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**GROUNDWATER MONITORING REPORT FOR  
ARROW RENTALS  
LIVERMORE, CALIFORNIA**

**SEMI-ANNUAL GROUNDWATER SAMPLING EVENT  
OCTOBER 1998**

Prepared for: Don-Sul Inc.  
187 North L Street  
Livermore, California 94507

Date Prepared: October 29, 1998

By: Environmental Sampling Services  
6680 Alhambra Avenue #102  
Martinez, California 94553

December 1, 1998  
971275

Ms. Rita Sullins  
Don-Sul, Inc.  
187 North L Street  
Livermore, CA 94550

Subject: Semi-Annual Groundwater Monitoring, October 1998  
187 North L Street, Livermore, California

Dear Ms. Sullins:

Groundwater monitoring was conducted in October 1998 at the Arrow Rentals site, located at 187 North L Street in Livermore, California. This report presents the groundwater measurement and sampling procedures, evaluation of hydrogeologic data, and the results of laboratory analyses.

#### MEASUREMENT AND SAMPLING PROCEDURES

On October 23, 1998, groundwater monitoring was performed at the site by Environmental Sampling Services of Martinez, California. The locations of the groundwater monitoring wells are illustrated on Figure 1. The field activity report describing sampling activities is included in Appendix A.

Prior to sampling, the depth of static groundwater was measured in all four wells (W-1s, W-3s, W-Bs, and W-Es) to the nearest 0.01 foot using an electrical water level recorder. The interface probe was washed using a Liqui-Nox<sup>®</sup> detergent solution, rinsed with potable water, and rinsed with distilled water. Groundwater elevation data for each well are listed in Table 1. The potentiometric surface map, corresponding to groundwater elevations measured on October 23, 1998, is shown on Figure 2.

All four wells were purged and sampled after the static water level measurements were recorded. A minimum of three casing volumes of groundwater was removed from each well prior to sampling. Each well was purged using a submersible pump. Purge water from the monitoring wells was stored in labeled 55-gallon drums pending the analytical results.

Water quality parameters (pH, specific conductance, temperature, turbidity, color, and odor) were recorded at regular intervals during well purging. Water quality parameters for the three wells were recorded in the sampling logs. Copies of the well sampling logs are included in Appendix A.

Groundwater samples were collected from each well using new disposable bailers. Groundwater samples were collected in clean bottles supplied by the analytical laboratory, labeled, stored on ice in a cooler, and transported under chain-of-custody protocol within 24 hours of collection to Columbia Analytical Services, a California-certified laboratory located in Santa Clara, California. A travel blank was prepared by the laboratory and accompanied the groundwater samples for quality assurance purposes.

The four groundwater samples were analyzed for total petroleum hydrocarbons quantified as gasoline (TPH-gasoline) and diesel (TPH-diesel) by EPA Method 8015 Modified; benzene, toluene, ethylbenzene, xylenes (BTEX) by EPA Method 8020; and methyl tertiary butyl ether (MTBE) by EPA Method 8020 Modified. The travel blank was analyzed for gasoline by EPA Method 8015 Modified, BTEX by EPA Method 8020, and MTBE by EPA Method 8020 Modified.

## HYDROGEOLOGIC DATA EVALUATION

Groundwater elevations in the four monitoring wells ranged from 440.16 feet in well W-Es to 445.60 feet in well W-Bs. The groundwater levels measured in October 1998 were more than 13 feet lower than those measured in April 1998. Based upon measurements recorded on October 23, 1998, groundwater generally flows to the west under a hydraulic gradient of approximately 0.020 ft/ft (Figure 2).

## RESULTS OF LABORATORY ANALYSES

Results of laboratory analyses for groundwater samples collected from the four wells in October 1998 are summarized in Table 2. The laboratory report and chain-of-custody documentation are included in Appendix B.

Gasoline was detected in the groundwater samples collected from all four wells at concentrations ranging from 82 to 99,000  $\mu\text{g/L}$ . TPH-diesel was detected in the groundwater samples collected from all four wells at 69 to 18,000  $\mu\text{g/L}$ . However, the laboratory indicated that the hydrocarbons detected in the diesel range did not match a typical diesel pattern. Benzene was detected in the samples collected from well W-1s at 9,800  $\mu\text{g/L}$ , well W-3s at 500  $\mu\text{g/L}$ , and well W-Bs at 6,700  $\mu\text{g/L}$ . These concentrations exceeded the Maximum Contaminant Level (MCL) of 1  $\mu\text{g/L}$ , established for benzene in drinking water. Toluene was detected in the samples collected from all four wells at concentrations ranging from 0.8 to 9,400  $\mu\text{g/L}$ . The concentrations of

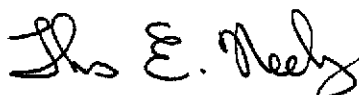
toluene in wells W-1s and W-Bs exceeded the MCL of 150 µg/L. Ethylbenzene was detected in the samples collected from well W-1s at 1,800 µg/L, well W-3s at 90 µg/L, and well W-Bs at 1,500 µg/L. The levels of ethylbenzene in wells W-1s and W-Bs exceeded the MCL of 700 µg/L. Xylenes were detected in all four wells at concentrations ranging from 0.8 to 11,000 µg/L. The levels of xylenes in wells W-1s and W-Bs exceeded the MCL of 1,750 µg/L. MTBE was detected in the samples collected from well W-3s at 35 µg/L and well W-Es at 4 µg/L. Although MTBE was not detected in the samples collected from wells W-1s and W-Bs, the laboratory detection limits were elevated due to high concentrations of gasoline and BTEX present. Gasoline, BTEX, and MTBE were not detected in the travel blank.

## SUMMARY AND CONCLUSIONS

Table 3 presents a summary of the results of laboratory analyses performed on groundwater samples collected from wells at the site since March 1996. High levels of gasoline, diesel, BTEX, and MTBE have been consistently detected in groundwater samples collected from wells W-1s and W-Bs. The sample collected from well W-3s in October 1998 contained the highest levels of gasoline, diesel, ethylbenzene, and MTBE to date. Low levels of gasoline, diesel, BTEX, and MTBE have also been detected in samples collected from well W-Es. Fluctuations in the concentrations of gasoline, diesel, and BTEX in groundwater samples collected from these wells may be related to the seasonal variations in groundwater elevations and the groundwater flow direction. The direction of groundwater flow beneath the site has varied over time from southwest to west-northwest.

Please call us if you have any questions concerning this report.

