AP - <u>29</u>

ANNUAL MONITORING REPORT

YEAR(S): してのよ



14 April 2004

Mr. Ed Martin NM Energy, Minerals, and Natural Resources Department New Mexico Oil Conservation Division – Environmental Bureau 1220 South St. Francis Drive Santa Fe, NM 87505

Re: Annual Monitoring Report Link Energy Kimbrough Sweet #2000-10757 pr. 29 UL-G Section 3 T18S R37E, Lea County, New Mexico Landowner: NMSLO

Dear Mr. Martin,

Environmental Plus, Inc. (EPI), on behalf of Mr. Frank Hernandez, Link Energy, submits for your consideration this *Annual Monitoring Report* for the above-referenced site. Based on data collected during the past year, Link Energy recommends continued monthly monitoring of the monitoring well network for PSH recovery and collection of groundwater level data. In addition, Link Energy is recommending the installation additional recovery wells to enhance recovery of the PSH and the continued semi-annual sampling of the monitoring well network.

Should you have any questions or comments please call Mr. Ben Miller or myself at EPI's offices, or at 505-390-2088 or 505-390-7306 respectively. Mr. Hernandez may be contacted through Link's Midland office at 915-638-3799 or 505-631-3095.

All official correspondence should be addressed to:

Mr. Frank Hernandez Link Energy P.O. Box 1660 5805 East Highway 80 Midland, Texas 79703

Sincerely,

ENVIRONMENTAL PLUS, INC.

()men an

P.O. Box 1558

Iain Olness, P.G. Hydrogeologist

cc: Larry W. Johnson, NMOCD – Hobbs District Office Frank Hernandez, Link Energy – Midland Jeff Dann, Link Energy – Houston Sherry Miller, EPI President Ben Miller, EPI Vice President and General Manager

•••• EUNICE, NEW MEXICO 88231

TELEPHONE 505+394+3481 +++ FAX 505+394+2601

2100 AVENUE O



ClinkEnergy

ANNUAL MONITORING REPORT

KIMBROUGH SWEET LINK REF: 2000-10757

SW4 OF THE NE4 OF SECTION 3, TOWNSHIP 18 SOUTH, RANGE 37 EAST LEA COUNTY, NEW MEXICO

~7.25 MILES NORTHWEST (302°) OF HOBBS, LEA COUNTY, NEW MEXICO LATITUDE: N32° 46' 48" LONGITUDE: W103° 14' 18"

APRIL 14, 2004

PREPARED BY:

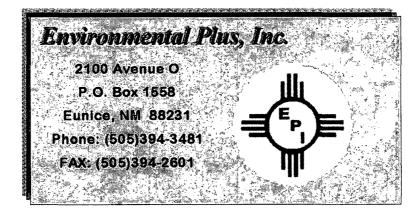


TABLE OF CONTENTS

Background	.1
Field Activities	.2
Groundwater Gradient and PSH Thickness	.2
PSH Recovery	.2
Groundwater Sampling	.2
Groundwater Analytical Results	.2
Recommendations	.3
	Field Activities Groundwater Gradient and PSH Thickness PSH Recovery Groundwater Sampling Groundwater Analytical Results

FIGURES

Figure 1	Area Map
Figure 2	Site Location Map
Figure 3	Site Map
Figure 4	BTEX Concentrations in Groundwater Monitoring Well SMW from 01/24/02 through 02/20/03, Link Energy Kimbrough Sweet, Lea County, New Mexico.
Figure 5	BTEX Concentrations in Groundwater Monitoring Well EMW from 01/24/02 through 02/20/03, Link Energy Kimbrough Sweet, Lea County, New Mexico.
Figure 6	BTEX Concentrations in Groundwater Monitoring Well NWMW from 01/24/02 through 02/20/03, Link Energy Kimbrough Sweet, Lea County, New Mexico.
Figure 7	BTEX Concentrations in Groundwater Monitoring Well CMW from 01/24/02 through 02/20/03, Link Energy Kimbrough Sweet, Lea County, New Mexico.
Figure 8	Hydrograph for Monitoring Wells EMW, SMW and NWMW, Link Energy Kimbrough Sweet, Lea County, New Mexico, from 10/04/02 through 06/30/03.
Figure 9	Phase Separated Hydrocarbon and Water Levels for Monitoring Well CMW, Link Energy Kimbrough Sweet, Lea County, New Mexico from 01/09/02 through 06/30/03.
Figure 10	Groundwater Contour Map – 02-02-03
Figure 11	Contaminant Concentration Map – 02-02-03

TABLES

Table 1	Relative Groundwater Elevations and Phase Separated Hydrocarbon Thicknesses
Table 2	Summary of Groundwater Analytical Results

APPENDIX

Appendix A Groundwater Laboratory Analytical Results and Chain-of-Custody Forms

i

I. Background

The "Kimbrough Sweet" (2000-10757) release site is located approximately 7.25 miles northwest of Hobbs in Lea County, New Mexico, at an elevation of approximately 3,727 feet above mean sea level (reference Figures 1 and 2). The site is located in the southwest quarter of the northeast quarter of section 3, range 37 east, township 18 south. There are no residences or surface water bodies within a 1,000-foot radius of the leak site.

The initial New Mexico Oil Conservation Division (NMOCD) notification form C-141 submitted by EOTT reported an unknown volume of crude oil released with zero barrels recovered. The release is believed to have been due to internal corrosion of the pipeline. The release covered approximately 15,613 square feet of pipeline right-of-way, caliche road and land owned by the State of New Mexico.

During initial investigative activities conducted from March 5-14, 2001, which included the advancement of nine soil borings, it was determined that groundwater was situated approximately 47 feet below ground surface (bgs) and that groundwater had been impacted. Upon completion of the soil borings, mitigation activities commenced, specifically, the excavation of impacted soil to a depth of approximately 15 feet bgs. This soil was mechanically aerated, treated with bio-enhancing nutrients and microbes and stockpiled on plastic within a fenced area. In addition, a groundwater monitoring well (CMW) was installed to recover phase separated hydrocarbons (PSH) encountered during the advancement of the soil borings (reference Figure 3).

Due to fact that soil and groundwater had been impacted above NMOCD remedial thresholds, a *Soil and Groundwater Remediation Plan* was submitted in July 2001. This plan recommended the construction of an in-situ passive bio-cell to treat the 16,500 cubic yards of soil excavated during the mitigation phase. The cell was to be constructed by installing a clay barrier in the bottom of the excavation and placing the excavated, impacted soil on top of the clay barrier. The plan also recommended that the bio-cell be monitored on a quarterly basis to document attenuation and achievement of the NMOCD remedial goals. To remediate the impacted soil situated greater than and equal to 15 feet bgs, it was recommended to install a vapor recovery system with a single extraction point and eight perimeter induction points with alternating screened intervals and to monitor the system exhaust on a monthly basis to document attenuation.

The *Soil and Groundwater Remediation Plan* also recommended the installation of three additional groundwater monitoring wells to determine groundwater flow direction and delineate the lateral extents of impacts. In addition, it was recommended that a PSH recovery system be installed at the site.

On September 24, 2001, the NMOCD approved the *Soil and Groundwater Remediation Plan* and implementation of the plan began in November 2001. The bio-cell was constructed and the excavated impacted soil was placed in the cell, groundwater monitoring wells installed and monitoring initiated. Samples were collected from the bio-cell on January 30, February 25, and July 15, 2002, and March 27, 2003. The groundwater monitoring well network was

sampled/gauged and PSH recovered on January 9, October 4, November 11, and December 11, 2002, February 20, March 26, April 8, April 23, April 24, April 25, May 3, May 6, and June 9, 2003. PSH recovery was completed manually from October 2002 through May 2003, at which time an automated recovery system was installed.

II. Field Activities

The groundwater monitoring well network was sampled on February 20, 2003 and the samples submitted to an independent laboratory for the quantification of benzene, toluene, ethylbenzene and total xylenes (BTEX).

In addition to the sampling event, site visits were made periodically to monitor the automated recovery system and collect data as to the amount of PSH recovered.

III. Groundwater Gradient and PSH Thickness

Monitoring wells were gauged prior to bailing to determine the depth to groundwater and the thickness of any PSH. Measurements of groundwater levels during the past year indicate that water levels have generally decreased by an average of 0.83 feet. PSH levels in the impacted monitoring well (CMW) have fluctuated during the past two years, with thicknesses ranging from 6.73 to 8.43 feet and average PSH thickness of 8.0 feet. A summary of groundwater elevations and PSH thickness is included in Table 1.

Groundwater monitoring CMW was not gauged between June and December due to an automated recovery system being in place. Site visits were made to ensure the recovery system was operating as designed.

Based on data collected during the past year, groundwater is flowing to the east (reference Figure 10).

IV. PSH Recovery

Recovery of PSH has been accomplished via and automated recovery system. Approximately 1,155 gallons of PSH have been recovered through December 31, 2003.

V. Groundwater Sampling

The groundwater monitoring well network was sampled on February 20, 2003 and the samples submitted for quantification of BTEX using EPA Method 8260b. Groundwater monitoring well CMW was not only sampled due to the presence of phase separated hydrocarbons (PSH). The wells were purged a minimum of three well volumes or dry and samples collected utilizing dedicated or disposable sample bailers. Samples were then placed on ice and shipped to an independent laboratory under chain-of-custody for analyses.

VI. Groundwater Analytical Results

Analytical results for the samples collected on February 20, 2003 from groundwater monitoring wells SMW, EMW and NWMW were below the laboratory method detection limits (MDL).

A summary of groundwater analytical results is included as Table 2 and copies of the analytical results for samples collected on February 11, 2004 are included as Appendix A.

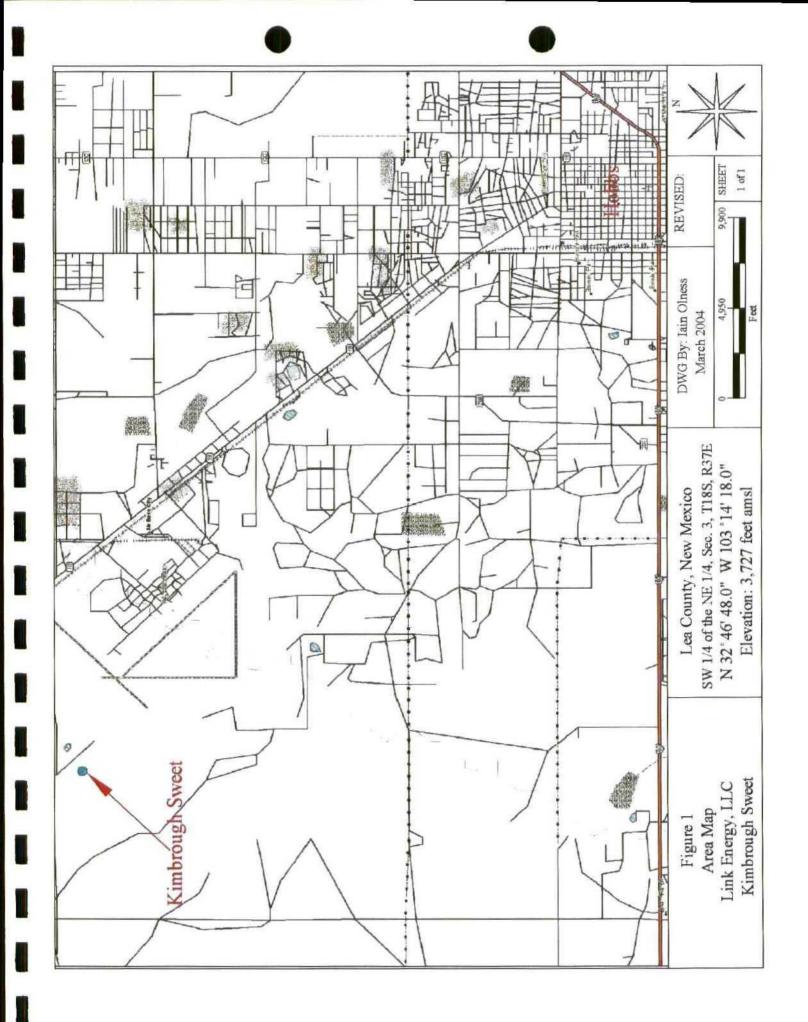
VII. Recommendations

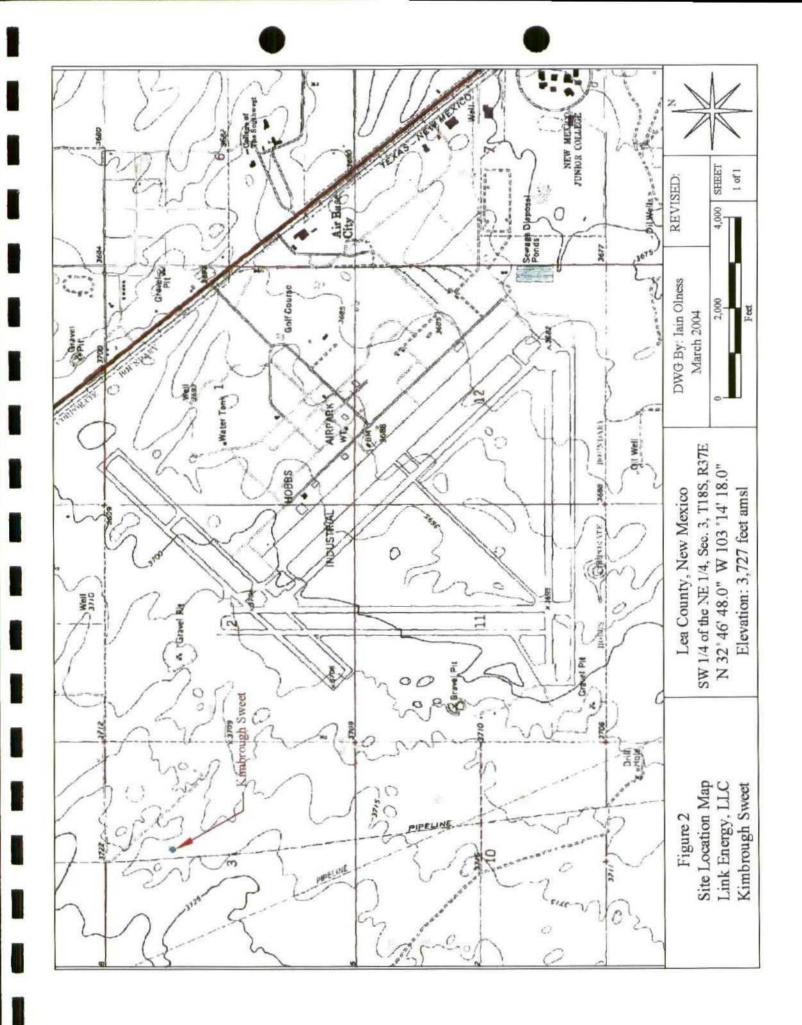
Based on field monitoring and analytical results collected during the past year and analyzed in conjunction with data collected during the initial investigation, the following recommendations are made:

