

URS Greiner Woodward Clyde

A Division of URS Corporation

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April 20, 1999
41-07099010.00

STP 3/9/98

Mr. Larry Brown
Fleet Superintendent
Interstate Brands Corporation
1324 Arden Way
Sacramento, California 95815

Subject: Soil and Groundwater Sampling and Semi-annual Groundwater Monitoring Report, First Quarter 1999 Facility Located at 945 53rd Street, Oakland, California

Dear Mr. Brown:

We are pleased to present this report which presents the results of groundwater monitoring for the first quarter of 1999 at the subject site. In addition, as requested by Ms. Susan Hugo, Alameda County Health Agency, we present the results of soil and groundwater sampling at two upgradient borings (A and B) at the site. The borings were drilled to provide soil and groundwater information to support an evaluation of this site for closure. Ms. Almudena Villanueva, URSGWC engineer, observed the soil borings.

SCOPE OF WORK

Borings

Two soil borings were drilled at the locations, shown on the attached Figure 1, using Envirocore drilling methods. The Envirocore method involves continuous drive sampling as a method of drilling. Soil samples are collected in sample liners and are removed, sealed with plastic end caps, and labeled and placed on-ice in an ice chest. When the desired depth is reached for groundwater sampling a central drill rod is removed and a PVC well screen is placed in the boring through the hollow outer drill rod. The drill rod is raised to expose the well screen and a water sample is obtained using teflon tubing and a peristaltic pump.

Monitoring Wells

After measuring the static groundwater levels, Environmental Sampling Services, Inc., removed 3 to 5 casing volumes of water from the three wells on the site. After purging a groundwater sample was obtained from each well using a clean bailer or teflon tubing and peristaltic pump. Water samples were placed in clean containers supplied by ChromaLab. The groundwater samples were labeled place on-ice and transported in an ice chest under chain of custody procedures to the laboratory.

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Field measurements of dissolved oxygen and pH were made for water from two wells (MW-1 and MW-3).

EXPLORATORY BORINGS

Two exploratory borings were drilled at upgradient locations as shown on Figure 1. These borings were drilled to explore the upgradient soil and groundwater conditions in support of site closure activities. Boring A encountered a gray clayey gravelly sand from the surface to a depth of about 12 feet where a one foot layer of greenish gravelly clayey sand was encountered. The soil became wet below about 13 feet in Boring A. A drive sample of soil (IBC-S-3-9-A) was collected at a depth of 12 feet. Silty sand extended from about 16 feet to 24 feet, where clayey sand with gravel was encountered. The boring extended to a depth of about 25 feet in order to obtain sufficient groundwater for sampling.

Boring B was drilled about 60 feet west of Boring A, as shown on Figure 1. A similar gravelly clayey sand was encountered in Boring A to the total depth of the boring at 31 feet. The soil became wet below a depth of about 13 feet. Soil sample (IBC-S-3-9-B) was collected with the drive sampler at a depth of 12 1/2 to 13 feet. Because of the clayey nature of the soil the boring was drilled to a depth of 31 feet in order to obtain sufficient groundwater for sampling. Logs of Borings A and B are attached for reference. Borings were filled with cement/bentonite grout after completion of sampling.

Laboratory Reports

The soil samples were submitted to the laboratory for analyses for Total Petroleum Hydrocarbons (TPH) as gasoline, diesel, BTEX and MTBE. Groundwater samples were analyzed for the same analytes. As shown in Table 1, TPH as diesel, gasoline, MTBE and BTEX were not detected in the two soil samples above their reporting limits. In addition the laboratory reports no detection of TPH diesel, gasoline, MTBE, or BTEX in water from Boring B. No TPH diesel, MTBE, benzene, toluene or ethylbenzene were reported above the laboratory reporting limit for water from Boring A. Low concentrations of TPH gasoline (74 ug/l) and xylene (0.98 ug/l) were reported in groundwater from Boring A.

GROUNDWATER MONITORING

Records of groundwater well purging and sampling are attached in the Environmental Sampling Services Field Activity Report. Groundwater levels were measured prior to purging of each monitoring well. The groundwater gradient indicates a southwest flow direction, as shown on Figure 1. The groundwater levels are shown in Table 1. The groundwater elevations are more than one foot higher than those measured in 1998.

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Laboratory Reports

As shown in Table 1 TPH diesel was not detected in groundwater from wells MW-2 and MW-3. TPH diesel is reported at 2,600 ug/l in groundwater from well MW-1. The laboratory did not report detection of TPH gasoline, MTBE, or BTEX above the reporting limits for groundwater from wells MW-2 or MW-3. In groundwater from MW-1 the laboratory reports TPH gasoline at 9,800 ug/l, MTBE at less than 250 ug/l, benzene at 58 ug/l, toluene at 130 ug/l, ethylbenzene at 810 ug/l and xylenes at 2,900 ug/l.

The concentrations reported by the laboratory for this 1999 sampling can be compared to the summary table (Emcon, Table 1) from the December 17, 1998 Emcon report, attached. The increases in TPH gasoline, diesel and BTEX in water from well MW-1 appear to correspond to historical seasonal high water levels.

CONCLUSIONS

The results of analyses of soil samples indicate that there is no evidence of petroleum soil contamination in the vicinity of borings A and B. Groundwater containing petroleum hydrocabons appear to be localized within the area of well MW-1, with low levels of TPH gasoline (74 ug/l) and xylene (0.98 ug/l) in water from Boring A. The groundwater gradient is towards the southwest, which is consistent with historical groundwater gradients.

Please call if you have any questions.

