



Subsurface Consultants, Inc.

3978

August 24, 2000
SCI 272.050

Mr. William Madison
City of Oakland Public Works Agency
Environmental Services Department
250 Frank H. Ogawa Plaza, Suite 5301
Oakland, California 94612

**Soil and Groundwater Investigation
Storm Drain Rehabilitation Project
Municipal Services Center
Oakland, California**

*Completed
8/24/00
William Madison*

Dear Mr. Madison:

Subsurface Consultants, Inc. (SCI) has prepared this letter to document a soil and groundwater investigation performed as part of the storm drain rehabilitation project at the above-referenced facility (Site). The Site is located at 7101 Edgewater Drive in Oakland, California. The activities and scope of work were completed in accordance with SCI's Proposal to the City of Oakland (City) dated April 21, 2000.

BACKGROUND

SCI understands that the City plans to rehabilitate an existing portion of the 24-inch diameter, steel reinforced storm drain located between catch basin CB3 and Edgewater Drive (Plate 1). The storm drain is completed between approximately 6 and 9 feet below ground surface (bgs). SCI understands that the results of this investigation will be used by the City as part of their bidding process for selecting a contractor that will conduct the rehabilitation work on the existing sewer line.

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SCOPE OF SERVICES

Fieldwork was conducted using standard industry practices regarding worker safety, equipment decontamination, and sample handling. SCI completed the scope of services as summarized below:

- Conducted an underground utility survey to confirm the storm drain alignment and clear proposed sampling locations prior to drilling activities.
- Procured appropriate permits from the Alameda County Public Works prior to drilling.
- Drilled and sampled 6 soil borings (B-3b, 4b, 5 through 7, and 8b) along the storm drain alignment to depths ranging from 7 to 10.5 feet bgs¹. At these borings, sampling focused on collecting samples of bedding material installed next to the storm drain. Based on our field observations, bedding material comprised gray, poorly graded sand. In addition, at the request of the City, Boring B-1 ^(MW-18) was completed to a depth of 21.5 feet bgs at a location upgradient of the former USTs at the Site. Borings were drilled using truck-mounted solid stem augers. Soil samples were collected at 3 to 5 foot intervals, retained in stainless steel liners, capped with Teflon sheeting and plastic end caps, and placed in an ice filled cooler. Samples were screened in the field using an organic vapor meter (OVM) and logged in accordance with the Unified Soil Clarification System (USCS). Copies of the bore logs, including OVM readings, are presented in Appendix A.
- Installed temporary wells at Borings B-3b, 4b, 6, 7 and 8b to facilitate collection of grab groundwater samples from within the bedding material next to the storm drain. Temporary wells were constructed of 2-inch diameter PVC screen from the bottom of the boring to the surface. A disposable bailer was used to collect grab groundwater samples. The groundwater samples were decanted into pre-cleaned containers supplied by the chemical testing laboratory. The containers were placed into the ice filled cooler. After collecting the groundwater samples, the PVC well screens were removed and the boreholes were backfilled with neat cement grout and capped with asphalt patch to match the existing paved surface. After the installation of the temporary well, boring B-8b did not recharge sufficiently, a groundwater sample was not collected from this boring.

¹ Boring B-1 was drilled and completed as monitoring well MW-18. Boring B-2 was selected as an alternate location for boring B-1 but not completed.

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- Converted Boring B-1 into a groundwater monitoring well (renamed MW-18 as directed by the City) and converted Boring B-5 into a monitoring well within the storm drain backfill (renamed SW-1 as directed by the City). The screened portion of each well was constructed of 2-inch-diameter, machine-slotted (0.010-inch) Schedule 40 PVC well casing. The upper portion of the wells consists of 2-inch-diameter blank Schedule 40 PVC casing. The annular space from the bottom of the boring was backfilled with No. 3 type sand to approximately 1.5 to 3 feet above the top of the well screen. A 1.5-foot layer of bentonite pellets was placed on top of the sand pack, and the remainder of the annular space was backfilled with neat cement. The top of the wells are secured with watertight locking caps and traffic-rated well covers. Although Well MW-18 was drilled to 21.5 feet, the well screen was placed from approximately 5 to 15 feet bgs, corresponding to the clayey gravels encountered. Because no deeper aquifer material was encountered at this location, the borehole was backfilled with sand as part of the well construction rather than completing a separate borehole for the well completion. Well completion details are graphically presented on the respective boring logs.
- A minimum of 72 hours after installation, developed Monitoring wells MW-18 and SW-1 using bail and swab methodologies. The wells were purged of at least 10 well casing volumes using a truck mounted bailer. Well SW-1 contained minor amounts of free product before purging. Purged water was placed into labeled drums and stored onsite pending disposal. No free product was observed in either monitoring well during the sampling activities.
- Surveyed the top of casing at wells MW-18 and SW-1 using a California licensed surveyor. As requested by the City, the top of casing elevations were surveyed relative to the top of well casing MW-11 with a designated elevation of 11.60 feet. The surveyed elevation for the top of casing at MW-18 was 10.75 feet and for SW-1 was 10.01 feet.
- Measured the depth to groundwater below top of casing on June 7, 2000 at 6.50 feet in MW-18 and 7.40 feet in SW-1. On July 10, 2000, the measured depth to groundwater was 6.34 feet in MW-18 and 7.37 feet in SW-1.

ANALYTICAL TESTING PROGRAM

A total of seven soil and six groundwater samples were submitted to Chromalab, Inc. for chemical testing. All samples were tested for:

- Total volatile hydrocarbons as gasoline (TVHg), by EPA Method 8015 modified

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- Total extractable hydrocarbons as diesel and motor oil (TEHd and TEHo) using silica gel cleanup and EPA Method 8015m
- Methyl tert butyl ether (MTBE) and benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8020

In order to assist with characterization of existing and future soil for disposal, the laboratory composited soil samples B-8b from 4', 7.5' and 9.0' prior to analyses. The composite sample was tested for TVHg, TEHd, TEHo, BTEX, and MTBE as described above as well as for:

- Reactivity, Corrosivity and Ignitibility by EPA Standard Method
- Cadmium, chromium, lead, nickel and zinc by EPA Method 6010

Groundwater sample from wells MW-18 and SW-1 was tested for TVHg, TEHd, TEHo, BTEX, and MTBE as described above. The unfiltered groundwater sample from SW-1 was also tested for 22 Title 17 Metals by EPA Method 6010/7000, to assist in characterization of water for disposal.

ANALYTICAL RESULTS

The results of chemical testing on soil and groundwater samples are summarized in Tables 1 and 2. Laboratory data packages and the chain-of-custody document are presented in Appendix B.

Soil Analytical Results

What are/is source of TPH?

Analyses detected TVHg in three soil samples: 40 milligram per kilogram (mg/kg) in B-3b@6.5 feet, 12 mg/kg in B-4b@9 feet, and 6,500 mg/kg in SW-1@7.5 feet. Analyses detected no TEHd in soil sample B-6@7.0 and no TEHo in any of the soil samples. Analyses detected TEHd in six of seven soil samples with concentrations ranging from 1.6 mg/kg (Composite B-8b) to 330 mg/kg (SW-1 @ 7.5 feet).

Ethylbenzene was detected in soil samples B-3b@ 6.5 feet and SW-1 @ 7.5 feet at 0.81 mg/kg and 160 mg/kg respectively. Xylenes were detected in the same two soil samples at 2.6 mg/kg and 240 mg/kg respectively. Analyses detected no MTBE in any of the soil samples.

The composite soil sample from B-8b contained 24 mg/kg of chromium, 5.0 mg/kg of lead, 23 mg/kg of nickel, and 46 mg/kg of zinc. Analyses detected no cadmium concentrations. Analyses detected no reactivity, corrosivity, or ignitibility in the composite sample from B-8b.

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Groundwater Analytical Results

Analyses detected TVHg in five of the six groundwater samples, ranging from 67 micrograms per liter ($\mu\text{g/l}$) in B-6 to 44,000 $\mu\text{g/l}$ in B-3b. Analyses detected no TVHg in the groundwater sample from MW-18. Based on our discussion with the analytical laboratory, the detection limits for groundwater samples from borings B-3b, B-4b and well SW-1 were raised due to the salinity of the water and other interference factors.

Analyses detected no TEHd in the groundwater sample from MW-18 and no TEHo in any of the groundwater samples. Except for MW-18, analyses detected TEHd in all groundwater samples with concentrations ranging from 120 $\mu\text{g/l}$ in B-7 to 350,000 $\mu\text{g/l}$ in B-4b.

Analyses detected benzene in two samples; 890 $\mu\text{g/l}$ in B-3b and 190 $\mu\text{g/l}$ in B-4b. Toluene was detected in three groundwater samples; 680 $\mu\text{g/l}$ in B-3b, 35 $\mu\text{g/l}$ in B-4b, and 60 $\mu\text{g/l}$ in SW-1. Ethylbenzene was detected in five of the six groundwater samples, ranging from 1.0 $\mu\text{g/l}$ in B-6 to 1,700 $\mu\text{g/l}$ in B-3b. No ethylbenzene was detected in MW-18. Xylenes were detected in all groundwater samples, ranging from 0.88 $\mu\text{g/l}$ in MW-18 to 8,500 $\mu\text{g/l}$ in B-3b. Analyses detected no MTBE in any of the groundwater samples.

Analyses detected relatively low concentrations of arsenic, barium, chromium, cobalt, copper, lead, mercury, nickel, selenium, vanadium and zinc in the unfiltered sample from SW-1. Analyses detected no antimony, beryllium, cadmium, molybdenum, silver, or thallium in the unfiltered samples from SW-1.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of chemical analyses performed on soil samples, backfill material along the storm drain alignment appears to be impacted with relatively low concentrations of TVHg and TEHd concentrations, except near B-6 where no TVHg and TEHd concentrations were detected and near SW-1, where relatively high TVHg and TEHd concentrations were detected. The detected total metals concentrations are well below Total Threshold Limit Concentrations (TTLC), one of the criteria used to classify a material as hazardous. SCI concludes that soils excavated near SW-1 during the proposed storm drain rehabilitation activities should be disposed offsite as non-hazardous, designated waste at a Class II landfill.

Analyses on groundwater samples indicate that the groundwater within the backfill material of the existing storm drain pipe is impacted with elevated concentrations of TVHg and TEHd near B-3b, 4b, and SW-1 and relatively low concentrations near B-6 and B-7. These results suggest

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that if storm drain rehabilitation activities involve dewatering of the excavation, impacted groundwater will be encountered and will require treatment to remove hydrocarbons prior to discharge to the sanitary sewer or storm drain. If conducted, discharge of groundwater to the sanitary sewer should be completed in accordance with a discharge permit from the East Bay Municipal Utilities District. If conducted, discharge of groundwater to the storm drain should be completed in accordance with a NPDES permit obtained from the Regional Water Quality Control Board. In either case, additional chemical testing of the actual water discharged will likely be required to confirm compliance with permit criteria.

SCI also recommends that the City provide a copy of this report to the contractors bidding on the storm drain rehabilitation work to notify them of the known existing subsurface conditions and assist them with obtaining the appropriate discharge permits.

CLOSING STATEMENT

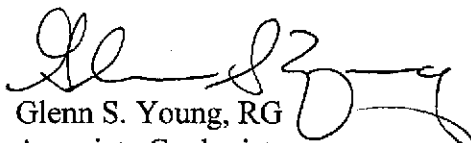
We trust that this provides the information required at this time. If you have any questions, please call.

Yours very truly,

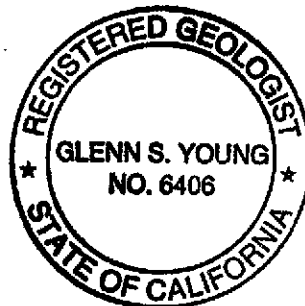
Subsurface Consultants, Inc.



Emily Silverman
Staff Geologist



Glenn S. Young, RG
Associate Geologist



ES: GSY: 272.050\Soil and Groundwater Investigation

3 copies submitted

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Attachments: Table 1 – Soil Results
Table 2 – Groundwater Results
Plate 1 – Site Plan
Appendix A - Boring Logs, Unified Soil Classification System
Appendix B - Analytical Test Reports with Chain-of-Custody Documentation and
Chromatograms

TABLE 1
SUMMARY OF ANALYTICAL RESULTS - SOIL SAMPLES
OAKLAND MUNICIPAL SERVICES CENTER
OAKLAND, CALIFORNIA

| Analyte | Units | Sample ID | | | | | | |
|---------------|-------|--------------------------|------------|----------|-------------------------|-----------|-----------|------------------|
| | | MW-18 @ 6.0 (aka B-1) | B-3b @ 6.5 | B-4b @ 9 | SW-1 @ 7.5 (aka B-5) | B-6 @ 7.0 | B-7 @ 7.5 | B-8b @ 4, 7.5, 9 |
| TEHd* | mg/kg | 3.7^ | 16 ^ | 12^ | 330 # | <1.0 | 2.1** | 1.6** |
| TEHo* | mg/kg | <50 | <50 | <50 | <50 | <50 | <50 | <50 |
| TVH-g | mg/kg | <1.0 | 40 a | 12 a | 6,500 a | <1.0 | <1.0 | <1.0 |
| Benzene | mg/kg | <0.0050 | <0.62 | <0.62 | <6.2 | <0.0050 | <0.0050 | <0.0050 |
| Toluene | mg/kg | <0.0050 | <0.62 | <0.62 | <6.2 | <0.0050 | <0.0050 | <0.0050 |
| Ethylbenzene | mg/kg | <0.0050 | 0.81 | <0.62 | 160 | <0.0050 | <0.0050 | <0.0050 |
| Xylenes | mg/kg | <0.0050 | 2.6 | <0.62 | 240 | <0.0050 | <0.0050 | <0.0050 |
| MTBE | mg/kg | <0.0050 | <0.62 | <0.62 | <6.2 | <0.0050 | <0.0050 | <0.0050 |
| Metals | | | | | | | | |
| Cadmium | mg/kg | -- | -- | -- | -- | -- | -- | <0.50 |
| Chromium | mg/kg | -- | -- | -- | -- | -- | -- | 24 |
| Lead | mg/kg | -- | -- | -- | -- | -- | -- | 5.0 |
| Nickel | mg/kg | -- | -- | -- | -- | -- | -- | 23 |
| Zinc | mg/kg | -- | -- | -- | -- | -- | -- | 46 |
| RCI | | | | | | | | |
| Reactivity | -- | -- | -- | -- | -- | -- | -- | Negative |
| Corrosivity | -- | -- | -- | -- | -- | -- | -- | Negative |
| Ignitibility | -- | -- | -- | -- | -- | -- | -- | Negative |

Notes:

* = using silica gel cleanup

mg/kg = milligrams per kilogram

-- = Not analyzed

TEHd = Total Extractable Hydrocarbons quantified as diesel

TEHo = Total Extractable Hydrocarbons quantified as motor oil

TVHg = Total Volatile Hydrocarbons quantified as gasoline

<1.0 = not detected at or above listed analytical reporting limit

ND = not detected

RCI = Reactivity, corrosivity and ignitibility

a = hydrocarbon reported in the gasoline range does not match the standard

= hydrocarbon reported is in the early diesel range and does not match the standard

^ = hydrocarbon does not match the standard diesel pattern

** = compounds reported are in this range, but are not characteristic of petroleum hydrocarbon

TABLE 2
SUMMARY OF ANALYTICAL RESULTS - GROUNDWATER SAMPLES
OAKLAND MUNICIPAL SERVICES CENTER
OAKLAND, CALIFORNIA

| Sample Type | Sample ID | | | | | | |
|-----------------|--------------|----------|-----------|-------|-------------------|--------------------|-------|
| | B-3b | B-4b | B-6 | B-7 | SW-1 (aka B-5) | MW-18 (aka B-1) | |
| | grab | grab | grab | grab | well | well | |
| Analyte | Units | | | | | | |
| TEHd* | ug/L | 23,000 # | 350,000 # | 130 ^ | 120 ^ | 13,000 # | <50 |
| TEHo* | ug/L | <2,500 | <25,000 | <500 | <500 | <2,500 | <500 |
| TVH-g | ug/L | 44,000 | 35,000 | 67 | 120 | 25,000 | <50 |
| Benzene | ug/L | 890 | 190 | <0.50 | <0.50 | <50 | <0.50 |
| Toluene | ug/L | 680 | 35 | <0.50 | <0.50 | 60 | <0.50 |
| Ethylbenzene | ug/L | 1,700 | 770 | 1.0 | 2.8 | 1,500 | <0.50 |
| Xylenes | ug/L | 8,500 | 4,000 | 4.0 | 9.5 | 4,600 | 0.88 |
| MTBE | ug/L | <2,500 | <250 | <5.0 | <5.0 | <500 | <5.0 |
| Metals** | | | | | | | |
| Antimony | mg/L | -- | -- | -- | -- | <0.0050 | -- |
| Arsenic | mg/L | -- | -- | -- | -- | 0.038 | -- |
| Barium | mg/L | -- | -- | -- | -- | 1.0 | -- |
| Beryllium | mg/L | -- | -- | -- | -- | <0.0050 | -- |
| Cadmium | mg/L | -- | -- | -- | -- | <0.0020 | -- |
| Chromium | mg/L | -- | -- | -- | -- | 0.12 | -- |
| Cobalt | mg/L | -- | -- | -- | -- | 0.035 | -- |
| Copper | mg/L | -- | -- | -- | -- | 0.44 | -- |
| Lead | mg/L | -- | -- | -- | -- | 0.05 | -- |
| Mercury | mg/L | -- | -- | -- | -- | 0.00065 | -- |
| Molybdenum | mg/L | -- | -- | -- | -- | <0.0050 | -- |
| Nickel | mg/L | -- | -- | -- | -- | 0.11 | -- |
| Selenium | mg/L | -- | -- | -- | -- | 0.0058 | -- |
| Silver | mg/L | -- | -- | -- | -- | <0.0050 | -- |
| Thallium | mg/L | -- | -- | -- | -- | <0.0050 | -- |
| Vanadium | mg/L | -- | -- | -- | -- | 0.15 | -- |
| Zinc | mg/L | -- | -- | -- | -- | 0.22 | -- |

Notes:

* = with silica gel cleanup

** = unfiltered

mg/L = milligrams per liter

ug/L = micrograms per liter

TEHd = Total Extractable Hydrocarbons quantified as diesel

MCLs = Maximum Contaminant Levels

TEHo = Total Extractable Hydrocarbons quantified as motor oil

TVHg = Total Volatile Hydrocarbons quantified as gasoline

<1.0 = not detected at or above listed analytical reporting limit

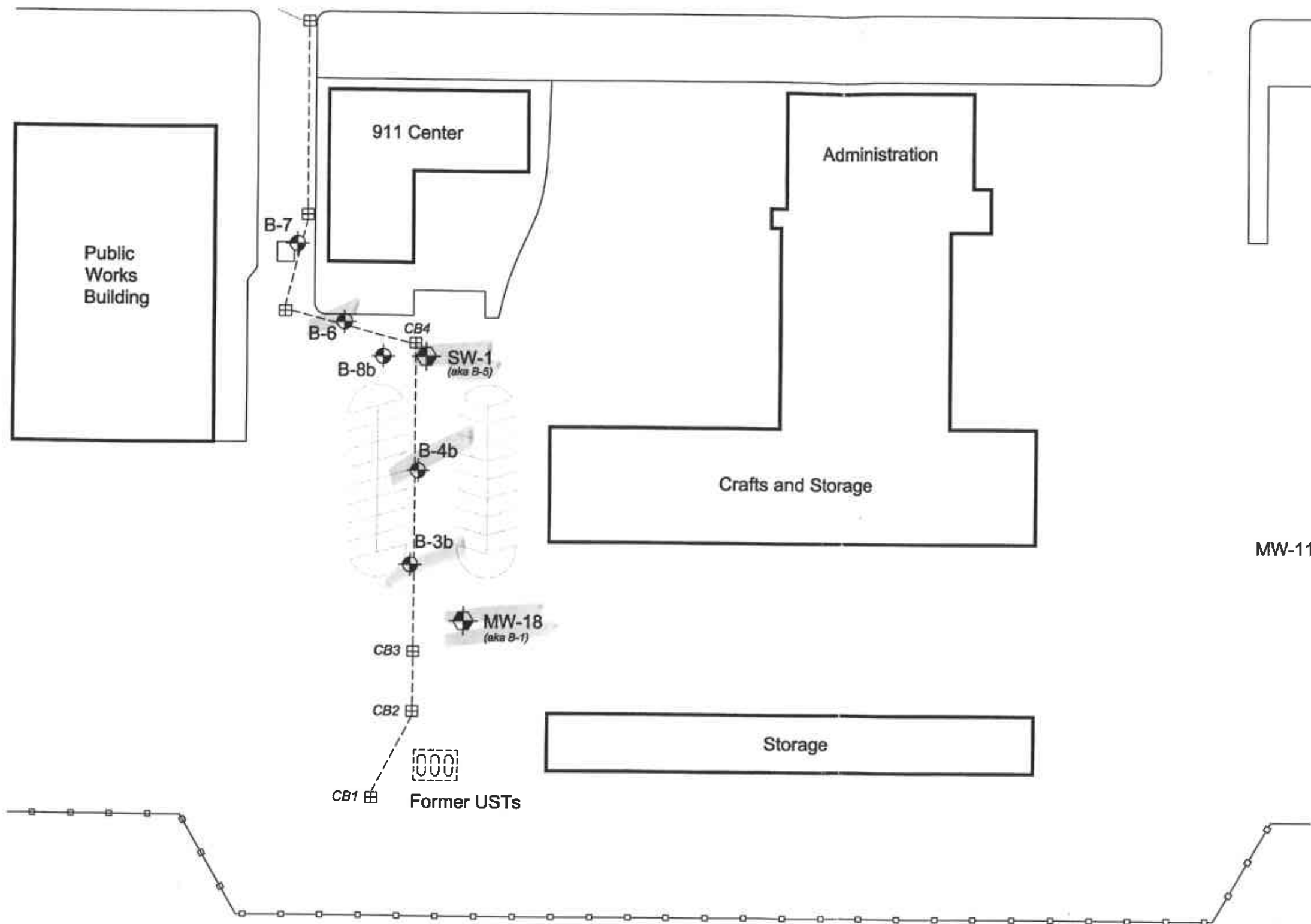
ND = not detected

-- = not tested

^ = hydrocarbon does not match the standard diesel pattern

= hydrocarbon reported is in the early diesel range and does not match the standard

Edgewater Drive



Explanation:

- MW-18 Approximate Location of Monitoring Well
- B-3b Approximate Location of Soil Boring
- CB1 Stormwater Catch Basin
- Stormdrain Alignment
- Fence

NOTE:

BORINGS B-1 AND B-5 WERE COMPLETED AS MONITORING WELLS AND RENAMED MW-18 AND SW-1, RESPECTIVELY.



