

November 17, 1994

Ms. Juliet Shin Alameda County Health Care Services 1131 Harbor Bay Parkway Alameda, California 94502

Preliminary Site Assessment Report Goodyear Service Center, Albany, California

Dear Ms. Shin:

Enclosed please find a copy of the Preliminary Site Assessment Report for the Goodyear Service Center, 431 San Pablo Avenue, Albany, California. As requested in a letter from the Alameda County Health Care Services Agency, dated October 21, 1993, this site assessment was conducted to further characterize the nature, level, and extent of soil and groundwater contamination. The preliminary findings indicate that diesel fuel is the primary contaminant detected in both soil and groundwater. Based on the levels and limited extent of diesel contamination in the soil and groundwater and the limited potential use of the impacted groundwater, we do not feel that remediation is warranted at this time; however, we recommend that the quarterly groundwater monitoring program continue through the second quarter of 1995, after which time recommendations will be made to either take further action or pursue site closure.

If you have any questions regarding this report, please contact me at (510) 227-1105, ext. 415.

Sincerely,

OHM Remediation Services Corp.

Scott Rice, R.G. Project Manager

Attachments

cc: W. Inglhofer, Goodyear

J. Smerglia, Goodyear

R. Falaschi, Falaschi Construction

PRELIMINARY SITE ASSESSMENT REPORT

Goodyear Tire Center Albany, California PLAZMAT PLAZMAT 94 NOV 18 PM 3: 18

Prepared for:

GOODYEAR TIRE AND RUBBER COMPANY 7301 Ambassador Row Dallas, Texas

Prepared by:

OHM REMEDIATION SERVICES CORP. 5731 West Las Positas Boulevard Pleasanton, California 94588

LIMITATIONS

The conclusions presented by OHM Remediation Services Corp. in this report are based on available information and site conditions as they existed at the time of this investigation. Factual data and interpretations pertain to the specific project described in this report and rely on the accuracy of laboratory analyses, work performed by subcontractors, and conclusions and data presented in previous reports and investigations. The data presented in this report and their interpretations are not applicable to any other project or site, or to any other phase of investigations or remediation at this site. All documents, lists and data bases have been reviewed with due diligence.

OHM's investigation was performed using the standard of care and level of skill ordinarily exercised under similar circumstances by reputable hydrogeologists, environmental consultants and engineers currently practicing in this and similar localities. No other warranty, expressed or implied, is made as to the conclusions or the professional advice presented in this report.

Respectfully submitted, OHM Remediation Services Corp.

Scott Rice

California Registered Geologist 6030

November 16, 1994

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1.0 INTRODUCTION

This report summarizes the results of a soil and groundwater investigation conducted by OHM Remediation Services Corporation (OHM) at the Goodyear Tire Center located at 431 San Pablo Avenue, Albany, California, near the intersection of San Pablo Avenue and Brighton Avenue (Figure 1).

This investigation was conducted under the direction of Goodyear in response to the October 21, 1993 letter from the Alameda County Health Care Services Agency, Department of Environmental Health (ACDEH) requesting a preliminary site assessment to determine the lateral and vertical extent of petroleum-hydrocarbon-impacted soil and groundwater (Appendix A).

1.1 SITE LOCATION AND SETTING

The Goodyear Tire Center has been an operating automotive maintenance and tire retail facility from approximately 1965 through the present. The property is currently owned by Mr. Robert Falaschi and leased by Goodyear Tire and Rubber Company and subsequently sub-leased to the store manager and operator of the facility, currently Mr. Eugene Kim.

The site is located in a commercial setting, along the primary business district avenue for the city of Albany, CA. The property is bordered by a bank to the north, a restaurant to the south and residential apartments to the east. Surrounding properties include a car wash, a retail paint store, a dry cleaner, and a former automotive repair facility.

Groundwater in the area is reported to fluctuate under seasonal rainfall influence. Previous investigations at nearby sites indicate that the groundwater flow direction varies from west, north-northwest, and east. The water table was measured at a depth of six to nine feet bgs in the monitor wells.

1.2 RECORDS SEARCH

A record search of properties within a 2000 foot radius was performed through the ACDEH and the State of California Department of Toxic Substances Control (DTSC). This search of ACDEH files revealed evidence of soil and groundwater contamination at two sites adjacent to the Goodyear site. The Plaza Car Wash Company, 400 San Pablo Ave (approximately 200 feet northwest of the subject site) apparently experienced a release of gasoline product from underground fuel storage tanks in 1989. A preliminary investigation of this site has indicated significant levels of contaminants in both the soil and groundwater. Remediation is scheduled to begin in 1994.

Groundwater at Troxel Auto/Albany Bowl located at 500 San Pablo Avenue, approximately 250 feet upgradient of the Plaza car wash, has apparently been impacted by petroleum hydrocarbons. As part of the Plaza monitoring project, one groundwater monitor well was installed on the Troxel Auto site. Groundwater samples from this well contained elevated levels of TPH as gas and BTEX. The Troxel Auto site also has two underground storage tanks (one leaded gasoline tank and one unknown solvent tank) from a previous owner. Groundwater samples collected

from two groundwater monitor wells located in the apparent downgradient direction from these tanks did not contain detectable concentrations of the target constituents.

DTSC had indicated no available records on the surrounding properties.

1.3 PREVIOUS INVESTIGATIONS

On July 20, 1993, a 550 gallon underground storage tank was excavated and removed from the site. This tank is believed to have been used to store waste oil. The tank was reported to be pitted and corroded and to have a number of small holes. There was also staining and evidence of hydrocarbon contamination in the tank excavation side walls. Based on information provided by the property owner, a gravel lense was present in the excavation pit at a depth of approximately six feet bgs.

The tank site was over-excavated in an effort to remove visible contamination from the vicinity of the former tank location. Groundwater intrusion was observed in the excavation at a depth of ten feet below ground surface (bgs). Following over-excavation, soil samples were collected from each of the side walls and the bottom of the tank excavation. The locations for these samples are shown on Figure 2. The excavation pit covered a surface area of approximately 9 feet x 29 feet and reached a depth of 10.5 feet bgs. At the conclusion of excavation activities, the excavation pit was backfilled. Sample results from this work were submitted to the ACDEH in a Certified Environmental Consulting, Inc. report dated October 14, 1993.

In October 1993, Walker's Hydraulics, Inc. was contracted for the removal and replacement of selected hydraulic hoists from the garage area of the facility. Following the removal of the hoists and over-excavation of the hoist #7 location, three soil samples were collected from each of the hoist excavation locations. These samples were analyzed for Total Oil and Grease (EPA Method 5520F) and Total Purgable Petroleum Hydrocarbons (EPA Method 8015). Figure 2 shows the approximate locations of these samples. A copy of the sample results and chain of custody is included as Appendix B. Groundwater was also observed in the bottom of the hoist #7 excavation. A summary of sample results from this work is presented in Table 1

On November 19, 1993, OHM Remediation Services Corp. collected soil samples from the over-excavated hoist # 7 location. Five soil samples were collected, one from each of the excavation side walls and one from the bottom of the excavation at an approximate depth of five feet bgs. The samples were analyzed for Total Oil and Grease (EPA Method 5520), Total Petroleum Hydrocarbons calculated as Diesel (EPA Method 8015), Benzene, Toluene, Ethyl Benzene and Total Xylenes (EPA method 8020) and selected heavy metals: Lead, Barium, Cadmium and Chromium (EPA methods W. E. T./3010/6010). The locations of these samples are shown on Figure 2. The results of these analyses are summarized in Table 2. The laboratory reports are included in Appendix C. The tank excavation has been resurfaced and a new lift has been installed at the location of the former alignment pit.

1.4 PROJECT OBJECTIVES AND SCOPE OF WORK

The objective of this preliminary site assessment was to further characterize the lateral and vertical extent of soil and groundwater contamination at the site. Data collected during this investigation will be used to further assess the nature, extent and source of target constituents at the site.

The Scope of Work for this phase of work included the following tasks:

- Installation of three groundwater monitor wells (MW-1, MW-2, and MW-3). One well (MW-1) was installed approximately 10 feet downgradient of the former waste oil storage tank and in close proximity to the easternmost hydraulic lifts. Well MW-2 was installed at the upgradient edge of the site and the third well (MW-3) was installed behind the service building further downgradient of the former tank and hoists.
- One soil boring (SB-1) was installed within ten feet and directly south of the former waste oil tank pit.
- A minimum of two soil samples were collected from each borehole to determine the lateral and vertical extent of petroleum-impacted soil in the vicinity of the former waste oil storage tank and hoists #6 and #7.
- Groundwater samples were collected from each monitor well to determine if the groundwater has been impacted by petroleum hydrocarbons and the lateral extent of contamination.

2.0 MONITOR WELL INSTALLATION AND SOIL BORING

This section describes the drilling, installation, and development of three groundwater monitor wells, drilling of one soil boring, site geology and hydrogeology, and analytical results.

2.1 PRE-MOBILIZATION ACTIVITIES

On August 23, 1994 a drilling permit application was completed by OHM and submitted to Zone 7 Water Agency (see Appendix B). At least forty-eight hours prior to drilling, the ACDEH was notified of the start date.

On August 26, 1994, OHM contacted Underground Service Alert (USA) to identify any public underground utilities in the vicinity of the drilling locations. Subtronics Corp. was contracted to provide clearance from private underground utilities on-site.

2.2 DRILLING PROCEDURES

A truck-mounted, hollow-stem auger drilling rig equipped with 8-inch diameter hollow-stem augers was used to drill the soil boring and monitor well borings.

Soil samples were collected by advancing a modified California split-spoon sampler, equipped with brass sleeves, into the soil beyond the tip of the augers. In addition, selected intervals in each boring were continuously sampled with the split-spoon sampler to provide a more complete record of site lithology. Each soil sample was screened on site with a portable photoionization detector (PID). Based upon site conditions encountered during the removal of the underground waste oil tank, groundwater was estimated to be approximately ten feet below ground surface; therefore, soil samples were proposed be collected from a depth of approximately five feet bgs and another from just above the soil/groundwater interface, at a depth of approximately ten feet bgs. Final sample location was based on lithology encountered during drilling.

2.3 SOIL BORING

On August 31, 1994, one soil boring (SB-1) was drilled in the vicinity of the former 550-gallon underground waste oil tank (Figure 2). The boring was located within ten feet and directly south of the former waste oil tank pit to delineate the lateral and vertical extent of contamination previously identified along the south wall of the tank excavation as well as define the southern extent of soil contamination observed from the hydraulic lift area.

In the original workplan (OHM, May 1994), boring SB-1 was proposed to be drilled to a depth of 10 feet bgs. SB-1 was the first boring drilled on site. The borehole was continuously sampled during drilling to provide a continuous record of site stratigraphy and to aid in determining when the saturated zone was encountered. Based on information obtained during the excavation of the UST, groundwater was anticipated at approximately eight feet bgs. During drilling, a clayey sand was encountered from approximately 6.5 to 9.5 feet bgs; however, no visible saturated sediments were present throughout this sand interval. The boring was advanced and continuous sampling continued in an effort to identify the water-bearing zone. After drilling to a depth of 25 feet bgs, and not encountering saturated sediments in the borehole, the boring was terminated. Although saturated sediments were not identified, a slow accumulation of

groundwater in the boring was noted during drilling. Approximately five feet of water had accumulated in the borehole prior to abandonment. The borehole was then backfilled with bentonite chips and cement grout to the surface. The boring log is presented in Appendix C.

Soil samples collected at five and eight feet bgs were selected for laboratory analysis. Soil samples were analyzed for total TPHG, TPHD, BTEX, oil and grease, and total metals.

2.4 MONITOR WELL INSTALLATION

On August 31, 1994, three monitor wells (MW-1, MW-2, and MW-3) were installed at the locations shown on Figure 2. MW-1 is located within ten feet downgradient of the former waste oil tank and as close as is feasible to hydraulic hoist areas #6 and #7 considering the location of the existing building. MW-2 is located upgradient of the former tank and approximately 20 feet east of hydraulic hoist #7. MW-3, was installed at the northern property boundary to provide soil and groundwater quality data approximately 60 to 80 feet downgradient of the former tank and hydraulic lift area and as close as possible to the lift area without affecting the integrity of the building.

Because of the subsurface lithology encountered, the total depth of two of the wells changed from the originally proposed depth of 20 feet bgs. Wells MW-1 and MW-2 were completed to a total depth of 13 feet bgs. MW-3 was completed at the original proposed depth of 20 feet bgs.

Two soil samples were selected for laboratory analysis from MW-1 (5 and 7 feet bgs) and MW-2 (5 and 8 feet bgs). Soil samples were collected from MW-3 at 5, 7, and 13 feet bgs and submitted to a California certified laboratory for analysis. Soil samples from each well were analyzed for TPHG, TPHD, BTEX, oil and grease, and total metals.

Each well was completed with two-inch diameter polyvinyl chloride (PVC) riser, with 0.020-inch factory-slotted screen. The depth interval of the well screen sections varied, depending on depth to water encountered in the borings. The annular space around the well screen was filled with a sand filter pack composed of #3 Monterey sand. The sand filter pack extended a minimum of one foot above the top of the well screen. A minimum one-foot thick bentonite seal was placed directly above the filter pack in the annular space between the riser and borehole to prevent leakage of grout into the filter pack. A cement grout seal was placed from above the bentonite seal to the ground surface. The wells were completed flush to the ground surface with a water-tight, traffic-rated well box. Well construction diagrams are presented in Appendix C.

The completed wells were surveyed by a licensed surveyor for elevation (mean sea level) and location relative to a City of Albany benchmark.

2.4.1 Well Development

On September 6, 1994, the three monitor wells were developed by a combination of surging and bailing. Prior to well development, depth to water was measured with an electronic water level meter. Well development began surging the well with a surge block which was moved up and down repeatedly within the saturated zone to induce movement of residual fine-grained material from the filter pack either into the well casing where it can be removed by bailing or back into the formation. After surging, the wells were bailed with a disposable polyethylene bailer. Temperature, pH, and specific conductivity were monitored during development. Bailing continued until a minimum of ten casing volumes of water were removed.