Sincerely,

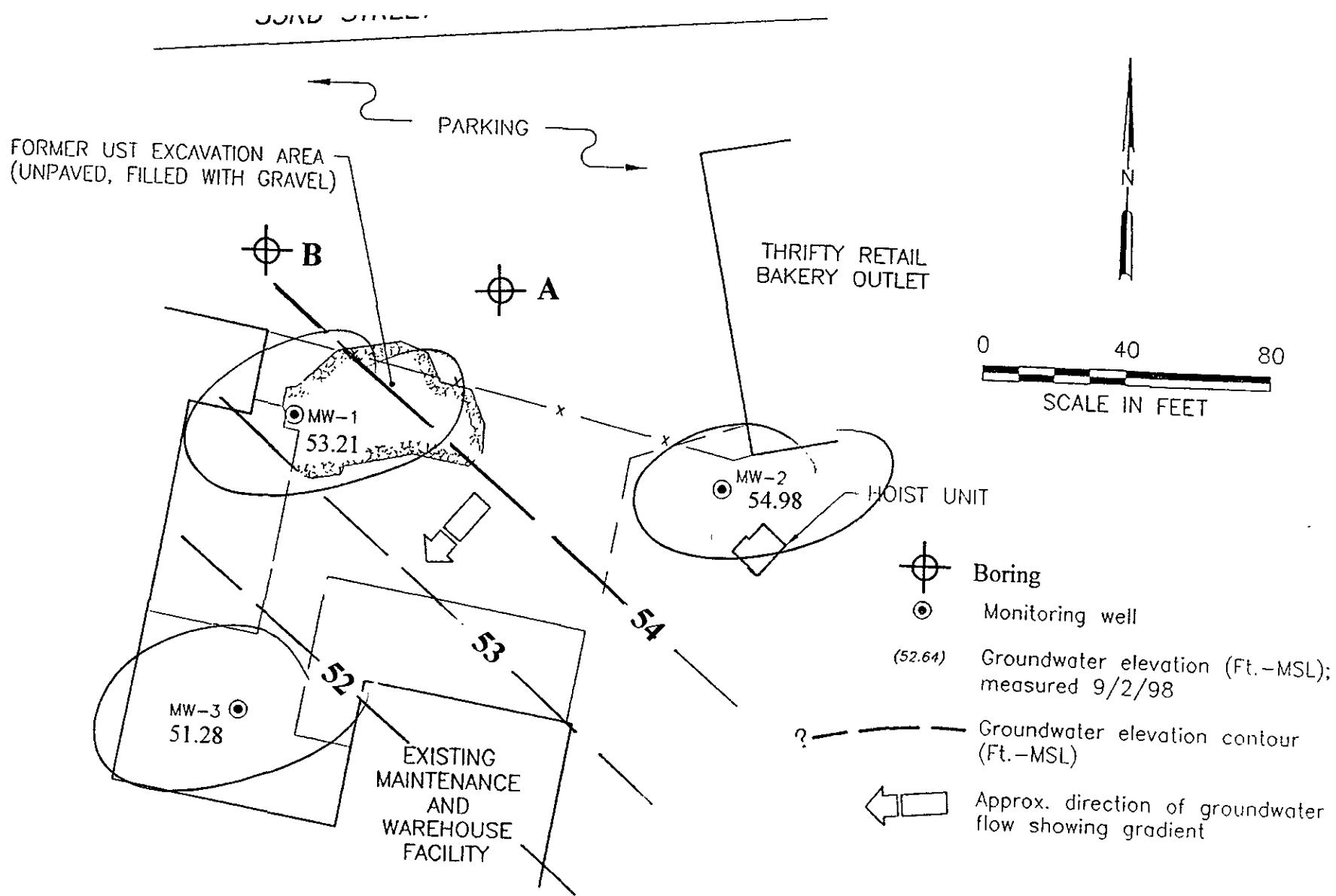


Albert P. Ridley, C.E.G.
Senior Project Manager

Attachments: Table 1 Summary of Laboratory Reports
Figure 1 Groundwater Elevation Contours
Logs of Borings A and B
Table 1 from Emcon Report, 1998
Environmental Sampling Services Field Activity Report
Laboratory Reports, Chromalab

TABLE 1
SUMMARY OF LABORATORY REPORTS
IBC Facility, 945 53rd Street, Oakland, CA

Well No.	Sample No.	Type	Date	Top of Casing	Depth to Water	Groundwater elevation	TPH diesel	TPH gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Sulfate	Dissolved Oxygen
Boring A	IBC-S-3-9-A	Soil	3/9/99				<1.0	<1.0	<.005	<.005	<.005	<.005	<.005		
Boring B	IBC-S-3-9-B	Soil	3/9/99				<1.0	<1.0	<.005	<.005	<.005	<.005	<.005		
Boring A	IBC-W-3-9-A	Water	3/9/99												
Boring B	IBC-W-3-9-B	Water	3/9/99												
MW-1	MW-1	Water	3/23/99	61.84	8.63	53.21	<50	0.074	<0.5	1	<0.5	0.98	<5.0		
MW-2	MW-2	Water	3/23/99	63.1	8.12	54.98	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0		
MW-3	MW-3	Water	3/23/99	62.51	11.23	51.28	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
														reported in mg/l	
														11mg/l	2.1mg/l
														na	4.2mg/l
														23mg/l	2.1mg/l



Project No. 44-070990+0.00	IBC 945 53rd Street, Oakland California	GROUNDWATER ELEVATION CONTOURS	Figure 1
URS GREINER WOODWARD-CLYDE			

IBC, Oakland, California

BORING LOCATION: 945 53rd Street, Oakland								GROUND SURFACE ELEVATION (ft): 62 (approx) TOP OF WELL CASING ELEVATION (ft): N/A												
DRILLING AGENCY	Precision Sampling		DRILLER			DATE STARTED: 3/9/99 DATE FINISHED: 3/9/99														
DRILLING EQUIPMENT	Envirocore								COMPLETION DEPTHS	BORING: 25.0 (ft) WELL: N/A (ft)										
DRILLING METHOD	Continuous Sample			DRILL BIT	2-1/4 in	SAMPLING METHOD: Bottles and Polycarbonate Tubes, Teflon Tape and Endcaps														
SIZE AND TYPE OF CASING	Temporary 3/4"-dia. screened PVC Used for Water Sampling								NUMBER OF SAMPLES	SOIL: 1	GROUNDWATER: 1									
TYPE OF PERFORATION	0.010 inch			FROM	15'	TO	25'	WATER DEPTH (ft)	FIRST: N/A	COMPL.: 24	24 hr.: N/A									
SIZE AND TYPE OF PACK	N/A			FROM	N/A	TO	N/A	LOGGED BY	A.Giangerelli	CHECKED BY	A.Ridley									
TYPE OF SEAL	TYPE	FR	TO	TYPE			FR	TO	LOG OF BORING A											
	No. 1: Portland Cement/Bentonite Mix	O	25'	No. 3: N/A			N/A	N/A	(Sheet 1 of 1)											
	No. 2: N/A	N/A	N/A	No. 4: N/A			N/A	N/A												
DEPTH (feet)	SOIL GRAPHIC	MATERIAL DESCRIPTION						ELEVATION (feet) (approx)	WELL GRAPHIC	OVM Reading (soil), ppm	OVM Reading (airspace), ppm	WATER LEVEL	DEPTH (feet)	SAMPLES			INDEX PROPERTIES			NOTES
		NUMBER	TYPE	TIME	SAMPLED SAMPLE ID	MOISTURE CONTENT (%)	DRY DENSITY (pcf)							UNCONFINED COMPRESSIVE STRENGTH (psf)						
Clayey SAND (SC) with gravel Moist, gray																		Start: 1515		
Damp, greenish gray																				
Wet, brownish colored, increase in clay content, larger gravel size																				
Silty SAND (SM) Brown, wet, sand content increases with depth																	Water Table			
Clayey SAND (SC) with gravel Becomes wet with depth																	Water sample collected at 1655			
BOTTOM OF BORING AT 25 FEET																	End: 1730 Grouted Boring			
35	30	25	20	15	10	5	-5	-10	-15	-20	-25	-30	-35	-40	-45	-50	-55	-60		

IBC, Oakland, California

BORING LOCATION: 945 53rd Street, Oakland								GROUND SURFACE ELEVATION (ft): 62 (approx) TOP OF WELL CASING ELEVATION (ft): N/A							
DRILLING AGENCY	Precision Sampling		DRILLER			DATE STARTED: 3/9/99 DATE FINISHED: 3/9/99									
DRILLING EQUIPMENT	Envirocore						COMPLETION DEPTHS		BORING: 31.0 (ft) WELL: N/A (ft)						
DRILLING METHOD	Continuous Sample		DRILL BIT 2-1/4 in		SAMPLING METHOD: Bottles and Polycarbonate Tubes, Teflon Tape and Endcaps										
SIZE AND TYPE OF CASING	Temporary 3/4"-dia. screened PVC Used for Water Sampling							NUMBER OF SAMPLES		SOIL: 1		GROUNDWATER: 1			
TYPE OF PERFORATION	0.010 inch		FROM 21' TO 31'			WATER DEPTH (ft)		FIRST: N/A		COMPL.: 28		24 hr.: N/A			
SIZE AND TYPE OF PACK	N/A		FROM N/A TO N/A			LOGGED BY		A.Giangerelli		CHECKED BY		A.Ridley			
TYPE OF SEAL	TYPE	FR	TO	TYPE		FR	TO	LOG OF BORING B (Sheet 1 of 1)							
				No. 1: Portland Cement/Bentonite Mix	0			31'	No. 3: N/A	N/A	N/A	N/A	N/A	No. 4: N/A	N/A
O_DEPTH (feet)	SOIL GRAPHIC	MATERIAL DESCRIPTION				ELEVATION (feet) (approx)	WELL GRAPHIC	OVM Reading (soil), ppm	OVM Reading (airspace), ppm	WATER LEVEL	DEPTH (feet)	SAMPLES	INDEX PROPERTIES	NOTES	
		Clayey SAND (SC) with gravel Moist, brown				60					5			Start: 1710	
						55					10				
						50					15	1	1800	IBC-S 3-9-B	
						45					20				
						40					25				
						35					30				
						30									
						25									
						20									
						15									
						10									
						5									
						0									
						Wet outside the tube at 10 feet									
						Becoming wet								Drilled directly to 25'	
						Wet								Water sample collected at 1900 to 1915	
						BOTTOM OF BORING AT 31 FEET	-30-								Grouted Boring End: 1955