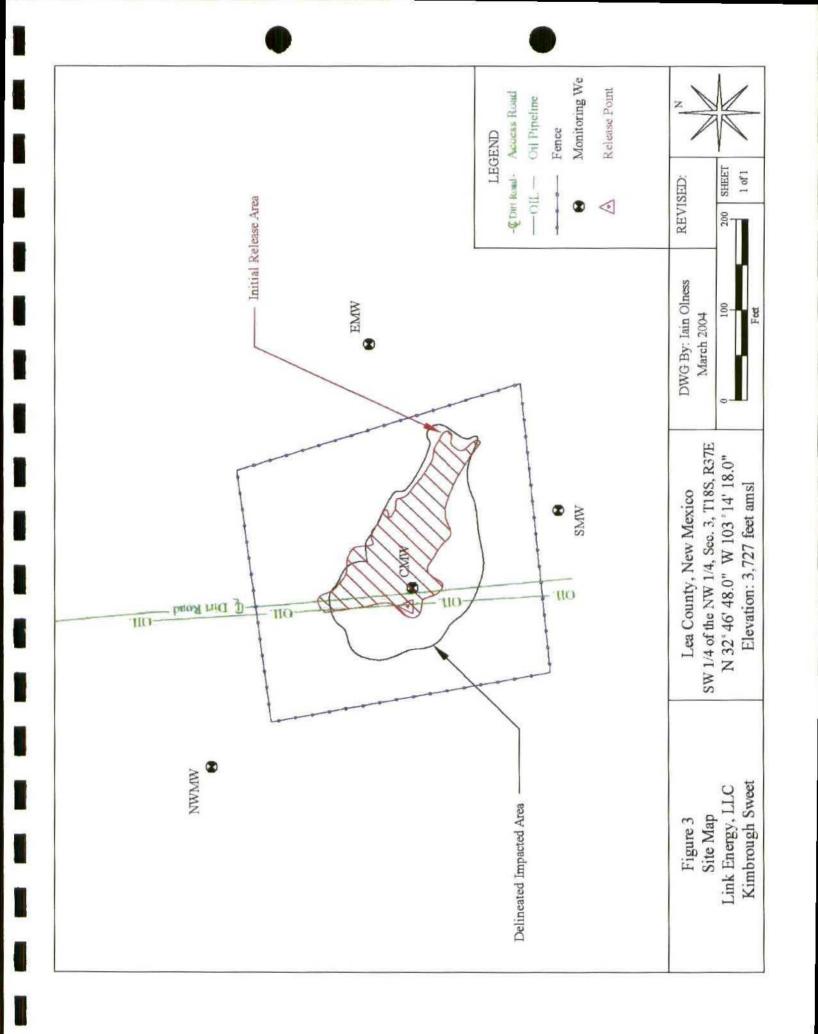
- 1) Due to the thickness of PSH detected on the water table in groundwater monitoring well CMW, it is recommended that additional wells be installed to enhance recovery of the PSH.
- 2) Continue to monitor the groundwater monitoring well network and the PSH recovery system on a monthly basis. In addition, collect groundwater level data from the monitoring well network on a monthly basis.
- 3) Due to the fact that no contaminants have been detected in the three perimeter groundwater monitoring wells, it is recommended that the groundwater monitoring well network be sampled on a semi-annual basis and the samples submitted submit for quantification of BTEX. Should analytical results for any of the proposed and/or existing monitoring wells indicate the presence of contaminants, the impacted wells should be sampled on a quarterly basis. In the event PSH are not detected during a sampling event in groundwater monitoring wells currently containing PSH, these wells will be included in the quarterly sampling event.
- 4) The samples should be analyzed for the presence of PAHs during the next sampling event. If analytical results indicate the presence of PAHs, the samples should continue to be analyzed for the presence of PAHs on an annual basis.