2.4.2 Groundwater Sampling

Following well development, each well was allowed to stabilize for a minimum of 24 hours in accordance with ACDEH guidelines. OHM purged and sampled the wells on September 7, 1994. Groundwater levels were measured in each well prior to purging and sampling. During the water-level survey, the wells were measured for depth-to-water and total depth from a surveyed reference point at the top of the PVC well casing. Depth-to-water measurements were recorded to the nearest 0.01 foot and total depth measurements were recorded to the nearest 0.1 foot to facilitate purge volume calculations.

Groundwater samples were collected from each of the monitor wells in accordance with established procedures and practices as defined by EPA (SW-846) and the California LUFT Manual. Prior to sampling, each well was purged of a minimum of three well volumes with a disposable polyethylene bailer. During the purging operation, the parameters of pH, temperature, conductivity, and turbidity were monitored after each well volume was removed. The wells were allowed to recover to a level sufficient for sampling, and groundwater samples were collected. Groundwater sampling field data sheets are presented in Appendix D.

Groundwater samples from each monitor well were collected using a disposable polyethylene bailer. Each sample was collected in 40-mL VOA vials, 500 mL amber glass jars, and one-liter amber jars. The samples were properly labeled and placed on ice in a sturdy plastic cooler for delivery to the California-certified laboratory under proper chain-of-custody documentation.

2.5 GEOLOGY AND HYDROGEOLOGY

Geologic logs for the three monitor wells and one soil boring are presented in Appendix C. The site is underlain by unconsolidated sediments to the total depths drilled. The upper five to eight feet is composed of a laterally continuous clay and sandy clay that was encountered in each of the four boreholes. The upper clay layer is underlain by a sand to clayey sand unit that ranges in thickness from two to three feet in the vicinity of the former waste oil tank (SB-1, MW-1, and MW-2) to eight feet in MW-3. This sand unit is continuous across the site and thickens to the northwest toward MW-3. The degree of saturation in this sand layer is highly variable across the site. In SB-1 and MW-2, water was not readily visible in this sand layer; whereas, saturated sediments were encountered in this zone at approximately 7 feet bgs in MW-1. The saturated zone in this sand unit was encountered in MW-3 at a greater depth (approximately 18 feet bgs) than in the other three borings. The shallow aquifer is underlain by clay and sandy clay which is laterally continuous in the vicinity of the former waste oil tank. This clay layer measures 16 feet in thickness in boring SB-1. The base of the shallow sand aquifer in MW-3 is composed of a very dense, well cemented, fine grained sand.

Figure 3 shows the potentiometric surface of the shallow aquifer as measured on September 6, 1994, prior to well development. These wells are characterized by slow recharge, as evidenced by the fact that water levels measured prior to sampling on September 7, 1994 had not fully recovered from the previous day's development activities. The approximate direction of groundwater movement in the shallow aquifer is generally to the northwest, with a hydraulic gradient of 0.027. Groundwater elevation data are presented in Table 3.

2.6 ANALYTICAL RESULTS

The soil and groundwater samples were submitted to Pace Laboratories, a State of California certified laboratory, located in Novato, California. Each soil and groundwater sample was analyzed for TPH calculated as diesel/motor oil and gasoline (modified EPA method 8015), benzene, toluene, ethylbenzene and xylene (EPA method 8020), oil and grease (standard method 5520 B & F), and total lead, cadmium, chromium, zinc and nickel (EPA method 7421) in accordance with the ACDEH letter of October 21, 1993 (Appendix A). Soil samples were also analyzed for chromium by the STLC extraction method (WET/3010/6010). As indicated by ACDEH (October 21, 1993), analyses for chlorinated hydrocarbons (EPA Method 8010) or semi-volatile constituents (EPA Method 8270) was not required.

Soil analyses from soil boring SB-1 and monitor well borings MW-1, MW-2, and MW-3 are summarized in Table 4. The results of groundwater analyses are presented in Table 2. Certified analytical reports and chain-of-custody documentation for soil and groundwater samples are presented in Appendix E.

The analytical results are summarized by analyte for each sample medium.

2.6.1 Soil Analytical Results

TPHG: Two soil samples contained detectable concentrations of petroleum hydrocarbons when analyzed for TPHG by modified EPA method 8015; however, the laboratory indicated that the detectable hydrocarbons did not match the profile of the laboratory standard. A review of the chromatograms from the gas chromatography analyses reveals that hydrocarbons reported as gasoline are in fact not gasoline, but rather represent the lighter fraction of diesel fuel.

TPHD: Soil samples collected from MW-1 at five and seven feet bgs contained 72 ppm and 15 ppm of TPHD, respectively. Only one soil sample collected from MW-3 at a depth of seven feet bgs contained detectable concentrations of TPHD (2,000 ppm). Soil samples collected from borings MW-2 and SB-1 at depths of five and eight feet bgs did not contain concentrations of TPHD above the method detection limit (5 ppm).

Oil and Grease: The analytical method specified by ACDH (EPA method 5520) for analysis of oil and grease does not differentiate between diesel fuel and heavier hydrocarbons such as oil and grease. Based on the results of TPH analyses (EPA method 8015) for the five foot sample from MW-1 (80 ppm) and the seven foot sample from MW-3 (2,200 ppm), the concentrations reported as oil and grease in MW-1 and MW-3 are most likely diesel fuel. The sample collected from SB-1 at a depth of five feet bgs contained 100 ppm oil and grease, but did not contain detectable concentrations of TPHD.

BTEX: BTEX was not detected in any of the soil samples collected from the four borings.

Total Metals: Each soil sample was analyzed for total cadmium, chromium, lead, nickel, and zinc. Total cadmium was not detected at concentrations above the method detection limit. Total lead was detected only at wells MW-1 (seven feet bgs) and MW-2 (five feet bgs) at concentrations of 11 and 18 ppm, respectively. Total chromium was detected in each soil sample at concentrations ranging from 49 to 90 ppm. Total nickel was detected in each soil sample at concentrations ranging from 69 to 150 ppm. Total zinc was detected in each soil sample at concentrations ranging from 34 to 65 ppm.

2.6.2 Groundwater Analytical Results

TPHG: TPHG was not detected in any of the monitor wells at concentrations above the method detection limit (50 ppb).

TPHD: TPHD was detected only at MW-1 at a concentration of 80 ppb. Monitor wells MW-2 and MW-3 did not contain concentrations of TPHD above the method detection limit (50 ppb).

Oil and Grease: Oil and grease was not detected in any of the monitor wells at concentrations above the method detection limit (500 ppb).

BTEX: Benzene and toluene were not detected in any of the monitor wells at concentrations above the method detection limit (0.5 ppb). Ethylbenzene was detected only at MW-2 at a concentration of 1.1 ppb. Xylene was detected only at MW-2 at a concentration of 1.5 ppb.

Total Metals: Each groundwater sample was analyzed for total cadmium, chromium, lead, nickel, and zinc. Total cadmium and total lead were not detected at concentrations above the method detection limit (6.0 ppb). Total chromium was detected in each of the three wells at concentrations ranging from 20 to 150 ppb. Total nickel was detected in MW-1 and MW-2 at concentrations of 340 ppb and 180 ppb, respectively. Total zinc was detected in each of the three wells at concentrations ranging from 40 to 130 ppb.

2.7 DISPOSAL OF DRILL CUTTINGS AND WASTEWATER

Drill cuttings generated during well installation were collected in 55-gallon DOT-approved drums marked with borehole location and date of generation. The drums were staged behind the service building pending analysis. Wastewater generated during well development and equipment decontamination was collected in DOT-approved 55-gallon drums. Approximately 100 gallons of waste water were generated from decontamination of equipment and another 55 gallons were generated during well development. Waste water generated during drilling activities was staged on-site for further characterization and disposal. The results of soil and groundwater analyses will be used to determine the appropriate method for disposal.

3.0 CONCLUSIONS

OHM's soil and groundwater investigation has shown that soil contamination is limited to petroleum hydrocarbons. BTEX was not detected at concentrations above the method detection limits. Analytical results from soil samples indicate that TPH contamination detected at concentrations above 100 ppm is limited to MW-3 at a depth of seven feet bgs. TPH was not detected in samples collected above (at five feet bgs) or below (at thirteen feet bgs) the seven foot sampling point in MW-3. This distribution of TPH in the soil suggests that TPH compounds are confined to a shallow sand interval from five to seven feet bgs. Soil samples collected from each boring were characterized by non-detect or low concentrations of total metals.

Analytical results from groundwater samples show that groundwater has not been significantly impacted by dissolved TPH compounds. Migration of TPH is extremely limited, as evidenced by the presence of TPHD only in the well closest to the former underground storage tank (MW-1) at a concentration of 80 ppb. Benzene and toluene were not detected above the method detection limits for each analyte. Ethylbenzene and xylenes were detected at low concentrations only at MW-2.

The shallow groundwater aquifer in the immediate area of the site is likely a perched zone with significant lateral variations in permeability. Based on data collected during well development it appears that this shallow aquifer is incapable of sustaining even nominal well yields. The shallow groundwater zone appears to have no beneficial use for domestic, municipal, or industrial purposes.

TABLES	_
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Table 1
Summary of Soil Sample Results
Hydraulic Hoists
Collected by Walker Hydraulics 10-22-93
(mg/kg)

Target Constituent	Sample #2-1	Sample #6-1	Sample #7-1
Approx. Depth (FT)	9.5	9.5	8
TPH/O&G	ND (<50)	840	ND (<50)
TPH/G	ND (<1)	2	18
TPH/D		3,900	1,500

Table 2 Summary of Soil Sample Results Hoist #7 Collected by OHM 11/19/93 (mg/kg)										
Target Constituent	Sample LS-001	RS-002	BS-003	FS-004	B-005					
Approx. Depth (ft)	5	5	5 _	5	5					
Oil & Grease	89	150	N.D.	82	N.D.					
TPH/D	1,800	130	93	250	43					
Benzene	N.D.	N.D.	N.D.	N.D.	N.D.					
Toluene	0.038	N.D.	0.0075	0.01	N.D.					
Ethylbenzene	0.067	0.018	0.012	0.01	N.D.					
Total Xylenes	0.26	0.038	0.025	0.022	N.D.					

WELL ID	MEASURING POINT ELEVATION		TABLE 3 GROUNDWATER ELEVATION (feet)											
	(feet)	6-Sep-94												
MW-1	22.10	15.78												
MW-2	22.38	15.25												
MW-3	22.33	13.58												
		•												
		:												
														

Notes:

- 1) Measuring points are top of PVC casing.
- 2) Groundwater elevations shown in feet above Mean Sea Level, relative to City of Albany benchmark
- 3) = Not Measured

TABLE 4
SOIL ANALYTICAL RESULTS

					Ethyl-				Т	OTAL N	/ETALS	3 (mg/k	g)
Sample	Depth	TPHG	Benzene	Toluene	Benzene	Xylenes	TPHD	Oil & Grease					
Point	(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Ca	Cr	Pb	_Ni	Zn
MW-1	5 7	11* ND	ND ND	ND ND	ND ND	ND ND	72 15	80 ND	ND ND	71 66	ND 11	110 150	41 56
MW-2	5 8	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	87 69	1 8 ND	83 81	34 46
MW-3	5 7 13	ND 1000* ND	ND ND ND	ND ND ND	20 20 20	ND ND ND	ND 2000 ND	ND 2200 ND	NA ND ND	NA 59 54	NA ND ND ND	NA 69 84	NA 42 40
SB-1	5 8	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	100 ND	ND ND	49 90	ND ND	99 130	39 65

- 1. mg/kg = milligrams/kilogram (parts per million)
- 2. TPHG = Total petroleum hydrocarbons as gasoline
- 3. TPHD = Total petroleum hydrocarbons as diesel
- 4. Total Metals Ca = Cadmium; Cr = Chromium; Pb = Lead; Ni = Nickel; Zn = Zinc.
- 5. ND = Not detected above method detection limit
- 6. NA = Sample not analyized for this parameter
- 7. Hydrocarbons present do not match profile of laboratory standard.

What down astruck mucan about.