Table 1

Groundwater Monitoring Data
Interstate Brands Corporation
1010 46th Street
Oakland, California

Well	Date	Top of Casing Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet MSL*)	TPH Diesel ($\mu\text{g/L}$)	TPH Gasoline ($\mu\text{g/L}$)	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethylbenzene ($\mu\text{g/L}$)	Total Xylenes ($\mu\text{g/L}$)	Total Oil & Grease (mg/L)	MTBE ($\mu\text{g/L}$)
MW-1	05/26/94	61.84	9.27	52.57	1,300	12,000	57	340	370	3,100	<5.0	NA
MW-1	07/29/94	61.84	9.81	52.03	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	08/26/94	61.84	9.87	51.97	510/650 [1]	6,700/8,400	22/35	71/97	310/410	1,000/1,400	<5.0/<5.0	NA
MW-1	10/04/94	61.84	9.89	51.95	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	10/27/94	61.84	9.94	51.90	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	11/30/94	61.84	8.92	52.92	1,300	29,000	480	1,100	1,200	5,300	<5.0	NA
MW-1	01/03/95	61.84	8.79	53.05	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	01/31/95	61.84	8.33	53.51	NA	NA	NA	NA	NA	NA	NA	NA
MW-1	03/16/95	61.84	8.07	53.77	1,900	29,000	140	1,400	1,800	9,700	<5.0	NA
MW-1	06/12/95	61.84	9.02	52.82	810/540 [1]	3,900/11,000	23/280	57/610	200/400	680/2,000	<5.0/<5.0	NA
MW-1	08/30/95	61.84	9.44	52.40	350 [1]	3,300	26	36	250	490	<5.0	NA
MW-1	11/29/95	61.84	9.93	51.91	270	1,700	20	21	110	210	<5.0	NA
MW-1	03/06/96	61.84	8.37	53.47	2,500/2,400 [1]	39,000/38,000	690/1,000	1,800/2,000	2,300/2,300	14,000/15,000	5.9	NA
MW-1	07/08/96	61.84	9.10	52.74	670/580 [1]	3,000/2,600	89/9.5	79/85	140/120	350/270	NA	NA
MW-1	04/04/97	61.84	9.14	52.70	1,400	3,500	13	27	190	410	NA	<30 [5]
MW-1	09/23/97	61.84	9.15	52.69	260	2,100	13	11	200	220	NA	<5
MW-1	03/30/98	61.84	8.73	53.11								
MW-1	09/02/98	61.84	9.20	52.64	280	1,400	7	7	90	120	NA	<12
Well inaccessible for sampling												
MW-2	05/26/94	63.10	9.30	53.80	<50/<50	<50/<50	<0.5/<0.5	<0.5/<0.5	<0.5/<0.5	<0.5/<0.5	<5.0	NA
MW-2	07/29/94	63.10	9.70	53.40	NA	NA	NA	NA	NA	NA	NA	NA
MW-2	08/26/94	63.10	9.89	53.21	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA
MW-2	10/04/94	63.10	9.86	53.24	NA	NA	NA	NA	NA	NA	NA	NA
MW-2	10/27/94	63.10	9.96	53.14	NA	NA	NA	NA	NA	NA	NA	NA
MW-2	11/30/94	63.10	8.95	54.15	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA
MW-2	01/03/95	63.10	8.15	54.95	NA	NA	NA	NA	NA	NA	NA	NA
MW-2	01/31/95	63.10	6.96*	56.14	NA	NA	NA	NA	NA	NA	NA	NA
MW-2	03/16/95	63.10	6.37*	56.73	<50/<50	<50/<50	<0.5/<0.5	<0.5/<0.5	<0.5/<0.5	<0.5/<0.5	<5.0	NA
MW-2	06/12/95	63.10	9.07	54.03	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA
MW-2	08/30/95	63.10	9.53	53.57	52 [3]	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA
MW-2	11/29/95	63.10	9.74	53.36	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA
MW-2	03/06/96	63.10	7.23	55.87	68 [4]	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA
MW-2	07/08/96	63.10	8.84	54.26	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA
MW-2	04/04/97	63.10	8.70	54.40	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	<3

Table 1

Groundwater Monitoring Data
Interstate Brands Corporation
1010 46th Street
Oakland, California

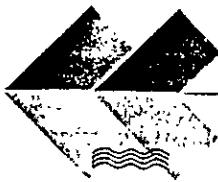
Well	Date	Top of Casing Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet MSL*)	TPH Diesel (µg/L)	TPH Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Total Oil & Grease (mg/L)	MTBE (µg/L)
MW-2	09/23/97	63.10	9.18	53.92	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	<5
MW-2	03/30/98	63.10	7.14	55.96	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	<5
MW-2	09/02/98	63.10	9.37	53.73	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	<3
MW-3	05/26/94	62.51	12.88	49.63	99	<50	<0.5	<0.5	<0.5	1.7	<5.0	NA
MW-3	07/29/94	62.51	13.61	48.90	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	08/26/94	62.51	13.71	48.80	66 [2]	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA
MW-3	10/04/94	62.51	13.74	48.77	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	10/27/94	62.51	13.77	48.74	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	11/30/94	62.51	11.85	50.66	78/85	100/100	<0.5/1.9	<0.5/<0.5	<0.5/1.0	2.1/4.3	<5.0	NA
MW-3	01/03/95	62.51	12.09	50.42	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	01/31/95	62.51	10.64	51.87	NA	NA	NA	NA	NA	NA	NA	NA
MW-3	03/16/95	62.51	10.79	51.72	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA
MW-3	06/12/95	62.51	12.05	50.46	120 [2]	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA
MW-3	08/30/95	62.51	13.54	48.97	88/57 [3]	<50/<50	<0.5/<0.5	<0.5/<0.5	<0.5/<0.5	<0.5/<0.5	<5.0/<5.0	NA
MW-3	11/29/95	62.51	13.72	48.79	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA
MW-3	03/06/96	62.51	10.78	51.73	140 [3]	<50	<0.5	<0.5	<0.5	<0.5	<5.0	NA
MW-3	07/08/96	62.51	13.39	49.12	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	NA
MW-3	04/04/97	62.51	13.23	49.28	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	<3
MW-3	09/23/97	62.51	13.35	49.16	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	<5
MW-3	03/30/98	62.51	12.16	50.35	75	<50	<0.5	<0.5	<0.5	0.64	NA	<5
MW-3	09/02/98	62.51	13.19	49.32	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	<3

**FIELD ACTIVITY REPORT FOR
INTERNATIONAL BRANDS COMPANY
OAKLAND, CALIFORNIA**

**GROUNDWATER SAMPLE COLLECTION
MARCH 1999**

Prepared for: URS Greiner Woodward Clyde
500-12th Street, Suite 200
Oakland, California 94607
Date Prepared: March 29, 1999

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



**Environmental
Sampling Services**

**FIELD ACTIVITY REPORT
GROUNDWATER SAMPLE COLLECTION
INTERSTATE BRANDS COMPANY,
OAKLAND, CALIFORNIA**

ESS Personnel: Jacki Lee, Stephen Penman

Duration of Activities: March 23, 1999

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 Well Depth Measurements

Three (3) monitoring wells were measured for static water level and well depth. Water level measurements were performed with an Oil/Water Interface meter. Well depth measurements were performed with the weighted end of a Solinst® electrical water level indicator meter (see Water Log Sheets, Table 1). The water level measurement was referenced to a surveyor's mark (a black mark on the top of well casing).

Field Activities

Performed well evacuation using new lengths of disposable suction hose and Honda Centrifugal pump. In addition to standard water quality parameter measurements (pH, specific conductance, and temperature, dissolved oxygen measurements were recorded.