Respectfully yours,



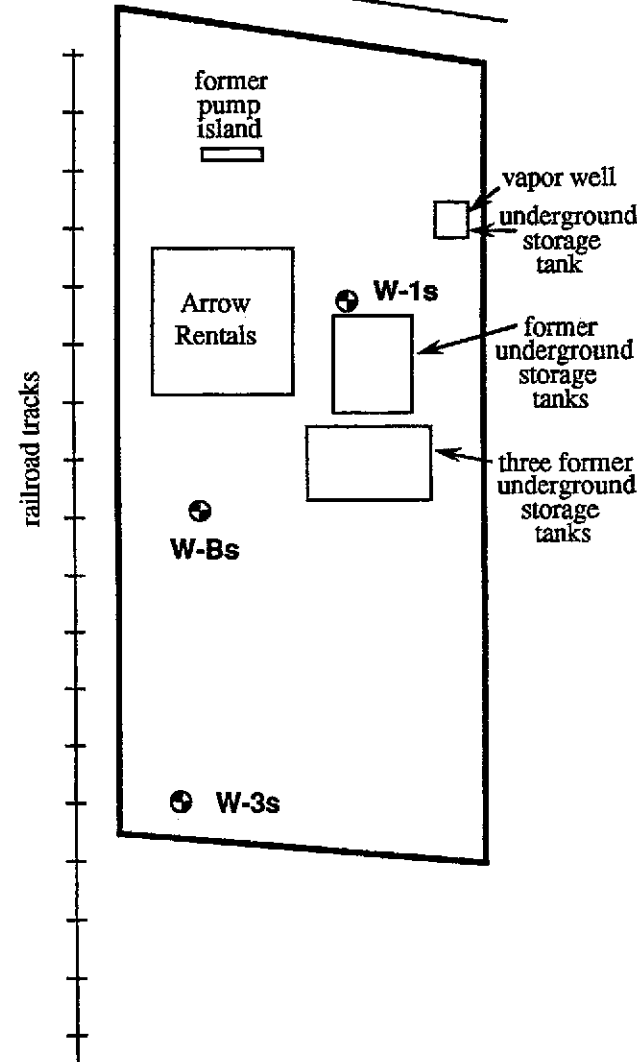
Thomas E. Neely, REA  
Hydrogeologist



Rebecca A. Sterbentz, RG, CHG, REA  
President



North L Street



W-Es  
⊕

EXPLANATION	
⊕	Approximate well location

Figure 1. SITE MAP  
187 North L Street, Livermore, California

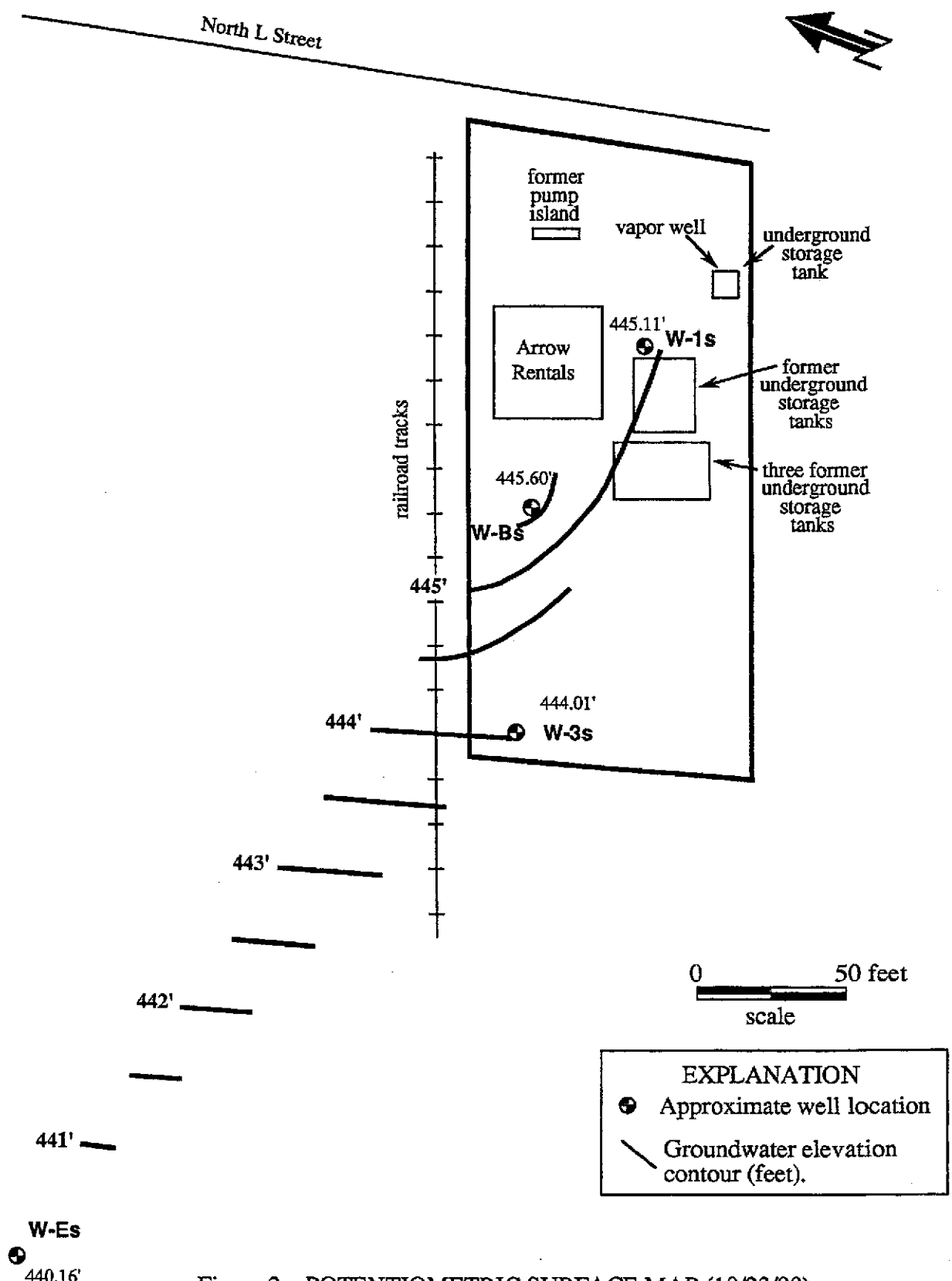


Figure 2. POTENTIOMETRIC SURFACE MAP (10/23/98)  
187 North L Street, Livermore, California

Table 1. GROUNDWATER ELEVATION DATA  
 187 North L Street, Livermore, California  
 October 23, 1998

Well Number	Top of Casing Elevation (feet above MSL)	Depth to Water (feet below TOC)	Water Elevation (feet above MSL)
W-1s	479.09	33.98	445.11
W-3s	476.98	32.97	444.01
W-Bs	478.82	33.22	445.60
W-Es	474.66	34.50	440.16

MSL = mean sea level (elevations based on City of Livermore datum)  
 TOC = top of PVC casing

Table 2. GROUNDWATER ANALYTICAL RESULTS  
 187 North L Street, Livermore, California  
 October 23, 1998

Well Number	TPH-gasoline (µg/L)	TPH-diesel (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Lead (µg/L)
W-1s	99,000	18,000*	9,800	9,400	1,800	11,000	< 600	NA
W-3s	3,800	1,000*	500	28	90	37	35	NA
W-Bs	48,000	9,600*	6,700	1,200	1,500	6,200	< 300	NA
W-Es	82	69*	< 0.5	0.8	< 0.5	0.8	4	NA
Travel Blank	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 3	NA
MDL	50-10,000	50-200	0.5-100	0.5-100	0.5-100	0.5-100	3-600	--
MCL	NE	NE	1	150	700	1,750	NE	50
AL	NE	NE	NE	NE	NE	NE	35	15

µg/L = micrograms per liter [parts per billion (ppb)]

NA = not analyzed

NE = none established

TPH-gasoline = total petroleum hydrocarbons quantified as gasoline

TPH-diesel = total petroleum hydrocarbons quantified as diesel

MTBE = methyl tertiary butyl ether

MDL = method detection limit

MCL = Maximum Contaminant Level, November 1996

AL = Action Level, November 1996

\* The chromatogram does not match the typical diesel pattern.



