H2OGEOL
A GROUNDWATER CONSULTANCY

1 mg/kg 1000
1 kg soil → 9640 carbon
1000 mg — 9640 mg
9640
1000
964 kg

Ms. Madhulla Logan
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
Environmental Protection (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

September 30, 1997

RE: Additional Site Investigations at Runnels Industries, Inc., 3590 Enterprise Avenue, Hayward, CA.

Dear Ms. Logan;

This letter report documents implementation of the Workplan for Additional Site Investigations at Runnels Industries, Inc., 3590 Enterprise Avenue in Hayward, California, dated June 23, 1997. The location of the 3590 Enterprise Avenue property is shown in Figure 1.

As was the Workplan, this letter report is organized around the bullated items in your January 15, 1997 letter. The report sections are organized as follows:

Section 1.0	Bullet 1	Installation and sampling of four monitoring wells.
Section 2.0	Bullet 2	A borehole near Phase II location B-5.
	Bullet 3	Provided with Workplan.
Section 3.0	Bullet 4	A soil and groundwater sample from behind Open Paint Building B
Section 4.0	Bullet 5	MEK analysis of MW-1 groundwater.

1.0 INSTALLATION AND SAMPLING OF FOUR MONITORING WELLS

The fulfillment of Runnels obligations to respond to your January 15, 1997 letter's first bullated item included the installation of four 15 to 18 foot deep monitoring wells at the approximate locations shown on the Workplan Figure 2. Also included was the collection of groundwater samples from each of the four monitoring wells and analysis of halogenated volatile halocarbon compounds by U.S. EPA Method 8010 from each of these wells. Analysis of a groundwater sample from the monitoring well near B-4 for dissolved chromium, lead, and zinc.

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Workplan Figure 2 is now replaced with Figure 2 included in this report. The monitoring well that was present prior to this investigation has been designated MW-1. Figure 2 shows the locations of the four monitoring wells installed in response to bullated item 1 along with water level information developed and boreholes responding to later bullated items.

1.1 MONITORING WELL INSTALLATION

Four groundwater monitoring wells were installed at the 3590 Enterprise Avenue property between August 14th and 18th, 1997. The monitoring well boreholes were drilled using a hand operated Iwan Auger and constructed under license agreement with ASE Drilling, Inc. of Livermore, California. Attachment A includes copies of the well drilling permits issued by ZONE 7 Water Agency (ZONE 7) and copies of the California Department of Water Resources (DWR) Form 188 submitted to ZONE 7 and DWR.

Borehole lithologic logs are included in Attachment B. These logs document the sediments encountered during drilling and, along with DWR Form 188 and the following table document well construction.

WELL CONSTRUCTION DETAILS

Well Number	Borehole Diameter (inches)	Casing/ Screen Diameter (inches)	Total Borehole Depth (feet)	Total Well Depth (feet)	Screened Interval (feet)
MW-1	Not Available	2	Not Available	15.65	Not Available
MW-2	6.25/4	2	12.65	12.14	7-12
MW-3	6.25/4	2	12.50	12.15	7-12
MW-4	6.25/4	2	13.04	12.65	7.5-12.5
MW-5	6.25/4	2	13.25	12.68	7.5-12.5

1.2 POTENTIOMETRIC SURFACE GRADIENT AND DIRECTION OF GRADIENT

The wells were surveyed by Ron Archer, Civil Engineer, Inc. on August 20, 1997 (Attachment C). Depth to water in each monitoring well was measured to +/- 0.01 feet using a Solinst Model 101 water level meter between 07:18 and 07:48 on August 20, 1997. The depth to water was converted to potentiometric surface elevation by subtracting the measured depths to water from the casing top elevation. This information in presented in the table on the following page.

WELL AND GROUNDWATER ELEVATIONS
AUGUST 20, 1997

Well Number	Top of Casing Elevation (feet, msl)	Time of Depth	Depth to Water (feet)	Groundwater Surface Elevation (feet, msl)
MW-1	9.96	07:48	8.56	1.40
MW-2	8.86	07:26	6.41	2.45
MW-3	7.91	07:18	5.77	2.14
MW-4	8.47	07:44	7.34	1.13
MW-5	8.86	07:35	7.55	1.31

For the five monitoring wells there are four triangles with a well at each apex for which a groundwater gradient and flow direction (more precisely direction of groundwater gradient, since the horizontal hydraulic conductivity anisotropy is unknown) may be calculated using the three-point problem approach. The groundwater gradient direction and gradient for each of the triangles are:

Well Triangle	Gradient Direction	Gradient
1,2,5	S 59.43°W	0.00485
2,3,5	S 82.55°W	0.00743
3,4,5	N 73.08°W	0.00526
1,4,5	S 46.79°W	0.00155
Average	S 73.92°W	0.00478

Figure 2 presents a potentiometric surface map showing well locations and groundwater surface contours as measured on August 20, 1997 using the method of minimum area triangles in a minimum bounded field.

1.3 MONITORING WELL PURGING AND SAMPLING

The monitoring wells were purged by pumping with an "ES-60" submersible pump marketed for monitoring well purging by Enviro-Tech Services Co. of Martinez, California. Field measured water quality parameters were measured using a Cambridge Scientific Industries Hydac™ Conductivity Temperature pH Tester. Well purging activities and the field measured water quality parameters are documented in Attachment D. For each well, purging continued until specific conductance stabilized to +/- 5% on consecutive readings.

Groundwater samples were collected for halogenated volatile organic compound analysis by U.S. EPA Method 8010 from monitoring wells MW-2, MW-3, MW-4, and MW-5. The samples were collected directly from the discharge end of the purge pump delivery tubing at a pumping rate of less than 1 L/minute. Water samples were collected, in duplicate, into 40-mL glass vials with Teflon™ septum lids.

A groundwater sample for dissolved metals was collected from MW-4 in an emptied deionized water bottle pre-rinsed with well water. The well water was then pumped from the bottle through a precleaned silicone tubing that passed through a peristaltic pump head and through a filter housing containing a 0.45 micron filter membrane filter and into a polypropylene bottle containing nitric acid as a preservative that was provided by the analytical laboratory.

Groundwater sample bottles were labeled and placed in an ice chest with 2 Liter plastic bottles containing ice. Chain-of-Custody forms were filled out and were delivered with the ice chest to Chromalab, Inc. of Pleasanton, California, a state certified laboratory (DTSC No. 1094).

1.4 GROUNDWATER ANALYTICAL RESULTS

Groundwater samples from MW-2, MW-3, MW-4, and MW-5 were submitted to Chromalab for analysis by EPA Method 8010 for halogenated volatile organic compounds and a groundwater sample from MW-4 for analysis of metals (Cr, Pb, and Zn) using EPA Method 3010A/6010A. Copies of the laboratory report and chain-of-custody documentation are contained in Attachment E.

Five Method 8010 analytes were identified in groundwater from the four new wells at the 3590 Enterprise Avenue property. These compounds and their respective maximum contaminant levels (MCLs) are listed below

Concentration in micrograms per Liter	MW-2	MW-3	MW-4	MW-5	MCL
1,1-Dichloroethane	4.5	5.9	<0.50	25	5.0
1,1-Dichloroethene	3.9	13	<0.50	170	6.0
1,1,1-Trichloroethane	<0.50	0.60	<0.50	<0.50	200
1,1,2-Trichloroethane	<0.50	<0.50	<0.50	0.90	32
Trichloroethene	5.0	0.50	0.60	8.6	5.0

1,1,1 TCA
1,1,2-TCA

1,1-Dichloroethane (11-DCA) was near (MW-2) to slightly above (MW-3) its MCL in upgradient monitoring wells. In centrally located monitoring well MW-5 11-DCA exceeded its MCL by a factor of five.

1,1-Dichloroethene (11-DCE) below is MCL in upgradient monitoring well MW-2 and was twice its MCL in upgradient monitoring well MW-3. In centrally located monitoring well MW-5 11-DCE greatly exceeded its MCL (28 times).

1,1,1-Trichloroethane and 1,1,2-Trichloroethane did not exceed their MCLs in any of the monitoring wells. Trichloroethene (TCE) matched its MCL in upgradient monitoring well MW-2 and slightly exceeded its MCL in centrally located monitoring well MW-5.

Dissolved chromium and lead were not found in the sample from MW-4. The dissolved zinc concentration was 0.19 milligrams per Liter (mg/L), well within background concentrations and substantially below the drinking water standard of 2 mg/L

2.0 A BOREHOLE NEAR PHASE II LOCATION B-5

A borehole (B8) was installed near Phase II location B-5 to determine the vertical extent of chromium, lead, zinc, and halogenated volatile halocarbon compound contamination. Three soil samples and one groundwater sample were analyzed for chromium, lead, and zinc by U.S. EPA Method 3050A or 3005A (as appropriate)/6010A and for halogenated volatile halocarbon compounds by U.S. EPA Method 8010. The location is shown on attached Figure 2.

The lithologic log of borehole B8 in included in Attachment B. Soil samples were collected from depths of 3, 6, and 9 feet. Groundwater samples were collected after the borehole was advanced to total depth. The samples were labeled and placed in an ice chest with 2 Liter plastic bottles containing ice. Chain-of-Custody forms were filled out and were delivered with the ice chest to Chromalab.

These soil and groundwater samples were analyzed as stated in the Workplan. Copies of the laboratory report and chain-of-custody documentation are contained in Attachment E.

No U.S. EPA Method 8010 halogenated volatile halocarbon compounds were detected in the three soil samples or in the groundwater sample.

Chromium, lead, and zinc analytical results (in units of mg/L) were as follows

	Chromium	Lead	Zinc
B8/3 Ft.	32	8.4	100
B8/6 Ft.	30	4.1	45
B8/9 Ft.	29	6.1	54
B8/GW	<0.005	0.018	0.68

- compare to PRGs

Soil concentrations of chromium and lead are within the range expected for background concentrations at all three depth samples. Zinc is present in background concentration in the six and nine foot samples. Zinc concentration is slightly elevated in the three foot sample, but well within urban background, particularly within the soil chemical halo contiguous to a galvanized chain link fence.

Groundwater concentrations of chromium, lead, and zinc are below their respective drinking water standards.

An odor similar to that of diesel was present in soil from borehole B8 continuously below a depth of 1.5 feet. The soil odor is noted on the lithologic log (Attachment C). A sheen and floating organic phase liquid globules were also note on the water bailed from B8. Consequent to these observations soil and groundwater samples were also collected for Total Extractable Petroleum Hydrocarbon (TEPH) analysis by U.S. EPA Method 8015M.

The laboratory misconstrued their instructions and the soil samples went past their holding times as indicated by the dates on the analytical reports. Regardless, the following TEPH results (in units of mg/K or mg/L, as appropriate) were reported:

	Kerosene	Diesel	Motor Oil
B8/3 Ft.	<5.0	580	130
B8/6 Ft.	<5.0	460	160
B8/9 Ft.	<1.0	280	78
B8/GW	<2.8	220	28

source of the diesel

3.0 A SOIL AND GROUNDWATER SAMPLE FROM BEHIND OPEN PAINT BUILDING B

A soil and groundwater sample was collected in the area behind Open Paint Building B, between the building and the fence and analyzed for halogenated volatile halocarbon compounds by U.S. EPA Method 8010. The borehole from which these samples were collected was designated B7. The location is shown on Figure 2.

The samples were labeled and placed in an ice chest with 2 Liter plastic bottles containing ice. Chain-of-Custody forms were filled out and were delivered with the ice chest to Chromalab. These soil and groundwater samples were analyzed as stated in the Workplan. Copies of the laboratory report and chain-of-custody documentation are contained in Attachment E.

No U.S. EPA Method 8010 volatile halocarbon compounds were detected in the soil sample. In the groundwater sample three Method 8010 analytes were found:

1,1-Dichloroethane	17 µg/L
1,1-Dichloroethene	87 µg/L
Trichloroethene	5.3 µg/L

Borehole B7 is located on the upgradient edge of the property. These three compounds were also detected in the two upgradient monitoring wells MW-2 and MW-3.

4.0 MEK ANALYSIS OF MW-1 GROUNDWATER

A groundwater sample was collected from the existing well (MW-1) onsite and analyzed for Methyl Ethyl Ketone by U.S. EPA Method 8260. The approximate location of MW-1 is shown on attached Figure 2.

The groundwater sample from MW-1 was collected and processed in a manner similar tho those from monitoring wells MW-2 through MW-5.

No MEK was found in the sample (reported as 2-Butanone, < 20 µg/L). Groundwater from MW-1 was found to contain 520 µg/L MTBE (Methyl Tertiary Butyl Ether) and 44 µg/L TCE.

5.0 SUMMARY AND CONCLUSIONS

5.1 Soils and Groundwater Borne Metals

The metals chromium, lead, and zinc were found not to be an issue in soil and groundwater samples collected and analyzed as a part of this investigation. Consequently, it can be concluded that

these metals are only locally present as reported by Blymer Engineers, Inc. in their "Phase II - Environmental Site Assessment."

5.2 Soil Borne Volatile Halocarbon Compounds

Volatile halocarbon compounds were not detected in soil samples collected and analyzed as a part of this investigation. Nor were volatile halocarbon compounds identified in soil sample analytical results reported by Blymer Engineers, Inc. in their "Phase II - Environmental Site Assessment." Thus, there appears not to be a risk associated with soil contact from volatile halocarbon compounds.

Since volatile halocarbon compounds were not detectable in soils, it appears unlikely that these compounds are able to volatilize from the soil into the overlying air. This apparent lack of soil devolatilization potential indicates that volatile halocarbon compounds do not pose an air quality risk from this source.

5.3 Groundwater Borne Volatile Halocarbon Compounds

Volatile halocarbon compounds identified in groundwater sampled from monitoring wells and from groundwater collected as grab samples from boreholes are summarized in Figure 3.

All of the primary volatile halocarbon compounds identified during the present investigation, and those reported by Blymer Engineers, Inc. in their "Phase II - Environmental Site Assessment," are present in the upgradient monitoring wells (MW-2 and MW-3) and borehole (B-7). These upgradient sampling locations are within five feet of the eastern fence line.

The concentrations of one or more compounds are generally highest in the central locations (mid property) and less in the upgradient locations (eastern fence line). Groundwater from downgradient location B-8 shows the lowest concentration though this borehole is not axially located relative to the highest concentrations and the observed potentiometric surface gradient direction.

The groundwater volatile halocarbon compound concentration distribution shown in Figure 3 and discussed above is suggestive of a concentration slug (plume) moving across the property in an approximately westerly direction from an off site source. Soil analytical data suggests that volatile halocarbon compounds are not significantly fractionating from groundwater into the overlying soil column.

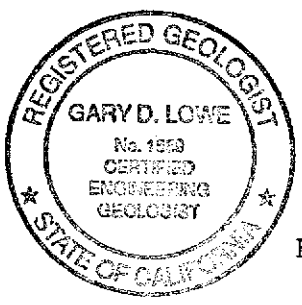
Three volatile halocarbon compounds (1,1-Dichloroethane, 1,1-Dichloroethene, and Trichloroethene) locally exceeded their respective maximum contaminant levels. The shallow groundwater present in the thin (less than two inches) first encountered water bearing zone (aka aquifer) is not potable due to dissolved solids (specific conductance >1,500 micromhos per centimeter). The thin first encountered aquifer's occurrence above the minimum seal depth of a water supply well (50 or 20 feet, see Attachment A) indicates that this interval would not directly contribute to a water supply well if conditions were otherwise favorable for the construction of one in this area.

5.4 Petroleum Hydrocarbons

The petroleum hydrocarbon (TEPH) results (reported by the laboratory as diesel and motor oil fractions) from borehole B8 soil and groundwater exceed 100 mg/Kg. When considered with the result from the Phase II location B5 at 0.5 Ft. sample, (610 mg/Kg reported as transmission fluid fraction) suggest a more pervasive TEPH contamination issue in the vicinity. Shallow, two foot depth, TEPHs are distributed at least as broadly as B5 and B-8 and as deep as first encountered groundwater at a depth of about nine feet.

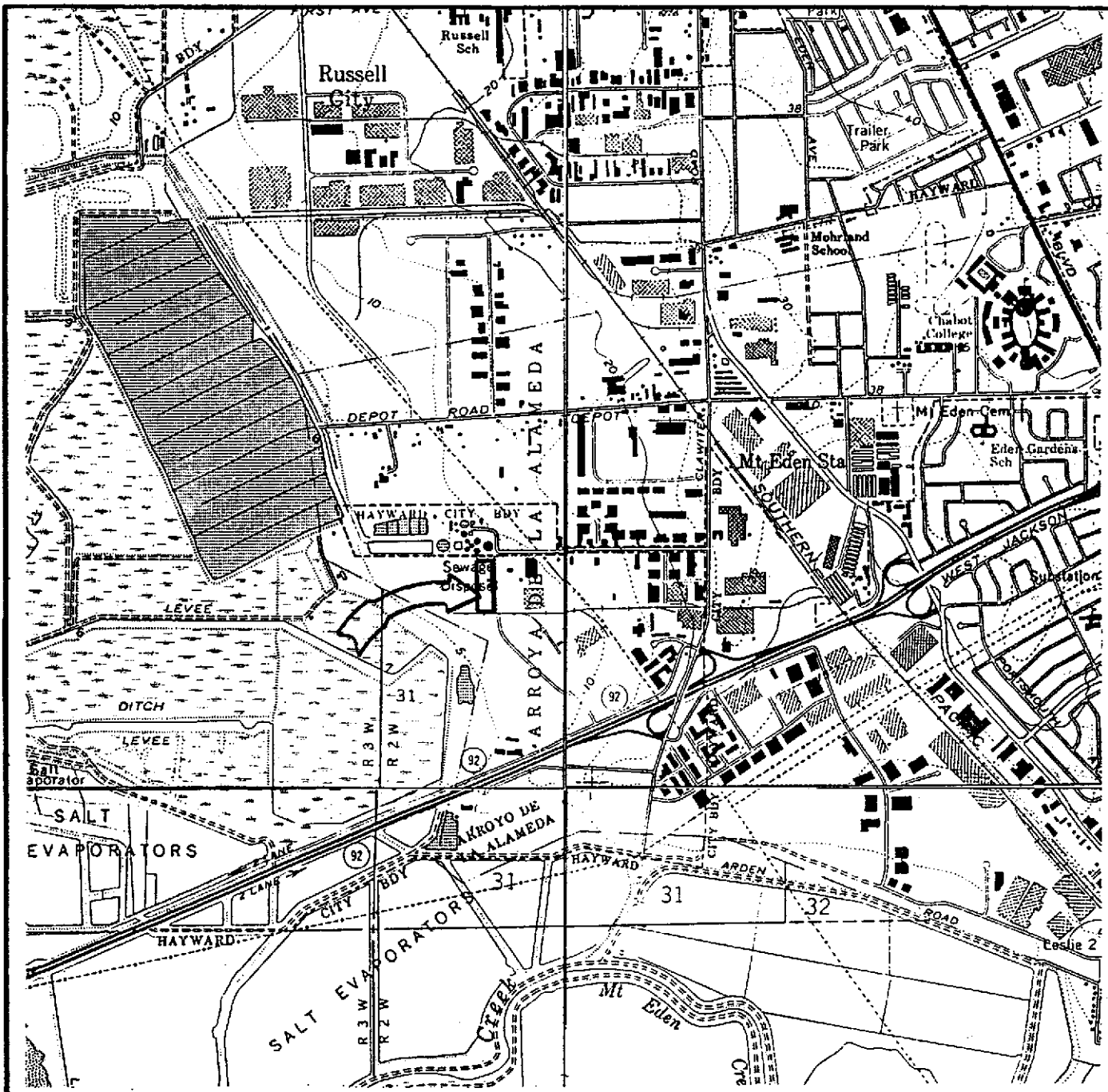
6.0 PROFESSIONAL CERTIFICATION

This report regarding 3590 Enterprise Avenue in Hayward, California has been prepared by H_2OGEOL A GroundWater Consultancy, by and under the professional supervision of the sole proprietor. The findings, recommendations, specifications, or professional opinions are presented after being investigated and prepared in accordance with generally accepted professional environmental hydrogeologic and groundwater monitoring practice. Incorporation of information developed and or reported by others does not necessarily mean that the undersigned accepts that information as valid. There is no other warranty, either expressed or implied.

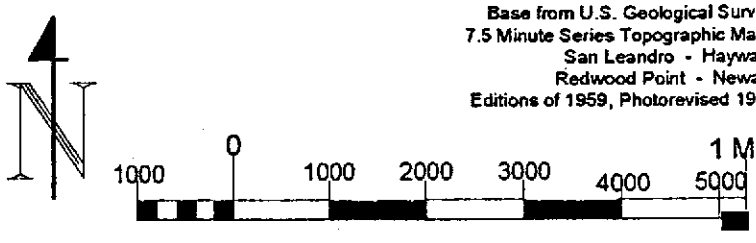


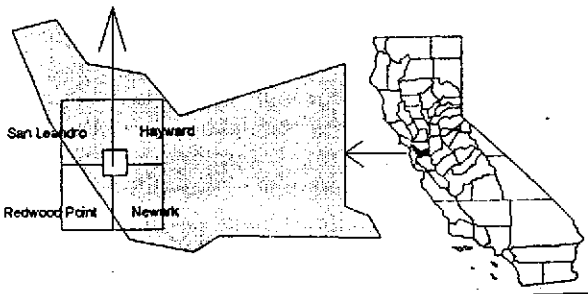
This report was prepared by:

Gary D. Lowe, R.G.,C.E.G.,C.HG.
Principal, Hydrogeologist
H_2OGEOL A GroundWater Consultancy



Base from U.S. Geological Survey
7.5 Minute Series Topographic Maps
San Leandro - Hayward
Redwood Point - Newark
Editions of 1959, Photorevised 1980





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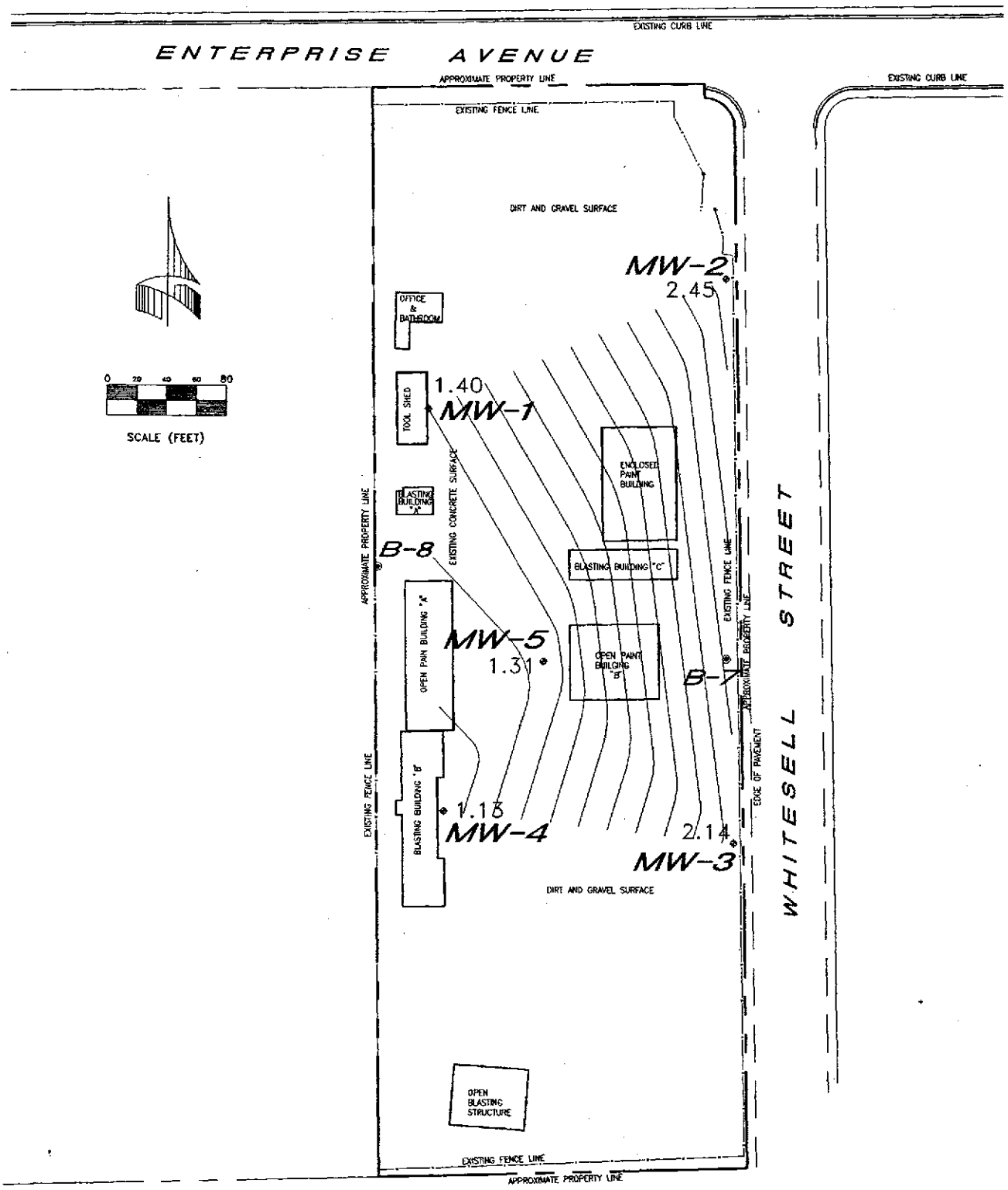
SITE LOCATION MAP
RUNNELS INDUSTRIES, INC.
3590 ENTERPRISE AVENUE
HAYWARD, CALIFORNIA

FIGURE
1



Well survey by Ron Archer, Civil Engineer, Inc., August 20, 1997. Top of casing elevations: MW-1 = 9.96; MW-2 = 8.86; MW-3 = 7.91; MW-4 = 8.47; and MW-5 = 8.86.