All wells were sampled with either a new disposable PVC bailers or new disposable Teflon bailers.

Chromolab in Pleasanton, California supplied all sample containers and performed analyses. All samples were properly preserved according to analysis.

All wells were sampled for TPH-Gas/BTEX, MTBE, and Diesel. Sulfate samples were collected from monitoring wells, MW-1 and MW-3.

Three keyed-alike Master locks were installed. Key code is 2174.

Two labeled 55-gallon drums were used to store purged groundwater and decontamination water.

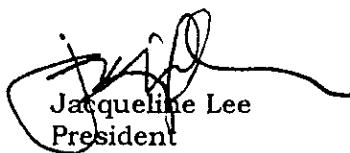


QA/QC

Trip blanks for EPA Method TPH-Gas/BTEX and MTBE remained in the cooler containing all samples.

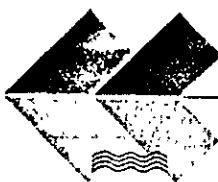
Fictitious equipment blank and duplicate samples were not collected.

All work was performed under satisfactory workmanship and according to URSGWC'S Letter of Authorization, dated March 17, 1999.



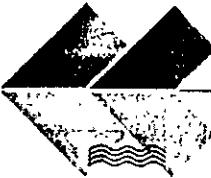
A handwritten signature in black ink, appearing to read "Jacqueline Lee". Below the signature, the title "President" is printed in a smaller, sans-serif font.

Enclosure
Water Sample Log Sheets
Table 1
Chain of Custody



**Environmental
Sampling Services**

WATER QUALITY SAMPLE LOG SHEET			WELL IDENTIFICATION: MW-1 DATE: 3/23/99					
Project Name: Interstate Brands Co. Oakland, CA			Client Project Number: 41-070990010.00 Task: 00010					
Well Description: 2" 3" 4" 5" 6" Other _____			Well Type: PVC Stainless Steel Other: _____					
Is Well Secured? Yes No Bolt Size 9/16"			Type of lock / Lock number: Master # 2174					
Observations / Comments:								
Purge Method: Teflon/PVC Disposable Bailer Centrifugal Pump GrundFos Redi-flow Pump 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: Well Water Rinse								
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: 3/23/99 14:10 @ 25°C			Spec. Cond. Meter Calibration: Self Test Other: _____					
Method to Measure Water Level: Solinst Serial No.: ESS 101141 P.I.D. Reading: NA ppm @ Well Head								
Water Level at Start (DTW): 8.63			Water Level Prior To Sampling: 8.67					
TD = 19.47 - 8.63 (DTW) = 10.84 (ft. of water) x "K" = 4.07 (Gals./CV) x 3 (No. of CV) = 21.2 (Gals.) "K" = 0.163(2" well) "K" = 0.653(4" well) "K" = 1.02(5" well) "K" = 1.46(6" well) "K" = 2.61(8" well)								
FIELD WATER QUALITY PARAMETERS								
Date	Time	Discharge (gallons)	pH	Temp. (°C)	Specific Conductance ms <u>us</u>	Turbidity (NTU's)	Color DO	Comments
3/23/99	14:08	5	7.08	17.1	218	mod.	Cloudy gray 1.7	No floating product
	14:13	10	6.85	16.9	335.1	"	" 2.2	
	14:13	15	6.83	16.7	380.3	"	" 1.9	
	14:17	20	6.76	16.9	425.4	NONE	clear / 2.4 slight Pet. Odor	
↓	14:21	25	6.90	16.6	442.4	MOD	cloudy gray 2.6	
3/23/99	15:44	After Sampling	7.03	15.9	376.7	MOD	lt gray / 2.1	
Total Discharge: _____ gallons				Casing Volumes Removed: _____				
Method of disposal of discharged water: 55 Gallon Drum(s) Poly Tank Treatment System Other: _____								
Date/Time Sampled: 3/23/99 @ 15:37 Analysis/No. of Bottles: TPHg, BTEX (8015M, 8020) & MTBE, TDH								
Diesel, Sulfate, ; 4-40mL vials w/HCl; 2-1L amber N/P; 1-250mL Poly N/P								
QA/QC: None @ _____ as an Equipment Blank Duplicate MS/MSD Lab Split Field Blank								
Comments: _____								
Sampled By: Stephen Penman and Jacki Lee Initials: SP JL								



**Environmental
Sampling Services**

WATER QUALITY SAMPLE LOG SHEET

WELL IDENTIFICATION: MW-2 DATE: 3/23/99

Project Name: Interstate Brands Co. Oakland, CA Client Project Number: 41-070990010.00 Task: 00010

Well Description: 2" 3" 4" 5" 6" Other Well Type: PVC Stainless Steel Other:

Is Well Secured? Yes / No Bolt Size 9/16" Type of lock / Lock number: Master # 2174

Observations / Comments: Installed New Lock

Purge Method: Teflon/PVC Disposable Bailer Centrifugal Pump GrundFos Redi-flow Pump 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: Well water Rinse

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

pH Meter Serial No.: 217254 / 330089 Spec. Cond. Meter Serial No.: 96H0203ABY AE

Date/Time Calibrated: 3/23/99 @ 12:50 4/7/10 @ 25°C Spec. Cond. Meter Calibration: Self Test Other:

Method to Measure Water Level: Solinst Serial No.: ESS 1 P.I.D. Reading: NA ppm @ Well Head

Water Level at Start (DTW): 8.12 Water Level Prior To Sampling: 8.88

TD = 10.50 - 8.12 (DTW) = 10.46 (ft. of water) x "K" = 6.8 (Gals./CV) x 3 (No. of CV) = 20.4 (Gals.)

"K" = 0.163(2" well) "K" = 0.653(4" well) "K" = 1.02(5" well) "K" = 1.46(6" well) "K" = 2.61(8" well)

FIELD WATER QUALITY PARAMETERS

Date	Time	Discharge (gallons)	pH	Temp. (°C)	Specific Conductance ms <u>µS</u>	Turbidity (NTU's)	Color <u>D.O.</u>	Comments
3/23/99	13:10	4	6.64	18.5	511	Low	<u>Cloudy</u> <u>4.8mg/L</u>	<u>1.4mg/L</u> No Floating Prod.
	13:13	8	6.60	18.3	499.5	"	<u>Slightly cloudy</u> <u>0.8mg/L</u>	
	13:15	12	6.59	18.6	502	"	<u>Slightly cloudy</u> <u>1.3mg/L</u>	
	13:16	16	6.65	18.5	519	mod.	<u>Cloudy</u> <u>2.9mg/L</u>	
	13:17	20	6.64	18.8	506	"	<u>Cloudy</u> <u>1.3mg/L</u>	
↓	13:21	24	6.70	18.9	513	High	<u>Brown</u> <u>3.7mg/L</u>	
3/23/99	15:11	After Sampling	6.85	17.9	509	None	<u>clear</u> <u>7.4mg/L</u>	

Total Discharge: 26 gallons Casing Volumes Removed: 3.8

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

Date/Time Sampled: 3/23/99 @ 15:05 Analysis/No. of Bottles: TPHg/BTEX, MTBE, TPH Diesel

4-40mL VOC w/HCl, 2-1L Amber N/p.