APPROXIMATE SCALE IN FEET



SITE PLAN

OAKLAND MUNICIPAL SERVICES CENTER
7101 EDGEWATER DRIVE
OAKLAND, CALIFORNIA

JOB NUMBER
272.050

DATE
6/00

SCI Subsurface Consultants, Inc.
Geotechnical & Environmental Engineers

PLATE

1

APPENDIX A:
BORING LOGS
UNIFIED SOIL CLASSIFICATION SYSTEM

| | | | |
|---|--|--|---|
| Project Name & Location: Oakland Municipal Services Center 7101 Edgewater Drive Oakland, California | | Top of Casing: 10.93 feet | |
| Drilling Coordinates: not surveyed | | Elevation Datum: 10.75 | |
| Drilling Company & Driller: HEW, Robert | | Start: Date 5/30/00 | Time 06:40 |
| Rig Type & Drilling Method: CME 75 Solid Flight / Hollow Stem Auger | | Finish: Date 5/30/00 | Time 07:20 |
| Sampler A) SPT (2" O.D. 1.375" I.D.) Type(s): | | Drilling Fluid: N/A | Hole Diameter: 6" |
| Sampling Method(s): A) 140 lb hammer with 30" drop (Wireline) | | Logged By: Gene Ng | Encountered at 8 ft 6.50 feet (6/7/00) |
| | | Backfill Method: Monitoring Well Installation | Date: 5/30/00 |

| Depth (feet) | Sampler Type | Blows/6 inches or Pressure | Blows/12 inches | OVM (ppm) | Sample Interval | Graphic Log | SOIL DESCRIPTIONS | | WELL CONSTRUCTION | |
|---|--------------|----------------------------|-----------------|-----------|-----------------|-------------|---|--|-------------------|------------------------------------|
| | | | | | | | GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type) | | | |
| 0 | A | 12 15 16 | 31 | 2 | | | ASPHALT - 4-inches thick | | | Flush Mounted Well Cover |
| | | | | | | | CLAYEY GRAVEL BASEROCK CLAYEY GRAVEL (GC) mottled brown and gray, dense, most, fine to coarse gravel (fill) | | | Locking Well Cap |
| 5 | A | 5 7 6 | 13 | 11 | | | LEAN CLAY (CL) dark olive gray, medium stiff, moist | | | Neat Cement |
| | | | | | | | gravel at 8.5 feet CLAYEY GRAVEL with SAND (GC) dark olive brown, loose to medium dense, wet, coarse angular gravel | | | Bentonite Pellet Seal |
| 10 | A | 4 3 3 | 6 | 7 | | | FAT CLAY (CH) dark greenish gray, soft, moist (YBM) | | | #2/12 Sand Pack |
| 15 | A | 1 1 1 | 2 | 0 | | | | | | 2-inch x 0.010-inch slotted screen |
| 20 | A | 1 1 2 | 3 | 0 | | | | | | Bottom Cap at 15 feet |
| Bottom of boring at 21.5 feet below ground surface. | | | | | | | | | | |

LOG OF BORING 272-050.GPJ GEO-ENV.GDT 8/23/00

| | | | |
|---|--|--------------|---------------------------|
| Subsurface Consultants, Inc. Geotechnical & Environmental Engineers | Oakland Municipal Services Center Oakland, California | | BORING |
| | JOB NUMBER 272.050 | DATE 8/00 | MW-18 (aka B-1) |

| | | | |
|---|--|------------------------------|---------------------|
| Project Name & Location: Oakland Municipal Services Center 7101 Edgewater Drive Oakland, California | | Top of Casing: | |
| | | Elevation Datum: 10.75 | |
| Drilling Coordinates: not surveyed | | Start: Date | Time |
| Drilling Company & Driller: HEW, Robert | | 5/30/00 | 00:00 |
| Rig Type & Drilling Method: CME 75 Solid Flight / Hollow Stem Auger | | Drilling Fluid: N/A | Hole Diameter: 6" |
| Sampler A) SPT (2" O.D. 1.375" I.D.) Type(s): | | Logged By: Gene Ng | Encountered at 8 ft |
| Sampling Method(s): A) 140 lb hammer with 30" drop (Wireline) | | Backfill Method: Neat Cement | Date: 5/30/00 |

| Depth (feet) | Sampler Type | Blows/6 inches or Pressure | Blows/12 inches | OVM (ppm) | Sample Interval | Graphic Log | SOIL DESCRIPTIONS |
|---|--------------|----------------------------|-----------------|-----------|-----------------|-------------|---|
| | | | | | | | GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type) |
| 0 | A | 15 20 25 | 45 | 0 | | | ASPHALT - 4-inches thick |
| | A | | | | | | CLAYEY GRAVEL BACKFILL |
| | A | | | | | | CLAYEY GRAVEL (GC) yellowish brown, dense, moist, fine to coarse gravel (fill) |
| 5 | A | 11 3 2 | 5 | 2.6 | | | CLAYEY SANDY GRAVEL (GC) dark olive gray, loose to medium dense, coarse, gravel, fine sand |
| 10 | A | 2 2 2 | 4 | 126 | | | CLAYEY SAND with GRAVEL (SC) dark olive gray, loose, wet, strong hydrocarbon odor |
| Bottom of boring at 11.5 feet below ground surface. | | | | | | | |
| 15 | | | | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |


LOG OF BORING 272-050.GPJ GEO-ENV/GDT 8/23/00

| | | | |
|---|--|--------------|-------------|
| Subsurface Consultants, Inc. Geotechnical & Environmental Engineers | Oakland Municipal Services Center Oakland, California | | BORING |
| | JOB NUMBER 272.050 | DATE 8/00 | B-3a |

| | | | |
|---|--|------------------------|-----------------------|
| Project Name & Location: Oakland Municipal Services Center 7101 Edgewater Drive Oakland, California | | Top of Casing: | |
| | | Elevation Datum: 10.75 | |
| Drilling Coordinates: not surveyed | | Start: Date | Time |
| Drilling Company & Driller: HEW, Robert | | 5/30/00 | 14:30 |
| Rig Type & Drilling Method: CME 75 Solid Flight / Hollow Stem Auger | | Finish: Date | Time |
| | | 5/30/00 | 15:00 |
| Sampler A) SPT (2" O.D. 1.375" I.D.) Type(s): | | Drilling Fluid: | Hole Diameter: |
| | | N/A | 6" |
| Sampling Method(s): A) 140 lb hammer with 30" drop (Wireline) | | Logged By: | Encountered at 6.5 ft |
| | | Gene Ng | |
| | | Backfill Method: | Date: |
| | | Neat Cement | 5/30/00 |

| Depth (feet) | Sampler Type | Blows/6 inches or Pressure | Blows/12 inches | OVM (ppm) | Sample Interval | Graphic Log | SOIL DESCRIPTIONS |
|--------------|--------------|----------------------------|-----------------|-----------|-----------------|-------------|---|
| | | | | | | | GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type) |
| 0 | | | | | | | ASPHALT - 4-inches thick CLAYEY GRAVEL BACKFILL CLAYEY GRAVEL (GC) yellowish brown, dense, moist, fine to coarse gravel (fill) |
| 10 | A | 10 13 13 | 26 | 0 | | | |
| 15 | A | 2 | 2 | 0 | | | POORLY GRADED SAND (SP) dark olive gray, loose, wet, fine sand, hydrocarbon odor (utility bedding) Bottom of boring at 7 feet below ground surface. |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |


LOG OF BORING 272-050.GPJ GEO-ENV.GDT 8/23/00

| | | | |
|---|--|--------------|-------------|
|  Subsurface Consultants, Inc. Geotechnical & Environmental Engineers | Oakland Municipal Services Center Oakland, California | | BORING |
| | JOB NUMBER 272.050 | DATE 8/00 | B-3b |

| | | | |
|---|------------------------------|------------------------|-------------------|
| Project Name & Location: Oakland Municipal Services Center 7101 Edgewater Drive Oakland, California | | Top of Casing: | |
| | | Elevation Datum: 10.75 | |
| Drilling Coordinates: not surveyed | Start: Date | Time | Finish: Date Time |
| Drilling Company & Driller: HEW, Robert | 5/30/00 | 09:15 | 5/30/00 09:40 |
| Rig Type & Drilling Method: CME 75 Solid Flight / Hollow Stem Auger | Drilling Fluid: N/A | Hole Diameter: 6" | |
| Sampler A) SPT (2" O.D. 1.375" I.D.) Type(s): | Logged By: Gene Ng | Encountered at 8.5 ft | |
| Sampling Method(s): A) 140 lb hammer with 30" drop (Wireline) | Backfill Method: Neat Cement | Date: 5/30/00 | |

| Depth (feet) | Sampler Type | Blows/6 inches or Pressure | Blows/12 inches | OVM (ppm) | Sample Interval | Graphic Log | SOIL DESCRIPTIONS |
|---|--------------|----------------------------|-----------------|-----------|-----------------|-------------|--|
| | | | | | | | GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type) |
| 0 | | | | | | | ASPHALT - 4-inches thick CLAYEY GRAVEL BACKFILL CLAYEY GRAVEL (GC) yellowish brown, medium dense, moist, fine gravel (fill) |
| 4.5 | A | 8 12 5 | 21 | 0 | | | |
| 8.5 | A | 7 5 6 3 3 2 | 11 | 0 | | | SANDY CLAY with GRAVEL (CL) greenish gray, soft to medium stiff, moist, coarse gravel |
| 10 | A | | 5 | 28 | | | CLAYEY SAND with GRAVEL (SC) dark olive gray, loose, wet, fine sand, coarse gravel |
| Bottom of boring at 10 feet below ground surface. | | | | | | | |
| 15 | | | | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |


LOG OF BORING: 272-050.GPJ, GEO-ENV.GDT 8/23/00

| | | | |
|---|--|--------------|-------------|
|  Subsurface Consultants, Inc. Geotechnical & Environmental Engineers | Oakland Municipal Services Center Oakland, California | | BORING |
| | JOB NUMBER 272.050 | DATE 8/00 | B-4a |

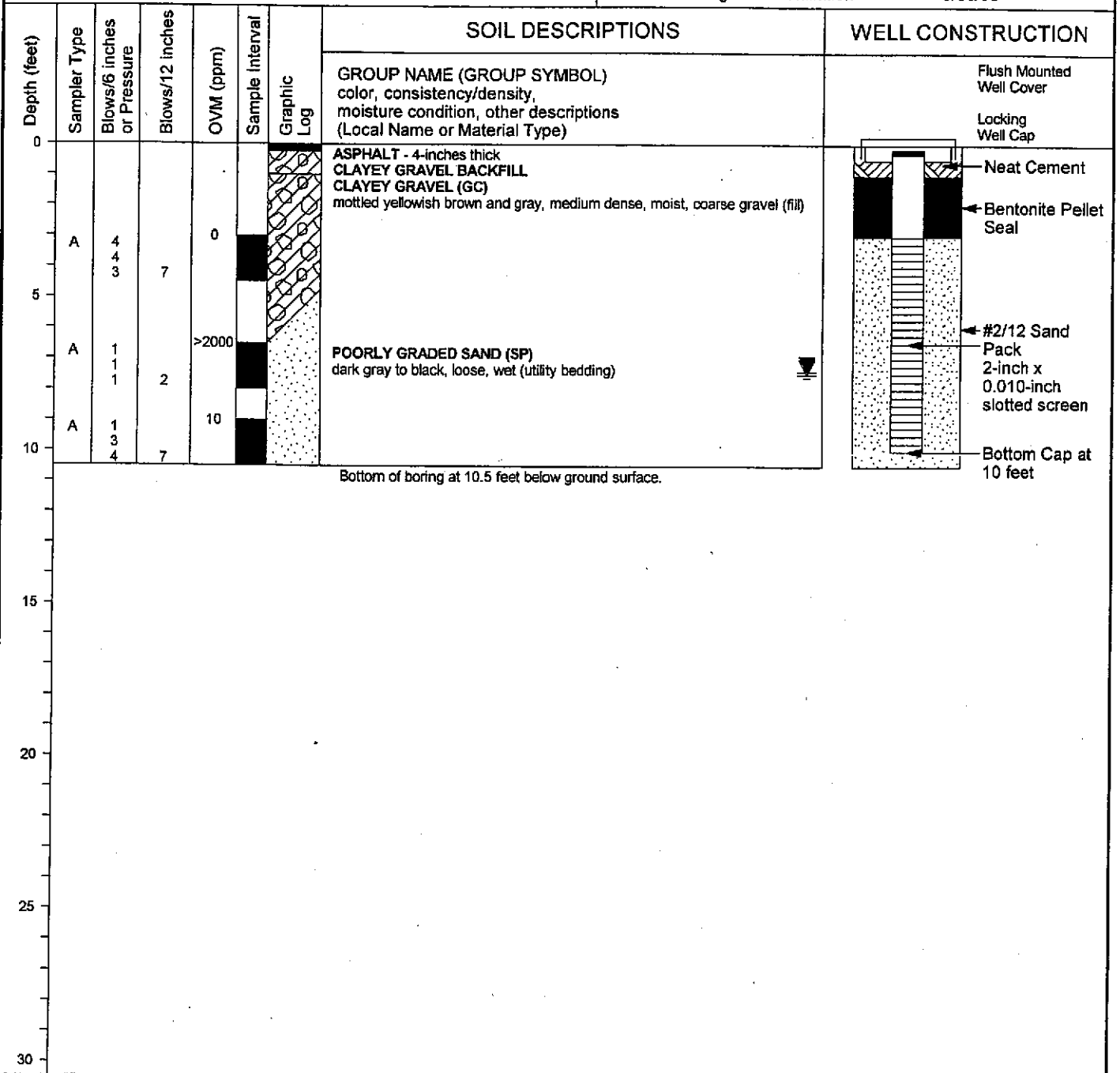
| | | | |
|---|--|---------------------------------|----------------------|
| Project Name & Location: Oakland Municipal Services Center 7101 Edgewater Drive Oakland, California | | Top of Casing: | |
| Drilling Coordinates: not surveyed | | Elevation Datum: 10.75 | |
| Drilling Company & Driller: HEW, Robert | | Start: Date 5/30/00 | Time 09:55 |
| Rig Type & Drilling Method: CME 75 Solid Flight / Hollow Stem Auger | | Finish: Date 5/30/00 | Time 10:20 |
| Sampler A) SPT (2" O.D. 1.375" I.D.) Type(s): | | Drilling Fluid: N/A | Hole Diameter: 6" |
| Sampling Method(s): A) 140 lb hammer with 30" drop (Wireline) | | Logged By: Gene Ng | Encountered at 8 ft |
| | | Backfill Method: Neat Cement | Date: 5/30/00 |

| Depth (feet) | Sampler Type | Blows/6 inches or Pressure | Blows/12 inches | OVM (ppm) | Sample Interval | Graphic Log | SOIL DESCRIPTIONS |
|--------------|--|----------------------------|-----------------|-----------|-----------------|-------------|---|
| | | | | | | | GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type) |
| 0 | | | | | | | ASPHALT - 4-inches thick CLAYEY GRAVEL BACKFILL CLAYEY GRAVEL (GC) yellowish brown, medium dense, moist (fill) |
| 5 | A | 3 3 2 | 5 | 300 | | | CLAY with GRAVEL (CL) dark greenish gray, soft, moist |
| 10 | | | | >2000 | | | POORLY GRADED SAND (SP) black, loose to medium dense, wet, strong hydrocarbon odor (utility bedding) |
| 10 | Bottom of boring at 9.5 feet below ground surface. | | | | | | |
| 15 | | | | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |


LOG OF BORING 272-050.GPJ GEO-ENVY.GDT 8/23/00

| | | | |
|---|--|--------------|-------------|
|  Subsurface Consultants, Inc. Geotechnical & Environmental Engineers | Oakland Municipal Services Center Oakland, California | | BORING |
| | JOB NUMBER 272.050 | DATE 8/00 | B-4b |





| | | | |
|---|--|------------------------------|---|
| Project Name & Location: Oakland Municipal Services Center 7101 Edgewater Drive Oakland, California | | Top of Casing: 10.24 feet | |
| Drilling Coordinates: not surveyed | | Elevation Datum: 10.75 | |
| Drilling Company & Driller: HEW, Robert | | Start: Date | Time |
| Rig Type & Drilling Method: CME 75 Solid Flight / Hollow Stem Auger | | 5/30/00 | 10:30 |
| Sampler A) SPT (2" O.D. 1.375" I.D.) Type(s): | | Finish: Date | Time |
| Sampling Method(s): A) 140 lb hammer with 30" drop (Wireline) | | 5/30/00 | 11:00 |
| | | Drilling Fluid: | Hole Diameter: |
| | | N/A | 6" |
| | | Logged By: | Encountered at 7.5 ft 7.40 feet (6/7/00) |
| | | Gene Ng | |
| | | Backfill Method: | Date: |
| | | Monitoring Well Installation | 5/30/00 |




LOG OF BORING 272-050.GPJ GEO-ENV.GDT 8/23/00

| | | | |
|---|--|--------------|--------------------------|
|  Subsurface Consultants, Inc. Geotechnical & Environmental Engineers | Oakland Municipal Services Center Oakland, California | | BORING |
| | JOB NUMBER 272.050 | DATE 8/00 | SW-1 (aka B-5) |

| | | | |
|---|--|------------------------------|-----------------------|
| Project Name & Location: Oakland Municipal Services Center 7101 Edgewater Drive Oakland, California | | Top of Casing: | |
| | | Elevation Datum: 10.75 | |
| Drilling Coordinates: not surveyed | | Start: Date | Time |
| Drilling Company & Driller: HEW, Robert | | 5/30/00 | 12:10 |
| Rig Type & Drilling Method: CME 75 Solid Flight / Hollow Stem Auger | | Finish: Date | Time |
| | | 5/30/00 | 13:00 |
| Sampler A) SPT (2" O.D. 1.375" I.D.) Type(s): | | Drilling Fluid: N/A | Hole Diameter: 6" |
| Sampling Method(s): A) 140 lb hammer with 30" drop (Wireline) | | Logged By: Gene Ng | Encountered at 7.5 ft |
| | | Backfill Method: Neat Cement | Date: 5/30/00 |

| Depth (feet) | Sampler Type | Blows/6 inches or Pressure | Blows/12 inches | OVM (ppm) | Sample Interval | Graphic Log | SOIL DESCRIPTIONS |
|---|--------------|----------------------------|-----------------|-----------|-----------------|---|---|
| | | | | | | | GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type) |
| 0 | | | | | |  | ASPHALT - 4-inches thick |
| 4 | A | 4 | | 0 | |  | CLAYEY GRAVEL BACKFILL |
| 5 | | 8 | 13 | | |  | CLAYEY GRAVEL (GC) mottled yellowish brown and gray, medium dense, moist, coarse gravel (fill) |
| 8 | | | | | |  | POORLY GRADED SAND (SP) dark olive gray, loose, wet, fine sand (utility bedding) |
| 10 | A | 1 | 2 | 0 | | | |
| 10 | A | 1 | | 0 | | | |
| 10 | A | 2 | 3 | 0 | | | |
| Bottom of boring at 10.5 feet below ground surface. | | | | | | | |
| 15 | | | | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |