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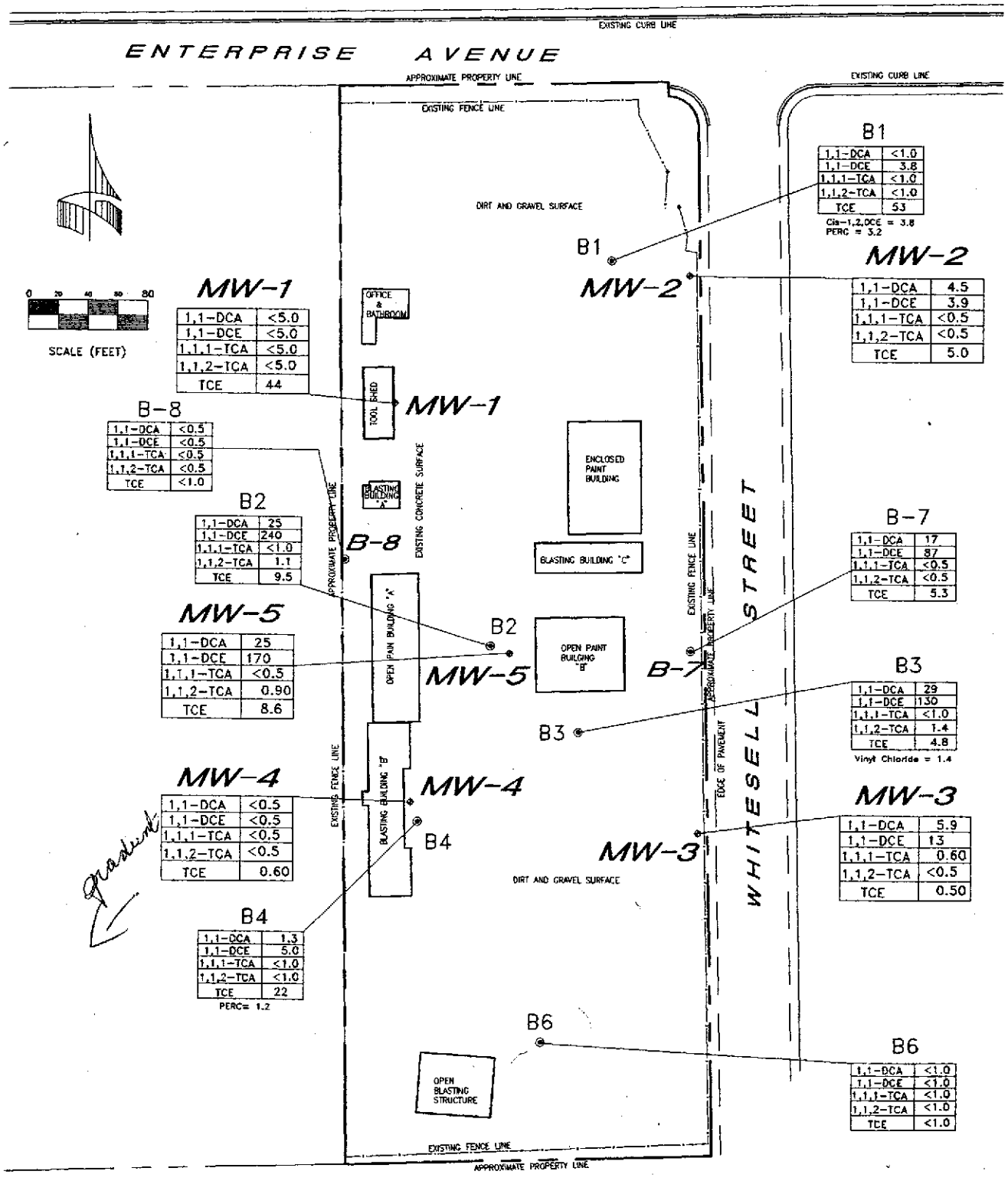
POTENTIOMETRIC SURFACE MAP FOR 08/20/97 SHOWING LOCATIONS OF MONITORING WELLS AND SAMPLING BOREHOLES RUNNELS INDUSTRIES, INC. 3590 ENTERPRISE AVENUE HAYWARD, CALIFORNIA

FIGURE 2



Locations of B1, B2, B3, B4, and B6 approximate. Data from these boreholes from Blymer Engineers, Inc., July 11,1996 - Phase II Environmental Assessment.

ALL CONCENTRATIONS IN MICROGRAMS PER LITER

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GROUNDWATER CONCENTRATIONS OF VOLATILE HALOCARBON COMPOUNDS FROM MONITORING WELLS AND SAMPLING BOREHOLES RUNNELS INDUSTRIES, INC. 3590 ENTERPRISE AVENUE HAYWARD, CALIFORNIA

FIGURE 3

H2OGEOL
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ATTACHMENT A

PERMITS/FORMS

ZONE 7 WATER AGENCY
DRILLING PERMIT APPLICATION/
PERMIT No. 97404

AND

CALIFORNIA DEPARTMENT OF WATER RESOURCES
FORM 188
No. 504020 FOR MW-2
No. 504021 FOR MW-3
No. 504022 FOR MW-4
No. 504023 FOR MW-5

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

NW¼ NW¼ SEC 31 T3S, R2W = 31D

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Runnels Industries, Inc.
3590 Enterprise Ave
Hayward, CA 94545-3282
APN 439-99-3-7

PERMIT NUMBER 97404
LOCATION NUMBER

CLIENT
Name W. R. B. "Al" Gantt at above location
Address _____ Voice 510-783-4171
City _____ Zip _____

APPLICANT
Name Gary O. Lowe, dba Hydrologic
Fax 510-373-9222
Address PO Box 2165 Voice 510-373-9211
City Livermore Zip 94551-2165

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	✓
Monitoring	✓	Well Destruction	___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other _____
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger ✓ Hand or Hollow Stem
Cable ___ Other _____

DRILLER'S LICENSE NO. If Hand ASE Drilling 457-629340 If Hollow Stem V&W Drilling 457 720904

WELL PROJECTS
Drill Hole Diameter 6/12 in. Maximum
Casing Diameter 2 in. Depth 20 ft.
Surface Seal Depth 5-10 ft. Number 4

GEOTECHNICAL PROJECTS
Number of Borings 2 Maximum
Hole Diameter 4 in. Depth 16' ft.

ESTIMATED STARTING DATE 06/30/97
ESTIMATED COMPLETION DATE 08/15/97

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [signature] Date 06/23/97

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office 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.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
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. Backfill bore hole with compacted cuttings or heavy bentonite 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 hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Previous well on site (MW-1) permit no. 96397

Approved Wyman Hong Date 27 Jun 97
Wyman Hong

91992

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

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ATTACHMENT B

BOREHOLE LITHOLOGIC LOGS
AND
WELL COMPLETION DIAGRAMS

MW-2
MW-3
MW-4
MW-5

StID 6068 – Site History (SLIC) 1co-058

Runnels Industries
3590 Enterprise Avenue
Hayward, CA 94545

The property is approximately 4 acres in size and contains 11 building and numerous storage containers. Runnel Industries, a metal painting company, has occupied the site since 1966. The property is primarily unpaved except around buildings, where concrete and asphalt aprons are present.

Sediments encountered at the site to a depth of approximately 13 feet bgs consisted mostly of clays with some silts and/or sands. These sediments are consistent with Bay Muds. Depth to groundwater at the site has ranged from 5.86 to 7.55 feet bgs in well MW-5. Groundwater flows SW to WNW.

A groundwater monitoring well, MW-1, was installed in December 1985 to monitor three USTs (diesel, gasoline and MEK) located under a concrete pad to the south of the office. The USTs were removed in May 1993. Soil samles collected from beneath each tank did not contain remarkable levels of TPHg, TPHd, or BTEX. However, chromium, lead and nickel concentrations were greater than 10X their respective STLCs.

In April 1996, a phase I environmental site assessment was conducted at the site. Areas of environmental concern identified include:

1. overspray from outside painting
   The ground surface in the outside spray painting are south of Open Paint Building B was red in color, which appeared to have resulted from overspray.
2. Spills of solvents
   Used thinners are stored in 55-gallon drums to allow particles to settle. The thinner is then removed and reused. The sludge was emptied into sludge bins to allow to air dry, then disposed in garbage dumpsters.
3. Filling in of low spots with used blasting sand
   Sandblast materials (used to clean rust off metal and remove paint and epoxy off metal) was analyzed for metals. Only chromium at 78ppm and copper at 1,400ppm exceed 10x their respective STLCs. Some of the sandblast material was used to fill low spots on the property and off the property at the adjacent radio station KFAX.
4. Historic use of lead-based paints
5. Diesel staining adjacent to the former diesel AST
   Oil stains were noted in soil adjacent to the above ground diesel tanks. Aerial photos from 1977 identified dark staining east of Blasting Building B, north of Open Paint Building A, and northwest of Blasting Building C. Mr. Ringlee believes the dark stains are likely due to rain soaked soil.
6. Washer unit

Based on the above assessment, a Phase II investigation was conducted in June 1996. Five Geoprobe borings (B1 through B4, and B6) were advanced to 16'bgs. A hand-auger boring, B5, was drilled to 1.5'bgs due to restricted access in this area. Boring B1 was drilled adjacent to the former diesel AST in the northeast corner of the property; Borings B2 and B3 were by the two outside spray painting areas; B4 was west of the northwest corner of Open Paint Building A; Boring B5 was east of Blasting Building B; and, Boring 6 was drilled in the south portion of the property. All soil and grab groundwater samples were analyzed for TEPH (as diesel, stoddard solvent, and motor oil), metals (Sb, Ar, Cd, Cr, Co, Mo, Ni, Zn, Pb, and Hg), and VOCs (by Method 8240). Grab water samples were filtered by the laboratory prior to analyses for metals.

Detectable concentrations of TEPH as diesel and as transmission fluid were detected in each soil sample. The detected TEPHtf is believed to be a cutting oil used to lubricate metal during cutting processes off-site. No VOCs were detectable in the soil samples collected at 0.5 to 3.0 feet bgs. Soil samples were collected from 2.0 and 2.5 feet bgs in boring B3 and B2, respectively. All metal concentrations were within geogenic levels with the exception of Cr, Pb, and Zn. These concentrations were greater than 10x their respective STLCs. Therefore, STLC analysis for lead was requested for soil sample B4-1, and STLC analysis for chromium, lead, and zinc was requested for soil sample B5-0.5. The respective STLCs for each metal were exceeded.

Relatively low detectable concentrations of TEPH were detected in each grab groundwater sample. Detectable concentrations of seven VOCs were present in all the water samples. MCLs were exceeded for 1,1-DCA, 1,1-DCE, TCE, and VC. MCLs for metals were not exceeded, however, the method detection limit for Sb and Cd was greater than their respective MCL value.

In August 1997, four additional groundwater monitoring wells (MW-2 through MW-5) and two soil borings (B7 and B8) were installed. Boring B8 was drilled near previous Boring 5 to delineate the vertical extent of metals and HVOC contamination in soil and groundwater. Soil samples were collected from B7 (at 4.7'bgs) and B8 (at 3', 6', and 9'bgs), and groundwater samples were collected from all borings for HVOC analysis. In addition, soil from Boring B8 and groundwater from Well MW-4 was analyzed for metals (Cr, Pb, and Zn). Soil and groundwater samples from Boring B8 were also analyzed for TEPH.

HVOCs were not detected in the soil samples (4.7' in B7 and 3', 6', and 9' bgs in B8). Low to ND levels of 1,1-DCA, 1,1-DCE, 1,1,1-TCA, 1,1,2-TCA and TCE were detected in the groundwater samples. Dissolved Cr and Pb were not found in well MW-4. Dissolved Zn concentration was at 190ppb, well below MCLs. Metal concentrations in soil from B8 were within geogenic/background levels. TPHd and TPHmo were detected in soil (up to 580ppm TPHd and 160ppm TPHmo) and groundwater (up to 220,000ppb TPHd and 28,000ppb TPHmo) from Boring B8.

The probable sources of the heavy petroleum hydrocarbons found in borehole B8 include runoff from a diesel powered air compressor formerly located on the existing concrete pad and immediately upgradient with respect to both surface water drainage and the potentiometric surface configuration from borehole B8. The concrete pad has also been used as a wash down area for motor equipment maintenance operations.

In July 1998 nine test holes (TH-1 through TH-9) were advanced using a hand operated Iwan Auger in the area downgradient of borehole B8. This area is on the KFAX property. A total of six soil samples and one water sample were collected for TPHd analysis. The soil samples contained up to 640ppm TPHd at 5'bgs. The groundwater sample from borehole TH-4 did not contain TPHd above the detection limit of 50ppb. It appears that the TPHd plume is limited in extent (extending approximately 50 feet from the source).

Groundwater was sampled for VOCs for four consecutive quarters (from May 1998 to Feb 1999). VOC concentrations are stable, although the plume has not been delineated in the downgradient direction. HVOCs may also be from an offsite source. However, an offsite source has not been identified.

The analysis for dissolved metals (Cd, Cr, Pb, Ni, and Zn) in Well MW-1 was conducted in June 2000. Only zinc was detected, at 14ppb.

It appears that metals and HVOCs detected at the site should not pose a risk to human health.

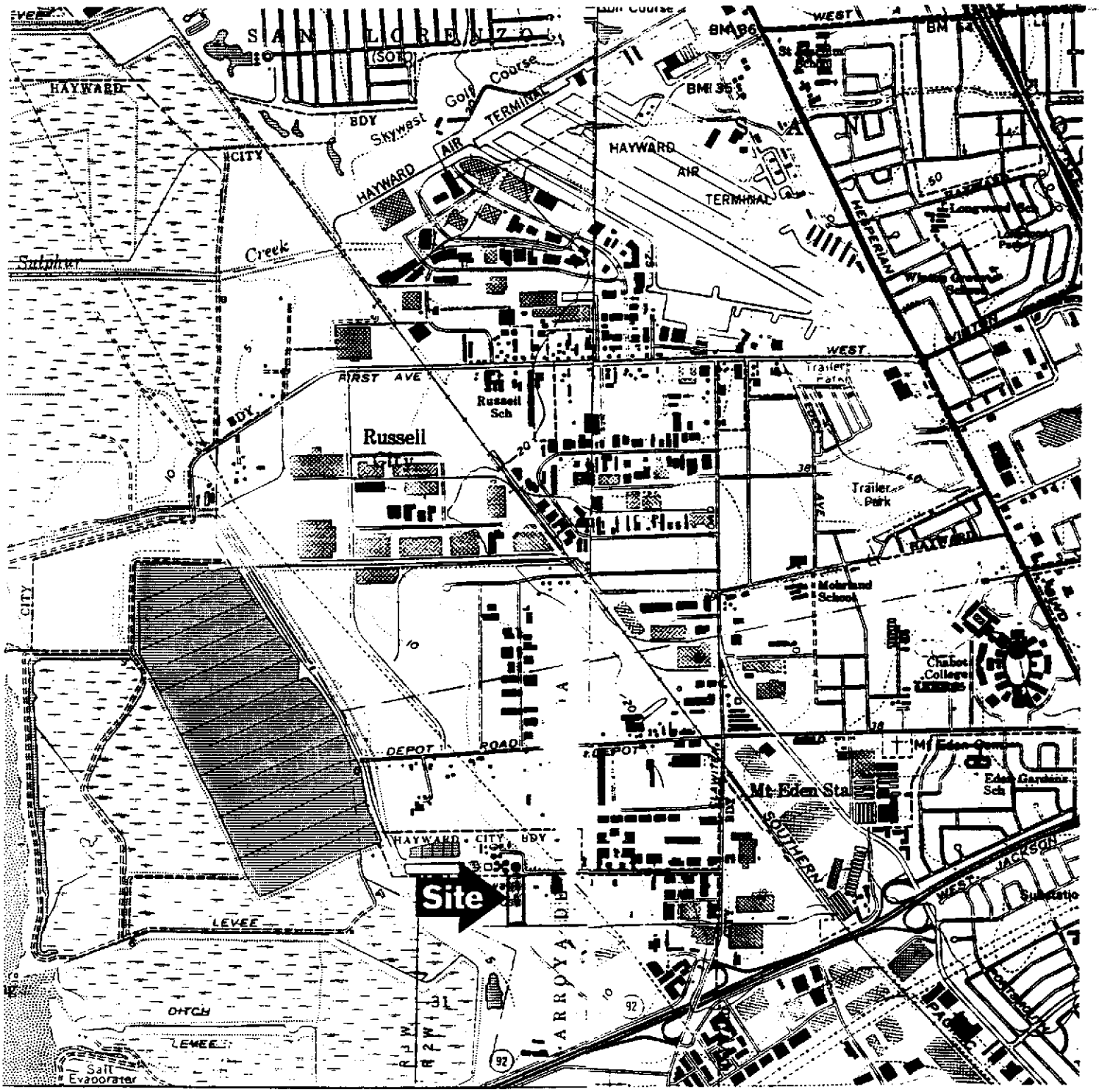
1,1 DCE may be coming from a trucking maintenance facility (Mac Trucking) directly across Whitesell Street. 1,1 DCE is a component of old brake cleaning fluid (per Gary Lowe)

Ask G. Lowe for:

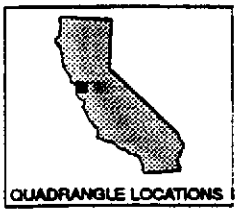
- **water well survey**
- **conduit/preferential pathway**
- **modeling for degradation of VOCs to determine if surface water will be impacted**
- **no water supply wells allowed at site (in RMP)**
- **wash down area no long part of operation, therefore, diesel runoff has been eliminated**
- → **HPs or monitoring across Whitesell Street (across from boring B7)**
- **scale on site plan**
- **compare 95% UCL 1,1 DCE concentration with RWQCB's RBSLs. Is there a risk to human health or the environment**

2/27/01 Ask Al Gaut of signed statement that HVOCs were not used at the site in past history - done.

Doug 916/928-4805
consultant for potential power plant - IF radio station is moved - it would be a good time to do HPs to delineate HVOC plume.



UNITED STATES GEOLOGICAL SURVEY 7.5' QUADs. "SAN LEANDRO, CA" AND "HAYWARD, CA" BOTH ED. 1959 AND PHOTOREVISED 1980.



BLYMYER ENGINEERS, INC.

BEI JOB NO. 96004

DATE 3-12-96

0 1000 2000

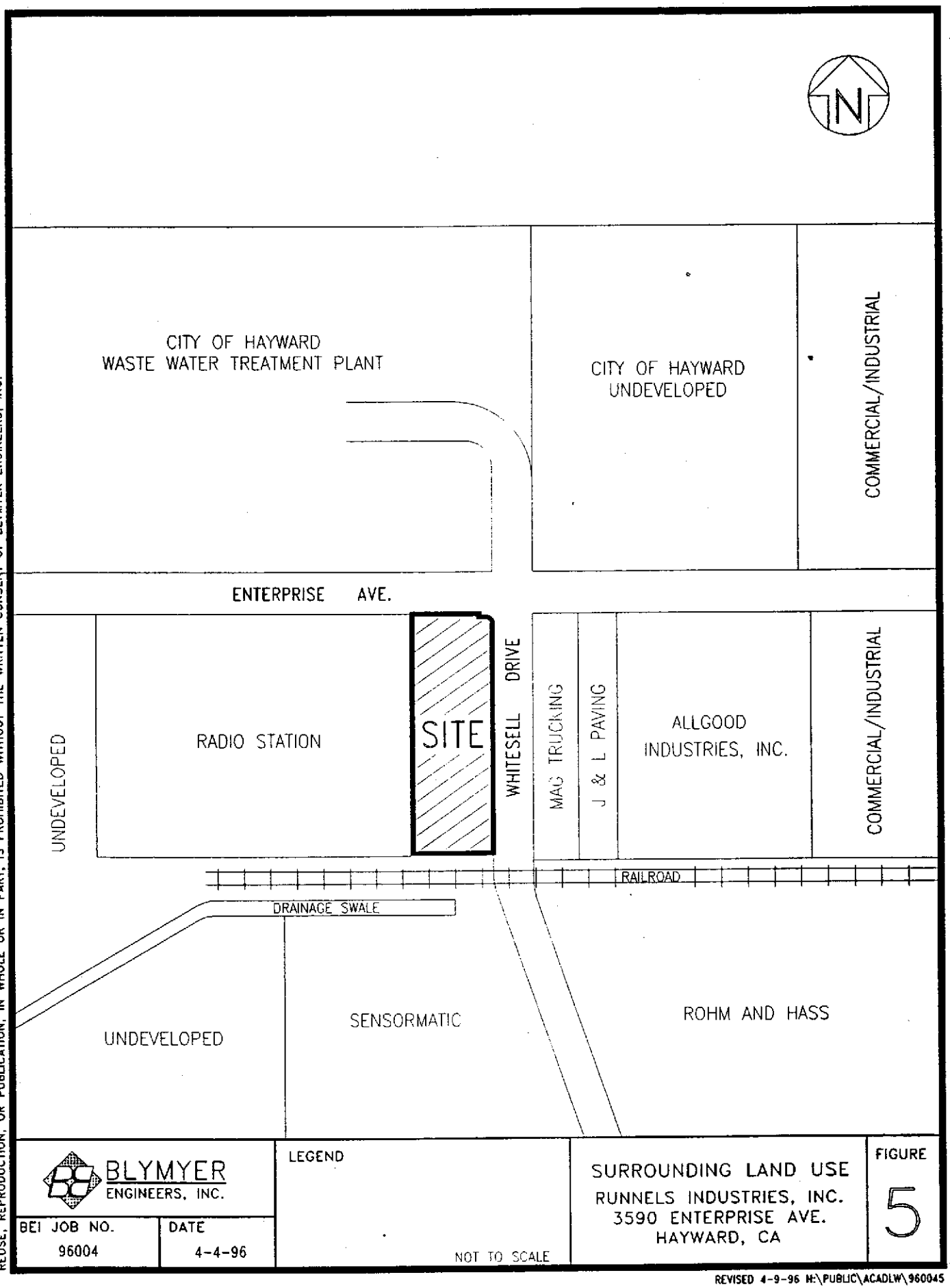
SCALE IN FEET

N

SITE LOCATION MAP

RUNNELS INDUSTRIES, INC.
3590 ENTERPRISE AVE.
HAYWARD, CA

FIGURE 1



BLYMYER ENGINEERS, INC.