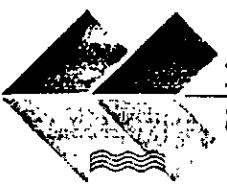
QA/QC: None @ — as an Equipment Blank Duplicate MS/MSD Lab Split Field Blank

Comments: —

Sampled By: Stephen Penman and Jacki Lee Initials: SP JL

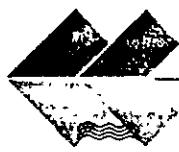
Environmental Sampling Services

6680 Alhambra Ave., #102, Martinez, CA 94553 Phone/Fax: (925) 372.8108
www.EnvSampling.com



Environmental Sampling Services

WATER QUALITY SAMPLE LOG SHEET				WELL IDENTIFICATION: MW-3 DATE: 3/23/99				
Project Name: Interstate Brands Co. Oakland, CA				Client Project Number: 41-070990010.00 Task: 00010				
Well Description: 2" 3" 4" 5" 6" Other _____				Well Type: PVC Stainless Steel Other: _____				
Is Well Secured? Yes / No Bolt Size _____				Type of lock / Lock number: Hasp # 2174				
Observations / Comments: Installed new lock								
Purge Method: Teflon/PVC Disposable Bailer Centrifugal Pump GrundFos Redi-flow Pump 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: Well water rinse								
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: 3/23 @ 12:50 4 7 10 @ 25°C Spec. Cond. Meter Calibration: Self Test Other: _____								
Method to Measure Water Level: Solinst Serial No.: ESS 100 P.I.D. Reading: NA ppm @ Well Head								
Water Level at Start (DTW): 11.23				Water Level Prior To Sampling: 11.34				
TD = 20.23 - 11.23 (DTW) = 9.0 (ft. of water) x "K" = 5.87 (Gals./CV) x 3 (No. of CV) = 17.6 (Gals.) "K" = 0.163(2" well) "K" = 0.653(4" well) "K" = 1.02(5" well) "K" = 1.46(6" well) "K" = 2.61(8" well)								
FIELD WATER QUALITY PARAMETERS								
Date	Time	Discharge (gallons)	pH	Temp. (°C)	Specific Conductance mS uS	Turbidity (NTU's)	Color D.O.	Comments
3/23/99	1330	3	7.03	17.0	1268	HIGH	DK Brown / 2.6	No Floating Product
	1331	6.0	7.07	17.0	1266	LOW	lt tan / 1.2	
	1332	9.0	7.03	16.9	1262	NONE	clear / 1.2	
	1333	12.0	7.00	17.2	1222	SLIGHT	lt tan / 1.2	
	1335	15.0	7.05	17.5	1204	HIGH	olive gray / 1.0	
	1338	18.0	7.07	17.5	1197	LOW	lt. tan / 1.3	
	1340	21.0	7.03	17.8	1176	NONE	clear / 1.2	
	1343	24.0	7.04	18.0	1173	NONE	" / 1.1	
↓	1527	After Sampling	7.08	16.7	1163	slight	gt / 2.1	
Total Discharge: 26 gallons				Casing Volumes Removed: 4.42				
Method of disposal of discharged water: 55 Gallon Drum(s) Poly Tank Treatment System Other: _____								
Date/Time Sampled: 3/23/99 @ 1523 Analysis/No. of Bottles: TPHgas/BTEX, MTBE/8015M, 8020TPA								
Diesel 4-40mg/l VOC's 4% NaCl; 2-1L amber v/p								
QA/QC: None @ _____ as an Equipment Blank Duplicate MS/MSD Lab Split Field Blank								
Comments: _____								
Sampled By: Stephen Penman and Jacki Lee Initials: SP								



**Environmental
Sampling Services**

Table 1: Summary of Groundwater Sample Collection at IBC-Oakland

Well I.D.	Date	Water Level	Well Depth	Floating Product*
MW-1	3/23/99	8.63	19.47	none
MW-2	3/23/99	8.12	18.58	none
MW-3	3/23/99	11.23	20.23	none

* Measured with Oil/Water Interface Meter

CHROMALAB, INC.

Environmental Services (S08) (DOI IS 1094)

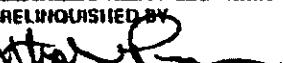
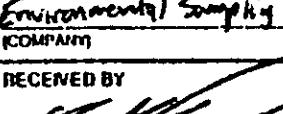
1220 Quarry Lane • Pleasanton, California 94566-4756
510/484-1919 • Faxline 510/484-1098

Reference #:

Chain of Custody

DATE March 23 1999 PAGE 1 OF 1

PROJECT INFORMATION		SAMPLE RECEIPT		
PROJECT NAME	<u>IBC - Oakland</u>	TOTAL NO. OF CONTAINERS	<u>22</u>	
PROJECT NUMBER	<u>41-07099010.00 TASK 00010</u>	HEAD SPACE		
P.O. #		TEMPERATURE		
		CONFORMS TO RECORD		
SPEC.	STANDARD		24	48
			72	OTHER

RELINQUISHED BY  (SIGNATURE) [1:15] (PRINTED NAME) Stephen Denman (DATE) 3/24/99 (COMPANY) Environmental Sampling Svcs.	1. RELINQUISHED BY	2. RELINQUISHED BY	
	(SIGNATURE)	(NAME)	(SIGNATURE)
RECEIVED BY  (SIGNATURE) [1:15] (PRINTED NAME) B. Marge McDonald (DATE) 3-24-99	1. RECEIVED BY	2. RECEIVED BY (LABORATORY)	
	(SIGNATURE)	(NAME)	

CHROMALAB, INC.

Environmental Services (SDB)

March 17, 1999

Submission #: 9903159

URS GREINER W&C OAKLAND

Atten: April Giangerelli

Project: Not provided
Received: March 10, 1999

Project#: 41070099010.00

re: 4 samples for TPH - Diesel analysis.
Method: EPA 8015M

Sampled: March 9, 1999

Matrix: SOIL
Run#: 17825Extracted: March 15, 1999
Analyzed: March 15, 1999

Spl#	CLIENT SPL ID	DIESEL (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
232052	IBC-S-3-9-A	N.D.	1.0	N.D.	84.2	1
232053	IBC-S-3-9-B	N.D.	1.0	N.D.	84.2	1

Sampled: March 9, 1999

Matrix: WATER
Run#: 17826Extracted: March 15, 1999
Analyzed: March 15, 1999

Spl#	CLIENT SPL ID	DIESEL (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
232054	IBC-W-3-9-A	N.D.	50	N.D.	87.2	1
232055	IBC-W-3-9-B	N.D.	50	N.D.	87.2	1

Carolyn House
AnalystBruce Havlik
Analyst

**AS 45 03/17

CHROMALAB, INC.

Environmental Services (SDB)

March 17, 1999

Submission #: 9903159

URS GREINER W&C OAKLAND

Atten: April Giangerelli

Project: Not provided
Received: March 10, 1999

Project#: 41070099010.00

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: IBC-S-3-9-A

Spl#: 232052

Sampled: March 9, 1999

Matrix: SOIL

Run#: 17853

Analyzed: March 16, 1999

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	1.0	N.D.	108	1
MTBE	N.D.	0.0050	N.D.	95	1
BENZENE	N.D.	0.0050	N.D.	96	1
TOLUENE	N.D.	0.0050	N.D.	94	1
ETHYL BENZENE	N.D.	0.0050	N.D.	96	1
XYLENES	N.D.	0.0050	N.D.	93	1


Vincent Vancil
Analyst
Michael Verona
Operations Manager

**AS

CHROMALAB, INC.

Environmental Services (SDB)

March 17, 1999

Submission #: 9903159

URS GREINER W&C OAKLAND

Atten: April Giangerelli

Project: Not provided

Project#: 41070099010.00

Received: March 10, 1999

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: IBC-S-3-9-B

Spl#: 232053

Matrix: SOIL

Sampled: March 9, 1999

Run#: 17853

Analyzed: March 16, 1999

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	1.0	N.D.	108	1
MTBE	N.D.	0.0050	N.D.	95	1
BENZENE	N.D.	0.0050	N.D.	96	1
TOLUENE	N.D.	0.0050	N.D.	94	1
ETHYL BENZENE	N.D.	0.0050	N.D.	96	1
XYLEMES	N.D.	0.0050	N.D.	93	1


Vincent Vancil
Analyst
Michael Verona
Operations Manager

**AS

CHROMALAB, INC.