LOG OF BORING 272-050.GPJ GEO-ENV.GDT 8/23/00

| | | | |
|---|--|--------------|----------------------|
|  Subsurface Consultants, Inc. Geotechnical & Environmental Engineers | Oakland Municipal Services Center Oakland, California | | BORING B-6 |
| | JOB NUMBER 272.050 | DATE 8/00 | |

| | | | |
|---|--|------------------------------|----------------------------|
| Project Name & Location: Oakland Municipal Services Center 7101 Edgewater Drive Oakland, California | | Top of Casing: | |
| | | Elevation Datum: 10.75 | |
| Drilling Coordinates: not surveyed | | Start: Date | Time |
| Drilling Company & Driller: HEW, Robert | | 5/30/00 | 11:30 |
| Rig Type & Drilling Method: CME 75 Solid Flight / Hollow Stem Auger | | Finish: Date | Time |
| | | 5/30/00 | 12:00 |
| Sampler A) SPT (2" O.D. 1.375" I.D.) Type(s): | | Drilling Fluid: N/A | Hole Diameter: 6" |
| Sampling A) 140 lb hammer with 30" drop (Wireline) Method(s): | | Logged By: Gene Ng | ☞ Encountered at 7 ft ☞ |
| | | Backfill Method: Neat Cement | Date: 5/30/00 |

| Depth (feet) | Sampler Type | Blows/6 inches or Pressure | Blows/12 inches | OVM (ppm) | Sample Interval | Graphic Log | SOIL DESCRIPTIONS |
|---|--------------|----------------------------|-----------------|-----------|-----------------|-------------|---|
| | | | | | | | GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type) |
| 0 | | | | | | | ASPHALT - 6-inches thick CLAYEY GRAVEL BACKFILL CLAYEY GRAVEL (GC) mottled yellowish brown and gray, medium dense, moist, coarse gravel (fill) |
| 3 | A | 3 | | 0 | | | |
| 4 | | 5 | | | | | |
| 5 | | 4 | 9 | | | | |
| 6 | A | 4 | | 0 | | | color changes to olive brown |
| 7 | | 3 | | | | | |
| 8 | | 3 | 6 | | | | POORLY GRADED SAND (SP) dark olive-gray, loose to medium dense, wet, fine sand (utility bedding) |
| 9 | A | 1 | | 0 | | | |
| 10 | | 1 | | | | | |
| 11 | | 1 | 2 | | | | |
| Bottom of boring at 10.5 feet below ground surface. | | | | | | | |
| 15 | | | | | | | |
| 20 | | | | | | | |
| 25 | | | | | | | |
| 30 | | | | | | | |


LOG OF BORING 272-050.GPJ GEO-ENV.GDT 8/23/00

| | | | |
|---|--|--------------|----------------------|
|  Subsurface Consultants, Inc. Geotechnical & Environmental Engineers | Oakland Municipal Services Center Oakland, California | | BORING B-7 |
| | JOB NUMBER 272.050 | DATE 8/00 | |




| | | | |
|---|--|------------------------|-----------------------|
| Project Name & Location: Oakland Municipal Services Center 7101 Edgewater Drive Oakland, California | | Top of Casing: | |
| | | Elevation Datum: 10.75 | |
| Drilling Coordinates: not surveyed | | Start: Date | Time |
| Drilling Company & Driller: HEW, Robert | | 5/30/00 | 13:00 |
| Rig Type & Drilling Method: CME 75 Solid Flight / Hollow Stem Auger | | Finish: Date | Time |
| | | 5/30/00 | 13:25 |
| Sampler A) SPT (2" O.D. 1.375" I.D.) Type(s): | | Drilling Fluid: | Hole Diameter: |
| | | N/A | 6" |
| Sampling Method(s): A) 140 lb hammer with 30" drop (Wireline) | | Logged By: | Encountered at 7.5 ft |
| | | Gene Ng | |
| | | Backfill Method: | Date: |
| | | Neat Cement | 5/30/00 |

| Depth (feet) | Sampler Type | Blows/6 inches or Pressure | Blows/12 inches | OVM (ppm) | Sample Interval | Graphic Log | SOIL DESCRIPTIONS |
|--------------|--------------|----------------------------|-----------------|-----------|-----------------|-------------|---|
| | | | | | | | GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type) |
| 0 | | | | | | | ASPHALT - 4-inches thick CLAYEY GRAVEL BACKFILL CLAYEY GRAVEL (GC) mottled yellowish brown and gray, medium dense, moist, coarse gravel (fill) |
| 2.5 | A | 2 | | 0 | | | |
| 3.5 | | 1 | 3 | | | | |
| 5 | A | 1 | | 0 | | | POORLY GRADED SAND (SP) dark olive gray, loose, moist, fine sand |
| 6 | | 1 | 2 | | | | |
| 7 | | 1 | | | | | |
| 10 | A | 2 | | 0 | | | CLAYEY GRAVEL with SAND (GC) dark olive brown, loose to medium dense, wet, coarse gravel |
| 11 | | 3 | | | | | POORLY GRADED GRAVEL (GP) dark gray, medium dense, wet, coarse angular gravel |
| 12 | | 4 | 7 | | | | Bottom of boring at 10.5 feet below ground surface. |


LOG OF BORING: 272-050.GPJ GEO-ENV.GDT 8/23/00

| | | | |
|---|--|--------------|-------------|
|  Subsurface Consultants, Inc. Geotechnical & Environmental Engineers | Oakland Municipal Services Center Oakland, California | | BORING |
| | JOB NUMBER 272.050 | DATE 8/00 | B-8a |

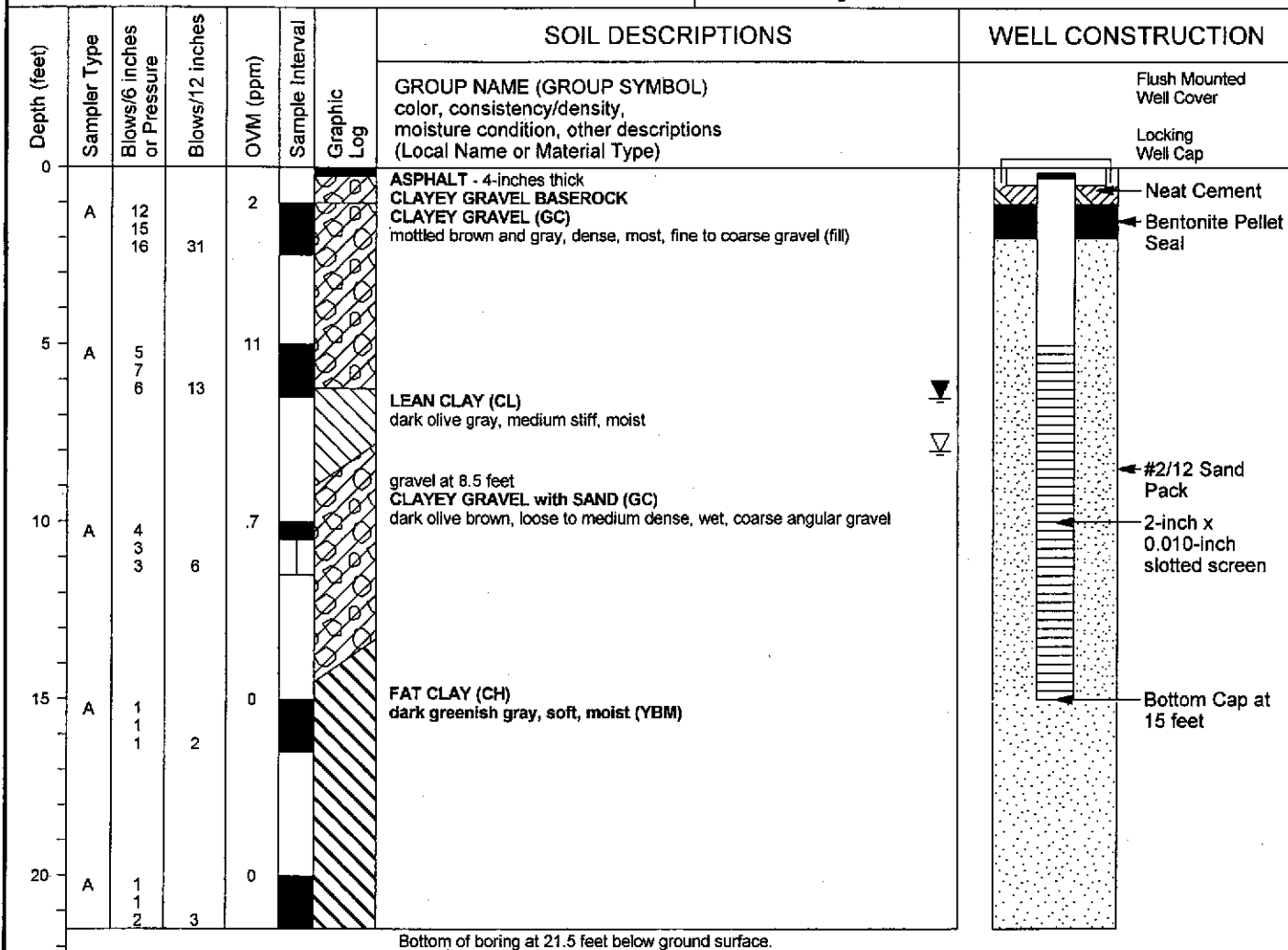
| | | | |
|---|--|------------------------------|-------------------|
| Project Name & Location: Oakland Municipal Services Center 7101 Edgewater Drive Oakland, California | | Top of Casing: | |
| | | Elevation Datum: 10.75 | |
| Drilling Coordinates: not surveyed | | Start: Date | Time |
| Drilling Company & Driller: HEW, Robert | | 5/30/00 | 13:50 |
| Rig Type & Drilling Method: CME 75 Solid Flight / Hollow Stem Auger | | Finish: Date | Time |
| | | 5/30/00 | 14:20 |
| Sampler A) SPT (2" O.D. 1.375" I.D.) Type(s): | | Drilling Fluid: N/A | Hole Diameter: 6" |
| Sampling Method(s): A) 140 lb hammer with 30" drop (Wireline) | | Logged By: Gene Ng | Not Encountered |
| | | Backfill Method: Neat Cement | Date: 5/30/00 |

| Depth (feet) | Sampler Type | Blows/6 inches or Pressure | Blows/12 inches | OVM (ppm) | Sample Interval | Graphic Log | SOIL DESCRIPTIONS |
|--------------|--------------|----------------------------|-----------------|-----------|-----------------|---|---|
| | | | | | | | GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type) |
| 0 | | | | | | | ASPHALT - 4-inches thick CLAYEY GRAVEL BACKFILL CLAYEY GRAVEL (GC) mottled yellowish brown, orange and gray, loose, very moist, coarse gravel (fill) |
| 3 | A | 2 | | 0 | |  | |
| 4 | | 4 | 7 | | | | |
| 7 | A | 3 | | 0 | |  | |
| 11 | | 4 | 11 | | | | color change to mottled olive brown, orange and gray |
| 14 | | 6 | | 0 | |  | |
| 19 | | 5 | 9 | | | | Bottom of boring at 10.5 feet below ground surface. |
| 24 | | 4 | | | | | |
| 29 | | | | | | | |
| 34 | | | | | | | |

LOG OF BORING: 272-050.GPJ GEO-ENV.GDT 8/23/00


| | | | |
|---|--|--------------|-------------|
|  Subsurface Consultants, Inc. Geotechnical & Environmental Engineers | Oakland Municipal Services Center Oakland, California | | BORING |
| | JOB NUMBER 272.050 | DATE 8/00 | B-8b |

| | | | |
|---|--|---|---|
| Project Name & Location: Oakland Municipal Services Center 7101 Edgewater Drive Oakland, California | | Top of Casing: 10.93 feet | |
| Drilling Coordinates: not surveyed | | Elevation Datum: 10.75 | |
| Drilling Company & Driller: HEW, Robert | | Start: Date 5/30/00 | Time 06:40 |
| Rig Type & Drilling Method: CME 75 Solid Flight / Hollow Stem Auger | | Finish: Date 5/30/00 | Time 07:20 |
| Sampler A) SPT (2" O.D. 1.375" I.D.) Type(s): | | Drilling Fluid: N/A | Hole Diameter: 6" |
| Sampling Method(s): A) 140 lb hammer with 30" drop (Wireline) | | Logged By: Gene Ng | Encountered at 8 ft ≠ 6.50 feet (6/7/00) |
| | | Backfill Method: Monitoring Well Installation | Date: 5/30/00 |



LOG OF BORING 272-050.GPJ GEO-ENV.GDT 8/23/00

normal

| | | | |
|---|--|--------------|---------------------------|
|  Subsurface Consultants, Inc. Geotechnical & Environmental Engineers | Oakland Municipal Services Center Oakland, California | | BORING |
| | JOB NUMBER 272.050 | DATE 8/00 | MW-18 (aka B-1) |





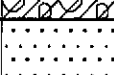










| | | | |
|---|--|--|---|
| Project Name & Location: Oakland Municipal Services Center 7101 Edgewater Drive Oakland, California | | Top of Casing: 10.24 feet | |
| Drilling Coordinates: not surveyed | | Elevation Datum: 10.75 | |
| Drilling Company & Driller: HEW, Robert | | Start: Date 5/30/00 | Time 10:30 |
| Rig Type & Drilling Method: CME 75 Solid Flight / Hollow Stem Auger | | Finish: Date 5/30/00 | Time 11:00 |
| Sampler A) SPT (2" O.D. 1.375" I.D.) Type(s): | | Drilling Fluid: N/A | Hole Diameter: 6" |
| Sampling A) 140 lb hammer with 30" drop (Wireline) Method(s): | | Logged By: Gene Ng | Encountered at 7.5 ft 7.40 feet (6/7/00) |
| | | Backfill Method: Monitoring Well Installation | Date: 5/30/00 |

| Depth (feet) | Sampler Type | Blows/6 inches or Pressure | Blows/12 inches | OVM (ppm) | Sample Interval | Graphic Log | SOIL DESCRIPTIONS | | WELL CONSTRUCTION | |
|--------------|--------------|----------------------------|-----------------|-----------|-----------------|-------------|---|--|--------------------------|------------------|
| | | | | | | | GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type) | | Flush Mounted Well Cover | Locking Well Cap |
| 0 | | | | | | | ASPHALT - 4-inches thick | | | |
| 0-4 | A | 4 4 3 | 7 | 0 | | | CLAYEY GRAVEL BACKFILL CLAYEY GRAVEL (GC) mottled yellowish brown and gray, medium dense, moist, coarse gravel (fill) | | | |
| 7-9 | A | 1 1 1 | 2 | >2000 | | | POORLY GRADED SAND (SP) dark gray to black, loose, wet (utility bedding) | | | |
| 10 | A | 1 3 4 | 7 | 10 | | | Bottom of boring at 10.5 feet below ground surface. | | | |

LOG OF BORING 272-050.GPJ GEO-ENV.GDT B/23/00

| | | | |
|---|--|--------------|--------------------------|
| Subsurface Consultants, Inc. Geotechnical & Environmental Engineers | Oakland Municipal Services Center Oakland, California | | BORING |
| | JOB NUMBER 272.050 | DATE 8/00 | SW-1 (aka B-5) |

UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D2487-93)

| MAJOR DIVISIONS | | | GROUP NAMES | | |
|----------------------|--|----------------------------------|-------------|---|---|
| COARSE-GRAINED SOILS | GRAVELS <small>MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE</small> | Clean gravels less than 5% fines | GW |  | Well-graded gravel, Well-graded gravel with sand |
| | | | GP |  | Poorly graded gravel, Poorly graded gravel with sand |
| | | Gravels with more than 12% fines | GM |  | Silty gravel, Silty gravel with sand |
| | | | GC |  | Clayey gravel, Clayey gravel with sand |
| | SANDS <small>MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE</small> | Clean sand less than 5% fines | SW |  | Well-graded sand, Well-graded sand with gravel |
| | | | SP |  | Poorly graded sand, Poorly graded sand with gravel |
| | | Sands with more than 12% fines | SM |  | Silty sand, Silty sand with gravel |
| | | | SC |  | Clayey sand, Clayey sand with gravel |
| FINE-GRAINED SOILS | SILTS AND CLAYS Liquid Limit Less than 50% | | ML |  | Silt, Silt with sand or gravel, Sandy or gravelly silt, Sandy or gravelly silt with gravel or sand |
| | | | CL |  | Lean clay, Lean clay with sand or gravel, Sandy or gravelly lean clay, Sandy or gravelly lean clay with gravel or sand |
| | | | OL |  | Organic silt or clay, Organic silt or clay with sand or gravel, Sandy or gravelly organic silt or clay, Sandy or gravelly organic silt or clay with gravel or sand |
| | SILTS AND CLAYS Liquid Limit Greater than 50% | | MH |  | Elastic silt, Elastic silt with sand or gravel, Sandy or gravelly elastic silt, Sandy or gravelly elastic silt with gravel or sand |
| | | | CH |  | Fat clay, Fat clay with sand or gravel, Sandy or gravelly fat clay, Sandy or gravelly fat clay with gravel or sand |
| | | | OH |  | Organic silt or clay, Organic silt or clay with sand or gravel, Sandy or gravelly organic silt or clay, Sandy or gravelly organic silt or clay with gravel or sand |
| HIGHLY ORGANIC SOILS | | | PT |  | Peat |

For definition of dual and borderline symbols, see ASTM D2487-93.

KEY TO TEST DATA AND SYMBOLS

| <ul style="list-style-type: none"> Perm - Permeability Consol - Consolidation LL - Liquid Limit PI - Plasticity Index Gs - Specific Gravity MA - Particle Size Analysis -200 - Percent Passing No. 200 Sieve ND - Not Detected ■ - Tube Sample ☒ - Bag or Bulk Sample □ - Lost Sample ▽ - First Groundwater ▼ - Stabilized Groundwater | <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"></th> <th style="text-align: center;">Shear Strength (psf)</th> <th style="text-align: center;">Confining Pressure (psf)</th> <th style="text-align: left;"></th> </tr> </thead> <tbody> <tr> <td>TxUU</td> <td style="text-align: center;">3200</td> <td style="text-align: center;">(2600)</td> <td>Unconsolidated-Undrained Triaxial Shear</td> </tr> <tr> <td>TxCU</td> <td style="text-align: center;">3200</td> <td style="text-align: center;">(2600)</td> <td>Consolidated-Undrained Triaxial Shear</td> </tr> <tr> <td>TxCD</td> <td style="text-align: center;">3200</td> <td style="text-align: center;">(2600)</td> <td>Consolidated-Drained Triaxial Shear</td> </tr> <tr> <td>SSCU</td> <td style="text-align: center;">3200</td> <td style="text-align: center;">(2600)</td> <td>Consolidated-Undrained Simple Shear</td> </tr> <tr> <td>SSCD</td> <td style="text-align: center;">3200</td> <td style="text-align: center;">(2600)</td> <td>Consolidated-Drained Simple Shear</td> </tr> <tr> <td>DSCD</td> <td style="text-align: center;">2700</td> <td style="text-align: center;">(2000)</td> <td>Consolidated-Drained Direct Shear</td> </tr> <tr> <td>UC</td> <td style="text-align: center;">470</td> <td></td> <td>Unconfined Compression</td> </tr> <tr> <td>LVS</td> <td style="text-align: center;">700</td> <td></td> <td>Laboratory Vane Shear</td> </tr> <tr> <td>FV</td> <td style="text-align: center;">300</td> <td></td> <td>Field Vane Shear</td> </tr> <tr> <td>RFV</td> <td></td> <td></td> <td></td> </tr> <tr> <td>TV</td> <td style="text-align: center;">800</td> <td></td> <td>Torvane Shear</td> </tr> <tr> <td>PP</td> <td style="text-align: center;">400</td> <td></td> <td>Pocket Penetrometer <i>(actual reading divided by 2)</i></td> </tr> </tbody> </table> | | Shear Strength (psf) | Confining Pressure (psf) | | TxUU | 3200 | (2600) | Unconsolidated-Undrained Triaxial Shear | TxCU | 3200 | (2600) | Consolidated-Undrained Triaxial Shear | TxCD | 3200 | (2600) | Consolidated-Drained Triaxial Shear | SSCU | 3200 | (2600) | Consolidated-Undrained Simple Shear | SSCD | 3200 | (2600) | Consolidated-Drained Simple Shear | DSCD | 2700 | (2000) | Consolidated-Drained Direct Shear | UC | 470 | | Unconfined Compression | LVS | 700 | | Laboratory Vane Shear | FV | 300 | | Field Vane Shear | RFV | | | | TV | 800 | | Torvane Shear | PP | 400 | | Pocket Penetrometer <i>(actual reading divided by 2)</i> | |
|---|--|--------------------------|---|--------------------------|--|------|------|--------|---|------|------|--------|---------------------------------------|------|------|--------|-------------------------------------|------|------|--------|-------------------------------------|------|------|--------|-----------------------------------|------|------|--------|-----------------------------------|----|-----|--|------------------------|-----|-----|--|-----------------------|----|-----|--|------------------|-----|--|--|--|----|-----|--|---------------|----|-----|--|---|--|
| | Shear Strength (psf) | Confining Pressure (psf) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TxUU | 3200 | (2600) | Unconsolidated-Undrained Triaxial Shear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TxCU | 3200 | (2600) | Consolidated-Undrained Triaxial Shear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TxCD | 3200 | (2600) | Consolidated-Drained Triaxial Shear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSCU | 3200 | (2600) | Consolidated-Undrained Simple Shear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SSCD | 3200 | (2600) | Consolidated-Drained Simple Shear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DSCD | 2700 | (2000) | Consolidated-Drained Direct Shear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UC | 470 | | Unconfined Compression | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LVS | 700 | | Laboratory Vane Shear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FV | 300 | | Field Vane Shear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RFV | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TV | 800 | | Torvane Shear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PP | 400 | | Pocket Penetrometer <i>(actual reading divided by 2)</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

