11200 Hempstead Highway Houston, Texas 77092 713 686 3840 Fax 713 688 1030 RO 830

Carry State

June 2, 1993

RYDER

Mr. Barney Chan Alameda County Department of Environmental Health 80 Swan Way, Room 200 Oakland, California 94621

SUBJECT: RYDER TRUCK RENTAL FACILITY LC-0227

8001 Oakport Road Oakland, California # 572

Dear Mr. Chan:

Enclosed please find a copy of the Quarterly Monitoring report prepared by Hydro-Environmental Technologies, Inc. (HETI) on the subject property. I trust this information meets your needs. If you have any questions regarding this site or any other Ryder site in your jurisdiction, please contact me in Houston.

Respectfully submitted,

RYDER TRUCK RENTAL, INC.

Ivan J. Gonzalez, P.E.

Environmental Project Engineer

Enclosure

cc:

J. Barr/File - Miami

C. Boyles - San Francisco

A. Brummer - Miami

Vijay Patel - RWQCB, San Francisco Bay Region, 2101 Webster Street, Suite 500, Oakland, CA 94612

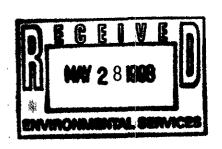
Ic0227.gw3

QUARTERLY MONITORING REPORT

Ryder Truck Rental, Location Code 0227 8001 Oakport Road Oakland, California

Prepared for:

RYDER TRUCK RENTAL, INC. 11200 Hempstead Highway Houston, TX 77092



Prepared by:

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

2363 Mariner Square Drive, Suite 243 Alameda, California 94501 HETI Job No. 7-201

May 25, 1993



CERTIFICATION

This report was prepared under the supervision of a registered professional engineer. All statements, conclusions and recommendations are based solely upon field observations and analytical analyses performed by a state-certified laboratory related to work performed by Hydro-Environmental Technologies, Inc.

It is possible that variations in soil or ground water conditions exist beyond the points explored in this investigation. Also, site conditions are subject to change at some time in the future due to variations in rainfall, temperature, regional water usage, or other factors.

The service performed by Hydro-Environmental Technologies, Inc. has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site. No other warranty, expressed or implied, is made.

Hydro-Environmental Technologies, Inc. includes in this report chemical analytical data from a state-certified laboratory. These analyses are performed according to procedures suggested by the U.S. EPA and the State of California. Hydro-Environmental Technologies, Inc. is not responsible for laboratory errors in procedure or result reporting.

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

Prepared by:

FRANCES MARON; FOR

Henry A. Hurkmans Staff Geologist

Reviewed by:

Brian M. Gwinn

Project Manager

Owen C. Ratchye, P.E. Project Engineer

1.0 INTRODUCTION

The purpose of this report is to present the results of Hydro-Environmental Technologies, Inc.'s (HETI's) quarterly ground water sampling and monthly ground water gauging at Ryder Truck Rental, Inc. (Ryder) Location Code 0227 located at 8001 Oakport Road in Oakland, California (Figure 1 & 2). Monthly ground water gauging was performed on February 24 and March 26, 1993 and during the quarterly ground water sampling event on April 14, 1993. Quarterly ground water samples collected from the site's nine monitoring wells were analyzed for total petroleum hydrocarbons as diesel (TPHd) using EPA Method 8015 (modified), total petroleum hydrocarbons as gasoline (TPHg) using EPA Method 8015 (modified) and benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8020 (modified). All documentation related to the field work is appended to this report.

2.0 BACKGROUND

The site is situated in an area of light industrial and warehouse use (Figure 2). The site is currently used by Ryder as a truck maintenance and rental facility. Unleaded gasoline, diesel fuel and new engine oil are currently stored in underground storage tanks and dispensed on site. Used oil is now contained in an above ground storage tank. Maintenance building and underground storage tank locations are shown on the Site Plan (Figure 3).

In April and May 1991, Roy F. Weston, Inc. (Weston) installed five soil borings, designated SB-1 through SB-5, at the site and collected soil and grab ground water samples for laboratory analysis. Soil and ground water sample analytical results indicated that petroleum hydrocarbons were present in soil and ground water in the vicinity of the underground storage tanks. Results of this phase of investigation were presented in Weston's report dated May 31, 1991.

The underground used oil tank did not pass a tightness test in 1991. Ryder retained HETI to evaluate the petroleum hydrocarbons detected during the Weston assessment and to supervise the removal of the underground used oil storage tank. HETI installed three 4-inch diameter and three 2-inch diameter monitoring wells, designated MW-1 through MW-6, and one soil boring, designated B-1, between March and April 1992. Analytical results of water samples collected from the wells following well development are found in Table 1. Complete results of the used oil tank removal and the initial phase of well installation and soil and ground water sampling were presented in HETI's Used Oil Tank Removal and Subsurface Investigation Report dated July 14, 1992.



The aforementioned report noted that ground water flow direction beneath the site was not uniform. A ground water trough was calculated to be present in the vicinity of well MW-3, the axis of which trended east-west with ground water flow to the west. Following review of the well logs and historical aerial photographs, HETI concluded that ground water flow patterns are preferential, and may be dependent on sedimentation and stratigraphic characteristics of the tidal flat deposits buried beneath the site. In the 1950's, the tidal flat was developed by diking and draining, and elevated above sea level by filling with local quarry rock. This gravelly rock fill is partially below water table and may not be consistent throughout the site. It may also contain preferential flow paths for ground water movement.

In September 1992, HETI supervised the installation of three additional 2-inch monitoring wells designated MW-7, MW-8 and MW-9. The analytical results of water samples collected from the wells after well development are found in Table 1. Complete details of this phase of work can be found in HETI's *Phase II Subsurface Investigation Report* dated November 11, 1992. Quarterly ground water sampling was conducted on January 27, 1993 and results were presented in HETI's *Quarterly Monitoring Report* dated March 30, 1993.

3.0 FIELD ACTIVITIES

On February 24, March 26, and April 14, 1993 water levels in all wells were measured to the nearest one-hundredth foot using an electronic water sounder. The wells were opened twelve hours before gauging to allow water levels to stabilize.

April 14, 1993, HETI personnel collected ground water samples at the site. Following gauging, monitoring wells MW-1, MW-4, MW-5, MW-7, MW-8 and MW-9 were purged of at least three well casing volumes. Monitoring wells MW-2, MW-3 and MW-6 were purged dry with slightly less than three well casing volumes removed. The purge water from each of the wells was visually inspected and found not to contain separate-phase petroleum product. Purge water temperature, pH and conductivity parameters were recorded and noted to stabilize during each well purging. Gauging and purging data are included in Appendix A.

After purging and recovery of ground water levels to at least 70% of static levels, water samples were collected from each well with a dedicated or a disposable bailer. Each sample was transferred to appropriate sample containers provided by the analytical laboratory. Sample containers were labeled and placed in a cooler. A chain of custody was prepared and accompanied the samples to the laboratory; a copy is included in Appendix B. All sampling was performed according to HETI standard operating procedures (previously submitted) and was consistent with guidelines established by the lead regulatory agencies. Water sample analyses were



performed by PACE Incorporated, a state DHS-certified laboratory located in Novato, California.

