1R - 263
ANNUAL MONITORING REPORT

4/05/2005

Tipperary CORPORATION

633 Seventeenth Street
Suite 1550
Denver, Colorado 80202-3622

April 5, 2005

VIA OVERNIGHT MAIL

Mr. Roger C. Anderson
New Mexico Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

IRP 263
264
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269
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RE: Progress Report for Year 2004
Bagley Field
Pit Closure Project
Lea County, NM

Dear Mr. Anderson:

Please find enclosed the 2004 results from our monitor wells in the subject project area. This report summarizes the results from water samples taken on October 1, 2004. These results represent seven years of monitoring. On April 19, 2004, the NMOCD modified the monitoring program for the project to allow sampling on an annual basis. In general, we are continuing to observe decreasing levels of BTEX in the monitor wells.

The Executive Summary section contains a general discussion of the project to date and a Location Map of the pit reclamation projects.

A summary of the investigation work and results to date for each pit closure site is included. The following data is presented for each site:

- Well site plat with monitor well locations.
- Ground water potentiometric map for the 2004 sampling with the direction and magnitude of the hydraulic gradient.
- Table of ground water recovery volumes (where applicable).
- Well bailing log for each well.
- Summary table and chart of water quality results for each well.
- Geologic/lithologic log and well construction diagram for each new well.

We will continue to sample and prepare a progress report for your office on an annual basis. If you have any questions, please call me at (303) 293-9379.

Very truly yours,

Tipperary Oil & Gas Corporation

Larry G. Sugano

Larry G. Sugano
Vice President - Engineering

Enclosures

cc: NMOCD Hobbs Office
Whole Earth Environmental

Tipperary Oil & Gas Corporation
Bagley Field
2004 Annual Report

Executive Summary

Site History

In response to a request by a 1996 request by the NMOCD, Tipperary Corporation began a program to close a series of ten surface impoundments located with their Bagley Field west of Tatum, New Mexico. The closure program consisted of excavating the impoundments and encapsulating the contaminant plume within high-density polyethylene. As part of the closure program, a groundwater investigation was conducted at each site. The investigation concluded that due to the relatively shallow depth to the surface of the aquifer, each site impacted the Ogallala Aquifer to varying degrees.

The remediation plan included passive monitoring of those sites showing no free product on the water table and active fluid removal by means of the erection of windmills at three sites found to have more significant concentrations. A series of water monitoring wells were placed down gradient of each location. Each such well has been sampled and tested on a quarterly basis with the results of each laboratory analyses provided to the NMOCD on an annual basis. To date, three sites have been remediated to final closure. On April 19, 2004, the NMOCD modified the monitoring program to allow sampling on an annual basis.

Procedures

Whole Earth employs a Grundfos electric submersible pump and individual bailers dedicated to each well. The well fluids are pumped into a trailer mounted storage tank and sent to disposal at the Burro Pipeline Station No. 1.

The submersible pump is thoroughly decontaminated between each well by spraying the exterior with detergent followed by a clear water rinse; the inside of the pump and hose assembly is cleaned by pumping a minimum volume of five gallons of Alquinox through the system between each well.

Results and Conclusions

Generally, the trend for each pit site is to show lower concentrations of BTEX within each recovery and monitor well bore. During this sampling round we noticed that those bores containing free products had increased volumes of hydrocarbons over all previous sampling rounds. We believe that this is due to the reduction of frequency in bailing the wells (once versus four times per year). In future bailings we will continue to pump sufficient volumes from each bore containing free product until such time as the oil is no longer visible within the discharge stream.

A map showing the project area is attached. The following sections present the investigation work results to date for each of the sites.

WHOLE EARTH ENVIROMENTAL, INC.

