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JAQUEZ COM. C #1 AND JAQUEZ COM. E #1

Annual Report for Soil and Groundwater Remediation

March 1998

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Oil Conservation Division

Prepared For

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Project 17444



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1. INTRODUCTION

At the request of El Paso Field Services Company (EPFS), Philip Services Corporation (Philip) has prepared the following annual report and recommendations for soil and groundwater remediation at the Jaquez Com. C #1 and Jaquez Com. E #1 meter sites.

The Jaquez Com. C #1 and Jaquez Com. E #1 meter sites are currently owned and operated by EPFS. The meter sites are located in Section 6, Township 29N, Range 9W, in San Juan County, New Mexico, near Blanco, New Mexico. The two meter stations are located within 40 feet of one another on the same site location. Past practices included discharge of pipeline liquids into earthen pit(s) at the site. Listed below is a brief description of activities at the site:

- Late 1992 Landowner expressed concern regarding potential hydrocarbon contamination in a garden area near the meter site location.
- March 1993 Comprehensive soil and groundwater investigation performed on meter site location and nearby garden area.
- June 1993 EPNG submits a remedial plan to NMOCD.
- July 1993 NMOCD approves the remedial plan.
- August 1993 Remediation actives initiated.
- September 1993 Remediation activities completed.
- September 1993 Monitoring wells R-1 through R-5 and M-1 through M-5 were installed north and south of Citizen's Ditch. Initial sampling for benzene, toluene, ethylbenzene, and xylene (BTEX) indicated monitoring wells R-1, R-2, R-4, M-3, and M-4 were above New Mexico Water Quality Control Commission (NMWQCC) standards. Monitoring wells at the site were initially sampled monthly and are now sampled quarterly.
- October 1993 to October 1996 Floating product was observed in monitor wells R-1 and R-2 during the months of seasonally low groundwater levels (i.e., January through May). Passive skimmer systems were installed to remove floating product during periods of product accumulation.
- November 1996 A pumping test was initiated to determine if light non-aqueous phase liquids (LNAPL) could be removed during high seasonal groundwater by depressing the water table in and around R-1 and R-2.



- December 1996 Philip injected approximately 500 gallons of urea nitrate in water into the passive vent system and installed magnesium peroxide socks in monitoring wells M-3 and M-4 to supply oxygen to enhance natural biodegradation of hydrocarbons in groundwater.
- January, 1997 Philip installed a belt skimmer in R-2 to remove free phase hydrocarbons.
- February, 1997 Philip installed a belt skimmer in R-1 to remove free phase hydrocarbons.
- November, 1997 Philip installed two temporary monitoring wells inside the excavated area north of R-1 to determine if free phase hydrocarbons could be recovered during high groundwater season.

2. 1997 ACTIVITIES

In 1997 activities included the following:

- Belt skimming systems were installed in recovery wells R-1 and R-2, and product recovery was initiated.
- Two temporary monitoring wells were installed in the original excavation north of R-1 to determine if free phase hydrocarbons could be recovered during the high groundwater season.
- Quarterly groundwater sampling in monitoring wells which were not producing free phase hydrocarbons.
- Continued use of ORC® magnesium peroxide socks in monitoring wells south of Citizen's Ditch.

2.1 Belt Skimmer Installation and Product Removal

The belt skimming system installed in R-1 and R-2 is housed in a standard lockable meter house and consists of an intrinsically safe electric motor which turns a 7/8-inch hydrophobic urethane belt suspended in the well by a weighted pulley. With each revolution, hydrocarbons are collected on the belt, brought to the surface, and then removed by specially designed wiper blades. The hydrocarbons are then deposited into the unit's collection box, where they drain by gravity into a 55-gallon drum. The drum is fitted with a high-level control switch designed to shut the system off when the drum is full. The drum and control switch are housed in a secondary containment system to contain any potential spills. Once a week, a representative visits the site and checks each system for proper operation, product, and water levels in the recovery wells and surrounding monitoring wells. This information is documented in a project-specific field



notebook. The locations of recovery wells R-1 and R-2 as well as other site features are presented in Figure 1.

On February 14, 1997, the belt skimming system in R-2 was installed and product removal initiated. Product removal continued sporadically until May 28, 1997 when the skimmer was shut down for the season. From February 14, 1997 to May 28, 1997, approximately 11.48 gallons of free phase hydrocarbons were removed from R-2. On January 14, 1998, 1.91 feet of free phase hydrocarbons had returned to recovery well R-2 and product removal was again initiated. Approximately 1.53 gallons of product and 1.91 gallons of water were removed from R-2 in the first week of operation and free phase hydrocarbons have not returned since. Approximately 13.01 gallons of free phase hydrocarbons have been recovered from R-2 since installing the belt skimming system.

On April 4, 1997, free phase hydrocarbon removal was initiated in recovery well R-1 using the belt skimming system. Product removal continued until June 27, 1997, when product disappeared from the well for the season. From April 4, 1997 to June 27, 1997, approximately 99.92 gallons of free phase hydrocarbons were recovered from recovery well R-1. On January 14, 1998, 2.08 feet of free phase hydrocarbons had returned to R-1 and product removal was reinitiated. From January 14, 1998 to March 4, 1998, approximately 99.04 gallons of free phase hydrocarbons were recovered from R-1. Total free phase hydrocarbons removed from R-1 since skimmer installation is approximately 198.99 gallons. All weekly product thickness, product recovery information and groundwater elevations are presented in Table 1. Graphic displays of product thickness vs. time for R-1 and R-2 is presented in Appendix A. Graphic displays of product elevations and groundwater elevations vs. time are presented in Appendix B.

As in previous years, product accumulation decreased dramatically in the month of May. Product thickness reduction in R-1 appeared to be related more to seasonal fluctuations than to product removal. Also as in previous years, product returned to R-1 and R-2 in significant volumes in the month of January. Groundwater elevation maps showing quarterly changes in groundwater are included in Figures 2, 3, 4, 5 and 6.

2.2 Temporary Monitoring Well Installation

On November 4, 1997, two temporary monitoring wells were installed to test for the presence of free phase hydrocarbons in the original excavation area north of R-1.

The first boring was drilled approximately 10 feet north of R-1, which should have been inside the excavation area. Based on the soils encountered in the boring, it did not appear that it was, in fact, in the excavated area. No free phase hydrocarbons were noted in the temporary monitoring well at the time of installation.



The second boring was drilled approximately 10 feet north of the first boring. The upper 12 feet of the boring consisted of a clean, dry, clayey sand, which appeared to be backfill material. Impacted soil was noted below the backfill material. Water was encountered at approximately 13.5 feet, but no free phase hydrocarbons were noted in the temporary monitoring well after installation.

The temporary monitoring wells were checked periodically for the presence of free phase hydrocarbons for approximately 15 days after installation. As no free phase hydrocarbons were observed, on November 19, 1997 the wells were pulled and the boreholes grouted to the surface. The Record of Subsurface Exploration forms and Temporary Monitoring Well Installation forms are included in Appendix C.

2.3 Quarterly Sampling

BTEX samples are not collected from monitoring wells when LNAPL are present, which includes recovery wells R-1 and R-2. Currently, all other monitoring wells are sampled quarterly for BTEX, and annually for polynuclear aromatic hydrocarbons (PAH's). PAH samples were collected on February 19, 1997, and are presented in Appendix D with the BTEX laboratory reports.. In the period covered by this report, nitrate sampling has also taken place on a quarterly basis to monitor the effect of nutrients injected in the passive venting system on the south side of Citizen's Ditch. A summary of BTEX and nitrate analysis is included in Table 2, and the BTEX laboratory reports for the previous year are included in Appendix D.

2.4 Oxygenate Socks

On December 19, 1996, approximately 500 gallons of urea nitrate-water solution were injected into the passive vent system on the south side of Citizen's Ditch. The nutrient solution consisted of seven parts potable water to one part urea nitrate. The solution was mixed thoroughly in a 500-gallon poly tank and pumped directly into the vent stacks of the passive vent system. ORC® magnesium peroxide socks were then installed in monitoring wells M-3 and M-4 to supply oxygen to enhance natural biodegradation of hydrocarbons in groundwater.

The socks continue to be used in monitoring wells M-3 and M-4. The socks are removed 30 days prior to sample collection and are reinstalled after sampling is complete. Following nutrient injection, nitrate monitoring was initiated on a quarterly basis as discussed above. Nitrate analysis showed elevated nitrate levels in M-3 and M-4 for three quarters after injection. Nitrate levels have declined steadily and are now below detection limits in both M-3 and M-4.



3. CONCLUSIONS

Garden Area South of Citizen's Ditch

BTEX concentrations continue to decline in this area with the exception of M-4, which has shown a sporadic increase in benzene concentrations, usually during periods of seasonal low groundwater levels. Since the installation of the oxygenate socks and the injection of nutrients into the passive venting system, monitoring well M-3 has been below NMWQCC standards for BTEX in groundwater for four out of the last five quarters sampled.

Meter Site Location North of Citizen's Ditch

Free phase hydrocarbons continue to accumulate in R-1 and R-2 during periods of low groundwater. As in previous years, product accumulation decreases rapidly with the beginning of the irrigation season and increased flow in Citizen's Ditch. Approximately 198.97 gallons of free phase hydrocarbons have been removed from recovery well R-1 since the belt skimming system has been in place. Although significant amounts of free phase hydrocarbons continue to be removed from R-1, it appears that dissolved phase hydrocarbons are decreasing in R-3, which is directly down gradient of R-1. Last year, recovery well R-2 produced 11.48 gallons of product. This year only 1.53 gallons of product have been removed due to the absence of free phase hydrocarbons in R-2, indicating a significant reduction in free phase hydrocarbons in the area of R-2.

The drilling and installation of temporary monitoring wells showed that free phase hydrocarbons did not exist just inside the original excavation. However, the medium to coarse grained sands abundant in the smear zone inside the old excavation makes the potential use of vent sparge technology possible.

4. RECOMMENDATIONS

Based on the current site activities, Philip recommends the following:

- Continue removing free phase hydrocarbons from R-1 and R-2 whenever present.
- Re-inject the passive venting system south of Citizen's Ditch with urea nitrate and replace the existing ORC® magnesium peroxide socks with new socks in M-3 and M-4 to stimulate biodegradation.
- Install ORC® magnesium peroxide socks in R-3 and R-4 and begin sampling annually. Quarterly sampling in R-4 should resume when BTEX values have decreased significantly.
- Discontinue quarterly sampling of M-1, M-2, M-5, and R-5, and begin sampling these
 wells annually, since BTEX levels in these wells have remained below standards since
 sampling was initiated.
- Continue sampling monitoring wells M-3 and M-4 quarterly for BTEX and nitrates.



- Discontinue annual PAH sampling in wells M-1, M-2, M-3, M-5, R-3, and R-5. These wells have been consistently below standards for PAH's.
- Discontinue sampling recovery wells R-1 and R-2 entirely until free phase hydrocarbons have been removed.
- At the conclusion of the low groundwater season, evaluate the feasibility of using vent sparge technology to continue groundwater clean-up throughout the year.



Table 1 - Product Recovery Data

		WATER	PRODUCT	PRODUCT	PRODUCT	TOR	WATER		
WELL		LEVEL	LEVEL	THICKNESS	RECOVERED	REF.	ELEV.	PRODUCT	
NUMBER	DATE	(feet)	(feet)	(feet)	(Total gallons)	ELEV.	(feet)	ELEV. (feet)	COMMENTS
R-1	02/07/97	19.97	17.55	2.42	0.00	99.07	77.24	79.66	Prior to Skimmer Installation
R-1	02/07/97	20.16	17.68	2.48	0.00	99.07	77.05	79.53	Prior to Skimmer Installation
R-1	02/19/98	20.10	17.64	2.53	0.00	99.07	77.04	79.57	Prior to Skimmer Installation
the second of the second	02/26/97					99.07	77.04	79.37	Prior to Skimmer Installation
R-1	·	20.18	17.83	2.35	0.00			i	
R-1	03/12/97	20.28	17.81	2.47	0.00	99.07	76.93	79.40	Prior to Skimmer Installation
R-1	03/17/97	20.61	18.22	2.39	0.00	99.07	76.60	78.99	Prior to Skimmer Installation
R-1	04/03/97	20.85	18.43	2.42	0.00	99.07	76.36	78.78	Prior to Skimmer Installation
R-1	04/04/97	20.81	18.43	2.38	0.00	99.07	76.40	78.78	Start up of skimmer
R-1	04/09/97	20.40	18.23	2.17	13.01	99.07	76.81	78.98	Increased timer to 24 hrs. 4/10/97
R-1	04/16/97	20.49	18.81	1.68	38.99	99.07	76.72	78.40	Will leave skimmer set to run 24 hours per day
R-1	04/23/97	20.25	18.70	1.55	62.90	99.07	76.96	78.51	Running 24 hours per day
R-1	05/01/97	17.56	17.53	0.03	86.81	99.07	79.65	79.68	Set Skimmer to run 12 hours per day
R-1	05/07/97	16.26	16.15	0.11	90.74	99.07	80.95	81.06	Still running 12 hours per day
R-1	05/13/97	16.14	16.13	0.01	93.80	99.07	81.07	81.08	Skimmer running before measurements taken
R-1	05/21/97	16.48	16.41	0.07	96.29	99.07	80.73	80.80	Running 12 hours per day
R-1	05/28/97	16.68	16.63	0.05	99.54	99.07	80.53	80.58	Running 12 hours per day
R-1	06/04/97	16.55	16.55	0.00	99.54	99.07	80.66	80.66	Shut system down
R-1	06/11/97	16.44	16.24	0.00	N/A	99.07	80.77	80.97	Restart system
R-1	06/18/97	16.57	16.57	0.00	99.92	99.07	80.64	80.64	Shut system down
R-1	06/27/97	16.38	16.35	0.03	N/A	99.07	80.83	80.86	Leave system shut down
R-1	07/02/97	16.25	16.22	0.03	N/A	99.07	80.96	80.99	Leave system shut down
R-1	07/09/97	15.69	15.66	0.03	N/A	99.07	81.52	81.55	Leave system shut down for the season
R-1	10/30/97	17.49	17.39	0.10	N/A	99.07	79.72	79.82	Temporary well installation
R-1	11/04/97	17.64	17.56	0.08	N/A	99.07	79.57	79.65	Temporary well installation
R-1	11/14/97	16.33	16.23	0.10	N/A	99.07	80.88	80.98	Temporary well installation
R-1	11/21/97	16.63	16.55	0.08	N/A	99.07	80.58	80.66	Temporary well installation
R-1	11/25/97	16.92	16.86	0.06	N/A	99.07	80.29	80.35	Temporary well installation
R-1	12/16/97	17.81	17.71	0.10	N/A	99.07	79.40	79.50	
R-1	01/14/98	19.79	17.71	2.08	N/A	99.07	77.42	79.50	Skimmer startup, running 24 hrs/day
R-1	01/21/98	19.73	17.97	1.76	105.47	99.07	77.48	79.24	Running 24 hrs

WELL		WATER LEVEL	PRODUCT LEVEL	PRODUCT THICKNESS	PRODUCT RECOVERED	TOR REF.	WATER ELEV.	PRODUCT	
NUMBER	DATE	(feet)	(feet)	(feet)	(Total gallons)	ELEV.	(feet)	ELEV. (feet)	
R-1	01/28/98	18.59	18.40	0.19	116.18	99.07	78.62	78.81	Adjust to run 12 hrs / Day
R-1	02/05/98	19.51	18.58	0.93	126.86	99.07	77.70	78.63	Adjust to run 24 hrs/ Day
R-1	02/11/98	19.15	18.73	0.42	148.48	99.07	78.06	78.48	Adjust to run 12 hrs/ Day, Ditch empty
R-1	02/19/98	19.98	18.82	1.16	164.35	99.07	77.23	78.39	Adjust to run 24 hrs/ Day, Ditch empty
R-1	02/25/98	19.25	19.19	0.06	185.77	99.07	77.96	78.02	Adjust to run 12 hrs/ Day, Ditch empty
R-1	03/04/98	19.99	19.24	0.75	198.98	99.07	77.22	77.97	Adjust to run 24 hrs/ Day, Ditch empty
R-1	03/11/98	19.52	19.32	0.20	207.97	99.07	77.69	77.89	Adjust to run 12 hrs/ Day, Ditch empty
R-1	03/18/98	19.94	19.54	0.40	224.24	99.07	77.27	77.67	Adjust to run 24 hrs/ Day, Ditch empty
R-1	03/25/98	19.08	19.03	0.05	248.16	99.07	78.13	78.18	Adjust to run 12 hrs/ day, Ditch empty
R-1	04/02/98	17.31	17.31	0.00	258.30	99.07	79.90	79.90	Shut skimmer down, Ditch running again
R-1	04/08/98	16.77	16.61	0.16	258.30	99.07	80.44	80.60	Adjust to run 4 hrs/ Day, Ditch running full
R-1	04/15/98	16.42	16.42	0.00	264.03	99.07	80.79	80.79	Shut skimmer down, Ditch running full
R-1	04/23/98	16.02	15.87	0.15	264.03	99.07	81.19	81.34	Adjust to run 4 hrs/ Day, Ditch running full
R-1	04/29/98	16.04	16.04	0.00	264.03	99.07	81.17	81.17	Shut system down, ditch running full
R-1	05/08/98	15.42	15.32	0.10	258.30	99.07	81.79	81.89	Leave system shut down, Ditch still running
								* 	
R-2	02/07/97	18.66	16.52	2.14	0.00	98.05	77.49	79.63	* · · · · · · · · · · · · · · · · · · ·
R-2	02/14/97	18.76	16.65	2.11	0.00	98.05	77.39	79.50	Start skimmer, running 12 hours/day
R-2	02/15/97	17.28	17.22	0.06	3.06	98.05	78.87	78.93	· · · · · · · · · · · · · · · · · · ·
R-2	02/18/97	17.33	17.14	0.19	4.78	98.05	78.82	79.01	Adjust to run 10 hours/day
R-2	02/26/97	17.31	17.20	0.11	7.46	98.05	78.84	78.95	
R-2	03/05/97	17.39	17.33	0.06	7.46	98.05	78.76	78.82	
R-2	03/12/97	17.35	17.34	0.01	9.95	98.05	78.80	78.81	
R-2	03/17/97	16.84	16.83	0.01	10.14	98.05	79.31	79.32	
R-2	04/03/97	18.00	18.00	0.00	10.71	98.05	78.15	78.15	No measurable product, shut down to recover
R-2	04/09/97	17.67	17.67	0.00	0.00	98.05	78.48	78.48	Will leave shut down until product returns
R-2	04/16/97	18.12	18.12	0.00	0.00	98.05	78.03	78.03	No measurable product
R-2	04/23/97	18.01	18.01	0.00	0.00	98.05	78.14	78.14	No measurable product
R-2	05/01/97	16.75	16.28	0.47	0.00	98.05	79.40	79.87	Reactivate Skimmer to run 10 hours/day
R-2	05/07/97	14.89	14.89	0.00	11.48	98.05	81.26	81.26	No measurable product. Shut system down

WELL NUMBER	DATE	WATER LEVEL (feet)	PRODUCT LEVEL (feet)	PRODUCT THICKNESS (feet)	PRODUCT RECOVERED (Total gallons)	TOR REF. ELEV.	WATER ELEV. (feet)	PRODUCT ELEV. (feet)	COMMENTS		
R-2	05/13/97	14.94	14.93	0.01	0.00	98.05	81.21	81.22	Will leave skimmer shut down		
R-2	05/21/97	15.28	15.24	0.04	0.00	98.05	80.87	80.91	Reactivate skimmer to run 10 hours per day		
R-2	05/28/97	15.48	15.48	0.00	39.57 (water)	98.05	80.67	80.67	No measurable product. Shut system down		
R-2	06/04/97	15.37	15.37	0.00	N/A	98.05	80.78	80.78	Shut system down		
R-2	06/11/97	15.12	15.11	0.01	N/A	98.05	81.03	81.04	Leave system shut down		
R-2	06/18/97	15.41	15.37	0.04	N/A	98.05	80.74	80.78	Leave system shut down		
R-2	06/27/97	15.18	15.18	0.00	N/A	98.05	80.97	80.97	Leave system shut down		
R-2	07/02/97	15.08	15.06	0.02	N/A	98.05	81.07	81.09	Leave system shut down		
R-2	07/09/97	14.45	14.45	0.00	N/A	98.05	81.70	81.70	Leave system shut down for the season		
R-2	10/30/97	16.47	16.25	0.22	N/A	98.05	79.68	79.90	Temporary well installation		
R-2	11/04/97	16.64	16.43	0.21	N/A	98.05	79.51	79.72	Temporary well installation		
R-2	11/14/97	15.14	15.06	0.08	N/A	98.05	81.01	81.09	Temporary well installation		
R-2	11/21/97	15.58	15.39	0.19	N/A	98.05	80.57	80.76	Temporary well installation		
R-2	11/25/97	15.90	15.69	0.21	N/A	98.05	80.25	80.46	Temporary well installation		
R-2	12/16/97	16.89	16.54	0.35	N/A	98.05	79.26	79.61			
R-2	01/14/98	18.58	16.67	1.91	N/A	98.05	77.57	79.48	Skimmer startup, running 12 hrs/day		
R-2	01/21/98	17.30	17.30	0.00	14.92	98.05	78.85	78.85	No measurable product, shut down to recover		
R-2	01/28/98	17.48	17.30	0.18	0.00	98.05	78.67	78.85	Leave system shut down		
R-2	02/05/98	17.83	17.71	0.12	0.00	98.05	78.32	78.44	Leave system shut down		
R-2	02/11/98	17.86	17.74	0.12	0.00	98.05	78.29	78.41	Leave system shut down, Ditch empty		
R-2	02/19/98	18.13	18.02	0.11	0.00	98.05	78.02	78.13	Leave system shut down, Ditch empty		
R-2	02/25/98	19.25	19.19	0.06	0.00	98.05	76.90	76.96	Leave system shut down, Ditch empty		
R-2	03/04/98	18.48	18.31	0.17	0.00	98.05	77.67	77.84	Leave system shut down, Ditch empty		
R-2	03/11/98	18.40	18.26	0.14	0.00	98.05	77.75	77.89	Leave system shut down, Ditch empty		
R-2	03/18/98	18.07	17.99	0.08	0.00	98.05	78.08	78.16	Leave system shut down, Ditch empty		
R-2	03/25/98	18.02	17.94	0.08	0.00	98.05	78.13	78.21	Leave system shut down, Ditch empty		
R-2	04/02/98	16.28	15.92	0.36	0.00	98.05	79.87	80.23	Leave system shut down, Ditch running		
R-2	04/08/98	15.64	15.30	0.34	0.00	98.05	80.51	80.85	Turn system on, running 4 hrs/ day, Ditch full		
R-2	04/15/98	15.30	15.30	0.00	15.39	98.05	80.85	80.85	Shut system down, Ditch running full		
R-2	04/23/98	14.70	14.70	0.00	15.39	98.05	81.45	81.45	Leave system shut down, Ditch running		

WELL NUMBER	DATE	WATER LEVEL (feet)	PRODUCT LEVEL (feet)	PRODUCT THICKNESS (feet)	PRODUCT RECOVERED (Total gallons)	TOR REF. ELEV.	WATER ELEV. (feet)	PRODUCT ELEV. (feet)	COMMENTS
R-2	04/29/98	14.83	14.83	0.00	15.39	98.05	81.32	81.32	Leave system shut down, Ditch running
R-2	05/08/98	14.13	14.13	0.00	15.39	98.05	82.02	82.02	Leave system shut down, Ditch running
								† - · - · · - · - · - · - · - · - · - · - 	
R-3	02/19/98	16.29	N/A	N/A	N/A	99.29	83.00	N/A	
R-3	02/26/97	16.24	N/A	N/A	N/A	99.29	83.05	N/A	
R-3	03/05/97	16.36	N/A	N/A	N/A	99.29	82.93	N/A	
R-3	03/12/97	16.37	N/A	N/A	N/A	99.29	82.92	N/A	
R-3	03/17/97	16.81	N/A	N/A	N/A	99.29	82.48	N/A	· · · · · · · · · · · · · · · · · · ·
R-3	04/09/97	16.75	N/A	N/A	N/A	99.29	82.54	N/A	
R-3	04/16/97	17.22	N/A	N/A	N/A	99.29	82.07	N/A	
R-3	04/23/97	17.11	N/A	N/A	N/A	99.29	82.18	N/A	
R-3	05/01/97	15.43	N/A	N/A	N/A	99.29	83.86	N/A	
R-3	05/07/97	13.94	N/A	N/A	N/A	99.29	85.35	N/A	
R-3	05/13/97	13.96	N/A	N/A	N/A	99.29	85.33	N/A	
R-3	05/21/97	14.26	N/A	N/A	N/A	99.29	85.03	N/A	
R-3	05/28/97	14.48	N/A	N/A	N/A	99.29	84.81	N/A	
R-3	06/04/97	14.34	N/A	N/A	N/A	99.29	84.95	N/A	
R-3	06/11/97	14.13	N/A	N/A	N/A	99.29	85.16	N/A	
R-3	06/18/97	14.33	N/A	N/A	N/A	99.29	84.96	N/A	
R-3	06/27/97	14.17	N/A	N/A	N/A	99.29	85.12	N/A	
R-3	07/02/97	14.02	N/A	N/A	N/A	99.29	85.27	N/A	
R-3	07/09/97	14.02	N/A	N/A	N/A	99.29	85.27	N/A	
R-3	08/21/97	13.41	N/A	N/A	N/A	99.29	85.88	N/A	
R-3	11/10/97	14.87	N/A	N/A	N/A	99.29	84.42	N/A	
R-3	01/21/98	16.34	N/A	N/A	N/A	99.29	82.95	N/A	
R-3	01/28/98	16.38	N/A	N/A	N/A	99.29	82.91	N/A	
R-3	02/05/98	16.20	N/A	N/A	N/A	99.29	83.09	N/A	·-·
R-3	02/11/98	16.84	N/A	N/A	N/A	99.29	82.45	N/A	Ditch empty
R-3	02/19/98	17.16	N/A	N/A	N/A	99.29	82.13	N/A	Ditch empty
R-3	02/25/98	17.26	N/A	N/A	N/A	99.29	82.03	N/A	Ditch empty

WELL NUMBER	DATE	WATER LEVEL (feet)	PRODUCT LEVEL (feet)	PRODUCT THICKNESS (feet)	PRODUCT RECOVERED (Total gallons)	TOR REF. ELEV.	WATER ELEV. (feet)	PRODUCT ELEV. (feet)	COMMENTS
R-3	03/04/98	17.46	N/A	N/A	N/A	99.29	81.83	N/A	Ditch empty
R-3	03/11/98	17.38	N/A	N/A	N/A	99.29	81.91	N/A	Ditch empty
R-3	03/18/98	17.06	N/A	N/A	N/A	99.29	82.23	N/A	Ditch empty
R-3	03/25/98	17.02	N/A	N/A	N/A	99.29	82.27	N/A	Ditch empty
R-3	04/02/98	15.06	N/A	N/A	N/A	99.29	84.23	N/A	Ditch running
R-3	04/08/98	14.42	N/A	N/A	N/A	99.29	84.87	N/A	Ditch running
R-3	04/15/98	14.19	N/A	N/A	N/A	99.29	85.10	N/A	Ditch running
R-3	04/23/98	13.66	N/A	N/A	N/A	99.29	85.63	N/A	Ditch running
R-3	04/29/98	13.81	N/A	N/A	N/A	99.29	85.48	N/A	Ditch running
R-3	05/08/98	13.00	N/A	N/A	N/A	99.29	86.29	N/A	Ditch running
R-4 R-4	02/19/97 02/26/97	15.81 15.75	N/A N/A	N/A N/A	N/A N/A	98.29 98.29	82.48 82.54	N/A N/A	
R-4	02/26/97	15.75	N/A	N/A	N/A N/A	98.29	82.39		
R-4	03/05/97	15.89	N/A N/A	N/A	N/A	98.29	82.40	N/A N/A	
R-4	03/12/97	16.03	N/A	N/A	N/A	98.29	82.40 82.26	N/A	
R-4	04/09/97	16.24	N/A	N/A	N/A N/A	98.29	82.05	N/A	
R-4	04/03/37	16.69	N/A	N/A	N/A	98.29	81.60	N/A	
R-4	04/10/97	16.56	N/A	. N/A	N/A	98.29	81.73	N/A	
R-4	05/01/97	15.04	N/A	N/A	N/A	98.29	83.25	N/A	
R-4	05/13/97	13.63	N/A	N/A	<u>N</u> /A	98.29	84.66	N/A	
R-4	05/21/97	13.89	N/A	N/A	N/A	98.29	84.40	N/A	
R-4	05/28/97	14.09	N/A	N/A	N/A	98.29	84.20	N/A	
R-4	06/04/97	13.99	N/A	N/A	N/A	98.29	84.30	N/A	
R-4	06/11/97	13.73	N/A	N/A	N/A	98.29	84.56	N/A	
R-4	06/18/97	13.95	N/A	N/A	N/A	98.29	84.34	N/A	
R-4	06/27/97	13.85	N/A	N/A	N/A	98.29	84.44	N/A	
R-4	07/02/97	13.68	N/A	N/A	N/A	98.29	84.61	. N/A	
R-4	07/09/97	13.16	N/A	N/A	N/A	98.29	85.13	N/A	
R-4	08/21/97	13.12	N/A	N/A	N/A	98.29	85.17	N/A	† · · · · · · · · · · · · · · · · · · ·

		WATER	PRODUCT	PRODUCT	PRODUCT	TOR	WATER		
WELL NUMBER	DATE	LEVEL (feet)	LEVEL (feet)	THICKNESS (feet)	RECOVERED (Total gallons)	REF. ELEV.	ELEV. (feet)	PRODUCT ELEV. (feet)	COMMENTS
R-4	11/10/97	14.55	N/A	N/A	N/A	98.29	83.74	N/A	
R-4	01/21/98	15.84	N/A	N/A	N/A	98.29	82.45	N/A	
R-4	01/28/98	15.83	N/A	N/A	N/A	98.29	82.46	N/A	
R-4	02/05/98	16.24	N/A	N/A	N/A	98.29	82.05	N/A	
R-4	02/11/98	16.28	N/A	N/A	N/A	98.29	82.01	N/A	Ditch empty
R-4	02/19/98	16.58	N/A	N/A	N/A	98.29	81.71	N/A	Ditch empty
R-4	02/25/98	16.68	N/A	N/A	N/A	98.29	81.61	N/A	Ditch empty
R-4	03/04/98	16.88	N/A	N/A	N/A	98.29	81.41	N/A	Ditch empty
R-4	03/11/98	16.86	N/A	N/A	N/A	98.29	81.43	N/A	Ditch empty
R-4	03/18/98	16.59	N/A	N/A	N/A	98.29	81.70	N/A	Ditch empty
R-4	03/25/98	16.52	N/A	N/A	N/A	98.29	81.77	N/A	Ditch empty
R-4	04/02/98	14.80	N/A	N/A	N/A	98.29	83.49	N/A	Ditch running
R-4	04/08/98	14.19	N/A	N/A	N/A	98.29	84.10	N/A	Ditch running
R-4	04/15/98	13.94	N/A	N/A	N/A	98.29	84.35	N/A	Ditch running
R-4	04/23/98	13.45	N/A	N/A	N/A	98.29	84.84	N/A	Ditch running
R-4	04/29/98	13.53	N/A	N/A	N/A	98.29	84.76	N/A	Ditch running
R-4	05/08/98	13.00	N/A	N/A	N/A	98.29	85.29	N/A	Ditch running
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R-5	02/19/97	18.48	N/A	N/A	N/A	101.50	83.02	N/A	
R-5	02/26/97	18.33	N/A	N/A	N/A	101.50	83.17	N/A	
R-5	03/05/97	18.71	N/A	<u>N/A</u>	N/A	101.50	82.79	N/A	
R-5	03/12/97	18.50	N/A	N/A	N/A	101.50	83.00	N/A	
R-5	03/17/97	19.02	N/A	N/A	N/A	101.50	82.48	N/A	
R-5	04/09/97	18.92	N/A	N/A	N/A	101.50	82.58	N/A	
R-5	04/16/97	19.40	N/A	N/A	N/A	101.50	82.10	: N/A	· • · · · ·
R-5	04/23/97	19.20	N/A	N/A	N/A	101.50	82.30	N/A	
R-5	05/01/97	18.28	N/A	N/A	N/A	101.50	83.22	N/A	1
R-5	05/07/97	17.46	N/A	N/A	N/A	101.50	84.04	N/A	
R-5	05/13/97	17.18	N/A	N/A	N/A	101.50	84.32	N/A	· · · · · · · · · · · · · · · · · · ·
R-5	05/20/97	17.25	N/A	N/A	N/A	101.50	84.25	N/A	

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WELL		WATER LEVEL	PRODUCT LEVEL	PRODUCT THICKNESS	PRODUCT RECOVERED	TOR REF.	WATER ELEV.	PRODUCT	
NUMBER	DATE	(feet)	(feet)	(feet)	(Total gallons)	ELEV.	(feet)	ELEV. (feet)	COMMENTS
R-5	05/28/97	17.35	N/A	N/A	N/A	101.50	84.15	N/A	
R-5	06/04/97	17.26	N/A	N/A	N/A	101.50	84.24	N/A	
R-5	06/11/97	17.01	N/A	N/A	N/A	101.50	84.49	N/A	
R-5	06/18/97	17.09	N/A	N/A	N/A	101.50	84.41	N/A	
R-5	06/27/97	17.13	N/A	N/A	N/A	101.50	84.37	N/A	
R-5	07/02/97	16.87	N/A	N/A	N/A	101.50	84.63	N/A	
R-5	07/09/97	16.64	N/A	N/A	N/A	101.50	84.86	N/A	
R-5	08/21/97	16.50	N/A	N/A	N/A	101.50	85.00	N/A	1
R-5	11/10/97	17.48	N/A	N/A	N/A	101.50	84.02	N/A	
R-5	01/21/98	18.46	N/A	N/A	N/A	101.50	83.04	N/A	
R-5	01/28/98	18.48	N/A	N/A	N/A	101.50	83.02	N/A	
R-5	02/05/98	18.92	N/A	N/A	N/A	101.50	82.58	N/A	
R-5	02/11/98	18.91	N/A	N/A	N/A	101.50	82.59	N/A	Ditch empty
R-5	02/19/98	19.31	N/A	N/A	N/A	101.50	82.19	N/Ā	Ditch empty
R-5	02/25/98	19.31	N/A	N/A	N/A	101.50	82.19	N/A	Ditch empty
R-5	03/04/98	19.51	N/A	N/A	N/A	101.50	81.99	N/A	Ditch empty
R-5	03/11/98	19.46	N/A	N/A	N/A	101.50	82.04	N/A	Ditch empty
R-5	03/18/98	19.21	N/A	N/A	N/A	101.50	82.29	N/Ā	Ditch empty
R-5	03/25/98	19.11	N/A	N/A	N/A	101.50	82.39	N/A	Ditch empty
R-5	04/02/98	18.28	N/A	N/A	N/A	101.50	83.22	N/A	Ditch running
R-5	04/08/98	17.80	N/A	N/A	N/A	101.50	83.70	N/A	Ditch running
R-5	04/15/98	17.42	N/A	N/A	N/A	101.50	84.08	N/A	Ditch running
R-5	04/23/98	16.95	N/A	N/A	N/A	101.50	84.55	N/A	Ditch running
R-5	04/29/98	16.94	N/A	N/A	N/A	101.50	84.56	N/A	Ditch running
R-5	05/08/98	12.87	N/A	N/A	N/A	101.50	88.63	N/A	Ditch running
		+		·	+ -			† 	· · · · · · · · · · · · · · · · · · ·
M-1	02/19/97	6.23	N/A	N/A	N/A	84.84	78.61	N/A	
M-1	02/26/97	6.19	N/A	N/A	N/A	84.84	78.65	N/A	
M-1	03/05/97	6.12	N/A	N/A	N/A	84.84	78.72	N/A	
M-1	03/12/97	6.37	N/A	N/A	N/A	84.84	78.47	N/A	· · - ·

WELL NUMBER	DATE	WATER LEVEL (feet)	PRODUCT LEVEL (feet)	PRODUCT THICKNESS (feet)	PRODUCT RECOVERED (Total gallons)	TOR REF. ELEV.	WATER ELEV. (feet)	PRODUCT ELEV. (feet)	COMMENTS
M-1	03/17/97	6.59	N/A	N/A	N/A	84.84	78.25	N/A	
M-1	04/09/97	6.47	N/A	N/A	N/A	84.84	78.37	N/A	1
M-1	04/16/97	6.83	N/A	N/A	N/A	84.84	78.01	N/A	
M-1	04/23/97	7.61	N/A	N/A	N/A	84.84	77.23	N/A	
M-1	05/01/97	5.79	N/A	N/A	N/A	84.84	79.05	N/A	· · •
M-1	05/07/97	5.10	N/A	N/A	N/A	84.84	79.74	N/A	,
M-1	05/13/97	4.59	N/A	N/A	N/A	84.84	80.25	N/A	
M-1	05/23/97	4.80	N/A	N/A	N/A	84.84	80.04	N/A	·
M-1	05/28/97	5.05	N/A	N/A	N/A	84.84	79.79	N/A	
M-1	06/04/97	4.90	N/A	N/A	N/A	84.84	79.94	N/A	
M-1	06/11/97	4.47	N/A	N/A	N/A	84.84	80.37	N/A	i 1
M-1	06/18/97	4.93	N/A	N/A	N/A	84.84	79.91	N/A	
M-1	06/27/97	5.01	N/A	N/A	N/A	84.84	79.83	N/A	
M-1	07/02/97	4.86	N/A	N/A	N/A	84.84	79.98	N/A	
M-1	07/09/97	4.29	N/A	N/A	N/A	84.84	80.55	N/A	
M-1	08/21/97	3.54	N/A	N/A	N/A	84.84	81.30	N/A	
M-1	11/10/97	5.41	N/A	N/A	N/A	84.84	79.43	N/A	
M-1	01/21/98	6.40	N/A	N/A	N/A	84.84	78.44	N/A	
M-1	01/28/98	6.48	N/A	N/A	N/A	84.84	78.36	N/A	
M-1	02/05/98	6.66	N/A	N/A	N/A	84.84	78.18	N/A	
M-1	02/11/98	6.50	N/A	N/A	N/A	84.84	78.34	N/A	Ditch empty
M-1	02/19/98	6.75	N/A	N/A	N/A	84.84	78.09	N/A	Ditch empty
M-1	02/25/98	6.83	N/A	N/A	N/A	84.84	78.01	N/A	Ditch empty
M-1	03/04/98	7.01	N/A	N/A	N/A	84.84	77.83	N/A	Ditch empty
M-1	03/11/98	7.15	N/A	N/A	N/A	84.84	77.69	N/A	Ditch empty
M-1	03/18/98	7.03	N/A	N/A	N/A	84.84	77.81	N/A	Ditch empty
M-1	03/25/98	6.97	N/A	N/A	N/A	84.84	77.87	N/A	Ditch empty
M-1	04/02/98	6.16	N/A	N/A	N/A	84.84	78.68	N/A	Ditch running
M-1	04/08/98	5.70	N/A	N/A	N/A	84.84	79.14	N/A	Ditch running
M-1	04/15/98	5.26	N/A	N/A	N/A	84.84	79.58	N/A	Ditch running

WELL NUMBER	DATE	WATER LEVEL (feet)	PRODUCT LEVEL (feet)	PRODUCT THICKNESS (feet)	PRODUCT RECOVERED (Total gallons)	TOR REF. ELEV.	WATER ELEV. (feet)	PRODUCT ELEV. (feet)	
M-1	04/23/98	4.96	N/A	N/A	N/A	84.84	79.88	N/A	Ditch running
M-1	04/29/98	4.97	N/A	N/A	N/A	84.84	79.87	N/A	Ditch running
M-1	05/08/98	4.85	N/A	N/A	N/A	84.84	79.99	N/A	Ditch running
M-2	02/19/97	6.00	N/A	N/A	N/A	85.89	79.89	N/A	
M-2	02/26/97	6.02	N/A	N/A	N/A	85.89	79.87	N/A	
M-2	03/05/97	6.12	N/A	N/A	N/A	85.89	79.77	N/A	
M-2	03/12/97	6.19	N/A	N/A	N/A	85.89	79.70	N/A	
M-2	03/17/97	6.32	N/A	N/A	N/A	85.89	79.57	N/A	
M-2	04/09/97	6.31	N/A	N/A	N/A	85.89	79.58	N/A	
M-2	04/16/97	6.62	N/A	N/A	N/A	85.89	79.27	N/A	
M-2	04/23/97	6.70	N/A	N/A	N/A	85.89	79.19	N/A	
M-2	05/01/97	4.23	N/A	N/A	N/A	85.89	81.66	N/A	
M-2	05/07/97	3.25	N/A	N/A	N/A	85.89	82.64	N/A	
M-2	05/13/97	3.67	N/A	N/A	N/A	85.89	82.22	N/A	
M-2	05/21/97	4.24	N/A	N/A	N/A	85.89	81.65	N/A	
M-2	05/28/97	4.79	N/A	N/A	N/A	85.89	81.10	N/A	
M-2	06/04/97	3.89	N/A	N/A	N/A	85.89	82.00	N/A	
M-2	06/11/97	3.86	N/A	N/A	N/A	85.89	82.03	N/A	
M-2	06/18/97	4.61	N/A	N/A	N/A	85.89	81.28	N/A	
M-2	06/27/97	4.27	N/A	N/A	N/A	85.89	81.62	N/A	
M-2	07/02/97	4.34	N/A	N/A	N/A	85.89	81.55	N/A	
M-2	07/09/97	3.43	N/A	N/A	N/A	85.89	82.46	N/A	
M-2	08/21/97	2.91	N/A	N/A	N/A	85.89	82.98	N/A	
M-2	11/10/97	4.76	N/A	N/A	N/A	85.89	81.13	N/A	
M-2	01/21/98	6.36	N/A	N/A	N/A	85.89	79.53	N/A	
M-2	01/28/98	6.48	N/A	N/A	N/A	85.89	79.41	N/A	
M-2	02/05/98	6.62	N/A	N/A	N/A	85.89	79.27	N/A	
M-2	02/11/98	6.50	N/A	N/A	N/A	85.89	79.39	N/A	Ditch empty
M-2	02/19/98	6.70	N/A	N/A	N/A	85.89	79.19	N/A	Ditch empty

WELL		WATER LEVEL	PRODUCT LEVEL	PRODUCT THICKNESS	PRODUCT RECOVERED	TOR REF.	WATER ELEV.	PRODUCT	
NUMBER	DATE	(feet)	(feet)	(feet)	(Total gallons)	ELEV.	(feet)	ELEV. (feet)	
M-2	02/25/98	6.78	N/A	N/A	N/A	85.89	79.11	N/A	Ditch empty
M-2	03/04/98	6.92	N/A	N/A	N/A	85.89	78.97	N/A	Ditch empty
M-2	03/11/98	7.05	N/A	N/A	N/A	85.89	78.84	N/A	Ditch empty
M-2	03/18/98	6.95	N/A	N/A	N/A	85.89	78.94	N/A	Ditch empty
M-2	03/25/98	6.90	N/A	N/A	N/A	85.89	78.99	N/A	Ditch empty
M-2	04/02/98	4.94	N/A	N/A	N/A	85.89	80.95	N/A	Ditch running
M-2	04/08/98	3.90	N/A	N/A	N/A	85.89	81.99	N/A	Ditch running
M-2	04/15/98	3.72	N/A	N/A	N/A	85.89	82.17	N/A	Ditch running
M-2	04/23/98	3.91	N/A	N/A	N/A	85.89	81.98	N/A	Ditch running
M-2	04/29/98	4.27	N/A	N/A	N/A	85.89	81.62	N/A	Ditch running
M-2	05/08/98	4.52	N/A	N/A	N/A	85.89	81.37	N/A	Ditch running
M-3	02/19/97	6.90	N/A	N/A	N/A	87.79	80.89	N/A	
M-3	02/26/97	6.86	N/A	N/A	N/A	87.79	80.93	N/A	
M-3	03/05/97	6.94	N/A	N/A	N/A	87.79	80.85	N/A	
M-3	03/12/97	6.99	N/A	N/A	N/A	87.79	80.80	N/A	
M-3	03/17/97	8.41	N/A	N/A	N/A	87.79	79.38	N/A	
M-3	04/09/97	7.41	N/A	N/A	N/A	87.79	80.38	N/A	
M-3	04/16/97	5.78	N/A	N/A	N/A	87.79	82.01	N/A	
M-3	04/23/97	7.61	N/A	N/A	N/A	87.79	80.18	N/A	
M-3	05/01/97	6.51	N/A	N/A	N/A	87.79	81.28	N/A	
M-3	05/07/97	5.62	N/A	N/A	N/A	87.79	82.17	N/A	
M-3	05/13/97	5.04	N/A	N/A	N/A	87.79	82.75	N/A	
M-3	05/21/97	5.18	N/A	N/A	N/A	87.79	82.61	N/A	
M-3	05/28/97	5.41	N/A	N/A	N/A	87.79	82.38	N/A	
M-3	06/04/97	5.50	N/A	N/A	N/A	87.79	82.29	N/A	
M-3	06/11/97	5.08	N/A	N/A	N/A	87.79	82.71	N/A	; ·· · · · · · · · · · · · · · · ·
M-3	06/18/97	5.35	N/A	N/A	N/A	87.79	82.44	N/A	+ ** * * * ** *** ** * * * * * * * * *
M-3	06/27/97	5.50	N/A	N/A	N/A	87.79	82.29	N/A	· · · · · · · · · · · · · · · · · · ·
M-3	07/02/97	5.28	N/A	N/A	N/A	87.79	82.51	N/A	

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WELL NUMBER	DATE	WATER LEVEL (feet)	PRODUCT LEVEL (feet)	PRODUCT THICKNESS (feet)	PRODUCT RECOVERED (Total gallons)	TOR REF. ELEV.	WATER ELEV. (feet)	PRODUCT ELEV. (feet)	COMMENTS
M-3	07/09/97	4.96	N/A	N/A	N/A	87.79	82.83	N/A	COMMENTO
M-3	08/21/97	4.81	N/A	N/A	N/A	87.79	82.98	N/A	
M-3	11/10/97	6.07	N/A	N/A	N/A	87.79	81.72	N/A	
M-3	01/21/98	$\frac{6.07}{6.92}$	N/A	N/A	N/A	87.79	80.87	N/A	
M-3	01/21/98	6.86	N/A	N/A	N/A	87.79	80.93	N/A	
M-3	02/05/98	7.26	N/A	- <u>N/A</u>	N/A	87.79	80.53	N/A	
M-3	02/03/98	7.30	N/A	N/A	N/A	87.79	80.49	N/A	Ditch empty
M-3	02/11/98	7.56	N/A	N/A	N/A	87.79	80.23	N/A	Ditch empty
M-3	02/15/98	7.69	N/A	N/A	N/A	87.79	80.10	N/A	Ditch empty
M-3	03/04/98	7.95	N/A	N/A	N/A	87.79	79.84	- <u>N/A</u>	Ditch empty
M-3	03/04/98	8.09	N/A	N/A	N/A	87.79	79.70	N/A	Ditch empty
M-3	03/11/98	7.85	N/A	N/A	N/A	87.79	79.94	N/A	Ditch empty
M-3	03/15/98	7.74	N/A	N/A	N/A	87.79	80.05	N/A	Ditch empty
M-3	03/23/98	6.77	N/A	N/A	<u>N/A</u>	87.79	81.02	N/A	Ditch running
M-3	04/02/98	6.20	N/A	N/A	N/A	87.79	81.59	<u>N/A</u> -	Ditch running
M-3	04/05/98	5.80	N/A	N/A	N/A	87.79	81.99	N/A	Ditch running
M-3	04/13/98	5.25	N/A	N/A	N/A	87.79	82.54	N/A	Ditch running
M-3	04/29/98	5.07	N/A	N/A	T N/A	87.79	82.72	N/Ã	Ditch running
M-3	05/08/98	4.67	N/A	N/A		87.79	83.12	N/A	Ditch running
	00/00/30	4.07		11/0	1 11/7		1 00.12	13//	The state of the s
M-4	02/19/98	5.36	N/A	N/A	N/A	88.01	82.65	N/A	
M-4	02/15/90	6.96	N/A	N/A	- N/A	88.01	81.05	N/A	
M-4	02/26/97	6.87	N/A	N/A	<u>N/A</u>	88.01	81.14	N/A	
M-4	03/03/97	4.79	N/A	N/A	N/A	88.01	83.22	N/A	
M-4	03/12/97	7.43	N/A	N/A	N/A	88.01	80.58	N/A	
M-4	04/09/97	6.65	N/A -		↓ N/A N/A	88.01	81.36	N/A	
M-4	04/09/97	5.78	N/A	N/A		88.01	82.23	N/A	· · · · · · · · · · · · · · · · · · ·
M-4	04/10/97	6.10	N/A N/A	<u>N/A</u> .	, <u>N/A</u> N/A	88.01	81.91	N/A	
	05/01/97	4.65	N/A N/A	N/A	N/A	88.01	83.36	1N/A N/A	
M-4	05/07/97	3.45	N/A N/A	. N/A . N/A	,	88.01	84.56	, <u>N/A</u> N/A	
M-4	05/07/97	3.45	IN/A	. IN/A	IN/A	00.01	04.00	in/A	

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WELL NUMBER	DATE	WATER LEVEL (feet)	PRODUCT LEVEL (feet)	PRODUCT THICKNESS (feet)	PRODUCT RECOVERED (Total gallons)	TOR REF. ELEV.	WATER ELEV. (feet)	PRODUCT ELEV. (feet)	COMMENTS
M-4	05/13/97	3.33	N/A	N/A	N/A	88.01	84.68	N/A	
M-4	05/21/97	3.64	N/A	N/A	N/A	88.01	84.37	N/A	
M-4	05/28/97	3.92	N/A	N/A	N/A	88.01	84.09	N/A	
M-4	06/04/97	3.78	N/A	N/A	N/A	88.01	84.23	N/A	
M-4	06/11/97	3.45	N/A	N/A	N/A	88.01	84.56	N/A	
M-4	06/18/97	3.79	N/A	N/A	N/A	88.01	84.22	N/A	
M-4	06/27/97	3.79	N/A	N/A	N/A	88.01	84.22	N/A	<u></u>
M-4	07/02/97	3.69	N/A	N/A	N/A	88.01	84.32	N/A	
M-4	07/09/97	3.07	N/A	N/A	N/A	88.01	84.94	N/A	
M-4	08/21/97	2.86	N/A	N/A	N/A	88.01	85.15	N/A	
M-4	11/10/97	4.41	N/A	N/A	N/A	88.01	83.60	N/A	
M-4	01/21/98	5.48	N/A	N/A	N/A	88.01	82.53	N/A	
M-4	01/28/98	5.59	N/A	N/A	N/A	88.01	82.42	N/A	
M-4	02/05/98	5.76	N/A	N/A	N/A	88.01	82.25	N/A	
M-4	02/11/98	5.86	N/A	N/A	N/A	88.01	82.15	N/A	Ditch empty
M-4	02/19/98	6.08	N/A	N/A	N/A	88.01	81.93	N/A	Ditch empty
M-4	02/25/98	6.17	N/A	N/A	N/A	88.01	81.84	N/A	Ditch empty
M-4	03/04/98	6.37	N/A	N/A	N/A	88.01	81.64	N/A	Ditch empty
M-4	03/11/98	6.42	N/A	N/A	N/A	88.01	81.59	N/A	Ditch empty
M-4	03/18/98	6.21	N/A	N/A	N/A	88.01	81.80	N/A	Ditch empty
M-4	03/25/98	6.12	N/A	N/A	N/A	88.01	81.89	N/A	Ditch empty
M-4	04/02/98	4.54	N/A	N/A	N/A	88.01	83.47	N/A	Ditch running
M-4	04/08/98	3.97	N/A	N/A	N/A	88.01	84.04	N/A	Ditch running
M-4	04/15/98	3.73	N/A	N/A	N/A	88.01	84.28	N/A	Ditch running
M-4	04/23/98	3.34	N/A	N/A	N/A	88.01	84.67	N/A	Ditch running
M-4	04/29/98	3.42	N/A	N/A	N/A	88.01	84.59	+	Ditch running
M-4	05/08/98	2.98	N/A	N/A	N/A	88.01	85.03	N/A	Ditch running
M-5	02/19/98	8.49	N/A	N/A	N/A	86.82	78.33	N/A	<u> </u>
M-5	02/26/97	6.59	N/A	N/A	N/A	86.82	80.23	N/A	

WELL		WATER LEVEL	PRODUCT LEVEL	PRODUCT THICKNESS	PRODUCT RECOVERED	TOR REF.	WATER ELEV.	PRODUCT	
NUMBER	DATE	(feet)	(feet)	(feet)	(Total gallons)	ELEV.	(feet)	ELEV. (feet)	COMMENTS
M-5	03/05/97	6.69	N/A	N/A	N/A	86.82	80.13	N/A	
M-5	03/12/97	6.74	N/A	N/A	N/A	86.82	80.08	N/A	
M-5	03/17/97	6.99	N/A	N/A	N/A	86.82	79.83	N/A	
M-5	04/09/97	6.92	N/A	N/A	N/A	86.82	79.90	N/A	
M-5	04/16/97	7.32	N/A	N/A	N/A	86.82	79.50	N/A	
M-5	04/23/97	7.32	N/A	N/A	N/A	86.82	79.50	N/A	
M-5	05/01/97	5.50	N/A	N/A	N/A	86.82	81.32	N/A	
M-5	05/07/97	3.88	N/A	N/A	N/A	86.82	82.94	N/A	
M-5	05/13/97	4.30	N/A	N/A	N/A	86.82	82.52	N/A	
M-5	05/21/97	4.76	N/A	N/A	N/A	86.82	82.06	N/A	
M-5	05/28/97	5.10	N/A	N/A	N/A	86.82	81.72	N/A	
M-5	06/04/97	4.79	N/A	N/A	N/A	86.82	82.03	N/A	
M-5	06/11/97	4.55	N/A	N/A	N/A	86.82	82.27	N/A	
M-5	06/18/97	5.00	N/A	N/A	N/A	86.82	81.82	N/A	
M-5	06/27/97	4.89	N/A	N/A	N/A	86.82	81.93	N/A	
M-5	07/02/97	4.81	N/A	N/A	N/A	86.82	82.01	N/A	
M-5	07/09/97	4.06	N/A	N/A	N/A	86.82	82.76	N/A	
M-5	08/21/97	3.40	N/A	N/A	N/A	86.82	83.42	N/A	
M-5	11/10/97	5.32	N/A	N/A	N/A	86.82	81.50	N/A	
M-5	01/21/98	6.75	N/A	N/A	N/A	86.82	80.07	N/A	
M-5	01/28/98	6.81	N/A	N/A	N/A	86.82	80.01	N/A	
M-5	02/05/98	7.60	N/A	N/A	N/A	86.82	79.22	N/A	
M-5	02/11/98	7.12	N/A	N/A	N/A	86.82	79.70	N/A	Ditch empty
M-5	02/19/98	7.28	N/A	N/A	N/A	86.82	79.54	N/A	Ditch empty
M-5	02/25/98	7.37	N/A	N/A	N/A	86.82	79.45	N/A	Ditch empty
M-5	03/04/98	7.55	N/A	N/A	N/A	86.82	79.27	N/A	Ditch empty
M-5	03/11/98	7.62	N/A	N/A	N/A	86.82	79.20	N/A	Ditch empty
M-5	03/18/98	7.43	N/A	N/A	N/A	86.82	79.39	N/A	Ditch empty
M-5	03/25/98	7.36	N/A	N/A	N/A	86.82	79.46	N/A	Ditch empty
M-5	04/02/98	5.00	N/A	N/A	N/A	86.82	81.82	N/A	Ditch running

