MIDWAY MAINTENANCE STATION
IMPERIAL COUNTY, CALIFORNIA
SITE INVESTIGATION REPORT

CALTRANS CONTRACT NO. 43Y097
TASK ORDER NO. 11-911175-b1

GEOCON
GEOTECHNICAL
&
ENVIRONMENTAL
CONSULTANTS

PREPARED FOR

CALTRANS DISTRICT 11
2829 JUAN STREET
SAN DIEGO, CALIFORNIA

SEPTEMBER 1997

GEOCON
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

Project No. 08730-06-24
Task Order No. 11-911175-b1
September 12, 1997

Mr. Paul Seegmiller
California Department of Transportation
District 11
2829 Juan Street
San Diego, California 92110

Subject: MIDWAY MAINTENANCE STATION
IMPERIAL COUNTY, CALIFORNIA
CONTRACT NO. 43Y097
TASK ORDER NO. 11-911175-b1
SITE INVESTIGATION REPORT

Dear Mr. Seegmiller:

In accordance with Caltrans Contract No. 43Y097 and Task Order No. 11-911175-b1, Geocon Environmental Consultants, Inc. (Geocon) has performed environmental engineering services at the subject site. The site is identified as the Midway Maintenance Station located on Highway 98 approximately ¼ mile west of Interstate 8 in Imperial County, California.

The accompanying report summarizes the services performed including the advancement of four borings, the installation of 3 monitoring wells, and the collection and analyses of soil and groundwater samples. If questions concerning the contents of this report arise, or if we may be of further service, please contact the undersigned at your convenience.

Very truly yours,

GEOCON ENVIRONMENTAL CONSULTANTS, INC.

Joel C. Kloth, RG 4628
Project Manager

REGISTERED GEOLOGIST
JOEL C. KLOTH
No. 4628
STATE OF CALIFORNIA

Ross J. White
Staff Environmental Geologist

RJW:JCK:slc

(5) Addressee

6970 Flanders Drive ■ San Diego, California 92121-2974 ■ Telephone (619) 558-6100 ■ Fax (619) 558-8437

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I. EXECUTIVE SUMMARY

In accordance with Caltrans Contract No. 43Y097 and Task Order (TO) No. 11-911175-b1, Geocon Environmental Consultants, Inc. (Geocon) performed a subsurface investigation on the property identified as the Midway Maintenance Station located on Highway 98 approximately ¼ mile west of Interstate 8 in Imperial County, California. On December 11, 1997, one 1,000-gallon gasoline underground storage tank (UST), one 1,000-gallon diesel UST, and a dispenser island were removed from the site by A. E. Schmidt Environmental. Diesel concentrations greater than 1,000 milligrams per kilogram (mg/kg) were detected in soil samples collected from beneath the dispenser island. Approximately 60 cubic yards of soil was removed from beneath the former dispenser island and stockpiled on-site. Subsequent to excavation activities, soil samples collected from the limits of the excavation exhibited diesel concentrations as high as 11,900 mg/kg. On January 7, 1997, approximately 33 additional cubic yards of soil was excavated and stockpiled on-site. Subsequent sampling indicated that soil exhibiting TPH-d concentrations greater than 1,000 mg/kg remained in the excavation. On January 15, 1997, approximately 30 additional cubic yards of soil was excavated and stockpiled on-site.

On April 15, 1997, Geocon initiated the subsurface investigation. A utility survey was conducted prior to performing the subsurface investigation to evaluate for the presence of underground utilities beneath the proposed boring locations. Four borings were advanced adjacent to the former dispenser island utilizing a truck-mounted drill rig equipped with hollow-stem auger. Soil samples were collected at 5-foot intervals beginning at 5 feet below the ground surface. Groundwater was encountered at approximately 15 feet below the ground surface; and consequently, three of the borings were completed as 25-foot-deep groundwater monitoring wells.

Soil and groundwater samples were analyzed for total petroleum hydrocarbons as gasoline and diesel (TPH-g and TPH-d, respectively) following modified Environmental Protection Agency (EPA) Test Method 8015, and for potential methyl tertiary butyl ether (MTBE) and benzene, toluene, ethylbenzene, and xylenes (BTEX) following EPA Test Method 8020. Soil samples collected from the two borings advanced south of the former dispenser island (Borings B1 and B2) did not exhibit detectable concentrations of TPH-g, TPH-d, MTBE, and BTEX. The soil sample collected from a depth of approximately 15 feet below the ground surface from the boring advanced north of the former dispenser island (Boring B3), exhibited a TPH-g concentration of 76 mg/kg, a TPH-d concentration of 5,900 mg/kg, a potential MTBE concentration of 0.21 mg/kg, a benzene concentration of 0.32 mg/kg, a toluene concentration of 0.75 mg/kg, an ethylbenzene concentration of 0.50 mg/kg, and a total xylenes concentration of 9.8 mg/kg. Soil samples collected from the boring advanced approximately 10 feet northwest of Boring B3 (Boring B4) did not exhibit detectable concentrations of TPH-g, TPH-d, MTBE, and BTEX. Soil sample B3-15 was re-analyzed for MTBE following EPA Test Method 8260 to confirm or refute the MTBE detected following EPA Test Method 8020. The results of this analysis indicated that MTBE was not present in the soil sample.

Borings B1, B2, and B3 were completed as monitoring wells MW2, MW1, and MW3, respectively. The groundwater sample collected from MW1 did not exhibit detectable concentrations of TPH-g, TPH-d, MTBE, and BTEX. The groundwater sample collected from MW2 exhibited a benzene concentration of 4.2 micrograms per liter (µg/l) and did not exhibit detectable concentrations of the other constituents. The groundwater sample collected from MW3 exhibited a TPH-d concentration of 49 milligrams per liter (mg/l), a TPH-g concentration of 67 mg/l, a potential MTBE concentration of

10 µg/l, a benzene concentration of 1.3 µg/l, a toluene concentration less than the detection limit, an ethylbenzene concentration of 1,630 µg/l, and an total xylenes concentration of 13,600 µg/l.

Based on the data collected during this investigation, the extent of the impacted soil has been adequately delineated, the impacted soil has been removed, and the excavations have been backfilled. The groundwater samples collected from Monitoring Wells MW2 and MW3 are impacted with benzene at concentrations greater than the maximum contaminant level (MCL) for drinking water of 1.0 µg/l as established by the California Code of Regulations (CCR) Title 22, Section 64444.

Since the sources of contamination have been removed from beneath the site, natural attenuation of the dissolved petroleum hydrocarbons in the groundwater may be the only remedial activity necessary. It is therefore recommended that Caltrans continue monitoring groundwater quality in the three wells to ensure that concentrations of dissolved hydrocarbons are steady or decreasing.

SITE INVESTIGATION REPORT

1. INTRODUCTION

In accordance with the California Department of Transportation (Caltrans) Contract No. 43Y097 and Task Order (TO) No. 11-911175-b1, Geocon Environmental Consultants, Inc. (Geocon) has prepared this site investigation report for environmental engineering activities conducted at the site. Geocon performed the scope of services in accordance with TO No. 11-911175-b1 and the Work Plan dated April 3, 1997.

1.1. Site Description

The site is identified as the Midway Maintenance Station and is located on Highway 98 approximately ¼ mile west of Interstate 8 in Imperial County, California. The site location is depicted on the Vicinity Map, Figure 1. The site is paved and covers an approximately 2-acre area. The site is surrounded by a chain-link fence and contains road maintenance equipment, a fueling/oil house, a maintenance building, a truck dock, and a 4,000-gallon above-ground diesel fuel storage tank. The site is bounded by undeveloped land. The site investigation activities took place adjacent to the fueling/oil house where two 1,000-gallon diesel and gasoline underground storage tanks (USTs) and a dispenser island were formerly located. The approximate location of the fueling/oil house, former USTs, and former dispenser island are depicted on the Site Plan, Figure 2.

1.2. Purpose

The purpose of the investigation was to evaluate the extent of diesel and gasoline-impacted soil adjacent to the former dispenser island. In addition, if groundwater was encountered, as many as three monitoring wells were to be installed to evaluate if groundwater had been impacted by the release of petroleum hydrocarbons.

1.3. Background

On December 11, 1997, one 1,000-gallon gasoline UST, one 1,000-gallon diesel UST, and a dispenser island were removed from the site by A. E. Schmidt Environmental. Two soil samples collected from the resulting excavation exhibited concentrations of total petroleum hydrocarbons as gasoline (TPH-g) ranging from below the laboratory detection limit to 1.3 milligrams per kilogram (mg/kg) and concentrations of TPH as diesel (TPH-d) ranging from below the laboratory detection limit to 62 mg/kg. Benzene, toluene, ethylbenzene, and xylenes (BTEX) were not detected. Two soil samples collected from beneath the former dispenser island exhibited concentrations of TPH-g ranging from

below the laboratory detection limit to 65 mg/kg and concentrations of TPH-d ranging from below the laboratory detection limit to 23,600 mg/kg. Total xylenes concentrations ranged from below the laboratory detection limit to 35 micrograms per kilogram (µg/kg). Benzene, toluene, and ethylbenzene were not detected in the soil samples. Approximately 60 cubic yards of soil was removed from around the tanks and from beneath the former dispenser island and stockpiled on-site during the tank removal activities. Upon completion of the excavation activities, soil samples collected from the limits of the excavation exhibited diesel concentrations as high as 11,900 mg/kg. On January 7, 1997, approximately 33 additional cubic yards of soil was excavated and stockpiled on-site. Subsequent soil sampling and analyses indicated that soil exhibiting TPH-d concentrations greater than 1,000 mg/kg remained in the excavation. On January 15, 1997, approximately 30 additional cubic yards of soil was excavated and stockpiled on-site.

2. INVESTIGATIVE METHODS

2.1. Utility Survey

Prior to the advancement of the borings, a utility survey was performed on April 15, 1997, by Subsurface Alert, Inc. The survey was performed to evaluate the presence of potential underground utilities or other structures beneath the proposed boring locations.

2.2. Drilling Activities

Drilling activities were performed by ABC Liovin Drilling on April 15 and April 18, 1997, utilizing a truck-mounted drill rig equipped with an 8-inch-diameter hollow-stem auger. Prior to advancing the hollow-stem auger, a 3-inch-diameter hand auger was advanced at each boring location to a depth of approximately 5 feet below the ground surface to aid in evaluating the potential presence of near-surface conduits or structures.

Four borings (B1 through B4) were advanced at the site. Borings B1 and B2 were advanced to depths of approximately 25 and 30 feet below the ground surface, respectively, south of the former dispenser island; Boring B3 was advanced to a depth of approximately 25 feet below the ground surface, north of the former dispenser island; and Boring B4 was advanced to a depth of approximately 20 feet below the ground surface, approximately 10 feet northwest of Boring B3. The approximate location of the borings are depicted on the Site Plan, Figure 2. Boring B4 was backfilled with bentonite and capped with asphalt. Borings B1, B2, and B3 were left open to be completed as monitoring wells.

2.3. Soil Sampling

Soil samples were collected from each boring at 5-foot intervals beginning at the 5-foot depth utilizing a Standard Penetration Test sampler equipped with stainless steel sleeves to facilitate sample handling and collection. During each sampling event, the bottom sleeve was removed from the sampler. The ends of the sleeves were sealed with Teflon sheets and plastic end caps. Each sample was relinquished to the on-site mobile laboratory for analyses (Centrum Analytical Laboratories, Inc.).

The borings were logged under the supervision of a State of California Registered Geologist utilizing the Unified Soil Classification System. Soil descriptions, field observations, and sample depths and times are recorded on the boring logs presented as Appendix A. In general, the soil encountered consisted primarily of fine to medium sand. Groundwater was encountered at approximately 15 feet below the ground surface. The soil cuttings generated during the drilling activities were placed onto the on-site stockpile.

Quality assurance/quality control (QA/QC) procedures provided during the field activities included cleaning the soil sampling equipment prior to collecting each sample, and cleaning the auger prior to first use and each subsequent use. Cleansing of the sampling equipment was accomplished by washing the equipment with a trisodium phosphate solution followed by subsequent tap water and de-ionized water rinses.

2.4. Monitoring Well Installation

On April 18, 1997, Borings B1, B2, and B3 were completed as Monitoring Wells MW2, MW1, and MW3, respectively. Each well was approximately 25 feet deep. The monitoring wells were constructed using 2-inch-diameter Schedule 40 polyvinyl chloride (PVC) casing. The lower portion of each well was constructed using approximately 15 feet of 0.020-inch slotted screen PVC casing. Approximately 10 feet of the screened interval was placed below the water table.

A sand filter pack was placed around the screened PVC casing from the bottom of the boring to an elevation of approximately 5 feet above the screen casing. An approximately 3-foot-thick bentonite annulus seal was placed above the filter pack. Twelve-inch diameter traffic-rated security wellhead covers were set in approximately 2 feet of concrete to complete the construction. Well construction details are recorded on the boring/well logs presented as Appendix A.

2.5. Monitoring Well Survey

On April 23, 1997, the relative top of casing (TOC) elevations for wells MW1 through MW3 were surveyed using Monitoring Well MW3 as the benchmark with an arbitrary TOC elevation of 20.00 feet. Based on the survey the TOC elevation of Monitoring Well MW1 is situated at 20.13 feet and the TOC elevation of Monitoring Well MW2 is situated at 20.19 feet.

2.6. Groundwater Sampling

On April 23, 1997, the three wells were purged, monitored, and sampled. Well depths and depths to groundwater were measured in each well prior to well purging. Groundwater depth measurements were obtained using a battery-operated oil/water interface probe. Free product was not detected in the wells. The monitoring wells were purged in accordance with the 1997, County of San Diego, Site Assessment and Mitigation (SAM) Manual. Measurements taken during the groundwater sampling activities are summarized in Appendix B.

Groundwater samples were collected from each well utilizing disposable polyethylene bailers. In addition, a field blank was collected by passing de-ionized water through a disposable bailer into a laboratory-provided container. The samples were placed in laboratory-provided VOA vials and 1-liter amber bottles, labeled, chilled, and delivered to a California Department of Health Services (CDOHS)-certified analytical laboratory. The groundwater purged from each well was poured onto the on-site stockpile at the request of Caltrans.

