James P. Bowers, PE
R. William Rudolph, Jr., PE

ALCO
HAZMAT

94 JAN 26 PM 2:25

LETTER OF TRANSMITTAL

TO: Ms. Juliet Shin
Alameda County Health Care Services Agency
80 Swan Way, Room #200
Oakland, California 94611

DATE: January 24, 1994
PROJECT College of Alameda
SCI JOB NUMBER: 469.005

WE ARE SENDING YOU:

1 copies

- [X] of our final report
- [ ] a draft of our report
- [ ] a Service Agreement
- [ ] a proposed scope of services
- [ ] specifications
- [ ] grading/foundation plans
- [ ] soil samples/groundwater samples
- [ ] an executed contract
- [ ] _____

- [X] if you have any questions, please call
- [ ] for your review and comment
- [ ] please return an executed copy
- [ ] for geotechnical services
- [ ] with our comments
- [ ] with Chain of Custody documents
- [ ] for your use
- [ ] _____
- [ ] _____

REMARKS: In your letter dated 12/27/93/ you requested figures showing locations of samples collected prior to overexcavation and documentation of the fate of excavated soil. The enclosed Underground Tank Closure and Groundwater Investigation Workplan dated 10/31/91, contains the information you have requested.

Does not contain this info.? 2/7/94

COPIES TO:

BY: Marianne Watada
Marianne Watada

Subsurface Consultants, Inc.
171 12th Street • Suite 201 • Oakland, California 94607 • Telephone 510-268-0461 • FAX 510-268-0137

UNDERGROUND TANK CLOSURE
AND GROUNDWATER INVESTIGATION
WORK PLAN
COLLEGE OF ALAMEDA
555 ATLANTIC AVENUE
ALAMEDA, CALIFORNIA
SCI 469.005

Prepared for:

Mr. Ronald A. Graciolett
Peralta Community College District
501 5th Avenue
Oakland, California 94606

By:

John V. Bosche
Geotechnical Engineer 156 (expires 3/31/92)

R. William Rudolph
Geotechnical Engineer 741 (expires 12/31/92)

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(415) 268-0461

October 31, 1991

I INTRODUCTION

This report records the results of environmental engineering services performed by Subsurface Consultants, Inc (SCI) during the removal of 5 underground storage tanks at the College of Alameda in Alameda, California. The tanks were removed from the site by Tank Protect Engineering on August 15 and 20, 1991. Buried pipelines associated with the tanks were removed on September 6, 1991.

SCI was retained by the Peralta Community College District to (1) obtain samples as required by the Alameda County Health Care Services Agency (ACHCSA) during tank removal (2) direct the removal of localized contaminated soil associated with releases from the previous tanks, (3) document site activities, and (4) prepare this closure report.

II TANK REMOVALS

The tanks stored gasoline, fuel oil and waste oil products. Tank and pipeline locations are shown on the Site and Tank Plans, Plates 1 through 5. Data regarding tank size, contents, and construction are presented on the following table.

Table 1.
Tank Description

Tank	Capacity (Gallons)	Content	Construction	Diameter (feet)	Length (feet)	Depth to Bottom (feet)
A1	550	gasoline	fiberglass	4	7.5	7
A2	4,000	fuel oil[1]	coated steel	6	17.5	9.5
A3	10,000	fuel oil	coated steel	8	28	10
A4	225	waste oil	coated steel	2.5	6	6.5
A5	325	gasoline	coated steel	4	4	4.5

[1] Fuel oil is commonly known as diesel #2

Prior to tank removal, an underground tank closure plan was prepared by Tank Protect Engineering and submitted to and approved by the ACHCSA. In addition, a tank removal permit was obtained from the City of Alameda Fire Department. An SCI field technician was on-site full-time to observe removal activities and collect the required soil samples for analysis.

There were no visible signs of deterioration of tanks A1, A2, A3 and A5. Two corrosion holes were visible near the top of the waste oil tank, A4. One hole was approximately 3/4 inch in diameter and the other was oblong with dimensions of about 2 by 4.5 inches. The tanks were transported under manifest from the site by Erickson, Inc.

Dispensers for the gasoline tanks, A1 and A5 were situated directly above the respective tanks. As such the pipelines for A1 and A5 were removed. Pipelines associated with tanks A2, A3 and A4 were either abandoned in place or removed. Pipelines were abandoned in-place where they extended beneath sensitive buried

utilities and slab-on-grade floors. Copper pipelines abandoned in place from tanks A2 and A3 were pressure washed and sealed by crimping. Steel pipelines abandoned in place from tank A4 were pressure washed and sealed with plugs. There was no visible deterioration of the pipelines which were removed.

Groundwater was observed in the excavations for tanks A1, A2 and A3. No visible product nor sheen was observed on the water surface in the excavation for tank A1. A water sample was obtained from the tank A1 excavation. During removal of tanks A2 and A3 a small quantity (probably less than 1 gallon) of fuel oil flowed from a disconnected pipeline into the excavation. The visible floating product was removed from the water surface with absorbent pads. Due to the presence of product on the water surface, a water sample was not obtained from the tank A2 and A3 excavation.

III ENVIRONMENTAL SAMPLING AND ANALYTICAL TESTING

SCI obtained 27 soil samples and one water sample from the tank and pipeline excavations, as directed by Cynthia Chapman, hazardous materials specialist with the ACHCSA assigned to oversee site activities. Soil samples were obtained from below tanks A4 and A5. However due to the presence of water in the other excavations, sidewall soil samples were obtained. The sidewall samples were obtained from near the Bay Mud/fill interface and/or just above the water level. Soil samples were also obtained from below pipelines associated with tanks A2, A3 and A4. The

excavation for tank A4 was enlarged following tank removal to remove localized contaminated soil. Confirmation samples were obtained at the final limits of the excavation. Sample locations are shown on Plates 2 through 5.

Samples were also obtained from the soil stockpiles generated during removal of the tanks. The stockpiles generated from excavation of the gasoline and fuel oil tanks, A1, A2, A3 and A5, were sampled at a rate of 1 sample per 20 cubic yards of excavated soil. Four discrete samples were obtained from the soil stockpile generated during excavation of the waste oil tank, A4. The discrete samples were later composited into one sample at the laboratory for analysis. Stockpile sample locations are shown on Plates 6, 7 and 8.

Soil samples were retained in pre-cleaned 2-inch-diameter brass sample liners. Sample liner ends were covered with Teflon sheets and plastic caps, prior to sealing them with duct tape. The water sample collected from the tank A1 excavation, was retained in glass and plastic containers, pre-cleaned by the supplier in accordance with EPA protocol. Soil and water samples were refrigerated until delivery to the analytical laboratory.

Soil and water samples were transmitted to Curtis & Tompkins, Ltd. a laboratory certified by the California Department of Health Services to conduct the tests requested. The testing program included analyses for total volatile hydrocarbons (EPA 8015/5030); total extractable hydrocarbons (EPA 8015/3550); benzene, toluene, ethylbenzene and xylene (BTEX EPA 8020/5030); Title 26 metals (EPA

methods 3050, 6010, 7060, 7420, 7471, 7740 and 7841); total oil and grease (SMWW 5520); halogenated volatile organics (EPA 8010); and semivolatile organic compounds (EPA 8270), as appropriate.

The analytical test results for samples obtained from the tank and pipeline excavations are presented in Tables 2, 3, 4 and 5. Test results for the soil stockpile samples are presented in Tables 5 and 6. Copies of the analytical laboratory test reports and Chain-of-Custody documents are attached.

Table 2.
Contaminant Concentrations in Soil
Gasoline and Fuel Oil Tank Areas
A1, A2, A3 and A5

Tank	Contents	Sample	TVH[1] mg/kg[4]	TEH[2] mg/kg	B[3] ug/kg[5]	T[3] ug/kg	E[3] ug/kg	X[3] ug/kg	Total Lead mg/kg
A1	Gasoline	A1-1 @ 2'	<1.0	--[6]	<5.0	<5.0	<5.0	<5.0	<3.0
		A1-2 @ 5'	<1.0	--	<5.0	<5.0	<5.0	<5.0	15
A2	Fuel Oil	A2-1 @ 5'	--	1.7	<5.0	<5.0	<5.0	<5.0	--
		A2-2 @ 5'	--	63	<5.0	<5.0	<5.0	<5.0	--
A3	Fuel Oil	A3-1 @ 5'	--	2.0	<5.0	<5.0	<5.0	<5.0	--
		A3-2 @ 5'	--	2.0	<5.0	<5.0	<5.0	<5.0	--
A5	Gasoline	A5-1 @ 5'	1.1	--	<5.0	<5.0	<5.0	<5.0	16
Pipeline									
A2	Fuel Oil	A2-6 @ 3.5'	--	14	<5.0	<5.0	<5.0	<5.0	--
		A2-7 @ 3.5'	--	11	<5.0	<5.0	<5.0	<5.0	--
A3	Fuel Oil	A3-8 @ 3.5'	--	5.4	<5.0	<5.0	<5.0	<5.0	--
		A3-9 @ 3.5'	--	9.4	<5.0	<5.0	<5.0	<5.0	--
		A3-10 @ 3.5'[7]	--	560	50	180	150	560	--
		A3-11 @ 3.5'[8]	--	1,400	<5.0	11	17	120	--
		A3-12 @ 3.5'	--	50	<5.0	<5.0	<5.0	<5.0	--
		A3-13 @ 6.5'	--	2.6	<5.0	<5.0	<5.0	<5.0	--
		A3-14 @ 7.0'	--	4.6	<5.0	<5.0	<5.0	<5.0	--

1 TVH = total volatile hydrocarbons
2 TEH = total extractable hydrocarbons
3 BTEX = benzene, toluene, ethylbenzene and total xylenes
4 mg/kg = milligrams per kilogram
5 ug/kg = micrograms per kilogram
6 -- = Test not requested
7 Soil sample removed by subsequent excavation, see sample A3-13
8 Soil sample removed by subsequent excavation, see sample A3-14

Table 3.
Contaminant Concentration in Water
Tank A1 Excavation

Tank	Contents	Sample	TVH[1] ug/l[3]	B[2] ug/l	T[2] ug/l	E[2] ug/l	X[2] ug/l	Total Lead ug/l
A1	Gasoline	A1-Water	800	78	99	10	52	<3.0

1 TVH = total volatile hydrocarbons
2 BTEX = benzene, toluene, ethylbenzene and total xylenes
3 ug/l = micrograms per liter

Table 4.
Contaminant Concentrations in Soil
Waste Oil Tank Area A4

Sample	O&G[1] mg/kg[5]	TEH[2] mg/kg	TVH[3] mg/kg	B[4] ug/kg[6]	T[4] ug/kg	E[4] ug/kg	X[4] ug/kg
A4-1 @ 6.5'[7]	520	220	28	<10	12	66	74
A4-2 @ 3'	<50	--[8]	--	--	--	--	--
A4-3 @ 5'	<50	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
A4-4 @ 5'	<50	4.5	<1.0	<5.0	<5.0	<5.0	<5.0
A4-5 @ 5'[9]	140	8.9	<1.0	<5.0	<5.0	<5.0	<5.0
A4-6 @ 5'	60	3.3	<1.0	<5.0	<5.0	<5.0	<5.0
A4-7 @ 11'	<50	8.6	<1.0	<5.0	<5.0	<5.0	<5.0
A4-8 @ 11'	<50	1.7	<1.0	<5.0	<5.0	<5.0	<5.0
A4-9 @ 4'[10]	390	29	76	<80	400	370	2,400
A4-10 @ 7'	<50	3.4	<1.0	<5.0	<5.0	<5.0	<5.0
A4-11 @ 5'	50	--	--	--	--	--	--

---

1 O&G = Hydrocarbon Oil and Grease
2 TEH = Total extractable hydrocarbons
3 TVH = Total volatile hydrocarbons
4 BTEX = Benzene, toluene, ethylbenzene and total xylenes
5 mg/kg = milligrams per kilogram
6 ug/kg = micrograms per kilogram
7 Soil sample removed by subsequent excavation, see samples A4-7 and A4-8
8 -- = Test not requested
9 Soil sample removed by subsequent excavation, see sample A4-11
10 Soil sample removed by subsequent excavation, see sample A4-10

Table 5.
Contaminant Concentration in Soil
Waste Oil Tank Area A4

Analysis/Chemical	Sample Identification: Stockpile A4-1 @ 6.5'	Sample Identification: Composite
Metals		
Antimony	--[2]	<3.0 mg/kg[1]
Arsenic	--	3.4 mg/kg
Barium	--	50.5 mg/kg
Beryllium	--	0.19 mg/kg
Cadmium	<0.25 mg/kg	<0.25 mg/kg
Chromium (total)	26.2 mg/kg	40.7 mg/kg
Cobalt	--	9.5 mg/kg
Copper	--	31.0 mg/kg
Lead	5.4 mg/kg	11.4 mg/kg
Mercury	--	0.19 mg/kg
Molybdenum	--	<0.70 mg/kg
Nickel	30 mg/kg	39.8 mg/kg
Selenium	--	<2.5 mg/kg
Silver	--	<0.50 mg/kg
Thallium	--	<2.5 mg/kg
Vanadium	--	31.4 mg/kg
Zinc	52.3 mg/kg	95.8 mg/kg
Volatiles		
1,2 Dichlorobenzene	250 ug/kg[3]	ND
Other EPA 8010 Chemicals	ND[4]	ND
Semivolatiles		
Phenanthrene	2900 ug/kg	230[5] ug/kg
Fluoranthene	4200 ug/kg	240[5] ug/kg
Pyrene	3100 ug/kg	210[5] ug/kg
Benzo (a) anthracene	1400 ug/kg	<330 ug/kg
Chrysene	1800 ug/kg	<330 ug/kg
Benzo (b) fluoranthene	2500 ug/kg	<330 ug/kg
Benzo (a) pyrene	1600 ug/kg	<330 ug/kg
Indeno (1, 2, 3-cd) pyrene	990 ug/kg	<330 ug/kg
Benzo (g, h, i) perylene	970 ug/kg	<330 ug/kg
Other EPA 8270 Chemicals	ND	ND
RCI[6]		
Releasable Cyanide	--	<0.3 mg/kg
Releasable Sulfide	--	<1.0 mg/kg
Ignitability	--	Does not Ignite
pH	--	8.1
Corrosivity	--	<6.35 mm/yr

1 mg/kg = milligrams per kilogram
2 -- = Test not requested
3 ug/kg = micrograms per kilogram
4 ND = None detected, chemicals not present at concentrations above detection limits
5 Detected at concentration below reporting limit
6 RCI = Reactivity, corrosivity and ignitability

Table 6.
Contaminant Concentrations in Soil Stockpiles

Sample	TVH[1] (mg/kg)[5]	TEH[2] (mg/kg)	O&G[3] (mg/kg)	BTEX[4] (ug/kg)[6]	Total Lead (mg/kg)
A1-3	<1.0	--[7]	--	<5.0	61
A2-3	--	2.8	--	--	--
A2-4	--	1.7	--	--	--
A2-5	--	21	--	--	--
A3-3	--	4.7	--	--	--
A3-4	--	1.6	--	--	--
A3-5	--	130	--	--	--
A3-6	--	2.9	--	--	--
A3-7	--	3.2	--	--	--
Tank A4 Composite	3.2	11	200	50[8]	5.4
A5-2	4.2	--	--	<5.0	4.5

---

1 TVH = total volatile hydrocarbons
2 TEH = total extractable hydrocarbons
3 O&G = Hydrocarbon oil and grease
4 BTEX = benzene, toluene, ethylbenzene and total xylenes
5 mg/kg = milligrams per kilogram
6 ug/kg = micrograms per kilogram
7 -- = Test not requested
8 Detected 6.2 ug/kg ethylbenzene and 44 ug/kg total xylenes

IV SUPPLEMENTAL EXCAVATION AND BACKFILLING

A. Gasoline and Fuel Oil Tank Areas

Low concentrations of petroleum hydrocarbons and total lead were detected in the soil samples obtained from the excavation limits for tanks A1, A2, A3 and A5. The contaminate concentrations left in place (1.7 to 63 mg/kg diesel range) are judged to be sufficiently low so as not to warrant further soil excavation near these tanks. Therefore, the excavations were backfilled with clean imported pea gravel. Standing water present in excavations A1, A2 and A3 was removed prior to backfilling.