WELL NUMBER	DATE	WATER LEVEL (feet)	PRODUCT LEVEL (feet)	PRODUCT THICKNESS (feet)	PRODUCT RECOVERED (Total gallons)	TOR REF. ELEV.	WATER ELEV. (feet)	PRODUCT ELEV. (feet)	COMMENTS
M-5	04/08/98	4.43	N/A	N/A	N/A	86.82	82.39	N/A	Ditch running
M-5	04/15/98	4.43	N/A	N/A	N/A	86.82	82.39	N/A	Ditch running
M-5	04/23/98	4.21	N/A	N/A	N/A	86.82	82.61	N/A	Ditch running
M-5	04/29/98	4.39	N/A	N/A	N/A	86.82	82.43	N/A	Ditch running
M-5	05/08/98	4.15	N/A	N/A	N/A	86.82	82.67	N/A	Ditch running

Table 2 - Summary of BTEX Results

TABLE 2 JAQUEZ COM. C #1 & JAQUEZ COM. E #1 MONITOR WELL SUMMARY

		Date			Ethyl-	Total	Total	PAH	Floating	
Well	Sample	of	Benzene	Toluene	Benzene	Xylene	BTEX	Analysis	Product	Nitrates
Number	Number	Sample	ug/L	ug/L	ug/L	ug/L	ug/L	Performed	Inches	PPM
R-1	N30969	9/7/93	991	164	113	1111	2379	No	ND	NA
R-1	N31056	10/4/93	1280	1328	74	799	3481	No	1"	NA
R-1	N31240	11/10/93	242	322	15.0	93.9	673	No	ND	NA
R-1	N31384	12/15/93	328	411	26.6	196	962	No	ND	NA
R-1	940026	1/12/94	1830	1965	90.3	1053	4938	No	17"	NA
R-1	940233	2/9/94	1255	1504	42.3	730	3531	No	32"	NA
R-1	940491	3/7/94	7600	8500	280	2700	19080	Yes	4"	NA
R-1	N/A	5/17/94	No Test	No	10"	NA				
R-1	941003	6/13/94	1450	1930	70.0	944	4394	No	11"	NA
R-1	N/A	9/7/94	No Test	No	2"	NA				
R-1	941619	12/15/94	1890	2130	105.0	990	5115	No	TR	NA
R-1	N/A	8/25/95	No Test	No	TR	NA				
R-1	951178	11/2/95	2330	2400	108	946	5784	No	ND	NA
R-1	N/A	2/5/96	No Test	Yes	0.24"	NA				
R-1	N/A	5/28/96	No Test	No	4.8"	NA				
R-1	960684	8/6/96	2970	3080	130	1200	7380	No	TR	NA
R-1	960900	10/28/96	1690	1970	60.8	800	4520	No	ND	NA
R-1	961007	11/20/96	1240	1540	61.9	600	3450	No	ND	NA
R-1	N/A	2/19/97	No Test	No	29.76"	NA				
R-2	N30970	9/7/93	278	651	59.0	538	1526	No	ND	NA
R-2	N31057	10/4/93	509	789	73.0	741	2112	No	ND	NA
R-2	N31241	11/10/93	284	470	38.0	401	1193	No	ND	NA
R-2	N31385	12/15/93	529	864	65.3	709	2167	No	1"	NA
R-2	940027	1/12/94	1722	2501	150	1702	6075	No	24"	NA
R-2	940234	2/9/94	2806	3667	89.5	1520	8083	No	26"	NA

		Date			Ethyl-	Total	Total	PAH	Floating	
Well	Sample	of	Benzene	Toluene	Benzene	Xylene	BTEX	Analysis	Product	Nitrates
Number	Number	Sample	ug/L	ug/L	ug/L	ug/L	ug/L	Performed	Inches	PPM
R-2	940492	3/7/94	5600	6800	290	2700	15390	Yes	4"	NA
R-2	N/A	5/17/94	No Test	No	7"	NA				
R-2	941004	6/13/94	3210	3790	139	1670	8809	No	7"	NA
R-2	N/A	9/7/94	No Test	No	ND	NA				
R-2	941620	12/15/94	1140	2200	148	1520	5008	No	0.6"	NA
R-2	N/A	8/25/95	No Test	No	TR	NA				
R-2	951179	11/2/95	1250	2030	116	1010	4406	No	TR	NA
R-2	N/A	2/5/96	No Test	Yes	2.52	NA				
R-2	N/A	5/28/96	No Test	No	2.04"	NA				
R-2	960685	8/6/96	2610	3960	165	1540	8275	No	0.72"	NA
R-2	960901	10/28/96	1100	2300	85.4	1100	4585	No	0.96"	NA
R-2	961009	11/20/96	428	1340	87.3	821	2680	No	0.48"	NA
R-2	N/A	2/19/97	No Test	No	NA	NA				
R-3	N30971	9/7/93	<2.0	61.4	22.0	207	290	No	ND	NA
R-3	N31058	10/4/93	21	179	32.0	310	542	No	ND	NA
R-3	N31242	11/10/93	6.19	27.7	10.4	89.2	134	No	ND	NA
R-3	N31386	12/15/93	26	88.4	19.4	178	312	No	ND	NA
R-3	940028	1/12/94	4.4	2.9	2.7	18	28	No	ND	NA
R-3	940235	2/9/94	<2.0	10.9	8.3	59.6	79	No	ND	NA
R-3	940493	3/7/94	7.7	43	24	220	295	Yes	ND	NA
R-3	N/A	5/17/94	No Test	No	ND	NA				
R-3	941005	6/13/94	3.03	41.4	18.4	188	251	No	ND	NA
R-3	941259	9/7/94	<2.5	18	6.9	67.9	93	No	ND	NA
R-3	941621	12/15/94	11.7	12.2	12.4	114	150	No	ND	NA
R-3	950099	2/9/95	7.36	2.7	2.68	20.8	34	Yes	ND	NA
R-3	950562	5/8/95	16.6	11.7	13.9	126	168	No	ND	NA
R-3	950896	8/25/95	<2.5	15.2	13.6	101	130	No	ND	NA
R-3	951180	11/2/95	<2.5	14.0	9.3	82	105	No	ND	NA
R-3	960095	2/5/96	5.34	14.0	12.8	108	140	Yes	ND	NA
R-3	960479	5/28/96	1.05	18.7	22.9	203	246	No	ND	NA
R-3	960686	8/6/96	1.24	24.7	25.9	236	288	No	ND	NA

		Date			Ethyl-	Total	Total	PAH	Floating	
Well	Sample	of	Benzene	Toluene	Benzene	Xylene	BTEX	Analysis	Product	Nitrates
Number	Number	Sample	ug/L	ug/L	ug/L	ug/L	ug/L	Performed	Inches	PPM
R-3	960902	10/28/96	<1.0	10.7	12.6	109	132	No	ND	NA
R-3	961010	11/20/96	<1.0	12.5	12.4	114	139	No	ND	NA
R-3	970124	2/19/97	2.12	1.9	2.29	12.6	19	Yes	ND	NA
R-3	970501	5/28/97	<1.0	15.3	13.5	130	159	No	ND	<1.2
R-3	970917	8/21/97	<1.0	20.8	18.6	176	215	No	ND	<1.2
R-3	971196	11/10/97	<1.0	13.6	17.2	149	180	No	ND	<1.2
R-3	980164	2/18/98	<1.0	<1	<1	<3	<6	Yes	ND	<1.2
R-4	N30972	9/7/93	104	267	39.9	370	781	No	ND	NA
R-4	N31060	10/4/93	118	266	41	364	789	No	ND	NA
R-4	N31243	11/10/93	93.6	132	40.4	347	613	No	ND	NA
R-4	N31387	12/15/93	102	161	48.4	418	729	No	ND	NA
R-4	940030	1/12/94	124	101	38.5	353	617	No	ND	NA
R-4	940237	2/9/94	120	51.4	20.8	150	342	No	ND	NA
R-4	940494	3/7/94	150	63	20	190	423	Yes	ND	NA
R-4	N/A	5/17/94	No Test	No	ND	NA				
R-4	941007	6/13/94	179	60.6	17.2	176	433	No	ND	NA
R-4	941260	9/7/94	238	102	26	218	584	No	ND	NA
R-4	941622	12/15/94	222	63.3	26.9	213	525	No	ND	NA
R-4	950100	2/9/95	273	61	20.4	165	519	Yes	ND	NA
R-4	950564	5/8/95	278	251	23.1	220	772	No	ND	NA
R-4	950897	8/25/95	646	278	50.8	544	1519	No	ND	NA
R-4	951181	11/2/95	343	60.4	35.1	284	723	No	ND	NA
R-4	960097	2/5/96	218	43.3	23.1	200	484	Yes	ND	NA
R-4	960481	5/28/96	716	199.0	36.6	394	1346	No	ND	NA
R-4	960687	8/6/96	384	156.0	24	275	839	No	ND	NA
R-4	960904	10/28/96	320	53.4	20.1	237	631	No	ND	NA
R-4	9601011	11/20/96	289	31.2	19.3	220	560	No	ND	NA
R-4	970125	2/19/97	162	65.9	34.4	337	599	Yes	ND	NA
R-4	970503	5/28/97	189	92.5	13.3	144	439	No	ND	<1.2
R-4	970918	8/21/97	343	377.0	45.5	408	1174	No	ND	<1.2
R-4	971197	11/10/97	542	129.0	31.1	267	969	No	ND	<1.2

		Date			Ethyl-	Total	Total	PAH	Floating	
Well	Sample	of	Benzene	Toluene	Benzene	Xylene	BTEX	Analysis	Product	Nitrates
Number	Number	Sample	ug/L	ug/L	ug/L	ug/L	ug/L	Performed	Inches	PPM
R-4	980166	2/18/98	98.0	15.9	10.0	79.3	203	Yes	ND	<1.2
	-									
R-5	N30973	9/7/93	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
R-5	N31061	10/4/93	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
R-5	N31244	11/10/93	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
R-5	N31388	12/15/93	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
R-5	940031	1/12/94	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
R-5	940238	2/9/94	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
R-5	940496	3/7/94	<0.5	<0.5	<0.5	<0.5	N/A	Yes	ND	NA
R-5	N/A	5/17/94	No Test	No	ND	NA				
R-5	941008	6/13/94	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
R-5	941261	9/7/94	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
R-5	941623	12/15/94	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
R-5	950102	2/9/95	<2.5	<2.5	<2.5	<2.5	N/A	Yes	ND	NA
R-5	950565	5/8/95	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
R-5	950898	8/25/95	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
R-5	951182	11/2/95	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
R-5	960098	2/5/96	<2.5	<2.5	<2.5	<2.5	N/A	Yes	ND	NA
R-5	960482	5/28/96	<1.0	<1.0	<1.0	<1.0	N/A	No	ND	NA
R-5	960689	8/6/96	<1.0	<1.0	<1.0	<1.0	N/A	No	ND	NA
R-5	960905	10/28/96	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	NA
R-5	961012	11/20/96	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	NA
R-5	970127	2/19/97	<1.0	<1.0	<1.0	<3.0	N/A	Yes	ND	NA
R-5	970504	5/28/97	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	<1.2
R-5	970919	8/21/97	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	<1.2
R-5	971199	11/10/97	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	<1.2
R-5	980167	2/18/98	<1.0	<1.0	<1.0	<3.0	N/A	Yes	ND	<1.2
M-1	N30974	9/8/93	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-1	N31062	10/5/93	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-1	N31245	11/11/93	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-1	N31389	12/16/93	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA

		Date			Ethyl-	Total	Total	PAH	Floating	
Well	Sample	of	Benzene	Toluene	Benzene	Xylene	BTEX	Analysis	Product	Nitrates
Number	Number	Sample	ug/L	ug/L	ug/L	ug/L	ug/L	Performed	Inches	PPM
M-1	940032	1/13/94	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-1	940239	2/10/94	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-1	940497	3/7/94	<0.5	<0.5	<0.5	<0.5	N/A	Yes	ND	NA
M-1	N/A	5/17/94	No Test	No	ND	NA				
M-1	941009	6/13/94	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-1	941262	9/7/94	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
M-1	941624	12/15/94	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
M-1	950103	2/9/95	<2.5	<2.5	<2.5	<2.5	N/A	Yes	ND	NA
M-1	950566	5/8/95	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
M-1	950899	8/25/95	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
M-1	951183	11/2/95	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
M-1	960099	2/5/96	<2.5	<2.5	<2.5	<2.5	N/A	Yes	ND	NA
M-1	960483	5/28/96	<1.0	<1.0	<1.0	<1.0	N/A	No	ND	NA
M-1	960690	8/6/96	<1.0	<1.0	<1.0	<1.0	N/A	No	ND	NA
M-1	960906	10/28/96	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	NA
M-1	961013	11/20/96	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	NA
M-1	970128	2/19/97	<1.0	<1.0	<1.0	<3.0	N/A	Yes	ND	NA
M-1	970505	5/28/97	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	<1.2
M-1	970920	8/21/97	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	<1.2
M-1	971200	11/10/97	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	<1.2
M-1	980168	2/18/98	5.08	<1.0	<1.0	<3.0	N/A	Yes	ND	<1.2
M-2	N30975	9/8/93	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-2	N31063	10/5/93	2.0	2.0	<2.0	<2.0	4.0	No	ND	NA
M-2	N31246	11/11/93	2.3	2.0	<2.0	<2.0	4.3	No	ND	NA
M-2	N31390	12/16/93	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-2	940033	1/13/94	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-2	940240	2/10/94	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-2	940498	3/7/94	<0.5	<0.5	<0.5	<0.5	N/A	Yes	ND	NA
M-2	N/A	5/17/94	No Test	No	ND	NA				
M-2	941010	6/13/94	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-2	941263	9/7/94	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA

		Date			Ethyl-	Total	Total	PAH	Floating	
Well	Sample	of	Benzene	Toluene	Benzene	Xylene	BTEX	Analysis	Product	Nitrates
Number	Number	Sample	ug/L	ug/L	ug/L	ug/L	ug/L	Performed	Inches	PPM
M-2	941625	12/15/94	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
M-2	950104	2/9/95	<2.5	<2.5	<2.5	<2.5	N/A	Yes	ND	NA
M-2	950567	5/5/95	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
M-2	950900	8/25/95	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
M-2	951184	11/2/95	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
M-2	960100	2/5/96	<2.5	<2.5	<2.5	<2.5	N/A	Yes	ND	NA
M-2	960484	5/28/96	<1.0	<1.0	<1.0	<1.0	N/A	No	ND	NA
M-2	960691	8/6/96	<1.0	<1.0	<1.0	<1.0	N/A	No	ND	NA
M-2	960907	10/28/96	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	NA
M-2	961014	11/20/96	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	NA
M-2	970129	2/19/97	<1.0	<1.0	<1.0	<3.0	N/A	Yes	ND	NA
M-2	970506	5/28/97	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	<1.2
M-2	970921	8/21/97	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	<1.2
M-2	971201	11/10/97	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	<1.2
M-2	980169	2/18/98	<1.0	<1.0	<1.0	<3.0	N/A	Yes	ND	<1.2
M-3	N30976	9/8/93	116	<2.0	3.0	37.6	157	No	ND	NA
M-3	N31064	10/5/93	306	<2.0	4.0	19	329	No	ND	NA
M-3	N31247	11/11/93	8.4	5.3	<2.0	2.6	16	No	ND	NA
M-3	N31391	12/16/93	42	<2.0	<2.0	<2.0	42	No	ND	NA
M-3	940034	1/13/94	19	2.1	<2.0	<2.0	21	No	ND	NA
M-3	940241	2/10/94	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-3	940499	3/7/94	<0.5	<0.5	<0.5	2.5	3	Yes	ND	NA
M-3	N/A	5/17/94	No Test	No	ND	NA				
M-3	941011	6/13/94	3.65	<2.0	<2.0	<2.0	4	No	ND	NA
M-3	941264	9/7/94	2.87	<2.5	<2.5	2.5	5	No	ND	NA
M-3	941626	12/15/94	<2.5	<2.5	<2.5	5.61	6	No	ND	NA
M-3	950105	2/9/95	11.4	<2.5	<2.5	<2.5	11	Yes	ND	NA
M-3	950568	5/8/95	180	67.2	<2.5	53.9	301	No	ND	NA
M-3	950901	8/25/95	11.8	<2.5	<2.5	16.8	29	No	ND	NA
M-3	951185	11/2/95	<2.5	<2.5	<2.5	5.03	5	No	ND	NA
M-3	960101	2/5/96	236	<2.5	5.77	22.2	264	Yes	ND	NA

		Date			Ethyl-	Total	Total	PAH	Floating	
Well	Sample	of	Benzene	Toluene	Benzene	Xylene	BTEX	Analysis	Product	Nitrates
Number	Number	Sample	ug/L	ug/L	ug/L	ug/L	ug/L	Performed	Inches	PPM
M-3	960485	5/28/96	88.4	<1.0	5.93	20.3	115	No	ND	NA
M-3	960692	8/6/96	96.4	<1.0	2.5	3.27	102	No	ND	NA
M-3	960908	10/29/96	17.4	<1.0	1.55	2.23	21	No	ND	NA
M-3	961015	11/20/96	70.2	<1.0	1.89	<3	72	No	ND	NA
M-3	970130	2/19/97	2.44	<1.0	2.61	7.43	12	Yes	ND	NA
M-3	970507	5/28/97	38	6.1	<1	13.5	58	No	ND	20.1
M-3	970922	8/21/97	<1	<1	<1	7.68	8	No	ND	<1.2
M-3	971202	11/10/97	<1	<1	<1	7.68	8	No	ND	<1.2
M-3	980170	2/18/98	<1	<1	<1	<3	<6	Yes	ND	<1.2
M-4	N30977	9/8/93	213	13.3	58	519	803	No	ND	NA
M-4	N31065	10/5/93	302	2.0	55	395	754	No	ND	NA
M-4	N31248	11/11/93	234	2.0	56	383	675	No	ND	NA
M-4	N31392	12/16/93	171	<2.0	34.3	244	449	No	ND	NA
M-4	940035	1/13/94	175	2.5	38	288	504	No	ND	NA
M-4	940242	2/10/94	137	<2.0	29.8	192	359	No	ND	NA
M-4	940500	3/7/94	120	<2.5	27	220	367	Yes	ND	NA
M-4	N/A	5/17/94	No Test	No	ND	NA				
M-4	941012	6/13/94	151	<2.0	28.4	246	425	No	ND	NA
M-4	941265	9/7/94	145	<2.5	24.1	231	400	No	ND	NA
M-4	941628	12/15/94	184	<2.5	22.3	215	421	No	ND	NA
M-4	950106	2/9/95	160	<2.5	19.6	186	366	Yes	ND	NA
M-4	950569	5/8/95	108	<2.5	11.7	119	239	No	ND	NA
M-4	950902	8/25/95	29.3	<2.5	13	116	158	No	ND	NA
M-4	951187	11/2/95	15.1	<2.5	12.9	136	164	No	ND	NA
M-4	960102	2/5/96	33.5	<2.5	19.3	209	262	Yes	ND	NA
M-4	960486	5/28/96	17	<1.0	8.93	93.6	120	No	ND	NA
M-4	960693	8/6/96	2.77	<1.0	3.5	38.5	45	No	ND	NA
M-4	960909	10/29/96	1.03	<1.0	3.66	55.5	60	No	ND	NA
M-4	961016	11/22/96	3.28	<1.0	7.77	90.3	101	No	ND	NA
M-4	970131	2/19/97	17.7	1.5	8.3	54	82	Yes	ND	NA
M-4	970508	5/28/97	53.6	11.6	43.4	366	475	No	ND	225

		Date			Ethyl-	Total	Total	PAH	Floating	
Well	Sample	of	Benzene	Toluene	Benzene	Xylene	BTEX	Analysis	Product	Nitrates
Number	Number	Sample	ug/L	ug/L	ug/L	ug/L	ug/L	Performed	Inches	PPM
M-4	970923	8/2197	39.7	3.2	1.51	100	145	No	ND	20.8
M-4	971203	11/10/97	44.8	<1.0	<1.0	71	116	No	ND	1.31
M-4	980171	2/18/98	91.0	<1.0	1.1	74.9	167	Yes	ND	<1.2
M-5	N30979	9/8/93	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-5	N31066	10/5/93	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-5	N31250	11/11/93	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-5	N31393	12/16/93	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-5	940036	1/13/94	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-5	940243	2/10/94	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-5	940501	3/7/94	<0.5	<0.5	<0.5	<0.5	N/A	Yes	ND	NA
M-5	N/A	5/17/94	No Test	No	ND	NA				
M-5	941013	6/13/94	<2.0	<2.0	<2.0	<2.0	N/A	No	ND	NA
M-5	941267	9/7/94	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
M-5	941629	12/15/94	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
M-5	950107	2/9/95	<2.5	<2.5	<2.5	<2.5	N/A	Yes	ND	NA
M-5	950570	5/8/95	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
M-5	950904	8/25/95	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
M-5	951188	11/2/95	<2.5	<2.5	<2.5	<2.5	N/A	No	ND	NA
M-5	960103	2/5/96	<2.5	<2.5	<2.5	<2.5	N/A	Yes	ND	NA
M-5	960487	5/28/96	<1.0	<1.0	<1.0	<1.0	N/A	No	ND	NA
M-5	960694	8/6/96	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	NA
M-5	960910	10/29/96	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	NA
M-5	961017	11/21/96	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	NA
M-5	970132	2/19/97	<1.0	<1.0	<1.0	<3.0	N/A	Yes	ND	NA
M-5	970509	5/28/97	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	<1.2
M-5	970925	8/21/97	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	<1.2
M-5	971204	8/21/97	<1.0	<1.0	<1.0	<3.0	N/A	No	ND	<1.2
M-5	980172	2/18/98	<1.0	<1.0	<1.0	<3.0	N/A	Yes	ND	<1.2

Figure 1 - Site Map

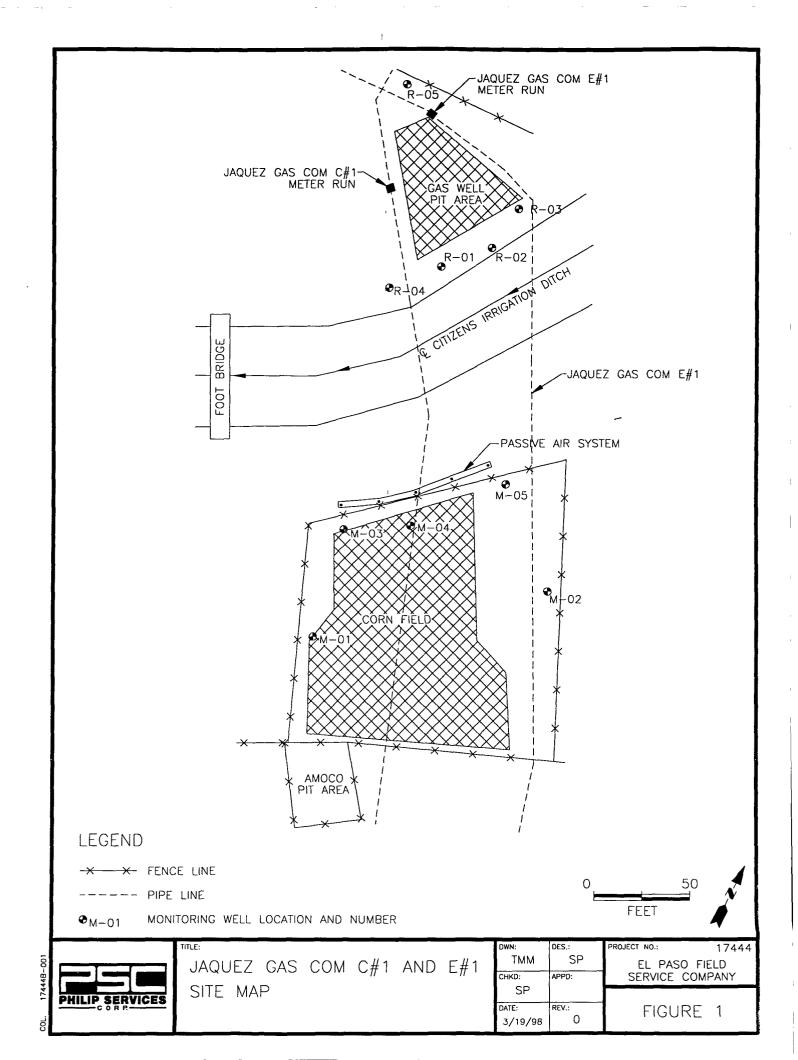
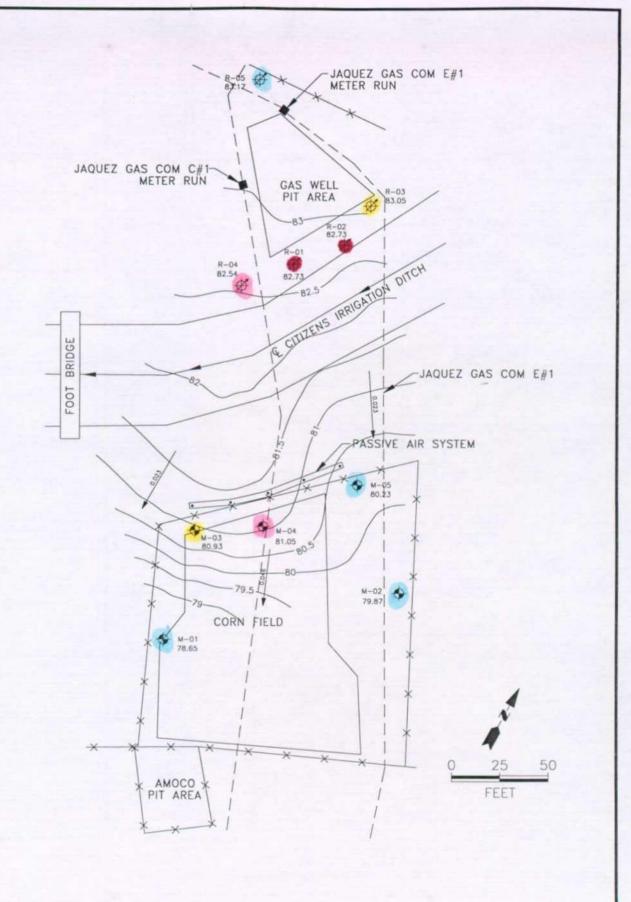


Figure 2 - 1997 1st Quarter Groundwater Elevation Map



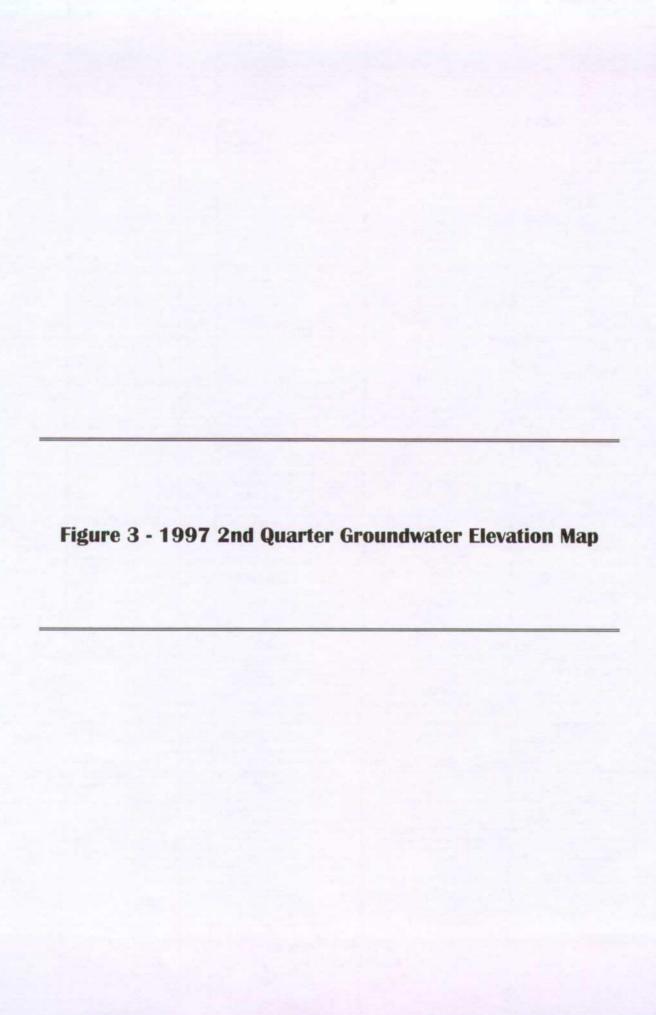


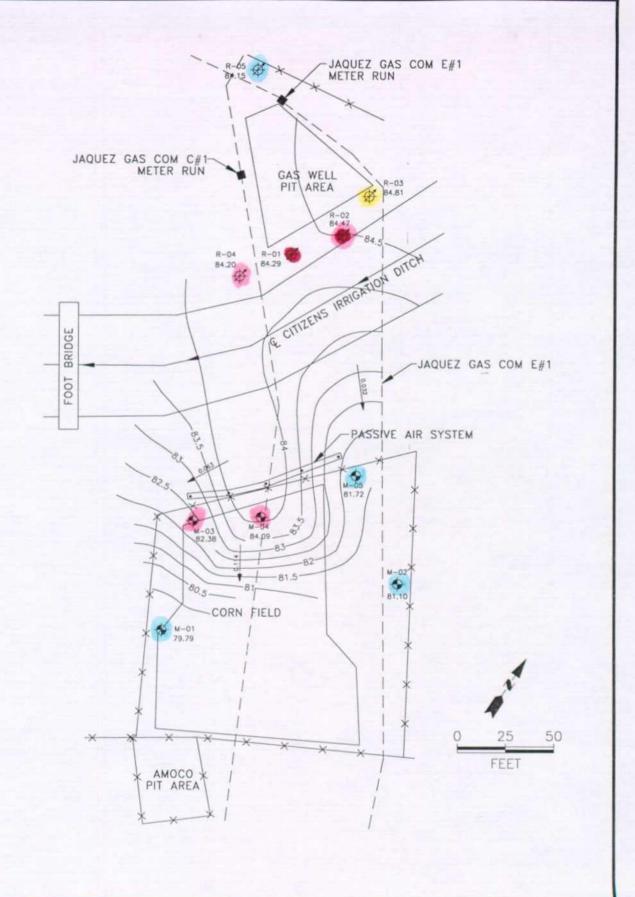
JAQUEZ GAS COM E#1 & C#1
GROUNDWATER ELEVATION CONTOURS
FEBRUARY 26, 1997

DWN:	DES.:	1
MRC	SP	ı
СНКО:	APPD:	ŀ
DATE: 03/18/98	REV.:	١

EL PASO FIELD SERVICES COMPANY

G:\PENG-NM\HYDRO\MAPS\9702GW







JAQUEZ GAS COM E#1 & C#1
GROUNDWATER ELEVATION CONTOURS
MAY 28, 1997

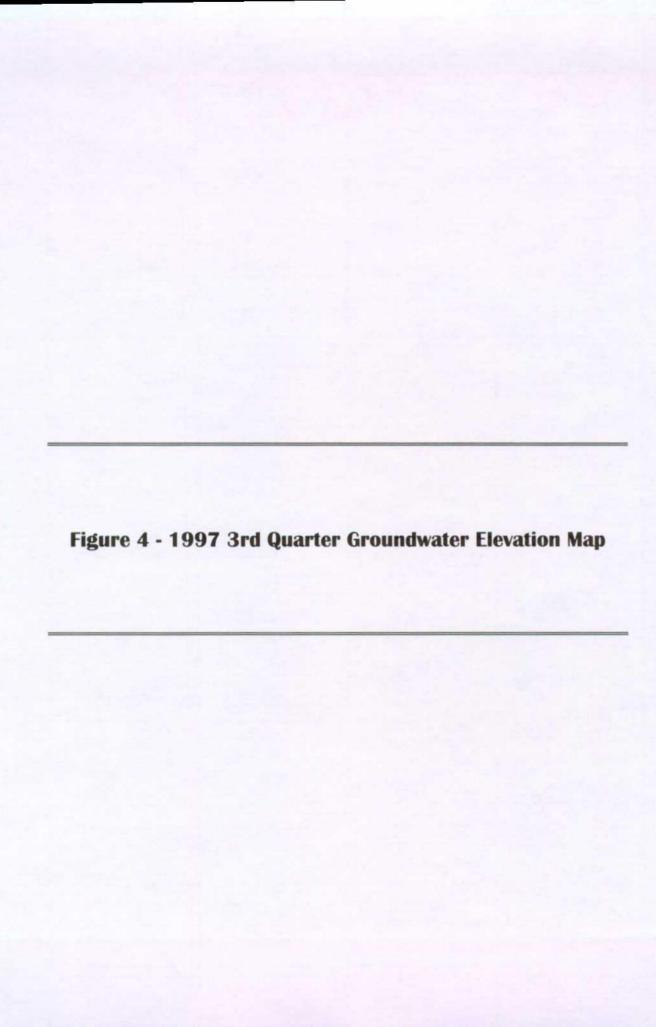
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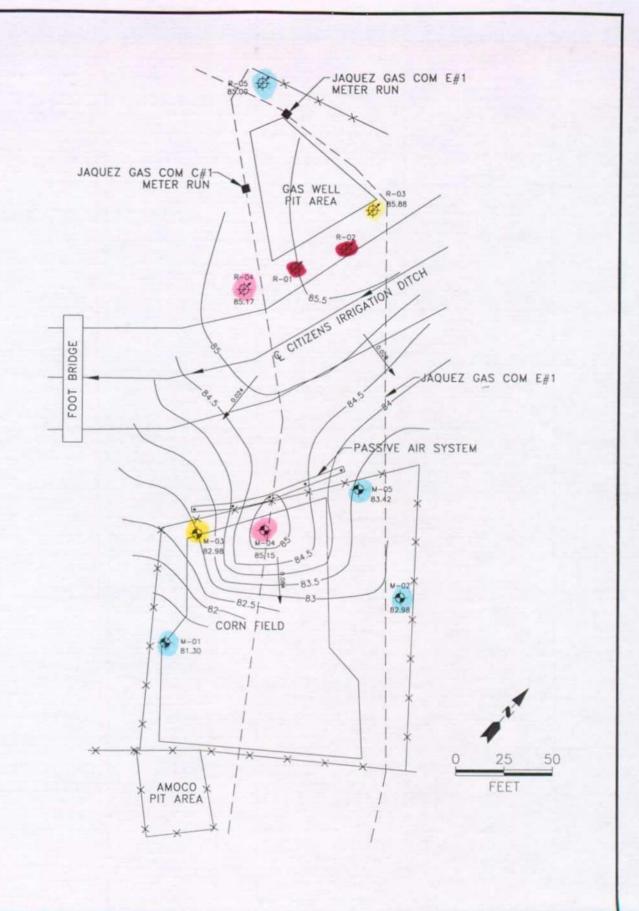
PROJECT NO.: 17444

EL PASO FIELD
SERVICES COMPANY

FIGURE 3

PENG-NW\HYDRO\MAPS\05970W.DWG





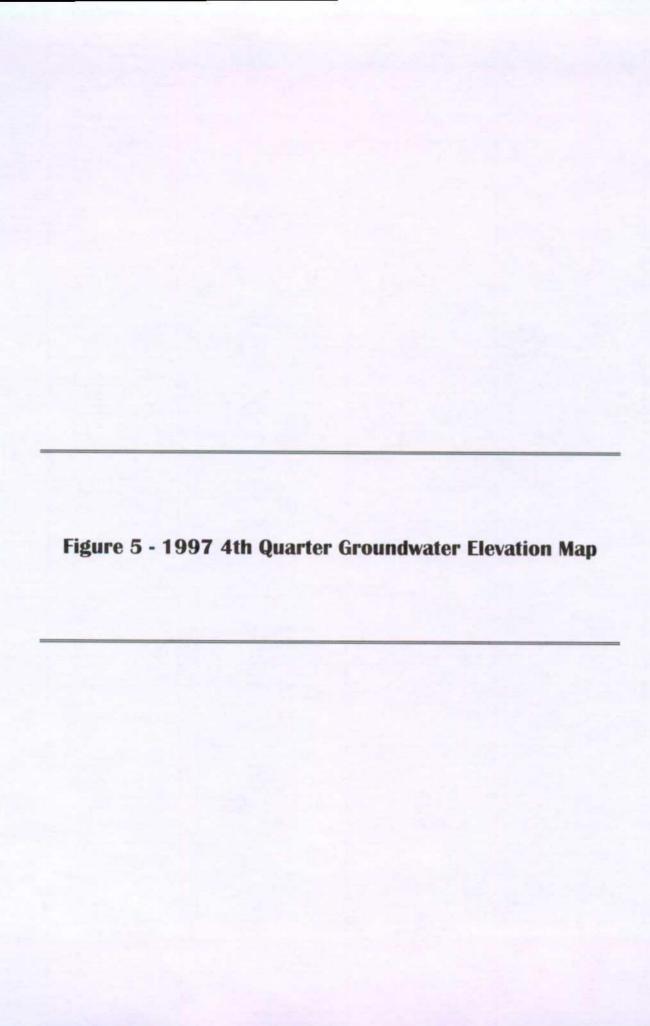


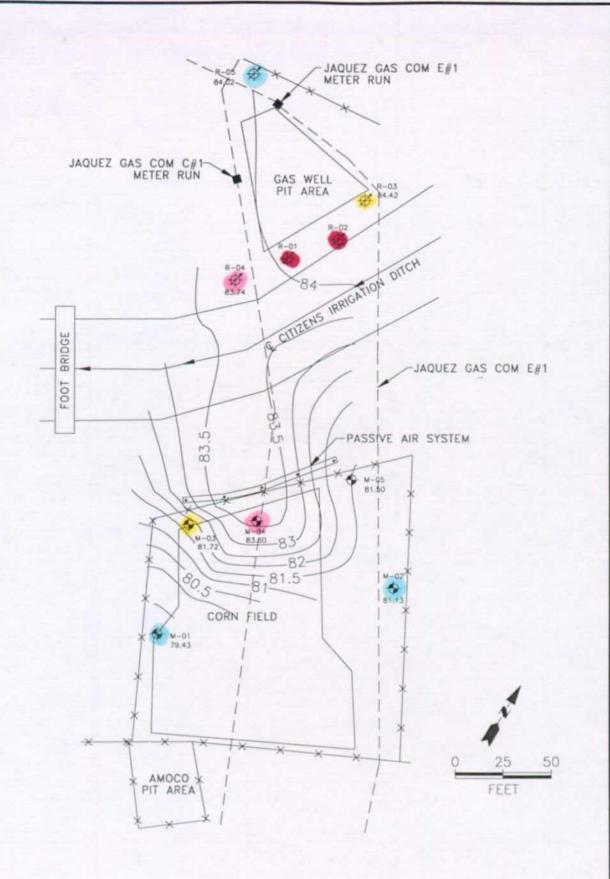
JAQUEZ GAS COM E#1 & C#1
GROUNDWATER ELEVATION CONTOURS
AUGUST 21, 1997

OWN: MRC	DES.: SP	F
CHKD:	APPO:	ŀ
DATE: 03/18/98	REV.:	١

EL PASO FIELD SERVICES COMPANY

OL1 G:\PENG-NM\HYDRO\MAPS\9708





PHILIP SERVICES

JAQUEZ GAS COM E#1 & C#1
GROUNDWATER ELEVATION CONTOURS
NOVEMBER 28, 1997

MRC MRC	DES.: SP	P
CHKD:	APPD:	ŀ
DATE: 03/18/98	REV.:	

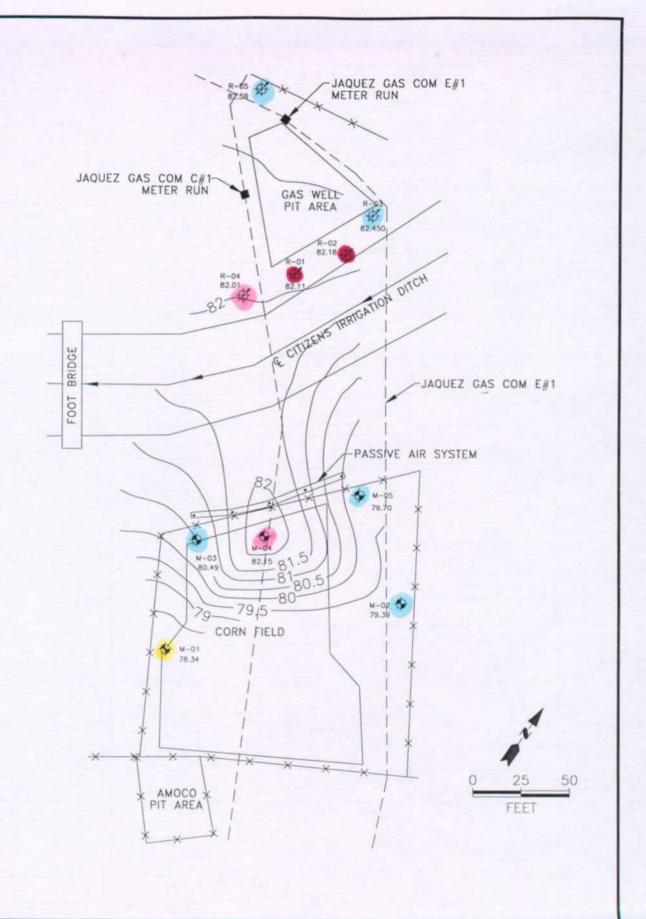
ROJECT NO.: 17444

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FIGURE 5

Figure 6 - 1998 1st Quarter Groundwater Elevation Map





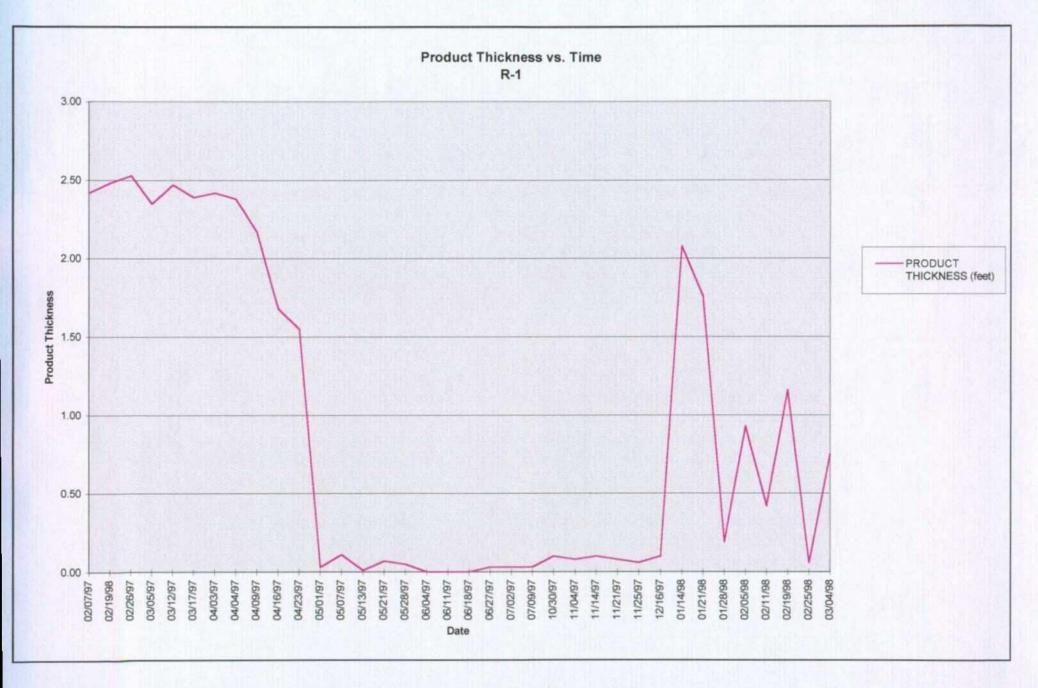
JAQUEZ GAS COM E#1 & C#1 GROUNDWATER ELEVATION CONTOURS FEBRUARY 11, 1998

DWN: MRC	DES.:	P
снкр:	APPD:	L
DATE:	REV.:	1
03/18/98	В	1

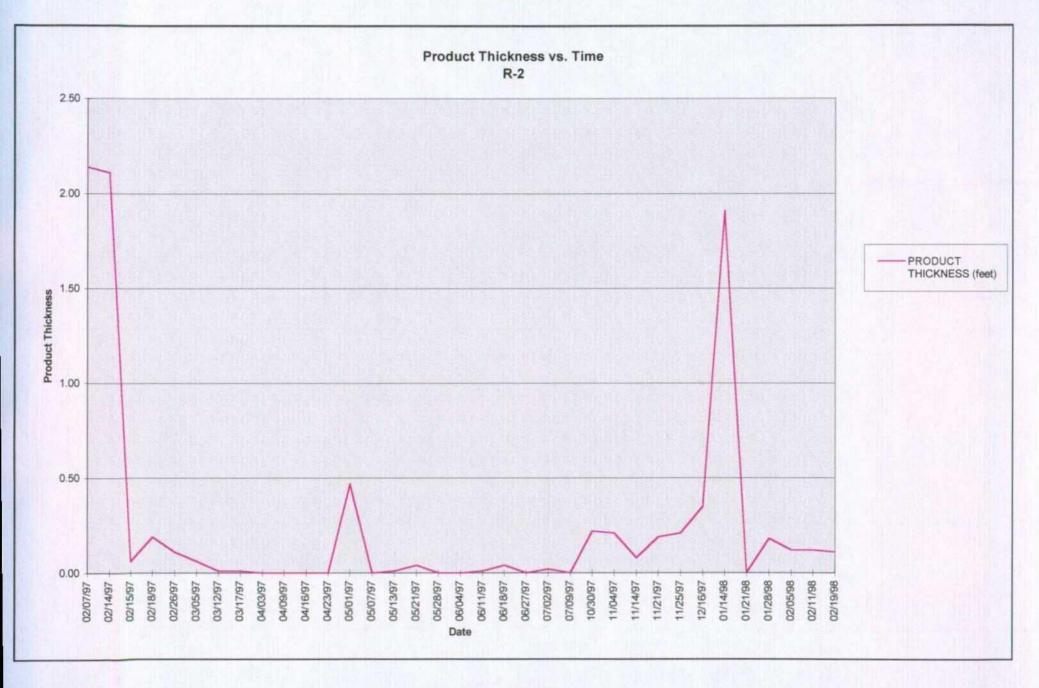
PROJECT NO .: 17444 EL PASO FIELD SERVICES COMPANY