4.0 RESULTS OF MONITORING

4.1 Ground Water Data

The depth to water measurements were combined with wellhead elevation data, previously collected by HETI, to calculate water table elevations for the three gauging rounds. These elevations are listed in Table 1, and were used to produce Ground Water Elevation Contour Maps (Figures 4.1, 4.2 and 4.3).

Depth to ground water in each of the wells ranged from 0.76 to 5.64, 0.78 to 5.68, and 2.02 to 5.92 feet below grade, respectively, in the February, March and April gaugings. General ground water elevations were similar in the February and March gaugings. Overall ground water elevations had decreased by the April gauging.

The ground water contours calculated from the past three monthly gaugings are generally similar to those calculated last quarter. As in past gaugings, ground water elevations in monitoring well MW-3 were anomalously lower than water elevations in nearby surrounding monitoring wells. Therefore ground water flow directions appear to be towards MW-3 in the northwest half of the site. Only two monitoring wells exist in the southeast half of the site where apparent ground water flow is southeast. Ground water gradient as measured between MW-1 and MW-3 decreased slightly from 0.0037 ft/ft in February to 0.0034 ft/ft in March to 0.0030 ft/ft in April.

4.2 Laboratory Analytical Results

TPHd was detected in concentrations exceeding the method detection limit in ground water samples collected from monitoring wells MW-1, MW-2, MW-3, MW-5, MW-6 and MW-7. TPHd concentrations ranged from 110 parts per billion (ppb) in water samples collected from monitoring well MW-1, to 980 ppb in the water sample collected from monitoring well MW-2. TPHd was not detected in concentrations exceeding the method detection limit in water samples collected from wells MW-4, MW-8, and MW-9.

TPHg was detected at a concentration of 61 ppb in the ground water sample collected from monitoring well MW-3. TPHg were not detected in concentrations exceeding the method detection limit in ground water samples collected from the other eight monitoring wells. Benzene, toluene, ethylbenzene and total xylenes were not



detected in concentrations exceeding the method detection limit in ground water samples collected from any of the wells.

Hydrocarbon concentrations in samples collected from the wells were generally similar to concentrations in samples collected from the same wells in previous sampling rounds. Analytical results are summarized in Table 1, and are graphically illustrated on the Dissolved Hydrocarbon Distribution Map (Figure 5). Copies of the laboratory reports are included in Appendix B.

5.0 STATUS OF INVESTIGATION

At the request of the Alameda County Department of Environmental Health, ground water samples are scheduled for collection at the site on a quarterly basis, and well gaugings are scheduled to occur on a monthly basis. The underground storage tanks are tentatively scheduled for removal in 1993. At that time, with the additional cumulative gauging and ground water analytical data, and information collected during the tank removal, a work plan for additional assessment (if deemed necessary) and corrective action will be developed.

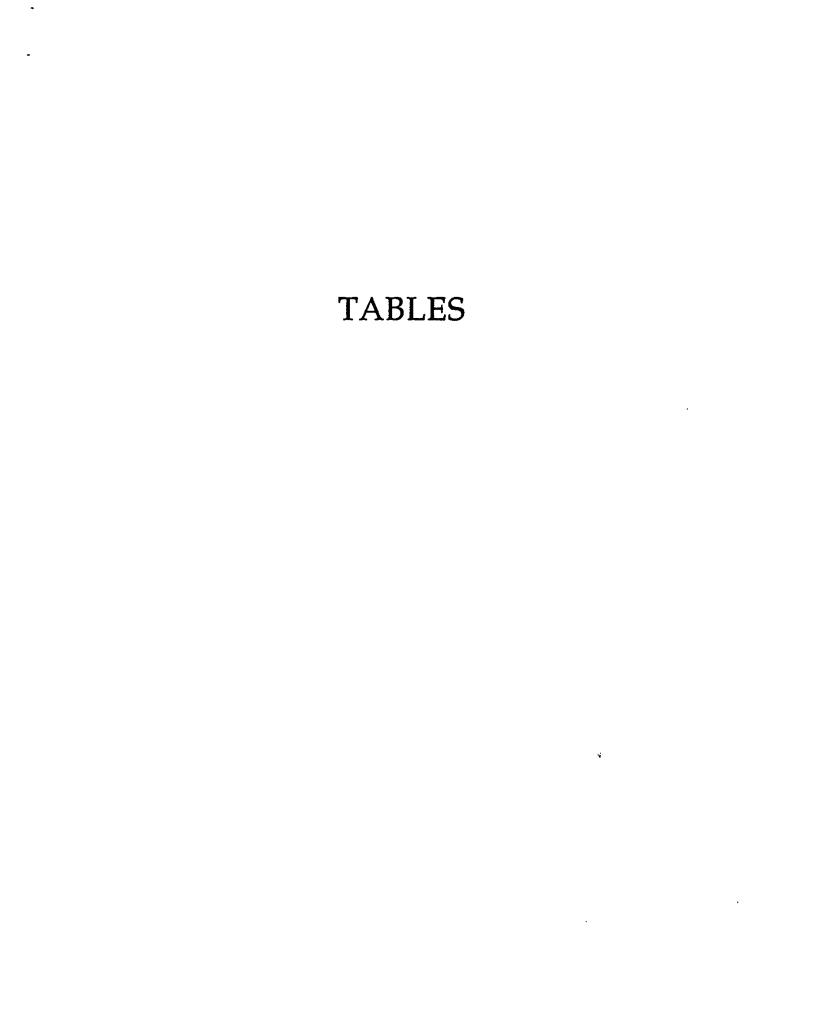


Table 1 SUMMARY OF GROUND WATER GAUGING AND ANALYTICAL RESULTS Ryder Truck Rental LC 0227 8001 Oakport Road Oakland, California