USCS AND SYMBOLS KEY 272-050.GPJ SCI CORP.GDT 8/24/00

Subsurface Consultants, Inc.
Geotechnical & Environmental Engineers

| Oakland Municipal Services Center Oakland, California | |
|--|------|
| JOB NUMBER | DATE |
| 272.050 | 8/00 |

APPENDIX
A

APPENDIX B:
ANALYTICAL TEST REPORTS

Subsurface Consultants, Inc.
3736 Mt. Diablo Blvd., Suite 200
Lafayette, CA 94549

Attn.: Mr. Glenn Young

Project: 272.050
Oakland Municipal Center

Dear Glenn

Attached is our report for your samples received on Tuesday July 11, 2000
This report has been reviewed and approved for release. Reproduction of this report
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after August 10, 2000
unless you have requested otherwise. We appreciate the opportunity to be of service to you.
If you have any questions, please call me at (925) 484-1919. You can also contact me via email.
My email address is: gcook@chromalab.com

Sincerely,



Gary Cook

TEPH w/ Silica Gel Clean-up

| | |
|-------------------------------------|---|
| Subsurface Consultants, Inc. | ☒ 3736 Mt. Diablo Blvd., Suite 200 Lafayette, CA 94549 |
| Attn: Glenn Young | Phone: (925) 299-7960 Fax: (925) 299-7970 |
| Project #: 272.050 | Project: Oakland Municipal Center |

Samples Reported

| Sample ID | Matrix | Date Sampled | Lab # |
|-----------|--------|------------------|-------|
| MW-18 | Water | 07/10/2000 09:50 | 1 |
| SW-1 | Water | 07/10/2000 10:20 | 2 |

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-07-0096

To: **Subsurface Consultants, Inc.**
Attn.: Glenn Young

Test Method: 8015m
Prep Method: 3510/8015M

TEPH w/ Silica Gel Clean-up

| | |
|--|--|
| Sample ID: MW-18 | Lab Sample ID: 2000-07-0096-001 |
| Project: 272.050 Oakland Municipal Center | Received: 07/11/2000 07:35 |
| Sampled: 07/10/2000 09:50 | Extracted: 07/12/2000 12:36 |
| Matrix: Water | QC-Batch: 2000/07/12-04.10 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|------------------------------------|--------|-----------|-------|----------|------------------|------|
| Diesel | ND | 50 | ug/L | 1.00 | 07/14/2000 14:29 | |
| Motor Oil | ND | 500 | ug/L | 1.00 | 07/14/2000 14:29 | |
| Surrogate(s) o-Terphenyl | 104.7 | 60-130 | % | 1.00 | 07/14/2000 14:29 | |

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-07-0096

To: **Subsurface Consultants, Inc.**

Test Method: 8015m

Attn.: Glenn Young

Prep Method: 3510/8015M

TEPH w/ Silica Gel Clean-up

| | |
|--|--|
| Sample ID: SW-1 | Lab Sample ID: 2000-07-0096-002 |
| Project: 272.050 Oakland Municipal Center | Received: 07/11/2000 07:35 |
| Sampled: 07/10/2000 10:20 | Extracted: 07/12/2000 12:36 |
| Matrix: Water | QC-Batch: 2000/07/12-04.10 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|------------------------------------|--------|-----------|-------|----------|------------------|------|
| Diesel | 13000 | 250 | ug/L | 5.00 | 07/17/2000 12:45 | edr |
| Motor Oil | ND | 2500 | ug/L | 5.00 | 07/17/2000 12:45 | |
| Surrogate(s) o-Terphenyl | 101.6 | 60-130 | % | 5.00 | 07/17/2000 12:45 | |

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Printed on: 07/18/2000 11:38

Page 3 of 6

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-07-0096

To: **Subsurface Consultants, Inc.**
Attn.: Glenn Young

Test Method: 8015m
Prep Method: 3510/8015M

Batch QC Report
TEPH w/ Silica Gel Clean-up

| | | |
|--------------------------|--------------|------------------------------------|
| Method Blank | Water | QC Batch # 2000/07/12-04.10 |
| MB: 2000/07/12-04.10-001 | | Date Extracted: 07/12/2000 12:36 |

| Compound | Result | Rep.Limit | Units | Analyzed | Flag |
|------------------------------------|--------|-----------|-------|------------------|------|
| Diesel | ND | 50 | ug/L | 07/14/2000 13:20 | |
| Motor Oil | ND | 500 | ug/L | 07/14/2000 13:20 | |
| Surrogate(s) o-Terphenyl | 91.0 | 60-130 | % | 07/14/2000 13:20 | |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-07-0096

To: **Subsurface Consultants, Inc.**

Test Method: 8015m

Attn: Glenn Young

Prep Method: 3510/8015M

Batch QC Report

TEPH w/ Silica Gel Clean-up

| Laboratory Control Spike (LCS/LCSD) | Water | QC Batch # 2000/07/12-04.10 |
|-------------------------------------|-----------------------------|-----------------------------|
| LCS: 2000/07/12-04.10-002 | Extracted: 07/12/2000 12:36 | Analyzed 07/14/2000 16:13 |
| LCSD: 2000/07/12-04.10-003 | Extracted: 07/12/2000 12:36 | Analyzed 07/14/2000 16:47 |

| Compound | Conc. [ug/L] | | Exp. Conc. [ug/L] | | Recovery [%] | | RPD | Ctrl. Limits [%] | | Flags | |
|---------------------|--------------|------|-------------------|------|--------------|-------|-----|------------------|-----|-------|------|
| | LCS | LCSD | LCS | LCSD | LCS | LCSD | | Recovery | RPD | LCS | LCSD |
| Diesel | 1060 | 1070 | 1250 | 1250 | 84.8 | 85.6 | 0.9 | 60-130 | 25 | | |
| Surrogate(s) | | | | | | | | | | | |
| o-Terphenyl | 24.0 | 25.4 | 20.0 | 20.0 | 120.0 | 127.0 | | 60-130 | | | |

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Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

To: **Subsurface Consultants, Inc.**

Test Method: 8015m

Attn: Glenn Young

Prep Method: 3510/8015M

Legend & Notes

TEPH w/ Silica Gel Clean-up

Analyte Flags

edr

Hydrocarbon reported is in the early Diesel range, and does not match our Diesel standard

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

Date: June 14, 2000

Subsurface Consultants, Inc.

3736 Mt. Diablo Blvd., Suite 200
Lafayette, CA 94549

Attn.: Mr. Glenn Young

Project: 272.050
Oakland Municipal Services Center

Dear Glenn

Attached is our report for your samples received on Wednesday May 31, 2000
This report has been reviewed and approved for release. Reproduction of this report
is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after June 30, 2000
unless you have requested otherwise. We appreciate the opportunity to be of service to you.
If you have any questions, please call me at (925) 484-1919. You can also contact me via email.
My email address is: gcook@chromalab.com

Sincerely,



Gary Cook

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

Gas/BTEX and MTBE

| | |
|-------------------------------------|---|
| Subsurface Consultants, Inc. | ✉ 3736 Mt. Diablo Blvd., Suite 200 Lafayette, CA 94549 |
| Attn: Glenn Young | Phone: (925) 299-7960 Fax: (925) 299-7970 |
| Project #: 272.050 | Project: Oakland Municipal Services Center |

Samples Reported

| Sample ID | Matrix | Date Sampled | Lab # |
|---------------|--------|------------------|-------|
| B-1@ 6' | Soil | 05/30/2000 06:40 | 1 |
| B-6@ 7' | Soil | 05/30/2000 12:10 | 5 |
| B-7@ 7.5' | Soil | 05/30/2000 11:30 | 6 |
| B-8B@4,7.5,9' | Soil | 05/30/2000 13:50 | 7 |
| B-3B | Water | 05/30/2000 15:20 | 8 |
| B-4B | Water | 05/30/2000 11:30 | 9 |
| B-6 | Water | 05/30/2000 13:15 | 10 |
| B-7 | Water | 05/30/2000 12:30 | 11 |

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015M
8020

Attn.: Glenn Young

Prep Method: 5030

Gas/BTEX and MTBE

| | |
|---|--|
| Sample ID: B-1@ 6' | Lab Sample ID: 2000-06-0006-001 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 06:40 | Extracted: 06/07/2000 16:50 |
| Matrix: Soil | QC-Batch: 2000/06/07-01.01 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|----------------------|--------|-----------|-------|----------|------------------|------|
| Gasoline | ND | 1.0 | mg/Kg | 1.00 | 06/07/2000 16:50 | |
| Benzene | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 16:50 | |
| Toluene | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 16:50 | |
| Ethyl benzene | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 16:50 | |
| Xylene(s) | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 16:50 | |
| MTBE | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 16:50 | |
| Surrogate(s) | | | | | | |
| Trifluorotoluene | 65.8 | 53-125 | % | 1.00 | 06/07/2000 16:50 | |
| Trifluorotoluene-FID | 81.1 | 53-125 | % | 1.00 | 06/07/2000 16:50 | |

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015M
8020

Attn.: Glenn Young

Prep Method: 5030

Gas/BTEX and MTBE

| | |
|---|---------------------------------|
| Sample ID: B-6@ 7 | Lab Sample ID: 2000-06-0006-005 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 12:10 | Extracted: 06/07/2000 19:09 |
| Matrix: Soil | QC-Batch: 2000/06/07-01.01 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|--------------------------|--------|-----------|-------|----------|------------------|------|
| Gasoline | ND | 1.0 | mg/Kg | 1.00 | 06/07/2000 19:09 | |
| Benzene | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 19:09 | |
| Toluene | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 19:09 | |
| Ethyl benzene | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 19:09 | |
| Xylene(s) | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 19:09 | |
| MTBE | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 19:09 | |
| Surrogate(s) | | | | | | |
| Trifluorotoluene | 64.8 | 53-125 | % | 1.00 | 06/07/2000 19:09 | |
| 4-Bromofluorobenzene-FID | 73.9 | 58-124 | % | 1.00 | 06/07/2000 19:09 | |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015M
8020

Attn.: Glenn Young

Prep Method: 5030

Gas/BTEX and MTBE

| | |
|---|--|
| Sample ID: B-7@ 7.5' | Lab Sample ID: 2000-06-0006-006 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 11:30 | Extracted: 06/07/2000 19:43 |
| Matrix: Soil | QC-Batch: 2000/06/07-01.01 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|--------------------------|--------|-----------|-------|----------|------------------|------|
| Gasoline | ND | 1.0 | mg/Kg | 1.00 | 06/07/2000 19:43 | |
| Benzene | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 19:43 | |
| Toluene | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 19:43 | |
| Ethyl benzene | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 19:43 | |
| Xylene(s) | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 19:43 | |
| MTBE | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 19:43 | |
| Surrogate(s) | | | | | | |
| Trifluorotoluene | 67.7 | 53-125 | % | 1.00 | 06/07/2000 19:43 | |
| 4-Bromofluorobenzene-FID | 73.8 | 58-124 | % | 1.00 | 06/07/2000 19:43 | |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015M
8020

Attn.: Glenn Young

Prep Method: 5030

Gas/BTEX and MTBE

| | |
|---|--|
| Sample ID: B-8B@4,7.5,9' | Lab Sample ID: 2000-06-0006-007 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 13:50 | Extracted: 06/07/2000 20:18 |
| Matrix: Soil | QC-Batch: 2000/06/07-01.01 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|--------------------------|--------|-----------|-------|----------|------------------|------|
| Gasoline | ND | 1.0 | mg/Kg | 1.00 | 06/07/2000 20:18 | |
| Benzene | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 20:18 | |
| Toluene | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 20:18 | |
| Ethyl benzene | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 20:18 | |
| Xylene(s) | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 20:18 | |
| MTBE | ND | 0.0050 | mg/Kg | 1.00 | 06/07/2000 20:18 | |
| Surrogate(s) | | | | | | |
| Trifluorotoluene | 63.0 | 53-125 | % | 1.00 | 06/07/2000 20:18 | |
| 4-Bromofluorobenzene-FID | 63.2 | 58-124 | % | 1.00 | 06/07/2000 20:18 | |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015M
8020

Attn.: Glenn Young

Prep Method: 5030

Gas/BTEX and MTBE

| | |
|---|--|
| Sample ID: B-3B | Lab Sample ID: 2000-06-0006-008 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 15:20 | Extracted: 06/08/2000 03:40 |
| Matrix: Water | QC-Batch: 2000/06/07-01.03 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|--------------------------|--------|-----------|-------|----------|------------------|------|
| Gasoline | 44000 | 25000 | ug/L | 500.00 | 06/08/2000 03:40 | |
| Benzene | 890 | 250 | ug/L | 500.00 | 06/08/2000 03:40 | |
| Toluene | 680 | 250 | ug/L | 500.00 | 06/08/2000 03:40 | |
| Ethyl benzene | 1700 | 250 | ug/L | 500.00 | 06/08/2000 03:40 | |
| Xylene(s) | 8500 | 250 | ug/L | 500.00 | 06/08/2000 03:40 | |
| MTBE | ND | 2500 | ug/L | 500.00 | 06/08/2000 03:40 | |
| Surrogate(s) | | | | | | |
| Trifluorotoluene | 98.7 | 58-124 | % | 1.00 | 06/08/2000 03:40 | |
| 4-Bromofluorobenzene-FID | 90.2 | 50-150 | % | 1.00 | 06/08/2000 03:40 | |

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015M
8020

Attn.: Glenn Young

Prep Method: 5030

Gas/BTEX and MTBE

| | |
|---|--|
| Sample ID: B-4B | Lab Sample ID: 2000-06-0006-009 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 11:30 | Extracted: 06/08/2000 04:15 |
| Matrix: Water | QC-Batch: 2000/06/07-01.03 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|--------------------------|--------|-----------|-------|----------|------------------|------|
| Gasoline | 35000 | 2500 | ug/L | 50.00 | 06/08/2000 04:15 | |
| Benzene | 190 | 25 | ug/L | 50.00 | 06/08/2000 04:15 | |
| Toluene | 35 | 25 | ug/L | 50.00 | 06/08/2000 04:15 | |
| Ethyl benzene | 770 | 25 | ug/L | 50.00 | 06/08/2000 04:15 | |
| Xylene(s) | 4000 | 25 | ug/L | 50.00 | 06/08/2000 04:15 | |
| MTBE | ND | 250 | ug/L | 50.00 | 06/08/2000 04:15 | |
| Surrogate(s) | | | | | | |
| Trifluorotoluene | 109.9 | 58-124 | % | 1.00 | 06/08/2000 04:15 | |
| 4-Bromofluorobenzene-FID | 93.6 | 50-150 | % | 1.00 | 06/08/2000 04:15 | |

1220 Quarry Lane * Pleasanton, CA 94566-4756
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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015M
8020

Attn.: Glenn Young

Prep Method: 5030

Gas/BTEX and MTBE

| | |
|---|--|
| Sample ID: B-6 | Lab Sample ID: 2000-06-0006-010 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 13:15 | Extracted: 06/08/2000 03:06 |
| Matrix: Water | QC-Batch: 2000/06/07-01.03 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|--------------------------|--------|-----------|-------|----------|------------------|------|
| Gasoline | 67 | 50 | ug/L | 1.00 | 06/08/2000 03:06 | |
| Benzene | ND | 0.50 | ug/L | 1.00 | 06/08/2000 03:06 | |
| Toluene | ND | 0.50 | ug/L | 1.00 | 06/08/2000 03:06 | |
| Ethyl benzene | 1.0 | 0.50 | ug/L | 1.00 | 06/08/2000 03:06 | |
| Xylene(s) | 4.0 | 0.50 | ug/L | 1.00 | 06/08/2000 03:06 | |
| MTBE | ND | 5.0 | ug/L | 1.00 | 06/08/2000 03:06 | |
| Surrogate(s) | | | | | | |
| Trifluorotoluene | 93.7 | 58-124 | % | 1.00 | 06/08/2000 03:06 | |
| 4-Bromofluorobenzene-FID | 84.0 | 50-150 | % | 1.00 | 06/08/2000 03:06 | |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015M
8020

Attn.: Glenn Young

Prep Method: 5030

Gas/BTEX and MTBE

| | |
|---|--|
| Sample ID: B-7 | Lab Sample ID: 2000-06-0006-011 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 12:30 | Extracted: 06/08/2000 02:31 |
| Matrix: Water | QC-Batch: 2000/06/07-01.03 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|----------------------|--------|-----------|-------|----------|------------------|------|
| Gasoline | 120 | 50 | ug/L | 1.00 | 06/08/2000 02:31 | |
| Benzene | ND | 0.50 | ug/L | 1.00 | 06/08/2000 02:31 | |
| Toluene | ND | 0.50 | ug/L | 1.00 | 06/08/2000 02:31 | |
| Ethyl benzene | 2.8 | 0.50 | ug/L | 1.00 | 06/08/2000 02:31 | |
| Xylene(s) | 9.5 | 0.50 | ug/L | 1.00 | 06/08/2000 02:31 | |
| MTBE | ND | 5.0 | ug/L | 1.00 | 06/08/2000 02:31 | |
| Surrogate(s) | | | | | | |
| Trifluorotoluene | 61.3 | 58-124 | % | 1.00 | 06/08/2000 02:31 | |
| Trifluorotoluene-FID | 63.0 | 58-124 | % | 1.00 | 06/08/2000 02:31 | |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015M

Attn.: Glenn Young

8020

Prep Method: 5030

Batch QC Report
Gas/BTEX and MTBE

| | | |
|--------------------------|--------------|------------------------------------|
| Method Blank | Water | QC Batch # 2000/06/07-01.03 |
| MB: 2000/06/07-01.03-001 | | Date Extracted: 06/07/2000 10:51 |

| Compound | Result | Rep.Limit | Units | Analyzed | Flag |
|--------------------------|--------|-----------|-------|------------------|------|
| Gasoline | ND | 50 | ug/L | 06/07/2000 10:51 | |
| Benzene | ND | 0.5 | ug/L | 06/07/2000 10:51 | |
| Toluene | ND | 0.5 | ug/L | 06/07/2000 10:51 | |
| Ethyl benzene | ND | 0.5 | ug/L | 06/07/2000 10:51 | |
| Xylene(s) | ND | 0.5 | ug/L | 06/07/2000 10:51 | |
| MTBE | ND | 5.0 | ug/L | 06/07/2000 10:51 | |
| Surrogate(s) | | | | | |
| Trifluorotoluene | 100.6 | 58-124 | % | 06/07/2000 10:51 | |
| 4-Bromofluorobenzene-FID | 106.0 | 50-150 | % | 06/07/2000 10:51 | |

1220 Quarry Lane * Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015M
8020

Attn.: Glenn Young

Prep Method: 5030

Batch QC Report Gas/BTEX and MTBE

| | | |
|--------------------------|-------------|------------------------------------|
| Method Blank | Soil | QC Batch # 2000/06/07-01.01 |
| MB: 2000/06/07-01.01-001 | | Date Extracted: 06/07/2000 12:07 |

| Compound | Result | Rep.Limit | Units | Analyzed | Flag |
|--------------------------|--------|-----------|-------|------------------|------|
| Gasoline | ND | 1.0 | mg/Kg | 06/07/2000 12:07 | |
| Benzene | ND | 0.0050 | mg/Kg | 06/07/2000 12:07 | |
| Toluene | ND | 0.0050 | mg/Kg | 06/07/2000 12:07 | |
| Ethyl benzene | ND | 0.0050 | mg/Kg | 06/07/2000 12:07 | |
| Xylene(s) | ND | 0.0050 | mg/Kg | 06/07/2000 12:07 | |
| MTBE | ND | 0.0050 | mg/Kg | 06/07/2000 12:07 | |
| Surrogate(s) | | | | | |
| Trifluorotoluene | 83.2 | 53-125 | % | 06/07/2000 12:07 | |
| 4-Bromofluorobenzene-FID | 107.6 | 58-124 | % | 06/07/2000 12:07 | |

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015M
8020

Attn: Glenn Young

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

| | | |
|--|-----------------------------|------------------------------------|
| Laboratory Control Spike (LCS/LCSD) | Water | QC Batch # 2000/06/07-01.03 |
| LCS: 2000/06/07-01.03-002 | Extracted: 06/07/2000 11:24 | Analyzed 06/07/2000 11:24 |
| LCSD: 2000/06/07-01.03-003 | Extracted: 06/07/2000 11:57 | Analyzed 06/07/2000 11:57 |

| Compound | Conc. [ug/L] | | Exp.Conc. [ug/L] | | Recovery [%] | | RPD [%] | Ctrl. Limits [%] | | Flags | |
|-------------------------|----------------|------|--------------------|------|--------------|------|---------|------------------|-----|-------|------|
| | LCS | LCSD | LCS | LCSD | LCS | LCSD | | Recovery | RPD | LCS | LCSD |
| Gasoline | 438 | 398 | 500 | 500 | 87.6 | 79.6 | 9.6 | 75-125 | 20 | | |
| Benzene | 47.0 | 43.8 | 50 | 50 | 94.0 | 87.6 | 7.0 | 77-123 | 20 | | |
| Toluene | 48.1 | 44.8 | 50 | 50 | 96.2 | 89.6 | 7.1 | 78-122 | 20 | | |
| Ethyl benzene | 48.8 | 45.4 | 50 | 50 | 97.6 | 90.8 | 7.2 | 70-130 | 20 | | |
| Xylene(s) | 156 | 143 | 150 | 150 | 104.0 | 95.3 | 8.7 | 75-125 | 20 | | |
| Surrogate(s) | | | | | | | | | | | |
| Trifluorotoluene | 267 | 249 | 250 | 250 | 106.8 | 99.6 | | 58-124 | | | |
| 4-Bromofluorobenzene-FI | 458 | 412 | 500 | 500 | 91.6 | 82.4 | | 50-150 | | | |

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015M
8020

Attn: Glenn Young

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

| Laboratory Control Spike (LCS/LCSD) | Soil | QC Batch # 2000/06/07-01.01 |
|-------------------------------------|-----------------------------|-----------------------------|
| LCS: 2000/06/07-01.01-002 | Extracted: 06/07/2000 12:41 | Analyzed 06/07/2000 12:41 |
| LCSD: 2000/06/07-01.01-003 | Extracted: 06/07/2000 15:06 | Analyzed 06/07/2000 15:06 |

| Compound | Conc. [mg/Kg] | | Exp. Conc. [mg/Kg] | | Recovery [%] | | | RPD | | Ctrl. Limits [%] | | Flags | |
|-------------------------|---------------|--------|--------------------|--------|--------------|------|-----|----------|-----|------------------|------|-------|--|
| | LCS | LCSD | LCS | LCSD | LCS | LCSD | RPD | Recovery | RPD | LCS | LCSD | | |
| Gasoline | 0.520 | 0.490 | 0.500 | 0.500 | 104.0 | 98.0 | 5.9 | 75-125 | 35 | | | | |
| Benzene | 0.0901 | 0.0905 | 0.1000 | 0.1000 | 90.1 | 90.5 | 0.4 | 77-123 | 35 | | | | |
| Toluene | 0.0856 | 0.0876 | 0.1000 | 0.1000 | 85.6 | 87.6 | 2.3 | 78-122 | 35 | | | | |
| Ethyl benzene | 0.0888 | 0.0906 | 0.1000 | 0.1000 | 88.8 | 90.6 | 2.0 | 70-130 | 35 | | | | |
| Xylene(s) | 0.264 | 0.270 | 0.300 | 0.300 | 88.0 | 90.0 | 2.2 | 75-125 | 35 | | | | |
| Surrogate(s) | | | | | | | | | | | | | |
| Trifluorotoluene | 408 | 423 | 500 | 500 | 81.6 | 84.6 | | 53-125 | | | | | |
| 4-Bromofluorobenzene-FI | 449 | 409 | 500 | 500 | 89.8 | 81.8 | | 58-124 | | | | | |

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Gas/BTEX (Methanol Extraction)

Subsurface Consultants, Inc.