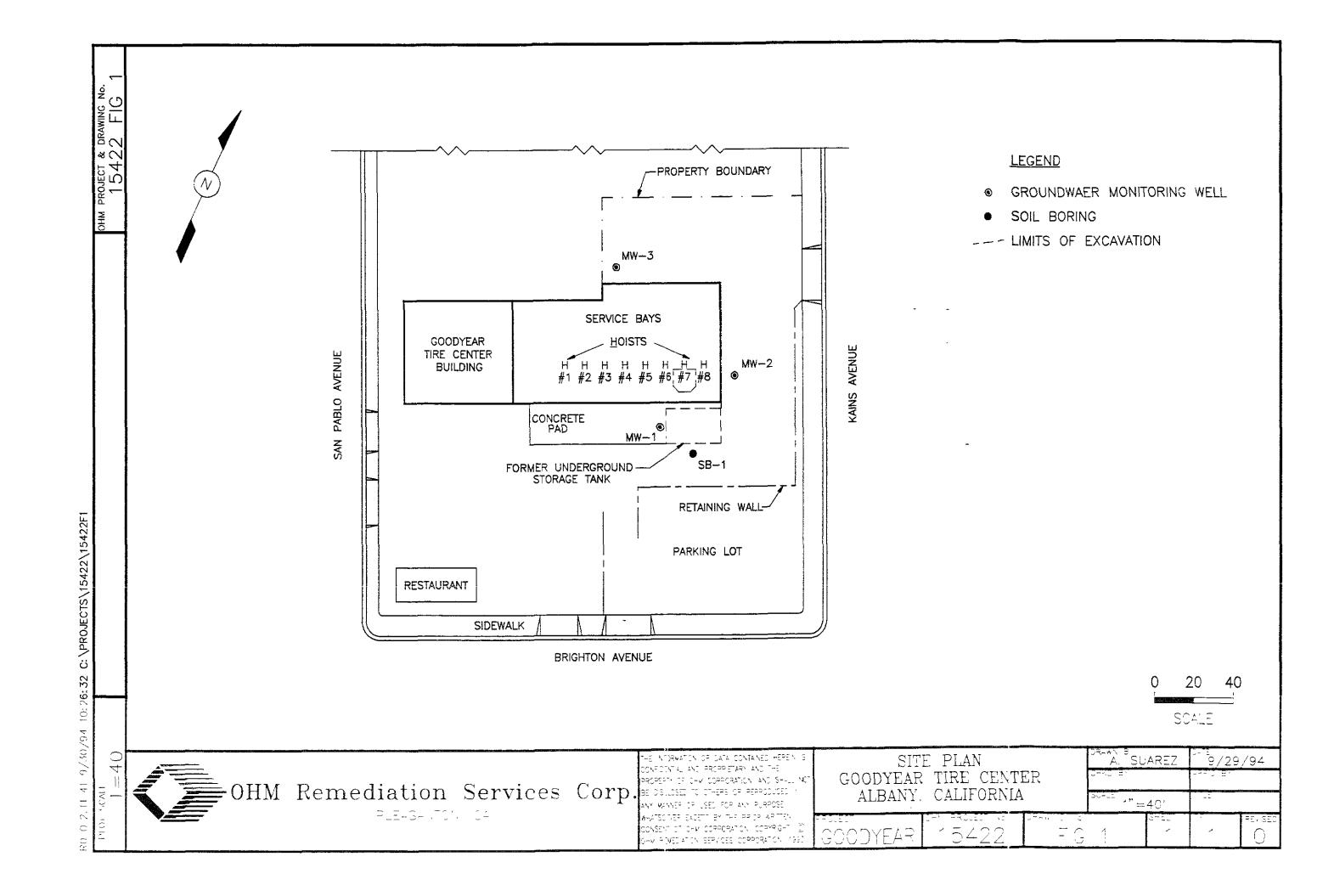
TABLE 5
GROUNDWATER ANALYTICAL RESULTS

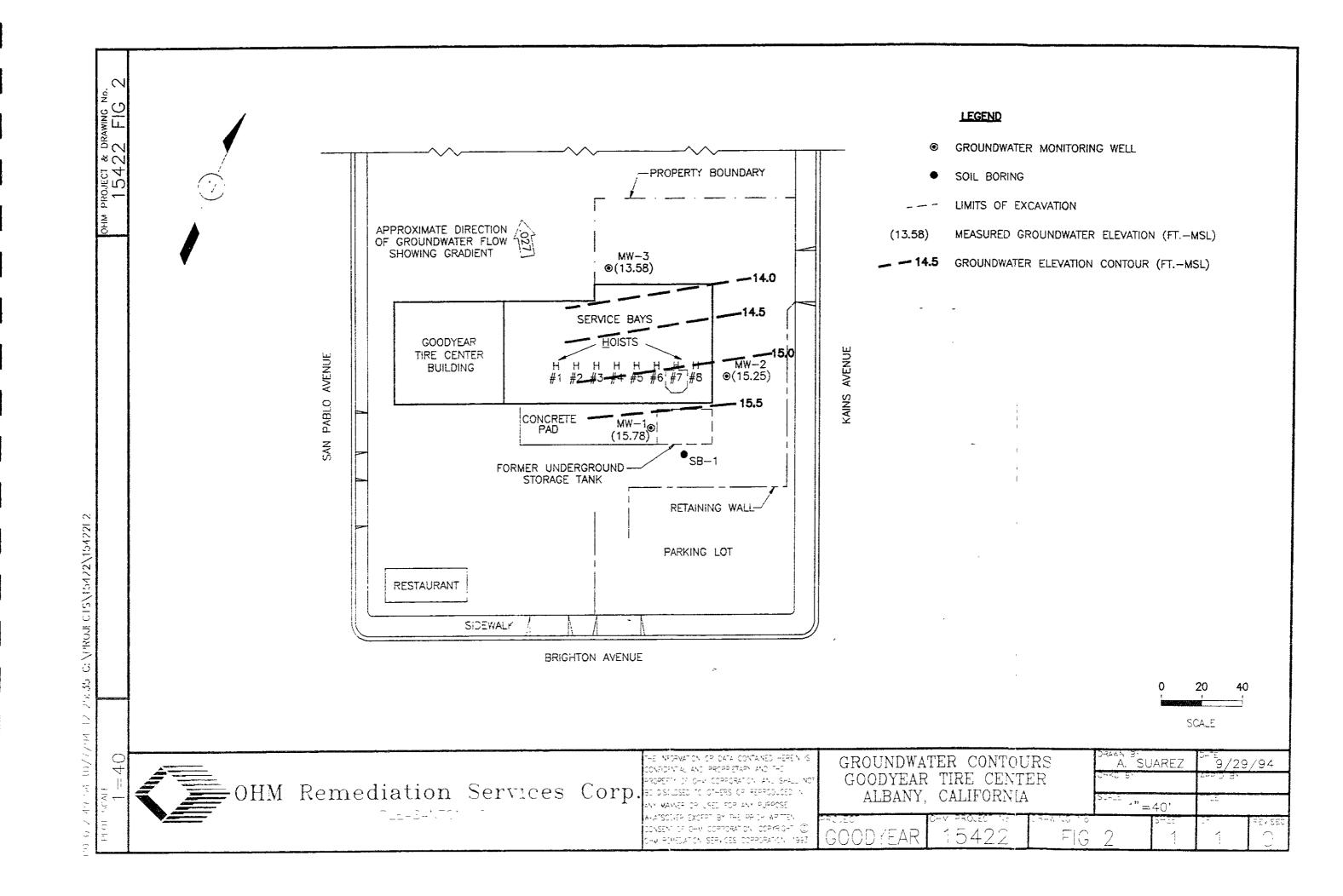
				Ethyl-					TOTAL METALS (ug/L)			
Well	TPHG (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Benzene (ug/L)	Xylenes (ug/L)	TPHD (ug/L)	Oil & Grease (ug/L)	_ Ca	Cr	Pb	Ni	Zn
MW-1	ND	ND	ND	ND	ND	80	ND	ND	150	ND	340	130
MW-2	ND	ND	ND	1.1	1.5	ND	ND	ND	110	ND	180	120
MW-3	ND	ND	ND	ND	ND	ND	ND	ND	20	ND	ND	40

- 1. ug/L = micrograms/Liter (parts per billion)
- 2. TPHG = Total petroleum hydrocarbons as gasoline
- 3. TPHD = Total petroleum hydrocarbons as diesel
- 4. Total Metals Ca = Cadmium; Cr = Chromium; Pb = Lead; Ni = Nickel; Zn = Zinc.
- 5. ND = Not detected above method detection limit

FIGURES			

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APPENDICES	 ***	 	 	

APPENDIX A	
ACDEH LETTERS	
DATED OCTOBER 21, 1993 AND MAY 2, 1994	



DAVID J. KEARS, Agency Director

RAFAT A SHAHID, ASST, AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH State Water Resources Control Board Division of Clean Water Programs UST Local Oversight Program 80 Swan Way, Rm 200 Oakland, CA 94621 (510) 271-4530

October 21, 1993

Mr. Walter Inglehoffer Good Year 7301 Ambassador Row Dallas, TX 75247-4848

STID 1521

Re: Required investigations at 431 San Pablo Avenue, Albany, California

Dear Mr. Inglehoffer.

On July 20, 1993, one 550-gallon waste oil underground storage tank (UST) was removed from the above site. A 1/2" diameter hole, along with a number of smaller holes, were found on the tank. Additionally, extensive staining was observed on the walls of the tank pit.

One soil sample was collected from beneath the UST in native soil. Analysis of this soil sample identified 38 parts per million (ppm) Total Petroleum Hydrocarbons as diesel (TPHd). Additional excavation was conducted of the tank pit and soil samples were collected from the sidewalls and bottom of the enlarged pit. Upto 1,600 ppm TPHd, 49 ppm TPH as gasoline, 0.12 ppm benzene, and 240 ppm Oil & Grease were identified from the sidewall soil samples. Trace concentrations of metals were also identified, however, the level of chromium was of most concern, since the concentration exceeded ten times the Soluble Threshold Limit Concentration (STLC) for chromium.

Guidelines established by the California Regional Water Quality Control Board (RWQCB) require that soil and ground water investigations be conducted when a release from an underground storage tank may impact or may have already impacted ground water.

You are required to conduct a Preliminary Site Assessment (PSA) to determine the lateral and vertical extent and severity of soil and ground water contamination which has resulted from the release at the site. The information gathered by the PSA will be used to determine an appropriate course of action to remediate the site, if deemed necessary. The PSA must be conducted in accordance with the RWQCB's Staff Recommendations for the Initial Evaluation and Investigation of Underground Tanks, and be consistent with requirements set forth in Article 11 of Title 23, California Code of Regulations. The major elements of such an

Mr. Walter Inglehoffer Re: 431 San Pablo Ave. October 21, 1993 Page 2 of 4

investigation are summarized in the attached Appendix A. The major elements of the guidelines include, but are not limited to, the following:

- o At least one ground water monitoring well must be installed within 10 feet of the observed soil contamination, oriented in the confirmed downgradient direction relative to ground water flow. In the absence of data identifying the confirmed downgradient direction, a minimum of three wells will be required to verify gradient direction. During the installation of these wells, soil samples are to be collected at five-foot-depth intervals and any significant changes in lithology.
- Subsequent to the installation of the monitoring wells. these wells must be surveyed to an established benchmark, with an accuracy of 0.01 foot. Ground water samples are to be collected and analyzed quarterly, and water level measurements are to be collected monthly for the first three months, and then quarterly thereafter. initial ground water elevation contours indicate that ground water flow directions vary greatly than you will be required to continue monthly water level measurements until the ground water gradient behavior is known. Both soil and ground water samples must be analyzed for TPHg, TPHd, BTEX, Oil & Grease, metals including lead, and lastly, a wet test must be conducted for chromium in the next round of sampling. Method 8010 and 8270 will not be required in the next round of sampling since none of these constituents were identified in the last phase of sampling.

This Department will oversee the assessment and remediation of your site. Our oversight will include the review of and comment on work proposals and technical guidance on appropriate investigative approaches and monitoring schedules. The issuance of well drilling permits, however, will be through the Alameda County Flood Control and Water Conservation District, Zone 7, in Pleasanton. The RWQCB may choose to take over as lead agency if it is determined, following the completion of the initial assessment, that there has been a substantial impact to ground water.

Mr. Walter Inglehoffer Re: 431 San Pablo Ave. October 21, 1993 Page 3 of 4

All reports and proposals must be submitted under a seal of a California -Registered Geologist, -Certified Engineering Geologist, or -Registered Civil Engineer. Please include a statement of qualifications for each lead professional involved with this project.

The PSA proposal is due within 60 days of the receipt of this letter. Once the proposal is approved, field work should commence within 60 days. A report must be submitted within 45 days after the completion of this phase of work at the site. Subsequent reports are to be submitted quarterly until this site qualifies for final RWQCB "sign-off". Such quarterly reports are due the first day of the second month of each subsequent quarter.

The referenced initial and quarterly reports must describe the status of the investigation and must include, among others, the following elements:

- o Details and results of all work performed during the designated period of time: records of field observations and data, boring and well construction logs, water level data, chain-of-custody forms, laboratory results for all samples collected and analyzed, tabulations of free product thicknesses and dissolved fractions, etc.
- o Status of ground water contamination characterization.
- o Interpretations of results: water level contour maps showing gradients, free and dissolved product, plume definition maps for each target component, geologic cross sections, etc.
- o Recommendations or plans for additional investigative work or remediation.

Please be advised that this is a formal request for a work plan pursuant to Section 2722 (c)(d) of Title 23 California Code of Regulations. Any extensions of the stated deadlines, or modifications of the required tasks, must be confirmed in writing by either this agency or RWQCB.

Additionally, please submit information/documentation for the fate of the excavated/stockpiled soil at the site within 15 days of the date of this letter.

Mr. Walter Inglehoffer Re: 431 San Pablo Ave. October 21, 1993 Page 4 of 4

Lastly, this office noted that further excavation was proposed in the October 14, 1993 report. This proposed excavation is an acceptable phase of investigations. Please be reminded that a representative from our office needs to be present for any overexcavation sampling. Please notify this office at least 48 hours in advance before this overexcavation.

If you have any questions or comments, please contact me at (510) 271-4530.

Sincerely,

Juliet Shin

Hazardous Materials Specialist

cc: Mr. Robert Falaschi

3080 Frye St.

Oakland, CA 94602

Edgar Howell-File(JS)

Appendix A

Workplan for Initial Subsurface Investigation

In recent years, the number of initial site investigations related to unauthorized releases of fuel products has increased dramatically. To assure that the workplans associated with these investigations can be reviewed and approved in a timely manner, it is essential that these documents have uniform organization and content.

The purpose of this appendix is to present an outline to be followed by professional engineering or geologic consultants in preparing workplans to be submitted for review and approval by Local Implementing Agencies and the Regional Board.

A statement of qualifications and the registration number of the California registered engineer and/or California registered geologist responsible for the project must be included with the submitted workplan and subsequent reports.

This appendix should be used in conjunction with the "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites", August 1990.

PROPOSAL AND REPORT FORMAT

I. Introduction

- A. Statement of Scope of Work
- B. Site location
- C. Background
- D. Site History
 - 1. Brief description of the type of business and associated activities that take place at the site, including the number and capacity of operating tanks.
 - 2. Description of previous businesses at the site.
 - 3. Complete description of tank activities, tank contents, and tank removal.
 - a. number of underground tanks, uses, etc...