Well-No.	Date	TOC (feet)	DTW (feet)	GW Elev (feet)	TPHd (ppb)	TPHg (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	TOG (ppb)	Cd (ppb)	Cr (ppb)	Ni (ppb)	Zn (ppb)
MW-1	3/20/92	29.57	3.70	25.87	250	55	6.9	0.7	2.9	6	ND<5,000	ND<5	20	30	ND<10
2416.4-1	12/8/92	29.57	4.55	25.02	_	-	_	_		_	_			_	_
	1/27/93	29.57	1.91	27.66	120	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	_		_	_	
	2/24/93	29.57	1.85	27.72		-	_	_	-	_	_		_	_	
	3/26/93	29.57	2.22	27.35		_	_		_	_		_	_		_
	4/14/93	29.57	2.77	26.80	110	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5		_	~		_
MW-2	3/20/92	30.21	4.08	26.13	2,000	ND<50	ND<0.5	0.7	ND<0.5	2.5	ND<5,000	7	ND<10	30	ND<10
	12/8/92	30.21	3.39	26.82	-	-	-	-	-	-	•	-	-	-	-
	1/27/93	30.21	3.96	26.25	720	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5		_	-		_
	2/24/93	30.21	3.90	26.31		_	_	_		_		_	_		_
	3/26/93	30.21	3.85	26.36	_	-	_	_	_		_	_	_		_
	4/14/93	30.21	4.01	26.20	890	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-		~	-	-
MW-3	3/20/92	30.00	6.18	23.82	1,200	97	20	ND<0.5	ND<0.5	ND<0.5	ND<5,000	6	30	50	10
	12/8/92	30.00	7.05	22.95	_			_	_		_		-		_
	1/27/93	30.00	5.70	24.30	470	88	6.3	0.6	ND<0.5	0.6	_		~	_	-
	2/24/93	30,00	5.64	24.36	_			-	_	_	-	_		_	
	3/26/93	30.00	5.68	24.32	_				-	_	-	_	•••	_	
	4/14/93	30.00	5.92	24.08	980	61	ND<0.5	ND<0.5	ND<0.5	ND<0.5		-		_	
MW-4	5/12/92	30.16	4.28	25.88	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5,000	ND<5	ND<10	ND<20	21
	12/8/92	30.16	5.13	25.03	-	-	-	-	-	-	-	-	-	-	-
	1/27/93	30.16	2.46	27.70	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	_		~		-
	2/24/93	30.16	2.37	27.79			_	_	-	-			-		_
	3/26/93	30.16	2.76	27.40	_			-	_	-	_		~	_	_
	4/14/93	30.16	3.24	26.92	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-		~	-	-
MW-5	5/12/92	28.82	1.01	27.81	520(H)	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	_	20	ND<10	ND<20	47
	12/8/92	28.82	3.08	25.74	-		_	-			-		~	-	-
	1/27/93	28.82	2.06	26.76	290	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	_		~		_
	2/24/93	28.82	2.03 .	26.79		_	-		-		_		~		-
	3/26/93	28.82	1.84	26.98	_			_	_		_		~	**	_
	4/14/93	28.82	2.02	26.80	160.00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-	-		_
MW-6	5/12/92	30.02	4.68	25.34	190	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5		54	ND<10	ND<20	59
	12/8/92	30.02	5.69	24.33					 -			-	~	-	
	1/27/93	30.02	4.72	25.30	120	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-		_	_
	2/24/93	30.02	5.38	24. 64			_	_	_		_		~	_	_
	3/26/93	30.02	3.93	26.09			_	_ _ _			_		~	_	-
	4/14/93	30.02	4.25	25.77	120	ND<50	ND<0.5	ND<0.5	_ND<0.5	ND<0.5				_	

Table 1
SUMMARY OF GROUND WATER GAUGING AND ANALYTICAL RESULTS

Ryder Truck Rental LC 0227 8001 Oakport Road Oakland, California

Well-No.	Date	TOC (feet)	DTW (feet)	GW Elev (feet)	TPHd (ppb)	TPHg (ppb)	B (ppb)	T (dqq)	E (ppb)	X (ppb)	TOG (ppb)	Cd (ppb)	Cr (ppb)	Ni (ppb)	Zn (ppb)
MW-7	9/14/92	29.81	4.41	25.40	210	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5		ND<5	50	80	310
	12/8/92	29.81	5.35	24.46	_	_	_			_	_			_	_
	1/27/93	29.81	1.54	28.27	230	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	_	_	_		
	2/24/93	29.81	1.41	28.40		_	-		_	_		-	_		
	3/26/93	29.81	2.01	27.80	_		_			_	_		_	_	_
	4/14/93	29.81	2.61	27.20	180	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-		-	_	_
MW-8	9/14/92	29.92	5.39	24.53	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5		ND<5	ND<10	30	50
	12/8/92	29.92	4.96	24.96	-	-	-	-	-	-	-	•	-	-	-
	1/27/93	29.92	1.16	28.76	ND<50	ND<50	ND<0.5	0.6	ND<0.5	1			_	_	_
	2/24/93	29.92	0.76	29.16		_	-		_	_		-		_	_
	3/26/93	29.92	0.78	29.14		_		_	_	_	-		_	_	_
	4/14/93	29.92	2.15	27.77	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	-		-	_
MW-9	9/14/92	29.76	7.64	22.12	71	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5		ND<5	ND<10	60	70
	12/8/92	29.76	7.53	22.23			_			_		_	_		
	1/27/93	29.76	2.86	26.90	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-			_	_
	2/24/93	29.76	3.61	26.15	112 00	11200	112 (0.0		_	_				_	_
				The state of the s	-	_	_	_	_		-	-	_	_	
	3/26/93	29.76	3.96	25.80			-				-	-			
	4/14/93	29.76	4.86	24.90	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	-	_	-	-	-
				CA AL	NA	NA	0.7	100	NA	NA	NA	NA	NA	NA	NA
				FED MCL	NA	NA	5	1,000	700	10,000	NA	10	50	NA	NA

Table 1

SUMMARY OF GROUND WATER GAUGING AND ANALYTICAL RESULTS

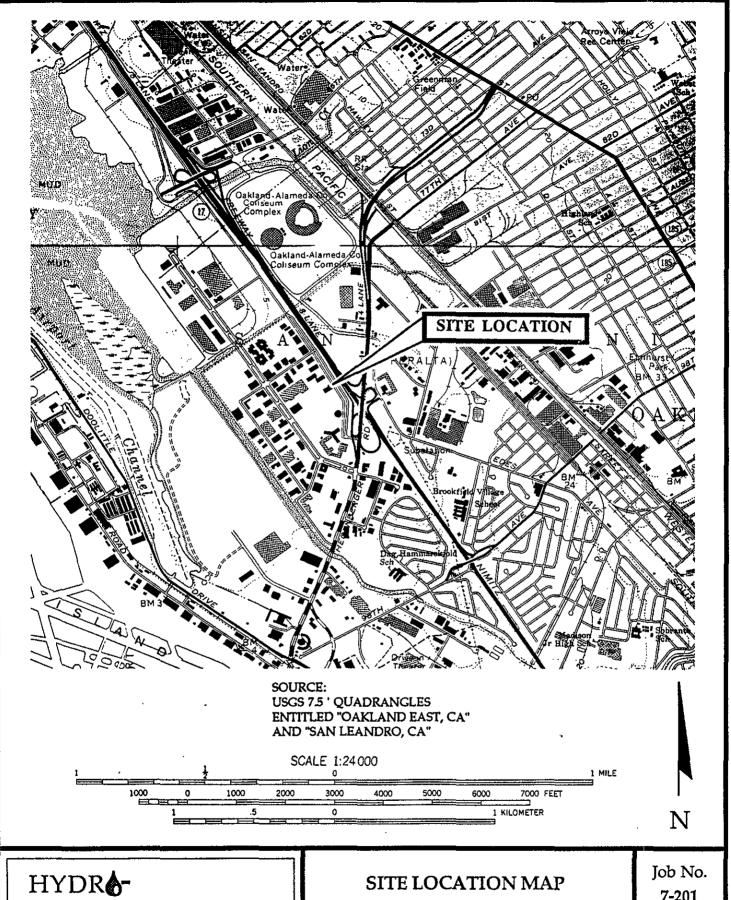
Ryder Truck Rental LC 0227 8001 Oakport Road Oakland, California

Notes:

TPHd = Total Petroleum Hydrocarbons as diesel by EPA Method 8015 (modified)
TPHg = Total Petroleum Hydrocarbons as gasoline by EPA Method 8015 (modified)
BTEX = Benzene, Toluene, Ethylbenzene, total Xylenes by EPA Method 8020 (modified)
TOG = Total Oil and Grease by EPA Method 418.1 (IR)
Cd, Cr, Ni, Zn = Cadmium, Chromium, Nickel and Zinc by EPA Method 6010/200.7, ICP
TOC = Top of Casing north side
DTW = Depth to Water
GW Elev = Ground Water Elevation
ND = Not detected in concentrations exceeding the method detection limit
- = Not Tested
CA AL = California Action Levels, Department of Health Services
FED MCL = Federal Maximum Contaminant Levels
NA = Not Available or Established

