S1: Fluorobenzene

**ON SITE
TECHNOLOGIES LIMITED**

Date: 6-15-94

Page 1 of 2[illegible]

CHAIN OF CUSTODY RECORD

1573
21

Date: 6-15-94

Page 2 of 2

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

[illegible]

ENVIROTECH Inc.

APR 27 1993

5798 US HWY. 64, FARMINGTON, NM 87401
(505) 832-0815

94805

OIL CONSERVATION DIV.

SANTA FE

FIELD REPORT: SITE ASSESSMENT

JOB No: 72140

PAGE No: 1 of 2

PROJECT: PIT ASSESSMENTS & CLOSURE

CLIENT: AMOCO PRODUCTION COMPANY

CONTRACTOR: ENVIRTECH, INC

EQUIPMENT USED: EXTENSION-ROF # 538

DATE STARTED: 3/16/93

DATE FINISHED: 3/17/95

ENVIRO. SPCLT: NV

OPERATOR: RW

ASSISTANT: TC

LOCATION: LSE: JACQUEZ

WELL: GC E1 CD: (5) SW 4 SE 4

SEC: 6 TWP: 29N RNG: 9W PM: NM CNTY: SAN TWA ST: NM PIT: ABANDONED

LAND USE: RANGE/RESIDENTIAL

SURFACE CONDITIONS: CLEARED OUT NO VEGETATION LEACHED (WHITE)

FIELD NOTES & REMARKS: SOIL CONSISTS OF BLACK MOIST SAND @ T1 FROM 1' TO APPROX. 4 1/2' INTERVAL. STRONG PETROLEUM ODOR. DUE TO TEST HOLE BEING OVER TOO DEEP INITIALLY, CAVING IN OCCURRED. UNABLE TO COLLECT GROUNDWATER SAMPLE @ T1. PLUME AREA APPEARS TO BE ISOLATED TO THE ORIGINAL PIT LOCATION. APPROXIMATE VOLUME OF CONTAMINATION EQUALS 25' X 30' X 4' (111 CUBIC YARDS).

SAMPLE INVENTORY:		
SAMPL ID:	SAMPL TYPE:	LABORATORY ANALYSIS:
T1@1.5'	SOIL	BTEX/TPH
T1@GW	WATER	ACET/CHLOROFORM
T2@3'	SOIL	TPH
T2@GW	WATER	TPH
T2@GW	WATER	BTEX

HAZ-T = 0.00 PPM HAZ@2 = 0.6 PPM

SEE SITE OVERLAP FOR PIT LOCATION APPROXIMATED FROM THE JACQUEZ HOUSE.

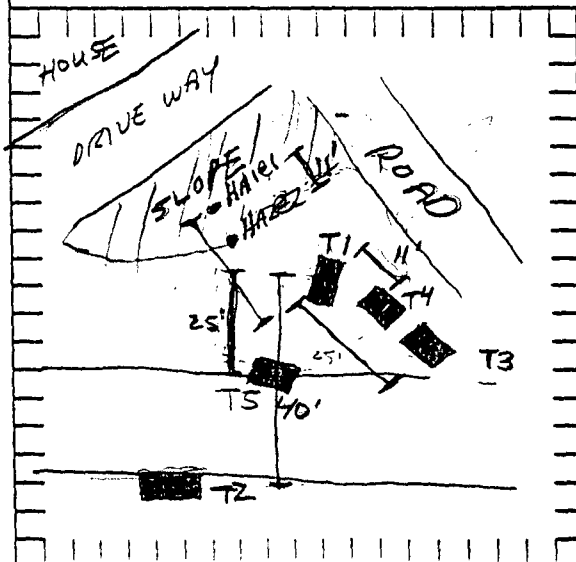
[illegible]

SCALE

0

FEET

SITE DIAGRAM



TEST HOLE LOGS:

TH#:	SOIL TYPE:	SMPL TYPE:	QVW/TPH
1	SP	666	
2	GW		
3	TD	4'	
4	GW	5'	
5	TD	4'	
6	GW	5'	
7	TD	4'	
8	GW	5'	
9	TD	4'	
10	GW	5'	

SOIL TYPE: C - Clay M - SIL S - Sand G - Gravel Planting L - Maple H - Hickory Gravel P - Peoria V - Vol.

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JOB No: 92140
PAGE No: 2 of 2

DATE STARTED: 3/16/93
DATE FINISHED: 3/17/93
ENVIRG. SPCLT: NV
OPERATOR: BW
ASSISTANT: TC

LAND USE:
SURFACE CONDITIONS:

cont'd

C

FEET
SITE DIAGRAM

TH#: 5

SOIL	SAMPL	QVM/
TYPE:	TYPE:	TPH

SP 10^{60K} 5.7
LRR 1
SP 2 2.1
SP 3 1.2
TD - 5'
SW - 4 1/2'

TH#:

SOIL	SMPL	OWN
TYPE:	TYPE:	TPH

TH#:

SOIL	SMPL	QVM
TYPE:	TYPE:	TPH

TE#:

SOIL	SAMPL	QVM,
TYPE:	TYPE:	TP4

SOIL TYPE: G - Clay, M - Silt, S - Sand, C - Gravel Planting: L - Moss, H - Pileus Grading: P - Poor, V - Very

San Juan rears Form 578-81

Client: **Envirotech**
Sample ID: **TI @ GW (5ft)**
Laboratory ID: **2204**
Sample Matrix: **Water**
Condition: **Cool/Intact**

Date Reported: **03/25/93**
Date Sampled: **03/16/93**
Time Sampled: **0945**
Date Received: **03/16/93**

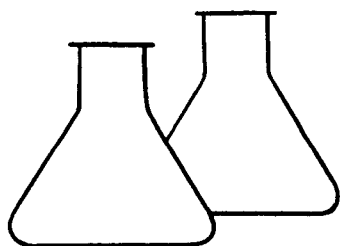
Parameter	Analytical Result	Units
-----------	----------------------	-------

Fecal Coliform Bacteria	<1	Colonies/100mL
-------------------------	----	----------------

Reference: U.S.E.P.A. 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
"Standard Methods For The Examination Of Water And Waste Water", 17th ed., 1989.

Reviewed by





ENVIROTECH LABS

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

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ 1.5'	Date Reported:	03-16-93
Laboratory Number:	4759	Date Sampled:	03-16-93
Sample Matrix:	Soil	Date Received:	03-16-93
Preservative:	Cool	Date Extracted:	03-16-93
Condition:	Cool & Intact	Date Analyzed:	03-16-93
		Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	3,720	167
Toluene	33,600	250
Ethylbenzene	12,300	167
p,m-Xylene	105,200	250
o-Xylene	10,800	167

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	109 %

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

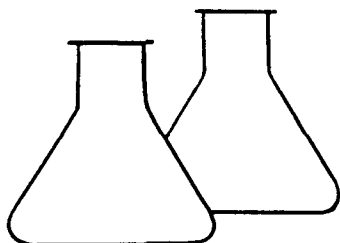
Method 8020, Aromatic Volatile Organics, Test Methods
for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC E1, Abandoned Pit, 94805.

A. Chaharlang
Analyst

Marion D. Young
Review



ENVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401

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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ 1.5'	Date Sampled:	03-16-93
Laboratory Number:	4759	Date Received:	03-16-93
Sample Matrix:	Soil	Date Analyzed:	03-16-93
Preservative:	Cool	Date Reported:	03-16-93
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----	-----	-----
Total Petroleum Hydrocarbons	26,200	250

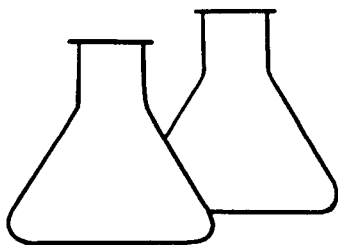
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC El Abandoned Pit
94805

Shela L. Llanos
Analyst

Mari D. Young
Review



ENVIROTECH LABS

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

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T2 @ 3'	Date Reported:	03-17-93
Laboratory Number:	4760	Date Sampled:	03-16-93
Sample Matrix:	Soil	Date Received:	03-16-93
Preservative:	Cool	Date Extracted:	03-17-93
Condition:	Cool & Intact	Date Analyzed:	03-17-93
		Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	24.9	20.0
Toluene	55	26.7
Ethylbenzene	17.3	13.3
p,m-Xylene	69	20.0
o-Xylene	22.8	13.3

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Bromofluorobenzene	98 %

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

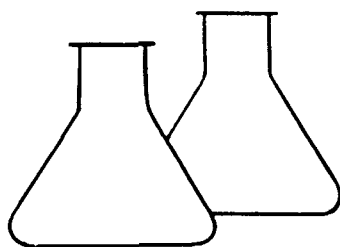
Method 8020, Aromatic Volatile Organics, Test Methods
for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC E1, Abandoned Pit, 94805.

Cecilia Chaharling
Analyst

Maxi D. Young
Review



ENVIROTECH LABS

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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T2 @ 3'	Date Sampled:	03-16-93
Laboratory Number:	4760	Date Received:	03-16-93
Sample Matrix:	Soil	Date Analyzed:	03-17-93
Preservative:	Cool	Date Reported:	03-17-93
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----	-----	-----
Total Petroleum Hydrocarbons	ND	10

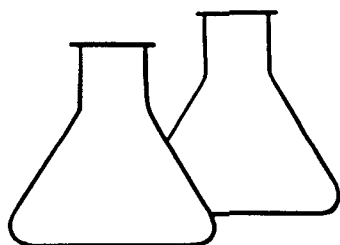
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC El Abandoned Pit
94805

Heita Leblanc
Analyst

Marie D. Young
Review



ENVIROTECH LABS

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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T2 @ GW (4')	Date Reported:	03-17-93
Laboratory Number:	4761	Date Sampled:	03-16-93
Sample Matrix:	Water	Date Received:	03-16-93
Preservative:	HgCl & Cool	Date Analyzed:	03-17-93
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	0.4	0.3
Toluene	1.8	0.4
Ethylbenzene	1.2	0.2
p,m-Xylene	8.0	0.3
o-Xylene	2.5	0.2

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	110 %
	Bromofluorobenzene	101 %

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

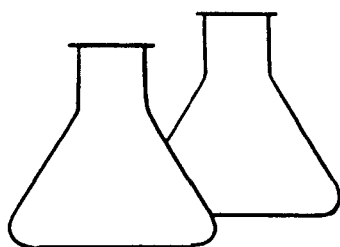
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC E1, Abandoned Pit, 94805.