2.7. Laboratory Analytical Methods

The soil samples relinquished to the on-site mobile laboratory were analyzed for TPH-g and TPH-d following modified Environmental Protection Agency (EPA) Test Method 8015 and for BTEX and potential methyl tertiary butyl ether (MTBE) following EPA Test Method 8020. The soil sample that exhibited the highest TPH-g concentration was analyzed for organic lead following the Department of Health Services - Leaking Underground Fuel Tank (DHS-LUFT) test method. In addition, the soil sample exhibiting the highest MTBE concentration was re-analyzed following EPA Test Method 8260 for MTBE confirmation.

The groundwater samples relinquished to the stationary laboratory were analyzed for TPH-g and TPH-d following EPA Test Method 8015 and for BTEX and potential MTBE following EPA Test Method 8020. Potential MTBE was detected in one sample. However, dilution was necessary and

therefore, not enough sample remained to perform MTBE confirmation following EPA Test Method 8260.

2.8. Excavation Backfill Activities

Based on the results of the activities discussed above, the majority of the impacted soil had been excavated during the tank removal activities. Therefore, during the week of July 7 to 11, 1997, the excavated areas on-site were backfilled by Caltrans.

3. INVESTIGATIVE RESULTS

3.1. Analytical Results

Analytical results for the soil and groundwater samples are summarized in Tables I and II, respectively. Laboratory analytical reports and chain-of-custody documentation are presented as Appendix C.

3.1.1 Soil Samples

Based on the analytical laboratory data, soil samples did not exhibit detectable concentrations of the constituents TPH-g, TPH-d, MTBE, and BTEX, with the exception of the soil sample collected from Boring B3 at depth of approximately 15 feet below the ground surface (i.e., B3-15). Soil sample B3-15 exhibited a TPH-g concentration of 76 mg/kg, a TPH-d concentration of 5,900 mg/kg, a potential MTBE concentration of 0.21 mg/kg, a benzene concentration of 0.32 mg/kg, a toluene concentration of 0.75 mg/kg, an ethylbenzene concentration of 0.52 mg/kg, a total xylenes concentration of 9.8 mg/kg, and an organic lead concentration less than the laboratory detection limit. The MTBE concentration detected following EPA Test Method 8020 was refuted upon re-analysis following EPA Test Method 8260.

3.1.2 Groundwater Samples

Based on the analytical laboratory data, groundwater samples collected from Monitoring Wells MW1 and MW2 exhibited non-detectable concentrations for the constituents analyzed, with the exception of a benzene concentration of 4.2 micrograms per liter (µg/l) detected in the groundwater sample collected from Monitoring Well MW2. The groundwater sample collected from Monitoring Well MW3 exhibited a TPH-g concentration of 67 milligrams per liter (mg/l), a TPH-d concentration of 49 mg/l, a potential MTBE concentration of 10 µg/l, a benzene concentration of 1.3 µg/l, a toluene

concentration less than the detection limit, an ethylbenzene concentration of 1,630 µg/l, and a xylenes concentration of 13,600 µg/l. MTBE confirmation following EPA Test Method 8260 was requested; however, the laboratory indicated that the groundwater sample collected from MW3 required dilution and, therefore, not enough sample remained to perform the confirmation.

3.2. Groundwater Gradient

Based on the groundwater measurements taken during the groundwater sampling activities, the groundwater gradient beneath the site is towards the northeast with a magnitude of approximately 0.007 foot/foot. Groundwater elevation contours are depicted on Figure 3.

4. CONCLUSIONS AND RECOMMENDATIONS

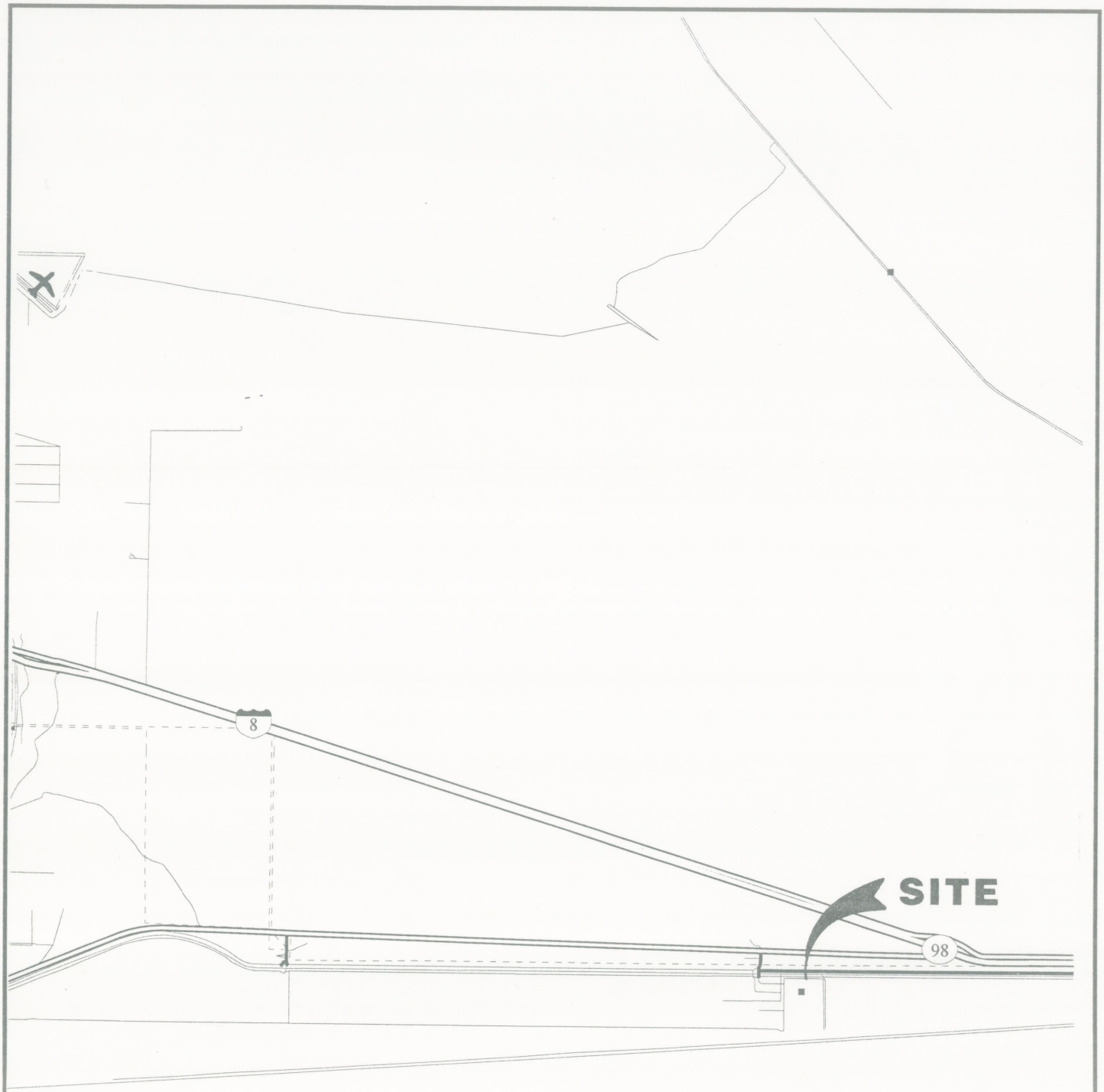
Based on the data collected during this investigation, the extent of the impacted soil has been adequately delineated, the impacted soil has been removed, and the excavations have been backfilled. The groundwater samples collected from Monitoring Wells MW2 and MW3 are impacted with benzene at concentrations greater than the maximum contaminant level (MCL) for drinking water of 1.0 µg/l as established by the California Code of Regulations (CCR) Title 22, Section 64444.

Since the sources of contamination have been removed from beneath the site, natural attenuation of the dissolved petroleum hydrocarbons in the groundwater may be the only remedial activity necessary. It is therefore recommended that Caltrans continue monitoring groundwater quality in the three wells to ensure that concentrations of dissolved hydrocarbons are steady or decreasing.

5. REPORT LIMITATIONS

This report has been prepared exclusively for Caltrans. Caltrans should recognize that this report is not a comprehensive site characterization and should not be construed as such. Regulatory agencies such as the RWQCB may require additional environmental engineering services. The findings and conclusions as presented in this report are predicated on the results of the limited soil sampling, groundwater sampling, and laboratory analyses performed. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein.

Therefore, the report should only be deemed conclusive with respect to the information obtained. Geocon performed the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.



SOURCE : PRECISION MAPPING 2.0

N

NO SCALE

GEOCON

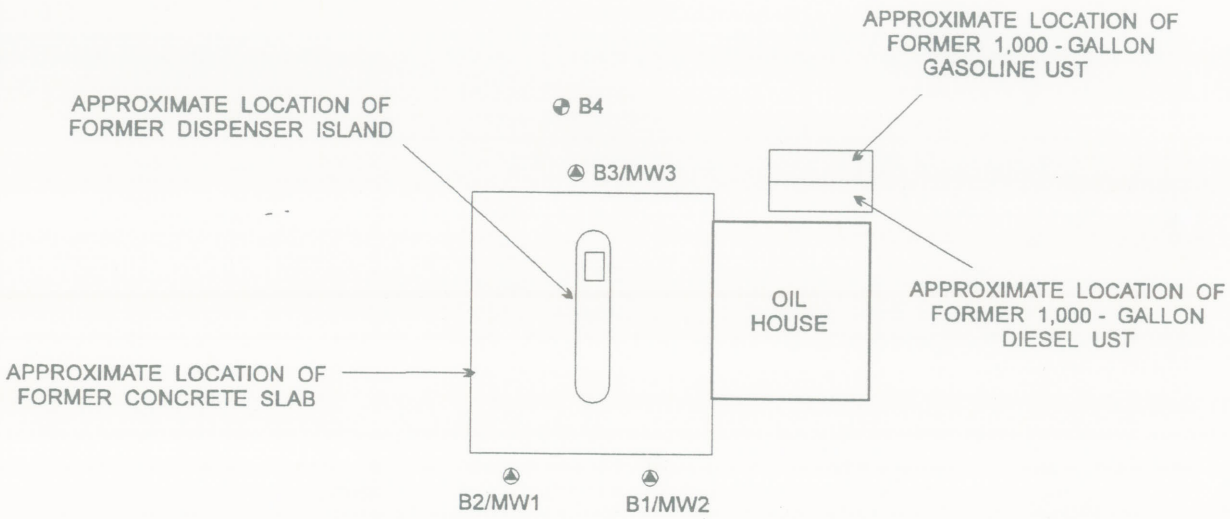
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-8437

RJW / JS		DSK / E0000

VICINITY MAP

MIDWAY MAINTENANCE STATION
IMPERIAL COUNTY, CALIFORNIA

DATE 9-12-97	PROJECT NO. 08730 - 06 - 24	FIG. 1



LEGEND

B4 ..... APPROX. LOCATION OF BORING

B3/MW3 ..... APPROX. LOCATION OF MONITORING WELL

N

0' 20' 40'

APPROX. SCALE

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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121 - 2974
PHONE 619 558-6100 - FAX 619 558-8437

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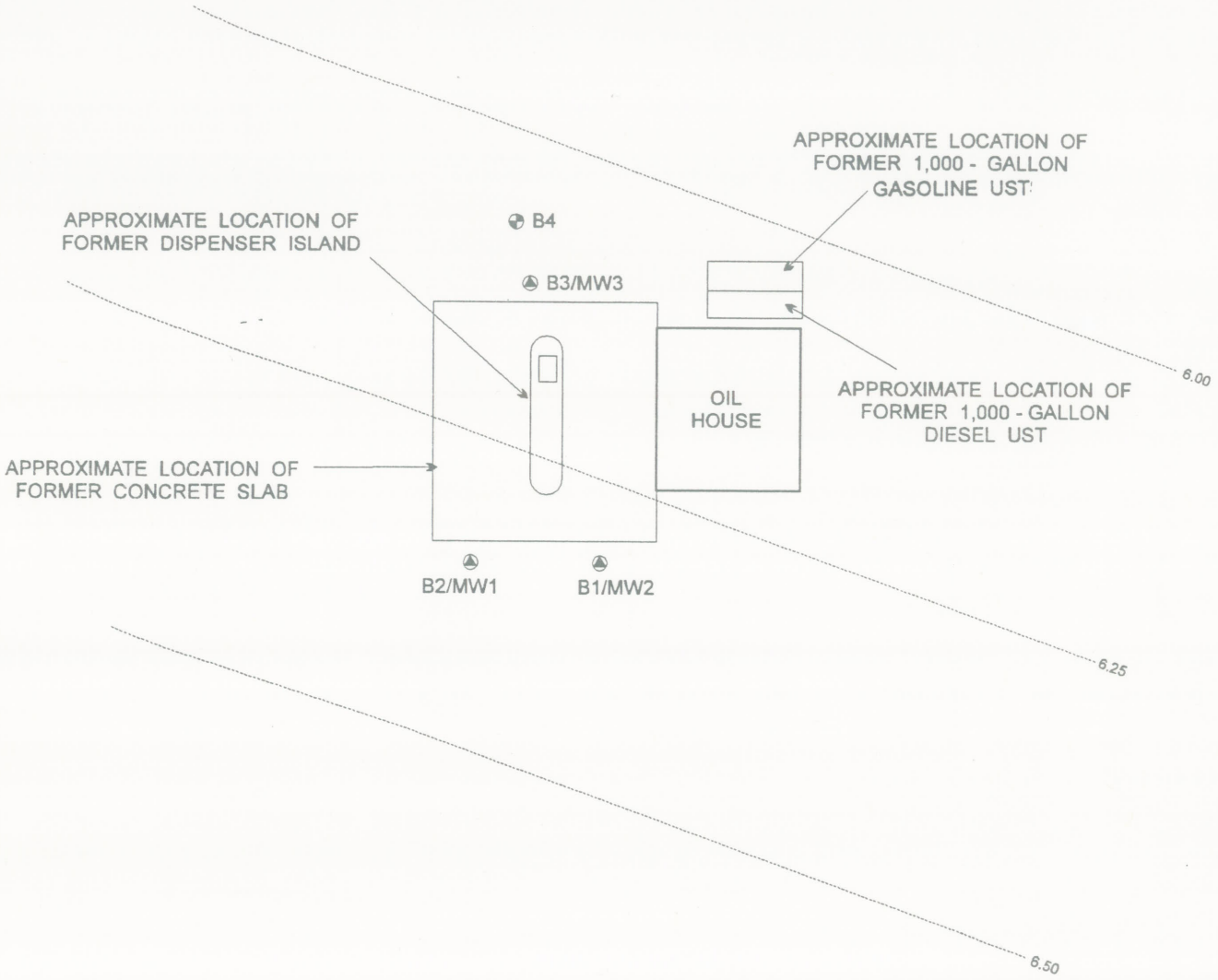
SITE PLAN