- 3. Describe soil types and soil strata encountered in excavation(s).
- 4. Provide in tabular form the analytic results of all previous soil and water sampling. The location of these samples should be included on the site map. The date sampled, the identity of the sampler, and signed laboratory data sheets need to be included. The laboratory data sheets must include the laboratory's assessment of the condition of samples upon receipt, including: a) temperature, b) container type, c) air bubbles present/absent in VOA bottles, d) proper preservation, and e) any other relevant information. which might affect the analytic results of the sample(s).
- 5. Identify underground utilities.
- 6. Describe any unusual problems encountered during excavation or tank removal.
- 7. Describe in detail the methods used for storing, characterizing, and disposing of all contaminated soil and groundwater.
- 8. Reference all required permits, including those issued by the Air Quality Management District and local underground tank permitting agency and public encroachment permits when drilling offsite..
- III. Plan for determining the extent of soil contamination on site.
 - A. Describe the method/technique(s) proposed for determining the extent of contamination within the excavation.
 - B. Describe sampling methods and procedures to be used.
 - 1. If soil gas survey is planned, then:
 - a. Identify number of boreholes, location (on site map), sampling depth, etc...
 - b. Identify subcontractors, if any
 - c. Identify methods or techniques used for analysis
 - d. Provide quality assurance plan for field testing

Please note that soil gas surveys are not considered to

- 3. Orilling method for construction of monitoring wells, including decontamination procedures.
 - 1. Expected depth and diameter of monitoring wells
 - 2. Expected drilling date
 - 3. Sampling method and sampling interval (split spoon, every 5', at changes of lithology, at the soil/water interface, etc...)
 - 4. Well design and construction specifications, including casing type, diameter, screen length and interval, and filter pack and screen slot specifications including rational for their selection (sieve analysis, etc..).
 - 5. Depth interval and type of seal
 - 6. Construction diagram for wells
 - 7. Well development method and criteria used for assessing adequacy of development (the time period between construction, development, and sampling should be noted)
 - 8. Plans for characterizing and disposing of cutting spoils and development water (contact your Regional Board or Local Implementing Agency for guidance if on-site disposal is proposed)
 - 9. Surveying plan for wells (requirements include surveying to established benchmark to 0.01 foot).
- C. groundwater sampling plans (this should include plans for sampling of on-site domestic wells).
 - 1. Water level measurement method
 - 2. Method(s) for measuring free-product, observation of sheen and odor (must be done prior to well purging; the use of an interface probe when checking for the presence of free-product is highly recommended)
 - 3. Well purging procedures
 - 4. Well purge water characterization and disposal plans
 - 5. Water sample collection protocol (include the pH, conductivity, and temperature of groundwater prior to sampling)

670-5275

Post-It™ brand fax transmittal memo 7671 | # of pages > 3 Tracu Walker OHM Fex# (570) 256-6111

May 2, 1994

Mr. Walter Inglehoffer of the second of the Maria Good Year 7301 Ambassador Row Dallas, Texas 75247-4848

dire. F337 - 1374

STID 1521

Revised work plan for investigations at 431 San Pablo Ave., Re: Albany, California

Dear Mr. Inglehoffer,

This office has reviewed OHM's revised work plan, dated April 7, This work plan is acceptable with the following additions/modifications:

- Since soil samples collected from Well MW-2 will be used to delineate the extent of soil contamination observed on the east side of the Hoist #7 excavation, this well should be located more directly to the east of this former excavation, rather than to the north.
- /o Since soil samples collected from Well MW-1 will be used to delineate the extent of soil contamination observed on the west sidewall of the former waste oil tank pit, this well should be located more directly west of the former tank pit.
 - An additional boring should be placed to the south of the former waste oil tank pit to delineate the extent of Oil & Grease identified along the south wall, and to delineate the southern extent of the soil contamination observed from the hydraulic lift area.
 - The monitoring wells must be surveyed to Mean Sea Level to an accuracy of 0.01 foot.
 - Contrary to OHM's proposal to analyze for Oil & Grease using Method 418.1, you will be required to use Method 5520 to detect Oil & Grease.
 - Please be reminded that a minimum of two soil samples shall be collected from each of the monitoring well and boring locations, and they will be analyzed for TPHg, TPHd, Oil & Grease (using Method 5520), benzene, toluene, ethylbenzene, and xylenes, and heavy metals.

.5-1334 03:03 FRUM HECO HHZMH! 10

Mr. Walter Inglehoffer Re: 431 San Pablo Avo. May 2, 1994 Page 2 of 3

- Jo Ground water samples are to be collected and analyzed quarterly, and water level measurements and corresponding ground water gradient determinations are to be collected monthly for the first year, and quarterly thereafter.
- o The referenced quarterly reports must describe the status of the investigation and must include, among others, the following elements:
 - o Details and results of all work performed during the designated period of time: records of field observations and data, boring and well construction logs, water level data, chain-of-custody forms, laboratory results for all samples collected and analyzed, tabulations of free product thicknesses and dissolved fractions, etc.
 - o Status of ground water contamination characterization
 - o Interpretations of results: water level contour maps showing gradients, free and dissolved product plume definition maps for each target component, geologic cross sections, etc.
 - o Recommendations or plans for additional investigative work or remediation

A revised site plan showing the new location of the above monitoring wells and boring shall be submitted to this office within 20 days of the date of this letter.

Please be aware that further investigations to fully characterize the extent and severity of soil and ground water contamination, and remediation measures will most likely be required, following this phase of work.

Lastly, this office has no documentation for the fate of the excavated/stockpiled soil. Please submit this documentation to this office within 20 days of the date of this letter.

5200111 L'61

If you have any questions or comments, please contact me at (510) 271-4530.

Sincerely,

Juliet Shin Hazardous Materials Specialist

cc: Mr. Robert Falaschi 3080 Frye St. Oakland, CA 94602

> Larry Hudson OHM Remediation Services Corp. 1990 North California Blvd., Ste 400 Walnut Creek, CA 94596

Edgar Howell-File(JS)

APPENDIX B			
WELL PERMIT	 		

91992



ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE

PLEASANTON, CALIFORNIA 94588

VOICE (510) 484-2600 FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE	FOR OFFICE USE
LOCATION OF PROJECT Garker Securce Contest 431 San Pablo Ave. Albort CA.	PERMIT NUMBER 94506
CLIENT Name Charles Tire and Rober Co. Address 7301 Ambridger Row Voice City P.O. Box 660245 Zib 75266-0245 APPLICANT Name OHM Rend which Sequices Corp. Address 5731 W. LAS bis line Blad. Voice 510-227-0307 City (1000000000000000000000000000000000000	PERMIT CONDITIONS Circled Permit Flequirements Apply A GENERAL 1. A permit application should be submitted so as to arrive at the Zone 7 affice five days prior to proposed starting date. 2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects. 3. Permit is void if project not begun within 90 days of approval date. 8. WATER WELLS, INCLUDING PIEZOMETERS 1. Minimum surface seal thickness is two inches of cement grout placed by tremile. 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet. C. GEOTECHNICAL. Backtill bore hole with compacted cuttings or heavy bentanits and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings. D. CATHODIC. Fill hale above anode zone with concrete placed by tremie. E. WELL DESTRUCTION. See attached.
hereby agree to comply with all requirements of this parmit and Alameda County Ordinance No. 73-68.	Approved Croing a. Mayfill Date 6 Sep 94
APPLICANTS BIGNATURE Jacon Walk Date 8-23-94	91892

APPENDIX C GEOLOGIC LOGS AND WELL CONSTRUCTION DIAGRAMS _____

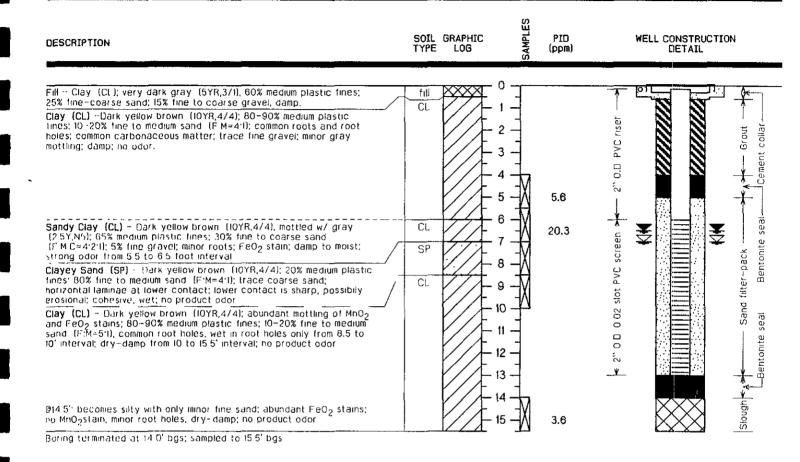
Hole No. MW-1

PROJECT: Goodyear-Albany

DRILL RIG: Mobile B57 HOLE DIA.: 8.0 in.

INITIAL H20 DEPTH: 7.0 ft. FINAL H20 DEPTH: 6.5 ft.

DATE DRILLLED: 8/31/94 LOGGED BY: Tracy Walker SAMPLER: Tracy Walker TOC ELEV.: 22.10 MSL ft. TOTAL DEPTH: 15.5 ft,



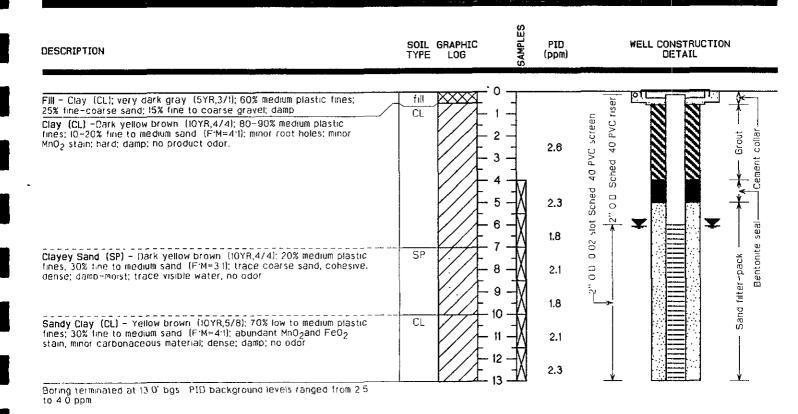
Hole No. MW-2

PROJECT: Goodyear-Albany

DRILL RIG: Mobile B57 HOLE DIA.: 8.0 in.

INITIAL H20 DEPTH: ft. FINAL H20 DEPTH: 6.06 ft.

DATE DRILLLED: 8/31/94 LOGGED BY: Tracy Walker SAMPLER: Tracy Walker TOC ELEV.: 22.38 MSL ft. TOTAL DEPTH: 13.0 ft.



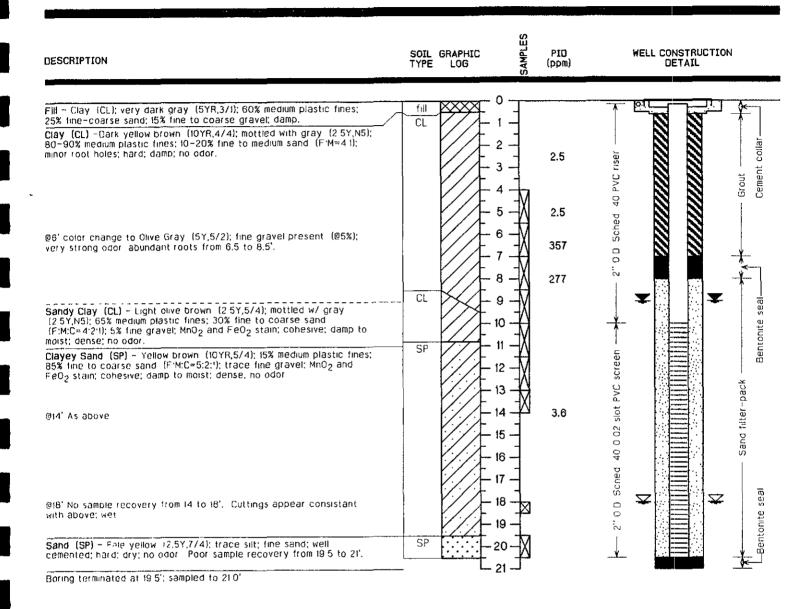
Hole No. MW-3

PROJECT: Goodyear-Albany
DRILL RIG: Mobile B57

HOLE DIA.: 8.0 in.

INITIAL H20 DEPTH: 18.0 ft. FINAL H20 DEPTH: 9.0 ft.

DATE DRILLLED: 8/31/94 LOGGED BY: Tracy Walker SAMPLER: Tracy Walker TOC ELEV.: 22.33 MSL ft. TOTAL DEPTH: 21.0 ft.



Hole No. SB-1

PROJECT: Goodyear-Albany

DRILL RIG: Mobile B57 HOLE DIA.: 8.0 in.

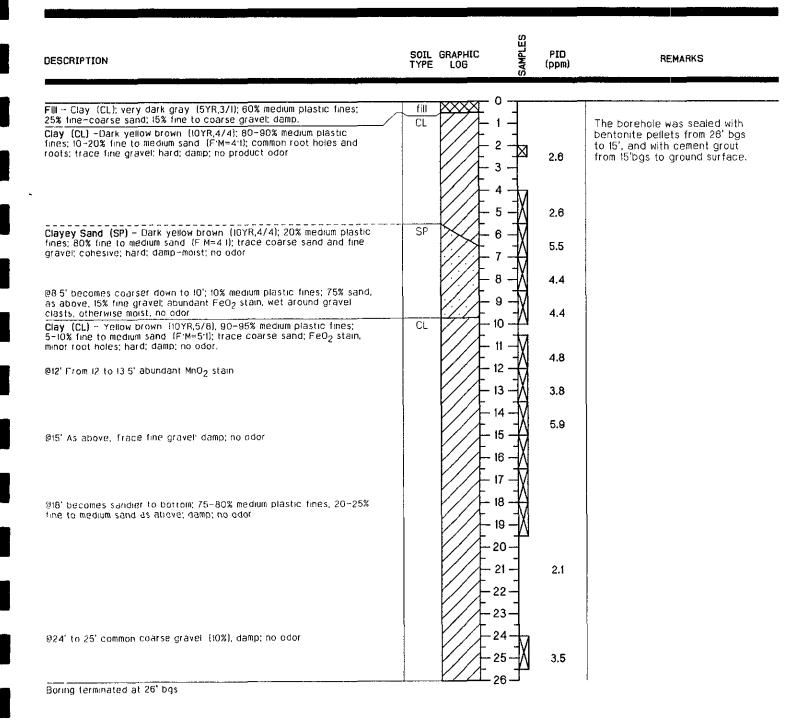
INITIAL H20 DEPTH: NA ft.