FIGURES

. 1

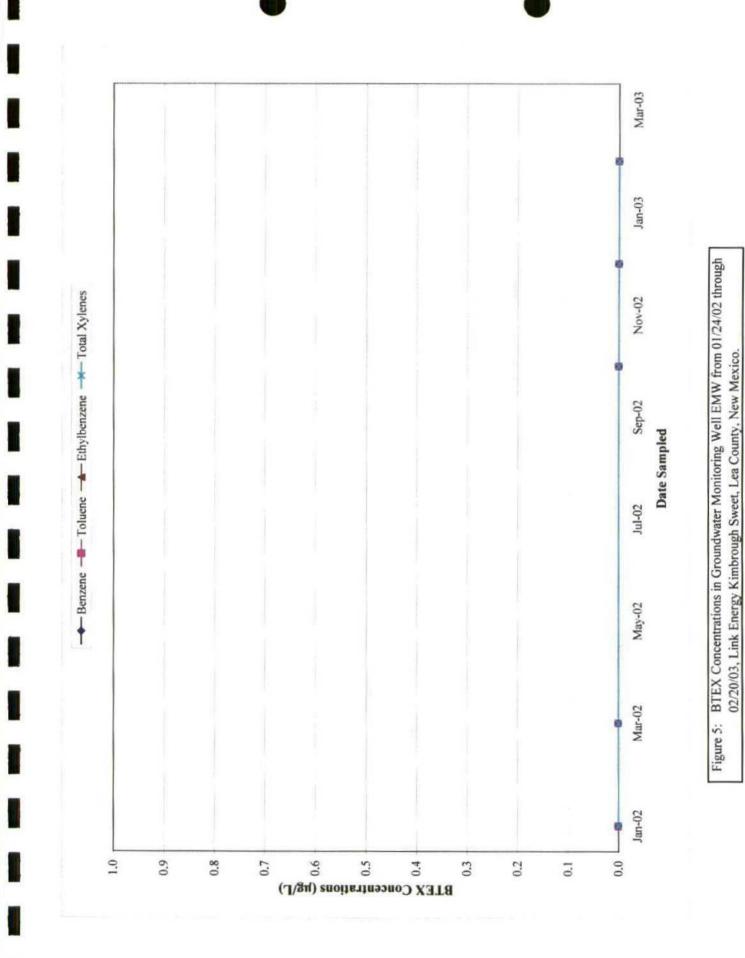


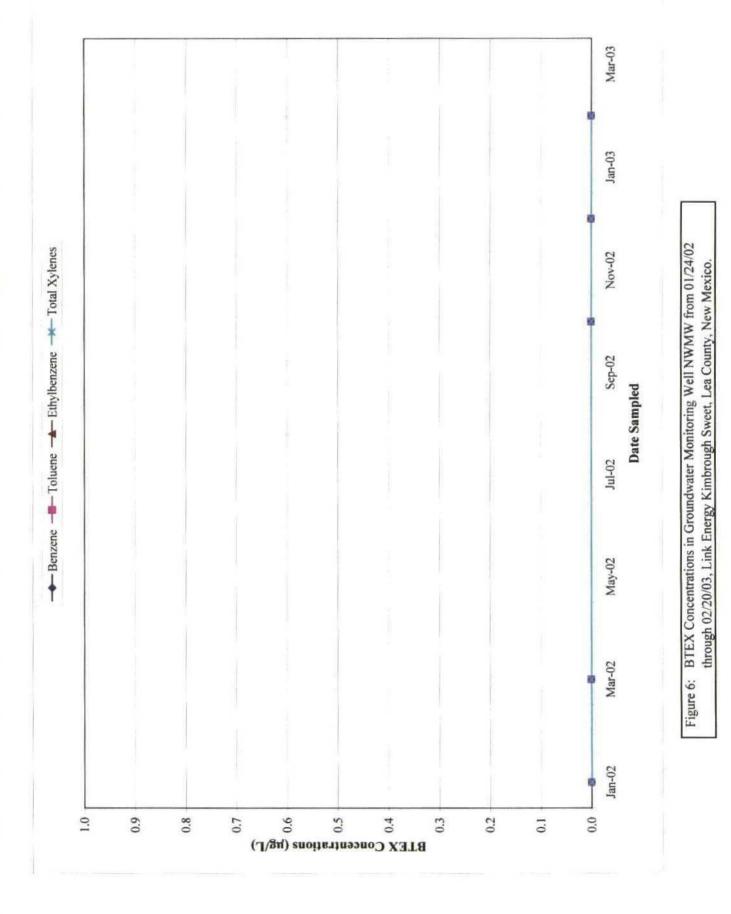


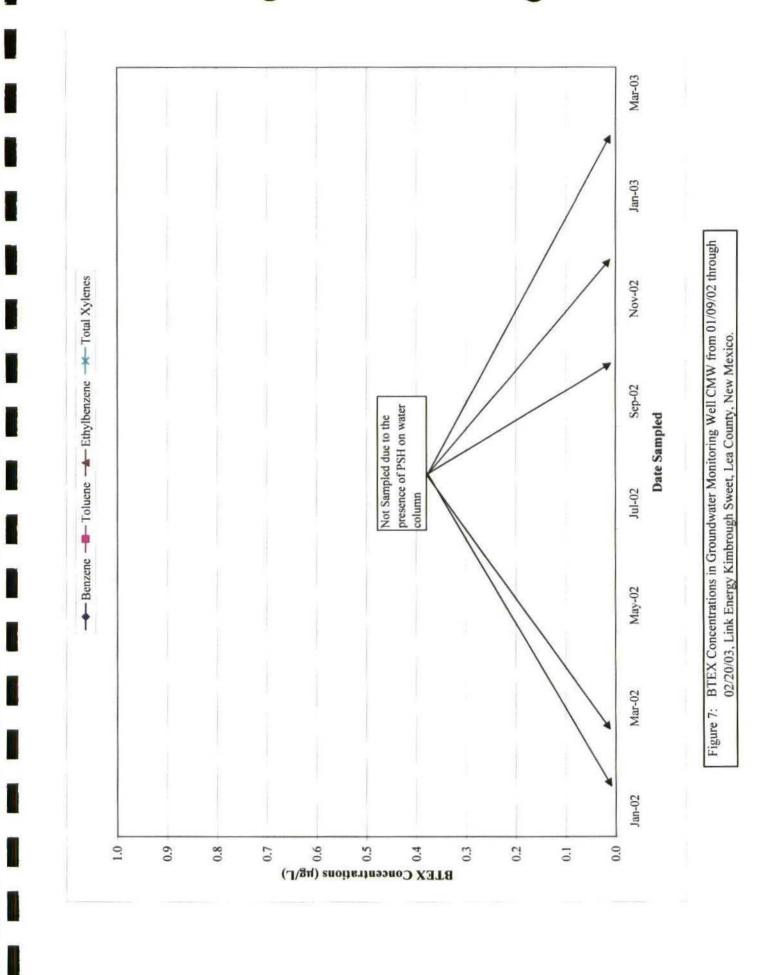


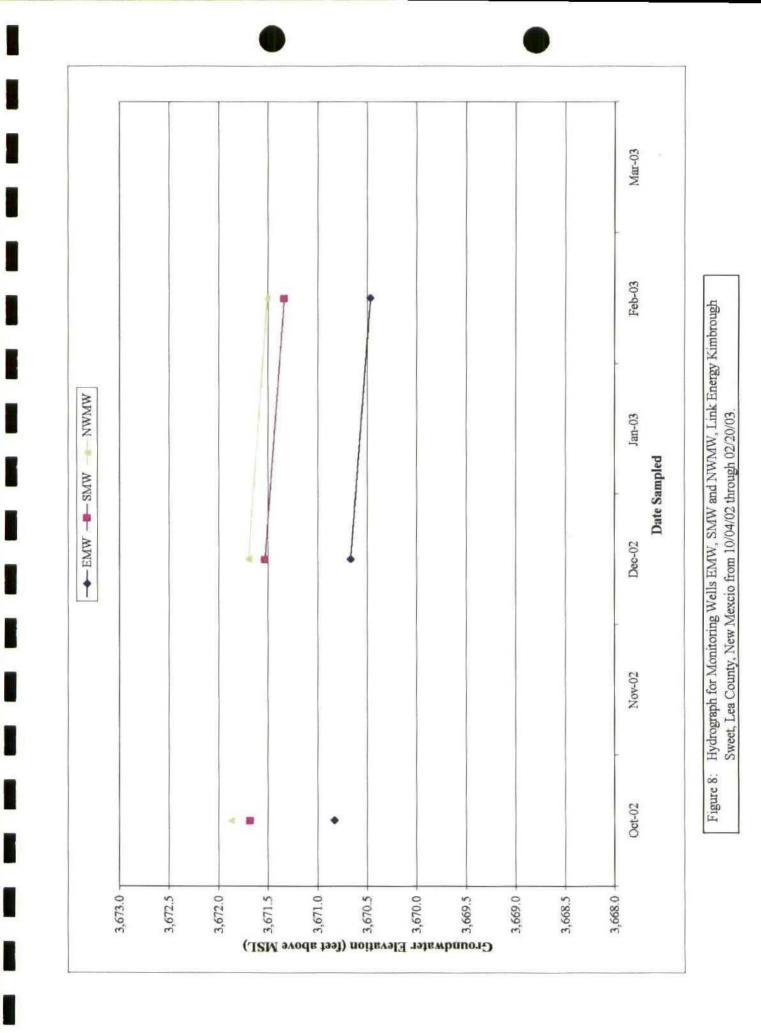


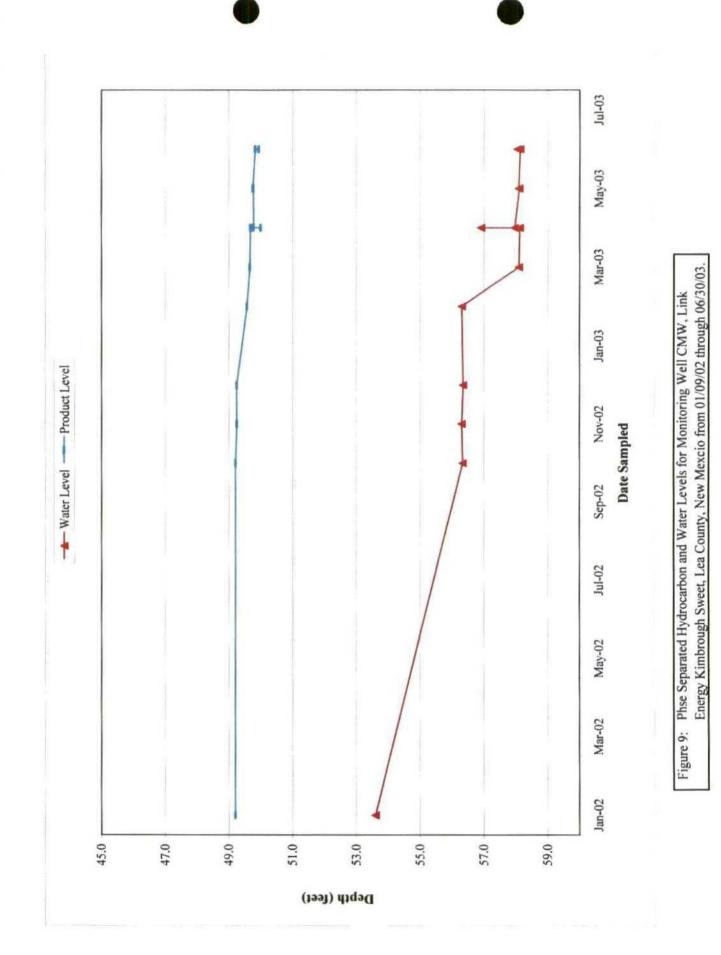
BTEX Concentrations in Groundwater Monitoring Well SMW from 01/24/02 through 02/20/03, Link Energy Kimbrough Sweet, Lea County, New Mexico. Figure 4:

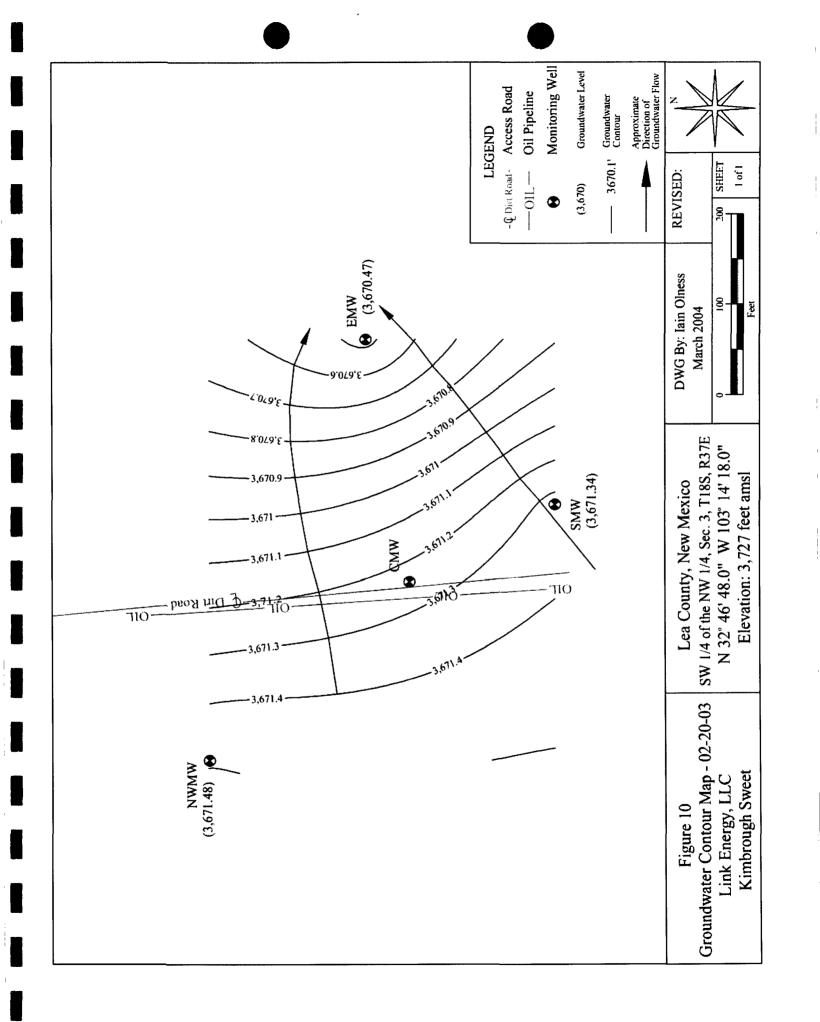


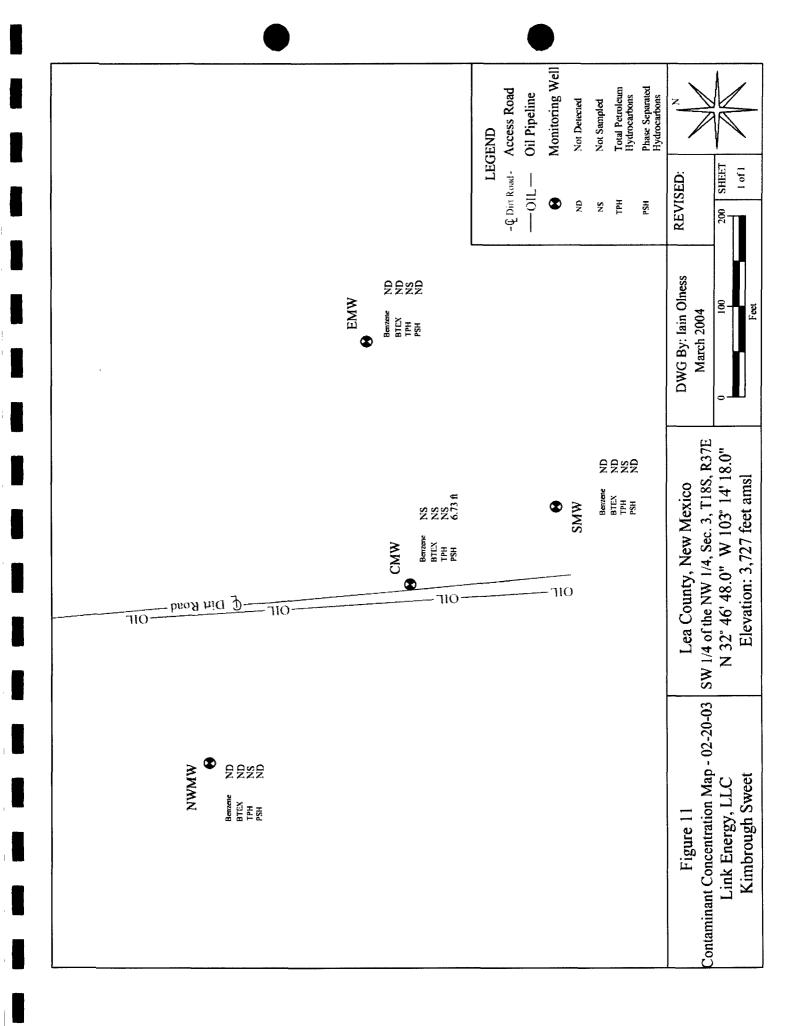












I

TABLES

TABLE 1

RELATIVE GROUNDWATER ELEVATIONS AND PHASE SEPARATED HYDROCARBON THICKNESSES

Kimbrough Sweet - Ref #2000-10757

Monitor Well	Date Gauged	Relative Top of Casing Elevation (feet)	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)*	Phase Separated Hydrocarbon Thickness (feet)
СМЖ	01/09/02 10/04/02		49.20 49.21	53.60 56.33		4.40 7.12
	11/11/02		49.25	56.30		7.05
	12/11/02		49.25	56.34		7.09
	02/20/03		49.57	56.30		6.73
[[03/26/03	ह	49.66	58.09	ह	8.43
	04/08/03	, vey	49.68	58.11	vey	8.43
	04/23/03	Sur	50.00	56.90	Sur	6.90
	04/24/03	Not Surveyed	49.75	58.10	Not Surveyed	8.35
	04/25/03	2	49.78	57.95	4	8.17
	05/03/03		49.77	58.10		8,33
	05/06/03		49.75	58.08		8.33
	06/09/03		49.83	58.13		8,30
	06/30/03		49.95	58.04		8,09
EMW	01/09/02					
2	10/04/02	3,720.60		49.77	3,670.83	
	11/11/02	5,120.00		(2.17	5,010.05	
	12/11/02	3,720.60		49.93	3,670.67	
	02/20/03	3,720.60		50.13	3,670.47	
	03/26/03	5,720.00		50.15	5,070.47	
	04/08/03					
	04/23/03					
	04/24/03					
	04/25/03					
	05/03/03					
	05/06/03					
	06/09/03					
	06/30/03					
SMW	01/09/02					
Shirt	10/04/02	3,721.03		49.35	3,671.68	
	11/11/02	5,721.05		42.55	5,071.00	
	12/11/02	3,721.03		49,50	3,671.53	
	02/20/03	3,721.03		49.69	3,671.34	
	03/26/03	3,721.03		17,07	J,071.JT	
	04/08/03		1			
	04/23/03					
	04/23/03					
	04/24/03					
	05/03/03					
	05/06/03					
	06/09/03					
	06/30/03					
NINE AND						
NWW	01/09/02	2 722 12		51.07	2 (7) 07	
	10/04/02	3,723.13		51.26	3,671.87	
	11/11/02					

TABLE 1

RELATIVE GROUNDWATER ELEVATIONS AND PHASE SEPARATED HYDROCARBON THICKNESSES

Kimbrough Sweet - Ref #2000-10757

Monitor Well	Date Gauged	Relative Top of Casing Elevation (feet)	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)*	Phase Separated Hydrocarbon Thickness (feet)
NWW	12/11/02	3,723.13		51.43	3,671.70	••
(cont.)	02/20/03	3,723.13		51.62	3,671.51	
	03/26/03					
	04/08/03					
	04/23/03					
	04/24/03					
	04/25/03					
	05/03/03					
	05/06/03					
	06/09/03					
	06/30/03					

* Corrected Groundwater Elevation = Top of Casing Elevation - (Depth to Water Below Top of Casing - (SG)(PSH Thickness).

- - = Not Detected

If the cell is blank, the well was not gauged.