MIDWAY MAINTENANCE STATION
IMPERIAL COUNTY, CALIFORNIA

DATE 9-12-97	PROJECT NO. 08730 - 06 - 24	FIG. 2

8730JK2



LEGEND

B4 ◔.....APPROX. LOCATION OF BORING

B3/MW3 ▲.....APPROX. LOCATION OF MONITORING WELL

6.50.....GROUNDWATER CONTOUR (FEET ABOVE DATUM)

N

0' 20' 40'

APPROX. SCALE

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GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
6970 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 619 558-6100 - FAX 619 558-8437

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GROUNDWATER ELEVATION CONTOURS

MIDWAY MAINTENANCE STATION
IMPERIAL COUNTY, CALIFORNIA

DATE 9-12-97	PROJECT NO. 08730 - 06 - 24	FIG. 3

8730JK1

TABLE I
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS
SOIL SAMPLES

Sample ID.	TPH-g EPA 8015 (mg/kg)	TPH-d EPA 8015 (mg/kg)	MTBE EPA 8020 (mg/kg)	Benzene EPA 8020 (mg/kg)	Toluene EPA 8020 (mg/kg)	Ethylbenzene EPA 8020 (mg/kg)	Xylenes EPA 8020 (mg/kg)	Organic Lead DHS-LUFT (mg/kg)
B1-5	ND	ND	ND	ND	ND	ND	ND	---
B1-10	ND	ND	ND	ND	ND	ND	ND	---
B1-15	ND	ND	ND	ND	ND	ND	ND	---
B1-20	ND	ND	ND	ND	ND	ND	ND	---
B1-25	ND	ND	ND	ND	ND	ND	ND	---
B2-5	ND	ND	ND	ND	ND	ND	ND	---
B2-10	ND	ND	ND	ND	ND	ND	ND	---
B2-15	ND	ND	ND	ND	ND	ND	ND	---
B2-20	ND	ND	ND	ND	ND	ND	ND	---
B2-25	ND	ND	ND	ND	ND	ND	ND	---
B2-30	ND	ND	ND	ND	ND	ND	ND	---
B3-5	ND	ND	ND	ND	ND	ND	ND	---
B3-10	ND	ND	ND	ND	ND	ND	ND	---
B3-15	76	5900	0.21*	0.32	0.75	0.52	9.8	ND
B3-20	ND	ND	ND	ND	ND	ND	ND	---
B3-25	ND	ND	ND	ND	ND	ND	ND	---
B4-5	ND	ND	ND	ND	ND	ND	ND	---

TABLE I (Continued)
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS
SOIL SAMPLES

Sample ID.	TPH-g EPA 8015 (mg/kg)	TPH-d EPA 8015 (mg/kg)	MTBE EPA 8020 (mg/kg)	Benzene EPA 8020 (mg/kg)	Toluene EPA 8020 (mg/kg)	Ethylbenzene EPA 8020 (mg/kg)	Xylenes EPA 8020 (mg/kg)	Organic Lead DHS-LUFT (mg/kg)
B4-10	ND	ND	ND	ND	ND	ND	ND	---
B4-15	ND	ND	ND	ND	ND	ND	ND	---
B4-20	ND	ND	ND	ND	ND	ND	ND	---

Note:

mg/kg	=	milligrams per kilogram
*	=	MTBE was not detected in the sample when re-analyzed following EPA Test Method 8260
DHS-LUFT	=	Department of Health Services - Leaking Underground Fuel Tank test method
---	=	Analysis not performed
ND	=	Not detected above the respective laboratory detection limit
TPH-g	=	Total petroleum hydrocarbons as gasoline
TPH-d	=	Total petroleum hydrocarbons as diesel
MTBE	=	Methyl tertiary butyl ether

TABLE II
SUMMARY OF ANALYTICAL LABORATORY TEST RESULTS
GROUNDWATER SAMPLES

Well No.	TPH-d EPA 8015 (mg/l)	TPH-g EPA 8015 (mg/l)	MTBE EPA 8020 (µg/l)	Benzene EPA 8020 (µg/l)	Toluene EPA 8020 (µg/l)	Ethylbenzene EPA 8020 (µg/l)	Xylenes EPA 8020 (µg/l)
MW1	ND	ND	ND	ND	ND	ND	ND
MW2	ND	ND	ND	4.2	ND	ND	ND
MW3	49	67	10*	1.3	ND	1630	13600

Note:

*	=	Confirmation following EPA Test Method 8260 was not performed due to lack of sample
mg/l	=	milligrams per liter
µg/l	=	micrograms per liter
TPH-g	=	Total petroleum hydrocarbons as gasoline
TPH-d	=	Total petroleum hydrocarbons as diesel
MTBE	=	Methyl tests butyl ether

APPENDIX A

PROJECT NO. 08730-06-24

BORING/WELL NO. B 1 /MW 2

DATE DRILLED 4/15/97 WATER LEVEL (ATD) 16.0'

EQUIPMENT CME-75 DRILLER ABC

DEPTH IN FEET	PENETRAT. RESIST. BLWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	WELL CONSTRUCTION	HEADSPACE (PPM)
1				APPROXIMATELY 3 INCHES ASPHALT CONCRETE		
2				Medium dense, humid, light brown, fine to medium SAND, trace of silt (SP)		
3						
4						
5						
6	11	B1-5 1240		-Some clay between 5 and 6 feet		
7						
8						
9						
10						
11	13	B1-10 1249				
12						
13						
14						
15						
16	16	B1-15 1257		▼ -Becomes saturated with a trace of coarse sand at approximately 16 feet		
17						
18						
19						
20		B1-20 0111				
21	17					
22						
23						
24						
25						
26	12	B1-25 0121		-Sand plug filled auger from approximately 26 to 30 feet		
27						
28						
29						
30						
31		B1-30		-No sample recovered at 30 feet		
32				BORING TERMINATED AT APPROXIMATELY 31 FEET		

Figure A-1, log of Boring B 1 /MW 2

MDMS

CASING ELEVATION: **20.19 FEET ABOVE DATUM**	QUANTITY OF FILTER MATERIAL: **5 BAGS**
DIAMETER & TYPE OF CASING: **2 INCH PVC**	WELL SEAL & INTERVAL: **CONCRETE 0-2 FEET**
CASING INTERVAL: **0-10 FEET**	WELL SEAL QUANTITY: **1.5 BAGS**
WELL SCREEN: **0.020**	ANNULUS SEAL/INTERVAL: **BENTONITE/2-5 FEET**
SCREEN INTERVAL: **10-25 FEET**	ADDITIVES: **N/A**
WELL COVER: **FLUSH-MOUNT**	WELL DEPTH: **25**
FILTERPACK/INTERVAL: **#16 SAND/5-25 FEET**	ENGINEER/GEOLOGIST: **ROSS WHITE** SCK

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. 08730-06-24

BORING/WELL NO. B 2 /MW 1

DATE DRILLED 4/15/97 WATER LEVEL (ATD) 16.0'

EQUIPMENT CME-75 DRILLER ABC

DEPTH IN FEET	PENETRAT. RESIST. BLWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	WELL CONSTRUCTION	HEADSPACE (PPM)
1				APPROXIMATELY 3 INCHES ASPHALT CONCRETE		
2				Loose, dry-humid, light brown, fine to medium SAND, trace silt (SP)		
3						
4						
5						
6	8	B2-5 1048				
7						
8						
9				-Becomes medium dense and humid at approximately 8 feet		
10						
11	13	B2-10 1059				
12						
13						
14						
15						
16	13	B2-15 1108		-Becomes clayey at approximately 15 feet -Becomes saturated with little or no clay at approximately 16 feet		
17						
18						
19						
20						
21	11	B2-20 1115				
22						
23						
24						
25						
26		B2-25 1130				
27						
28						
29						
30				-No sample recovered at 30 feet		
31		B2-30 1042		BORING TERMINATED AT APPROXIMATELY 31 FEET		
32						

Figure A-2, log of Boring B 2 /MW 1

MDMS

CASING ELEVATION: **20.13 FEET ABOVE DATUM**	QUANTITY OF FILTER MATERIAL: **5 BAGS**
DIAMETER & TYPE OF CASING: **2 INCH PVC**	WELL SEAL & INTERVAL: **CONCRETE 0-2 FEET**
CASING INTERVAL: **0-10 FEET**	WELL SEAL QUANTITY: **1.5 BAGS**
WELL SCREEN: **0.020**	ANNULUS SEAL/INTERVAL: **BENTONITE/2-5 FEET**
SCREEN INTERVAL: **10-25 FEET**	ADDITIVES: **N/A**
WELL COVER: **FLUSH-MOUNT**	WELL DEPTH: **25 FEET**
FILTERPACK/INTERVAL: **#16 SAND/5-25 FEET**	ENGINEER/GEOLOGIST: **ROSS WHITE**

JCK

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. 08730-06-24

BORING/WELL NO. B 3 /MW 3

DATE DRILLED 4/15/97 WATER LEVEL (ATD) 16.0'

EQUIPMENT CME-75 DRILLER ABC

DEPTH IN FEET	PENETRAT. RESIST. BLWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION
1–4				Loose, dry, light brown, fine to medium SAND, trace silt (SP)
5–6	8	B3-5 0148		-Becomes humid at approximately 4 feet
7–9				-Becomes moist at approximately 7 feet
10–11	13	B3-10 0152		-Becomes medium dense at approximately 10 feet
15–16	11	B3-15 0158		▼ -Becomes saturated at approximately 16 feet
20–21	13	B3-20 0203		
25–26	26	B3-25 0208		
30–31		B3-30		-No sample recovered at 30 feet Sand plug filled auger from approximately 27 to 30 feet
32				BORING TERMINATED AT APPROXIMATELY 31

WELL CONSTRUCTION

HEADSPACE (PPM)

Figure A-3, log of Boring B 3 /MW 3

Continued Next Page

MDMS

CASING ELEVATION: **20.00 FEET ABOVE DATUM**	QUANTITY OF FILTER MATERIAL: **5 BAGS**
DIAMETER & TYPE OF CASING: **2 INCH PVC**	WELL SEAL & INTERVAL: **CONCRETE 0-2 FEET**
CASING INTERVAL: **0-10 FEET**	WELL SEAL QUANTITY: **1.5 FEET**
WELL SCREEN: **0.020**	ANNULUS SEAL/INTERVAL: **BENTONITE/2-5 FEET**
SCREEN INTERVAL: **10-25 FEET**	ADDITIVES: **N/A**
WELL COVER: **FLUSH-MOUNT**	WELL DEPTH: **25 FEET**
FILTERPACK/INTERVAL: **#16 SAND/5-25 FEET**	ENGINEER/GEOLOGIST: **ROSS WHITE**

PROJECT NO. 08730-06-24

BORING/WELL NO. B 4

DATE DRILLED 4/18/97 WATER LEVEL (ATD) 15.0'

EQUIPMENT CME-75 DRILLER ABC

DEPTH IN FEET	PENETRAT. RESIST. BLWS/FT.	SAMPLE NO.	LITHOLOGY	SOIL DESCRIPTION	WELL CONSTRUCTION	HEADSPACE (PPM)
1				APPROXIMATELY 3 INCHES ASPHALT CONCRETE		
2				Loose, humid, light brown, fine to medium SAND, trace of silt (SP)		
3						
4						
5						
6	10	B4-5 0752				
7						
8						
9				-Becomes medium dense and more sandy at approximately 8 feet		
10						
11	13	B4-10 0756				
12						
13						
14						
15				▼ -Becomes saturated at approximately 15 feet		
16	10	B4-15 0802				
17						
18						
19						
20						
21	18	B4-20 0810				
22						
23						
24						
25				Sand plug filled auger from approximately 24 to 26 feet		
26		B4-25		-No sample recovered at 25 feet		
27				BORING TERMINATED AT APPROXIMATELY 26 FEET		
28				Boring backfilled with bentonite to within approximately 6 inches and capped with asphalt		
29						
30						
31						
32						

Figure A-5, log of Boring B 4

MDMS

CASING ELEVATION: N/A	QUANTITY OF FILTER MATERIAL: N/A
DIAMETER & TYPE OF CASING: N/A	WELL SEAL & INTERVAL: N/A
CASING INTERVAL: N/A	WELL SEAL QUANTITY: N/A
WELL SCREEN: N/A	ANNULUS SEAL/INTERVAL: N/A
SCREEN INTERVAL: N/A	ADDITIVES: N/A
WELL COVER: N/A	WELL DEPTH: N/A
FILTERPACK/INTERVAL: N/A	ENGINEER/GEOLOGIST: ROSS WHITE

JCK

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

APPENDIX B

APPENDIX B
GROUNDWATER SAMPLING WORKSHEET

Project Name: Midway Maintenance Station
Project Number: 08730-06-24
Date: 4/23/1997

	MW1	MW2	MW3			
Casing Diameter (ft)	0.17	0.17	0.17			
Borehole Diameter (ft)	0.67	0.67	0.67			
Casing Elevation (ft above datum)	20.13	20.19	20.00			
Well Depth (ft)	23.70	24.09	23.34			
Initial Water Depth (ft)	13.77	13.87	13.88			
Groundwater Elevation (ft above datum)	6.36	6.32	6.12			
Saturated Borehole Volume (gal)	7.7	7.9	7.3			

Start Purging Time	9:25	9:42	10:00			
End Purging Time	9:35	9:48	10:08			
Total Volume Purged (gal)	16	12	10.5			
Water Depth after Purging (ft)	13.77	13.87	13.88			
Water Depth at 80% Recharge (ft)	NA	NA	NA			
Water Depth at Sampling (ft)	NA	NA	NA			
Sampling Time	9:40	9:50	10:10			
pH at Sampling	5.95	6.65	6.82			
Conductivity at Sampling (mmhos)	1340	860	670			
Temperature at Sampling (F)	80.3	81.4	80.4			

Well Purging Method: Purge pump

Decontamination Procedures: Washed pump and tubing in a trisodium phosphate solution followed by successive rinses in tap and deionized water. Groundwater samples were taken utilizing disposable polyethylene bailers

Field QA/QC Methods: Completed chain-of-custody documentation for water samples relinquished to the laboratory and cleaned the sampling equipment prior to introduction into the monitoring wells following the decontamination procedures described above. In addition, a field blank was collected.