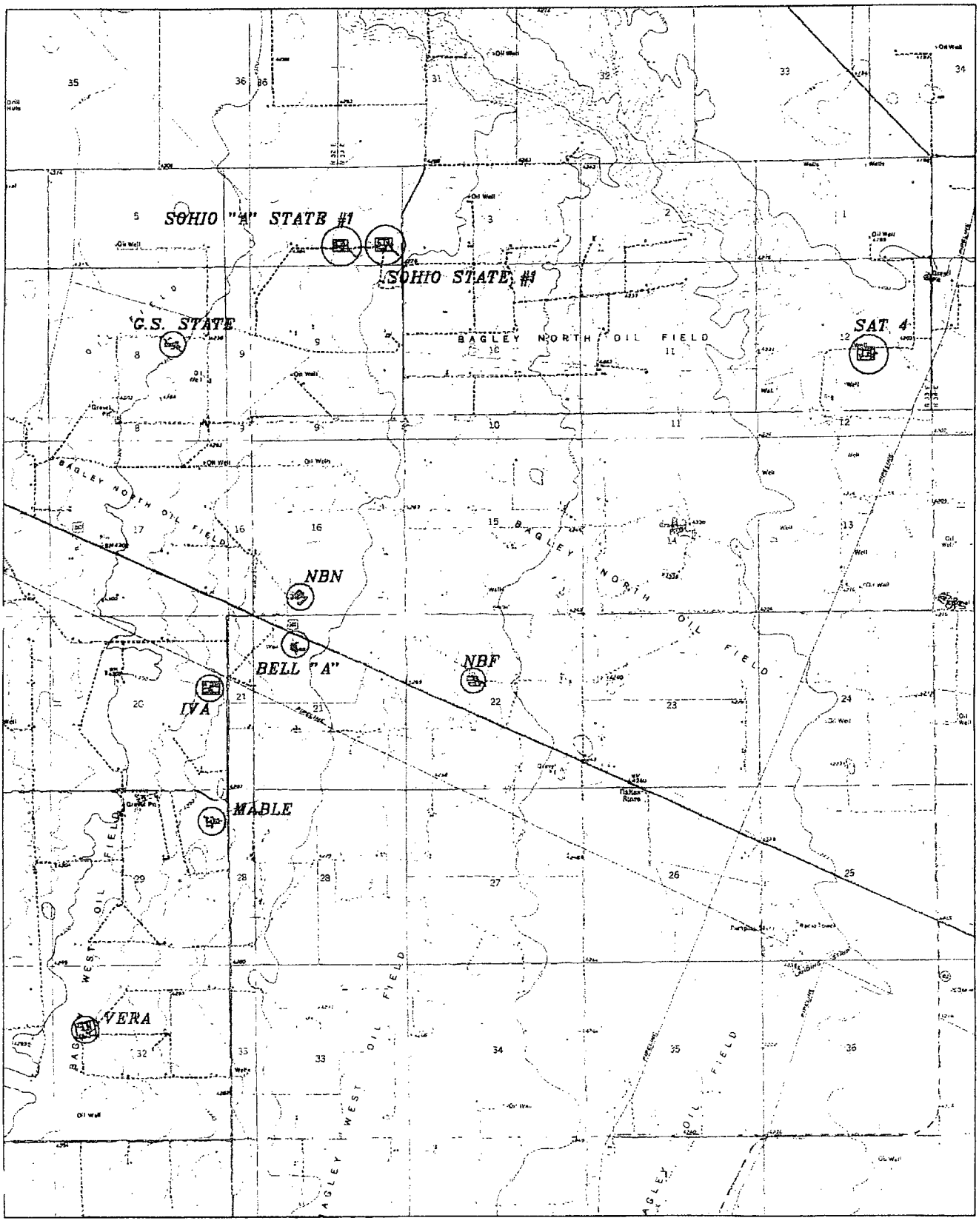


EXHIBIT 9

BASIN SURVEYS P.O. BOX 1786 – HOBBS, NEW MEXICO	W.O. Number: 9352	Drawn By: K. GOAD
	Date: 10-21-99	Disk: KJG #122 – WE9352.DWG