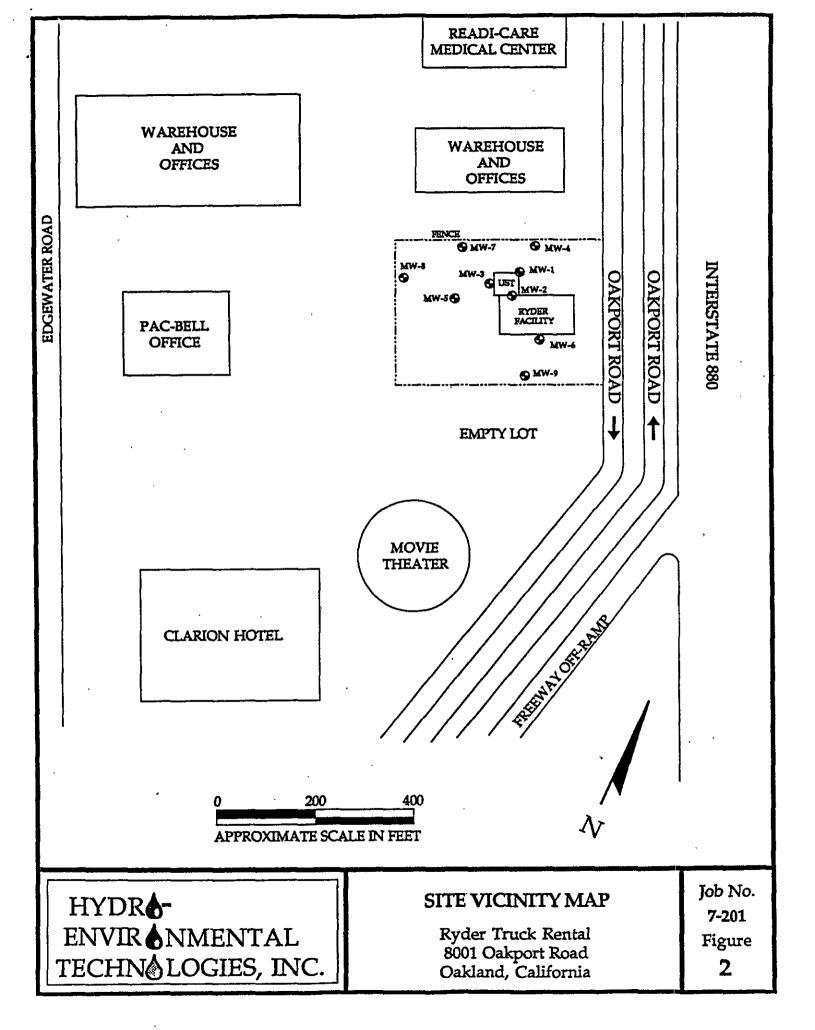
(H) = Hydrocarbons greater than C-22 detected

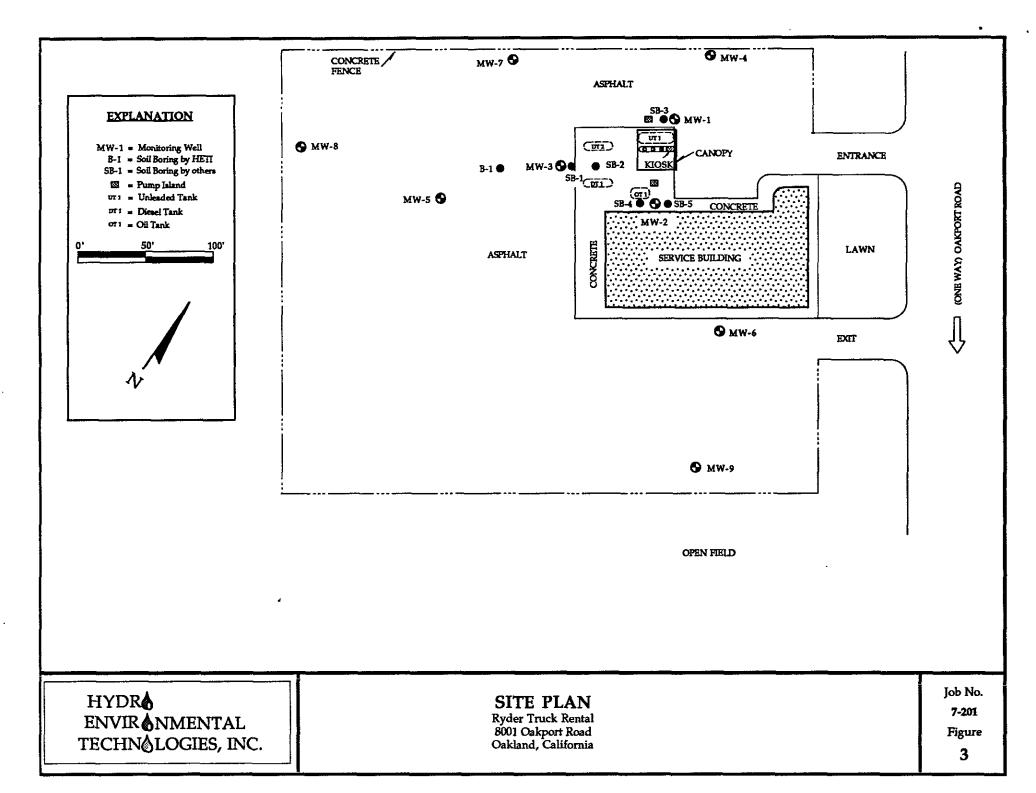
FIGURES

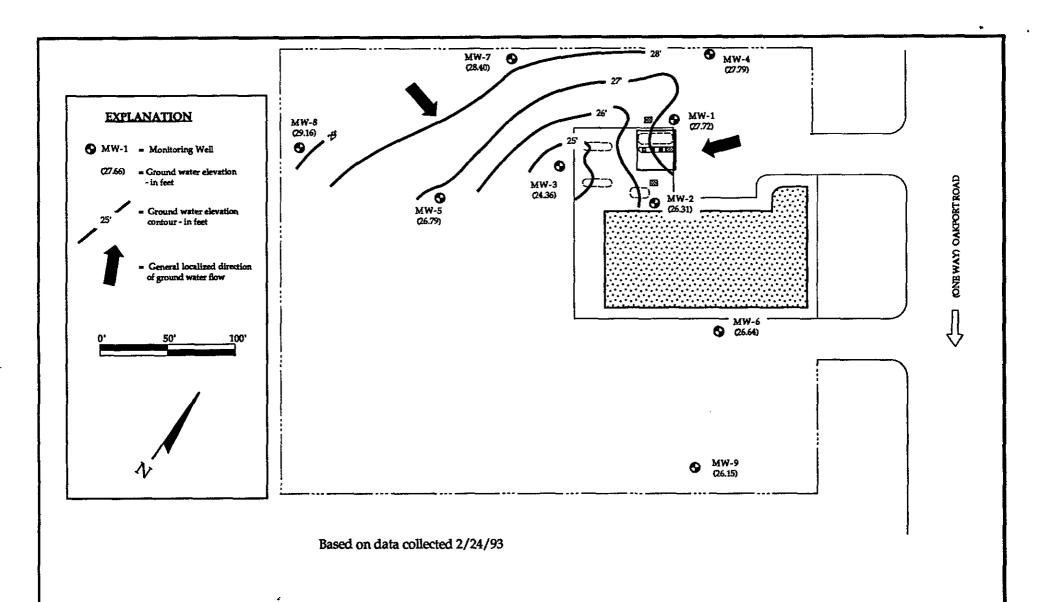


HYDR**6**-ENVIR**6**NMENTAL TECHN**6**LOGIES, INC.