Environmental Services (SDB)

March 17, 1999

Submission #: 9903159

URS GREINER W&C OAKLAND

Atten: April Giangerelli

Project: Not provided
Received: March 10, 1999

Project#: 41070099010.00

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: IBC-W-3-9-A

Spl#: 232054

Matrix: WATER

Sampled: March 9, 1999

Run#: 17868

Analyzed: March 16, 1999

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	74	50	N.D.	106	1
MTBE	N.D.	5.0	N.D.	107	1
BENZENE	N.D.	0.50	N.D.	101	1
TOLUENE	1.0	0.50	N.D.	99	1
ETHYL BENZENE	N.D.	0.50	N.D.	102	1
XYLEMES	0.98	0.50	N.D.	103	1


Vincent Vancil

Analyst


Michael Verona
Operations Manager

**AS

CHROMALAB, INC.

Environmental Services (SDB)

March 17, 1999

Submission #: 9903159

URS GREINER W&C OAKLAND

Atten: April Giangerelli

Project: Not provided
Received: March 10, 1999

Project#: 41070099010.00

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: IBC-W-3-9-B

Spl#: 232055

Matrix: WATER

Sampled: March 9, 1999

Run#: 17868

Analyzed: March 16, 1999

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (ug/L)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	106	1
MTBE	N.D.	5.0	N.D.	107	1
BENZENE	N.D.	0.50	N.D.	101	1
TOLUENE	N.D.	0.50	N.D.	99	1
ETHYL BENZENE	N.D.	0.50	N.D.	102	1
XYLENES	N.D.	0.50	N.D.	103	1


Vincent Vancil

Analyst


Michael Verona
Operations Manager

**AS

CHROMALAB, INC.

Environmental Services (SDB)

April 1, 1999

Submission #: 9903348

URS GREINER W&C OAKLAND
500 12th St., Suite 200
Oakland, CA 94607-4014

Attn: AL RIDLEY

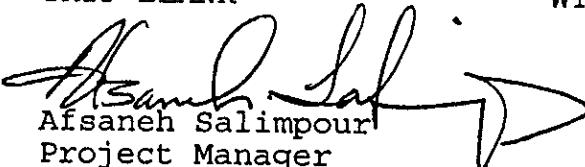
RE: Analysis for project IBC-OAKLAND, number 41-0799010.00 TASK 00010.

REPORTING INFORMATION

Samples were received cold and in good condition on March 24, 1999. They were refrigerated upon receipt and analyzed as described in the attached report. ChromaLab followed EPA or equivalent methods for all testing reported.

No discrepancies were observed or difficulties encountered with the testing.

<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date collected</u>	<u>Sample #</u>
MW-1	WTR	March 23, 1999	233853
MW-2	WTR	March 23, 1999	233851
MW-3	WTR	March 23, 1999	233852
TRIP BLANK	WTR	March 23, 1999	233850


Afsaneh Salimpour
Project Manager

CHROMALAB, INC.

Environmental Services (SDB)

March 31, 1999

Submission #: 9903348

URS GREINER W&C OAKLAND

Atten: AL RIDLEY

Project: IBC-OAKLAND

Project#: 41-0799010.00 TASK 00010

Received: March 24, 1999

re: One sample for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: TRIP BLANK

Spl#: 233850

Matrix: WATER

Sampled: March 23, 1999

Run#: 18075

Analyzed: March 29, 1999

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	98	1
MTBE	N.D.	5.0	N.D.	112	1
BENZENE	N.D.	0.50	N.D.	107	1
TOLUENE	N.D.	0.50	N.D.	106	1
ETHYL BENZENE	N.D.	0.50	N.D.	103	1
XYLENES	N.D.	0.50	N.D.	99	1



Vincent Vancil
Analyst


Michael Verona
Operations Manager

*AS

LEV2

CHROMALAB, INC.

Environmental Services (SDB)

March 31, 1999

Submission #: 9903348

URS GREINER W&C OAKLAND

Atten: AL RIDLEY

Project: IBC-OAKLAND

Received: March 24, 1999

Project#: 41-0799010.00 TASK 00010

re: One sample for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: MW-2

Spl#: 233851

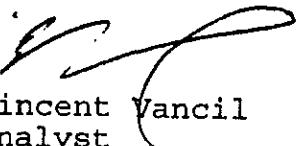
Sampled: March 23, 1999

Matrix: WATER

Run#:18075

Analyzed: March 29, 1999

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	98	1
MTBE	N.D.	5.0	N.D.	112	1
BENZENE	N.D.	0.50	N.D.	107	1
TOLUENE	N.D.	0.50	N.D.	106	1
ETHYL BENZENE	N.D.	0.50	N.D.	103	1
XYLEMES	N.D.	0.50	N.D.	99	1


Vincent Vancil
Analyst


Michael Verona
Operations Manager

*AS

CHROMALAB, INC.

Environmental Services (SDB)

March 31, 1999

Submission #: 9903348

URS GREINER W&C OAKLAND

Atten: AL RIDLEY

Project: IBC-OAKLAND

Received: March 24, 1999

Project#: 41-0799010.00 TASK 00010

re: One sample for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: MW-3

Spl#: 233852

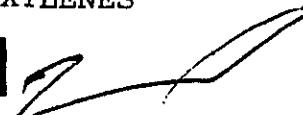
Matrix: WATER

Sampled: March 23, 1999

Run#:18075

Analyzed: March 29, 1999

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	98	1
MTBE	N.D.	5.0	N.D.	112	1
BENZENE	N.D.	0.50	N.D.	107	1
TOLUENE	N.D.	0.50	N.D.	106	1
ETHYL BENZENE	N.D.	0.50	N.D.	103	1
XYLENES	N.D.	0.50	N.D.	99	1


Vincent Vancil
Analyst


Michael Verona
Operations Manager

*AS

LEV2

CHROMALAB, INC.

Environmental Services (SDB)

March 31, 1999

Submission #: 9903348

URS GREINER W&C OAKLAND

Atten: AL RIDLEY

Project: IBC-OAKLAND

Project#: 41-0799010.00 TASK 00010

Received: March 24, 1999

re: One sample for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: MW-1

Spl#: 233853

Matrix: WATER

Sampled: March 23, 1999

Run#: 18080

Analyzed: March 29, 1999

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	9800	2500	N.D.	101	50
MTBE	N.D.	250	N.D.	106	50
BENZENE	58	25	N.D.	98	50
TOLUENE	130	25	N.D.	97	50
ETHYL BENZENE	810	25	N.D.	97	50
XYLENES	2900	25	N.D.	92	50



Vincent Vancil

Analyst



Michael Verona

Operations Manager

*AS

LEV2

1220 Quarry Lane • Pleasanton, California 94566-4756

ASV1320:BTEXQC0220

(925) 484-1919 • Facsimile (925) 484-1096

CRAIG 12:18

Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

March 31, 1999

Submission #: 9903348

URS GREINER W&C OAKLAND

Atten: AL RIDLEY

Project: IBC-OAKLAND

Received: March 24, 1999

Project#: 41-0799010.00 TASK 00010

re: Blank spike and duplicate report for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Matrix: WATER

Lab Run#: 18075

Analyzed: March 29, 1999

Analyte	Spike Amount		Amount Found		Spike Recov		Control %	RPD	% Lim
	BSP (ug/L)	Dup	BSP (ug/L)	Dup	BSP (%)	Dup (%)			
GASOLINE	500	500	492	493	98.4	98.6	75-125	0.20	20
MTBE	100	100	112	114	112	114	75-125	1.77	20
BENZENE	100	100	107	110	107	110	77-123	2.76	20
TOLUENE	100	100	106	110	106	110	78-122	3.70	20
ETHYL BENZENE	100	100	103	107	103	107	70-130	3.81	20
XYLEMES	300	300	298	315	99.3	105	75-125	5.58	20

CHROMALAB, INC.