Tipperary Oil & Gas Corporation
Bagley Field
2004 Annual Report

Iva COM
Section 20H-T11S-R33E

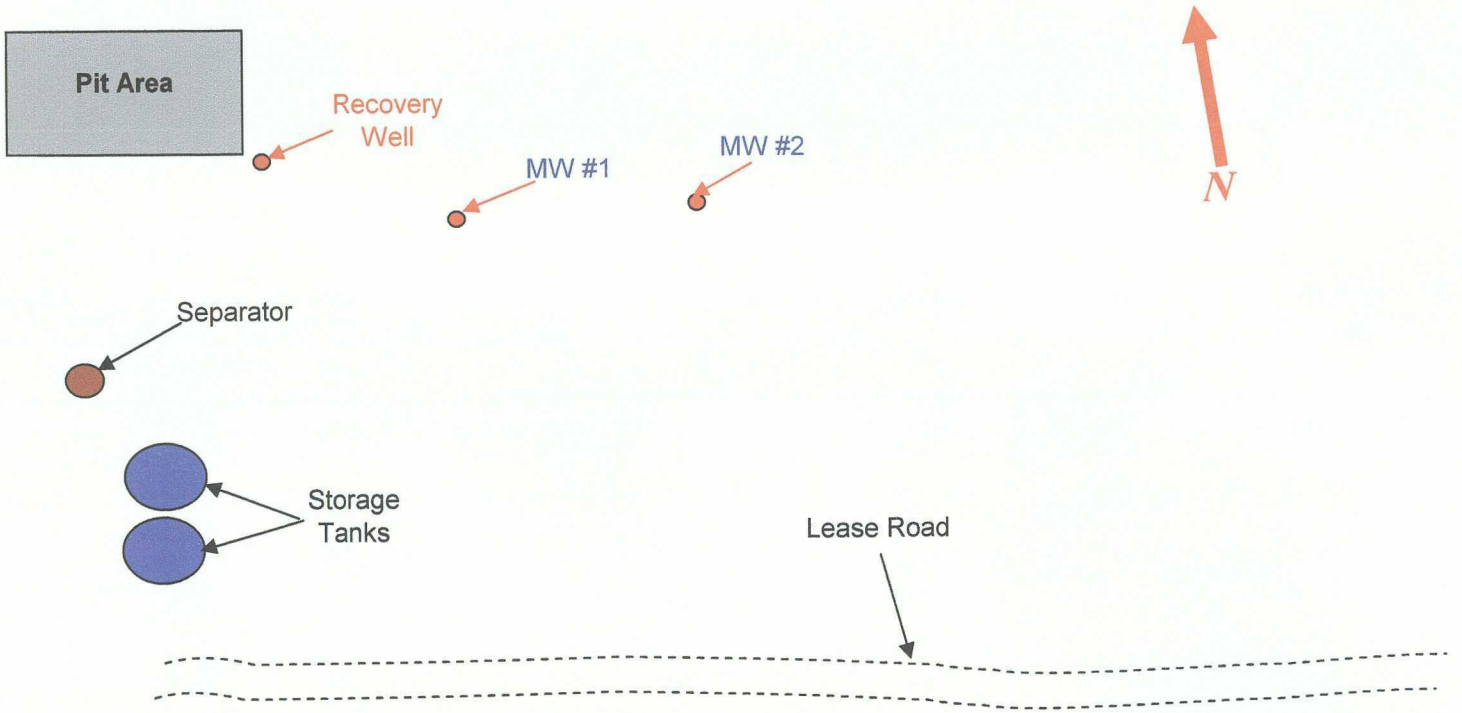
IRP 263

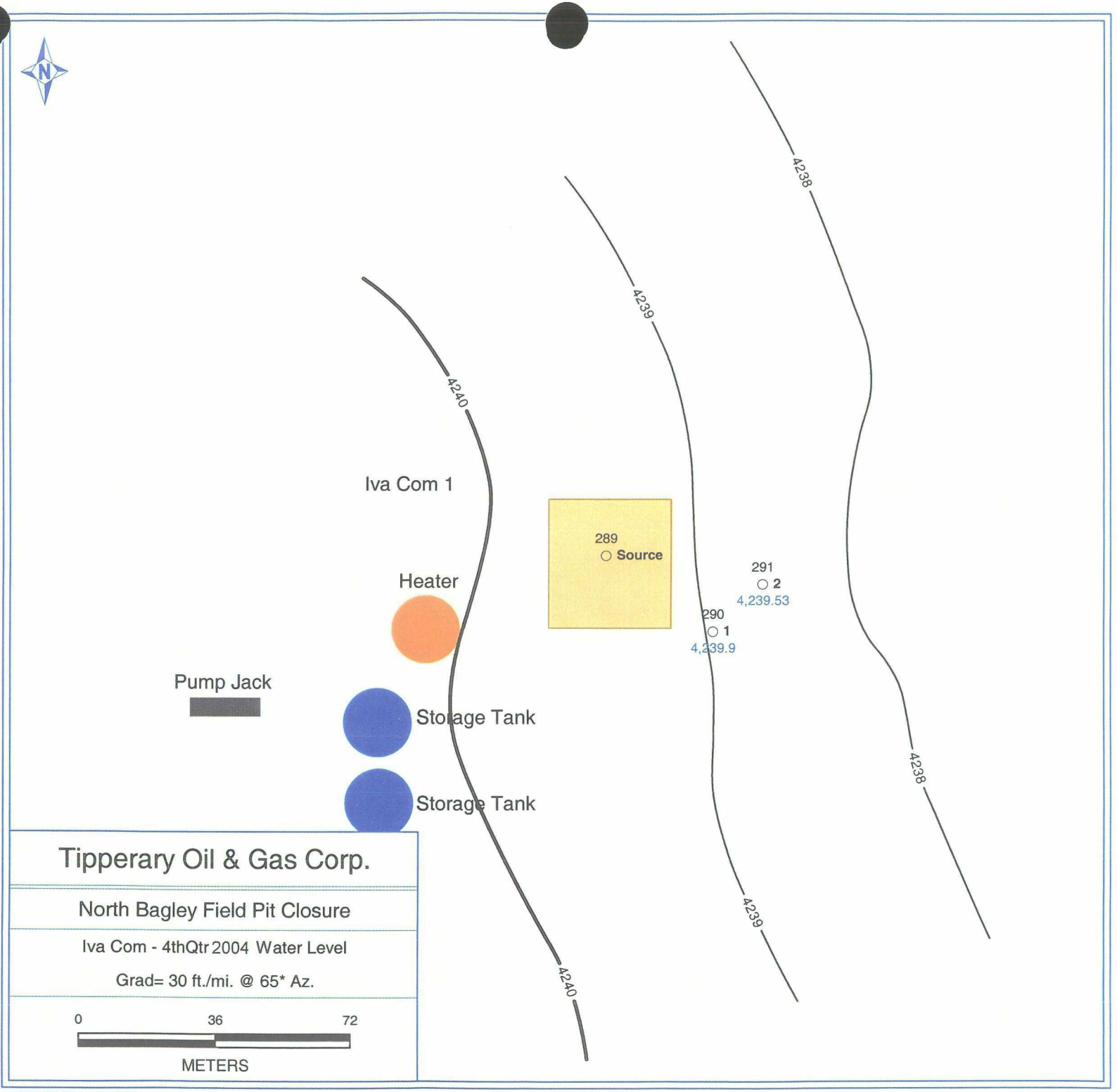
The Iva site consists of one recovery and two monitor wells. The recovery well continues to show reductions in BTEX over the eight years of operations with the latest results being less than 5% of the initial concentrations. We will continue to operate the recovery well and monitor the results on an annual basis.

Please find the following data:

- Well-site plat with monitor well locations.
- Ground water potentiometric map for 2004 sampling with direction and magnitude of the hydraulic gradient.
- Table of ground water recovery volumes from the recovery well.
- Well bailing log for each well.
- Summary table and chart of ground water quality results for each well.
- Copy of the recent laboratory sampling results with the QA/QC data.

Tipperary Corporation
Iva COM
Monitor Well Locations





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Tipperary Corporation
Iva Com Recovery Well
Section 20H-T11S-R33E
Lea County, NM

YEAR	ESTIMATED GROUND WATER RECOVERY (BBLS)	ESTIMATED PRODUCT RECOVERY (BBLS)
1997	913	4.6
1998	1825	9.1
1999	1825	9.1
2000	1825	9.1
2001	1825	9.1
2002	1825	9.1
2003	1825	9.1
2004	1825	9.1
TOTAL	13688	68.4

All fluids pumped into the Burro Disposal System.
Production rate estimated to be 5 bwpd

Iva

Monitor Well Bailing Log

Iva Source

Lat:	**33^0 21.183'**
Long.	**103^0 37.768'**
Surf. Elev.	**4298.4 Ft**

As Drilled		As Measured

Date:	**8/25/1997**	**Date:**	**01/23/04**	**09/29/04**			
Top of Water	**60 Ft.**	**Top of Water**	**NA**	**NA**	**NA**	**NA**	**Ft.**
Bottom of Bore	**68 Ft.**	**Bottom of Bore**	**NA**	**NA**	**NA**	**NA**	**Ft.**
		LPNL Top	**NA**	**NA**	**NA**	**NA**	**Ft.**
		LPNL Bottom	**NA**	**NA**	**NA**	**NA**	**Ft.**
		DPNL Top	**NA**	**NA**	**NA**	**NA**	**Ft.**
		DPNL Bottom	**NA**	**NA**	**NA**	**NA**	**Ft.**
		Min. Bailing Vol.	**NA**	**NA**	**NA**	**NA**	**Gal.**
		Actual Bailing Vol.	**NA**	**NA**	**NA**	**NA**	**Gal.**

Comments

1-23 Could not get to produce water - Visited site six times

9-29-04 1/4" tap on ball valve clogged - Clarence repaired

Iva

Monitor Well Bailing Log

Iva MW #1

Lat:	33^0 21.174'
Long.	103^0 37.753'
Surf. Elev.	4298.4

As Drilled			As Measured					
Date:	8/14/1997		Date:	1/23/04	9/29/04			
Top of Water	54.9	Ft.	Top of Water	52.20	52.50			Ft.
Bottom of Bore	60	Ft.	Bottom of Bore	63.20	63.20			Ft.
			Bore Volumn	1.77	1.73			Gal.
			LPNL Top	NA	NA			Ft.
			LPNL Bottom	NA	NA			Ft.
			DPNL Top	NA	NA			Ft.
			DPNL Bottom	NA	NA			Ft.
			Min. Bailing Vol.	5.32	5.18			Gal.
			Actual Bailing Vol.	15.00	10.00			Gal.

Comments

Iva

Monitor Well Bailing Log

Iva MW #2

Lat:	32^0 21.174'
Long.	103^0 37.753'
Surf. Elev.	4291.9 Ft.