✉ 3736 Mt. Diablo Blvd., Suite 200
Lafayette, CA 94549

Attn: Glenn Young

Phone: (925) 299-7960 Fax: (925) 299-7970

Project #: 272.050

Project: Oakland Municipal Services Center

Samples Reported

| Sample ID | Matrix | Date Sampled | Lab # |
|------------|--------|------------------|-------|
| B-3B@ 6.5' | Soil | 05/30/2000 14:30 | 2 |
| B-4B@ 9' | Soil | 05/30/2000 09:55 | 3 |
| B-5@ 7.5' | Soil | 05/30/2000 10:30 | 4 |

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015M
8020

Attn.: Glenn Young

Prep Method: 5030

Gas/BTEX (Methanol Extraction)

| | |
|---|--|
| Sample ID: B-3B@ 6.5' | Lab Sample ID: 2000-06-0006-002 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 14:30 | Extracted: 06/08/2000 21:13 |
| Matrix: Soil | QC-Batch: 2000/06/08-05.01 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|--------------------------|--------|-----------|-------|----------|------------------|------|
| Gasoline | 40 | 10 | mg/Kg | 1.00 | 06/08/2000 21:13 | g |
| Benzene | ND | 0.62 | mg/Kg | 1.00 | 06/08/2000 21:13 | |
| Toluene | ND | 0.62 | mg/Kg | 1.00 | 06/08/2000 21:13 | |
| Ethyl benzene | 0.81 | 0.62 | mg/Kg | 1.00 | 06/08/2000 21:13 | |
| Xylene(s) | 2.6 | 0.62 | mg/Kg | 1.00 | 06/08/2000 21:13 | |
| MTBE | ND | 0.62 | mg/Kg | 1.00 | 06/08/2000 21:13 | |
| Surrogate(s) | | | | | | |
| Trifluorotoluene | 108.9 | 53-125 | % | 1.00 | 06/08/2000 21:13 | |
| 4-Bromofluorobenzene-FID | 115.1 | 58-124 | % | 1.00 | 06/08/2000 21:13 | |

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Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015M
8020

Attn.: Glenn Young

Prep Method: 5030

Gas/BTEX (Methanol Extraction)

| | |
|---|--|
| Sample ID: B-4B@ 9' | Lab Sample ID: 2000-06-0006-003 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 09:55 | Extracted: 06/08/2000 21:48 |
| Matrix: Soil | QC-Batch: 2000/06/08-05.01 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|--------------------------|--------|-----------|-------|----------|------------------|------|
| Gasoline | 12 | 10 | mg/Kg | 1.00 | 06/08/2000 21:48 | g |
| Benzene | ND | 0.62 | mg/Kg | 1.00 | 06/08/2000 21:48 | |
| Toluene | ND | 0.62 | mg/Kg | 1.00 | 06/08/2000 21:48 | |
| Ethyl benzene | ND | 0.62 | mg/Kg | 1.00 | 06/08/2000 21:48 | |
| Xylene(s) | ND | 0.62 | mg/Kg | 1.00 | 06/08/2000 21:48 | |
| MTBE | ND | 0.62 | mg/Kg | 1.00 | 06/08/2000 21:48 | |
| Surrogate(s) | | | | | | |
| Trifluorotoluene | 81.8 | 53-125 | % | 1.00 | 06/08/2000 21:48 | |
| 4-Bromofluorobenzene-FID | 93.4 | 58-124 | % | 1.00 | 06/08/2000 21:48 | |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015M
8020

Attn.: Glenn Young

Prep Method: 5030

Gas/BTEX (Methanol Extraction)

| | |
|---|--|
| Sample ID: B-5@ 7.5' | Lab Sample ID: 2000-06-0006-004 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 10:30 | Extracted: 06/08/2000 22:23 |
| Matrix: Soil | QC-Batch: 2000/06/08-05.01 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|--------------------------|--------|-----------|-------|----------|------------------|------|
| Gasoline | 6500 | 1000 | mg/Kg | 100.00 | 06/09/2000 10:54 | g |
| Benzene | ND | 6.2 | mg/Kg | 10.00 | 06/08/2000 22:23 | |
| Toluene | ND | 6.2 | mg/Kg | 10.00 | 06/08/2000 22:23 | |
| Ethyl benzene | 160 | 6.2 | mg/Kg | 10.00 | 06/08/2000 22:23 | |
| Xylene(s) | 240 | 6.2 | mg/Kg | 10.00 | 06/08/2000 22:23 | |
| MTBE | ND | 6.2 | mg/Kg | 10.00 | 06/08/2000 22:23 | |
| Surrogate(s) | | | | | | |
| Trifluorotoluene | NA | 53-125 | mg/Kg | 1.00 | 06/08/2000 22:23 | sd |
| 4-Bromofluorobenzene-FID | NA | 58-124 | mg/Kg | 1.00 | 06/08/2000 22:23 | sd |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015M

8020

Attn.: Glenn Young

Prep Method: 5030

Batch QC Report

Gas/BTEX (Methanol Extraction)

| | | |
|--------------------------|-------------|------------------------------------|
| Method Blank | Soil | QC Batch # 2000/06/08-05.01 |
| MB: 2000/06/08-05.01-001 | | Date Extracted: 06/08/2000 20:38 |

| Compound | Result | Rep.Limit | Units | Analyzed | Flag |
|--------------------------|--------|-----------|-------|------------------|------|
| Gasoline | ND | 10 | mg/Kg | 06/08/2000 20:38 | |
| Benzene | ND | 0.62 | mg/Kg | 06/08/2000 20:38 | |
| Toluene | ND | 0.62 | mg/Kg | 06/08/2000 20:38 | |
| Ethyl benzene | ND | 0.62 | mg/Kg | 06/08/2000 20:38 | |
| Xylene(s) | ND | 0.62 | mg/Kg | 06/08/2000 20:38 | |
| MTBE | ND | 0.62 | mg/Kg | 06/08/2000 20:38 | |
| Surrogate(s) | | | | | |
| Trifluorotoluene | 91.6 | 53-125 | % | 06/08/2000 20:38 | |
| 4-Bromofluorobenzene-FID | 96.2 | 58-124 | % | 06/08/2000 20:38 | |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015M
8020

Attn: Glenn Young

Prep Method: 5030

Batch QC Report

Gas/BTEX (Methanol Extraction)

| Laboratory Control Spike (LCS/LCSD) | Soil | QC Batch # 2000/06/08-05.01 |
|-------------------------------------|-----------------------------|-----------------------------|
| LCS: 2000/06/08-05.01-002 | Extracted: 06/09/2000 17:50 | Analyzed 06/09/2000 17:50 |
| LCSD: 2000/06/08-05.01-003 | Extracted: 06/09/2000 17:16 | Analyzed 06/09/2000 17:16 |

| Compound | Conc. [mg/Kg] | | Exp. Conc. [mg/Kg] | | Recovery [%] | | RPD | Ctrl. Limits [%] | | Flags | |
|-------------------------|---------------|-------|--------------------|-------|--------------|-------|-----|------------------|-----|-------|------|
| | LCS | LCSD | LCS | LCSD | LCS | LCSD | | Recovery | RPD | LCS | LCSD |
| Gasoline | 0.640 | 0.622 | 0.625 | 0.625 | 102.4 | 99.5 | 2.9 | 75-125 | 35 | | |
| Benzene | 0.116 | 0.107 | 0.125 | 0.125 | 92.8 | 85.6 | 8.1 | 77-123 | 35 | | |
| Toluene | 0.132 | 0.133 | 0.125 | 0.125 | 105.6 | 106.4 | 0.8 | 78-122 | 35 | | |
| Ethyl benzene | 0.124 | 0.118 | 0.125 | 0.125 | 99.2 | 94.4 | 5.0 | 70-130 | 35 | | |
| Xylene(s) | 0.358 | 0.361 | 0.375 | 0.375 | 95.5 | 96.3 | 0.8 | 75-125 | 35 | | |
| Surrogate(s) | | | | | | | | | | | |
| Trifluorotoluene | 531 | 538 | 500 | 500 | 106.2 | 107.6 | | 53-125 | | | |
| 4-Bromofluorobenzene-FI | 503 | 507 | 500 | 500 | 100.6 | 101.4 | | 58-124 | | | |

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

To: **Subsurface Consultants, Inc.**

Test Method: 8015M
8020

Attn: Glenn Young

Prep Method: 5030

Legend & Notes

Gas/BTEX (Methanol Extraction)

Analyte Flags

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.

sd

Surrogate diluted out due to the presence of non-target materials.

Metals

| | |
|-------------------------------------|---|
| Subsurface Consultants, Inc. | ✉ 3736 Mt. Diablo Blvd., Suite 200 Lafayette, CA 94549 |
| Attn: Glenn Young | Phone: (925) 299-7960 Fax: (925) 299-7970 |
| Project #: 272.050 | Project: Oakland Municipal Services Center |

Samples Reported

| Sample ID | Matrix | Date Sampled | Lab # |
|---------------|--------|------------------|-------|
| B-8B@4,7.5,9' | Soil | 05/30/2000 13:50 | 7 |

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 6010B

Attn.: Glenn Young

Prep Method: 3050B

Metals

| | |
|---|--|
| Sample ID: B-8B@4,7.5,9' | Lab Sample ID: 2000-06-0006-007 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 13:50 | Extracted: 06/01/2000 16:44 |
| Matrix: Soil | QC-Batch: 2000/06/01-07.15 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|----------|--------|-----------|-------|----------|------------------|------|
| Cadmium | ND | 0.50 | mg/Kg | 1.00 | 06/02/2000 11:45 | |
| Chromium | 24 | 1.0 | mg/Kg | 1.00 | 06/02/2000 11:45 | |
| Lead | 5.0 | 1.0 | mg/Kg | 1.00 | 06/02/2000 11:45 | |
| Nickel | 23 | 1.0 | mg/Kg | 1.00 | 06/02/2000 11:45 | |
| Zinc | 46 | 1.0 | mg/Kg | 1.00 | 06/02/2000 11:45 | |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**
Attn.: Glenn Young

Test Method: 6010B
Prep Method: 3050B

Batch QC Report Metals

| | | |
|--------------------------|-------------|------------------------------------|
| Method Blank | Soil | QC Batch # 2000/06/01-07.15 |
| MB: 2000/06/01-07.15-018 | | Date Extracted: 06/01/2000 16:44 |

| Compound | Result | Rep.Limit | Units | Analyzed | Flag |
|----------|--------|-----------|-------|------------------|------|
| Cadmium | ND | 0.50 | mg/Kg | 06/02/2000 10:04 | |
| Chromium | ND | 1.0 | mg/Kg | 06/02/2000 10:04 | |
| Lead | ND | 1.0 | mg/Kg | 06/02/2000 10:04 | |
| Nickel | ND | 1.0 | mg/Kg | 06/02/2000 10:04 | |
| Zinc | ND | 1.0 | mg/Kg | 06/02/2000 10:04 | |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 6010B

Attn: Glenn Young

Prep Method: 3050B

Batch QC Report

Metals

| Laboratory Control Spike (LCS/LCSD) | | Soil | | QC Batch # 2000/06/01-07.15 | |
|-------------------------------------|----------------------|------------|------------------|-----------------------------|------------------|
| LCS: | 2000/06/01-07.15-019 | Extracted: | 06/01/2000 16:44 | Analyzed | 06/02/2000 10:08 |
| LCSD: | 2000/06/01-07.15-020 | Extracted: | 06/01/2000 16:44 | Analyzed | 06/02/2000 10:13 |

| Compound | Conc. [mg/Kg] | | Exp. Conc. [mg/Kg] | | Recovery [%] | | RPD [%] | Ctrl. Limits [%] | | Flags | |
|----------|---------------|------|--------------------|-------|--------------|------|---------|------------------|-----|-------|------|
| | LCS | LCSD | LCS | LCSD | LCS | LCSD | | Recovery | RPD | LCS | LCSD |
| Cadmium | 96.8 | 98.8 | 100.0 | 100.0 | 96.8 | 98.8 | 2.0 | 80-120 | 20 | | |
| Chromium | 95.8 | 98.1 | 100.0 | 100.0 | 95.8 | 98.1 | 2.4 | 80-120 | 20 | | |
| Lead | 95.6 | 97.6 | 100.0 | 100.0 | 95.6 | 97.6 | 2.1 | 80-120 | 20 | | |
| Nickel | 94.7 | 96.9 | 100.0 | 100.0 | 94.7 | 96.9 | 2.3 | 80-120 | 20 | | |
| Zinc | 95.2 | 97.6 | 100.0 | 100.0 | 95.2 | 97.6 | 2.5 | 80-120 | 20 | | |

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

RCI Title 22 Sec. 66261.21-24

Subsurface Consultants, Inc.

✉ 3736 Mt. Diablo Blvd., Suite 200
Lafayette, CA 94549

Attn: Glenn Young

Phone: (925) 299-7960 Fax: (925) 299-7970

Project #: 272.050

Project: Oakland Municipal Services Center

Samples Reported

| Sample ID | Matrix | Date Sampled | Lab # |
|---------------|--------|------------------|-------|
| B-8B@4,7,5,9' | Soil | 05/30/2000 13:50 | 7 |

1220 Quarry Lane * Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 9045

Attn.: Glenn Young

Prep Method: CA Title 22 Sec
66261.21-24

RCI Title 22 Sec. 66261.21-24

| | | | |
|------------|--|----------------|-------------------------|
| Sample ID: | B-8B@4,7.5,9' | Lab Sample ID: | 2000-06-0006-007 |
| Project: | 272.050 Oakland Municipal Services Center | Received: | 05/31/2000 17:02 |
| Sampled: | 05/30/2000 13:50 | Extracted: | 06/02/2000 14:00 |
| Matrix: | Soil | QC-Batch: | 2000/06/02-01.33 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|--------------|--------|-----------|-------|----------|------------------|------|
| Reactivity | NO | 0.0 | N/A | 1.00 | 06/02/2000 14:00 | |
| Corrosivity | NO | 0.0 | N/A | 1.00 | 06/02/2000 14:00 | |
| Ignitability | NO | 0.0 | N/A | 1.00 | 06/02/2000 14:00 | |

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 9045

Attn.: Glenn Young

Prep Method: CA Title 22 Sec
66261.21-24

Batch QC Report
RCI Title 22 Sec. 66261.21-24

| | | |
|--------------------------|-------------|------------------------------------|
| Method Blank | Soil | QC Batch # 2000/06/02-01.33 |
| MB: 2000/06/02-01.33-001 | | Date Extracted: 06/02/2000 |

| Compound | Result | Rep.Limit | Units | Analyzed | Flag |
|--------------|--------|-----------|-------|------------|------|
| Reactivity | NO | N/A | N/A | 06/02/2000 | |
| Corrosivity | NO | N/A | N/A | 06/02/2000 | |
| Ignitability | NO | N/A | N/A | 06/02/2000 | |

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

TEPH w/ Silica Gel Clean-up

| | |
|-------------------------------------|---|
| Subsurface Consultants, Inc. | ✉ 3736 Mt. Diablo Blvd., Suite 200 Lafayette, CA 94549 |
| Attn: Glenn Young | Phone: (925) 299-7960 Fax: (925) 299-7970 |
| Project #: 272.050 | Project: Oakland Municipal Services Center |

Samples Reported

| Sample ID | Matrix | Date Sampled | Lab # |
|---------------|--------|------------------|-------|
| B-1@ 6' | Soil | 05/30/2000 06:40 | 1 |
| B-3B@ 6.5' | Soil | 05/30/2000 14:30 | 2 |
| B-4B@ 9' | Soil | 05/30/2000 09:55 | 3 |
| B-5@ 7.5' | Soil | 05/30/2000 10:30 | 4 |
| B-6@ 7' | Soil | 05/30/2000 12:10 | 5 |
| B-7@ 7.5' | Soil | 05/30/2000 11:30 | 6 |
| B-8B@4,7.5,9' | Soil | 05/30/2000 13:50 | 7 |
| B-3B | Water | 05/30/2000 15:20 | 8 |
| B-4B | Water | 05/30/2000 11:30 | 9 |
| B-6 | Water | 05/30/2000 13:15 | 10 |
| B-7 | Water | 05/30/2000 12:30 | 11 |

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**
Attn.: Glenn Young

Test Method: 8015m
Prep Method: 3550/8015M
3510/8015M

TEPH w/ Silica Gel Clean-up

| | |
|---|--|
| Sample ID: B-1@ 6' | Lab Sample ID: 2000-06-0006-001 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 06:40 | Extracted: 06/01/2000 11:54 |
| Matrix: Soil | QC-Batch: 2000/06/01-04.10 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|------------------------------------|--------|-----------|-------|----------|------------------|------|
| Diesel | 3.7 | 1.0 | mg/Kg | 1.00 | 06/08/2000 21:56 | ndp |
| Motor Oil | ND | 50 | mg/Kg | 1.00 | 06/08/2000 21:56 | |
| Surrogate(s) o-Terphenyl | 99.1 | 60-130 | % | 1.00 | 06/08/2000 21:56 | |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**
Attn.: Glenn Young

Test Method: 8015m
Prep Method: 3550/8015M
3510/8015M

TEPH w/ Silica Gel Clean-up

| | |
|---|--|
| Sample ID: B-3B@ 6.5' | Lab Sample ID: 2000-06-0006-002 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 14:30 | Extracted: 06/01/2000 11:54 |
| Matrix: Soil | QC-Batch: 2000/06/01-04.10 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|------------------------------------|--------|-----------|-------|----------|------------------|------|
| Diesel | 16 | 1.0 | mg/Kg | 1.00 | 06/08/2000 22:34 | ndp |
| Motor Oil | ND | 50 | mg/Kg | 1.00 | 06/08/2000 22:34 | |
| Surrogate(s) o-Terphenyl | 110.3 | 60-130 | % | 1.00 | 06/08/2000 22:34 | |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**
Attn.: Glenn Young

Test Method: 8015m
Prep Method: 3550/8015M
3510/8015M

TEPH w/ Silica Gel Clean-up

| | |
|---|--|
| Sample ID: B-4B@ 9' | Lab Sample ID: 2000-06-0006-003 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 09:55 | Extracted: 06/01/2000 11:54 |
| Matrix: Soil | QC-Batch: 2000/06/01-04.10 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|------------------------------------|--------|-----------|-------|----------|------------------|------|
| Diesel | 12 | 1.0 | mg/Kg | 1.00 | 06/08/2000 23:14 | ndp |
| Motor Oil | ND | 50 | mg/Kg | 1.00 | 06/08/2000 23:14 | |
| Surrogate(s) o-Terphenyl | 82.3 | 60-130 | % | 1.00 | 06/08/2000 23:14 | |