BEI JOB NO.	DATE
96004	4-4-96

LEGEND

NOT TO SCALE

SURROUNDING LAND USE
RUNNELS INDUSTRIES, INC.
3590 ENTERPRISE AVE.
HAYWARD, CA

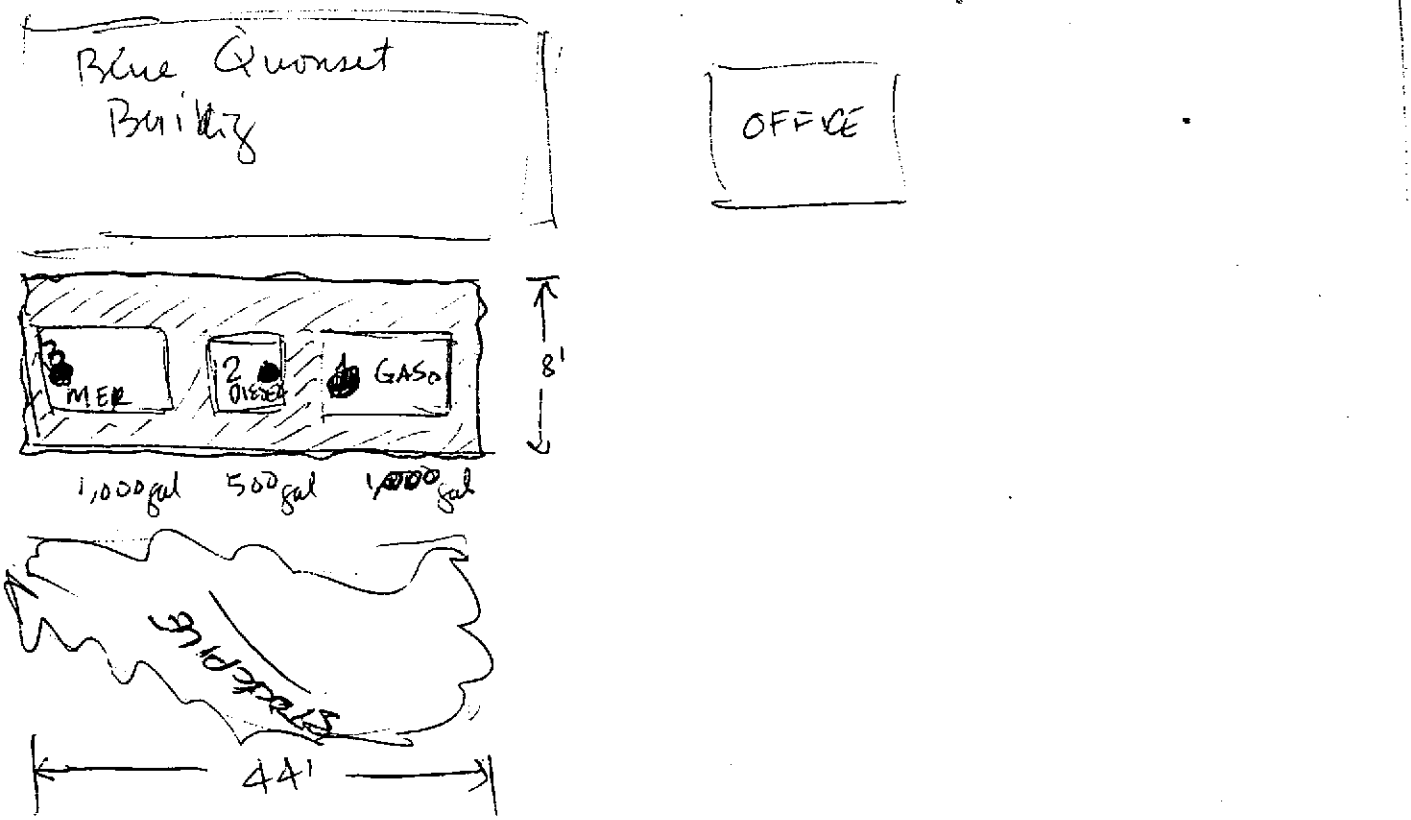
FIGURE 5

REVISED 4-9-96 H:\PUBLIC\ACADLW\960045

TANK CLOSURE DIAGRAM

Note Following:

- Sketch area of excavation.
- Dimensions of excavation.
- Exact location of excavation. (i.e. Distances from building or other stationary features.
- Location of samples.
- If any damage to tank/pipes noted, sketch detailed location of pipes and fittings.



FACILITY NAME: _____

FACILITY ADDRESS _____

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

Decon Environmental Services
Attn: TOM REESE

Project RUNNELS 1020
Reported 05/19/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
88578- 1	#1 North end of gasoline UST	05/11/93	05/15/93	Soil
88578- 2	#2 South end " "	05/11/93	05/15/93	Soil
88578- 3	#3 under diesel UST	05/11/93	05/19/93	Soil
88578- 4	#4 North end of MEK UST	05/11/93	05/19/93	Soil
88578- 5	#5 South end of " "	05/11/93	05/19/93	Soil

RESULTS OF ANALYSIS

Laboratory Number:	88578- 1 Gas	88578- 2 Gas	88578- 3 diesel
Gasoline:	ND<1	ND<1	NA
Benzene:	ND<.003	ND<.003	ND<0.3
Toluene:	ND<.003	ND<.003	ND<0.3
Ethyl Benzene:	0.021	0.10	ND<0.3
Xylenes:	0.066	0.35	ND<0.3
Diesel:	NA	NA	20
Concentration:	mg/kg	mg/kg	mg/kg

Laboratory Number:	88578- 4 MEK	88578- 5 MEK
Gasoline:	NA	NA
Benzene:	ND<.003	ND<.003
Toluene:	ND<.003	ND<.003
Ethyl Benzene:	ND<.003	ND<.003
Xylenes:	ND<.009	ND<.009
Diesel:	ND<10	13
Concentration:	mg/kg	mg/kg

Superior Precision Analytical, Inc.
825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 88578
CLIENT: Decon Environmental Services
CLIENT JOB NO.: RUNNELS 1020

DATE RECEIVED: 05/12/93
DATE REPORTED: 05/19/93
DATE SAMPLED: 05/11/93

ANALYSIS FOR CADMIUM, CHROMIUM, LEAD, ZINC & NICKEL
by EPA SW-846 Method 6010

LAB #	Sample Identification	Concentration (mg/kg) Cadmium	Chromium	Lead	Zinc	Nickel
4	#4 MEK	ND	90	14	80	97
5	#5 MEK	ND	2400	85	200	1600

mg/kg - parts per million (ppm)
Method Detection Limit for Cadmium in Soil: 1 mg/kg
Method Detection Limit for Chromium in Soil: 5 mg/kg
Method Detection Limit for Lead in Soil: 5 mg/kg
Method Detection Limit for Zinc in Soil: 10 mg/kg
Method Detection Limit for Nickel in Soil: 10 mg/kg

QAQC Summary: MS/MSD Recovery Range : 88%-99%
Duplicate RPD : < 2%

Richard Srna, Ph.D.
for
Laboratory Manager

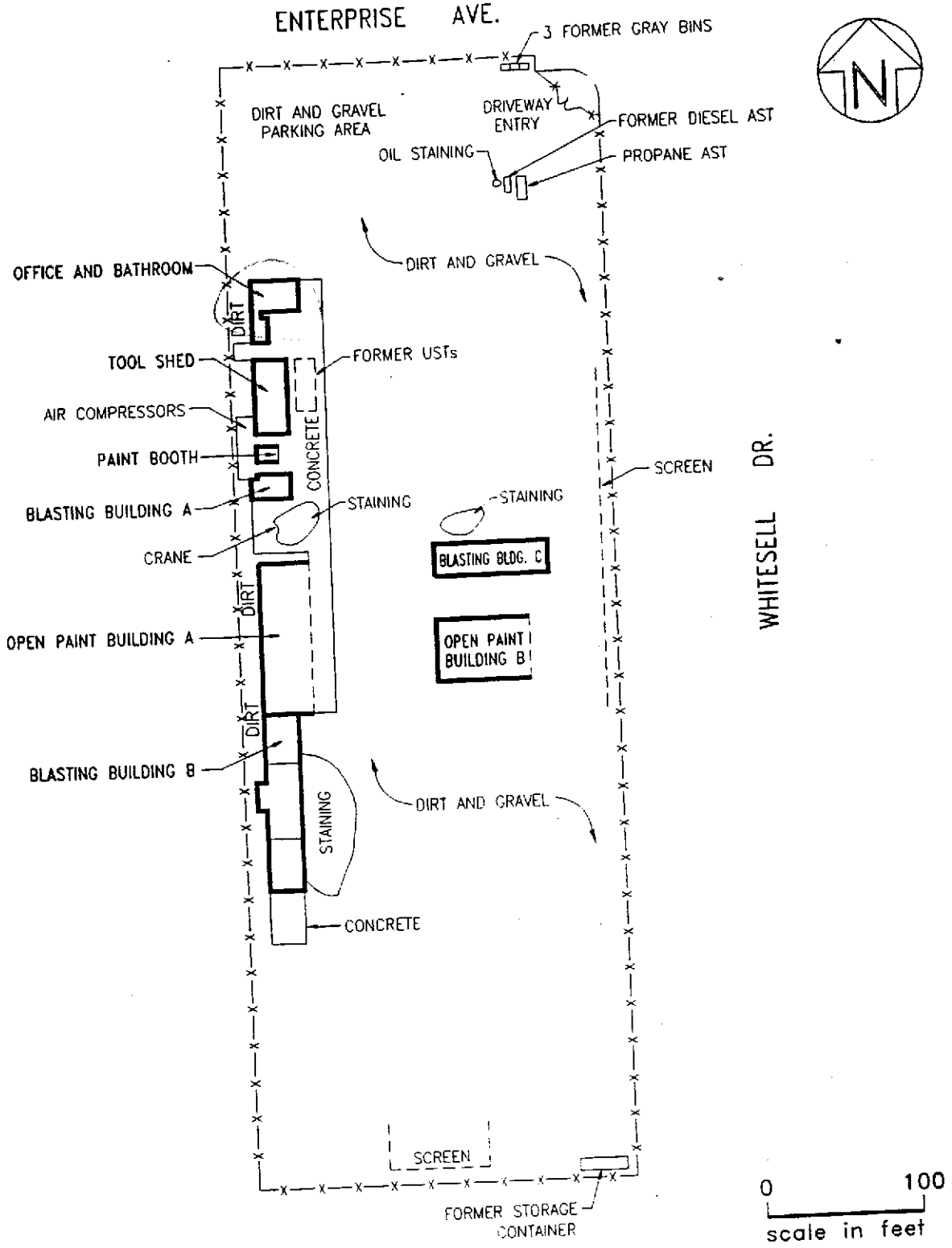
a groundwater sample collected from the monitoring well. No BTEX or MEK were detected in the groundwater sample.

The following table provides a summary of the groundwater monitoring analytical results from July 1987 to June 1992 for samples collected from the monitoring well. Earlier laboratory results for groundwater samples collected from the monitoring well were located in the file, but not included in this table. FROM MW-1, adjacent to former UST pit.

Summary of Groundwater Sample Analytical Laboratory Results				
Sample Date	TPH as Diesel (µg/L)	TPH as Gasoline (µg/L)	MEK (µg/L)	BTEX (µg/L)
7/21/87	0.12*	0.051**	ND	NA
1/26/88	ND*	32**	ND	NA
7/21/88	ND	20	ND	NA
2/1/89	ND	13	ND	NA
7/18/89	ND	34	ND	NA
12/29/89	ND	20	ND	NA
7/16/90	ND	44	ND	benzene 0.54
1/2/91	360	56	ND	benzene 0.70
6/26/91	ND	ND	ND	benzene 0.68
12/23/91	ND	ND	ND	ethylbenzene 0.62 total xylenes 3.0
6/23/92	ND	59	ND	ND

Notes:

TPH - Total Petroleum Hydrocarbons
MEK - Methyl Ethyl Ketone
BTEX - benzene, toluene, ethylbenzene, and total xylenes
µg/L - micrograms per liter
* - Results are for Extractable Hydrocarbons by modified EPA Method 8015
** - Results are for Volatile Hydrocarbons by modified EPA Method 8015
ND - Not Detected
NA - Not Analyzed



SOURCE: HISTORICAL AERIAL PHOTOGRAPHS AND HAYWARD FIRE DEPARTMENT RECORDS

BLYMYER ENGINEERS, INC.

BEI JOB NO.	DATE
96004	3-11-96

LEGEND

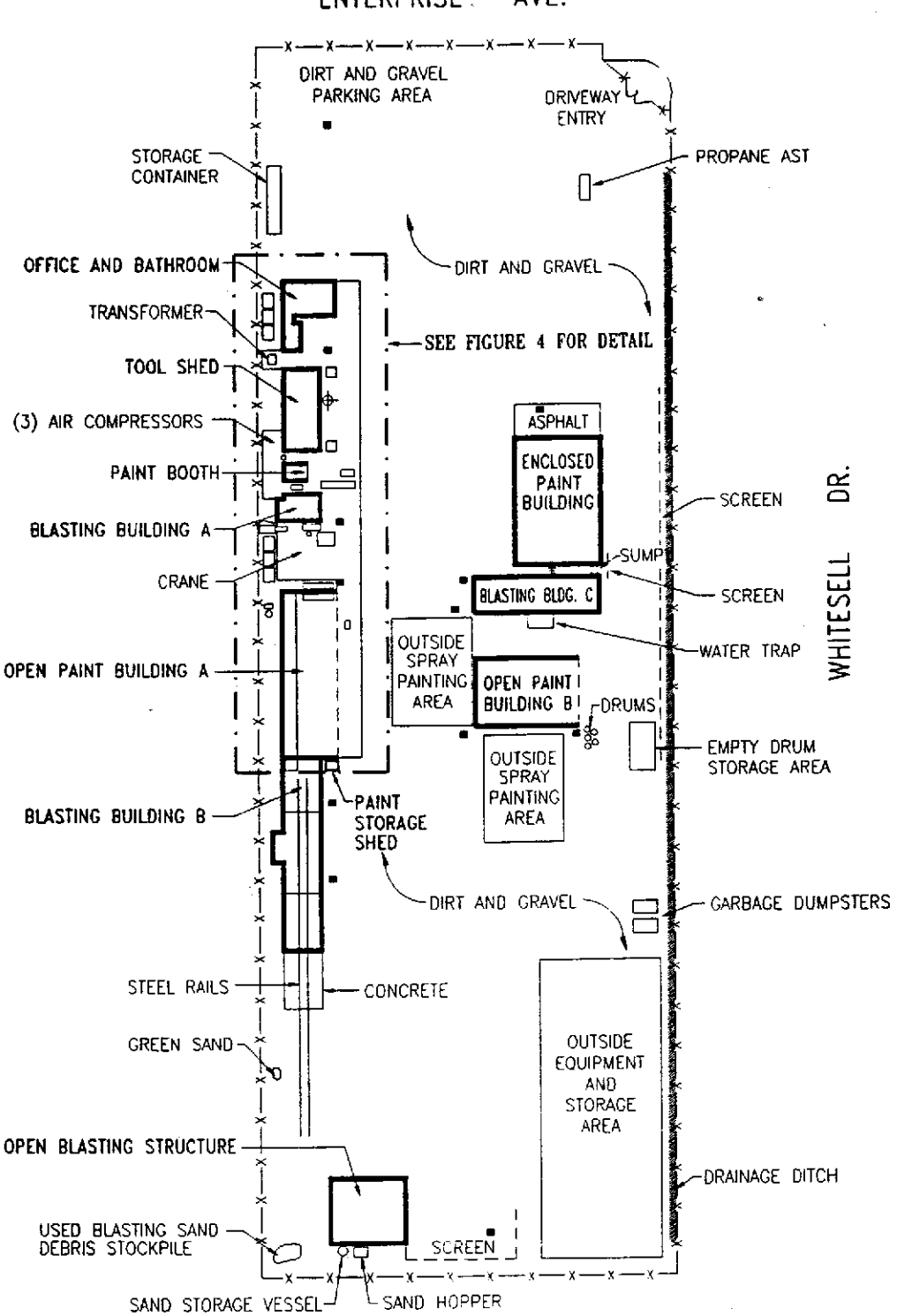
AST = ABOVEGROUND STORAGE TANK
UST = UNDERGROUND STORAGE TANK

HISTORIC SITE PLAN

RUNNELS INDUSTRIES, INC.
3590 ENTERPRISE AVE.
HAYWARD, CA

FIGURE 2

REVISED 4-1196 h:\public\acadlw\960042A



BLYMYER ENGINEERS, INC.

BEI JOB NO.	DATE
96004	3-11-96

LEGEND

AST = ABOVEGROUND STORAGE TANK

■ = STORM DRAIN

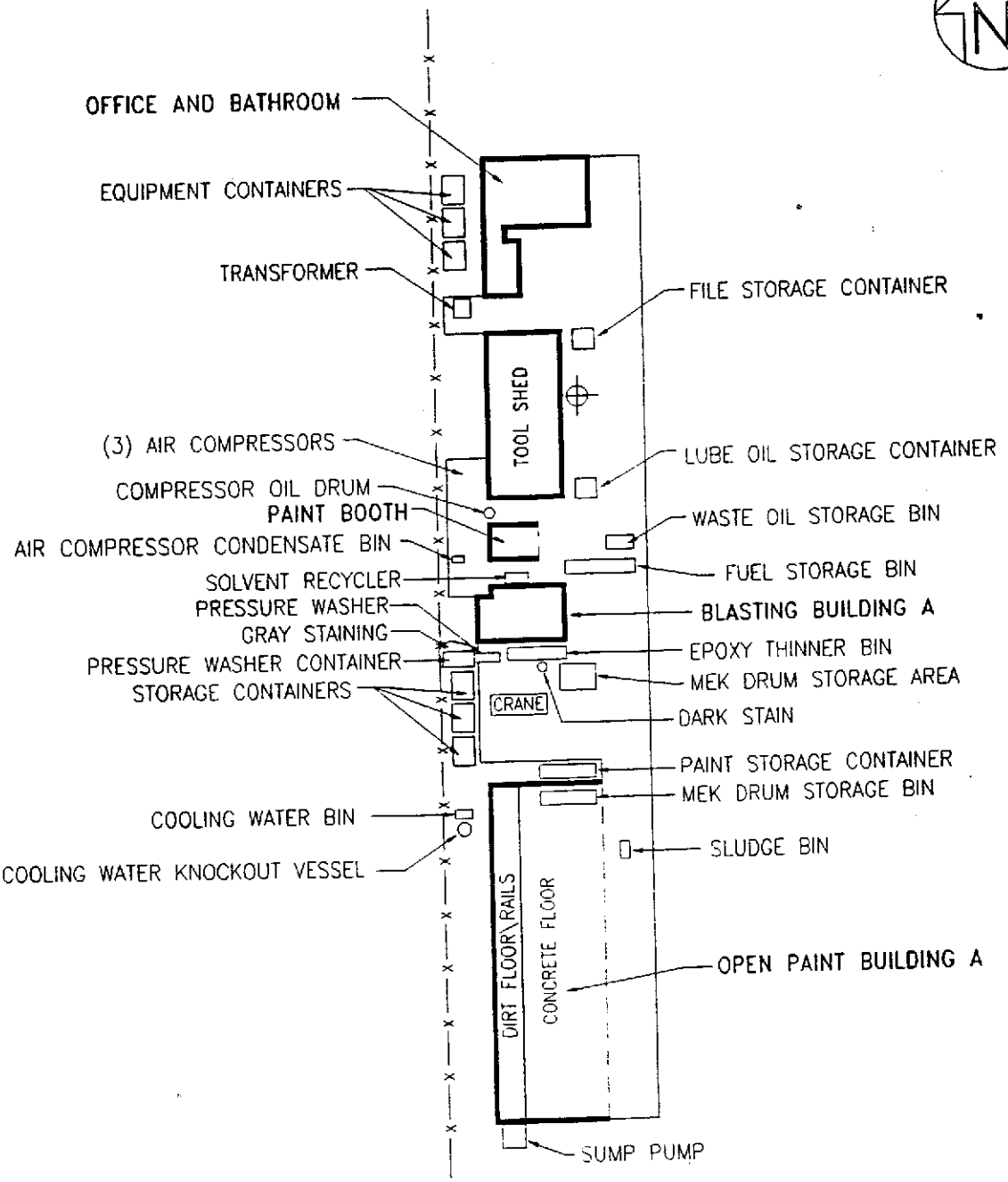
NOT TO SCALE

SITE PLAN

RUNNELS INDUSTRIES, INC.
3590 ENTERPRISE AVE.
HAYWARD, CA

FIGURE 3

4-11-96 h:\public\acadlw\960043 PLOT 1"=100'



BLYMYER ENGINEERS, INC.

BEI JOB NO.	DATE
96004	3-11-96

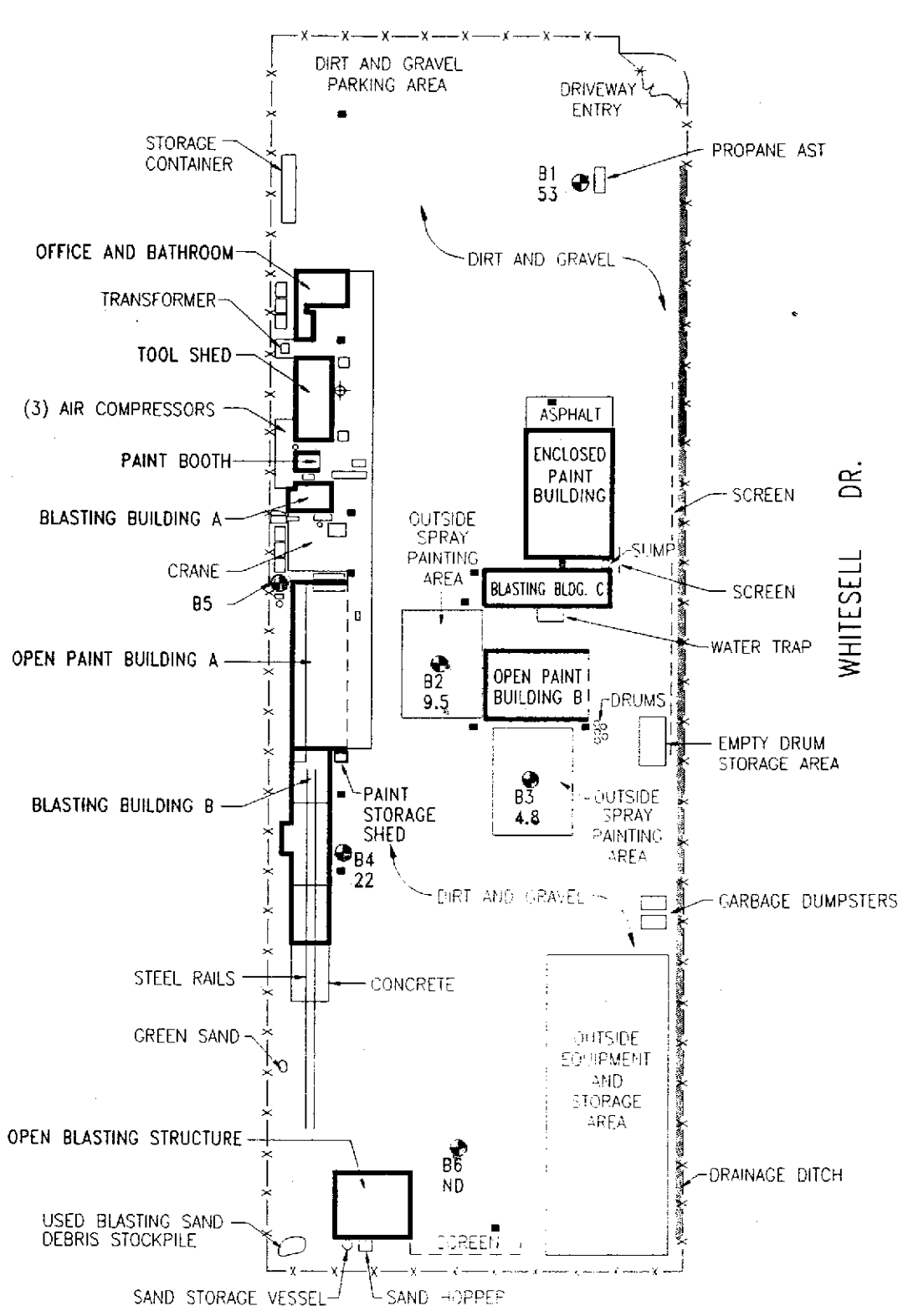
LEGEND
AST = ABOVEGROUND STORAGE TANK
MEK = METHYL ETHYL KETONE
⊕ = GROUNDWATER MONITORING WELL

NOT TO SCALE

SITE PLAN DETAIL
RUNNELS INDUSTRIES, INC.
3590 ENTERPRISE AVE.
HAYWARD, CA

FIGURE 4

4-11-96 h:\public\acadlw\960044 PLOT 1"=50'



NOT TO SCALE

BLYMYER ENGINEERS, INC.