Ar Chahar
Analyst

Marion D. Young
Review



ENVIROTECH LABS

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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T2 @ GW (4')	Date Sampled:	03-16-93
Laboratory Number:	4762	Date Received:	03-16-93
Sample Matrix:	Water	Date Analyzed:	03-17-93
Preservative:	Cool	Date Reported:	03-17-93
Condition:	Cool	Analysis Needed:	TPH

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
TPH	ND	0.5

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

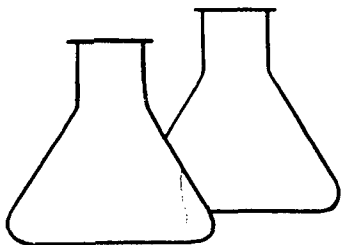
ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC El Abandoned Pit 94805

Sample container was not rinsed during analysis
due to the large amount of solids present.

Stella Lelva
Analyst

Morgan D. Young
Review



ENVIROTECH LABS

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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T3 @ 3'	Date Sampled:	03-17-93
Laboratory Number:	4779	Date Received:	03-17-93
Sample Matrix:	Soil	Date Analyzed:	03-18-93
Preservative:	Cool	Date Reported:	03-18-93
Condition:	Cool & Intact	Analysis Needed:	TPH

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

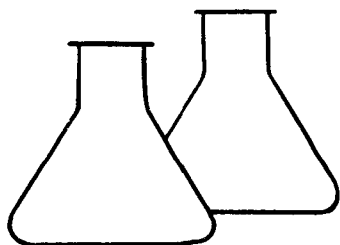
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC El Abandoned Pit
94805

Steve Lott
Analyst

Morris D. Young
Review



ENVIROTECH LABS

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

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T3 @ GW (3.5')	Date Reported:	03-18-93
Laboratory Number:	4780	Date Sampled:	03-17-93
Sample Matrix:	Water	Date Received:	03-17-93
Preservative:	HgCl and Cool	Date Analyzed:	03-17-93
Condition:	Cool and Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	1.8	0.3
Toluene	2.9	0.5
Ethylbenzene	3.3	0.4
p,m-Xylene	1.6	1.0
o-Xylene	2.4	0.5

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	109 %
	Bromofluorobenzene	117 %

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

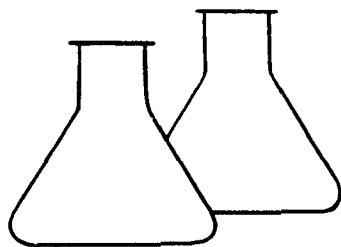
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC E1, Abandoned, 94805.

A. Chaharlang
Analyst

M. D. Young
Review



ENVIROTECH LABS

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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T3 @ GW (3.5')	Date Sampled:	03-17-93
Laboratory Number:	4781	Date Received:	03-17-93
Sample Matrix:	Water	Date Analyzed:	03-18-93
Preservative:	Cool	Date Reported:	03-18-93
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
-----	-----	-----
TPH	ND	0.5

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

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC El Abandoned Pit
94805

Shik Feltma
Analyst

Mani S. Young
Review

ENVIROTECH Inc.

5798 US HWY. 84, FARMINGTON, NM 87401
(505) 832-0815

94806

FIELD REPORT: SITE ASSESSMENT

JOB No: 92140
PAGE No: 1 of 1

PROJECT: PIT ASSESSMENTS & CLOSURE
CLIENT: AMOCO PRODUCTION COMPANY
CONTRACTOR: ENVIROTECH INC.
EQUIPMENT USED: EXTENDA-HOE #538

DATE STARTED: 3/17/95
DATE FINISHED: 3/17/95
ENVIRO. SPCLT: NV
OPERATOR: BW
ASSISTANT: TC

LOCATION: LSE: JAQUEZ WELL: GC C1 QD: SW/4 SE/4 (0)
SEC: 6 TWP: 7N RNG: 9W PM: NM CNTY: SAN JUAN ST: NM PIT: ABANDONED

LAND USE: RANGE AGRICULTURAL

SURFACE CONDITIONS: CLEARED OUT, NO VEGETATION

FIELD NOTES & REMARKS:

FREE PRODUCT IN WATER @ T3. REFER TO TEST HOLE LOGS FOR SOIL PROFILES FOR EACH TEST HOLE ADVANCED. CONTAMINATION OF SOIL APPEARS TO BE CONICAL IN FASHION. CENTER OF PIT PROBABLY LOCATED BETWEEN T1 & T3. APPROXIMATION VOLUME OF SOIL CONTAMINATION EQUALS 100-125 CUBIC YARDS.

T1 LOCATED - 30 FT. WEST, 10 FT. SOUTH OF WELL HEAD. RECALIBRATED OVM AFTER T3 @ 2' (122). MR. JAQUEZ STATED THAT T3 LOCATION WAS APPROXIMATELY WHERE HE LAST REMEMBERS THE CENTER OF THE PIT TO BE.

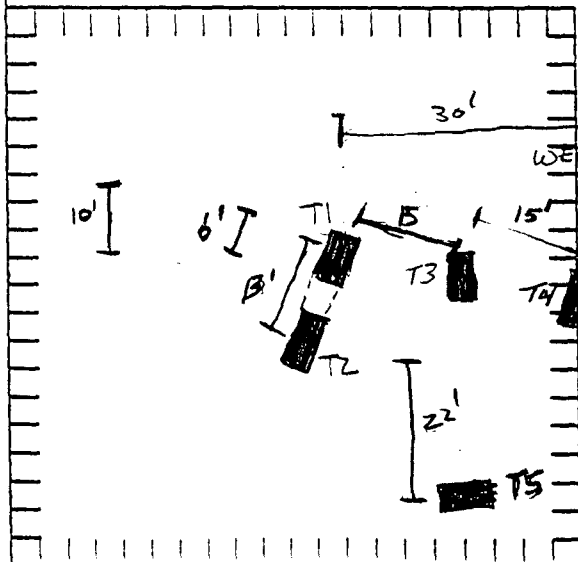
SAMPLE INVENTORY:

SAMPL ID:	SAMPL TYPE:	LABORATORY ANALYSIS:
T1C2	SOIL	TPH/BTEX
T1C3.5	WATER	TPH
T1C4	WATER	BTEX
T3C6.5	WATER	BTEX
T3C3.5	SOIL	TPH/BTEX
T3C6.5	WATER	TPH
T3C6.5	WATER	BTEX

SCALE



FEET
SITE DIAGRAM



TEST HOLE LOGS:

TH#:	1	2	3	4
SOIL TYPE:	SP	BROWN	BLACK	BLACK
SAMPL TYPE:	TPH	TPH	TPH	TPH
OVM/TYPE:	TPH	TPH	TPH	TPH
1	SP	SP	BLACK	BLACK
2	SP	SP	BLACK	BLACK
3	SP	SP	BLACK	BLACK
4	SP	SP	BLACK	BLACK
5	SP	SP	BLACK	BLACK
TO	5'	5'	5'	4 1/2'
GW	4'	4'	4'	4'
GROUNDWATER	READING MAY HAVE HAD SLURRY OF SUFFICIENT SOIL WITH IT.	NO OVM READING ON WATER	FREE PRODUCT ON WATER SURFACE. (GREEN COLOR)	BLACK LAYER APPROX. 1-2" THICK.

SOIL TYPE: C - Clay, M - Silty, S - Sand, G - Gravel, P - Peat, H - Hard, N - Plastic, G - Gravel, P - Peat, H - Hard

5798 US HWY. 64, FARMINGTON, NM 87401
(505) 632-0815

FIELD REPORT: SITE ASSESSMENT

JOB No: 92140
PAGE No: 2 of 2

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

DATE STARTED: 3/17/93
DATE FINISHED: 3/17/93
ENVIRO. SPCLT: NV
OPERATOR: BW
ASSISTANT: TC

LOCATION: LSE: JACQUEZ WELL: GC C1 QD:
SEC: TWP: RNG: PM: CNTY: ST: PIT: ABANDONED

LAND USE:

SURFACE CONDITIONS:

FIELD NOTES & REMARKS:

CONT D

SAMPLE INVENTORY:

[illegible]

SCALE



Q

FEET

SITE DIAGRAM

TEST HOLE LOGS:

[illegible]

SOIL TYPE: C - Clay, M - Silt, S - Sand, G - Gravel Planting: L - None, H - Heavy Grading: P - Poor, V - Very

2469

94806

42

CHAIN OF CUSTODY RECORD

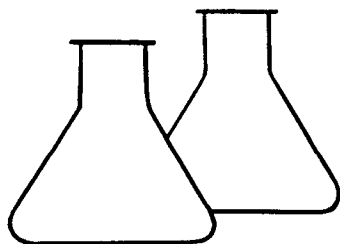
Client/Project Name		Project Location		ANALYSIS/PARAMETERS									
Amoco 92140		ABANDONED											
Sampler: (Signature)		Chain of Custody Tape No.											
Lynn Coddington													
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	1st HPL (1/18.1)	2nd GLC (8/20)						Remarks
T7 @ 2'	3/17/93	1105	4782	5012	1	✓	✓						
T1 @ 6W (4')	3/17/93	1110	4783	WATER	1	✓							
T1 @ 6W (4')	3/17/93	1115	4784	WATER	2		✓						
T3 @ 6W (4')	3/17/93	1220	4785	WATER	2		✓						
T5 @ 3.5'	3/17/93	1250	4786	5012	1	✓	✓						
T5 @ 6W (4')	3/17/93	1255	4787	WATER	1	✓							
T5 @ 6W (4')	3/17/93	1300	4788	WATER	2		✓						
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time			
Milton Velaz		3/17/93		1540		Linda Pender		3-17-93		1540			
Relinquished by: (Signature)						Received by: (Signature)							
Relinquished by: (Signature)						Received by: (Signature)							

ENVIROTECH INC.