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015m

Attn.: Glenn Young

Prep Method: 3550/8015M
3510/8015M

TEPH w/ Silica Gel Clean-up

| | |
|---|--|
| Sample ID: B-5@ 7.5' | Lab Sample ID: 2000-06-0006-004 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 10:30 | Extracted: 06/01/2000 11:54 |
| Matrix: Soil | QC-Batch: 2000/06/01-04.10 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|------------------------------------|--------|-----------|-------|----------|------------------|------|
| Diesel | 330 | 1.0 | mg/Kg | 1.00 | 06/08/2000 23:53 | edr |
| Motor Oil | ND | 50 | mg/Kg | 1.00 | 06/08/2000 23:53 | |
| Surrogate(s) o-Terphenyl | 111.9 | 60-130 | % | 1.00 | 06/08/2000 23:53 | |

1220 Quarry Lane * Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**
Attn.: Glenn Young

Test Method: 8015m
Prep Method: 3550/8015M
3510/8015M

TEPH w/ Silica Gel Clean-up

| | |
|---|---------------------------------|
| Sample ID: B-6@ 7 | Lab Sample ID: 2000-06-0006-005 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 12:10 | Extracted: 06/01/2000 11:54 |
| Matrix: Soil | QC-Batch: 2000/06/01-04.10 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|------------------------------------|--------|-----------|-------|----------|------------------|------|
| Diesel | ND | 1.0 | mg/Kg | 1.00 | 06/09/2000 00:32 | |
| Motor Oil | ND | 50 | mg/Kg | 1.00 | 06/09/2000 00:32 | |
| <i>Surrogate(s)</i> o-Terphenyl | 75.5 | 60-130 | % | 1.00 | 06/09/2000 00:32 | |

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Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**
Attn.: Glenn Young

Test Method: 8015m
Prep Method: 3550/8015M
3510/8015M

TEPH w/ Silica Gel Clean-up

| | |
|---|--|
| Sample ID: B-7@ 7.5' | Lab Sample ID: 2000-06-0006-006 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 11:30 | Extracted: 06/01/2000 11:54 |
| Matrix: Soil | QC-Batch: 2000/06/01-04.10 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|------------------------------------|--------|-----------|-------|----------|------------------|------|
| Diesel | 2.1 | 1.0 | mg/Kg | 1.00 | 06/09/2000 01:12 | nhc |
| Motor Oil | ND | 50 | mg/Kg | 1.00 | 06/09/2000 01:12 | |
| Surrogate(s) o-Terphenyl | 93.2 | 60-130 | % | 1.00 | 06/09/2000 01:12 | |

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015m

Attn.: Glenn Young

Prep Method: 3550/8015M
3510/8015M

TEPH w/ Silica Gel Clean-up

| | |
|---|--|
| Sample ID: B-8B@4,7,5,9 | Lab Sample ID: 2000-06-0006-007 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 13:50 | Extracted: 06/01/2000 11:54 |
| Matrix: Soil | QC-Batch: 2000/06/01-04.10 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|------------------------------------|--------|-----------|-------|----------|------------------|------|
| Diesel | 1.6 | 1.0 | mg/Kg | 1.00 | 06/09/2000 01:51 | nhc |
| Motor Oil | ND | 50 | mg/Kg | 1.00 | 06/09/2000 01:51 | |
| Surrogate(s) o-Terphenyl | 76.5 | 60-130 | % | 1.00 | 06/09/2000 01:51 | |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015m

Attn.: Glenn Young

Prep Method: 3550/8015M
3510/8015M

TEPH w/ Silica Gel Clean-up

| | |
|---|--|
| Sample ID: B-3B | Lab Sample ID: 2000-06-0006-008 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 15:20 | Extracted: 06/02/2000 08:55 |
| Matrix: Water | QC-Batch: 2000/06/02-01.10 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|------------------------------------|--------|-----------|-------|----------|------------------|------|
| Diesel | 23000 | 250 | ug/L | 5.00 | 06/11/2000 16:52 | edr |
| Motor Oil | ND | 2500 | ug/L | 5.00 | 06/11/2000 16:52 | |
| Surrogate(s) o-Terphenyl | 87.0 | 60-130 | % | 5.00 | 06/11/2000 16:52 | |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**
Attn.: Glenn Young

Test Method: 8015m
Prep Method: 3550/8015M
3510/8015M

TEPH w/ Silica Gel Clean-up

| | |
|--|--|
| Sample ID: B-4B | Lab Sample ID: 2000-06-0006-009 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 11:30 | Extracted: 06/02/2000 08:55 |
| Matrix: Water | QC-Batch: 2000/06/02-01.10 |
| Sample/Analysis Flag sdo (See Legend & Note section) | |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|------------------------------------|--------|-----------|-------|----------|------------------|------|
| Diesel | 350000 | 2500 | ug/L | 50.00 | 06/10/2000 03:09 | edr |
| Motor Oil | ND | 25000 | ug/L | 50.00 | 06/10/2000 03:09 | |
| Surrogate(s) o-Terphenyl | ND | 60-130 | ug/L | 50.00 | 06/10/2000 03:09 | |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Attn.: Glenn Young

Test Method: 8015m

Prep Method: 3550/8015M

3510/8015M

TEPH w/ Silica Gel Clean-up

| | |
|---|--|
| Sample ID: B-6 | Lab Sample ID: 2000-06-0006-010 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 13:15 | Extracted: 06/02/2000 08:55 |
| Matrix: Water | QC-Batch: 2000/06/02-01.10 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|------------------------------------|--------|-----------|-------|----------|------------------|------|
| Diesel | 130 | 50 | ug/L | 1.00 | 06/11/2000 17:32 | ndp |
| Motor Oil | ND | 500 | ug/L | 1.00 | 06/11/2000 17:32 | |
| Surrogate(s) o-Terphenyl | 60.5 | 60-130 | % | 1.00 | 06/11/2000 17:32 | |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015m

Attn.: Glenn Young

Prep Method: 3550/8015M

3510/8015M

TEPH w/ Silica Gel Clean-up

| | |
|---|--|
| Sample ID: B-7 | Lab Sample ID: 2000-06-0006-011 |
| Project: 272.050 Oakland Municipal Services Center | Received: 05/31/2000 17:02 |
| Sampled: 05/30/2000 12:30 | Extracted: 06/02/2000 08:55 |
| Matrix: Water | QC-Batch: 2000/06/02-01.10 |

| Compound | Result | Rep.Limit | Units | Dilution | Analyzed | Flag |
|------------------------------------|--------|-----------|-------|----------|------------------|------|
| Diesel | 120 | 50 | ug/L | 1.00 | 06/10/2000 00:48 | ndp |
| Motor Oil | ND | 500 | ug/L | 1.00 | 06/10/2000 00:48 | |
| Surrogate(s) o-Terphenyl | 76.6 | 60-130 | % | 1.00 | 06/10/2000 00:48 | |

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Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**
Attn.: Glenn Young

Test Method: 8015m
Prep Method: 3550/8015M
3510/8015M

Batch QC Report
TEPH w/ Silica Gel Clean-up

| | | |
|--------------------------|-------------|------------------------------------|
| Method Blank | Soil | QC Batch # 2000/06/01-04.10 |
| MB: 2000/06/01-04.10-001 | | Date Extracted: 06/01/2000 11:54 |

| Compound | Result | Rep.Limit | Units | Analyzed | Flag |
|------------------------------------|--------|-----------|-------|------------------|------|
| Diesel | ND | 1 | mg/Kg | 06/01/2000 22:58 | |
| Surrogate(s) o-Terphenyl | 105.0 | 60-130 | % | 06/01/2000 22:58 | |

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015m

Attn.: Glenn Young

Prep Method: 3550/8015M

3510/8015M

Batch QC Report
TEPH w/ Silica Gel Clean-up

| | | |
|--------------------------|--------------|------------------------------------|
| Method Blank | Water | QC Batch # 2000/06/02-01.10 |
| MB: 2000/06/02-01.10-001 | | Date Extracted: 06/02/2000 08:55 |

| Compound | Result | Rep.Limit | Units | Analyzed | Flag |
|------------------------------------|--------|-----------|-------|------------------|------|
| Diesel | ND | 50 | ug/L | 06/13/2000 14:41 | |
| Motor Oil | ND | 500 | ug/L | 06/13/2000 14:41 | |
| Surrogate(s) o-Terphenyl | 101.0 | 60-130 | % | 06/13/2000 14:41 | |

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015m

Attn: Glenn Young

Prep Method: 3550/8015M
3510/8015M

Batch QC Report

TEPH w/ Silica Gel Clean-up

| Laboratory Control Spike (LCS/LCSD) | Soil | QC Batch # 2000/06/01-04.10 |
|-------------------------------------|-----------------------------|-----------------------------|
| LCS: 2000/06/01-04.10-002 | Extracted: 06/01/2000 11:54 | Analyzed 06/02/2000 20:28 |
| LCSD: 2000/06/01-04.10-003 | Extracted: 06/01/2000 11:54 | Analyzed 06/02/2000 21:08 |

| Compound | Conc. [mg/Kg] | | Exp.Conc. [mg/Kg] | | Recovery [%] | | RPD [%] | Ctrl. Limits [%] | | Flags | |
|---------------------|-----------------|------|---------------------|------|--------------|-------|---------|------------------|-----|-------|------|
| | LCS | LCSD | LCS | LCSD | LCS | LCSD | | Recovery | RPD | LCS | LCSD |
| Diesel | 42.3 | 46.3 | 41.7 | 41.7 | 101.4 | 111.0 | 9.0 | 60-130 | 25 | | |
| Surrogate(s) | | | | | | | | | | | |
| o-Terphenyl | 22.7 | 23.7 | 20.0 | 20.0 | 113.5 | 118.5 | | 60-130 | | | |

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Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0006

To: **Subsurface Consultants, Inc.**

Test Method: 8015m

Attn: Glenn Young

Prep Method: 3550/8015M
3510/8015M

Batch QC Report

TEPH w/ Silica Gel Clean-up

| Laboratory Control Spike (LCS/LCSD) | Water | QC Batch # 2000/06/02-01.10 |
|-------------------------------------|-----------------------------|-----------------------------|
| LCS: 2000/06/02-01.10-002 | Extracted: 06/02/2000 08:55 | Analyzed 06/12/2000 19:42 |
| LCSD: 2000/06/02-01.10-003 | Extracted: 06/02/2000 08:55 | Analyzed 06/12/2000 20:21 |

| Compound | Conc. [ug/L] | | Exp. Conc. [ug/L] | | Recovery [%] | | | RPD | | Ctrl. Limits [%] | | Flags | |
|---------------------|--------------|------|-------------------|------|--------------|------|-----|----------|-----|------------------|------|-------|--|
| | LCS | LCSD | LCS | LCSD | LCS | LCSD | RPD | Recovery | RPD | LCS | LCSD | | |
| Diesel | 829 | 899 | 1250 | 1250 | 66.3 | 71.9 | 8.1 | 60-130 | 25 | | | | |
| Surrogate(s) | | | | | | | | | | | | | |
| o-Terphenyl | 17.0 | 17.1 | 20.0 | 20.0 | 85.0 | 85.5 | | 60-130 | | | | | |

1220 Quarry Lane * Pleasanton, CA 94566-4756
Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

To: **Subsurface Consultants, Inc.**

Attn: Glenn Young

Test Method: 8015m

Prep Method: 3510/8015M
3550/8015M

Legend & Notes

TEPH w/ Silica Gel Clean-up

Analysis Flags

sdo

Surrogate(s) diluted out

Analyte Flags

edr

Hydrocarbon reported is in the early Diesel range, and does not match our Diesel standard

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

nhc

Compounds reported are in this range but they do not exhibit a pattern characteristic of petroleum hydrocarbon.

CHAIN OF CUSTODY FORM

2000-06-0086

PAGE 1 OF 3

PROJECT NAME: Oakland Municipal Services Center
 JOB NUMBER: 272,050 LAB: Chromalab
 PROJECT CONTACT: Glenn Young TURNAROUND: Standard
 SAMPLED BY: Gene Ny REQUESTED BY: _____

189


| LABORATORY I.D. NUMBER | SCI SAMPLE NUMBER | MATRIX | | | | CONTAINERS | | | | METHOD PRESERVED | | | | | SAMPLING DATE | | | | NOTES | |
|------------------------|-------------------|--------|------|-------|-----|------------|-------|------|------|------------------|--------------------------------|------------------|-----|------|---------------|-----|------|------|-------|----------------------|
| | | WATER | SOIL | WASTE | AIR | VOA | LITER | PINT | TUBE | HCL | H ₂ SO ₄ | HNO ₃ | ICE | NONE | MONTH | DAY | YEAR | TIME | | |
| | | | | | | | | | | | | | | | | | | HR | | MIN |
| | B-1e 6' | | X | | | | | | | | | X | | 05 | 30 | 00 | 06 | 40 | X | TEH d, (8015)-5, 602 |
| | B-3he 6.5' | | | | | | | | | | | | | | | | | 14 | 30 | X |
| | B-4he 9' | | | | | | | | | | | | | | | | | 09 | 55 | X |
| | B-5e 7.5' | | | | | | | | | | | | | | | | | 10 | 30 | |
| | B-6e 7' | | | | | | | | | | | | | | | | | 12 | 10 | |
| | B-7e 7.5' | | | | | | | | | | | | | | | | | 11 | 30 | |
| | B-8he 4' | | V | | | | | V | | | | V | | | | V | | 13 | 50 | X X |
| Composite | B-8he 7.5' | | | | | | | | | | | | | | | | | 13 | 50 | X X |
| | B-8he 9' | | | | | | | | | | | | | | | | | 13 | 50 | X X |

| ANALYSIS REQUESTED | |
|----------------------|---|
| TEH d, (8015)-5, 602 | X |
| TVH (8015) | X |
| BTEX METALS (8020) | X |
| 5 LVEF metals | |
| R CI | |

| CHAIN OF CUSTODY RECORD | | | |
|--|------------------------|--|-----------------------------|
| RELEASED BY: (Signature) <i>[Signature]</i> | DATE / TIME 5/30/00 | RECEIVED BY: (Signature) <i>[Signature]</i> | DATE / TIME 5/31/00 0950 |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |

COMMENTS & NOTES:

Composite INTO 1 SAMPLE



Subsurface Consultants, Inc.
 171 - 12th Street, Suite 202, Oakland, CA 94607
 (510) 268-0461 - FAX: (510) 268-0137
 3736 ML Diablo Blvd., Ste. 200, Lafayette, CA 94549
 (926) 299-7960 - (926) 299-7970

CHAIN OF CUSTODY FORM

2000-06-0006


PROJECT NAME: Oakland Municipal Services Center
 JOB NUMBER: 272.051 LAB: Chromalab
 PROJECT CONTACT: Glenn Young TURNAROUND: Standard
 SAMPLED BY: Gene Ng REQUESTED BY: _____

| ANALYSIS REQUESTED | |
|---|--|
| TEND, P, TUB (SOIL) TEND, P STEX MIBE (8020) SI SEC CLEANUP FOR TEND, P - GSY | |

| LABORATORY I.D. NUMBER | SCI SAMPLE NUMBER | MATRIX | | | | CONTAINERS | | | METHOD PRESERVED | | | | | SAMPLING DATE | | | | NOTES | | | | |
|------------------------|-------------------|--------|------|-------|-----|------------|-----|-------|------------------|------|-----|--------------------------------|------------------|---------------|------|-------|-----|-------|------|------|----|--|
| | | WATER | SOIL | WASTE | AIR | VOA | HCl | LITER | PINT | TUBE | HCl | H ₂ SO ₄ | HNO ₃ | ICE | NONE | MONTH | DAY | | YEAR | TIME | | |
| | B-3b | X | | | | J | 2 | | | | | | X | | 0 | 5 | 30 | 00 | 15 | 20 | | |
| | B-4b | | | | | | | | | | | | | | | | | | 1 | 3 | 0 | |
| | B-5 | | | | | | | | | | | | | | | | | | | | | |
| | B-6 | | | | | | | | | | | | | | | | | | 1 | 3 | 15 | |
| | B-7 | | | | | | | | | | | | | | | | | | 1 | 2 | 30 | |
| | B-8b | | | | | | | | | | | | | | | | | | | | | |

| CHAIN OF CUSTODY RECORD | | | |
|--|------------------------|--|------------------------|
| RELEASED BY: (Signature) <i>[Signature]</i> | DATE / TIME 5/30/00 | RECEIVED BY: (Signature) <i>[Signature]</i> | DATE / TIME 5/31/00 |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |

COMMENTS & NOTES:



Subsurface Consultants, Inc.
 171 - 12th Street, Suite 202, Oakland, CA 94607
 (510) 268-0451 - FAX: (510) 268-0137
 3736 Mt. Diablo Blvd., Ste. 200, Lafayette, CA 94549
 (925) 299-7950 - (925) 299-7970



Subsurface Consultants, Inc.

FAX TRANSMITTAL

Date: May 31, 2000

Number of pages (including cover sheet): 3

To: Afsona & sample control
Chromalab

Phone:

Fax: 484.1096

cc:

From: Glenn Young

Sent From: Lafayette

SCI Job #: 272.050.2

Re: Oakland Municipal Services
Center

REMARKS: Urgent For your review Reply ASAP Please comment

For your use Original in mail As requested

Please note that the soil and groundwater samples for this project should receive a silica gel cleanup prior to conducting the extractable hydrocarbons analyses. I have noted this change on the attached chains.

Please call with any questions.

CHAIN OF CUSTODY FORM

2000-06-0006

PROJECT NAME: Oakland Municipal Services Center
 JOB NUMBER: 272,050 LAB: Chromalab
 PROJECT CONTACT: Glenn Young TURNAROUND: standard
 SAMPLED BY: Gene Ng REQUESTED BY: _____

| ANALYSIS REQUESTED | | | | | |
|--------------------|------------------|--|--|--|--|
| X | TEH d,s (8015) | | | | |
| X | TVHs (8015) | | | | |
| X | RIEX M&BE (8020) | | | | |
| | S LUFF | | | | |
| | RCI | | | | |

| LABORATORY I.D. NUMBER | SCI SAMPLE NUMBER | MATRIX | | | | CONTAINERS | | | | METHOD PRESERVED | | | | | SAMPLING DATE | | | | NOTES | | | | | | |
|------------------------|-------------------|--------|------|-------|-----|------------|-------|------|------|------------------|--------------------------------|------------------|-----|------|---------------|-----|------|------|-------|--|--|---|---|------------------|---|
| | | WATER | SOIL | WASTE | AIR | VOA | LITER | PINT | TUBE | HCL | H ₂ SO ₄ | HNO ₃ | ICE | NONE | MONTH | DAY | YEAR | TIME | | | | | | | |
| | B-1 @ 6' | | X | | | | | | | | | | X | | 05 | 30 | 00 | 0640 | X | | | | | | |
| | B-3 @ 6.5' | | | | | | | | | | | | | | | | | 1430 | | | | | | | |
| | B-4 @ 9' | | | | | | | | | | | | | | | | | 0955 | | | | | | | |
| | B-5 @ 7.5' | | | | | | | | | | | | | | | | | 1030 | | | | | | | |
| | B-6 @ 7' | | | | | | | | | | | | | | | | | 1210 | | | | | | | |
| | B-7 @ 7.5' | | | | | | | | | | | | | | | | | 1130 | | | | | | | |
| Composite | B-8 @ 4' | | V | | | | | | | | | | | | | | | 1350 | | | | X | X | COMPOSITE INTO 1 | |
| | B-8 @ 7.5' | | | | | | | | | | | | | | | | | 1350 | | | | X | X | | |
| | B-8 @ 9' | | | | | | | | | | | | | | | | | 1350 | | | | V | V | X | X |

| CHAIN OF CUSTODY RECORD | | | |
|--|-----------------------------|--|-----------------------------|
| RELEASED BY: (Signature) <i>Gene Ng</i> | DATE / TIME 5/30/00 | RECEIVED BY: (Signature) <i>B. Wood</i> | DATE / TIME 5/31/00 0950 |
| RELEASED BY: (Signature) <i>B. Wood</i> | DATE / TIME 5/31/00 1700 | RECEIVED BY: (Signature) <i>Dennis Harrington</i> | DATE / TIME 5/31/00 1702 |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |

COMMENTS & NOTES:
 Per client fax - silica gel cleanup on TEPH-d, o. - DSH 5/31/00
 4.5°C

SCI Subsurface Consultants, Inc.
 171 - 12th Street, Suite 202, Oakland, CA 94607
 (510) 268-0461 - FAX: (510) 268-0137
 3736 Mt. Diablo Blvd., Ste. 200, Lafayette, CA 94549
 (925) 299-7960 - (925) 299-7970