BEI JOB NO.	DATE
96004	7-9-96

LEGEND

AST = ABOVEGROUND STORAGE TANK
▪ = STORM DRAIN
⊕ = GEOPROBE BORE LOCATION
53 = CONCENTRATION (parts per billion)
ND = NON DETECTABLE

GRAB GROUNDWATER ~~ICE~~ CONCENTRATION MAP
JUNE 7, 1996
RUNNELS INDUSTRIES, INC.
3590 ENTERPRISE AVE.
HAYWARD, CA

FIGURE 8

7-22-96 h:\public\acadlw\960048 PLOT 1"=100'

Table 1, Summary of Petroleum and VOC Soil Sample Analytical Results
BEI Job No. 96004, Runnels Industries, Inc.
3590 Enterprise Avenue, Hayward, California

Sample I.D.	Sample Date	Modified EPA Method 8015		EPA Method 8240
		TEPH as diesel (mg/kg)	TEPH as transmission fluid (mg/kg)	VOCs (µg/kg)
B1-3	6/7/96	**3.3**	**3.3**	ND
B2-2.5	6/7/96	<1.0	**95**	**24***
B3-2	6/7/96	<1.0	**23**	ND
B4-1.0	6/7/96	<1.0	**84**	**12***
B5-0.5	6/7/96	<1.0	**610**	ND
B6-2.5	6/7/96	<1.0	**43**	**11***

Notes:

EPA	=	Environmental Protection Agency
TEPH	=	Total Extractable Petroleum Hydrocarbons
VOCs	=	Volatile Organic Compounds
mg/kg	=	milligrams per kilogram (parts per million)
µg/kg	=	micrograms per kilogram (parts per billion)
<x	=	Not detected above the listed detection limit
ND	=	Not detected above the detection limit, see laboratory report for individual compound detection limit
B1-3	=	Soil sample from bore 1 at a depth of 3 feet
*	=	Acetone

Table II, Summary of Soil Sample Metal Analysis Results
BEI Job No. 96004, Runnels Industries, Inc.
3590 Enterprise Avenue, Hayward, California

Sample I.D.	Sample Date	EPA Method 6010 (mg/kg)							EPA Method 7060 (mg/kg)	EPA Method 7421 (mg/kg)	EPA Method 7471 (mg/kg)	EPA Method 6010 (mg/L)	EPA Method 7421 (mg/L)	EPA Method 6010 (mg/L)
		Sb	Cd	Cr	Co	Mo	Ni	Zn	Ar	Pb	Hg	STLC Cr	STLC Pb	STLC Zn
B1-3	6/7/96	<10	<2.0	**36**	**15**	<5.0	**36**	**44**	**2.3**	**14**	**0.10**	NA	NA	NA
B2-2.5	6/7/96	<10	<2.0	**25***	**31***	<5.0	**29***	**78**	**7.5**	**9.1**	**0.13**	NA	NA	NA
B3-2	6/7/96	<10	<2.0	**39***	**27***	<5.0	**42***	**200**	**6.2**	**31**	**0.10**	NA	NA	NA
B4-1.0	6/7/96	<10	<2.0	**40***	**18***	<5.0	**27***	**1,400**	**4.4**	**67**	**0.08**	NA	**5.5**	NA
B5-0.5	6/7/96	<10	<2.0	**460***	**23***	<5.0	**46***	**3,700**	**3.7**	**490**	**0.04**	**31**	**43**	**600**
B6-2.5	6/7/96	<10	<2.0	**38**	**10**	<5.0	**31**	**58**	**3.7**	**40**	**0.06**	NA	NA	NA
STLC (mg/L)	N/A	15	1.0	5	80	350	20	250	5.0	5.0	0.2	5	5.0	250
TTLC	N/A	500	100	2,500	8,000	3,500	2,000	5,000	500	1,000	20	2,500	1,000	5,000

Notes:
EPA = Environmental Protection Agency
mg/kg = milligrams per kilogram (parts per million)
mg/L = milligrams per liter (parts per million)
NA = Not Analyzed
STLC = Soluble Threshold Limit Concentration
TTLC = Total Threshold Limit Concentration
B1-3 = Soil sample from bore 1 at a depth of 3 feet

Sb = Antimony
Ar = Arsenic
Cd = Cadmium
Cr = Chromium
Co = Cobalt
Mo = Molybdenum
N/A = Not Applicable
Ni = Nickel
Hg = Mercury
Pb = Lead
Zn = Zinc
* = Matrix interferences suspected

Bold results indicate concentrations over the listed method detection limit.
Shaded results indicate concentrations over 10X the STLC value, or over the STLC value.

Table III, Summary of Petroleum and VOC Groundwater Sample Analytical Results
BEI Job No. 96004, Runnels Industries, Inc.
3590 Enterprise Avenue, Hayward, California

Sample I.D.	Sample Date	Petroleum Hydrocarbons		VOCs						
		Modified EPA Method 8015		EPA Method 8260						
		TEPH as diesel (mg/L)	TEPH as transmission fluid (mg/L)	1,1-DCA (µg/L)	cis-1,2-DCE (µg/L)	1,1-DCE (µg/L)	PCE (µg/L)	1,1,2-TCA (µg/L)	TCE (µg/L)	VC (µg/L)
B1W	6/7/96	**0.38**	<0.050	<1.0	**1.1**	**3.8**	**3.2**	<1.0	**53**	<1.0
B2W	6/7/96	<0.050	**0.56**	**25**	<1.0	**240**	<1.0	**1.1**	**9.5**	<1.0
B3W	6/7/96	<0.050	**10**	**29**	<1.0	**130**	<1.0	**1.4**	**4.8**	**1.4**
B4W	6/7/96	**0.25**	**0.24**	**1.3**	<1.0	**5.0**	**1.2**	<1.0	**22**	<1.0
B6W	6/7/96	<0.050	**0.81**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
MCL[a]	N/A	N/A	N/A	5	6	6	5	5	5	0.5

Table IV, Summary of Soluble Groundwater Sample Metal Analysis Results
BEI Job No. 96004, Runnels Industries, Inc.
3590 Enterprise Avenue, Hayward, California

Sample I.D.	Sample Date	EPA Method 6010 (mg/L)								EPA Method 7421 (mg/L)	EPA Method 7471 (mg/L)
		Sb	Ar	Cd	Cr	Co	Mo	Ni	Zn	Pb	Hg
B1W	6/7/96	<0.10	<0.0050	<0.020	<0.020	<0.050	<0.050	<0.050	<0.050	**0.012**	<0.00020
B2W	6/7/96	<0.10	<0.0050	<0.020	<0.020	<0.050	<0.050	**0.30**	**3.1**	**0.006**	<0.00020
B3W	6/7/96	<0.10	<0.0050	<0.020	<0.020	<0.050	<0.050	**0.44**	**6.1**	**0.007**	<0.00020
B4W	6/7/96	<0.10	<0.0050	<0.020	<0.020	<0.050	<0.050	<0.050	**1.7**	<0.0020	<0.00020
B6W	6/7/96	<0.10	<0.0050	<0.020	<0.020	<0.050	<0.050	**0.16**	<0.050	<0.0020	<0.00020
STLC	N/A	15	5.0	1.0	5	80	350	20	250	5.0	0.2
MCL	N/A	0.006	0.05	0.005	0.05	N/A	N/A	0.1	5*	0.015**	0.002

PRG 1500 3400

Notes: EPA = Environmental Protection Agency
mg/L = milligrams per liter (parts per million)
N/A = Not Applicable
STLC = Soluble Threshold Limit Concentration
N/A = Not Applicable
MCL = Maximum Contaminant Level
** = Federal Treatment Technique triggered at an Action Level of 0.015 mg/L

Ar = Arsenic
Cd = Cadmium
Cr = Chromium
Co = Cobalt
Mo = Molybdenum
* = Secondary MCL

Sb = Antimony
Hg = Mercury
Pb = Lead
Zn = Zinc
Ni = Nickel

3.0 A SOIL AND GROUNDWATER SAMPLE FROM BEHIND OPEN PAINT BUILDING B

A soil and groundwater sample was collected in the area behind Open Paint Building B, between the building and the fence and analyzed for halogenated volatile halocarbon compounds by U.S. EPA Method 8010. The borehole from which these samples were collected was designated B7. The location is shown on Figure 2.

The samples were labeled and placed in an ice chest with 2 Liter plastic bottles containing ice. Chain-of-Custody forms were filled out and were delivered with the ice chest to Chromalab. These soil and groundwater samples were analyzed as stated in the Workplan. Copies of the laboratory report and chain-of-custody documentation are contained in Attachment E.

No U.S. EPA Method 8010 volatile halocarbon compounds were detected in the soil sample. In the groundwater sample three Method 8010 analytes were found: B7

1,1-Dichloroethane	17 µg/L
1,1-Dichloroethene	87 µg/L
Trichloroethene	5.3 µg/L

Borehole B7 is located on the upgradient edge of the property. These three compounds were also detected in the two upgradient monitoring wells MW-2 and MW-3.

4.0 MEK ANALYSIS OF MW-1 GROUNDWATER

A groundwater sample was collected from the existing well (MW-1) onsite and analyzed for Methyl Ethyl Ketone by U.S. EPA Method 8260. The approximate location of MW-1 is shown on attached Figure 2.

The groundwater sample from MW-1 was collected and processed in a manner similar tho those from monitoring wells MW-2 through MW-5.

No MEK was found in the sample (reported as 2-Butanone, < 20 µg/L). Groundwater from MW-1 was found to contain 520 µg/L MTBE (Methyl Tertiary Butyl Ether) and 44 µg/L TCE.

5.0 SUMMARY AND CONCLUSIONS

5.1 Soils and Groundwater Borne Metals

The metals chromium, lead, and zinc were found not to be an issue in soil and groundwater samples collected and analyzed as a part of this investigation. Consequently, it can be concluded that

Analytical Results
for
Runnels Industries, Inc.

Clayton Project No. 96022.64

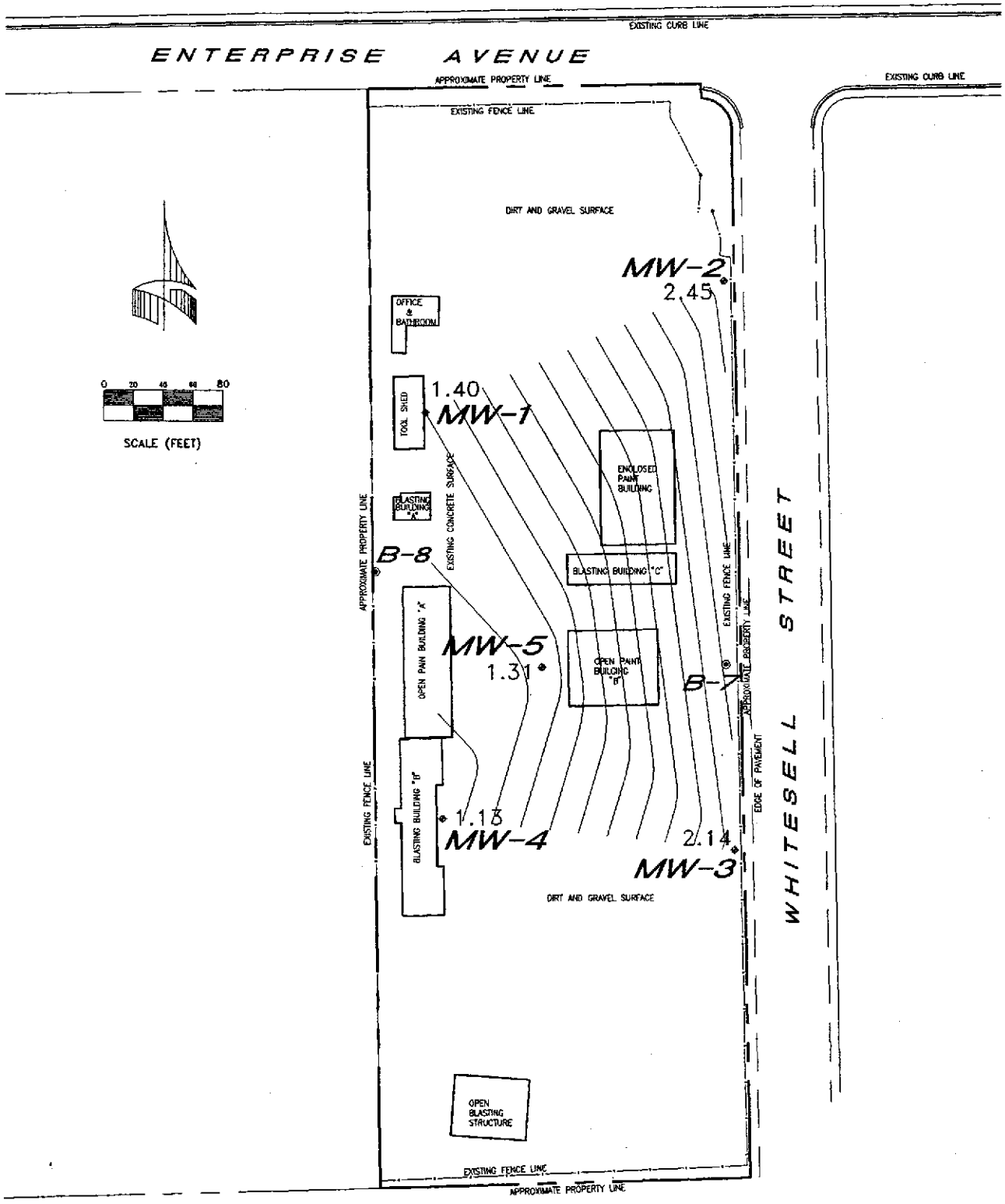
Sample Identification: SAMPLE 1
Lab Number: 9602264-01
Sample Matrix/Media: SOLID

Date Sampled: 02/21/96
Date Received: 02/22/96

Analyte	Concentration	Method Detection Limit	Units	Date Prepared	Date Analyzed	Prep Method	Method Reference
Antimony	8	1	mg/kg	02/23/96	02/23/96	EPA 3050A	EPA 6010A
Arsenic	3	1	mg/kg	02/23/96	02/23/96	EPA 3050A	EPA 6010A
Barium	300	1	mg/kg	02/23/96	02/23/96	EPA 3050A	EPA 6010A
Beryllium	0.6	0.1	mg/kg	02/23/96	02/23/96	EPA 3050A	EPA 6010A
Cadmium	<0.4	0.4	mg/kg	02/23/96	02/23/96	EPA 3050A	EPA 6010A
Chromium	78	1	mg/kg	02/23/96	02/23/96	EPA 3050A	EPA 6010A
Cobalt	31	1	mg/kg	02/23/96	02/23/96	EPA 3050A	EPA 6010A
Copper	1400	1	mg/kg	02/23/96	02/23/96	EPA 3050A	EPA 6010A
Lead	17	1	mg/kg	02/23/96	02/23/96	EPA 3050A	EPA 6010A
Mercury	<0.1	0.1	mg/kg	02/27/96	02/27/96	EPA 7471A	EPA 7471A
Molybdenum	4	1	mg/kg	02/23/96	02/23/96	EPA 3050A	EPA 6010A
Nickel	46	1	mg/kg	02/23/96	02/23/96	EPA 3050A	EPA 6010A
Selenium	<1	1	mg/kg	02/23/96	02/23/96	EPA 3050A	EPA 6010A
Silver	<0.5	0.5	mg/kg	02/23/96	02/23/96	EPA 3050A	EPA 6010A
Thallium	31	1	mg/kg	02/23/96	02/23/96	EPA 3050A	EPA 6010A
Vanadium	86	1	mg/kg	02/23/96	02/23/96	EPA 3050A	EPA 6010A
Zinc	770	1	mg/kg	02/23/96	02/23/96	EPA 3050A	EPA 6010A

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

Results are reported on a wet-weight basis, as received.

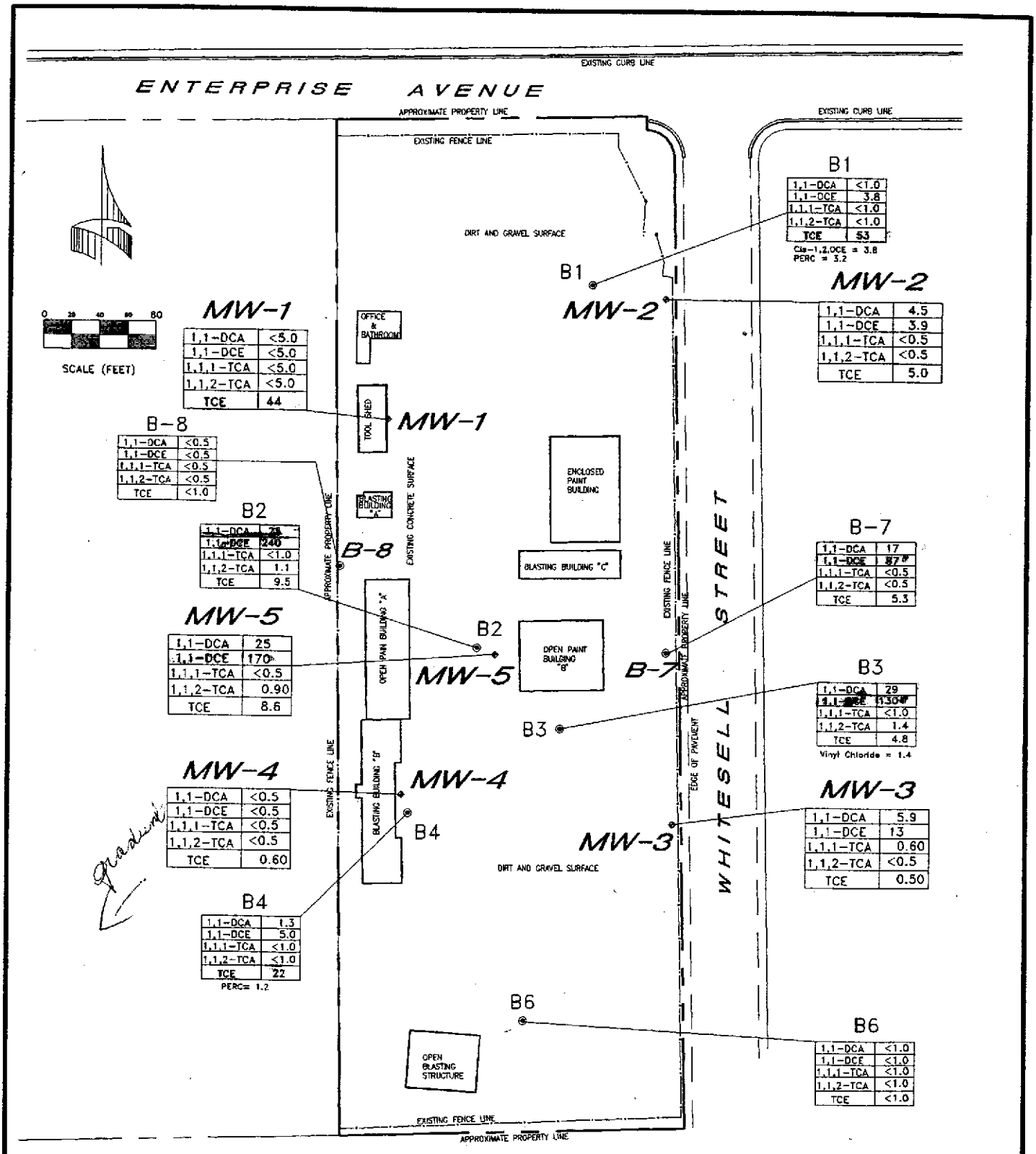


Well survey by Ron Archer, Civil Engineer, Inc., August 20, 1997. Top of casing elevations: MW-1 = 9.96; MW-2 = 8.86; MW-3 = 7.91; MW-4 = 8.47; and MW-5 = 8.86.

H2OGEOL
A GROUND WATER CONSULTANCY

POTENTIOMETRIC SURFACE MAP FOR 08/20/97 SHOWING LOCATIONS OF MONITORING WELLS AND SAMPLING BOREHOLES RUNNELS INDUSTRIES, INC. 3690 ENTERPRISE AVENUE HAYWARD, CALIFORNIA

FIGURE 2



Locations of B1, B2, B3, B4, and B6 approximate. Data from these boreholes from Blymer Engineers, Inc., July 11,1996 - Phase II Environmental Assessment.

ALL CONCENTRATIONS IN MICROGRAMS PER LITER

H2OGEOL
A GROUND WATER CONSULTANCY

GROUNDWATER CONCENTRATIONS OF VOLATILE HALOCARBON COMPOUNDS FROM MONITORING WELLS AND SAMPLING BOREHOLES RUNNELS INDUSTRIES, INC. 3590 ENTERPRISE AVENUE HAYWARD, CALIFORNIA

FIGURE 3

Groundwater samples were collected for halogenated volatile organic compound analysis by U.S. EPA Method 8010 from monitoring wells MW-2, MW-3, MW-4, and MW-5. The samples were collected directly from the discharge end of the purge pump delivery tubing at a pumping rate of less than 1 L/minute. Water samples were collected, in duplicate, into 40-mL glass vials with Teflon™ septum lids.

A groundwater sample for dissolved metals was collected from MW-4 in an emptied deionized water bottle pre-rinsed with well water. The well water was then pumped from the bottle through a precleaned silicone tubing that passed through a peristaltic pump head and through a filter housing containing a 0.45 micron filter membrane filter and into a polypropylene bottle containing nitric acid as a preservative that was provided by the analytical laboratory.

Groundwater sample bottles were labeled and placed in an ice chest with 2 Liter plastic bottles containing ice. Chain-of-Custody forms were filled out and were delivered with the ice chest to Chromalab, Inc. of Pleasanton, California, a state certified laboratory (DTSC No. 1094).

1.4 GROUNDWATER ANALYTICAL RESULTS

Groundwater samples from MW-2, MW-3, MW-4, and MW-5 were submitted to Chromalab for analysis by EPA Method 8010 for halogenated volatile organic compounds and a groundwater sample from MW-4 for analysis of metals (Cr, Pb, and Zn) using EPA Method 3010A/6010A. Copies of the laboratory report and chain-of-custody documentation are contained in Attachment E.

Five Method 8010 analytes were identified in groundwater from the four new wells at the 3590 Enterprise Avenue property. These compounds and their respective maximum contaminant levels (MCLs) are listed below

Concentration in micrograms per Liter	MW-2	MW-3	MW-4	MW-5	MCL
1,1-Dichloroethane	4.5	5.9	<0.50	25	5.0
1,1-Dichloroethene	3.9	13	<0.50	170	6.0
1,1,1-Trichloroethane	<0.50	0.60	<0.50	<0.50	200
1,1,2-Trichloroethane	<0.50	<0.50	<0.50	0.90	32
Trichloroethene	5.0	0.50	0.60	8.6	5.0

Chromium, lead, and zinc analytical results (in units of mg/L) were as follows

	Chromium	Lead	Zinc
B8/3 Ft.	32	8.4	100
B8/6 Ft.	30	4.1	45
B8/9 Ft.	29	6.1	54
B8/GW	<0.005	0.018	0.68

- compare to PRGs

Soil concentrations of chromium and lead are within the range expected for background concentrations at all three depth samples. Zinc is present in background concentration in the six and nine foot samples. Zinc concentration is slightly elevated in the three foot sample, but well within urban background, particularly within the soil chemical halo contiguous to a galvanized chain link fence.

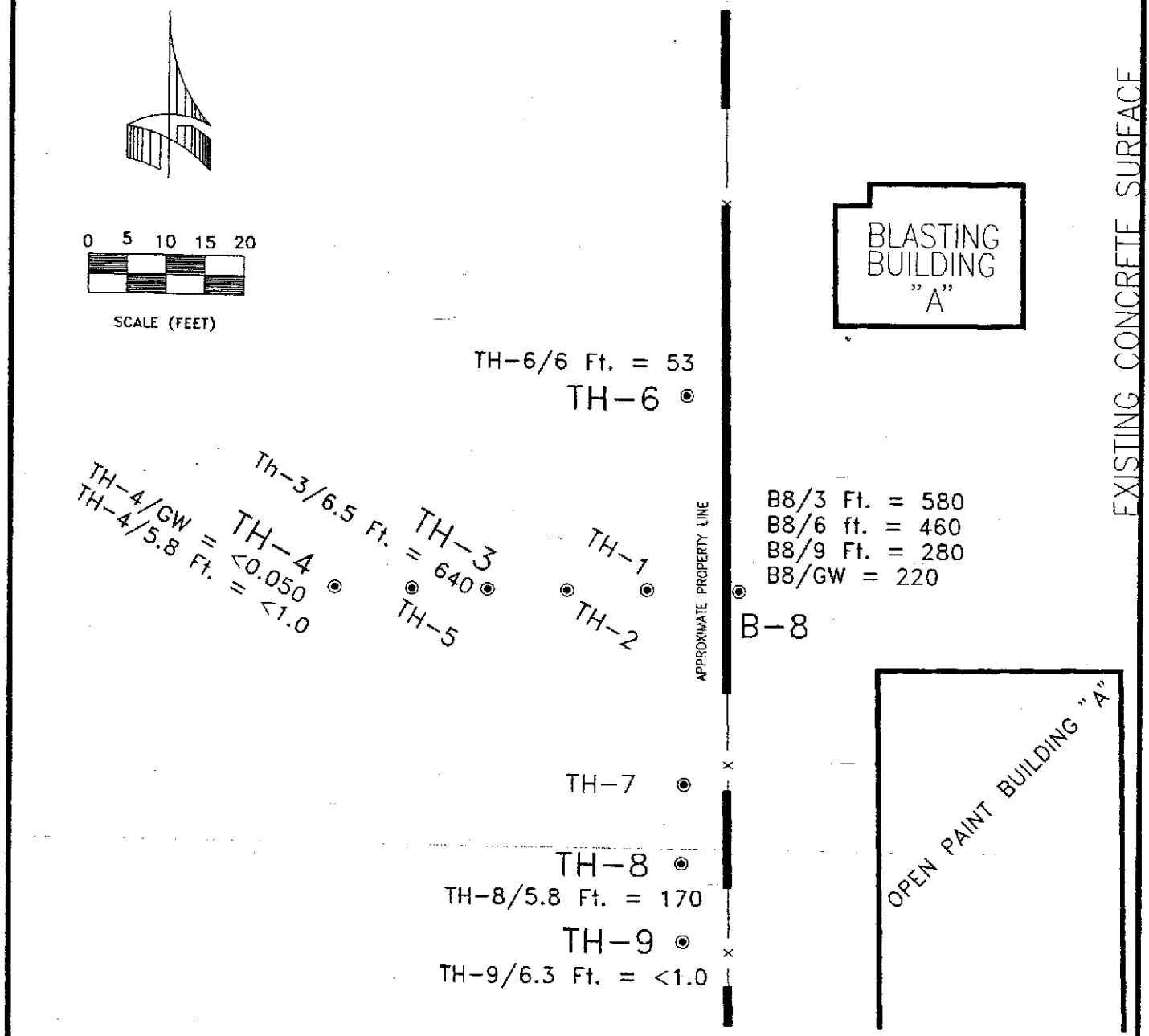
Groundwater concentrations of chromium, lead, and zinc are below their respective drinking water standards.