5796 U.S. Highway 64-3014

Farmington, New Mexico 87401

(505) 632-0615



ENVIROTECH LABS

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

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ 2'	Date Reported:	03-18-93
Laboratory Number:	4782	Date Sampled:	03-17-93
Sample Matrix:	Soil	Date Received:	03-17-93
Preservative:	Cool	Date Extracted:	03-18-93
Condition:	Cool & Intact	Date Analyzed:	03-18-93
		Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	4,960	187
Toluene	16,800	373
Ethylbenzene	3,320	373
p,m-Xylene	45,300	840
o-Xylene	17,700	466

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	118 %
	Bromofluorobenzene	122 %

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

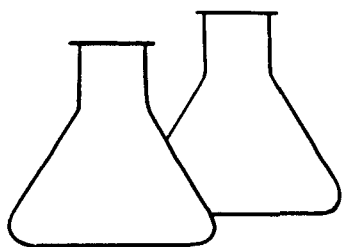
Method 8020, Aromatic Volatile Organics, Test Methods
for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC C1, Abandoned, 94806.

Cee Chahonlay
Analyst

Morris D. Young
Review



ENVIROTECH LABS

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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ 2'	Date Sampled:	03-17-93
Laboratory Number:	4782	Date Received:	03-17-93
Sample Matrix:	Soil	Date Analyzed:	03-18-93
Preservative:	Cool	Date Reported:	03-18-93
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----	-----	-----
Total Petroleum Hydrocarbons	18,200	50

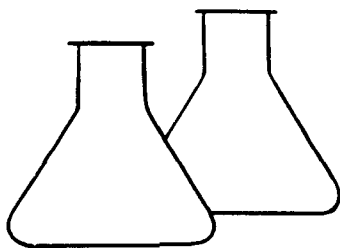
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC Cl Abandoned Pit
94806

Steve Feltner
Analyst

Marion D Young
Review



ENVIROTECH LABS

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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ GW (4')	Date Sampled:	03-17-93
Laboratory Number:	4783	Date Received:	03-17-93
Sample Matrix:	Water	Date Analyzed:	03-18-93
Preservative:	Cool	Date Reported:	03-18-93
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
TPH	29.7	0.5

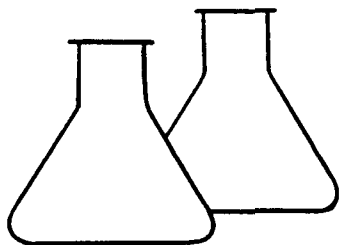
Method: Method 418.1, Total Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC Cl Abandoned Pit
94806

Heidi Lettman
Analyst

Marie D. Young
Review



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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ GW (4')	Date Reported:	03-18-93
Laboratory Number:	4784	Date Sampled:	03-17-93
Sample Matrix:	Water	Date Received:	03-17-93
Preservative:	HgCl and Cool	Date Analyzed:	03-17-93
Condition:	Cool and Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	2.2	0.3
Toluene	3.3	0.5
Ethylbenzene	2.8	0.4
p,m-Xylene	31.8	1.0
o-Xylene	7.0	0.5

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	105 %
	Bromfluorobenzene	100 %

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

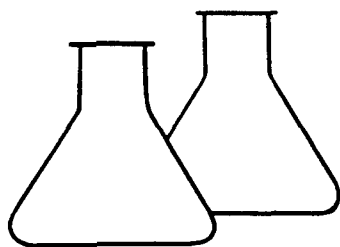
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC C1, Abandoned, 94806.

Al Chaharlang
Analyst

Marian D. Young
Review



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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T3 @ GW (4')	Date Reported:	03-18-93
Laboratory Number:	4785	Date Sampled:	03-17-93
Sample Matrix:	Water	Date Received:	03-17-93
Preservative:	HgCl and Cool	Date Analyzed:	03-18-93
Condition:	Cool and Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	1.1	0.3
Toluene	4.5	0.5
Ethylbenzene	5.1	0.4
p,m-Xylene	17.2	1.0
o-Xylene	2.0	0.5

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	108 %
	Bromofluorobenzene	108 %

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

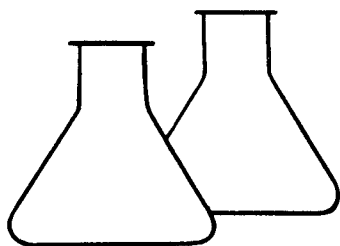
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC C1, Abandoned, 94806.

A. Chahaling
Analyst

M. D. Young
Review



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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T5 @ 3.5'	Date Reported:	03-18-93
Laboratory Number:	4786	Date Sampled:	03-17-93
Sample Matrix:	Soil	Date Received:	03-17-93
Preservative:	Cool	Date Extracted:	03-18-93
Condition:	Cool & Intact	Date Analyzed:	03-18-93
		Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	19.6
Toluene	48.0	39.2
Ethylbenzene	51	39.2
p,m-Xylene	132	88
o-Xylene	56	49.0

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	97 %
	Bromofluorobenzene	95 %

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

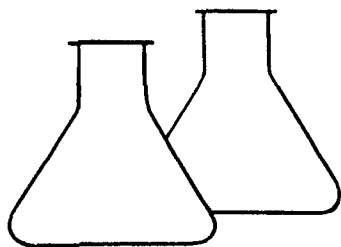
Method 8020, Aromatic Volatile Organics, Test Methods
for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC C1, Abandoned, 94806.

Al Chaharaz
Analyst

Maxis J. Young
Review



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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T5 @ 3.5'	Date Sampled:	03-17-93
Laboratory Number:	4786	Date Received:	03-17-93
Sample Matrix:	Soil	Date Analyzed:	03-18-93
Preservative:	Cool	Date Reported:	03-18-93
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	7.7	5.0

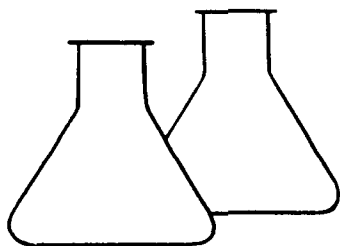
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC Cl Abandoned Pit
94806

Heila Peltua
Analyst

Merrill D. Young
Review



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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T5 @ GW (4')	Date Sampled:	03-17-93
Laboratory Number:	4787	Date Received:	03-17-93
Sample Matrix:	Water	Date Analyzed:	03-18-93
Preservative:	Cool	Date Reported:	03-18-93
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
-----	-----	-----
TPH	1.3	0.5

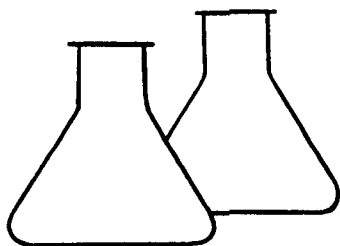
Method: Method 418.1, Total Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC Cl Abandoned Pit
94806

Sheila Feltman
Analyst

Moni D. Young
Review



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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T5 @ GW (4')	Date Reported:	03-18-93
Laboratory Number:	4788	Date Sampled:	03-17-93
Sample Matrix:	Water	Date Received:	03-17-93
Preservative:	HgCl and Cool	Date Analyzed:	03-18-93
Condition:	Cool and Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	ND	0.3
Toluene	ND	0.5
Ethylbenzene	0.5	0.4
p,m-Xylene	1.7	1.0
o-Xylene	0.5	0.5

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	93 %
	Bromofluorobenzene	98 %

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

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

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC C1, Abandoned, 94806.

Al Chaharby
Analyst

Mari D. Young
Review

94807

JOB No: 92140
PAGE No: 1 of 1

DATE STARTED: 3/17/95
DATE FINISHED: 3/17/95
ENVIRO. SPCLT: NV
OPERATOR: BN
ASSISTANT: TC

LAND USE: RANGE / AGRICULTURAL
SURFACE CONDITIONS: CLEARED OUT PIT WAS CLOSED w/out ASSESSMENT OR VERIFICATION

PIT DOES NOT APPEAR TO BE CONTAMINATED. GREEN-GRAY SAND/CLAY @ T1 MAY HAVE RESULTED FROM A TUBE OF GREASE BURIED DURING CLOSING OR DURING DRILLING OF WELL. RECOMMEND CLOSING AS IS.

PIT LOCATION: 30 FT. NORTH, 45 FT. EAST OF WELL HEAD.