CHAIN OF CUSTODY FORM

2000-06-0006

PROJECT NAME: Oakland Municipal Services Center
 JOB NUMBER: 272.051 LAB: Chromalab
 PROJECT CONTACT: Glenn Young TURNAROUND: Standard
 SAMPLED BY: Gene Ng REQUESTED BY: _____

| ANALYSIS REQUESTED | |
|--------------------------|-------------------|
| TEHD, P, T, V, Hg (8045) | BTEX, MIBE (8070) |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

| LABORATORY I.D. NUMBER | SCI SAMPLE NUMBER | MATRIX | | | | CONTAINERS | | | | METHOD PRESERVED | | | | | SAMPLING DATE | | | | NOTES | | |
|------------------------|-------------------|--------|------|-------|-----|------------|-----|-------|------|------------------|-----|--------------------------------|------------------|-----|---------------|-------|-----|------|-------|------|---|
| | | WATER | SOIL | WASTE | AIR | VOA | HCl | LITER | PINT | TUBE | HCL | H ₂ SO ₄ | HNO ₃ | ICE | NONE | MONTH | DAY | YEAR | | TIME | |
| | | | | | | | | | | | | | | | | | | | | | |
| | B-3b | X | | | | 5 | 2 | | | | | | | | | 05 | 30 | 00 | 15 | 20 | X |
| | B-4b | | | | | | | | | | | | | | | | | | 11 | 30 | X |
| | B-5 | | | | | | | | | | | | | | | | | | | | |
| | B-6 | | | | | | | | | | | | | | | | | | 13 | 15 | X |
| | B-7 | | | | | | | | | | | | | | | | | | 12 | 30 | X |
| | B-8b | | | | | | | | | | | | | | | | | | | | |
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NOTES

| CHAIN OF CUSTODY RECORD | | | |
|--------------------------|--------------|--------------------------|--------------|
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| | 5/30/00 | | 5/31/00 1702 |
| | 5/31/00 1702 | | 5/31/00 1702 |
| | | | |
| | | | |

COMMENTS & NOTES:

Subsurface Consultants, Inc.
 171 - 12th Street, Suite 202, Oakland, CA 94607
 (510) 268-0481 - FAX: (510) 268-0137
 3736 Mt. Diablo Blvd., Ste. 200, Lafayette, CA 94549
 (925) 299-7960 - (925) 299-7970

Chromatogram

Sample Name : 060006-01
FileName : C:\200006\DATA\5607047.raw
Method : 3TPH0414
Start Time : 0.00 min
Scale Factor: 0.0

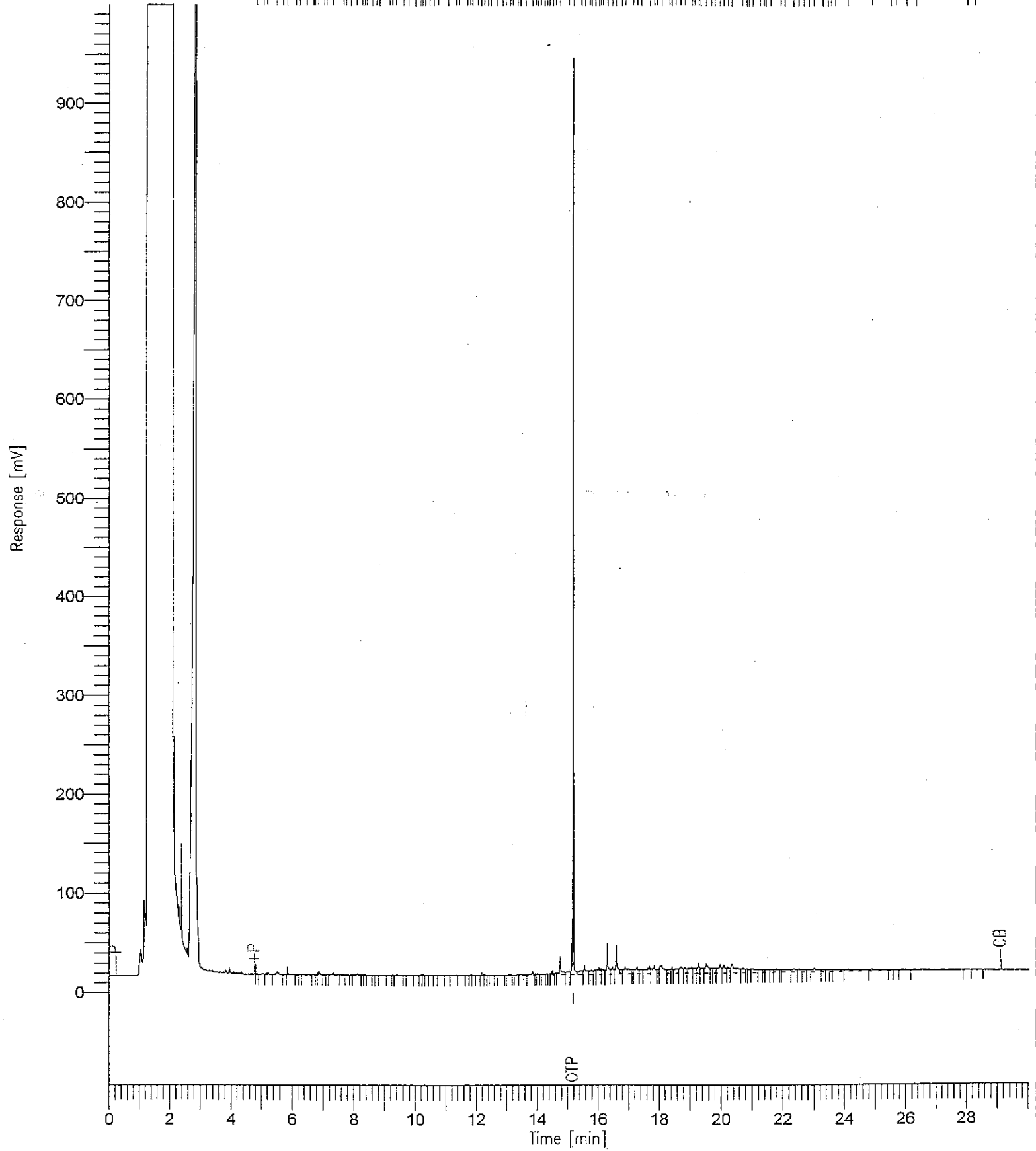
End Time : 30.00 min
Plot Offset: 0 mV

Sample #: 060104
Date : 06/09/2000 09:01
Time of Injection: 06/08/2000 21:56
Low Point : 0.00 mV
Plot Scale: 1000.0 mV

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High Point : 1000.00 mV

24.10
24.88
25.49
26.91
28.02



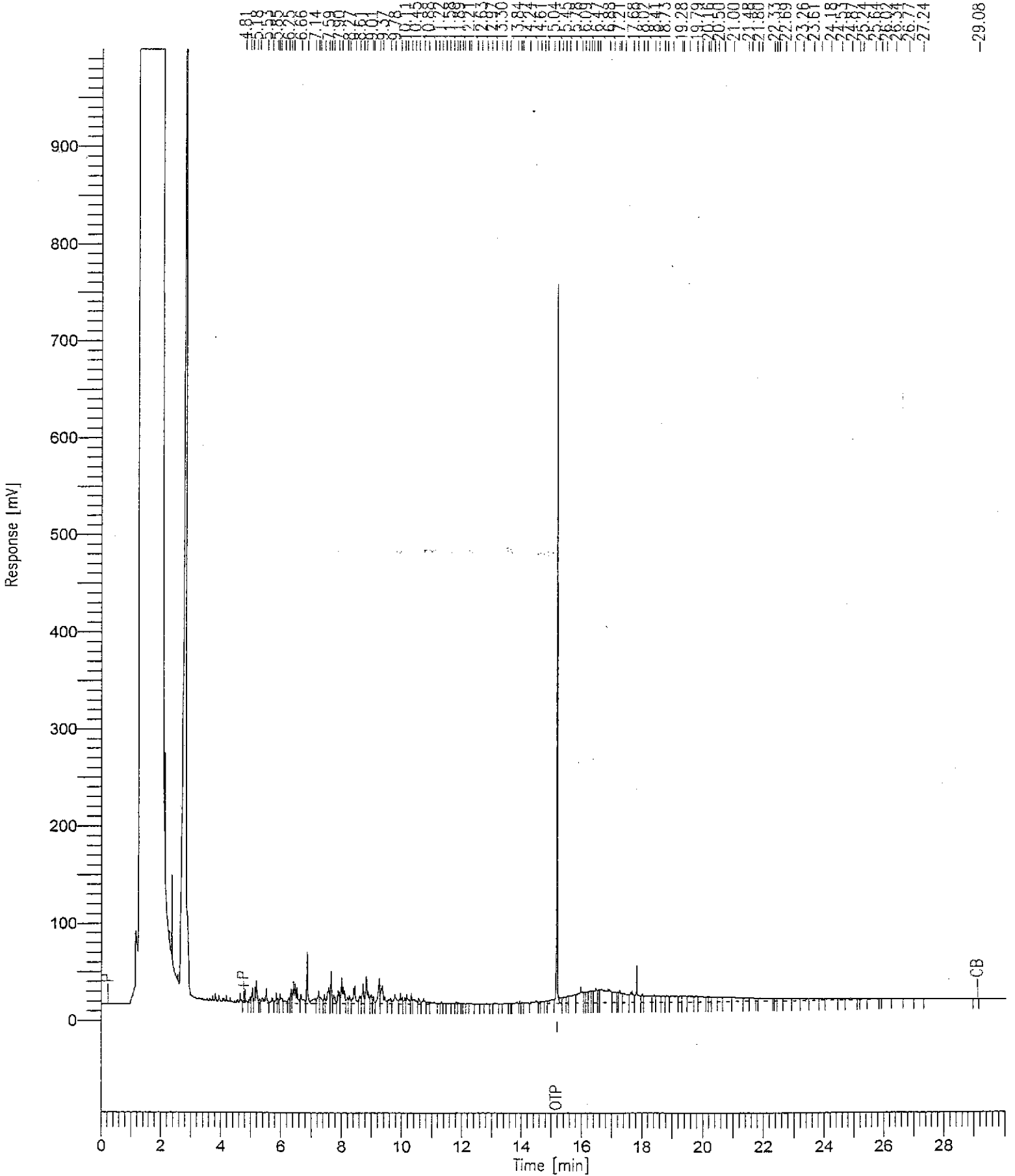
Chromatogram

Sample Name : 060006-03
FileName : O:\200006\DATA\5607049.raw
Method : 3TPH0414
Start Time : 0.00 min
Scale Factor: 0.0

End Time : 30.00 min
Plot Offset: 0 mV

Sample #: 060104
Date : 06/09/2000 09:01
Time of Injection: 06/08/2000 23:14
Low Point : 0.00 mV
High Point : 1000.00 mV
Plot Scale: 1000.0 mV

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Chromatogram

Sample Name : 060006-04

Sample #: 060104

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FileName : O:\200006\DATA\5607050.raw

Date : 06/09/2000 09:01

Method : 3TPH0414

Time of Injection: 06/08/2000 23:53

Start Time : 0.00 min

End Time : 30.00 min

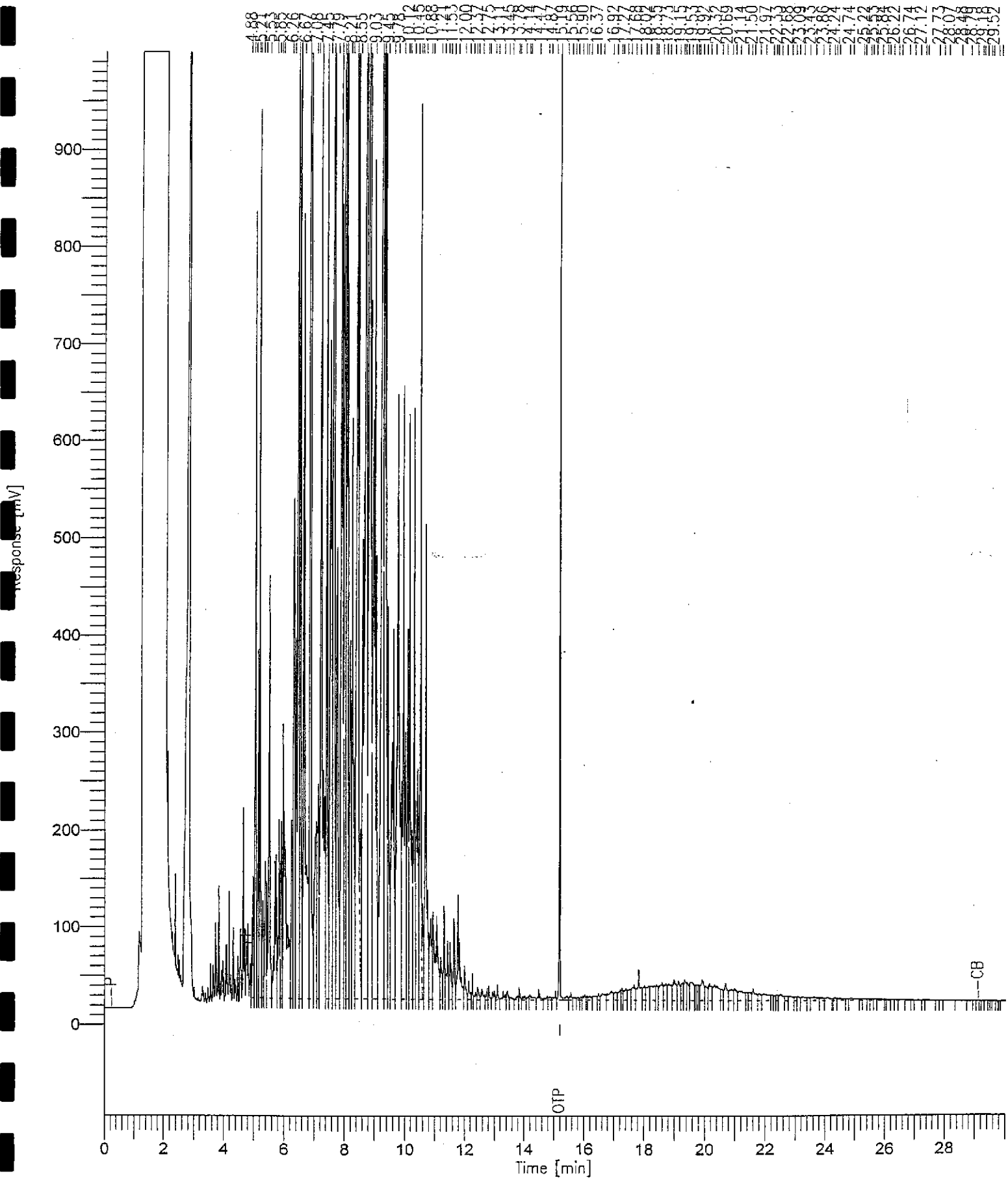
Low Point : 0.00 mV

High Point : 1000.00 mV

Scale Factor: 0.0

Plot Offset: 0 mV

Plot Scale: 1000.0 mV



Chromatogram

Sample Name : 060006-06

Sample #: 060104

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FileName : O:\200006\DATA\5607052.RAW

Date : 06/12/2000 13:08

Method :

Time of Injection: 06/09/2000 01:12

Start Time : 0.00 min

End Time : 30.00 min

Low Point : 0.00 mV

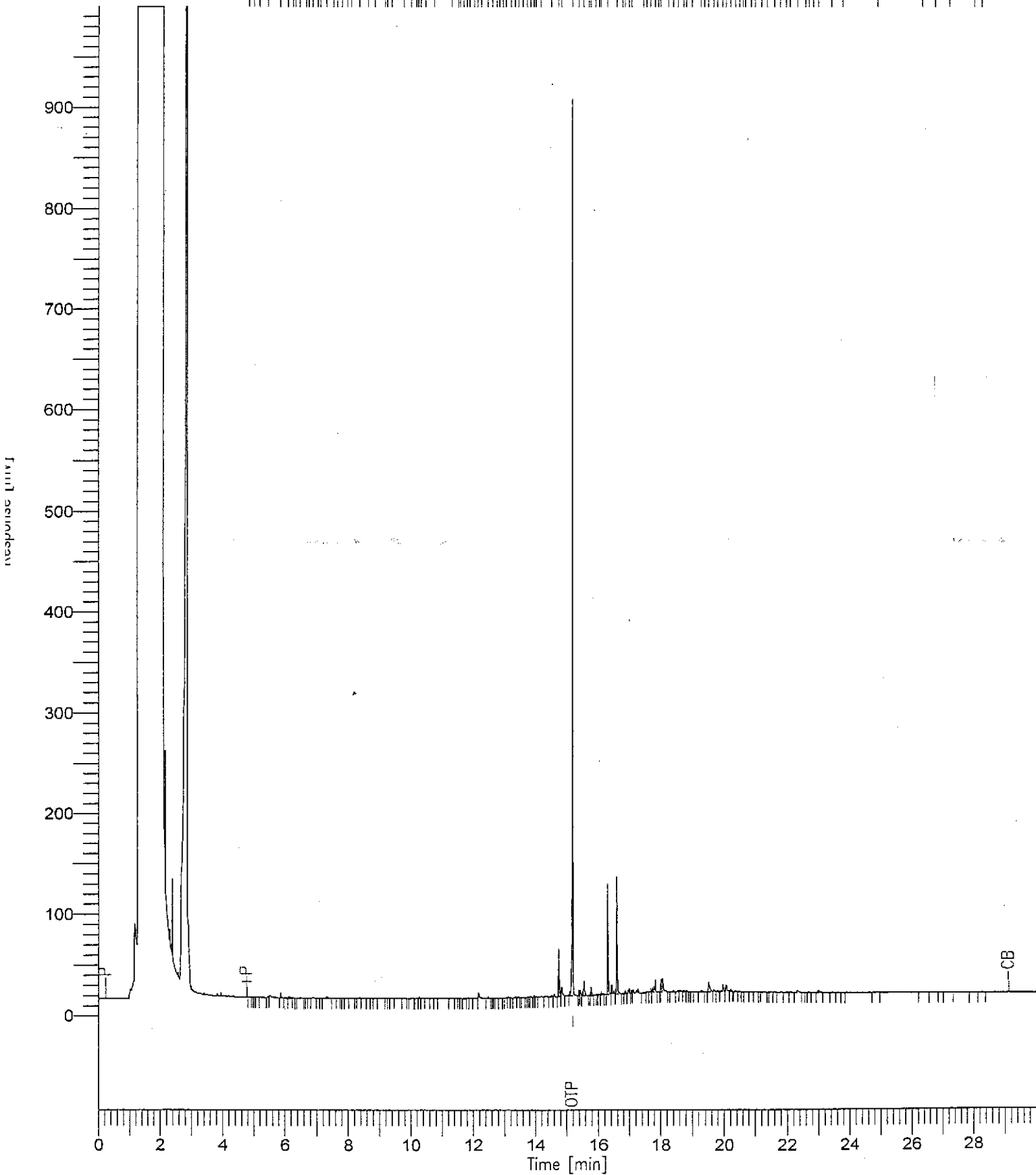
High Point : 1000.00 mV

Scale Factor: 0.0

Plot Offset: 0 mV

Plot Scale: 1000.0 mV

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 4.85 | 5.85 | 6.85 | 7.06 | 7.56 | 8.99 | 8.97 | 9.80 | 10.20 | 10.77 | 11.33 | 11.77 | 12.07 | 12.46 | 12.65 | 13.60 | 14.17 | 14.57 | 14.97 | 15.36 | 16.16 | 16.46 | 16.85 | 17.25 | 17.64 | 18.04 | 18.43 | 18.83 | 19.22 | 19.62 | 20.01 | 20.41 | 20.80 | 21.20 | 21.59 | 21.99 | 22.38 | 22.78 | 23.17 | 23.57 | 23.96 | 24.36 | 24.75 | 25.15 | 25.54 | 25.94 | 26.33 | 26.73 | 27.12 | 27.52 | 27.91 | 28.31 | 28.70 | 29.10 | 29.50 | 29.89 | 30.29 |
|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|