TABLE 2

Summary of Groundwater Analytical Results

Kimbrough Sweet - Ref #2000-10757

SMW 24-Jan-02 SMW 24-Jan-02 1-Mar-02 4-Oct-02 11-Dec-02					•		TORN VALCES	Chloride	Solids	
		(J/gr()	(J/git)	(J/g/L)	(Jg/L)	(J/8rf)	(Jug/L)	(mg/L)	(mg/L)	(mg/L)
1-Mar 4-Oct	n-02	1>	1>	l>	[>	1>	\sim			
4-Oct	r-02	7	7	<ا	1>	<1>	2			
11-De	t-02	7	l>	۱>	1>	l≻	\$			
	c-02	Þ	<1>	1>	-1	[>	\$			
20-Fet	20-Feb-03	Þ	[>	1>	1>	<1	4			
EMW 24-Jan-02	n-02	₽	V	1>	l>	1>	\sim	14.2	316	
1-Mar-02	-02	l>	1>	-I>	<1>	<1>	\$			
4-Oct-02	1-02	7	7	l>	1>	Þ	\$			
11-Dec-02	c-02	7		1>	>	l>	\$			
20-Feb-03	b-03	Þ	<1>	1>	<1	1>	2			
NWMW 24-Jan-02	n-02	1∧	1>	1>	1>	l≻	\$	31	6,130	
1-Mar-02	r-02	-1>	<1	l>	<1	<1	4			
4-Oct-02	t-02	Þ	<1>	1>	1	l>	\$			
11-Dec-02	c-02	₽	l>	1>	<1>	<l< td=""><td>4</td><td></td><td></td><td></td></l<>	4			
20-Feb-03	P-03	Þ	<1>	l>	l>	1>	-2			
CMW 24-Jan-02	n-02			Not sa	impled due to the J	presence of phase	Not sampled due to the presence of phase separated hydrocarbons	rbons		
1-Mar-02	r-02			Not sa	impled due to the l	presence of phase	Not sampled due to the presence of phase separated hydrocarbons	rbons		
4-Oct-02	t-02			Not sa	impled due to the l	presence of phase	Not sampled due to the presence of phase separated hydrocarbons	rbons		
11-Dec-02	c-02			Not sa	impled due to the J	presence of phase	Not sampled due to the presence of phase separated hydrocarbons	rbons		
20-Feb-03	b-03			Not sa	impled due to the l	presence of phase	Not sampled due to the presence of phase separated hydrocarbons	rbons		
NMOCD Remedial Thresholds	sholds	10	750	750			620	250	1,000	

If cell is blank, then the parameter was not analyzed NS : Not Sampled

1

;

ļ

APPENDICES

APPENDIX A

GROUNDWATER ANALYTICAL RESULTS

AND

CHAIN-OF-CUSTODY FORMS

						(51:	(512) 385-5886 • FAX (512) 385-7411	· FA)	FAX (512) 385-7411	85-7411	
Client: Environmental Plus, Inc. Attn: Pat McCasland						Report#/Lab ID#: 139823 Project ID: 2000-10757)#: 139823 0-10757	Repo	Report Date: 03/03/03	03/03/03	
.ve. 0						Sample Name: WEKS22003NWMW	WEKS22003N	WWW			
Eunice	NM 88231					Sample Matrix: water	water	Î			
						Date Received: 02/26/2003	02/26/2003	Time: 14:15	14:15		
Phone: (505) 394-3481 FAX: (505) 394-2601	394-2601					Date Sampled:	02/20/2003	Time: 10:00	10:00		
REPORT OF ANALYSIS							QUALITY ASSURANCE DATA¹	ASSUR/	NCE D /	<u>ATA</u> ¹	
Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Quai ⁷		Prec. ² Recov. ³	CCV ⁴	LCS ⁴
Volatile organics-8260b/BTEX	1		1		02/28/03	8260b	-	****	1	-	1
Benzene	V	hg/L	1	7	02/28/03	8260b	1	2	71.1	87.5	20
Ethylbenzene	⊽	µg/L	-	v	02/28/03	8260b	!	2.8	98.6	101.9	107.5
m,p-Xylenes	v	hg/L	_	7	02/28/03	8260b	1	2.1	101.1	102.6	111.1
o-Xylene	⊽	µg/L	-	7	02/28/03	8260b	!	1.2	108.5	101.7	109
Toluene	⊽	μg/L	-	<1	02/28/03	8260b	-	1	93.6	84.3	85.5
ytical report is respectfully submitted by A a carefully reviewed and, to the best of my stent with AnalySys, Inc.'s Quality Assura it 2000. AnalySys, Inc. , Austin, TX. All r n may be reproduced or transmitted in any rritten consent of AnalySys, Inc.	y AnalySys, Inc. The enclosed i ny knowledge, the analytical res urance/Quality Control Program Il rights reserved. No part of th any form or by any means with Respectfully Submitted, Richard Laster Richard Laster	neclosed results Program. © part of this ans without the unitted,		 Quality assurance data is for the sample be of the relative percent (%) difference between recovered from a spiked sample. 4. Calib expressed as the percent (%) recovery of anal (RQL), typically at on above the Practical Q typically denote USEPA procedures. Less the dilutions. 7. Data Qualifiers are J = analyte associated method blank(s). SJ =MS and/or recovery exceeds advisory limit. S3 =MS and/or than advisory limit. M =Matrix interference. 	<pre>% difference 1 % difference 1 % difference 1 di dample.</pre>	1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method numbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S1 =MS and/or MSD recovery exceed advisory limits. P = Precision spike (PDS) transverse exceed advisory limit. P = Matrix interference.	ted this sample. rements. 3. Recor- n (CCV) and Lab n standard or mat (PQL) of the ana effect nominal qua at between the PC vceed advisory lir S recoveries exci	2. Precision overy (Reco riv. 5. Ren lytical metu mutation lin 2L and the nits. S2 = P ced advisor	 Precision (PREC) is the absolute value overy (Recov.) is the percent (%) of analyte oratory Control Sample (LCS) results are rix. 5. Reporting Quantitation Limits lytical method. 6. Method numbers unitation limits adjusted for any required 2L and the MDL. B = Analyte detected in mits. S2 =Post digestion spike (PDS) ced advisory limits. P =Precision higher 	EC) is the absolute v the percent (%) of an ample (LCS) results ample (LCS) results Q Quantitation Limit Q Method numbers G. Method numbers G. Method numbers B = Analyte detecte gestion spike (PDS) is. P =Precision high	te value f analyte nults are mits eers ected in SS bigher

.

.

Report Date: 03/03/03

1

ļ

Page#: 1

ļ

						220 (512	2209 N. Padre Island Dr., Corpus Christi, TX (512) 385-5886 • FAX (512) 385-7411	and Dr., 6	C., Corpus Christi, T FAX (512) 385-7411	hristi, T 85-7411	X 78408
Client: Environmental Plus, Inc. Attn: Pat McCasland Address: 2100 Ave O						Report#/Lab 1D#: 139824 I Project 1D: 2000-10757 Sample Name: WEKS22003EMW	0-10757 0-10757 WEKS22003E1	Repoi MW	Report Date: 03/03/03 /	33/03/03	
Eunice	NM 88231					Sample Matrix: water	water				
						Date Received: 02/26/2003	02/26/2003	Time: 14:15	14:15		
Phone: (505) 394-3481 FAX: (505) 394-2601	394-2601					Date Sampled: 02/20/2003	02/20/2003	Time: 12:40	12:40		
REPORT OF ANALYSIS							QUALITY ASSURANCE DATA ¹	ASSURA	NCE DA	<u>VTA</u> ¹	
Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual ⁷		Prec. ² Recov. ³	CCV ⁴	LCS ⁴
Volatile organics-8260b/BTEX	1		1		02/28/03	8260b	41.11.1			1	:
Benzene	Þ	hg/L	-	V	02/28/03	8260b		2	71.1	87.5	70
Ethylbenzene	~	µg/L	-	$\overline{\mathbf{v}}$	02/28/03	8260b	I	2.8	98.6	101.9	107.5
m.p-Xylenes	$\overline{\mathbf{v}}$	hg/L	-	v	02/28/03	8260b	1	2.1	101.1	102.6	111.1
o-Xylene	~	µg/L	-	$\overline{\mathbf{v}}$	02/28/03	8260b	1	1.2	108.5	101.7	109
Toluene	~	μg/L		$\overline{\mathbf{v}}$	02/28/03	8260b	***	1	93.6	84.3	85.5
This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2000. AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc. Respectfully Submitted, Rickleved Tatter	Analysys, Inc. The enclosed result of knowledge, the analytical result of knowledge, the analytical result if rights reserved. No part of this any form or by any means without Respectfully Submitted, Richard Laster Richard Laster	I Program. O Program. O part of this ans without the binitted,		 Quality assurance data is for the sample by of the relative percent (%) difference betweer recovered from a spiked sample. A. Calib expressed as the percent (%) recovery of ana (RQL). typically at or above the Practical Q typically denote USEPA procedures. Less th dilutions. T. Data Qualifiers are J = analyte associated method blank(s). S1 =MS and/or recovery exceeds advisory limit. S3 =MS an than advisory limit. M =Matrix interference. 	ata is for the sa % difference the ad sample. 4 at (%) recovery above the Prace A procedures. alifiers are J =. k(s). S1 =MS sory limit. S3 = sory limit. S3 = I =Matrix interf	 Quality assurance data is for the sample batch which included this sample. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. Recovery (Recov.) is the percent (%) of analyte recovers of the relative percent (%) of analyte recovered from a spiked sample. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are recovered from a spiked sample. Canalyte from a spiked sample. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are recovery of analyte from a known standard or matrix. Reporting Quantitation Limit (PQL), typically and an above the Practical Quantitation Limit (PQL), uplically denote USEPA procedures. Less than ("~") values reflect nominal quantitation limits adjusted for any required dilutions. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detected in associated method blank(s). S1 = MS and/or MSD recovery exceed advisory limits. P = Precision higher than advisory limit. M = Matrix interference. 	ted this sample. rements. 3. Recor- n (CCV) and Labo n standard or matu ReQL) of the ana flect nominal qua flect nominal qua therween the PC ceeed advisory lin ceeed advisory lin S recoveries exce	2. Precision overy Con oratory Con Nix. 5. Rep Nix. 5. Rep Dytical meth Dytical meth Ditanton lin Matthe Di Nis. S2 =P. ed advisory	 Precision (PREC) is the absolute value overy (Recov.) is the percent (%) of analyte oratory Control Sample (LCS) results are irrx. 5. Reporting Quantitation Limits lytical method. 6. Method numbers adjusted for any required initation limits adjusted for any required and the MDL. B = Analyte detected in inits. S2 =Post digestion spike (PDS) eed advisory limits. P =Precision higher 	the absolution the the control of th	te value of analyte mits are pers pers pers pers pered uigher uigher

Report Date: 03/03/03

ļ

ł

i

ļ

Page#: 1

						(51	(512) 385-5886 • FAX (512) 385-7411	• FA3	FAX (512) 385-7411	85-7411	
Client: Environmental Plus, Inc. Attn: Pat McCasland Address: 2100 Ave O			:	-		Report#/Lab ID#: 139825 F Project ID: 2000-10757 Sample Name: WEKS22003SMW)#: 139825)0-10757 WFKS22003S	Repo MW	Report Date: 03/03/03 v	3/03/03	
	NM 88231					Sample Matrix: water	water				
						Date Received: 02/26/2003	02/26/2003	Time: 14:15	14:15		
Phone: (505) 394-3481 FAX: (505) 394-2601	394-2601					Date Sampled: 02/20/2003	02/20/2003	Time: 13:30	13:30		
REPORT OF ANALYSIS							QUALITY ASSURANCE DATA¹	ASSUR/	NNCE D	VTA ¹	
Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual ⁷	Prec. ²	Recov. ³	CCV⁴	LCS ⁴
Volatile organics-8260b/BTEX			1		02/28/03	8260b	1	1	1	1	1
Benzene	₽	hg/L	-	$\overline{\nabla}$	02/28/03	8260b	1	2	71.1	87.5	20
Ethylbenzene	∼	μg/L	-	7	02/28/03	8260b	1	2.8	98.6	101.9	107.5
m,p-Xylenes	~	µg/L		⊽	02/28/03	8260b	[2.1	101.1	102.6	111.1
o-Xylene	~	µg/L	l	v	02/28/03	8260b	1	1.2	108.5	101.7	109
Toluene	~	hg/L	1	<1	02/28/03	8260b	1	1	93.6	84.3	85.5
This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc., Austin, TX. All rights reserved. No part of this Copyright 2000, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc. Respectfully Submitted, Rickhend Laster Richard Laster	y AnalySys, Inc. The enclosed rest ny knowledge, the analytical result. urance/Quality Control Program. (Il rights reserved. No part of this any form or by any means without Respectfully Submitted, Richard Laster Richard Laster	nelosed results neclosed results Program. © part of this uns without the mitted,		 Quality assurance data is for the sample be of the relative percent (%) difference between necovered from a spiked sample. 4. Calib expressed as the percent (%) recovery of ana (RQL), typically at on above the Practical Q typically denote USEPA procedures. Less th dilutions. 7. Data Qualifiers are J = analyte associated method blank(s). SJ =MS and/or recovery exceeds advisory limit. M =Matrix interference. 	ta is for the sa %) difference 1 %) adifference 1 4 sample. 4 A procedures. alifiers are J = alifiers are J = MS ory limit. S3 = =Matrix interl	 Quality assurance data is for the sample batch which included this sample. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. Recovery (Recov.) is the percent (%) of analyte recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. Cuplication (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL), typically at or above the Practical Quantitation Limit (PQL). typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. Data Qualifiers are J = analyte potentially present between the PQL and the MDL. B = Analyte detocted in associated method blank(s). S1 =MS and/or MSD recovery exceed advisory limits. Paretision spike (PDS) treation recovery exceed advisory limits. 	ted this sample. rements. 3. Reconnection (CCV) and Lab in standard or mat in standard or mat iffect nominal qua effect nominal qua fiet between the PC in b	2. Precision overy (Reco oratory Cor rix. 5. Rel lytical meth lytical meth lytical the 1 2L and the 1 nits. S2 = P nits. S2 = P	 Precision (PREC) is the absolute value overy (Recov.) is the percent (%) of analyte oratory Control Sample (LCS) results are rix. 5. Reporting Quantitation Limits lytical method. 6. Method numbers mitiation limits adjusted for any required 2L and the MDL. B = Analyte detected in nits. S2 =Post tiggestion spike (PDS) ced advisory limits. P = Precision higher 	the absolu- the absolu- (LCS) res (LCS) res (LCS) res initiation L for any re for any re for any re for any re for enti- the for the for the for the f	f analyte f analyte ults are mits eers eers ceted in SS iigher