In general, low concentrations of petroleum hydrocarbons (2.6 to 50 mg/kg diesel range) were found in the pipeline excavations associated with tanks A2 and A3. The exception was at sample locations A3-10 and A3-11. At these sample locations some fuel oil was spilled on the soil during cutting and flushing of a pipeline. The excavation was deepened in these 2 areas to remove locally contaminated soil. Analytical test results indicate that the contaminated soil was successfully removed and the pipeline excavations were backfilled with clean imported material.

B. Waste Oil Tank Area

Concentrations of gasoline, diesel, oil and grease, BTEX, and various volatile and semivolatile organic compounds were detected in the initial soil sample obtained from below the tank. Subsequently, the excavation was enlarged to remove the contaminated materials. Confirmation samples were taken from the

sidewalls and base of the resulting excavation as well as along the pipeline alignment. The results of the analysis indicate that soils remaining in place contain oil and grease varying in concentration from <50 to 60 mg/kg and diesel range hydrocarbons varying in concentration from <1 to 9 mg/kg.

The resulting excavation was backfilled with imported soil. Approximately 9 feet of pea gravel was placed in the excavation. The surface layer of pea gravel was compacted and covered with at least 11 inches of Class 2 aggregate baserock. The base rock was compacted to at least 95 percent (ASTM D1557). The tank area was then paved with 3 inches of asphaltic concrete.

V SOIL DISPOSAL

A. Gasoline and Fuel Oil Tank Areas

Approximately 250 loose cubic yards of soil was generated during removal of tanks A1, A2, A3 and A5. The stockpiled soils contained total extractable hydrocarbons (1.6 to 130 mg/kg), total volatile hydrocarbons (<1.0 to 4.2 mg/kg) and total lead (4.5 to 61 mg/kg). The test results were transmitted to the BFI Vasco Road Class III Sanitary Landfill in Livermore, California for their review. The material was accepted by the facility and subsequently transported by truck to the landfill for disposal between September 5, and 11, 1991.

B. Waste Oil Tank Area

Approximately 150 cubic yards of soil was generated during removal of tank A4. The stockpiled soil contained oil and grease (200 mg/kg), diesel (11 mg/kg), xylene (44 ug/kg), ethylbenzene (6.2 ug/kg), several heavy metals and polynuclear aromatic hydrocarbons. The test results were transmitted to the BFI Vasco Road Sanitary Landfill for their review. After their acceptance, the material was transported and disposed of at the BFI facility on September 23, 1991.

VI DISCUSSION AND CONCLUSIONS

A. Soil Contamination

Test results indicate that localized releases of petroleum hydrocarbons have occurred near all of the tanks removed from the site. However, soil contamination requiring remediation was not detected in the excavations for tanks A1, A2, A3 and A5. As such no further excavation was performed and these excavations were backfilled with clean imported fill.

Soil contamination requiring remediation was detected within the excavation for the waste oil tank, tank A4 and along the pipeline alignments associated with tank A3. Additional soil was excavated in these areas until confirmation samples were found to contain less than 60 mg/kg of petroleum hydrocarbons. Upon completion, these excavations were also backfilled with clean imported material.

All contaminated soils stockpiled at the site were characterized by laboratory analysis. The soils were accepted by the BFI Vasco Road Class III Sanitary landfill and transported to that facility for disposal.

B. Groundwater Contamination

Groundwater is situated about 6 feet below the ground surface at the site and as such accumulated in tank excavations A1, A2 and A3. A sample of groundwater which accumulated in the tank A1 excavation contained elevated concentrations of total volatile hydrocarbons and BTEX. No free floating product nor sheen was observed in the tank A1 excavation. Fuel oil was spilled onto the water surface in tank excavation A2 and A3 during tank removal activities. Visible fuel oil was absorbed using pads. Water which accumulated was removed prior to backfilling by Alviso Independent Oil. Approximately 2000 gallons of water was transported by Alviso Independent Oil under manifest to their treatment facility.

The Regional Water Quality Control Board guidelines indicate that a groundwater investigation should be conducted whenever groundwater has potentially been impacted. As such an investigation should be conducted at the site. A work plan proposing a scope for the investigation is presented in the next section.

VI GROUNDWATER INVESTIGATION WORK PLAN

Detectible concentrations of petroleum hydrocarbons were found near all tanks removed from the site. Based upon our telephone conversations with Mr. Dennis Byrne with ACHCSA, no groundwater investigation will be required in the tank A5 area, since the contaminate concentrations detected were very low and not indicative of a significant release. However, the ACHCSA is requiring a groundwater investigation near previous tanks A1, A2, A3 and A4.

A. Well Installation

The investigation should consist of installing 3 groundwater wells and performing quarterly monitoring events. The wells should be installed in the presumed downgradient direction of the tanks as indicated on Plate 9. Groundwater protection ordinance permits will be obtained prior to well installation.

The wells will be constructed in boreholes drilled with hollow stem auger equipment. The boreholes will be sampled every 3 feet and at significant lithologic changes. Soil samples will be handled as previously described. Soil cuttings generated during drilling will be stored in 55 gallon drums for later disposal by others.

In general, wells consisting of 2-inch-diameter PVC pipe will be constructed in the boreholes. The lower portion of the wells will consist of machine-slotted well screen having 0.02 inch slots. The screened section will be positioned such that 8 feet extends

below the water surface and 2 feet extends above the water surface. The upper portion of the wells will consist of solid pipe. Pipe sections will be connected with flush-threaded joints. The annular space around the screened sections will be filled with a sand filter appropriate for the gradation of the aquifer. A bentonite pellet plug will be placed above the filter pack and the upper portions of the borehole will be sealed with cement/bentonite grout. The wellheads will be secured with locking caps and finished below-grade in traffic-rated utility boxes.

The wells will be developed by pumping and/or bailing until the water is relatively clear. Development water will be placed in drums and left on-site for later disposal by others. Once the wells are allowed to recharge to within 80 percent of their initial volume, groundwater samples will be obtained using a dedicated Teflon sampling device. Water samples will be retained in containers precleaned by the supplier in accordance with EPA protocol, and refrigerated until delivery to the analytical laboratory. The samples will be accompanied by Chain-of-Custody records.

After well installation, SCI will perform a level survey of the tops of the well casings using an assumed elevation datum. We will measure the depth to groundwater in the wells and will evaluate the direction and gradient of groundwater flow in the area. SCI will also check the wells for free-floating product.

B. Analytical Testing

At least one soil sample from each boring will be selected for analysis. One of the soil samples will be from the unsaturated zone situated just above the water surface. A water sample from each well will also be analyzed. The proposed testing program is presented in Table 7.

Table 7.
Proposed Testing Program

Well Location	Soil Analysis	Water Analysis
Tank A1	TVH BTEX	O&G TVH TEH Aromatic Volatile Organics
Tanks A2 and A3	TVH BTEX	O&G TVH TEH Aromatic Volatile Organics
Tank A4	O&G TVH TEH Aromatic Volatile Organics	O&G TVH TEH Aromatic Volatile Organics

C. Report

Based on the results of the groundwater investigation, we will develop conclusions and/or recommendations regarding:

1. Subsurface conditions,
2. Groundwater gradient and flow direction,
3. The presence of contaminants analyzed for in the soil and water samples,

4. The significance of contaminant levels with respect to state and local regulatory criteria, and

5. The scope of future monitoring or recommended remedial actions, if necessary.

At the completion of our study, we will submit a report describing the results of our investigation. The report will include boring logs, analytical test data and Chain-of-Custody documents.

D. Groundwater Monitoring

A groundwater monitoring program will be proposed after the results of the initial sampling event are reviewed. In general, wells will be sampled and analyzed on a quarterly basis for 1 year. During each event, groundwater levels will be measured to reevaluate gradient and flow directions. At a minimum the samples will be analyzed for the constituents detected during previous events. The analytical testing program will be discussed and approved by the ACHCSA.

Prior to sampling, the wells will be purged of at least 3 well volumes and allowed to recharge to at least 80 percent of their initial volume. The samples will be obtained using a Teflon sampling device dedicated to each well. The samples will be retained in containers precleaned by the supplier and refrigerated until delivery to the analytical laboratory. The results of each monitoring event will be summarized in a letter report. The report will include a discussion of field services, analytical test reports and Chain-of-Custody documents.

If test results indicate no detectable contamination for one hydrogeologic cycle (4 consecutive monitoring events) a request to cease monitoring will be filed with the ACHCSA. Once the ACHCSA acknowledges the request, they will petition the RWQCB for case closure. Upon receiving case closure status the wells will be properly abandoned.

VIII REPORTING

Details of Tank closure have been observed and discussed with Ms. Cynthia Chapman and Mr. Dennis Byrne with the ACHCSA. We recommend that this report be provided to ACHCSA at the following address:

Mr. Dennis Byrne
Alameda County Health Care Services Agency
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, California 94621

List of Attached Plates:

Plate 1	College Site Plan
Plates 2 through 5	Tank Site Plans
Plates 6 through 8	Stockpile Plans
Plates 9	Well Location Plan

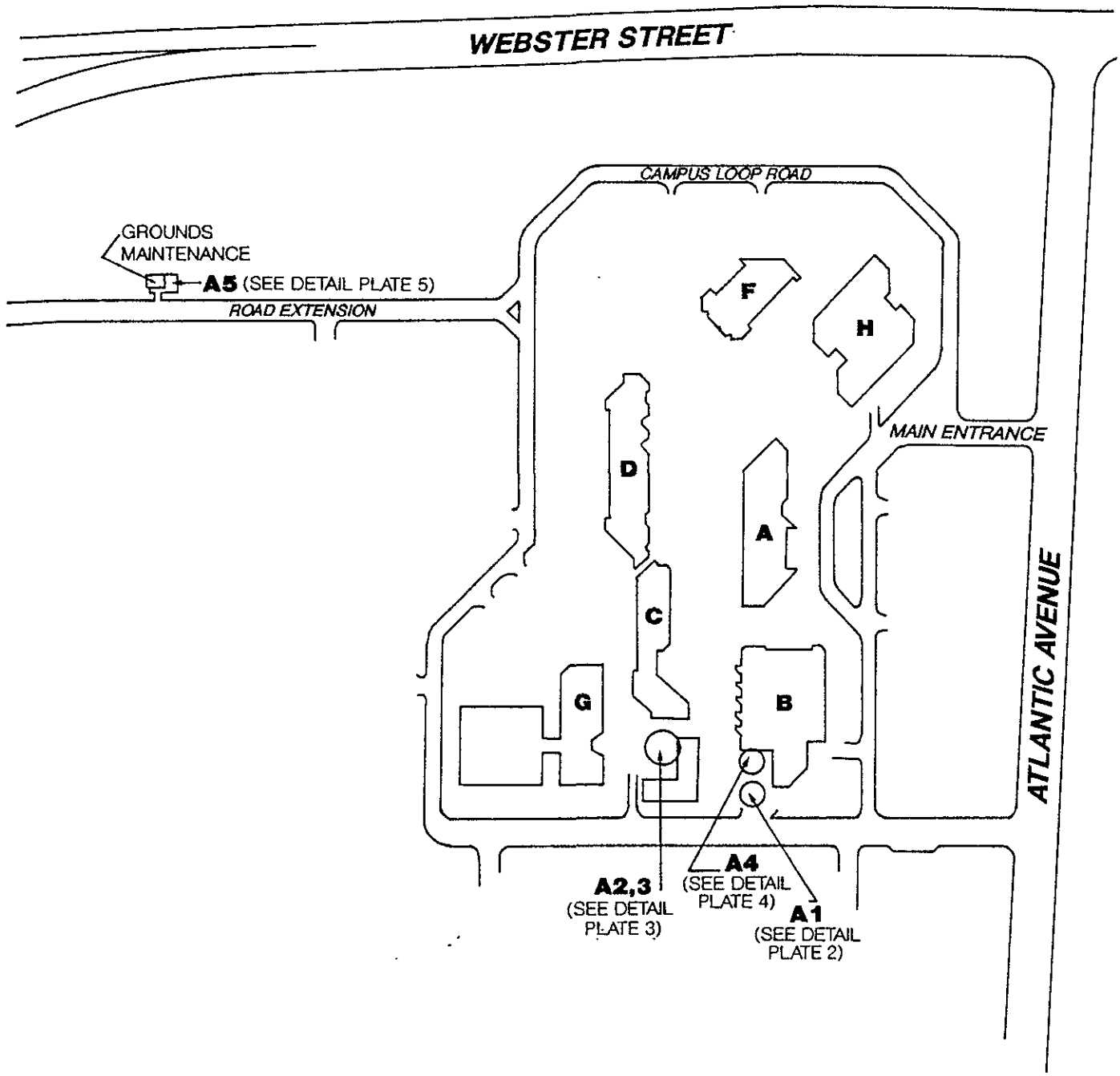
Appendix

A	Analytical Test Reports Chain-of Custody Documents
B	Hazardous Waste Manifests

Distribution

6 copies: Mr. Ronald A. Graciolett
Peralta Community College District
501 5th Avenue
Oakland, California 94606