FINAL H20 DEPTH: NA ft.

DATE DRILLLED: 8/31/94 LOGGED BY: Tracy Walker SAMPLER: Tracy Walker

TOC ELEV.: NA

TOTAL DEPTH: 26.0 ft.



APPENDIX D		
MONITORING	WELL DEVELOPMENT AND SAMPLING FIELD	
DATA SHEETS		

WELL SAMPLING LOG

PROJECT INFORMATION:					
PROJECT NUMBER: PROJECT NAME: PROJECT LOCATION		22 Lyser	- - -	WELL ID DATE:	: MU-1 9-7-94
WELL MEASUREME	NT:			· · · · · · · · · · · · · · · · · · ·	
Depth to Bottom (DB) Depth to Water (DTW) Height of Water Column (F Casing Volumn (CV) = ID m Purge Volume (3 x CV) Point of Measurement: To	ult x H	12.8 6.32 6.48 1 3	ft. 4 ii ft. 6 ii	nch ID mult = 0. nch ID mult = 0. nch ID mult = 1. nch ID mult = 2.	65gal./ft. 47gal./ft.
PURGE DATA:					
Time pH Temp (F) Conductivity (us) Turbidity (NTU) Dissolved Oxygen (ppm) Odor Volume Purged (mL) SAMPLING INFORM Sample Number Sample Date/Time Sampler ID Witness ID Weather Condition Sample Collection Meti	- -	9-7 72 n Clac Disp	idy, co	bailir	
Volume Collected COMMENTS:		[3x 40	ml; 2 x	14;1×1	plustic
Woter Level ma			6-54.		
Form completed by: 🐰	tracy V	Valker		Date: 9-	7-94

	WELL SAMPLING LOG					
PROJECT INFORMATION:						
PROJECT NUMBER: PROJECT NAME: PROJECT LOCATION:		ZZ Lyeor any, CA		WELL ID: DATE:	MW-2-94	
WELL MEASUREMEN	NT:					
Depth to Bottom (DB) Depth to Water (DTW) Height of Water Column (H Casing Volumn (CV) = ID mu Purge Volume (3 x CV) Point of Measurement: 70 C	dt × H	12.65 7.13 5.52 0.9 2.7	ft. 4 incl	1ID mult = 0.1 1ID mult = 0.6 1ID mult = 1.4 1ID mult = 2.6	5gal./ft. 7gal./ft.	
PURGE DATA:		· · ·				
Time pH Temp (F)	1032 7.59	1036 7.47	1040 7.36			
Conductivity (us) Turbidity (NTU)	67.2 470 200	67.9 481 > 200	67.0 536 > 200			
Dissolved Oxygen (ppm) Odor	none		7.00			
Volume Purged (mt.)	0.9	1,8	2,7			
SAMPLING INFORMA	ATION:					
Sample Number Sample Date/Time Sampler ID Witness ID Weather Condition Sample Collection Meth Volume Collected	- od -	9-7 722 clou	idy coo	1350	l plastic	
COMMENTS: Viker love measure nonts from 9-6-94. After 300 well volume.						
water jover preasure,	way then	n 7-6-9	7. After	5 - well	volume_	

sampling.

Form completed by: Lacy Willer

Date: 9-7-54

WELL SAMPLING LOG

PROJECT INFORMATE PROJECT NUMBER: PROJECT NAME: PROJECT LOCATION:		122 Lyour any, CH	 	WELL ID DATE:	9-7-94
WELL MEASUREMEN	VT:				
Depth to Bottom (DB)		19.5	1	$ch \mid D mult = 0.$	· '
Depth to Water (DTW)		8.75	J ' 1	ch ID mult = 0.	- 1
Height of Water Column (H) = DB-DTW 10.75 ft. 6 inch ID mult = 1.47gal./ft					· ·
Casing Volumn (CV) = ID $mult \times H$ gal. 8 inch ID $mult = 2.61$ gal./ft.					
Purge Volume (3 x CV) S. 1 gal.					
Point of Measurement:		·			
PURGE DATA:	*** <u>**********************************</u>				
Time	1107	1/13	1/20		1
pН	7.10	7. z.o	7.14		
Temp (F)	66.5	_66,6	68.6		
Conductivity (us)	420	472	480		
Turbidity (NTU)	7200	7 200	> 200		
Dissolved Oxygen (ppm)	-	-	_		
Odor	Fairt	none	none		
Volume Purged (mL)	1,7	3.4	5.1		
SAMPLING INFORM	ATION:				
Sample Number		M	w-3	****	
Sample Date/Time			1-94	1405	
Sampler ID		TLL	 シ	*************************************	
Witness ID					
Weather Condition		Sum	m. ut	rmi	
Sample Collection Meth	ıod	Dispo	solly b	ailer	
Volume Collected		3 x 40	mL:2xi	16:1x1	1 L plassic
COMMENTS:					
	, ,	0 6 -	_		
water level masurem	unts Trus	n 7-6-94	' -		
		<u></u>			

Date: 9-1-94

Form completed by: Jacy Walker

WELL DEVELOPMENT LOG

PROJECT INFORMAT	ΓΙΟΝ:				
PROJECT NUMBER: PROJECT NAME: PROJECT LOCATION:		22 dyocv My, CA	- -	WELL ID: _ DATE: _	MW-2 9-6-94
WELL MEASUREMEN	VT:	···			
Depth to Bottom (DB) Depth to Water (DTW) Height of Water Column (Height of Water Column (CV) = ID m Purge Volume (3'x CV) Point of Measurement: 700	ult x H	12.8 6.32 6.48	ft. 4 inch ft. 6 inch	ID mult = 0.16 ID mult = 0.65 ID mult = 1.47 ID mult = 2.61	gal./ft. gal./ft.
PURGE DATA:					
Time	1130	1/36	1140	1144.	1148
рН	7.04	7.09	6.91	7,09	7.08
Temp (F)	73,0	74,6	72.3	72:5	70.4
Conductivity (us)	1064	876	78/	803	76z
Turbidity (NTU)	> 205	> 200	7200	> 2000	>200
Dissolved Oxygen (ppm)	_			-	
Odor	nono	nme	none	none	1000
Volume Purged (mL) çak	1.2	14	16	/8	Zò
SAMPLING INFORM	IATION:	··········			
Sample Number Sample Date/Time Sampler ID Witness ID Weather Condition Sample Collection Met Volume Collected	hod				
COMMENTS: Surge Bail & S gal muste	,		•		
;	·				
Form completed by:				Date:	

WELL DEVELOPMENT LOG

PROJECT INFORMAT	ION:				
PROJECT NUMBER: PROJECT NAME: PROJECT LOCATION:		year iny	- - -	WELL ID: DATE:	mw-2 9-6-94
WELL MEASUREMEN	T:				
Depth to Bottom (DB) Depth to Water (DTW) Height of Water Column (H) Casing Volumn (CV) = ID mu Purge Volume (\$\frac{1}{2} \times CV) Point of Measurement: \$\tau \infty C	ilt x H	月2.65 7.13 5.52 0.9	ft. 4 inc	th) D mult = 0.10 th ID mult = 0.6 th ID mult = 1.4 th ID mult = 2.6	5gal./ft. 7gal./ft.
PURGE DATA:					
Time pH	1358 7.28	7.17	1409 7.18		
Temp (F)	70.6	68.0	66.7		
Conductivity (us)	630	720	572		
Turbidity (NTU)	> 200	> 200	> 200		<u> </u>
Dissolved Oxygen (ppm)					
Odor	nine	none	none		
Volume Purged (mL)	6	7	. 8		
SAMPLING INFORM	ATION:				
Sample Number Sample Date/Time Sampler ID Witness ID					
Weather Condition					
Sample Collection Met	hod				
Volume Collected					
COMMENTS: Surge Bailed & 5 gol.			y . Tasçı	Luder	A 11.55-64
which leaves as	1 ft of u	witer 1	ing vate	r 9x 135	76 C+ 95 F4
Buil 8 gals. MA)	tagged at	12.1 ft.	156p a	bue James	*
Form completed by:				Date:	

WELL DEVELOPMENT LOG

PROJECT INFORMATION:						
PROJECT NUMBER: PROJECT NAME: PROJECT LOCATION:	Cox	122 Lyew any, CA	- -	WELL ID: _	<u>MW-3</u> 9-6-94	
WELL MEASUREMEN	VT:					
Depth to Bottom (DB) Depth to Water (DTW) Height of Water Column (H Casing Volumn (CV) = ID m Purge Volume (3 x CV) Point of Measurement: Tax	ult x H	8.75 10.75 1.7	ft. 4 inch ft. 6 inch	ID mult = 0.16 ID mult = 0.65g ID mult = 1.47g ID mult = 2.61g	gal./ft. gal./ft.	
PURGE DATA:				_		
Time	1457	1504	1208	1513.		
pН	7.3/	7.32	7, 2.4	7,32		
Temp (F)	74.4	72,3	69.7	68,4		
Conductivity (us)	603	579	543	529	• • .	
Turbidity (NTU)	> 200	> 200	> 200	> 200		
Dissolved Oxygen (ppm)					4.	١.
Odor	nine	acro	none	none	is.	
Volume Purged (mL)	9	1/	/.3	15 "		
SAMPLING INFORM	ATION:	·····		× 37		
Sample Number						
Sample Date/Time						ĺ
Sampler ID						ĺ
Witness ID				··········		į
Weather Condition						
Sample Collection Meth	nod					ĺ
Volume Collected						
COMMENTS: Surge					······································	•
Build 8 seel and 1	vell um	t day , 7	assed wa	ter at 18	.8. kss.41	an
Build & seel and water of	Bailed dr	y dt 15	gd. 5to	p develo	prior	•
Form completed by:	****			Pate:		

APPENDIX E CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION: SOIL AND GROUNDWATER



September 22, 1994

Mr. Tracy Walker O.H. Materials Corp. 5731 West Las Positas Boulevard Pleasanton, CA 94588

RE: PACE Project No. 440901.512 Client Reference: 15422 Goodyear

Dear Mr. Walker:

Enclosed is the report of laboratory analyses for samples received September 01. 1994.

Footnotes are given at the end of the report.

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

Sincerely.

Shellie L. Hoyf Weeks

Shellie L. Hoyt-Weeks

Project Manager

Enclosures



September 22, 1994

PACE Project Number: 440901512

O.H. Materials Corp. 5731 West Las Positas Boulevard Pleasanton, CA 94588

Attn: Mr. Tracy Walker

Client Reference: 15422 Goodyear

PACE Sample Number: Date Collected: Date Received:

70 0386543 08/31/94 09/01/94 MW-1-5'

<u>Parameter</u>	<u>Units</u>	MDL	MW-1-5	DATE ANALYZED
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS Cadmium (EPA Method 6010/200.7, ICP) Chromium (EPA Method 6010/200.7, ICP) Lead (EPA Method 6010/200.7, ICP) Nickel (EPA Method 6010/200.7, ICP) Zinc (EPA Method 6010/200.7, ICP)	mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet	1 10 2	ND 71 ND 110 41	09/08/94 09/08/94 09/08/94 09/08/94 09/08/94
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene	ug/kg wet ug/kg wet ug/kg wet ug/kg wet	1000 5.0 5.0 5.0	- 11000 HP - ND ND ND	09/08/94 09/08/94 09/08/94 09/08/94 09/08/94 09/08/94
Xylenes, Total	ug/kg wet	5.0	ND	09/08/94
EXTRACTABLE FUELS EPA 3550/8015 Extractable Fuels, as Diesel Date Extracted	mg/kg	5.0	72 09/06/94	09/09/94
OIL AND GREASE. SILICA GEL (LUFT) Oil and Grease. Gravimetric (SM5520) Date Extracted	mg/kg wet	50	80 09/06/94	09/06/94



Mr. Tracy Walker

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September 22, 1994

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number: Date Collected:

Date Received:

70 0386551 08/31/94 09/01/94 MW-1-7'

Client Sample ID:

<u>Parameter</u> <u>Units</u> <u>MDL</u>

DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL	PARAMETERS
*C = d==4 (E1	OA Mathand CC

Cadmium (EPA Method 6010/200.7, ICP)	mg/kg wet	1	ND	09/08/94
Chromium (EPA Method 6010/200.7, ICP)	mg/kg wet	1	66	09/08/94
Lead (EPA Method 6010/200.7, ICP)	mg/kg wet	10	11	09/08/94
Nickel (EPA Method 6010/200.7, ICP)	mg/kg wet	2	150	09/08/94
Zinc (EPA Method 6010/200.7, ICP)	mg/kg wet	1	56	09/08/94

ORGANIC ANALYSIS

PURGEABLE	FUELS	AND	AROMATICS
TOTAL CHEL	HADDU	ገሮለው፤	OMS (LITCH

TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene	ug/kg wet ug/kg wet ug/kg wet ug/kg wet		ND ND ND ND ND	09/08/94 09/08/94 09/08/94 09/08/94 09/08/94
Xylenes, Total	ug/kg wet	5.0	ND	09/08/94
EXTRACTABLE FUELS EPA 3550/8015 Extractable Fuels, as Diesel Date Extracted	mg/kg	5.0	15 09/06/94	09/09/94
OIL AND GREASE SILICA GEL (LUET)				

mg/kg wet 50

ND 09/06/94 09/06/94



Mr. Tracy Walker

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September 22, 1994

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number:

Date Collected: Date Received:

Client Sample ID:

<u>Parameter</u>

70 0386578

08/31/94 09/01/94

MW-1-15'

Units MDL DATE ANALYZED

SUBCONTRACT ANALYSIS

INDIVIDUAL PARAMETERS No analysis requested

\$

/ /



September 22, 1994 Mr. Tracy Walker

PACE Project Number: 440901512 Page

Client Reference: 15422 Goodyear

PACE Sample Number:	70 0386586
Date Collected:	08/31/94
Date Received:	09/01/94
Client Sample ID:	MW-2-5'

DATE ANALYZED Parameter Units MDL

INORGANIC ANALYSIS

/kg wet 1 ND 09/08/94
/kg wet 1 87 09/08/94
/kg wet 10 18 09/08/94
/kg wet 2 83 09/08/94
/kg wet 1 34 09/08/94
1

ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene	ug/kg wet ug/kg wet ug/kg wet ug/kg wet	1000 5.0 5.0 5.0	ND ND ND ND ND	09/08/94 09/08/94 09/08/94 09/08/94 09/08/94 09/08/94
Xylenes, Total	ug/kg wet	5.0	ND	09/08/94
EXTRACTABLE FUELS EPA 3550/8015 Extractable Fuels, as Diesel Date Extracted	mg/kg	5.0	ND 09/06/94	09/09/94
OIL AND GREASE, SILICA GEL (LUFT) Oil and Grease, Gravimetric (SM5520) Date Extracted	mg/kg wet	50	ND 09/06/94	09/06/94



70 0386608 08/31/94

09/01/94

MW-2-7'

Mr. Tracy Walker

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September 22, 1994

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number: Date Collected:

Date Received:

Client Sample ID: Parameter

Units

MDL.