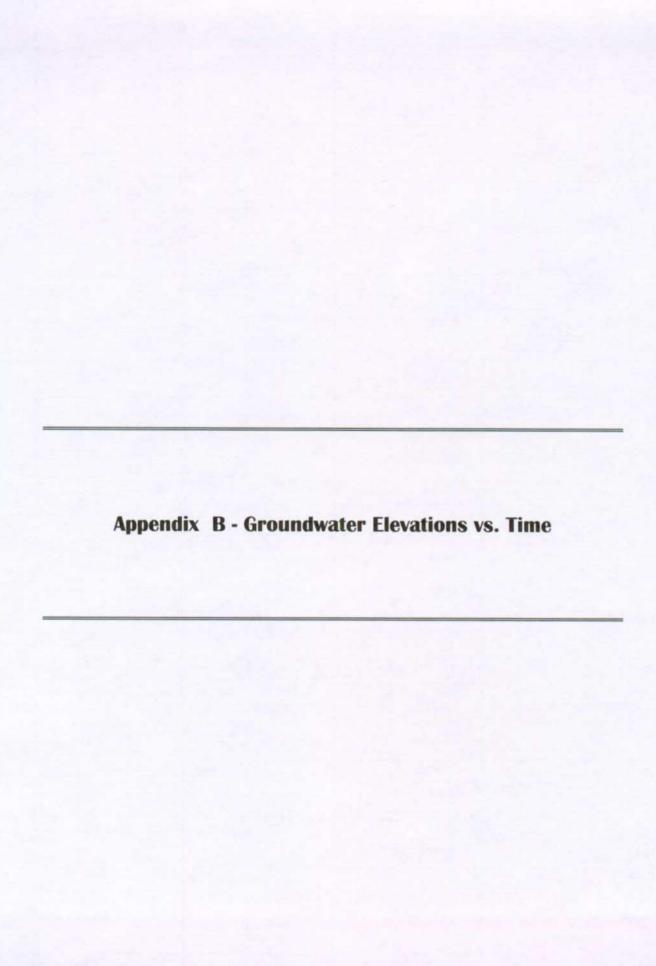
FIGURE 6

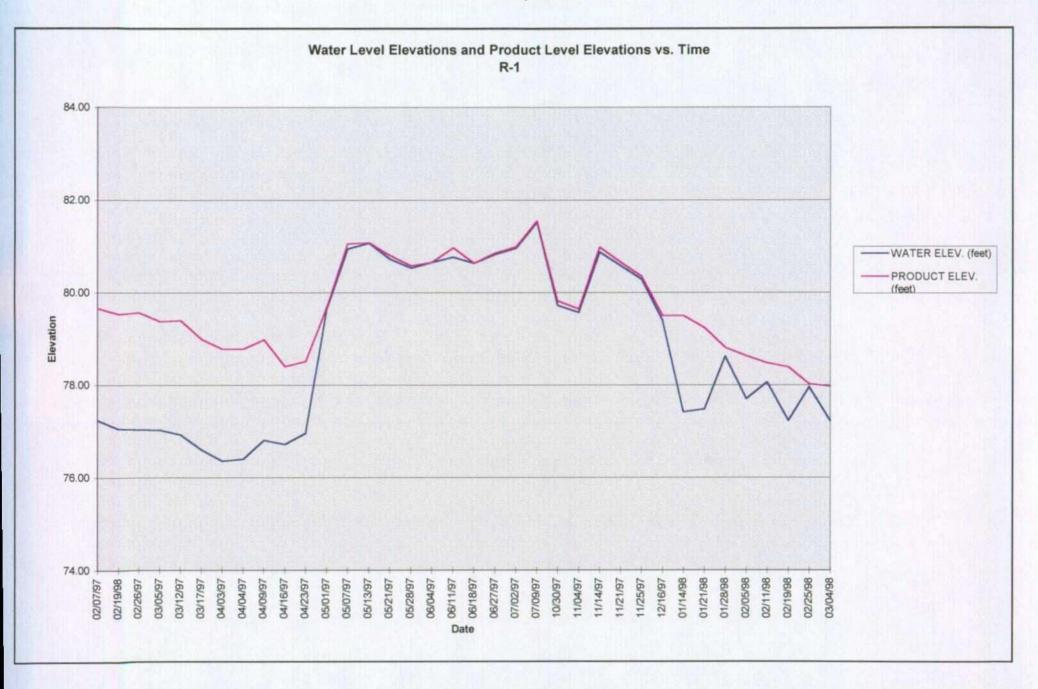




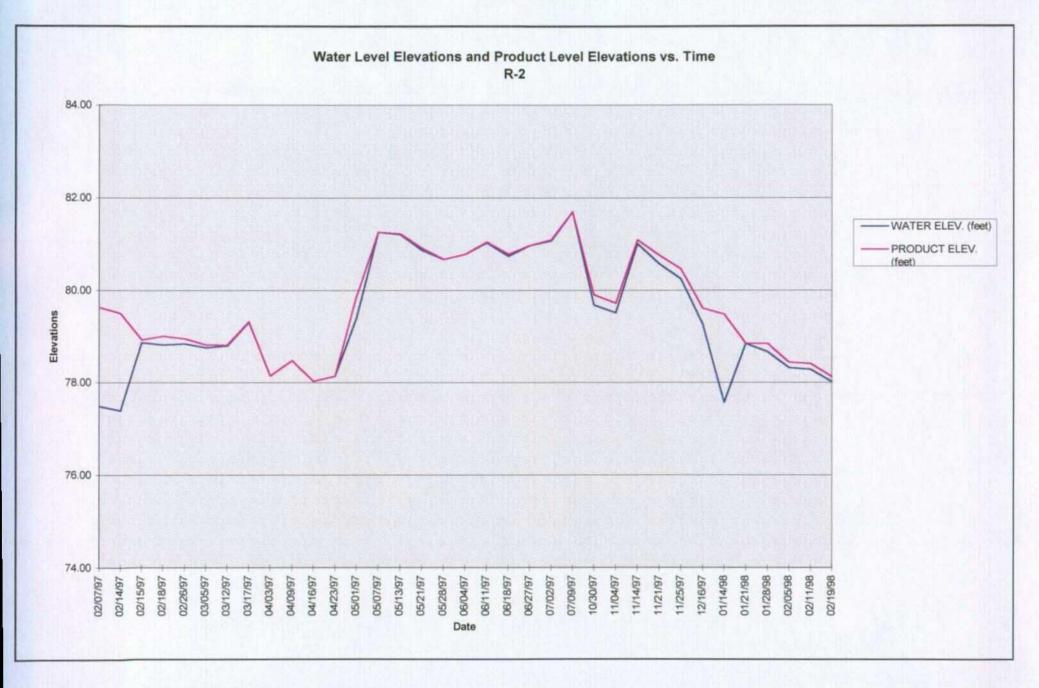
Page 1

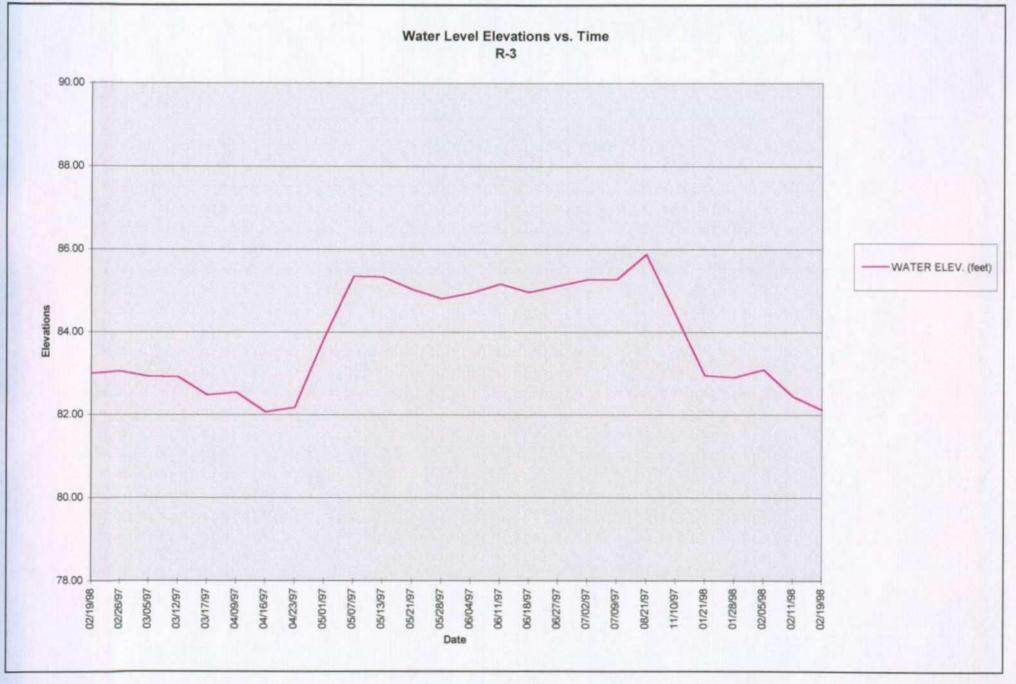






Page 1

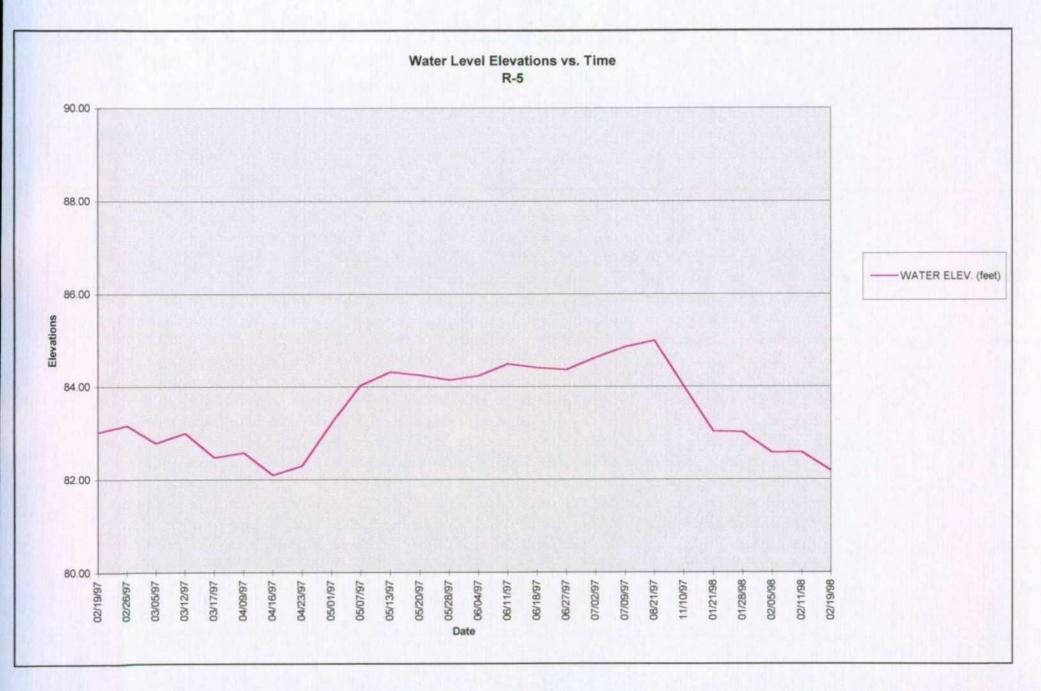




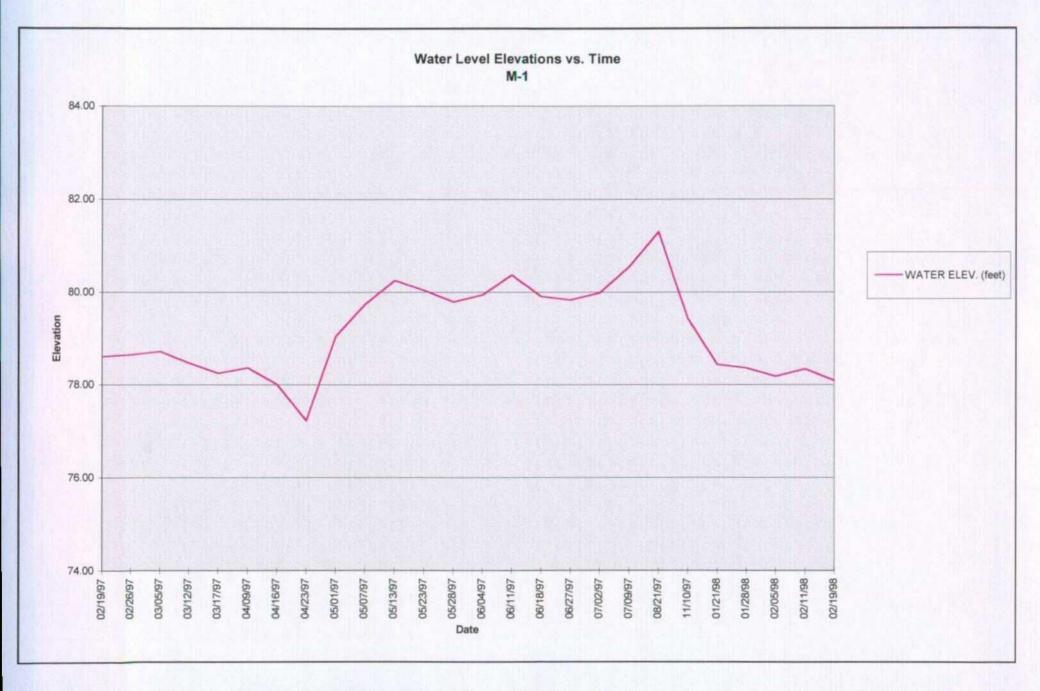
Page 1



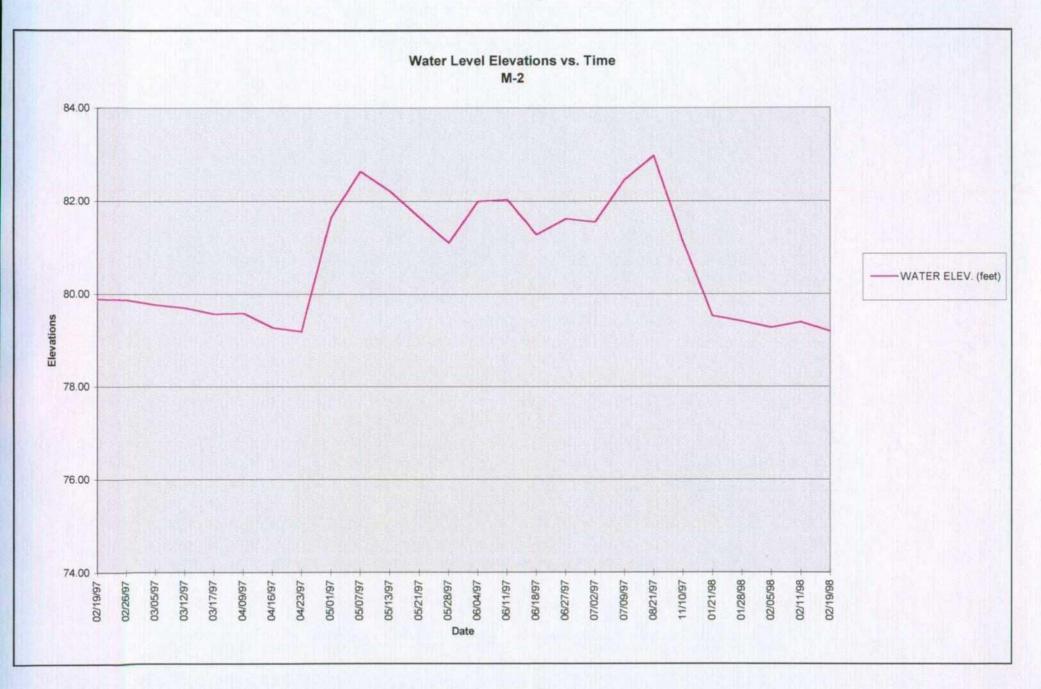
Page 1



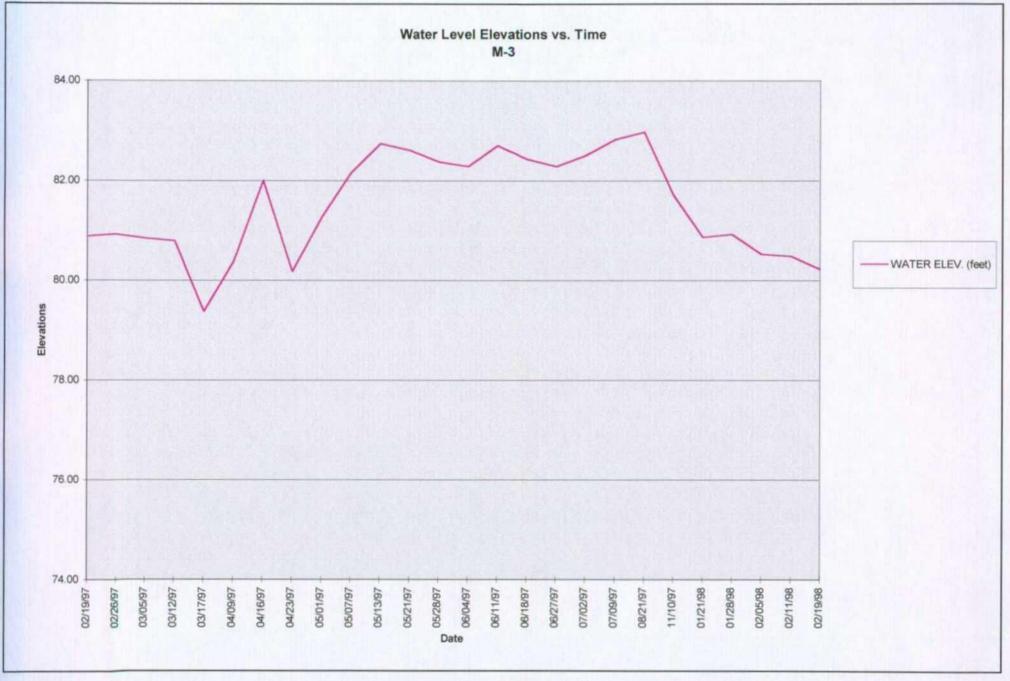
Page 1



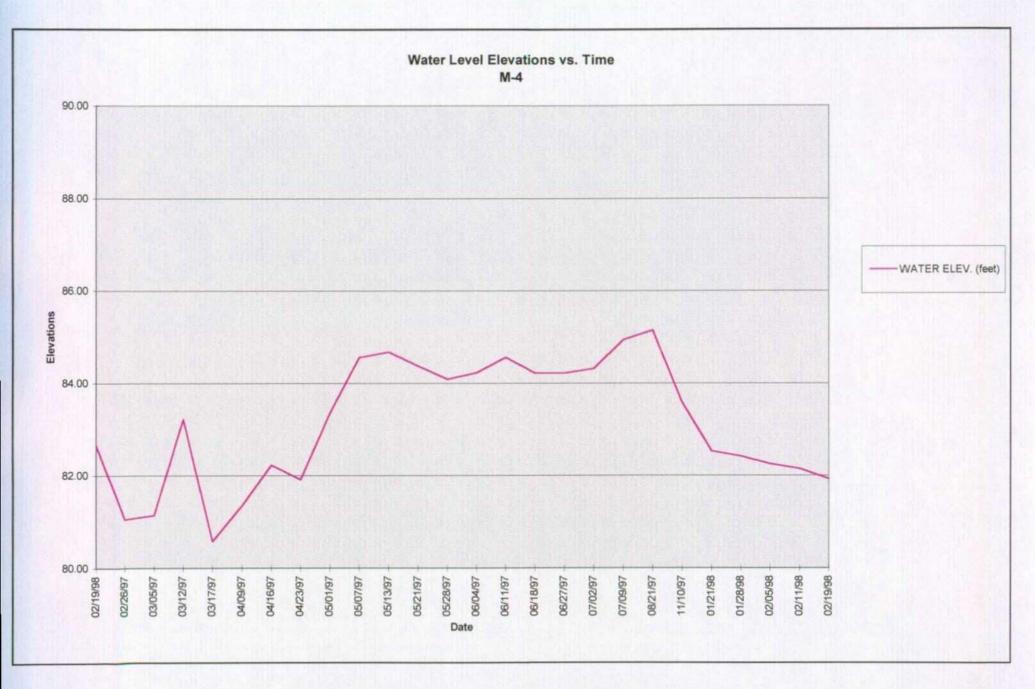
Page 1



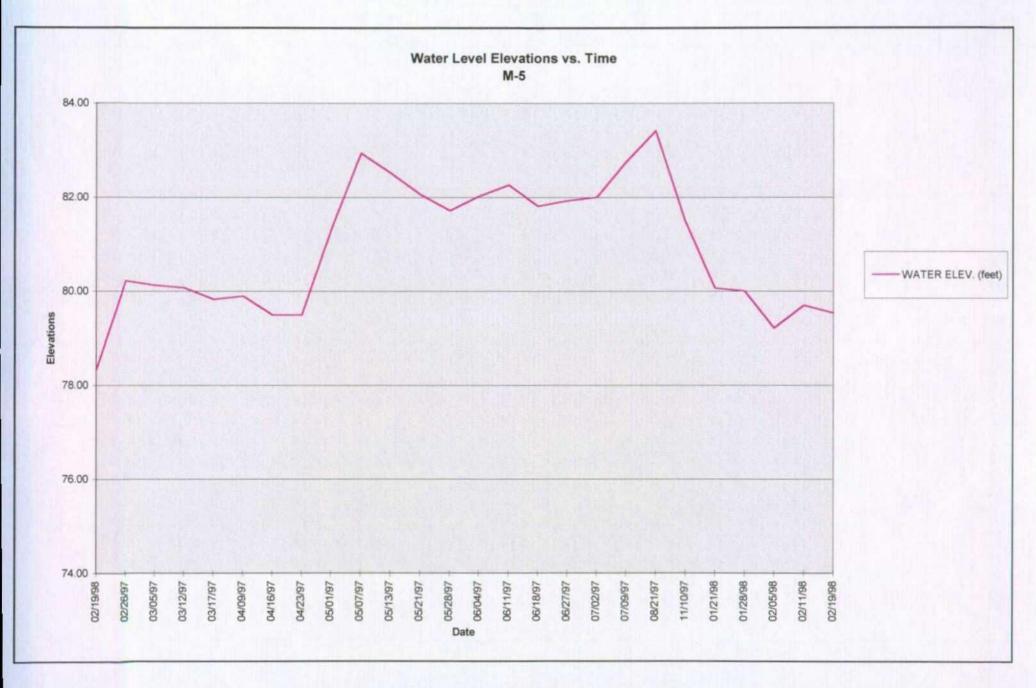
Page 1



Page 1



Page 1



Page 1

Appendix C - Record of Subsurface Exploration Forms and Temporary Monitoring Well Installation

RECORD OF SUBSURFACE EXPLORATION

Philip Environmental Services Corp. 4000 Morroe Road

Farmington, New Mexico 87401 (505) 326-2262 FAX (505) 326-2388

Elevation

Borehole Location 2/0 N. DF R-1

GWL Depth 13.5

Logged By 5, Pope

Drilled By 14, PADILIA

Date/Time Started 1/4/97 //00

Date/Time Completed 1/4/97 //00

Project Name

| Saquez Additional Drilling
| Project Number | BITI | Phase | 600|
| Project Location | Blanco, NIM

Well Logged By
Personnel On-Site
Contractors On-Site
Client Personnel On-Site

Depth Sample Sample Type & Sample Description USCS Symbol Classification System: USCS Symbol Classification System: USCS Symbol Sample Description USCS Symbol Classification System: USCS Symb	Depth Lithology Change (feet)	1	ir Monito Units: Ali BH	-	Drilling Conditions & Blow Counts
(Feet) Number Interval Recovery (inches) Classification System: USCS Symbol	Change		Units: Ni	-	1
(inches)	1	1		BU PPM	& Blow Counts
	(feet)	BZ	BH		1
		l .		s_	
Brown Sity SAND, Fine Med grained hoose Moist, Traco Clay 10 2 115 3 15 4 165 4 165 5 18 5 180 6 18 6 18 6 18 6 18 6 18 7 18 7 18 7 18 7 18 8 18 8 18 9 18 9 18 9 18 9 18 9 18 9	6 5 6	0 000	0	10	6 rung discolor act soils (6 'W) Strong odn

Comments:	
	2 ~
•	
	Geologist Signature Live T. John

MONITORING WELL INSTALLATION RECORD

Philip Environmental Services Corp. 4000 Monroe Road Farmington, New Mexico 87401 (606) 326-2262 FAX (606) 326-2388

Elevation	
Well Location 3	7 10: N. OF R-1
GWL Depth 14.0	
Installed By S. P.	pe
Date/Time Started	1100 114/17
Deta/Time Completed	1120 111197

•	Borehole Well # Page	#	-1-1	•
Project Name	JAOUEZ	Addit	ONAL !	Dilling
Project Number	18171	Phase	6001	
Project Location	BLANCO	Phase NM		
On-Site Geologist	5,7	Pape		
Personnel On-Site	غ <u>ک</u>	harles		
Contractors On-S	ite			
Client Personnel	On-Site			

			<u> </u>			
Depths in Reference to Ground	Surface				Top of Protective Casing	4-0
					Top of Riser	2.84
Item	Material	Depth	-		Ground Surface	
Top of Protective Casing						
Bottom of Protective Casing						
Top of Permanent Borehole				1 1 1		
Casing						
Bottom of Permanent Borehole Casing				111	1	
Casing		1				
Top of Concrete						
Bottom of Concrete			-		•	
Top of Grout						
Bottom of Grout						
Top of Well Riser	2"PVC 5440	2.84				
Bottom of Well Riser		5.0				
Top of Well Screen	2" Sch40 PVC	5.0			Top of Seal	
Bottom of Well Screen	OIO SLOT	20.4	× × × × × × × × × × × × × × × × × × ×	∞ ∞		
Top of Pettonite Seal			po po			
Bottom of Peltonite Seal			Ø	x xx	Top of Gravel Pack	5
Top of Gravel Pack				H	Top of Screen	
Bottom of Gravel Pack				\square		
Top of Natural Cave-In				\mathbb{H}		
Bottom of Natural Cave-In						
Top of Groundwater		14		$\exists \exists$	Bottom of Screen	_20.4
Total Depth of Borehole		20,4			Bottom of Borehole	204

Comments:		
	Geologist Signature	Avou T. Jorca

RECORD OF SUBSURFACE EXPLORATION Borehole # Weli # Philip Environmental Services Corp. Page 4000 Monroe Road EPFS Taguez Additionac Drilling Fermington, New Mexico 87401 Project Name (506) 326-2262 FAX (506) 326-2388 **Project Number** Phase **Project Location** BLANCO Elevation Well Logged By **Borehole Location** N. DE R. I in old excavation Personnel On-Site GWL Depth Contractors On-Site Logged By Client Personnel On-Site Pope Drilled By PADILLA 4/97 Date/Time Started Drilling Method Air Monitoring Method Sample Depth Depth Type & Sample Description uscs Lithology Air Monitoring Drilling Conditions Units: -NDUPPA (Feet) Number interval Recovery Classification System: USCS Symbol Change & Blow Counts (inches) (feet) ΒZ вн 0 BIOWN Clayey SAND, FIRE- Med 0 5 0 0 24 grained, ned deme, moist 10 10 SAA 0 0 Z wet 6 11.5 Fill stops 012 24 12 12 discolorul soil bugin 18 Gray - DKGray, Sandy Silty Clay 50ft, William Landon out 50f Fine-Ned Sand Saturated DBS 3 1444 STRONG ODOR , 4 38 0 14 15 14 Cray - Dave & very, SAND, truck Clay and 5:1+. M- Coarse Sand Loose 24 16 15 0 0 3 Schwerfeel Change buck to Clar Born as 12-14/ Sample Wabundanelt Sand 18 19 ડ Grow - DK Gray Med - Coarse Sard, 20 20 LOQUE, SATURATED TOB 20 25

Comments:

Geologist Signature

4/21/95\DRILLOG.XLS

30

35

MONITORING WELL INSTALLATION RECORD

Philip Environmental Services Corp. 4000 Monroe Road Farmington, New Mexico 87401 (606) 326-2262 FAX (606) 326-2388

Elevation

Well Location

GWL Depth

Installed By K, PADILLA

Date/Time Started

Date/Time Completed

| 1/4/67 / 300

•	Bore Well Page	_	τω 1	R-1-2	
Project Name	EPFS	Jaga	ez A	dd.tion	a/Drilling
Project Number Project Location	18171 BLAN	KO, N	hase M	6001	•
On-Site Geologis Personnel On-Sit Contractors On-S Client Personnel	e <u>D</u>	Chea	E ley		

Depths in Reference to Ground S	Surface			7	Top of Protective Casing Top of Riser	
Item	Material	Depth		1 [Ground Surface	
Top of Protective Casing					-	
Bottom of Protective Casing Top of Permanent Borehole						
Casing Bottom of Permanent Borehole Casing						
Top of Concrete						
Bottom of Concrete		_				
Top of Grout						
Bottom of Grout						
Top of Well Riser	Z" Sch 40 PVC	120				
Bottom of Well Riser		200				
Top of Well Screen	Z" Sch40 PVC	50			Top of Seal	
Bottom of Well Screen	.010 SLOT	20.0	2000	000 000		
Top of Pettonite Seal			000 000	$\infty \infty$		
Bottom of Peltonite Seal			loxo	×	Top of Gravel Pack	50
Top of Gravel Pack		_		}	Top of Screen	50
Bottom of Gravel Pack		_				
Top of Natural Cave-In		_				
Bottom of Natural Cave-In						
Top of Groundwater		13.5]	Bottom of Screen	_20.
Total Depth of Borehole		20.0			Bottom of Borehole	20.

Geologist Signature T. Vores

Appendix D - BTEX Forms and PAH Analytical Lab Reports for the Current Period

February 10, 1997

1st Quarter 1997 REPORT (Includes Annual PAH Results)

Jaquez Corn Field Monitor Well Analytical Results Lab Sample #'s 970124 to 970132 Sampled February 19, 1997 Sampled by D. Bird

REMARKS: Please find enclosed the February 1997 monitor well results for this location. These samples were collected for BTEX and PAH's. Monitor wells R-4 and M-4 continue to exceed New Mexico WQCC standards for Benzene. Monitor well M-4 exceeded the New Mexico WQCC standard for Total Naphthalenes. Monitor Wells R-1 and R-2 were not sampled due to the presence of free floating product.

Report Distribution:

Scott Pope, Philip Environmental Sandra Miller W/O Attachments Results Log Book

Attachments



CHAIN OF CUSTODY RECORD

								OF CO									
Project N	o .	Project N	ame	5/1	PUE	2		Туре				/	Requ Ana	ested lysis			
Samplers	(Signature	Pen	nk		gve Bish	,	Date: 2.19-97	and No. of Sample Contain-	de	Logination /	K	/,	//			Remarks	
MATRIX	Date		l .	GRAB			nple Number	ers		1				/			
WATER	21997	1100		X		97	70124	33	400	X				MONIT	OP W	ELL A-3	
WATER	21997	1201		X		97	0/25	33	430	X				MORATO	P WE	11 R-9	
WATER	21997	1201		X		97	0136	C-5	400	Х				MONITOR	WEL	26 R-4	Fidd Dyp
WATER	2-19-97	1759	<u>'</u>	X			0127	53	400	X				MUNITO	Plus	16 R-5	•
WATER	2-19-97	1441	'	X			0127	65	400	X				MUNITO	& WE	li m-1	
WATER	21997	1459	1	X		77	0139	52	400	X				MONITO	A WE	1-M1	
WATER	21997	1553		X		77	0130	65	420	χ.				MONITO	Ruse	LM-3	
WITER	2-19-97	1710		X		770	0/3/	0.5	400	Х				MONITO	P WEL	11 M-4	
	2-19-97	1746		X		97	0/32	53	ナジン	Χ				MONITO	2 WO	16 M-5	
	21997			X				54	华世	χ				TRIDE	CANK	(
_	hed by: (Sig		/	,	Date/	1	Received by: (Signature)		Relinqui	shed b	y: (Sìgn	ature)		Date	/Time	Received by: (Signa	ture)
	MAS fied by: (Sig				2-19-97 Date/		Received by: (Signature)		Relinqui	shed by	y: (Sign	ature)		Date	/Time	Received by: (Signs	iture)
Relinquis	hed by: (Sig	gnature)	-		Date/	Time	Received for Laboratory by: (*)	Signature)	2/20/9	Pate/Tir	me	l	arks:				
Carrier C							Carrier Py	one No.				Date	Results	Reported / by: (S	gnature)		
Air Bill No	<u>).:</u>																san juan repro Form 71-

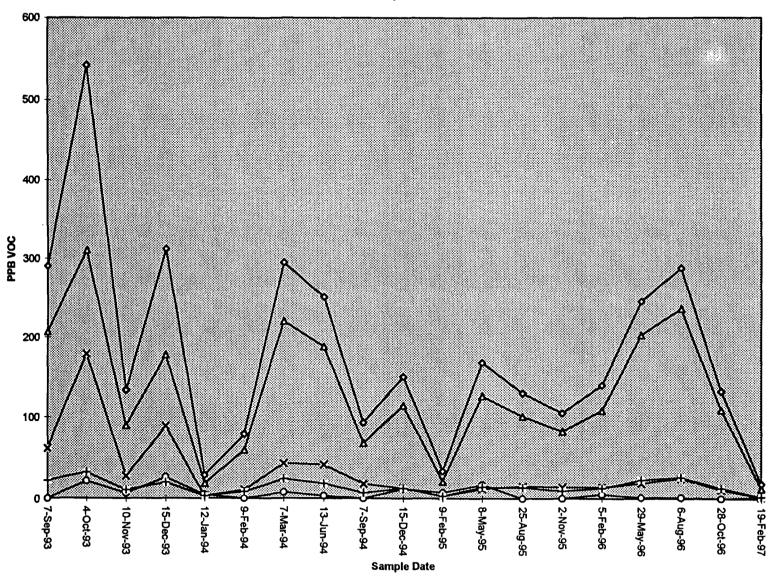


FIELD SERVICES LABORATORY ANALYTICAL REPORT

	JAMIFEL	IDENTIFICAT	ION		
_	Fiel	d ID		Lab ID	
SAMPLE NUMBER:	N	/A	970124		
MTR CODE SITE NAME:	N.	/A	J	aquez R-3	
SAMPLE DATE TIME (Hrs):	2/19	9/97		1100	
PROJECT:		Jaquez Co	rnfield		
DATE OF BTEX EXT. ANAL.:	2/20	0/97		2/20/97	
TYPE DESCRIPTION:	Monito	or Well		Water	
Field Remarks: _					
		RESULTS			
PARAMETER	RESULT	UNITS	DF	QUALIFIER Q	S
BENZENE	2.12	PPB			
TOLUENE	1.85	PPB			
ETHYL BENZENE	2.29	PPB			
TOTAL XYLENES	12.6	PPB			
TOTAL BTEX	18.9	PPB			
ne Surrogate Recovery was at F = Dilution Factor Used	93.2	BTEX is by EPA Method 80 % for this sample		was acceptable	е.

970124.XLS,2/26/97

Jaquez Monitor Well R-3





- **−x--** Toluene
- -A Total Xylenes
- Total BTEX



FIELD SERVICES LABORATORY ANALYTICAL REPORT

SAMP	LE ID	ENT	IFIC/	ΔTI	ON

	Field	d ID		Lab ID	
SAMPLE NUMBER:	N/	'A		970125	7
MTR CODE SITE NAME:	N/	/A			
SAMPLE DATE TIME (Hrs):	2/19/97				
PROJECT:		Jaquez C	ornfield		
DATE OF BTEX EXT. ANAL.:	2/20	0/97		2/20/97	
TYPE DESCRIPTION:	Monito	Monitor Well		Water	
Field Remarks:		RESULTS			
	· · · · · · · · · · · · · · · · · · ·				
PARAMETER	RESULT	UNITS	DE	QUALIFIERS Q	
BENZENE	162	PPB	2	D	
TOLUENE	65.9	PPB	2	D	
ETHYL BENZENE	34.4	PPB	2	D	
TOTAL XYLENES	337	PPB	2	D	
TOTAL BTEX	599	PPB	_		
		-BTEX is by EPA Method	8020 —		
The Surrogate Recovery was at DF = Dilution Factor Used The "D" qualifier indiciates that the a		% for this sample is based on a seco		•	
Narrative:					
Approved By: John Fol	<u>On</u>	0125.XLS,2/26/97	Date:	2-28-97	



FIELD SERVICES LABORATORY ANALYTICAL REPORT

$\mathbf{C} \wedge \mathbf{R} \mathbf{A} \mathbf{C}$			TIF		
SAMP	'I P	11 JFN		IC. (A. I.)	K IIV

_	Field ID	Lab ID
SAMPLE NUMBER:	N/A	970126
MTR CODE SITE NAME:	N/A	Jaquez R-4
SAMPLE DATE TIME (Hrs):	2/19/97	1201
PROJECT:	Jaquez (Cornfield
DATE OF BTEX EXT. ANAL.:	2/21/97	2/21/97
TYPE DESCRIPTION:	Monitor Well	Water

Field Remarks: Field Duplicate

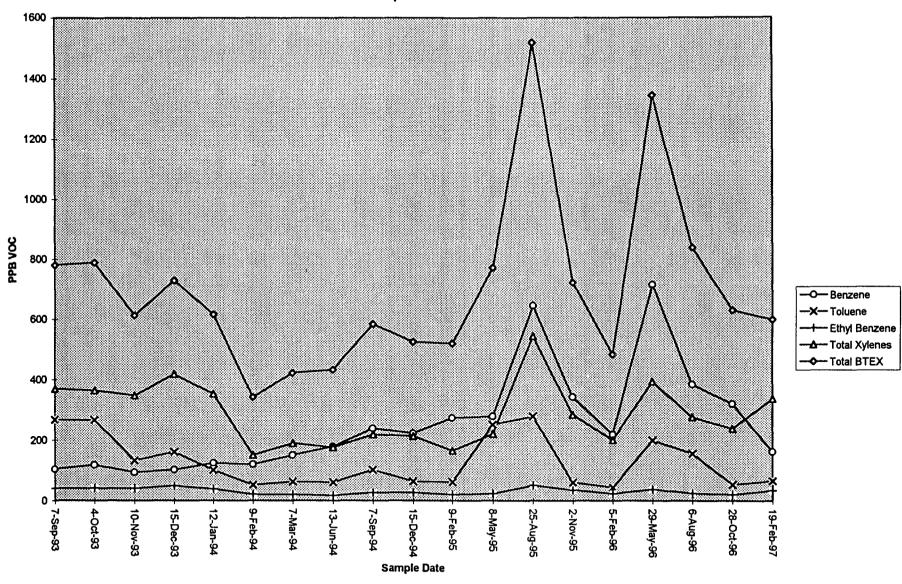
RESULTS

PARAMETER	RESULT	UNITS		QUALIFII	QUALIFIERS		
			DF	Q			
BENZENE	157	PPB	2	D			
TOLUENE	51.2	PPB	2	D			
ETHYL BENZENE	20.9	PPB	2	D			
TOTAL XYLENES	224	PPB	2	D			
TOTAL BTEX	453	PPB					

1		3020 		
The Surrogate Recovery was at	92.5	% for this sample	All QA/QC was acceptable.	
DF = Dilution Factor Used				
The "D" qualifier indiciates that the	analyte calcula	ated is based on a seco	ondary dilution factor.	
Narrative:				
	0 -			
Approved By:	16		Date: 2-28-97	

970126.XLS,2/26/97

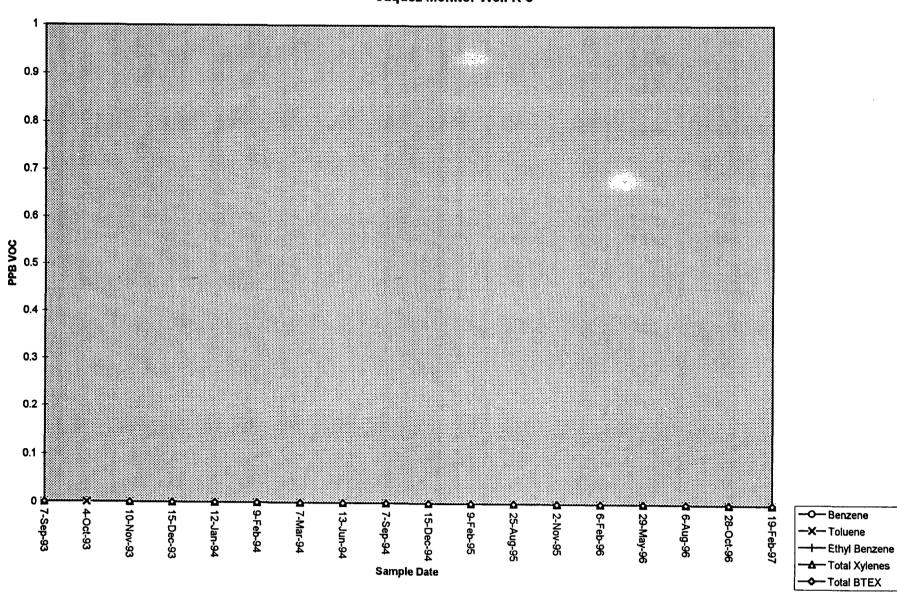
Jaquez Monitor Well R-4





	OAMI LL	IDENTIFICAT	11014		·
	Field			Lab ID	
SAMPLE NUMBER:	N/	/A		970127	
MTR CODE SITE NAME:	N/	/A		Jaquez R-5	
SAMPLE DATE TIME (Hrs):	2/19	3/97		1259	
PROJECT:		Jaquez C	ornfield		
DATE OF BTEX EXT. ANAL.:		0/97		2/20/97	
TYPE DESCRIPTION:	Monito	or Well		Water	
51 LLD					
Field Remarks:					
		RESULTS			
PARAMETER	RESULT	UNITS		QUALI	FIERS
BENZENE	<1	PPB	DF · ·	Q	15 \$ S
TOLUENE				<u> </u>	
ETHYL BENZENE	<1	PPB			
TOTAL XYLENES	<1 <3	PPB PPB			
TOTAL BTEX	<6	PPB			
	<u> </u>	-BTEX is by EPA Method 8	1		
			1 AH OA/OC	`.	
	86.2	% for this sample	All UA/UC	, was accep	otable.
e Surrogate Recovery was at = Dilution Factor Used	86.2	% for this sample	All QA/QC	vas accep	otable.

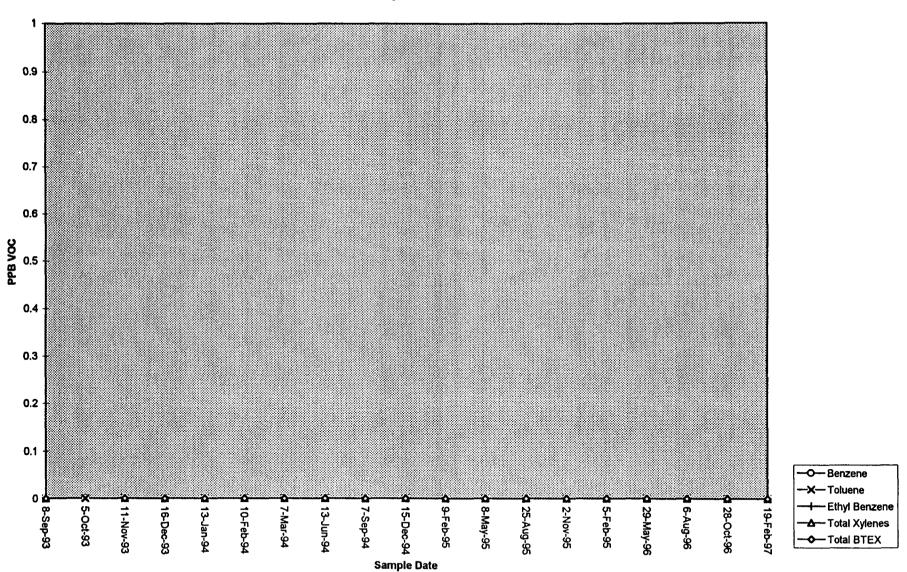
Jaquez Monitor Well R-5





SAMPLE NUMBER:	Field N/		Lab ID 970128	
F				
MTR CODE SITE NAME: SAMPLE DATE TIME (Hrs):	N/ 2/19		Jaquez M-1 1441	
PROJECT:	2/13	Jaquez Co		
ATE OF BTEX EXT. ANAL.:	2/20		2/20/97	
TYPE DESCRIPTION:	Monito		Water	
		RESULTS		
PARAMETER	RESULT	UNITS	QUALIFIERS DF Q	
BENZENE	<1	PPB		
TOLUENE	<1	PPB		
ETHYL BENZENE	<1	PPB		
TOTAL XYLENES	<3	РРВ		
TOTAL BTEX	<6	РРВ		
Surrogate Recovery was at = Dilution Factor Used		-BTEX is by EPA Method &C % for this sample	All QA/QC was acceptable.	

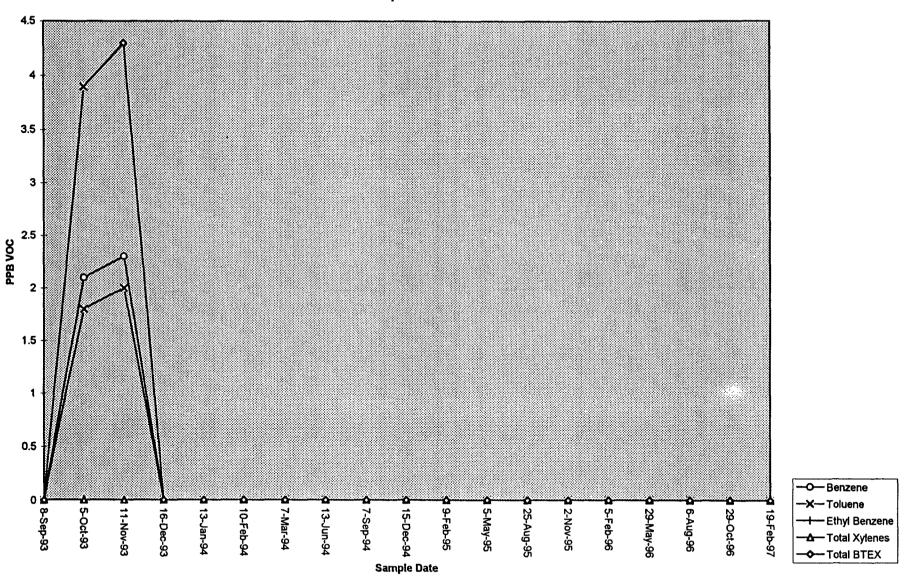
Jaquez Monitor Well M-1





	SAMPL	E IDENTIFICA	TION				
	F	ield ID		Lab ID			
SAMPLE NUMBER:	N/A		970129		970129		
MTR CODE SITE NAME:		N/A		Jaquez M-2			
SAMPLE DATE TIME (Hrs):	2/	19/97		1459			
PROJECT:		Jaquez (Cornfield				
DATE OF BTEX EXT. ANAL.:	2/	20/97		2/20/97			
TYPE DESCRIPTION:	Mon	itor Well	<u> </u>	Water			
Field Remarks:							
		RESULTS					
PARAMETER	RESULT	UNITS	DF	QUALIF	IERS		
BENZENE	<1	PPB					
TOLUENE	<1	PPB					
ETHYL BENZENE	<1	PPB					
TOTAL XYLENES	<3	PPB					
TOTAL BTEX	<6	PPB					
he Surrogate Recovery was at F = Dilution Factor Used	91.4	-BTEX is by EPA Method % for this sample		C was accept	able.		
larrative:							
					· .		
Approved By:	abels		Date:	2-28-	-9-7		

Jaquez Monitor Well M-2



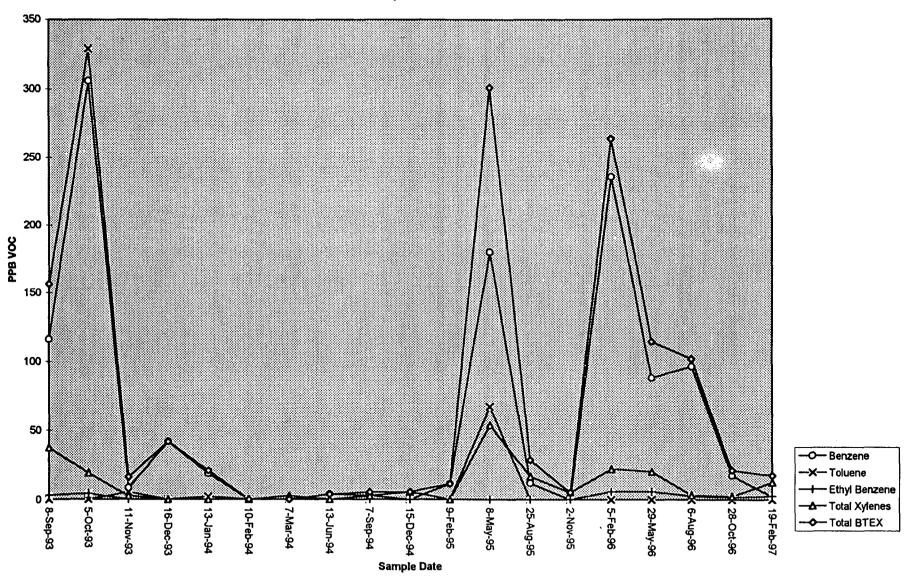


	SAMPLE	IDENTIFICA	TION			
	Fiel	d ID		Lab ID		
SAMPLE NUMBER:	N	N/A		970130		
MTR CODE SITE NAME:	N	/A		Jaquez M-3		
SAMPLE DATE TIME (Hrs):	2/19	9/97		1553]
PROJECT:		Jaquez (Cornfield			_
DATE OF BTEX EXT. ANAL.:		0/97	<u> </u>	2/20/97		4
TYPE DESCRIPTION:	Monito	or Well		Water		_
Field Remarks:						
		RESULTS				
PARAMETER	RESULT	UNITS	DF	QUALII	FIERS	
BENZENE	2.44	PPB				
TOLUENE	<1	РРВ		_		
ETHYL BENZENE	2.61	PPB				
TOTAL XYLENES	7.43	PPB				-
TOTAL BTEX	12.5	PPB				
The Surrogate Recovery was at OF = Dilution Factor Used	89.0	-BTEX is by EPA Method % for this sample		C was accep	table.	

970130.XLS,2/26/97

2-28-97

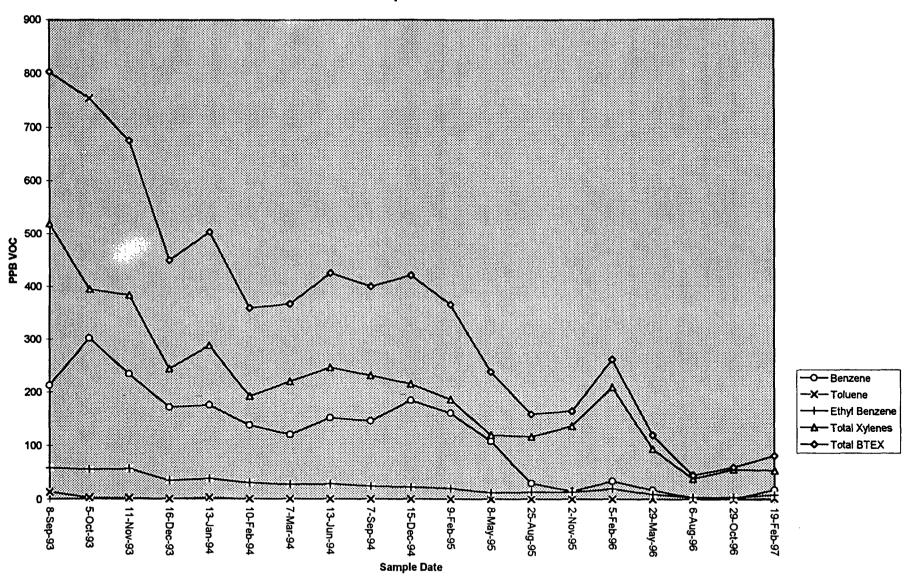
Jaquez Monitor Well M-3





	SAMPLE	IDENTIFICA	TION		····
_	Field			Lab ID	
SAMPLE NUMBER:	N/A	Α	970131		
MTR CODE SITE NAME:	N/A	4	,	Jaquez M-4	
SAMPLE DATE TIME (Hrs):	2/19/	197	<u> </u>	1710	
PROJECT:		Jaquez C	ornfield		
DATE OF BTEX EXT. ANAL.:	2/20/		 	2/20/97	
TYPE DESCRIPTION: [Monitor	Well	<u> </u>	Water	
Field Remarks:					
	F	RESULTS	· · · · · · · · · · · · · · · · · · ·		
PARAMETER	RESULT	UNITS		QUALIF	IERS
			DF	Q Q	
BENZENE	17.7	PPB			
TOLUENE	1.52	PPB			
ETHYL BENZENE	8.30	PPB			
	54.0	PPB			
TOTAL XYLENES					
TOTAL XYLENES TOTAL BTEX	81.5	PPB			
	81.5			was accept	able.
TOTAL BTEX Surrogate Recovery was at	81.5	PPB -BTEX is by EPA Method		was accept	able.
TOTAL BTEX Surrogate Recovery was at	81.5	PPB -BTEX is by EPA Method		was accept	able.

Jaquez Monitor Well M-4



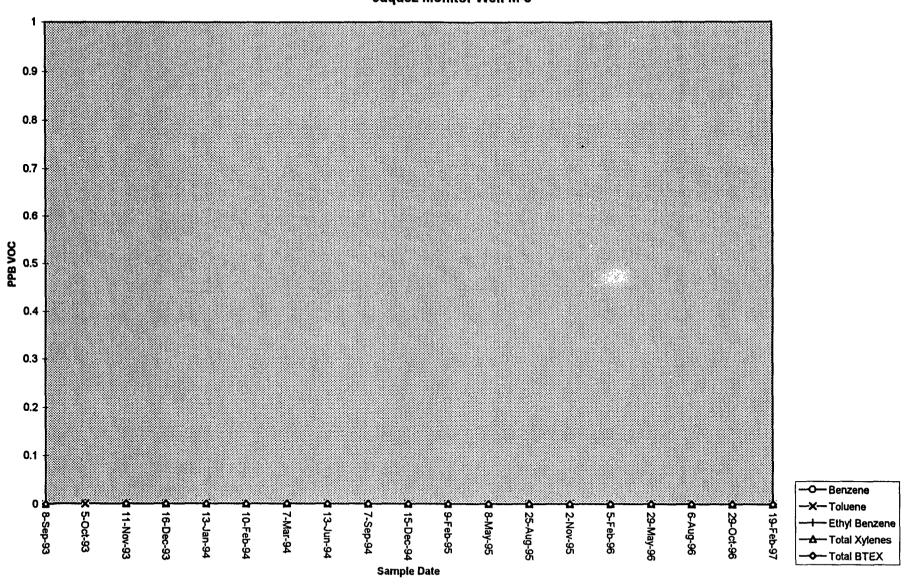


	SAMPLE	IDENTIFICA	ATION				
	Field	i ID		Lab ID			
SAMPLE NUMBER:	N/	N/A		N/A		970132	
MTR CODE SITE NAME:	AME: N/A Jaquez N		N/A Jaquez				
SAMPLE DATE TIME (Hrs):	2/19	9/97		1746			
PROJECT:		Jaquez	Cornfield				
DATE OF BTEX EXT. ANAL.:	2/20		<u> </u>	2/20/97			
TYPE DESCRIPTION:	Monito	or Well		Water			
Field Remarks:							
		RESULTS					
PARAMETER	RESULT	UNITS	DF	QUALIFIER Q	is		
BENZENE	<1	PPB					
TOLUENE	<1_	PPB					
ETHYL BENZENE	<1	PPB					
TOTAL XYLENES	<3	PPB					
TOTAL BTEX	<6	PPB					
The Surrogate Recovery was at DF = Dilution Factor Used	92.7	-BTEX is by EPA Metho % for this sample		was acceptabl	le.		
Narrative:							
	P						

970132.XLS,2/26/97

Date: 2-28-97

Jaquez Monitor Well M-5





QUALITY CONTROL REPORT EPA METHOD 8020 - BTEX

Samples: 970124-970133

QA/QC for 02/20/97 Sample Set

ABORATORY CALIBRATION CHECKS / LABORATORY CONTROL SAMPLES:

SAMPLE	The second to th	EXPECTED	ANALYTICAL		AC	CEPTAB	LE
NUMBER	TYPE	RESULT	RESULT	%R			
NUMBER ICV:LA-52589		PPB	PPB			YES	NO
50 PPB					RANGE		
Benzene	Standard	50.0	46.0	92.0	75 - 125 %	Х	
Toluene	Standard	50.0	47.4	94.8	75 - 125 %	X	
Ethylbenzene	Standard	50.0	47.6	95.2	75 - 125 %	X	
m & p - Xylene	Standard	100	98.8	98.8	75 - 125 %	X	
o - Xylene	Standard	50.0	47.4	94.8	75 - 125 %	Х	
SAMPLE		EXPECTED	ANALYTICAL		AC	CEPTAB	LE
NUMBER	TYPE	RESULT	RESULT	%R			
LCS LA-45476		PPB	PPB			YES	NO
25 PPB					RANGE		
Benzene	Standard	25.0	22.0	88.0	39 - 150	Х	
Toluene	Standard	25.0	23.0	92.0	46 - 148	X	
Ethylbenzene	Standard	25.0	23.0	92.0	32 - 160	X	
m & p - Xylene	Standard	50.0	47.9	95.8	Not Given	X	
o - Xylene	Standard	25.0	23.0	92.0	Not Given	X	
SAMPLE		EXPECTED	ANALYTICAL		ACC	EPTAB	LE
NUMBER	TYPE	RESULT	RESULT	%R			
CCV LA-52589		PPB	PPB			YES	NO
50 PPB					RANGE		
Benzene	<u> </u>			2.1	75 - 125 %		
	Standard	50.0	42.2	84.4	15 - 125 %	Х	
Toluene	Standard Standard	50.0 50.0	42.2 45.4	90.8	75 - 125 % 75 - 125 %	X X	
Toluene Ethylenzene		i	1				
	Standard	50.0	45.4	90.8	75 - 125 %	X	
Ethylenzene	Standard Standard	50.0 50.0	45.4 45.4	90.8 90.8	75 - 125 % 75 - 125 %	x x	
Ethylenzene m & p - Xylene	Standard Standard Standard	50.0 50.0 100	45.4 45.4 94.3	90.8 90.8 94.3	75 - 125 % 75 - 125 % 75 - 125 % 75 - 125 %	X X X	LE
Ethylenzene m & p - Xylene o - Xylene	Standard Standard Standard	50.0 50.0 100 50.0	45.4 45.4 94.3 45.2	90.8 90.8 94.3	75 - 125 % 75 - 125 % 75 - 125 % 75 - 125 %	X X X	LE
Ethylenzene m & p - Xylene o - Xylene SAMPLE	Standard Standard Standard Standard	50.0 50.0 100 50.0 EXPECTED	45.4 45.4 94.3 45.2 ANALYTICAL	90.8 90.8 94.3 90.4	75 - 125 % 75 - 125 % 75 - 125 % 75 - 125 %	X X X	LE NO
Ethylenzene m & p - Xylene o - Xylene SAMPLE NUMBER	Standard Standard Standard Standard	50.0 50.0 100 50.0 EXPECTED RESULT	45.4 45.4 94.3 45.2 ANALYTICAL RESULT PPB	90.8 90.8 94.3 90.4	75 - 125 % 75 - 125 % 75 - 125 % 75 - 125 %	X X X X EPTAB	·
Ethylenzene m & p - Xylene o - Xylene SAMPLE NUMBER CCV LA-52589	Standard Standard Standard Standard	50.0 50.0 100 50.0 EXPECTED RESULT PPB	45.4 45.4 94.3 45.2 ANALYTICAL RESULT PPB	90.8 90.8 94.3 90.4	75 - 125 % 75 - 125 % 75 - 125 % 75 - 125 % ACC RANGE 75 - 125 %	X X X X EPTAB	·
Ethylenzene m & p - Xylene o - Xylene SAMPLE NUMBER CCV LA-52589	Standard Standard Standard Standard	50.0 50.0 100 50.0 EXPECTED RESULT PPB	45.4 45.4 94.3 45.2 ANALYTICAL RESULT PPB	90.8 90.8 94.3 90.4 %R	75 - 125 % 75 - 125 % 75 - 125 % 75 - 125 % ACC	X X X X EPTAB	·
Ethylenzene m & p - Xylene o - Xylene SAMPLE NUMBER CCV LA-52589 Benzene	Standard Standard Standard Standard TYPE Standard	50.0 50.0 100 50.0 EXPECTED RESULT PPB	45.4 45.4 94.3 45.2 ANALYTICAL RESULT PPB	90.8 90.8 94.3 90.4 %R	75 - 125 % 75 - 125 % 75 - 125 % 75 - 125 % ACC RANGE 75 - 125 %	X X X ZEPTAB YES	·
Ethylenzene m & p - Xylene o - Xylene SAMPLE NUMBER CCV LA-52589 50 PPB Benzene Toluene	Standard Standard Standard Standard TYPE Standard Standard	50.0 50.0 100 50.0 EXPECTED RESULT PPB 50.0 50.0	45.4 45.4 94.3 45.2 ANALYTICAL RESULT PPB 42.4 45.5	90.8 90.8 94.3 90.4 %R 84.8 91.0	75 - 125 % 75 - 125 % 75 - 125 % 75 - 125 % ACC RANGE 75 - 125 % 75 - 125 %	X X X X EPTAB YES X X	·

arrative: Acceptable.