Ryder Truck Rental 8001 Oakport Road Oakland, California Job No. **7-201** Figure **1**



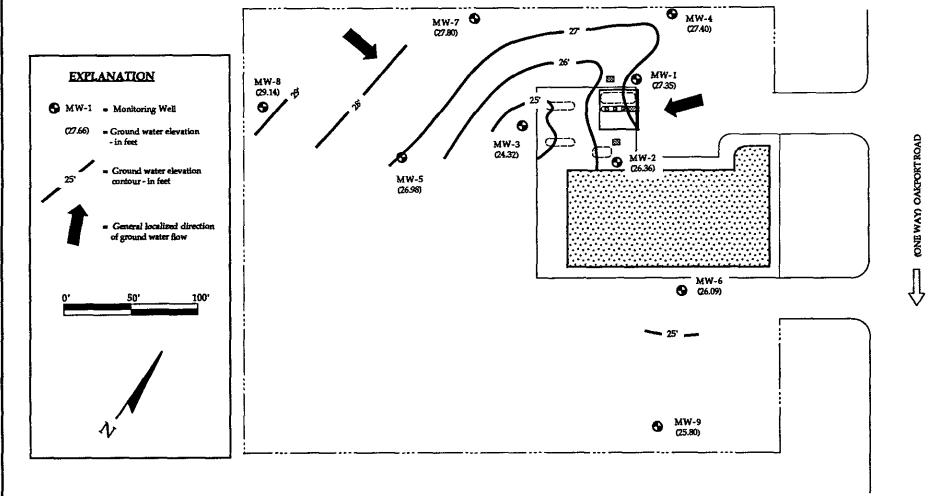




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TECHNÓLOGIES, INC.

GROUND WATER ELEVATION CONTOUR MAP

Ryder Truck Rental 8001 Oakport Road Oakland, California Job No. 7-201
Figure 4.1



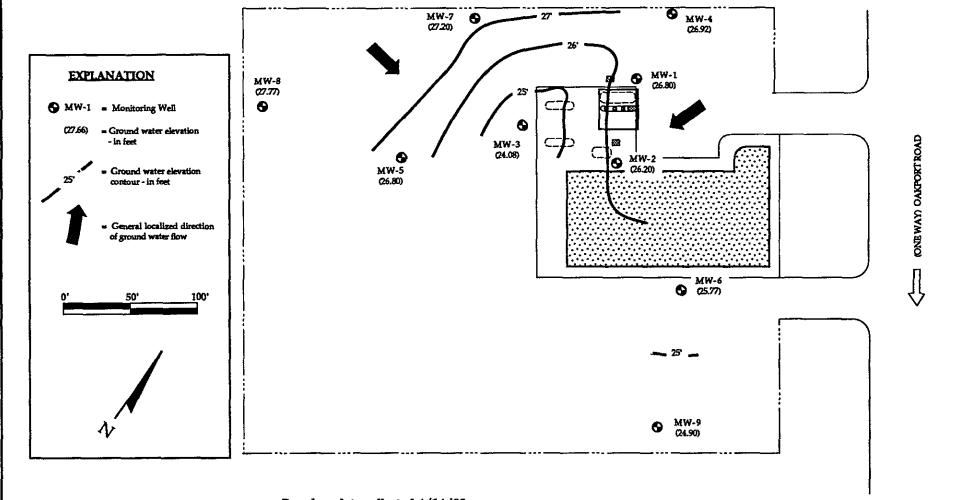
Based on data collected 3/26/93

HYDRÓ
ENVIRÓNMENTAL
TECHNÓLOGIES, INC.

GROUND WATER ELEVATION CONTOUR MAP

Ryder Truck Rental 8001 Oakport Road Oakland, California Job No. **7-201** Figure

4.2



Based on data collected 4/14/93

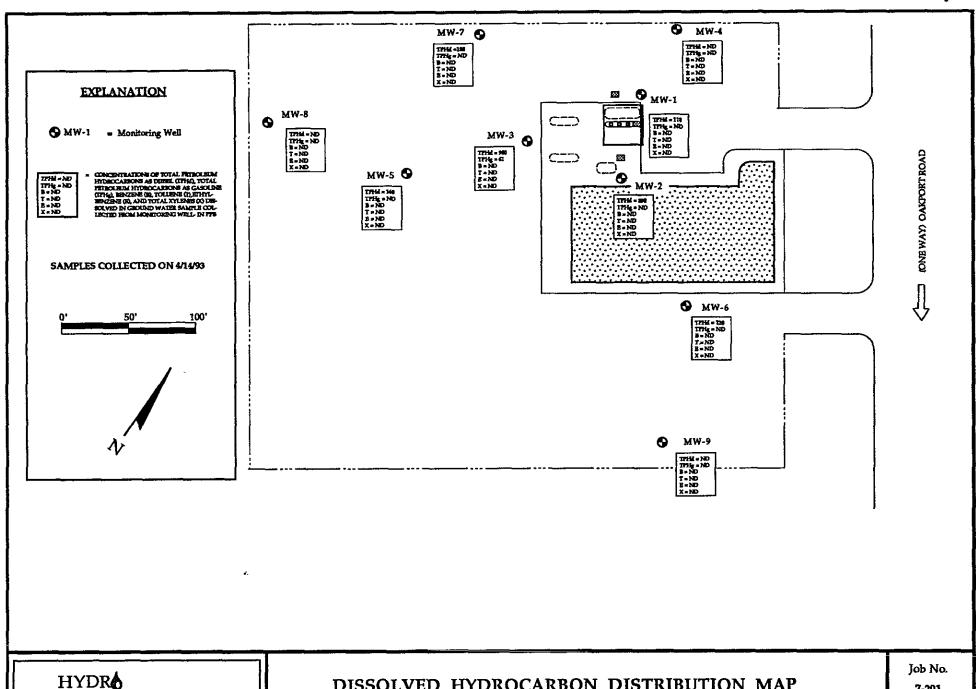
HYDR ENVIR NMENTAL TECHNÓLOGIES, INC.