Table 3. SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER  
187 North L Street, Livermore, California

Well Number	Date Sampled	TPH-gasoline (µg/L)	TPH-diesel (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Lead (µg/L)
W-1s	3/22/96	6,400	NA	580	470	85	1,100	< 500	NA
W-1s <sup>25.00</sup>	11/22/96	170,000	NA	13,000	18,000	3,500	18,000	< 10,000	NA
W-1s <sup>30.41</sup>	7/15/97	140,000	38,000*†	12,000	12,000	2,600	16,000	< 800	NA
W-1s <sup>36.45</sup>	10/29/97	650,000	180,000‡	14,000	19,000	7,800	35,000	< 3,000	NA
W-1s <sup>18.61</sup>	4/27/98	6,700	2,200§	410	250	77	870	< 30	< 5
W-1s <sup>33.58</sup>	10/23/98	99,000	18,000§	9,800	9,400	1,800	11,000	< 600	NA
W-3s	3/22/96	100	NA	13	6.9	5.3	14	< 5	NA
W-3s <sup>25.45</sup>	11/22/96	3,200	NA	270	29.0	63.0	100	< 100	NA
W-3s <sup>29.17</sup>	7/15/97	2,100	340**†	230	7	33	51	< 20	NA
W-3s <sup>35.45</sup>	10/29/97	2,800	750††	630	31	71	69	< 30	NA
W-3s <sup>19.73</sup>	4/27/98	< 50	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 3	NA
W-3s <sup>32.97</sup>	10/23/98	3,800	1,000§	500	28	90	37	35	NA
W-Bs	3/22/96	61,000	NA	9,800	8,000	2,200	11,000	< 5,000	NA
W-Bs <sup>25.70</sup>	11/22/96	47,000	NA	5,100	3,100	1,400	7,800	< 2,500	NA
W-Bs <sup>29.62</sup>	7/15/97	66,000	17,000†††	7,800	4,900	1,900	10,000	< 600	NA
W-Bs <sup>36.63</sup>	10/29/97	44,000	27,000§§	6,000	500	1,500	6,400	380	NA
W-Bs <sup>18.86</sup>	4/27/98	63,000	17,000§	6,100	5,400	1,900	9,100	< 600	NA
W-Bs <sup>33.22</sup>	10/23/98	48,000	9,600§	6,700	1,200	1,500	6,200	< 300	NA
W-Es	3/22/96	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 5	NA
W-Es <sup>28.00</sup>	11/22/96	280	NA	24	0.6	1.8	2.2	< 5	NA
W-Es <sup>34.50</sup>	10/23/98	82	69§	< 0.5	0.8	< 0.5	0.8	4	NA

Table 3 (continued). SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER  
187 North L Street, Livermore, California

Well Number	Date Sampled	TPH-gasoline (µg/L)	TPH-diesel (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Lead (µg/L)
Travel Blank	7/15/97	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 3	NA
Travel Blank	10/29/97	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 3	NA
Travel Blank	4/27/98	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 3	NA
Travel Blank	10/23/98	< 50	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 3	NA
MCL		NE	NE	1	150	700	1,750	NE	50
AL		NE	NE	NE	NE	NE	NE	35	15

µg/L = micrograms per liter [parts per billion (ppb)]

NA = not analyzed

NE = none established

TPH-gasoline = total petroleum hydrocarbons quantified as gasoline

TPH-diesel = total petroleum hydrocarbons quantified as diesel

MTBE = methyl tertiary butyl ether

MCL = Maximum Contaminant Level, November 1996

AL = Action Level, November 1996

\* Sample contained heavy oil at 3,000 µg/L.

† The method blank contained heavy oil at 120 µg/L.

‡ Sample contained heavy oil at 1,600 µg/L.

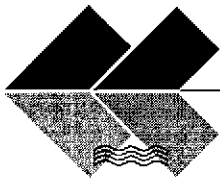
§ The chromatogram does not match the typical diesel pattern.

\*\* Sample contained heavy oil at 740 µg/L.

†† Sample contained heavy oil at 88 µg/L.

‡‡ Sample contained heavy oil at 490 µg/L.

§§ Sample contained heavy oil at 4,000 µg/L.



**Environmental  
Sampling Services**

**FIELD ACTIVITY REPORT  
FOR SEMI-ANNUAL GROUNDWATER MONITORING EVENT  
ARROW RENTALS,  
LIVERMORE, CALIFORNIA**

**ESS Personnel:** Jacki Lee and Steve Penman  
**Duration of Activities:** October 23, 1998

***Decontamination Procedures***

All downhole equipment was cleaned with a solution of Liqui-Nox® laboratory-grade detergent and potable water, rinsed with potable water, followed by a final rinse with distilled water.

***Water Level and Total Depth Measurements***

A total of four (4) monitoring wells were measured for static water level. All readings were performed with Solinst® electrical water level indicator (Table 1). Water level measurements were referenced to the surveyor's mark (a black mark on the top of well casing).

***Field Equipment Calibration***

All field measurements were performed in accordance with the instruments' calibration and operating procedures. Field measurements included: pH, specific conductance, turbidity, and temperature.

***Field Activities***

Friday, October 23, 1998: Well evacuation and monitoring of groundwater quality parameters for four (4)-monitoring wells were performed. A minimum removal of three casing volumes and stabilization of water quality parameters were required prior to sampling. All wells were sampled for the following analyses: EPA Method 8015M (TPH (Gasoline)/BTEX, and MTBE) and TPH (Diesel).

All wells were purged with a submersible pump. All wells were sampled with new disposable PVC bailers. Columbia Analytical Laboratories supplied all sample containers and packing material and performed all required analyses. All samples were properly preserved according to analysis.

***QA/QC***


Trip blanks for EPA Method 8015M were supplied and remained in the cooler containing all sample containers. No other QA/QC samples were required nor requested.





**Environmental  
Sampling Services**

All work was performed under satisfactory workmanship and according to the Alameda County Health and Care Services' directive, dated October 8, 1997.