Report Date: 03/03/03

I

į

ł

1

Page#: | Re

10.1	
N	
Juul	

3512 Montopolis Drive, Austin, TX 78744 & 2209 N. Padre Island Dr., Corpus Christi, TX 78408 (512) 385-5886 • FAX (512) 385-7411

Client:	Environmental Plus, Inc.	Project ID: 2000-10757	Report#/Lab 1D#: 139825
Attn:	Pat McCasland	Sample Name: WEKS22003SMW	Sample Matrix: water
REPOR'	REPORT OF SURROCATE RECOVERV		

REPORT OF SURROGATE RECOVERY

Surrogate Compound	Method	Recovery	Recovery Limit	Data Qualifiers
1,2-Dichloroethane-d4	8260b	99.4	80-120	1
Toluene-d8	8260b	107	88-110	I

Data Qualifiers: D= Surrogates diluted and X= Surrogates outside advisory recovery limits.

ł

1

1

I

!

:

Reports To: Bill to (if different): (22) Relation Lats. (21) Address Size, Sizee, Size,	AUNTO-TU-TU-NIL	~						مر کریں ا
State J. ~ Zip 22331. City 4.14 mol. State = Y. Zip 797-1. ATTN: Enclut Mechanica. State = Zip 797-1. ATTN: Enclut Mechanica. The Analyses Requested Phone 25: 329-329. Fax Analyses Requested too = 252 21: 20 2. Comments and wret wate (Lab 11). # too = 252 21: 20 2. Comments and the match of the analyses of the analyses requested too = 252 21: 20 2. Comments and the match of the analyses of the analyses of the analyses requested too = 252 21: 20 2. Comments and the match of the analyses of the a	<u> </u>		Bill to Comp.	(if differ any Name ss <i>STES</i>	ent): () East Estand	4221 F	reidrich Lane. Suite 190, Av (512) 444-5896	ustin, TX 78744
Sampler Continued with lab mgr.) Status (must be confirmed with lab mgr.) Cleat Sample No. Cleat Sa	Eurice Stated	A. Zip 2823		1 Emile 1: Emile 95: 38	in the second		Analyses Reque	sted (1) mation as required
Client Sample No. Date Time No. of and Name Lab LD.# Mill cerption/Identification Sampled Sampled Continers Sampled Continers Sampled Sampled Continers Continents C2EX S22227/LULUL 3: or of 2: YC 2: X 139823 X Continents C2EX S2227/LULUL 3: or of 3: yC 2: X 139823 X Continents C2EX S2227/LULUL 3: or of 3: yC 2: X 139825 X Continents C2EX S2227/LULUL 3: or of 3: yC 3: X 139825 X Continents C2EX S2227/LULUL 3: or of 3: YC 3: X 139825 X Continents C2EX S2227/LULUL 3: or of 3: YC 3: YC 3: YC X 139825 C2EX S2227/LULUL 3: or of 3: YC 3: YC X 139825 X C2EX S2227/LULUL 3: or of 3: YC 3: YC X 139825 C2EX S2227/LULUL 3: or of 3: YC 3: YC X 139825 C2EX S2205 Stutuut 3: or of 3: YC 3: YC X 139825 C2EX S2205 Stutuut 3: or of 3: YC X 13: YC X <tr< td=""><td>Status (must be confirmed ct Name/PO#: 200 - 20</td><td>l lab i</td><td></td><td>the All</td><td></td><td>4.00m</td><td></td><td></td></tr<>	Status (must be confirmed ct Name/PO#: 200 - 20	l lab i		the All		4.00m		
$\frac{UEKSDECTMINUL}{SizeSEMINUL} SizeSUMINUL} Si$		Date Time Sampled Sampl	1	_			Cor	mments
UE (k) 3 2 cc 3 5 U U 2 2 c / 3 0 2 X 139825 X 1	UE KS 2003 NUMU)	1 1		× >				
specifically requested otherwise on this Chain-of-custody and/or attrached documentation, all mailyses will be conducted using AST3 method of choice and all data will be reported to AST3 normal r specifically requested otherwise on this Chain-of-custody and/or attrached documentation, all mailyses will be conducted using AST3 method of choice and all data will be reported to AST3 normal r LLI at a AST3 reption. Specific analysical parameter lists are specified on this chain-of-custody. AST will default to Priority Poli LLI at at AST3 reption. Specific compound lists must be supplied for all CC procedures.			$\downarrow \rightarrow$	< X	++			
a specifically requested otherwise on this Chaira of custody and/or attached documentation, all mulyses will be conducted using ASI's method of choice and all data will be reported to ASI's normal r DDL/DOL). For OCMS volatiles and extracted by and/or attached documentation, all mulyses will be conducted using ASI's method of choice and all data will be reported to ASI's normal r L liat at ASI's option. Specific compound lists must be supplied for all GC procedures. T = 2 Sample Relinquished By Sample Relinquished By T = 1								
s pecifically requested otherwise on this Chain-of-custody and/or attached documentation, all analyses will be conducted using ASI's method of choice and all data will be reported to ASI's normal r IDLPOU). For GCMS volutiles and extractables, unless apecification all analyses will be conducted using ASI's method of choice and all data will be reported to ASI's normal r IDLPOU). For GCMS volutiles and extractables, unless apecific analytical parameter itsis are specified on this chain-of-custody or attached to this chain-of-custody. ASI will default to Priority Poll I. liat at ASI's option. Specific compound lists must be supplied for all GC procedures. T. Liat at ASI's option. Specific compound lists must be supplied for all GC procedures. Sample Relinquished By Sample Relinquished By Sample Received By Implify the Alerry								
a specifically requested otherwise on this Chain-of-custody and/or attached documentation, all analyzes will be conducted using ASI's method of choice and all data will be reported to ASI's normal r IDL/POL). For GCMS volatiles and extractables, unless specified analyzes will be conducted using ASI's method of choice and all data will be reported to Priority Poli L liat at ASI's option. Specific compound lists must be supplied for all GC procedures. L liat at ASI's option. Specific compound lists must be supplied for all GC procedures. T = $\frac{1}{2}$ T = $\frac{1}{2$								
specifically requested otherwise on this Chain-of-custody and/or attached documentation, all analyses will be conducted using ASI's method of choice and all data will be reported to ASI's normal r IDLPOL.). For GCMS volatiles and extractables, unless specific analytical parameter lists are specified on this chain-of-custody. ASI will default to Priority Poli I. liat at ASI's option. Specific compound lists must be supplied for all GC procedures. T. = Liat at ASI's option. Specific compound lists must be supplied for all GC procedures. T. = ASI's option. Specific compound lists must be supplied for all GC procedures. T. = ASI's option. Specific compound lists must be supplied for all GC procedures. T. = ASI's option. Specific compound lists must be supplied for all GC procedures. T. = ASI's option. Specific compound lists must be supplied for all GC procedures. T. = ASI's option. Specific compound lists must be supplied for all GC procedures. T. = ASI's option. Specific compound lists must be supplied for all GC procedures. T. = ASI's option. Specific compound lists must be supplied for all GC procedures. T. = ASI's option. Specific compound lists must be supplied for all GC procedures. T. = ASI's option. Specific compound lists must be supplied for all GC procedures. T. = ASI's option. Specific compound lists must be supplied for all GC procedures. T. = ASI's option. ASI's option. ASI's option. T. = ASI's opt								
Sample Relinquished By Sample Received By e Affiliation Date Time Name Affiliation Date T affiliation Date Time Name Affiliation Date T	s specifically requested otherwise on th IDL/POL). For GC/MS volatiles and e M. list at ASI's option. Specific compo-	L L L L L L L L L L L L L L L L L L L	Ind/or attached doc: cific analytical par lied for all GC pro	umentation, all i ameter lists are cedures.	L L L L L L L L L L L L L L L L L L L	using ASI's method of choice and ustody or attached to this chain-o	all data will be reported to AS f-custody, ASI will default to F	Priority Pollutants or $-\frac{1}{7}$
e Amilation Date Time Name Amilation Date Date	Sample	Relinquished	By			Sample Rec		
222 Mallone Stemplerery A.S. 3/2/4		lon	Date	Time	Name	Affiliation	-	Time
	Fels Fils -				Malone Jun	ſ	2/2/03	14:15

ļ i



ANNUAL MONITORING REPORT

KIMBROUGH SWEET LINK REF: 2000-10757 AP-29

SW⁴ OF THE NE⁴ OF SECTION 3, TOWNSHIP 18 SOUTH, RANGE 37 EAST LEA COUNTY, NEW MEXICO

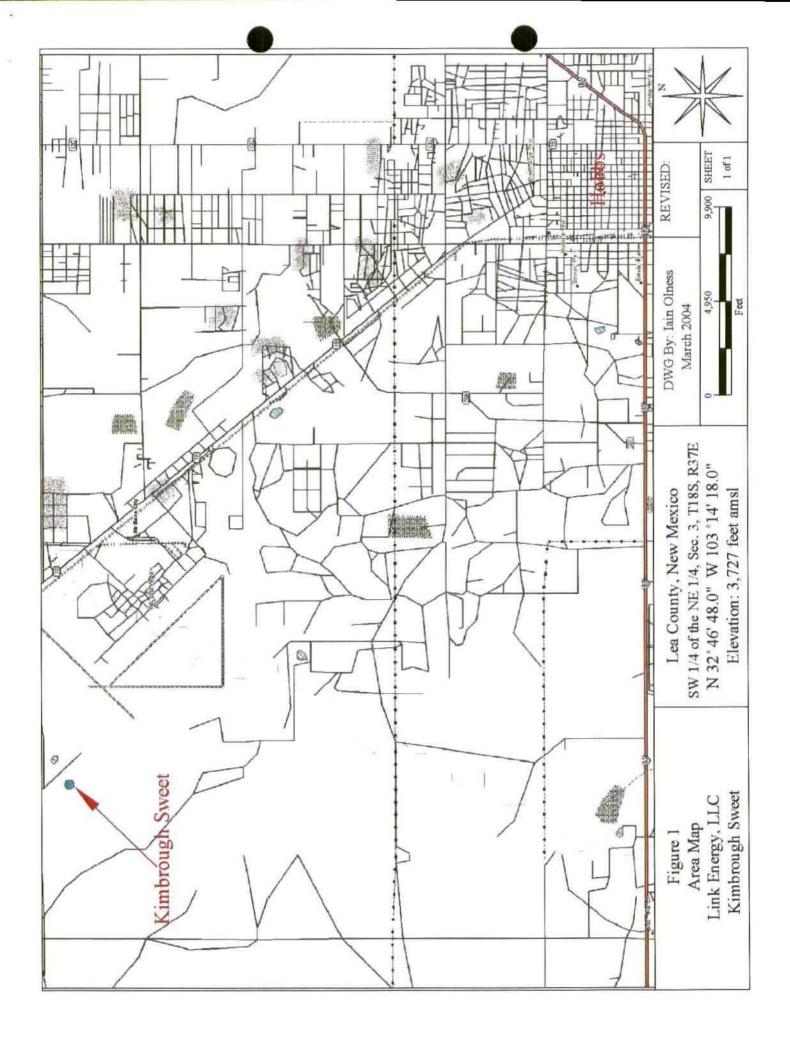
~7.25 MILES NORTHWEST (302°) OF HOBBS, LEA COUNTY, NEW MEXICO LATITUDE: N32° 46' 48" LONGITUDE: W103° 14' 18"