DATE ANALYZED

SUBCONTRACT ANALYSIS

INDIVIDUAL PARAMETERS No analysis requested

\$



Mr. Tracy Walker

Page

September 22, 1994

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number: 70 0386616 Date Collected: 08/31/94 Date Received: 09/01/94 Client Sample ID: MW-2-8'

Parameter Units MDL DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS				
Cadmium (EPA Method 6010/200.7, ICP)	mg/kg wet	1	ND	09/08/94
Chromium (EPA Method 6010/200.7, ICP)	mg/kg wet		69	09/08/94
Lead (EPA Method 6010/200.7, ICP)	mg/kg wet	10	ND	09/08/94
Nickel (EPA Method 6010/200.7, ICP)	mg/kg wet	2	81	09/08/94
Zinc (EPA Method 6010/200.7, ICP)	mg/kg wet		46	09/08/94

ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene	ug/kg wet ug/kg wet ug/kg wet ug/kg wet		ND ND ND ND ND	09/08/94 09/08/94 09/08/94 09/08/94 09/08/94 09/08/94
Xylenes, Total	ug/kg wet	5.0	ND	09/08/94
EXTRACTABLE FUELS EPA 3550/8015 Extractable Fuels, as Diesel Date Extracted	mg/kg	5.0	ND 09/06/94	09/09/94
OIL AND GREASE, SILICA GEL (LUFT) Oil and Grease, Gravimetric (SM5520) Date Extracted	mg/kg wet	50	ND 09/06/94	09/06/94



Mr. Tracy Walker

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September 22, 1994

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number: Date Collected:

Date Received:

Client Sample ID:

Parameter

70 0386632

08/31/94 09/01/94

MW-2-13'

Units

MDL

DATE ANALYZED

SUBCONTRACT ANALYSIS

INDIVIDUAL PARAMETERS No analysis requested

\$



Mr. Tracy Walker

September 22, 1994 Page

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number: 70 0386640 Date Collected: 08/31/94

Date Received: 09/01/94 Client Sample ID: MW-3-5

Parameter Units MDL DATE ANALYZED

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): 09/14/94 Purgeable Fuels, as Gasoline (EPA 8015M) ug/kg wet ND 09/14/94 1000 PURGEABLE AROMATICS (BTXE BY EPA 8020M): 09/14/94 5.0 09/14/94 ND Benzene ug/kg wet Toluene 5.0 09/14/94 ug/kg wet ND Ethylbenzene 09/14/94 ug/kg wet 5.0 ND Xylenes, Total 09/14/94 ug/kg wet 5.0 ND EXTRACTABLE FUELS EPA 3550/8015 Extractable Fuels, as Diesel 09/15/94 mg/kg 5.0 ND Date Extracted 09/14/94 OIL AND GREASE, SILICA GEL (LUFT) Oil and Grease, Gravimetric (SM5520) 50 ND 09/20/94 mg/kg wet Date Extracted 09/19/94



Mr. Tracy Walker

September 22, 1994 PACE Project Number: 440901512 Page

Client Reference: 15422 Goodyear

PACE Sample Number:	70 0386667
Date Collected:	08/31/94
Date Received:	09/01/94
Client Cample ID.	MU 2 7'

MW-3-/ Client Sample ID: Units MDL DATE ANALYZED Parameter

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS				
Cadmium (EPA Method 6010/200.7, ICP)	mg/kg wet	1	ND	09/08/94
Chromium (EPA Method 6010/200.7, ICP)	mg/kg wet	1	59	09/08/94
Lead (EPA Method 6010/200.7, ICP)	mg/kg wet	10	ND	09/08/94
Nickel (EPA Method 6010/200.7, ICP)	mg/kg wet	2	69	09/08/94
Zinc (EPA Method 6010/200.7, ICP)	mg/kg wet	1	42	09/08/94

ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M)	mg/kg wet	50	- 1000(PPM) HP	09/10/94 09/10/94
PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene	ug/kg wet ug/kg wet ug/kg wet	250 250 250	ND ND ND	09/10/94 09/10/94 09/10/94 09/10/94
Xylenes, Total	ug/kg wet	250	ND	09/10/94
EXTRACTABLE FUELS EPA 3550/8015 Extractable Fuels, as Diesel Date Extracted	mg/kg	250	2000 09/06/94	09/13/94
OIL AND GREASE, SILICA GEL (LUFT) Oil and Grease, Gravimetric (SM5520) Date Extracted	mg/kg wet	50	2200 09/06/94	09/06/94



Mr. Tracy Walker

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September 22, 1994

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number: Date Collected:

Date Received:

Client Sample ID:

70 0386675

08/31/94 09/01/94

MW-3-8

<u>Parameter</u> <u>Units</u> <u>MDL</u> <u>D</u>

DATE ANALYZED

SUBCONTRACT ANALYSIS

INDIVIDUAL PARAMETERS No analysis requested

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Mr. Tracy Walker

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September 22, 1994 PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number: 70 0386691 Date Collected: Date Received: 08/31/94 09/01/94

Client Sample ID: MW-3-13'

MDL. DATE ANALYZED Parameter Units

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS				
Cadmium (EPA Method 6010/200.7, ICP)	mg/kg wet	1	ND	09/08/94
Chromium (EPA Method 6010/200.7, ICP)	mg/kg wet	1	54	09/08/94
Lead (EPA Method 6010/200.7, ICP)	mg/kg wet	10	ND	09/08/94
Nickel (EPA Method 6010/200.7, ICP)	mg/kg wet	2	84	09/08/94
Zinc (EPA Method 6010/200.7, ICP)	mg/kg wet	1	40	09/08/94

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URGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene	ug/kg wet ug/kg wet ug/kg wet ug/kg wet	1000 5.0 5.0 5.0	ND ND ND ND ND	09/08/94 09/08/94 09/08/94 09/08/94 09/08/94 09/08/94
Xylenes. Total	ug/kg wet	5.0	ND	09/08/94
EXTRACTABLE FUELS EPA 3550/8015 Extractable Fuels, as Diesel Date Extracted	mg/kg	5.0	ND 09/06/94	09/09/94
OIL AND GREASE. SILICA GEL (LUFT) Oil and Grease. Gravimetric (SM5520) Date Extracted	mg/kg wet	50	ND 09/06/94	09/06/94



Mr. Tracy Walker September 22, 1994

Page 12 PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number: 70 0386705 Date Collected: 08/31/94 Date Received: 09/01/94

Client Sample ID: SB-1-5'

Parameter	<u>Units</u>	MDL_	SB-1-5	DATE ANALYZED
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS Cadmium (EPA Method 6010/200.7, ICP) Chromium (EPA Method 6010/200.7, ICP) Lead (EPA Method 6010/200.7, ICP) Nickel (EPA Method 6010/200.7, ICP) Zinc (EPA Method 6010/200.7, ICP)		1 1 10 2 5	ND 49 ND 99 39	09/14/94 09/14/94 09/14/94 09/14/94 09/14/94
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene	ug/kg wet ug/kg wet ug/kg wet	1000 5.0 5.0	ND ND ND	09/09/94 09/09/94 09/09/94 09/09/94 09/09/94

Ethylbenzene	ug/kg wet		ND	09/09/94
Xylenes. Total	ug/kg wet	5.0	ND	09/09/94
EXTRACTABLE FUELS Extractable Fuels, Date Extracted	 mg/kg	5.0	ND 09/06/94	09/09/94

OIL AND GREASE, SILICA GEL (LUFT) Oil and Grease, Gravimetric (SM5520) $\,$ mg/kg wet 50 $\,$ 100 $\,$ 09/06/94 Date Extracted $\,$ 09/06/94



Mr. Tracy Walker

September 22, 1994 Page 13 PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number: 70 0386713 Date Collected: 08/31/94

Date Received: 09/01/94 Client Sample ID: SB-1-8'

MDL DATE ANALYZED Parameter Units

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS				
Cadmium (EPA Method 6010/200.7, ICP)	mg/kg wet	1	ND	09/14/94
Chromium (EPA Method 6010/200.7, ICP)	mg/kg wet	1	90	09/14/94
Lead (EPA Method 6010/200.7, ICP)	mg/kg wet	10	ND	09/14/94
Nickel (EPA Method 6010/200.7, ICP)	mg/kg wet	2	130	09/14/94
Zinc (FPA Method 6010/200.7, ICP)	ma/ka wet	5	65	09/14/94

ORGANIC ANALYSIS

UNUANTO ANALISTS				
PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene	ug/kg wet ug/kg wet ug/kg wet ug/kg wet		ND ND ND ND ND	09/09/94 09/09/94 09/09/94 09/09/94 09/09/94 09/09/94
Xylenes, Total	ug/kg wet	5.0	ND	09/09/94
EXTRACTABLE FUELS EPA 3550/8015 Extractable Fuels, as Diesel Date Extracted	mg/kg	5.0	ND 09/06/94	09/09/94
OIL AND GREASE, SILICA GEL (LUFT) Oil and Grease, Gravimetric (SM5520) Date Extracted	mg/kg wet	50	ND 09/06/94	09/06/94



September 22, 1994 Mr. Tracy Walker

Page 14 PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number: Date Collected: Date Received: 70 0386721 08/31/94

09/01/94 Client Sample ID: SB-1-10'

MDL Parameter Units DATE ANALYZED

SUBCONTRACT ANALYSIS

INDIVIDUAL PARAMETERS 'No analysis requested \$



Mr. Tracy Walker September 22, 1994

Page 15 PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number: 70 0386730 Date Collected: 08/31/94 Date Received: 09/01/94

Client Sample ID: SB-1-15'

Parameter Units MDL DATE ANALYZED

SUBCONTRACT ANALYSIS

INDIVIDUAL PARAMETERS
No analysis requested \$ / /



Mr. Tracy Walker

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September 22, 1994 PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number: Date Collected: Date Received:

Client Sample ID:

Parameter

70 0386748 08/31/94

09/01/94

SB-1-20'

Units

MDL

DATE ANALYZED

SUBCONTRACT ANALYSIS

INDIVIDUAL PARAMETERS No analysis requested

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/ /



Mr. Tracy Walker

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September 22, 1994

PACE Project Number: 440901512

/ /

Client Reference: 15422 Goodyear

PACE Sample Number: Date Collected:

Date Received:

Client Sample ID: Parameter

08/31/94 09/01/94

SB-1-25'

70 0386756

MDL Units DATE ANALYZED

\$

SUBCONTRACT ANALYSIS

INDIVIDUAL PARAMETERS No analysis requested

11 Digital Orive Novato, CA 94949 TEL: 415-883-6100 FAX: 415-883-2673 An Equal Opportunity Employer



Mr. Tracy Walker

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September 22, 1994

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number: Date Collected:

Date Received:

Client Sample ID: Parameter

70 0386802

08/31/94

09/01/94 MW-1-5'

MDL DATE ANALYZED Extract

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

*Chromium (EPA Method 6010/200.7, ICP)

mg/L

Units

0.10

ND



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September 22, 1994

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number:

Date Collected:

Date Received:

Client Sample ID: Parameter

Units

MDL

MW-1-7' Extract

ND

70 0386810

08/31/94

09/01/94

DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Chromium (EPA Method 6010/200.7, ICP)

mq/L

0.10



Mr. Tracy Walker

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September 22, 1994

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number: Date Collected:

Date Received:

Client Sample ID:

Parameter

70 0386837

08/31/94 09/01/94

MW-2-5' Extract

DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Chromium (EPA Method 6010/200.7, ICP)

mg/L

Units

0.10

MDL.

ND



Mr. Tracy Walker

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September 22, 1994 PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number: Date Collected:

Date Received:

Client Sample ID:

70 0386845

08/31/94 09/01/94

MW-2-8'

DATE ANALYZED MDL Parameter Units Extract

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Chromium (EPA Method 6010/200.7, ICP)

mq/L 0.10 ND



Mr. Tracy Walker

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September 22, 1994

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number:

Date Collected:

Date Received:

Client Sample ID:

70 0386853

08/31/94 09/01/94

MW-3-7'

Parameter Units

MDL Extract

DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

*Chromium (EPA Method 6010/200.7, ICP)

mg/L

0.10

0.39



Mr. Tracy Walker

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September 22, 1994

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number:

Date Collected:

Date Received:

Client Sample ID:

<u>Parameter</u>

70 0386870

08/31/94

09/01/94 MW-3-13'

MDL Extract DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

*Chromium (EPA Method 6010/200.7, ICP)

mg/L

Units

0.10

ND

09/14/94



Mr. Tracy Walker

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September 22, 1994

PACE Project Number: 440901512

09/14/94

Client Reference: 15422 Goodyear

PACE Sample Number:

Date Collected:

Date Received:

Client Sample ID: Parameter

Units

08/31/94

09/01/94 SB-1-5'

70 0386888

Extract <u>DATE ANALYZED</u>

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

*Chromium (EPA Method 6010/200.7, ICP)

mg/L

ND

MDL

0.10



Mr. Tracy Walker

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September 22, 1994

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PACE Sample Number: Date Collected:

Date Received:

Client Sample ID: Parameter

Units

MDL

SB-1-8' Extract

09/01/94

70 0386896 08/31/94

DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Chromium (EPA Method 6010/200.7, ICP)

mg/L

0.10

ND

09/14/94

These data have been reviewed and are approved for release.