  
Jacqueline Lee  
President

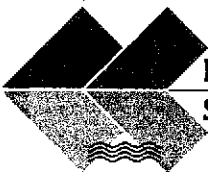
Enclosure  
Table 1  
Water Sample Log Sheets  
Chain of Custody



**Environmental  
Sampling Services**

**TABLE 1: SUMMARY OF  
WATER LEVEL MEASUREMENTS  
ARROW RENTAL  
LIVERMORE, CALIFORNIA**

<b>WELL IDENTIFICATION</b>	<b>DEPTH TO GROUNDWATER (Measured October 23, 1998)</b>	<b>TOTAL WELL DEPTH</b>
W-1s	33.98	44.64
W-Bs	33.22	44.47
W-3s	32.97	44.76
W-Es	34.50	44.32



**Environmental  
Sampling Services**

WATER QUALITY SAMPLE LOG SHEET WELL IDENTIFICATION: W-1s DATE: 10/23/98

Project Name: Arrow Rentals Livermore, CA Client Project Number: NA  
 Well Description: .75" 2" 3" 4" 5" 6" Well Type: PVC Stainless Steel Other: \_\_\_\_\_  
 Is Well Secured? Yes No Bolt Size 15/16" Type of lock / Lock number: Master

Observations / Comments: \_\_\_\_\_  
 Purge Method: Teflon / PVC Disposable Bailer Peristaltic Pump GrundFos Redi-flow Other: \_\_\_\_\_  
 Pump Lines: NA New / Cleaned / Dedicated Bailer Line: NA New / Cleaned / Dedicated

Method of Cleaning Pump: NA Alconox Liqui-Nox Tap Water DI Rinse Other: \_\_\_\_\_  
 Method of Cleaning Bailer: NA Alconox Liqui-Nox Tap Water DI Rinse Other: \_\_\_\_\_  
 Sampling Method: Disp. Teflon Bailer Disp. PVC Bailer GrundFos Redi-flow Pump Other: \_\_\_\_\_

pH Meter Serial No.: 217254 / 330089 Spec. Cond. Meter Serial No.: 96H0203AB/ AE  
 Date/Time Calibrated: 10/23/98 4 7 10 @ 25°C Spec. Cond. Meter Calibration: Self Test Other: \_\_\_\_\_  
 Method to Measure Water Level: Solinst Serial No.: ESS 2 P.I.D. Reading: NA ppm @ Well Head  
 Water Level at Start (DTW): 33.98 Water Level Prior To Sampling: 40.38  
 TD =  $44.64 - 33.98$  (DTW) = 10.66 (ft. of water) x "K" = 15.5 (Gals./CV) x 3 (No. of CV) = 46.7 (Gals.)  
 "K" = .023(.75" well) "K" = 0.163(2" well) "K" = 0.653(4" well) "K" = 1.02(5" well) "K" = 1.46(6" well)

**FIELD WATER QUALITY PARAMETERS**

Date	Time	Discharge (Gallons)	pH	Temp. (°C)	Specific Conductance mS (µS)	Turbidity	Color	Comments
10/23/98	1246	10	6.96	20.8	1091	30	None	start @ 12:43 very strong fet odor
	1249	20	6.94	20.6	1051	16	"	strong odor
	1250	25	6.90	20.5	1036	14	"	
	1252	30	6.64	20.4	950	252		Product < 50 mL 100 mL 300 mL
	1350	35	7.02	20.9	1067	438	Lt tan/grey	Strong odor sheen
	1351	40	6.98	20.7	1040	116	"	"
	1354	47	6.93	20.6	1045	225	"	"
		Before Sampling						
10/23/98	1413 1402	After Sampling	6.97	21.2	1063 1034	243 167	"	

Total Discharge: 47.5 gallons Casing Volumes Removed: 3.06

Method of disposal of discharged water: 55 Gallon Drum(s) Poly Tank Treatment System Other: \_\_\_\_\_

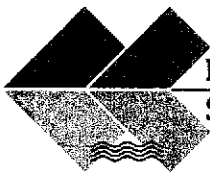
Date/Time Sampled: 10/23/98 @ 14:10 Analysis/No. of Bottles: EPA 8015M-TPHg/BTEX, MTBE (2-40ml-VOCs w/HCl), TPHd (2, 1 Liter Glass Ambers, Non-Preserved).

QA/QC: None @ \_\_\_\_\_ as an Equipment Blank Blind Duplicate MS/MSD Field Blank  
 Comments: \_\_\_\_\_

Sampled By: Jacki Lee / Stephen Penman Signature(s):







**Environmental  
Sampling Services**

WATER QUALITY SAMPLE LOG SHEET WELL IDENTIFICATION: **W-3s** DATE: 10/23/98

Project Name: **Arrow Rentals Livermore, CA** Client Project Number: **NA**  
 Well Description: **.75" 2" 3" 4" 5" 6"** Well Type: **PVC** Stainless Steel Other: \_\_\_\_\_  
 Is Well Secured? **Yes** / No Bolt Size **5/16"** Type of lock / Lock number: **Muster**  
 Observations / Comments: \_\_\_\_\_

Purge Method: Teflon **PVC Disposable Bailer** Peristaltic Pump GrundFos Redi-flow Other: \_\_\_\_\_  
 Pump Lines: **NA** New / Cleaned / Dedicated Bailer Line: **NA** **New** Cleaned / Dedicated

Method of Cleaning Pump: **NA** Alconox Liqui-Nox Tap Water DI Rinse Other: \_\_\_\_\_  
 Method of Cleaning Bailer: **NA** Alconox Liqui-Nox Tap Water DI Rinse Other: \_\_\_\_\_

Sampling Method: Disp. Teflon Bailer **Disp. PVC Bailer** GrundFos Redi-flow Pump Other: \_\_\_\_\_

pH Meter Serial No.: 217254 / **330089** Spec. Cond. Meter Serial No.: **96H0203AP** / AE  
 Date/Time Calibrated: **10/23/98 @ 10:10** @ 25°C Spec. Cond. Meter Calibration: **Self Test** Other: \_\_\_\_\_

Method to Measure Water Level: Solinst Serial No.: **ESS 2** P.I.D. Reading: **NA** ppm @ Well Head

Water Level at Start (DTW): **32.97** Water Level Prior To Sampling: \_\_\_\_\_  
 $TD = 44.76 - 32.97$  (DTW) = **11.79** (ft. of water) x "K" = **7.7** (Gals./CV) x **3** (No. of CV) = **23.1** (Gals.)  
 "K" = .023(.75" well) "K" = 0.163(2" well) **"K" = 0.653(4" well)** "K" = 1.02(5" well) "K" = 1.46(6" well)