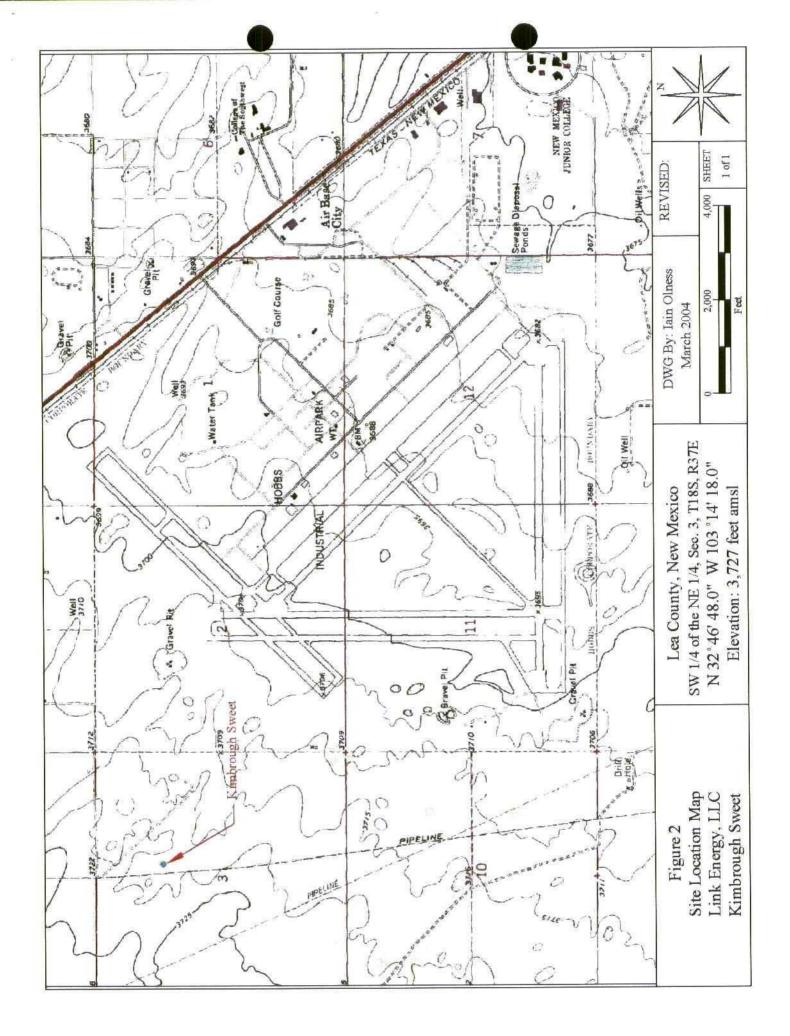
MARCH 31, 2004

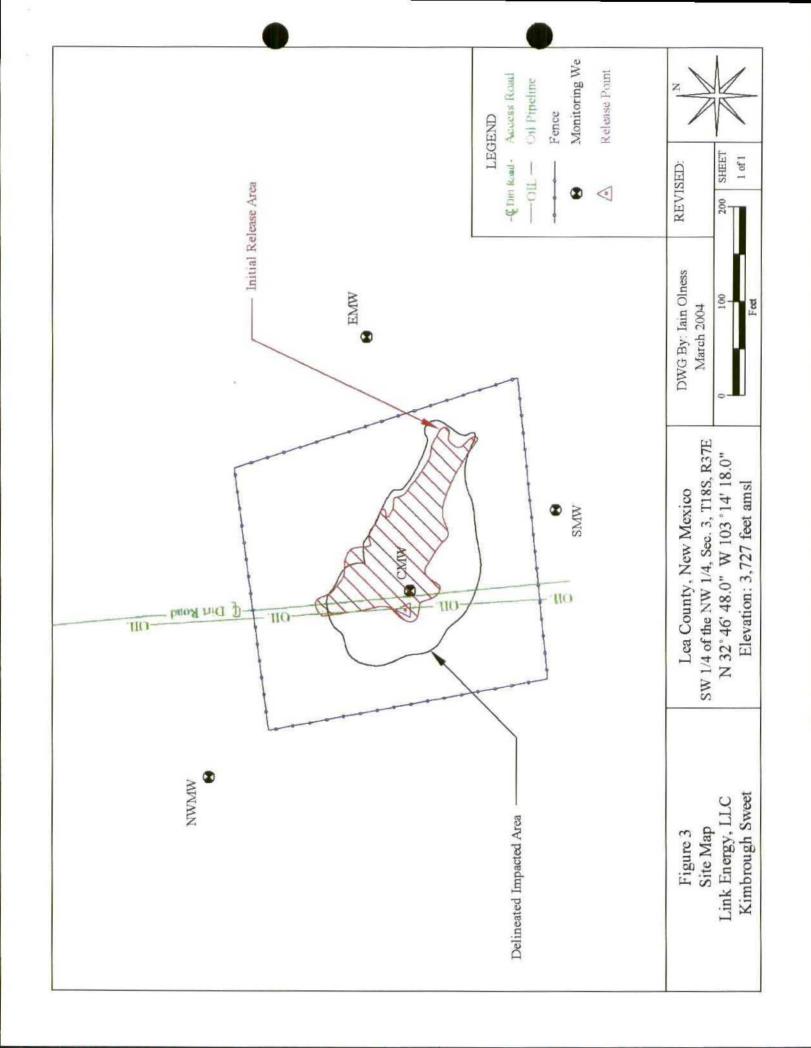
PREPARED BY:

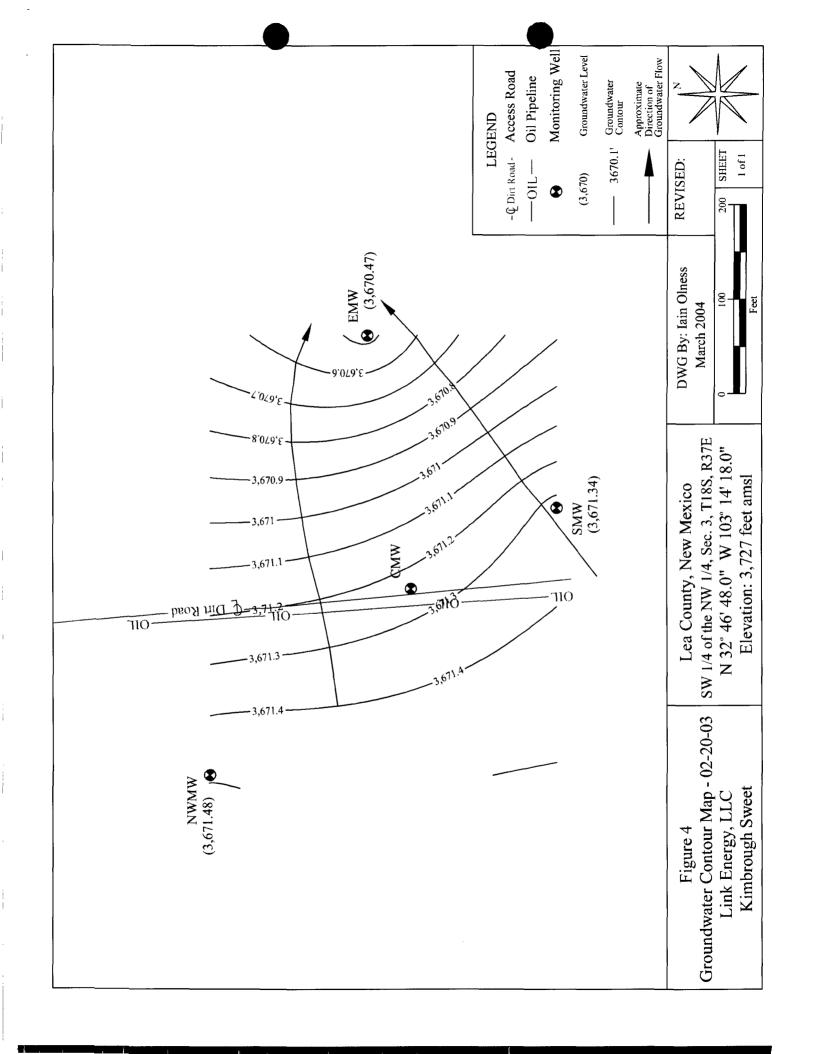


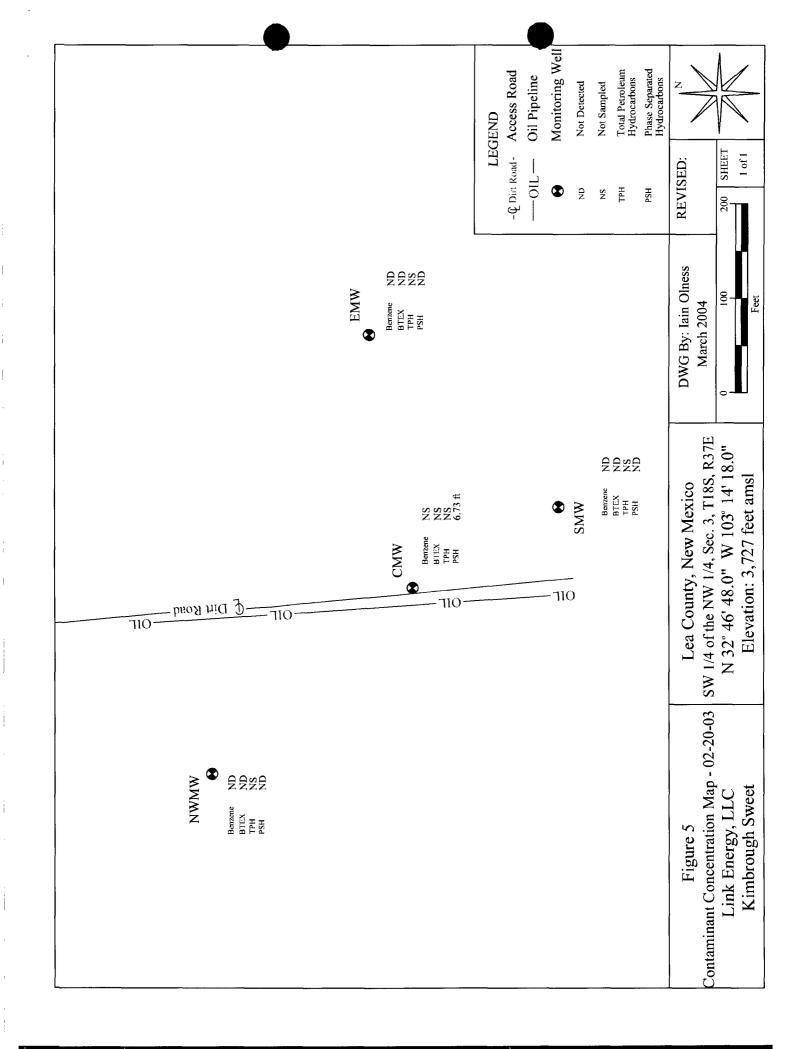
FIGURES



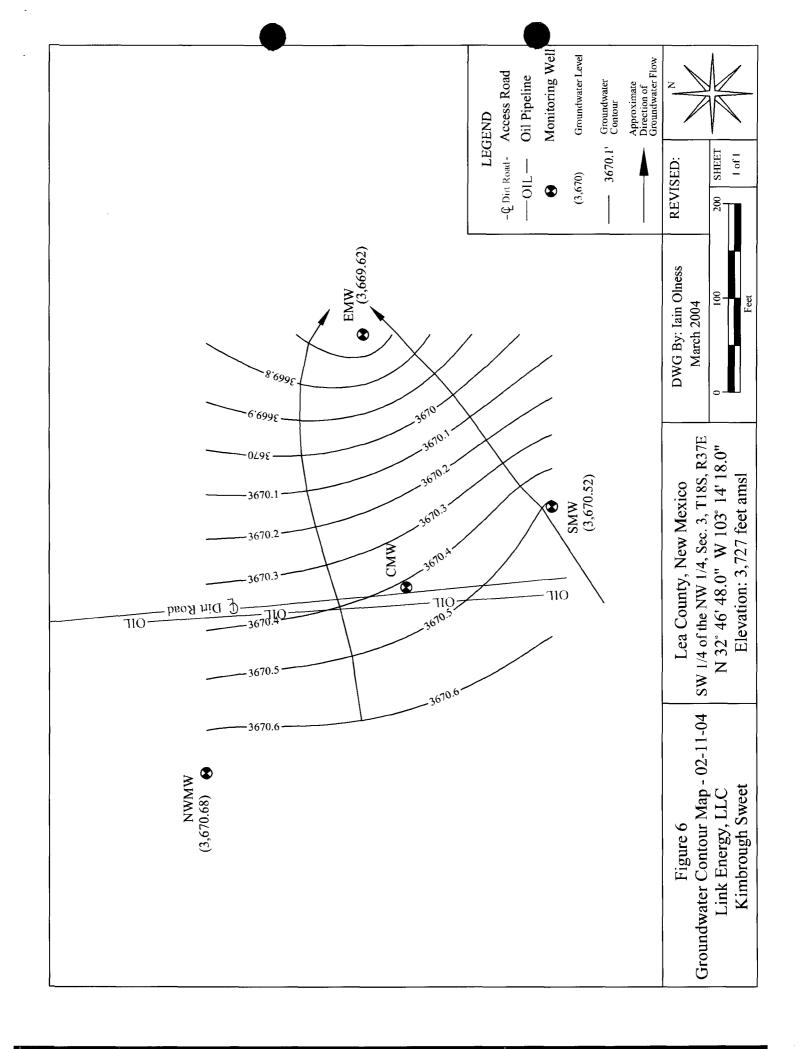


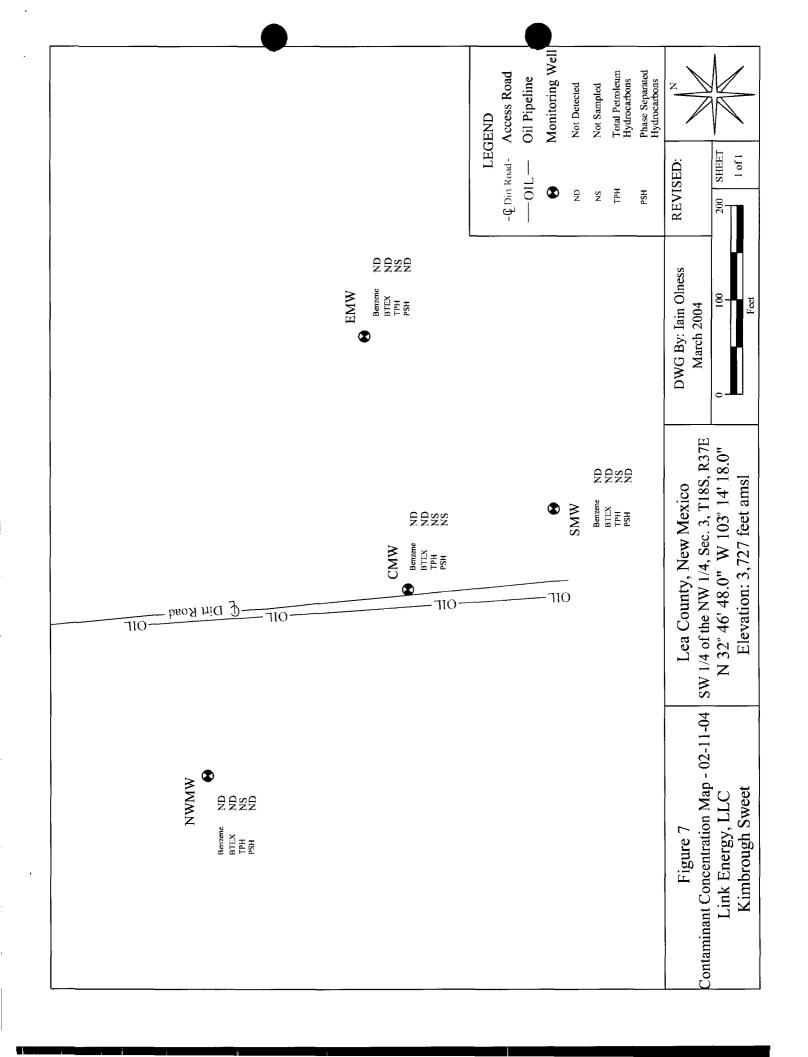






ì





TABLES





RELATIVE GROUNDWATER ELEVATIONS AND PHASE SEPARATED HYDROCARBON THICKNESSES

TABLE 1

Kimbrough Sweet - Ref #2000-10757

Monitor Well	Date Gauged	Relative Top of Casing Elevation (feet)	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)*	Phase Separated Hydrocarbon Thickness (feet)
CMW	01/09/02		49.20	53.60		4.40
	10/04/02		49.21	56.33		7.12
ļ	11/11/02		49.25	56.30		7.05
	12/11/02		49.25	56.34		7.09
	02/20/03		49.57	56.30		6.73
	03/26/03	g	49.66	58.09	pa	8.43
	04/08/03	Not Surveyed	49.68	58.11	Not Surveyed	8.43
	04/23/03	Jury	50.00	56.90	Surv	6.90
	04/24/03	ot	49.75	58.10	ot S	8.35
	04/25/03	Ž	49.78	57.95	Z	8.17
	05/03/03		49.77	58.10		8.33
	05/06/03		49.75	58.08		8.33
	06/09/03		49.83	58.13		8.30
	06/30/03		49.95	58.04		8.09
	02/11/04					
EMW	01/09/02					=
	10/04/02	3,720.60		49.77	3,670.83	
	11/11/02				,	
	12/11/02	3,720.60		49.93	3,670.67	
	02/20/03	3,720.60		50.13	3,670.47	
	03/26/03	- ,			- ,	
	04/08/03					
	04/23/03					
	04/24/03					
	04/25/03					
	05/03/03					
	05/06/03					
	06/09/03					
	06/30/03					
	0 2 /11/04	3,720.60		50.98	3,669.62	
SMW	01/09/02	5,720.00		50.70	3,007.02	
5111 1	10/04/02	3,721.03		49.35	3,671.68	
1 1	11/11/02	5,721.05		49.55	5,071.08	
	12/11/02	3,721.03	_	49.50	3,671.53	-
	02/20/03	3,721.03		49.69	3,671.34	
	02/20/03	5,721.05		47.07	5,071.34	
	03/26/03 04/08/03					
[[]	04/23/03					
	04/24/03					
	04/25/03					
	05/03/03					
	05/06/03					
	06/09/03					
	06/30/03			50.51		
	02/11/04	3,721.03		50.51	3,670.52	





RELATIVE GROUNDWATER ELEVATIONS AND PHASE SEPARATED HYDROCARBON THICKNESSES

TABLE 1

Kimbrough Sweet - Ref #2000-10757

Monitor Well	Date Gauged	Relative Top of Casing Elevation (feet)	Depth to PSH Below Top of Casing (feet)	Depth to Water Below Top of Casing (feet)	Corrected Relative Groundwater Elevation (feet)*	Phase Separated Hydrocarbon Thickness (feet)
NWW	01/09/02					-
	10/04/02	3,723.13		51.26	3,671.87	
	11/11/02					
	12/11/02	3,723.13		51.43	3,671.70	
	02/20/03	3,723.13		51.62	3,671.51	
	03/26/03					
	04/08/03					
	04/23/03					
	04/24/03					
	04/25/03					
	05/03/03	J J]		
	05/06/03					
	06/09/03					
	06/30/03					
	02/11/04	3,723.13		52.45	3,670.68	

* Corrected Groundwater Elevation = Top of Casing Elevation - (Depth to Water Below Top of Casing - (SG)(PSH Thickness).

- - = Not Detected

If the cell is blank, the well was not gauged.

TABLE 2

I

Summary of Groundwater Analytical Results

Kimbrough Sweet - Ref #2000-10757

Monitor Well	Date	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	Total Xylenes	Chloride	Total Dissolved Solids	Total TPH
LOCAUOI		(µg/L)	(J/g/l)	(µg/L)	(µg/L)	(J/gh)	(µg/L)	(mg/L)	(mg/L)	(mg/L)
SMW	24-Jan-02	Þ	1>	l≻	1>	>	\$			
	1-Mar-02	V	V	V	1>	l⊽	2			
	4-Oct-02	Þ	7	17	1>	<1	2			
	11-Dec-02	l>	₽	l≻	<1	V	4			
	20-Feb-03	Þ	7	7	<1	₽	\$			
	11-Feb-04	Þ	-1	1	2	>	₽			
EMW	24-Jan-02	Þ	1>	1>	1>	I>	\sim	14.2	316	
	1-Mar-02	∨	₽		<1	₽	\$			
	4-Oct-02	l≻	-1	1>	1>	l>	\$			
	11-Dec-02	1>	<l>I></l>	<1	l>	<1	2			
	20-Feb-03	V	1>	1>	I>	V	\$			
	11-Feb-04	7	∠	l≻	-22	V	♡			
NWMW	24-Jan-02	l>	<1	1>	1>	<1	\$	31	6,130	
	1-Mar-02	V	1>	1>	l≻	<1	\sim			
	4-Oct-02	>	I>	<1	<1	<1	2			
	11-Dec-02	l≻	1>	l>	1>	1>	\$			
	20-Feb-03	1>	1>	<1	<1	<1	3			
	11-Feb-04	l≻	<1	<1	4	<1	3			
CMW	24-Jan-02			Not se	impled due to the p	presence of phase	Not sampled due to the presence of phase separated hydrocarbons	rbons		
	1-Mar-02			Not se	umpled due to the I	presence of phase	Not sampled due to the presence of phase separated hydrocarbons	rbons		
	4-Oct-02			Not se	umpled due to the I	presence of phase	Not sampled due to the presence of phase separated hydrocarbons	rbons		
	11-Dec-02			Not se	umpled due to the p	presence of phase	Not sampled due to the presence of phase separated hydrocarbons	rbons		
	20-Feb-03			Not se	umpled due to the p	presence of phase	Not sampled due to the presence of phase separated hydrocarbons	rbons		
	11-Feb-04			Not se	umpled due to the p	presence of phase	Not sampled due to the presence of phase separated hydrocarbons	rbons		
NMOCD Rem	NMOCD Remedial Thresholds	10	750	750			620	250	1,000	

ļ

ł

If cell is blank, then tha parameter was not analyzed NS : Not Sampled

APPENDICES

APPENDIX A

GROUNDWATER ANALYTICAL RESULTS

AND

CHAIN-OF-CUSTODY FORMS

3512 Montopolis Drive, Austin, TX 78744 & 2209 N. Padre Island Dr., Corpus Christi, TX 78408 (512) 385-5886 • FAX (512) 385-7411

i I

								andra share for				
Client:	Environmental Plus, Inc.						Report#/Lab ID#: 153084	#: 153084	Repor	Report Date: 02/25/04	2/25/04	
Attn:	Pat McCasland						Project ID: 2000-10757	0-10757	I			
Address:	Address: 2100 Ave. O						Sample Name: WLEKS21104NWMW	WLEKS21104N	WMW			
	Eunice	16288 MN					Sample Matrix: water	water				
							Date Received: 02/20/2004	02/20/2004	Time: 09:30	06:30		
Phone:	Phone: (505) 394-3481 FAX: (50	FAX: (505) 394-2601					Date Sampled: 02/11/2004	02/11/2004	Time: 13:00	13:00		
REPORT	REPORT OF ANALYSIS							OUALITY ASSURANCE DATA	ASSURA	NCE DA	TA1	
Parameter	5	Result	Units	RQL ⁵	Blank	Datc	Mcthod ⁶	Data Qual 7 Prcc. ² Recov. ³ CCV ⁴	Prec.2	Recov. ³	CCV ⁴	LCS ⁴
Volatile or	Volatile organics-8260b/BTEX					02/24/04	8260b(5030/5035)		1			
Benzene		7	μg/L	-	7	02/24/04	8260b		2	102.	103.9	103
Ethylbenzene	the	1⊳	μg/L		⊽	02/24/04	8260b	-	4.6	103.5	110.5	104.5
m,p-Xylenes	les	6	µg/L	Ņ	6	02/24/04	8260b	-	4.1	105.7	111.7	105.8
o-Xylene		ī>	μg/L	-	v	02/24/04	8260b	!	4.1	104.7	110.6	106.1
Toluene		7	μg/L		7	02/24/04	8260b	1	0.2	106.5	109.9	110.5
This analyti have been cr are consister Copyright 2 publication - express writ	This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc. Respectfully Submitted, Richard Sys, Inc. Respectfully Submitted, Richard Etton	adySys, Inc. The enclosed re- moviedge, the analytical result nee/Quality Control Program. ights reserved. No part of this form or by any means withou Respectfully Submitted, Rechard Elton	inclosed results yrical results (Program, @ part of this ans without the ans without the ubmitted, 00		 Quality assurance, data is for the sample biof the relative percent (%) difference between recovered from a spiked sample. A. Calib expressed as the percent (%) recovery of ana (RQL), typically at or above the Practical Q typically denote USEPA procedures. Less this dilutions. T. Data Qualiffers are J – analyte associated method blank(s). S1 –MS and/or recovery exceeds advisory limit. S3 –MS an than advisory limit. M –Matrix interference. 	ata is for the sa %) difference d sample. It (%) recover above the Pra A procedures. A procedures. A procedures. A procedures. A procedures. A procedures. A procedures.	1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. 6. Method minbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J- analyte potentially present between the PQL and the MDL. B – Analyte detected in associated method blank(s). Si –MS and/or MSD recovery exceed advisory limits. S2 –Post digestion spike (PDS) recovery exceed advisory limits. P-Precision higher than advisory limit. M –Matrix interference.	ed this sample. 3 emerits. 3. Recor- r (CCV) and Labo r standard or matri (PQL) of the anal- (PQL) of the anal- flect nominal quar- thetween the PQ recoded advisory lim S recoveries exce-	2. Precision very (Reconnent ix. 5. Rep ix.	(PREC) is it w, is the period from Sample, in the Sample, orting Quant od. 6. Met its adjusted i fibit. B – Ai fibit. B – Ai fimits. P – I	the absolute the absolute (LCS) result titation Lirr hod mumbe for any require atyre detect spike (PDS)	a value analyte ths are ints are aired aired in cted in gher

Report Date: 02/25/04

-

1

] : :

1

ł

!