Darrell C. Cain Regional Director



Mr. Tracy Walker Page 26

FOOTNOTES 1 through 25 for pages

September 22, 1994

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

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Analytical results are not available. Hydrocarbons present do not match profile of laboratory standard. HP

MDL Method Detection Limit

Not detected at or above the MDL. ND



Mr. Tracy Walker Page 27

QUALITY CONTROL DATA

September 22, 1994

Reference

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

Lead (EPA Method 6010/200.7, ICP)

Batch: 70 33966 Samples: 70 0386705, 70 0386713

METHOD BLANK AND SAMPLE DUPLICATE:

Parameter Cadmium (EPA Method 6010/200.7, ICP) Chromium (EPA Method 6010/200.7, ICP) Lead (EPA Method 6010/200.7, ICP) Nickel (EPA Method 6010/200.7, ICP) Zinc (EPA Method 6010/200.7, ICP)	Units mg/kg wet mg/kg wet mg/kg wet mg/kg wet	1 10 2	Method Blank ND ND ND ND ND	700389500 ND	Duplicate of 70 0389500 ND	<u>RPD</u> NC
Zinc (EPA Method 6010/200./, ICP)	mg/kg wet	5	NU			

SPIKE:

					Spike
Parameter	Units	MDL	700389500	Spike	Recv
Lead (EPA Method 6010/200.7, ICP)	mg/kg wet	10	ND	46.3	105%

LABORATORY CONTROL SAMPLE:

Parameter	Units	MDL	Value	Recv
Cadmium (EPA Method 6010/200.7, ICP)	mg/kg wet	1	5.00	90%
Chromium (EPA Method 6010/200.7, ICP)	mg/kg wet	1	20	98%
Lead (EPA Method 6010/200.7, ICP)	mg∕kg wet	10	50	96%
Nickel (EPA Method 6010/200.7, ICP)	mg/kg wet	2	50	96%
Zinc (EPA Method 6010/200.7, ICP)	mg/kg wet	5	50	98%



Mr. Tracy Walker Page 28 QUALITY CONTROL DATA

September 22, 1994

Reference

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

Lead (EPA Method 6010/200.7, ICP)

Batch: 70 33974

Samples: 70 0386802, 70 0386810, 70 0386837, 70 0386845, 70 0386853

70 0386870, 70 0386888, 70 0386896

METHOD BLANK:

Parameter Cadmium (EPA Method 6010/200.7, ICP) Chromium (EPA Method 6010/200.7, ICP) Cobalt (EPA Method 6010/200.7, ICP) Copper (EPA Method 6010/200.7, ICP) Lead (EPA Method 6010/200.7, ICP) Nickel (EPA Method 6010/200.7, ICP)	Units mg/L mg/L mg/L mg/L mg/L	MDL 0.050 0.10 0.10 0.10 1.0 0.20	Method Blank ND ND ND ND ND ND ND
Vanadium (EPA Method 6010/200.7, ICP)	mg/L	0.10	ND
Zinc (EPA Method 6010/200.7, ICP)	mg/L	0.10	ND

LABORATORY CONTROL SAMPLE:

			I/C F C I G I I C G	
Parameter	Units	MDL.	Value	Recv
Cadmium (EPA Method 6010/200.7, ICP)	mg/L	<u>0.0</u> 50	0.50	98%
Chromium (EPA Method 6010/200.7, ICP)	mg/L	0.10	2.0	102%
Cobalt (EPA Method 6010/200.7, ICP)	mg/L	0.10	5.0	108%
Copper (EPA Method 6010/200.7, ICP)	mg/L	0.10	2.5	90%
Lead (EPA Method 6010/200.7, ICP)	mg/L	1.0	5.0	107%
Nickel (EPA Method 6010/200.7, ICP)	mg/L	0.20	5.0	109%
Vanadium (EPA Method 6010/200.7, ICP)	mg/L	0.10	5.0	99%
Zinc (EPA Method 6010/200.7, ICP)	mg/L	0.10	5.0	110%



Mr. Tracy Walker Page 29 QUALITY CONTROL DATA

September 22, 1994

PACE Project Number: 440901512

RPD

32% NC 15% 19%

NC

Client Reference: 15422 Goodyear

CAM METALS IN SOIL MATRIX, ICP SCAN

Batch: 70 33814

Samples: 70 0386543, 70 0386551, 70 0386586, 70 0386616, 70 0386667

70 0386691

METHOD BLANK AND SAMPLE DUPLICATE:

<u>Parameter</u>	<u>Units</u>	MDL	Method <u>Blank</u>	700386691 MW-3-13'	Duplicate of 70 0386691	ļ
INDIVIDUAL PARAMETERS Chromium (EPA Method 6010/200.7, ICP) Lead (EPA Method 6010/200.7, ICP) Nickel (EPA Method 6010/200.7, ICP) Zinc (EPA Method 6010/200.7, ICP)	mg/kg wet mg/kg wet mg/kg wet mg/kg wet	2		54 ND 84 40	39 ND 72 33	
CAM METALS IN SOIL MATRIX, ICP SCAN Cadmium (EPA Method 6010/200.7, ICP) Antimony (EPA Method 6010/200.7, ICP) Barium (EPA Method 6010/200.7, ICP) Beryllium (EPA Method 6010/200.7, ICP) Cadmium (EPA Method 6010/200.7, ICP) Chromium (EPA Method 6010/200.7, ICP)	mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet	1 10 1 0.7 1	ND ND ND ND ND	ND	ND	
Cobalt (EPA Method 6010/200.7, ICP) Copper (EPA Method 6010/200.7, ICP) Lead (EPA Method 6010/200.7, ICP) Molybdenum (EPA Method 6010/200.7, ICP) Nickel (EPA Method 6010/200.7, ICP) Silver (EPA Method 6010/200.7, ICP)	mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet	1 2 10 2 2 1	ND ND ND ND ND ND			
Thallium (EPA Method 6010/200.7, ICP) Vanadium (EPA Method 6010/200.7, ICP) Zinc (EPA Method 6010/200.7, ICP)	mg/kg wet mg/kg wet mg/kg wet	20 1 1	ND ND ND			

SPIKE:

Parameter	<u>Units</u>	MDL	700386691 MW-3-13'	<u>Spike</u>	Spike <u>Recv</u>
INDIVIDUAL PARAMETERS Chromium (EPA Method 6010/200.7, ICP) Lead (EPA Method 6010/200.7, ICP)	mg/kg wet	10	54 ND	18. 46	111% 98%
Nickel (EPA Method 6010/200.7, ICP)	mg/kg wet	2	84	46	78%



Mr. Tracy Walker Page 30

QUALITY CONTROL DATA

September 22, 1994 PACE Project Number: 440901512

Client Reference: 15422 Goodyear

CAM METALS IN SOIL MATRIX, ICP SCAN

Batch: 70 33814

Samples: 70 0386543, 70 0386551, 70 0386586, 70 0386616, 70 0386667

70 0386691

SPIKE:

Parameter	<u>Units</u>	<u>MDL</u>	700386691 <u>MW-3-13'</u>	<u>Spike</u>	Spike <u>Recv</u>
CAM METALS IN SOIL MATRIX, ICP SCAN Zinc (EPA Method 6010/200.7, ICP) Cadmium (EPA Method 6010/200.7, ICP)	mg/kg wet mg/kg wet		40 ND	46 4.6	89% 102%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

EMBOTOTT CONTINUE SAIN EE AND CONTINUE S	// III LL DOI L.1	ONIC.	Reference		Dupl	
Parameter	Units	MDL	Value	Recv	Recv	RPD
Antimony (EPA Method 6010/200.7, ICP)	mg/kg wet	10	50	93%	88%	6%
Barium (EPA Method 6010/200.7, ICP)	mg/kg wet	1	100	91%	90%	1%
Beryllium (EPA Method 6010/200.7, ICP)	mg/kg wet	0.7	5 5	89%	88%	1%
Cadmium (EPA Method 6010/200.7, ICP)	mg/kg wet	1		89%	89%	0%
Chromium (EPA Method 6010/200.7, ICP)	mg/kg wet		20	93%	94%	1%
Cobalt (EPA Method 6010/200.7, ICP)	mg/kg wet	1	50	94%	94%	0%
0 (504.04.04.04.04.05.05.05.05.05.05.05.05.05.05.05.05.05.		•	0.5	0.00		
Copper (EPA Method 6010/200.7, ICP)	mg/kg wet		25	88%	0.00	004
Copper (EPA Method 6010/200.7, ICP)	mg/kg wet		σ.0	0.40	86%	2%
Lead (EPA Method 6010/200.7, ICP)	mg/kg wet		50	94%	97%	3%
Molybdenum (EPA Method 6010/200.7, ICP)			100	92%	91%	1%
Nickel (EPA Method 6010/200.7, ICP)	mg/kg wet		50	95%	93%	2%
Silver (EPA Method 6010/200.7, ICP)	mg/kg wet	1	5	101%	87%	15%
Thallium (EPA Method 6010/200.7, ICP)	mg/kg wet	20	100	94%	93%	1%
Vanadium (EPA Method 6010/200.7, ICP)	mg/kg wet		50	91%	90%	1%
Zinc (EPA Method 6010/200.7, ICP)	mg/kg wet	1 1	50 50	90%	91%	1% 1%
ZINC (LIA NECHOU OUTO/200./, TOF)	mg/kg wet	Т	50	20/0	<i>3</i> 1/0	1/0



Mr. Tracy Walker

QUALITY CONTROL DATA

September 22, 1994

Page 31

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

EXTRACTABLE FUELS EPA 3550/8015

Batch: 70 33841

Samples: 70 0386543, 70 0386551, 70 0386586, 70 0386616, 70 0386667

70 0386691, 70 0386705, 70 0386713

METHOD BLANK:

Method Units Parameter MDL Blank

Extractable Fuels, as Diesel ma/ka $\overline{\mathsf{ND}}$

SPIKE AND SPIKE DUPLICATE:

Spike 700386713 Spike Dupl MDL Spike 33.3 Parameter Units SB-1-8 Recv Recv RPD Extractable Fuels, as Diesel 5.0 ma/ka

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Reference Dupl Value Recv RPD Parameter Recv Units 80% Extractable Fuels, as Diesel 5.0 33.3 71% mg/kg



Mr. Tracy Walker

QUALITY CONTROL DATA

September 22, 1994

PACE Project Number: 440901512

Page 32

Client Reference: 15422 Goodyear

EXTRACTABLE FUELS EPA 3550/8015 Batch: 70 34018 Samples: 70 0386640

METHOD BLANK:

Method

Parameter

Units

Units

mg/kg

MDL

B1ank

Extractable Fuels, as Diesel

mg/kg 5.0 ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter Extractable Fuels, as Diesel

MDL

Reference Value

Dupl

Recv RPD Recv 92%

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



Mr. Tracy Walker

QUALITY CONTROL DATA

September 22, 1994

PACE Project Number: 440901512

Spike

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Client Reference: 15422 Goodyear

OIL AND GREASE, SILICA GEL (LUFT) Batch: 70 33789

Samples: 70 0386543

METHOD BLANK:

Method Parameter Units MDL B1ank Oil and Grease, Gravimetric (SM5520) mg/kg wet $\overline{\mathsf{ND}}$

SPIKE AND SPIKE DUPLICATE:

700386543 Spike Dupl Parameter MDL. MW-1-5 Recv RPD Units Spike Recv

99% 106% Oil and Grease, Gravimetric (SM5520) 50 mg/kg wet

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Reference Dup1 Parameter Units MDL Value Recv Recv RPD Oil and Grease, Gravimetric (SM5520) mg/kg wet 114% 667



Mr. Tracy Walker

QUALITY CONTROL DATA

September 22, 1994

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PACE Project Number: 440901512

Client Reference: 15422 Goodyear

OIL AND GREASE, SILICA GEL (LUFT)

Batch: 70 33811

Samples: 70 0386551, 70 0386586, 70 0386616, 70 0386667, 70 0386691

70 0386705. 70 0386713

METHOD BLANK:

Parameter Units MDL Blank
Oil and Grease. Gravimetric (SM5520) mg/kg wet 50 ND

SPIKE AND SPIKE DUPLICATE:

Spike
700386543 Spike Dupl
Parameter Units MDL MW-1-5' Spike Recv RPD

Oil and Grease, Gravimetric (SM5520) mg/kg wet 50 80 667 99% 106% 7%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter Units MDL Reference Dupl Value Recv RPD $\frac{Value}{8}$ Reference $\frac{Value}{667}$ Recv RPD $\frac{Value}{8}$



Mr. Tracy Walker Page 35

QUALITY CONTROL DATA

September 22, 1994

PACE Project Number: 440901512

Spike

OIL AND GREASE, SILICA GEL (LUFT)

Client Reference: 15422 Goodyear

Batch: 70 34181 Samples: 70 0386640

METHOD BLANK:

Method Parameter Units MDL Blank $\overline{\mathsf{ND}}$

Oil and Grease, Gravimetric (SM5520) mg/kg wet

SPIKE AND SPIKE DUPLICATE:

700386543 Spike Taud MDL MW-1-5 Parameter Units Spike Recv Recv 99% Oil and Grease, Gravimetric (SM5520) 50 106% mg/kg wet

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Reference Dupl Units Value Recv RPD Parameter MDL Recv Oil and Grease, Gravimetric (SM5520) 114% mg/kg wet 667



Method

Mr. Tracy Walker

QUALITY CONTROL DATA

September 22, 1994

PACE Project Number: 440901512

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Client Reference: 15422 Goodyear

PURGEABLE FUELS AND AROMATICS

Batch: 70 33863 Samples: 70 0386543, 70 0386551, 70 0386586, 70 0386616, 70 0386691

METHOD BLANK:

Parameter TOTAL FUEL HYDROCARBONS, (LIGHT):	<u>Units</u>	MDL	Blank
Purgeable Fuels, as Gasoline (EPA 8015M PURGEABLE AROMATICS (BTXE BY EPA 8020M)	ug/kg wet	1000	ND -
Benzene Toluene Ethylbenzene	ug/kg wet ug/kg wet ug/kg wet	5.0	ND ND ND
Xylenes, Total	ug/kg wet	5.0	ND

SPIKE AND SPIKE DUPLICATE:

						Spike	Dupl	
Parameter		Units	MDL	750152371	Spike	Recv	Recv	RPD
Purgeable Fuels,	as Gasoline (EPA	8015M ug/kg wet	1000	ND	5000	97%	100%	3%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

				Reference		Dupl
Parameter		Units	MDL	Value	Recv	Recv RPD
Purgeable Fuels,	as Gasoline	(EPA 8015M ug/kg wet	<u>100</u> 0	5000	85%	86% 1%

Spike



Mr. Tracy Walker

QUALITY CONTROL DATA

September 22, 1994 PACE Project Number: 440901512

Page 37

Client Reference: 15422 Goodyear

PURGEABLE FUELS AND AROMATICS

Batch: 70 33925 Samples: 70 0386705, 70 0386713

METHOD BLANK:

Parameter TOTAL FUEL HYDROCARBONS. (LIGHT):	<u>Units</u>	<u>MDL</u>	Method Blank
Purgeable Fuels, as Gasoline (EPA 8015M PURGEABLE AROMATICS (BTXE BY EPA 8020M)	ug/kg wet	1000	ND -
Benzene Toluene Ethylbenzene	ug/kg wet ug/kg wet ug/kg wet		ND ND ND
Xylenes, Total	ug/kg wet	5.0	ND

SPIKE AND SPIKE DUPLICATE:

						Spike	Dupl	
Parameter		Unit		750152371	Spike	Recv	Recv	RPD
Purgeable Fuels,	as Gasoline	(EPA 8015M ug/k	g wet 1000	ND	5000	97%	100%	3%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

		5 00 (02 0, " II 22 50, W.		Б С	n 7
				Reference	Dupl
Parameter		Units	MDL.	Value F	Recv Recv RPD
Purgeable Fuels	s, as Gasoline	(EPA 8015M ug/kg wet	1000	5000	85% 86% 1%

Spike



Mr. Tracy Walker Page 38

QUALITY CONTROL DATA

September 22, 1994

Dafananaa

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

PURGEABLE FUELS AND AROMATICS Batch: 70 33930 Samples: 70 0386667

METHOD	BLANK	(

Parameter TOTAL FUEL HYDROCARBONS, (LIGHT):	<u>Units</u>	MDL	Method Blank
Purgeable Fuels, as Gasoline (EPA 8015M PURGEABLE AROMATICS (BTXE BY EPA 8020M)	ug/kg wet	1000	ND -
Benzene Toluene Ethylbenzene	ug/kg wet ug/kg wet ug/kg wet	5.0	ND ND ND
Xylenes, Total	ug/kg wet	5.0	ND

SPIKE AND SPIKE DUPLICATE:

								Spike	
							Spike	Dupl	
<u>Parameter</u>			Units	MDL	750152371		Recv	Recv	RPD
Purgeable Fuels.	as Gasoline	(EPA 8015M	ug/kg wet	1000	ND	5000	97%	100%	3%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

				Reference		Dupl
Parameter		Units	MDL	Value	Recv	Recv RPD
Purgeable Fuels,	as Gasoline (El	PA 8015M ug/kg wet	1000	5000	85%	86% 1%



Mr. Tracy Walker Page 39

QUALITY CONTROL DATA

September 22, 1994 PACE Project Number: 440901512

Spike

Client Reference: 15422 Goodyear

PURGEABLE FUELS AND AROMATICS

Batch: 70 34049 Samples: 70 0386640

METHOD BLANK:

Parameter TOTAL FUEL HYDROCARBONS, (LIGHT):	<u>Units</u>	<u>MDL</u>	Method Blank
Purgeable Fuels, as Gasoline (EPA 8015M PURGEABLE AROMATICS (BTXE BY EPA 8020M)	ug/kg wet	1000	ND -
Benzene Toluene Ethylbenzene	ug/kg wet ug/kg wet ug/kg wet	5.0	ND ND ND
Xylenes, Total	ug/kg wet	5.0	ND

SPIKE AND SPIKE DUPLICATE:

				OP	
			Spike	Dupl	
Parameter Units	MDL	700391083 Spi	ke Recv	Recv.	RPD
Purgeable Fuels, as Gasoline (EPA 8015M ug/kg wet	<u>100</u> 0	ND 500	0 85%	77%	10%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

					Reference		Dupl
Parameter			Units	MDL	Value	Recv	Recv RPD
Purgeable Fuels,	as Gasoline	(EPA 8015M	ug/kg wet	1000	5000	95%	94% 1%



Mr. Tracy Walker

FOOTNOTES Page 40 for pages 27 through 39 September 22, 1994

PACE Project Number: 440901512

Client Reference: 15422 Goodyear

Recovery not calculated because solution units don't match

Method Detection Limit MDL

NC No calculation due to value below detection limit.

Not detected at or above the MDL. ND

RPD Relative Percent Difference



CHAIN-OF-CUSTODY RECORD

440901.512

Field Technical Services
Rev. 08/89

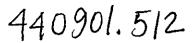
Nº 119190

O.H. MATERIALS CORP. P.O. BOX 551 FINDLAY, OH 45839-0551 419-423-3526 PROJECT NAME PROJECT LOCATION Constitute) ANALYSIS DESIRED Albany (A GOOCLOW 10. PROJECT CONTACT (INDICATE NUMBER CONTAINERS SEPARATE 15422 Tray Walker CLIENT'S REPRESENTATIVE CONTAINERS) PROJECT MANAGER/SUPERVISOR Ixacy Walker COMP SAMPLE DESCRIPTION (INCLUDE MATRIX AND SAMPLE NUMBER DATE TIME POINT OF SAMPLE) REMARKS 8/31/44 1115 mw-1 XXX MW- 1 ... 386 81.0 1120 MW-1146 MW-2 38658.10 38683.7 SOIL 1425 38650.8 MW-2 SOIL 1430 MW-2 SOIL 38 661.6 386845 1432 MW-Z 38663.2 SOIL 450 MW-3 386640 501C 1535 MW-3 386657 38185.3 5016 9 1540 MW-3 38U-7.5 SOIL 1548 1. Standard turnavand

2. Hold samples until receiving appraval

from Othm, GFLOOR

SAMPLETS SIGNATURE ITEM **TRANSFERS** TRANSFERS NUMBER RELINQUISHED BY ACCEPTED BY DATE TIME 1 16 2 3 4





CHAIN-OF-CUSTODY RECORD Analytical Request

Client OHM	Report To:	Pace Client No.
Address	Bill To:	Pace Project Manager
	P.O. # / Billing Reference	Pace Project No.
Phone	Project Name / No.	*Requested Due Date:
Sampled By (PRINT): Sampler Signature Date Sampled	PACE NO. ON	
ITEM SAMPLE DESCRIPTION TIME MATRIX NO.	PACE NO. ON HNO. OF HNO.	/ / REMARKS
1 038664.0 2 3 4 5 6 6 7 8		
COOLER NOS. BAILERS SHIPMER OUT / DATE Additional Comments Addled 9/14/94	TMETHOD RETURNED / DATE NUMBER RELINQUISHED BY / AFFILIATION ACCEPT	TED BY / AFFILIATION DATE TIME



440901.512

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

Nº 119170

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j .	MATERIALS	CORP	·. •	•	P.C	D. BOX 551	• FINE	DLAY, OH 45839-055	•	419	-423	-352	6					
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E	SAMPLE NUMBER	DATE		COMP	GRAB	i Da	SAMPLE DESC INCLUDE MAT POINT OF SA	CRIPTION TRIX AND AMPLE) Leach ate #	9	1	OK X	SOR (bich	Medi		Sacami		REMARKS
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4	B-1 10'		0856		X		12.1		<u> </u>	X	X	بخ	X	×	X		7	SHOLD FOR
r -	B-1 51		0933		X		8673,0			X	X	X	×	と	X			APPROURCE
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3			MIN	ya.	<u>, 1</u> ,			CUFBSL	9/1/90	170		L	10	C1	_	[x	h h	The GFLOOR
4											SAME	ER'S	SIGN	ATUM	É			



September 27, 1994

Mr. Tracy Walker O.H. Materials Corp. 5731 West Las Positas Boulevard Pleasanton. CA 94588

RE: PACE Project No. 440908.510

Client Reference: Goodyear #15422

Dear Mr. Walker:

Enclosed is the report of laboratory analyses for samples received September 08, 1994.

Footnotes are given at the end of the report.

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

Hoyt Weeks

Sincerely,

Shellie L. Hoyt-Weeks

Project Manager

Enclosures



O.H. Materials Corp. 5731 West Las Positas Boulevard Pleasanton, CA 94588

September 27, 1994

PACE Project Number: 440908510

Attn: Mr. Tracy Walker

Client Reference: Goodyear #15422

PACE Sample Number: 70 0390125
Date Collected: 09/07/94
Date Received: 09/08/94

<u>Parameter</u>	<u>Units</u>	MDL	MW-1	DATE ANALYZED
INORGANIC ANALYSIS				
INDIVIDUAL PARAMETERS Cadmium (EPA Method 6010/200.7, ICP) Chromium (EPA Method 6010/200.7, ICP) Lead (EPA Method 6010/200.7, ICP) Nickel (EPA Method 6010/200.7, ICP) Zinc (EPA Method 6010/200.7, ICP)	mg/L mg/L mg/L mg/L mg/L	0.006 0.01 0.1 0.02 0.01	ND 0.15 ND 0.34 0.13	09/22/94 09/22/94 09/22/94 09/22/94 09/22/94
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene	ug/L ug/L ug/L ug/L	50 0.5 0.5 0.5	ND ND ND ND ND	09/15/94 09/15/94 09/15/94 09/15/94 09/15/94 09/15/94
Xylenes. Total	ug/L	0.5	ND	09/15/94
EXTRACTABLE FUELS EPA 3510/8015 Extractable Fuels, as Diesel Date Extracted	mg/L	0.05	0.08 09/12/94	09/15/94
OIL AND GREASE, SILICA GEL (LUFT) Oil and Grease, Gravimetric (SM5520) Date Extracted	mg/L	.5.0	ND 09/19/94	09/20/94



Mr. Tracy Walker

Page

September 27, 1994 PACE Project Number: 440908510

Client Reference: Goodyear #15422

PACE Sample Number: Date Collected: 70 0390133 09/07/94 Date Received: 09/08/94 Client Sample ID: MW-2

Parameter Units MDL DATE ANALYZED

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS				
Cadmium (EPA Method 6010/200.7, ICP)	mq/L	0.006	ND	09/22/94
Chromium (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.11	09/22/94
Lead (EPA Method 6010/200.7, ICP)	mg/L	0.1	ND	09/22/94
Nickel (EPA Method 6010/200.7, ICP)	mg/L	0.02	0.18	09/22/94
Zinc (EPA Method 6010/200.7, ICP)	mg/L	0.01	0.12	09/22/94

ODCANIC ANALYSIS

ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene	ug/L ug/L ug/L ug/L	50 0.5 0.5 0.5	ND - (1) ND ND ND 1.1	09/15/94 09/15/94 09/15/94 09/15/94 09/15/94 09/15/94
Xylenes, Total	ug/L	0.5	1.5	09/15/94
EXTRACTABLE FUELS EPA 3510/8015 Extractable Fuels, as Diesel Date Extracted	mg/L	0.05	ND 09/12/94	09/15/94
OIL AND GREASE, SILICA GEL (LUFT) Oil and Grease, Gravimetric (SM5520) Date Extracted	mg/L	5.0	ND 09/19/94	09/20/94



Mr. Tracy Walker Page

September 27, 1994 PACE Project Number: 440908510

Client Reference: Goodyear #15422

70 0390141
09/07/94
09/08/94

MM-3

Client Sample ID: MDL DATE ANALYZED Units Parameter

INORGANIC ANALYSIS

mg/L	0.006	ND	09/22/94
mg/L	0.01	0.02	09/22/94
mg/L	0.1	ND	09/22/94
mg/L	0.02	ND	09/22/94
mg/L	0.01	0.04	09/22/94
	mg/L mg/L mg/L	mg/L 0.01 mg/L 0.1 mg/L 0.02	mg/L 0.01 0.02 mg/L 0.1 ND mg/L 0.02 ND

ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015M) PURGEABLE AROMATICS (BTXE BY EPA 8020M): Benzene Toluene Ethylbenzene		50 0.5 0.5 0.5	ND - ND ND ND	09/15/94 09/15/94 09/15/94 09/15/94 09/15/94 09/15/94
Xylenes, Total	ug/L	0.5	ND	09/15/94
EXTRACTABLE FUELS EPA 3510/8015 Extractable Fuels, as Diesel Date Extracted	mg/L	0.05	ND 09/12/94	09/15/94
OIL AND GREASE, SILICA GEL (LUFT) Oil and Grease, Gravimetric (SM5520) Date Extracted	mg/L	5.0	ND 09/19/94	09/20/94



Mr. Tracy Walker

Page 4

September 27, 1994

PACE Project Number: 440908510

Client Reference: Goodyear #15422

PACE Sample Number:

Date Collected: Date Received:

Client Sample ID:

<u>Parameter</u>

70 0390150 09/07/94 09/08/94

Trip Blank

Units MDL DATE ANALYZED

SUBCONTRACT ANALYSIS

INDIVIDUAL PARAMETERS No analysis requested

\$

/ /

These data have been reviewed and are approved for release.

Warrell C. Wain Regional Director



Mr. Tracy Walker Page

FOOTNOTES for pages 1 through

September 27, 1994 PACE Project Number: 440908510

Client Reference: Goodyear #15422

Analytical results are not available. Method Detection Limit

MDL

Not detected at or above the MDL. ND

Compounds confirmed by secondary column. (1)