JVB:JNA:RWR:sld



N

APPROXIMATE SCALE (feet)

0 300 600

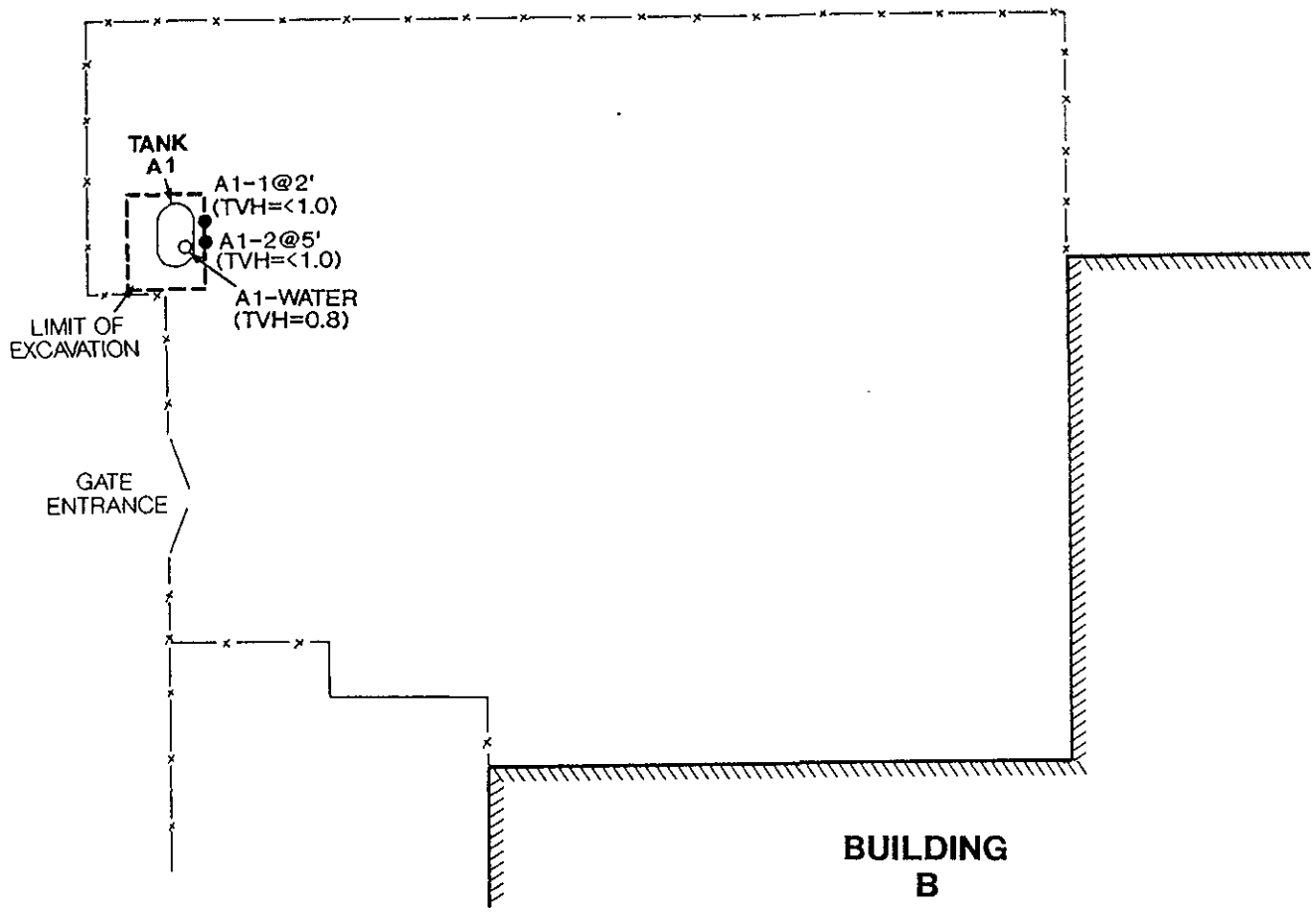
COLLEGE SITE PLAN

Subsurface Consultants

COLLEGE OF ALAMEDA – ALAMEDA, CA

JOB NUMBER	DATE	APPROVED
469.005	1/4/91	JVS

PLATE 1



●	LOCATION OF SIDEWALL SOIL SAMPLE
o	LOCATION OF WATER SAMPLE
A4-1@6.5'	SAMPLE NUMBER AND DEPTH
(TVH=28)	TOTAL VOLATILE HYDROCARBONS mg/kg

N

APPROXIMATE SCALE (feet)

0 20 40

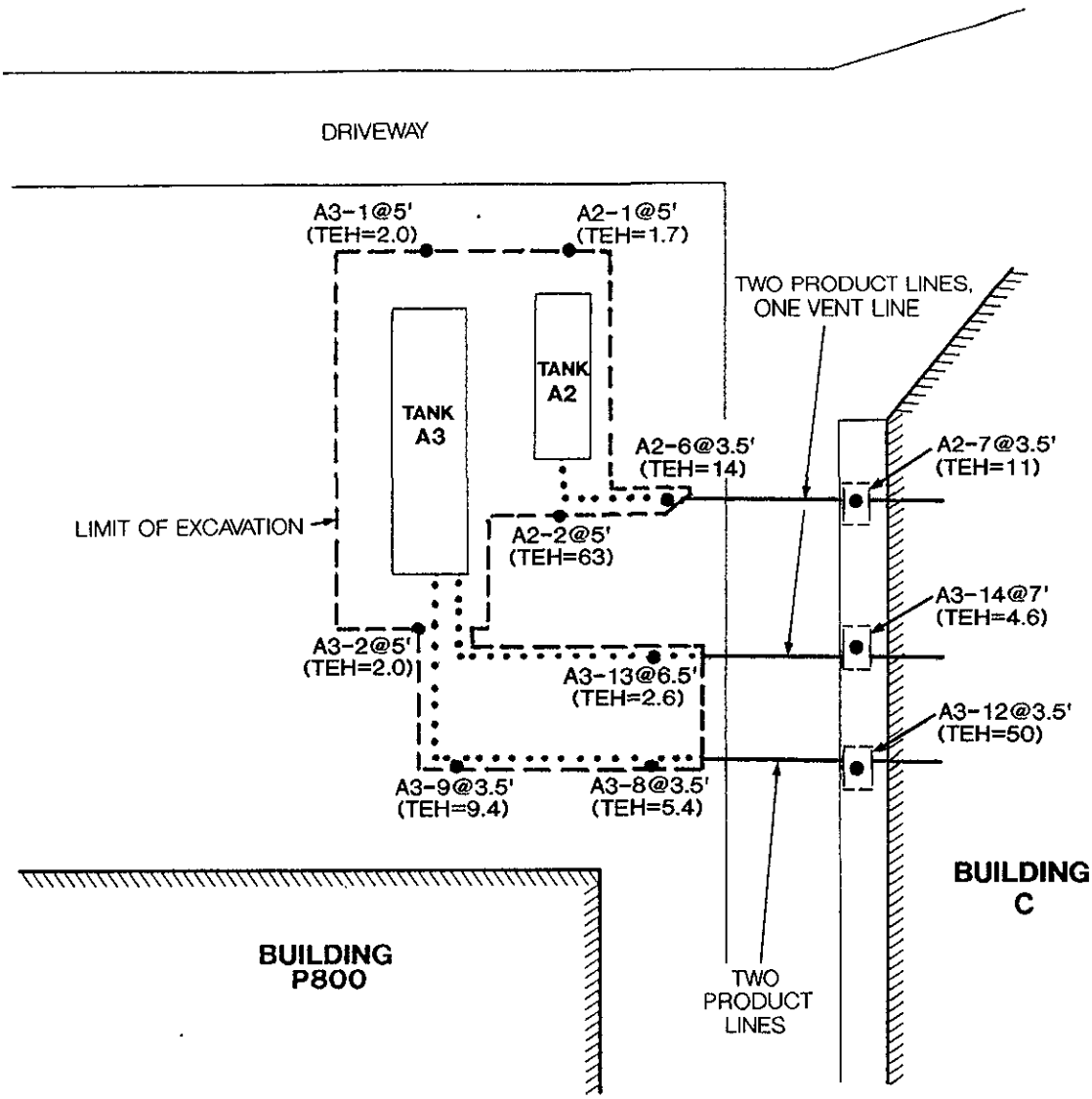
TANK A1 SITE PLAN

Subsurface Consultants

COLLEGE OF ALAMEDA – ALAMEDA, CA

JOB NUMBER	DATE	APPROVED
469.005	8/29/91	JVB

PLATE 2



•	LOCATION OF SIDEWALL OR TRENCH SOIL SAMPLE
A3-2@5'	SAMPLE NUMBER AND DEPTH
(TEH=2.0)	TOTAL EXTRACTABLE HYDROCARBONS mg/kg
———	PIPELINES REMOVED
• • • • • •	PIPELINES ABANDONED IN PLACE

N

APPROXIMATE SCALE (feet)

0 20 40

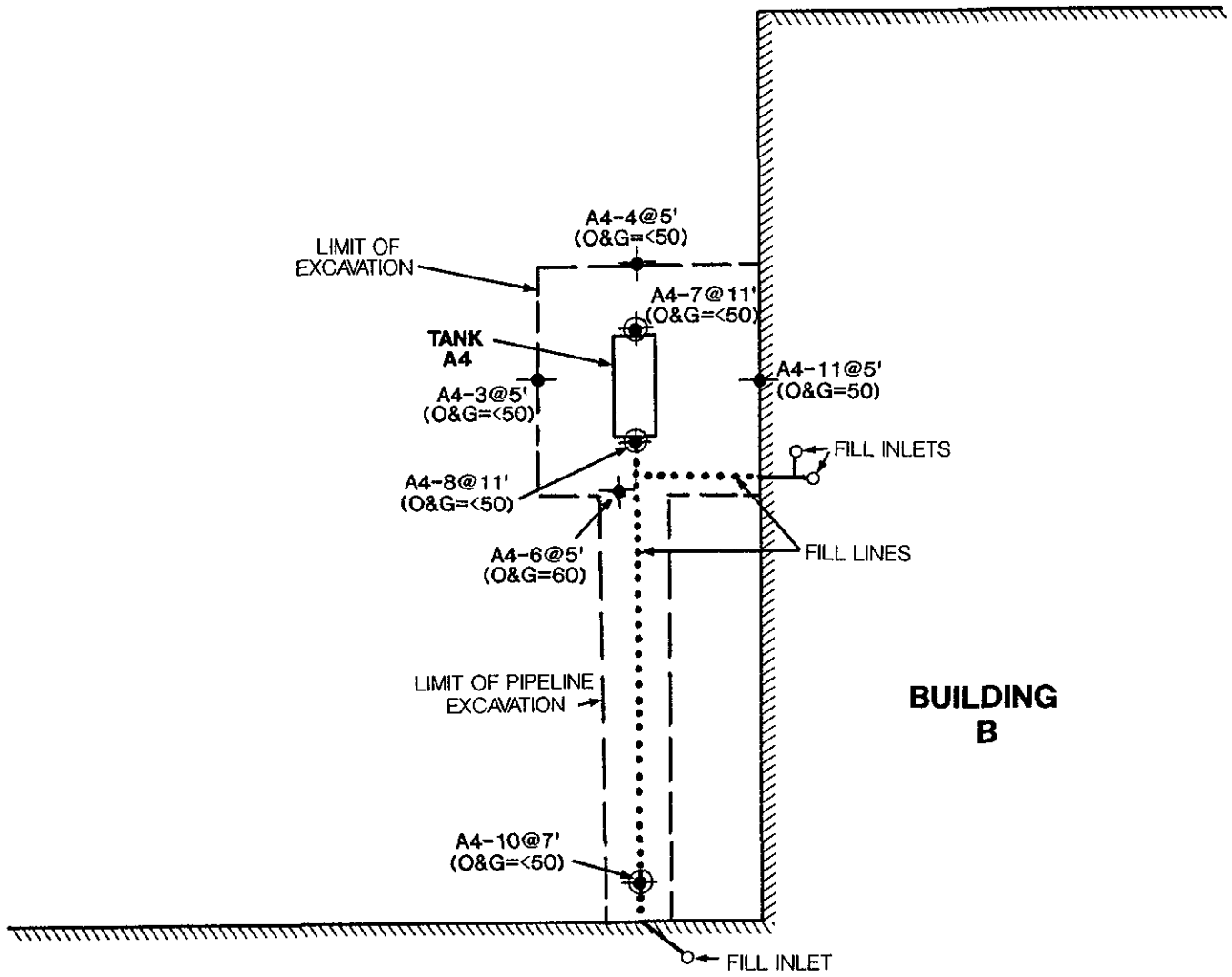
TANK A2 & A3 SITE PLAN

Subsurface Consultants

COLLEGE OF ALAMEDA – ALAMEDA, CA

JOB NUMBER	DATE	APPROVED
469.005	8/29/91	JVB

PLATE 3



LOCATION OF BOTTOM SOIL SAMPLE

LOCATION OF SIDEWALL SOIL SAMPLE

A4-1@6.5' SAMPLE NUMBER AND DEPTH

(O&G=520) HYDROCARBON OIL AND GREASE mg/kg

PIPELINES REMOVED

PIPELINES ABANDONED IN PLACE

APPROXIMATE SCALE (feet)