GROUND WATER ELEVATION CONTOUR MAP

Ryder Truck Rental 8001 Oakport Road Oakland, California

Job No. 7-201 **Figure**

4.3



ENVIR NMENTAL TECHNOLOGIES, INC. DISSOLVED HYDROCARBON DISTRIBUTION MAP

Ryder Truck Rental 8001 Oakport Road Oakland, California

7-201 Figure 5

APPENDIX A

PURGED/S	AMPLED BY:	TR/H	· 	DATE: <u>4/</u>	14/23	J4 ->
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		15	17.3	7.74	6.59	
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PURGED/S	AMPLED BY:	TR/H	·H	_ DATE:	4/14/23	
•	17A: ttom: <u>13.25</u> ster: <u>4.01</u> 9.24:	ft. diam. 2 in. 4 in.	gals/ft. x 0.16 x 0.65 x 1.44	# volumes to p "Total volume to	olume 6.01 urge x 3 o purge = 18.0 parameters stabilize	**************************************
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	RÅ- IRÅNMEN NÅLOGII			GWELL PURGE/ WELL # MW - ' Rydn (Or		Job No. 7-201 SHEET

PURGED/S.	AMPLED BY:	TR/H	-+	DATE:4/	14/23	
	ttom: 13.79 ter: 5.92	ft. diam. 2 in.	gals/ft. x 0.16 x 0.65 x 1.44	# volumes to purg *Total volume to purg *unless chemical para	urge = <u>15-3</u>	
PURGING D Purge metho (circle one)	OATA: od: PVC bailer/	Submersible pur	mp/ Suction lift	pump/		
	Time	Volume (gallons)	Temp. (%) ←	Conductivity (mS/cm)	pН	
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5		5	18.5	18.41	429	
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÷	Color: Color:		Turbi	idity:eee	nate	
SAMPLING Sampling	G DATA: method: Gedic	ated bailer /		Same Pris/STEX (Pris/STEX) TPH mo 601 Other:	_	01() 023 240 250 8 270
11 1	R &- R & NMEN N&LOGII			GWELLPURGE/SAI WELL# <u>MW-3</u> Rydn Oakl	MPLE SHEET	Job No.

1				and the		
PURGED/S	AMPLED BY:	TR/H	H	DATE: <u>4</u>	1/14/23	
	ATA: ttom: 14.92 tter: 3-24	ft. diam. 2 in. 4 in.	gals/ft. × 0.16 × 0.65 × 1.44	Well casing vol # volumes to pur *Total volume to * unless chemical per	rge x 3 purge = 5,6	vols. V gallons
PURGING DATA: Purge method: PVC bailer / Submersible pump / Suction lift pump /						
	Time	Volume (gallons)	Temp. (°₽) C	Conductivity (mS/cm)	pH	
	1312	,0	17.3	350	6.87	
; , ,	1;20	4	16.8	4.50	6.80	Sys.
				-		
77.00 00 (205	Color: <u>oli</u> Recharge:	goud		idity:O	enet.	
SAMPLIN Sampling	G DATA: method: Dedic	ated bailer /		Sal TPHG TPHG TPH mo 601 Others_	C-Pb TEL Total Pb EDB	9010 8020 8240 8260 8270
	R Ó- RÓNMEI NÓLOGII			GWELL PURGE/S. WELL # MW - H Rydn /Ock		Job No. 7-20 SHEET

PURGED/S	AMPLED BY:	TRIH	-64	DATE: <u>4/</u>	14193	20 A 4.7		
٠,	ATA: ttom: 15,07 ter: 2.02	ft. diam.	gals/ft. × 0.16 × 0.65 × 1.44	Well casing volume # volumes to purg *Total volume to p * unless chemical par	re x 3	vols. 7 gallons		
PURGING I Purge meth (circle one)	OATA: od: PVC bailer/	Submersible pu	mp/ Suction lift	pump/				
•	Time	Volume (gallons)	Temp. (°F)	Conductivity (mS/cm)	pН			
	2:35	0						
		2	18-8	19.28	6.45			
	V	4	18.9	20+	6.39	-		
	2144	6.5	19.3	20+	6:39	** \		
						. '		
,						┨		
				<u> </u>				
						1		
1	Color:	sline	Turk	idity:l	1.2	_1		
	Recharge:			idity:ft.	haen on	bail Hab		
	G DATA: method: Pedic	ated bailer /_	,	Saint CHg/BID CPH TPH mo 601 Other:	O-Pb TEL Total Pb EDS	8010 8021) 8241) 8261] 8270		
5 3	IRONMEN	1.9		GWELL PURGE/SAI WELL # MW - 5	-	Job No. 7-701 SHEET		
TECH	NOLOGII	ES, INC.	LOCATION Ryder Oakland					

PURGED/S	AMPLED BY:	TR/H	· t+	_ DATE:	4/14/23	
-	NTA: etom: <u>15,00</u> eter: <u>4-25</u>	ft. diam. 2 in. 4 in.	gals/ft. x 0.160 x 0.65 x 1.44	# volumes to p	olume 1.72 urge $\times 3$ o purge = 5.16 parameters stabilize e	_vols. gallons
PURGING DATA: Purge method: PVC baile / Submersible pump/ Suction lift pump/ (circle one)						
	Time	Volume (gallons)	Temp.	Conductivity (mS/cm)	pH	
	2104	0				
•		2	19.9	20+	6.51	
	*	4	19.7	20#	6.57	
DRy >	2:12	5	19.9	20+	6.71	
•						
						·
,						
				10 to		<u> </u>
	Color: <u>du</u>	le brown	Turb	idity:	larette	
	Recharge:	POD	SPP_	ft.	بن	. √
SAMPLIN Sampling	G DATA: method: edic	ated bailer /			O-Pb TEL 8 no Total Pb EDS 8 602 Nitrates 8	no 120 140 140 140
4 (R &- R & NMEN N&LOGII	11		GWELL PURGE! WELL # MW - G Rydu /Oa	0	Job No. 7-7-0 T SHEET Lot L

PURGED/S	AMPLED BY:	TRIF	t t	_ DATE: <u>4/</u>	14193) h
. , –	nTA: etom: 12.3 - 12.6 (ft. diam. 2 in. 4 in.		Well casing volume # volumes to purg *Total volume to p * unless chemical par	ne x 3	vols_ gallons
PURGING I Purge metho (circle one)	DATA: od: EVC bailed/	Submersible pu	mp/ Suction lift	pump/		
	Time	Volume (gallons)	Temp.	Conductivity (mS/cm)	pH	
	2:22	<u>છ</u> ઢ	18.2	- 20+	7.57	
Day -	2:31	S	18.0	20+	7.00	·
			·			
	Color: de	k brown		idity:	erate.	
SAMPLIN Sampling	· · · · · · · · · · · · · · · · · · ·			Sam THE BIE THE TO 601 Other:	O-Ph THL 8	no 120 240
HYDRÓ- ENVIRÓNMENTAL TECHNÓLOGIES, INC.			,	GWELL PURGE/SAI WELL # <u>Mw - 7</u> Rydn /Oakl	•	Job No. 7-201 SHEET (of (

PURGED/S	AMPLED BY:	TRIH	·t+	_ DATE: _	4/14/93	
_	ttom: 12.50 ter: 2.15	ft. diam. 2 in. 4 in.	gals/ft. × 0.16 × 0.65 × 1.44	# volumes to p	volume <u>l.68</u> purge x <u>3</u> to purge = <u>4.98</u> al parameters stabilize o	vols_ gallons
PURGING I Purge metho (circle one)	DATA: od: PVC bailed/	Submersible pu	mp/ Suction lift	pump/		Provide Control of the Control of th
	Time	Volume (gallons)	Temp. (°F)	Conductivit (mS/cm)		
·	1:46	0	-	17.76	<u> </u>	
bey⇒	1153	5	19.2	17.35 19.98	7.38	
						<u> </u>
						<u> </u>
(•		
	Color:		Turbi	idity:	lust.	1
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Recharge:	Po o	SPP_	ft.	· .	
SAMPLING Sampling	G PATA: method: Pedic	ated bailer/_	·		O-Po TEL 8 Imo Total Po EDB 8 602 Nitrates 8	010 020 240 250 8 270
a t	R &- R & NMEI N&LOGII	1 6	,	GWELLPURGE WELL# <u>MW</u> – Rydn /O		Job No. 7-70 SHEET (of (