DRILLING MUD POSSIBLY IN THE LOCATION OF
THE PIT

[illegible]

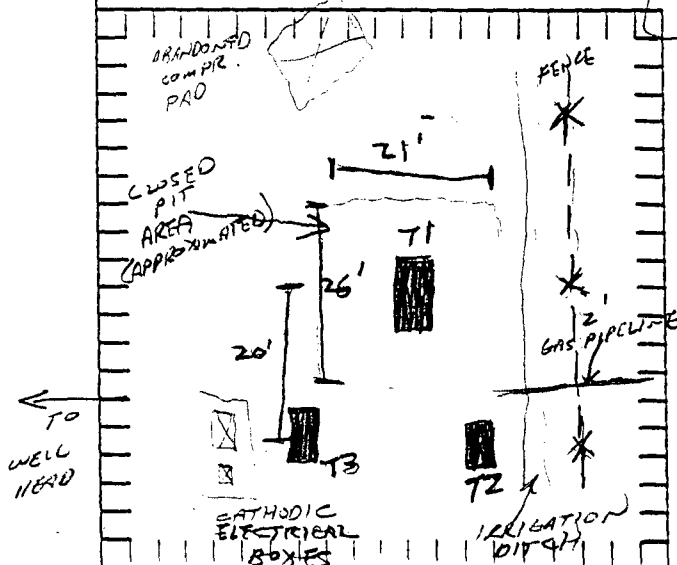
SOIL TYPE: C - Clay M - Sil. S - Sand G - Gravel Plantings: L - Laurel N - Nuts Conditions: P - Poor V - Very

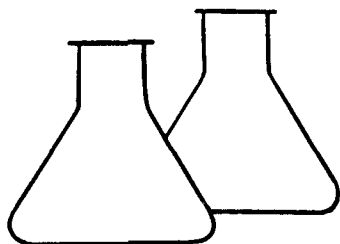
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C

FEET

SITE DIAGRAM





ENVIROTECH LABS

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

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ 1.5'	Date Reported:	03-18-93
Laboratory Number:	4789	Date Sampled:	03-17-93
Sample Matrix:	Soil	Date Received:	03-17-93
Preservative:	Cool	Date Extracted:	03-18-93
Condition:	Cool & Intact	Date Analyzed:	03-18-93
		Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	20.1
Toluene	54	40.2
Ethylbenzene	ND	40.2
p,m-Xylene	172	90
o-Xylene	ND	50.2

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	103 %
	Bromofluorobenzene	85 %

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

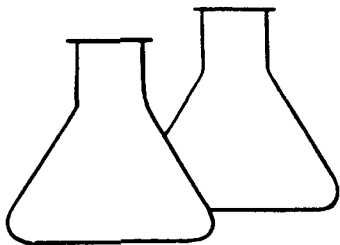
Method 8020, Aromatic Volatile Organics, Test Methods
for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC E1, Compressor Abandoned, 94807.

As Chaharlang
Analyst

Margaret D. Young
Review



ENVIROTECH LABS

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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ 1.5'	Date Sampled:	03-17-93
Laboratory Number:	4789	Date Received:	03-17-93
Sample Matrix:	Soil	Date Analyzed:	03-18-93
Preservative:	Cool	Date Reported:	03-18-93
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----	-----	-----
Total Petroleum Hydrocarbons	42.5	5.0

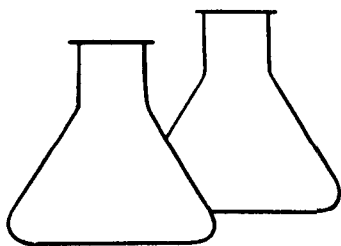
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC El Compr. Abandoned Pit
94807

Steve LeBlanc
Analyst

Moni D. Young
Review



ENVIROTECH LABS

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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ GW (4')	Date Sampled:	03-17-93
Laboratory Number:	4790	Date Received:	03-17-93
Sample Matrix:	Water	Date Analyzed:	03-18-93
Preservative:	Cool	Date Reported:	03-18-93
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter -----	Concentration (mg/L) -----	Det. Limit (mg/L) -----
TPH	0.8	0.5

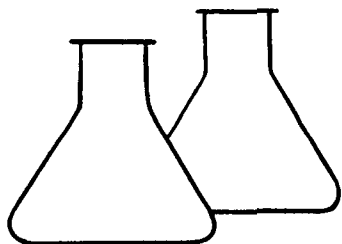
Method: Method 418.1, Total Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC El Compr. Abandoned Pit
94807

Sheila Feltman
Analyst

Morgan D Young
Review



ENVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401

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

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ GW (4')	Date Reported:	03-18-93
Laboratory Number:	4791	Date Sampled:	03-17-93
Sample Matrix:	Water	Date Received:	03-17-93
Preservative:	HgCl and Cool	Date Analyzed:	03-18-93
Condition:	Cool and Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	3.3	0.2
Toluene	3.7	0.4
Ethylbenzene	ND	0.4
p,m-Xylene	8.3	0.9
o-Xylene	1.6	0.5

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	76 %
	Bromofluorobenzene	98 %

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

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

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC E1, Compressor Abandoned, 94807.

De Chabauty
Analyst

Maris D Young
Review

ENVIROTECH Inc.

5798 US HWY. 84, FARMINGTON, NM 87401
(505) 832-0815

94808

FIELD REPORT: SITE ASSESSMENT

JOB No: 92140
PAGE No: 1 of 1

PROJECT: PIT ASSESSMENTS & CLOSURE
CLIENT: AMOCO PRODUCTION COMPANY
CONTRACTOR: ENVIROTECH INC.
EQUIPMENT USED: EXTENDER-HOE

DATE STARTED: 3/18/95
DATE FINISHED: 3/19/95
ENVIRO. SPCLT: NV
OPERATOR: BW
ASSISTANT: K

LOCATION: LSE: JACQUEZ WELL: GC C1 GD: SW/4 SE/4 (0)
SEC: 6 TWP: 29N RNG: 9W PM: NM CNTY: SAN JUAN ST: AUM PIT: PROD.

LAND USE: RANGE / AGRICULTURAL

SURFACE CONDITIONS: STRAINED SAND IN OVERFLOW DITCH AROUND TANK.

FIELD NOTES & REMARKS: CONTAMINATION IN THE VICINITY OF THE PRODUCTION TANK APPEARS TO BE EXTENSIVE. CONTAMINATION IN THE SOIL APPROX. 4' THICK STARTING AT THE GROUND SURFACE, THEREFORE IT SEEMS THAT AN EXTENSIVE OVERFLOW MAY HAVE OCCURRED AT SOME POINT IN TIME. FURTHER INVESTIGATION IS RECOMMENDED TO DELINEATE ACTUAL PUMP AREA IN THE EAST & WEST DIRECTION.

PIT LOCATION: 100 FT. NORTH, 80 FT. WEST OF WELL HEAD

FREE PRODUCT IN GW @ T1 & T2

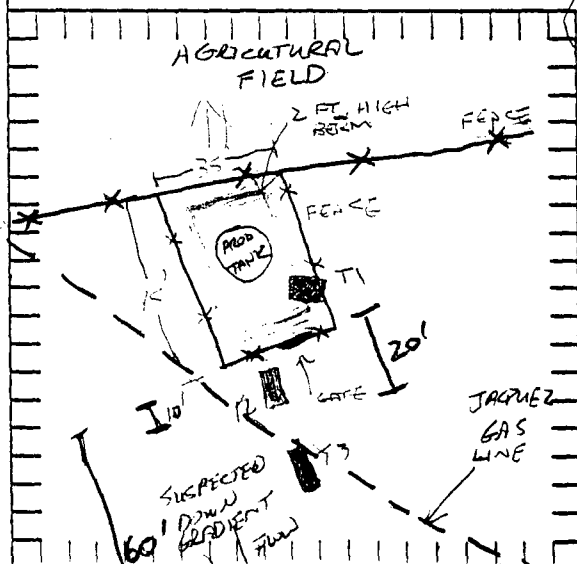
SAMPLE INVENTORY:

SAMPL ID	SAMPL TYPE	LABORATORY ANALYSIS
T1 @ 2'	SOIL	TPH/BTEX
T1 @ 4' WATER		BTEX
T1 @ 4' WATER		TPH
T4 @ 2'	SOIL	TPH
T1 @ 4' WATER		BTEX
T1 @ 4' WATER		TPH

SCALE



FEET
SITE DIAGRAM



TEST HOLE LOGS:

TH#	SOIL TYPE	SAMPL TYPE	QVM/TPH
1	SP	TPH	1067
2	SP	TPH	1025
3	TD	TPH	1320
4	TD	TPH	4'
5	TD	TPH	5'
6	GW	TPH	4'

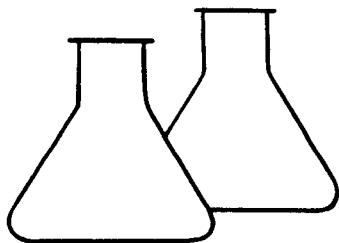
SOIL TYPE: C - Clay, M - Silt, S - Sand, G - Gravel, P - Peat, L - Lignite, H - Hard, W - Wet

CHAIN OF CUSTODY RECORD

Client/Project Name		Project Location		ANALYSIS/PARAMETERS									
Amoco 92140		AS PROO. PIT JAQUES GC C1											
Sampler: (Signature)		Chain of Custody Tape No.		No. of Containers	(418.1) TPH	(87X) (8020)						Date	Time
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix									
T1 @ Z1	3/18/93	0915	4797	SOIL	✓	✓							
T1 @ GW (4')	3/18/93	0930	4798	WATER		✓							
T1 @ GW (4')	3/18/93	0935	4799	WATER	✓								
T4 @ Z1	3/18/93	1050	4800	SOIL	✓	✓							
T4 @ GW (4')	3/18/93	1100	4801	WATER		✓							
T4 @ GW (4')	3/18/93	1055	4802	WATER	✓	✓							
Relinquished by: (Signature) <i>Nelson Valdez</i>				Received by: (Signature) <i>Linda Pender</i>								3-18-93	1346
Relinquished by: (Signature)				Received by: (Signature)									
Relinquished by: (Signature)				Received by: (Signature)									

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

San Juan Report Form 578-01



ENVIROTECH LABS

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

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ 2'	Date Reported:	03-23-93
Laboratory Number:	4797	Date Sampled:	03-18-93
Sample Matrix:	Soil	Date Received:	03-18-93
Preservative:	Cool	Date Extracted:	03-22-93
Condition:	Cool & Intact	Date Analyzed:	03-23-93
		Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	1,800	149
Toluene	6,300	198
Ethylbenzene	3,310	149
p,m-Xylene	105,800	397
o-Xylene	10,600	198

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	117 %
	Bromofluorobenzene	102 %

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

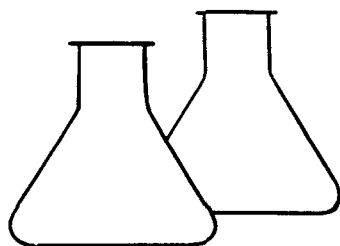
Method 8020, Aromatic Volatile Organics, Test Methods
for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC C1, Production Pit, 94808.