0 10 20

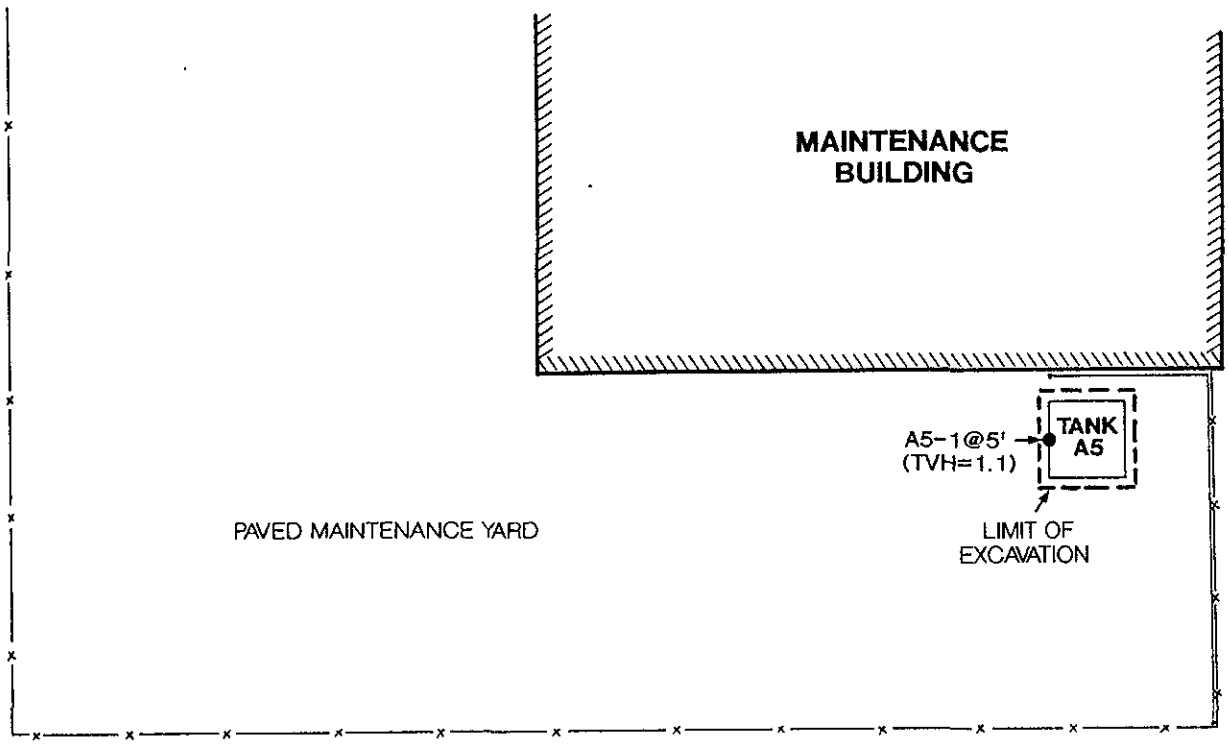
TANK A4 SITE PLAN

Subsurface Consultants

COLLEGE OF ALAMEDA – ALAMEDA, CA

JOB NUMBER	DATE	APPROVED
469.005	10/7/91	JVB

PLATE 4



●	LOCATION OF SOIL SAMPLE
A5-1@5'	SAMPLE NUMBER AND DEPTH
(TVH=1.1)	TOTAL VOLATILE HYDROCARBONS mg/kg

N

APPROXIMATE SCALE (feet)

0 10 20

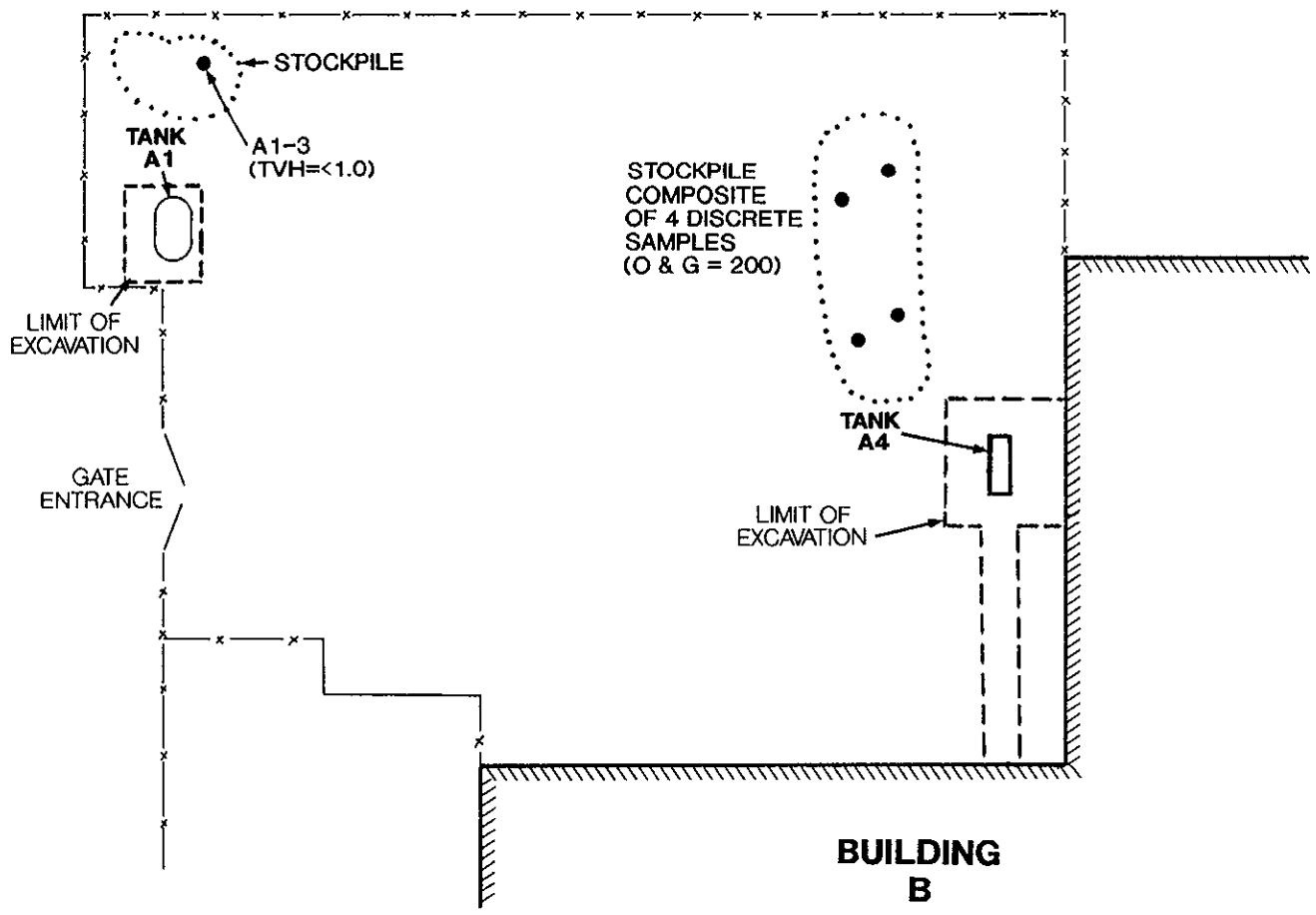
TANK A5 SITE PLAN

Subsurface Consultants

COLLEGE OF ALAMEDA – ALAMEDA, CA

JOB NUMBER	DATE	APPROVED
469.005	8/29/91	JVB

PLATE 5



●	LOCATION OF SOIL SAMPLE
A1-3	SAMPLE NUMBER
(TVH=<1.0)	TOTAL VOLATILE HYDROCARBONS mg/kg
(O&G=200)	HYDROCARBON OIL & GREASE mg/kg

N

APPROXIMATE SCALE (feet)

0 20 40

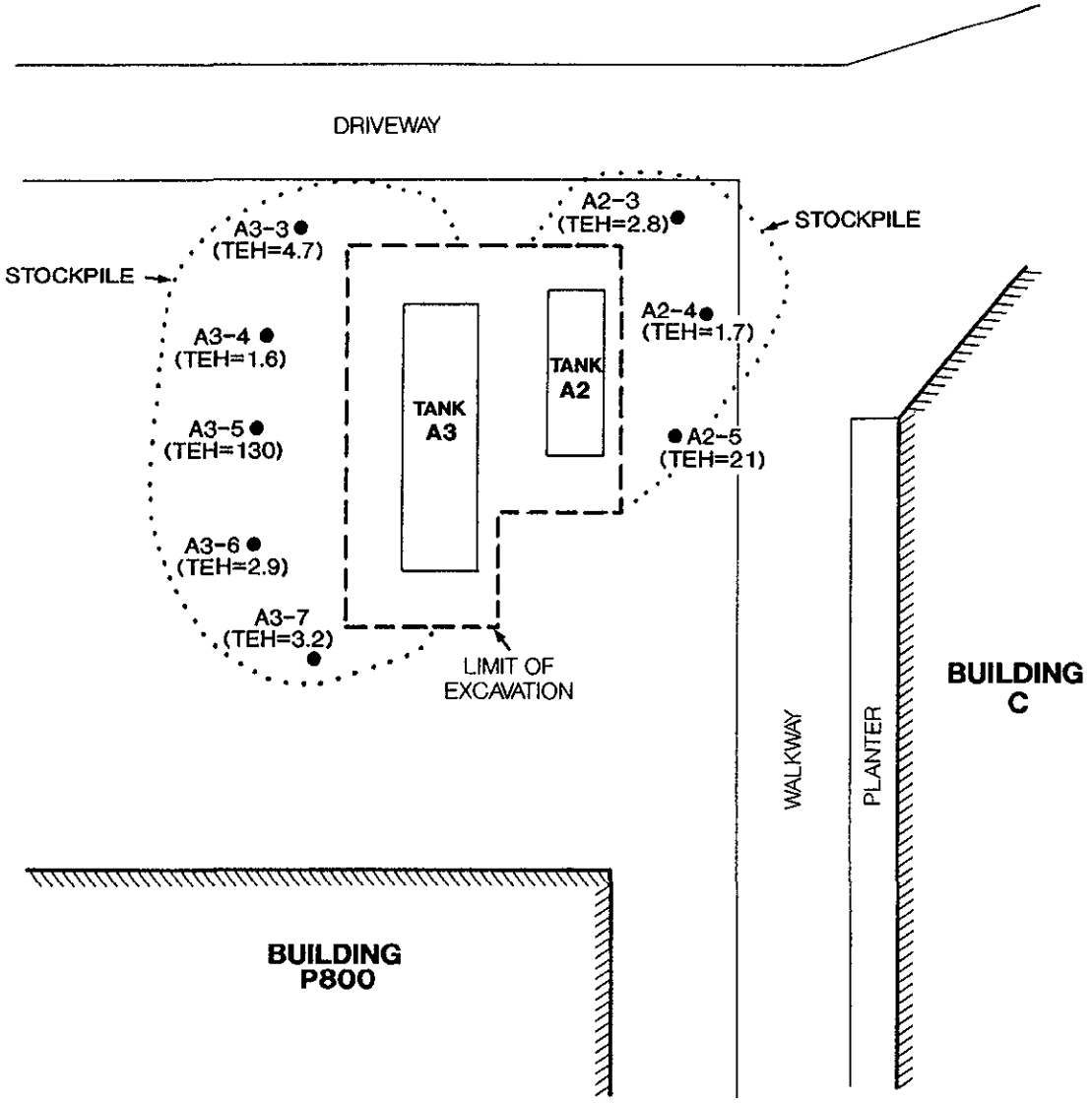
TANK A1 & A4 STOCKPILE PLAN

Subsurface Consultants

COLLEGE OF ALAMEDA – ALAMEDA, CA

JOB NUMBER	DATE	APPROVED
469.005	8/29/91	JVB

PLATE 6



●	LOCATION OF SOIL SAMPLE
A3-7	SAMPLE NUMBER
(TEH=2.9)	TOTAL EXTRACTABLE HYDROCARBONS mg/kg

N

APPROXIMATE SCALE (feet)

0 20 40

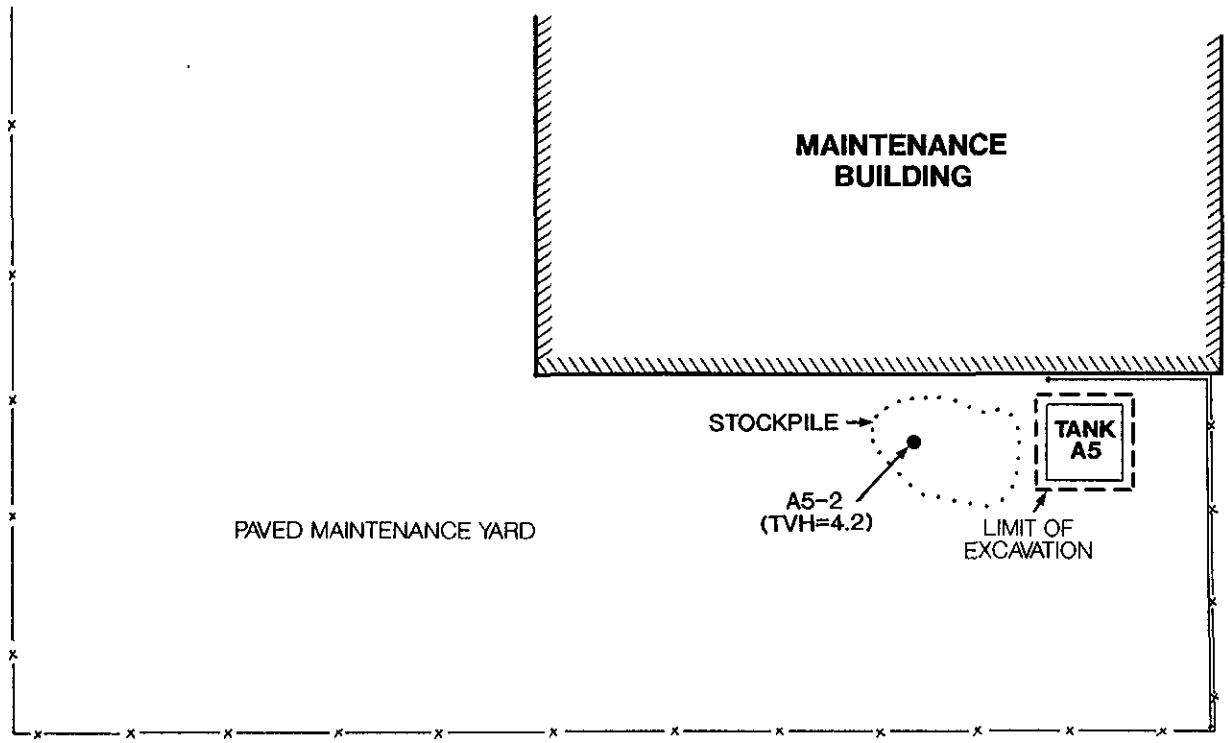
TANK A2 & A3 STOCKPILE PLAN

Subsurface Consultants

COLLEGE OF ALAMEDA – ALAMEDA, CA

JOB NUMBER	DATE	APPROVED
469.005	8/29/91	JVB

PLATE 7



●	LOCATION OF SOIL SAMPLE
A5-2	SAMPLE NUMBER
(TVH=4.2)	TOTAL VOLATILE HYDROCARBONS mg/kg

N

APPROXIMATE SCALE (feet)