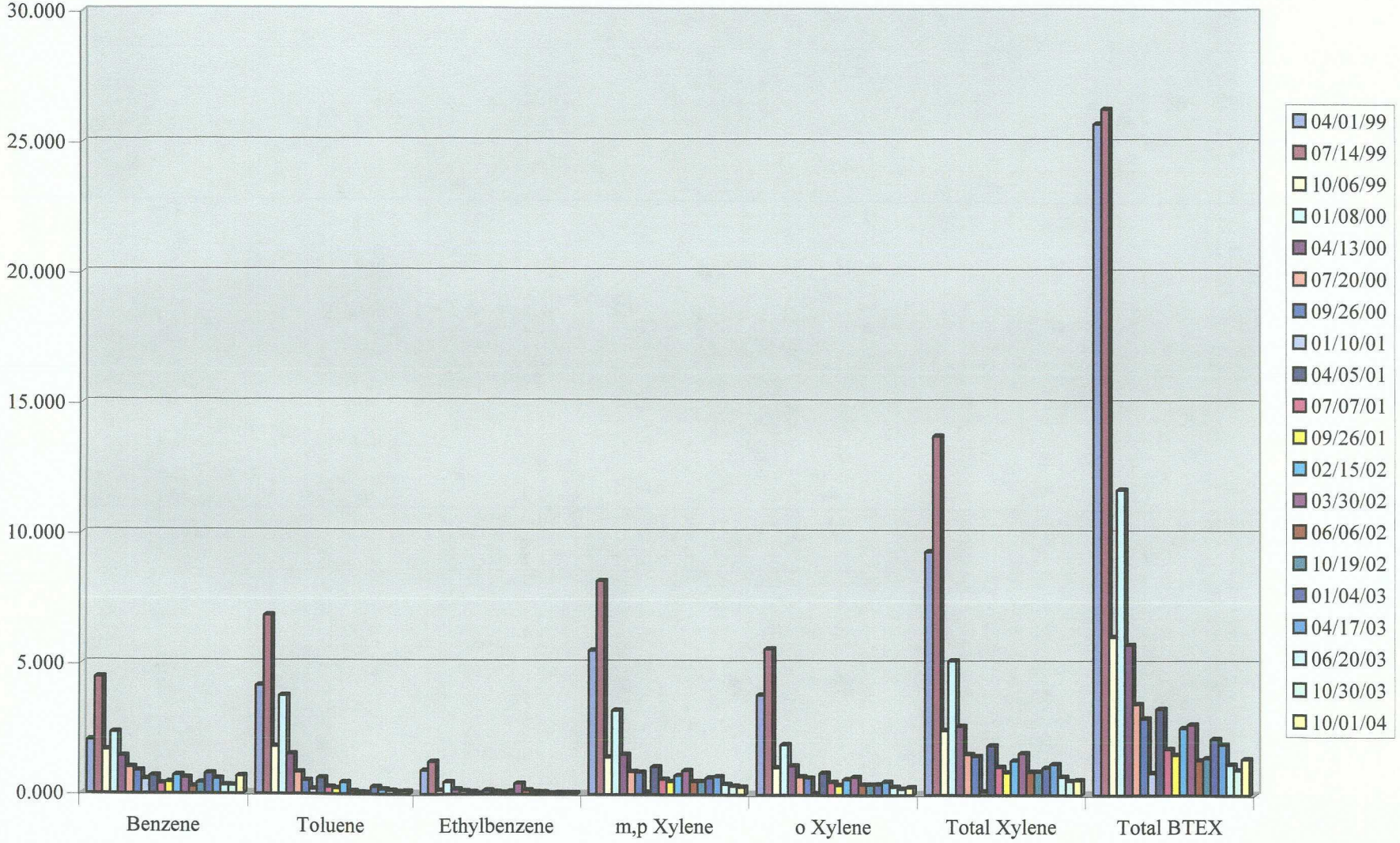
As Drilled		As Measured					
Date:		Date:	1/23/04	9/29/04			
Top of Water	Ft.	Top of Water	52.40	52.50			Ft.
Bottom of Bore	Ft.	Bottom of Bore	63.80	63.20			Ft.
		Bore Volumn	1.84	1.73			Gal.
		LPNL Top	NA	NA			Ft.
		LPNL Bottom	NA	NA			Ft.
		DPNL Top	NA	NA			Ft.
		DPNL Bottom	NA	NA			Ft.
		Min. Bailing Vol.	5.52	5.18			Gal.
		Actual Bailing Vol.	12.00	10.00			Gal.

Comments

Iva Source Well

Lab. #	Sample Date	Benzene	Toluene	Ethylbenzene	m,p Xylene	o Xylene	Total Xylene	Total BTEX
17428	04/01/99	2.050	4.150	0.902	5.500	3.800	9.300	25.702
18590	07/14/99	4.460	6.850	1.240	8.160	5.570	13.730	26.280
20605	10/06/99	1.670	1.800	0.126	1.420	1.030	2.450	6.046
22774	01/08/00	2.350	3.760	0.458	3.210	1.910	5.120	11.688
25164	04/13/00	1.430	1.510	0.176	1.520	1.100	2.620	5.736
28464	07/20/00	1.000	0.815	0.104	0.866	0.676	1.542	3.461
31494	09/26/00	0.865	0.495	0.080	0.833	0.636	1.469	2.909
36195	01/10/01	0.533	0.168	0.015	0.067	0.044	0.111	0.827
38917	04/05/01	0.666	0.599	0.141	1.050	0.824	1.874	3.280
0101098-01	07/07/01	0.371	0.252	0.075	0.577	0.474	1.051	1.749
0101642-01	09/26/01	0.430	0.204	0.048	0.486	0.359	0.845	1.527
0202619-01	02/15/02	0.701	0.437	0.102	0.723	0.579	1.302	2.542
0001112-02	03/30/02	0.593	0.096	0.403	0.913	0.670	1.583	2.675
0203577-01	06/06/02	0.257	0.048	0.142	0.488	0.376	0.864	1.311
0204815-01	10/19/02	0.411	0.043	0.080	0.487	0.380	0.867	1.401
0205349-01	01/04/03	0.770	0.272	0.073	0.627	0.390	1.017	2.132
0306249-01	04/17/03	0.566	0.174	0.017	0.681	0.486	1.167	1.924
0306733-17	06/20/03	0.314	0.125	0.042	0.390	0.288	0.678	1.159
0307790-20	10/30/03	0.301	0.076	0.037	0.317	0.210	0.527	0.941
4J04007-01	10/01/04	0.669	0.101	0.041	0.278	0.276	0.554	1.365