**FIELD WATER QUALITY PARAMETERS**

Date	Time	Discharge (Gallons)	pH	Temp. (°C)	Specific Conductance mS <b>(US)</b>	Turbidity	Color	Comments
10/23/98	10:49	4	6.96	19.5	1057	26.2	Slightly cloudy Lt. Tan	Strong Pet. Odor
	10:56	8	7.13	20.1	1040	85.3	Cloudy Lt. Brown	" " "
	11:04	12	7.01	20.0	1046	118	"	" " "
	11:11	16	7.03	20.2	1033	184	grayish Brown	" " "
	11:19	20	7.20	20.0	1038	817	Brown	" " " purged Dry @ 21 gals.
	12:08	24	7.12	20.0	1033	327	Light Brown	32.97 @ 12:00
		Before Sampling						
✓	12:29	After Sampling	7.28	20.9	1026	153	"	

Total Discharge: **24** gallons Casing Volumes Removed: **3.11**

Method of disposal of discharged water: **55 Gallon Drum(s)** Poly Tank Treatment System Other: \_\_\_\_\_

Date/Time Sampled: **10/23/98 @ 12:12** Analysis/No. of Bottles: **EPA 8015M-TPHg/BTEX, MTBE (2-40ml-VOCs w/HCl), TPHd (2, 1 Liter Glass Ambers, Non-Preserved).**

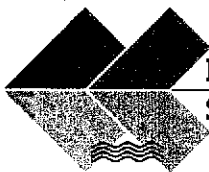
QA/QC: **NONE** @ \_\_\_\_\_ as an Equipment Blank Blind Duplicate MS/MSD Field Blank

Comments: \_\_\_\_\_

Sampled By: **Jacki Lee / Stephen Penman** Signature(s): *[Signature]*







**Environmental  
Sampling Services**

WATER QUALITY SAMPLE LOG SHEET WELL IDENTIFICATION: **W-Es** DATE: 10/23/98

Project Name: Arrow Rentals Livermore, CA Client Project Number: NA  
 Well Description: .75" **(2")** 3" 4" 5" 6" Well Type: **(PVC)** Stainless Steel Other: \_\_\_\_\_  
 Is Well Secured? **(Yes)** / No Bolt Size 15/16" Type of lock / Lock number: Master  
 Observations / Comments: \_\_\_\_\_

Purge Method: Teflon / **(PVC Disposable Bailor)** Peristaltic Pump GrundFos Redi-flow Other: \_\_\_\_\_  
 Pump Lines: **(NA)** New / Cleaned / Dedicated Bailer Line: NA **(New)** Cleaned / Dedicated  
 Method of Cleaning Pump: **(NA)** Alconox Liqui-Nox Tap Water DI Rinse Other: \_\_\_\_\_  
 Method of Cleaning Bailer: **(NA)** Alconox Liqui-Nox Tap Water DI Rinse Other: \_\_\_\_\_  
 Sampling Method: Disp. Teflon Bailer **(Disp. PVC Bailer)** GrundFos Redi-flow Pump Other: \_\_\_\_\_

pH Meter Serial No.: 217254 / **(330089)** Spec. Cond. Meter Serial No.: **(96H0203AB)** / AE  
 Date/Time Calibrated: 10/23/98 **(4 7, 10)** @ 25°C Spec. Cond. Meter Calibration: **(Self Test)** Other: \_\_\_\_\_  
 Method to Measure Water Level: Solinst Serial No.: ESS2 P.I.D. Reading: NA ppm @ Well Head  
 Water Level at Start (DTW): 34.50 Water Level Prior To Sampling: 38.76 **(41.22 ↑ B.S.)**  
 TD = 44.32 - 34.50 (DTW) = 9.82 (ft. of water) x "K" = 1.6 (Gals./CV) x 3 (No. of CV) = 4.80 (Gals.)  
 ("K" = .023(.75" well) ("K" = 0.163(2" well) "K" = 0.653(4" well) "K" = 1.02(5" well) "K" = 1.46(6" well)

**FIELD WATER QUALITY PARAMETERS**

Date	Time	Discharge (Gallons)	pH	Temp. (°C)	Specific Conductance mS <b>(µS)</b>	Turbidity	Color	Comments
10/23/98	9:55	1	7.12	19.2	988	317	DK BRN	some fines
	9:57	2	7.17	19.7	990	71000	"	Thick, lots of fines
	10:01	3	7.16	19.7	1001	71000	"	" " "
	10:03	4	7.18	19.6	998	71000	"	" " "
	10:05	5	7.21	19.6	984	71000	"	" " "
	10:08	6	7.24	19.4	979	71000	"	" " "
		Before Sampling						
10/23/98	10:20	After Sampling	7.33	19.4	974	71000	"	" " "

Total Discharge: 6 gallons Casing Volumes Removed: 3.75  
 Method of disposal of discharged water: **(55 Gallon Drum(S))** Poly Tank Treatment System Other: \_\_\_\_\_  
 Date/Time Sampled: 10/23/98 @ 10:15 Analysis/No. of Bottles: EPA 8015M-TPHg/BTEX, MTBE (2-40ml-VOCs w/HCl), TPHd (2, 1 Liter Glass Ambers, Non-Preserved).  
 QA/QC: None @ — as an Equipment Blank Blind Duplicate MS/MSD Field Blank  
 Comments: \_\_\_\_\_

Sampled By: Jacki Lee / Stephen Penman Signature(s):





3334 Victor Court • Santa Clara, CA 95054  
(408) 437-2400 • FAX (408) 437-9356

# CHAIN OF CUSTODY/LABORATORY ANALYSIS REPORT FORM

SERVICE REQUEST NO. \_\_\_\_\_ P.O.# \_\_\_\_\_ PAGE 1 OF 1

PROJECT NAME Arrow Rentals # \_\_\_\_\_  
 PROJECT MGR. Stephen Penman / Joski Lee  
 COMPANY Environmental Sampling Services  
 ADDRESS 6680 Alhambra Avenue #102  
Martinez, CA 94553 PHONE (925) 372-8108  
 FAX (925) 372-6705  
 SAMPLER'S SIGNATURE [Signature]

NUMBER OF CONTAINERS	ANALYSIS REQUESTED														REMARKS *	
	PRESERVATIVE	HCl	HCl	HCl	NP	NP	NP	HCl	HCl	HNO <sub>3</sub>	NP	H <sub>2</sub> SO <sub>4</sub>	H <sub>2</sub> SO <sub>4</sub>	H <sub>2</sub> SO <sub>4</sub>		NaOH
	Volatile Organics GC/MS 624/8240/8260	Halogenated or Aromatic Volatiles 601/8010	TPH as Gas/BTEX DHS LUFT / 8020	TPH as Diesel/HBHC MTBE	Base/Neu/Acid Organics GC/MS 625/8270	Pesticides / PCBs 608/8080	TRPH - 418.1	Oil and Grease Method	Metals (total or dissolved) List Below	pH, Cond, Cl, SO <sub>4</sub> , F, TDS, TSS Alk, NO <sub>3</sub> , NO <sub>2</sub> (circle)	NH <sub>3</sub> -N, COD, Total-P, TKN, NO <sub>3</sub> / NO <sub>2</sub> (circle)	Total Organic Carbon TOC	Total Phenols	Cyanide		
2		X														
4		X	X													
4		X	X													
4		X	X													
4		X	X													