Sample Preservation: Placed the sample containers in a cooler with ice. In addition, the 40-milliliter VOA containers contained hydrochloric acid.

Purged Groundwater Disposition: The purged groundwater was poured onto the on-site stockpile.

APPENDIX C

Advanced Technology
Laboratories

May 1, 1997

ELAP No.: 1838

Geocon Environmental
6970 Flanders Drive
San Diego, CA 92121

ATTN: Mr. Ross White

Client's Project: Midway, 08730-06-24
Lab No.: 17094-001/003

Gentlemen:

Enclosed are the results for sample(s) received by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company. Please feel free to call me at (310) 989 - 4045 if I can be of further assistance to your company.

Sincerely,

Edgar P. Caballero
Laboratory Director
EPC/ms

Enclosures

This cover letter is an integral part of this analytical report.

Mailing Address: P.O. Box 9108 Newport Beach, CA 92658
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 310 989-4045 Fax: 310 989-4040

Client: Geocon Environmental
Attn: Mr. Ross White

QC Batch #: F978015DW232
Date Sampled: 04/23/97
Date Received: 04/24/97
Date Extracted: 04/29/97
Date Analyzed: 04/29/97
Extraction Method: 3510
Extraction Material: Methylene Chloride

Client's Project: Midway, 08730-06-24
Matrix: Water
Analyst Initials: DC

Method 8015M/TPH (Diesel)

Lab No.:	Sample ID:	Results, mg/L	DLR, mg/L	Dilution Factor
Method Blank	----	ND	0.05	1.0
17094-001	MW 1	ND	0.05	1.0
17094-002	MW 2	ND	0.05	1.0
17094-003	MW 3	49	5.0	100
		%Recovery	Limits	
LCS	----	74	50-150	1

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor

Reviewed/Approved By: _____ Date: 5/1/97
Yun Pan
Department Supervisor

The cover letter is an integral part of this analytical report.

Spike Recovery and RPD Summary Report - WATER(mg/l)

Method : C:\HPCHEM\5\METHODS\DIESEL.M
Title : Diesel
Last Update : Tue Apr 29 14:49:10 1997
Response via : Initial Calibration

Non-Spiked Sample: F97B2764.D

	Spike Sample	Spike Duplicate Sample
File ID :	F97S2775.D	F97S2776.D
Sample :	BLK MS 1L-1ML E4-29-97	BLK MSD 1L-1ML E4-29-97
Acq Time:	29 Apr 97 04:32 PM	29 Apr 97 04:53 PM

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Diesel	ND	1.0	1.1	0.87	106	87	21	50	50-150

QC Batch # : F978015DW232

Reviewed/Approved by: _____ Date: 5/1/97

Yun Pan
Organics Supervisor

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 310 989-4045 Fax: 310 989-4040

Client: Geocon Environmental
Attn: Mr. Ross White

Client's Project: Midway, 08730-06-24

Date Received: 04/24/97
Matrix: Water

METHOD 8015M (Gasoline)/EPA 8020

Lab No.:			Method Blank		17094-001		17094-002		17094-003		LCS	
Client Sample I.D.:			--		MW 1		MW 2		MW 3		----	
Date Sampled:			--		04/23/97		04/23/97		04/23/97		----	
QC Batch #:			F978G20W072		F978G20W072		F978G20W072		F978G20W072		F978G20W072	
Date Analyzed:			04/30/97		04/30/97		04/30/97		04/30/97		04/30/97	
Analyst Initials:			RL		RL		RL		RL		RL	
Dilution Factor:			1		1		1		1		1	
Analyte	MDL	Units	DLR	Results	DLR	Results	DLR	Results	DLR	Results	%Rec.	Limits
TPH (Gas)	0.05	mg/l	0.05	ND	0.05	ND	0.05	ND	1.1	67*	100	50-150
Benzene	0.5	ug/l	0.5	ND	0.5	ND	0.5	4.2	0.5	1.3	69	50-150
Toluene	0.5	ug/l	0.5	ND	0.5	ND	0.5	ND	0.5	ND	78	50-150
Ethylbenzene	0.5	ug/l	0.5	ND	0.5	ND	0.5	ND	11	1630*	78	50-150
Xylenes (total)	0.5	ug/l	0.5	ND	0.5	ND	0.5	ND	11	13600*	79	50-150
Methyl tert-Butyl Ether	0.5	ug/l	0.5	ND	0.5	ND	0.5	ND	0.5	10	70	50-150

Lab No.:		
Client Sample I.D.:		
Date Sampled:		
QC Batch #:		
Date Analyzed:		
Analyst Initials:		
Dilution Factor:		
Analyte	MDL	Units
TPH (Gas)	0.05	mg/l
Benzene	0.5	ug/l
Toluene	0.5	ug/l
Ethylbenzene	0.5	ug/l
Xylenes (total)	0.5	ug/l
Methyl tert-Butyl Ether	0.5	ug/l

MDL = Method Detection Limit
ND = Not Detected. (Below DLR)
DLR = MDL X Dilution Factor
NA = Not Analyzed
* = Dilution Factor is 21.5.

Reviewed/Approved By: _____
Yun Pan
Department Supervisor

Date: 5/1/97

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories

CHAIN OF CUSTODY RECORD

Pg 1 of 1

Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807
(310) 989-4045 • FAX (310) 989-4040

FOR LABORATORY USE ONLY:

Batch #: _____ D.O. # _____
P.O.#: _____
Logged By: _____ Date: _____ Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☑

Sample Condition Upon Receipt:
1. COOLER TEMP °C _____ (2-6) 5. SEALED Y☐ N☒
2. CHILLED Y☑ N☐ 6. # OF SPLS MATCH COC Y☐ N☐
3. HEADSPACE (VOA) Y☐ N☒ 7. PRESERVED Y☐ N☐
4. CONTAINER INTACT Y☑ N☐ 8. CONTR. LOT # _____

Client: GEOCON ENVIRONMENTAL - SAN DIEGO
Attn:
Address: 6970 Flanders Drive
City San Diego State CA Zip Code 92121
TEL: (619) 558-6100
FAX: (619) 558-8437

Project Name: Midway Project #: 08730-06-D24 Sampler: (Printed Name) Ross White (Signature)

Relinquished by: (Signature and Printed Name) Ross White — Received by: (Signature and Printed Name) — Date: 4/24/97 Time: 15:05
Relinquished by: (Signature and Printed Name) — Received by: (Signature and Printed Name) — Date: Time:
Relinquished by: (Signature and Printed Name) — Received by: (Signature and Printed Name) — Date: Time:

Unless otherwise requested, all samples will be disposed 60 days after receipt.

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Ross White Date: 04/23/97
Print Name
Signature

Send Report To:
Attn: Ross White
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments:
Screen samples for MTBE during 8020. IF detected, Confirm sample with highest MTBE concentration following ~~8020~~ 8260.

SHIP TO LAB: (SUB CONTRACT) _____ TEST: _____ ATL #: _____ DATE: _____ CLIENT I.D. _____

SHIP TO LAB: (SUB CONTRACT) _____ TEST: _____ ATL #: _____ DATE: _____ CLIENT I.D. _____

SHIP TO LAB: (SUB CONTRACT) _____ TEST: _____ ATL #: _____ DATE: _____ CLIENT I.D. _____

Circle or Add Analysis(es) Requested

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

PRESERVATION

Q A / Q C: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☒ OTHER _____

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample I.D.	Date	Time	601/8010 (Halogenated Volatiles-GC)	602/8020/BTEX (Aromatic Volatiles-GC)	608/8080 (Pesticides/PCB-GC)	624/8240/8260 (Volatiles-GC/MS)	625/8270 (BNA-GC/MS)	8015M TPHG/BTEX(COMBINATION)	8015M TPHD (Diesel-GC)	418.1 (TPH-IR)	Metals-Total (CAC-6010/7000)	MTBE - 8020	MTBE CONFIRMATION 8260	TAT	Container(s) #	Container(s) Type	REMARKS
	17094-001	MW1	4/23	0940				X	X				X			X	E	3	G 1L 2V
	002	MW2	4/23	0950				X	X				X			X	E	3	G 1L 2V
	003	MW3	4/23	1010				X	X				X			X	E	3	G 1L 2V

Sample Archive/Disposal: ☐ Laboratory Standard ☐ Other _____ ☐ Return To: _____

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays
• TAT starts 8 a.m. following day if samples received after 3 p.m.

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

DISTRIBUTION: **White** with report, **Green** to organic, **Yellow** to inorganic, **Pink** to Biology, **Gold** to submitter.

Centrum Analytical Laboratories, Inc.

CERTIFIED HAZARDOUS WASTE TESTING LABORATORY • CHEMICAL AND BIOLOGICAL ANALYSES

Client:	Advanced Technology Laboratories 1510 E. 33rd Street Signal Hill, CA 90807	Date Sampled: Date Received: Job Number:	4/15/97 4/15/97 11664

Project: Midway

CASE NARRATIVE

The following information applies to samples which were received on 4/15/97 :

The samples were received directly from the field at ambient temperature. All sample containers were intact.

This report is a re-issue. The data herein is a revised reporting of the results for these analyses and supersedes any other version issued previously. The date of re-issue is 05/15/97.

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested.

8260: The elevated detection limit is due to hydrocarbon matrix.

Report approved by:

Tom Wilson

Tom Wilson
Laboratory Supervisor

ELAP # 1184, 1739

DL : Detection Limit -- The lowest level at which the compound can reliably be detected under normal laboratory conditions.
ND : Not Detected -- The compound was analyzed for but was not found to be present at or above the detection limit.
NA : Not Analyzed -- Per client request, this analyte was not on the list of compounds to be analyzed for.

Centrum
(800) 798-9336

Organic Lead

Client:	Advanced Technology	Date Sampled:	4/15/97
Project:	Midway	Date Received:	4/15/97
Job No.:	11664	Date Analyzed:	4/24/97
Matrix:	Soil	Batch Number:	7420S0806
Analyst:	RVJ	Method Number:	DOHS

	Detection Limit	Organic Lead
Sample ID	mg/kg	mg/kg
Method Blank	1.0	ND
B3-15	1.0	ND

Centrum
(800) 798-9336

QC Sample Report - Metals

Matrix: Soil
Batch #: 7420S0806

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Compound	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
Lead	5.0	**101**	80 - 120	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: B3-15

Compound	Spike Sample Recovery mg/Kg	Spike Duplicate Recovery mg/Kg	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
Lead	1.22	1.23	**1%**	20%	**Pass**

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

Centrum
(800) 798-9336

Modified 8015 - Total Volatile Hydrocarbons as Gasoline

Client:	Advanced Technology	Date Sampled:	4/15/97
Project:	Midway	Date Received:	4/15/97
Job No.:	11664	Date Analyzed:	04/15-18/97
Matrix:	Soil	Batch Number:	M18015GS0162
Analyst:	MBH		8015GS1196

	Detection Limit	Petroleum Hydrocarbons as Gasoline
Sample ID	mg/kg	mg/kg
Method Blank	10	ND
B2-5	10	ND
B2-10	10	ND
B2-15	10	ND
B2-20	10	ND
B2-25	10	ND
B2-30	10	ND
B1-5	10	ND
B1-10	10	ND
B1-15	10	ND
B1-20	10	ND
B1-25	10	ND
B3-5	10	ND
B3-10	10	ND
B3-15	10	**76**
B3-20	10	ND
B3-25	10	ND

Centrum
(800) 798-9336

QC Sample Report - EPA 8015M Gasoline

Matrix: Soil
Batch #: M18015GS0162

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
Gasoline	5.0	**95**	70 - 130	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: B2-05'

Analyte	Spike Sample Recovery mg/Kg	Spike Duplicate Recovery mg/Kg	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
Gasoline	5.42	5.74	**6%**	25%	**Pass**

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

Centrum
(800) 798-9336

QC Sample Report - EPA 8015M Gasoline

Matrix: Soil
Batch #: 8015GS1196

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
Gasoline	5.0	**95**	70 - 130	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: 11665-14

Analyte	Spike Sample Recovery mg/Kg	Spike Duplicate Recovery mg/Kg	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
Gasoline	4.39	4.33	**1%**	24%	**Pass**

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

Centrum
(800) 798-9336

Modified 8015 - Total Extractable Petroleum Hydrocarbons

Client: Advanced Technology
Project: Midway
Job No.: 11664
Matrix: Soil
Analyst: MBH

Date Sampled: 4/15/97
Date Extracted: 4/15/97
Date Analyzed: 4/15/97
Batch Number: M18015DS0161

	Detection Limit	Extractable Hydrocarbons > C12	Surrogate (OTP)
Sample ID	mg/kg	mg/kg	Limit: 50 - 150%
Method Blank	10	ND	100 %
B2-5	10	ND	105 %
B2-10	10	ND	101 %
B2-15	10	ND	98 %
B2-20	10	ND	102 %
B2-25	10	ND	99 %
B2-30	10	ND	94 %
B1-5	10	ND	105 %
B1-10	10	ND	103 %
B1-15	10	ND	98 %
B1-20	10	ND	105 %
B1-25	10	ND	102 %
B3-5	10	ND	99 %
B3-10	10	ND	100 %
B3-15	10	5,900	104 %
B3-20	10	ND	110 %
B3-25	10	ND	108 %

Centrum
(800) 798-9336

QC Sample Report - EPA 8015M Diesel

Matrix: Soil
Batch #: M18015DS0161

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
Diesel	100	**91**	70 - 130	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID:B2-5'

Analyte	Spike Sample Recovery mg/Kg	Spike Duplicate Recovery mg/Kg	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
Diesel	132	159	**19%**	29%	**Pass**

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

EPA 8020 - BTEX

Client: Advanced
Project: Midway
Job No.: 11664
Matrix: Soil
Analyst: MBH

Date Sample 04/15/97
Date Analyze 04/16-21/97
Batch Numbe 8020S1366
M28260S299
M18020S0163
M18020S0174