PURGED/S	AMPLED BY:	TRIF	+64	_ DATE: <u>4</u> /	14/93	
-	ATA: ttom: 12.74 tter: 4.86	ft. diam. ft. 2 in. 4 in.	gals/ft. x 0.16 x 0.65 x 1.44	Well casing volume # volumes to purg "Total volume to p * unless chemical par	ge x <u>3</u> urge = <u>3.8</u>	
PURGING I Purge metho (circle one)	OATA: od: PVC bailer/	Submersible pu	mp/ Suction lift	pump/		
	Time	Volume (gallons)	Temp.	Conductivity (mS/cm)	pH	
	1:29	0				
,	↓	2	17-1	20+	5.17	
DRY=	1:33	4	17.5	20+	5.53	
						_
•			·			-
						-
						4
						4
				<u>L</u>		1
	Color:	to		idity:		•
	Recharge:	Pont	SPP_	<u>ф</u> ft.		
SAMPLIN	G DATA:			PHs/BTE		110
Sampling	method: Dedic	ated bailer/_	-	TPH mo		020 240
				601, Other:	602 Nitrates &	260 8270
HYD	R A -		MONITORING	G WELL PURGE/SAI	MPLE SHEET	Job No.
1 1	RONMEN	NTAL		WELL # MW - 9		7-201 SHEET
	NÓLOGII		LOCATION_	Ryder lock!	and	(of (

APPENDIX B





7.201

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April 29, 1993

Mr. Brian Gwinn Hydro-Environmental Tech., Inc. 2363 Mariner Square Drive, Suite 243 Alameda, CA 94501

RE: PACE Project No. 430415.517

Client Reference: Ryder/Oakland/7-201

Dear Mr. Gwinn:

Enclosed is the report of laboratory analyses for samples received April 15, 1993.

Footnotes are given at the end of the report.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

Caron E. Sontag Project Manager

Enclosures



Hydro-Environmental Tech., Inc. 2363 Mariner Square Drive, Suite 243 Alameda, CA 94501

April 29, 1993

PACE Project Number: 430415517

, }

Attn: Mr. Brian Gwinn

Client Reference: Ryder/Oakland/7-201

PACE Sample Number: Date Collected: 70 0050766 04/14/93 04/15/93

Date Received: MW-1 Units MDL DATE ANALYZED Parameter 31: : 1/4 ORGANIC ANALYSIS `t 5'** PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT):
Purgeable Fuels, as Gasoline (EPA 8015M) ug/L 04/23/93 50 ., 04/23/93 PURGEABLE AROMATICS (BTXE BY EPA 8020M): 04/23/93 0.5 ŇD 04/23/93 Benzene ug/L 0.5 ŃD 04/23/93 Toluene ug/L 0.5 ND 04/23/93 **Ethylbenzene** ug/L 0.5 ŇD 04/23/93 Xylenes, Total ug/L EXTRACTABLE FUELS EPA 3510/8015 04/21/93 Extractable Fuels, as Diesel 0.05 0.11 mg/L Date Extracted 04/20/93



Mr. Brian Gwinn Page 2

April 29, 1993

PACE Project Number: 430415517

Client Reference: Ryder/Oakland/7-201

PACE	Sample Number:
Date	Collected:
Date	Received:
C7 4	+ Commin ID.

70 0050774 04/14/93 04/15/93 MW-2

128 238 (A. 742)

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Client Sample ID: Parameter

Units 🦠 MDL DATE ANALYZED

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene	ug/L ug/L ug/L ug/L	50 0.5 0.5 0.5	ND 337 (3	04/23/93 04/23/93 04/23/93 04/23/93 04/23/93 04/23/93
Xylenes, Total	ug/L	0.5	ND	04/23/93
EXTRACTABLE FUELS EPA 3510/8015 Extractable Fuels, as Diesel Date Extracted	mg/L	0.05	0.89 04/20/93	04/21/93



70 0050782

April 29, 1993

PACE Project Number: 430415517

· 2 46 38 3

9

Mr. Brian Gwinn Page 3

Client Reference: Ryder/Oakland/7-201

PACE Sample Number:
Date Collected:
Date Received:
Client Sample ID:

04/14/93 04/15/93 MW-3

Parameter Units MDL DATE ANALYZED

ORGANIC ANALYSIS

			*		
PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene	ug/L ug/L ug/L ug/L	50 0.5 0.5	61 ND ND ND	04/23/93 04/23/93 04/23/93 04/23/93 04/23/93 04/23/93	
Xylenes, Total	ug/L	0.5	ŅD	04/23/93	
EXTRACTABLE FUELS EPA 3510/8015 Extractable Fuels, as Diesel Date Extracted	mg/L	0.05	0.98 04/20/93	04/21/93	-



Mr. Brian Gwinn Page

April 29, 1993

PACE Project Number: 430415517

Client Reference: Ryder/Oakland/7-201

PACE	Sample Number:
Date	Collected:
Date	Received:
Clier	it Sample ID:

70 0050790 04/14/93 04/15/93 MW-4

ប្រជាពិសាធិក្សា regulary's STEERS :

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Parameter

Units MDL DATE ANALYZED To

ORGANIC ANALYSIS

ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene	-	50 0.5 0.5 0.5	ND ND ND	04/23/93 04/23/93 04/23/93 04/23/93 04/23/93
Xylenes, Total	ug/L	0.5	ND	04/23/93
EXTRACTABLE FUELS EPA 3510/8015 Extractable Fuels, as Diesel Date Extracted	mg/L	0.05	ND 04/20/93	04/21/93

Kansas City, Missouri

Los Angeles, California



Mr. Brian Gwinn

Page

April 29, 1993

PACE Project Number: 430415517

Client Reference: Ryder/Oakland/7-201

PACE Sample Number: Date Collected:

Date Received:

Client Sample ID:

Parameter Units

70 0050804 04/14/93 04/15/93 MW-5

DATE ANALYZED

ORGANIC ANALYSIS

Xylenes, Total

PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT):

Purgeable Fuels, as Gasoline (EPA 8015M) ug/L PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene

Toluene **Ethylbenzene**

EXTRACTABLE FUELS EPA 3510/8015

Extractable Fuels, as Diesel Date Extracted

04/23/93 04/23/93 50 ND

04/23/93 04/23/93 0.5 ND 04/23/93 0.5 ND 04/23/93 0.5 ND

0.5 ND

MDL

ug/L

ug/L

ug/L

ug/L

mg/L

04/23/93

0.05 0.16 04/20/93 04/21/93



Mr. Brian Gwinn Page 6 April 29, 1993

PACE Project Number: 430415517

บารต์จรริ

1 - 1, -

Jane

1211

Client Reference: Ryder/Oakland/7-201

PACE Sample Number: Date Collected: Date Received: 70 0050812 04/14/93 04/15/93 MW-6

JOHN TOWN

Client Sample ID: Parameter

Units MDL

DATE ANALYZED :