EPA-METHOD:8020 - BTEX: Samples: 970124-970133

LABORATORY DUPLICATES:

SAMPLE	TYPE	SAMPLE RESULT	DUPLICATE:	RPD	AC	GEPTAB	LE
970124	1112	PPB	PPB	2	RANGE	YES	NO
Benzene	Matrix Duplicate	2.12	2.12	0.00	+/- 20 %	X	
Toluene	Matrix Duplicate	1.85	1.72	7.28	+/- 20 %	X	
Ethylbenzene	Matrix Duplicate	2.29	2.30	0.44	+/- 20 %	X	
m & p - Xylene	Matrix Duplicate	9.17	9.38	2.26	+/- 20 %	X	
o - Xylene	Matrix Duplicate	3.43	3.41	0.58	+/- 20 %	Х	

arrative: Acceptable.

LABORATORY SPIKES:

SAMPLE ID 2nd Analysis 970124	SPIKE ADDED PPB	SAMPLE RESULT PPB	SPIKE SAMPLE RESULT PPB	%R		EPTABLE YES NO
Benzene	50	2.12	41.3	78.4	75 - 125 %	X
Toluene	50	1.85	45.7	87.7	75 - 125 %	X
Ethylbenzene	50	2.29	46.2	87.8	75 - 125 %	X
m & p - Xylene	100	9.17	104	94.8	75 - 125 %	X
o - Xylene	50	3.43	47.4	87.9	75 - 125 %	X

arrative: Acceptable

ADDITIONAL ANALYTICAL BLANKS:

AUTO BLANK	SOURCE	PPB	STATUS
Benzene	Boiled Water	<1.0	ACCEPTABLE
Toluene	Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Boiled Water	<3.0	ACCEPTABLE

arrative: Acceptable.

SOIL VIAL BLANK	SOURCE Lat MB1461	PPB (Analyzed with this set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	` <1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Varrative: Acceptable.

CONTAMINATION	SOURCE	PPB	STATUS
CARRYOVER CHECK		(One analyzed with this set)	
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

arrative: Acceptable.

Reported By: MW

Approved By:

John Larboh

Date: <u>2-17-97</u>

QW022097.XLS



	•		,>-	,					Purging		vveii ivuii				
e Nan	Time Method Rate De								Meter Co	de					
evelop	a to 5 Ca Stabilizati Other Of De Pump Centrifug Submers	Criteria sing Volume: ion of Indicat evelopm al	s of Wat or Paran ent Bailer Bottom	ter Removel meters Valve Check Valv		Water Vo Initial Depth of V Initial Depth to V Height of Water Diameter (inche Item Well Casing Gravel Pack	Well (feet) Water (feet) Column in We	? 2. / ' P. 30 (feet) Gravel P	ack	ns to be loved	}	Water	nents] pH Meter] DO Monitor] Conductivity] Temperature] Other Disposal	e Meter	J 28 97
		- Dota	···			Total	0,200 ml). Ora	dint a	emu VEÌ	 \	rla La	w (Y4F	54L)	2 315/97
Date		Develop		1	Intake Depth	Ending Water Depth	Water V Remove	olume	Product	Volume (gallons)	Temperature °C	рН	Conductivity µmho/cm	Dissolved	Comments
	-	Pump	Bailer	(gal/min)	(feet)	(feet)	Increment	Cumulativ	Increment	Cumulative				mg/L	
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mments veloper's S	Z. 4	De	un	us .	Bi.	is ar	UKOLTI	COON	Data 2-	19-97	Paviavor	\d	100 70	o rae Vals	Date 2-28-97
Aciobei # c	J.g.101010	<u> </u>							_Date			John	- Com	, <u>, , , , , , , , , , , , , , , , , , </u>	Date



EL <i>PASO</i> Site Nan								□	Developme Purging	nt	Well Nur				
															
ethods	3 to 5 Cas Stabilization	velopm	nent Bailer Bottom Double	Valve Check Valv	····	Water Vol Initial Depth of V Initial Depth to V Height of Water Diameter (inche Item Well Casing Gravel Pack	Well (feet) Water (feet) Column in We	72, / /6.29 (feet) <u>5</u> 	ackGallo	ins to be		⊠ [2] ⊠ Water	pH Meter DO Monitor Conductivity Temperature Other	e Meter O. CHGM	1875 KIT SUS
	Other	ıl Data				Drilling Fluids Total]				
Date	Time	moval Data Development Removal II Method Rate Development Rate Developme		Intake Depth (feet)	Ending Water Depth (feet)	Water V Remove Increment		Removed	Volume (gallons) Cumulative	Temperature °C	рН	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments	
1997	0952	Fullip	Daller	(gaviiiii)	(icet)	(leet)	Historia	Cumulativ	morement	Cumulative	12.8	6.65	795	ing/L	
	0959						5.0	5.0	t		12.8	6.72	419		
	1036						5.0	10.0			140	6.94	388		· · · · · · · · · · · · · · · · · · ·
19-97	1042						3.0	/3.0			13.8	6.95	36/	1.5	
nments_	BA	1166	00	ret	03	5.0 GA	llong	5,		· · · · · · · · · · · · · · · · · · ·		1			
veloper's S	Signature_	der	m	is 12	ird				_Date	19-97	Reviewer	Jal	u Ja	ili"	Date2-28'-



Site Nan	ne_ <i>O</i>	AQU	152					□ ≥ 3	Developme Purging	ent	Well Nur Meter Co				
Develop Methods	3 to 5 Cas Stabilization	ing Volume on of Indica velopn	itor Para			Water Vo Initial Depth of V Initial Depth to V Height of Water Diameter (inche	Well (feet) Water (feet) Column in We	2.2. (15.2/ Il (feet) <u>6</u> Gravel P ne in Well	ackGallo	ons to be]		∬ pH Meter] DO Monitor ∬ Conductivity		NETS KIT
Water R	Submersii Peristaltic Other			Check Valv		Well Casing Gravel Pack Drilling Fluids Total		4.2	12	2.5		Water <i>ON</i>	Disposal 5/78	BAR	PRECS
Date	Time	Develor Meth		Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water V Remove Increment		Removed	Volume (gallons) Cumulative	Temperature °C	рН	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
2-1897	1012			1							150	6.67	550		
219-97	1018						5.0	5.0			14.7	6.75	519		
2-19-97	1025						3.0	8.0			15.0	7.0/	764		
2-19-97	1051						5.0	13.0			14.4	7.16	240	1.0	
Comments_	BAI	160	0.	RY C	9 P.	O EALL	ONS.								
Developer's (Signature <u> /</u>	Des	un	is l	Siri	o egu		-	Date 2	19.97	Reviewer)a	La Jan	1h	



Site Nar		HQU	_						Developme Purging		Well Nu				
Develop	3 to 5 Ca Stabilizat Other	sing Volum ion of Indica	es of Wa ator Parar		l	Water Vo Initial Depth of Initial Depth to Height of Water Diameter (inches	Well (feet) Water (feet) r Column in We	24.4 18.48 ell (feet)	5.92		·		pH Meter DO Monitor Conductivity		سعدورا
	Pump Centrifug Submers Peristaltic	al 🔀	Bailer Bottom Double	Valve Check Valv ss-steel Ken		Item Well Casing Gravel Pack	Water Volui Cubic Feet	me in Well	Gallo Ren	ons to be		Water	Other Daniel	ı	PRELS
Water R	Other	al Data	pment	Removal	Intake	Drilling Fluids Total Ending Water	Water	/olume	Product	Volume	Temperature	1	Conductivity	Dissolved	
Date 2-19-97	Time 1226	Metr Pump		Rate (gal/min)	Depth (feet)	Depth (feet)		ed (gal) Cumulativ	Removed	(gallons) Cumulative	°c 15.7	рН 7.1/	μmho/cm	Oxygen mg/L	Comments
2-19-97 2-19-97	1231 1239						3.8 2.0	3.0 5.0			15./ 15.2	7.2/ 7.47	4230	2.0	
Comments_	BA	190	00	er e	7 5.	6 5A	LONS		2	10 07	1	· · · · · ·	, 1	10	2 28 69
Developer's	Signature_	aces.	nn	w L) N (Q)	<u>")</u>			_Date_ <i>C_U</i>	7-1/	_Reviewer	Jol	- XX		Date2-28-97



Site Nan	ne	AQUI	53						Developme Purging	ent	Well Nur Meter Co				
Methods	3 to 5 Cats Stabilizati Other 6 of De Pump Centrifugu Submersi Peristattic	velopn	nes of Wa ator Paral nent Baller Bottom Double	· · · · · · · · · · · · · · · · · · ·	e	Water VO Initial Depth of Initial Depth to Height of Wate Diameter (inche Item Well Casing Gravel Pack Drilling Fluids Total	Well (feet) Water (feet) r Column in We	15.30 5.23 ell (feet) CGravel P	ack Gallo	ons to be loved]	∑ ∑ ⊠ Water	DISPOSA	e Meter <u>A. C.H.E</u>	11 EUS
Water R	Time	Develo Meth Pump		Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water V Remov Increment		Removed	Volume (gallons) Cumulative		рН	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
319.97 2-19.97 2-19.97	1339 1343 1400						3.0 4.0	3.0			12.0	7.24 7.29 7.51	274 270 269	3.0	
Comments_	BA	160	0	PX F	27	O EM	LONS	<u></u>					. 1		
Developer's \$	Signature_	de	nn	lo é	Du	Ø			_Date	19-97	7 _Reviewer/	\J1	-261	Or_	



		OLIU I							Developme	ent	Well Nur	mber	M-2	·	
Site Nar	ne	AGU	SZ					×	Purging		Meter Co	ode			
Develop	ment (Criteria													
	Stabilizati	sing Volum on of Indica	ator Para			Water Vo Initial Depth of Initial Depth to I Height of Water	Well (feet) Water (feet)	6.00	 ?/				nents pH Meter DO Monitor Conductivity	. Mater	
Method:	s of De	velopn	nent			Diameter (inche									
noniou.	Pump	velopi.	Bailer			Diameter (mene	Water Volum			ns to be	٦	<u>≥</u>	Other D	O CHO	METS KIT
	Centrifugi	al 🔀	Bottom	Valve		Item	Cubic Feet	Gallons	Rem	noved			<u> </u>		•
	Submersi	ble	Double	Check Valv	е	Well Casing		6.0	18	?0			Disposa		
	Peristaltic		Stainle	ss-steel Ken	nmerer	Gravel Pack						ON	5176	BARA	PECS
						Drilling Fluids									
	Other					Total					1				
 Water F		I Data					<u> </u>	 			_				
valer r	emova	Develo	pment	Removal	Intake	Ending Water	Water V		Product	Volume	Temperature	1	Conductivity	Dissolved	
Date	Time	Meth Pump	nod Bailer	Rate (gal/min)	Depth (feet)	Depth (feet)	Remove Increment	ed (gal) Cumulativ		(gallons) Cumulative	°	pН	μmho/cm	Oxygen mg/L	Comments
2-19-97	1408		1	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	1,55,7	1 (3.57)					11.8	6.91	532		
2-19-97	1413						5.0	5.0			10.0	7.00	573		
2-19-97	1418						5.0	10.0			9.0	7.09	515		
2-19.97	1424						5.0	15.0			9.0	7.15	501		_
3-12-97	1429						5.0	20.0			9.0	7.16	480	25	
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C		·				- 	L	<u> </u>	 	-l			 	·	
Comments_		10			<u> </u>				·····						
Developer's	Signature_	de	un	is 1	Sie	d			_Date	19.97	_Reviewer	أكذائر	Li Var	1de	Date 2-28-9
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Site Nan	1e	AG	UE 2	?		·		<u>[]</u>	Developme Purging		Well Nur Meter Co				
Methods	3 to 5 Cas Stabilizati Other 6 of De Pump Centrifuga Submersi Peristaltic	velopn	nent Baller Bottom Double		e	Water VO Initial Depth of Initial Depth to Meight of Water Diameter (inche Item Well Casing Gravel Pack Drilling Fluids Total	Well (feet) Water (feet) r Column in We	(5.2 8.90 ell (feet) 8 Gravel Pr	Gallo Rem	ns to be loved		∑ ⊠ ⊠ Water	pH Meter DO Monitor Conductivity Temperatur Other	y Meter e Meter <u>O. CH</u> C	SMETS KIT DROUS
Water R	Time	Develo Meti Pump	•	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water V Remove			Volume (gallons) Cumulative	Temperature °C	рН	Conductivity μmho/cm	Dissolved Oxygen mg/L	Comments
2-19-97	1518		1	13.							11.9	7.89	546		
21997	1522						5.0	5.0			10.4	7.96	564		
21997	1527						5.0	10.0			10.2	7.97	541		
2-19.97	1535				1		5.0	15.0			10.0	7.98	495		
2-19.97	154/						5.0	20.0			10,0	7.97	475	3.5	
Comments_	PLAC	50 TA	450	xy68	N R	ELEASE	comp	OUND	SOCK	5 BA	ck tu	70 7	HE W	cu.	
Developer's	Signature_	De	nn	is c	Bin	d			_Date	1997	_Reviewer	$\geq d$	i fu	Cl	Date 2-28-97



Site Nar	ne Ö	TAQUE	<u>5</u> 2					×	Developme Purging		Meter Co					
Develop	ment (3 to 5 Cas Stabilizati Other_	velopmes Bai	of Water Param nt iler ottom	er Removel neters	e	Water Vo Initial Depth of V Initial Depth to V Height of Water Diameter (inche Item Well Casing Gravel Pack Drilling Fluids	Well (feet) Water (feet) Column in We	culation 15.3 5.36 Il (feet) Gravel P me in Well	7 9 Ψ ack	ons to be noved		Instrum	pH Meter DO Monitor Conductivity Temperatur Other	Meter e Meter <u>O. C.H</u> o	GAETS KIT	
□ Water R	Other	ıl Data				Total					<u> </u>					_
Date	Time	Developmo Method Pump B		Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water V Remov Increment		Removed	t Volume d (gallons) Cumulative	Temperature °C	рΗ	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments	
2-19-97	1615	, <u></u>	41101	(gas)	1,000	\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			, morement		9.2	9.38	830			1
2-1997	1618					<u> </u>	3.0	3.0	 	<u> </u>	P.P	9.26				
2-19-97	1621						2.0	5.0			8.9	9.24	828			1
2-19-97							3.0	8.0			9.2	9.81	804	4.0		
Comments	PLAC	EO 714	10° 1	04467	EN 1	PECEA50	CONI	1011.11.11	50 ch	5 88	PCK IN	140 -	73/8 W	\\ VSUC.	Ballen DAV] 1950
Developer's	Signature_	Len	n	is C	Ring	6			Date 2	19-97	_Reviewer	Jeli	Lell	\	BAILED DAY Date 2-28-17	
											1	´ }				



Site Nar	ne	TAQU	V& 0	?		·			Developme Purging	nt	Well Nu				
Methods	3 to 5 Ca: Stabilizati Other of De Pump Centrifug: Submers Peristatio	velopm	tor Parar tent Bailer Bottom Double	Valve Check Valv	re	Water Vo Initial Depth of V Initial Depth to V Height of Water Diameter (inche Item Well Casing Gravel Pack Drilling Fluids Total	Well (feet) Water (feet) r Column in We	(5. / &. &/ ell (feet) Gravel P	Gallo	ns to be oved		∑ [≥ [≥ Water	Disposal	Meter O. CHC	PREUS
Date	Time	Submersible Double Check Valve Peristaltic Stainless-steel Kem Other Permoval Data Development Removal Method Rate Pump Bailer (gal/min)				Ending Water Depth (feet)	Water V Remove Increment		Removed	Volume (gallons) Cumulative	Temperature °C	рН	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
2-19.97	1845		 								8.8	7.37	349		
2-19-97	1849	-				 	5.0	5.0			8.5	7.14	360		
2-19-97				ļ		-	5.0	10.0	 		8.4	7.42	352		
2-19-97							3.0	15.0			7.5	7.48 7.56	370 365	3.0	
Comments_	<i>BAI</i> Signature_	VED Des	OR Vn	y p	10.	o GAL	LONS	•	_Date_ <u>2</u> -/	19-97	_Reviewer		en La	tch	

AEN I.D. 702353

March 7, 1997

El Paso Field Service P.O. Box 4990 Farmington, NM 87499



Project Name/Number: JAQUEZ (NONE)

Attention: John Lambdin

On 02/21/97, American Environmental Network (NM), Inc., (ADHS License No. AZ0015) received a request to analyze aqueous samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

Allanalyses were performed by American Environmental Network (FL) Inc., 11 East Olive Road, Pensacola, FL.

If you have any questions or comments, please do not hesitate to contact us at (505) 344-3777.

Kimberly D. McNeill Project Manager

MR:ft

Enclosure

H. Mitchell Rubenstein, Ph.D. General Manager

CLIENT

:EL PASO FIELD SERVICES

DATE RECEIVED

:02/21/97

PROJECT #

: (NONE)

PROJECT NAME

: JAQUEZ

REPORT DATE

:03/07/97

AEN ID: 702353

	AEN ID #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	702353-01	970124 - R-3	AQUEOUS	02/19/97
02	702353-02	970125- R-4	AQUEOUS	02/19/97
03	702353-03	970127 - R-5	AQUEOUS	02/19/97
04	702353-04	970128 - m-i	AQUEOUS	02/19/97
05	702353-05	970129-m-L	AQUEOUS	02/19/97
06	702353-06	970130-m-3	AQUEOUS	02/19/97
07	702353-07	970131-m-4	AQUEOUS	02/19/97
08	702353-08	970132- m-5	AQUEOUS	02/19/97

---TOTALS---

MATRIX AQUEOUS #SAMPLES 8

AEN STANDARD DISPOSAL PRACTICE

AEN STANDARD DISTOSAL FRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

Accession: 702410 AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC. Client: Project Number: 702353 EL PASO FIELD SERVICES Project Name: Project Location: N/S Test: POLYNUCLEAR AROMATICS BY 8310
Analysis Method: 8310/Test Methods for Evaluating Solid and Haz Waste, SW-846, 3rd Ed.
Extraction Method: 3510/Test Methods for Evaluating Solid and Haz Waste, SW-846, 3rd Ed. Matrix: WATER QC Level: ΙI Lab Id: 001 Sample Date/Time: 19-FEB-97 1100 Client Sample Id: 702353-01 Received Date: 22-FEB-97 Batch: PAW028 Extraction Date: 24-FEB-97 Blank: A Dry Weight %: N/A Analysis Date: 01-MAR-97 Parameter: Units: Results: Rpt Lmts: **ACENAPHTHENE** UG/L ND 1 ACENAPHTHYLENE UG/L ND 1 ANTHRACENE UG/L ND 1 BENZO (a) ANTHRACENE UG/L ND 1 BENZO(a) PYRENE UG/L ND 0.3 BENZO (b) FLUORANTHENE UG/L ND BENZO(g,h,i) PERYLENE BENZO(k) FLUORANTHENE UG/L ND 1 UG/L ND 1 CHRYSENE UG/L ND UG/L DIBENZO(a, h) ANTHRACENE ND UG/L FLUORANTHENE ND **FLUORENE** UG/L 1 1 INDENO(1,2,3-cd) PYRENE UG/L ND NAPHTHALENE UG/L ND PHENANTHRENE UG/L ND 1 PYRENE UG/L ND UG/L 1-METHYLNAPHTHALENE ND 1 2-METHYLNAPHTHALENE UG/L ND %REC/SURR 2-CHLOROANTHRACENE 96 28-138

Comments:

ANALYST

Bentula) Pyrene = LO.3 PPB
Total Naphthalenes = L3 PPB

INITIALS

JBT

rass.

American Environmental Network, Inc. L. JAQUEL

mw R-4

"FINAL REPORT FORMAT - SINGLE"

Accession: 702410 AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC. Client: Project Number: 702353 Project Name: EL PASO FIELD SERVICES N/S Project Location: POLYNUCLEAR AROMATICS BY 8310 Test: 8310/Test Methods for Evaluating Solid and Haz Waste, SW-846, 3rd Ed. 3510/Test Methods for Evaluating Solid and Haz Waste, SW-846, 3rd Ed. Analysis Method: Extraction Method: Matrix: WATER QC Level: ΙI Lab Id: 002 Sample Date/Time: 19-FEB-97 1201 Client Sample Id: 702353-02 Received Date: 22-FEB-97 Batch: PAW028 Extraction Date: 24-FEB-97 Blank: A Dry Weight %: N/A Analysis Date: 01-MAR-97 Units: Parameter: Results: Rpt Lmts: Q: ACENAPHTHENE UG/L UG/L UG/L ACENAPHTHYLENE ND 1 ANTHRACENE ND BENZO (a) ANTHRACENE UG/L ND 1 BENZO(a) PYRENE UG/L ND 0.3 BENZO (b) FLUORANTHENE UG/L ND 1 UG/L BENZO(g,h,i) PERYLENE ND BENZO(k) FLUORANTHENE UG/L ND UG/L CHRYSENE ND DIBENZO(a,h)ANTHRACENE UG/L 1 UG/L FLUORANTHENE 1 FLUORENE UG/L INDENO(1,2,3-cd) PYRENE NAPHTHALENE UG/L ND UG/L 3 PHENANTHRENE UG/L ND UG/L PYRENE ND 1-METHYLNAPHTHALENE UG/L 3

UG/L

%REC/SURR

INITIALS

Comments:

ANALYST

2-METHYLNAPHTHALENE

2-CHLOROANTHRACENE

Bento G) Pyrene = (0.3 PPB PBS)

Btol Naphthalenes = X 9 PPB

28-138

3

90

JBT

Accession: Client: Project Number: Project Name: Project Location: Test: Analysis Method: Extraction Method: Matrix: QC Level:	POLYNUCLEAR ARON 8310/Test Method	ERVICES MATICS BY 831 is for Evalua	0 ting Solid an	d Haz Wa	iste, SW iste, SW	1-846, 1-846,	3rd Ed. 3rd Ed.
Lab Id: Client Sample Id:	003 702353-03		Sample Dat Received D		19-FEB 22-FEB	-97 12 -97	59
Batch: PAW028 Blank: A	Dry Weight %:	N/A	Extraction Analysis D		24-FEB 01-MAR		
Parameter:		Units:	Results:	Rpt Ln	its:	Q:	
ACENAPHTHENE ACENAPHTHYLENE ANTHRACENE BENZO(a) ANTHRACENE BENZO(a) PYRENE BENZO(b) FLUORANTHE BENZO(g, h, i) PERYLE BENZO(k) FLUORANTHE CHRYSENE DIBENZO(a, h) ANTHRA FLUORANTHENE FLUORENE INDENO(1, 2, 3-cd) PY NAPHTHALENE PHENANTHENE PYRENE 1-METHYLNAPHTHALEN 2-CHLOROANTHRACENE ANALYST	NE NE NE CENE RENE E E	UG/L UG/L UG/L UG/L UG/L UG/L UG/L UG/L	ND N	1 1 1 0.3 1 1 1 1 1 1 1 1 1 1 28-138			

Comments:

Benzo(g) Pyrene = 20.3 PPB

Total Naphthalenes = 23.0 PPB

PASS

Accession: Client: Project Number: Project Name: Project Location: Test: Analysis Method: Extraction Method: Matrix: QC Level:	EL PASO FIELD ST N/S POLYNUCLEAR ARON 8310/Test Method	ERVICES MATICS BY 831 ds for Evalua	0 ting Solid an	d Haz Wa	lste, SW-846, lste, SW-846,	3rd Ed. 3rd Ed.
Lab Id: Client Sample Id:	004 702353-04		Sample Dat Received D		19-FEB-97 1 22-FEB-97	441
Batch: PAW028 Blank: A	Dry Weight %:	N/A	Extraction Analysis D			
Parameter:		Units:	Results:	Rpt Lm	its: Q:	
ACENAPHTHENE ACENAPHTHYLENE ANTHRACENE BENZO(a) ANTHRACENE BENZO(b) FLUORANTHE BENZO(b) FLUORANTHE BENZO(k) FLUORANTHE CHRYSENE DIBENZO(a,h) ANTHRA FLUORANTHENE FLUORENE INDENO(1,2,3-cd) PY NAPHTHALENE PHENANTHRENE PHENANTHRENE PYRENE 1-METHYLNAPHTHALEN 2-CHLOROANTHRACENE ANALYST	NE NE NE CENE RENE	UG/L UG/L UG/L UG/L UG/L UG/L UG/L UG/L	ND N	1 1 1 0.3 1 1 1 1 1 1 1 1 1 1 1 28-138		

Comments:

Banto (a) Pyrane = (0.3 PPB)

Both Nophthalenes = (3.0 PPB)

Ed. Ed.

"FINAL REPORT FORMAT - SINGLE"

Accession: Client: Project Number: Project Name: Project Location: Test: Analysis Method: Extraction Method: Matrix: QC Level:	POLYNUCLEAR AROM 8310/Test Method	RVICES ATICS BY 8310) ing Solid an	d Haz Wa	ste, SW-846, ste, SW-846,	3rd E
Lab Id: Client Sample Id:	005 702353-05		Sample Date Received D		19-FEB-97 1 22-FEB-97	459
Batch: PAW028 Blank: A	Dry Weight %:	N/A	Extraction Analysis D		24-FEB-97 03-MAR-97	
Parameter:		Units:	Results:	Rpt Lm	ts: Q:	
ACENAPHTHENE ACENAPHTHYLENE ANTHRACENE BENZO(a) ANTHRACENE BENZO(b) FLUORANTHENE BENZO(b) FLUORANTHENE BENZO(k) FLUORANTHENE CHRYSENE DIBENZO(a,h) ANTHRAC FLUORANTHENE FLUORANTHENE INDENO(1,2,3-cd) PYE NAPHTHALENE PHENANTHRENE PYRENE 1-METHYLNAPHTHALENE 2-CHLOROANTHRACENE ANALYST	NE NE CENE RENE	UG/L UG/L UG/L UG/L UG/L UG/L UG/L UG/L	ND N	1 1 1 0.3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		

INITIALS

JBT

Comments:

ANALYST

Benjo (a) Pyren = 203 PPB

Total Naphthalenes = 23.0 PPB

PASS

Accession:

702410

Client:

AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.

Project Number:

702353

Project Name:

EL PASO FIELD SERVICES

N/S

Project Location: Test:

POLYNUCLEAR AROMATICS BY 8310

Matrix:

Analysis Method: 8310/Test Methods for Evaluating Solid and Haz Waste, SW-846, 3rd Ed. Extraction Method: 3510/Test Methods for Evaluating Solid and Haz Waste, SW-846, 3rd Ed. WATER

OC Level:

ΙI

Lab Id:

006

Sample Date/Time:

19-FEB-97 1553 22-FEB-97

Client Sample Id:

702353-06

Received Date: Extraction Date:

Batch: PAW028

Blank: A

Dry Weight %: N/A

Analysis Date:

24-FEB-97 03-MAR-97

Parameter:

ACENAPHTHENE

Units:

Results: ND

Rpt Lmts:

Q:

ACENAPHTHYLENE ANTHRACENE BENZO(a) ANTHRACENE BENZO(a) PYRENE BENZO(b) FLUORANTHENE

BENZO(g,h,i) PERYLENE BENZO(k) FLUORANTHENE CHRYSENE

DIBENZO (a, h) ANTHRACENE FLUORANTHENE FLUORENE INDENO(1,2,3-cd) PYRENE

NAPHTHALENE PHENANTHRENE **PYRENE** 1-METHYLNAPHTHALENE

2-METHYLNAPHTHALENE 2-CHLOROANTHRACENE ANALYST

UG/L UG/L

UG/L

UG/L

UG/L

UG/L

UG/L

UG/L

UG/L

UG/L

%REC/SURR

INITIALS

UG/L UG/L UG/L UG/L UG/L

UG/L UG/L UG/L

ND ND ND ND ND ND ND

ND

ND

ND

ND ND ND

ND ND ND ND 112

JBT

1 0.3

1

1

28-138

Comments:

Benzo (a) Pyrena = <0.3 PPB Total Haphthelenes = <3.0 PBB

702410 Accession: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC. Client: Project Number: 702353 EL PASO FIELD SERVICES Project Name: Project Location: N/S POLYNUCLEAR AROMATICS BY 8310 Test: 8310/Test Methods for Evaluating Solid and Haz Waste, SW-846, 3rd Ed. Analysis Method: 3510/Test Methods for Evaluating Solid and Haz Waste, SW-846, 3rd Ed. Extraction Method: Matrix: WATER QC Level: II 007 Lab Id: Sample Date/Time: 19-FEB-97 1710 Client Sample Id: 702353-07 Received Date: 22-FEB-97 Batch: PAW028 Blank: A Extraction Date: 24-FEB-97 Dry Weight %: N/A Analysis Date: 03-MAR-97 Parameter: Units: Results: Rpt Lmts: Q: **ACENAPHTHENE** UG/L ND UG/L UG/L ACENAPHTHYLENE 1 1 ANTHRACENE ND 1 BENZO (a) ANTHRACENE UG/L ND 1 BENZO(a) PYRENE UG/L ND 0.3 BENZO (b) FLUORANTHENE UG/L ND BENZO(g,h,i) PERYLENE UG/L ND BENZO (k) FLUORANTHENE UG/L ND UG/L UG/L CHRYSENE 3 DIBENZO(a, h) ANTHRACENE ND FLUORANTHENE UG/L ND UG/L FLUORENE 3 INDENO(1,2,3-cd) PYRENE UG/L ND NAPHTHALENE UG/L 22 PHENANTHRENE UG/L ND PYRENE UG/L ND UG/L

UG/L

%REC/SURR

INITIALS

Comments:

ANALYST

1-METHYLNAPHTHALENE

2-METHYLNAPHTHALENE

2-CHLOROANTHRACENE

Benzo (a) Pyren = (0.3 PPB) Total Naghtherens = 38 PPB Limit = 3088B

28-138

8

126

Accession: Client: Project Number: Project Name: Project Location: Test: Analysis Method: Extraction Method: Matrix: QC Level:	EL PASO FIELD S N/S POLYNUCLEAR ARC 8310/Test Metho	ERVICES MATICS BY 831	.0	nd Haz Wa	aste, SW-846 aste, SW-846	, 3rd Ed. , 3rd Ed.
Lab Id: Client Sample Id:	008 702353-08		Sample Dat Received I		19-FEB-97 22-FEB-97	1746
Batch: PAW028 Blank: A	Dry Weight %:	N/A	Extraction Analysis I			
Parameter:		Units:	Results:	Rpt Lm	nts: Q:	
ACENAPHTHENE ACENAPHTHYLENE ANTHRACENE BENZO(a) ANTHRACENE BENZO(b) FLUORANTHE BENZO(k) FLUORANTHE BENZO(k) FLUORANTHE CHRYSENE DIBENZO(a,h) ANTHRA FLUORANTHENE FLUORENE INDENO(1,2,3-cd) PY NAPHTHALENE PHENANTHRENE PYRENE 1-METHYLNAPHTHALEN 2-CHLOROANTHRACENE ANALYST	ne ne cene rene	UG/L UG/L UG/L UG/L UG/L UG/L UG/L UG/L	ND N	1 1 1 0.3 1 1 1 1 1 1 1 1 1 1 28-138		

Comments:

Buto(a) Pyrene = LO.3 PPB

PASS

Total Applitudence's = L3.0 PPB

"Method Report Summary"

Accession Number: 702410

AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC. 702353

Client: AMERICAN ENVIRONMENTAL
Project Number: 702353
Project Name: EL PASO FIELD SERVICES
Project Location: N/S
Test: POLYNUCLEAR AROMATICS E

POLYNUCLEAR AROMATICS BY 8310

Client Sample Id:	Parameter:	Unit:	Result:
702353-01	FLUORENE	UG/L	1
702353-02	DIBENZO(a,h)ANTHRACENE	UG/L	1
	FLUORANTHENE	UG/L	1
	FLUORENE	UG/L	2
	NAPHTHALENE	UG/L	3
	1-METHYLNAPHTHALENE	UG/L	3
	2-METHYLNAPHTHALENE	UG/L	3
702353-03	FLUORENE	UG/L	1
702353-07	ACENAPHTHYLENE	UG/L	1
	CHRYSENE	UG/L	3
	FLUORENE	UG/L	3
	NAPHTHALENE	UG/L	22
	1-METHYLNAPHTHALENE	UG/L	8
	2-METHYLNAPHTHALENE	UG/L	8
702353-08	FLUORENE	UG/L	1

"QC Report"

Title: Water Blank
Batch: PAW028
Analysis Method: 8310/Test Methods for Evaluating Solid and Haz Waste, SW-846, 3rd Ed.
Extraction Method: 3510/Test Methods for Evaluating Solid and Haz Waste, SW-846, 3rd Ed.

Blank Id: A. Date Analyzed:	27-FEB-97	Date Extracted:	24-FEB-97
Parameters:	Units:	Results:	Reporting Limits:
ACENAPHTHENE	UG/L	ND	1
ACENAPHTHYLENE	UG/L	ND	1
ANTHRACENE	UG/L	ND	1
BENZO(a) ANTHRACENE	UG/L	ND	1
BENZO(a) PYRENE	UG/L	ND	1
BENZO(b) FLUORANTHENE	UG/L	ND	1
BENZO(g,h,i)PERYLENE	UG/L	ИD	1
BENZO (k) FLUORANTHENE	UG/L	ND	1
CHRYSENE	UG/L		1
DIBENZO(a,h)ANTHRACENE	UG/L	ND	1
FLUORANTHENE	UG/L		1
FLUORENE	UG/L		1
INDENO(1,2,3-cd) PYRENE	UG/L		1
NAPHTHALENE	UG/L		1
PHENANTHRENE	UG/L		1
PYRENE	UG/L		1
1-METHYLNAPHTHALENE	UG/L	ИD	1
2-METHYLNAPHTHALENE	UG/L	ND	1
2-CHLOROANTHRACENE	%REC/SU	RR 103	28-138
ANALYST	INITIAL	S JBT	

Comments:

"QC Report"

Title: Batch:

Water Reagent

Batch: PAW028
Analysis Method: 8310/Test Methods for Evaluating Solid and Haz Waste, SW-846, 3rd Ed.
Extraction Method: 3510/Test Methods for Evaluating Solid and Haz Waste, SW-846, 3rd Ed.

RS Date Analyzed: RSD Date Analyzed:	28-FEB-97 28-FEB-97			RS Date Extracted: 24-FEB-97 RSD Date Extracted: 24-FEB-97						
Parameters: ACENAPHTHYLENE BENZO(k) FLUORANTHENE CHRYSENE PHENANTHRENE PYRENE	Spike Added 10.0 10.0 10.0 10.0	Sample Conc <1 <1 <1 <1 <1	RS Conc 12.0 10.9 10.6 10.9	RS %Rec 120 109 106 109	RSD Conc 11.9 11.1 10.9 11.0	RSD %Rec 119 111 109 110	RPD 1 2 3 1	RPD Lmts 35 23 24 26 25	Rec Lmts 45-127 68-131 69-131 63-124 61-126	
Surrogates: 2-CHLOROANTHRACENE				100		100			28-138	

Comments:

Notes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.

* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE
PROGRAM AND REFERENCED METHOD.

American Environmental Network, Inc.

"QC Report"

Title: Batch: Water Matrix

PAW028

Analysis Method: 8310/Test Methods for Evaluating Solid and Haz Waste, SW-846, 3rd Ed. Extraction Method: 3510/Test Methods for Evaluating Solid and Haz Waste, SW-846, 3rd Ed.

Dry Weight %: N/A Sample Spiked: 702410-1		Analyzed e Analyze				te Extra ate Exti			4-FEB-97 4-FEB-97	
Parameters: ACENAPHTHYLENE BENZO(k)FLUORANTHENE CHRYSENE PHENANTHRENE PYRENE	Spike Added 10.0 10.0 10.0 10.0	Sample Conc <1 <1 <1 <1 <1	MS Conc 8.2 7.1 10.3 7.1 7.7	MS %Rec 82 71 103 71 77	MSD Conc 12.5 12.0 16.3 12.2 12.6	MSD %Rec 125 120 163* 122 126	RPD 42 51* 45 53* 48*	51 40 69	Rec Lmts 18-146 26-137 16-156 30-145 39-137	
Surrogates: 2-CHLOROANTHRACENE				82		281*			28-138	

Comments:

MATRIX SPIKE/MATRIX SPIKE DUPLICATE HAD RECOVERY(S) AND/OR RPD(S) OUTSIDE ACCEPTANCE LIMITS DUE TO MATRIX INTERFERENCE. REFER TO REAGENT SPIKE/REAGENT SPIKE DUPLICATE DATA.

lotes:

N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
UG/L = PARTS PER BILLION. < = LESS THAN REPORTING LIMIT.

* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.

SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE
PROGRAM AND REFERENCED METHOD.

Horydalds CAJOC Jehn Laden 3/10/97

American Environmental Network, Inc.

Common notation for Organic reporting

N/S = NOT SUBMITTED N/A = NOT APPLICABLE

D = DILUTED OUT UG = MICROGRAMS

UG/L = PARTS PER BILLION.

UG/KG = PARTS PER BILLION. MG/M3 = MILLIGRAM PER CUBIC METER.

PPMV = PART PER MILLION BY VOLUME.

MG/KG = PARTS PER MILLION.

MG/L = PARTS PER MILLION.

< = LESS THAN DETECTION LIMIT.

* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS

Y = IMPROPER PRESERVATION, NO PRESERVATIVE PRESENT IN SAMPLE UPON RECEIPT.

SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

ORGANIC SOILS ARE REPORTED ON A DRYWEIGHT BASIS.

ND = NOT DETECTED ABOVE REPORTING LIMIT.

RPT LIMIT = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES.

RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION)

AEN/GC/FID

AEN GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH FLAME IONIZATION DETECTOR (FID).

AEN/GC/FIX

AEN GAS CHROMATOGRAPHIC METHOD FOR ANALYSIS OF FIXED GASES EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD) AND FLAME IONIZATION DETECTOR (FID).

AEN/GC/FPD

AEN GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH FLAME PHOTOMETRIC DETECTOR (FPD) IN SULFUR-SPECIFIC MODE.

AEN/GC/PID

AEN GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH PHOTOIONIZATION DETECTOR (PID).

AEN GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD).

SW-846 METHOD 9020

PARTICULATE MATTER IS REMOVED BY ALLOWING PARTICULATES TO SETTLE IN THE SAMPLE CONTAINER AND DECANTING THE SUPERNATANT LIQUID. EXCESSIVE PARTICULATES ARE REMOVED BY FILTRATION OF THE SUPERNATANT LIQUID.

= STEVE WILHITE

= PAUL LESCHENSKY

RW = ROBERT WOLFE

= KENDALL SMITH

= KERRY LEMONT

= ROB PEREZ JBT = JENNIFER TORRANCE

- LAVERNE PETERSON T.P

PLD = PAULA DOUGHTY

American Environmental Network

11 East Olive Road

Pensacola, Florida 32514

(904)474-1001

PROJECT SAMPLE INSPECTION FORM

Acc	cession #: 702410)				Date Received: 22	- Jel	2-G	77
1.	Was there a Chain of Custody?	Yes	No		7.	Are samples preserved? (ChepH of all H ₂ O except 40ml vials)		No	N/A.
2.	Was Chain of Custody properly relinquished?	Yes	No		8.	Is there sufficient volume for analysis requested?	Yes	No	
3.	Were samples received cold? (Check Temperature of Cooler)	Yes	No	N/A	9.	Were samples received within Holding Time?	Yes	No	\overline{a}
4.	Were all samples properly labeled and identified?	(Yes)	No		10.	Is Headspace visible > ¼ " in diameter in 40ml vials?* If ar headspace is evident, commer in out-of-control section.	ıy	No	(N/A)
5.	Were samples received in proper containers for analysis	Yes	No		11.	If sent, were matrix spike bottles returned?	Yes	No	N/A
6.	requested? Were all sample containers received intact?	Yes	No						
Airl	oill Number: <u>328 3520</u>	556			S	hipped By:	X		
Cod	oler Number: /u/5				S	hipping Charges: <i>U</i> /	A		
Cod	oler Weight: NA			,	C	ooler Temp (°C): 4	°C		
Ou1	of Control Events and Insp	ection	Com	iments	s: 		-		
									
						· · · · · · · · · · · · · · · · · · ·			
_				·	· 				
·		1							
Ins	pected By: D. Kitt	_ Date	:22-	-7eb-	<u>77</u> La	ogged By: <u>A. Kitt</u> Da	te: <i>22-</i>	Yel	<u>,-97</u>

⁺ All preservatives for the State of North Carolina and the State of New York are to be recorded on the sheet provided to record pH results (SOP 938, section 2.2.9.

According to EPA, %" of headspace is allowed in 40ml visis, however, AEN makes it policy to record any headspace as out-of-control (SOP 938, section 2.2.12.

, 4	merican E		0 + 01/	Vatura	16 (N/A)	I) I_{aa}	١											.				
Albuq	uerque • Phoenio	x • Pensacola •	Portla	nd • Pleas	R (1V1V) ant Hills •	(<i>)</i> , <i>1111</i> Columbia	•	UI DAT	HA	IN 19	97) 	JU AGE	S <u>/</u>	OF	<u>/</u>	[L	EN L	.AB	1.D.	3.5
	PROJECT MAN	AGER: JOH	11/6	AMBI	2/1/	····		 -							_	_		/SIS	REC	QUE	ST	
ARE FOR LAB USE ONLY.	COMPANY: ADDRESS: PHONE: FAX: BILL TO: COMPANY: ADDRESS:	EU PASO P.O. BO FARMINE (SIDS) (SIDS)	1 118. 07 4 579 579	LO SEK 4990 1, N -2/44 -2281	NICE O	499 	Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct/Inject	i i	(MB015) Gas/Purge & Irab	BTXE/MTBE (8020)	EX & Chlorinated Aromatics (602/8020)	BTEX/MTBE/EDC & EDB (8020/8010/Short)	Chlorinated Hydrocarbons (601/8010)			ΛS			Pesticides/PCB (oud/audul) Herbicides (615/8150)	nds GC/MS (625/8270)	General Chemistry:
AS	SAME	PLEID	DAT	E TIME	· MATRIX	LAB I.D.	g.	Š		E 6		ВТ	BT	ਨੁ	25	Po	Ν	ই	٥	발 문	BB	ပြီ
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Ä		2/ <u>27</u>	2-19	91 125	PLUSTER	-03	L									X						
₹	970	リロタ	2-19	_ 1	1 WATER											X				\top	\prod	
ठ	770	0127	2-19-	97 145	PUSITER	-05										X				1	\prod	
	970	0130	2-19		BWATER	1	I -									X			\Box	\top	\prod	
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빌																1				1	1-1	
Σ d																						
COMPLETELY.	PROJECT	INFORMATION		PRIOR AU	THORIZAT	ION IS RI	EQU	IRE	D FO	R R	USH	PRC	JEC	TS	R	FLIN	IOUI	SHE	D BY:		1	1. F
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RM IN	PROJ HAME: JA	14462	(CERTIFICATION	N REQUIRED:	LINM	LIS	DWA	(:	OTH					2/	<u>ر بر جم</u> led Na	11.5	ie L	Time Fire	<u>. </u>		
50	P.O. NO.;			METHANOL PR	ESERVATION	(_)			·——					·	12/10	ed N	ame: ひパ〜	5 6	B/1/1	8: Z U	17.9	7 19
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FIL		14/6	100	COMMENTS: COW LEV CHARG KI3P —	E #							,	•		-	alure		, D J;	Tim	18:		1. 1 S
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X	Signature: Tune: 1974	رسب	Signature: Time
	Printed Name: Date: 2 - 19-9	7	Printed Name: Date:
13	Company: EZ PASO FIELO SERVI	63	Сотрапу:
/	RECEIVED BY:	1.	RECEIVED BY: (LAB) 2.
	Signature: Time:		Signature: 1 Time: 1730
	Printed Name: Date:		Printed Name: Dinio: 1/2/1/
	Company:		American Environmental Network (NM), Inc.
		חוזוי	N "" "g Cons - "TN Pir" THOMASS

RCRA Metals by TCLP (Metnod 1311) Metals:

Priority Pollutant Metals (13) Target Analyte List Metals (23)

RCRA Metals (8)

77
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American Environmental Network Albuquerque, New Mexico

Interlab Chain of Custody

DATE: 2/2/ PAGE: OF.

NETWORK PROJECT MANAGE	R: K	IMBERLY	D. McN	EILL											Al	IÁN	YSI	S R	EQI	UES	ST										
COMPANY: America ADDRESS: 2709-D Par Albuquerqu	Ameri e, NM	rican Fre	eeway, N		work		st	7	RCRA Metals by TCLP (1311)									3080)	\Box	25/8270)	Volatile Organics GC/MS (624/8240)	omatics (610/8310)	1311) ZHE	1311)			440	era			NUMBER OF CONTAINERS
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CLIENT DISCOUNTSPECIAL CERTIFICATION REQUIRED:				•									1		igmpan 1101	Ϋ́/	71	,					Co	mpan	ı y :						ĺ

Imerican Environmental querque • Phoenix • Pensacola • Portla	Network (NM), Inc. and • Pleasant Hills • Columbia	. C	H;	AIN 2-19-	OF	CUS	TO	DY /_	Al	N LA	B I.I). レ3	53					
PROJECT MANAGER: JOHN	والمستقد والم والمستقد والمستقد والمستقد والمستقد والمستقد والمستقد والمستد			1 (1) 1 (1)	1.5 m 3.7 m	$\{\psi_{i,j}\}_{i=1}^{n}$			LYSIS	REQ	JES.	T						
ADDRESS: P.O. BOX A FRAMILICATION PHONE: (535) 579	N, NM 87499 1-3281 25 1561116	Petroleum Hydrocarbons (418.1) TRPH	(MOD.8015) Diesel/Direct/Inject	(M8015) Gas/Purge & Trap Gasoline/BTEX & MTBE (M8015/8020)	BTXE/MTBE (8020)	BTEX/MTBE/EDC & EDB (8020/8010/Short) Chlorinated Hydrocarbons (601/8010)	504 EDB□ / DBCP□	Polynuclear Aromatics (610/8310)	Volatile Organics (8260) GC/MS	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral/Acid Compounds GC-MS (623/62/U)	General Chemistry:	Priority Pollutant Metals (13)	Target Analyte List Metals (23)	RCRA Metals (8)	RCRA Metals by ICLP (Method 1311) Metals:	Metals.
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PROJ. NAME: JAYUEZ	CERTIFICATION REQUIRED: NM	□sdv	NA	OTHE	R		Prin	ted Nam	e:	Date:	2-1	7.97	Printed	Name:		Date:		
P.O. NO.:	METHANOL PRESERVATION []								15 6	(RO			 					······································
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SAMPLE RECEIPT	YOM LEVEL DEVIEW (17	אין	пья	<i>1</i> ~	UI	ppo	<u> </u>		ED BY:			1.	RECE	IVED E	3Y: (L	AB)		2
NO CONTAINERS	CHARGE # 6138-810 - 9001	7	r-12	<u></u>	VA!	27	Sign	ature:		Time:			Signatu	6: / /		Time	W	730
CUSTODY SEALS	0138-8110 - 7001		コン	7 - 62	100	10	Prin	ted Nam	e:	Date:			Printed	Name:	10	/Optio		131

Company:

merican Environmental Network, Inc.

El Paso Field Service Co.