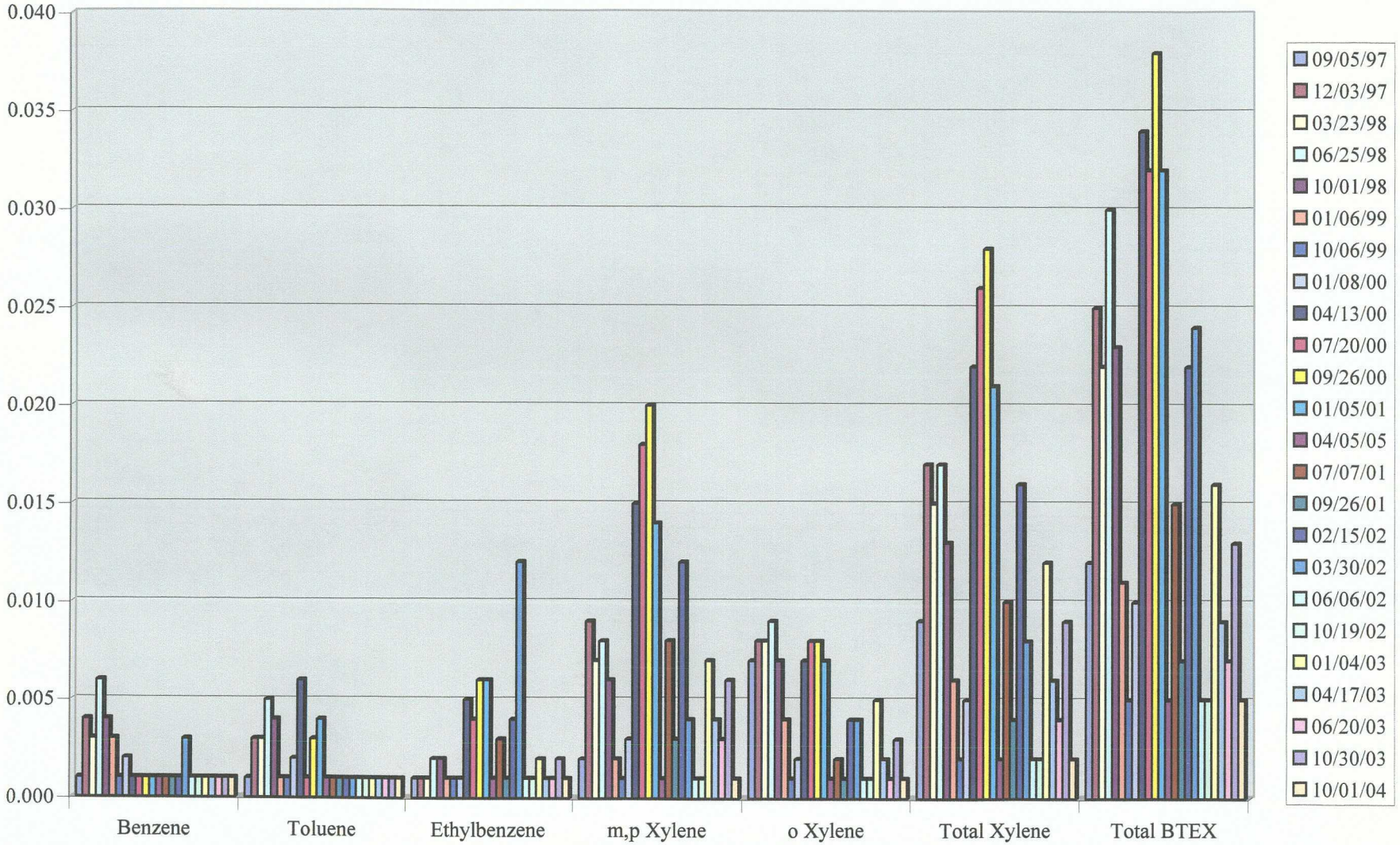
Iva Source Well



Monitor Well # 1
Iva COM
Sampling Results

Lab. #	Sample Date	Benzene	Toluene	Ethylbenzene	m,p Xylene	o Xylene	Total Xylene	Total BTEX
12475	09/05/97	0.001	0.001	0.001	0.002	0.007	0.009	0.012
13182	12/03/97	0.004	0.003	0.001	0.009	0.008	0.017	0.025
14057	03/23/98	0.003	0.003	0.001	0.007	0.008	0.015	0.022
14657	06/25/98	0.006	0.005	0.002	0.008	0.009	0.017	0.030
15590	10/01/98	0.004	0.004	0.002	0.006	0.007	0.013	0.023
16595	01/06/99	0.003	0.001	0.001	0.002	0.004	0.006	0.011
20597	10/06/99	0.001	0.001	0.001	0.001	0.001	0.002	0.005
22767	01/08/00	0.002	0.002	0.001	0.003	0.002	0.005	0.010
25165	04/13/00	0.001	0.006	0.005	0.015	0.007	0.022	0.034
28439	07/20/00	0.001	0.001	0.004	0.018	0.008	0.026	0.032
31503	09/26/00	0.001	0.003	0.006	0.020	0.008	0.028	0.038
36133	01/05/01	0.001	0.004	0.006	0.014	0.007	0.021	0.032
38918	04/05/05	0.001	0.001	0.001	0.001	0.001	0.002	0.005
0101098-02	07/07/01	0.001	0.001	0.003	0.008	0.002	0.010	0.015
0101642-02	09/26/01	0.001	0.001	0.001	0.003	0.001	0.004	0.007
0202619-02	02/15/02	0.001	0.001	0.004	0.012	0.004	0.016	0.022
0203001-02	03/30/02	0.003	0.001	0.012	0.004	0.004	0.008	0.024
0203577-02	06/06/02	0.001	0.001	0.001	0.001	0.001	0.002	0.005
0204815-02	10/19/02	0.001	0.001	0.001	0.001	0.001	0.002	0.005
0205349-02	01/04/03	0.001	0.001	0.002	0.007	0.005	0.012	0.016
0306249-02	04/17/03	0.001	0.001	0.001	0.004	0.002	0.006	0.009
0306733-18	06/20/03	0.001	0.001	0.001	0.003	0.001	0.004	0.007
0307790-21	10/30/03	0.001	0.001	0.002	0.006	0.003	0.009	0.013
4J04007-02	10/01/04	0.001	0.001	0.001	0.001	0.001	0.002	0.005