A. Chaharlang
Analyst

Margaret D. Young
Review



ENVIROTECH LABS

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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ 2'	Date Sampled:	03-18-93
Laboratory Number:	4797	Date Received:	03-18-93
Sample Matrix:	Soil	Date Analyzed:	03-19-93
Preservative:	Cool	Date Reported:	03-19-93
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----	-----	-----
Total Petroleum Hydrocarbons	8,880	25.0

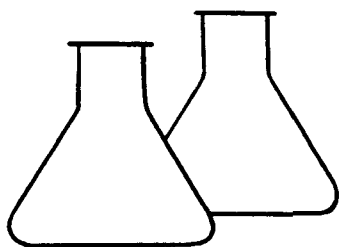
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC C1 Prod. Pit
94808

Steve Lefter
Analyst

Marie Young
Review



ENVIROTECH LABS

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

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ GW (4')	Date Reported:	03-19-93
Laboratory Number:	4798	Date Sampled:	03-18-93
Sample Matrix:	Water	Date Received:	03-18-93
Preservative:	HgCl & Cool	Date Analyzed:	03-19-93
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	10.5	0.3
Toluene	36.0	0.3
Ethylbenzene	21.0	0.3
p,m-Xylene	347	0.4
o-Xylene	11.5	0.3

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	108 %
	Bromofluorobenzene	107 %

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

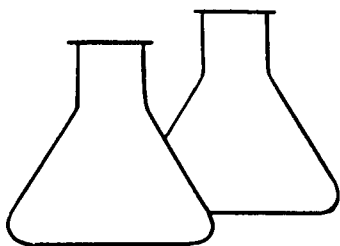
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC C1, Production Pit, 94808.

A. Chahar
Analyst

M. J. Young
Review



ENVIROTECH LABS

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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T1 @ GW (4')	Date Sampled:	03-18-93
Laboratory Number:	4799	Date Received:	03-18-93
Sample Matrix:	Water	Date Analyzed:	03-19-93
Preservative:	Cool	Date Reported:	03-19-93
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter -----	Concentration (mg/L) -----	Det. Limit (mg/L) -----
TPH	247	0.5

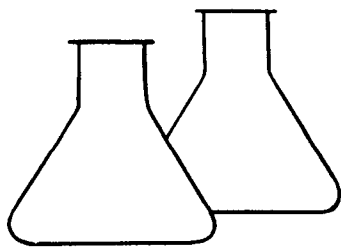
Method: Method 418.1, Total Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC Cl Prod. Pit
94808

Steve Lella
Analyst

Margaret Young
Review



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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T4 @ 2'	Date Sampled:	03-18-93
Laboratory Number:	4800	Date Received:	03-18-93
Sample Matrix:	Soil	Date Analyzed:	03-19-93
Preservative:	Cool	Date Reported:	03-19-93
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----	-----	-----
Total Petroleum Hydrocarbons	14.2	5.0

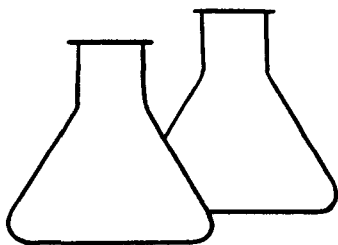
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC C1 Prod. Pit
94808

Shirley Telford
Analyst

Morris D. Young
Review



ENVIROTECH LABS

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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T4 @ GW (4')	Date Reported:	03-19-93
Laboratory Number:	4801	Date Sampled:	03-18-93
Sample Matrix:	Water	Date Received:	03-18-93
Preservative:	HgCl & Cool	Date Analyzed:	03-19-93
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	ND	0.3
Toluene	ND	0.3
Ethylbenzene	2.0	0.3
p,m-Xylene	1.7	0.4
o-Xylene	1.1	0.3

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	86 %
	Bromofluorobenzene	100 %

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

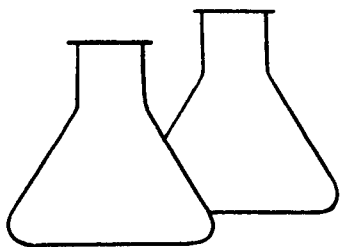
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC C1, Production Pit, 94808.

A. Chaharley
Analyst

Mani D. Yang
Review



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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T4 @ GW (4')	Date Sampled:	03-18-93
Laboratory Number:	4802	Date Received:	03-18-93
Sample Matrix:	Water	Date Analyzed:	03-19-93
Preservative:	Cool	Date Reported:	03-19-93
Condition:	Cool & Intact	Analysis Needed:	TPH

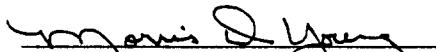
Parameter	Concentration (mg/L)	Det. Limit (mg/L)
-----	-----	-----
TPH	ND	0.5

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

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC Cl Prod. Pit
94808


Analyst


Review

1492 JJ

1492

JOB No: 92140
PAGE No: 1 of 1

DATE STARTED: 6/23/92
DATE FINISHED: 6/23/92
ENVIRO. SPCLT: RB
OPERATOR: BW
ASSISTANT: LT

LAND USE: Agricultural pasture + rural developments (Corroli)

SURFACE CONDITIONS: Earthen Pit (40' x 40') unlined pit

FIELD NOTES & REMARKS: Perimeter fence around Blow PIT poorly maintained with cow tracks. Observed in interior of Blow PIT, old farm implements scattered area surrounding Blow PIT. Soils show some discoloration in T1 & T2 near the 2'-3' depth. Soils are sandy w/ limited groundwater. Insufficient for sampling at 10'-11' depth.

SAMPLE INVENTORY:		
SAMPL ID:	SAMPL TYPE:	LABORATORY ANALYSIS:
T205	SOIL	HEAD
T205	SOIL	TPH/BOZO

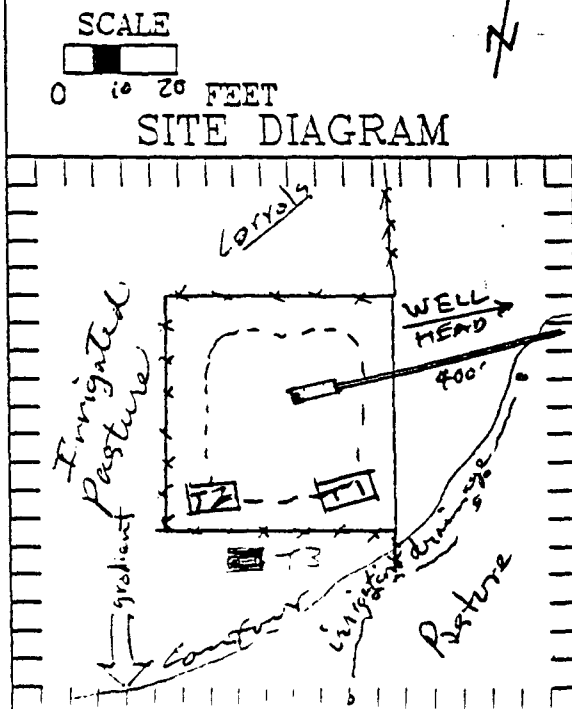
[illegible]

10 - 11 depth.
TY CONDUCTED ON 3/18/93 FOR WATER SAMPLES
BY N.V.

TEST HOLE LOGS:

[illegible]

SOIL TYPE: C - Clay, M - Silt, S - Sand, G - Gravel, P - Peat, V - Volcanic



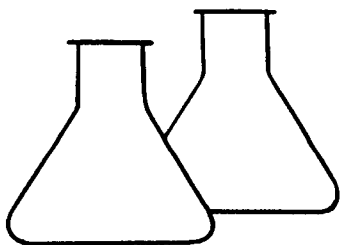
CHAIN OF CUSTODY RECORD

[illegible]**ENVIROTECH INC.**

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Farmington, New Mexico 87401

(505) 632-0615



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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T3 @ GW (9')	Date Reported:	03-22-93
Laboratory Number:	4803	Date Sampled:	03-18-93
Sample Matrix:	Water	Date Received:	03-18-93
Preservative:	HgCl and Cool	Date Analyzed:	03-19-93
Condition:	Cool and Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	ND	0.3
Toluene	ND	0.4
Ethylbenzene	ND	0.3
p,m-Xylene	ND	0.8
o-Xylene	ND	0.4

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	103 %
	Bromofluorobenzene	104 %

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

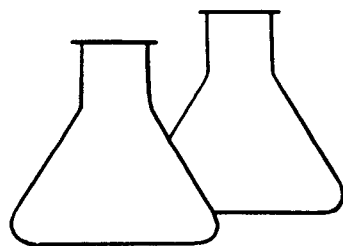
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC E1, Blow Pit II, 94345.