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX
Trip Blank	10/23/98	09:00		WTR
W-ES	10/23/98	10:15		WTR
W-3S	10/23/98	12:12		WTR
W-B5	10/23/98	13:55		WTR
W-1S	10/23/98	14:10		WTR

**RELINQUISHED BY:**  
 Signature: [Signature]  
 Printed Name: Stephen Penman  
 Firm: Env. Sampl. Svcs  
 Date/Time: 10/23/98

**RECEIVED BY:**  
 Signature: [Signature]  
 Printed Name: [Name]  
 Firm: [Firm]  
 Date/Time: [Date/Time]

**RELINQUISHED BY:**  
 Signature: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_  
 Firm: \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

**RECEIVED BY:**  
 Signature: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_  
 Firm: \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

**TURNAROUND REQUIREMENTS**  
 \_\_\_ 1 day \_\_\_ 2 day \_\_\_ 3 day  
 \_\_\_ 5 day \_\_\_ Other  
 Standard (10 working days)  
 Results Due: \_\_\_\_\_

**REPORT REQUIREMENTS**  
 I. Routine Report  
 \_\_\_ II. Report (includes MS, MSD, as required, may be charged as samples)  
 \_\_\_ III. Data Validation Report (includes All Raw Data)  
 \_\_\_ MDLs/PQLs/Trace #  
 \_\_\_ Electronic Data Deliverables

**RELINQUISHED BY:**  
 Signature: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_  
 Firm: \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

**RECEIVED BY:**  
 Signature: \_\_\_\_\_  
 Printed Name: \_\_\_\_\_  
 Firm: \_\_\_\_\_  
 Date/Time: \_\_\_\_\_

SAMPLE RECEIPT: Condition \_\_\_\_\_ Custody Seals \_\_\_\_\_

SPECIAL INSTRUCTIONS/COMMENTS:  
 Circle which metals are to be analyzed:  
 Metals: Al Sb Ba Be B Cd Ca Cr Co Cu Fe Mg Mn Mo Ni K Ag Na Sn V Zn  
 As Pb Se Tl Hg

Storage: \_\_\_\_\_

\*Will sample results be used in connection with drinking water regulations?  Yes  No If yes, you must so indicate by writing "DW" for each such sample.

APPENDIX B

LABORATORY REPORT

AND

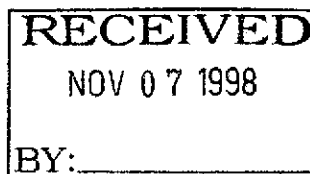
CHAIN-OF-CUSTODY DOCUMENTATION



November 6, 1998

Service Request No.: S9802847

Mr. Steve Penman  
Environmental Sampling Services  
6680 Alhambra Avenue, #102  
Martinez, CA 94553



**RE: Arrow Rentals**

Dear Mr. Penman:

The following pages contain analytical results for sample(s) received by the laboratory on October 23, 1998. Results of sample analyses are followed by Appendix A which contains sample custody documentation and quality assurance deliverables requested for this project. The work requested has been assigned the Service Request No. listed above. To help expedite our service, please refer to this number when contacting the laboratory.

Analytical results were produced by procedures consistent with Columbia Analytical Services' (CAS) Quality Assurance Manual (with any deviations noted). Signature of this CAS Analytical Report below confirms that pages 2 through 14, following, have been thoroughly reviewed and approved for release in accord with CAS Standard Operating Procedure ADM-DatRev3.

Please feel welcome to contact me should you have questions or further needs.

Sincerely,

Bernadette T. Cox  
Project Chemist

COLUMBIA ANALYTICAL SERVICES, Inc.

Acronyms

A2LA	American Association for Laboratory Accreditation
ASTM	American Society for Testing and Materials
BOD	Biochemical Oxygen Demand
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CAM	California Assessment Metals
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
COD	Chemical Oxygen Demand
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DLCS	Duplicate Laboratory Control Sample
DMS	Duplicate Matrix Spike
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
IC	Ion Chromatography
ICB	Initial Calibration Blank sample
ICP	Inductively Coupled Plasma atomic emission spectrometry
ICV	Initial Calibration Verification sample
J	Estimated concentration. The value is less than the MRL, but greater than or equal to the MDL. If the value is equal to the MRL, the result is actually <MRL before rounding.
LCS	Laboratory Control Sample
LUFT	Leaking Underground Fuel Tank
M	Modified
MBAS	Methylene Blue Active Substances
MCL	Maximum Contaminant Level. The highest permissible concentration of a substance allowed in drinking water as established by the U. S. EPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
MS	Matrix Spike
MTBE	Methyl tert-Butyl Ether
NA	Not Applicable
NAN	Not Analyzed
NC	Not Calculated
NCASI	National Council of the paper industry for Air and Stream Improvement
ND	Not Detected at or above the method reporting/detection limit (MRL/MDL)
NIOSH	National Institute for Occupational Safety and Health
NTU	Nephelometric Turbidity Units
ppb	Parts Per Billion
ppm	Parts Per Million
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RPD	Relative Percent Difference
SIM	Selected Ion Monitoring
SM	Standard Methods for the Examination of Water and Wastewater, 18th Ed., 1992
STLC	Solubility Threshold Limit Concentration
SW	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Ed., 1986 and as amended by Updates I, II, IIA, and IIB.
TCLP	Toxicity Characteristic Leaching Procedure
TDS	Total Dissolved Solids
TPH	Total Petroleum Hydrocarbons
tr	Trace level. The concentration of an analyte that is less than the PQL but greater than or equal to the MDL. If the value is equal to the PQL, the result is actually <PQL before rounding.
TRPH	Total Recoverable Petroleum Hydrocarbons
TSS	Total Suspended Solids
TTLC	Total Threshold Limit Concentration
VOA	Volatile Organic Analyte(s)

**COLUMBIA ANALYTICAL SERVICES, INC.**

Analytical Report

**Client:** Environmental Sampling Services  
**Project:** Arrow Rentals  
**Sample Matrix:** Water

**Service Request:** S9802847  
**Date Collected:** 10/23/98  
**Date Received:** 10/23/98

TPH as Diesel

**Prep Method:** EPA 3510  
**Analysis Method:** CA/LUFT  
**Test Notes:**

**Units:** ug/L (ppb)  
**Basis:** NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
W-ES	S9802847-002	50	1	10/26/98	10/26/98	69	D1
W-3S	S9802847-003	50	1	10/26/98	10/26/98	1000	D1
W-BS	S9802847-004	50	1	10/26/98	10/26/98	9600	D1
W-1S	S9802847-005	50	4	10/26/98	10/27/98	18000	D1
Method Blank	S981026-MB	50	1	10/26/98	10/26/98	ND	