To: P.O. Box 4990

Farmington, NM 87499

Client #: 850-020

Original

BALANCE

EPTS Sanger 415

970 134

970.25

Invoice Date 3/ 7/97 76126

?יטיבז Proj. Name: Jaquez

TOTAL:

1,435.65

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E DUE:	1,435.65					
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uantity EPA Method 8310 170.00 1,360.00 JAGUET ANNIAL MIN TESTING (PAH'S) Lead 3/10/97 Programme Commence of the Comm And the state of t Signal U. ... SANDRA MILLAR 599-2141 NM Gross Receipts Tax 5.5625% 75.65 Accession #:702353

Authorized by: John Lambdin

A linance charge of 11/2% will be charged on balances 30 days past due DISTRIBUTION: White-Customer, Yellow-File, Pink-Accounting

June 4, 1997

2nd Quarter 1997 REPORT

Jaquez Corn Field Monitor Well Analytical Results Lab Sample #'s 970501 to 970509 Sampled May 28, 1997 Sampled by Dennis Bird

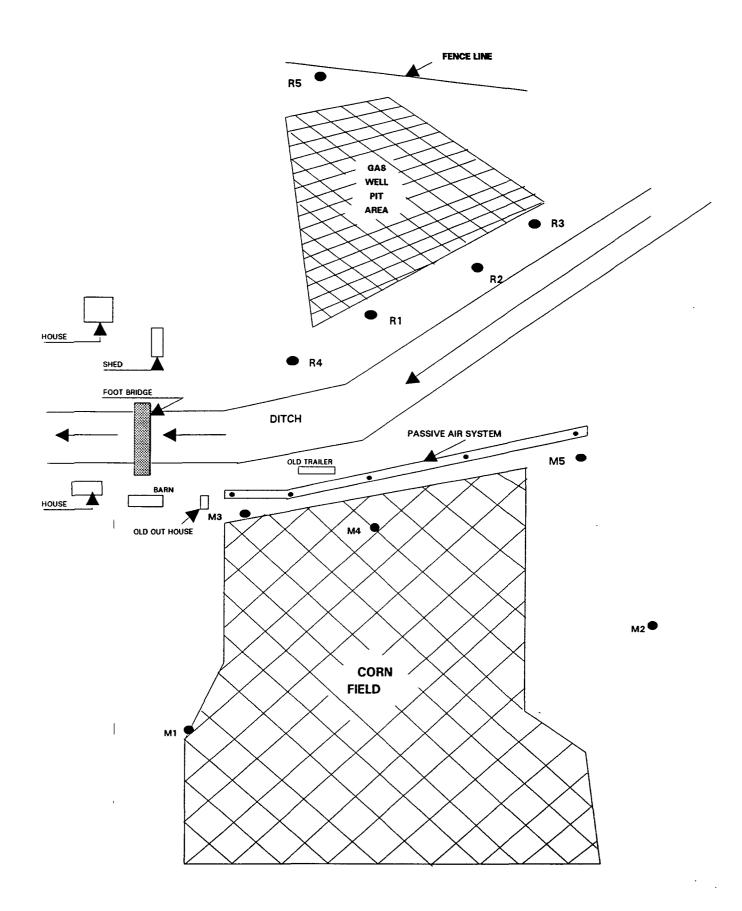
Report Distribution:

Sandra Miller Scott Pope - Philip Environmental Results Log Book



CHAIN OF CUSTODY RECORD

									OF CU	01001							
Project No) .	Project N	ame		1/22 >	· ¬			Turns		1	,		Request Analys	ed /		
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MATRIX	Date		l l	GRAB			nple Number		ers		<u>/</u> <	P 18	\mathcal{Y}		/		
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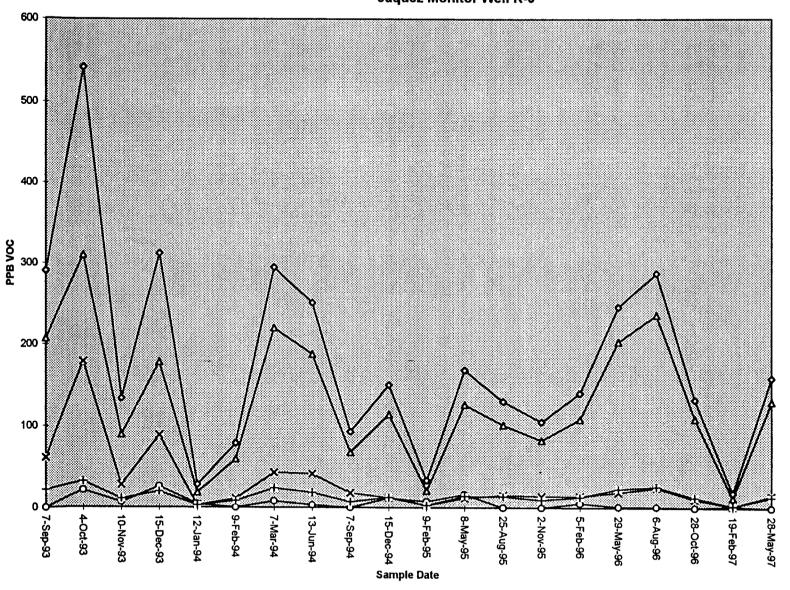
	SAMPLE	IDENTIFICAT	TION		
	Field	I ID	Lait	o ID	
SAMPLE NUMBER:	N/	Ά	970	501	7
MTR CODE SITE NAME:	N/A	A	Jaque	ez R-3	_
SAMPLE DATE TIME (Hrs):	5/28	3/97	10	25]
PROJECT:		Jaquez C	ornfield		
DATE OF BTEX EXT. ANAL.:	5/29	/97	5/29	9/97	4
TYPE DESCRIPTION:	Monito	r Well	Wa	iter	_
Field Remarks:					
		RESULTS			
PARAMETER	RESULT	UNITS	DF 0	QUALIFIERS Q j	
BENZENE	<1	PPB			
TOLUENE	15.3	РРВ			
ETHYL BENZENE	13.5	PPB			
TOTAL XYLENES	130	PPB			
TOTAL BTEX	159	РРВ			
The Surrogate Recovery was at DF = Dilution Factor Used	88.2	% for this sample	All QA/QC was	acceptable.	
Narrative: This sample was tested for Nitrate This sample was tested for Nitrite N					
. , 1	· 1		,		

970501,6/4/97

Date: _

Approved By: _

Jaquez Monitor Well R-3





[−]x— Toluene

^{-∆-} Total Xylenes

^{──} Total BTEX



SAMPLE IDENTIFICATION

<u> </u>	Field ID	Lab ID
SAMPLE NUMBER:	N/A	970502
MTR CODE SITE NAME:	N/A	Jaquez R-3
SAMPLE DATE TIME (Hrs):	5/28/97	1025
PROJECT:	Jaquez C	ornfield
DATE OF BTEX EXT. ANAL.:	5/29/97	5/30/97
TYPE DESCRIPTION:	Monitor Well	Water

Field Remarks: Field Duplicate

RESULTS

PARAMETER	RESULT	UNITS		QUALIFI	ERS	
			DF	Q		
BENZENE	<1	PPB				
TOLUENE	21.8	PPB				-
ETHYL BENZENE	20.2	PPB				
TOTAL XYLENES	191	PPB				
TOTAL BTEX	233	PPB				

The Surrogate Recovery was at	89.7	_% for this sample	All QA/QC was acceptable
DF = Dilution Factor Used			

N	2	rr	2	Ť١	.,	Δ.
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This sample was tested for Nitrate Nitrogen (NO3-N) by EPA method 300 and found to contain < 0.6 PPM

This sample was tested for Nitrite Nitrogen (NO2-N) by EPA method 300 and found to contain < 0.6 PPM



Development Criteria Sta 5 Casing Volumes of Water Removel Instruments Instrum	Site Nar	ne_ <i>7</i> /	AQU	52			· 		×	Developme Purging		Well Nur Meter Co				
Date Time Development Rate Depth Depth Rate Depth Rate Depth Rate Depth Dept	Methods	3 to 5 Ca Stabilization Other	sing Volumion of Indica	nent Baller Bottom Double	valve Check Valv		Initial Depth of \ Initial Depth to \ Height of Water Diameter (inche Item Well Casing Gravel Pack Drilling Fluids	Nell (feet)	Gallons	ackGallo Rem	noved		⊠ ⊠ ⊠ Water I	pH Meter DO Monitor Conductivity Temperatur Other	e Meter B, CH	
5-23-710957 5.0 10.0 12.6 6.74 33-6 5.0 15.0 13.5 6.75 48/ 1.5 5.0 15.0 15.0 13.5 6.75 48/ 1.5 5.0 15.0 15.0 15.0 15.0 15.0 15.0 1	Date	Time	Develo Meth Pump	od	Rate	Depth	Depth	Remov	ed (gal)	Removed	(gallons)	. ℃		μmho/cm	Oxygen	Comments
Comments BAILED PRI PIO O GALLOKS. Developer's Signature Jemmio Birds Date 5-28-97 Reviewer Art. V. M. Date 6/3/97	5-23-97	0952 0958						5.0	10.0			13.0	6.56	881 556	1.5	
Developer of the second of the	Comments_	<i>BAI</i> Signature	150 De	gr/	nio 1	0.0 B)	5Allo,	K5.		Date	28.97		Aa	on V	re C	Date



SAMPLE IDENTIFICATION

	Field ID	Lab ID	
SAMPLE NUMBER:	N/A	970503	
MTR CODE SITE NAME:	N/A	Jaquez R-4	
SAMPLE DATE TIME (Hrs):	5/28/97	1148	
PROJECT:	Jaquez C	ornfield	
DATE OF BTEX EXT. ANAL.:	5/30/97	5/30/97	
TYPE DESCRIPTION:	Monitor Well	Water	

Field Remarks:	

RESULTS

PARAMETER	RESULT	UNITS		QUALIFII	ERS	
			DF	Q		ar pe
BENZENE	189	PPB	2	D		
TOLUENE	92.5	PPB	2	D		
ETHYL BENZENE	13.3	PPB	2	D		
TOTAL XYLENES	144	PPB	2	D		
TOTAL BTEX	439	PPB				

TOTAL BTEX	439	PPB				
The Surrogate Recovery was at DF = Dilution Factor Used	89.5	% for this sample	All QA/QC	was acceptal	ole.	
The "D" qualifier indiciates that the	analyte calcula	ated is based on a seco	ondary dilution	on factor.		
Narrative:						

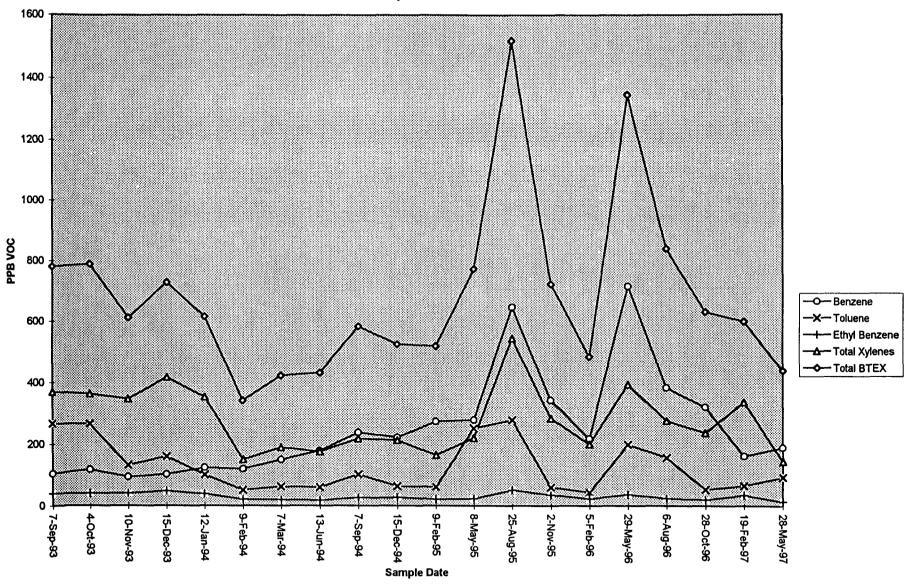
This sample was tested for Nitrate Nitrogen (NO3-N) by EPA method 300 and found to contain < 0.6 PPM

This sample was tested for Nitrite Nitrogen (NO2-N) by EPA method 300 and found to contain < 0.6 PPM

The series was to the series in the series i

Approved By:	John Karle	Date:	6/4/97	
/			, ,,	







Site Nan	ne <u> </u>	AQU		·					Developme Purging	ent	Well Nur Meter Co				
Methods	3 to 5 Cass Stabilization Other Pump Centrifuge Submersi Peristatic Other	velopm	nent Bailer Bottom		re	Initial Depth of I Initial Depth to I Height of Water		22/ J4/ ell (feet) Gravel Pa me in Well	Gallo Rem	ons to be loved		∑ ∑ Water	PH Meter DO Monitor Conductivity Temperatur Other	Meter O. CHO	EMETS KIT PEUS
Date Date	Time	Develop Meth Pump		Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water V Remove Increment		Removed	Volume (gallons) Cumulative		pH	Conductivity μmho/cm	Dissolved Oxygen mg/L	Comments
52897 52897 52897 52897							50 50 5.0	5.0 10.0 15.0			15.3 14.5 14.6 15.0	7.08 7.04 7.15 1.35	73/ 712 914 1120	1.5	
Comments_	BA)	Les Des	DR) nn	re, is L	ja o	5 5AU	lovs,		_Date_5	2897	7 Reviewer	A	Las	rh.	Date 6/3/47

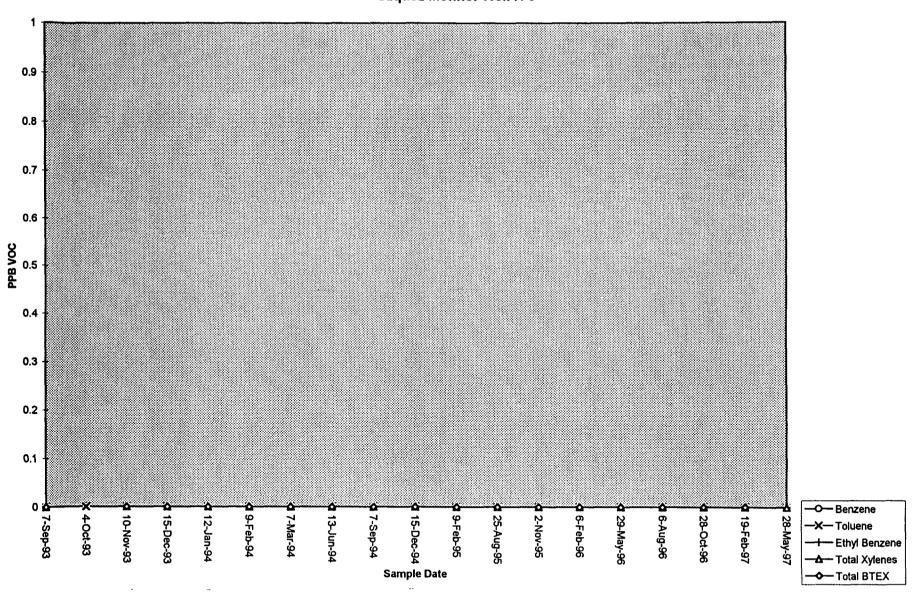


	SAMPLE	IDENTIFICA	TION			
	Fie	ld ID		Lab ID		_
SAMPLE NUMBER:	N	/A]		
MTR CODE SITE NAME:	N	/A				
SAMPLE DATE TIME (Hrs):	5/2	8/97		1202]
PROJECT:		Jaquez (
DATE OF BTEX EXT. ANAL.:	5/3	0/97		5/30/97		
TYPE DESCRIPTION:	Monit	or Well		Water		
Field Remarks:		RESULTS				
						
PARAMETER	RESULT	UNITS	DF	QUALIFI	ERS	
BENZENE	<1	РРВ				
TOLUENE	<1	РРВ				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	<6	РРВ				
The Surrogate Recovery was at DF = Dilution Factor Used	89.4	% for this sample	All QA/QC	was accepta	ıble.	
Narrative: This sample was tested for Nitrate I	Nitrogen /NO3-NI)	hy EPA mathod 20	O and found	to contain -	. 0 6 DDM	

970504,6/4/97

This sample was tested for Nitrite Nitrogen (NO2-N) by EPA method 300 and found to contain < 0.6 PPM

Jaquez Monitor Well R-5





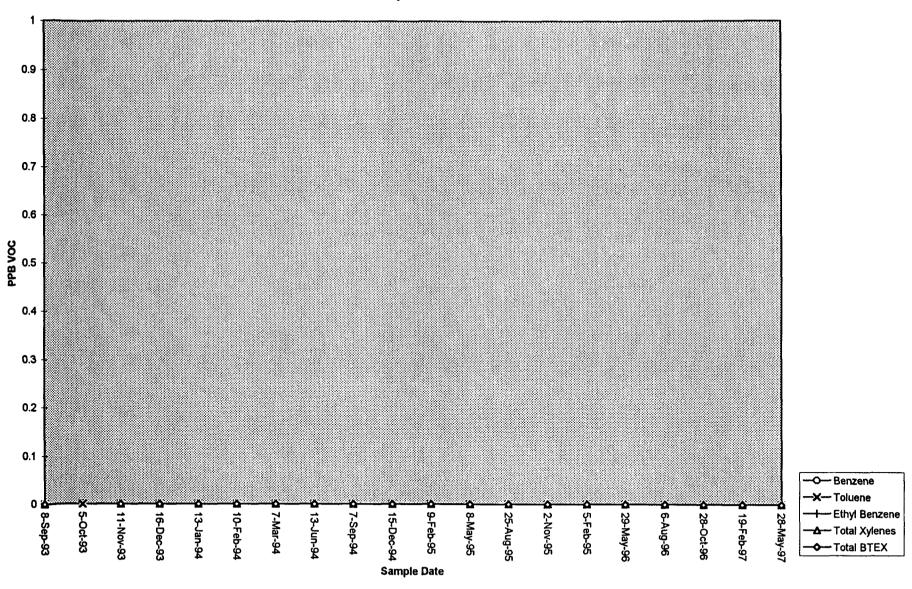
Site Nan	ne	AQU	1ÊZ						Developme Purging		Well Nur Meter Co				
Develop Methods Water R	3 to 5 Cass Stabilization Other Pump Centrifuge Submersi Peristatic Other	velopm	ent Baller Bottom Double		e	Water Vo	Well (feet) <u>2</u> Water (feet) <u>2</u> r Column in We	il (feet) Gravel P	ackGallo	ns to be oved		⊠ ⊠ Water I	pH Meter DO Monitor Conductivity Temperatur Other	Meter O. CH	IEMETS KIT
Date	Time	Develop Meth Pump		Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water V Remove Increment			Volume (gallons) Cumulative	Temperature °C	рН	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
5-28.97	1114										16.0	7.6/	898		
5.28.97	1118						3.0	3.0			15.7	7.58	929		
5-28-97	1122		<u> </u>	<u> </u>	ļ 		2.0	50			15.8	7.39	2330		
5-23-47	1130						2.0	7.0			16.5	7.54	1459	1.5	
									<u> </u>						
Comments_	BA1	100	DR	YP,	7.0	GALLO	V5.	_							
Developer's S	Signature_	Ve	nn	is l	Bir	SALLO,			Date 5	28-97	7 _Reviewer	Ja	in La	, UA	Date 4/3/97



	SAMPLE	IDENTIFICA	ATION		
	Fiel	d ID		Lab iD	
SAMPLE NUMBER:	N	/A		970505	
MTR CODE SITE NAME:	N	/A		Jaquez M-1	
SAMPLE DATE TIME (Hrs):	5/2	8/97		1402	
PROJECT:		Jaquez	Cornfield		
DATE OF BTEX EXT. ANAL.:	5/3(0/97		5/30/97	
TYPE DESCRIPTION:	Monito	or Well		Water	
Field Remarks:	739ch	RESULTS			
PARAMETER	RESULT	UNITS	DF	QUALIF	IERS
BENZENE	<1	PPB			
TOLUENE	<1	PPB			
ETHYL BENZENE	<1	PPB			
TOTAL XYLENES	<3	PPB			
TOTAL BTEX	<6	PPB			
The Surrogate Recovery was at DF = Dilution Factor Used	87.5	% for this sampl	e All QA/QC	was accept	able.
Narrative: This sample was tested for Nitrate Nit This sample was tested for Nitrite Nit					
Approved By:	Qu:		Date:	44/97	

970505,6/4/97

Jaquez Monitor Well M-1





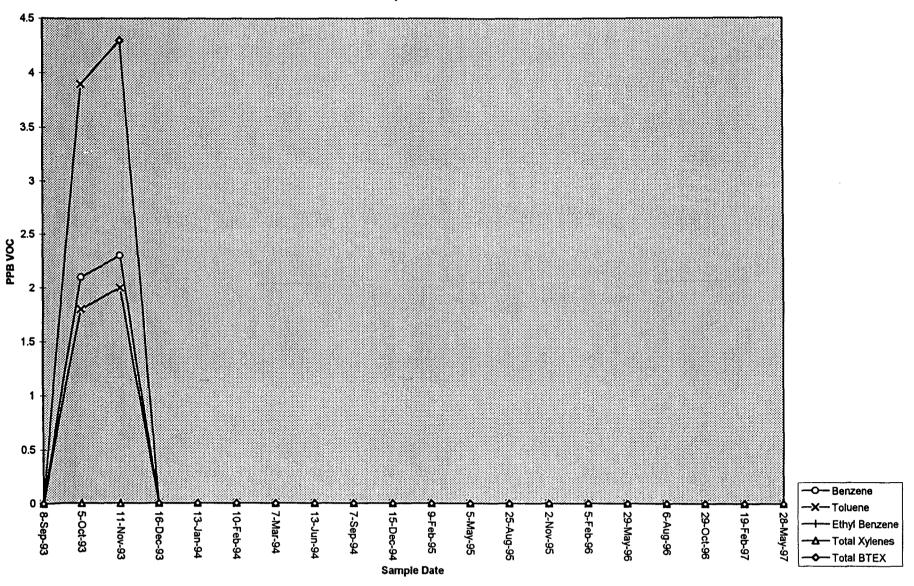
Site Nam	ie	AQUE						×	Developme Purging	nt	Well Number				
Methods	3 to 5 Cas Stabilization Other of De Pump Centrifuga Submersi Peristattic	velopmosal	ent Bailer Bottom	meters	e	Water Vo Initial Depth of V Initial Depth to V Height of Water Diameter (inche Item Well Casing Gravel Pack Drilling Fluids Total	Weil (feet) Water (feet) Column in We	/5,30 5,05 Il (feet)_/0 Gravel P	2. 3 5 ack	ins to be loved	Instruments PH Meter DO Monitor Conductivity Meter Temperature Meter Other D. C.			e Meter <u><i>O. CHC.</i></u>	
Date	Time	Developi Metho		Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water V Remove		Removed	Volume (gallons) Cumulative	Temperature °C	рН	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
52597	1257					1		,—			190	6.86	378		
5-2897	1300						3.0	3.0			17.0	6.88	359		
5-2897	1303						2.0	5.0			16.0	6.92	362		
5-2897	13/2						3.0	8.0			15.0	7.08	373	3.5	
Comments_4	BAIC	50 0	ph	P 8.	00	glov	5.								
Developer's S	ignature_	Les	n	is c	Sirj		-		Date 5	28.97	7 _Reviewer)de	Tall	a	Date



	SAMPLE	IDENTIFICA	TION		
	Field	I ID		Lab iD	
SAMPLE NUMBER:	N/	Ά		970506	
MTR CODE SITE NAME:	N/	A	J	aquez M-2	
SAMPLE DATE TIME (Hrs):	5/28	3/97		1419	
PROJECT:		Jaquez (Cornfield		
DATE OF BTEX EXT. ANAL.:	5/30)/97		5/30/97	
TYPE DESCRIPTION:	Monito	r Well		Water	
Field Remarks:		RESULTS			
PARAMETER	RESULT	UNITS	DF	QUALIFIER: Q	S
BENZENE	<1	PPB			
TOLUENE	<1	РРВ			
ETHYL BENZENE	<1	РРВ			
TOTAL XYLENES	<3	РРВ			
TOTAL BTEX	<6	PPB			
e Surrogate Recovery was at	89.3	% for this sample	All QA/QC	was acceptable).
nrative: is sample was tested for Nitrate Nit	rogen (NO3-N) b	y EPA method 30	00 and found	to contain < 0	.6 PPM
is sample was tested for Nitrite Nitr					
pproved By:	'elir		Date:	6/4/97	

970506,6/4/97

Jaquez Monitor Well M-2





Site Nan	ne	AQU	182					[.] []	Development Purging		Well Nur Meter Co				
Methods	3 to 5 Ca Stabilizati Other 6 of De Pump Centrifug Submers Peristaltic	sing Volumion of Indica	nent Bailer Bottom Double		е	Water Vo Initial Depth of V Initial Depth to V Height of Water Diameter (inche Item Well Casing Gravel Pack Drilling Fluids Total	Veli (feet) Vater (feet) Column in We	Gravel P	10.29		Instruments PH Meter				
Date	Time		pment nod Bailer	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water V Remov Increment	/olume ed (gal) Cumulativ	Product Volume Removed (galla Increment Cum	lons)	Temperature °C	рН	Conductivity μπho/cm	Dissolved Oxygen mg/L	Comments
5-28-97	1328			,			5.0	50			16.4	7.16 6.95	495 533		
5-28-97	1340						5.0	10.0			13.5	6.93	530		
5-2897	1346 1352						5.0	15.0			13.5	6.97	504	1.0	
							L								
Comments_ Developers	Signature_	de.	un	is l	Bir	d			_Date_5~2\$	97	7 _Reviewer	Jeli	n La	uli	Date <u>4/3/47</u>

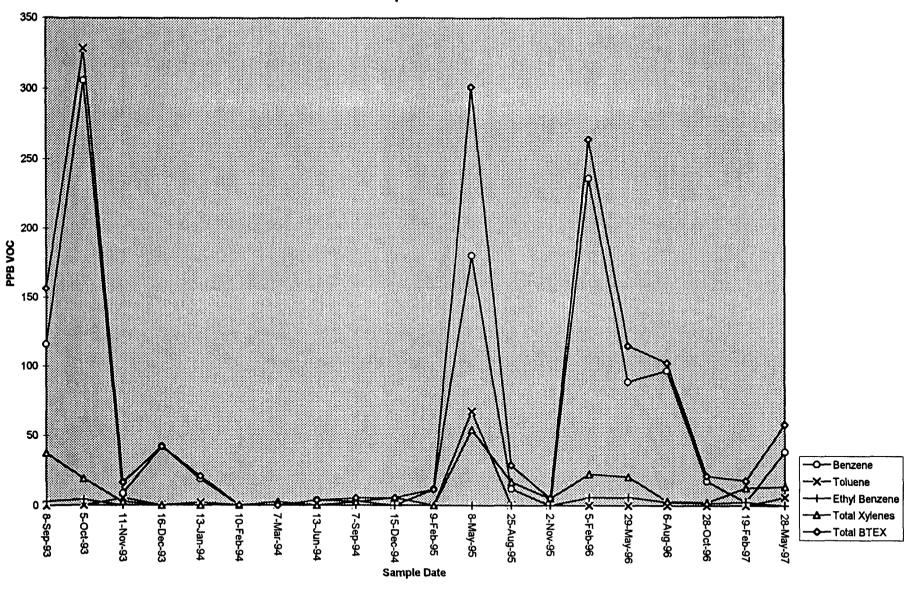


	SAMPLE	IDENTIFICATI	ION					
	Field	i iD	Lab iC)				
SAMPLE NUMBER:	N/	Ά	97050)7				
MTR CODE SITE NAME:	N/.	A	Jaquez M-3					
SAMPLE DATE TIME (Hrs):	5/28	3/97	1523	}				
PROJECT:		Jaquez Cor	rnfield					
DATE OF BTEX EXT. ANAL.:	5/30	/97	5/30/9	97				
TYPE DESCRIPTION:	Monito	r Well	Wate	<u>r</u>				
Field Remarks:								
	I	RESULTS			····			
PARAMETER	RESULT	UNITS		AUFIERS				
BENZENE	38.0	PPB						
TOLUENE	6.07	PPB						
ETHYL BENZENE	<1	PPB						
TOTAL XYLENES	13.5	PPB						
TOTAL BTEX	57.6	РРВ						
The Surrogate Recovery was at DF = Dilution Factor Used	88.3	% for this sample	All QA/QC was ac	ceptable.				
larrative: his sample was tested for Nitrate I his sample was tested for Nitrite N								
	l o							

970507,6/4/97

Date: ____

Jaquez Monitor Well M-3





Site Nan	ne	TAQU	VEC	2					Developme Purging		Well Nur Meter Co				
Methods	3 to 5 Ca Stabilizati Other S of De Pump Centrifug Submers Peristattic	sing Volume tion of Indica	nent Bailer Bottom Double		e	Initial Depth of \ Initial Depth to \ Height of Water	Item Cubic Feet Gallons Removed Well Casing 6.5 19.4 Water Disposal Gravel Pack ON 5176 Drilling Fluids							e Meter <u>O. C.</u> A	PEUS
Water R	lemova	al Data													
Date	Time	Develor Meth Pump		Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water V Remove Increment		Removed	Volume (gallons) Cumulative	Temperature °C	рН	Conductivity μmho/cm	Dissolved Oxygen mg/L	Comments
5-28.97	1447										17.5	7.05			
5-28-97	1452		ļ. <u>. </u>				5,0	50			14.5	7.19	2230		
5-28-97	1457	L					5.0	10.0			13.5	7.35	1580		
5-28-97	1506				<u> </u>		5.0	15.0			140	7.42	1275		
5-28-97	151/						5.0	20.0			13.5	7.36	172/	2.5	
									6						
Comments_	Signature <u>/</u>	Ven.	ni M	s E	. 39 Degl	days	prios	to	SAME.	25.97	7 _Reviewer) R	in Zu	ich.	Date 4/3/97

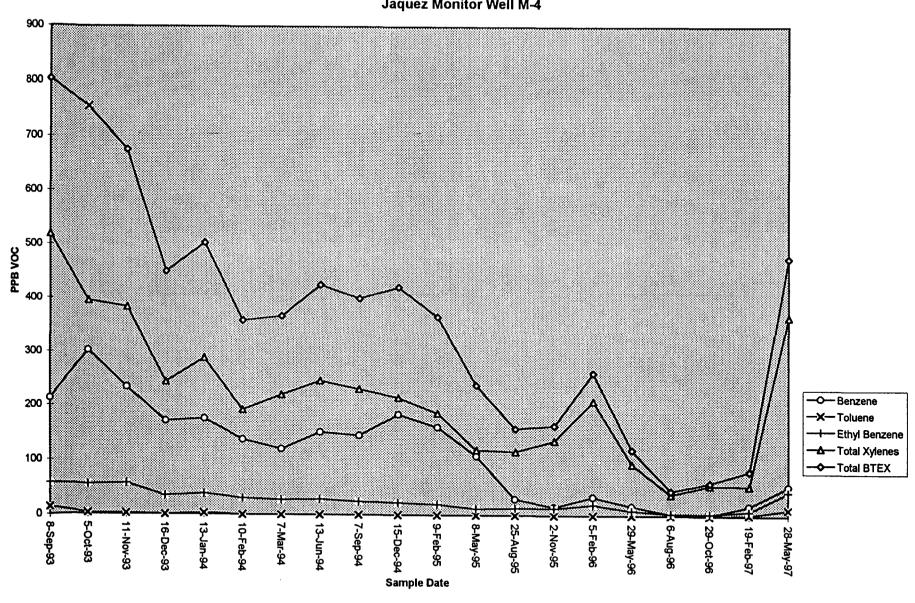


	SAMPLE	IDENTIFICA	ATION						
	Field	i ID		Lab ID		_			
SAMPLE NUMBER:	N/	A		970508					
MTR CODE SITE NAME:	N/	Ά.		Jaquez M-4					
SAMPLE DATE TIME (Hrs):	5/28	3/97		1703					
PROJECT:		Jaquez	Cornfield						
DATE OF BTEX EXT. ANAL.:	5/30)/97		5/30/97					
TYPE DESCRIPTION:	Monito	or Well		Water					
		RESULTS							
PARAMETER	RESULT	UNITS	DF	QUALIFI Q	ERS				
PARAMETER BENZENE	53.6	UNITS PPB	DF						
			DF						
BENZENE	53.6	РРВ	DF						
BENZENE TOLUENE	53.6 11.6	PPB PPB	DF						
BENZENE TOLUENE ETHYL BENZENE	53.6 11.6 43.4	PPB PPB	DF						

This sample was tested for Nitrite Nitrogen (NO2-N) by EPA method 300 and found to contain < 5.0 PPM

Approved By:	du	Halle	Date:	6/4/97	
<u></u>	700		-	7-7	

Jaquez Monitor Well M-4





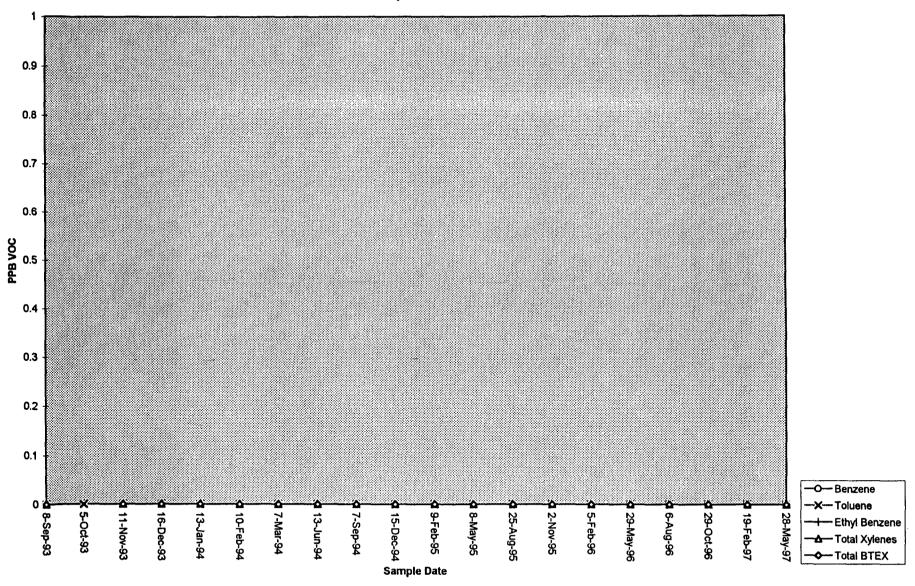
Peristatic Stainless-steel Kemmerer Gravel Pack Drilling Fluids Double Total Date Total Date Time Development Removal Intake Rate Depth Removed (gal) Removed (galons) Product Volume Product	Methods	ment C 3 to 5 Cas Stabilization	Criteria sing Volum on of Indica	nes of Wat ator Paran nent Bailer	ter Remove meters		Water Vo Initial Depth of V Initial Depth to V Height of Water Diameter (inche	Well (feet) Water (feet) r Column in We	(5. 3 3. 59 ell (feet)/ Gravel P me in Well	ackGalk	ons to be		Instrum	nents \$ pH Meter \$ DO Monitor \$ Conductivity	Meter	YEMETS KIT	
Date Time Development Method Rate Depth Removed Depth Removed Depth Removed (gall) Removed Remove		Other		Stainles	ss-steel Ker	mmerer	Drilling Fluids						ON	517E.	<u>BARR</u>	<u>ELS</u>	
5-289 160/ 5-289 160/ 5-289 1609 3.5 8.5 165/ 9.18 2370 40			Develo Meth	hod	Rate	Depth	Depth	Remov	ed (gal)	Removed	l (gallons)	_ ંજ	pH		Oxygen	Comments	
5-289 160/ 5-289 160/ 5-289 1609 3.5 8.5 165/ 9.18 2370 40	5-28-97	1554										18.7	7.92	2020			1
5-2897 1607				1				3.0	3.0						<u> </u>		1
5-249, 1609				1								******			t		1
Comments BAUGO ORY O 8.5 SALLOWS, REMOVED THE OXYSEN RELEASE COMPOUND SOCKS 34 DA	5-28.97	1609													40		- - -
Comments BAUGO OFF C 8.5 EALLONS, REMOVED THE OFFSEN RELEASE COMPOUND SOCKS 34 DA																	4
BEFURE SAMP	Comments	BALL	19	OPY	-08	15 B	Allan	L 5, RE	MOVEL	\ 0 <i>THE</i>	Off	 6EN [i	PELEA \	156 ca	upeu	WD SOCKS 39 BEFORE TO] 12 DAY- AMPC1.



T .	Field			Lab ID		1
SAMPLE NUMBER:	N/A	<u> </u>		970509		_
MTR CODE SITE NAME:	N/A		J	aquez M-5		}
SAMPLE DATE TIME (Hrs):	5/28/			1719		}
PROJECT:		Jaquez Co	rnfield			1
DATE OF BTEX EXT. ANAL.:	5/30/			5/30/97		
TYPE DESCRIPTION: L	Monito	well		Water]
16.7 (2.4) 28.7 (2.4)						
PARAMETER	RESULT	UNITS	DF	QUALIF Q		
BENZENE	<1	PPB				
TOI HENE	<1	РРВ				
TOLUENE					E .	
ETHYL BENZENE	<1	PPB				
	<1 <3	PPB PPB				
ETHYL BENZENE						
ETHYL BENZENE TOTAL XYLENES	<3 <6	PPB	All QA/QC	 was accept	table.	
TOTAL XYLENES TOTAL BTEX Surrogate Recovery was at	<3 <6 88.4 9	PPB PPB 6 for this sample		1		

970509,6/4/97

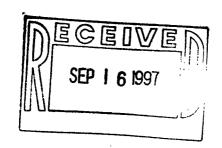
Jaquez Monitor Well M-5





Site Nan	ne	Aqu	S					×	Developme Purging		Well Nur Meter Co	•			
Methods Water R	3 to 5 Cas Stabilizati Other S of De Pump Centrifuga Submersi Peristaltic	velopmes	ent Bailer Bottom	meters	e	Water Vo Initial Depth of V Initial Depth of V Height of Water Diameter (inche Item Well Casing Gravel Pack Drilling Fluids Total	Well (feet) Water (feet) Column in We	5. 5. (feet) / (feet) Gravel P	ackGallo Rem	ins to be loved		METS KIT POUS			
vater iv	CITIOVE	Develop	ment	Removal	Intake	Ending Water	Water V	olume	Product	Volume	Temperature		Conductivity	Dissolved	
Date	Time	Metho Pump	d Baller	Rate (gal/min)	Depth (feet)	Depth (feet)	Remove	ed (gal) Cumulativ		(gailons) Cumulative	0℃	pН	μmho/cm	Oxygen mg/L	Comments
5-28-97	1428			1					[16.4	7.79	409		
5-22-97	1633						50	5.0			14.5	7.3/	426		
5-28-97	1638						5.0	10.0			137	7.16	438		
5-28-97	1850						5.0	15.0			14.5	7.22	42/	3.5	
							<u> </u>								
Comments_	BAIL	IED 1	DAY		150 R	SAU	ONS			-00-	7)	
Developer's	Signature_	WE1	nn	is e	20	2 <i>00</i>			_Date <u>55</u>	289/	_Reviewer) a	in X	wille	Date <i>Q/5/47</i>

September 15, 1997



3rd Quarter 1997 REPORT

Jaquez Corn Field Monitor Well Analytical Results Lab Sample #'s 970917 to 970925 Sampled August 21, 1997 Sampled by Dennis Bird

Report Distribution:

Sandra Miller Scott Pope - Philip Environmental Results Log Book

Attachments



A 2062

CHAIN OF CUSTODY RECORD

Project N	D .	Project N			(1)11%			· · · · · · · · · · · · · · · · · · ·	Туре		$\overline{}$		/	Requ			
Samplers	(Signature	Der	176	is.	GOVE Bisi	<u>. </u>	Date:	821.47	and No. of Sample		To Son Willow		/\(\lambda\)	·/			Remarks
MATHU	Date	Time	1	GRAB			nple Numb	per	Contain- ers	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		t2)\{	<i>Y</i>				
MX	8/2/91	0453		X		4	110	717	18.4	4:5	7	Χ			11/2/20	3,80	ジントラ
AT F	8/2/17	1/33		7.			70	915	6	47.5	7.	1			1:2.2.170	シン	1501 AV
MIZH	8/4/97	1151		1		9	70	7/9	Park	42.	X	7			11011/1	7/ \	18/1/ A-5
MIKA	8/2/17	1325		1.		5/	2/6	526	13	4.5	Х.	٨			. 1992 75	1/6 1	1861 M-1
HIZK	3/2/197	14/9/		γ.		(.)		12/	12.2	4:5	X	7			1101111		
WAVEN	8/2/19	1537	′	ÿ.		6	17:13		1,5	4	7	7.					1866 M-3
HIR	8/2/47	17/6		γ.		(1. 3.	-1-5-1	1.	1715	Y	γ.			MONITO	11. 11	RUCM-4
ATE	8/2/97	1716		1.		-	7-15	11/1/20	八个	410	×	X			MONITO	1/1/	15 CA M-4 FIELD DUD
HICH	8/21/91	1732		γ.		Ĵ	7/27	75	12.	ci c	X	X			MUNITO	1 11	1812 M-5
#17XX	12/1	· —		X					-	4.0	X				THE	3/1/	10P
	4114																
																144.	
							7				+	-					
							······································	And the second s									
Relinguis	hed by: (Si	gnature)		<i>"</i>	Date/T	me ごうご	Received	by: (Signature)		Relinqu	uished b	y: (Sign	ature)		Date	Time	Received by: (Signature)
	hed by: (Si		×1.47		Date/Ti		Received	by: (Signature)		Relinqu	iished b	y: (Sign	ature)		Date	/Time	Received by: (Signature)
Relinquis	hed by: (Si	gnature)			Date/T	me	Received Ma	for Laboratory by: (A Carrier F		125	Date/T	me 072:	Remar	rks:			
Carrier C								Carrier 9	one No.					Results	s Reported / by: (Sig	gnature)	San wan sento Form 71.55



SAMPLE IDENTIFICATION

	Field	d ID		Lab ID	
SAMPLE NUMBER:	N/	'A			
MTR CODE SITE NAME:	N/A		Jac		
SAMPLE DATE TIME (Hrs):	8/21	1/97		953	
PROJECT:		Monito	or Well		
DATE OF BTEX EXT. ANAL.:	8/26	6/97		8/26/97	
TYPE DESCRIPTION:	R-	R-3		Water	
Field Remarks:	1	RESULTS			
PARAMETER	RESULT	UNITS		QUALIFIERS	
			DF	<u> </u>	
BENZENE	<1	PPB			
TOLUENE	20.8	PPB			
ETHYL BENZENE	18.6	PPB			
TOTAL XYLENES	176	PPB			
TOTAL BTEX	215	PPB			
he Surrogate Recovery was at F = Dilution Factor Used	105.9	BTEX is by EPA Method % for this sample		was acceptable	
arrative:					
oproved By:	etchi.	0917BTEX,9/8/97	Date:	9-11-97	



SAMPLE IDENTIFICATION

EPFS LAB ID:	970917	
DATE SAMPLED:	08/21/97	
TIME SAMPLED (Hrs):	0953	
SAMPLED BY:	Dennis Bird	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jacquez Cornfield	
SAMPLE POINT:	R-3	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	<0.1	PPM	08/22/97
Nitrite as N0 ₂ -N	<0.1	PPM	08/22/97

Lab Remarks:

Reported By:

Approved By:

John Talle

Date: 9-13-17

970917 Jacquez R-3 Nitrate-Nitrite, 9/15/97

Jaquez Monitor Well R-3 600 500 400 O- Benzene **-×**— Toluene 200 300 -∆-- Total Xylenes -◆-- Total BTEX 200 100 —ბ 7-Sep-93 + 15-Dec-94 Sample Date 2-Nov-95 6-Aug-96 28-Oct-96 28-May-97 5-Feb-96 29-May-96 7-Mar-94 13-Jun-94 7-Sep-94 25-Aug-95 19-Feb-97 21-Aug-97 15-Dec-93 4-Oct-93 10-Nov-93 12-Jan-94



SAMPLE IDENTIFICATION

	Field	ID		Lab ID		
SAMPLE NUMBER:	N/	Α		970918		
MTR CODE SITE NAME:	N/A		Jaq	uez Cornfield		
SAMPLE DATE TIME (Hrs):	8/21	/97		1133		
PROJECT:		Monit	or Well			
DATE OF BTEX EXT. ANAL.:	8/26	3/97		8/26/97		
TYPE DESCRIPTION:	R-	4		Water		
Field Remarks:		RESULTS				
		a Letteria				
PARAMETER	RESULT	UNITS	DF	QUALIFIER	<u>s</u>	
BENZENE	343	PPB	2	D		
TOLUENE	377	РРВ	2	D		
ETHYL BENZENE	45.5	PPB	2	D		
TOTAL XYLENES	408	PPB	2	D		
TOTAL BTEX	1174	PPB				
he Surrogate Recovery was at F = Dilution Factor Used	98.8	BTEX is by EPA Metho % for this sample is based on a se	e All QA/QC		е.	
he "D" qualifier indiciates that the	analyte calculated		•			

970918BTEX,9/9/97

Date: 9-11-97



SAMPLE IDENTIFICATION

EPFS LAB ID:	970918
DATE SAMPLED:	08/21/97
TIME SAMPLED (Hrs):	1133
SAMPLED BY:	Dennis Bird
MATRIX:	Water
METER CODE:	N/A
SAMPLE SITE NAME:	Jacquez Cornfield
SAMPLE POINT:	R-4

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	< 0.1	PPM	08/22/97
Nitrite as N0 ₂ -N	< 0.1	PPM	08/22/97

Lab Remarks:

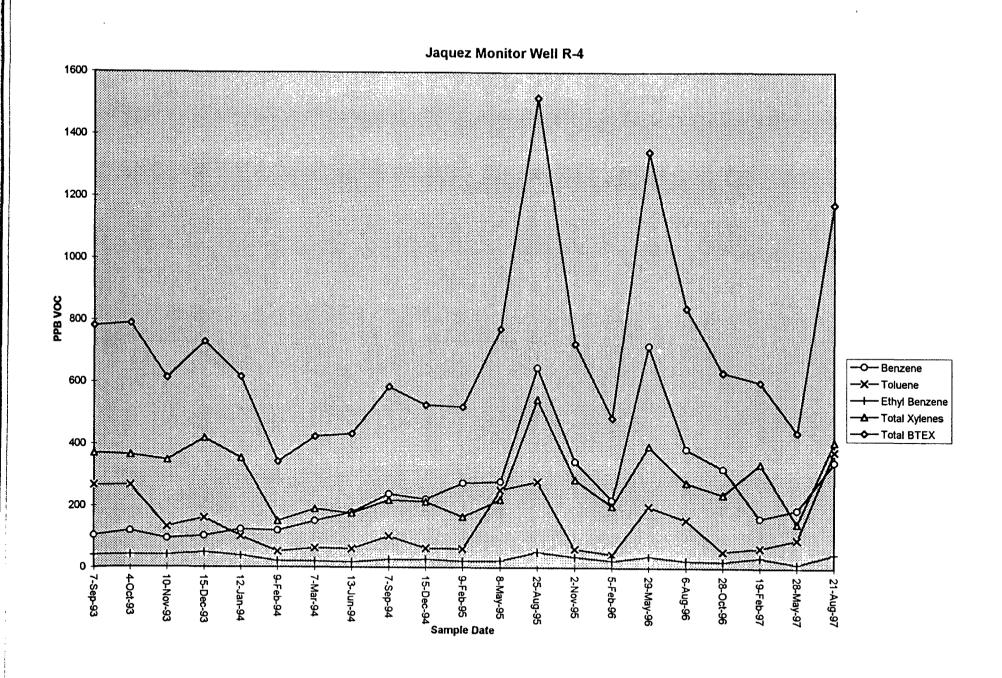
Reported By:

Approved By:

John Lorder

Date: 9-17-97

970918 Jacquez R-4 Nitrate-Nitrite, 9/15/97





1.50	SAMPLE	IDENTIFICAT	<u> </u>			
	Field	ID		Lab ID		
SAMPLE NUMBER:	N/	Α		970919		
MTR CODE SITE NAME:	N/A		Jaq	uez Cornfield	1	
SAMPLE DATE TIME (Hrs):	8/21	/97		1151		
PROJECT:		Monito	Well			
DATE OF BTEX EXT. ANAL.:	8/26	/97		8/26/97		
TYPE DESCRIPTION:	R-	5	·	Water		
Field Remarks:						
	Į.	RESULTS				
PARAMETER	RESULT	UNITS	DF	QUALIFIE	RS	1
BENZENE	<1	PPB				
TOLUENE	<1	PPB				·
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	<6	PPB				
he Surrogate Recovery was at F = Dilution Factor Used		BTEX is by EPA Method 8 % for this sample		was accepta	ble.	T
arrative:						ı
pproved By:) chel		Date:	9-11-9	7	



SAMPLE IDENTIFICATION

EPFS LAB ID:	970919	
DATE SAMPLED:	08/21/97	
TIME SAMPLED (Hrs):	1151	
SAMPLED BY:	Dennis Bird	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jacquez Cornfield	
SAMPLE POINT:	B-5	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	<0.1	PPM	08/22/97
Nitrite as N0 ₂ -N	<0.1	PPM	08/22/97

Lab Remarks:

Reported By:

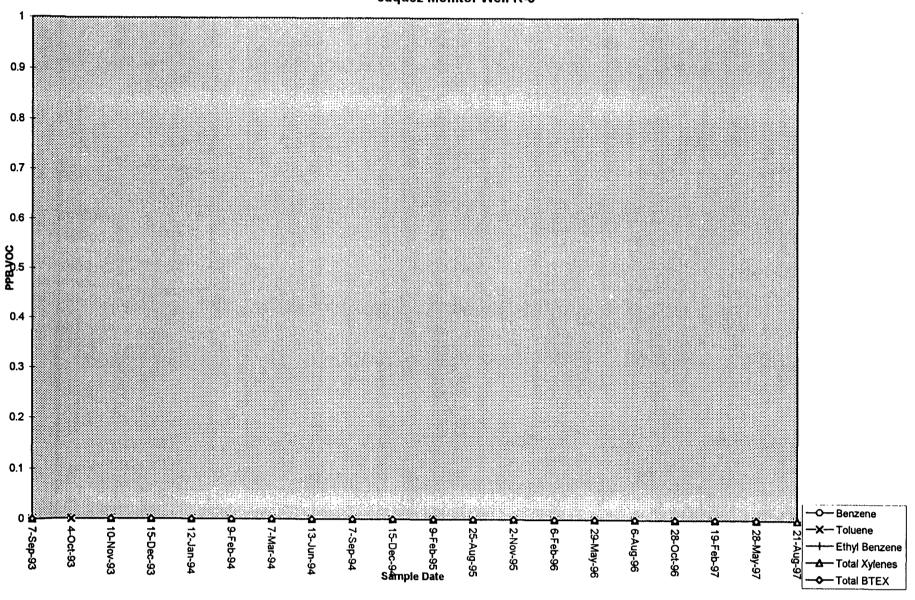
Approved By: ___

John Haller

Date: 9-13-77

970919 Jacquez R-5-Nitrate-Nitrite, 9/15/97

Jaquez Monitor Well R-5





	•		TION		
	Field I	D		Lab ID	
SAMPLE NUMBER:	N/A	4		970920	
MTR CODE SITE NAME:	N/A		Jaq	uez Cornfield	
SAMPLE DATE TIME (Hrs):	8/21/	97		1325	
PROJECT:		Monito	r Well		
DATE OF BTEX EXT. ANAL.:	8/26/	97		8/26/97	
TYPE DESCRIPTION:	M-1			Water	
Field Remarks:	R	ESULTS			
PARAMETER	RESULT	UNITS	DF	QUALIFIEF Q	es .
BENZENE	<1	PPB	<u> </u>	. 4	
TOLUENE	<1	PPB			
ETHYL BENZENE	<1	PPB			
TOTAL XYLENES	<3	PPB			
TOTAL BTEX	< 6	PPB			
e Surrogate Recovery was at = Dilution Factor Used		BTEX is by EPA Method for this sample		was acceptab	le.