Ì

-

Page#: 1

						(512) (15)	2202 N. FROME ISIAND DT., COUPUS CURISTI, 1.X (512) 385-5886 • FAX (512) 385-7411	FA3	FAX (512) 385-7411	85-7411	
Client: Environmental Plus, Inc. Attn: Pat McCasland						Report#/Lab ID#: 153085 Project ID: 2000-10757	#: 153085 0-10757	Repo	Report Date: 02/25/04	02/25/04	
Address: 2100 Ave. O Eunice	NM 88231					Sample Name: WLEKS21104SWM Sample Måtrix: water	VLEKS21104 water	MWS			
	×					Date Received: 02/20/2004	02/20/2004	Time: 09:30	05:60		
Phone: (505) 394-3481 FAX: (505) 394-2601	394-2601	_				Date Sampled: 02/11/2004	02/11/2004	Time: 14:00	14:00		
REPORT OF ANALYSIS							OUALITY ASSURANCE DATA ¹	ASSUR/	NNCE D	1 <u>VI</u>	
Parameter	Result	Units	RQL ⁵	Blank	Date	Method ⁶	Data Qual 7 Prec. ² Recov. ³	Prec. ²	Recov. ³	CCV ⁴	LCS ⁴
Volatile organics-8260b/BTEX	1		1		02/24/04	8260b(5030/5035)	ł	1	1	1	1
Bettzene	I≯	μg/L	Ţ	~1	02/24/04	8260b		2	102	103.9	103
Ethylbenzene	₹	μg/L	1	7	02/24/04	8260b		4.6	103.5	110.5	104.5
m,p-Xylenes	4	μg/L	5	6	02/24/04	8260b	1	4.1	105.7	111.7	105.8
o-Xylene	<u>۲</u>	μg/L,	-	4	02/24/04	8260b	ł	4,1	104.7	110.6	106.1
Toluene	4	μg/L	1	⊲	02/24/04	8260b	1	0.2	106.5	109.9	110.5
This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of AnalySys, Inc. Respectfully Submitted, express written consent of AnalySys, Inc. Respectfully Submitted, Richard Elton	uysys, Jnc. The enclosed re- iowledge, the analytical result e-Quality Control Program. ths reserved. No part of this offm or by any means withou offm or by any means withou Respectfully Submitted, Respectfully Submitted, Richard Elton	nclosed results rtical results Program. © part of this ans without the homitted, bunitted, bunitted, bunitted,		 Quality assurance data is for the sample bi- of the relative percent (%) difference between recovered from a spiked sample. 4. Calib expressed as the percent (%) recovery of ana (RQL), typically at or above the Practical Q typically denote USEPA procedures. Less the dilutions. 7. Data Qualifiers are J – analyte associated method blank(s). S1 –MS and/or recovery exceeds advisory limit. S3 –MS and than advisory limit. M –Matrix interference. 	uta is for the sa %) difference: d sampte. e the top recovery above the Prate A procedures. A procedures. A frifters are J – k(s). S1 –MS ory limit. S3 - -Matrix interl	 Quality assurance data is for the sample batch which included this sample. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measurements. Recoverd from a spiked sample. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are recovered from a spiked sample. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are expressed as the percent (%) recovery of analyte from a known standard or matrix. Reporting Quantitation Limits (RQL), typically at or above the Practical Quantitation Limit (PQL) of the analytical method. Method mumbers typically denote USEPA procedures. Less than ("<") values reflect nominal quantitation limits adjusted for any required dilutions. Data Qualifiers are J – analyte potentially present between the PQL and the MDL. B – Analyte detected in associated method blank(s). S1 –MS and/or MSD and PDS recovery exceed advisory limits. S2 –Post digestion spike (PDS) recovery exceed advisory limits. Recovery exceeds advisory limit. M –Matrix interference. 	ed this sample. ed this sample. (CCV) and Labb standard or math standard or math standard or math standard or math (PQL) of the ana fect nominal qua fect nominal qua fect nominal qua fect secoreries exce S recoveries exce	2. Precision 2. Precision oratory Cacco oratory Your irix. 5. Rep hytical meth mitation lin mitation lin and the R Mita. S2 –Pr inte. S2 –Pr ed advisory	 Precision (PREC) is the absolute value overy (Recov.) is the percent (%a) of analyte ioratory Control Sample (LCS) results are interesting Chantitation Limits and lytical method. 6. Method mumbers untitation limits adjusted for any required 2L and the MDL. B – Analyte detected in ints. S2 –Post digestion spike (PDS) eed advisory limits. P – Precision higher 	the absolution ficts (%) of (LCS) resolution (LCS) resolution thind mimb for any req for any req analyte dete nalyte (PD Precision h	te value famalyte dits are mits ers cred in S S igher

•

i

Report Date: 02/25/04

i

;

Page#: 1 Repor

ហ៍ គី	
ĩn	
21	
Z	
Ē	
0	

3512 Montôpolis Drive, Austin, TX 78744 & 2209 N. Padre Island Dr., Corpus Christi, TX 78408 (512) 385-5886 • FAX (512) 385-7411

Client:	Environmental Plus, Inc.	Project ID: 2000-10757	Report#/Lab ID#: 153085
Attn:	Pat McCasland	Sample Name: WLEKS21104SWM	Sample Matrix: water
REPORT	REPORT OF SURROGATE RECOVERY		

KEPORI OF SURROGATE RECOVERY

Surrogate Compound	Mcthod	Recovery	Recovery Limit	Data Qualificrs
1,2-Dichloroethane-d4	8260b	108	74-124	;
Toluene-d8	8260b	108	89-115	ł

Data Qualifiers: D-Surrogates diluted and X- Surrogates outside advisory recovery limits.

ł

ļ

1

						351. 2209 (512	3512 Montopolis Drive, Austin, TX 78744 & 2209 N. Padre Island Dr., Corpus Christi, TX (512) 385-5886 • FAX (512) 385-7411	Drive, A and Dr., • FA)	e, Austin, TX 78744 Dr., Corpus Christi, 7 FAX (512) 385-7411	C 78744 hristi, T 85-7411	& X 78408
Client: Environmental Plus, Inc. Attn: Pat McCasland						Report#/Lab ID#: 153086 Project ID: 2000-10757	#: 153086 0-10757	Repo	Report Date: 02/25/04	02/25/04	
ive. O						Sample Name: WLEKS21104EMW	VLEKS211041	EMW			
Eunice	NM 88231					Sample Matrix: water	water				
						Date Received: 02/20/2004	02/20/2004	Time:	Time: 09:30		
Phone: (505) 394-3481 FAX: (505) 394-2601	394-2601					Date Sampled: 02/11/2004	02/11/2004	Time:	Time: 15:00		
REPORT OF ANALYSIS							OUALITY ASSURANCE DATA ¹	ASSUR	ANCE D.	ATA ¹	
Parameter	Result	Únits	RQL ⁵	Blank	Date	Method ⁶	Data Qual ⁷	Prec. ²	Prec. ² Recov. ³ CCV ⁴	CCV ⁴	LCS ⁴
Volatile organics-8260b/BTEX			-		02/24/04	8260b(5030/5035)		1			
Benzette	۲>	μg/L	1	7	02/24/04	8260b		2	102	103.9	103
Ethylbenzene	V	μg/L	1	4	02/24/04	8260b	1	4.6	103.5	110.5	104.5
m,p-Xylenes	6	µg/L	5	4	02/24/04	8260b	1	4.1	105.7	111.7	105.8
o-Xylene	v	μg/L	l	7	02/24/04	8260b		4.1	104.7	110.6	106.1
Toluene	7	μg/L	1	⊽	02/24/04	8260b	1	0.2	106.5	109.9	110.5
This analytical report is respectfully submitted by AnalySys, Inc. The enclosed results have been carefully reviewed and, to the best of my knowledge, the analytical results are consistent with AnalySys, Inc.'s Quality Assurance/Quality Control Program. © Copyright 2003, AnalySys, Inc., Austin, TX. All rights reserved. No part of this publication may be reproduced or transmitted in airy form or by any means without the express written consent of AnalySys, Inc. Respectfully Submitted, Richard Elton	alysys, Inc. The enclosed re- alysys, Inc. The enclosed re- e-Quality Control Program. e-Quality Control Program. The served. No part of this is reserved. No part of this of the served. No part of this is reserved. No p	proceed results Pyrical results I Pyrical results part of this ans without the ubmitted, ubmitted, on		 Quality assurance data is for the sample by of the relative percent (%) difference between recovered from a spiked sample. 4. Calib expressed as the percent (%) recovery of ana (RQL), typically at or above the Practical Q typically denote USETA procedures. Less the dilutions. 7. Data Qualifiers are J – analyte associated method blank(s). Si –MS and/or recovery exceeds advisory limit. S3 –MS and than advisory limit. M –Matrix interference. 	via is for the sa which is for the sa which is the sample. It (%) recovery above the Pra A procedures. A procedures. A procedures. A saff sare J – MS ery limit. S3 -Matrix inter	1. Quality assurance data is for the sample batch which included this sample. 2. Precision (PREC) is the absolute value of the relative percent (%) difference between duplicate measuremerits. 3. Recovery (Recov.) is the percent (%) of analyte recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are recovered from a spiked sample. 4. Calibration Verification (CCV) and Laboratory Control Sample (LCS) results are percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits (RQL), typically are percent (%) recovery of analyte from a known standard or matrix. 5. Reporting Quantitation Limits typically denote USEPA procedures. Less than (~<") values reflect nominal quantitation limits adjusted for any required dilutions. 7. Data Qualifiers are J – analyte potentially present between the PQL and the MDL. B – Analyte detected in associated method blank(s). S1 –MS and/or MSD recovery exceed advisory limits. S2 –Post digestion spike (PDS) recovery exceed advisory limit. M –Matrix interference.	ed this sample. in (CCV) and Lab. in (CCV) and Lab. standard or mati (PQL) of the anal fect nominal qua- bert nominal qua- tibetween the PC ceed advisory lin S recoveries exect	2. Precision very (Rection oratory Cor itx. 5. Rep itx. 5. Rep itx. 2. Rep itt. 32 - P- itt. 32	n (TREC) is ov) is the perimenant of the perime porting Quantum of MGL $B \to A$ MGL $B \to A$ MGL $B \to A$ which are digestion out digestion y limits. P-0	the absolu- internet (%) (%) (%) (%) (%) (%) (%) (%) (%) (%)	ate value atte value imits are imits pers cred in corted ingher

Report Date: 02/25/04

Page#: 1

CTOL Y Show Show Show Show Show Show Show Show	Comments					attached documentation, all analyses will be conducted using ASI's method of choice and all data will be reported to ASI's normal reporting analytical parameter lists are specified on this chain-of-custody or attached to this chain-of-custody, ASI will default to Priority Pollutants or or all GC procedures.	ceived By	Date Time	. for analytical testing constitutes agreement by buyer/sampler to AnalySys, Inc.'s standard terms.]
0 12 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	IN I.					I I I I I I I I I I I I I I I I I I I	Sample Received	Affiliation	a by buyer/sampler to A
Bill to (if differen Company Name Link Freed Address 5505 His 750 City Micden State 75 Zip ATTN: Free JE Her Well	Water Waste (Lab UD. #	153084 153085	153086			analyses will be conducted u specified on this chain-of-cr		Name	Constitutes agreemen
Bill to (if different 2000 any Name 2000 Address 2000 Address 2000 Address 2000 Address 2000 Phone 2000 Phone 2000 Address 200 Address <td>No. of Containers Soll Water</td> <td>× × > 0</td> <td>X e</td> <td></td> <td></td> <td>attached documentation, all analytical parameter lists are ior all GC procedures.</td> <td></td> <td>e Time</td> <td>or analytical testing</td>	No. of Containers Soll Water	× × > 0	X e			attached documentation, all analytical parameter lists are ior all GC procedures.		e Time	or analytical testing
V MZip 3223/ Sampler Sampler	Date Time I Sampled Sampled Co	2.11-24 1: 70 241-24 13: 00	2.4.J. 3.20				Sample Relinquished By	n Date	s to AnalySys, Inc. f
CHAIN-OF-CUSTODY Send Report o: Company Name <u>Entranting With Send Report</u> of Company Name <u>Entranting State Address</u> Address <u>Prove Contract Market</u> Address <u>Prove Report State Address</u> ATTN: <u>Entrant State Address</u> Phone <u>Entrant Report State Address</u> Rush Status (must be confirmed with lab mgr.): Project Name/PO#: <u>Entrant 252</u> Sample		30	~			(1)Unless specifically requested otherwise on this Chain-of-custody and/or imits (MDI,PQL). For GC/MS volatiles and extractables, unless specific ASI's HSL list at ASI's option. Specific compound lists must be supplied	Sample Re	Affiliation	Tendering of above described samples to AnalySys, Inc
CHAIN-OF Send Report Company Name Address City Company Name Address Phone Company Name Address City Company Name Address City Company Name Address City Company Name Phone Company Name Phone Company Name Address City Company Name Address Company Name Addr	Client Sample No. Description/Identification	WILLE KSAHOHNAIMU	Witke Allot Enu			(1)Unless specifically re imite (MDI /PQL). For ASI's HSL list at ASI's o		Name	Tendering of abov