0 10 20

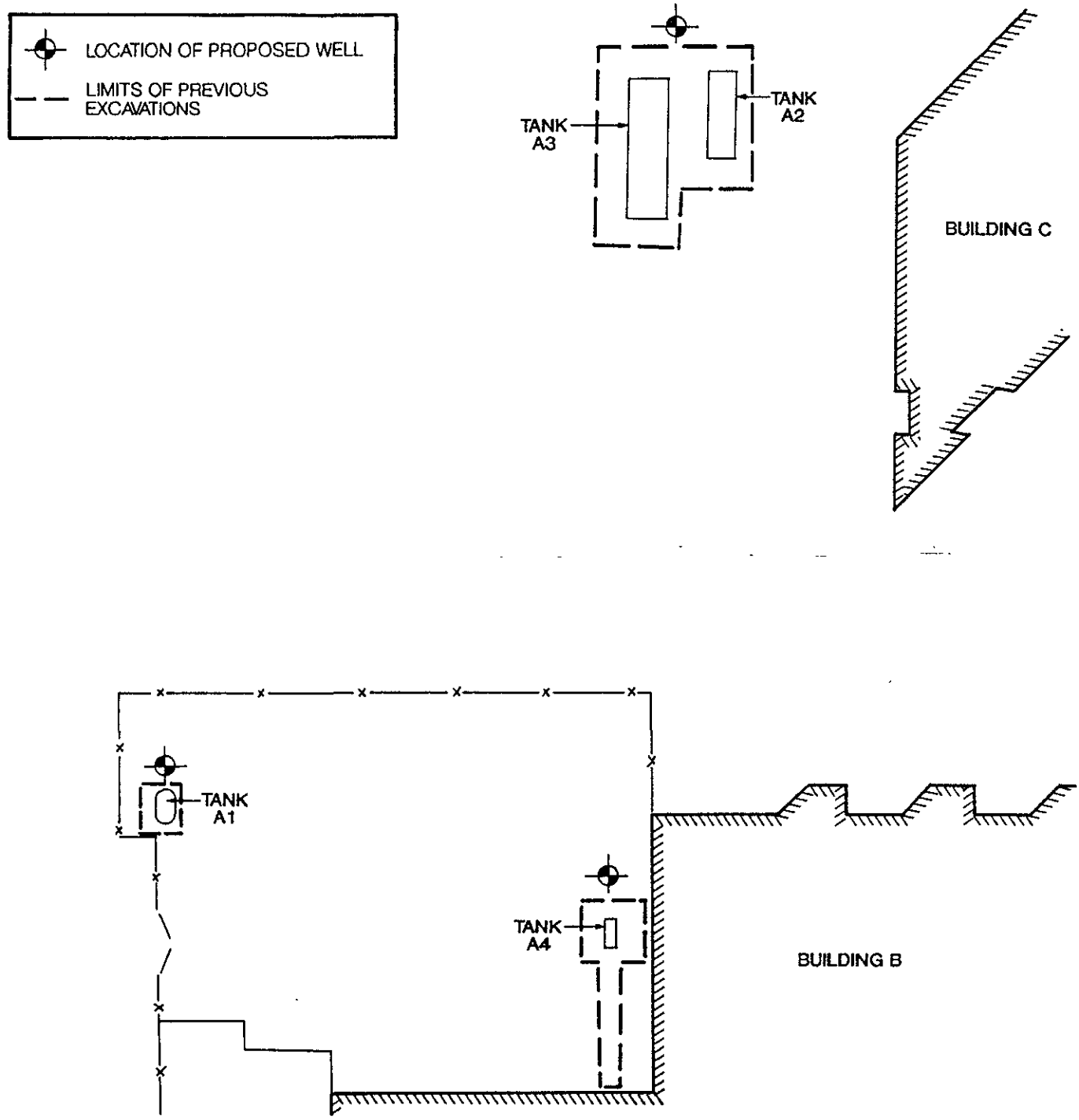
TANK A5 STOCKPILE PLAN

Subsurface Consultants

COLLEGE OF ALAMEDA – ALAMEDA, CA

JOB NUMBER	DATE	APPROVED
469.005	8/29/91	JVB

PLATE 8



LOCATIONS OF PROPOSED WELLS

Subsurface Consultants

COLLEGE OF ALAMEDA -- ALAMEDA, CA

JOB NUMBER	DATE	APPROVED
469.005	10/29/91	JVB

PLATE 9

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 08/16/91
DATE REPORTED: 08/26/91

LABORATORY NUMBER: 104863

CLIENT: SUBSURFACE CONSULTANTS

PROJECT ID: 469.005

LOCATION: COLLEGE OF ALAMEDA

RESULTS: SEE ATTACHED

QA/QC Approval

Final Approval

Curtis & Tompkins, Ltd

Client: Subsurface Consultants

Laboratory Login Number: 104863

Project Name: College of Alameda
Project Number: 469.005

Report Date: 23 August 91

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) METHOD: SMWW 17:5520EF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
104863-008	A4-1@6.5'	Soil	15-AUG-91	16-AUG-91	21-AUG-91	520	mg/Kg	50	TR	2395
104863-009	A4-2@3'	Soil	15-AUG-91	16-AUG-91	21-AUG-91	ND	mg/Kg	50	TR	2395

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

QC Batch Report

Client: Subsurface Consultants
Project Name: College of Alameda
Project Number: 469.005

Laboratory Login Number: 104863
Report Date: 23 August 91

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 2395**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
BLANK	ND	50	mg/Kg	SMWW 17:5520EF	21-AUG-91

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	83%	SMWW 17:5520EF	21-AUG-91
BSD	86%	SMWW 17:5520EF	21-AUG-91

		Control Limits
Average Spike Recovery	85%	80% - 120%
Relative Percent Difference	3.4%	< 20%

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 104863
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 08/16/91
DATE ANALYZED: 08/20/91
DATE REPORTED: 08/26/91

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
Extraction by EPA 5030 Purge and Trap

LAB ID	SAMPLE ID	BENZENE (ug/kg)	TOLUENE (ug/kg)	ETHYL BENZENE (ug/kg)	TOTAL XYLENES (ug/kg)	REPORTING LIMIT * (ug/kg)
104863-4	A2-1@5'	ND	ND	ND	ND	5.0
104863-5	A2-2@5'	ND	ND	ND	ND	5.0
104863-6	A3-1@5'	ND	ND	ND	ND	5.0
104863-7	A3-2@5'	ND	ND	ND	ND	5.0

ND = Not detected at or above reporting limit.

* Reporting Limit applies to all analytes.

QA/QC SUMMARY

RPD, %	2
RECOVERY, %	95

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 104863
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 08/16/91
DATE ANALYZED: 08/19/91
DATE REPORTED: 08/26/91

Total Volatile Hydrocarbons with BTXE in Aqueous Solutions
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)
104863-3	A1 WATER EXCAVATION	800	78	99	10	52

QA/QC SUMMARY

RPD, %	2
RECOVERY, %	101

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 104863
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 08/16/91
DATE ANALYZED: 08/20/91
DATE REPORTED: 08/26/91

Total Volatile Hydrocarbons with BTXE in Soils and Wastes
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (mg/Kg)	BENZENE (ug/Kg)	TOLUENE (ug/Kg)	ETHYL BENZENE (ug/Kg)	TOTAL XYLENES (ug/Kg)
104863-1	A1-1@2'	ND(1.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
104863-2	A1-2@5'	ND(1.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
104863-8	A4-1@6.5'	28	ND(10)	12	66	74
104863-10	A5-1@5'	1.1	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY

RPD, %	2
RECOVERY, %	95

Curtis & Tompkins, Ltd

LABORATORY NUMBER: 104863
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 08/16/91
DATE EXTRACTED: 08/19/91
DATE ANALYZED: 08/21/91
DATE REPORTED: 08/26/91

Extractable Petroleum Hydrocarbons in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	SAMPLE ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	REPORTING LIMIT* (mg/Kg)
104863-4	A2-1@5'	ND	1.7	1.0
104863-5	A2-2@5'	ND	63	10
104863-6	A3-1@5'	ND	2.0	1.0
104863-7	A3-2@5'	ND	2.0	1.0
104863-8	A4-1@6.5'	ND	220	1.0

ND = Not Detected at or above reporting limit.

*Reporting limit applies to all analytes.

QA/QC SUMMARY

RPD, %	<1
RECOVERY, %	85

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 104863-8
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA
SAMPLE ID: A4-1@6.5'

DATE RECEIVED: 08/16/91
DATE ANALYZED: 08/22/91
DATE REPORTED: 08/26/91

EPA 8010: Volatile Halocarbons in Soil & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
chloromethane	ND	100
bromomethane	ND	100
vinyl chloride	ND	100
chloroethane	ND	100
methylene chloride	ND	50
trichlorofluoromethane	ND	50
1,1-dichloroethene	ND	50
1,1-dichloroethane	ND	50
cis-1,2-dichloroethene	ND	50
trans-1,2-dichloroethene	ND	50
chloroform	ND	50
freon 113	ND	50
1,2-dichloroethane	ND	50
1,1,1-trichloroethane	ND	50
carbon tetrachloride	ND	50
bromodichloromethane	ND	50
1,2-dichloropropane	ND	50
cis-1,3-dichloropropene	ND	50
trichloroethylene	ND	50
1,1,2-trichloroethane	ND	50
trans-1,3-dichloropropene	ND	50
dibromochloromethane	ND	50
2-chloroethylvinyl ether	ND	100
bromoform	ND	50
tetrachloroethylene	ND	50
1,1,2,2-tetrachloroethane	ND	50
chlorobenzene	ND	50
1,3-dichlorobenzene	ND	50
1,2-dichlorobenzene	*250*	50
1,4-dichlorobenzene	ND	50

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference	9
Spike: Average % Recovery	88

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 104863-8
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA
SAMPLE ID: A4-1@6.5'

DATE RECEIVED: 08/16/91
DATE EXTRACTED: 08/20/91
DATE ANALYZED: 08/22/91
DATE REPORTED: 08/26/91

EPA 8270: Base/Neutral and Acid Extractables in Soils & Wastes
Extraction Method: EPA 3550 Sonication

ACID COMPOUNDS	RESULT ug/kg	REPORTING LIMIT ug/kg
Phenol	ND	1700
2-Chlorophenol	ND	1700
Benzyl Alcohol	ND	1700
2-Methylphenol	ND	1700
4-Methylphenol	ND	1700
2-Nitrophenol	ND	8500
2,4-Dimethylphenol	ND	1700
Benzoic Acid	ND	8500
2,4-Dichlorophenol	ND	8500
4-Chloro-3-methylphenol	ND	1700
2,4,6-Trichlorophenol	ND	1700
2,4,5-Trichlorophenol	ND	8500
2,4-Dinitrophenol	ND	8500
4-Nitrophenol	ND	8500
4,6-Dinitro-2-methylphenol	ND	8500
Pentachlorophenol	ND	8500
BASE/NEUTRAL COMPOUNDS		
N-Nitrosodimethylamine	ND	1700
Aniline	ND	1700
Bis(2-chloroethyl)ether	ND	1700
1,3-Dichlorobenzene	ND	1700
1,4-Dichlorobenzene	ND	1700
1,2-Dichlorobenzene	ND	1700
Bis(2-chloroisopropyl)ether	ND	1700
N-Nitroso-di-n-propylamine	ND	1700
Hexachloroethane	ND	1700
Nitrobenzene	ND	1700
Isophorone	ND	1700
Bis(2-chloroethoxy)methane	ND	1700
1,2,4-Trichlorobenzene	ND	1700
Naphthalene	ND	1700
4-Chloroaniline	ND	1700
Hexachlorobutadiene	ND	1700
2-Methylnaphthalene	ND	1700
Hexachlorocyclopentadiene	ND	1700
2-Chloronaphthalene	ND	1700
2-Nitroaniline	ND	8500

LABORATORY NUMBER: 104863-8
SAMPLE ID: A4-1@6.5'

EPA 8270

BASE/NEUTRAL COMPOUNDS	RESULT ug/kg	REPORTING LIMIT ug/kg
Dimethylphthalate	ND	1700
Acenaphthylene	ND	1700
2,6-Dinitrotoluene	ND	1700
3-Nitroaniline	ND	8500
Acenaphthene	ND	1700
Dibenzofuran	ND	1700
2,4-Dinitrotoluene	ND	1700
Diethylphthalate	ND	1700
4-Chlorophenyl-phenylether	ND	1700
Fluorene	ND	1700
4-Nitroaniline	ND	8500
N-Nitrosodiphenylamine	ND	1700
Azobenzene	ND	1700
4-Bromophenyl-phenylether	ND	1700
Hexachlorobenzene	ND	1700
Phenanthrene	2,900	1700
Anthracene	ND	1700
Di-n-butylphthalate	ND	1700
Fluoranthene	4,200	1700
Benzidine	ND	1700
Pyrene	3,100	1700
Butylbenzylphthalate	ND	1700
3,3'-Dichlorobenzidine	ND	8500
Benzo(a)anthracene	detected(1400)	1700
Chrysene	1,800	1700
Bis(2-ethylhexyl)phthalate	ND	1700
Di-n-octylphthalate	ND	1700
Benzo(b)fluoranthene	2,500	1700
Benzo(k)fluoranthene	ND	1700
Benzo(a)pyrene	detected(1600)	1700
Indeno(1,2,3-cd)pyrene	detected(990)	1700
Dibenzo(a,h)anthracene	ND	1700
Benzo(g,h,i)perylene	detected(970)	1700

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: % SURROGATE RECOVERIES

2-Fluorophenol	56	Nitrobenzene-d5	60
Phenol-d6	79	2-Fluorobiphenyl	107
2,4,6-Tribromophenol	81	Terphenyl-d14	56

Curtis & Tompkins, Ltd

LABORATORY NUMBER: 104863
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 08/16/91
DATE ANALYZED: 08/20/91
DATE REPORTED: 08/23/91