An odor similar to that of diesel was present in soil from borehole B8 continuously below a depth of 1.5 feet. The soil odor is noted on the lithologic log (Attachment C). A sheen and floating organic phase liquid globules were also note on the water bailed from B8. Consequent to these observations soil and groundwater samples were also collected for Total Extractable Petroleum Hydrocarbon (TEPH) analysis by U.S. EPA Method 8015M.

The laboratory misconstrued their instructions and the soil samples went past their holding times as indicated by the dates on the analytical reports. Regardless, the following TEPH results (in units of mg/K or mg/L, as appropriate) were reported:

	Kerosene	Diesel	Motor Oil
B8/3 Ft.	<5.0	580	130
B8/6 Ft.	<5.0	460	160
B8/9 Ft.	<1.0	280	78
B8/GW	<2.8	220	28

Source of the diesel



H2OGEOL
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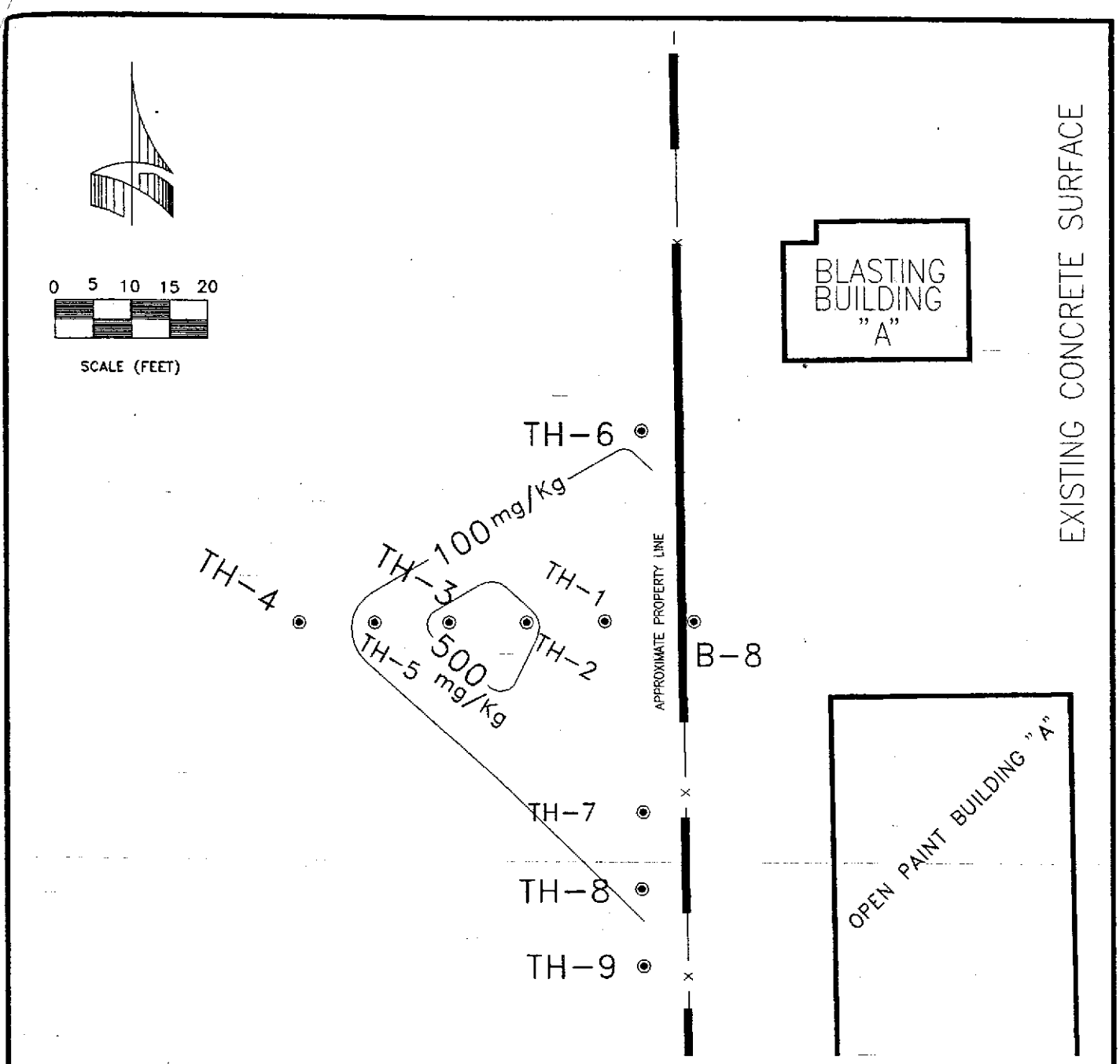
TPH-DIESEL DOWNGRADIENT OF B-8

RUNNELS INDUSTRIES, INC.
3590 ENTERPRISE AVENUE
HAYWARD, CALIFORNIA

FIGURE
4



H2OGEOL
A GROUND WATER CONSULTANCY

TPH-DIESEL DOWNGRADIENT OF B-8
APPROXIMATE CONCENTRATION DISTRIBUTION
RUNNELS INDUSTRIES, INC.
3590 ENTERPRISE AVENUE
HAYWARD, CALIFORNIA

FIGURE
5

with the ice chest to Chromalab, Inc. of Pleasanton, California, a state certified laboratory (DTSC No. 1094). Chromalab analyzed the soil and water samples for total extractable petroleum hydrocarbon as diesel (TEPH-d) like using U.S. EPA Method 8015M. The laboratory report and chain-of-custody documentation are attached hereto.

The TEPH-diesel analytical results were as follows:

TH-3/6.5 Ft.	640	mg/Kg
TH-4/5.8 Ft.	<1.0	mg/Kg
TH-6/6 Ft.	53	mg/Kg
TH-8/5.8 Ft.	170	mg/Kg
TH-9/6.3 Ft.	<1.0	mg/Kg

The downgradient groundwater sample was reported as N.D. at less than <0.050 mg/L (less than 50 micrograms per liter).

These results and the earlier results from borehole B-8 are shown graphically in Figure 4. These data are contoured to show approximate distribution of TEPH-diesel in Figure 5.

The relatively close proximity of the end of the plume (i.e., N.D. at TH-4) to the probable source area suggests that a stable plume situation exists. Furthermore, all of the concentrations of diesel reported are below levels normally expected to trigger further investigation.

Please do not hesitate to call me at 925-373-9211 should you have any questions.

Sincerely,

Gary D. Lowe, R.G., C.E.G., C.HG.
Principal, Hydrogeologist

REGISTERED GEOLOGIST
GARY D. LOWE
No. 127
CERTIFIED
HYDROGEOLOGIST
STATE OF CALIFORNIA

xc: Mr. Al Gant - Runnels Industries
Mr. Dirk Gastaldo - Salem Communications Corporation
Mr. Alan N. Bick - Gibson, Dunn & Crutcher LLP

TABLE 3
VOLATILE HALOGENATED ORGANIC COMPOUNDS
IN GROUNDWATER
RUNNELS INDUSTRIES, INC.
3590 ENTERPRISE AVENUE, HAYWARD, CALIFORNIA
(all concentrations in micrograms per liter)

	Vinyl chloride	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	TRANS-1,2-Dichloroethene	CIS-1,2-Dichloroethene	Trichloroethene	Tetrachloroethene
MW-1. Installed 12/03/85. TD = 15.65. Screen interval not available.										
8/20/97	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	44	< 5.0
5/7/98	< 0.5	< 0.5	< 0.5	2.4	< 0.5	< 0.5	< 0.5	3.3	39	1.3
8/3/98	< 0.5	< 0.5	< 0.5	2.2	< 0.5	< 0.5	< 0.5	3.0	36	1.1
11/3/98	< 0.5	< 0.5	< 0.5	2.3	< 0.5	< 0.5	0.80	2.2	28	< 0.5
2/4/99	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.82	2.9	42	1.2
MW-2. Installed 08/18/97. TD = 12.14. Screen interval 7.1-12.1										
8/20/97	< 0.5	4.5	< 0.5	3.9	< 0.5	< 0.5	< 0.5	< 0.5	5.0	< 0.5
5/7/98	< 0.5	0.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
8/3/98	< 0.5	1.1	< 0.5	1.1	< 0.5	< 0.5	< 0.5	< 0.5	2.2	< 0.5
11/3/98	< 0.5	3.7	< 0.5	3.0	< 0.5	< 0.5	< 0.5	< 0.5	3.4	< 0.5
2/4/99	< 0.5	3.5	< 0.5	3.0	< 0.5	< 0.5	< 0.5	< 0.5	2.7	< 0.5
MW-3. Installed 08/18/97. TD = 12.15. Screen interval 7.1-12.1										
8/20/97	< 0.5	5.9	< 0.5	13	0.6	< 0.5	< 0.5	< 0.5	0.5	< 0.5
5/7/98	< 0.5	2.9	< 0.5	4.4	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
8/3/98	< 0.5	2.7	< 0.5	7.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
11/3/98	< 0.5	4.7	< 0.5	10	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
2/4/99	< 0.5	4.5	< 0.5	11	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-4. Installed 08/18/97. TD = 12.65. Screen interval 7.6-12.6										
8/20/97	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.6	< 0.5
5/7/98	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	2.7	< 0.5
8/3/98	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.72	< 0.5
11/3/98	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
2/4/99	< 0.5	< 0.5	< 0.5	1.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5. Installed 08/18/97. TD = 12.68. Screen interval 7.5-12.65										
8/20/97	< 0.5	25	< 0.5	170	< 0.5	0.9	< 0.5	< 0.5	8.6	< 0.5
5/7/98	0.5	16	< 0.5	140	< 0.5	< 0.5	< 0.5	< 0.5	7.4	< 0.5
8/3/98	< 0.5	16	0.53	150	< 0.5	< 0.5	< 0.5	< 0.5	7.5	< 0.5
11/3/98	< 0.5	15	< 0.5	150	< 0.5	< 0.5	< 0.5	< 0.5	5.3	< 0.5
2/4/99	< 0.5	19	< 0.5	160	< 0.5	< 0.5	< 0.5	0.92	7.0	< 0.5

BLYMYER
ENGINEERS, INC.

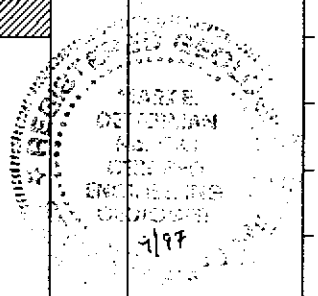
SOIL BORE LOG: B1

Job No.: 98004
Client: Runnels Industries, Inc.
Site: 3590 Enterprise Avenue
Hayward, California
Date Drilled: June 7, 1998
Logged By: M. Detterman

Drilling Company: Gregg Drilling and Testing
Driller: Paul
Drilling Equipment: GeoProbe 5400
Sample Method: 4 ft. HDPE sleeve
Soil Bore Diameter: 2 in.
Total Depth Drilled: 18 ft.

Initial Water Depth: ▽ 15 ft.
Stabilized Water Depth: ▽ 6.5 ft.

Depth (ft.)	Blows/6 in.	P.I.D. (ppm)	Sample Intervals	LITHOLOGIC DESCRIPTION	Unified Soil Classification	Graphic Log	Water Depth
0				Olive green sandy Gravel, 20% sand, medium; angular gravel, FILL	GP		
				Medium brown clayey SAND, with gravel; 20% clay; sand, fine to medium; 10% gravel, subangular, up to 0.25 inches diameter; moist; FILL	SC		
	B1-3			Black silty CLAY; plastic; moist			
5				As above; grades dark brown; 30% caliche blebs to 0.25 inches			▽ 6.5'
10				As above; grades gray-brown mottled with 25% orange-brown; trace fine sand; moist	CL		
15				Light brown clayey SILT/silty CLAY; very moist			▽ 15'
20				Soil bore terminated at 18 feet			



BLYMYER
ENGINEERS, INC.

SOIL BORE LOG: B2

Job No.: 98004
Client: Runnels Industries, Inc.
Site: 3590 Enterprise Avenue
Hayward, California
Date Drilled: June 7, 1998
Logged By: M. Detterman

Drilling Company: Gregg Drilling and Testing
Driller: Paul
Drilling Equipment: GeoProbe 5400
Sample Method: 4 ft. HDPE sleeve
Soil Bore Diameter: 2 in.
Total Depth Drilled: 16 ft.

Initial Water Depth: ▽ 14 ft.
Stabilized Water Depth: ▼ 6.5 ft.

Depth (ft.)	Blows/6 in.	P.I.D. (ppm)	Sample Intervals	LITHOLOGIC DESCRIPTION	Unified Soil Classification	Graphic Log	Water Depth
0				Medium brown silty SAND; 70% sand, fine to medium; 20% silt, 20% gravel, fine; dry to damp; FILL	SM		
			B2-2.5				
5				Black silty CLAY; plastic; moist			▼ 6.5'
				As above; grades dark brown			
				As above; grades whitish-green (caliche); greenish along rootlets; moist			
10				As above; grades dark brown; moist	CL		
							▽ 14'
15				Soil bore terminated at 16 feet			
20							

REGISTERED GEOLOGIST
MARK E. DETTERMAN
No. 4765
CERTIFIED ENGINEERING GEOLOGIST
9/97

BLYMYER
ENGINEERS, INC.

SOIL BORE LOG: B3

Job No.: 98004
Client: Runnels Industries, Inc.
Site: 3590 Enterprise Avenue
Hayward, California
Date Drilled: June 7, 1998
Logged By: M. Detterman

Drilling Company: Gregg Drilling and Testing
Driller: Paul
Drilling Equipment: GeoProbe 5400
Sample Method: 4 ft. HDPE sleeve
Soil Bore Diameter: 2 in.
Total Depth Drilled: 18 ft.

Initial Water Depth: ▼ 14 ft.
Stabilized Water Depth: ▼ 6.5 ft.

Depth (ft.)	Blows/6 in.	P.I.D. (ppm)	Sample Intervals	LITHOLOGIC DESCRIPTION	Unified Soil Classification	Graphic Log	Water Depth
0				Medium brown silty SAND with gravel, with greenish cast; 70% fine to medium sand; 10% subangular gravel, to 0.25 inch diameter; dry; FILL	SM		
				Medium brown silty CLAY with gravel; 15% fine gravel; damp; FILL	CL		
	B3-2.0			Medium brown silty SAND with gravel, with greenish cast; 70% sand, fine to medium; 10% gravel, subangular, to 0.25 inch diameter; damp; FILL	SM		
5				Black silty CLAY; plastic; moist			▼ 6.5'
10				As above; grades light brown; dense; moist	CL		
15				As above; grades light yellow brown; trace fine sand			▼ 14'
20				Soil bore terminated at 18 feet			

BLYMYER
ENGINEERS, INC.

SOIL BORE LOG: B4

Job No.: 98004
Client: Runnels Industries, Inc.
Site: 3590 Enterprise Avenue
Hayward, California
Date Drilled: June 7, 1998
Logged By: M. Detterman

Drilling Company: Gregg Drilling and Testing
Driller: Paul
Drilling Equipment: GeoProbe 5400
Sample Method: 4 ft. HDPE sleeve
Soil Bore Diameter: 2 in.
Total Depth Drilled: 18 ft.

Initial Water Depth: ▽ 14 ft.
Stabilized Water Depth: ▼ 6 ft.

Depth (ft.)	Blows/6 in.	P.I.D. (ppm)	Sample Intervals	LITHOLOGIC DESCRIPTION	Unified Soil Classification	Graphic Log	Water Depth
0							
	B4-1.0			Medium brown and greenish black silty SAND; 30% greenish black and 40% medium brown sand, fine to medium; dry; FILL	SM		
				Medium brown clayey SILT; slightly plastic; damp	ML		
5				Grades dark brown silty CLAY; plastic; moist Grades gray green; diffuse caliche throughout; plastic; moist Grades mottled black and olive green; soft; very moist	CL		▼ 6'
10				As above; grades increasing black and decreasing green in color			▽ 14'
15				Soil bore terminated at 18 feet			
20							

REGISTERED GEOLOGIST
MARY E. DETTERMAN
No. 1705
CERTIFIED ENGINEERING GEOLOGIST
9/97

BLYMYER
ENGINEERS, INC.

SOIL BORE LOG: B5

Job No.: 98004
Client: Runnels Industries, Inc.
Site: 3590 Enterprise Avenue
Hayward, California
Date Drilled: June 7, 1998
Logged By: M. Detterman

Drilling Company: Gregg Drilling and Testing
Driller: Paul
Drilling Equipment: GeoProbe 5400
Sample Method: 4 ft. HDPE sleeve
Soil Bore Diameter: 2 in.
Total Depth Drilled: 1.5 ft.

Initial Water Depth: ▽ 1.5 ft.
Stabilized Water Depth: ▽

Depth (ft.)	Blows/6 in.	P.I.D. (ppm)	Sample Intervals	LITHOLOGIC DESCRIPTION	Unified Soil Classification	Graphic Log	Water Depth
0							
			B5-0.5	Dark brown sandy CLAY with gravel; 35% sand, medium to coarse; 15% gravel, medium, angular; moist; FILL	CL		
				Black silty CLAY; plastic; soft; very moist	CL		▽ 1.5'
				Soil bore terminated at 1.5 feet			
5							
10							
15							
20							

REGISTERED GEOLOGIST
MARK E. DETTERMAN
No. 1903
CERTIFIED ENGINEERING GEOLOGIST
9/97

BLYMYER
ENGINEERS, INC.

SOIL BORE LOG: B6

Job No.: 98004
Client: Runnels Industries, Inc.
Site: 3590 Enterprise Avenue
Hayward, California
Date Drilled: June 7, 1998
Logged By: M. Detterman

Drilling Company: Gregg Drilling and Testing
Driller: Paul
Drilling Equipment: GeoProbe 5400
Sample Method: 4 ft. HDPE sleeve
Soil Bore Diameter: 2 in.
Total Depth Drilled: 18 ft.

Initial Water Depth: ▽ 14 ft.
Stabilized Water Depth: ▼ 5 ft.

Depth (ft.)	Blows/6 in.	P.I.D. (ppm)	Sample Intervals	LITHOLOGIC DESCRIPTION	Unified Soil Classification	Graphic Log	Water Depth
0				Green gray sandy GRAVEL; 15% sand, coarse; gravel, crushed, angular; dry; FILL	GP		
				Medium brown silty SAND with organics; 15% silt; 15% organics; sand, medium; dry to damp; FILL	SM		
				Medium gray silty SAND; 15% silt; sand, medium; damp; FILL	SM		
			B6-2.5	Black silty CLAY with organics; 15% organics; plastic; moist			
5					CL		▼ 5'
				Greenish gray clayey SAND; 20% clay; sand, fine; moist to wet at 8 ft	SC		
				Black silty CLAY; plastic; moist			
				As above, grades to dark brown, then black			
10				As above; trace fine to medium sand; moist	CL		
							▽ 14'
15				Medium brown silty SAND; 20% silt; sand, fine; wet	SM		
					CL		
				Black silty CLAY; plastic; wet			
				Soil bore terminated at 18 feet			
20							

REGISTERED GEOLOGIST
MARK E. DETTERMAN
No. [illegible]
9/97

H2OGEOL
A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

BOREHOLE No. MW-2 Sheet 1 of 1

Project No.: Date: 08/18/97
Client: Runnels Industries
Location: 3590 Enterprise Avenue
Hayward, California
Logged by: GDL Driller: RCV/GDL

Drilling Co. ASE Drilling Drill Model Iwan Auger
Drilling Method - Hand Operation Borehole Diameter 6.25/4 -in
Ground Surface Elevation 9.12 Datum: ground surface
Borehole MW-2 was completed as a monitoring well MW-2

Water Level	6.41			
Time	7:26			
Date	8/20/97			

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth feet	Sample	Soil Sample Number	Graphic Soil Symbol	USCS Soil Symbol	Field Soil Description
		1					Fill - dark yellowish brown 10YR 3/4 sandy gravelly clay
		2					
		3				CL	Black 5Y 2.5/1 3 clay
		4					3.4 beginning of gray mottling
		5				CL	Very dark grayish brown 2.5Y 4/2 mottled olive gray 5Y 4/2 clay
		6				CL	Olive gray 5Y 5/2 silty clay
		7				CL	Dark grayish brown 2.5Y 4/2 clay
		8				CL	Black 5Y 2.5/2 clay
		9				ML	Dark yellowish brown 10YR 4/4 pebbly clay
		10					Very dark grayish brown 2.5Y 3/2 clayey silt
		11				CL	Dark yellowish brown 10YR 4/4 clay
		12				ML	Dark yellowish brown 10YR 4/4 clayey silt
		13				SW	Dark yellowish brown 10YR 4/4 fine to medium sand
		14				CL	Dark yellowish brown 10YR 4/4 silty clay
		15					Total Depth 12.66
		16					
		17					
		18					
		19					
		20					
		21					
		22					
		23					
		24					
		25					

Neat Cement Grout
Bentonite Seal
First Encountered Water at 8.2 Feet.
LONESTAR No. 3 Sand
Total Well Depth = 12.14 Feet bct
Well completed with 7-inch flush box

H2OGEOL
A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

BOREHOLE No. MW-3 Sheet 1 of 1

Project No.: Date: 08/18/97
Client: Runnels Industries
Location: 3590 Enterprise Avenue
Hayward, California
Logged by: GDL Driller: RCV/GDL

Drilling Co. ASE Drilling Drill Model Iwan Auger
Drilling Method - Hand Operation Borehole Diameter 6.25/4 -in
Ground Surface Elevation 8.44 Datum: ground surface
Borehole MW-3 was completed as a monitoring well MW-3

Water Level	5.77			
Time	7:18			
Date	8/20/97			

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth test	Sample	Soil Sample Number	Graphic Soil Symbol	USCS Soil Symbol	Field Soil Description
		1					Fill - dark yellowish brown 10YR 3/4 sandy gravelly clay
		2					
		3					Black 5Y 2.5/1 3 clay
		4				CL	
		5					Neat Cement Grout Color grades between 4.6 to 5.2 to that below
		6				CL	Olive 5Y 4/3 silty clay
		7				ML	Olive 5Y 4/4 clayey silt Bentonite Seal
						CL	Olive 5Y 5/4 clay First Encountered Water at 8.02 Feet.
		8				CL	Dark grayish brown 2.5Y 4/2 clay ▽
						SC	8.05-8.15 Ft. Dgb 10YR 3/2 clayey fine to medium sand
		9				CL	Dark olive gray 5Y 3/2 clay
						CL	SC 8.7-8.8 Ft. Dark olive gray 5Y 3/2 clayey fine to medium sand
		10					Dark grayish brown 2.5Y 4/2 clay
						CL	Olive 5Y 5/3 mottled strong brown 7.5YR 5/6 silty clay
		11					LONESTAR No. 3 Sand
		12				CL	Olive 5Y 4/3 medium to coarse sandy clay
							Olive 5Y 4/3 mottled dark brown 7.5Y 3/2 silty clay
		13					Olive brown 2.5Y 4/4 silty clay Total Well Depth = 12.15 Feet. bct
							Total Depth 12.5 Well completed with 7-inch flush box.
		14					
		15					
		16					
		17					
		18					
		19					
		20					
		21					
		22					
		23					
		24					
		25					

2-inch PVC casing and screen. screen openings = 0.020 inch

H2OGEOL
A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

BOREHOLE No. MW-4 Sheet 1 of 1

Project No.: Date: 08/14/97
Client: Runnels Industries
Location: 3590 Enterprise Avenue
Hayward, California
Logged by: GDL Driller: RCV/GDL

Drilling Co. ASE Drilling Drill Model Iwan Auger
Drilling Method - Hand Operation Borehole Diameter 6.25/4 -in
Ground Surface Elevation 8.86 Datum: ground surface
Borehole MW-4 was completed as a monitoring well MW-4

Water Level	7.34			
Time	7:44			
Date	8/20/97			

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth test	Sample	Soil Sample Number	Graphic Soil Symbol	USCS Soil Symbol	Field Soil Description
				MW-4/			Fill - mixed sand blast sand and pea gravel with rust dust
		1					Fill - dark yellowish brown 10YR 3/4 gravelly sandy clay
		2					
		3				CL	Black 5Y 2.5/1 coarse sandy clay with root fragments.
		4		4 Ft.		CL	Bluish black 10B 2.5/1 clay — Neat Cement Grout
		5					
		6		6.5 Ft.		CL	Greenish gray 10Y 5/1 with light greenish gray 10YR 7/1 mottles sandy clay
		7					
		8		8 Ft.		CL	Very dark grayish brown 10YR 3/2 clay — Bentonite Seal
		9				SC	8.75-8.80 Vdgb clayey sand. moist, Not saturated.
						CL	Vdgb clay — First Encountered Water at 9.1 Feet. ▽
		10				SC	9.1-9.15 Dark brown 10YR 3/2 clayey very fine to fine sand. Saturated.
							Very dark grayish brown 10YR 3/2 clay
		11		10.5 Ft.		CL	LONESTAR No. 3 Sand
							Dark yellowish brown 10YR 3/2 stiff clay with root channels
		12				CL	Dark yellowish brown 10YR 3/2 stiff clay
		13					
							Toal Depth 13.04
		14					Total Well Depth = 12.65 Feet bct
							Well completed with 7-inch flush box.
		15					
		16					
		17					
		18					
		19					
		20					
		21					
		22					
		23					
		24					
		25					