	Methyl-tert Butyl-ether	Benzene	Tolulene	Ethyl-Benzene	Total Xylenes	Surrogate (BFB)
Detection Limit:	0.050	0.050	0.050	0.050	0.150	Limit: >50%
Sample ID	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Method Blank	ND	ND	ND	ND	ND	88 %
Method Blank	ND	ND	ND	ND	ND	101 %
B2-5	ND	ND	ND	ND	ND	89 %
B2-10	ND	ND	ND	ND	ND	105 %
B2-15	ND	ND	ND	ND	ND	97 %
B2-20	ND	ND	ND	ND	ND	84 %
B2-25	ND	ND	ND	ND	ND	101 %
B2-30	ND	ND	ND	ND	ND	68 %
B1-5	ND	ND	ND	ND	ND	92 %
B1-10	ND	ND	ND	ND	ND	113 %
B1-15	ND	ND	ND	ND	ND	108 %
B1-20	ND	ND	ND	ND	ND	102 %
B1-25	ND	ND	ND	ND	ND	109 %
B3-5	ND	ND	ND	ND	ND	115 %
B3-10	ND	ND	ND	ND	ND	109 %
B3-15	**0.21**	**0.32**	**0.75**	**0.52**	**9.8**	492 %
B3-20	ND	ND	ND	ND	ND	98 %
B3-25	ND	ND	ND	ND	ND	102 %

Centrum
(800) 798-9336

QC Sample Report - EPA 8020

Matrix: Soil
Batch #: M18020S0163

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
Benzene	0.1	**100**	70 - 130	**Pass**
Toluene	0.1	**101**	70 - 130	**Pass**
Ethyl Benzene	0.1	**99**	70 - 130	**Pass**
m-, p-Xylene	0.2	**103**	70 - 130	**Pass**
o-Xylene	0.1	**103**	70 - 130	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

	Spike Sample Recovery mg/Kg	Spike Duplicate Recovery mg/Kg	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
Benzene	0.100	0.107	**7%**	25%	**Pass**
Toluene	0.101	0.115	**13%**	25%	**Pass**
Ethyl Benzene	0.099	0.104	**5%**	25%	**Pass**
m-, p-Xylene	0.103	0.099	**4%**	25%	**Pass**
o-Xylene	0.103	0.099	**4%**	25%	**Pass**

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

QC Sample Report - EPA 8020

Matrix: Soil
Batch #: 8020S1366

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
Benzene	0.1	**103**	70 - 130	**Pass**
Toluene	0.1	**101**	70 - 130	**Pass**
Ethyl Benzene	0.1	**103**	70 - 130	**Pass**
m-, p-Xylene	0.2	**106**	70 - 130	**Pass**
o-Xylene	0.1	**104**	70 - 130	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: B2-20

	Spike Sample Recovery mg/Kg	Spike Duplicate Recovery mg/Kg	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
Benzene	0.077	0.079	**3%**	25%	**Pass**
Toluene	0.311	0.323	**4%**	25%	**Pass**
Ethyl Benzene	0.072	0.075	**4%**	25%	**Pass**
m-, p-Xylene	0.274	0.280	**2%**	25%	**Pass**
o-Xylene	0.105	0.108	**3%**	25%	**Pass**

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

QC Sample Report - EPA 8020

Matrix: Soil
Batch #: M18020S0174

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
Benzene	0.1	**99**	70 - 130	**Pass**
Toluene	0.1	**102**	70 - 130	**Pass**
Ethyl Benzene	0.1	**109**	70 - 130	**Pass**
m-, p-Xylene	0.2	**107**	70 - 130	**Pass**
o-Xylene	0.1	**111**	70 - 130	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

	Spike Sample Recovery mg/Kg	Spike Duplicate Recovery mg/Kg	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
Benzene	0.093	0.096	**3%**	25%	**Pass**
Toluene	0.091	0.090	**1%**	25%	**Pass**
Ethyl Benzene	0.094	0.100	**6%**	25%	**Pass**
m-, p-Xylene	0.182	0.185	**2%**	25%	**Pass**
o-Xylene	0.099	0.095	**4%**	25%	**Pass**

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

QC Sample Report - EPA Method 8260

Matrix: Soil
Batch #: M28260S0299

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
1,1-Dichloroethene	0.100	**92**	59 - 172	**Pass**
Benzene	0.100	**110**	66 - 142	**Pass**
Trichloroethene	0.100	**106**	71 - 137	**Pass**
Toluene	0.100	**109**	59 - 139	**Pass**
Chlorobenzene	0.100	**100**	60 - 133	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

Analyte	Spike Sample Recovery mg/Kg	Spike Duplicate Recovery mg/Kg	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
Benzene	0.020	0.021	**5%**	22%	**Pass**
Toluene	0.019	0.021	**10%**	21%	**Pass**
Ethyl Benzene	0.022	0.022	**0%**	24%	**Pass**
m-,p-Xylene	0.053	0.056	**6%**	21%	**Pass**
o-Xylene	0.021	0.022	**5%**	21%	**Pass**

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

Analytical Notes:

EPA 8260 - Volatile Organics

Client:	Advanced Technology	Date Sampled:	4/15/97
Project:	Midway	Date Received:	4/15/97
Job No.:	11664	Date Analyzed:	4/25/97
Matrix:	Soil	Batch Number:	8260S0933
Analyst:	TPW		

	Sample ID:	Blank	B3-15'
Compounds	**DL**	mg/Kg	mg/Kg
Methyl-tert-butyl ether	10	ND	ND

Surrogates (% recovery) Limits: 80 - 130

Sample ID:	Blank	B3-15'
Dibromofluoromethane	104	99
Toluene-d8	104	115
Bromofluorobenzene	101	109

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QC Sample Report - EPA Method 8260

Matrix: Soil
Batch #: 8260S0933

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
1,1-Dichloroethene	0.100	**89**	59 - 172	**Pass**
Benzene	0.100	**104**	66 - 142	**Pass**
Trichloroethene	0.100	**98**	71 - 137	**Pass**
Toluene	0.100	**104**	59 - 139	**Pass**
Chlorobenzene	0.100	**108**	60 - 133	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

Analyte	Spike Sample Recovery mg/Kg	Spike Duplicate Recovery mg/Kg	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
1,1-Dichloroethene	0.089	0.086	**3%**	22%	**Pass**
Benzene	0.104	0.100	**4%**	21%	**Pass**
Trichloroethene	0.098	0.095	**3%**	24%	**Pass**
Toluene	0.104	0.099	**5%**	21%	**Pass**
Chlorobenzene	0.108	0.105	**3%**	21%	**Pass**

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

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Chain of Custody Record

Centrum Job # M427

Page 1 of _____

Project No.: 08730-06-24
Project Name: Midway
Project Manager: Ross White
Phone: (619) 558-6100
Fax: (619) 558-8437
Client Name: (Company) Geocon
Address: 6970 Flanders Dr.

Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	GCMS: 8260 8240 8010 524.2	8080: Pesticides PCBs Pest/PCB	8015M: Diesel Fuel Screen	8015M: Gasoline 8020 Gas/BTEX	418.1 (TRPH)	Semivolatiles: 8270 625	Metals: TTLC(CAM) PP RCRA	Lead Only	pH TDS TSS Conductivity COD	Flashpoint Fluoride Hex Chrome	MTBE			Remarks/ Special Instructions
M427-01	B2-5	4/15/97	10:48	Soil		steel tube			X	X							X			
" -02	B2-10		10:59						X	X							X			
" -03	B2-15		11:08						X	X							X			
" -04	B2-20		11:15						X	X							X			
" -05	B2-25		11:30						X	X							X			
" -06	B2-30		11:42						X	X							X			
" -07	B1-5		12:40						X	X							X			
" -08	B1-10		12:49						X	X							X			
" -09	B1-15		12:57						X	X							X			
" -10	B1-20								X	X							X			

Turn-around time
- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☐ Normal TAT

* Requires prior approval, additional charges apply

Relinquished by: (Sampler's Signature)	Date	Time	Relinquished by:	Date	Time
Received by:	Date 4/15/97	Time 1:20pm	Received by:	Date	Time
			Relinquished by:	Date	Time
			Received for Laboratory by:	Date	Time

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by laboratory personnel:
- Samples chilled? ☐ Yes ☒ No
- Custody seals? ☐ Yes ☒ No
- All sample containers intact? ☒ Yes ☐ No
- ☐ Courier ☐ UPS/Fed Ex ☒ Hand carried

Sample Disposal
- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal fee $5

Laboratory Notes:

Sample Locator No.

White Copy - Original (Accompanies Samples) Yellow Copy - Centrum Files Pink Copy - Client Copy

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Chain of Custody Record

Centrum Job # M427

Page 1 of _____

Project No.:	Project Name:		
08730-06-24	Midway		
Project Manager:	Phone:	Fax:	
Ross White	619-558-6100	619-558-8137	
Client Name: (Company) Geocon	Address: 6970 Flanders Dr.		

Analyses Requested

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	GCMS: 8260 8240 8010 524.2	8080: Pesticides PCBs Pest/PCB	8015M: Diesel Fuel Screen	8015M: Gasoline 8020 Gas/BTEX	418.1 (TRPH)	Semivolatiles: 8270 625	Metals: TTLC(CAM) PP RCRA	Lead Only	pH TDS TSS Conductivity COD	Flashpoint Fluoride Hex Chrome	MTBE			Remarks/ Special Instructions
M427-11	B1-25	4/15/97	1:21pm	Soil		steel tube			X	X							X			
12	B3-5		1:48pm						X	X							X			
13	B3-10		1:52pm						X	X							X			
14	B3-15		1:50pm						X	X							X			
15	B3-20		2:03						X	X							X			
16	B3 25		2:08						X	X							X			
	End of Record																			

Relinquished by: (Sampler's Signature)	Date	Time	Relinquished by:	Date	Time
	4/15/97	3:50			
Received by:	**Date**	**Time**	**Received by:**	**Date**	**Time**
	4/15/97	3:50			
The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.			Relinquished by:	Date	Time
			Received for Laboratory by:	Date	Time

To be completed by laboratory personnel:

Samples chilled? ☐ Yes ☒ No

Custody seals? ☐ Yes ☒ No

All sample containers intact? ☒ Yes ☐ No

☐ Courier ☐ UPS/Fed Ex ☒ Hand carried

Turn-around time

- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☐ Normal TAT

* Requires prior approval, additional charges apply

Sample Disposal

- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal fee $5

Laboratory Notes:

Sample Locator No.

White Copy - Original (Accompanies Samples) Yellow Copy - Centrum Files Pink Copy - Client Copy

Centrum Analytical Laboratories, Inc.

CERTIFIED HAZARDOUS WASTE TESTING LABORATORY • CHEMICAL AND BIOLOGICAL ANALYSES

Client: Advanced Technology Laboratories
1510 E. 33rd Street
Signal Hill, CA 90807

Date Sampled: 04/18/97
Date Received: 04/18/97
Job Number: 11674

Project: Midway

CASE NARRATIVE

The following information applies to samples which were received on 04/18/97 :

The samples were received directly from the field at ambient temperature. All sample containers were intact.

This report is a re-issue. The data herein is a revised reporting of the results for these analyses and supersedes any other version issued previously. The date of re-issue is 05/05/97.

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested.

Report approved by:

Tom Wilson

Tom Wilson
Laboratory Supervisor

ELAP # 1184, 1739

DL : Detection Limit -- The lowest level at which the compound can reliably be detected under normal laboratory conditions.
ND : Not Detected -- The compound was analyzed for but was not found to be present at or above the detection limit.
NA : Not Analyzed -- Per client request, this analyte was not on the list of compounds to be analyzed for.

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Modified 8015 - Total Volatile Hydrocarbons as Gasoline

Client:	Advanced Technology	Date Sampled:	04/18/97
Project:	Midway	Date Received:	04/18/97
Job No.:	11674	Date Analyzed:	04/18/97
Matrix:	Soil	Batch Number:	M18015GS0171
Analyst:	MBH		

	Detection Limit	**Petroleum Hydrocarbons as Gasoline**
Sample ID	mg/kg	mg/kg
Method Blank	10	ND
B4-5	10	ND
B4-10	10	ND
B4-15	10	ND
B4-20	10	ND

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QC Sample Report - EPA 8015M Gasoline

Matrix: Soil
Batch #: M18015GS0171

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
Gasoline	5.0	**103**	70 - 130	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: B4-5

Analyte	Spike Sample Recovery mg/Kg	Spike Duplicate Recovery mg/Kg	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
Gasoline	4.48	5.76	**25%**	25%	**Pass**

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

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Modified 8015 - Total Extractable Petroleum Hydrocarbons

Client: Advanced Technology
Project: Midway
Job No.: 11674
Matrix: Soil
Analyst: MBH

Date Sampled: 4/18/97
Date Extracted: 4/18/97
Date Analyzed: 4/18/97
Batch Number: M18015DS0170

	Detection Limit	Extractable Hydrocarbons > C12	Surrogate (OTP)
Sample ID	mg/kg	mg/kg	Limit: 50 - 150%
Method Blank	10	ND	101 %
B4-5	10	ND	131 %
B4-10	10	ND	120 %
B4-15	10	ND	124 %
B4-20	10	ND	126 %

Centrum
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QC Sample Report - EPA 8015M Diesel

Matrix: Soil
Batch #: M18015DS0170

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
Diesel	100	**92**	70 - 130	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID:B4-5

Analyte	Spike Sample Recovery mg/Kg	Spike Duplicate Recovery mg/Kg	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
Diesel	84.0	81.0	**4%**	29%	**Pass**

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

Centrum
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EPA 8020 - BTEX and MtBE

Client:	Advanced Technology Lab	Date Sampled:	04/18/97
Project:	Midway	Date Received:	04/18/97
Job No.:	11674	Date Analyzed:	04/18-21/97
Matrix:	Soil	Batch Number:	M28260S0299
Analyst:	MBH		M18020S0173

	Methyl-tert Butyl Ether	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Surrogate (BFB)
Detection Limit:	0.050	0.050	0.050	0.050	0.150	Limit: >50%
Sample ID	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	
Method Blank	ND	ND	ND	ND	ND	108 %
Method Blank	ND	ND	ND	ND	ND	101 %
B4-5	ND	ND	ND	ND	ND	118 %
B4-10	ND	ND	ND	ND	ND	113 %
B4-15	ND	ND	ND	ND	ND	114 %
B4-20	ND	ND	ND	ND	ND	111 %

Centrum
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QC Sample Report - EPA Method 8260

Matrix: Soil
Batch #: M28260S0299

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
1,1-Dichloroethene	0.100	**92**	59 - 172	**Pass**
Benzene	0.100	**110**	66 - 142	**Pass**
Trichloroethene	0.100	**106**	71 - 137	**Pass**
Toluene	0.100	**109**	59 - 139	**Pass**
Chlorobenzene	0.100	**100**	60 - 133	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