ANALYSIS: LEAD
ANALYSIS METHOD: EPA 7421

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
104863-3	A1 WATER EXCAVATION	ND	ug/L	3.0

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	2
RECOVERY, %	106

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 104863
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 08/16/91
DATE ANALYZED: 08/19,20/91
DATE REPORTED: 08/23/91

ANALYSIS: LEAD
ANALYSIS METHOD: EPA 7420

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
104863-1	A1 - 1@2'	ND	mg/Kg	3.0
104863-2	A1 - 2@5'	15	mg/Kg	3.0
104863-8	A4 - 1@6.5'	5.4	mg/Kg	3.0
104863-10	A5 - 1@5'	16	mg/Kg	3.0

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	6
RECOVERY, %	95

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 104863
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 08/16/91
DATE ANALYZED: 08/20/91
DATE REPORTED: 08/23/91

ANALYSIS: CADMIUM
ANALYSIS METHOD: EPA 6010

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
104863-8	A4 - 1@6.5	ND	mg/Kg	0.25

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	<1
RECOVERY, %	104

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 104863
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 08/16/91
DATE ANALYZED: 08/20/91
DATE REPORTED: 08/23/91

ANALYSIS: CHROMIUM
ANALYSIS METHOD: EPA 6010

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
104863-8	A4 - 1@6.5	26.2	mg/Kg	0.50

QA/QC SUMMARY

RPD, %	2
RECOVERY, %	107

Curtis & Tompkins, Ltd

LABORATORY NUMBER: 104863
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 08/16/91
DATE ANALYZED: 08/20/91
DATE REPORTED: 08/23/91

ANALYSIS: NICKEL
ANALYSIS METHOD: EPA 6010

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
104863-8	A4 - 1@6.5	30.0	mg/Kg	1.6

QA/QC SUMMARY

RPD, %	<1
RECOVERY, %	109

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 104863
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 08/16/91
DATE ANALYZED: 08/20/91
DATE REPORTED: 08/23/91

ANALYSIS: ZINC
ANALYSIS METHOD: EPA 6010

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
104863-8	A4 - 1@6.5'	52.3	mg/Kg	1.0

QA/QC SUMMARY

RPD, %	2
RECOVERY, %	106

Log # 104863

Subsurface Consultants

CHAIN OF CUSTODY RECORD
& ANALYTICAL TEST REQUEST

Project Name: College of Alameda Tank Removal

SCI Job Number: 469.005

Project Contact at SCI: John Bosche

Sampled By: Dennis Alexander

Analytical Laboratory: Curtis & Tompkins

Analytical Turnaround: Normal SCI time

	Sample ID	Sample Type[1]	Container Type[2]	Sampling Date	Hold	Analysis	Analytical Method
1	A1-1@2'	S	T	8/15/91		TVH/BTXE LEAD	
2	A1-2@5'	S	T			TVH/BTXE LEAD	
3	A1 WATER EXCAVATION	W	P-1 VOA-3			TVH/BTXE LEAD	
4	A2-1@5'	S	T			TEH/BTXE ~~O&G~~	
5	A2-2@5'	S	T			TEH/BTXE ~~O&G~~	
6	A3-1@5'	S	T			TEH/BTXE ~~O&G~~	
7	A3-2@5'	S	T			TEH/BTXE ~~O&G~~	
8	A4-1@6.5'	S	T			TVH/BTXE TEH ~~O&G~~ METALS (Cd, Cr, Pb, Zn & Ni) only!	8010 8270
9	A4-2@3'	S	T			O&G	
10	A5-1@5'	S	T	8/16/91		TVH/BTXE LEAD	

104863-4,5,6,7: O&G was cancelled. (verbals)

* * * * * *

Released by: Dennis Alexander Date: 8/16/91

Released by Courier: _____ Date: _____

Received by Laboratory: Joanne Quattrin Date: 9/16/91

Relinquished by Laboratory: _____ Date: _____

Received by: _____ Date: _____

Sample Type: W = water, S = soil, O = other (specify)
Container Type: V = VOA, P = plastic, G = glass, T = brass tube, O = other (specify)

Notes to Laboratory:
-Notify SCI if there are any anomalous peaks on GC or other scans
-Questions/clarifications...contact SCI at (415) 268-0461

VERBAL ADDITIONS / CANCELLATIONS TO ANALYSIS REQUEST SHEET

CLIENT: Subsurface DATE: 8/20/91

REQUESTED BY: John Boeche TIME: 10:00 (am) pm

RECORDED BY: Alison

Current Lab ID (Previous Lab ID)	Client ID	Circle matrix	Specify add or cancel	Analysis	Due date
104863-4 (-)	A2-1@5	(soil) water other	cancel	5520EF	Aug 27
104863-5 (-)	A2-2@5	soil water other	Cancel	5520EF	|
104863-6 (-)	A3-1@5	soil water other	Cancel	5520EF	|
104863-7 (-)	A3-2@5	soil water other	Cancel	5520EF	↓
(-)		soil water other			
(-)		soil water other			
(-)		soil water other			
(-)		soil water other			

Original in job jacket. Copies to analytical departments.

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 08/20/91
DATE REPORTED: 08/27/91

LABORATORY NUMBER: 104890

CLIENT: SUBSURFACE CONSULTANTS

PROJECT ID: 469.005

LOCATION: COLLEGE OF ALAMEDA

RESULTS: SEE ATTACHED

QA/QC Approval

Final Approval

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 104890
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 08/20/91
DATE ANALYZED: 08/22/91
DATE REPORTED: 08/27/91

ANALYSIS: LEAD
ANALYSIS METHOD: EPA 7420

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
104890-1	A1-3	61.0	mg/Kg	3.0
104890-2	A5-2	4.5	mg/Kg	3.0

QA/QC SUMMARY

RPD, %	6
RECOVERY, %	93

Curtis & Tompkins, Ltd

LABORATORY NUMBER: 104890
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 08/20/91
DATE ANALYZED: 08/22/91
DATE REPORTED: 08/27/91

Total Volatile Hydrocarbons with BTXE in Soils and Wastes
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (mg/Kg)	BENZENE (ug/Kg)	TOLUENE (ug/Kg)	ETHYL BENZENE (ug/Kg)	TOTAL XYLENES (ug/Kg)
104890-1	A1-3	ND(1.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
104890-2	A5-2	4.2	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY

RPD, %	2
RECOVERY, %	98

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 104890
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 08/20/91
DATE EXTRACTED: 08/22/91
DATE ANALYZED: 08/26,27/91
DATE REPORTED: 08/27/91

Extractable Petroleum Hydrocarbons in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	SAMPLE ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	REPORTING LIMIT* (mg/Kg)
104890-3	A2-3	ND	2.8	1.0
104890-4	A2-4	ND	1.7	1.0
104890-5	A2-5	ND	21	1.0
104890-6	A3-3	ND	4.7	1.0
104890-7	A3-4	ND	1.6	1.0
104890-8	A3-5	ND	130	1.0
104890-9	A3-6	ND	2.9	1.0
104890-10	A3-7	ND	3.2	1.0

ND = Not Detected at or above reporting limit.

*Reporting limit applies to all analytes.

QA/QC SUMMARY

RPD, %	10
RECOVERY, %	85

Subsurface Consultants

CHAIN OF CUSTODY RECORD
& ANALYTICAL TEST REQUEST

Project Name: College of Alameda

SCI Job Number: 469.005

Project Contact at SCI: John Bos

Sampled By: Dennis Alexander

Analytical Laboratory: Curtis & Tompkins

Analytical Turnaround: Normal (5 day)

Sample ID	Sample Type[1]	Container Type[2]	Sampling Date	Hold	Analysis	Analytical Method
A1-3	S	T	8/20/91		TVH/BTXE LEAD	
A5-2					TVH/BTXE LEAD	
A2-3					TEH	
A2-4					TEH	
A2-5					TEH	
A3-3					TEH	
A3-4					TEH	
A3-5					TEH	
A3-6					TEH	
A3-7					TEH	

* * * * * *

Released by: Dennis Alexander Date: 8/20/91

Released by Courier: _____ Date: _____

Received by Laboratory: Joanne Death Date: 8/20/91

Relinquished by Laboratory: _____ Date: _____

Received by: _____ Date: _____

[1] Sample Type: W = water, S = soil, O = other (specify)
[2] Container Type: V = VOA, P = plastic, G = glass, T = brass tube, O = other (specify)

Notes to Laboratory:
-Notify SCI if there are any anomalous peaks on GC or other scans
-Questions/clarifications...contact SCI at (415) 268-0461

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 09/09/91
DATE REPORTED: 09/17/91

LABORATORY NUMBER: 105105

CLIENT: SUBSURFACE CONSULTANTS

PROJECT ID: 469.005

LOCATION: COLLEGE OF ALAMEDA

RESULTS: SEE ATTACHED

QA/QC Approval

Final Approval

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 105105
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 09/09/91
DATE ANALYZED: 09/10-11/91
DATE REPORTED: 09/17/91
DATE REISSUED: 09/23/91

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
Extraction by EPA 5030 Purge and Trap

LAB ID	SAMPLE ID	BENZENE (ug/kg)	TOLUENE (ug/kg)	ETHYL BENZENE (ug/kg)	TOTAL XYLENES (ug/kg)	REPORTING LIMIT * (ug/kg)
105105-1	A2-6	ND	ND	ND	ND	5.0
105105-2	A3-8	ND	ND	ND	ND	5.0
105105-3	A3-9	ND	ND	ND	ND	5.0
105105-4	A3-10	50	180	150	560	10

ND = Not detected at or above reporting limit.

* Reporting Limit applies to all analytes.

QA/QC SUMMARY

RPD, %	14
RECOVERY, %	102

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 105105
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 09/09/91
DATE EXTRACTED: 09/11/91
DATE ANALYZED: 09/13/91
DATE REPORTED: 09/17/91
DATE REISSUED: 09/23/91

Extractable Petroleum Hydrocarbons in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	SAMPLE ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	REPORTING LIMIT* (mg/Kg)
105105-1	A2-6	ND	14	1.0
105105-2	A3-8	ND	5.4	1.0
105105-3	A3-9	ND	9.4	1.0
105105-4	A3-10	ND	560	10

ND = Not Detected at or above reporting limit.

*Reporting limit applies to all analytes.

QA/QC SUMMARY

RPD, %	<1
RECOVERY, %	98

CHAIN OF CUSTODY FORM

PROJECT NAME: College of Alameda

JOB NUMBER: 469.005 LAB: Curtis & Tompkins

PROJECT CONTACT: John Boschle TURNAROUND: Normal 5 day

SAMPLED BY: Dennis Alexander REQUESTED BY: Dennis Alexander

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR			CONTAINERS: VOA	LITER	PINT	TUBE			METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME				NOTES	ANALYSIS REQUESTED: TEH/BTXE
1109105-1	~~A2-4~~ A2-6		X								X						X		09	09	91					X
-2	~~A3-3~~ A3-8		X								X						X		09	09	91					X
-3	~~A3-4~~ A3-9		X								X						X		09	09	91					X
-4	~~A3-5~~ A3-10		X								X						X		09	09	91					X

COMMENTS & NOTES:

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
D. alfaro	9/9/91 14:05pm		
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		[illegible]	9/9/91 4:05

Subsurface Consultants, Inc.
171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
(510) 268-0461 · FAX: 510-268-0137

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 09/10/91
DATE REPORTED: 09/16/91

LABORATORY NUMBER: 105121

CLIENT: SUBSURFACE CONSULTANTS

PROJECT ID: 469.005

LOCATION: COLLEGE OF ALAMEDA

RESULTS: SEE ATTACHED

QA/QC Approval

Final Approval

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 105121
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 09/10/91
DATE EXTRACTED: 09/11/91
DATE ANALYZED: 09/15-16/91
DATE REPORTED: 09/16/91
DATE REISSUED: 09/23/91

Extractable Petroleum Hydrocarbons in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	SAMPLE ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	REPORTING LIMIT* (mg/Kg)
105121-1	A2-7	ND	11	1.0
105121-2	A3-11	ND	1,400	10
105121-3	A3-12	ND	50	10

ND = Not Detected at or above reporting limit.

*Reporting limit applies to all analytes.

QA/QC SUMMARY

RPD, %	<1
RECOVERY, %	98

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 105121
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 09/10/91
DATE ANALYZED: 09/13/91
DATE REPORTED: 09/16/91
DATE REISSUED: 09/23/91

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
Extraction by EPA 5030 Purge and Trap

LAB ID	SAMPLE ID	BENZENE (ug/kg)	TOLUENE (ug/kg)	ETHYL BENZENE (ug/kg)	TOTAL XYLENES (ug/kg)	REPORTING LIMIT * (ug/kg)
105121-1	A2-7	ND	ND	ND	ND	5.0
105121-2	A3-11	ND	11	17	120	5.0
105121-3	A3-12	ND	ND	ND	ND	5.0

ND = Not detected at or above reporting limit.

* Reporting Limit applies to all analytes.

QA/QC SUMMARY

RPD, %	1
RECOVERY, %	116

10512

CHAIN OF CUSTODY FORM

PAGE _____ OF _____

PROJECT NAME: College of Alameda

JOB NUMBER: 469.005 LAB: Curtis & Tompkins

PROJECT CONTACT: John Bosche TURNAROUND: Normal (5 day)

SAMPLED BY: Dennis Hexander REQUESTED BY: D. Alexander

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX						CONTAINERS						METHOD PRESERVED					SAMPLING DATE								NOTES	ANALYSIS REQUESTED
		WATER	SOIL	WASTE	AIR			VOA	LITER	PINT	TUBE			HCL	H_2SO_4	HNO_3	ICE	NONE	MONTH		DAY		YEAR		TIME				TEH/BTXE
1	~~A2-3~~ A2-7		X								X						X		0	9	1	0	9	1					X
2	~~A3-6~~ A3-11		X								X						X		0	9	1	0	9	1					X
7	~~A3-7~~ A3-12		X								X						X		0	9	1	0	9	1					X

COMMENTS & NOTES:

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
D. Alexander	9/10/91 14:35 p.m.		
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		A Keane	9/10/91 16:30

Subsurface Consultants, Inc.