D1 Quantitated as diesel. The sample contained components that eluted in the diesel range, but the chromatogram does not match the typical diesel fingerprint.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

**Client:** Environmental Sampling Services  
**Project:** Arrow Rentals  
**Sample Matrix:** Water

**Service Request:** S9802847  
**Date Collected:** 10/23/98  
**Date Received:** 10/23/98

BTEX, MTBE and TPH as Gasoline

**Sample Name:** Trip Blank  
**Lab Code:** S9802847-001  
**Test Notes:**

**Units:** ug/L (ppb)  
**Basis:** NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	1	NA	10/24/98	ND	
Benzene	EPA 5030	8020	0.5	1	NA	10/24/98	ND	
Toluene	EPA 5030	8020	0.5	1	NA	10/24/98	ND	
Ethylbenzene	EPA 5030	8020	0.5	1	NA	10/24/98	ND	
Xylenes, Total	EPA 5030	8020	0.5	1	NA	10/24/98	ND	
Methyl <i>tert</i> -Butyl Ether	EPA 5030	8020	3	1	NA	10/24/98	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

**Client:** Environmental Sampling Services  
**Project:** Arrow Rentals  
**Sample Matrix:** Water

**Service Request:** S9802847  
**Date Collected:** 10/23/98  
**Date Received:** 10/23/98

BTEX, MTBE and TPH as Gasoline

**Sample Name:** W-ES  
**Lab Code:** S9802847-002  
**Test Notes:**

**Units:** ug/L (ppb)  
**Basis:** NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	1	NA	10/27/98	82	
Benzene	EPA 5030	8020	0.5	1	NA	10/27/98	ND	
Toluene	EPA 5030	8020	0.5	1	NA	10/27/98	0.8	
Ethylbenzene	EPA 5030	8020	0.5	1	NA	10/27/98	ND	
Xylenes, Total	EPA 5030	8020	0.5	1	NA	10/27/98	0.8	
Methyl <i>tert</i> -Butyl Ether	EPA 5030	8020	3	1	NA	10/27/98	4	



Analytical Report

**Client:** Environmental Sampling Services  
**Project:** Arrow Rentals  
**Sample Matrix:** Water

**Service Request:** S9802847  
**Date Collected:** 10/23/98  
**Date Received:** 10/23/98

BTEX, MTBE and TPH as Gasoline

Sample Name: W-3S  
 Lab Code: S9802847-003  
 Test Notes:

Units: ug/L (ppb)  
 Basis: NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	10	NA	10/24/98	3800	
Benzene	EPA 5030	8020	0.5	10	NA	10/24/98	500	
Toluene	EPA 5030	8020	0.5	10	NA	10/24/98	28	
Ethylbenzene	EPA 5030	8020	0.5	10	NA	10/24/98	90	
Xylenes, Total	EPA 5030	8020	0.5	10	NA	10/24/98	37	
Methyl <i>tert</i> -Butyl Ether	EPA 5030	8020	3	10	NA	10/24/98	35	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

**Client:** Environmental Sampling Services  
**Project:** Arrow Rentals  
**Sample Matrix:** Water

**Service Request:** S9802847  
**Date Collected:** 10/23/98  
**Date Received:** 10/23/98

BTEX, MTBE and TPH as Gasoline

**Sample Name:** W-BS  
**Lab Code:** S9802847-004  
**Test Notes:**

**Units:** ug/L (ppb)  
**Basis:** NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	100	NA	10/24/98	48000	
Benzene	EPA 5030	8020	0.5	100	NA	10/24/98	6700	
Toluene	EPA 5030	8020	0.5	100	NA	10/24/98	1200	
Ethylbenzene	EPA 5030	8020	0.5	100	NA	10/24/98	1500	
Xylenes, Total	EPA 5030	8020	0.5	100	NA	10/24/98	6200	
Methyl <i>tert</i> -Butyl Ether	EPA 5030	8020	3	100	NA	10/24/98	<300	C1

C1 The MRL was elevated due to high analyte concentration requiring sample dilution.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

**Client:** Environmental Sampling Services  
**Project:** Arrow Rentals  
**Sample Matrix:** Water

**Service Request:** S9802847  
**Date Collected:** 10/23/98  
**Date Received:** 10/23/98

BTEX, MTBE and TPH as Gasoline

**Sample Name:** W-1S  
**Lab Code:** S9802847-005  
**Test Notes:**

**Units:** ug/L (ppb)  
**Basis:** NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	200	NA	11/5/98	99000	
Benzene	EPA 5030	8020	0.5	200	NA	11/5/98	9800	
Toluene	EPA 5030	8020	0.5	200	NA	11/5/98	9400	
Ethylbenzene	EPA 5030	8020	0.5	200	NA	11/5/98	1800	
Xylenes, Total	EPA 5030	8020	0.5	200	NA	11/5/98	11000	
Methyl <i>tert</i> -Butyl Ether	EPA 5030	8020	3	200	NA	11/5/98	<600	C1

C1

The MRL was elevated due to high analyte concentration requiring sample dilution.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

**Client:** Environmental Sampling Services  
**Project:** Arrow Rentals  
**Sample Matrix:** Water

**Service Request:** S9802847  
**Date Collected:** NA  
**Date Received:** NA

BTEX, MTBE and TPH as Gasoline

**Sample Name:** Method Blank  
**Lab Code:** S981024-WB1  
**Test Notes:**

**Units:** ug/L (ppb)  
**Basis:** NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	1	NA	10/24/98	ND	
Benzene	EPA 5030	8020	0.5	1	NA	10/24/98	ND	
Toluene	EPA 5030	8020	0.5	1	NA	10/24/98	ND	
Ethylbenzene	EPA 5030	8020	0.5	1	NA	10/24/98	ND	
Xylenes, Total	EPA 5030	8020	0.5	1	NA	10/24/98	ND	
Methyl <i>tert</i> -Butyl Ether	EPA 5030	8020	3	1	NA	10/24/98	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

**Client:** Environmental Sampling Services  
**Project:** Arrow Rentals  
**Sample Matrix:** Water

**Service Request:** S9802847  
**Date Collected:** NA  
**Date Received:** NA

BTEX, MTBE and TPH as Gasoline

**Sample Name:** Method Blank  
**Lab Code:** S981027-WB1  
**Test Notes:**

**Units:** ug/L (ppb)  
**Basis:** NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	1	NA	10/27/98	ND	
Benzene	EPA 5030	8020	0.5	1	NA	10/27/98	ND	
Toluene	EPA 5030	8020	0.5	1	NA	10/27/98	ND	
Ethylbenzene	EPA 5030	8020	0.5	1	NA	10/27/98	ND	
Xylenes, Total	EPA 5030	8020	0.5	1	NA	10/27/98	ND	
Methyl <i>tert</i> -Butyl Ether	EPA 5030	8020	3	1	NA	10/27/98	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