Analyte	Spike Sample Recovery mg/Kg	Spike Duplicate Recovery mg/Kg	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
Benzene	0.020	0.021	**5%**	22%	**Pass**
Toluene	0.019	0.021	**10%**	21%	**Pass**
Ethyl Benzene	0.022	0.022	**0%**	24%	**Pass**
m-,p-Xylene	0.053	0.056	**6%**	21%	**Pass**
o-Xylene	0.021	0.022	**5%**	21%	**Pass**

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

Analytical Notes:

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QC Sample Report - EPA 8020

Matrix: Soil
Batch #: M18020S0173

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Analyte	Spike Concentration mg/Kg	% Recovery LCS	Acceptance Limits % Recovery	Pass/Fail
Benzene	0.10	**99**	70 - 130	**Pass**
Toluene	0.10	**102**	70 - 130	**Pass**
Ethyl Benzene	0.10	**109**	70 - 130	**Pass**
m-, p-Xylene	0.20	**107**	70 - 130	**Pass**
o-Xylene	0.10	**111**	70 - 130	**Pass**

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: B8-30

Analyte	Spike Sample Recovery mg/Kg	Spike Duplicate Recovery mg/Kg	Relative Percent Difference (RPD)	Upper Control Limit RPD	Pass/Fail
Benzene	0.101	0.101	**0%**	25%	**Pass**
Toluene	0.098	0.098	**0%**	25%	**Pass**
Ethyl Benzene	0.102	0.098	**4%**	25%	**Pass**
m-, p-Xylene	0.208	0.197	**5%**	25%	**Pass**
o-Xylene	0.098	0.096	**2%**	25%	**Pass**

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

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Centrum Job # M430

Chain of Custody Record

Page 1 of 1

Project No.:	Project Name:
08730-06-24	Midway

Project Manager:	Phone:	Fax:
Ross White	(619) 558-6100	(619) 558-8437

Client Name: (Company)	Address:
Geocon	6970 Flanders Drive

Centrum ID (Lab use only)	Sample ID (As it should appear on report)	Date sampled	Time sampled	Sample matrix	Site location	Containers: # and type	GCMS: 8260 8240 8010 524.2	8080: Pesticides PCBs Pest/PCB	8015M: Diesel Fuel Screen	8015M: Gasoline 8020 Gas/BTEX	418.1 (TRPH)	Semivolatiles: 8270 625	Metals: TTLC(CAM) PP RCRA	Lead Only	pH TDS TSS Conductivity COD	Flashpoint Fluoride Hex Chrome	MTBE			Remarks/ Special Instructions
M430-1	B4-5	4/18/97	7:52	Soil		Steel Containe			X	X							X			
-2	B4-10		7:56						X	X							X			
-3	B4-15		8:02						X	X							X			
-4	B4-20		8:10						X	X							X			

Analyses Requested

Turn-around time
- ☐ 24 Hr. RUSH*
- ☐ 48 Hr. RUSH*
- ☐ Normal TAT

* Requires prior approval, additional charges apply

Relinquished by: (Sampler's Signature)	Date	Time	Relinquished by:	Date	Time
[signature]	4/19/97	8:47pm			
Received by:	**Date**	**Time**	**Received by:**	**Date**	**Time**
Talitha Sweaney	4/18/97	8:47AM			
			Relinquished by:	**Date**	**Time**
			Received for Laboratory by:	**Date**	**Time**

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

To be completed by laboratory personnel:
- Samples chilled? ☐ Yes ☒ No
- Custody seals? ☐ Yes ☒ No
- All sample containers intact? ☒ Yes ☐ No
- ☐ Courier ☐ UPS/Fed Ex ☒ Hand carried

Sample Disposal
- ☐ Client will pick up
- ☐ Return to client
- ☐ Lab disposal fee $5

Laboratory Notes:

Sample Locator No.

White Copy - Original (Accompanies Samples) Yellow Copy - Centrum Files Pink Copy - Client Copy

A.E. Schmidt Environmental

March 1998

UST CLOSURE REPORT

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MIDWAY MAINTENANCE STATION
ONE QUARTER MILE WEST OF EASTERLY HIGHWAY/ROUTE 98 JUNCTION
IMPERIAL COUNTY, CALIFORNIA

TASK ORDER No. 11-43X939-K1
CONTRACT No. 43X939
AESE JOB No. 1046

Prepared for:

Imperial County
Planning and Building Department
939 Main Street
El Centro, CA 92243

State of California
Department of Transportation
District 11
2829 Juan Street
San Diego, CA 92110

Prepared by:

A.E. Schmidt Environmental
16509 Saticoy Street
Van Nuys, CA 91406
(818) 786-2373

March 1998

UST CLOSURE REPORT

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MIDWAY MAINTENANCE STATION
ONE QUARTER MILE WEST OF EASTERLY HIGHWAY/ROUTE 98 JUNCTION
IMPERIAL COUNTY, CALIFORNIA

TASK ORDER No. 11-43X939-K1
CONTRACT No. 43X939
AESE JOB No. 1046

Prepared by:
A.E. Schmidt Environmental
16509 Saticoy Street
Van Nuys, CA 91406
(818) 786-2373

Chris Thixton
Task Order Project Manager

Don Indermill
Task Order Registered Geologist

REGISTERED GEOLOGIST
DONALD C. INDERMILL
No. 5102
Exp. 31 MAY 2000
STATE OF CALIFORNIA

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1. INTRODUCTION

This report documents the removal of three underground storage tanks (USTs) completed by A.E. Schmidt Environmental (AESE) for the State of California, Department of Transportation (Caltrans). The Caltrans USTs were located at Midway Maintenance Station, located on Route 98 approximately one quarter of a mile (0.4 kilometer) west of the junction with Evan Hewes Highway (Route 8), near Midway Well in eastern Imperial County, California. Figure 1 shows the location of the site. Two USTs were removed, they were 1,000-gallon (3,785-liter), steel tanks; one containing gas, the other containing diesel fuel.

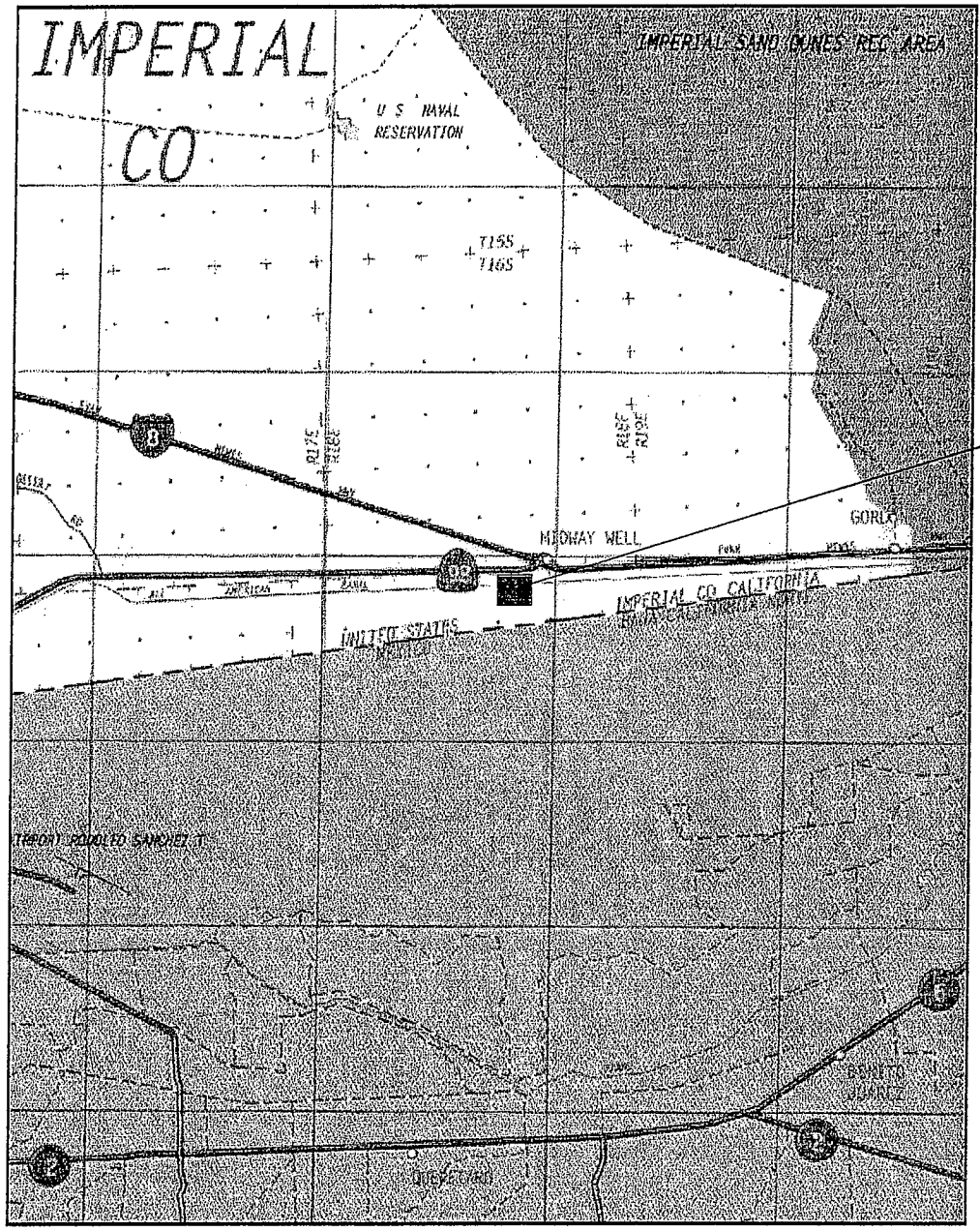
The UST removal operations including permitting and scheduling were completed in accordance with the requirements of Caltrans, Imperial County Planning and Building Department (ICPBD), and the Colorado River Regional Water Quality Control Board. The UST removal activities included removing remaining product from the USTs, excavation and removal of the USTs, soil sampling, and backfilling the excavation. Related activities included, transporting the USTs to a disposal facility, and soil sample analysis by a certified laboratory. Additional activities included the excavation of contaminated soil associated with the USTs, soil sampling the excavation & stockpiled soils, and disposal of non-hazardous contaminated soils. Supporting documentation such as permits, field monitoring results, manifests, laboratory results, compaction monitoring, and non-hazardous waste manifests are presented in Appendices A through F. This report describes the methods employed to comply with regulatory requirements for UST closure.

2. SITE DESCRIPTION

Midway Maintenance Station is located in eastern Imperial County in rural surroundings (Figure 1). The facility has operated as a maintenance and fueling point servicing Caltrans vehicles since 1960. The facility is approximately 7 acres (2.8 hectares) in size and contains, an office/truck shed building, a storage building, and oil house. The removed UST system consisted of two 1,000-gallon (3,785 liter) USTs (one gasoline and one diesel), and a dispenser for each. The removed tanks were installed in 1960. Figure 2 shows the layout of the facility.

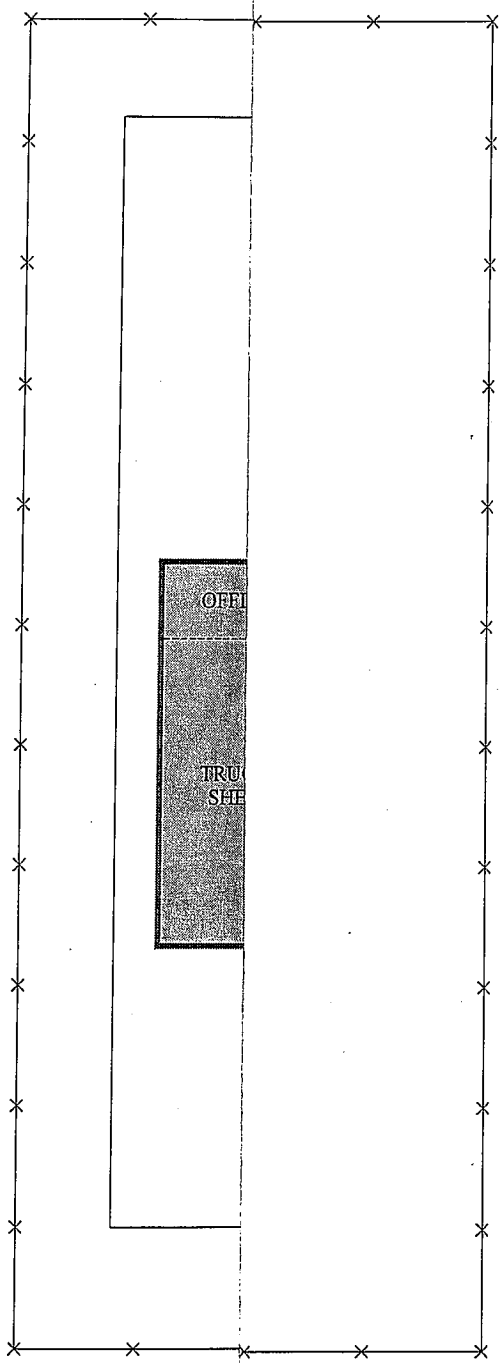
3. BACKGROUND

AESE prepared a workplan to remove the USTs and install an aboveground storage tank (AST) which Caltrans approved. The USTs were removed due to Caltrans intention to fulfill regulatory requirements to remove all single-wall steel USTs by December 22, 1998. The USTs were replaced with a 4,000 gallon (15,140 liter) diesel AST.



Caltrans

AESE A.E. SCHMIDT ENVIRONMENTAL INC CONSULTANTS AND CONTRACTORS 16509 Saticoy Street, Van Nuys, CA 91402 1-800-701-2373	Caltrans Midway Maintenance Station 1/4mi. w. of Easterly Hwy./Rte. 98 Jct. Imperial County, CA	Drawn By: B. Price Approved By: C. Thixton Date: 7-25-96 Job No.: 1046 File Name: 1046-1.CDR	NORTH	FIGURE 1



AESE

A.E. SCHMIDT ENVIRONMENTAL INC
CONSULTANTS AND CONTRACTORS

16509 Saticoy Street, Van Nuys, CA 91402 1-800-701-2373

B. Price
C. Thixton
6-21-96
1046
1046-2
40 80

FIGURE
2

NORTH

4. HYDROGEOLOGIC CONDITIONS

The sediments beneath the site are comprised of clay, silt, and sand alluvium deposited within the last 10,000 years. The current physiography around the site consists of generally flat, westward-sloping terrain transected by the west-flowing All American Canal. Groundwater is observed in on-site wells at 15 feet (4.6 meters) below ground surface (bgs).

5. UST REMOVAL OPERATIONS

5.1 Permits

Prior to the permitting process, the location was reviewed by a representative of AESE who drafted a site plan, established the approximate orientation of the USTs, associated piping, and noted structures located on the property.