Ali Chaharlang
Analyst

Maris D. Young
Review



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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T3 @ GW (9')	Date Sampled:	03-18-93
Laboratory Number:	4804	Date Received:	03-18-93
Sample Matrix:	Water	Date Analyzed:	03-19-93
Preservative:	Cool	Date Reported:	03-19-93
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
-----	-----	-----
TPH	ND	0.5

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

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC El Blow Pit II
94345

John Peltier
Analyst

Maris D. Young
Review

ENVIROTECH Inc.

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(505) 832-0815

1491

FIELD REPORT: SITE ASSESSMENT

JOB No: 92140
PAGE No: 1 of 1

PROJECT: PIT ASSESSMENTS & CLOSURE
CLIENT: AMOCO PRODUCTION COMPANY
CONTRACTOR: ENVIROTECH, INC.
EQUIPMENT USED: Backhoe w/ 24"

DATE STARTED: 6/23/92
DATE FINISHED: 6/23/92
ENVIRO. SPCLT: RB
OPERATOR: BW
ASSISTANT: LT

LOCATION: LSE: Jaquez WELL: C-1 QD: SW/4 SE/4 (0)
SEC: 6 TWP: T29N RNG: R9W PM: NMP CNTY: ST ST: NM PIT: SEP PIT

LAND USE: Agricultural pastures (irrigated) surrounding it
SURFACE CONDITIONS: (24' x 7') Steel tank (rectangle) buried in soil

FIELD NOTES & REMARKS: Talked w/ Landowner, John Jaquez, about
pasture grass staining (yellow) down gradient from
this SEP PIT. All THs have black swamp soils,
T2 shows some groundwater contamination.

SAMPLE INVENTORY:

SAMPL ID:	SAMPL TYPE:	LABORATORY ANALYSIS:
T202	SOIL	HEAD
T202	SOIL	TPH/ACLD
T202	WATER	8020
T202	WATER	TPH/418.5
T202	WATER	RTFX
T202	WATER	TPH

TY CONDUCTED ON 3/8/93 FOR WATER SAMPLES
BY N.V.

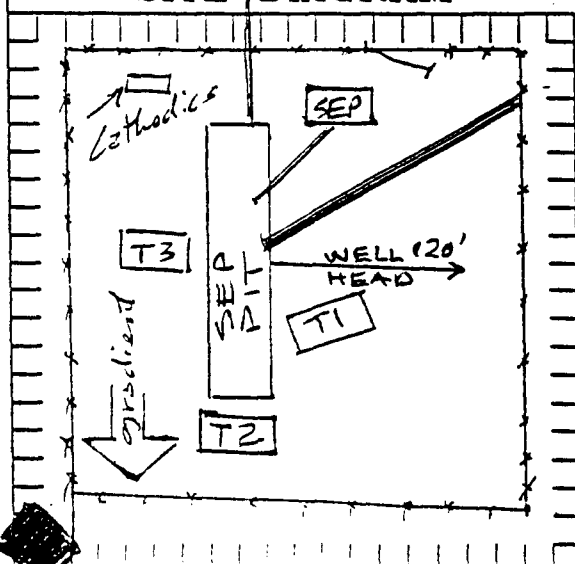
TEST HOLE LOGS:

TH#:	1		
SOIL TYPE:	SMPL TYPE:	QW/TPH	
GW			
	</		

SCALE

0 5 10 FEET

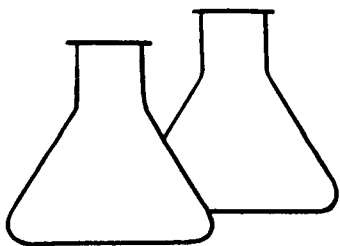
SITE DIAGRAM



CHAIN OF CUSTODY RECORD

[illegible]**ENVIROTECH INC.**

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Farmington, New Mexico 87401
(505) 632-0615



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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Amoco	Project #:	92140
Sample ID:	T4 @ GW (4')	Date Reported:	03-22-93
Laboratory Number:	4805	Date Sampled:	03-18-93
Sample Matrix:	Water	Date Received:	03-18-93
Preservative:	HgCl and Cool	Date Analyzed:	03-19-93
Condition:	Cool and Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	ND	0.3
Toluene	ND	0.4
Ethylbenzene	ND	0.3
p,m-Xylene	ND	0.8
o-Xylene	ND	0.4

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	100 %
	Bromofluorobenzene	109 %

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

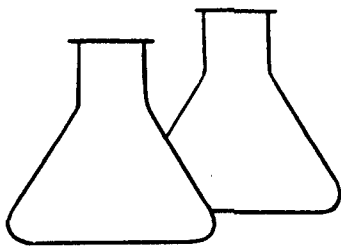
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC C1, Separator Pit, 94344.

A. Chaharlang
Analyst

Mari D. Young
Review



ENVIROTECH LABS

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Amoco	Project #:	92140
Sample ID:	T4 @ GW (4')	Date Sampled:	03-18-93
Laboratory Number:	4806	Date Received:	03-18-93
Sample Matrix:	Water	Date Analyzed:	03-19-93
Preservative:	Cool	Date Reported:	03-19-93
Condition:	Cool & Intact	Analysis Needed:	TPH

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
TPH	ND	0.5

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

ND - Parameter not detected at the stated detection limit.

Comments: Jaquez GC Cl Sep. Pit
94344

Heik F. L. L.
Analyst

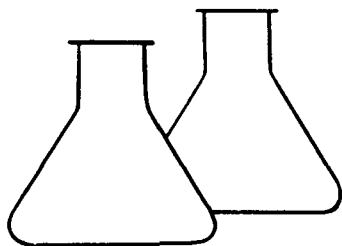
Marian D. Young
Review

ENVIROTECH LABORATORIES

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FARMINGTON, NEW MEXICO 87401
PHONE: (505) 632-0615

QUALITY ASSURANCE/QUALITY CONTROL

DOCUMENTATION



ENVIROTECH LABS

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Sampled:	NA
Laboratory Number:	TPSB0316	Date Received:	NA
Sample Matrix:	Soil	Date Analyzed:	03-16-93
Preservative:	NA	Date Reported:	03-16-93
Condition:	NA	Analysis Needed:	TPH

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

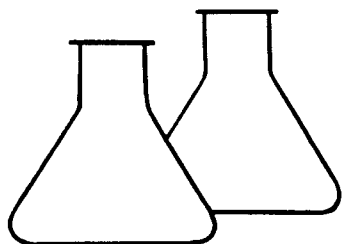
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments:

Steve Lettner
Analyst

Maria D. Young
Review



ENVIROTECH LABS

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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Reported:	03-16-93
Laboratory Number:	0316PM.BLK	Date Sampled:	NA
Sample Matrix:	Water	Date Received:	NA
Preservative:	NA	Date Analyzed:	03-16-93
Condition:	NA	Analysis Requested:	BTEX

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

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	89 %
	Bromofluorobenzene	103 %

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

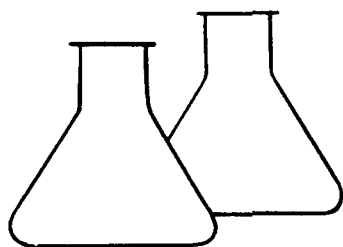
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments:

A. Chahoul
Analyst

M. D. Young
Review



ENVIROTECH LABS

5796 US HIGHWAY 64-3014 • FARMINGTON, NEW MEXICO 87401
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**** QUALITY ASSURANCE REPORT**
MATRIX SPIKE - TOTAL PETROLEUM HYDROCARBONS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Spike	Date Sampled:	NA
Laboratory Number:	TPSS0316	Date Received:	NA
Sample Matrix:	Soil	Date Analyzed:	03-16-93
Analysis Requested:	TPH	Date Reported:	03-16-93

Parameter	Sample Result (mg/kg)	Spike Added (mg/kg)	Spiked sample Result (mg/kg)	Percent Recovery
Total Petroleum Hydrocarbons	ND	249.8	255.8	100.4

QA ACCEPTANCE CRITERIA:	Parameter	Acceptance Range %
ND	TPH	80 - 120

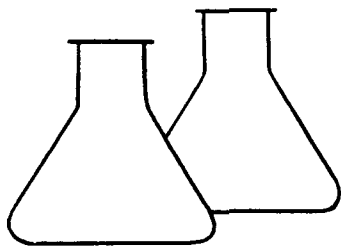
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments:

Steve Feltner
Analyst

Mavis D. Young
Review



ENVIROTECH LABS

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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Sampled:	NA
Laboratory Number:	TPWB0317	Date Received:	NA
Sample Matrix:	Water	Date Analyzed:	03-17-93
Preservative:	NA	Date Reported:	03-17-93
Condition:	NA	Analysis Needed:	TPH

Parameter -----	Concentration (mg/L) -----	Det. Limit (mg/L) -----
TPH	ND	0.5

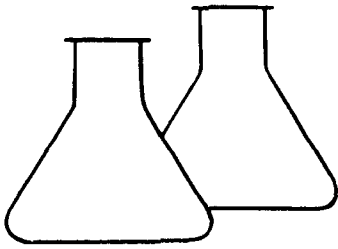
Method: Method 418.1, Total Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments:

Heidi Lefkowitz
Analyst

Margaret D. Young
Review



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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Sampled:	NA
Laboratory Number:	TPSB0317	Date Received:	NA
Sample Matrix:	Soil	Date Analyzed:	03-17-93
Preservative:	NA	Date Reported:	03-17-93
Condition:	NA	Analysis Needed:	TPH

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----	-----	-----
Total Petroleum Hydrocarbons	ND	10.0