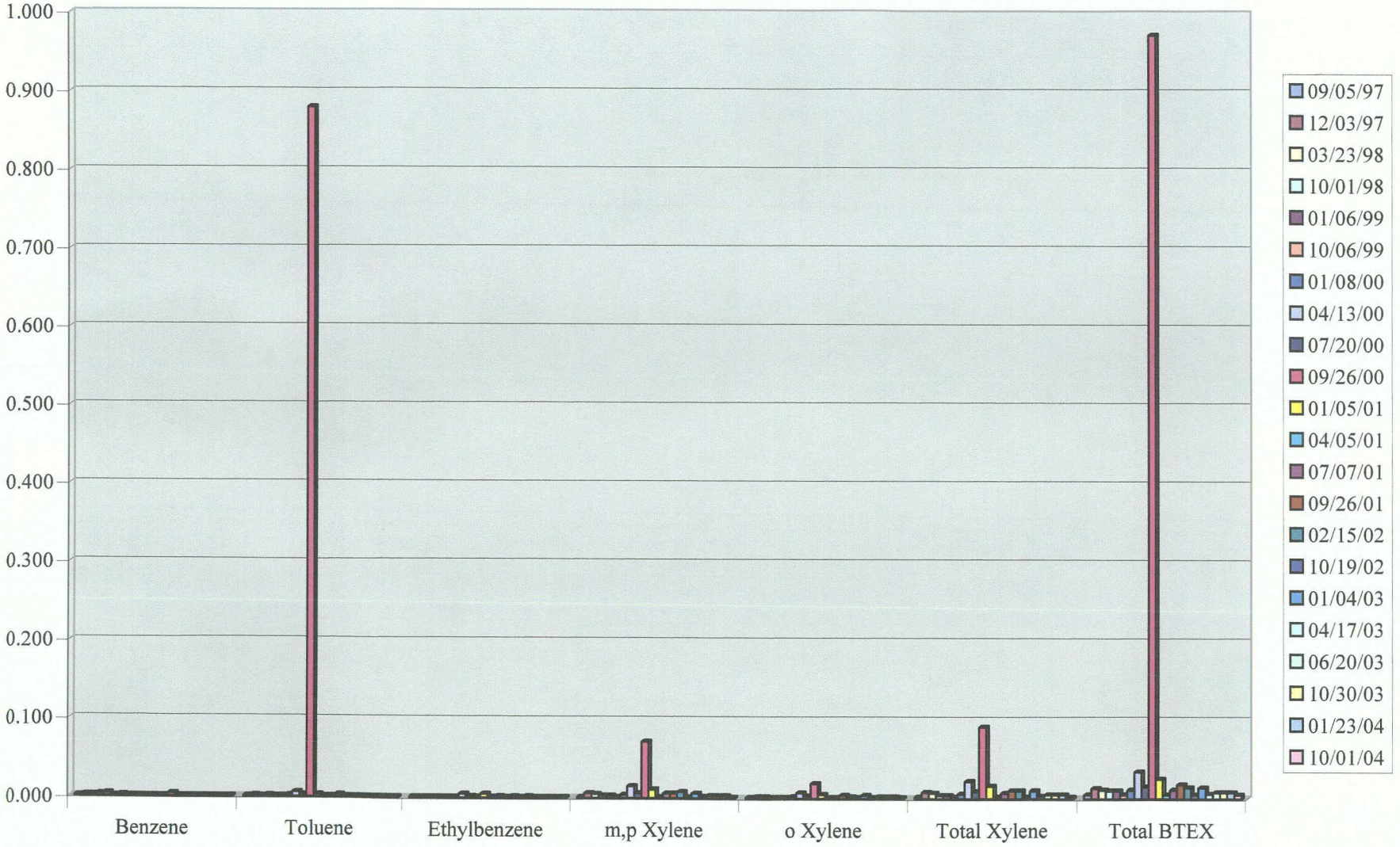
Iva MW #1


0.040
0.035
0.030
0.025
0.020
0.015
0.010
0.005
0.000
Benzene
Toluene
Ethylbenzene
m,p Xylene
o Xylene
Total Xylene
Total BTEX
09/05/97
12/03/97
03/23/98
06/25/98
10/01/98
01/06/99
10/06/99
01/08/00
04/13/00
07/20/00
09/26/00
01/05/01
04/05/05
07/07/01
09/26/01
02/15/02
03/30/02
06/06/02
10/19/02
01/04/03
04/17/03
06/20/03
10/30/03
10/01/04

Monitor Well # 2
Iva COM
Sampling Results

Lab. #	Sample Date	Benzene	Toluene	Ethylbenzene	m,p Xylene	o Xylene	Total Xylene	Total BTEX
12476	09/05/97	0.001	0.001	0.001	0.001	0.001	0.002	0.005
13183	12/03/97	0.002	0.002	0.001	0.006	0.002	0.008	0.013
14058	03/23/98	0.002	0.001	0.001	0.005	0.002	0.007	0.011
15605	10/01/98	0.003	0.002	0.001	0.003	0.001	0.004	0.010
16596	01/06/99	0.004	0.001	0.001	0.003	0.001	0.004	0.010
20606	10/06/99	0.001	0.001	0.001	0.001	0.001	0.002	0.005
22789	01/08/00	0.002	0.002	0.001	0.004	0.002	0.006	0.011
25166	04/13/00	0.001	0.006	0.005	0.015	0.007	0.022	0.034
28436	07/20/00	0.001	0.003	0.002	0.006	0.003	0.009	0.015
31504	09/26/00	0.001	0.880	0.001	0.072	0.019	0.091	0.973
36134	01/05/01	0.001	0.003	0.005	0.011	0.005	0.016	0.025
38919	04/05/01	0.001	0.001	0.001	0.001	0.001	0.002	0.005
0101098-03	07/07/01	0.001	0.001	0.002	0.006	0.001	0.007	0.011
0101642-03	09/26/01	0.004	0.003	0.001	0.006	0.004	0.010	0.018
0202619-03	02/15/02	0.001	0.001	0.002	0.008	0.002	0.010	0.014
0204815-03	10/19/02	0.001	0.001	0.001	0.001	0.001	0.002	0.005
0205349-03	01/04/03	0.001	0.001	0.002	0.006	0.004	0.010	0.014
0306249-03	04/17/03	0.001	0.001	0.001	0.002	0.001	0.003	0.006
0306733-19	06/20/03	0.001	0.001	0.001	0.003	0.002	0.005	0.008
0307790-22	10/30/03	0.001	0.001	0.001	0.003	0.002	0.005	0.008
4A26006-02	01/23/04	0.001	0.001	0.001	0.003	0.002	0.005	0.008
4J04007-03	10/01/04	0.001	0.001	0.001	0.001	0.001	0.002	0.005

Iva MW #2


1.000
0.900
0.800
0.700
0.600
0.500
0.400
0.300
0.200
0.100
0.000
Benzene
Toluene
Ethylbenzene
m,p Xylene
o Xylene
Total Xylene
Total BTEX
09/05/97
12/03/97
03/23/98
10/01/98
01/06/99
10/06/99
01/08/00
04/13/00
07/20/00
09/26/00
01/05/01
04/05/01
07/07/01
09/26/01
02/15/02
10/19/02
01/04/03
04/17/03
06/20/03
10/30/03
01/23/04
10/01/04

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Mike Griffin

WHOLE EARTH ENVIRONMENTAL

2103 Arbor Cove

Katy, TX 77494

Project: Iva COM

Project Number: None Given

Location: None Given

Lab Order Number: 4J04007

Report Date: 10/15/04

WHOLE EARTH ENVIRONMENTAL	Project: Iva COM	Fax: (281) 394-2051
2103 Arbor Cove	Project Number: None Given	**Reported:**
Katy TX, 77494	Project Manager: Mike Griffin	10/15/04 16:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Source	4J04007-01	Water	10/01/04 00:00	10/03/04 13:00
MW-1	4J04007-02	Water	10/01/04 00:00	10/03/04 13:00
MW-3	4J04007-03	Water	10/01/04 00:00	10/03/04 13:00

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

WHOLE EARTH ENVIRONMENTAL	Project: Iva COM	Fax: (281) 394-2051
2103 Arbor Cove	Project Number: None Given	**Reported:**
Katy TX, 77494	Project Manager: Mike Griffin	10/15/04 16:50