2-inch PVC casing and screen. screen openings = 0.020 inch

H2OGEOL
A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

BOREHOLE No. MW-5 Sheet 1 of 1

Project No.:	Date: 08/15/97	Drilling Co. ASE Drilling	Drill Model Iwan Auger
Client: Runnels Industries		Drilling Method - Hand Operation	Borehole Diameter 6.25/4 -in
Location: 3590 Enterprise Avenue		Ground Surface Elevation 9.11	Datum: ground surface
Hayward, California		Borehole MW-5 was completed as a monitoring well MW-5	
Logged by: GDL	Driller: RCV/GDL		

Water Level	7.55			
Time	7:35			
Date	8/20/97			

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth feet	Sample	Soil Sample Number	Graphic Soil Symbol	USCS Soil Symbol	Field Soil Description
				MW-5/			Fill - mixed sand blast sand and pea gravel with rust dust
		1					Fill - dark yellowish brown 10YR 3/4 clayey gravelly sand
		2					
		3		3.1 Ft.		CL	Black 5Y 2.5/1 coarse sandy clay
		4		4.1 Ft.			Neat Cement Grout
		5					Color grades to that below
		6		6.5 Ft.		CL	Greenish gray 10Y 5/1 silty clay
		7					
		8		8 Ft.		CL	Bentonite Seal Very dark grayish brown 2.5Y 3/2 silty clay with root fragments
		9				SC	9.1 <0.05 Ft. Dark brown 10YR 3/2 sandy clay laminae.
						CL	Vdgb clay First Encountered Water at 9.1 Feet. ▽
		10				SW	9.6-9.75 Ft. fine to medium sand bed interpreted.
		11		10.5 Ft.		CL	LONESTAR No. 3 Sand
		12					Dark yellowish brown 10YR 3/2 stiff clay
		13					Dark yellowish brown 10YR 3/2 stiff clay Dark yellowish brown 10YR 3/2 clayey silt Bentonite Bottom Seal
		14				ML	Total Well Depth = 12.68 Feet bct Well completed with 7-inch flush box.
		15					Total Depth 13.26
		16					
		17					
		18					
		19					
		20					
		21					
		22					
		23					
		24					
		25					

2-inch PVC casing and screen. screen openings = 0.020 inch

H2OGEOL
A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

BOREHOLE No. B7 Sheet 1 of 1

Project No.:	Date: 08/14/97	Drilling Co. ASE Drilling	Drill Model Iwan Auger
Client: Runnels Industries		Drilling Method - Hand Operation	Borehole Diameter 4-in
Location: 3590 Enterprise Avenue		Ground Surface Elevation Unknown	Datum: ground surface
Hayward, California		Borehole B7 was not completed as a monitoring well.	
Logged by: GDL	Driller: RCV/GDL		

Water Level				
Time				
Date				

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth test	Sample	Soil Sample Number	Graphic Soil Symbol	USCS Soil Symbol	Field Soil Description
				B7/			Fill - Dark yellowish brown 10YR 6/4 clayey gravel gradding to gravelly clay at 1.2 ft.
		1					
		2				CL	Dark yellowish brown 10YR 3/4 clay. grades to black clay below.
		3					Black 5Y 2.5/1 sandy clay with gypsum crystals to <1 mm.
		4		4.2 Ft.		CL	Neat Cement Grout
		5					Dark yellowish brown 10YR 3/4 mottled greenish gray 10Y 5/1sandy cllay.
		6				CL	Greenish gray 10Y 5/1sandy cllay.
							Grayish brown 2.5Y 5/2 silty clay
		7				ML	Light yellowish brown 10YR 5/4 clayey silt
							First Encountered Water at 8.0 Feet.
		8				CL	Very dark grayish brown 10YR 3/2 clay ▽
						SC	8.0-8.1 Vdgb clayey sand/sandy clay
		9				CL	Dark yellowish brown 10YR 3/4 clay
		10				SC	9.8-9.9 Vdgb clayey sand/sandy clay
						CL	Dark yellowish brown 10YR 3/4 clay
		11					Toal Depth 10.5
		12					
		13					
		14					
		15					
		16					
		17					
		18					
		19					
		20					
		21					
		22					
		23					
		24					
		25					

H2OGEOL
A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

BOREHOLE No. B8 Sheet 1 of 1

Project No.:	Date: 08/15/97	Drilling Co. ASE Drilling	Drill Model Iwan Auger
Client: Runnels Industries		Drilling Method - Hand Operation	Borehole Diameter 4-in
Location: 3590 Enterprise Avenue		Ground Surface Elevation Unknown	Datum: ground surface
Hayward, California		Borehole B8 was not completed as a monitoring well.	
Logged by: GDL	Driller: RCV/GDL		

Water Level				
Time				
Date				

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth feet	Sample	Soil Sample Number	Graphic Soil Symbol	USCS Soil Symbol	Field Soil Description
				B8/			Fill - Dark yellowish brown 10YR 6/4 clayey sandy silt
		1					
		2					Black 5Y 2.5/1clay
		3		3 Ft.		CL	
		4					Neat Cement Grout
		5					Black 5Y 2.5/1 with greenish gray 10Y 5/1 mottled clay
		6		6 Ft.			Dark greenish gray 5G 4/1 silty clay
		7				CL	
		8					
		9		9 Ft.		CL	Dgg clay — First Encountered Water at 9.1 Feet. ▽
		10				SC	Possible clayey sand/sandy clay.Structure obscured.
		11					Sheen and floating globules present on bailed water.
		12				CL	Dark greenish gray 5G 4/1 clay
		13					Toal Depth 10.3
		14					
		15					
		16					
		17					
		18					
		19					
		20					
		21					
		22					
		23					
		24					
		25					

FAINT TO STRONG HYDROCARBON ODOR ALL SOILS APPEAR GLEYED

H2OGEOL
A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

BOREHOLE No. MW-2 Sheet 1 of 1

Project No.:	Date: 08/18/97	Drilling Co. ASE Drilling	Drill Model Iwan Auger
Client: Runnels Industries		Drilling Method - Hand Operation	Borehole Diameter 6.25/4 -in
Location: 3590 Enterprise Avenue		Ground Surface Elevation 9.12	Datum: ground surface
Hayward, California		Borehole MW-2 was completed as a monitoring well MW-2	
Logged by: GDL	Driller: RCV/GDL		

Water Level	6.41			
Time	7:26			
Date	8/20/97			

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth test	Sample	Soil Sample Number	Graphic Soil Symbol	USCS Soil Symbol	Field Soil Description
		1					Fill - dark yellowish brown 10YR 3/4 sandy gravelly clay
		2					
		3				CL	Black 5Y 2.5/1 3 clay
		4					3.4 beginning of gray mottling
		5				CL	Very dark grayish brown 2.5Y 4/2 mottled olive gray 5Y 4/2 clay
		6				CL	Olive gray 5Y 5/2 silty clay
		7				CL	Dark grayish brown 2.5Y 4/2 clay
		8				CL	Black 5Y 2.5/2 clay
		9				ML	Dark yellowish brown 10YR 4/4 pebbly clay
		10					Very dark grayish brown 2.5Y 3/2 clayey silt
		11				CL	Dark yellowish brown 10YR 4/4 clay
		12				ML	Dark yellowish brown 10YR 4/4 clayey silt
		13				SW	Dark yellowish brown 10YR 4/4 fine to medium sand
		14				CL	Dark yellowish brown 10YR 4/4 silty clay
		15					Total Depth 12.66
		16					
		17					
		18					
		19					
		20					
		21					
		22					
		23					
		24					
		25					

Neat Cement Grout

Bentonite Seal

First Encountered Water at 8.2 Feet.

LONESTAR No. 3 Sand

Total Well Depth = 12.14 Feet bct

Well completed with 7-inch flush box.

2-inch PVC casing and screen, screen openings = 0.020 inch

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A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

BOREHOLE No. MW-3 Sheet 1 of 1

Project No.: Date: 08/18/97
Client: Runnels Industries
Location: 3590 Enterprise Avenue
Hayward, California
Logged by: GDL Driller: RCV/GDL

Drilling Co. ASE Drilling Drill Model Iwan Auger
Drilling Method - Hand Operation Borehole Diameter 6.25/4 -in
Ground Surface Elevation 8.44 Datum: ground surface
Borehole MW-3 was completed as a monitoring well MW-3

Water Level	5.77			
Time	7:18			
Date	8/20/97			

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth feet	Sample	Soil Sample Number	Graphic Soil Symbol	USCS Soil Symbol	Field Soil Description
		1					Fill - dark yellowish brown 10YR 3/4 sandy gravelly clay
		2					
		3					Black 5Y 2.5/1 3 clay
		4				CL	
		5					Color grades between 4.6 to 5.2 to that below
		6				CL	Olive 5Y 4/3 silty clay
		7				ML	Olive 5Y 4/4 clayey silt
						CL	Olive 5Y 5/4 clay
		8				CL	Dark grayish brown 2.5Y 4/2 clay
						SC	8.05-8.15 Ft. Dgb 10YR 3/2 clayey fine to medium sand
		9				CL	Dark olive gray 5Y 3/2 clay
						CL	SC 8.7-8.8 Ft. Dark olive gray 5Y 3/2 clayey fine to medium sand
		10					Dark grayish brown 2.5Y 4/2 clay
						CL	Olive 5Y 5/3 mottled strong brown 7.5YR 5/6 silty clay
		11					
		12				CL	Olive 5Y 4/3 medium to coarse sandy clay
							Olive 5Y 4/3 mottled dark brown 7.5Y 3/2 silty clay
		13					Olive brown 2.5Y 4/4 silty clay
		14					
		15					
		16					
		17					
		18					
		19					
		20					
		21					
		22					
		23					
		24					
		25					

Neat Cement Grout
Bentonite Seal
First Encountered Water at 8.02 Feet. ▽
LONESTAR No. 3 Sand
Total Well Depth = 12.15 Feet. bct
Well completed with 7-inch flush box.
Total Depth 12.5

2-inch PVC casing and screen. screen openings = 0.020 inch

H2OGEOL
A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

BOREHOLE No. MW-4 Sheet 1 of 1

Project No.: Date: 08/14/97
Client: Runnels Industries
Location: 3590 Enterprise Avenue
Hayward, California
Logged by: GDL Driller: RCV/GDL

Drilling Co. ASE Drilling Drill Model Iwan Auger
Drilling Method - Hand Operation Borehole Diameter 6.25/4 -in
Ground Surface Elevation 8.86 Datum: ground surface
Borehole MW-4 was completed as a monitoring well MW-4

Water Level	7.34			
Time	7:44			
Date	8/20/97			

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth test	Sample	Soil Sample Number	Graphic Soil Symbol	USCS Soil Symbol	Field Soil Description
				MW-4/			Fill - mixed sand blast sand and pea gravel with rust dust
		1					Fill - dark yellowish brown 10YR 3/4 gravelly sandy clay
		2					
		3				CL	Black 5Y 2.5/1 coarse sandy clay with root fragments.
		4		4 Ft.		CL	Bluish black 10B 2.5/1 clay
		5					
		6		6.6 Ft.		CL	Greenish gray 10Y 5/1 with light greenish gray 10YR 7/1 mottles sandy clay
		7					
		8		8 Ft.		CL	Very dark grayish brown 10YR 3/2 clay
		9				SC	8.75-8.80 Vdgb clayey sand. moist, Not saturated.
						CL	Vdgb clay
		10				CL	9.1-9.15 Dark brown 10YR 3/2 clayey very fine to fine sand. Saturated.
							Very dark grayish brown 10YR 3/2 clay
		11		10.5 Ft.		CL	Dark yellowish brown 10YR 3/2 stiff clay with root channels
		12				CL	Dark yellowish brown 10YR 3/2 stiff clay
		13					
		14					
		15					
		16					
		17					
		18					
		19					
		20					
		21					
		22					
		23					
		24					
		25					

Neat Cement Grout
Bentonite Seal
First Encountered Water at 9.1 Feet.
LONESTAR No. 3 Sand
Toal Depth 13.04
Total Well Depth = 12.65 Feet bct
Well completed with 7-inch flush box.

2-inch PVC casing and screen. screen openings = 0.020 inch

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BOREHOLE LITHOLOGIC LOG

BOREHOLE No. MW-5 Sheet 1 of 1

Project No.:	Date: 08/15/97	Drilling Co. ASE Drilling	Drill Model Iwan Auger
Client: Runnels Industries		Drilling Method - Hand Operation	Borehole Diameter 6.25/4 -in
Location: 3590 Enterprise Avenue		Ground Surface Elevation 9.11	Datum: ground surface
Hayward, California		Borehole MW-5 was completed as a monitoring well MW-5	
Logged by: GDL	Driller: RCV/GDL		

Water Level	7.55			
Time	7:35			
Date	8/20/97			

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth feet	Sample	Soil Sample Number	Graphic Soil Symbol	USCS Soil Symbol	Field Soil Description
				MW-5/			Fill - mixed sand blast sand and pea gravel with rust dust
		1					Fill - dark yellowish brown 10YR 3/4 clayey gravelly sand
		2					
		3		3.1 Ft.		CL	Black 5Y 2.5/1 coarse sandy clay
		4		4.1 Ft.			Neat Cement Grout
		5					Color grades to that below
		6		6.5 Ft.		CL	Greenish gray 10Y 5/1 silty clay
		7					
		8		8 Ft.		CL	Bentonite Seal Very dark grayish brown 2.5Y 3/2 silty clay with root fragments
		9				SC	9.1 <0.05 Ft. Dark brown 10YR 3/2 sandy clay laminae.
						CL	Vdgb clay ▽ First Encountered Water at 9.1 Feet.
		10				SW	9.6-9.75 Ft. fine to medium sand bed interpreted.
		11		10.5 Ft.		CL	LONESTAR No. 3 Sand
		12					Dark yellowish brown 10YR 3/2 stiff clay
		13					Dark yellowish brown 10YR 3/2 stiff clay Dark yellowish brown 10YR 3/2 clayey silt Bentonite Bottom Seal
						ML	Total Well Depth = 12.68 Feet bct
							Total Depth 13.25 Well completed with 7-inch flush box.
		14					
		15					
		16					
		17					
		18					
		19					
		20					
		21					
		22					
		23					
		24					
		25					

2-inch PVC casing and screen. screen openings = 0.020 inch

H2OGEOL

A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

BOREHOLE No. B7 Sheet 1 of 1

Project No.:	Date: 08/14/97	Drilling Co. ASE Drilling	Drill Model Iwan Auger
Client: Runnels Industries		Drilling Method - Hand Operation	Borehole Diameter 4-in
Location: 3590 Enterprise Avenue		Ground Surface Elevation Unknown	Datum: ground surface
Hayward, California		Borehole B7 was not completed as a monitoring well.	
Logged by: GDL	Driller: RCV/GDL		

Water Level				
Time				
Date				

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth test	Sample	Soil Sample Number	Graphic Soil Symbol	USCS Soil Symbol	Field Soil Description
				B7/			Fill - Dark yellowish brown 10YR 6/4 clayey gravel gradding to gravelly clay at 1.2 ft.
		1					
		2				CL	Dark yellowish brown 10YR 3/4 clay. grades to black clay below.
		3					Black 5Y 2.5/1 sandy clay with gypsum crystals to <1 mm.
		4		4.2 Ft.		CL	Neat Cement Grout
		5					Dark yellowish brown 10YR 3/4 mottled greenish gray 10Y 5/1sandy cllay.
		6				CL	Greenish gray 10Y 5/1sandy cllay.
							Grayish brown 2.5Y 5/2 silty clay
		7				ML	Light yellowish brown 10YR 5/4 clayey silt
							First Encountered Water at 8.0 Feet. ▽
		8				CL	Very dark grayish brown 10YR 3/2 clay
						SC	8.0-8.1 Vdgb clayey sand/sandy clay
		9				CL	Dark yellowish brown 10YR 3/4 clay
						SC	9.8-9.9 Vdgb clayey sand/sandy clay
		10				CL	Dark yellowish brown 10YR 3/4 clay
		11					Toal Depth 10.5
		12					
		13					
		14					
		15					
		16					
		17					
		18					
		19					
		20					
		21					
		22					
		23					
		24					
		25					

H2OGEOL
A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

BOREHOLE No. B8 Sheet 1 of 1

Project No.: Date: 08/15/97
Client: Runnels Industries
Location: 3590 Enterprise Avenue
Hayward, California
Logged by: GDL Driller: RCV/GDL

Drilling Co. ASE Drilling Drill Model Iwan Auger
Drilling Method - Hand Operation Borehole Diameter 4-in
Ground Surface Elevation Unknown Datum: ground surface
Borehole B8 was not completed as a monitoring well.

Water Level				
Time				
Date				

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth feet	Sample	Soil Sample Number	Graphic Soil Symbol	USCS Soil Symbol	Field Soil Description
		1		B8/			Fill - Dark yellowish brown 10YR 6/4 clayey sandy silt
		2					Black 5Y 2.5/1clay
		3		3 Ft.		CL	
		4					Neat Cement Grout
		5					Black 5Y 2.5/1 with greenish gray 10Y 5/1 mottled clay
		6		6 Ft.			Dark greenish gray 5G 4/1 silty clay
		7				CL	
		8					
		9		9 Ft.		CL	Dgg clay First Encountered Water at 9.1 Feet.
		10				SC	Possible clayey sand/sandy clay.Structure obscured.
		11					Sheen and floating globules present on bailed water.
		12				CL	Dark greenish gray 5G 4/1 clay
		13					Toal Depth 10.3
		14					
		15					
		16					
		17					
		18					
		19					
		20					
		21					
		22					
		23					
		24					
		25					

FAINT TO STRONG HYDROCARBON ODOR ALL SOILS APPEAR GLEYED

H2OGEOL
A GROUNDWATER CONSULTANCY

P.O.Box 2165 • Livermore, California 94551 • 510-373-9211

ATTACHMENT C

WELL SURVEYOR'S REPORT
RON ARCHER, CIVIL ENGINEER, INC.

RON ARCHER

CIVIL ENGINEER INC.

CONSULTING • PLANNING • DESIGN • SURVEYING

4133 Mohr Ave., Suite E • Pleasanton, CA 94566
Phone: (510) 462-9372 Fax: (510) 462-4454

AUGUST 20, 1997 *JOB NO 2520*

ELEVATIONS OF MONITORING WELLS AT THE RUNNELS INDUSTRIES INC. FACILITY LOCATED AT 3590 ENTERPRISE AVENUE AT WHITESELL STREET, CITY OF HAYWARD, ALAMEDA COUNTY, CALIFORNIA.

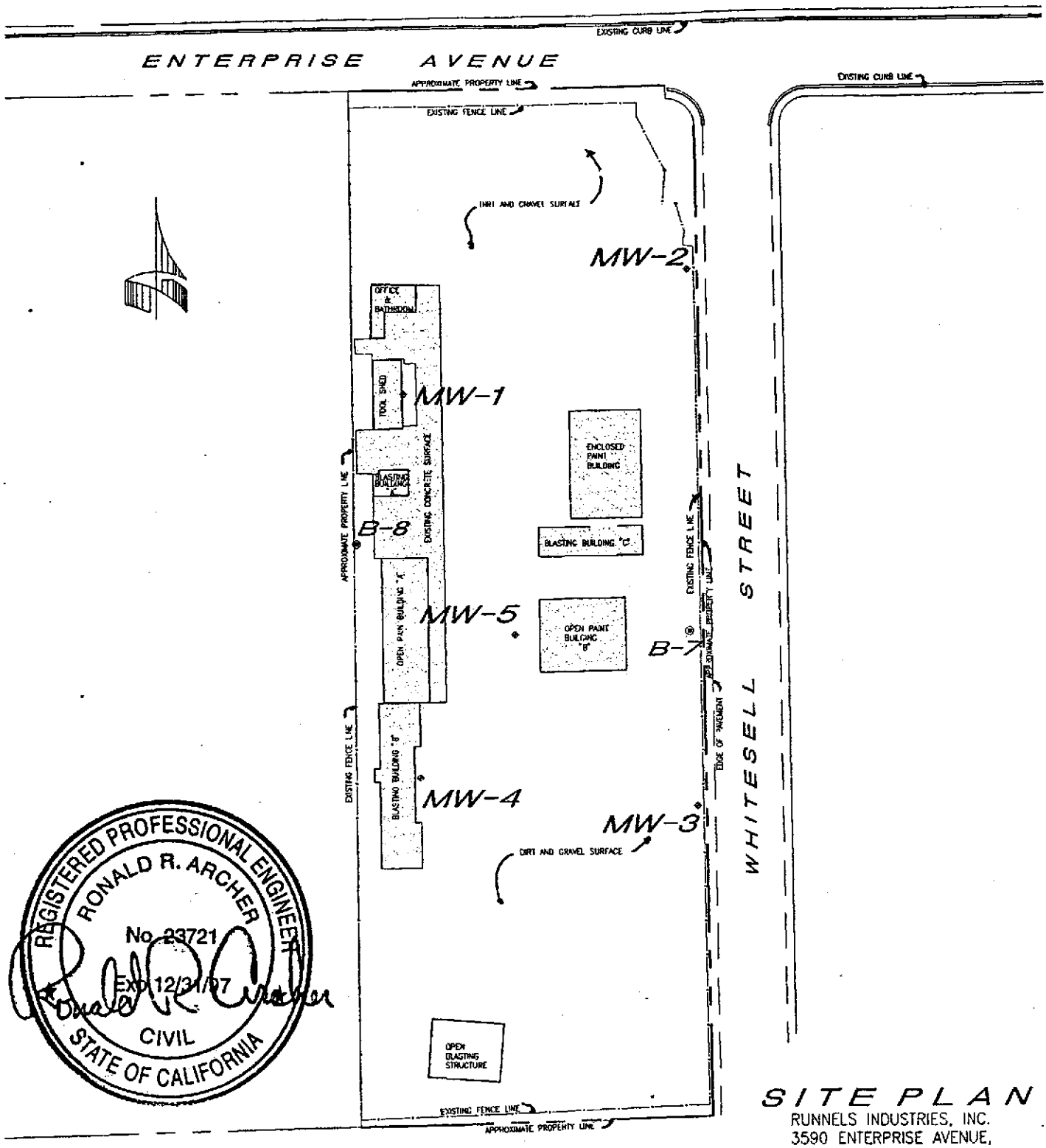
FOR: H20 GEOL

BENCHMARK:

TOP OF DISK SET IN STANDARD MONUMENT CASTING AT THE INTERSECTION OF ENTERPRISE AVENUE AND WHITESELL STREET, AT THE ENTRANCE TO THE CITY OF HAYWARD SANITARY SEWER TREATMENT PLANT. . ELEVATION TAKEN AS 10.864 M.S.L.

MONITORING WELL DATA TABLE

WELL DESIGNATION	TOP OF CASING ELEVATION	GROUND ELEVATION
MW-1	9.96	10.20
MW-2	8.86	9.12
MW-3	7.91	8.44
MW-4	8.47	8.86
MW-5	8.86	9.11



REGISTERED PROFESSIONAL ENGINEER
RONALD R. ARCHER
No. 23721
Exp 12/31/97
CIVIL
STATE OF CALIFORNIA

Ronald R. Archer

SITE PLAN

RUNNELS INDUSTRIES, INC.
3590 ENTERPRISE AVENUE,
CITY OF HAYWARD
ALAMEDA COUNTY, CALIFORNIA.

GRAPHIC SCALE

100 0 50 100 200

(IN FEET)

1 inch = 100'ft.

FOR: H20 GEOL

DATE OF SURVEY: AUGUST 20, 1997

RON ARCHER CIVIL ENGINEER INC. * 4133 MOHR AVE. SUITE E * PLEASANTON CA. 94566

JOB NO. 2520

H2OGEOL
A GROUNDWATER CONSULTANCY

P.O.Box 2165 ▪ Livermore, California 94551 ▪ 510-373-9211

ATTACHMENT D

FIELD DATA SHEET
LOG OF WELL SAMPLING ACTIVITIES

LOG OF WELL SAMPLING ACTIVITIES

Well Identification: MW-1 Project Name: 3590 Enterprise Avenue, Hayward, CA Date: 08/20/97

Sampled by: G. Lowe Weather Conditions: Cloudy, 67°F, calm

Well Location: _____ Well Casing Diameter: 2-inch Depth of Well Casing: 15.05

Measuring Point: Top of PVC Casing Initial Depth to Water: 8.56 Final Depth to Water: Not measured

Casing Volume (1 vol./ 3 vol): 1.13 / 3.40 Well Borehole Volume: _____

Purging Method: Centrifugal Pump/Peristaltic Pump; Grundfos Submersible Pump; Centrifugal Pump/ES-60 Submersible; ES-40/-60 Submersible Pump X

Sampling Method: Peristaltic Pump; Grundfos Submersible Pump; Teflon Bailer; ES Sub. Pump @ <1L/min. X

Purging Rate: See below Total Discharge: 8.8 Casing Volumes Purged: 7.75

Comments: _____

Waste Water Disposal: To drum.