171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607

(510) 268-0461 • FAX: 510-268-0137

10512

CHAIN OF CUSTODY FORM

PAGE _____ OF _____

PROJECT NAME: College of Alameda

JOB NUMBER: 469.005 LAB: Curtis & Tompkins

PROJECT CONTACT: John Bosche TURNAROUND: Normal (5 day)

SAMPLED BY: Dennis Alexander REQUESTED BY: D. Alexander

	LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR			CONTAINERS: VOA	LITER	PINT	TUBE			METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME				NOTES	ANALYSIS REQUESTED: TEH/BTXE
1		~~A2-3~~ A2-7		X								X						X		09	10	91					X
2		~~A3-6~~ A3-11		X								X						X		09	10	91					X
7		~~A3-7~~ A3-12		X								X						X		09	10	91					X

COMMENTS & NOTES:

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
D. Alexander	9/10/91 14:35 p.m.		
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		[signature]	9/10/91 16:30

Subsurface Consultants, Inc.

171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607

(510) 268-0461 • FAX: 510-268-0137

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2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 09/10/91
DATE REPORTED: 09/18/91

LABORATORY NUMBER: 105130

CLIENT: SUBSURFACE CONSULTANTS

PROJECT ID: 469.005

LOCATION: COLLEGE OF ALAMEDA

RESULTS: SEE ATTACHED

QA/QC Approval

Final Approval

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 105130-12
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
SAMPLE ID: COMPOSITE A4-10-13

DATE RECEIVED: 09/10/91
DATE ANALYZED: 09/15-18/91
DATE REPORTED: 09/18/91

PARAMETER	RESULT	UNITS	REPORTING LIMIT	METHOD
RELEASABLE CYANIDE	ND	mg/Kg	0.3	SW-846 SECTION 7.3.3.2
RELEASABLE SULFIDE	ND	mg/Kg	1.0	SW-846 SECTION 7.3.4.1
IGNITABILITY	DOES NOT IGNITE			CCR TITLE 26 SECTION 22-66702(a)(2)
pH	8.1	S.U.	--	EPA 9045
CORROSIVITY	ND	mm/year	6.35	EPA 1110

QA/QC SUMMARY

	RPD, %	RECOVERY, %
RELEASABLE CYANIDE	<1	81
RELEASABLE SULFIDE	<1	--
pH	<1	--
CORROSIVITY	6	--

Curtis & Tompkins, Ltd

Client: Subsurface Consultants

Laboratory Login Number: 105130

Project Name: College of Alameda
Project Number: 469.005

Report Date: 18 September 91

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) METHOD: SMWW 17:5520EF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
105130-001	A4-3	Soil	10-SEP-91	10-SEP-91	12-SEP-91	ND	mg/Kg	50	TR	2627
105130-002	A4-4	Soil	10-SEP-91	10-SEP-91	12-SEP-91	ND	mg/Kg	50	TR	2627
105130-003	A4-5	Soil	10-SEP-91	10-SEP-91	12-SEP-91	140	mg/Kg	50	TR	2627
105130-004	A4-6	Soil	10-SEP-91	10-SEP-91	12-SEP-91	60.	mg/Kg	50	TR	2627
105130-005	A4-7	Soil	10-SEP-91	10-SEP-91	12-SEP-91	ND	mg/Kg	50	TR	2627
105130-006	A4-8	Soil	10-SEP-91	10-SEP-91	12-SEP-91	ND	mg/Kg	50	TR	2627
105130-007	A4-9	Soil	10-SEP-91	10-SEP-91	12-SEP-91	390	mg/Kg	50	TR	2627
105130-012	COMPOSITE A4-10-13	Soil	10-SEP-91	10-SEP-91	12-SEP-91	200	mg/Kg	50	TR	2627

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: College of Alameda
Project Number: 469.005

Laboratory Login Number: 105130
Report Date: 18 September 91

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 2627**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
BLANK	ND	50	mg/Kg	SMWW 17:5520EF	12-SEP-91

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	84%	SMWW 17:5520EF	12-SEP-91
BSD	91%	SMWW 17:5520EF	12-SEP-91

		Control Limits
Average Spike Recovery	87%	80% - 120%
Relative Percent Difference	8.2%	< 20%

Curtis & Tompkins, Ltd

LABORATORY NUMBER: 105130-12
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA
SAMPLE ID: COMPOSITE A4-10-13

DATE RECEIVED: 09/10/91
DATE ANALYZED: 09/13,16/91
DATE REPORTED: 09/18/91

Title 26 Metals in Soils & Wastes
Digestion Method: EPA 3050

METAL	RESULT mg/Kg	REPORTING LIMIT mg/Kg	METHOD
Antimony	ND	3.0	EPA 6010
Arsenic	3.4	2.5	EPA 7060
Barium	50.5	0.50	EPA 6010
Beryllium	0.19	0.10	EPA 6010
Cadmium	ND	0.25	EPA 6010
Chromium (total)	40.7	0.50	EPA 6010
Cobalt	9.5	0.90	EPA 6010
Copper	31.0	0.50	EPA 6010
Lead	11.4	3.0	EPA 7420
Mercury	0.19	0.10	EPA 7471
Molybdenum	ND	0.70	EPA 6010
Nickel	39.8	1.6	EPA 6010
Selenium	ND	2.5	EPA 7740
Silver	ND	0.50	EPA 6010
Thallium	ND	2.5	EPA 7841
Vanadium	31.4	0.50	EPA 6010
Zinc	95.8	1.0	EPA 6010

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

	RPD,%	RECOVERY,%		RPD,%	RECOVERY,%
Antimony	2	92	Mercury	22	105
Arsenic	6	106	Molybdenum	<1	101
Barium	<1	97	Nickel	3	94
Beryllium	1	99	Selenium	<1	111
Cadmium	7	95	Silver	2	90
Chromium	2	98	Thallium	<1	117
Cobalt	<1	95	Vanadium	1	96
Copper	<1	95	Zinc	<1	95
Lead	<1	97			

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 105130
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 09/10/91
DATE ANALYZED: 09/13-14,16/91
DATE REPORTED: 09/18/91

Total Volatile Hydrocarbons with BTXE in Soils and Wastes
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (mg/Kg)	BENZENE (ug/Kg)	TOLUENE (ug/Kg)	ETHYL BENZENE (ug/Kg)	TOTAL XYLENES (ug/Kg)
105130-1	A4-3	ND(1.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
105130-2	A4-4	ND(1.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
105130-3	A4-5	ND(1.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
105130-4	A4-6	ND(1.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
105130-5	A4-7	ND(1.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
105130-6	A4-8	ND(1.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)
105130-7	A4-9	76	ND(80)	400	370	2,400
105130-12	COMPOSITE A4-10-13	3.2	ND(5.0)	ND(5.0)	6.2	44

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY

RPD, %	1
RECOVERY, %	116

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 105130
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 09/10/91
DATE EXTRACTED: 09/12/91
DATE ANALYZED: 09/13-16/91
DATE REPORTED: 09/18/91

Extractable Petroleum Hydrocarbons in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	SAMPLE ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	REPORTING LIMIT* (mg/Kg)
105130-1	A4-3	ND	ND	1.0
105130-2	A4-4	ND	4.5	1.0
105130-3	A4-5	ND	8.9	1.0
105130-4	A4-6	ND	3.3	1.0
105130-5	A4-7	ND	8.6	1.0
105130-6	A4-8	ND	1.7	1.0
105130-7	A4-9	ND	29	1.0
105130-12	COMPOSITE A4-10-13	ND	11	1.0

ND = Not Detected at or above reporting limit.

*Reporting limit applies to all analytes.

QA/QC SUMMARY

RPD, %	15
RECOVERY, %	87

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 105130-12
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA
SAMPLE ID: COMPOSITE A4-10-13

DATE RECEIVED: 09/10/91
DATE ANALYZED: 09/16/91
DATE REPORTED: 09/18/91

EPA 8010: Volatile Halocarbons in Soil & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
chloromethane	ND	10
bromomethane	ND	10
vinyl chloride	ND	10
chloroethane	ND	10
methylene chloride	ND	5.0
trichlorofluoromethane	ND	5.0
1,1-dichloroethene	ND	5.0
1,1-dichloroethane	ND	5.0
cis-1,2-dichloroethene	ND	5.0
trans-1,2-dichloroethene	ND	5.0
chloroform	ND	5.0
freon 113	ND	5.0
1,2-dichloroethane	ND	5.0
1,1,1-trichloroethane	ND	5.0
carbon tetrachloride	ND	5.0
bromodichloromethane	ND	5.0
1,2-dichloropropane	ND	5.0
cis-1,3-dichloropropene	ND	5.0
trichloroethylene	ND	5.0
1,1,2-trichloroethane	ND	5.0
trans-1,3-dichloropropene	ND	5.0
dibromochloromethane	ND	5.0
2-chloroethylvinyl ether	ND	10
bromoform	ND	5.0
tetrachloroethylene	ND	5.0
1,1,2,2-tetrachloroethane	ND	5.0
chlorobenzene	ND	5.0
1,3-dichlorobenzene	ND	5.0
1,2-dichlorobenzene	ND	5.0
1,4-dichlorobenzene	ND	5.0

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Duplicate: Relative % Difference	5
Spike: Average % Recovery	70

Curtis & Tompkins, Ltd

LABORATORY NUMBER: 105130-12
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA
SAMPLE ID: COMPOSITE A4-10-13

DATE RECEIVED: 09/10/91
DATE EXTRACTED: 09/13/91
DATE ANALYZED: 09/16/91
DATE REPORTED: 09/18/91

EPA 8270: Base/Neutral and Acid Extractables in Soils & Wastes
Extraction Method: EPA 3550 Sonication

ACID COMPOUNDS	RESULT ug/kg	REPORTING LIMIT ug/kg
Phenol	ND	330
2-Chlorophenol	ND	330
Benzyl Alcohol	ND	330
2-Methylphenol	ND	330
4-Methylphenol	ND	330
2-Nitrophenol	ND	1700
2,4-Dimethylphenol	ND	330
Benzoic Acid	ND	1700
2,4-Dichlorophenol	ND	1700
4-Chloro-3-methylphenol	ND	330
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	170
2,4-Dinitrophenol	ND	1700
4-Nitrophenol	ND	1700
4,6-Dinitro-2-methylphenol	ND	1700
Pentachlorophenol	ND	1700
BASE/NEUTRAL COMPOUNDS		
N-Nitrosodimethylamine	ND	330
Aniline	ND	330
Bis(2-chloroethyl)ether	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
1,2-Dichlorobenzene	ND	330
Bis(2-chloroisopropyl)ether	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
Bis(2-chloroethoxy)methane	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	330
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
2-Methylnaphthalene	ND	330
Hexachlorocyclopentadiene	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	1700

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 105130-12
SAMPLE ID: COMPOSITE A4-10-13

EPA 8270

BASE/NEUTRAL COMPOUNDS	RESULT ug/kg	REPORTING LIMIT ug/kg
Dimethylphthalate	ND	330
Acenaphthylene	ND	330
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	1700
Acenaphthene	ND	330
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
4-Chlorophenyl-phenylether	ND	330
Fluorene	ND	330
4-Nitroaniline	ND	1700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Phenanthrene	Detected(230)	330
Anthracene	ND	330
Di-n-butylphthalate	ND	330
Fluoranthene	Detected(240)	330
Benzidine	ND	330
Pyrene	Detected(210)	330
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	1700
Benzo(a)anthracene	ND	330
Chrysene	ND	330
Bis(2-ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b)fluoranthene	ND	330
Benzo(k)fluoranthene	ND	330
Benzo(a)pyrene	ND	330
Indeno(1,2,3-cd)pyrene	ND	330
Dibenzo(a,h)anthracene	ND	330
Benzo(g,h,i)perylene	ND	330

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: % SURROGATE RECOVERIES

2-Fluorophenol	65	Nitrobenzene-d5	48
Phenol-d6	66	2-Fluorobiphenyl	64
2,4,6-Tribromophenol	56	Terphenyl-d14	40

CHAIN OF CUSTODY FORM

PAGE _____ OF _____

PROJECT NAME: College of Alameda

JOB NUMBER: 469.005 LAB: Curtis & Tompkins

PROJECT CONTACT: John Bosche TURNAROUND: Normal (5 day)

SAMPLED BY: Dennis Alexander REQUESTED BY: D. Alexander

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR			CONTAINERS: VOA	LITER	PINT	TUBE			METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED
	A4-3		X								X						X		09	10	91			
	A4-4		X								X						X		09	10	91			
	A4-5		X								X						X		09	10	91			
	A4-6		X								X						X		09	10	91			
	A4-7		X								X						X		09	10	91			
	A4-8		X								X						X		09	10	91			
	A4-9		X								X						X		09	10	91			
	A4-10		X								X						X		09	10	91			
	A4-11		X								X						X		09	10	91			
	A4-12		X								X						X		09	10	91			
	A4-13		X								X						X		09	10	91			

COMMENTS & NOTES:

* Call John Bosche about Analysis

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
D. Alexander	9/10/91 14:35 pm.		
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		[signature]	9/10/91 16:30

Subsurface Consultants, Inc.

171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607

(510) 268-0461 · FAX: 510-268-0137

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 09/20/91
DATE REPORTED: 09/26/91

LABORATORY NUMBER: 105226

CLIENT: SUBSURFACE CONSULTANTS

PROJECT ID: 469.005

LOCATION: COLLEGE OF ALAMEDA

RESULTS: SEE ATTACHED

QA/QC Approval

Final Approval

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 105226

Project Name: College of Alameda
Project Number: 469.005

Report Date: 26 September 91

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD:** SMWW 17:5520EF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
105226-003	A4-10@7'	Soil	20-SEP-91	20-SEP-91	24-SEP-91	ND	mg/Kg	50	TR	2747
105226-004	A4-11@5'	Soil	20-SEP-91	20-SEP-91	24-SEP-91	50.	mg/Kg	50	TR	2747

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: College of Alameda
Project Number: 469.005

Laboratory Login Number: 105226
Report Date: 26 September 91

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 2747**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
BLANK	ND	50	mg/Kg	SMWW 17:5520EF	24-SEP-91

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	80%	SMWW 17:5520EF	24-SEP-91
BSD	82%	SMWW 17:5520EF	24-SEP-91

		Control Limits
Average Spike Recovery	81%	80% - 120%
Relative Percent Difference	1.5%	< 20%

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 105226
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 09/20/91
DATE ANALYZED: 09/24/91
DATE REPORTED: 09/26/91

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
Extraction by EPA 5030 Purge and Trap

LAB ID	SAMPLE ID	BENZENE (ug/kg)	TOLUENE (ug/kg)	ETHYL BENZENE (ug/kg)	TOTAL XYLENES (ug/kg)	REPORTING LIMIT * (ug/kg)
105226-1	A3-13@6.5'	ND	ND	ND	ND	5.0
105226-2	A3-14@7'	ND	ND	ND	ND	5.0

ND = Not detected at or above reporting limit.