Environmental Services (SDB)

March 31, 1999

Submission #: 9903348

URS GREINER W&C OAKLAND

Atten: AL RIDLEY

Project: IBC-OAKLAND

Received: March 24, 1999

Project#: 41-0799010.00 TASK 00010

re: Matrix spike report for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Matrix: WATER

Lab Run#: 18075 Instrument: 3400-3 Analyzed: March 29, 1999

Spiked

Analyte	Sample Amount (ug/L)	Spike Amt		Amt Found		Spike Recov		Control Limits	% RPD Lim
		MS	MSD	MS	MSD	MS (%)	MSD (%)		
GASOLINE	N.D.	500	500	493	541	85.0	94.6	65-135	10.7 20
MTBE	N.D.	100	100	114	109	114	109	65-135	4.48 20
BENZENE	N.D.	100	100	104	103	104	103	65-135	0.96 20
TOLUENE	N.D.	100	100	102	103	102	103	65-135	0.97 20
ETHYL BENZENE	N.D.	100	100	100	97.3	100	97.3	65-135	2.74 20
XYLEMES	N.D.	300	300	290	294	96.7	98.0	65-135	1.34 20

Sample Spiked: 233782

Submission #: 9903333

Client Sample ID: EB-2-26W

CHROMALAB, INC.

Environmental Services (SDB)

March 31, 1999

Submission #: 9903348

URS GREINER W&C OAKLAND

Atten: AL RIDLEY

Project: IBC-OAKLAND

Received: March 24, 1999

Project#: 41-0799010.00 TASK 00010

re: Surrogate report for 4 samples for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Lab Run#: 18075

Matrix: WATER

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
233850-1	TRIP BLANK	TRIFLUOROTOLUENE	99.1	58-124
233850-1	TRIP BLANK	4-BROMOFLUOROBENZENE	103	50-150
233851-1	MW-2	TRIFLUOROTOLUENE	88.9	58-124
233851-1	MW-2	4-BROMOFLUOROBENZENE	105	50-150
233852-1	MW-3	TRIFLUOROTOLUENE	94.8	58-124
233852-1	MW-3	4-BROMOFLUOROBENZENE	105	50-150
233853-1	MW-1	TRIFLUOROTOLUENE	165	58-124
233853-1	MW-1	4-BROMOFLUOROBENZENE	109	50-150

Sample#	QC Sample Type	Surrogate	% Recovery	Recovered Limits
234555-1	Reagent blank (MDB)	TRIFLUOROTOLUENE	99.4	58-124
234555-1	Reagent blank (MDB)	4-BROMOFLUOROBENZENE	105	50-150
234556-1	Spiked blank (BSP)	TRIFLUOROTOLUENE	96.9	58-124
234556-1	Spiked blank (BSP)	4-BROMOFLUOROBENZENE	115	50-150
234557-1	Spiked blank duplicate (BSD)	TRIFLUOROTOLUENE	95.0	58-124
234557-1	Spiked blank duplicate (BSD)	4-BROMOFLUOROBENZENE	118	50-150
234558-1	Matrix spike (MS)	TRIFLUOROTOLUENE	95.2	58-124
234558-1	Matrix spike (MS)	4-BROMOFLUOROBENZENE	114	50-150
234559-1	Matrix spike duplicate (MSD)	TRIFLUOROTOLUENE	90.6	58-124
234559-1	Matrix spike duplicate (MSD)	4-BROMOFLUOROBENZENE	112	50-150

V132 LEV2
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CHROMALAB, INC.

Environmental Services (SDB)

March 31, 1999

Submission #: 9903348

URS GREINER W&C OAKLAND

Atten: AL RIDLEY

Project: IBC-OAKLAND

Received: March 24, 1999

Project#: 41-0799010.00 TASK 00010

re: Blank spike and duplicate report for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Matrix: WATER

Lab Run#: 18080

Analyzed: March 30, 1999

Analyte	Spike						Control %	RPD %	Lim
	BSP (ug/L)	Amount Dup	Amount BSP	Found Dup	Spike BSP (%)	Recov Dup (%)			
GASOLINE	500	500	504	530	101	106	75-125	4.83	20
MTBE	100	100	106	102	106	102	75-125	3.85	20
BENZENE	100	100	98.2	96.7	98.2	96.7	77-123	1.54	20
TOLUENE	100	100	97.4	96.8	97.4	96.8	78-122	0.61	20
ETHYL BENZENE	100	100	96.7	92.8	96.7	92.8	70-130	4.12	20
XYLENES	300	300	277	278	92.3	92.7	75-125	0.43	20

CHROMALAB, INC.

Environmental Services (SDB)

March 31, 1999

Submission #: 9903348

URS GREINER W&C OAKLAND

Atten: AL RIDLEY

Project: IBC-OAKLAND

Received: March 24, 1999

Project#: 41-0799010.00 TASK 00010

re: Matrix spike report for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Matrix: WATER

Lab Run#: 18080 Instrument: 3400-3

Analyzed: March 30, 1999

Spiked

Analyte	Sample Amount (ug/L)	Spike Amt		Amt Found		Spike Recov			Control Limits	% RPD Lim
		MS	MSD	MS	MSD	MS (%)	MSD (%)	Control Limits		
GASOLINE	N.D.	500	500	487	458	97.4	91.6	65-135	6.14	20
MTBE	N.D.	100	100	110	113	110	113	65-135	2.69	20
BENZENE	N.D.	100	100	101	104	101	104	65-135	2.93	20
TOLUENE	2.7	100	100	98.4	101	98.4	101	65-135	2.61	20
ETHYL BENZENE	N.D.	100	100	96.2	100	96.2	100	65-135	3.87	20
XYLEMES	1.2	300	300	268	279	89.3	93.0	65-135	4.06	20

Sample Spiked: 233946

Submission #: 9903355

Client Sample ID: MW-5

CHROMALAB, INC.

Environmental Services (SDB)

March 31, 1999

Submission #: 9903348

URS GREINER W&C OAKLAND

Atten: AL RIDLEY

Project: IBC-OAKLAND

Project#: 41-0799010.00 TASK 00010

Received: March 24, 1999

re: Surrogate report for 1 sample for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Lab Run#: 18080

Matrix: WATER

Sample#	Client Sample ID	Surrogate	% Recovery	Recovered	Limits
233853-2	MW-1	TRIFLUOROTOLUENE	103	58-124	
233853-2	MW-1	4-BROMOFLUOROBENZENE	119	50-150	

Sample#	QC Sample Type	Surrogate	% Recovery	Recovered	Limits
234578-1	Reagent blank (MDB)	TRIFLUOROTOLUENE	101	58-124	
234578-1	Reagent blank (MDB)	4-BROMOFLUOROBENZENE	112	50-150	
234579-1	Spiked blank (BSP)	TRIFLUOROTOLUENE	93.5	58-124	
234579-1	Spiked blank (BSP)	4-BROMOFLUOROBENZENE	118	50-150	
234580-1	Spiked blank duplicate (BSD)	TRIFLUOROTOLUENE	88.6	58-124	
234580-1	Spiked blank duplicate (BSD)	4-BROMOFLUOROBENZENE	124	50-150	
234703-1	Matrix spike (MS)	TRIFLUOROTOLUENE	92.2	58-124	
234703-1	Matrix spike (MS)	4-BROMOFLUOROBENZENE	107	50-150	
234704-1	Matrix spike duplicate (MSD)	TRIFLUOROTOLUENE	86.8	58-124	
234704-1	Matrix spike duplicate (MSD)	4-BROMOFLUOROBENZENE	114	50-150	

V132 LEV2
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CHROMALAB, INC.

Environmental Services (SDB)

March 31, 1999

Submission #: 9903348

URS GREINER W&C OAKLAND

Atten: AL RIDLEY

Project: IBC-OAKLAND

Project#: 41-0799010.00 TASK 00010

Received: March 24, 1999

re: 3 samples for TPH - Diesel analysis.