A UST removal permit was obtained from the ICPBD (Permit No. TO995). Underground Service Alert (Ref. No. 468-160), and Cal-OSHA (Permit No. 97-901930) were notified. See Appendix A for permits.

5.2 Site Safety Procedures

Prior to all work activities a site safety meeting was held with Caltrans representatives and all AESE field personnel. Specific hazards, hospital location, potential risks, and other site specific safety procedures were discussed.

5.3 UST Excavation

The excavation of the USTs was initiated on December 9, 1996. The pavement over the USTs was broken out and stockpiled for disposal. The soil excavated from around the USTs was placed in a stockpile adjacent to, and at a safe distance from, the excavation.

During the excavation work, soils were monitored for emissions of volatile organic compounds (VOCs). The probe of a Gastech meter (model No. 201) was held 3 inches (7.6 centimeter) above the excavated stockpiled soils to collect the VOC readings. Logs documenting the field monitoring results are included in Appendix B.

5.4 UST Removal Procedures

On December 11, 1996, Nieto & Sons Inc. pumped the USTs of all remaining product. Each UST was then rinsed through available riser openings. Based on a lower explosive level of less than 10%, approximately 15 pounds (6.8 kilograms) of dry ice per 1,000 gallons (3,785 liters) of tank volume was inserted into each UST. Inspector Robertson from the ICPBD then authorized the USTs for removal. The USTs, dispensers and associated piping were then loaded onto awaiting transportation for disposal.

All rinseate and associated fluids were disposed of by Nieto & Sons at DeMenno/Kerdoon, 2000 N. Alameda, Compton, CA 90222. The USTs and associated piping were disposed of by Nieto & Sons at Adams Steel, 3200 E. Frontera Road, Anaheim, CA 92806. The Hazardous Waste Manifest and Tank Disposal Form are included in Appendix C.

6. SOIL SAMPLING

6.1 Soil Sampling Following UST Removal December 11, 1996

Following removal of the USTs from the excavation, six soil samples were collected at the direction of Inspector Robertson from the locations shown in Figure 3. One sample was collected from beneath the northern gasoline tank (T1C) and another from beneath the southern diesel tank (T2C), both from 12 feet (3.7 meters) bgs. A sample was collected from beneath each dispenser (D1C and D2C) from 2 feet (0.6 meters) bgs. Two samples were collected from the soil stockpile (SP1N and SP1S).

The samples from the former UST and dispenser island locations were collected with the use of a backhoe bucket. The samples were collected by driving clean brass sleeves into the soil.

In accordance with Environmental Protection Agency (EPA) and California Department of Health Services (CA-DHS) protocols, each sample was kept in the original sleeve, the ends were covered with Teflon, capped with plastic end caps, and labeled with a specific sample designation. The sample was then placed in a plastic freezer bag, and immediately placed in a cooler on blue ice. All samples were logged on a chain of custody and sent to a California Department of Health Services (DHS) certified laboratory, Advanced Technology Laboratories (ATL) (DHS Certification No. 1838), for analysis. The chain of custody and certified analytical report are presented in Appendix D.

6.2 Analysis of Soil Samples Collected December 11, 1996

All soil samples were analyzed for total volatile hydrocarbons (TVH) by EPA method 8015M-Gas, total extractable hydrocarbons (TEH) by EPA method 8015M-Diesel, volatile aromatic hydrocarbons (BTEX) by EPA method 8020, methyl *tert*-butyl ether (MtBE) screen by EPA method 8020, and total lead by EPA method 3050/7420. The analytical results for soil samples collected on December 11, 1996 are summarized in Tables 1 and 2. As the tables indicate, elevated concentrations of TEH were present in the soil beneath the diesel dispenser. (23,600 mg/kg).

TABLE 1 TVH, TEH, and Lead Analytical Results for Soil Samples Collected December 11, 1996

SAMPLE	TVH/Gas (mg/kg)	TEH/Diesel (mg/kg)	Lead (mg/kg)
T1C	**1.3**	**62**	**5.0**
T2C	ND	ND	ND
D1C	ND	ND	**29**
D2C	**65**	**23,600**	ND
SP1N	**3.6**	**8,460**	**5.0**
SP1S	**2.2**	**393**	ND

ND = not detected above laboratory detection limits.

TABLE 2 BTEX and MtBE Analytical Results for Soil Samples Collected December 11, 1996

SAMPLE	BENZENE (ug/kg)	TOLUENE (ug/kg)	ETHYLBENZENE (ug/kg)	XYLENES (ug/kg)	MtBE (ug/kg)
T1C	ND	ND	ND	ND	ND
T2C	ND	ND	ND	ND	ND
D1C	ND	ND	ND	ND	ND
D2C	ND	ND	ND	**35**	ND
SP1N	ND	ND	ND	ND	ND
SP1S	ND	ND	ND	ND	ND

ND = not detected above laboratory detection limits.

7. REMEDIAL EXCAVATION ACTIVITIES

7.1 Excavation and Sampling January 6, 1997

Due to the elevated TEH levels reported for dispenser soil sample D2C, Caltrans directed remedial excavation in this area. On January 6, 1997 AESE excavated an area 10 feet by 9 feet to an average depth of 10 feet in the location shown in Figure 3A. The excavated soil was stockpiled nearby (SP2) and four samples were collected from it (SP2-N, SP2-W, SP2-S, and SP2-E). Six samples were collected from the excavation; four from the sidewalls (NW-8', EW-10', SW-12', WW-10'), and two from the bottom of the excavation (BN-9' and BS-13'). The sample locations are shown in Figure 3A. The samples were handled as described in Section 6.1 and then analyzed by ATL for TEH. The certified analytical report is presented in Appendix D and the results are summarized in Table 3.

7.2 Excavation and Sampling January 16, 1997

As Table 3 indicates, elevated TEH concentrations were present in the southern bottom sample (BS-13' had 3,700 mg/kg) and in the southern sidewall sample (SW-12' had 11,900 mg/kg TEH). In an effort to mitigate these concentrations, Caltrans directed additional excavation which took place on January 16, 1997. The area of the excavation was increased to 15 feet by 9 feet and the average depth was increased to 14'. Additional samples were collected from the bottom of the excavation (BBS-16'), the southern sidewall (SSW-12'), and from the resulting stockpile (SP3-N, SP3-W, and SP-E). The sample locations are shown in Figure 3B. The samples were handled as described in Section 6.1 and then analyzed by ATL for TEH. The certified analytical report is presented in Appendix D and the results are summarized in Table 4.

7.3 Geocon Site Assessment

As Table 4 indicates, elevated TEH concentrations remained in place beneath the southern portion of the excavation floor. Caltrans authorized Geocon to perform site assessment work comprised of three soil borings converted to groundwater wells. The results of this assessment indicated that the TEH concentrations remaining below the dispenser excavation were laterally delineated. A single soil sample from 15 feet (4.6 meters) bgs in a boring west of the former UST location and north of the former dispenser location had elevated TEH concentrations (5,900 mg/kg). This information was transmitted to AESE in a memo from Caltrans.

7.4 Stockpile Disposal

The stockpiles of TEH-impacted soil were transported on June 26, 1997 to Candelaria Environmental Company's Biotreatment Facility in Anza, California. The total volume transported was 75 cubic yards (57 cubic meters). Copies of the manifests are presented in Appendix E.

TABLE 3 TEH Analytical Results for Soil Samples Collected January 6, 1997

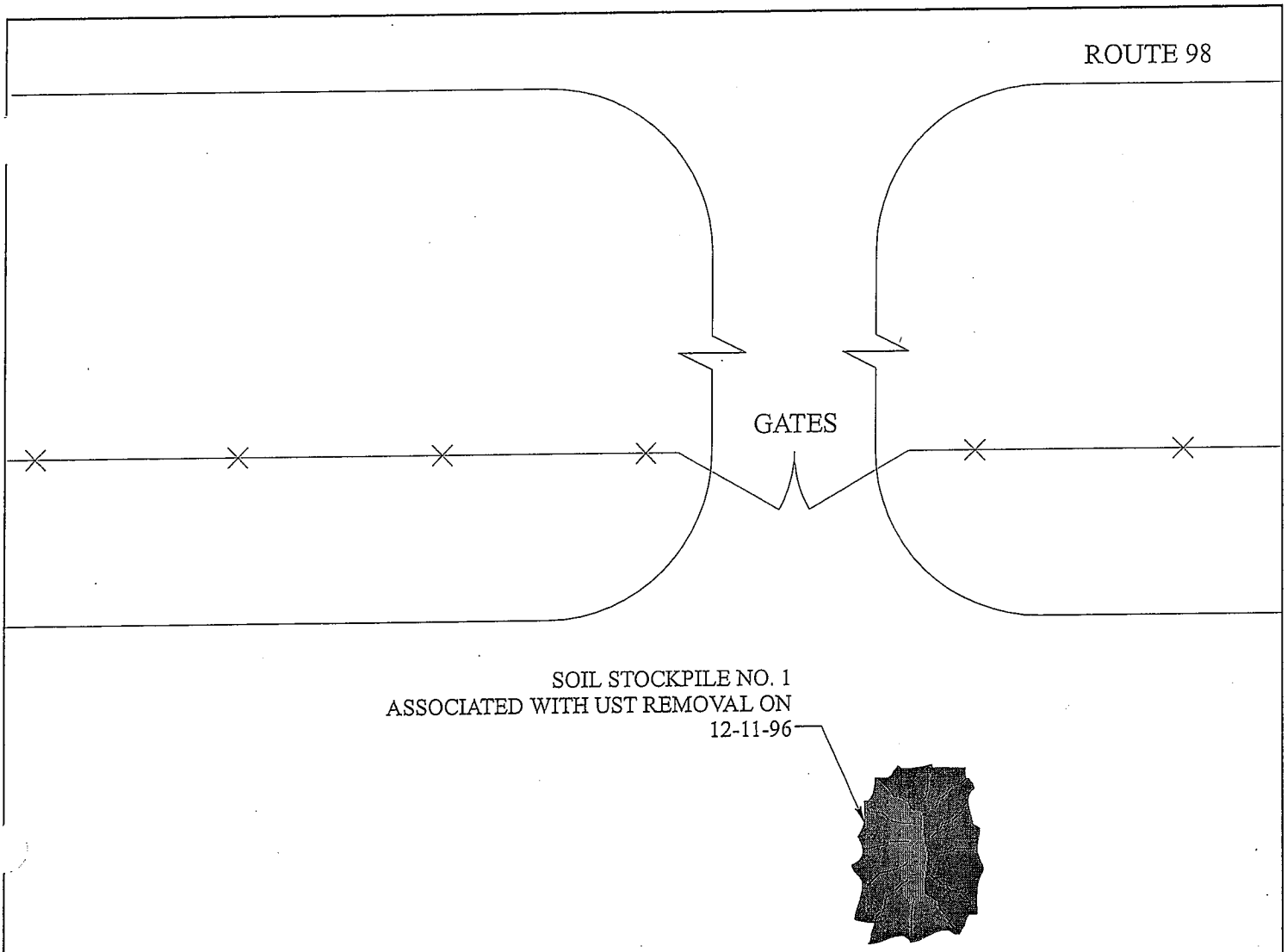
SAMPLE	TEH/Diesel (mg/kg)
BN-9'	**21**
BS-13'	**3,700**
NW-8'	**7.9**
EW-10'	**283**
SW-12'	**11,900**
WW-10'	**14**
SP2-N	**4,530**
SP2-W	**5,940**
SP2-S	**6,040**
SP2-E	**735**

ND = not detected above method detection limit

TABLE 4 TEH Analytical Results for Soil Samples Collected January 16, 1997

SAMPLE	TEH/Diesel (mg/kg)
BBS-16'	**4,920**
SSW-12'	**11**
SP3-N	**1,600**
SP3-W	**2,210**
SP3-E	**12**

ND = not detected above method detection limit



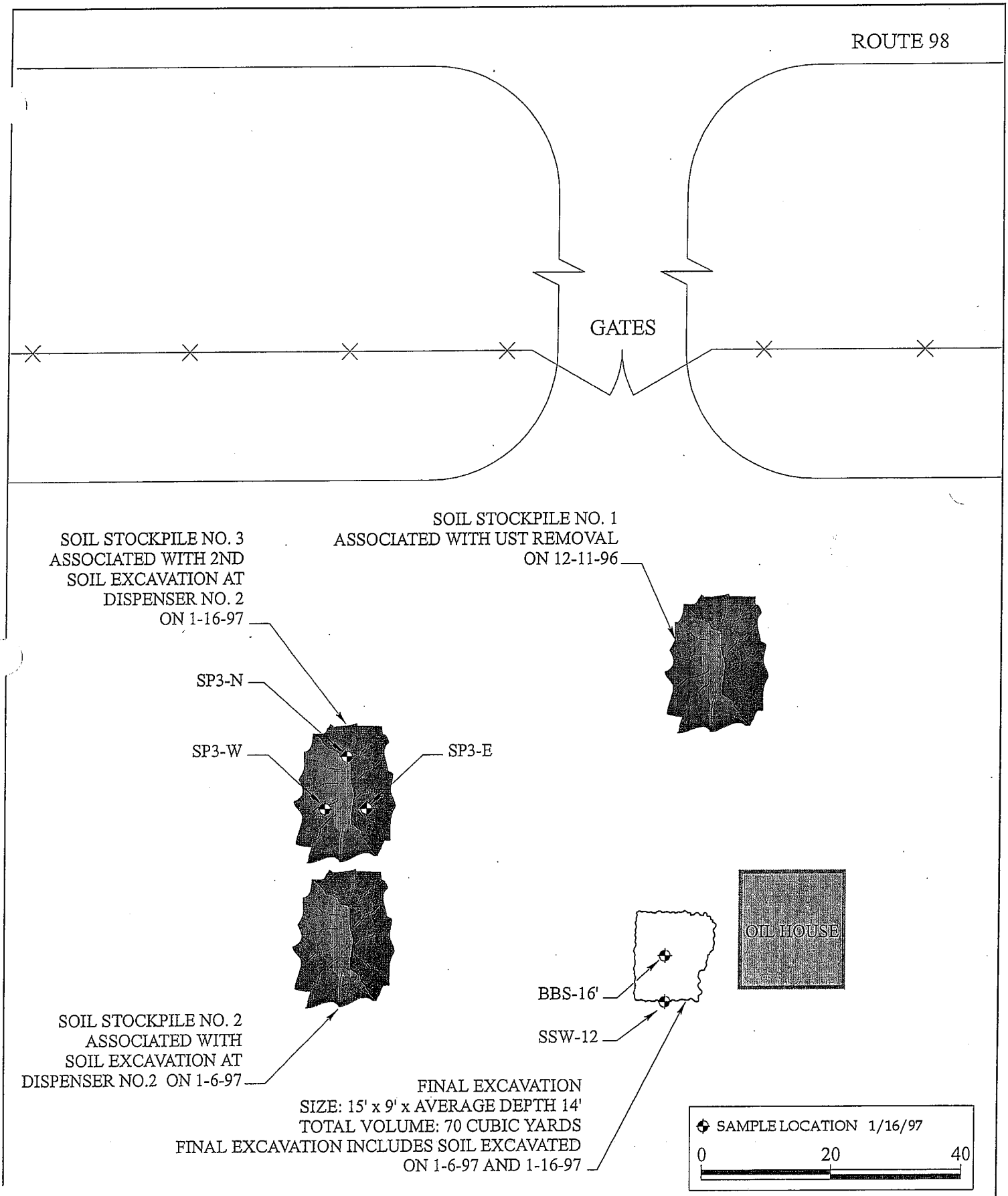
AESE
A.E. SCHMIDT ENVIRONMENTAL INC
CONSULTANTS AND CONTRACTORS
16509 Saticoy Street, Van Nuys, CA 91402 1-800-701-2373