SAMPLE IDENTIFICATION

EPFS LAB ID:	970920	
DATE SAMPLED:	08/21/97	
TIME SAMPLED (Hrs):	1325	
SAMPLED BY:	Dennis Bird	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jacquez Cornfield	
SAMPLE POINT:	M-1	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	<0.1	PPM	08/22/97
Nitrite as N0 ₂ -N	<0.1	PPM	08/22/97

Lab Remarks:

Reported By:

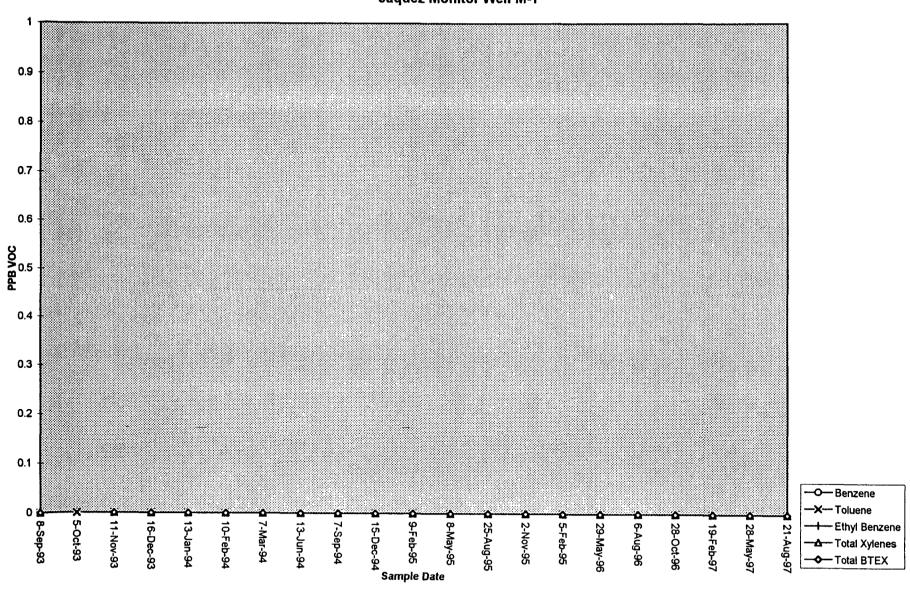
Approved By: __

in Fueler

Date: <u>9-13-97</u>

970920 Jacquez M-1-Nitrate-Nitrite, 9/15/97

Jaquez Monitor Well M-1





		IDENTIFICA	ATION			
	Field	d ID		Lab ID		
SAMPLE NUMBER:	N/	/A		970921		
MTR CODE SITE NAME:	N/A		Jac	quez Cornfiel	d	
SAMPLE DATE TIME (Hrs):	8/2	1/97		1419		
PROJECT:		Monit	or Well			_
DATE OF BTEX EXT. ANAL.:	8/26			8/26/97	•	4
TYPE DESCRIPTION:	M	-2		Water		
Field Remarks:		DEOLU 70				
		RESULTS		-		
PARAMETER	RESULT	UNITS	DF	QUALIFI Q	ERS	<u> </u>
BENZENE	<1	РРВ				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	РРВ				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	<6	PPB				
Surrogate Recovery was at = Dilution Factor Used	110.1	BTEX is by EPA Metho % for this sample		was accepta	able.	
			1			



SAMPLE IDENTIFICATION

970921 **EPFS LAB ID:** 08/21/97 DATE SAMPLED: 1419 TIME SAMPLED (Hrs): **Dennis Bird SAMPLED BY:** Water MATRIX: N/A **METER CODE:** Jacquez Cornfield **SAMPLE SITE NAME:** M-2 **SAMPLE POINT:**

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	<0.1	PPM	08/22/97
Nitrite as N0 ₂ -N	< 0.1	PPM	08/22/97

Lab Remarks:

Reported By:

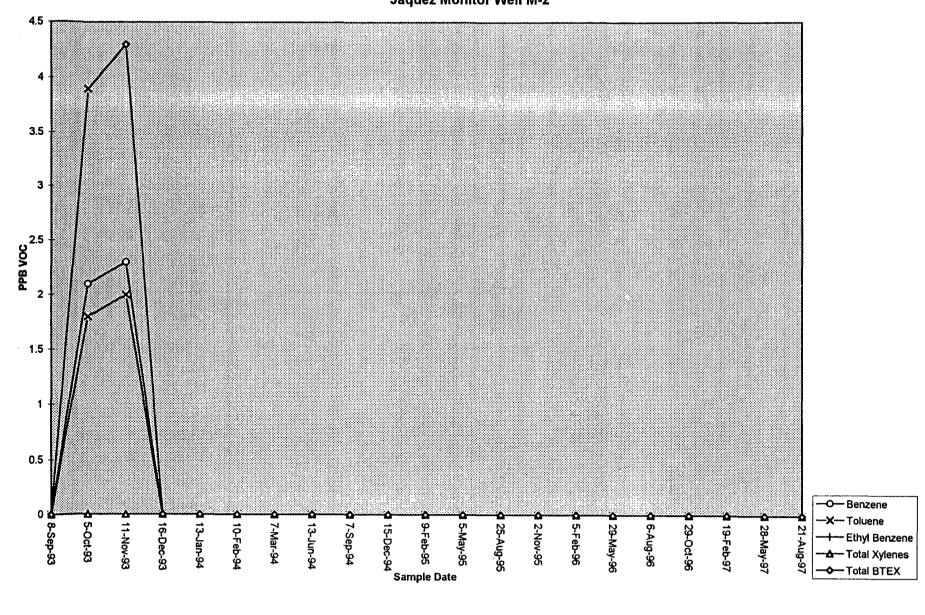
Approved By:

John Tarles

Date: 9-13-97

970921 Jacquez M-2 Nitrate-Nitrite, 9/15/97

Jaquez Monitor Well M-2





	SAMPLE	IDENTIFICAT	<u> </u>		
	Field	d ID		Lab ID	
SAMPLE NUMBER:	N/	'A	970922		
MTR CODE SITE NAME:	N/A		Jaqı	iez Cornfield	
SAMPLE DATE TIME (Hrs):	8/21	1/97		1537	
PROJECT:		Monitor	Well		
DATE OF BTEX EXT. ANAL.:	8/26	5/97		8/26/97	
TYPE DESCRIPTION:	M-	-3		Water	
Field Remarks:					
		RESULTS			
PARAMETER	RESULT	UNITS	DF	QUALIFIE	RS
BENZENE	<1	PPB			
TOLUENE	<1	PPB			
ETHYL BENZENE	<1	PPB			
TOTAL XYLENES	7.68	PPB			
TOTAL BTEX	8	PPB			
The Surrogate Recovery was at DF = Dilution Factor Used	109.9	BTEX is by EPA Method 8 % for this sample		was acceptab	ole.
Narrative:					
10 10	P				



SAMPLE IDENTIFICATION

EPFS LAB ID:	970922	
DATE SAMPLED:	08/21/97	
TIME SAMPLED (Hrs):	1537	
SAMPLED BY:	Dennis Bird	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jacquez Cornfield	
SAMPLE POINT:	M-3	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	< 0.1	PPM	08/22/97
Nitrite as N0 ₂ -N	<0.1	PPM	08/22/97

Lab Remarks:

Reported By:

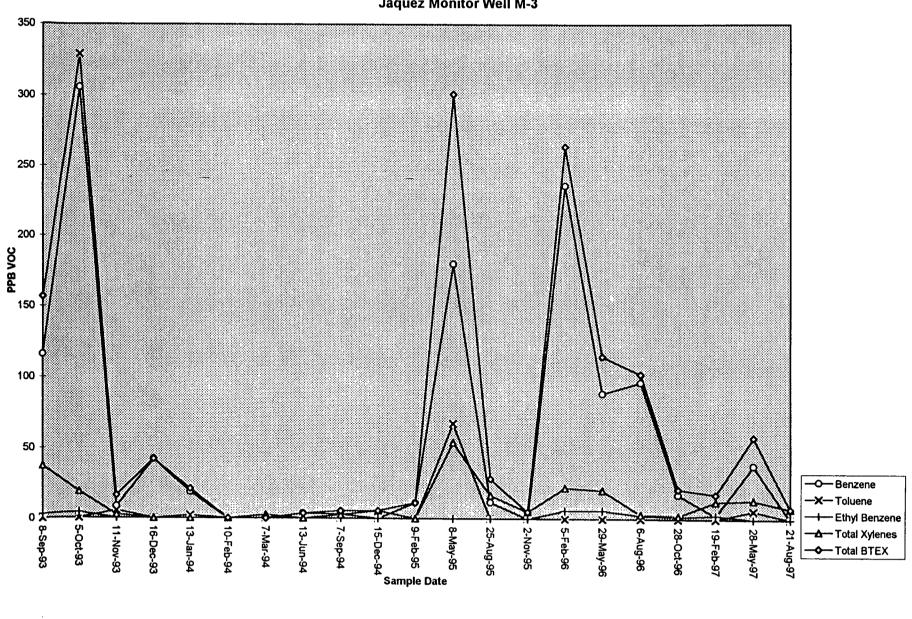
Approved By:

John Valle

Date: 9-13-97

970922 Jacquez M-3 Nitrate-Nitrite, 9/15/97

Jaquez Monitor Well M-3





SAMPLE IDENTIFICATION

	OAIIII EE	IDENTIFICA			
	Fiel	ld ID		Lab ID	
SAMPLE NUMBER:	N	N/A		970923	
MTR CODE SITE NAME:	N/A		Ja	quez Cornfield	
SAMPLE DATE TIME (Hrs):	8/2	1/97		1716	
PROJECT:		Monit	or Well		
DATE OF BTEX EXT. ANAL.:	8/2	7/97		8/27/97	
TYPE DESCRIPTION:	M	1-4		Water	
Field Remarks: _		RESULTS			
		a property of the			
PARAMETER	RESULT UNITS	DF	QUALIFIERS		
BENZENE	39.7	РРВ			
TOLUENE	3.17	PPB			
ETHYL BENZENE	1.51	PPB			
TOTAL XYLENES	100	PPB			
TOTAL BTEX	145	PPB			
The Surrogate Recovery was at	96.2	BTEX is by EPA Metho % for this sample		C was acceptable.	
larrative:					
Approved By:	etch:		Date:	9-11-97	



SAMPLE IDENTIFICATION

EPFS LAB ID:	970923	
DATE SAMPLED:	08/21/97	
TIME SAMPLED (Hrs):	1716	
SAMPLED BY:	Dennis Bird	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jacquez Cornfield	
SAMPLE POINT:	M-4	
	•••	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	19.7	PPM	08/22/97
Nitrite as N0 ₂ -N	1.13	PPM	08/22/97

Lab Remarks:

Reported By:

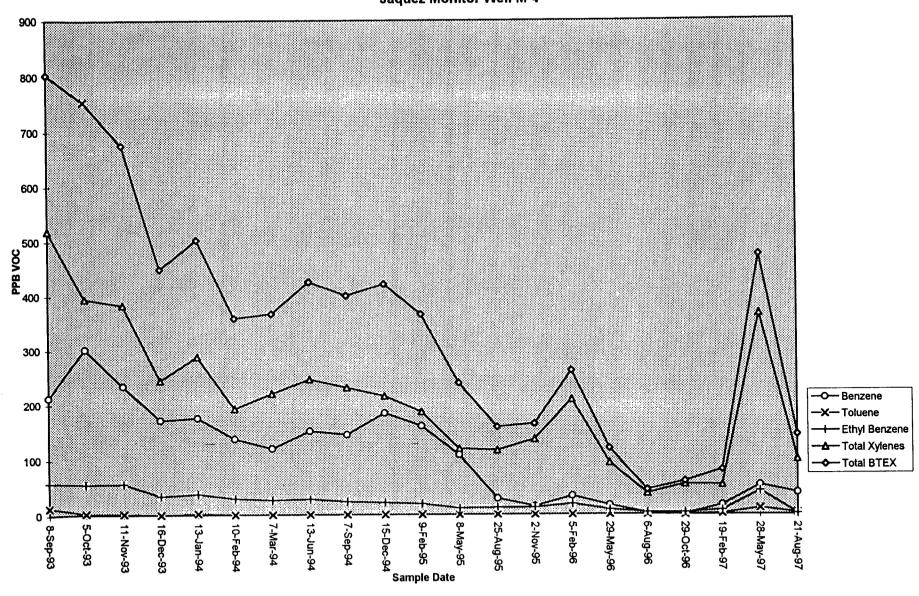
Approved By: __

John Volch

Date: 9-13-97

970923 Jacquez M-4 Nitrate-Nitrite, 9/15/97

Jaquez Monitor Well M-4





	SAMPLE	IDENTIFICA	TION		
	Field	i ID		Lab ID	
SAMPLE NUMBER:	N/	Ά		970924	
MTR CODE SITE NAME:	N/A		Jaq	uez Cornfield	
SAMPLE DATE TIME (Hrs):	8/21	/97		1716	
PROJECT:		Monito	or Well		
DATE OF BTEX EXT. ANAL.:	8/27	'/97		8/27/97	
TYPE DESCRIPTION:	M-4 Fie	ld Dup		Water	
Field Remarks:		RESULTS			
		TESOLIS	<u> </u>		
PARAMETER	RESULT	UNITS	DF	QUALIFIEI Q	RS
BENZENE	37.4	РРВ			
TOLUENE	2.44	РРВ			
ETHYL BENZENE	1.10	РРВ			
TOTAL XYLENES	99.3	PPB			
TOTAL BTEX	140	PPB			
The Surrogate Recovery was at _ DF = Dilution Factor Used	92.1	BTEX is by EPA Method % for this sample		was acceptab	ile.
Narrative:					
Approved By:	Tarl		Date:	9-11-97	



SAMPLE IDENTIFICATION

EPFS LAB ID:	970924	
DATE SAMPLED:	08/21/97	
TIME SAMPLED (Hrs):	1716	
SAMPLED BY:	Dennis Bird	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jacquez Cornfield	
SAMPLE POINT:	M-4 Field Duplicate	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	19.9	PPM	08/22/97
Nitrite as N0 ₂ -N	1.11	PPM	08/22/97

Lab Remarks:

Reported By:

Approved By: _

John Dollar

970924 Jacquez M-4-FD Vitrate-Nitrite 9/15/97

Date: 9-13-97



	SAMPL	E IDENTIFICA	TION	W		
	Fi	eid ID		Lab ID		
SAMPLE NUMBER:	N	I/A		970925		
MTR CODE SITE NAME:	N//	1	J	aquez Cornfiel	d	
SAMPLE DATE TIME (Hrs):	8/2	21/97	<u> </u>	1732		
PROJECT:		Monite	or Well			
DATE OF BTEX EXT. ANAL.:	8/2	27/97		8/27/97		
TYPE DESCRIPTION:		VI-5		Water		
Field Remarks:		RESULTS				
PARAMETER	RESULT	UNITS	DF	QUALIFII Q	ERS	
BENZENE	<1	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	< 6	PPB				
Surrogate Recovery was at = Dilution Factor Used	87.4	BTEX is by EPA Method% for this sample		C was accepta	ible.	
rative:						
proved By:	Level		Date:	9-11-9	7	- -



SAMPLE IDENTIFICATION

EPFS LAB ID:	970925	
DATE SAMPLED:	08/21/97	
TIME SAMPLED (Hrs):	1732	
SAMPLED BY:	Dennis Bird	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jacquez Cornfield	
SAMPLE POINT:	M-5	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	< 0.1	PPM	08/22/97
Nitrite as N0 ₂ -N	<0.1	PPM	08/22/97

Lab Remarks:

Reported By:

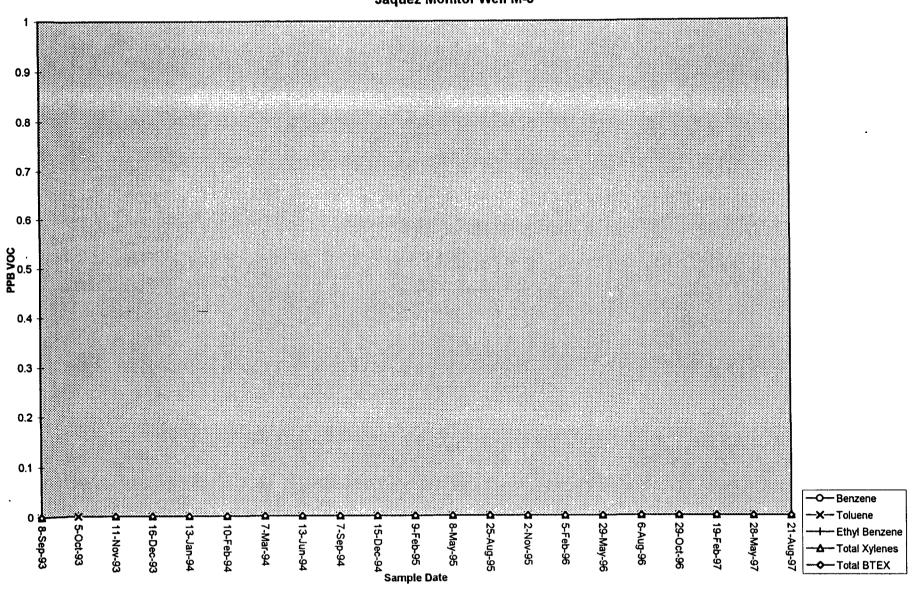
Approved By:

John Kalela

Date: 9-13-9-

970925 Jacquez M-5 Nitrate-Nitrite, 9/15/97

Jaquez Monitor Well M-5





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Site Na	me	7990	100					•			Meter C	ode			
Develop	3 to 5 Ca Stabilizat Other	Criteria using Volume using of Indica evelopm using X	es of Wa ator Paran nent Bailer Bottom	ter Removel meters		Water Vo Initial Depth of V Initial Depth to V Height of Water Diameter (inche Item Well Casing Gravel Pack Drilling Fluids	Well (feet) Water (feet) Column in We	77.47 ell (feet) Gravel P me in Well	 	ons to be noved		₩ ₩ Water	Disposa	/ Meter e Meter <i>O、C 人</i>	IEMETS KIT PRECS
L						rotaij		1	L		J				
Water F	Remov			T		15			· · · · · · · · · · · · · · · · · · ·			Y	<u> </u>	I =	
Date	Time	Develo Meth	•	Removal Rate	Intake Depth	Ending Water Depth	Water \ Remov	volume red (gal)		t Volume d (gallons)	Temperature °C	pH	Conductivity µmho/cm	Dissolved Oxygen	Comments
	0.5	Pump	Bailer	(gal/min)	(feet)	(feet)	Increment	Cumulative	Increment	Cumulative	 		- 11 1	mg/L	
8-21-97	0918		ļ						ļ		18.0	6.45	745	ļ	
8-21-97	0923			ļ		ļ	5.0	5.0			16.0	6.86	795		
8-21-97	0929					-	5.0	10.0		-	15.5	7.02	643		
3-21-97	0937					-	5.8	15.0	 .		153	7.08	5.38		
<i>\$21.97</i>	0944						5.0	20.0			16.0	7.1/	549	1.5	
Comments_	Signature	Der	ın	is C	Bire	l			Date_F	21-97	7 _Reviewer	Sin	Zu L	Ich	Date 9-11-57
20.3.apor a												0		······································	F



	-						×	Developme Purging	ent	Well Nu	mber	N.4		
Site Na	me <u></u>	TAQUE	S				(23)	r diging		Meter C	ode			
Method	3 to 5 Ca Stabilizat Other S of De Pump Centrifug Submers Peristalti	ssing Volumes of Ition of Indicator P Evelopmen Baile Jal X Bott Sible Doc C Sta	arameters	ve	Water Vo Initial Depth of Initial Depth to Height of Wate Diameter (Inche Item Well Casing Gravel Pack Drilling Fluids Total	Well (feet) Water (feet) r Column in We	2,/7 2,/2 ell (feet) <u>F</u> Gravel Pa me in Well	ackGallo Ren	ons to be		₩ Water	OH Meter OH Monitor Conductivity	e Meter <u>2. CHE</u> /	METS KIT REUS
Water R	Time	Developmen Method Pump Bai	Rate	Depth	Ending Water Depth (feet)	Water \ Remov	/olume red (gal) Cumulative	Removed	Volume I (gallons) Cumulative	Temperature °C	рН	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
8-21-97 8-21-97 8-21-97 8-21-97 8-21-97	1015 1023 1029 1040 1126					5.0 5.0 5.0 5.0	50 100 150 200			19.0 19.0 18.0 18.0 18.0	7.4/ 7.42 7.4/ 7.52 7.48	636 621 665 958 995	1.5	
Comments_		Jenn Tenn	PYPI	50	SALLON					, v. C				
Developer's	Signature∠	Tenn	is c	Bire	l			_Date_	21.97	Reviewer	Ju	n Far	reli.	Date 9-11-97



Site Name TAQUEZ		ging	lumber R-5	
3 to 5 Casing Volumes of Water Removel Stabilization of Indicator Parameters Other Methods of Development Pump Bailer Centrifugal Bottom Valve Submersible Double Check Valve Peristaltic Stainless-steel Kemmerer Other Water Removal Data	Water Volume Calculation Initial Depth of Well (feet) 2,400 Initial Depth to Water (feet) 6,500 Height of Water Column in Well (feet) 7,200 Diameter (inches): Well 6,600 Water Volume in Well 1,000 Item Cubic Feet Gallons Well Casing 5,70 Gravel Pack Drilling Fluids Total	Gallons to be Removed	Instruments OH Meter OO Monitor Conductivity Meter Other O. C. H.S. Water Disposal ON 5/78 St.	
Development Removal Intake	Depth Removed (gal) F	Product Volume Temperatemoved (gallons) °C ement Cumulative	pΗ μmho/cm Oxygen mg/L	Comments
8-21-97 1104 8-21-97 1116	5.0 5.0 5.0 100	19.0 19.0 19.0	7.70 671	
Comments BAICEN DRY C 10. Developer's Signature Lemnis Bri	o sallons.	e \$21.97 Reviewer	Jan Talle	Date 9-11-97



EL <i>PASO FIELD SERVICES</i> Site Name <u>JAQUEZ</u>				×	Developme Purging	erit	Well Nur Meter Co				
Stabilization of Indicator Param Other Pump Bailer Centrifugal Submersible Double	valve	Water Vol Initial Depth of V Initial Depth to V Height of Water Diameter (inche Item Well Casing	Well (feet) Water (feet) Column in We	5.30 3.54 ell (feet)	ackGallo	ons to be]	⊠ ⊠ Water	Disposal	e Meter O. CHE/	NETS KIT
Peristaltic Stainles Other	ss-steel Kemmerer	Gravel Pack Drilling Fluids Total						W .	5/7E	BARK	<u> PEUS</u>
Date Time Development Method Pump Bailer 2197 /254	Removal intake Rate Depth (gal/min) (feet)	Ending Water Depth (feet)	Water \ Remov Increment	/olume ed (gal) Cumulative	Removed	Volume (gallons) Cumulative	Temperature °C	рН 7.55	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
21-97 1359 21-97 1312			5.0 5.0	5.0			21.0	7.25 7.42	350 434	3.5	
omments BAICO DRY eveloper's Signature Demni	@10,0	SAUC	W5.	1	ļ Ø	2/.97	 	\ 	1 7	10	Date 9-11-4
eveloper's Signature UKX/N/N/V	o yneu	<u>/</u>			Date 0	01-17	Reviewer		Un V	weev_	Date 7 - 11 - 9



Site Naı	me							<u> </u>	Developme Purging		Well Nur Meter Co				,
Method	3 to 5 Ca Stabilizat Other S of De Pump Centrifug Submers Peristalti	evelopn al X ible	nent Bailer Bottom Double			Water Vol Initial Depth of V Initial Depth to V Height of Water Diameter (inche Item Well Casing Gravel Pack Drilling Fluids Total	Vell (feet)/ Vater (feet) Column in We	2.9/ 2.9/ Ill (feet) / 3 — Gravel Pa me in Well	ackGallo	ons to be noved]	X X Water	oH Meter OO Monitor Conductivity Femperatur Other	Meter e Meter	HEMETS KLT PRELS
Water F	Time	Develo Meti Pump	•	Removal Rate (gal/min)	intake Depth (feet)	Ending Water Depth (feet)	Water \ Remov	ed (gal)	Removed	Volume (gallons) Cumulative	Temperature °C	рН	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
82197	1343										223	7.18	532		
8-21-97	1347						5.0 5.0 5.0	50			20,5	6.94	7/3		
8-21-97	1352						5.0	10.0			199	6.94	7.42		
8-21-97	1359						5.0	15.0			200	6.98	750		
82 <u>497</u>	1404						5.0	20,0			199	6.95	689	<u> </u>	
\$2197	1417						5.0	15.0			19.6	6.98	185	1.5	
	Ì						· · · · · · · · · · · · · · · · · · ·								
						1		1							
						<u> </u>									



Site Nar	ne_ <u>C</u>	AGU	7. 2 .7	<u> </u>				 X	Developme Purging	ent	Well Nu		M-3 		
Method:	3 to 5 Ca Stabilizar Other S of De Pump Centrifug Submers Peristalti	evelopn all is in the control of th	nent Bailer Bottom Double	-	re	Water Vo Initial Depth of Initial Depth to Height of Water Diameter (inche Item Well Casing Gravel Pack Drilling Fluids Total	Well (feet) / Water (feet) / Column in We	5,20 4,87 II (feet)/ Gravel P	2. 39 ack	ons to be moved		Water	Disposa	/ Meter e Meter <u>ク. Cナ/ら</u>	METS KIT
Date	Time	Develo Meti Pump	•	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)	Water \ Remov	olume ed (gal) Cumulative	Removed	t Volume d (gallons) Cumulative	Temperature °C	рН	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
8-21-97	1453										24.5	698	794		
P2197	1458						5.0	5.0			21.7	6.96	169		
P2197	1504						5.0	10.0			206	7.05	681		
P2197	1514						5.0	15.0			21.0	712	5%		
P2197	1520						5.8	20.0			261	7.22	820	3,5	
			 												
		ļ	ļ							ļ					
	D, 7		ـــــــــــــــــــــــــــــــــــــ	~DC	<u> </u>	r /s 5	12.21-1	ر منسر م	1,1/2/1	/ /) 1	1 P/2	-/9	<u>ー</u> フ	L	
Comments_ Developer's	Signature	De	nn	is	Bie	cles a)/7 C (1		Date_F	21-97	7 Reviewer)d.	Ja	tolo	Date 9-11-97



Site Name TAQUE	-Z). I X	Developme Purging	nt	Well Nur								
Development Criteria 3 to 5 Casing Volumes of V Stabilization of Indicator Pa Other Methods of Development Pump Bailer	rameters	Water Vo Initial Depth of Initial Depth to Height of Water Diameter (inche	Well (feet) Water (feet) r Column in We es). Well Water Volum	7.30 7.86 Il (feet) Gravel Pa me in Well		 ns to be	1	×	oH Meter OO Monitor Conductivity		HEMETS KIT				
	m Valve ble Check Valve nless-steel Kemmerer	Item Well Casing Gravel Pack Drilling Fluids	Cubic Feet	Gallons S.2		oved 4.7		Water I	Disposal	- <i>BH</i>	MREL5				
Water Removal Data Development Method Pump Baile	Rate Depth		Water \ Remov	ed (gal)		Volume (gallons) Cumulative	Temperature °C	рН	Conductivity μπho/cm	Dissolved Oxygen mg/L	Comments				
9-21-97 1600 9-21-97 1612 9-21-97 1612			5.0 5.0	50			25.0 21.7 19.9	7.60 7.87 7.93	128/ 136/ 1028	3,5					
Comments BHICED ON Developer's Signature	VP/ac	CAUS.	PUT	T7-/C	5 OR	C 50) [K 5	BAU	K Zi	e luc	CU ON \$/25/9				
Developer's Signature	is Sin	<i>(</i>)			_Date\$	·3/ ·9 7	Reviewer	d	in Za	Whi	Date 9-11-97				



	3 to 5 Casin Stabilization Other	of Indica	tor Paran	neters		Water Vo	Well (feet)	1510				Instrur	nents] ⊃H Meter] ⊃O Monitor		
						Height of Water	Column in W	ell (feet)	1.70	_			Conductivity	y Meter	
nod	Pump	•	Bailer			Diameter (inche	Water Vol	ume in Well	Gallo	ns to be]	× ×]	o. CHEM	ets Klt
	Centrifugal Submersible		Bottom '	Valve Check Valv	⁄e	Item Well Casing	Cubic Feet	7.7	23.]	Water	Disposa	i	
	Peristattic		Stainles	ss-steel Ker	nmerer	Gravel Pack				<u> </u>	[ON.	5/10	BAR	PEC5_
						Drilling Fluids					1				
	Other					Total					1				
ter R	emoval Time	Develoj Meth	lod	Removal Rate	Intake Depth	Ending Water Depth	Remo	Volume ved (gal)	Product Removed	(gallons)	Temperature °C	pН	Conductivity µmho/cm	Oxygen	Comments
100	1634	ump	Bailer	(gal/min)	(feet)	(feet)	Increment	Cumulative	Increment	Cumulative	319	724	536	mg/L	
1.97	1638					1	5.0	50			1911	6,93	624		· · · · · · · · · · · · · · · · · · ·
1-97	1843						50 50 50	10.0			18:0	6.91	6.24		
1-97	1652						5.0	15.0			17.8	6,97	639		
1-97	1657						5.0	200			18.7	6.91	537		
197	1706						5.0	25.0			17.7	6.99	54/	3.5	
		,													
			1										4		



QUALITY CONTROL REPORT EPA METHOD 8020 - BTEX

Samples: 970910 to 970913, 970917 to 970925

QA/QC for 8/26/97 Sample Set

ABORATORY CALIBRATION CHECKS / LABORATORY CONTROL SAMPLES:

SAMPLE		EXPECTED	ANALYTICAL	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		ACCEPTABLE	
NUMBER	TYPE	RESULT	RESULT	ZR		in the second se	
ICV LA-52589		PPB	PPB			YES	NO
50 PP8					RANGE		
Benzene	Standard	50.0	50.3	100.6	75 - 125 %	х	
Tol uene	Standard	50.0	50.5	101	75 - 125 %	x x	
Ethylbenzene	Standard	50.0	50.4	101	75 - 125 %	x	
m & p - Xylene	Standard	100	101.4	101.4	75 - 125 %	×	
o - Xylene	Standard	50.0	50.4	101	75 - 125 %	X	
SAMPLE	, e. , '	EXPECTED	ANALYTICAL			ACCEPTABL	E.
NUMBER:	TYPE	RESULT	RESULT	%R 1=1			
LCS. LA-45476		PPB	PPB.			YES	NO
25 PPB					RANGE		سر خوراکی دی
Benzene	Standard	25.0	25.4	101.6	39 - 150	X	
Toluene	Standard	25.0	25.5	102	46 - 148	x	
Ethylbenzene	Standard	25.0	25.4	10 1	32 - 160	x	
m & p - Xylene	Standard	50.0	50.6	101	Not Given	x	
o - Xylene	Standard	25.0	25.5	102	Not Given	X	
SAMPLE : "	escario escario	EXPECTED -	ANALYTICAL			ACCEPTABLE	L ings of the second
NUMBER *	TYPE	RESULT	RESULT	%R ∷			
CCV LA-52589		PPB -	PPB			YES	NO
50 PPB	*				RANGE		
Benzene	Standard	50.0	52.7	105.4	75 - 125 %	X	
Toluene	Standard	50.0	52.5	105.0	75 - 125 %	×	
Ethylenzene	Standard	50.0	52.1	104.3	75 - 125 %	X	
m & p - Xylene	Standard	100	104.1	104.1	75 - 125 %	X	
o - Xylene	Standard	50.0	52.2	104	75 - 125 %	Х	
SAMPLE		EXPECTED	ANALYTICAL			ACCEPTABLE	rs.3
NUMBER	TYPE	RESULT	RESULT	%R	4		
CCV LA-52589		РРВ	PPB			YES	NO
50 PP8		《电子数据数字》			RANGE		
Benzen e	Standard	50.0	55.0	109.9	75 - 125 %	X	
Toluene	Standard	50.0	53.7	107.4	75 - 125 %	X	
Ethylbenzene	Standard	50.0	53.2	106.5	75 - 125 %	X	
m & p - Xylene	Standard	100	106.0	106.0	75 - 125 %	x	
			53.4				

Narrative: Acceptable.

QUALITY CONTROL REPORT

EPA METHOD 8020 - BTEX

Samples: 970910 to 970913, 970917 to 970925

LABORATORY DUPLICATES:	LABOR	ATORY	DUPL	CATES:
------------------------	-------	-------	------	--------

SAMPLE ID	TYPE	RESULT		RPD	**************************************	ACCEPTABLE YES NO
Benzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
Toluene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
Ethylbenzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
m & p - Xytene	Matrix Duplicate	<2	<2	0.00	+/- 20 %	x
o - Xylene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X

Narrative: Acceptable.

LABORATORY SPIKES:

SAMPLE	SPIKE	SAMPLE	SPIKE		ACCEPTABLE			
ים.	ADDED:::	RESULT	LT SAMPLE					
2nd Analysis	PPB	PPB PPB RESULT				YES	NO · ·	
970910			PPB		RANGE			
Benzene	50	<1	53.5	107.0	75 - 125 %	х		
Toluene	50	<1	52.6	105	75 - 125 %	X		
Ethylbenzene	50	<1	52.3	105	75 - 125 %	X		
m & p - Xylene	100	<2	104.8	104.8	75 - 125 %	X		
o - Xylene	50	<1	52.4	105	75 - 125 %	X		

Tarrative: Acceptable

ADDITIONAL ANALYTICAL BLANKS:

	SOURCE	PPB	STATUS
AUTO: BLANK:			
Benzene	Boiled Water	<1,0	ACCEPTABLE
Toluene	Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Boiled Water	<3.0	ACCEPTABLE

arrative: Acceptable.

SOIL VIAL BLANK	SOURCE:	PPB: (None analyzed with this set)	STATUS:
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Parrative: Acceptable.

CONTAMINATION CARRYOVER CHECK	SOURCE	PPB (None analyzed with this set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

larrative: Acceptable.

QUALITY CONTROL REPORT

EPA METHOD 8020 - BTEX

Samples: 970910 to 970913, 970917 to 970925

CCV.	AMPLE UMBER LA-5258 9	TYPE	EXPECTED RESULT PPB	RESULT	ZR .		ACCEPTABLE YES HO
8	enzene	Standard	50.0	44.9	89.8	75 - 125 %	х
Т	otuene	Standard	50.0	43.5	86.9	75 - 125 %	x
Ethy	lbenzene	Standard	50.0	42.4	84.9	75 - 125 %	x
տ & բ	- Xylene	Standard	100	84.1	84.1	75 - 125 %	x
0 -	- Xylene Xylene	Standard	50.0	42.6	85.2	75 - 125 %	x

Marrative: Acceptable.

ABORATORY DUPLICATES:

	SAMPLE		SAMPLE	DUPLICATE		ACCEPTABLE ::		
_	ID	TYPE	RESULT	RESULT	RPD.			
			PP 8 -	PPB-			YES	NO
	970 917					RANGE		
	Benzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	Х	
	Toluene	Matrix Duplicate	20.8	20.4	1.85	+/- 20 %	X	
	Ethylbenzene	Matrix Duplicate	18.57	18.26	1.68	+/- 20 %	X	
m	& p - Xylene	Matrix Duplicate	141.16	138.7	1.76	+/- 20 %	х	
	o - Xylene	Matrix Duplicate	34.76	34.23	1.53	+/- 20 %	Х	

Marrative: Acceptable.

ABORATORY SPIKES:

ABORATORY SPIKES:							
SAMPLE	SPIKE	SAMPLE	SPIKE		ACCEPTABLE		
ID.	ADDED	RESULT	SAMPLE	%R			
2nd:Analysis	PPB	PPB	RESULT	•		YES	МО
970917			PPB		RANGE		
Benzene	50	<1	54.4	108.8	75 - 125 %	Х	
Toluene	50	20.8	68.5	96	75 - 125 %	X	
Ethylbenzene	50	18.57	65.8	94	75 - 125 %	X	
m & p - Xylene	100	141.16	215.5	74.4	75 - 125 %		X
o - Xylene	50	34.76	79.5	90	75 - 125 %	Х	

Harrative: The spike result exceeded the calibration curve limit for m & p Xylenes.

	8/20 TRIP BLANK	SOURCE	РРВ	STATUS
_	Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
	Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
	Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
	Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

arrative: Acceptable.

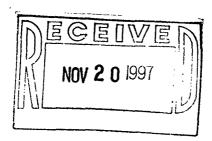
8/21 TRIP BLANK	The state of the s		PPB	STATUS
Benzene	Vial + Boiled	Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled	Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled	Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled	Water	<3.0	ACCEPTABLE

arrative: Acceptable.

eported By: RV

Approved By: Solu Tarlar.

November 19, 1997



4th Quarter 1997 REPORT

Jaquez Corn Field Monitor Well Analytical Results Lab Sample #'s 971196 to 971204 Sampled November 10, 1997 Sampled by Dennis Bird

Report Distribution:

Sandra Miller | Scott Pope - Philip Services Company Results Log Book

Attachments



A 2138

CHAIN OF CUSTODY RECORD

Project No.		Project N		ファ	AQUE	5			Type and		/		R	equested Analysis			
Samplers: ((Signature	Ve,		iè	æn		Date: //-//	297	No. of Sample Contain-	\at\	To do lion of the second of th						Remarks
NATRIX	Date	Time	Comp.	GRAB		Sam	ple Number		ers		$/^{\circ}$						
ATER	14097	0944		X		19	71196 -		64	42	X	X		M	WITOI	PWC	SCC 12-3
USTER	_			X	`	9	71197.		6.1	400	X	X		mo	W/70/	1/15	W R-4
UD TER	14097	1043		X		-9.	71198.		8-1	400	X	X		Me	WITOR	WE	UR-4 FIELD DUP
UPTER	11-10-97	1146		X		-9	<u> 71199 </u>		B./	400	+	X		ME	1170	PWC	YC R-5
OFTER	14097	1341		1		-9	71200		61/	400	+	X		Me	01/10	PW	8CL M-1
WATCA	11-10-97	1355	1	1 %	٤	19	7/20/		8/	400	X	X		M	ONITO	2/P 1	1000 M-Z
WATER			1	X	-	19:	7/202-		61	400	17	X		M	011/70	2/2 V	vell M-3
ATTER	11-10-97	I		メ		19	7/203		5:1	400	17	X		No	2017	=/P L	VECCM-4
WATER	14097	1700	7	X		19	71204		8/	400		X		Mo	01170	2/P L	vocc m-5
WATER	111097	1	1	X					5.1	400		ļ			PID D	<u> 3691</u>	1K
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Relinquist	hed by: (S	ignature) ~ 7	7 •		Date/	1	Received by: (S	ignature)	···	Heling	uished t	y: (Sigr	ature)		Date	/Time	Received by: (Signature)
WE)	mi	0	SP	E 1	11097		2-1-1		<u>.</u>							<u></u>	
Relinquisi	hed by: (S	ignature)			Date/	i ime	Received by: (S	ignature)		Heling	uished t	oy: (Sigr	lature)		Date	/Time	Received by: (Signature)
L	hed by: (S	ionature)			Date/	Time	Received for La	horatory by:	(Signature)	-	Date/T	ime	Remark	re·		<u> </u>	
Hamidais	y. (3	-Allerate)					Masa	nl.		11/11/2	/ 1	090	İ	· · ·			
Carrier C	o:					L	Y Javier	Carrier Pi						esults Repo	orted / by: (Si	gnature)	
Air Bill N	0.:			···							···			·	 		san juan repro Form 71-6:



SAMPLE IDENTIFICATION

	JAIVIF L	LIDENTIFICA	411014			
	Fic	eld ID		Lab ID		
SAMPLE NUMBER:	<u> </u>	N/A		971196		
MTR CODE SITE NAME:		N/A		Jaquez Cornfield		_
SAMPLE DATE TIME (Hrs):	11/	11/10/97		0944		_
PROJECT:		Monit	or Well			_
DATE OF BTEX EXT. ANAL.:	9/1	2/97	<u> </u>	9/12/97		4
TYPE DESCRIPTION:	F	R-3	<u> </u>	Water		j
Field Remarks:						
		RESULTS				
PARAMETER	RESULT	UNITS	DF	QUALIF Q		
BENZENE	<1	PPB				
TOLUENE	13.6	PPB				
ETHYL BENZENE	17.2	PPB				
TOTAL XYLENES	149	PPB				
TOTAL BTEX	180	PPB				
he Surrogate Recovery was at F = Dilution Factor Used	89.7	BTEX is by EPA Method % for this sample		was accept	able.	
arrative:						

971196BTEXJacquez,11/17/97

Date: 4/18/47



SAMPLE IDENTIFICATION

971196 **EPFS LAB ID:** 11/10/97 **DATE SAMPLED:** 0944 TIME SAMPLED (Hrs): DB **SAMPLED BY: MATRIX:** Water N/A **METER CODE:** Jaquez Cornfield **SAMPLE SITE NAME: R-3 SAMPLE POINT:**

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	<0.1	PPM	11/11/97
Nitrite as N0 ₂ -N	<0.1	PPM	11/11/97

Lab Remarks:

Reported By: CV

Approved By:

ed By: John Hubben.

Date: 11/18/47



SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	971197
MTR CODE SITE NAME:	N/A	Jaquez Cornfield
SAMPLE DATE TIME (Hrs):	11/10/97	1043
PROJECT:	Monito	or Well
DATE OF BTEX EXT. ANAL.:	9/12/97	9/12/97
TYPE DESCRIPTION:	R-4	Water

Field Remarks:			

RESULTS

PARAMETER	RESULT	UNITS		QUALIFI	ERS
			DF	Q	
BENZENE	542	РРВ	5	D	
TOLUENE	129	PPB	5	D	
ETHYL BENZENE	31.1	PPB	5	D	
TOTAL XYLENES	267	PPB	5	D	
TOTAL BTEX	969	PPB			

	BTEX is by EPA Method 8020			
The Surrogate Recovery was at DF = Dilution Factor Used	88.6	% for this sample	All QA/QC was acceptable.	
The "D" qualifier indiciates that the a	analyte calcula	ited is based on a seco	ondary dilution factor.	
Narrative:				

Approved By:	John Larbels.	Date:	11/18/97	
	971197BTEX.lacgu	uez 11/17/97	,	



SAMPLE IDENTIFICATION

EPFS LAB ID:	971197	
DATE SAMPLED:	11/10/97	
TIME SAMPLED (Hrs):	1043	
SAMPLED BY:	DB	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jaquez Cornfield	
SAMPLE POINT:	R-4	· · · · · ·

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER:	RESULT:	ÜNITSX	DATE ANALYZED
Nitrate as N0 ₃ -N	<0.1	PPM	11/11/97
Nitrite as N0 ₂ -N	<0.1	PPM	11/11/97

Lab Remarks:

Approved By:



SAMPLE IDENTIFICATION

	Fi	ield ID		Lab ID	
SAMPLE NUMBER:		N/A		971198	
MTR CODE SITE NAME:		N/A	Jaquez Cornfield		
SAMPLE DATE TIME (Hrs):	11/	11/10/97		1043	
PROJECT:		Monito	r Well		
DATE OF BTEX EXT. ANAL.:	9/1	12/97		9/12/97	
TYPE DESCRIPTION:	R-4 F	ield Dup		Water	
Field Remarks:		RESULTS			
PARAMETER	RESULT	UNITS	. DF	QUALIFIER Q	S
BENZENE	536	PPB	5	D	
TOLUENE	121	РРВ	5	D	
ETHYL BENZENE	31.5	PPB	5	D	
TOTAL XYLENES	267	PPB	5	D	
				i	1
TOTAL BTEX	955	PPB			
	955 82.6	PPB -BTEX is by EPA Method 8 % for this sample		was acceptable	·.

971198BTEXJacquez,11/17/97



SAMPLE IDENTIFICATION

EPFS LAB ID:	971198	
DATE SAMPLED:	11/10/97	
TIME SAMPLED (Hrs):	1043	
SAMPLED BY:	DB	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jaquez Cornfield	
SAMPLE POINT:	R-4 Field Dup	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	<0.1	PPM	11/11/97
Nitrite as N0 ₂ -N	<0.1	PPM	11/11/97

Lab Remarks:

Reported By: CV

Approved By:

Jan Larden

Date: 1/18/47



SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	971199
MTR CODE SITE NAME:	N/A	Jaquez Cornfield
SAMPLE DATE TIME (Hrs):	11/10/97	1146
PROJECT:	Monit	or Well
DATE OF BTEX EXT. ANAL.:	9/12/97	9/12/97
TYPE DESCRIPTION:	R-5	Water

Field Remarks:	

RESULTS

PARAMETER	RESULT	UNITS	DF	OUALIFI Q	ERS	
BENZENE	<1	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	< 6	PPB				

--BTEX is by EPA Method 8020 --

	BIEX is by EPA Memod 8020			
The Surrogate Recovery was at	92.0	_% for this sample	All QA/QC was acceptable.	
DF = Dilution Factor Used	1			

Narrative:

Approved By:	John Laubelin	Date:	11-18-97	
-	7	971199BTEXJacquez,11/17/97		_



SAMPLE IDENTIFICATION

EPFS LAB ID:	971199	
DATE SAMPLED:	11/10/97	
TIME SAMPLED (Hrs):	1146	
SAMPLED BY:	DB	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jaquez Cornfield	
SAMPLE POINT:	R-5	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT -	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	<0.1	PPM	11/11/97
Nitrite as N0 ₂ -N	<0.1	PPM	11/11/97

Lab Remarks:

Reported By: CY

Approved By:

John Taboln:

Date: 11/18/97



SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	971200
MTR CODE SITE NAME:	N/A	Jaquez Cornfield
SAMPLE DATE TIME (Hrs):	11/10/97	1341
PROJECT:	Moni	tor Well
DATE OF BTEX EXT. ANAL.:	9/12/97	9/12/97
TYPE DESCRIPTION:	M-1	Water

Field Remarks:	 	

RESULTS

PARAMETER	RESULT	UNITS	DF	QUALIFI	ERS	
BENZENE	<1	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	<6	PPB				

--BTEX is by EPA Method 8020 --

DIER B by ELT MICHOLOGO			
88.4	% for this sample	All QA/QC was acceptable.	
			1
		•	
	88.4	•	•

Approved By:	John Lenton:	Date:	11/18/57
_	7	971200BTEXJacquez.11/17/97	1



SAMPLE IDENTIFICATION

EPFS LAB ID:	971200	
DATE SAMPLED:	11/10/97	
TIME SAMPLED (Hrs):	1341	
SAMPLED BY:	DB	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jaquez Cornfield	
SAMPLE POINT:	M-1	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	<0.1	PPM	11/11/97
Nitrite as N0 ₂ -N	<0.1	PPM	11/11/97

Lab Remarks:

Reported By: @V

Approved By:

John Tabola.

Date: 11/12/97



SAMPLE IDENTIFICATION

	Fie	ild ID		Lab ID	
SAMPLE NUMBER:	N/A			971201	
MTR CODE SITE NAME:	N	1/A	Jaq	uez Cornfield	
SAMPLE DATE TIME (Hrs):	11/	10/97		1355	
PROJECT:		Monite	or Well		
DATE OF BTEX EXT. ANAL.:	9/1	2/97		9/12/97	
TYPE DESCRIPTION:	N	1-2		Water	
		RESULTS			
PARAMETER	RESULT	UNITS	DF I	QUALIFIERS Q	e de la companya de
BENZENE	<1	PPB			
TOLUENE	<1	PPB			
ETHYL BENZENE	<1	PPB			
	1			i i	l
TOTAL XYLENES	<3	PPB			
TOTAL XYLENES TOTAL BTEX	<3 <6	PPB PPB			
	<6				

971201BTEXJacquez,11/17/97

Date: ____



SAMPLE IDENTIFICATION

EPFS LAB ID:	971201	
DATE SAMPLED:	11/10/97	
TIME SAMPLED (Hrs):	1355	
SAMPLED BY:	DB	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jaguez Cornfield	
SAMPLE POINT:	M-2	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

	DDA	11/11/97
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	FFIVI	11/11/97
200	<0.1 <0.1	

Lab Remarks:

Reported By: CV

Approved By:

v: John Fallen

971201SingleSampleNitrate, 11/19/97

Date: 11/18/47



	SAMPL	E IDENTIFICA	TION			
	Fic	eld ID		Lab ID		_
SAMPLE NUMBER:	. N/A		971202			
MTR CODE SITE NAME:		N/A	Ja	quez Cornfie	ld]
SAMPLE DATE TIME (Hrs):	11/	10/97		1457]
PROJECT:		Monito	or Well			
DATE OF BTEX EXT. ANAL.:	9/1	2/97		9/12/97]
TYPE DESCRIPTION:	N	/i-3		Water		
Field Remarks:		RESULTS				
PARAMETER	RESULT	UNITS	DF	QUALIFI	ERS	
BENZENE	<1	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	<6	PPB				
he Surrogate Recovery was at F = Dilution Factor Used	89.5	BTEX is by EPA Method % for this sample		was accepta	ble.	
arrative:						

971202BTEXJacquez,11/17/97

11/18/97

Date:



SAMPLE IDENTIFICATION

EPFS LAB ID:	971202	
DATE SAMPLED:	11/10/97	
TIME SAMPLED (Hrs):	1457	
SAMPLED BY:	DB	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jaquez Cornfield	
SAMPLE POINT:	M-3	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	<0.1	PPM	11/11/97
Nitrite as N0 ₂ -N	<0.1	PPM	11/11/97

Lab Remarks:

Approved By:

John Forder

Date: 11/15/97



SAMPLE IDENTIFICATION

	Field ID	Lab ID
SAMPLE NUMBER:	N/A	971203
MTR CODE SITE NAME:	N/A	Jaquez Cornfield
SAMPLE DATE TIME (Hrs):	11/10/97	1630
PROJECT:	Mon	itor Well
DATE OF BTEX EXT. ANAL.:	9/13/97	9/13/97
TYPE DESCRIPTION:	M-4	Water

Field Remarks:		

RESULTS

PARAMETER	RESULT	UNITS	QUALIFIERS
			DF Q
BENZENE	44.8	PPB	
TOLUENE	<1	PPB	
ETHYL BENZENE	<1	PPB	
TOTAL XYLENES	71.0	PPB	
TOTAL BTEX	116	PPB	

--BTEX is by EPA Method 8020 --

The Surrogate Recovery was at	86.3	% for this sample	All QA/QC was acceptable
DF = Dilution Factor Used			

Narrative:				
Approved By:	John Landy.	Date:	11/18/67	
Approved by.		Date Jacquez.11/17/97	1710/11	



SAMPLE IDENTIFICATION

EPFS LAB ID:	971203	····
DATE SAMPLED:	11/10/97	
TIME SAMPLED (Hrs):	1630	
SAMPLED BY:	DB	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jaquez Cornfield	
SAMPLE POINT	M-4	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

Nitrite as NO ₂ -N	0.52	PPM	11/11/97
Nitrate as NO ₃ -N	0.79	PPM	11/11/97
PARAMETER	RESULT *	UNITS: fc	DATE ANALYZED

Lab Remarks:

Total Nitrates = 1.31 PPM

Reported By: (V)

Approved By:

Jan Father

Date: 11/18/47



SAMPLE IDENTIFICATION

· ·	Field ID	Lab ID
SAMPLE NUMBER:	N/A	971204
MTR CODE SITE NAME:	N/A	Jaquez Cornfield
SAMPLE DATE TIME (Hrs):	11/10/97	1700
PROJECT:	Moni	tor Well
DATE OF BTEX EXT. ANAL.:	9/13/97	9/13/97
TYPE DESCRIPTION:	M-5	Water

Field Remarks:	

RESULTS

PARAMETER	RESULT	UNITS	DF I	QUALIFI Q	ERS	
BENZENE	<1	PPB				
TOLUENE	<1	PPB	·			
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	<6	PPB				

10 2122 2121				<u> </u>
		-BTEX is by EPA Method 8	3020	
The Surrogate Recovery was at	84.5	% for this sample	All QA/QC was acceptable.	
DF = Dilution Factor Used				
·.				
Narrative:				



SAMPLE IDENTIFICATION

EPFS LAB ID:	971204	
DATE SAMPLED:	11/10/97	
TIME SAMPLED (Hrs):	1700	
SAMPLED BY:	DB	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jaquez Cornfield	
SAMPLE POINT:	M-5	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	<0.1	PPM	11/11/97
Nitrite as N0 ₂ -N	<0.1	PPM	11/11/97

Lab Remarks:

Reported By: Cv

Approved By:

John Fords

Date: 11/(8/47



Site Nan	1e_ <i>\(\mathcal{J}\)</i>	AQUE	2_				1	⊠	Development Purging	nt	Well Nun Meter Co				
Develop	3 to 5 Cas			er Removel neters		Water Vol Initial Depth of V	Vell (feet) <u>2</u> Vater (feet) <u>/</u>	2.10 4.87	73	 		Instrum	pH Meter DO Monitor		
Methods	of De Pump Centrifuga	•	ent Bailer Bottom	Valvo		Height of Water Diameter (inche		Gravel Pa	ackGallo	ns to be	Conductivity Meter Temperature Meter Other <u>D. O. CHEMETS</u>				EMETS KIT
	Submersi	ble	Double	Check Valv		Well Casing	. Cubic rest	4.8	14				Disposal 5/TE		F/.C
	Peristaltic	; []	Stainle	ss-steel Ken	nmerer	Gravel Pack Drilling Fluids Total					- - -	UN .	<i>5116</i>		<u> </u>
Water R	emova	I Data	oment	Removal	Intake	Ending Water	Water \	/olume	Produc	t Volume	Temperature		Conductivity	Dissolved	
Date	Time	Meth Pump		Rate (gal/min)	Depth (feet)	Depth (feet)	Remove Increment	ed (gal) Cumulative	Removed	(gallons) Cumulative	°C	pH	μmho/cm	Oxygen mg/L	Comments
11-10-97	0907						5.0	50			13.8	6.72	891 796		
11-10-97 11-10-97	0919						5.0 5.0	15.0			13,1	6.90 7.07	497	1.5	
: .															
Comments_	<u> </u>		<u></u>	<u> </u>	<u></u>			<u>.l</u>	<u> </u>	<u>i</u>	<u>.l.</u>	<u> </u>	<u> </u>	<u> </u>	
Developer's	Signature	Den	ini	is B	ind				Date_//-	10-97		John	Land	lu.	Date 11/18/97



Site Nan	ne_ <i></i>	APUEC	3			3	X	Developmer Purging		Well Nun Meter Co				
Development Criteria 3 to 5 Casing Volumes of Water Removel Stabilization of Indicator Parameters Other Methods of Development Pump Bailer Centrifugal Bottom Valve Submersible Double Check Valve Peristaltic Stainless-steel Kemmerer Other				Water Vol Initial Depth of V Initial Depth to V Height of Water Diameter (Inche Item Well Casing Gravel Pack Drilling Fluids Total	Vell (feet) Vater (feet) Column in We	22./0 14.55 Il (feet)	ackGallo	ons to be noved			pH Meter DO Monitor Conductivit	y Meter re Meter <u>C</u>	lemets KIT US	
Nater R Date 11-16-97 11-16-97 11-10-97	Time 1003 1008 1017	Developmen Method Pump Bail	Rate	Intake Depth (feet)	Ending Water Depth (feet)	Water \ Remov Increment 5.0 5.0 5.0	ed (gal)		Volume (gallons) Cumulative	Temperature °C 14.8 14.6 14.0 14.3	PH 7.22 7.32 7.4/ 7.59	Conductivity pmho/cm 539 570 937 1054	Dissolved Oxygen mg/L	Comments
Comments_ Developer's	s Signature	Denn	is Br	ind				Date //-/	10-97	Reviewer	Olu	Jaro	Qu:	Date 11/18/97

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Site Nan	ne	APU	52			J	ı		Developmer Purging	nt	Well Nun				
Develop 	3 to 5 Cas			er Removel meters		Water Vo	Well (feet) Water (feet)/	7.48	· 01	 		Instrum	pH Meter DO Monitor	. Mada u	
Methods	Pump Centrifug Submersi Peristaltic	al 🔀	Bailer Bottom Double	Valve Check Valv		Height of Wate Diameter (inche Item Well Casing Gravel Pack Drilling Fluids		Gravel Pa	ack Gallo Rem	ons to be noved			Temperatur Other	e Meter CHC	METS KIT
Water R	Other	Develo Met		Removal Rate	Intake Depth	Total Ending Water Depth	Remov	ed (gal)	Removed	t Volume I (gailons)	Temperature °C	рН	Conductivity µmho/cm	Dissolved Oxygen	Comments
11-1097 11-1097 11-1097	1120	Pump	Bailer	(gal/min)	(feet)	(feet)	30	3,0 5.0	Increment	Cumulative	17.0	7.78 7.78 7.67	658 69/ 763	mg/L	
11-10-17 11-10-97	1135						3.0	20			15.7	7.71	1020	2.5	
Comments	THE	WEC	LB,	AILEL	OR)	P 8.0	GALLO	N5.							
Developer's	s Signature	Ter	nn	is B	ind				Date <u>//-/</u>	10-97	_Reviewer	John	- Jaul	<u>di</u>	Date 11/18/97



ite Nan	ne_ <i>\overline</i>	AQUE	S						Developmer Purging		Well Nur Meter Co				
evelop		-	Jagori			*									
X C	3 to 5 Cas	ing Volumes	of Wate or Param	er Removel neters		Water Vol Initial Depth of V	Well (feet)	5.30		- -		Instrun	pH Meter DO Monitor		
lethods	of De	velopme	ent Bailer			Height of Water Diameter (inche	r Column in We es): Well <u>#</u> Water Volu	Gravel P	ack	ns to be	ı	Z Z X		•	METS KIT
	Centrifug		Bottom \	Valve		Item	Cubic Feet		1	oved		Ø	Other	, <u>o, o,</u>	, - , - , - , - , - , - , - , - , - , -
	Submersi	ble	Double	Check Valv	е	Well Casing		6.5	19.	<i>'</i> 6		Water	Disposal	5 A) N	N/C
	Peristaltic		Stainles	ss-steel Ken	nmerer	Gravel Pack						<u>en</u>	<u>5/76</u>	BARAC	<u> 25 </u>
				,		Drilling Fluids									
	Other					Total					}				
 Nater R		l Data						<u> </u>	·		•				
		Develop		Removal	Intake	Ending Water				Volume	Temperature		Conductivity	Dissolved	
Date	Time	Metho Pump	Bailer	Rate (gal/min)	Depth (feet)	Depth (feet)	Increment	ed (gal) Cumulative	Removed Increment	(gallons) Cumulative	°C	pН	μmho/cm	Oxygen mg/L	Comments
1-10-97	1244			,							13.7	7.02	352		
1-10-97	1249						5.0	5.0			13.6	716	350		
1-10-97 1-10-97	1300						3.0	8.0			13.4	7.38	343	25	
							_								
	 							1							
	TUE	WELL	- K	AILEI	2 18	V080	2 5AL	DNS.		·			_ 	· 1 · · · · · · · · · · · · · · · · · ·	****
Comments_	1 mc	.0/		noce	_0/1	1	77100						P		
Dovelopers	Signaturo	Tes	1M	is R	Tied.	108.0			Date 1/	0-97	Paviower	Id.	Las	D	ite 11/18/47
Developer 8	oignature.								_Date_ <u>* / _ /</u>		L/GAIGAGI	Juan	-6-2-7	UaUa	16 1/10/7/
											`	7			



te Nan	1e 7	gov	じこ				ı		Developmen Purging	nt	Well Nun Meter Co				
		riteria													
		ing Volume on of Indica		er Removel neters		Water Vol Initial Depth of V Initial Depth to V Height of Water	Nell (feet)	5.10	2.74	 		Instrun X X	pH Meter DO Monitor		
ethods	of De	velopm	ent			Diameter (inche	es): Well 4	Gravel Pa	ack			•		-	
	Pump	•	Bailer			J.G.FIG.C. (MIGHE	Water Volum			ns to be]	X	Other	O. CHC	METS KIT
	Centrifuga		Bottom	Vaive		Item	Cubic Feet			oved					•
	Submersi	ole 🔲	Double	Check Valve	e	Well Casing		6.8	20.	5		Water	Disposal		
	Peristaltic		Stainle	ss-steel Kem	nmerer	Gravel Pack]	ON.	5/10	BARR	545
	. 0,1012100		O (dii iio	00 0.00. 1 0.11		1					1	- K. K	<u></u>		
						Drilling Fluids	_			· ************************************	-				
	Other					Total					J				
Vater R	emova	l Data													
		Develo	•	Removal	Intake	Ending Water	Water \			Volume	Temperature		Conductivity	Dissolved	
Date	Time	Meth Pump	nod Bailer	Rate (gal/min)	Depth (feet)	Depth (feet)	Remov Increment	ed (gal)	Removed Increment	(gallons)	ု ိ	pН	μmho/cm	Oxygen mg/L	Comments
40.97	1309	Pullip	Dallel	(gaviiiii)	(IEEL)	(leel)	morement	Cultidiative	norement	Cumulative	12.6	7.13	632	nig/L	
10.97	131/2		 				5.0	5.0			12.2	6.96	624		
40.97 40.97	17/4		 			†	5.0	10.0			12.2	6.96	622		
10-17	1311		-									7.00	597		
10.97	1300		├	<u> </u>		+	5.0	15.0		<u> </u>	12.4			12	
4-10-97	1329		 	 		 	7,0	20.0			12.5	7.01	610	1.0	
			ļ			+			ļ	 	 -	<u> </u>	<u> </u>	 - -	
								ļ	ļ	ļ	ļ				
			ļ												
			<u> </u>	<u> </u>									<u> </u>		
								<u> </u>	<u> </u>				<u> </u>		
· amm - mt-							-								
omments_		-0/												····	
	D iameters	1900	MM	is B	ipol.	•			Date 11	1297	Davieus -	Dal	J	ed).	Date 11/18/47
eveloper's	Signature_	V. W.	UN		<u> </u>				Date 1/ /	011	_keviewer/	<u> 100</u>	- V.	Clar.	Date