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene	ug/L ug/L	/ `	50 0.5 0.5 0.5	ND ND ND ND	04/23/93 04/23/93 04/23/93 04/23/93 04/23/93 04/23/93
Xylenes, Total	ug/L	•	0.5	ND	04/23/93 ~
EXTRACTABLE FUELS EPA 3510/8015 Extractable Fuels, as Diesel Date Extracted	mg/L		0.05	0.12 04/20/93	04/21/93



April 29, 1993 Mr. Brian Gwinn PACE Project Number: 430415517 Page A BOOK OF THE Client Reference: Ryder/Oakland/7-201 70 0050820 PACE Sample Number: Date Collected: 04/14/93 04/15/93 Date Received: MW-7 Client Sample ID: DATE ANALYZED MDL Parameter Units ORGANIC ANALYSIS PURGEABLE FUELS AND AROMATICS 04/23/93 TOTAL FUEL HYDROCARBONS, (LIGHT): ND Purgeable Fuels, as Gasoline (EPA 8015M) ug/L 04/23/93 04/23/93 PURGEABLE AROMATICS (BTXE BY EPA 8020M): ND 0.5 04/23/93 Benzene ug/L 0.5 ND 04/23/93 Toluene ug/L 04/23/93 0.5 ND Ethylbenzene ug/L ŇD 04/23/93 0.5 Xylenes, Total ug/L EXTRACTABLE FUELS EPA 3510/8015 04/21/93 Extractable Fuels, as Diesel mg/L 0.05 0.18 04/20/93 Date Extracted

Kansas City, Missouri

Los Angeles, California



Mr. Brian Gwinn Page 8

April 29, 1993

PACE Project Number: 430415517

Client Reference: Ryder/Oakland/7-201

PACE Sample Number: Date Collected: Date Received:

70 0050839 04/14/93 04/15/93

Client Sample ID:

MW-8

MDL DATE ANALYZED Units Parameter

ODCANTO ANALVSTS

UKGANIC ANALTSIS				•
PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene	ug/L ug/L ug/L ug/L	50 0.5 0.5 0.5	ND ND ND ND ND	04/23/93 04/23/93 04/23/93 04/23/93 04/23/93
Xylenes, Total	ug/L	0.5	ND	04/23/93
EXTRACTABLE FUELS EPA 3510/8015 Extractable Fuels, as Diesel Date Extracted	mg/L	0.05	ND 04/20/93	04/21/93



Mr. Brian Gwinn

Page

April 29, 1993

PACE Project Number: 430415517

Client Reference: Ryder/Oakland/7-201

PACE Sample Number: Date Collected: Date Received:

70 0050847 04/14/93 04/15/93 MW-9

Client Sample ID:

Parameter

MDL DATE ANALYZED Units

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene	ug/L ug/L ug/L ug/L	50 0.5 0.5 0.5	- ND - ND ND ND	04/23/93 04/23/93 04/23/93 04/23/93 04/23/93 04/23/93
Xylenes, Total	ug/L	0.5	ND	04/23/93
EXTRACTABLE FUELS EPA 3510/8015 Extractable Fuels, as Diesel Date Extracted	mg/L	0.05	ND 04/20/93	04/21/93

These data have been reviewed and are approved for release.

.c.cain Darrell C. Cain

Regional Director



Mr. Brian Gwinn

Page 10

FOOTNOTES for pages 1 through

9

April 29, 1993 개발 :

PACE Project Number: 430415517

Client Reference: Ryder/Oakland/7-201

MDL

Method Detection Limit

ND

Not detected at or above the MDL.



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Mr. Brian Gwinn

QUALITY CONTROL DATA

April 29, 1993

PACE Project Number: 430415517

e 1 =

Page 11

Client Reference: Ryder/Oakland/7-201

EXTRACTABLE FUELS EPA 3510/8015

400

Batch: 70 20554

Samples: 70 0050766, 70 0050774, 70 0050782, 70 0050790, 70 0050804 70 0050812, 70 0050820, 70 0050839, 70 0050847

METHOD BLANK:

Method

Parameter Extractable Fuels, as Diesel Units mg/L

MDL 0.05

Blank ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter

Units

MDL

Reference

Dupl

Value Recv 1.00 50%

Recv RPD 62%

Extractable Fuels, as Diesel

 $\overline{0.05}$



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Mr. Brian Gwinn

QUALITY CONTROL DATA

April 29, 1993 🐩

PACE Project Number: 430415517

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Page 12

Client Reference: Ryder/Oakland/7-201

PURGEABLE FUELS AND AROMATICS

Batch: 70 20591

Samples: 70 0050766, 70 0050774, 70 0050782, 70 0050790, 70 0050804 70 0050812, 70 0050820, 70 0050839, 70 0050847

METHOD BLANK:

TICTION DESIGN.			Method
Parameter TOTAL FUEL HYDROCARBONS, (LIGHT):	<u>Units</u>	<u>MDL</u>	Blank -
Purgeable Fuels, as Gasoline (EPA 8015M PURGEABLE AROMATICS (BTXE BY EPA 8020M)	ug/L	50	ND
Benzene	ug/L	0.5	ND
Toluene	ug/L	0.5	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

			Reference		Dupl	
Parameter	Units	MDL	Value	Recv	Recv	
Purgeable Fuels, as Gasoline (EPA 8015M	ug/L	50	1000	<u>120%</u>	116%	3%
Benzene	ug/L	0.5	40.0	93%	92%	1%
Toluene	ug/L	0.5	40.0	93%	91%	2%
Ethylbenzene	ug/L	0.5	40.0	95%	94%	1%
Xylenes, Total	ug/L	0.5	120	93%	92%	1%

Kansas City, Missouri Los Angeles, California



Mr. Brian Gwinn Page 13

FOOTNOTES for pages 11 through 12 April 29, 1993 PACE Project Number: 430415517

Top - 11 - 12 -

Align right isomer an

Client Reference: Ryder/Oakland/7-201

MDL

Method Detection Limit

ND RPD Not detected at or above the MDL.

Relative Percent Difference

41.8

11 Digital Drive Novato, CA 94949 TEL: 415-883-6100 FAX: 415-883-2673

CHAIN OF CUSTODY RECORD

	SAMPLER Prisent Name TONY RAMIFEZ Signature: DELIVER TO: PACE ATTENTION: Cason Sortan HETICAL JOB No.: 7-201 Relampainhed by (Signature) PACE Received by				SEND RESULTS TO: HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC. 2363 MARINER SQUARE DR., SUITE 243 ALAMEDA, CA 94501 (510) 521-2684, (FAX) 521-5078 ATTENTION: Brian Guinn SEND INVOICE TO: Ryder Truck Lental 96 HET1 Date Time 4/15/93 5:15						
	Rainequished by:	HETT	Received	• / 4 ///	fre 1	4/15/93 1:10 PM					
	PROJECT NAME:	Ruder C	neck land	الإنتان المساورة الم	anotas forc	PAGE1OF					
	Sample Number	DATE & TIME.	No. & Type Contain		Requested	Lab Remarks					
	(384 MW-1 ftel MW-2 for MW-3 MW-4 MW-5 MW-6 MW-7 MW-8 MW-9	W/ 4/14/02	3van Iamber	X TPH4, 8TEM (MS mod) X TPH 4, 8TEM (MS mod)		5076.6 5077.4 5078.2 5080.4 5081.2 5082.0 5083.9 5084.7					
	Special Instr	uctions:			Tur 5 DAY 10 DAY	naround:					
.14/3	,4/2			1	-						