Starting Time: 8:53

Time Pump on: 8:55

Date	Time	Gal. Purged	pH	T deg. F	Diluted S.C.		Dil. Factor		S.C. (µS/cm)	Color
08/20/97	8:58	4.7	7.70	64.6		x		=	1560	Lt. gray
"	8:59	5.9	7.72	64.4		x		=	1550	"
"	9:00	6.7	7.52	64.4		x		=	1570	" "
"	9:01	7.6	7.54	64.4		x		=	1570	" "
"	9:02	8.1	7.51	64.4		x		=	1600	" "
"	9:03	8.8	7.52	64.4		x		=	1600	" "
	:					x		=		
	:					x		=		
	:					x		=		
	:					x		=		
	:					x		=		

Sample Identification: 3590/MW-1 Sample Time: 9:04

TURBIDITY ANALYSIS

Finishing Time: _____ Time Analyzed: _____ NTU Value: _____

LOG OF WELL SAMPLING ACTIVITIES

Well Identification: MW-2 Project Name: 3590 Enterprise Avenue, Hayward, CA Date: 08/20/97

Sampled by: G. Lowe Weather Conditions: Cloudy, 67°F, calm

Well Location: _____ Well Casing Diameter: 2-inch Depth of Well Casing: 12.14

Measuring Point: Top of PVC Casing Initial Depth to Water: 6.41 (7:26) Final Depth to Water: Not measured

Casing Volume (1 vol./ 3 vol): 0.91 / 2.75 Well Borehole Volume: _____

Purging Method: Centrifugal Pump/Peristaltic Pump; Grundfos Submersible Pump; Centrifugal Pump/ES-60 Submersible; ES-40/-60 Submersible Pump X

Sampling Method: Peristaltic Pump; Grundfos Submersible Pump; Teflon Bailer; ES Sub. Pump @ <1L/min. X

Purging Rate: See below Total Discharge: 11.5 Casing Volumes Purged: 12.5

Comments: _____

Waste Water Disposal: To drum.

Starting Time: 9:49

Time Pump on: 9:53

Date	Time	Gal. Purged	pH	T deg. F	Diluted S.C.		Dil. Factor		S.C. (µS/cm)	Color
08/20/97	9:57	5.8 (empty)				x		=		
	10:11	9.1	7.44	66.5		x		=	1530	Yellowish brown
	10:13	10.3	7.46	66.7		x		=	1510	" "
	10:15	11.0	7.44	66.7		x		=	1520	" "
	10:17	11.5	7.47	66.8		x		=	1520	" "
	:					x		=		
	:					x		=		
	:					x		=		
	:					x		=		
	:					x		=		
	:					x		=		

Sample Identification: 3590/MW-2 Sample Time: 10:18

TURBIDITY ANALYSIS

Finishing Time: _____ Time Analyzed: _____ NTU Value: _____

LOG OF WELL SAMPLING ACTIVITIES

Well Identification: MW-3 Project Name: 3590 Enterprise Avenue, Hayward, CA Date: 08/20/97

Sampled by: G. Lowe Weather Conditions: Cloudy, 62°F, calm

Well Location: _____ Well Casing Diameter: 2-inch Depth of Well Casing: 12.15

Measuring Point: Top of PVC Casing Initial Depth to Water: 5.22 (7.19) Final Depth to Water: Not measured

Casing Volume (1 vol./ 3 vol): 1.02 / 3.06 Well Borehole Volume: _____

Purging Method:
- Centrifugal Pump/Peristaltic Pump
- Grundfos Submersible Pump
- Centrifugal Pump/ES-60 Submersible
- ES-40/-60 Submersible Pump X

Sampling Method:
- Peristaltic Pump
- Grundfos Submersible Pump
- Teflon Bailer
- ES Sub. Pump @ < 1L/min. X

Purging Rate: See below Total Discharge: 6.5 Casing Volumes Purged: 6.4

Comments: _____

Waste Water Disposal: To drum.

Starting Time: 9:28

Time Pump on: 9:32

Date	Time	Gal. Purged	pH	T deg. F	Diluted S.C.		Dil. Factor		S.C. (µS/cm)	Color
08/20/97	9:35	4.5	7.59	67.2		x		=	1600	Lt. gray
"	9:37	5.5	7.64	67.2		x		=	1550	"
"	9:38	6.6	7.58	67.4		x		=	1590	"
"	9:39	6.5	7.60	67.2		x		=	1600	"
	:					x		=		
	:					x		=		
	:					x		=		
	:					x		=		
	:					x		=		
	:					x		=		
	:					x		=		

Sample Identification: 3590/MW- Sample Time: 9:41

TURBIDITY ANALYSIS

Finishing Time: _____ Time Analyzed: _____ NTU Value: _____

LOG OF WELL SAMPLING ACTIVITIES

Well Identification: MW-4 Project Name: 3590 Enterprise Avenue, Hayward, CA Date: 08/20/97

Sampled by: G. Lowe Weather Conditions: _____

Well Location: _____ Well Casing Diameter: 2-inch Depth of Well Casing: 12.65

Measuring Point: Top of PVC Casing Initial Depth to Water: 7.34 (7.44) Final Depth to Water: Not measured

Casing Volume (1 vol./ 3 vol): 0.85 / 2.54 Well Borehole Volume: _____

Purging Method:
- Centrifugal Pump/Peristaltic Pump
- Grundfos Submersible Pump
- Centrifugal Pump/ES-60 Submersible
- ES-40/-60 Submersible Pump X

Sampling Method:
- Peristaltic Pump
- Grundfos Submersible Pump
- Teflon Bailer
- ES Sub. Pump @ < 1L/min. X

Purging Rate: See below Total Discharge: 3.4 Casing Volumes Purged: 4.0

Comments: _____

Waste Water Disposal: To drum.

Starting Time: 7:55

Time Pump on: 7:59

Date	Time	Gal. Purged	pH	T deg. F	Diluted S.C.		Dil. Factor		S.C. (µS/cm)	Color
08/20/97	8:00	1.5 (empty)				x		=		
"	8:09	2.1	6.79	66.2		x		=	2860	lt. gray
"	8:11	2.5 (empty)	6.77	66.4		x		=	2840	"
"	8:14	2.9 (empty)	6.87	66.1		x		=	2840	cloudy
"	8:17	3.2	6.92	66.2		x		=	2850	cloudy
"	8:18	3.4	6.89	66.0		x		=	2840	cloudy
	:					x		=		
	:					x		=		
	:					x		=		
	:					x		=		
	:					x		=		

Sample Identification: 3590/MW-4 Sample Time: 8:18

TURBIDITY ANALYSIS

Finishing Time: _____ Time Analyzed: _____ NTU Value: _____

LOG OF WELL SAMPLING ACTIVITIES

Well Identification: MW-5 Project Name: 3590 Enterprise Avenue, Hayward, CA Date: 08/20/97

Sampled by: G. Lowe Weather Conditions: _____

Well Location: _____ Well Casing Diameter: 2-inch Depth of Well Casing: 12.68'

Measuring Point: Top of PVC Casing Initial Depth to Water: 7.55 (7.35') Final Depth to Water: Not measured

Casing Volume (1 vol./ 3 vol): 0.82 / 2.46 Well Borehole Volume: _____

Purging Method:
- Centrifugal Pump/Peristaltic Pump
- Grundfos Submersible Pump
- Centrifugal Pump/ES-60 Submersible
- ES-40/-60 Submersible Pump X

Sampling Method:
- Peristaltic Pump
- Grundfos Submersible Pump
- Teflon Bailer
- ES Sub. Pump @ <1L/min. X

Purging Rate: See below Total Discharge: 6.5 Casing Volumes Purged: 7.9

Comments: _____

Waste Water Disposal: To drum.

Starting Time: 8:30

Time Pump on: 8:33

Date	Time	Gal. Purged	pH	T deg. F	Diluted S.C.		Dil. Factor		S.C. (µS/cm)	Color
08/20/97	8:36	4.5	7.40	65.2		x		=	1990	Colorless
"	8:38	5.0	7.42	65.0		x		=	1960	"
"	8:40	5.5	7.41	65.1		x		=	1970	"
"	8:42	6.3	7.42	65.2		x		=	1990	"
"	8:43	6.5	7.41	65.1		x		=	1990	"
	:					x		=		
	:					x		=		
	:					x		=		
	:					x		=		
	:					x		=		
	:					x		=		

Sample Identification: 3590/MW-5 Sample Time: 8:40

TURBIDITY ANALYSIS

Finishing Time: _____ Time Analyzed: _____ NTU Value: _____

H2OGEOL
A GROUNDWATER CONSULTANCY

P.O.Box 2165 ▪ Livermore, California 94551 ▪ 510-373-9211

ATTACHMENT E

LABORATORY ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY DOCUMENTATION

CHROMALAB, INC.

Environmental Services (SDB)

September 2, 1997 *Submission #:* 9708172

H2OGEOL
Atten: Gary Lowe
Project: RUNNELS INDUSTRIES
Received: August 15, 1997
re: One sample for Halogenated Volatile Organics by GC/MS analysis.
Method: *SW846 Method 8240A Nov 1990*

Client Sample ID: **B7/4.2FT.**
Spl#: 143788 *Matrix:* SOIL
Sampled: August 14, 1997 *Run#:* 8431 *Analyzed:* August 28, 1997

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLOROBENZENE	N.D.	5.0	N.D.	92.1	1
CHLOROETHANE	N.D.	10	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	50	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	114	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	88.6	1
VINYL CHLORIDE	N.D.	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1

June Zhao
Chemist

Chip Poalinelli
Operations Manager

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CHROMALAB, INC.

Environmental Services (SDB)

August 28, 1997 *Submission #:* 9708172

H2OGEOL

Atten: Gary Lowe

Project: RUNNELS INDUSTRIES
Received: August 15, 1997

re: One sample for Volatile Halogenated Organics analysis.
Method: *SW846 Method 8010A July 1992*

Client Sample ID: **B7/GW**
Spl#: 143789 *Matrix:* WATER
Sampled: August 14, 1997 *Run#:* 8280 *Analyzed:* August 18, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
VINYL CHLORIDE	N.D.	0.50	N.D.	--	1
CHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	0.50	N.D.	--	1
1,1-DICHLOROETHENE	87	0.50	N.D.	66.0	1
Note: VALUE IS TAKEN FROM GC/MS RUN EPA METHOD 8240					
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
TRANS-1,2-DICHLOROETHENE	N.D.	0.50	N.D.	--	1
CIS-1,2-DICHLOROETHENE	N.D.	0.50	N.D.	--	1
1,1-DICHLOROETHANE	17	0.50	N.D.	--	1
CHLOROFORM	N.D.	3.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	0.50	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROETHENE	5.3	0.50	N.D.	107	1
1,2-DICHLOROPROPANE	N.D.	0.50	N.D.	--	1
BROMODICHLOROMETHANE	N.D.	0.50	N.D.	--	1
2-CHLOROETHYL VINYL ETHER	N.D.	0.50	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	0.50	N.D.	--	1
TETRACHLOROETHENE	N.D.	0.50	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	0.50	N.D.	--	1
CHLOROBENZENE	N.D.	0.50	N.D.	104	1
BROMOFORM	N.D.	2.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	0.50	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	0.50	N.D.	--	1
CHLOROMETHANE	N.D.	1.0	N.D.	--	1
BROMOMETHANE	N.D.	1.0	N.D.	--	1

Oleg Nemtsov
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for Chip Poalinelli
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CHROMALAB, INC.

Environmental Services (SDB)

August 19, 1997 *Submission #:* 9708172

H2OGEOL

Atten: Gary Lowe

Project: RUNNELS INDUSTRIES
Received: August 15, 1997

re: One sample for Miscellaneous Metals analysis.
Method: *EPA 3010A/3050A/6010A Nov 1990*

Client Sample ID: **B8/3FT.**
Spl#: 143790 *Matrix:* SOIL *Extracted:* August 19, 1997
Sampled: August 15, 1997 *Run#:* 8251 *Analyzed:* August 19, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
CHROMIUM	32	1.0	N.D.	99.4	1
LEAD	8.4	1.0	N.D.	99.2	1
ZINC	100	1.0	N.D.	99.6	1

Christopher Arndt
Chemist

John S. Labash
Inorganics Supervisor

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M010 0:020405 JOHN 14:30

CHROMALAB, INC.

Environmental Services (SDB)

August 20, 1997 *Submission #:* 9708172
Revised from August 19, 1997

H2OGEOL

Atten: Gary Lowe

Project: RUNNELS INDUSTRIES
Received: August 15, 1997

re: One sample for Miscellaneous Metals analysis.
Method: *EPA 3010A/3050A/6010A Nov 1990*

Client Sample ID: **B8/6FT.**
Spl#: 143791 *Matrix:* SOIL *Extracted:* August 19, 1997
Sampled: August 15, 1997 *Run#:* 8251 *Analyzed:* August 19, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
CHROMIUM	30	1.0	N.D.	99.4	1
LEAD	4.1	1.0	N.D.	99.2	1
ZINC	45	1.0	N.D.	99.6	1

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CHROMALAB, INC.

Environmental Services (SDB)

August 19, 1997 *Submission #:* 9708172

H2OGEOL

Atten: Gary Lowe

Project: RUNNELS INDUSTRIES
Received: August 15, 1997

re: One sample for Miscellaneous Metals analysis.
Method: *EPA 3010A/3050A/6010A Nov 1990*

Client Sample ID: **B8/9FT.**
Spl#: 143792 *Matrix:* SOIL *Extracted:* August 19, 1997
Sampled: August 15, 1997 *Run#:* 8251 *Analyzed:* August 19, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
CHROMIUM	29	1.0	N.D.	99.4	1
LEAD	6.1	1.0	N.D.	99.2	1
ZINC	54	1.0	N.D.	99.6	1

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M010 0:000405 JOHN 14:30

CHROMALAB, INC.

Environmental Services (SDB)

August 19, 1997 *Submission #:* 9708172

H2OGEOL

Atten: Gary Lowe

Project: RUNNELS INDUSTRIES
Received: August 15, 1997

re: One sample for Soluble Miscellaneous Metals analysis.
Method: *EPA 3005A/6010A Nov 1990*

Client Sample ID: **B8/GW**
Spl#: 143793 *Matrix:* WATER *Extracted:* August 18, 1997
Sampled: August 15, 1997 *Run#:* 8233 *Analyzed:* August 18, 1997

ANALYTE	RESULT (mg/L)	REPORTING LIMIT (mg/L)	BLANK RESULT (mg/L)	BLANK SPIKE (%)	DILUTION FACTOR
CHROMIUM	N.D.	0.0050	N.D.	100	1
LEAD	0.018	0.0050	N.D.	101	1
ZINC	0.68	0.010	N.D.	99.2	1

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M032 0:000406 JOHN 14

CHROMALAB, INC.

Environmental Services (SDB)

September 2, 1997 *Submission #:* 9708172

H2OGEOL
Atten: Gary Lowe
Project: RUNNELS INDUSTRIES
Received: August 15, 1997
re: One sample for Halogenated Volatile Organics by GC/MS analysis.
Method: *SW846 Method 8240A Nov 1990*

Client Sample ID: **B8/3FT.**
Spl#: 143790 *Matrix:* SOIL
Sampled: August 15, 1997 *Run#:* 8439 *Analyzed:* August 29, 1997

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLOROBENZENE	N.D.	5.0	N.D.	89.0	1
CHLOROETHANE	N.D.	10	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	50	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	110	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	88.0	1
VINYL CHLORIDE	N.D.	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1

Note: Surrogate Recoveries demonstrate Matrix interference.

June Zhao
Chemist

Chip Poalinelli
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CHROMALAB, INC.

Environmental Services (SDB)

September 2, 1997 *Submission #:* 9708172

H2OGEOL
Atten: Gary Lowe
Project: RUNNELS INDUSTRIES
Received: August 15, 1997
re: One sample for Halogenated Volatile Organics by GC/MS analysis.
Method: *SW846 Method 8240A Nov 1990*

Client Sample ID: **B8/6FT.**
Spl#: 143791 *Matrix:* SOIL
Sampled: August 15, 1997 *Run#:* 8439 *Analyzed:* August 29, 1997

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTIO FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLOROBENZENE	N.D.	5.0	N.D.	89.0	1
CHLOROETHANE	N.D.	10	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	50	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	110	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	88.0	1
VINYL CHLORIDE	N.D.	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1

June Zhao
Chemist

Chip Poalinelli
Operations Manager

510-373-9222 GC 08/22
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(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

September 2, 1997 *Submission #:* 9708172

H2OGEOL
Atten: Gary Lowe
Project: RUNNELS INDUSTRIES
Received: August 15, 1997
re: One sample for Halogenated Volatile Organics by GC/MS analysis.
Method: *SW846 Method 8240A Nov 1990*

Client Sample ID: B8/9FT.
Spl#: 143792 *Matrix:* SOIL
Sampled: August 15, 1997 *Run#:* 8439 *Analyzed:* August 29, 1997

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLOROBENZENE	N.D.	5.0	N.D.	89.0	1
CHLOROETHANE	N.D.	10	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	50	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	110	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	88.0	1
VINYL CHLORIDE	N.D.	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1

June Zhao
Chemist

Chip Poalinelli
Operations Manager

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CHROMALAB, INC.

Environmental Services (SDB)

September 3, 1997 *Submission #:* 9708172

H2OGEOL

Atten: Gary Lowe

Project: RUNNELS INDUSTRIES
Received: August 15, 1997

re: One sample for Volatile Halogenated Organics analysis.
Method: *SW846 Method 8010A July 1992*

Client Sample ID: B8/GW
Spl#: 143793 *Matrix:* WATER
Sampled: August 15, 1997 *Run#:* 8280 *Analyzed:* August 18, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTIO FACTOR
VINYL CHLORIDE	N.D.	0.50	N.D.	--	1
CHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	0.50	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	0.50	N.D.	66.0	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
TRANS-1,2-DICHLOROETHENE	N.D.	1.00	N.D.	--	1
CIS-1,2-DICHLOROETHENE	N.D.	1.00	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	0.50	N.D.	--	1
CHLOROFORM	N.D.	3.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	0.50	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROETHENE	N.D.	1.00	N.D.	107	1
1,2-DICHLOROPROPANE	N.D.	0.50	N.D.	--	1
BROMODICHLOROMETHANE	N.D.	0.50	N.D.	--	1
2-CHLOROETHYL VINYL ETHER	N.D.	0.50	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	0.50	N.D.	--	1
TETRACHLOROETHENE	N.D.	0.50	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	0.50	N.D.	--	1
CHLOROBENZENE	N.D.	0.50	N.D.	104	1
BROMOFORM	N.D.	2.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	0.50	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	0.50	N.D.	--	1
CHLOROMETHANE	N.D.	1.0	N.D.	--	1
BROMOMETHANE	N.D.	1.0	N.D.	--	1

Oleg Nemtsov
Chemist

for Chip Poalinelli
Operations Manager

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CHROMALAB, INC.

Environmental Services (SDB)

August 20, 1997

Submission #: 9708172

H2OGEOL

Atten: Gary Lowe

Project: RUNNELS INDUSTRIES
Received: August 15, 1997

re: 1 sample for TEPH analysis.
Method: EPA 8015M

Sampled: August 15, 1997 *Matrix:* WATER *Run#:* 8253 *Extracted:* August 19, 1997 *Analyzed:* August 19, 1997

Spl#	CLIENT SPL ID	Kerosene (ug/L)	Diesel (ug/L)	Motor Oil (ug/L)
143793	B8/GW	N.D.	220000	51000
Reporting Limits		2800	2800	28000
Blank Result		N.D.	N.D.	N.D.
Blank Spike Result (%)		--	93.0	--

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

172 143778-143793

35081

H_2OGEOL A GROUNDWATER CONSULTANCY
P.O. BOX 2165
LIVERMORE, CALIFORNIA 94551-2165

CHAIN OF CUSTODY

DATE: 08/15/97 PAGE 1 of 1

Sample Source:
Runnels Industries
3590 Enterprise Avenue
Hayward, California

SAMPLER(S): Gary D. Lowe
SAMPLER'S SIGNATURE:

SAMPLE RECIEPT:
TOTAL No. of CONTAINERS ______
CHAIN OF CUSTODY SEALS ______

SUBM #: 9708172 REP: GC
CLIENT: H2OGEOL
DUE: 08/22/97
REF #:35081

FAX RESULTS TO (610) 373-9222

ANALYTE

SAMPLE ID.	DATE	TIME	MATRIX	LAB ID.	Halogenated Halocarbon Compounds EPA 8010	Total Cr, Pb, & Zn	Dissolved Cr, Pb, & Zn	* HOLD FOR TPH			NUMBER OF CONTAINERS
B7/4.2Ft.	08/14/97	13:04	SOIL		X						1
B7/GW	08/14/97	13:40	WATER		X						2
B8/ 3 Ft.	08/15/97	12:45	SOIL		X	X		X			2
B8/ 6 Ft.	08/15/97	13:00	SOIL		X	X		X			2
B8/ Ft.	08/15/97	13:15	SOIL		X	X		X			2
B8/GW	08/15/97	13:30	WATER		X		X*	X			4

* No HNO_3 (both viał) - Filter for Dissolved IN LAB

~~STANDARD~~ 10 ~~5~~-DAY TURNAROUND

RELINQUISHED BY:
SIGNATURE
PRINTED NAME Gary D. Lowe TIME 1511
COMPANY H_2OGEOL DATE 08/15/97

RELINQUISHED BY:
SIGNATURE TIME
PRINTED NAME DATE
COMPANY

RECEIVED BY:
SIGNATURE TIME
PRINTED NAME DATE
COMPANY

RECEIVED BY LABORATORY:
SIGNATURE TIME 1511
PRINTED NAME Chris Rowley
COMPANY Chromalab, Inc. DATE 08/15/97

35081

CHAIN OF CUSTODY

H₂OGEOL A GROUNDWATER CONSULTANCY
P.O. BOX 2165
LIVERMORE, CALIFORNIA 94551-2165

DATE: 08/15/97 PAGE 1 of 1

Sample Source:
Runnels Industries
3590 Enterprise Avenue
Hayward, California

SAMPLER(S): Gary D. Lowe

SAMPLER'S SIGNATURE: [signature]

SAMPLE RECIEPT:
TOTAL No. of CONTAINERS
CHAIN OF CUSTODY SEALS
REC'D GOOD CONDITION/COLD
CONFORMS TO RECORD
LAB NO

FAX RESULTS TO (510) 373-9222

SAMPLE ID.	DATE	TIME	MATRIX	LAB ID.	Halogenated Halocarbon Compounds EPA 8010	Total Cr, Pb, & Zn	Dissolved Cr, Pb, & Zn	* HOLD FOR TPH / OFF HOLD 08/18 1220	TEPH - D K.Mo [illegible] for GOL [illegible]		NUMBER OF CONTAINERS
B7/4.2Ft.	08/14/97	13:04	SOIL		x						1
B7/GW	08/14/97	13:40	WATER		x						2
B8/ 3 Ft.	08/15/97	12:45	SOIL		x	x		X	X		2
B8/ 6 Ft.	08/15/97	13:00	SOIL		x	x		X	X		2
B8/ 9 Ft.	08/15/97	13:15	SOIL		x	x		X	X		2
B8/GW	08/15/97	13:30	WATER		x		x*	X	X		4

* No HNO₃ (bottle [illegible]) - Filter for Dissolved IN LAB

~~STANDARD~~ 10 5-DAY TURNAROUND

RELINQUISHED BY:		RELINQUISHED BY:	
SIGNATURE	[signature] TIME 1511	SIGNATURE	TIME
PRINTED NAME	Gary D. Lowe	PRINTED NAME	DATE
COMPANY	H₂OGEOL DATE 08/15/97	COMPANY	
RECEIVED BY:		RECEIVED BY LABORATORY:	
SIGNATURE	TIME	SIGNATURE	[signature] TIME 1511
PRINTED NAME	DATE	PRINTED NAME	[signature]
COMPANY		COMPANY	Chromalab, Inc. DATE 08/15/97

CHROMALAB Change request received by: Mike Naranjo Date Requested: 8 / 18 / 97

SAMPLE STATUS CHANGE FORM

Submission#	Client Samp.ID	Old Status Description	Description of Changes	Requested by (Client's name)
9708172	B8/GW	TPH- HOLD	RUN Full TEPH * DUE TUES. 9/2/97	H₂OGEOL GARY LOWE
9708172	B8/ Ft. →		Changed ID TO B8/9 Ft.	" "

Changes were done in lims by(login): Bubba On: 8/18/97

CC: __ Lab.Director __ Dept.manager __ Analyst __ Proj.Manager

CHROMALAB, INC.