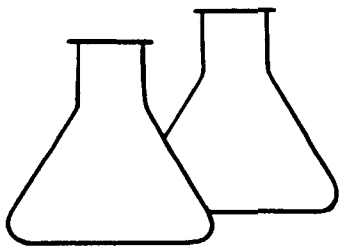
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments:

Stella Fellman
Analyst

Maria J. Young
Review



ENVIROTECH LABS

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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Reported:	03-17-93
Laboratory Number:	0317AM.BLK	Date Sampled:	NA
Sample Matrix:	Water	Date Received:	NA
Preservative:	NA	Date Analyzed:	03-17-93
Condition:	NA	Analysis Requested:	BTEX

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

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	84 %
	Bromofluorobenzene	88 %

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

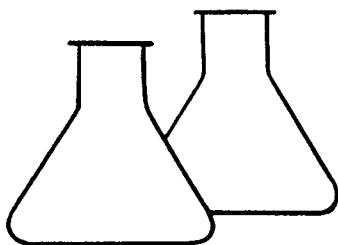
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments:

A. Chaharlang
Analyst

M. S. Young
Review



ENVIROTECH LABS

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** QUALITY ASSURANCE EPA METHOD 8020
MATRIX SPIKE - AROMATIC VOLATILE ORGANICS

Client: NA
Sample ID: Sample Spike
Laboratory Number: 4761
Sample Matrix: Water
Analysis Requested: BTEX
Condition: NA

Project #: NA
Date Reported: 03-17-93
Date Sampled: 03-16-93
Date Received: 03-16-93
Date Analyzed: 03-17-93

Parameter	Sample Result (ug/L)	Spike Added (ug/L)	Spiked Sample Result (ug/L)	Det. Limit (ug/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Benzene	0.4	20.0	18.7	0.3	92	39-150
Toluene	1.8	20.0	19.6	0.4	90	46-148
Ethylbenzene	1.2	20.0	19.1	0.2	90	32-160
p,m-Xylene	8.0	20.0	24.8	0.3	89	46-148
o-Xylene	2.5	20.0	20.6	0.2	92	46-148

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

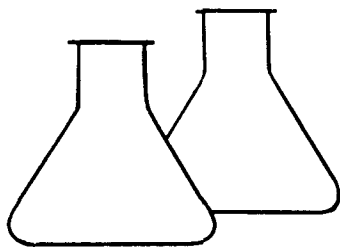
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments:

C. Chaharlang
Analyst

Mani D. Young
Review



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

**** QUALITY ASSURANCE REPORT**
MATRIX SPIKE - TOTAL PETROLEUM HYDROCARBONS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Spike	Date Sampled:	NA
Laboratory Number:	TPWS0317	Date Received:	NA
Sample Matrix:	Water	Date Analyzed:	03-17-93
Condition:	NA	Date Reported:	03-17-93

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked sample Result (mg/L)	Percent Recovery
Total Petroleum Hydrocarbons	ND	7.3	6.7	91.6

QA ACCEPTANCE CRITERIA:	Parameter	Acceptance Range %
	TPH	80 - 120

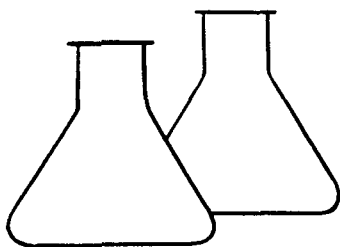
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments:

Heita Lettman
Analyst

Marie J. Young
Review



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

**** QUALITY ASSURANCE REPORT**
MATRIX SPIKE - TOTAL PETROLEUM HYDROCARBONS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Spike	Date Sampled:	NA
Laboratory Number:	TPSS0317	Date Received:	NA
Sample Matrix:	Soil	Date Analyzed:	03-17-93
Analysis Requested:	TPH	Date Reported:	03-17-93

Parameter	Sample Result (mg/kg)	Spike Added (mg/kg)	Spiked sample Result (mg/kg)	Percent Recovery
Total Petroleum Hydrocarbons	ND	124.6	143.5	106.8

QA ACCEPTANCE CRITERIA:	Parameter	Acceptance Range %
	TPH	80 - 120

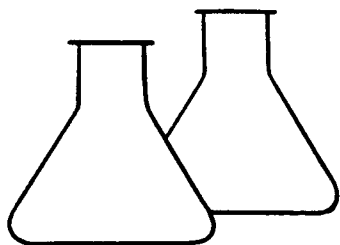
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments:

Skila Feltman
Analyst

Morris D. Young
Review



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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Reported:	03-18-93
Laboratory Number:	0318BAM.BLK	Date Sampled:	NA
Sample Matrix:	Water	Date Received:	NA
Preservative:	NA	Date Analyzed:	03-18-93
Condition:	NA	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	ND	0.2
Toluene	ND	0.4
Ethylbenzene	ND	0.4
p,m-Xylene	ND	0.9
o-Xylene	ND	0.5

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	95 %
	Bromfluorobenzene	88 %

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

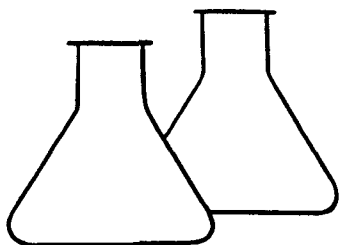
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments:

Ch Chaharlang
Analyst

Mavis D. Young
Review



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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Reported:	03-18-93
Laboratory Number:	0318BAM.BLK	Date Sampled:	NA
Sample Matrix:	Water	Date Received:	NA
Preservative:	NA	Date Analyzed:	03-18-93
Condition:	NA	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	ND	0.3
Toluene	ND	0.5
Ethylbenzene	ND	0.4
p,m-Xylene	ND	1.0
o-Xylene	ND	0.5

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	110 %
	Bromfluorobenzene	107 %

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

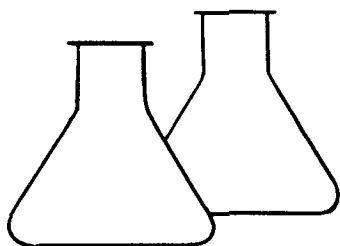
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments:

A. Chaharlang
Analyst

M. D. Young
Review



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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Sampled:	NA
Laboratory Number:	TPWB0318	Date Received:	NA
Sample Matrix:	Water	Date Analyzed:	03-18-93
Preservative:	NA	Date Reported:	03-18-93
Condition:	NA	Analysis Needed:	TPH

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
-----	-----	-----
TPH	ND	0.5

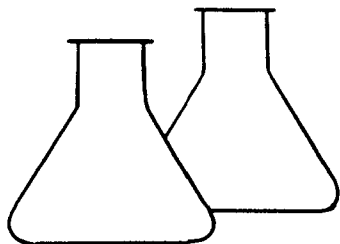
Method: Method 418.1, Total Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments:

Stella Lettman
Analyst

Marie L. Young
Review



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EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Sampled:	NA
Laboratory Number:	TPSB0318	Date Received:	NA
Sample Matrix:	Soil	Date Analyzed:	03-18-93
Preservative:	NA	Date Reported:	03-18-93
Condition:	NA	Analysis Needed:	TPH

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

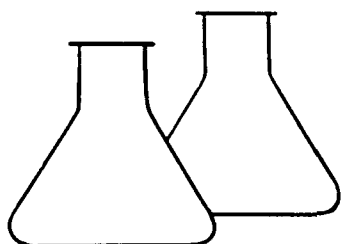
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments:

Shirley L. Peterson
Analyst

Moni D. Young
Review



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**** QUALITY ASSURANCE REPORT**
MATRIX SPIKE - TOTAL PETROLEUM HYDROCARBONS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Spike	Date Sampled:	NA
Laboratory Number:	TPSS0318	Date Received:	NA
Sample Matrix:	Soil	Date Analyzed:	03-18-93
Analysis Requested:	TPH	Date Reported:	03-18-93

Parameter	Sample Result (mg/kg)	Spike Added (mg/kg)	Spiked sample Result (mg/kg)	Percent Recovery
Total Petroleum Hydrocarbons	ND	150.0	155.5	100.9

QA ACCEPTANCE CRITERIA:	Parameter	Acceptance Range %
	TPH	80 - 120

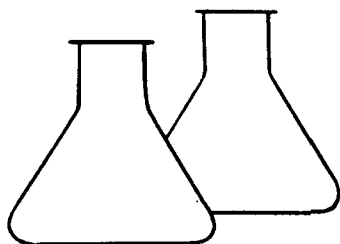
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments:

Sheila Feltner
Analyst

Marie D. Young
Review



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**** QUALITY ASSURANCE REPORT**
MATRIX SPIKE - TOTAL PETROLEUM HYDROCARBONS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Spike	Date Sampled:	NA
Laboratory Number:	TPWS0318	Date Received:	NA
Sample Matrix:	Water	Date Analyzed:	03-18-93
Analysis Requested:	TPH	Date Reported:	03-18-93

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked sample Result (mg/L)	Percent Recovery
Total Petroleum Hydrocarbons	ND	100.0	88.2	88.2

QA ACCEPTANCE CRITERIA:	Parameter	Acceptance Range %
	TPH	80 - 120

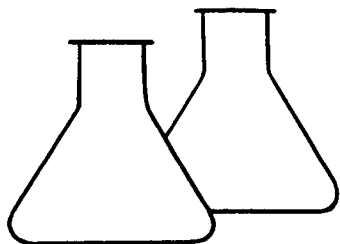
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments:

Heita Feltman
Analyst

Marion D. Young
Review



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** QUALITY ASSURANCE EPA METHOD 8020
MATRIX SPIKE - AROMATIC VOLATILE ORGANICS

Client: NA
Sample ID: Sample Spike
Laboratory Number: 4788
Sample Matrix: Water
Analysis Requested: BTEX
Condition: NA