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ite Nan	1e	790	飞				ı		Developmer Purging	nt	Well Nun Meter Co						
evelop ⊠			no of \A/ot	er Removel		Water Vol	ume Calc	ulation				Instrun	ionte				
	Stabilization Other					Initial Depth of V Initial Depth to V Height of Water	Vell (feet)/	5.20	7.13	- -	pH Meter DO Monitor Conductivity Meter						
ethods	of Dev	velopm	ent			Diameter (inche				-		×		•			
	Pump Centrifuga		Bailer Bottom	Valve		Item	Water Volur Cubic Feet	ne in Well Gallons	Gallo	ns to be loved]	X	Other	a cho	SMETS KIT		
	Submersil	ble	Double	Check Valv	e e	Well Casing		6.0	/8	?/			Disposal				
	Peristattic		Stainle	ss-steel Ken	nmerer	Gravel Pack] .	ON	5176	BARR	ELS		
						Drilling Fluids											
	Other					Total		-]						
Vater R	emova	l Data									-						
Date	Time	Develo Met		Removal Rate	Intake Depth	Ending Water Depth	Water V Remove	ed (gal)	Removed	Volume (gallons)	Temperature °C	рН	Conductivity	Dissolved Oxygen	Comments		
-10-77	1427	Pump	Bailer	(gal/min)	(feet)	(feet)	Increment	Cumulative	Increment	Cumulative	13.8	7.67	591	mg/L			
10-97			 				5.0	5.0			139	7.39	559				
15-27	1433			<u> </u>	 	†	5.0	10.0	<u> </u>		13.4	7.40	541				
-10.97				<u> </u>			5.0	15.0			13.0	7.55	532		- ,,,,,,, ,,,,,,,,,,,,,,,,,,,,,,,		
4097							5.0	200			13.0	7.51	493	25			
			ļ			ļ											
			ļ								-						
			 	<u> </u>							<u> </u>			 			
			1	 		<u> </u>											
	REM	21250	12/	FOY	(SEI)	PELEA:	56 CO	MAOU	MA S	pole	5 21	DAV	RAX	PES	AMOUNE		
omments_	107-10	<u> </u>	,	<u>, UN</u>	7	/	<u> </u>	.,,,,,,,	000		J_ 01 Z	<u> </u>		<u> </u>	PIPOINCE		
)eveloper's	Signature	Les	m	is B	ind	, 			Date //-/	D-97	Reviewer A	John	Late	lui	Date_11/18/97		
	J										7				7.7		

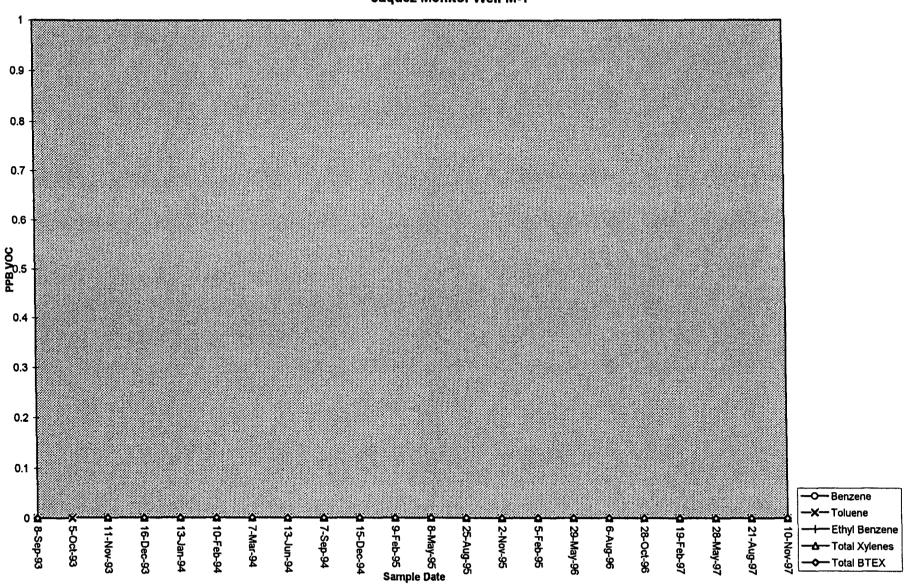
EL PAS		
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ite Nan	Pump Bailer (gal/min) (feet) (feet) Increment Cumulative Increment Cumulative mg/L 47 1575 138 236 260													
Methods	3 to 5 Cas Stabilization Other S of De Pump Centrifuga Submersi Peristaltion	velopment Bailer Botton ble Doub	n Valve le Check Valv		Initial Depth of \ Initial Depth to \ Height of Water Diameter (inche Item Well Casing Gravel Pack Drilling Fluids	Well (feet)	15430 444 ell (feet) / Gravel Pame in Well Gallons	ackGallo Rem	oved]	⊠ ⊠ ⊠ ⊠ Water I	pH Meter DO Monitor Conductivit Temperatu Other	y Meter re Meter <u>C. C. C.</u>	
Date		Development Method	Rate	Depth	Depth	Remo\	/ed (gal)	Removed	(gallons)	_ °c		•	Oxygen	Comments
1-10-97	1575		1	, , , , , , , , , , , , , , , , , , ,					· · · · · · · · · · · · · · · · · · ·	·	836	760		
1-10-97						3,0	3.0					789		
	1524					20	5.0				8.80			
						30	8.0					770		
						2.0	10.0			12.0	8.80	652	3.5	
Comments_	Signature_	19enn	BALL Lis L	ED V	PRY PS	P.O GI	GLLON	5	MOUE 10-97	Reviewer	du	Janks Janks	1 pour BEFOI On	D 50 EK Z/BAYS PG JAMPUINE. Date_11/18/97

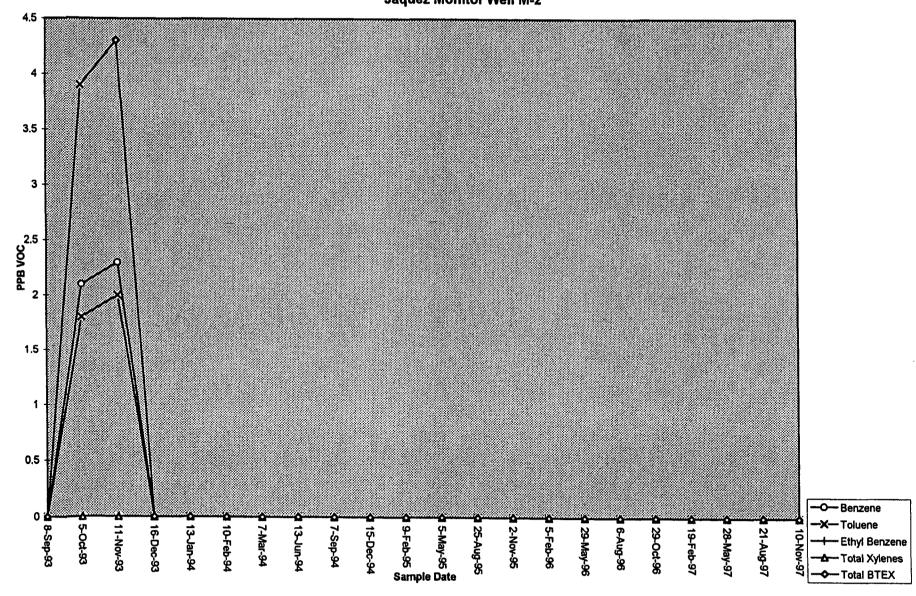


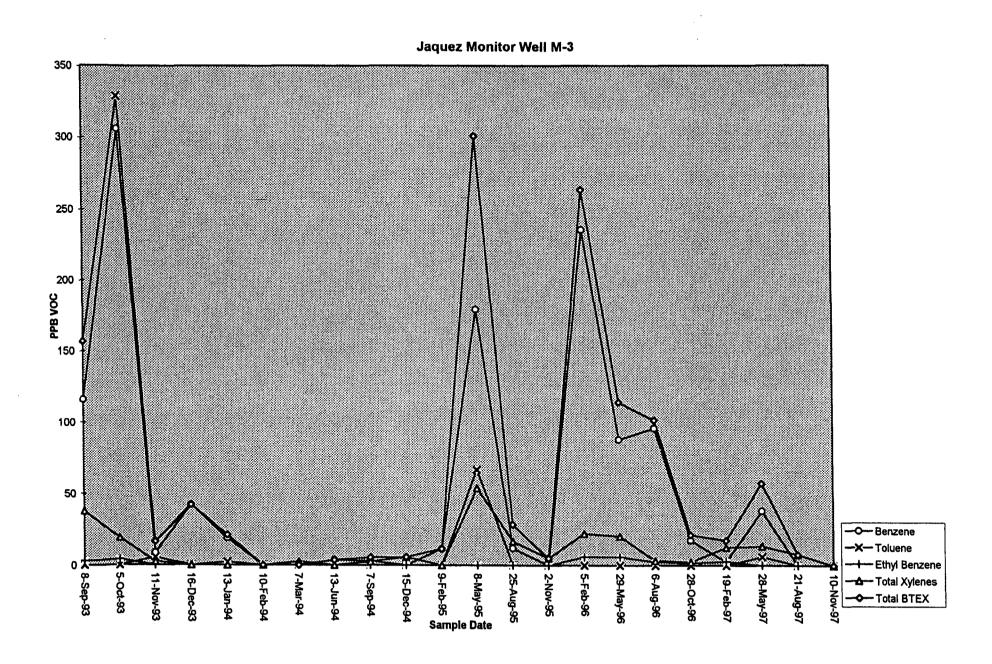
e Nam	ie_ <i>\(\mathcal{J}\)</i>	AQUE	2			_	1	□	Developmer Purging		Well Num Meter Co						
XI -	Stabilization Other	riteria ing Volumes on of Indicator velopmes	Param			Water Volumitial Depth of Winitial Depth to Winder of Water Diameter (Inches	Vell (feet)/ Vater (feet) Column in We	5.70 5.32 Il (feet) 9		- - -	Instruments pH Meter DO Monitor Conductivity Meter Temperature Meter Other D.C. CHEMETS KIT						
	Pump		iler				Water Volur	ne in Well		ns to be		×	Other	O. CHO	SME/S NU		
	Centrifuga	——-				Item	Cubic Feet			oved							
	Submersil	ble 🔲 D	ouble	Check Valve	•	Well Casing		6.5	17.	4	ĺ	Water	Disposal	D 450	-/-		
	Peristaltic	□ s	tainles	ss-steel Kem	merer	Gravel Pack]	ON.	5/10	BAILR (<u> </u>		
						Drilling Fluids]						
	Other					Total					1						
ليسا	Other					1 Otal					1		•				
ter R	emova	l Data															
ate	Time	Developm Method		Removal Rate	Intake Depth	Ending Water Depth	Water \ Remov	/olume ed (gal)		: Volume (gallons)	Temperature °C	pН	Conductivity µmho/cm	Dissolved Oxygen	Comments		
	16.0	Pump E	Bailer	(gal/min)	(feet)	(feet)	Increment	Cumulative	Increment	Cumulative				mg/L			
0-17	1602							<u> </u>			11.9	8.26	402				
0.97	1606						5.0	5.0			12.0	フラノ	413				
	1611					<u> </u>	5.0	10.0			12.0	7.51	410				
10-97	1622						5.0	15.0			11.7	7.54	392				
w97	1646						5.0	20.0			1/2	7.48	390	3.5			
					-			 					<u> </u>	 			
				 				 			 	 	 				
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						<u></u>			L	<u> </u>	<u> </u>	L	L	L			
nments_											<u>-</u>						
		Ten		:	7 : - 1				11	12. 97	,	\ /	P	. 0	, /-		
eloper's	Signature_	urem	m	10/1	NG				Date_//-/	0-1/	Reviewer	+ ou	n Head	Vii	Date <u>1/18/47</u>		
•										•	/		•	_	, , ,		

Jaquez Monitor Well M-1



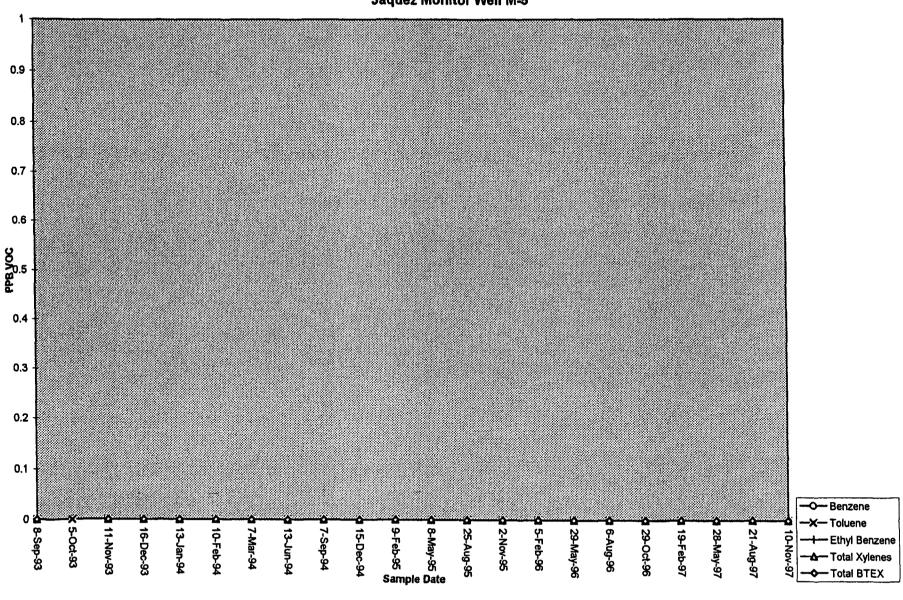


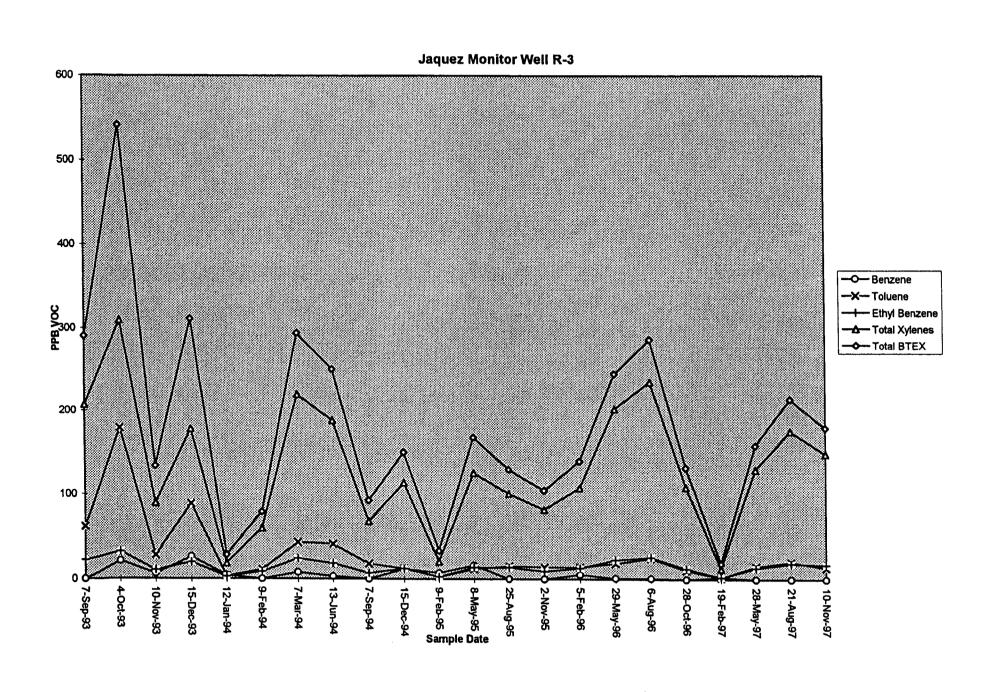


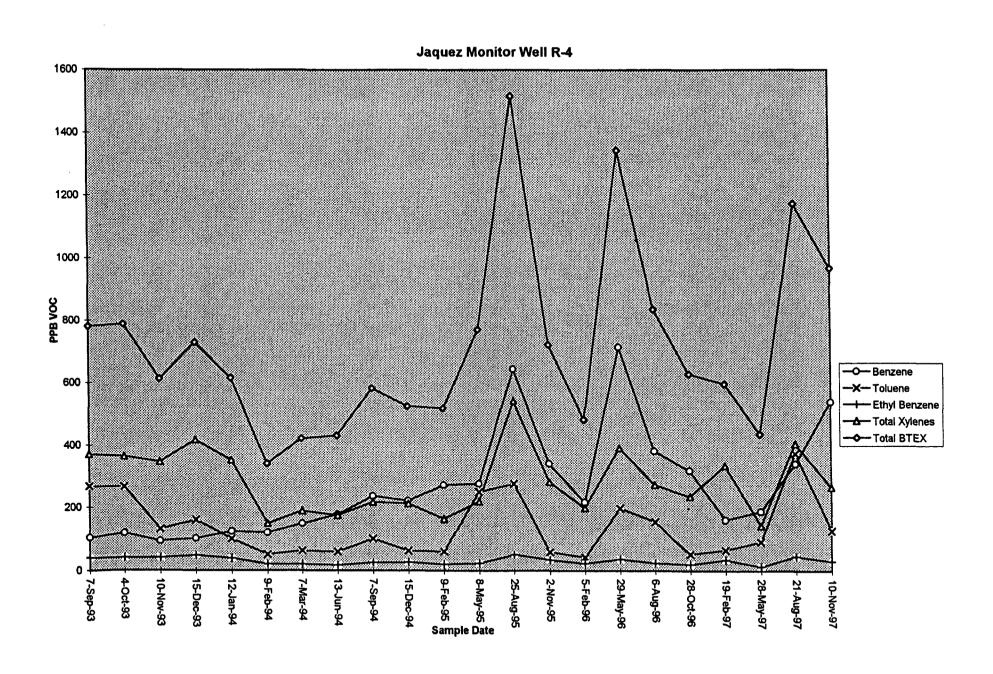


Jaquez Monitor Well M-4 900 800 700 600 500 500 84 400 300 200 O Benzene - Toluene -Ethyl Benzene - Total Xylenes 100 Total BTEX 8-Sep-93 6-Aug-96 X 9-Feb-95 Sample Date 5-Oct-93 2-Nov-95 < 5-Feb-96 19-Feb-97 13-Jan-94 7-Mar-94 7-Sep-94 11-Nov-93 16-Dec-93 10-Feb-94 25-Aug-95 29-May-96 29-Oct-96 28-May-97 21-Aug-97 : 10-Nov-97 13-Jun-94 15-Dec-94

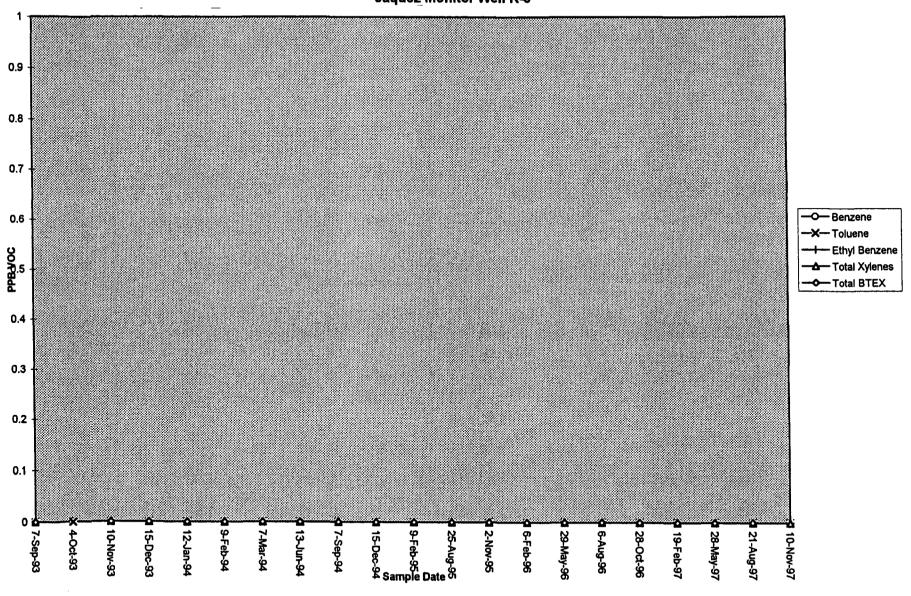
Jaquez Monitor Well M-5







Jaquez Monitor Well R-5





QUALITY CONTROL REPORT EPA METHOD 8020 - BTEX

Samples: 971195 to 971204, 971206 to 971216

QA/QC for 11/12/97 Sample Set

LABORATORY CALIBRATION CHECKS / LABORATORY CONTROL SAMPLES:

SAMPLE		EXPECTED	ANALYTICAL		ACCEPTABLE
NUMBER	TYPE	RESULT	RESULT	%R	
ICV LA-52589		PPB	PPB		YES NO
50 PPB					RANGE
Benzene	Standard	50.0	47.2	94.3	3 75 - 125 % X
Toluene	Standard	50.0	46.8	94	75 - 125 % X
Ethylbenzene	Standard	50.0	47.4	95	75 - 125 % X
m & p - Xylene	Standard	100	94.1	94.1	75 - 125 % X
o - Xylene	Standard	50.0	47.2	94	75 - 125 % X
SAMPLE		EXPECTED	ANALYTICAL		ACCEPTABLE
Number	TYPE	RESULT	RESULT	%R	
LCS LA-45476		PPB	PPB		YES NO
25 PP8					RANGE
Benzene	Standard	25.0	24.5	98.0	39 - 150 X
Toluene	Standard	25.0	23.5	94	46 - 148 X
Ethylbenzene	Standard	25.0	23.9	96	32 - 160 X
m & p - Xylene	Standard	50.0	47.5	95	Not Given X ·
o - Xylene	Standard	25.0	24.0	96	Not Given X
SAMPLE		EXPECTED	ANALYTICAL		ACCEPTABLE
NUMBER	TYPE	RESULT	RESULT	%R	
CCV LA-52589		PPB	PPB		YES NO
50 PPB					RANGE
Benzene	Standard	50.0	47.9	95.8	75 - 125 % X
Toluene	Standard	50.0	47.0	93.9	75 - 125 % X
Ethylenzene	Standard	50.0	47.3	94.7	75 - 125 % X
m & p - Xylene	Standard	100	94.8	94.8	75 - 125 % X
ວ - Xylene	Standard	50.0	47.6	95	75 - 125 % X
SAMPLE		EXPECTED	ANALYTICAL		ACCEPTABLE
NUMBER	TYPE	RESULT	RESULT	%R	
CCV LA-52589		PPB	РРВ		YES NO
50 PPB					RANGE
Benzene	Standard	50.0	47.3	94.6	75 - 125 % X
Toluene	Standard	50.0	46.2	92.4	75 - 125 % X
Ethylbenzene	Standard	50.0	46.3	92.7	75 - 125 % X
m & р - Xylene	Standard	100	92.6	92.6	75 - 125 % X
o - Xylene	Standard	50.0	46.7	93.3	75 - 125 % X

arrative: Acceptable.

SAMPLE NUMBER CCV LA-52589 50 PPB	ТҮРЕ	EXPECTED RESULT PPB	ANALYTICAL RESULT PPB	%В	ACC RANGE	EPTABLE YES NO
Benzene	Standard	50.0	47.1	94.1	75 - 125 %	X
Toluene	Standard	50.0	45.7	91.5	75 - 125 %	X
Ethylbenzene	Standard	50.0	45.5	91.0	75 - 125 %	X
Ethylbenzene m & p - Xylene o - Xylene	Standard	100	90.5	90.5	75 - 125 %	х
o - Xylene	Standard	50.0	45.9	91.8	75 - 125 %	X

Narrative: Acceptable.

SAMPLE NUMBER CCV LA-52589 50 PPB	ТҮРЕ	RESULT PPB		%R	DANGE	YES NO
Benzene	Standard	50.0	47.2	94.4	75 - 125 %	Х
Toluene	Standard	50.0	46.3	92.6	75 - 125 %	x
Ethylbenzene	Standard	50.0	46.5	93.1	75 - 125 %	x
m & p - Xylene o - Xylene	Standard	100	93.3	93.3	75 - 125 %	×
o - Xylene	Standard	50.0	46.8	93.6	75 - 125 %	Х

Narrative: Acceptable.

SAMPLE ID 971199		PPB				YES NO
Benzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
Toluene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
Ethylbenzene	Matrix Duplicate	<1	ˈ < 1	0.00	+/- 20 %	X
m & p - Xylene	Matrix Duplicate	<2	<2	0.00	+/- 20 %	X
o - Xylene	Matrix Duplicate	<1	< 1	0.00	+/- 20 %	x II

Narrative: Acceptable.

LABORATORY SPIKES:

SAMPLE ID 2nd Analysis 971199	ADDED PPB	RESULT PPB	RESULT PPB	%R	RANGE	YES NO
Benzene	50	<1	47.6	95.2	75 - 125 %	Х
Toluene	50	<1	46.5	93	75 - 125 %	X
Ethylbenzene	50	<1	46.8	94	75 - 125 %	X
m & p - Xylene o - Xylene	100	. <2	93.6	93.6	75 - 125 %	X
o - Xylene	50	<1	46.9	94	75 - 125 %	X

Narrative: Acceptable

SAMPLE ID	TYPE	RESULT PPB		KPU		YES NO
Benzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
Toluene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	х
Ethylbenzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	х
m & p - Xylene	Matrix Duplicate	<2	<2	0.00	+/- 20 %	Х
o - Xylene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	Х

Narrative: Acceptable.

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LABORATORY SPIKES:

SAMPLE ID 2nd Analysis 971207		РРВ		%R	RANGE	YES NO
Benzene	50	<1	44.2	88.5	75 - 125 %	X
Toluene	50	<1	43.0	86	75 - 125 %	X
Ethylbenzene	50	<1	42.8	86	75 - 125 %	Х
m & p - Xylene	100	<2	85.6	85.6	75 - 125 %	X
m & p - Xylene o - Xylene	50	<1	43.3	87	75 - 125 %	_X

Narrative: Acceptable

AUTO BLANK	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	PPB (2 analyzed with set)	STATUS
Benzene	Boiled Water	<1.0	ACCEPTABLE
Toluene	Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

SOIL VIAL BLANK		PPB (none analyzed with set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

CONTAMINATION CARRYOVER CHECK	SOURCE	PPB (none analyzed with this set)	
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE
Jarrative: Acceptable	at also		

Intrative: Acceptable.

11/12/97 TRIP

One U/10/47BLANK: 1/1/197 SOURCE PPB STATUS (4 analyzed with this set) Benzene Vial + Boiled Water < 1.0 ACCEPTABLE Toluene Vial + Boiled Water <1.0 **ACCEPTABLE** Ethylbenzene Vial + Boiled Water <1.0 **ACCEPTABLE Total Xylenes** Vial + Boiled Water <3.0 ACCEPTABLE

arrative: Acceptable.

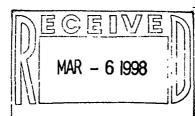
eported By: CV

Approved By: John Farban.

Date: 11/18/97

March 4, 1998

1st Quarter 1998 REPORT



Jaquez Corn Field
Monitor Well Analytical Results
Lab Sample #'s 980164 to 980172
Sampled February 18, 1998
Sampled by Dennis Bird

Report Distribution:

Sandra Miller Scott Pope - Philip Services Company Results File

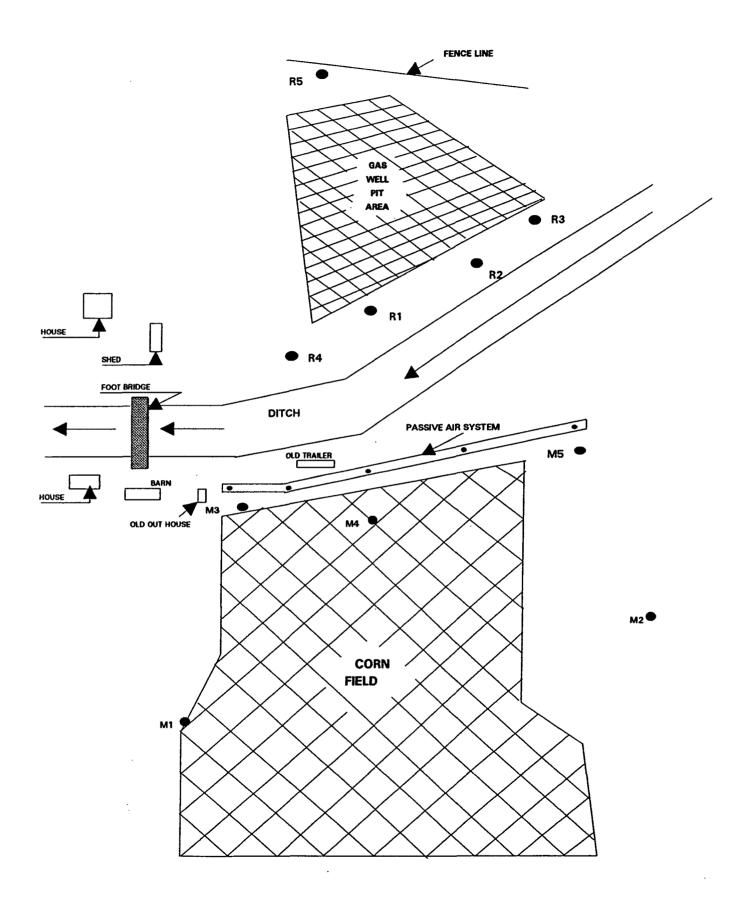
Attachments

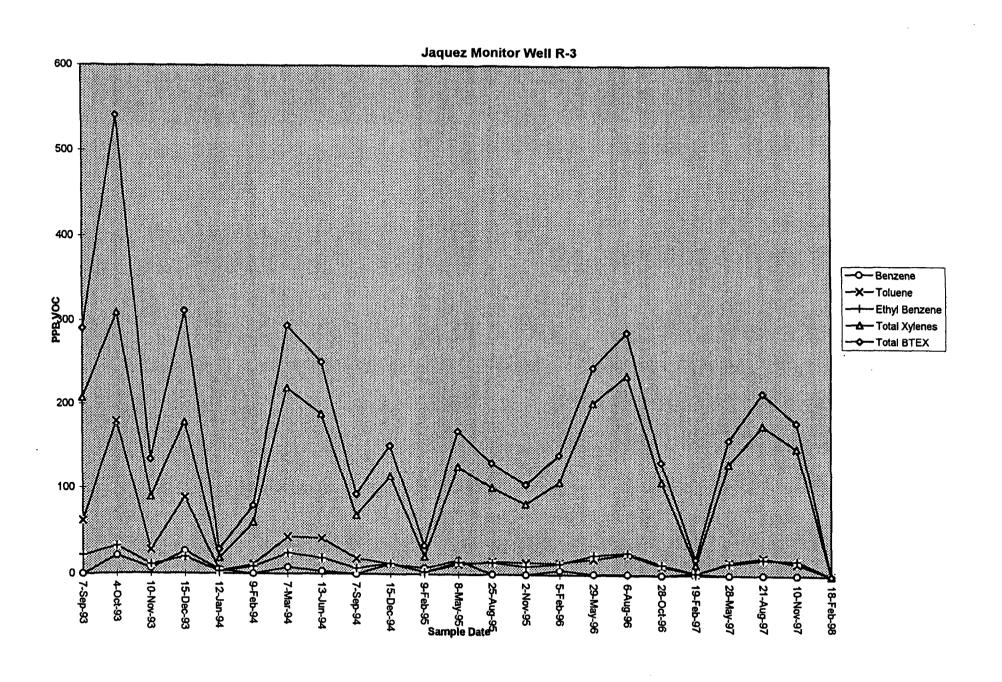


A 2613

CHAIN OF CUSTODY RECORD

Samplers: (Signa	1	Project Name TAQUEZ					Туре				/	Reque	ysis .					
	ature)	en	nio	L.	ind		Date: 2-18-	98	and No. of Sample	Q.d.	Comique of the state of the sta		K	/	//	7		Remarks
MATRIX Date		ı	1	GRAB		Samı	ole Number		Contain- ers				3/1/		/.			
ATER 218	1981	1005		X	1	198	0164		5-1	400	X	X			MON	1170R	WELL	L R-3
WATER 2-18				X		198	0165		5-1	400	X	X			MON	ITOP	WELL	R-3 FIECO DUP
UATER 2-18	×98	1118		X		-95	0166		6-1	4ºC	X	K			Man	ITAR	WELL	1 R-4
MIER 2-18				X		73	0167	/	15-1	4°C	X	X			MAN	(TOP		, a
WHIER 2-18				X		-93	0168		6-1	4°C	X	X			MON		WELL	(M-1
WATER 2-18				X		98	0169.		6-1	4º0	X	7			MON	1701	wth	C M-2
WATER 2-18				X		-98	0170		6.1	400	X	7			MON	170R		
WATER 2-18	-		1	X		198	917/		G-1	4°C	X	X			MON	MAR	WELL	CM-4
WATER 2-18				X		98	0172		6-1	40	X	X			MON	ITOK		CM-5
明武 218	P%-			X					-6-1	400	χ				TPI	o Bo	IANK	/
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Relinquished by	y: (Sign		est .		2-/\$98 Date/		Received by: (Si	gnature)		Relinqu	uished l	by: (Sigr	nature)			Date/	Time	Received by: (Signature)
														·				<u> </u>
Relinquished by	oy: (Sig	nature)			Date/	Time	Received for La	boratory by: ((Signature)	2/20/2	Date/T	ime 071(Rema	arks:			1,	1
Carrier Co:								Carrier Ph	ione No.			/-		Result	ts Reporte	d / by: (Sig	nature)	
Alr Bill No.:																		san luan renno Form 71-55







SAMPLE IDENTIFICATION

						···
	Fi	eld ID		Lab iD		_
SAMPLE NUMBER:	P	N/A		980164		
MTR CODE SITE NAME:		N/A	Ja	quez Cornfie	eld	
SAMPLE DATE TIME (Hrs):	2/1	18/98		1005		
PROJECT:		Monito	or Well			
DATE OF BTEX EXT. ANAL.:	2/2	20/98		2/20/98		
TYPE DESCRIPTION:	F	२-3				
Field Remarks:						
		RESULTS				
PARAMETER	RESULT	UNITS	DF	QUALIF	IERS	
BENZENE	<1	PPB				
TOLUENE	<1	PPB			ļ	
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	<6	PPB				
he Surrogate Recovery was at F = Dilution Factor Used	88.5	BTEX is by EPA Method % for this sample		was accepta	able.	
larrative:		·				

Date: 2/24/98

Approved By: John Fatch



SAMPLE IDENTIFICATION

EPFS LAB ID:	980164	
DATE SAMPLED:	02/18/98	
TIME SAMPLED (Hrs):	1005	
SAMPLED BY:	DB	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jaquez Cornfield	
SAMPLE POINT:	MW R-3	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	ÜNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	<0.1	PPM	02/19/98
Nitrite as N0 ₂ -N	<0.1	PPM	02/19/98

Lab Remarks:

Reported By: CV

Approved By:

Date: <u>3/4/98</u>

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ı		EL PAS	5 U		
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	4	FIELD	TEI		
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ite Nan	ne	TAGU	62				,	□ 2 3	Developmer Purging	nt	Well Num Meter Co				
evelop	ment C	riteria													
•	3 to 5 Cas			er Removel neters		Water Vol Initial Depth of \ Initial Depth to \ Height of Water	Well (feet)	7.07	E03	-	1	Instrum X X	pH Meter DO Monitor	v Meter	
ethods	s of De	velopm	ent			Diameter (inche								•	
	Pump Centrifuga	•	Bailer Bottom	Valve		Item	Water Volur Cubic Feet	ne in Well	Gallo	ns to be loved]	Z	Other	0. CH	EMETS KIT
	Submersi	ble 🔲	Double	Check Valve	е	Well Casing		3.3	10.	9		Water !	Disposal		
	Peristaltic		Stainle	ss-steel Kem	nmerer	Gravel Pack							5176		PECS
	Other					Drilling Fluids Total									
Vater R	emova	I Data				Total		<u> </u>	I <u></u> -		_				•
Date	Time	Develo Meth Pump	•	Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)		/olume ed (gal) Cumulative	Removed	Volume (gallons)	Temperature °C	рН	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
18.98	0926		Julio	\g	(.55.)	(1001)			Morement	Camalative	11.2	6.08	937	11,9/2	
1898						1	3.0	3.0			11.3	6.18	153		
12\9P	0935		<u> </u>	1			2.0	5.0	 	-	11.3	6.18	452		
	0954						50	10.0			10.9	6.54		1.5	
										}					
			 							<u> </u>	-				
comments_															
)eveloper's	Signature	Den	ini	i Br	ied	/			Date 2-18	P-98	_Reviewer	Jola	- Lain	D.	Date 2/24/48
	⇒.G							· · · · · · · · · · · · · · · · · · ·	<u></u> - <u>-</u>			O'	- V Breek		-/01/10



SAMPLE IDENTIFICATION

	Fi	eld ID		Lab ID					
SAMPLE NUMBER:		N/A		980165					
MTR CODE SITE NAME:		V/A	1.						
·			J.	aquez Cornfield					
SAMPLE DATE TIME (Hrs):	2/1	18/98		1005					
PROJECT:			itor Well						
DATE OF BTEX EXT. ANAL.:	2/2	20/98	_	2/20/98					
TYPE DESCRIPTION:	R-3 Fi	eld Dup		Water					
Field Remarks:		RESULTS		11 (Aug. 1) 11 (Aug. 1) 12 (Aug. 1)					
PARAMETER	RESULT	UNITS	DF	QUALIFIEF Q	∖S				
BENZENE	<1	РРВ							
TOLUENE	<1	PPB							
ETHYL BENZENE	<1	PPB							
TOTAL XYLENES	<3	PPB							
TOTAL BTEX	<6	PPB							
		BTEX is by EPA Meth							
ha Surrageta Ragovary was at	01 2	% for this compl		i waa aaaantahi					

	1	
No		
Narrative:		
		•

980165BTEXJacquezCornfield, 2/23/98

DF = Dilution Factor Used



SAMPLE IDENTIFICATION

EPFS LAB ID:	980165	
DATE SAMPLED:	02/18/98	
TIME SAMPLED (Hrs):	1005	
SAMPLED BY:	DB	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jaquez Cornfield	
SAMPLE POINT:	MW R-3 Field Dup	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS TO SEE	DATE ANALYZED
Nitrate as N0 ₃ -N	<0.1	PPM	02/19/98
Nitrite as N0 ₂ -N	<0.1	PPM	02/19/98

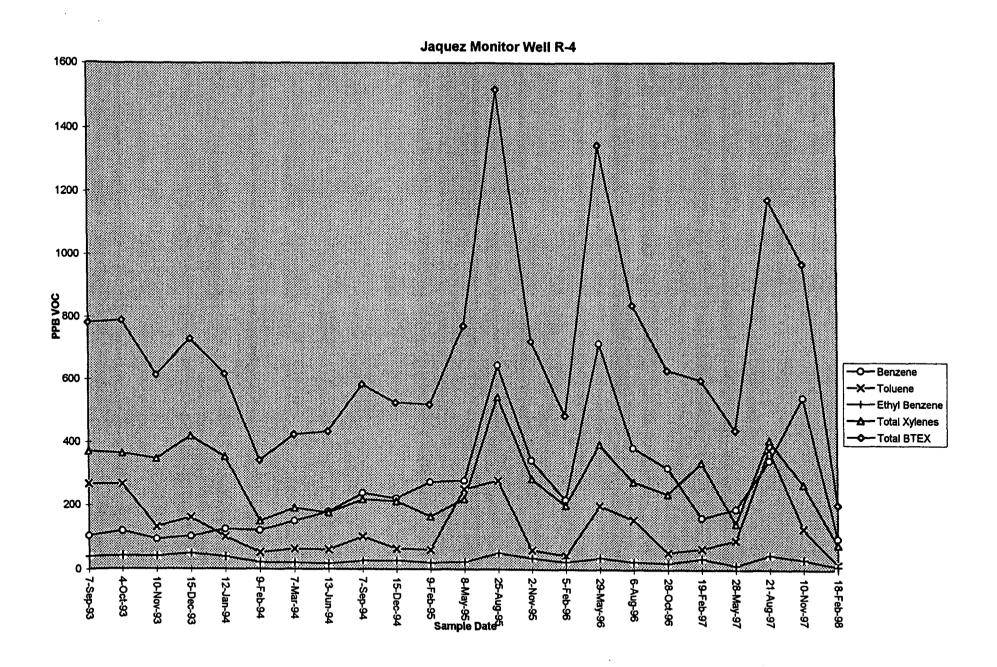
Lab Remarks:

Reported By:___ CV

Approved By: _

980165GC\$SNitrate-Nitrite, 3/3/98

Date: 3/4/48





SAMPLE IDENTIFICATION

Lab ID

SAMPLE NUMBER:	N	/A										
MTR CODE SITE NAME:	N	/A	Ja									
SAMPLE DATE TIME (Hrs):	2/1	8/98		1118								
PROJECT:		Monito	r Well									
DATE OF BTEX EXT. ANAL.:	2/2	0/98		2/20/98								
TYPE DESCRIPTION:	R	-4		Water								
Field Remarks:												
		RESULTS										
PARAMETER	RESULT	UNITS	DF	QUALIFIERS Q								
BENZENE	98.0	PPB	2	D								
TOLUENE	15.9	PPB	2	D								
ETHYL BENZENE	10.0	PPB	2	D								
TOTAL XYLENES	79.3	PPB	2	D								
TOTAL BTEX	203	РРВ										
The Surrogate Recovery was at 86.7 % for this sample All QA/QC was acceptable. DF = Dilution Factor Used The "D" qualifier indiciates that the analyte calculated is based on a secondary dilution factor. Narrative:												
Approved By: Date: 2/24/98 980166BTEXJacquezCornfield,2/23/98												



SAMPLE IDENTIFICATION

EPFS LAB ID:	980166	
DATE SAMPLED:	02/18/98	
TIME SAMPLED (Hrs):	1118	
SAMPLED BY:	DB	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jaquez Cornfield	
SAMDI E DOINT	MW R-4	

FIELD REMARKS: __

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	<0.1	PPM	02/19/98
Nitrite as N0 ₂ -N	<0.1	PPM	02/19/98

Lab Remarks:

Reported By: ______

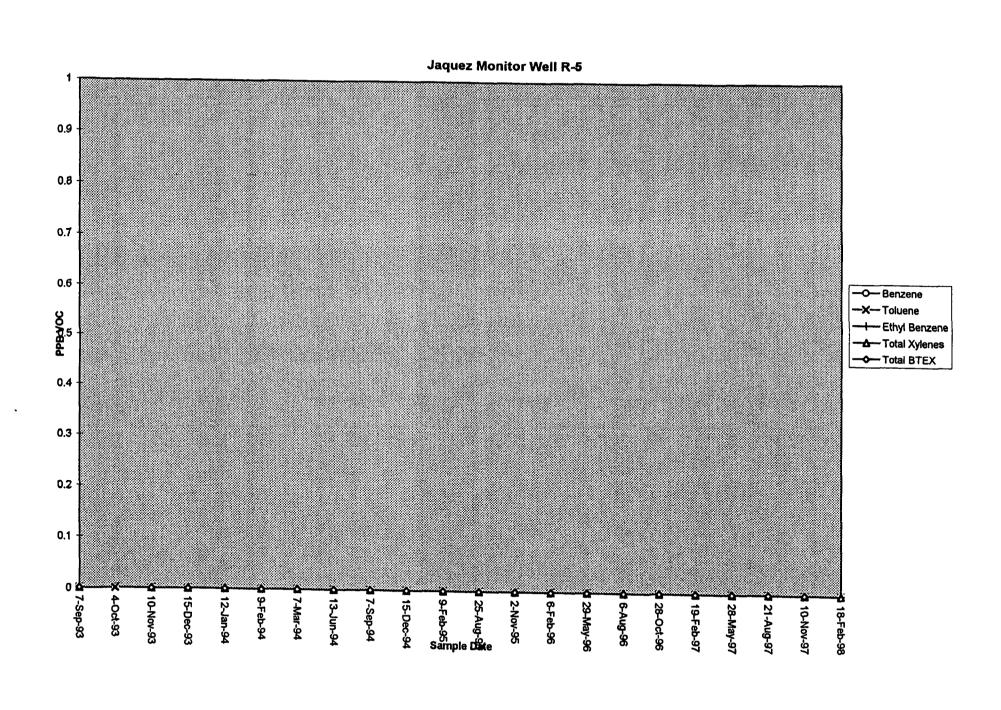
Approved By: _

980166GCSSNit/ate-Nitrite, 3/3/98

Date: 3/4/98



Site Nan	ne	AGV	Č2				,		Developmen Purging		Well Nun Meter Co				
Develop													4		
3 to 5 Casing Volumes of Water Removel Stabilization of Indicator Parameters Other				Water Vol Initial Depth of \ Initial Depth to \ Height of Water	Vell (feet)	12.10	39		Instruments pH Meter DO Monitor Conductivity Meter						
Methods	s of De	velopm	ent			Diameter (inche				-				•	111-
	Pump Centrifug	•	Bailer Bottom	Valve		item	Water Volun	ne in Well	Gallo	ns to be	<u>.</u> .	X	Other	D. CH	CEMETS KIT
- 🔲	Submersi	ible	Double	Check Valve	2	Well Casing	•	3.7	11.				Disposal		
	Peristaltic	, 🗆	Stainle	ss-steel Ken	nmerer	Gravel Pack						ON S	5/76	BARR	E65
						Drilling Fluids									
	Other					Total									
Water R	emova	l Data													
1		Develo	pment	Removal	Intake	Ending Water	Water V	/olume	Product	Volume	Temperature		Conductivity	Dissolved	
Date	Time	Meth Pump	od Bailer	Rate (gal/min)	Depth (feet)	Depth (feet)	Remove Increment		Removed Increment	(gallons) Cumulative	°C	pН	μmho/cm	Oxygen mg/L	Comments
2-18-98	1030				V ::/						12.4	6.73	565		
21898							5.0	5.0			12.7	7.10	609		
2-17-18							5.0	10.0			13.6	7.47	1040		
2-15-98							3.0	13.0			13.6	7.48	1075	15	
			<u> </u>												
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-	Signature	Ter	mi	o B	ind	/			Date <u>2-1</u>	P98	Reviewer	Ja	intol	de	Date <u> </u>
												0	•		٠ ,





SAMPLE IDENTIFICATION

Field ID Lab ID	
CODE SITE NAME: N/A Jaquez Cornfield	
DATE TIME (Hrs): 2/18/98 1225	
PROJECT: Monitor Well	
RTEX EXT. ANAL.: 2/20/98 2/20/98	_
PE DESCRIPTION: R-5 Water	
Field Remarks:	
RAMETER: RESULT UNITS QUALIFIERS DF Q	
ENZENE <1 PPB	
OLUENE <1 PPB	
L BENZENE <1 PPB	
L XYLENES <3 PPB	
AL BTEX <6 PPB	
Recovery was at 88.8 % for this sample All QA/QC was acceptable. Factor Used	
L XYLENES <3 PPB AL BTEX <6 PPB BTEX is by EPA Method 8020 Recovery was at 88.8 % for this sample All QA/QC was acceptable.	

980167BTEXJacquezCornfield,2/23/98



SAMPLE IDENTIFICATION

EPFS LAB ID:	980167	
DATE SAMPLED:	02/18/98	
TIME SAMPLED (Hrs):	1225	
SAMPLED BY:	DB	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jaquez Cornfield	
SAMPLE POINT:	MW R-5	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	<0.1	PPM	02/19/98
Nitrite as N0 ₂ -N	<0.1	PPM	02/19/98

Lab Remarks:

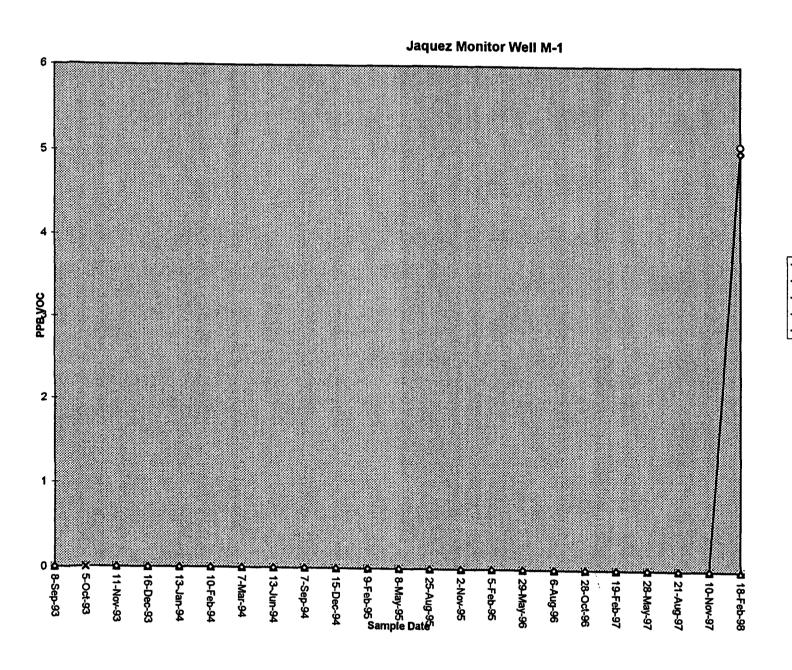
Reported By: 6/

Approved By: _

980167GC\$SNitrate-Nitrite, 3/3/98

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1		EI DAG	20	
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				-
		FIELU	SERVI	

ite Nan	ne	AGU	152				,		Developmer Purging		Well Nun Meter Co				
evelop	3 to 5 Cas Stabilization	velopm	tor Param ent Bailer Bottom '		_	Water Vol Initial Depth of V Initial Depth to V Height of Water Diameter (inche Item Well Casing Gravel Pack Drilling Fluids Total	Well (feet) Water (feet) Column in We	Il (feet) S Gravel Pa	ack			Instrum	pH Meter DO Monitor Conductivit Temperatu Other	y Meter re Meter <u>O. CH</u> O	METS KIT PRECS
Vater R	Time	Develo Metro Pump	•	Removal Rate (gal/min)	Intake Depth	Ending Water Depth (feet)	Water \ Remov	/olume ed (gal) Cumulative	Removed	Volume (galions) Cumulative	Temperature °C	рН	Conductivity μmho/cm	Dissolved Oxygen	Comments
2-18-98		Pump	Daller	(gavmin)	(feet)	(leet)	3.0	3.D	increment	Cumulative	148	7.37	4250	mg/L	
2-12-78	1154						1.0	4.0			145	7.4/	4350	2,5	
Commonto	TWA	- WE	16 1	BAILE	7 0	PY 0 40	2 GAL	LONS			<u> </u>				
comments_ Developer's	Signature	Der	un	is B	ind	y 0 4.0 !		//)	Date 2-/	P98	Reviewer	Ja	lu Ja	Mari	Date





⁻⁺⁻ Ethyl Benzene

⁻Total Xylenes

Total BTEX



SAMPLE IDENTIFICATION

	Fie	ld ID		Lab ID		_
SAMPLE NUMBER:	N	I/A		980168		
MTR CODE SITE NAME:	N	I/A	Ja	quez Cornfie	ld	
SAMPLE DATE TIME (Hrs):	2/1	8/98		1415		1
PROJECT:		Moni	tor Well			4
DATE OF BTEX EXT. ANAL.:	2/2	0/98		2/20/98	_	1
TYPE DESCRIPTION:	M	1-1		Water		
Field Remarks:		RESULTS				
PARAMETER"	RESULT	UNITS	DF	OUALIFI Q	ERS :	
BENZENE	5.08	PPB				
TOLUENE	<1	PPB				
ETHYL BENZENE	<1	PPB				
TOTAL XYLENES	<3	PPB				
TOTAL BTEX	5	PPB				
Surrogate Recovery was at = Dilution Factor Used	86.5	BTEX is by EPA Metho % for this sample		was accepta	able.	