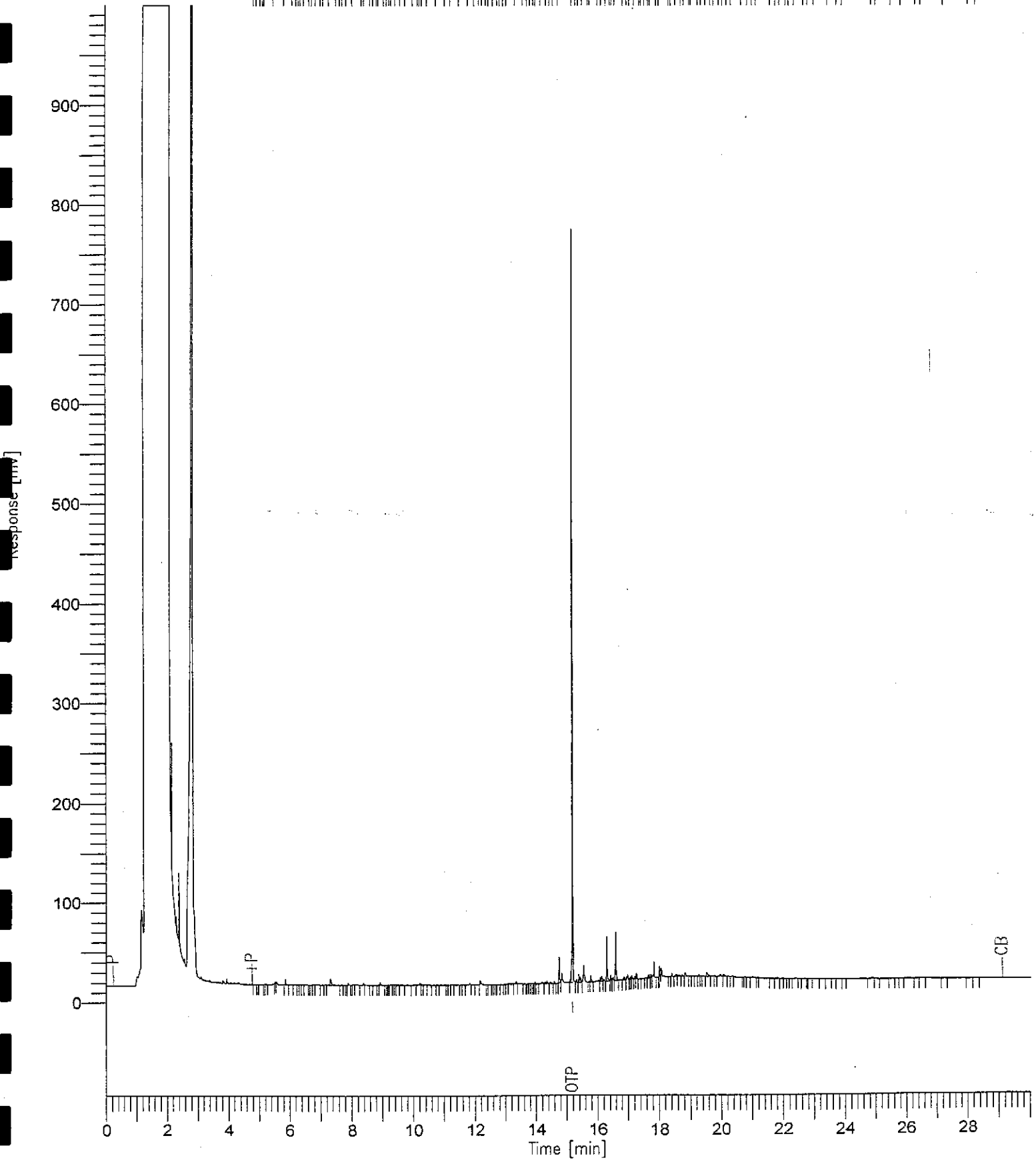
Chromatogram

Sample Name : 060006-07
FileName : O:\200006\DATA\5607053.RAW
Method :
Start Time : 0.00 min
Scale Factor: 0.0

End Time : 30.00 min
Plot Offset: 0 mV

Sample #: 060104
Date : 06/12/2000 13:09
Time of Injection: 06/09/2000 01:51
Low Point : 0.00 mV
Plot Scale: 1000.0 mV
High Point : 1000.00 mV

10.78 11.27 12.80 14.15 15.00 16.00 17.00 18.00 19.00 20.00 21.00 22.00 23.00 24.86 25.89 26.92 27.95 28.02



Chromatogram

Sample Name : 060006-08 5X

FileName : O:\200006\DATA\5611011.raw

Method : 3TPH0414

Start Time : 0.00 min

Scale Factor : 0.0

Sample #: 060201

Date : 06/11/2000 17:22

Time of Injection: 06/11/2000 16:52

Low Point : 0.00 mV

Plot Scale: 1000.0 mV

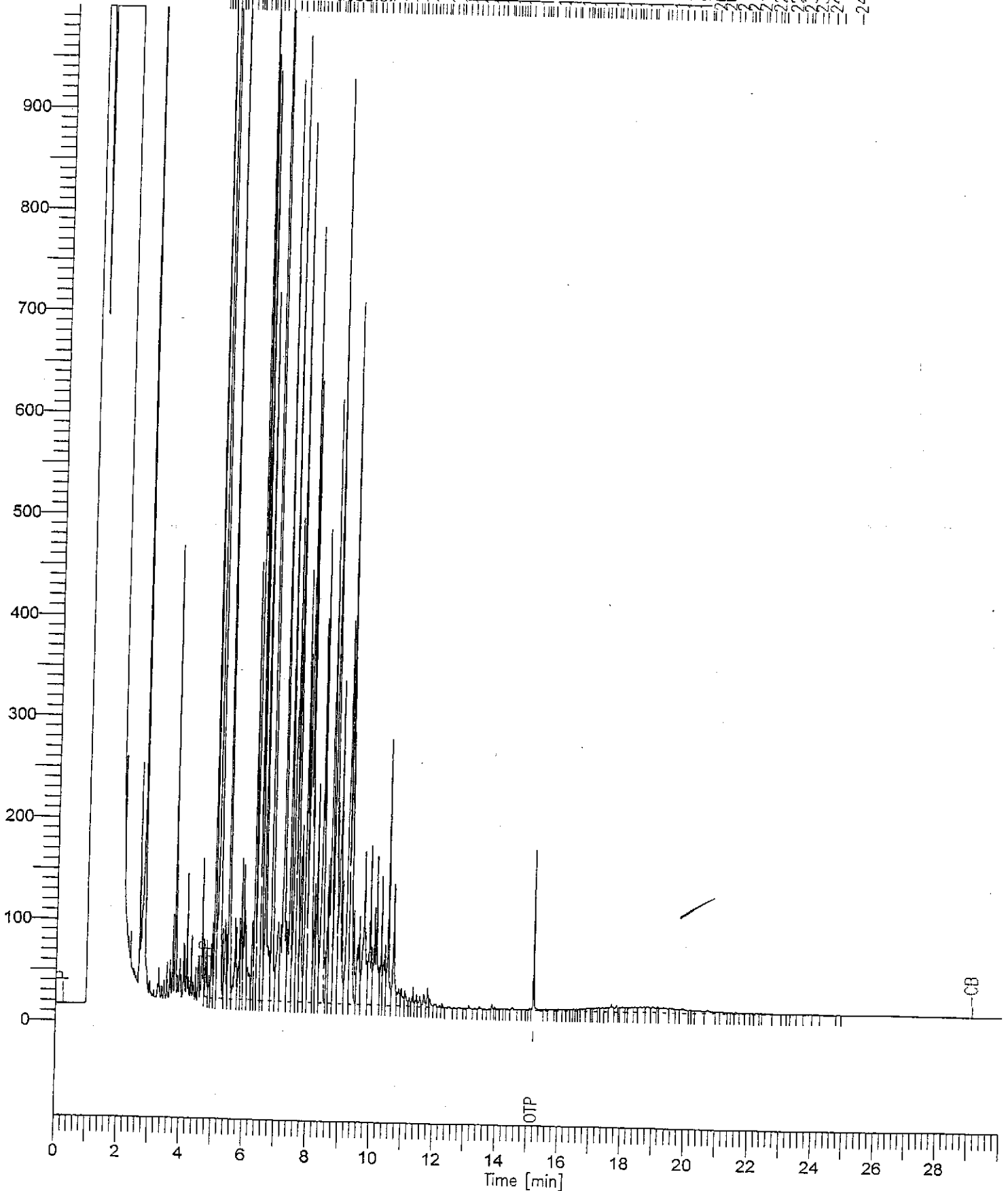
Page 1 of 1

End Time : 30.00 min

Plot Offset: 0 mV

High Point : 1000.00 mV

0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 11.00 12.00 13.00 14.00 15.00 16.00 17.00 18.00 19.00 20.00 21.00 22.00 23.00 24.00 24.84



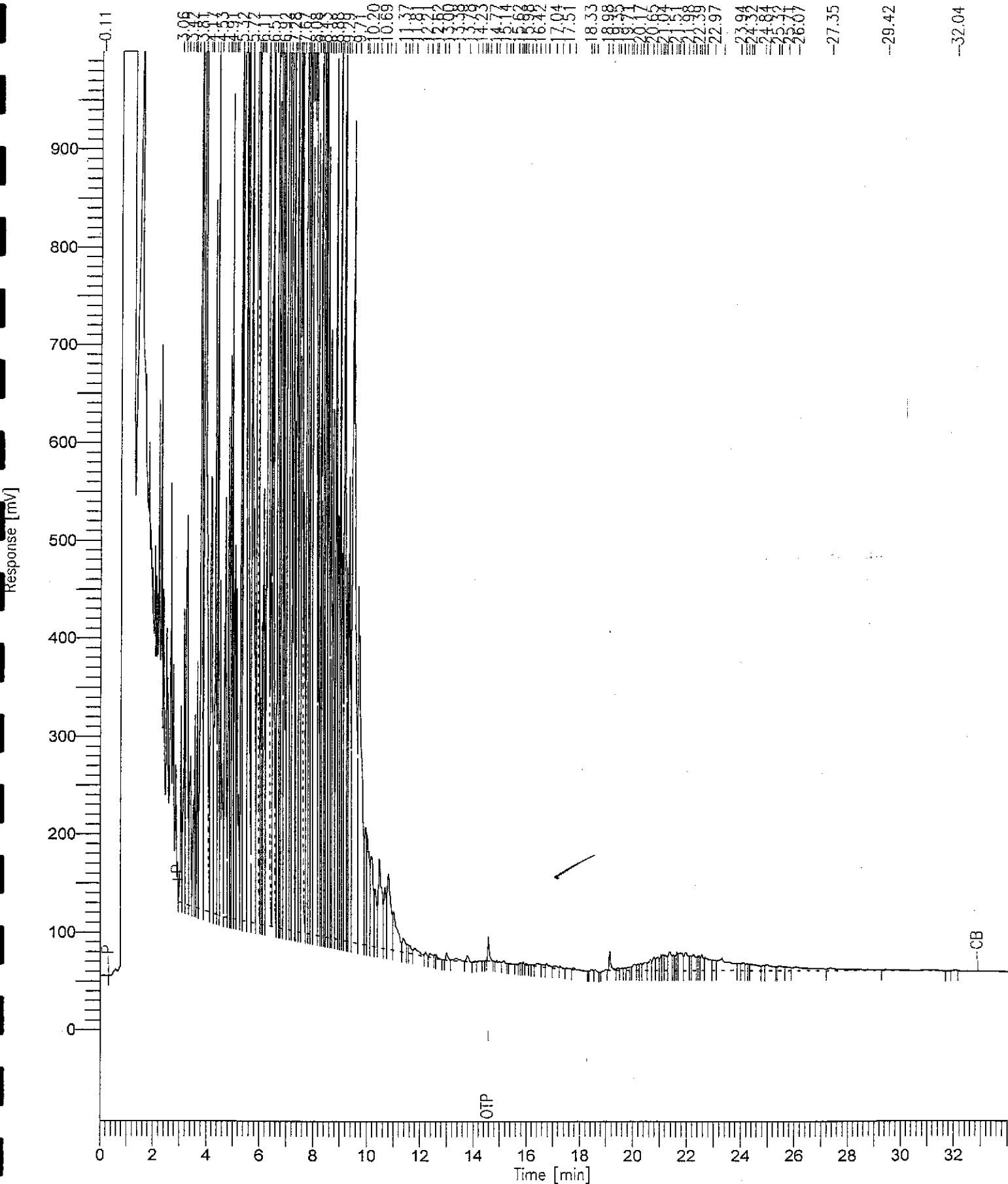
Chromatogram

Sample Name : 060006-09 50X
FileName : P:\200006\DATA\H609018.RAW
Method :
Start Time : 0.00 min
Scale Factor: 0.0

End Time : 34.00 min
Plot Offset: 0 mV

Sample #: 060201
Date : 06/11/2000 16:10
Time of Injection: 06/10/2000 03:09
Low Point : 0.00 mV
High Point : 1000.00 mV
Plot Scale: 1000.0 mV

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Chromatogram

Sample Name : 060006-10

fileName : O:\200006\DATA\5611012.RAW

method :

Start Time : 0.00 min

Scale Factor: 0.0

Sample #: 060201

Date : 06/12/2000 13:01

Time of Injection: 06/11/2000 17:32

Low Point : 0.00 mV

Plot Scale: 1000.0 mV

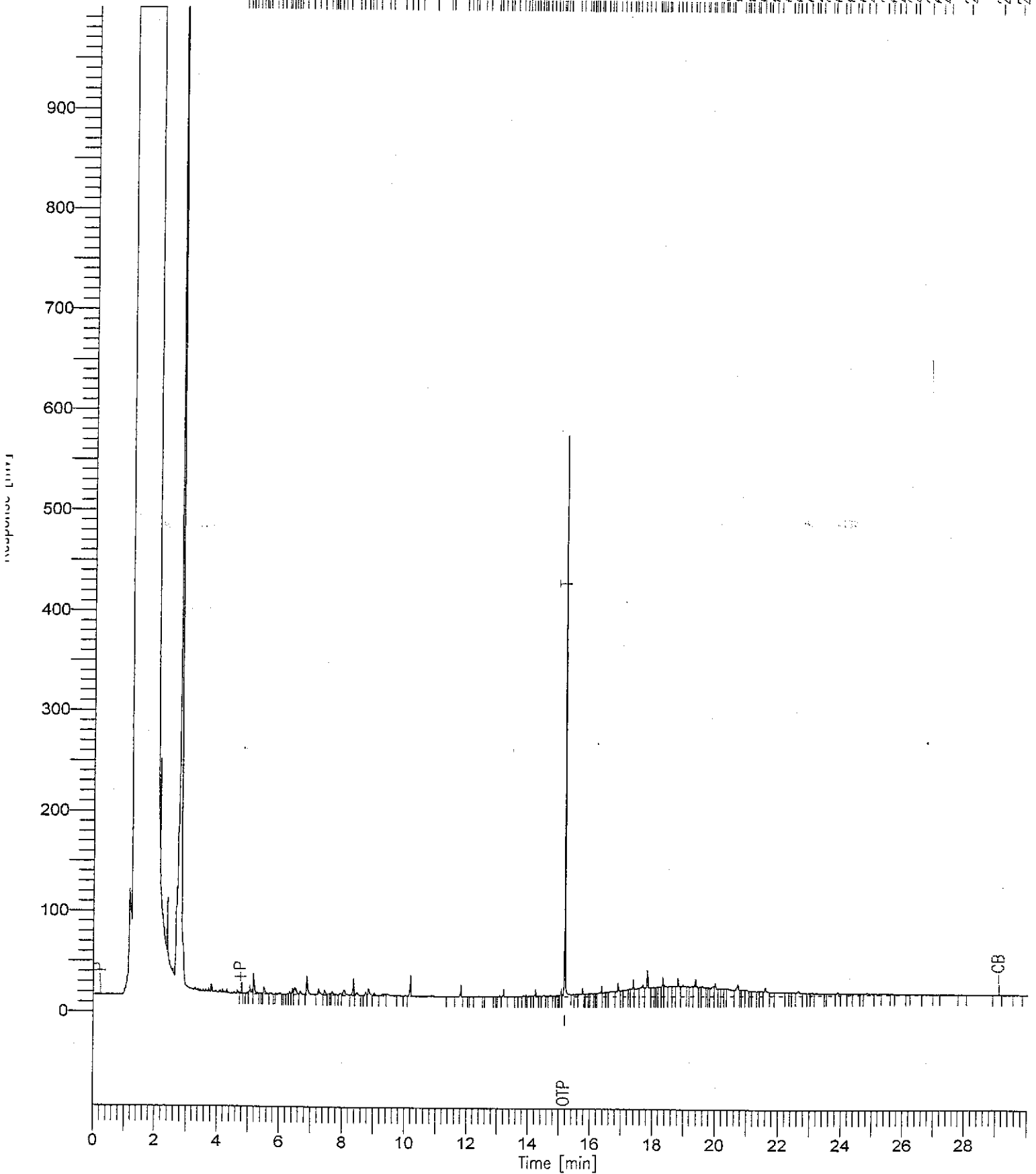
Page 1 of 1

End Time : 30.00 min

Plot Offset: 0 mV

High Point : 1000.00 mV

5.800 6.000 6.200 6.400 6.600 6.800 7.000 7.200 7.400 7.600 7.800 8.000 8.200 8.400 8.600 8.800 9.000 9.200 9.400 9.600 9.800 10.000 10.200 10.400 10.600 10.800 11.000 11.200 11.400 11.600 11.800 12.000 12.200 12.400 12.600 12.800 13.000 13.200 13.400 13.600 13.800 14.000 14.200 14.400 14.600 14.800 15.000 15.200 15.400 15.600 15.800 16.000 16.200 16.400 16.600 16.800 17.000 17.200 17.400 17.600 17.800 18.000 18.200 18.400 18.600 18.800 19.000 19.200 19.400 19.600 19.800 20.000 20.200 20.400 20.600 20.800 21.000 21.200 21.400 21.600 21.800 22.000 22.200 22.400 22.600 22.800 23.000 23.200 23.400 23.600 23.800 24.000 24.200 24.400 24.600 24.800 25.000 25.200 25.400 25.600 25.800 26.000 26.200 26.400 26.600 26.800 27.000 27.200 27.400 27.600 27.800 28.000 28.200 28.400 28.600 28.800 29.000 29.200 29.400 29.600 29.800 30.000



Chromatogram

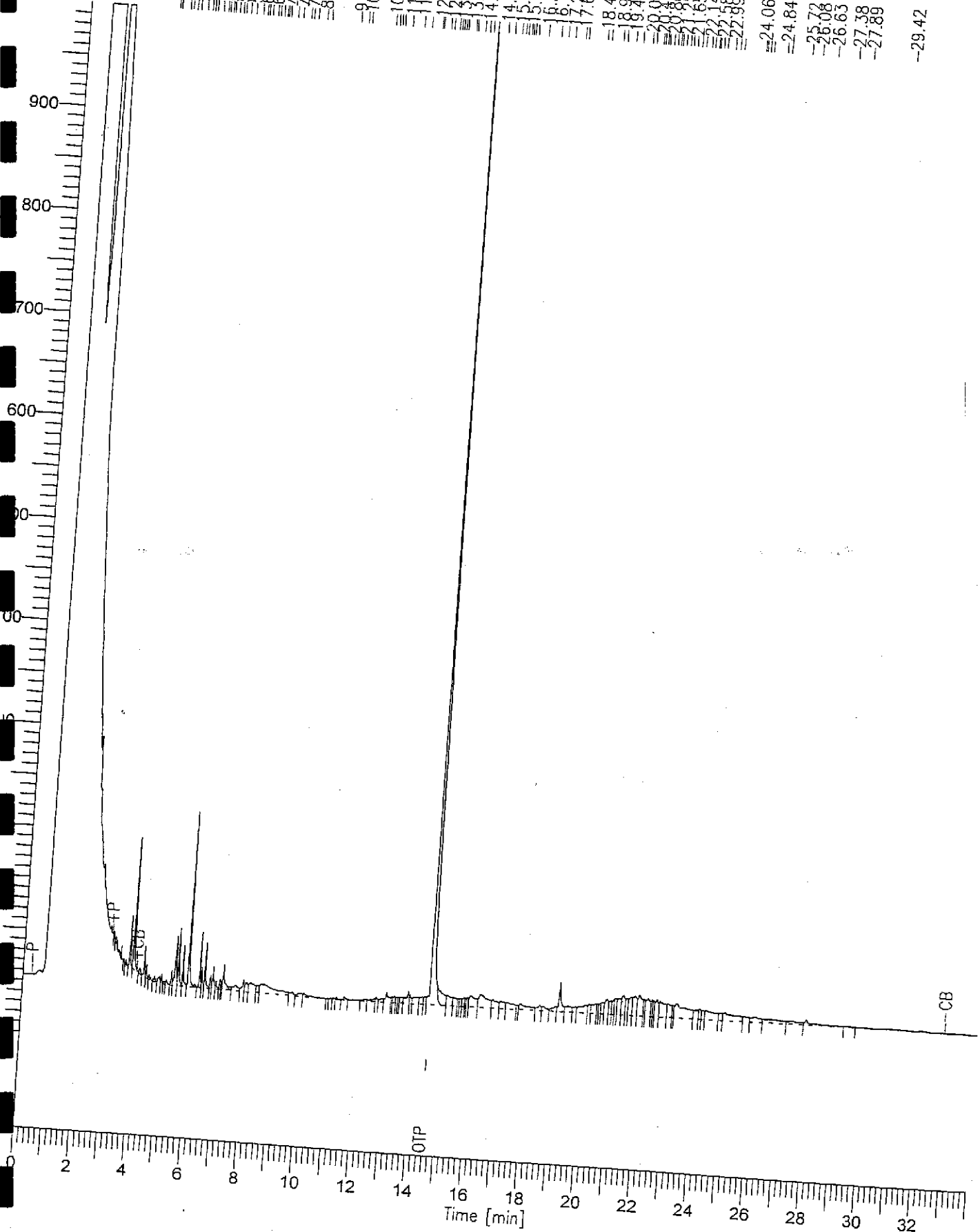
Sample Name : 060006-11
File Name : P:\200006\DATA\H609015.raw
Method : 4TPH0417
Start Time : 0.00 min
Sample Factor : 0.0

End Time : 34.00 min
Plot Offset : 0 mV

Sample #: 060201
Date : 06/10/2000 01:22
Time of Injection: 06/10/2000 00:48
Low Point : 0.00 mV
Plot Scale: 1000.0 mV
High Point : 1000.00 mV

Page 1 of 1

- 9.675
- 10.91
- 11.93
- 15.68
- 17.46
- 18.90
- 20.34
- 21.77
- 22.63
- 24.43
- 24.99
- 26.44
- 28.05
- 29.52
- 31.16
- 32.99
- 24.06
- 24.84
- 25.76
- 26.63
- 27.38
- 27.89
- 29.42



Handwritten notes:
2/100
2/100