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Source (4J04007-01) Water									
Benzene	**0.669**	0.0100	mg/L	10	EJ40716	10/06/04	10/08/04	EPA 8021B	
Toluene	**0.101**	0.0100	"	"	"	"	"	"	
Ethylbenzene	**0.0401**	0.0100	"	"	"	"	"	"	
Xylene (p/m)	**0.278**	0.0100	"	"	"	"	"	"	
Xylene (o)	**0.276**	0.0100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*121 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*112 %*	*80-120*		"	"	"	"	
MW-1 (4J04007-02) Water									
Benzene	ND	0.00100	mg/L	1	EJ41205	10/11/04	10/11/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*89.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*89.0 %*	*80-120*		"	"	"	"	
MW-3 (4J04007-03) Water									
Benzene	ND	0.00100	mg/L	1	EJ41205	10/11/04	10/11/04	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*83.2 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*83.1 %*	*80-120*		"	"	"	"	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

WHOLE EARTH ENVIRONMENTAL	Project: Iva COM	Fax: (281) 394-2051
2103 Arbor Cove	Project Number: None Given	**Reported:**
Katy TX, 77494	Project Manager: Mike Griffin	10/15/04 16:50

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Source (4J04007-01) Water									
Carbonate Alkalinity	ND	0.200	mg/L	2	EJ40902	10/09/04	10/09/04	EPA 310.2M	O-04
Bicarbonate Alkalinity	**448**	4.00	"	"	"	"	"	"	O-04
Hydroxide Alkalinity	ND	0.200	"	"	"	"	"	"	O-04
Chloride	**1520**	5.00	"	1	EJ40704	10/05/04	10/05/04	EPA 325.3M	
Sulfate	**86.8**	1.25	"	2.5	EJ40905	10/09/04	10/09/04	EPA 375.4	
MW-1 (4J04007-02) Water									
Carbonate Alkalinity	ND	0.200	mg/L	2	EJ40902	10/09/04	10/09/04	EPA 310.2M	O-04
Bicarbonate Alkalinity	**172**	4.00	"	"	"	"	"	"	O-04
Hydroxide Alkalinity	ND	0.200	"	"	"	"	"	"	O-04
Chloride	**88.6**	5.00	"	1	EJ40704	10/05/04	10/05/04	EPA 325.3M	
Sulfate	**222**	2.50	"	5	EJ40905	10/09/04	10/09/04	EPA 375.4	
MW-3 (4J04007-03) Water									
Carbonate Alkalinity	ND	0.200	mg/L	2	EJ40902	10/09/04	10/09/04	EPA 310.2M	O-04
Bicarbonate Alkalinity	**104**	4.00	"	"	"	"	"	"	O-04
Hydroxide Alkalinity	ND	0.200	"	"	"	"	"	"	O-04
Chloride	ND	5.00	"	1	EJ40704	10/05/04	10/05/04	EPA 325.3M	
Sulfate	**1.80**	0.500	"	"	EJ40905	10/09/04	10/09/04	EPA 375.4	

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WHOLE EARTH ENVIRONMENTAL	Project: Iva COM	Fax: (281) 394-2051
2103 Arbor Cove	Project Number: None Given	**Reported:**
Katy TX, 77494	Project Manager: Mike Griffin	10/15/04 16:50

Total Metals by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Source (4J04007-01) Water									
Calcium	**120**	1.00	mg/L	100	EJ41305	10/12/04	10/12/04	EPA 6010B	
Magnesium	**24.4**	0.0100	"	10	"	"	"	"	
Potassium	**12.3**	0.500	"	"	"	"	"	"	
Sodium	**1070**	10.0	"	1000	"	"	"	"	
MW-1 (4J04007-02) Water									
Calcium	**116**	1.00	mg/L	100	EJ41305	10/12/04	10/12/04	EPA 6010B	
Magnesium	**12.1**	0.0100	"	10	"	"	"	"	
Potassium	**4.04**	0.0500	"	1	"	"	"	"	
Sodium	**55.3**	1.00	"	100	"	"	"	"	
MW-3 (4J04007-03) Water									
Calcium	**25.5**	0.100	mg/L	10	EJ41305	10/12/04	10/12/04	EPA 6010B	
Magnesium	**0.620**	0.00100	"	1	"	"	"	"	
Potassium	**12.8**	0.500	"	10	"	"	"	"	
Sodium	**17.2**	0.100	"	"	"	"	"	"	

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WHOLE EARTH ENVIRONMENTAL	Project: Iva COM	Fax: (281) 394-2051
2103 Arbor Cove	Project Number: None Given	**Reported:**
Katy TX, 77494	Project Manager: Mike Griffin	10/15/04 16:50

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ40716 - EPA 5030C (GC)										
Blank (EJ40716-BLK1)				Prepared: 10/06/04 Analyzed: 10/07/04						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*81.8*		*ug/l*	*100*		*81.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*88.0*		*"*	*100*		*88.0*	*80-120*			
LCS (EJ40716-BS1)				Prepared: 10/06/04 Analyzed: 10/07/04						
Benzene	83.8		ug/l	100		83.8	80-120			
Toluene	82.6		"	100		82.6	80-120			
Ethylbenzene	80.9		"	100		80.9	80-120			
Xylene (p/m)	179		"	200		89.5	80-120			
Xylene (o)	84.6		"	100		84.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*106*		*"*	*100*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*118*		*"*	*100*		*118*	*80-120*			
Calibration Check (EJ40716-CCV1)				Prepared: 10/05/04 Analyzed: 10/06/04						
Benzene	83.1		ug/l	100		83.1	80-120			
Toluene	83.4		"	100		83.4	80-120			
Ethylbenzene	80.8		"	100		80.8	80-120			
Xylene (p/m)	167		"	200		83.5	80-120			
Xylene (o)	83.4		"	100		83.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	*102*		*"*	*100*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*117*		*"*	*100*		*117*	*80-120*			
Matrix Spike (EJ40716-MS1)	**Source: 4J05006-03**			Prepared: 10/06/04 Analyzed: 10/07/04						
Benzene	82.5		ug/l	100	ND	82.5	80-120			
Toluene	82.7		"	100	ND	82.7	80-120			
Ethylbenzene	80.8		"	100	ND	80.8	80-120			
Xylene (p/m)	168		"	200	ND	84.0	80-120			
Xylene (o)	82.5		"	100	ND	82.5	80-120			
Surrogate: a,a,a-Trifluorotoluene	*97.6*		*"*	*100*		*97.6*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*114*		*"*	*100*		*114*	*80-120*			