* Reporting Limit applies to all analytes.

QA/QC SUMMARY

RPD, %	3
RECOVERY, %	106

Curtis & Tompkins, Ltd

LABORATORY NUMBER: 105226
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 09/20/91
DATE ANALYZED: 09/24/91
DATE REPORTED: 09/26/91

Total Volatile Hydrocarbons with BTXE in Soils and Wastes
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (mg/Kg)	BENZENE (ug/Kg)	TOLUENE (ug/Kg)	ETHYL BENZENE (ug/Kg)	TOTAL XYLENES (ug/Kg)
105226-3	A4-10@7'	ND(1.0)	ND(5.0)	ND(5.0)	ND(5.0)	ND(5.0)

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY

RPD, %	3
RECOVERY, %	106

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 105226
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.005
LOCATION: COLLEGE OF ALAMEDA

DATE RECEIVED: 09/20/91
DATE EXTRACTED: 09/25/91
DATE ANALYZED: 09/26/91
DATE REPORTED: 09/26/91

Extractable Petroleum Hydrocarbons in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	SAMPLE ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	REPORTING LIMIT* (mg/Kg)
105226-1	A3-13@6.5'	ND	2.6	1.0
105226-2	A3-14@7'	ND	4.6	1.0
105226-3	A4-10@7'	ND	3.4	1.0

ND = Not Detected at or above reporting limit.

*Reporting limit applies to all analytes.

QA/QC SUMMARY

RPD, %	11
RECOVERY, %	81

105226

CHAIN OF CUSTODY FORM

PAGE 1 OF 1

PROJECT NAME: College of Alameda

JOB NUMBER: 469.005 LAB: Curtis & Tompkins

PROJECT CONTACT: John Bosche TURNAROUND: Normal

SAMPLED BY: Dennis Alexander REQUESTED BY: John Bosche

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR			CONTAINERS: VOA	LITER	PINT	TUBE			METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME				NOTES	ANALYSIS REQUESTED: TEH	TVH/BTXE	8-G	TEH/BTXE						
-1	A3-13@6.5'		X								X						X		09	20	91						X		X					
-2	A3-14@7'		X								X						X		09	20	91													
-3	A4-10@7'		X								X						X		09	20	91							X	X					
-4	A4-11@5'		X								X						X		09	20	91													

COMMENTS & NOTES:

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
D. Alexander	9/20/91 11:05 a.m.	Warren Jenkins	9/20/91 1105
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME

Subsurface Consultants, Inc.

171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607

(510) 268-0461 • FAX: 510-268-0137

State of California—Health and Welfare Agency

See Instructions on back of page 6.

Toxic Substances Control Program
Sacramento, California

Type or print. *Form designed for use on elite (12-pitch typewriter).*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
C A D 0 8 1 9 6			

GENERATOR

3. Generator's Name and Mailing Address
College of Alameda (Peralta Comm Colleges D.)
333 Fifth St. Oakland, Calif. 94606
4. Generator's Phone (415) 466-7339

A. State Manifest Document Number: 91553807
B. State Generator's ID:
C. State Transporter's ID:
D. Transporter's Phone: (408) 262-2715
E. State Transporter's ID:
F. Transporter's Phone:
G. State Facility's ID: CAL000045571
H. Facility's Phone: (408) 262-2715

5. Transporter 1 Company Name: ALVISO INDEPENDENT OIL
6. US EPA ID Number: C A D 9 8 0 6 9 5 3 4 0
7. Transporter 2 Company Name:
8. US EPA ID Number:
9. Designated Facility Name and Site Address: ALVISO INDEPENDENT OIL, 5002 ARCHER, ALVISO, CALIF. 95002
10. US EPA ID Number: C A L 0 0 0 0 4 5 7 1

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. WASTE OIL N.O.S COMBUSTIBLE LIQUID NA 1270 Diesel and traces of gas	001	TT	0055 (40)	G	State 221 / EPA/Other
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
1.1 USED OIL
1.2 WATER

K. Handling Codes for Wastes Listed Above
a. 01 b. c. d.

15. Special Handling Instructions and Additional Information
GLOVES
** In Case of Emergency Call -

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Michael W. Dean		2	1	7 1

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
		2	1	7 1

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

Yellow: GENERATOR RETAINS

HS 8022A (12/90)
PA 8700—22

Please print or type. Form designed for use on elite (12 pitch typewriter).

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAC000960968 — Manifest Document No. 14213 — 2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
COLLEGE OF ALAMEDA
555 ATLANTIC AVENUE
ALAMEDA, CA 94501
4. Generator's Phone (415) 466-7340

A. State Manifest Document Number 9057203
B. State Generator's ID
C. State Transporter's ID 005760
D. Transporter's Phone 415-235-1395

5. Transporter 1 Company Name: ERICKSON TRUCKING — 6. US EPA ID Number: CAD009146392
7. Transporter 2 Company Name — 8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Erickson, Inc.
255 Parr Blvd.
Richmond, Ca. 94801
10. US EPA ID Number: CAD009146392
G. State Facility's ID CAD009146392
H. Facility's Phone (415) 235-1393

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Empty Storage Tank NON-RCRA Hazardous Waste Solid.	02	T P	13000 P		State 512 EPA/Other NONE
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
Qty. 2 Empty Storage Tank (s) #6870, 6873
_____, _____. Tank (s) have been inerted with 15 lbs. Dry Ice per 1000 Gal. Capacity.

K. Handling Codes for Wastes Listed Above
a. 01/99 — b. — c. — d.

15. Special Handling Instructions and Additional Information
Keep away from sources of ignition. Always wear hardhats when working around U.S.T.'s 24 Hr. Contact Name T. GRACIOLETT & Phone (415) 466-7340

16.
GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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GENERATOR — Printed/Typed Name: TONY GRACIOLETT — Signature: Tony Graciolett — Month Day Year: 08/15/91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: DAN BAILEY — Signature: Dan Bailey — Month Day Year: 08/15/91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Donald H Erickson E — Signature — Month Day Year: 08/15/91

Do Not Write Below This Line

8022 A
8700—22
(Rev. 6-89) Previous editions are obsolete.

Please print or type. *Form designed for use on elite (12-pitch typewriter).* and Front of Page 1 — Sacramento, Californ

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CA C 9 9 0 C 0 9 9 6 8 — Manifest Document No. 9127818

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
COLLEGE OF ALAMEDA
555 ATLANTIC AVE
ALAMEDA, CA 94704
4. Generator's Phone (415) 466-7340

A. State Manifest Document Number 90792485

B. State Generator's ID

5. Transporter 1 Company Name: ERICKSON TRUCKING INC
6. US EPA ID Number: CAD009466392
C. State Transporter's ID 20567
D. Transporter's Phone 415 235 1393

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Erickson, Inc.
255 Parr Blvd.
Richmond, Ca. 94801
10. US EPA ID Number: CAD009466392
G. State Facility's ID CAD009466392
H. Facility's Phone (415) 235-1393

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Empty Storage Tank NON-RCRA Hazardous Waste Solid.	02	TP	4120	P	State 512 EPA/Other NONE
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
Qty. 2 Empty Storage Tank (s) #6872, 6874
_____, _____. Tank (s) have been inerted with 15 lbs.
Dry Ice per 1000 Gal. Capacity.

K. Handling Codes for Wastes Listed Above
a. 01 b.
c. d.

15. Special Handling Instructions and Additional Information
Keep away from sources of ignition. Always wear hardhats when working around U.S.T.'s 24 Hr. Contact Name T. GRACIOLETT & Phone (415) 466-7340

16.
GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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GENERATOR

Printed/Typed Name: TONY GRACIOLETT — Signature: Tony Graciolett — Month Day Year: 08 15 91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: JERRY E. BROWN — Signature: Jerry E. Brown — Month Day Year: 08 15 91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: DONALD H. ROSSON E — Signature: Donald H. Rosson E — Month Day Year: 08 16 91

Do Not Write Below This Line

S 8022 A
EPA 8700—22
(Rev. 6-89) Previous editions are obsolete.

Form Approved OMB No. 2050—0039 (Expires 9-30-91)

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and Front of Page 7

Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAL000509868 — Manifest Document No. 7D 1715

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: College of Alameda, 555 Atlantic Ave

A. State Manifest Document Number: 90T22637

4. Generator's Phone (415) 268-0461 Alameda Co. 94704

B. State Generator's ID

5. Transporter 1 Company Name: Erickson Inc. — 6. US EPA ID Number: CAD009466392

C. State Transporter's ID: 205166

D. Transporter's Phone: 415/235-1313

7. Transporter 2 Company Name — 8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address: Erickson, Inc. 255 Parr Blvd. Richmond, Ca. 94801 — 10. US EPA ID Number: CAD009466392

G. State Facility's ID

H. Facility's Phone: (415) 235-1393

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Empty Storage Tank NON-RCRA Hazardous Waste Solid.	001	CM	1 5PP	?	State 512 EPA/Other NONE
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above: Qty. 1 Empty Storage Tank (s) #6871. ____, ____, ____. Tank (s) have been inerted with 15 lbs. Dry Ice per 1000 Cal. Capacity.

K. Handling Codes for Wastes Listed Above: a. ____ b. ____ c. ____ d. ____

15. Special Handling Instructions and Additional Information: Keep away from sources of ignition. Always wear hardhats when working around U.S.T.'s 24 Hr. Contact Name [illegible] & Phone [illegible]-0461

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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GENERATOR — Printed/Typed Name: [illegible] Bosche — Signature: [signature] — Month Day Year: 08 20 91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials — Printed/Typed Name: Steve Fleming — Signature: [signature] — Month Day Year: 08 20 91

18. Transporter 2 Acknowledgement of Receipt of Materials — Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. — Printed/Typed Name — Signature — Month Day Year

DHS 8022 A
EPA 8700—22
(Rev. 6-89) Previous editions are obsolete.

Do Not Write Below This Line

YELLOW: GENERATOR RETAINS

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER [redacted]-8524 — [redacted] WITHIN [redacted] FOR [redacted] ALL [redacted]852-

State of California—Health and Welfare Agency

See Instructions on back of page 6.

Department of Health Servic
Toxic Substances Control Progra
Sacramento, Californ

Please print or type. *Form designed for use on elite (12-pitch typewriter).*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.

GENERATOR

3. Generator's Name and Mailing Address 4. Generator's Phone ( )	A. State Manifest Document Number: 91553820 B. State Generator's ID: C. State Transporter's ID: D. Transporter's Phone: (408) 262-2715 E. State Transporter's ID: F. Transporter's Phone: G. State Facility's ID: CAL000045571 H. Facility's Phone: (408) 262-2715
5. Transporter 1 Company Name: ALVISO INDEPENDENT OIL 6. US EPA ID Number: CAD980695340	
7. Transporter 2 Company Name 8. US EPA ID Number	
9. Designated Facility Name and Site Address: ALVISO INDEPENDENT OIL 5002 ARCHER ALVISO, CALIF. 95002 10. US EPA ID Number: CAL000045571	

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. WASTE OIL N.O.S COMBUSTIBLE LIQUID NA 1270	001	TT		G	State: 221 EPA/Other:
b.					State: EPA/Other:
c.					State: EPA/Other:
d.					State: EPA/Other:

J. Additional Descriptions for Materials Listed Above	K. Handling Codes for Wastes Listed Above
1.1 USED OIL 1.2 WATER	a. 01 b. c. d.

15. Special Handling Instructions and Additional Information

GLOVES

** In Case of Emergency Call -

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

Yellow: GENERATOR RETAINS

DHS 8022A (12/90)
EPA 8700—22

Please print or type. *Form designed for use on elite (12-pitch typewriter).*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
[illegible]	[illegible]		

3. Generator's Name and Mailing Address	A. State Manifest Document Number
[illegible]	91053523
4. Generator's Phone ( ) [illegible]	B. State Generator's ID

5. Transporter 1 Company Name	6. US EPA ID Number	C. State Transporter's ID
ALVICO INDEPENDENT OIL	CAL000185371	D. Transporter's Phone (408) 262-2715
7. Transporter 2 Company Name	8. US EPA ID Number	E. State Transporter's ID
		F. Transporter's Phone

9. Designated Facility Name and Site Address	10. US EPA ID Number	G. State Facility's ID
ALVICO INDEPENDENT OIL 3002 ARCHER ALVICO, CALIF. 95002	CAL000185371	CAL000185371
		H. Facility's Phone (408) 262-2715

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. WASTE OIL, N.O.S. COMBUSTIBLE LIQUID, NA 1270	001	TT	[illegible]	G	State 221 EPA/Other
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above	K. Handling Codes for Wastes Listed Above	
1.1 USED OIL 1.2 WATER	a. 01	b.
	c.	d.

15. Special Handling Instructions and Additional Information

[illegible]

16.

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Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[illegible]	[illegible]		

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[illegible]	[illegible]		

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

S 8022 A
EPA 8700—22
(Rev. 6-89) Previous editions are obsolete.

Do Not Write Below This Line

YELLOW: GENERATOR RETAINS

State of California—Health and Welfare Agency

See Instructions on back of page 6.

Toxic Substances Control Program
Sacramento, California

Please print or type. *Form designed for use on elite (12-pitch typewriter).*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

A. State Manifest Document Number 91EE3821

B. State Generator's ID

5. Transporter 1 Company Name
ALVISO INDEPENDENT OIL

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone (408) 263-8715

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
ALVISO INDEPENDENT OIL
5002 ARCHER
ALVISO, CALIF. 95002

10. US EPA ID Number

G. State Facility's ID

H. Facility's Phone (408) 263-8715

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. WASTE OIL N.O.S COMBUSTIBLE LIQUID NA 1270	001	TF	00110	G	State 221 EPA/Other
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
1.1 USED OIL
1.2 WATER

K. Handling Codes for Wastes Listed Above
a. b.
c. d.

15. Special Handling Instructions and Additional Information
GLOVES
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GENERATOR

Printed/Typed Name	Signature	Month	Day	Year
		2	25	91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
LARRY JESUS		2	25	91

18. Transporter/2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

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Yellow: GENERATOR RETAINS

DHS 8022A (12/90)
EPA 8700—22

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