Method: EPA 8015M

Sampled: March 23, 1999

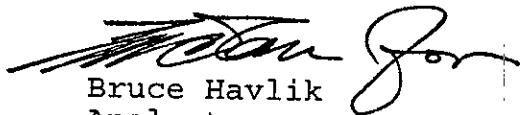
Matrix: WATER
Run#: 18044

Extracted: March 26, 1999
Analyzed: March 26, 1999

Spl#	CLIENT SPL ID	DIESEL (ug/L)	REPORTING	BLANK	BLANK	DILUTION
			LIMIT (ug/L)	RESULT (ug/L)	SPIKE (%)	FACTOR
233851	MW-2	N.D.	50	N.D.	77.6	1
233852	MW-3	N.D.	50	N.D.	77.6	1
233853	MW-1	2600	50	N.D.	77.6	1

Note: Hydrocarbon reported is in the early Diesel Range and does not match our Diesel Standard.


Carolyn House
Analyst


Bruce Havlik
Analyst

**AS AS 03/31

CHROMALAB, INC.

Environmental Services (SDB)

March 31, 1999

Submission #: 9903348

URS GREINER W&C OAKLAND

Atten: AL RIDLEY

Project: IBC-OAKLAND
Received: March 24, 1999

Project#: 41-0799010.00 TASK 00010

re: Blank spike and duplicate report for TPH - Diesel analysis.

Method: EPA 8015M

Matrix: WATER
Lab Run#: 18044

Analyzed: March 27, 1999

Analyte	Spike		Amount Found		Spike Recov		Control %	RPD	% Lim
	BSP	Dup	BSP	Dup	BSP	Dup			
DIESEL	2500	2500	1940	1980	77.6	79.2	60-130	2.04	25

BS Smpl #: 234256
BSD Smpl #: 234257

1220 Quarry Lane • Pleasanton, California 94566-4756
(925) 484-1919 • Facsimile (925) 484-1096
Federal ID #68-0140157

OC_ISD126 REJ/E 12:53:07

CHROMALAB, INC.

Environmental Services (SDB)

March 31, 1999

Submission #: 9903348

URS GREINER W&C OAKLAND

Atten: AL RIDLEY

Project: IBC-OAKLAND

Received: March 24, 1999

Project#: 41-0799010.00 TASK 00010

re: Surrogate report for 3 samples for TPH - Diesel analysis.

Method: EPA 8015M

Lab Run#: 18044

Matrix: WATER

<u>Sample#</u>	<u>Client Sample ID</u>	<u>Surrogate</u>	<u>% Recovered</u>	<u>Recovery Limits</u>
233851-1	MW-2	O-TERPHENYL	87.3	60-130
233852-1	MW-3	O-TERPHENYL	85.9	60-130
233853-1	MW-1	O-TERPHENYL	103	60-130

<u>Sample#</u>	<u>QC Sample Type</u>	<u>Surrogate</u>	<u>% Recovered</u>	<u>Recovery Limits</u>
234255-1	Reagent blank (MDB)	O-TERPHENYL	72.2	60-130
234256-1	Spiked blank (BSP)	O-TERPHENYL	112	60-130
234257-1	Spiked blank duplicate (BSD)	O-TERPHENYL	109	60-130

S005
OCSURR1229 RENE 31-Mar-99 12 53

CHROMALAB, INC.

1220 Quarry Lane • Pleasanton, California 94566-4756
510/484-1919 • Facsimile 510/484-1098

Chain of Custody

Environmental Services (SDB) (DOIIS 1091)

PROJ MGR MR. AL RIDLEY
COMPANY URS Greiner Woodward Clyde
ADDRESS 500-12th ST. STE 200
Oakland, CA 94607

SAMPLERS (SIGNATURE) ENV. SAMPLING SVCS. (PHONE NO)
JACKI LEE  (925)372-8108
STEPHEN PENMAN  (FAX NO.)
 (925)372-6705

ANALYSIS REPORT

DATE March 23, 1999 PAGE 1 OF 1

SUBM #: 9903348 REP: ASLEVE

CLIENT: W&L-D&K

DUUE: 83/31/33

REF #:45169

PROJECT INFORMATION

SAMPLE RECEIPT

PROJECT NAME <u>IBC - Oakland</u>	TOTAL NO. OF CONTAINERS <u>22</u>			
PROJECT NUMBER <u>41-07099010.00 TASK 00010</u>	HEAD SPACE			
P.O. #	TEMPERATURE			
TAT	CONFORMS TO RECORD			
STANDARD 5 DAY	24	48	72	OTHER

SPECIAL INSTRUCTIONS/COMMENTS:

Routine Level 2 Level 3 Level 4 Electronic Report

RELINQUISHED BY  (SIGNATURE)	1	RELINQUISHED BY  (SIGNATURE)	2.	RELINQUISHED BY  (SIGNATURE)	3
Stephen Denmon (PRINTED NAME)	3/24/99 (DATE)			O. Morrison (PRINTED NAME)	3/24/99 (DATE)
Environmental Sampling Svcs (COMPANY)				O. Morrison (COMPANY)	
RECEIVED BY  (SIGNATURE)	1	RECEIVED BY  (SIGNATURE)	2	RECEIVED BY (LABORATORY)  (SIGNATURE)	3
O. Morrison 3/24/99 (PRINTED NAME)	(DATE)			O. Favelle 3/24/99 (PRINTED NAME)	(DATE)
Environmental Sampling Svcs (COMPANY)				O. Favelle (LAB)	

San Francisco Regional Office

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(925) 426-2600
Fax (925) 426-0106

Clayton
LABORATORY
SERVICES

March 31, 1999

Mr. Ken Wright
CHROMALAB, INC.
1220 Quarry Lane
Pleasanton, CA 94566

Client Ref.: 9903348
Clayton Project No.: 99032.68

Dear Mr. Wright:

Attached is our analytical laboratory report for the samples received on March 25, 1999. Also enclosed is a copy of the Chain-of-Custody record acknowledging receipt of these samples.

Please note that any unused portion of the samples will be discarded after April 30, 1999, unless you have requested otherwise.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact Client Services at (925) 426-2657.

Sincerely,



Patricia Flynn
Client Services Representative
San Francisco Regional Office

PVF/pvf

Attachments

California DHS ELAP Certification Number 1196

Analytical Results
for
CHROMALAB, INC.
Client Reference: 9903348
Clayton Project No. 99032.68

Sample Identification: See Below
Lab Number: 9903268
Sample Matrix/Media: WATER
Method Reference: EPA 300.0

Date Received: 03/25/99
Date Analyzed: 03/26/99

Lab Number	Sample Identification	Date Sampled	Sulfate (mg/L)	Method Detection Limit (mg/L)
-1	MW-3	03/23/99	23	0.1
-2	MW-1	03/23/99	11	0.1
-03	METHOD BLANK	--	<0.1	0.1

ND: Not detected at or above limit of detection
- Information not available or not applicable

CHROMALAB, INC.

Environmental Services (S10) (DOIIS 1094)

1220 Quarry Lane • Pleasanton, California 94566-4756
510/484-1919 • Facsimile 510/484-1096

Chain of Custody

DATE 3/25/99 PAGE 1 OF 1

PROJECT INFO				ANALYSIS REPORT												Chromalab Reference or Submission Number(s)		NUMBER OF CONTAINERS												
Project Name	Company	Address	Sampler's Signature	(Phone No.)			(Fax No.)			Sample ID			Date			Time			Matrix Preserv.			Sulfate								
MW 3			Ken Wright																									-01	9903348	1
MW 1																												-02		1
PROJECT INFORMATION				SAMPLE RECEIPT												RELINQUISHED BY				RELINQUISHED BY				RELINQUISHED BY						
PROJECT NAME 9903348				TOTAL NO OF CONTAINERS		2		RECD GOOD CONDITION/COLD		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION								
PROJECT NUMBER				HEAD SPACE				RECD GOOD CONDITION/COLD		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION								
P.O. #				RECD GOOD CONDITION/COLD				RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION								
TAT				STANDARD 5 DAY				RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION								
SPECIAL INSTRUCTIONS/COMMENTS				24		48		72		OTHER		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION		RECD GOOD CONDITION								
temp 7.3 °C																														