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ40716 - EPA 5030C (GC)										
Matrix Spike Dup (EJ40716-MSD1)	**Source: 4J05006-03**			Prepared: 10/06/04 Analyzed: 10/07/04						
Benzene	83.3		ug/l	100	ND	83.3	80-120	0.965	20	
Toluene	83.8		"	100	ND	83.8	80-120	1.32	20	
Ethylbenzene	80.8		"	100	ND	80.8	80-120	0.00	20	
Xylene (p/m)	166		"	200	ND	83.0	80-120	1.20	20	
Xylene (o)	82.8		"	100	ND	82.8	80-120	0.363	20	
Surrogate: a,a,a-Trifluorotoluene	*104*		"	*100*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*114*		"	*100*		*114*	*80-120*			
Batch EJ41205 - EPA 5030C (GC)										
Blank (EJ41205-BLK1)				Prepared & Analyzed: 10/11/04						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*85.4*		*ug/l*	*100*		*85.4*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*83.1*		"	*100*		*83.1*	*80-120*			
LCS (EJ41205-BS1)				Prepared & Analyzed: 10/11/04						
Benzene	91.9		ug/l	100		91.9	80-120			
Toluene	91.6		"	100		91.6	80-120			
Ethylbenzene	82.7		"	100		82.7	80-120			
Xylene (p/m)	176		"	200		88.0	80-120			
Xylene (o)	84.7		"	100		84.7	80-120			
Surrogate: a,a,a-Trifluorotoluene	*104*		"	*100*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*111*		"	*100*		*111*	*80-120*			

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Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ41205 - EPA 5030C (GC)										
Calibration Check (EJ41205-CCV1)				Prepared: 10/11/04 Analyzed: 10/12/04						
Benzene	89.8		ug/l	100		89.8	80-120			
Toluene	91.6		"	100		91.6	80-120			
Ethylbenzene	82.5		"	100		82.5	80-120			
Xylene (p/m)	176		"	200		88.0	80-120			
Xylene (o)	83.6		"	100		83.6	80-120			
Surrogate: a,a,a-Trifluorotoluene	*102*		"	*100*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*117*		"	*100*		*117*	*80-120*			
Matrix Spike (EJ41205-MS1)	**Source: 4J04013-02**			Prepared: 10/11/04 Analyzed: 10/12/04						
Benzene	88.4		ug/l	100	ND	88.4	80-120			
Toluene	89.2		"	100	ND	89.2	80-120			
Ethylbenzene	80.4		"	100	ND	80.4	80-120			
Xylene (p/m)	165		"	200	ND	82.5	80-120			
Xylene (o)	80.4		"	100	ND	80.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	*101*		"	*100*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*107*		"	*100*		*107*	*80-120*			
Matrix Spike Dup (EJ41205-MSD1)	**Source: 4J04013-02**			Prepared: 10/11/04 Analyzed: 10/12/04						
Benzene	91.3		ug/l	100	ND	91.3	80-120	3.23	20	
Toluene	92.0		"	100	ND	92.0	80-120	3.09	20	
Ethylbenzene	82.3		"	100	ND	82.3	80-120	2.34	20	
Xylene (p/m)	174		"	200	ND	87.0	80-120	5.31	20	
Xylene (o)	83.2		"	100	ND	83.2	80-120	3.42	20	
Surrogate: a,a,a-Trifluorotoluene	*103*		"	*100*		*103*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*110*		"	*100*		*110*	*80-120*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ40704 - General Preparation (WetChem)										
Blank (EJ40704-BLK1)				Prepared & Analyzed: 10/05/04						
Chloride	ND	5.00	mg/L							
Matrix Spike (EJ40704-MS1)		**Source: 4I29007-01**		Prepared & Analyzed: 10/05/04						
Chloride	4250	5.00	mg/L	1000	3260	99.0	80-120			
Matrix Spike Dup (EJ40704-MSD1)		**Source: 4I29007-01**		Prepared & Analyzed: 10/05/04						
Chloride	4270	5.00	mg/L	1000	3260	101	80-120	0.469	20	
Reference (EJ40704-SRM1)				Prepared & Analyzed: 10/05/04						
Chloride	4960		mg/L	5000		99.2	80-120			
Batch EJ40902 - General Preparation (WetChem)										
Blank (EJ40902-BLK1)				Prepared & Analyzed: 10/09/04						
Carbonate Alkalinity	ND	0.200	mg/L							
Bicarbonate Alkalinity	ND	4.00	"							
Hydroxide Alkalinity	ND	0.200	"							
Duplicate (EJ40902-DUP1)		**Source: 4J04007-02**		Prepared & Analyzed: 10/09/04						
Carbonate Alkalinity	0.00	0.200	mg/L		0.00				20	O-04
Bicarbonate Alkalinity	174	4.00	"		172			1.16	20	O-04
Hydroxide Alkalinity	0.00	0.200	"		0.00				20	O-04
Reference (EJ40902-SRM1)				Prepared & Analyzed: 10/09/04						
Carbonate Alkalinity	0.0501		mg/L	0.0500		100	80-120			

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ40905 - General Preparation (WetChem)										
Blank (EJ40905-BLK1)				Prepared & Analyzed: 10/09/04						
Sulfate	ND	0.500	mg/L							
Calibration Check (EJ40905-CCV1)				Prepared & Analyzed: 10/09/04						
Sulfate	48.3		mg/L	50.0		96.6	80-120			
Duplicate (EJ40905-DUP1)	**Source: 4J04007-02**			Prepared & Analyzed: 10/09/04						
Sulfate	230	2.50	mg/L		222			3.54	20	

Total Metals by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EJ41305 - 6010B/No Digestion										
Blank (EJ41305-BLK1)				Prepared & Analyzed: 10/12/04						
Calcium	ND	0.0100	mg/L							
Magnesium	ND	0.00100	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0100	"							
Calibration Check (EJ41305-CCV1)				Prepared & Analyzed: 10/12/04						
Calcium	2.18		mg/L	2.00		109	85-115			
Magnesium	2.25		"	2.00		112	85-115			
Potassium	1.84		"	2.00		92.0	85-115			
Sodium	1.89		"	2.00		94.5	85-115			
Duplicate (EJ41305-DUP1)	**Source: 4J04009-02**			Prepared & Analyzed: 10/12/04						
Calcium	104	1.00	mg/L		102			1.94	20	
Magnesium	10.9	0.0100	"		10.7			1.85	20	
Potassium	33.9	0.500	"		36.4			7.11	20	
Sodium	79.8	1.00	"		79.8			0.00	20	

WHOLE EARTH ENVIRONMENTAL	Project: Iva COM	Fax: (281) 394-2051
2103 Arbor Cove	Project Number: None Given	**Reported:**
Katy TX, 77494	Project Manager: Mike Griffin	10/15/04 16:50

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
O-04	This sample was analyzed outside the EPA recommended holding time.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 10/15/04

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Biezugbe, Lab Tech.

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