Environmental Services (SDB)

September 3, 1997 *Submission #:* 9708214

H2OGEOL

Atten: Gary Lowe

Project: RUNNELS INDUSTRIES
Received: August 20, 1997

re: One sample for Volatile Halogenated Organics analysis.
Method: *SW846 Method 8010A July 1992*

Client Sample ID: **3590/MW-5**
Spl#: 144270 *Matrix:* WATER
Sampled: August 20, 1997 *Run#:* 8407 *Analyzed:* August 27, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
VINYL CHLORIDE	N.D.	0.50	N.D.	--	1
CHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	0.50	N.D.	--	1
1,1-DICHLOROETHENE	170	0.50	N.D.	88.0	1
Note: VALUE IS TAKEN FROM GC/MS RUN EPA METHOD 8240					
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
TRANS-1,2-DICHLOROETHENE	N.D.	0.50	N.D.	--	1
CIS-1,2-DICHLOROETHENE	N.D.	0.50	N.D.	--	1
1,1-DICHLOROETHANE	25	0.50	N.D.	--	1
Note: VALUE IS TAKEN FROM GC/MS RUN EPA METHOD 8240					
CHLOROFORM	N.D.	3.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	0.50	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROETHENE	8.6	0.50	N.D.	100	1
1,2-DICHLOROPROPANE	N.D.	0.50	N.D.	--	1
BROMODICHLOROMETHANE	N.D.	0.50	N.D.	--	1
2-CHLOROETHYL VINYL ETHER	N.D.	0.50	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
1,1,2-TRICHLOROETHANE	0.90	0.50	N.D.	--	1
TETRACHLOROETHENE	N.D.	0.50	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	0.50	N.D.	--	1
CHLOROBENZENE	N.D.	0.50	N.D.	97.0	1
BROMOFORM	N.D.	2.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	0.50	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	0.50	N.D.	--	1
CHLOROMETHANE	N.D.	1.0	N.D.	--	1
BROMOMETHANE	N.D.	1.0	N.D.	--	1

Oleg Nemtsov
Chemist

For Chip Poalinelli
Operations Manager

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

August 29, 1997 *Submission #:* 9708214

H2OGEOL

Atten: Gary Lowe

Project: RUNNELS INDUSTRIES
Received: August 20, 1997

re: One sample for Volatile Halogenated Organics analysis.
Method: *SW846 Method 8010A July 1992*

Client Sample ID: **3590/MW-2**
Spl#: 144268 *Matrix:* WATER
Sampled: August 20, 1997 *Run#:* 8407 *Analyzed:* August 27, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
VINYL CHLORIDE	N.D.	0.50	N.D.	--	1
CHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	0.50	N.D.	--	1
1,1-DICHLOROETHENE	3.9	0.50	N.D.	88.0	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
TRANS-1,2-DICHLOROETHENE	N.D.	0.50	N.D.	--	1
CIS-1,2-DICHLOROETHENE	N.D.	0.50	N.D.	--	1
1,1-DICHLOROETHANE	4.5	0.50	N.D.	--	1
CHLOROFORM	N.D.	3.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	0.50	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROETHENE	5.0	0.50	N.D.	100	1
1,2-DICHLOROPROPANE	N.D.	0.50	N.D.	--	1
BROMODICHLOROMETHANE	N.D.	0.50	N.D.	--	1
2-CHLOROETHYL VINYL ETHER	N.D.	0.50	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	0.50	N.D.	--	1
TETRACHLOROETHENE	N.D.	0.50	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	0.50	N.D.	--	1
CHLOROBENZENE	N.D.	0.50	N.D.	97.0	1
BROMOFORM	N.D.	2.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	0.50	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	0.50	N.D.	--	1
CHLOROMETHANE	N.D.	1.0	N.D.	--	1
BROMOMETHANE	N.D.	1.0	N.D.	--	1

Oleg Nemtsov
Chemist

For Chip Poalinelli
Operations Manager

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CHROMALAB, INC.

Environmental Services (SDB)

August 29, 1997 *Submission #:* 9708214

H2OGEOL

Atten: Gary Lowe

Project: RUNNELS INDUSTRIES
Received: August 20, 1997

re: One sample for Volatile Halogenated Organics analysis.
Method: *SW846 Method 8010A July 1992*

Client Sample ID: **3590/MW-3**
Spl#: 144269 *Matrix:* WATER
Sampled: August 20, 1997 *Run#:* 8407 *Analyzed:* August 27, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
VINYL CHLORIDE	N.D.	0.50	N.D.	--	1
CHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	0.50	N.D.	--	1
1,1-DICHLOROETHENE	13	0.50	N.D.	88.0	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
TRANS-1,2-DICHLOROETHENE	N.D.	0.50	N.D.	--	1
CIS-1,2-DICHLOROETHENE	N.D.	0.50	N.D.	--	1
1,1-DICHLOROETHANE	5.9	0.50	N.D.	--	1
CHLOROFORM	N.D.	3.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	0.60	0.50	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROETHENE	0.50	0.50	N.D.	100	1
1,2-DICHLOROPROPANE	N.D.	0.50	N.D.	--	1
BROMODICHLOROMETHANE	N.D.	0.50	N.D.	--	1
2-CHLOROETHYL VINYL ETHER	N.D.	0.50	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	0.50	N.D.	--	1
TETRACHLOROETHENE	N.D.	0.50	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	0.50	N.D.	--	1
CHLOROBENZENE	N.D.	0.50	N.D.	97.0	1
BROMOFORM	N.D.	2.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	0.50	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	0.50	N.D.	--	1
CHLOROMETHANE	N.D.	1.0	N.D.	--	1
BROMOMETHANE	N.D.	1.0	N.D.	--	1

Oleg Nemtsov
Chemist

For Chip Poalinelli
Operations Manager

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

September 3, 1997 *Submission #:* 9708214

H2OGEOL

Atten: Gary Lowe

Project: RUNNELS INDUSTRIES
Received: August 20, 1997

re: One sample for Volatile Halogenated Organics analysis.
Method: *SW846 Method 8010A July 1992*

Client Sample ID: **3590/MW-4**
Spl#: 144271 *Matrix:* WATER
Sampled: August 20, 1997 *Run#:* 8407 *Analyzed:* August 27, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTIO FACTOR
VINYL CHLORIDE	N.D.	0.50	N.D.	--	1
CHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	0.50	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	0.50	N.D.	88.0	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
TRANS-1,2-DICHLOROETHENE	N.D.	0.50	N.D.	--	1
CIS-1,2-DICHLOROETHENE	N.D.	0.50	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	0.50	N.D.	--	1
CHLOROFORM	N.D.	3.0	N.D.	--	1
1,1,1-TRICHLOROETHANE	N.D.	0.50	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROETHENE	0.60	0.50	N.D.	100	1
1,2-DICHLOROPROPANE	N.D.	0.50	N.D.	--	1
BROMODICHLOROMETHANE	N.D.	0.50	N.D.	--	1
2-CHLOROETHYL VINYL ETHER	N.D.	0.50	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	0.50	N.D.	--	1
TETRACHLOROETHENE	N.D.	0.50	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	0.50	N.D.	--	1
CHLOROBENZENE	N.D.	0.50	N.D.	97.0	1
BROMOFORM	N.D.	2.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	0.50	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	0.50	N.D.	--	1
CHLOROMETHANE	N.D.	1.0	N.D.	--	1
BROMOMETHANE	N.D.	1.0	N.D.	--	1

Oleg Nemtsov
Chemist

For Chip Poalinelli
Operations Manager

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

August 27, 1997 *Submission #:* 9708214

H2OGEOL

Atten: Gary Lowe

Project: RUNNELS INDUSTRIES
Received: August 20, 1997

re: One sample for Soluble Miscellaneous Metals analysis.
Method: *EPA 3005A/6010A Nov 1990*

Client Sample ID: 3590/MW-4
Spl#: 144271 *Matrix:* WATER *Extracted:* August 27, 1997
Sampled: August 20, 1997 *Run#:* 8356 *Analyzed:* August 27, 1997

ANALYTE	RESULT (mg/L)	REPORTING LIMIT (mg/L)	BLANK RESULT (mg/L)	BLANK SPIKE (%)	DILUTION FACTOR
CHROMIUM	N.D.	0.0050	N.D.	97.2	1
LEAD	N.D.	0.0050	N.D.	96.8	1
ZINC	0.19	0.010	N.D.	96.2	1

For
Christopher Arndt
Chemist

John S. Labash
Inorganics Supervisor

510-373-9222 05 0827

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

San Francisco Regional Office

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

September 9, 1997

Ms. Criselda Laluces
CHROMALAB, INC.
1220 Quarry Lane
Pleasanton, CA 94566

Client Ref.: 9708214
Clayton Project No.: 97090.14

Dear Ms. Laluces:

Attached is our analytical laboratory report for the samples received on September 2, 1997. Also enclosed is a copy of the Chain-of-Custody record acknowledging receipt of these samples.

Please note that any unused portion of the samples will be discarded after October 9, 1997, unless you have requested otherwise.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact Suzanne Haus, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Andrew Bradeen for
Harriotte A. Hurley, CIH
Director, Laboratory Services
San Francisco Regional Office

HAH/las

Attachments

Analytical Results
for
CHROMALAB, INC.
Client Reference: 9708214
Clayton Project No. 97090.14

Sample Identification:	3590/MW-1	Date Sampled:	08/20/97
Lab Number:	9709014-01A	Date Received:	09/02/97
Sample Matrix/Media:	WATER	Date Prepared:	09/02/97
Preparation Method:	EPA 5030A	Date Analyzed:	09/02/97
Method Reference:	EPA 8260A	Analyst:	DTL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	20
Benzene	71-43-2	ND	5
Bromobenzene	108-86-1	ND	5
Bromochloromethane	74-97-5	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	5
2-Butanone	78-93-3	ND	20
n-Butylbenzene	104-51-8	ND	5
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	5
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	5
2-Chlorotoluene	95-49-8	ND	5
4-Chlorotoluene	106-43-4	ND	5
Dibromochloromethane	124-48-1	ND	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	5
1,2-Dibromoethane	106-93-4	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5
trans-1,2-Dichloroethene	156-60-5	ND	5

Analytical Results
for
CHROMALAB, INC.
Client Reference: 9708214
Clayton Project No. 97090.14

Sample Identification:	3590/MW-1	Date Sampled:	08/20/97
Lab Number:	9709014-01A	Date Received:	09/02/97
Sample Matrix/Media:	WATER	Date Prepared:	09/02/97
Preparation Method:	EPA 5030A	Date Analyzed:	09/02/97
Method Reference:	EPA 8260A	Analyst:	DTL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
1,2-Dichloropropane	78-87-5	ND	5
1,3-Dichloropropane	142-28-9	ND	5
2,2-Dichloropropane	594-20-7	ND	5
1,1-Dichloropropene	563-58-6	ND	5
cis-1,3-dichloropropene	10061-01-5	ND	5
trans-1,3-dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
Freon 113	76-13-1	ND	5
Hexachlorobutadiene	87-68-3	ND	5
2-Hexanone	591-78-6	ND	20
Isopropylbenzene	98-82-8	ND	5
p-Isopropyltoluene	99-87-6	ND	5
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	20
MTBE	1634-04-4	520	5
Naphthalene	91-20-3	ND	5
n-Propylbenzene	103-65-1	ND	5
sec-Butylbenzene	135-98-8	ND	5
Styrene	100-42-5	ND	5
tert-Butylbenzene	98-06-6	ND	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,2,3-Trichlorobenzene	87-61-6	ND	5
1,2,4-Trichlorobenzene	120-82-1	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	44	5
Trichlorofluoromethane	75-69-4	ND	5

Clayton
ENVIRONMENTAL CONSULTANTS

Analytical Results
for
CHROMALAB, INC.
Client Reference: 9708214
Clayton Project No. 97090.14

Sample Identification:	3590/MW-1	Date Sampled:	08/20/97
Lab Number:	9709014-01A	Date Received:	09/02/97
Sample Matrix/Media:	WATER	Date Prepared:	09/02/97
Preparation Method:	EPA 5030A	Date Analyzed:	09/02/97
Method Reference:	EPA 8260A	Analyst:	DTL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
1,2,3-Trichloropropane	96-18-4	ND	5
1,2,4-Trimethylbenzene	95-63-6	ND	5
1,3,5-Trimethylbenzene	108-67-8	ND	5
Vinyl acetate	108-05-4	ND	20
Vinyl chloride	75-01-4	ND	5
o-Xylene	95-47-6	ND	5
p,m-Xylenes	--	ND	5
Surrogates		Recovery (%)	QC Limits (%)
4-Bromofluorobenzene	460-00-4	98	86 - 115
Dibromofluoromethane	1868-53-7	101	86 - 118
1,2-Dichloroethane-d4	17060-07-0	100	80 - 120
Toluene-d8	2037-26-5	99	88 - 110

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

Analytical Results
for
CHROMALAB, INC.
Client Reference: 9708214
Clayton Project No. 97090.14

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9709014-02A	Date Received:	--
Sample Matrix/Media:	WATER	Date Prepared:	09/02/97
Preparation Method:	EPA 5030A	Date Analyzed:	09/02/97
Method Reference:	EPA 8260A	Analyst:	DTL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds			
Acetone	67-64-1	ND	20
Benzene	71-43-2	ND	5
Bromobenzene	108-86-1	ND	5
Bromochloromethane	74-97-5	ND	5
Bromodichloromethane	75-27-4	ND	5
Bromoform	75-25-2	ND	5
Bromomethane	74-83-9	ND	5
2-Butanone	78-93-3	ND	20
n-Butylbenzene	104-51-8	ND	5
Carbon disulfide	75-15-0	ND	5
Carbon tetrachloride	56-23-5	ND	5
Chlorobenzene	108-90-7	ND	5
Chloroethane	75-00-3	ND	5
Chloroform	67-66-3	ND	5
Chloromethane	74-87-3	ND	5
2-Chlorotoluene	95-49-8	ND	5
4-Chlorotoluene	106-43-4	ND	5
Dibromochloromethane	124-48-1	ND	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	5
1,2-Dibromoethane	106-93-4	ND	5
Dibromomethane	74-95-3	ND	5
1,2-Dichlorobenzene	95-50-1	ND	5
1,3-Dichlorobenzene	541-73-1	ND	5
1,4-Dichlorobenzene	106-46-7	ND	5
Dichlorodifluoromethane	75-71-8	ND	5
1,1-Dichloroethane	75-34-3	ND	5
1,2-Dichloroethane	107-06-2	ND	5
1,1-Dichloroethene	75-35-4	ND	5
cis-1,2-Dichloroethene	156-59-2	ND	5
trans-1,2-Dichloroethene	156-60-5	ND	5

Clayton ENVIRONMENTAL CONSULTANTS

Analytical Results
for
CHROMALAB, INC.
Client Reference: 9708214
Clayton Project No. 97090.14

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9709014-02A	Date Received:	--
Sample Matrix/Media:	WATER	Date Prepared:	09/02/97
Preparation Method:	EPA 5030A	Date Analyzed:	09/02/97
Method Reference:	EPA 8260A	Analyst:	DTL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
1,2-Dichloropropane	78-87-5	ND	5
1,3-Dichloropropane	142-28-9	ND	5
2,2-Dichloropropane	594-20-7	ND	5
1,1-Dichloropropene	563-58-6	ND	5
cis-1,3-dichloropropene	10061-01-5	ND	5
trans-1,3-dichloropropene	10061-02-6	ND	5
Ethylbenzene	100-41-4	ND	5
Freon 113	76-13-1	ND	5
Hexachlorobutadiene	87-68-3	ND	5
2-Hexanone	591-78-6	ND	20
Isopropylbenzene	98-82-8	ND	5
p-Isopropyltoluene	99-87-6	ND	5
Methylene chloride	75-09-2	ND	5
4-Methyl-2-pentanone	108-10-1	ND	20
MTBE	1634-04-4	ND	5
Naphthalene	91-20-3	ND	5
n-Propylbenzene	103-65-1	ND	5
sec-Butylbenzene	135-98-8	ND	5
Styrene	100-42-5	ND	5
tert-Butylbenzene	98-06-6	ND	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	5
Tetrachloroethene	127-18-4	ND	5
Toluene	108-88-3	ND	5
1,2,3-Trichlorobenzene	87-61-6	ND	5
1,2,4-Trichlorobenzene	120-82-1	ND	5
1,1,1-Trichloroethane	71-55-6	ND	5
1,1,2-Trichloroethane	79-00-5	ND	5
Trichloroethene	79-01-6	ND	5
Trichlorofluoromethane	75-69-4	ND	5

Clayton
ENVIRONMENTAL CONSULTANTS

Analytical Results
for
CHROMALAB, INC.
Client Reference: 9708214
Clayton Project No. 97090.14

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9709014-02A	Date Received:	--
Sample Matrix/Media:	WATER	Date Prepared:	09/02/97
Preparation Method:	EPA 5030A	Date Analyzed:	09/02/97
Method Reference:	EPA 8260A	Analyst:	DTL

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
Volatile Organic Compounds (Continued)			
1,2,3-Trichloropropane	96-18-4	ND	5
1,2,4-Trimethylbenzene	95-63-6	ND	5
1,3,5-Trimethylbenzene	108-67-8	ND	5
Vinyl acetate	108-05-4	ND	20
Vinyl chloride	75-01-4	ND	5
o-Xylene	95-47-6	ND	5
p,m-Xylenes	--	ND	5
Surrogates		Recovery (%)	QC Limits (%)
4-Bromofluorobenzene	460-00-4	98	86 - 115
Dibromofluoromethane	1868-53-7	100	86 - 118
1,2-Dichloroethane-d4	17060-07-0	98	80 - 120
Toluene-d8	2037-26-5	99	88 - 110

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

214 / HH267-HH271

35125

H_2OGEOL A GROUNDWATER CONSULTANCY

P.O. BOX 2165
LIVERMORE, CALIFORNIA 94551-2165

SAMPLER(S): Gary D. Lowe

SAMPLER'S SIGNATURE: Gary D. Lowe

CHAIN OF CUSTODY

DATE: 08/20/97 PAGE 1 of 1

Sample Source:
Runnels Industries
3590 Enterprise Avenue
Hayward, California

SUBM #: 9708214 REP: GC
CLIENT: H2OGEOL
DUE: 08/27/97 due 9/3/97
REF #:35125

LAB NO.

FAX RESULTS TO (510) 373-8222

ANALYTE

SAMPLE ID.	DATE	TIME	MATRIX	LAB ID.	Halogenated Hydrocarbon Compounds EPA 8010	Methyl Ethyl Ketone & Etc. EPA 8260	Dissolved Cr, Pb, & Zn				NUMBER OF CONTAINERS
3590/MW-1	08/20/97	09:04	WATER			X					2
3590/MW-2	08/20/97	10:18	WATER		X						2
3590/MW-3	08/20/97	09:41	WATER		X						2
3590/MW-4	08/20/97	08:18	WATER		X		X				3
3590/MW-5	08/20/97	08:40	WATER		X						2

NOTE:
10-DAY
TURNAROUND

RELINQUISHED BY:
SIGNATURE: Gary D. Lowe TIME: 1356
PRINTED NAME: Gary D. Lowe DATE: 08/20/97
COMPANY: H_2OGEOL

RELINQUISHED BY:
SIGNATURE: TIME:
PRINTED NAME: DATE:
COMPANY:

RECEIVED BY:
SIGNATURE: TIME:
PRINTED NAME: DATE:
COMPANY:

RECEIVED BY LABORATORY:
SIGNATURE: Chris Rowley TIME: 1359
PRINTED NAME: Chris Rowley DATE: 08/20/97
COMPANY: Chromalab, Inc.

CHROMALAB, INC.

Environmental Services (SDB)

September 10, 1997 *Submission #:* 9709117

H2OGEOL

Atten: Gary Lowe

Project: RUNNELS INDUSTRIES
Received: August 15, 1997

re: 2 samples for TEPH analysis.
Method: *EPA 8015M*

Sampled: August 15, 1997 *Matrix:* SOIL *Run#:* 8553 *Extracted:* September 9, 1997 *Analyzed:* September 9, 1997

Spl# CLIENT SPL ID	Kerosene (mg/Kg)	Diesel (mg/Kg)	Motor Oil (mg/Kg)
146747 B8/3'	N.D.	580	130
Note: Estimated concentration due to overlapping fuel patterns.			
146748 B8/6'	N.D.	460	160
Note: Estimated concentration due to overlapping fuel patterns.			
Reporting Limits	5.0	5.0	100
Blank Result		N.D.	
Blank Spike Result (%)	--	85.3	--

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

510-373-9222 QC 09/15

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

5013 0:0C0485 YT 16:47

CHROMALAB, INC.

Environmental Services (SDB)

September 10, 1997 *Submission #:* 9709117

H2OGEOL

Atten: Gary Lowe

Project: RUNNELS INDUSTRIES
Received: August 15, 1997

re: 1 sample for TEPH analysis.
Method: *EPA 8015M*

Sampled: August 15, 1997 *Matrix:* SOIL *Run#:* 8553 *Extracted:* September 9, 1997 *Analyzed:* September 9, 1997

Spl# CLIENT SPL ID	Kerosene (mg/Kg)	Diesel (mg/Kg)	Motor Oil (mg/Kg)
146750 B8/9'	N.D.	280	78
Note: Estimated concentration due to overlapping fuel patterns.			
Reporting Limits	1.0	1.0	50
Blank Result		N.D.	
Blank Spike Result (%)	--	85.3	--

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

510-373-9222 QC 09/15

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB) (DOHS 1094)

ADD ON/CHANGE ORDER

New Submission No: 9709117

Order No: 35402

SUBM #: 9709117 REF: GC
CLIENT: H2OGEOL
DUE: 09/15/97
REF #:35402/9708172

Original Submission Info

Client Name: H2OGEO

Project Mgr: GARY LOWE

Project Name: RUNNELS INDUSTRIES

Project No:

PO#:

Date Received: 9/5/97

Submission No: 9708172

Name of Caller: G. LOWE

Call Date: 9/9/97 Time:

Add on Due Date: 9/15/97 Date Sampled 8/15/97

Comments: * EXTRACT 9/9/97 *

RUSH - OUT OF HOLD TIME -

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH - Gasoline (EPA 3030, 8015)	TPH - Gasoline (5030, 8015) w/BTEX (EPA 602, 8020)	TPH - Diesel (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 5242)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520, B+F, E+F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)		LUFT METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (TCLP, STLC)				NUMBER OF CONTAINERS
BB/3'	8/15/97		S				X																		1
BB/6'	↓		↓				↓																		1
BB/9'	↓		↓				↓																		1

9709117 35402

CHROMALAB

Change request received by: GRC

Date Requested: 9/8/97

SAMPLE STATUS CHANGE FORM

Submission#	Client Samp.ID	Old Status Description	Description of Changes	Requested by (Client's name)
9708172	ALL Soils BB/3' BB/6' BB/9'	—	TEPH. Out of hold time Please rush today	H2OGeoL

Changes were done in lims by(login): _____ On: ___/___/___

CC: ___ Lab.Director ___ Dept.manager ___ Analyst ___Proj.Manager

5103739211 LOWE H2OGEOL 3540 2962 P01 SEP 06 '97 10:27

~~9708172~~ ~~35081~~

H_2OGEOL A GROUNDWATER CONSULTANCY
P.O. BOX 2165
LIVERMORE, CALIFORNIA 94551-2165

CHAIN OF CUSTODY

DATE: 08/15/97 PAGE 1 of 1

Sample Source:
Runnels Industries
3590 Enterprise Avenue
Hayward, California

SAMPLER(S): Gary D. Lowe

SAMPLER'S SIGNATURE: [signature]

To Gary Cook

SAMPLE RECIEPT
TOTAL No of CONTAINERS
CHAIN OF CUSTODY SEALS
REC'D GOOD CONDITION/COLD
CONFORMS TO RECORD
LAB NO

FAX RESULTS TO (510) 373-9222

ANALYTE

SAMPLE ID.	DATE:	TIME	MATRIX	LAB ID.	Halogenated Hydrocarbon Compounds EPA 8010	Total Cr, Pb, & Zn	Dissolved Cr, Pb & Zn	# HOLD FOR TPH OFF HOLD 08/18 1500	TEPH - D, K, MO per GDL		NUMBER OF CONTAINERS
B7/4.2Ft.	08/14/97	13:04	SOIL		X						1
B7/GW	08/14/97	13:40	WATER		X						2
B8/ 3 Ft.	08/15/97	12:45	SOIL		X	X		X	X		2
B8/ 6 Ft.	08/15/97	13:00	SOIL		X	X		X	X		2
B8/ 9 Ft.	08/15/97	13:15	SOIL		X	X		X	X		2
B8/GW	08/15/97	13:30	WATER		X		X*	X			4
	* No HNO_3 (bottle received) - Filter for Dissolved in LAB										

Added 8/18

Data not recd.!

~~STANDARD~~ 10 DAY TURNAROUND

RELINQUISHED BY:		RELINQUISHED BY:	
SIGNATURE	[signature]	SIGNATURE	
PRINTED NAME	Gary D. Lowe	TIME 1511	PRINTED NAME	TIME
COMPANY	H_2OGEOL	DATE 08/15/97	COMPANY	DATE
RECEIVED BY:		RECEIVED BY LABORATORY:	
SIGNATURE		SIGNATURE	[signature] TIME 1511
PRINTED NAME	TIME	PRINTED NAME	Chris Romley
COMPANY	DATE	COMPANY	Chromalab, Inc. DATE 08/15/97

09/06/97

9709117