**Client:** Environmental Sampling Services  
**Project:** Arrow Rentals  
**Sample Matrix:** Water

**Service Request:** S9802847  
**Date Collected:** NA  
**Date Received:** NA

BTEX, MTBE and TPH as Gasoline

**Sample Name:** Method Blank  
**Lab Code:** S981105-WB1  
**Test Notes:**

**Units:** ug/L (ppb)  
**Basis:** NA

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
TPH as Gasoline	EPA 5030	CA/LUFT	50	1	NA	11/5/98	ND	
Benzene	EPA 5030	8020	0.5	1	NA	11/5/98	ND	
Toluene	EPA 5030	8020	0.5	1	NA	11/5/98	ND	
Ethylbenzene	EPA 5030	8020	0.5	1	NA	11/5/98	ND	
Xylenes, Total	EPA 5030	8020	0.5	1	NA	11/5/98	ND	
Methyl <i>tert</i> -Butyl Ether	EPA 5030	8020	3	1	NA	11/5/98	ND	

QA/QC Report

**Client:** Environmental Sampling Services  
**Project:** Arrow Rentals  
**Sample Matrix:** Water

**Service Request:** S9802847  
**Date Collected:** NA  
**Date Received:** NA  
**Date Extracted:** NA  
**Date Analyzed:** NA

Surrogate Recovery Summary  
TPH as Diesel

**Prep Method:** EPA 3510  
**Analysis Method:** CA/LUFT

**Units:** PERCENT  
**Basis:** NA

Sample Name	Lab Code	Test Notes	Percent Recovery p-Terphenyl
W-ES	S9802847-002		95
W-3S	S9802847-003		115
W-BS	S9802847-004		97
W-1S	S9802847-005		101
Method Blank	S981026-MB		110

CAS Acceptance Limits: 41-140

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Environmental Sampling Services  
 Project: Arrow Rentals  
 Sample Matrix: Water

Service Request: S9802847  
 Date Collected: NA  
 Date Received: NA  
 Date Extracted: NA  
 Date Analyzed: NA

Surrogate Recovery Summary  
 BTEX, MTBE and TPH as Gasoline

Prep Method: EPA 5030  
 Analysis Method: 8020 CALUFT

Units: PERCENT  
 Basis: NA

Sample Name	Lab Code	Test Notes	Percent Recovery	
			4-Bromofluorobenzene	a,a,a-Trifluorotoluene
Trip Blank	S9802847-001		97	90
W-ES	S9802847-002		98	89
W-3S	S9802847-003		94	95
W-BS	S9802847-004		98	91
W-1S	S9802847-005		98	97
Method Blank	S981024-WB1		100	92
Method Blank	S981027-WB1		104	93
Method Blank	S981105-WB1		101	97

CAS Acceptance Limits: 69-116 69-116





3334 Victor Court • Santa Clara, CA 95054  
(408) 437-2400 • FAX (408) 437-9356

# CHAIN OF CUSTODY/LABORATORY ANALYSIS REPORT FORM

SERVICE REQUEST NO. S9802847 P.O.# \_\_\_\_\_ PAGE 1 OF 1

PROJECT NAME Arrow Rentals # —  
 PROJECT MGR. Stephen Penman / Jacki Lee  
 COMPANY Environmental Sampling Services  
 ADDRESS 6680 Alhambra Avenue #102  
Martinez, CA 94553 PHONE (925) 372-8108  
 FAX (925) 372-6705  
 SAMPLER'S SIGNATURE [Signature]

NUMBER OF CONTAINERS	ANALYSIS REQUESTED														REMARKS *			
	PRESERVATIVE	HCl	HCl	HCl	NP	NP	NP	HCl	HCl	HNO <sub>3</sub>	NP	H <sub>2</sub> SO <sub>4</sub>	H <sub>2</sub> SO <sub>4</sub>	H <sub>2</sub> SO <sub>4</sub>		NaOH		
	Volatile Organics GC/MS 624/8240/8260 Halogenated or Aromatic Volatiles 601/8010 □ 602/8020 □ TPH as Gas/BTEX DHS LUFT / 8020 MTBE* TPH as Diesel/HBHC DHS LUFT Base/Neu/Acid Organics GC/MS 625/8270 Pesticides / PCBs 608/8080 TRPH - 418.1 Oil and Grease Method Metals (total or dissolved) List Below pH, Cond, Cl, SO <sub>4</sub> , F, TDS, TSS NH <sub>3</sub> -N, COD (circle) NO <sub>3</sub> / NO <sub>2</sub> (circle) Total Organic Carbon TOC Total Phenols Cyanide																	
2		X																
4		X	X															
4		X	X															
4		X	X															
4		X	X															

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX
Trip Blank	10/23/98	09:00	1	WTR
W-ES	10/23/98	10:15	2	WTR
W-3S	10/23/98	12:12	3	WTR
W-B5	10/23/98	13:55	4	WTR
W-15	10/23/98	14:10	5	WTR

RELINQUISHED BY:  
[Signature]  
 Signature  
Stephen Penman  
 Printed Name  
Env. Sampl. Svcs  
 Firm  
10/23/98 2:22  
 Date/Time

RECEIVED BY:  
[Signature]  
 Signature  
Brian Fuller  
 Printed Name  
CAS  
 Firm  
10-23-98 2:22  
 Date/Time

RELINQUISHED BY:  
 Signature  
 Printed Name  
 Firm  
 Date/Time

RECEIVED BY:  
 Signature  
 Printed Name  
 Firm  
 Date/Time

TURNAROUND REQUIREMENTS  
 \_\_\_ 1 day \_\_\_ 2 day \_\_\_ 3 day  
 \_\_\_ 5 day \_\_\_ Other  
 Standard (10 working days)  
 Results Due \_\_\_\_\_

REPORT REQUIREMENTS  
 I. Routine Report  
 \_\_\_ II. Report (includes MS. MSD, as required, may be charged as samples)  
 \_\_\_ III. Data Validation Report (includes All Raw Data)  
 \_\_\_ MDLs/PQLs/Trace #  
 \_\_\_ Electronic Data Deliverables

RELINQUISHED BY:  
 Signature  
 Printed Name  
 Firm  
 Date/Time

RECEIVED BY:  
 Signature  
 Printed Name  
 Firm  
 Date/Time

SAMPLE RECEIPT: Condition \_\_\_\_\_ Custody Seals \_\_\_\_\_  
 SPECIAL INSTRUCTIONS/COMMENTS:  
 Circle which metals are to be analyzed:  
 Metals: Al Sb Ba Be B Cd Ca Cr Co Cu Fe Mg Mn Mo Ni K Ag Na Sn V Zn  
As Pb Se Tl Hg  
DOE: 11/6 R11 D3  
R8 D2

Storage: \_\_\_\_\_

\*Will sample results be used in connection with drinking water regulations?  Yes  No If yes, you must so indicate by writing "DW" for each such sample.