980168BTEXJacquezCornfield,2/23/98



SAMPLE IDENTIFICATION

EPFS LAB ID:	980168	
DATE SAMPLED:	02/18/98	
TIME SAMPLED (Hrs):	1415	
SAMPLED BY:	DB	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jaquez Cornfield	
SAMPLE POINT:	MW M-1	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT	UNITS:	DATE ANALYZED
Nitrate as N0 ₃ -N	<0.1	PPM	02/19/98
Nitrite as N0 ₂ -N	<0.1	PPM	02/19/98

Lab Remarks:

Reported By:

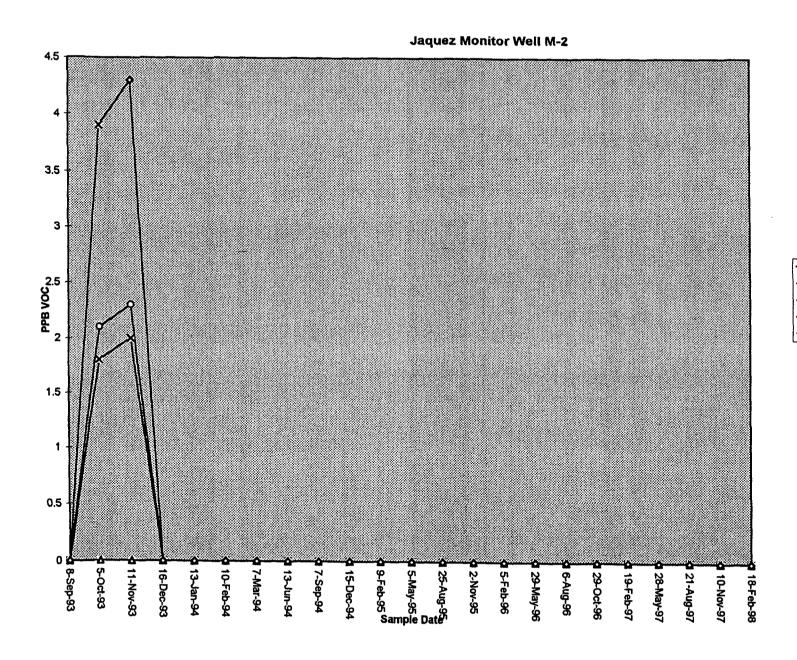
Approved By:

980168GC\$\$Nitrate-Nitrite, 3/3/98

Date: 3/4/48



									Developmer Purging	nt '	Well Nur	mber <u>/</u>	<u>n-/</u>		
ite Nan	ne <u>7</u>	ANE	2	_		_			ruigilig		Meter Co	ode			
evelop	ment C	riteria													
X		ing Volumes on of Indicator				Water Vol Initial Depth of V Initial Depth to V Height of Water	Vell (feet) <u>/</u> Vater (feet)	5.30		-		Instrum	pH Meter DO Monitor		
lethods	s of De	velopme	nt	•		Diameter (inche				-				•	
	Pump Centrifuga	Ba	iler ottom V	alve		Item	Water Volu		Gallo	ns to be oved		×	Other	O. CHO	METS KIT
	Submersi			Check Valve	e	Well Casing		5.7	17.	12		Water I	Disposal		
	Peristaltic	. 🗆 s	Stainless	s-steel Kem	nmerer	Gravel Pack						ON	5/10	BARK	EC5
						Drilling Fluids									
	Other					Total									
Votor B	emova	l Data	-					_							
valei n	relliona	Developm	ent	Removal	Intake	Ending Water	Water	/olume	Product	Volume	Temperature	ol	Conductivity	Dissolved	
Date	Time	Method Pump E		Rate (gal/min)	Depth (feet)	Depth (feet)	Remov Increment	ed (gal) Cumulative		(gallons) Cumulative	°C	pН	μmho/cm	Oxygen mg/L	Comments
1898	13/4			\ <u>J</u>	<u> </u>						13.0	6.90	274		
129							5.0	50			10.8	7.09	278		
1298							2.0	7.0			10.0	7.27	300	3.5	
									ļ			<u> </u>			
			}		<u> </u>	-		<u> </u>				 			***
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Commente	THE	WELL	18	ALLE	0 00	PYP7.0	2 GAL	lovs	57.	l		-	<u> </u>	<u> </u>	
Johnner 112	7 11.0	2			7	<u>/ </u>						·	0		
Developers	Signature_	Ven	nu	<u>v B</u>	isd				Date 2-/	RIP.	Reviewer	Add	en Feet	Les 0	Date 7/24/98
•		- /										1			- · · · ·





⁻Total Xylenes

Total BTEX



	SAMPLE	DENTIFICA	ATION		
	Fiel	id ID		Lab ID	
SAMPLE NUMBER:	N	/A		980169	
MTR CODE SITE NAME:	N	/A	Jaqu	ez Cornfield	
SAMPLE DATE TIME (Hrs):	2/19	8/98		1438	
PROJECT:		Monit	or Well		
DATE OF BTEX EXT. ANAL.:	2/20	0/98		2/20/98	
TYPE DESCRIPTION:	M	-2		Water	
Field Remarks:					
		RESULTS			
PARAMETER	RESULT	UNITS	DF	QUALIFIERS	
BENZENE	<1	PPB			
TOLUENE	<1	PPB			
ETHYL BENZENE	<1	PPB			
TOTAL XYLENES	<3	РРВ			
TOTAL BTEX	<6	PPB			
he Surrogate Recovery was at F = Dilution Factor Used arrative:	87.1	BTEX is by EPA Method % for this sample		as acceptable.	
· · · · · · · · · · · · · · · · · · ·					····
) d t	>		* ***	7/2/2	<u>-</u>

980169BTEXJacquezCornfield, 2/23/98



SAMPLE IDENTIFICATION

EPFS LAB ID:	980169	
DATE SAMPLED:	02/18/98	
TIME SAMPLED (Hrs):	1438	
SAMPLED BY:	DB	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jaquez Cornfield	
SAMPLE POINT:	MW M-2	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

Nitrite as N0 ₂ -N	<0.1	PPM	02/19/98
Nitrate as N0 ₃ -N	<0.1	PPM	02/19/98
PARAMETER	RESULT	UNITS	DATE ANALYZED

Lab Remarks:

Reported By: _____

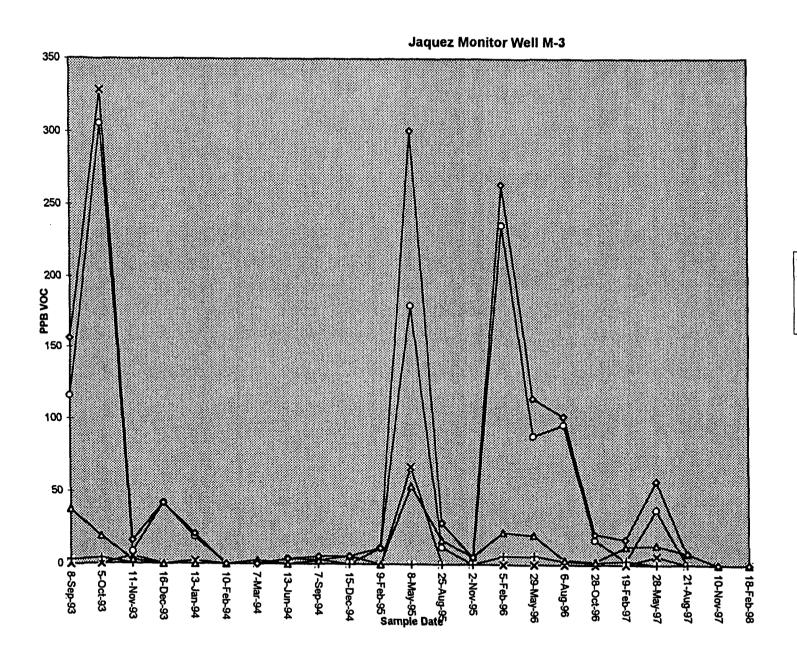
Approved By:

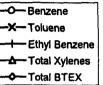
ved By: Hulle

Date: 3/4/48



Nam	ne_ <i>\(\mathcal{J}\)</i>	AQU	53				ı		Development Purging		Well Num Meter Co				
yelopment Criteria ✓ 3 to 5 Casing Volumes of Water Removel ✓ Stabilization of Indicator Parameters ✓ Other					Water Volume Calculation Initial Depth of Well (feet) 5.63 Initial Depth to Water (feet) 6.63 Height of Water Column in Well (feet) 5.48					Instruments pH Meter DO Monitor					
hade	of Dev	velopm	ont			Diameter (inche	_			_		X		•	
ious	Pump	verohiii	Bailer			Diameter (inche	Water Volun			ns to be	1	\ <u>\</u>	Other Z	CO, CH	EMETS KIT
	Centrifuga		Bottom '	Valve		Item	Cubic Feet	Gallons	Removed						
	Submersil	ble 🔲	Double	Check Valve	е	Well Casing	Well Casing 5.6 /6.8			8		Water !	Disposal		
	Peristaltic	[Chainles	ss-steel Kem	Imerer	Gravel Pack			· · · · · · · · · · · · · · · · · · ·				5116		ELS
	renstant	لــا	Stainles	ss-steet Nett	nnerer						•		<u> </u>	Dirich	
						Drilling Fluids									
	Other					Total]				
er R	emova	l Data													•
1	omo va	Develo	pment	Removal	intake	Ending Water	Water V	olume		Volume	Temperature		Conductivity	Dissolved	
te	Time	Method			Depth (feet)	Depth (fact)	Remove	ed (gal) Cumulative		(gallons)		pН	μmho/cm	Oxygen	ł .
40	1342	Pump	Bailer	(gavitiiti)	(reet)	(feet)	Increment	Cumulative	Increment	Cumulative	8.7	7.29	469	mg/L	
		·				ļ	5.0	5,0			20	7.20	502		
90	1347						5.0	10.0			8.0	7.21	500		
7/8	135Z 1358						50						492		
70	1330		ļ <u>.</u>				5.0	15.0	ļ		7.5	7.23		13/	
178	1403						7.0	20.0			7.5	7.27	497	35	
									<u> </u>	<u> </u>	-			 	
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		<u> </u>			<u> </u>	<u></u>									
ments															
		N		is B		1							1	<u> </u>	
		$\mathcal{I}\mathcal{I}_{\Delta}$		12 /K		/				^-1		1) 0		_	
	Ciancture	מעגעט	7/n/1	נו על	ADD .	,			Data 2-1	DYD.	Dovinue	1)	L.	(L).	Date <u>2/24/9</u>







	SAMPL	E IDENTIFIC	ATION					
	Fie	ald ID		Lab ID				
SAMPLE NUMBER:	N	I/A		980170				
MTR CODE SITE NAME:	٨	I/A	Ja	quez Cornfie	eld			
SAMPLE DATE TIME (Hrs):	2/1	8/98		1556				
PROJECT:		Moni	tor Well					
DATE OF BTEX EXT. ANAL.:	2/2	0/98		2/20/98				
TYPE DESCRIPTION:	N	1-3		Water				
Field Remarks:								
		RESULTS						
PARAMETER	RESULT	UNITS	DF	QUALIF Q	IERS:			
BENZENE	<1	PPB						
TOLUENE	<1	PPB						
ETHYL BENZENE	<1	РРВ						
TOTAL XYLENES	<3	PPB						
TOTAL BTEX	<6	PPB						
he Surrogate Recovery was at DF = Dilution Factor Used	84.0	BTEX is by EPA Metho % for this sample		was accept	able.			
larrative:								
	P .							

980170BTEXJacquezCornfield, 2/23/98



SAMPLE IDENTIFICATION

EPFS LAB ID:	980170	
DATE SAMPLED:	02/18/98	
TIME SAMPLED (Hrs):	1556	
SAMPLED BY:	DB	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jaquez Cornfield	
SAMPLE POINT:	MW M-3	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

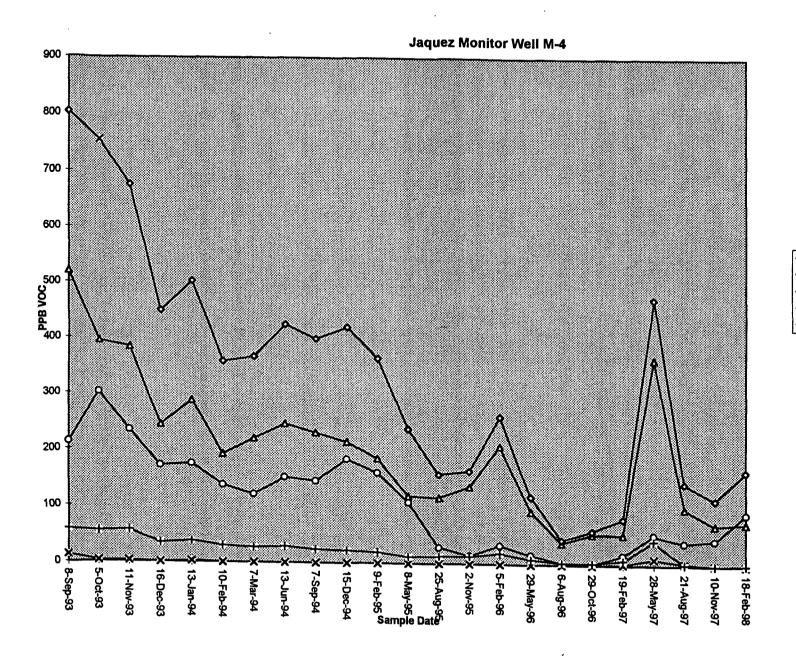
Nitrite as N0 ₂ -N	0.1	PPM	02/19/98
Nitrate as N0 ₃ -N	0.1	PPM	02/19/98
PARAMETER	RESULT	+ UNITS	DATE ANALYZED

Lab Remarks:

Reported By:___ ('V' Approved By: 980170GCS Nitrate-Nitrite, 3/3/98



Site Nam	1e_ <i>O</i>	AGUE	Z_			_	,		Developmer Purging		Well Num Meter Co				
	3 to 5 Cas Stabilization Other	velopmer Bai Boble Delivers of the control of th	Parametel It ler ouble Che	ers		Water Vol Initial Depth of V Initial Depth to V Height of Water Diameter (inche Item Well Casing Gravel Pack Drilling Fluids	Well (feet) // Water (feet) // Column in We	Gravel Pame in Well	ck Gallo Rem	ns to be	,		pH Meter DO Monitor Conductivit Temperatur Other	y Meter re Meter <u>C.O., C.</u> H.	SMETS KIT PEUS
Water R	Other	I Data Developme		emoval Rate	Intake Depth	Ending Water Depth	Water \	/olume ed (gal)		t Volume	Temperature	На	Conductivity	Dissolved Oxygen	Comments
2-18-98				jal/min)	(feet)	(feet)	Increment			Cumulative	120	2.38	595	mg/L	
2-18-98	1517						5.0	5.0			11.1	7.14	484		
2-12-98 2-12-98	1501						5.0	10.0	<u></u>		11.2	8.30	467		
2-2798	1534						5.0	20,0			11.1	8.20	406	3.5	
Comments_	REMO Signature	Den	K OL	ryse	N TO	evense L	compo	UND S	OCKS Date 2-/	30 00 9.98	Reviewer	FORE John	SAMP La	LING.	Date







SAMPLE IDENTIFICATION

	SAMPLE	DENTIFICA	IION		
	Fiel	ld ID	Lab	ID	_
SAMPLE NUMBER:	N	/A	9801	171]
MTR CODE SITE NAME:	N	/A	Jaquez C		
SAMPLE DATE TIME (Hrs):	2/1:	8/98	173	18]
PROJECT:		Monito	or Well		
DATE OF BTEX EXT. ANAL.:	2/20	0/98	2/20	98	
TYPE DESCRIPTION:	M	-4	Wat	er	
Field Remarks:					
		RESULTS			
PARAMETER	RESULT	UNITS		JALIFIERS Q	
BENZENE	91.0	PPB			
TOLUENE	<1	PPB			
ETHYL BENZENE	1.10	PPB			
TOTAL XYLENES	74.9	РРВ			
TOTAL BTEX	167	PPB			
The Surrogate Recovery was at OF = Dilution Factor Used	86.9	BTEX is by EPA Method & % for this sample	8020 All QA/QC was a	cceptable.	
larrative:					
	f a				

980171BTEXJacquezCornfield,2/23/98



Field Services Laboratory Analytical Report

SAMPLE IDENTIFICATION

EPFS LAB ID:	980171	
DATE SAMPLED:	02/18/98	
TIME SAMPLED (Hrs):	1738	
SAMPLED BY:	DB	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jaquez Cornfield	
SAMPLE POINT:	MW M-4	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULT:	UNITS!	DATE ANALYZED
Nitrate as N0 ₃ -N	0.1	PPM	02/19/98
Nitrite as N0 ₂ -N	0.1	PPM	02/19/98

Lab Remarks:

Reported By: _______

Approved By:

yed By: John Joldan 980171GC\$SNitrate-Nitrite, 3/3/98

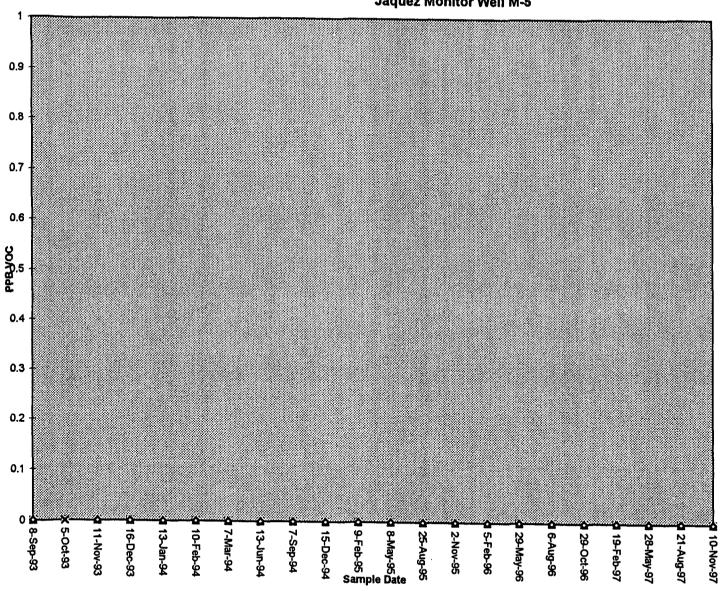
Date: 3/4/98



Well Development and Purging Data

ite Nan	1e	AGO	<u> </u>				1		Developme Purging		Well Nun Meter Co	····			
	3 to 5 Cas Stabilization	velopm	ent Bailer Bottom	neters		Water Vol Initial Depth of V Initial Depth to V Height of Water Diameter (inche	Well (feet) Water (feet) Column in We	S 9 Il (feet) Gravel P me in Well	ack Gallo Rem	ons to be		Water I	pH Meter DO Monitor Conductivit Temperatu Other	ty Meter re Meter <u>D. CH</u> C	METS KIT
□ □ Nater R	Peristaltic Other		Stainles	ss-steel Ken	nmerer	Gravel Pack Drilling Fluids Total						<u>ON</u>	5//&	BARK	1000
Date	Time	Develor Meth Pump		Removal Rate (gal/min)	Intake Depth (feet)	Ending Water Depth (feet)		/olume ed (gal) Cumulative	Removed	l Volume I (gallons) Cumulative	Temperature °C	рН	Conductivity µmho/cm	Dissolved Oxygen mg/L	Comments
-18.98	1622					\\					10,3	8.47	778		
3/29							3.0	3.0			9.2	8.60	859		
211/8							2.0	50			90	8.60	877		
2-12-88							7.0	7.0			8.4	8.84	761	3.5	
	TIK	14/2/	Rail	iso of	DUR	7050	(OVE	REMOVE	BO TUS	OMIC	51/50			¥ 700	AVE DECORE
Comments_ Developer's	Signature_	Des	n	is C	Bira	/		CONOV	Date 2-/	5.98	Reviewer	Joles	Joseph Joseph	0v	AKS BEFORE SAMPLING, Date 2/28/98







[—]X— Toluene

^{-∆-} Total Xylenes

[→] Total BTEX



FIELD SERVICES LABORATORY ANALYTICAL REPORT **JAQUEZ CORNFIELD**

	SAMPLI	E IDENTIFICA	ATION				
	Fie	eld ID		Lab ID		_	
SAMPLE NUMBER:		I/A		980172]	
MTR CODE SITE NAME:		I/A	Jaquez Cornfield				
SAMPLE DATE TIME (Hrs):	2/1	8/98	1801]	
PROJECT:		Monit	or Well]	
DATE OF BTEX EXT. ANAL.:	2/2	0/98		2/20/98		_	
TYPE DESCRIPTION:	IV.	1-5		Water		_	
Field Remarks:		RESULTS					_
		NL30L13					
PARAMETER	RESULT	UNITS	DF	QUALIFI Q			!
BENZENE	<1	P PB					
TOLUENE	<1	PPB					
ETHYL BENZENE	<1	РРВ					
TOTAL XYLENES	<3	РРВ					
TOTAL BTEX	<6	РРВ					
he Surrogate Recovery was at F = Dilution Factor Used	87.2	BTEX is by EPA Method % for this sample		was accepta	ble.		
arrative:						-	

980172BTEXJacquezCornfield,2/23/98



Field Services Laboratory Analytical Report

SAMPLE IDENTIFICATION

EPFS LAB ID:	980172	
DATE SAMPLED:	02/18/98	
TIME SAMPLED (Hrs):	1801	
SAMPLED BY:	DB	
MATRIX:	Water	
METER CODE:	N/A	
SAMPLE SITE NAME:	Jaguez Cornfield	
SAMPLE POINT:	MW M-5	

FIELD REMARKS:

GENERAL CHEMISTRY WATER ANALYSIS RESULTS

PARAMETER	RESULŤ	UNITS	DATE ANALYZED
Nitrate as N0 ₃ -N	<0.1	PPM	02/19/98
Nitrite as NO ₂ -N	<0.1	PPM	02/19/98

Lab Remarks:

Date: <u>3/4/48</u>

	EL PA	SO	
	FIELD	SER	VICES

Well Development and Purging Data

ite Nan	ne <i>7.</i>	AGU	152				1		Developmer Purging		Well Nun Meter Co				
evelop	ment C	riteria	Sage												
•	3 to 5 Cas		s of Wat	er Removel neters		Water Vol initial Depth of V Initial Depth to V Height of Water	Well (feet) <u>/</u> Water (feet)	5.10 226	94		!	Instrum	pH Meter DO Monitor	v Meter	
lethods	of De	velopm	ent			Diameter (inche				-					
	Pump Centrifuga	•	Bailer Bottom	Valve		Item	Water Volum Cubic Feet	ne in Well		ns to be noved	Temperature Mel			O. CHE.	METS KIT
	Submersi	ble 🔲	Double	Check Valve	e	Well Casing		5.7	15.	-5-	Water Disposal				
	Peristaltic		Stainle	ss-steel Kem	nmerer	Gravel Pack						ON	5/16	BARRE	25
						Drilling Fluids						, -			
	Other					Total					1				
Vater R		l Data									•				
Date	Time	Develo Meth	•	Removal Rate	Intake Depth	Ending Water Depth	Water \	/olume ed (gal)		Volume (gallons)	Temperature °C	pН	Conductivity µmho/cm	Dissolved Oxygen	Comments
		Pump	Bailer	(gal/min)	(feet)	(feet)	Increment		Increment			pi i	μιπιο/οιπ	mg/L	
-13298	1659										7.7	8.26	403		
-18-98	1703						5.0	5.0	,		8./	7.84	403		
-129							5.0	10.0			7.8	7.63	400		
2-18-98							50	15.0			7.4	7.64	404	35	
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	L	I	<u> </u>	<u> </u>	<u></u>		<u></u>		<u>L</u>	l	<u></u>	L	<u> </u>		
Comments_															
Developer's	Signature <u>4</u>	Ver	m	is L	Sira				Date Z-/	12.98	Reviewer_)	Ter Za	urdi	Date_ 424 88
•												1	V		



QUALITY CONTROL REPORT EPA METHOD 8020 - BTEX

Samples: 980164 to 980172

QA/QC for 2/20/98 Sample Set

LABORATORY CALIBRATION CHECKS / LABORATORY CONTROL SAMPLES:

LABORATURY CALIBRATI	ON CHECKS / LABOR	ATURY CONTI	TOE SAME EEG.	***************************************	ACCEPTABLE
SAMPLE		EXPECTED	ANALYTICAL		MODEFIMEL
NUMBER	TYPE	RESULT	RESULT	%Я	YES NO
ICV LA-52589		PPB	PPB		
50 PPB					RANGE
Benzene	Standard	50.0	49.4	98.8	75 - 125 % X
Toluene	Standard	50.0	49.4	99	75 - 125 % X
Ethylbenzene	Standard	50.0	49.6	99	75 - 125 % X
m & p - Xylene	Standard	100	99.5	99.5	75 - 125 % X
o - Xylene	Standard	50.0	49.6	99	
SAMPLE		EXPECTED	ANALYTICAL		ACCEPTABLE
NUMBER	TYPE	RESULT	RESULT	%R	
LCS LA-45476		PPB	PPB		YES NO
25 PPB					RANGE
Benzene	Standard	25.0	23.9	95.7	39 - 150 X
Toluene	Standard	25.0	24.1	97	46 - 148 X
Ethy i benzene	Standard	25.0	24.0	96	32 - 160 X
m & p - Xylene	Standard	50.0	48.1	96	Not Given X
o - Xylene	Standard	25.0	23.9	96	Not Given X
SAMPLE		EXPECTED	ANALYTICAL		ACCEPTABLE
NIMBER	TYPE	RESULT	RESULT	%R	
NUMBER CCV (A-52589	TYPE	RESULT PPB	RESULT PPB	%R	YES NO
CCV LA-52589	ТҮРЕ			%R	YES NO RANGE
CCV LA-52589 50 PPB				%R 100.3	
CCV LA-52589 50 PPB Benzene	Standard	PPB	РРВ		75 - 125 % X
CCV LA-52589 50 PPB Benzene Toluene	Standard Standard	PPB 50.0	PPB 50.1	100.3	75 - 125 % X
CCV LA-52589 50 PPB Benzene Toluene Ethylenzene	Standard Standard Standard	50.0 50.0	PPB 50.1 49.6	100.3 99.3	75 - 125 % X 75 - 125 % X
CCV (A-52589 50 PPB Benzene Toluene Ethylenzene m & p - Xylene	Standard Standard Standard Standard Standard	50.0 50.0 50.0 50.0	50.1 49.6 49.5	100.3 99.3 99.0	75 - 125 % X 75 - 125 % X 75 - 125 % X 75 - 125 % X
CCV LA-52589 50 PPB Benzene Toluene Ethylenzene m & p - Xylene o - Xylene	Standard Standard Standard	50.0 50.0 50.0 50.0 100 50.0	50.1 49.6 49.5 98.7	100.3 99.3 99.0 98.7	RANGE 75 - 125 % X
CCV LA-52589 50 PPB Benzene Toluene Ethylenzene m & p - Xylene o - Xylene SAMPLE	Standard Standard Standard Standard Standard	50.0 50.0 50.0 100 50.0 EXPECTED	50.1 49.6 49.5 98.7 49.6	100.3 99.3 99.0 98.7	RANGE 75 - 125 % X
CCV LA-52589 50 PPB Benzene Toluene Ethylenzene m & p - Xylene o - Xylene SAMPLE NUMBER	Standard Standard Standard Standard Standard	50.0 50.0 50.0 100 50.0 EXPECTED RESULT	98.7 49.6 49.5 98.7 49.6 ANALYTICAL RESULT	100.3 99.3 99.0 98.7 99	RANGE 75 - 125 % X
CCV LA-52589 50 PPB Benzene Toluene Ethylenzene m & p - Xylene o - Xylene SAMPLE NUMBER CCV LA-52589	Standard Standard Standard Standard Standard	50.0 50.0 50.0 100 50.0 EXPECTED	50.1 49.6 49.5 98.7 49.6 ANALYTICAL	100.3 99.3 99.0 98.7 99	RANGE 75 - 125 % X ACCEPTABLE
CCV LA-52589 50 PPB Benzene Toluene Ethylenzene m & p - Xylene o - Xylene SAMPLE NUMBER CCV LA-52589 50 PPB	Standard Standard Standard Standard Standard	50.0 50.0 50.0 100 50.0 EXPECTED RESULT PPB	998 50.1 49.6 49.5 98.7 49.6 ANALYTICAL RESULT PPB	100.3 99.3 99.0 98.7 99	RANGE 75 - 125 % X ACCEPTABLE YES NO HANGE
CCV LA-52589 50 PPB Benzene Toluene Ethylenzene m & p - Xylene o - Xylene SAMPLE NUMBER CEV LA-52589 50 PPB Benzene	Standard Standard Standard Standard Standard	50.0 50.0 50.0 100 50.0 EXPECTED RESULT PPB	50.1 49.6 49.5 98.7 49.6 ANALYTICAL RESULT PPB	100.3 99.3 99.0 98.7 99	75 - 125 % X ACCEPTABLE YES NO HANGE 75 - 125 % X
CCV LA-52589 50 PPB Benzene Toluene Ethylenzene m & p - Xylene o - Xylene SAMPLE NUMBER CCV LA-52589 50 PPB Benzene Toluene	Standard Standard Standard Standard Standard TYPE Standard Standard	50.0 50.0 50.0 100 50.0 EXPECTED RESULT PPB	50.1 49.6 49.5 98.7 49.6 ANALYTICAL RESULT PPB	100.3 99.3 99.0 98.7 99 %R 98.5 97.2	75 - 125 % X ACCEPTABLE YES NO RANGE 75 - 125 % X 75 - 125 % X
CCV LA-52589 50 PPB Benzene Toluene Ethylenzene m & p - Xylene o - Xylene SAMPLE NUMBER CEV LA-52589 50 PPB Benzene Toluene Ethylbenzene	Standard Standard Standard Standard Standard TYPE Standard Standard Standard	50.0 50.0 50.0 100 50.0 EXPECTED RESULT PPB 50.0 50.0	50.1 49.6 49.5 98.7 49.6 ANALYTICAL RESULT PPB 49.2 48.6 48.4	100.3 99.3 99.0 98.7 99 %R 98.5 97.2 96.8	75 - 125 % X ACCEPTABLE YES NO HANGE 75 - 125 % X 75 - 125 % X 75 - 125 % X
CCV LA-52589 50 PPB Benzene Toluene Ethylenzene m & p - Xylene o - Xylene SAMPLE NUMBER CCV LA-52589 50 PPB Benzene Toluene	Standard Standard Standard Standard Standard TYPE Standard Standard	50.0 50.0 50.0 100 50.0 EXPECTED RESULT PPB	50.1 49.6 49.5 98.7 49.6 ANALYTICAL RESULT PPB	100.3 99.3 99.0 98.7 99 %R 98.5 97.2	75 - 125 % X ACCEPTABLE YES NO HANGE 75 - 125 % X 75 - 125 % X 75 - 125 % X

Narrative: Acceptable.

LABORATORY DUPLICATES:

SAMPLE	ТҮРЕ	SAMPLE RESULT PPB	DUPLICATE RESULT PPB	RPD	AC	CEPTABLE YES NO
980164					RANGE	
Benzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	Х
Toluene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	Х
Ethylbenzene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X
m & p - Xylene	Matrix Duplicate	<2	<2	0.00	+/- 20 %	X
m & p - Xylene o - Xylene	Matrix Duplicate	<1	<1	0.00	+/- 20 %	X

Narrative: Acceptable.

LABORATORY SPIKES:

SAMPLE ID 2nd Analysis 980164	SPIKE ADDED PPB	SAMPLE RESULT PPB	SPIKE SAMPLE RESULT PPB	%R	AC BANGE	CEPTABLE YES NO
Benzene	50	<1	50.7	101.3	75 - 125 %	Х
Toluene	50	<1	50.3	101	75 - 125 %	x
Ethylbenzene	50	<1	50.2	100	75 - 125 %	X
	100	<2	101.0	101.0	75 - 125 %	X
m & p - Xylene o - Xylene	50	<1	50.4	101	75 - 125 %	X

Narrative: Acceptable

torretto. / toeoptable								
AUTO BLANK	SOURCE	PPB	STATUS					
		(2 analyzed with set)						
Benzene	Boiled Water	<1.0	ACCEPTABLE					
Toluene	Boiled Water	<1.0	ACCEPTABLE					
Ethylbenzene	Boiled Water	<1.0	ACCEPTABLE					
Total Xylenes	Boiled Water	<3.0	ACCEPTABLE					

Narrative: Acceptable.

SOIL VIAL BLANK	SOURCE Lot MB1461	PPB (none analyzed with set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
g Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

CONTAMINATION CARRYOVER CHEC	SOURCE K	PPB (none analyzed with this set)	STATUS
Benzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

Narrative: Acceptable.

TRIP BLANK	SOURCE	PPB (1 analyzed with this set)	STATUS
Benzene '	Vial + Boiled Water	<1.0	ACCEPTABLE
Toluene	Vial + Boiled Water	<1.0	ACCEPTABLE
Ethylbenzene	Vial + Boiled Water	<1.0	ACCEPTABLE
Total Xylenes	Vial + Boiled Water	<3.0	ACCEPTABLE

larrative: Acceptable.

Reported By: Approved By: Date: 2/24/98



PARAGON ANALYTICS, INC.

225 Commerce Drive ♦ Fort Collins, CO 80524 ♦ (800) 443-1511♦ (970) 490-1511 ♦ FAX (970) 490-1522

March 6, 1998

Mr. John Lambdin El Paso Field Services P.O. Box 4990 Farmington, NM 87499



RE:

Paragon Workorder: 98-02-154

Client Project Name: Jaquez Monitor Wells Client Project Number: Not Submitted

Dear Mr. Lambdin:

Eight water samples were received from El Paso Field Services on February 20. 1998. The samples were scheduled for PAHs by HPLC analysis. The results for this analysis are contained in the enclosed report pages 1-13.

Thank you for your confidence in Paragon Analytics, Inc. Should you have any questions, please call.

Sincerely,

Aduenne Mackym Paragon Analytics, Inc. Adrienne Mackzum

Project Manager

AM/asg

Enclosure: Report

Riviewod

Riview

Paragon Analytics, Incorporated

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 9802154

Client Name: El Paso Field Services

Client Project Name:

Client Project Number: Jaquez Monitor Wells

Client PO Number:

Client Sample	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
980164	9802154-1	·	Water	2/18/98	10:05
980166	9802154-2		Water	2/18/98	11:18
980167	9802154-3		Water	2/18/98	_ 12:25
980168	9802154-4		Water	2/18/98	14:15
980169	9802154-5		Water	2/18/98	14:38
980170	9802154-6		Water	2/18/98	15:56
980171	9802154-7		Water	2/18/98	17:38
980172	9802154-8		Water	2/18/98	18:01





PARAGON ANALYTICS, INC.

00 MT WRITTIN SHATED AREA.

(800) 443-1511 or (970) 490-1511

CHAIN OF CUSTODY DATE 2-1898 1 of 1

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EPORT TO: JOHN C	AMB	DIN	,														i	ANA	LYS	IS F	EQU	EST	ED				-	اليوسيسينية الم							
COMPANY: EL PASO				60.												T		\Box				T		\neg			\Box	\Box	\Box	\sqcap	\Box	T	T		Γ
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SAMPLER: Tenn		Blica			9070/9071/413.2		ne		8015m/8020 - Gasoline/BETX		8240/8260 · GC/MS VOC's	5.2	8080 - Pesticides/PCB's		8310/610 - HPLC PNA's		8141/614 · OP Pesticides	ا خ	ify in co	ICLP: "(specify parameters in						ft.				je je					
505-599-2244	<u> </u>	505-	599-	226/	1070		· Gasoline	Diesel	Gası	Aju	C/M.	8270 - GC/INS SVOC's	des/F	yur.	d 27.	des	Pes	<i>TOX - E0X - A0X - TX</i>	Total Metals "Ispecify	r para	Beta	- {	- }	nium	шn	Total Uranium (KPA)	877		96/	tehy	. }			-	iners
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SAMPLE ID	DATE	TIME	MATRIX	LABID	0118	418.	8015 Mod.	8015 Mod.	801	802	824	827	808	808	8311	8151	8141	TOX	Tota	121	Gros	Gross Gamma	mes	Isotopic Plutonium	Isoto	Tota	Radium 226 228	Tritium (H3)	Stro	8315 - Formaldehyde	% Moisture				lumbe
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Paragon Analytics, Inc. - Fort Collins, Colorado

CONDITION OF SAMPLE UPON RECEL	$_{ m LL}$. ,	
CLIENT: 41 MAN FELD SOUCCE SHIPPING CONTAINER	r#: (2	MUL) /
011		21	162
WORKORDER NO. 900-154 INITIALS: 1917	DA	re: 720	190
1. Does this project require special handling according to NEESA, Level 3,		Yes	No)
or CLP protocols?			<u></u>
If yes, complete a. and b.			
a. Cooler Temperature			
b. Lot No's.			
c. Airbill Number			
2. Are custody seals on the cooler intact? If so, how many 2	N/A	Xes)	No
3. Are custody seals on sample containers intact?	NIA	Yes	No
4. Is there a Chain of Custody (COC) or other representative documents,		(res)	No
letters or shipping memos?			
5. Is the COC complete?	N/A	(es)	No
Relinquished: Yes No Requested Analysis: Yes No			
6. Is the COC in agreement with the samples received?		Ves	No
No. of Samples: Yes No Sample ID's: Yes No			
Matrix: Yes No No. of Containers: Yes No			
7. Are the samples requiring chemical preservation preserved correctly?	N/A	Yes	No
8. Is there enough sample? If so, are they in the proper containers?		Yes	No
9. Are all samples within holding times for the requested analyses?		Yes	No
10. Were the sample(s) shipped on ice?	N/A	Yes)	No
11. Were all sample containers received intact? (not broken or leaking, etc.)		Yes	No
12. Are samples requiring no headspace, headspace free?	(N/A)	Yes	No
13. Do the samples require quarantine?		Yes	100
14. Do samples require Paragon disposal?		(Yes)	No
15. Did the client return any unused bottles?		Yes	(No)

Describe "NO" items (except No's 1, 13, &14):			
			_
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		· · · · · · · · · · · · · · · · · · ·	
Was the client contacted? Yes No		•	
If yes, Date: Name of person contacted:			
Describe actions taken or client instructions:			.
			}
			1
Court I and the Court was			j
Group Leader's Signature: Date:			

Cooler Temperature:

Paragon Analytics, Inc.



PAHs by HPLC Case Narrative

El Paso Field Services

EL PASO FS

Order Number - 9802154

- 1. This report consists of 8 water samples received by Paragon on 2/20/98.
- 2. These samples were extracted and analyzed according to SW-846, 3rd Edition procedures. Specifically, the water samples were extracted using continuous liquid-liquid extractors, based on Method 3520.
- 3. The extracts were then analyzed using HPLC with UV and fluorescence detectors with a reverse phase C18 column according to protocols based on Method 8310. All compounds are analyzed using UV at 254 nm. Confirmation is performed for positive results using the fluorescence detector or confirmed by UV at 280 nm for those compounds that do not respond to the fluorescence detector. The quantitation of each analyte is usually taken from the detector that exhibits the fewest interferences. These quantitations minimize the chances of reporting elevated results based on interferences. If compounds do not confirm quantitatively (if the higher amount is greater than twice the lower amount the 2 amounts are considered <u>not</u> to confirm each other quantitatively), then the value is flagged with a "K" and noted on the report page.
- 4. All samples were extracted and analyzed within the established holding times.
- 5. The method blank associated with this project was below the reporting limits for all analytes.
- 6. All Laboratory Control Spike and Laboratory Control Spike Duplicate recoveries and RPDs were within the acceptance criteria.
- 7. Matrix Spikes and Matrix Spike Duplicates could not be performed because of insufficient sample volume. A Blank Spike and Blank Spike Duplicate were performed instead. See Item 6 for details on recoveries.
- 8. All surrogate recoveries were within acceptance criteria.

9. All initial and continuing calibration criteria were within acceptance criteria with the following exceptions: Phenanthrene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(a)pyrene, Dibenzo(a,h)anthracene, and Benzo(g,h,i)perylene exceeded the acceptance criteria on the fluorescence detector in the second continuing calibration verification run on 2/24/98-2/25/98. Phenanthrene was detected in sample 3, but the results reported were based on the quantitation from the detector that did meet the calibration criteria.

Phenanthrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(a)pyrene, Dibenzo(a,h)anthracene, and Benzo(g,h,i)perylene exceeded the acceptance criteria on the fluorescence detector in the third continuing calibration verification run on 2/24/98-2/25/98. Phenanthrene was detected in samples 2, 4, 6, & 8, Benzo(a)anthracene was detected in sample 6, & Chrysene was detected in sample 2, but the results reported were based on the quantitation from the detector that did meet the calibration criteria.

Phenanthrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(a)pyrene, Dibenzo(a,h)anthracene, and Benzo(g,h,i)perylene exceeded the acceptance criteria on the fluorescence detector in the fourth continuing calibration verification run on 2/24/98-2/25/98. Phenanthrene was detected in sample 7, but the results reported were based on the quantitation from the detector that did meet the calibration criteria.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, Paragon Analytics, Inc. certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Preston Mathiesen

HPLC Analyst

Reviewer's Initials

2/26/9;

Date

3-5-98 Date

Paragon Analytics, Incorporated

Sample Number(s) Cross-Reference Table

Paragon OrderNum: 9802154

Client Name: El Paso Field Services

Client Project Name:

Client Project Number: Jaquez Monitor Wells

Client PO Number:

Client Sample	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
980164	9802154-1		Water	2/18/98	10:05
980166	9802154-2		Water	2/18/98	11:18
980167	9802154-3		Water	2/18/98	12:25
980168	9802154-4		Water	2/18/98	- 14:15
980169	9802154-5		Water	2/18/98	14:38
980170	9802154-6		Water	2/18/98	15:56
980171	9802154-7		Water	2/18/98	17:38
980172	9802154-3		Water	2/18/98	18:01

Method 8310

Sample ID

Lab Name: Paragon Analytics, Inc. Client Name: El Paso Field Services

Client Project ID: EL PASO FS

Lab Sample ID: WMB1 2/25/98

Sample Matrix: Water

Cleanup: N/A

Reagent Blank

Date Collected: N/A
Date Extracted: 2/23/98
Date Analyzed: 2/24/98

Sample Volume: 1000 mL

Final Volume: 1 mL Dilution Factor: 1

		Reporting -
Analyte	Conc (ug/L)	Limit (ug/L)
Naphthalene	ND	0.50
Acenaphthylene	ND	1.0
1-Methylnaphthalene	ND	1.0
2-Methylnaphthalene	ND	1.0
Acenaphthene	ND	1.0
Fluorene	ND	0.10
Phenanthrene	ND	0.050
Anthracene	ND	0.10
Fluoranthrene	ND	0.10
Pyrene	ND	0.050
Benzo(a)anthracene	ND	0.050
Chrysene	ND	0.050
Benzo(b)fluoranthrene	ND	0.10
Benzo(k)fluoranthrene	ND	0.050
Benzo(a)pyrene	ND	0.10
Dibenzo(a,h)anthracene	ND	0.10
Benzo(g,h,i)perylene	ND	0.10
Indeno(1,2,3-c,d)pyrene	ND	0.10

SURROGATE RECOVERY

Analyte	% Recovery	% Rec Limits
2-Chloroanthracene	75	35 - 119

ND = Not Detected at or above client requested reporting limit.



Method 8310

Sample ID

Lab Name: Paragon Analytics, Inc. Client Name: El Paso Field Services

Client Project ID: EL PASO FS

Lab Sample ID: 9802154-1

Sample Matrix: Water

Cleanup: N/A

980164

Date Collected: 2/18/98

Date Extracted: 2/23/98

Date Analyzed: 2/25/98

Sample Volume: 1000 mL

Final Volume: 1 mL

Dilution Factor: 1

Analyte	Conc (ug/L)	Reporting - Limit (ug/L)
Naphthalene	ND	0.50
Acenaphthylene	ND	1.0
1-Methylnaphthalene	ND	1.0
2-Methylnaphthalene	ND	1.0
Acenaphthene	ND	1.0
Fluorene	ND	0.10
Phenanthrene	ND	0.050
Anthracene	ND	0.10
Fluoranthrene	ND	0.10
Pyrene	ND	0.050
Benzo(a)anthracene	ND	0.050
Chrysene	ND	0.050
Benzo(b)fluoranthrene	ND	0.10
Benzo(k)fluoranthrene	ND	0.050
Benzo(a)pyrene	ND	0.10
Dibenzo(a,h)anthracene	ND	0.10
Benzo(g,h,i)perylene	ND	0.10
Indeno(1,2,3-c,d)pyrene	ND	0.10

SURROGATE RECOVERY

Analyte	% Recovery	% Rec Limits
2-Chloroanthracene	78	35 - 119

fm

Method 8310

Sample ID

Lab Name: Paragon Analytics, Inc. Client Name: El Paso Field Services

Client Project ID: EL PASO FS

Lab Sample ID: 9802154-2

Sample Matrix: Water

Cleanup: N/A

980166

Date Collected: 2/18/98

Date Extracted: 2/23/98

Date Analyzed: 2/25/98

Sample Volume: 1000 mL

Final Volume: 1 mL Dilution Factor: 1

		Reporting
Analyte	Conc (ug/L)	Limit (ug/L)
Naphthalene	1.4	0.50
Acenaphthylene	ND	1.0
1-Methylnaphthalene	2.0 K	1.0
2-Methylnaphthalene	4.0	1.0
Acenaphthene	ND	1.0
Fluorene	0.49	0.10
Phenanthrene	0.80	0.050
Anthracene	0.13	0.10
Fluoranthrene	0.11 K	0.10
Pyrene	0.096 K	0.050
Benzo(a)anthracene	ND	0.050
Chrysene	0.059	0.050
Benzo(b)fluoranthrene	ND	0.10
Benzo(k)fluoranthrene	ND	0.050
Benzo(a)pyrene	ND	0.10
Dibenzo(a,h)anthracene	ND	0.10
Benzo(g,h,i)perylene	ND	0.10
Indeno(1,2,3-c,d)pyrene	ND	0.10

SURROGATE RECOVERY

Analyte	% Recovery	% Rec Limits
2-Chloroanthracene	85	35 - 119
2-Chioroanthracene	85	35 - 119

en

ND = Not Detected at or above client requested reporting limit.

K = Concentration confirmation does not agree within 50%.



Method 8310

Sample ID

Lab Name: Paragon Analytics, Inc. Client Name: El Paso Field Services

Client Project ID: EL PASO FS

Lab Sample ID: 9802154-3

Sample Matrix: Water

Cleanup: N/A

980167

Date Collected: 2/18/98

Date Extracted: 2/23/98

Date Analyzed: 2/25/98

Sample Volume: 1000 mL

Final Volume: 1 mL Dilution Factor: 1

		Reporting
Analyte	Conc (ug/L)	Limit (ug/L)
Naphthalene	ND	0.50
Acenaphthylene	ND	1.0
1-Methylnaphthalene	ND	1.0
2-Methylnaphthalene	ND	1.0
Acenaphthene	ND	1.0
Fluorene	ND	0.10
Phenanthrene	0.037 J	0.050
Anthracene	ND	0.10
Fluoranthrene	ND	0.10
Pyrene	ND	0.050
Benzo(a)anthracene	ND	0.050
Chrysene	ND	0.050
Benzo(b)fluoranthrene	ND	0.10
Benzo(k)fluoranthrene	ND	0.050
Benzo(a)pyrene	ND	0.10
Dibenzo(a,h)anthracene	ND	0.10
Benzo(g,h,i)perylene	ND	0.10
Indeno(1,2,3-c,d)pyrene	ND	0.10

SURROGATE RECOVERY

Analyte	% Recovery	% Rec Limits
2-Chloroanthracene	77	35 - 119

X

en

ND = Not Detected at or above client requested reporting limit.

J = Estimated value. Below reporting limits.

Method 8310

Sample ID

Lab Name: Paragon Analytics, Inc. Client Name: El Paso Field Services

Client Project ID: EL PASO FS

Lab Sample ID: 9802154-4

Sample Matrix: Water

Cleanup: N/A

980168

Date Collected: 2/18/98 Date Extracted: 2/23/98

Date Analyzed: 2/25/98

Sample Volume: 1000 mL

Final Volume: 1 mL Dilution Factor: 1

Analyte	Conc (ug/L)	Reporting Limit (ug/L)
Naphthalene	ND	0.50
Acenaphthylene	ND	1.0
1-Methylnaphthalene	ND	1.0
2-Methylnaphthalene	ND	1.0
Acenaphthene	ND	1.0
Fluorene	ND	0.10
Phenanthrene	0.028 J	0.050
Anthracene	ND	0.10
Fluoranthrene	ND	0.10
Pyrene	ND	0.050
Benzo(a)anthracene	ND	0.050
Chrysene	ND	0.050
Benzo(b)fluoranthrene	ND	0.10
Benzo(k)fluoranthrene	ND	0.050
Benzo(a)pyrene	ND	0.10
Dibenzo(a,h)anthracene	ND	0.10
Benzo(g,h,i)perylene	ND	0.10
Indeno(1,2,3-c,d)pyrene	ND	0.10

SURROGATE RECOVERY

Analyte	% Recovery	% Rec Limits
2 Chlorouthroons	72	35 - 119
2-Chloroanthracene		33 - 119

R

ND = Not Detected at or above client requested reporting limit.

J = Estimated value. Below reporting limits.

Method 8310

Sample ID

Lab Name: Paragon Analytics, Inc. Client Name: El Paso Field Services

Client Project ID: EL PASO FS

Lab Sample ID: 9802154-5

Sample Matrix: Water

Cleanup: N/A

980169

Date Collected: 2/18/98

Date Extracted: 2/23/98

Date Analyzed: 2/25/98

Sample Volume: 1000 mL

Final Volume: 1 mL

Dilution Factor: 1

Analyte	Conc (ug/L)	Reporting - Limit (ug/L)
Naphthalene	ND	0.50
Acenaphthylene	ND	1.0
1-Methylnaphthalene	ND	1.0
2-Methylnaphthalene	ND	1.0
Acenaphthene	ND	1.0
Fluorene	ND	0.10
Phenanthrene	ND	0.050
Anthracene	ND	0.10
Fluoranthrene	ND	0.10
Pyrene	ND	0.050
Benzo(a)anthracene	ND	0.050
Chrysene	ND	0.050
Benzo(b)fluoranthrene	ND	0.10
Benzo(k)fluoranthrene	ND	0.050
Benzo(a)pyrene	ND	0.10
Dibenzo(a,h)anthracene	ND	0.10
Benzo(g,h,i)perylene	ND	0.10
Indeno(1,2,3-c,d)pyrene	ND	0.10

SURROGATE RECOVERY

Analyte	% Recovery	% Rec Limits
2-Chloroanthracene	76	35 - 119





Method 8310

Sample ID

Lab Name: Paragon Analytics, Inc. Client Name: El Paso Field Services

Client Project ID: EL PASO FS

Lab Sample ID: 9802154-6

Sample Matrix: Water

Cleanup: N/A

980170

Date Collected: 2/18/98 Date Extracted: 2/23/98

Date Analyzed: 2/25/98

Sample Volume: 1000 mL

Final Volume: 1 mL Dilution Factor: 1

		Reporting
Analyte	Conc (ug/L)	Limit (ug/L) -
Naphthalene	ND	0.50
Acenaphthylene	ND	1.0
1-Methylnaphthalene	ND	1.0
2-Methylnaphthalene	ND	1.0
Acenaphthene	ND	1.0
Fluorene	ND	0.10
Phenanthrene	0.095	0.050
Anthracene	ND	0.10
Fluoranthrene	ND	0.10
Pyrene	0.036 J, K	0.050
Benzo(a)anthracene	0.030 J	0.050
Chrysene	ND	0.050
Benzo(b)fluoranthrene	ND	0.10
Benzo(k)fluoranthrene	ND	0.050
Benzo(a)pyrene	ND	0.10
Dibenzo(a,h)anthracene	ND	0.10
Benzo(g,h,i)perylene	ND	0.10
Indeno(1,2,3-c,d)pyrene	ND	0.10

SURROGATE RECOVERY

Analyte	% Recovery	% Rec Limits
2-Chloroanthracene	82	35 - 119

ND = Not Detected at or above client requested reporting limit.

J = Estimated value. Below reporting limits.

K = Concentration confirmation does not agree within 50%.





Method 8310

Sample ID

Lab Name: Paragon Analytics, Inc. Client Name: El Paso Field Services

Client Project ID: EL PASO FS

Lab Sample ID: 9802154-7

Sample Matrix: Water

Cleanup: N/A

980171

Date Collected: 2/18/98 Date Extracted: 2/23/98 Date Analyzed: 2/25/98

Sample Volume: 1000 mL

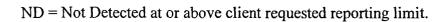
Final Volume: 1 mL Dilution Factor: 1

Analyte	Conc (ug/L)	Reporting - Limit (ug/L)
		0.50
Naphthalene	3.4	0.50
Acenaphthylene	ND	1.0
1-Methylnaphthalene	2.6	1.0
2-Methylnaphthalene	3.1	1.0
Acenaphthene	ND	1.0
Fluorene	0.33	0.10
Phenanthrene	0.21	0.050
Anthracene	ND	0.10
Fluoranthrene	ND	0.10
Pyrene	ND	0.050
Benzo(a)anthracene	ND	0.050
Chrysene	ND	0.050
Benzo(b)fluoranthrene	ND	0.10
Benzo(k)fluoranthrene	ND	0.050
Benzo(a)pyrene	ND	0.10
Dibenzo(a,h)anthracene	ND	0.10
Benzo(g,h,i)perylene	ND	0.10
Indeno(1,2,3-c,d)pyrene	ND	0.10

SURROGATE RECOVERY

% Rec Limits
35 - 119







Method 8310

Sample ID

Lab Name: Paragon Analytics, Inc. Client Name: El Paso Field Services

Client Project ID: EL PASO FS

Lab Sample ID: 9802154-8

Sample Matrix: Water

Cleanup: N/A

980172

Date Collected: 2/18/98
Date Extracted: 2/23/98

Date Analyzed: 2/25/98

Sample Volume: 1000 mL

Final Volume: 1 mL Dilution Factor: 1

		Reporting
Analyte	Conc (ug/L)	Limit (ug/L)
Naphthalene	ND	0.50
Acenaphthylene	ND	1.0
1-Methylnaphthalene	ND	1.0
2-Methylnaphthalene	ND	1.0
Acenaphthene	ND	1.0
Fluorene	ND	0.10
Phenanthrene	0.027 J	0.050
Anthracene	ND	0.10
Fluoranthrene	ND	0.10
Pyrene	ND	0.050
Benzo(a)anthracene	ND	0.050
Chrysene	ND	0.050
Benzo(b)fluoranthrene	ND	0.10
Benzo(k)fluoranthrene	ND	0.050
Benzo(a)pyrene	ND	0.10
Dibenzo(a,h)anthracene	ND	0.10
Benzo(g,h,i)perylene	ND	0.10
Indeno(1,2,3-c,d)pyrene	ND	0.10

SURROGATE RECOVERY

Analyte	% Recovery	% Rec Limits	
2-Chloroanthracene	74	35 - 119	

ND = Not Detected at or above client requested reporting limit.

J = Estimated value. Below reporting limits.





POLYNUCLEAR AROMATIC HYDROCARBONS BLANK SPIKE

Method 8310

Sample ID

Lab Name: Paragon Analytics, Inc. Client Name: El Paso Field Services

Client Project ID: EL PASO FS

Lab Sample ID: WLCS1, 2/25/98

Blank Spike

Date Extracted:

2/23/98

Date Analyzed:

2/24/98

Sample Matrix: Water

Cleanup: N/A

Sample Volume: 1,000 mL

Final Volume: 1 mL

A no leste	Spike Added	BS Concentration	BS Percent	QC Limits % Rec
Analyte	(ug/L)	(ug/L)	Recovery	70 Rec
Acenaphthylene	10.0	7.60	76	36 - 93
Phenanthrene	1.00	0.811	81	45 - 107
Pyrene	1.00	0.847	85	40 - 104
Benzo(k)fluoranthene	0.250	0.249	100	61 - 126
Dibenzo(a,h)anthracene	1.00	0.789	79	55 - 113

Lab Sample ID: WCLSD1, 2/25/98

	Spike	BSD	BSD		QC
	Added	Concentration	Percent		Limits
Analyte	(ug/L)	(ug/L)	Recovery	RPD	RPD
Acenaphthylene	10.0	7.61	76	0.2	20
Phenanthrene	1.00	0.799	80	2	20
Pyrene	1.00	0.847	85	0	20
Benzo(k)fluoranthene	0.250	0.239	95	4	20
Dibenzo(a,h)anthracene	1.00	0.779	78	1	20

SURROGATE RECOVERY BS/BSD

Analyte	% Recovery BS	% Recovery BSD	% Rec Limits
2-Chloroanthracene	82	78	35 -119