Project #: NA
Date Reported: 03-18-93
Date Sampled: 03-17-93
Date Received: 03-17-93
Date Analyzed: 03-18-93

Parameter	Sample Result (ug/L)	Spike Added (ug/L)	Spiked Sample Result (ug/L)	Det. Limit (ug/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Benzene	ND	20.0	18.9	0.3	94	39-150
Toluene	ND	20.0	19.2	0.5	94	46-148
Ethylbenzene	0.5	20.0	19.4	0.4	94	32-160
p,m-Xylene	1.7	20.0	20.3	1.0	94	46-148
o-Xylene	0.5	20.0	18.9	0.5	92	46-148

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

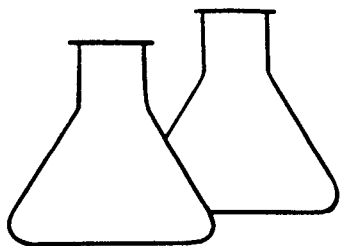
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments:

A. Chaharley
Analyst

M. D. Young
Review



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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Reported:	03-22-93
Laboratory Number:	0319PM.BLK	Date Sampled:	NA
Sample Matrix:	Water	Date Received:	NA
Preservative:	NA	Date Analyzed:	03-19-93
Condition:	NA	Analysis Requested:	BTEX

Parameter	Concentration (ug/L)	Det. Limit (ug/L)
Benzene	ND	0.3
Toluene	ND	0.4
Ethylbenzene	ND	0.3
p,m-Xylene	ND	0.8
o-Xylene	ND	0.4

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	105 %
	Bromofluorobenzene	106 %

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

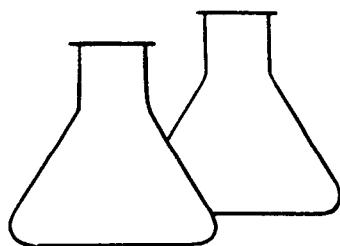
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments:

A. Chaharlang
Analyst

Maria D. Young
Review



ENVIROTECH LABS

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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Sampled:	NA
Laboratory Number:	TPSB0319	Date Received:	NA
Sample Matrix:	Soil	Date Analyzed:	03-19-93
Preservative:	NA	Date Reported:	03-19-93
Condition:	NA	Analysis Needed:	TPH

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

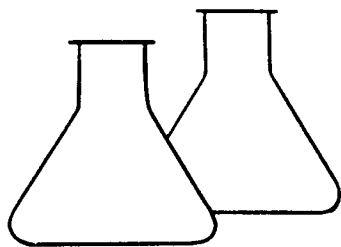
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments:

John L. Latta
Analyst

Marion D. Young
Review



ENVIROTECH LABS

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

EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Sampled:	NA
Laboratory Number:	TPWB0319	Date Received:	NA
Sample Matrix:	Water	Date Analyzed:	03-19-93
Preservative:	NA	Date Reported:	03-19-93
Condition:	NA	Analysis Needed:	TPH

Parameter -----	Concentration (mg/L) -----	Det. Limit (mg/L) -----
TPH	ND	0.5

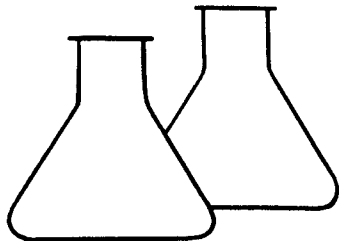
Method: Method 418.1, Total Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments:

Lata Feltus
Analyst

Marvin D. Young
Review



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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Reported:	03-19-93
Laboratory Number:	0319AM.BLK	Date Sampled:	NA
Sample Matrix:	Water	Date Received:	NA
Preservative:	NA	Date Analyzed:	03-19-93
Condition:	NA	Analysis Requested:	BTEX

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

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	90 %
	Bromofluorobenzene	100 %

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

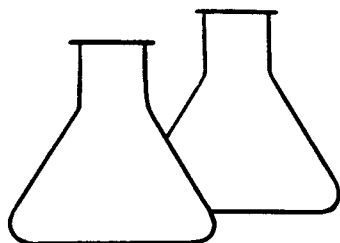
Method 8020, Aromatic Volatile Organics, Test Methods for
Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments:

Ch Chahar
Analyst

Mavis D Young
Review



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EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Blank	Date Reported:	03-23-93
Laboratory Number:	0323AM.BLK	Date Sampled:	NA
Sample Matrix:	Water	Date Received:	NA
Preservative:	NA	Date Analyzed:	03-23-93
Condition:	NA	Analysis Requested:	BTEX

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

SURROGATE RECOVERIES:	Parameter	Percent Recovery
	Trifluorotoluene	100 %
	Bromofluorobenzene	93 %

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

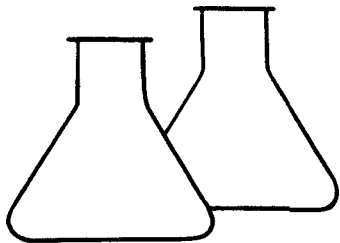
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments:

A. Chaharlang
Analyst

Morris D. Young
Review



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** QUALITY ASSURANCE EPA METHOD 8020
MATRIX SPIKE - AROMATIC VOLATILE ORGANICS

Client:	NA	Project #:	NA
Sample ID:	Sample Spike	Date Reported:	03-19-93
Laboratory Number:	4795	Date Sampled:	03-18-93
Sample Matrix:	Water	Date Received:	03-18-93
Analysis Requested:	BTEX	Date Analyzed:	03-19-93
Condition:	NA		

Parameter	Sample Result (ug/L)	Spike Added (ug/L)	Spiked Sample Result (ug/L)	Det. Limit (ug/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Benzene	0.5	15.0	12.4	0.3	80	39-150
Toluene	0.7	15.0	14.0	0.3	89	46-148
Ethylbenzene	0.6	15.0	14.1	0.3	90	32-160
p,m-Xylene	1.0	15.0	15.2	0.4	95	46-148
o-Xylene	0.7	15.0	14.2	0.3	91	46-148

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

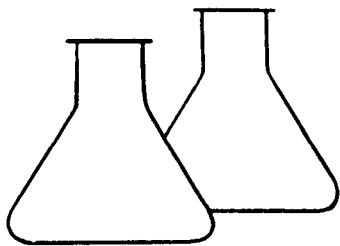
Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986

ND - Parameter not detected at the stated detection limit.

Comments:

Ae Chaharlang
Analyst

Margaret D. Young
Review



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**** QUALITY ASSURANCE REPORT**
MATRIX SPIKE - TOTAL PETROLEUM HYDROCARBONS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Spike	Date Sampled:	NA
Laboratory Number:	TPWS0319	Date Received:	NA
Sample Matrix:	Water	Date Analyzed:	03-19-93
Analysis Requested:	TPH	Date Reported:	03-19-93
Condition:	NA		

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked sample Result (mg/L)	Percent Recovery
Total Petroleum Hydrocarbons	ND	10.0	9.5	95

QA ACCEPTANCE CRITERIA:	Parameter	Acceptance Range %
	TPH	80 - 120

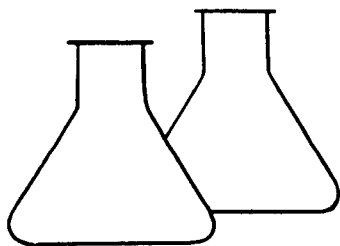
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments:

Steve Leftma
Analyst

Mavis D. Young
Review



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**** QUALITY ASSURANCE REPORT**
MATRIX SPIKE - TOTAL PETROLEUM HYDROCARBONS

Client:	NA	Project #:	NA
Sample ID:	Laboratory Spike	Date Sampled:	NA
Laboratory Number:	TPSS0319	Date Received:	NA
Sample Matrix:	Soil	Date Analyzed:	03-19-93
Analysis Requested:	TPH	Date Reported:	03-19-93

Parameter	Sample Result (mg/kg)	Spike Added (mg/kg)	Spiked sample Result (mg/kg)	Percent Recovery
Total Petroleum Hydrocarbons	ND	496.5	477.6	96.2

QA ACCEPTANCE CRITERIA:	Parameter	Acceptance Range %
	TPH	80 - 120

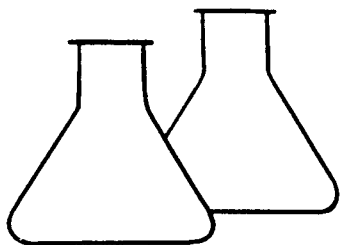
Method: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No.4551, 1978

ND - Parameter not detected at the stated detection limit.

Comments:

John Feltner
Analyst

Moni D. Young
Review



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** QUALITY ASSURANCE EPA METHOD 8020
MATRIX SPIKE - AROMATIC VOLATILE ORGANICS

Client: NA
Sample ID: Sample Spike
Laboratory Number: 4805
Sample Matrix: Water
Analysis Requested: BTEX
Condition: NA

Project #: NA
Date Reported: 03-22-93
Date Sampled: 03-18-93
Date Received: 03-18-93
Date Analyzed: 03-19-93

Parameter	Sample Result (ug/L)	Spike Added (ug/L)	Spiked Sample Result (ug/L)	Det. Limit (ug/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Benzene	ND	20.0	21.1	0.3	104	39-150
Toluene	ND	20.0	20.0	0.4	99	46-148
Ethylbenzene	ND	20.0	20.2	0.3	100	32-160
p,m-Xylene	ND	20.0	20.9	0.8	101	46-148
o-Xylene	ND	20.0	20.4	0.4	101	46-148

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

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

ND - Parameter not detected at the stated detection limit.

Comments:

A. Chaharbag
Analyst

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Review