Caltrans
Midway Maintenance Station
1/4 mile west of Easterly Highway /
Route 98 Junction
Imperial County, CA

Drawn By:	L. Nathan
Approved By:	C. Thixton
Date:	1-6-97
Job No.:	1046
File Name:	1046-3a.CDR

NORTH

FIGURE
3a



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Caltrans
Midway Maintenance Station
1/4 mile west of Easterly Highway /
Route 98 Junction
Imperial County, CA

Drawn By:	L. Nathan
Approved By:	C. Thixton
Date:	1-16-97
Job No.:	1046
File Name:	1046-3b.CDR

NORTH

FIGURE
3b

8. POST UST REMOVAL ACTIVITIES

Upon completion of excavation remediation activities, Caltrans directed AESE to proceed with backfill and compaction of the excavated areas

8.1 Backfill and Compaction of Excavations

On June 26, 1997, the bottom of the excavations were cleared of all loose soil and prepared for backfill. The excavations were then backfilled with a mixture of the stockpiled soil (not impacted with TEH) and imported fill sand. The backfill material was placed in the excavation in lifts with compaction tests performed from 5 feet (1.5 meters) bgs up to final grade. The fill material was tested to a minimum of 90% maximum dry density to 2.0 feet (0.61 meters) bgs, and tested to a minimum of 95% maximum dry density to 1.0 feet (0.30 meters) bgs by a technician from NEI Geotechnical. A compaction field memo issued by NEI is included in Appendix F.

8.2 Asphalt Resurfacing

On June 30, 1997, the compacted unpaved areas were resurfaced with 4" of asphalt pavement placed in two lifts. All barricades and panel fencing were then removed and the area swept clean.

9. CONCLUSION

Based on the analytical results from soil samples collected after remedial excavation, AESE concludes that elevated hydrocarbon concentrations remain in two isolated areas. One area is beneath the southern portion of the former dispenser location and the other area is north of the former dispenser and west of the former UST location. AESE recommends quarterly groundwater monitoring events pending directives from the Colorado River Regional Water Quality Control Board.

APPENDIX A

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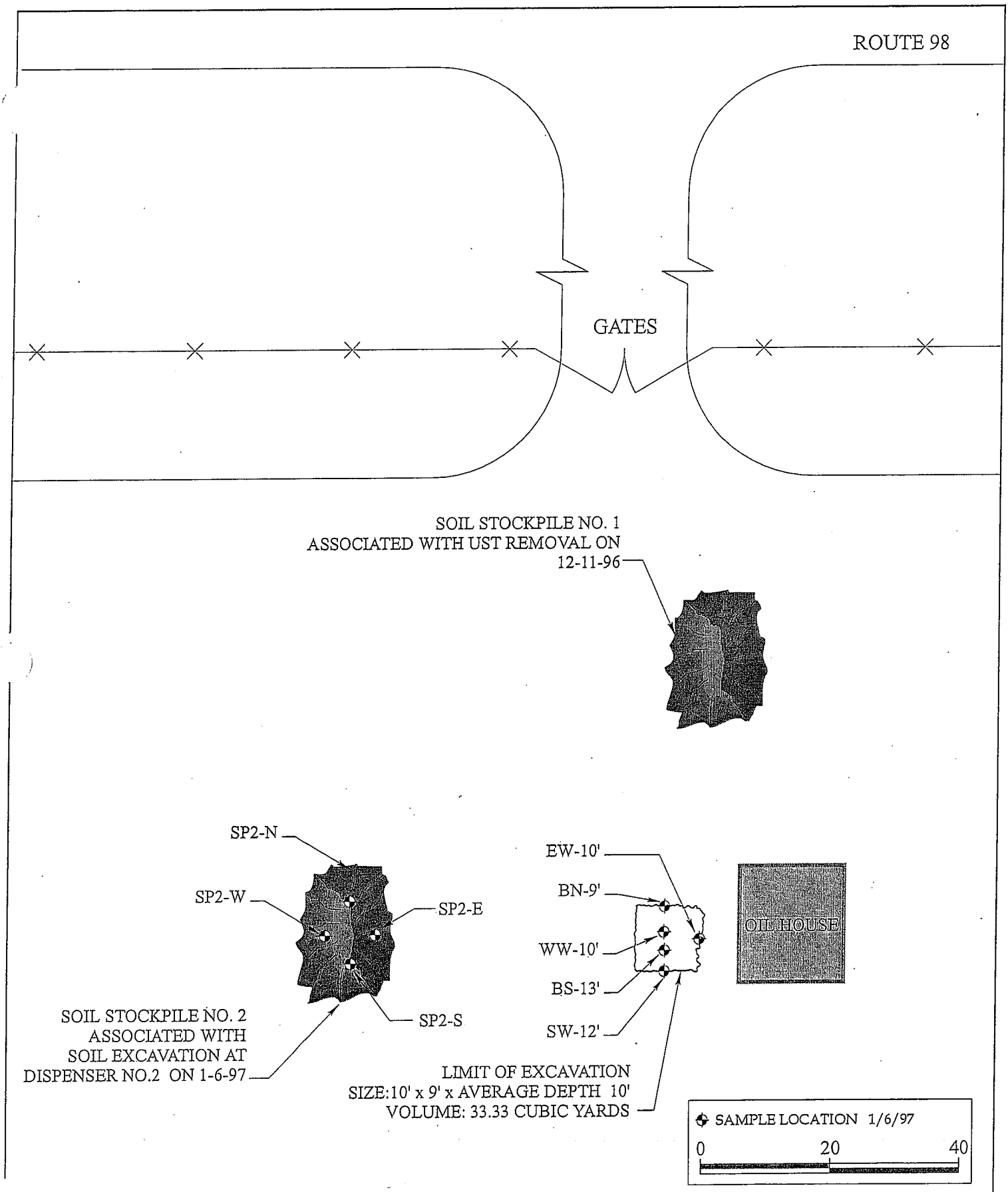

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16509 Saticoy Street, Van Nuys, CA 91402 1-800-701-2373

Caltrans
Midway Maintenance Station
1/4 mile west of Easterly Highway /
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Imperial County, CA

Drawn By:	L. Nathan
Approved By:	C. Thixton
Date:	1-6-97
Job No.:	1046
File Name:	1046-3a.CDR

NORTH

FIGURE
3a

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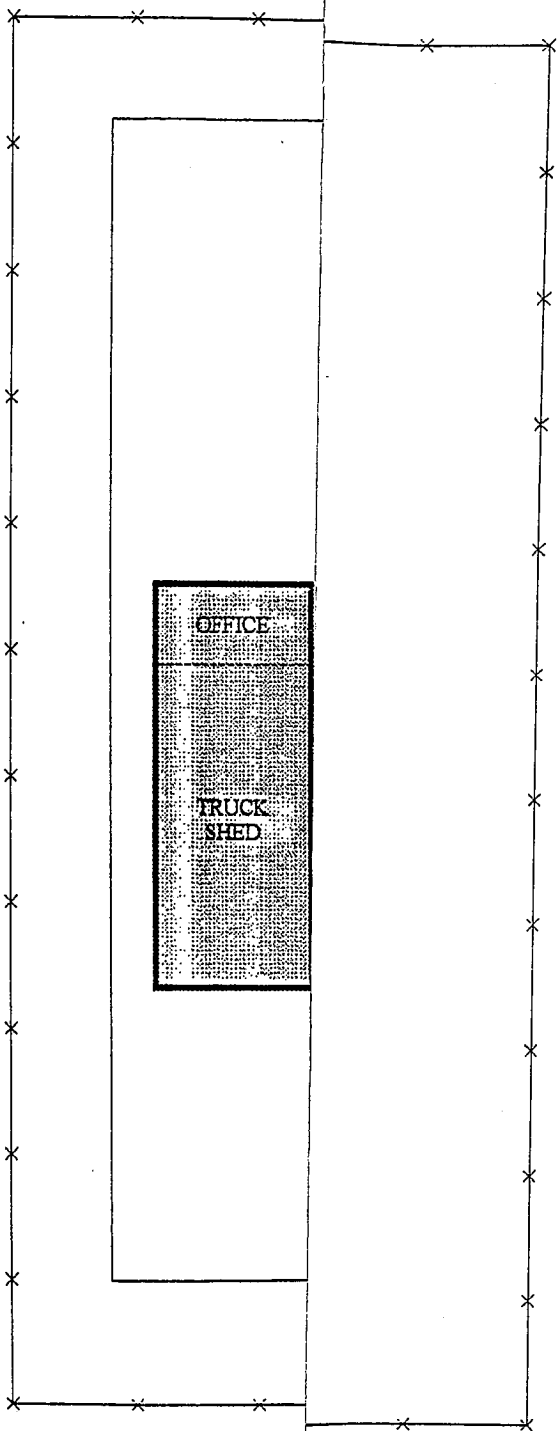


AESE

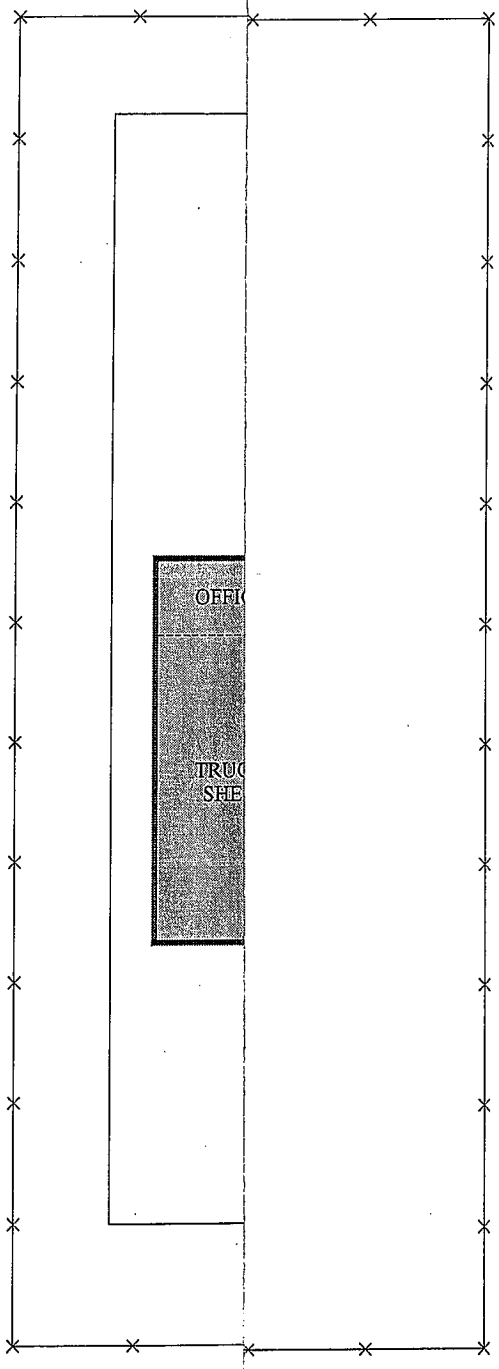
A.E. SCHMIDT ENVIRONMENTAL INC
CONSULTANTS AND CONTRACTORS

5509 Saticoy Street, Van Nuys, CA 91402 1-800-701-2373

B. Price
C. Thixton
6-21-96
1046
1046-2
40 80

FIGURE
2

NORTH



SOIL SAMPLE LOCATION

AESE
A.E. SCHMIDT ENVIRONMENTAL INC
CONSULTANTS AND CONTRACTORS
16509 Saticoy Street, Van Nuys, CA 91402 1-800-701-2373

B. Price
C. Thixton
12-30-96
1046
1046-3
40 80

FIGURE
3

NORTH

INSPECTION CARD

Building Inspection Dept. — Imperial County

REQUEST INSPECTIONS 24 HRS AHEAD

		INSPECTOR	DATE
PHASE : 1	SETBACKS		
	EXCAVATION		
	REINFORCING		
	FORMS		
	ELECTRIC (ground-work)		
	PLUMBING(" ")		
	GAS LINE(" ")		
	SEWER LINE		
	CONSTR. POWER ONLY		

PHASE : 2	FRAMING		
	ROOF NAILING		
	ELECTRIC (rough-in)		
	PLUMBING (" ")		
	GAS (" ")		
	H.V.A.C. DUC		
	VENTS		
	CHIMNEY TIES		
	N. TANK LEL = 1	JGR	12-11-96
	S. TANK LEL = 0	"	"
	CONC. BLOCK		

FUEL TANK

: 3 :	INSULATION		
	EXTERIOR LATHE		
	WALLBOARD		

PHASE : 4	TEMP. ELECTRIC (release		
	ENERGY COMPLIANCE		
	ELECTRICAL (finish)		
	PLUMBING ("		
	WATER HEATE		
	STAIRS, ST		
	SEWE		
	WA		

CONSTRUCTION LOCATION

date 75/95

POST THIS CARD

U.S.T.R.
Medway Wells

PERMIT APPLICATION

PLANNING / BUILDING DEPARTMENT
COUNTY OF IMPERIAL

☐ BUILDING	☐ NEW RESIDENTIAL	☐ REMODEL RESIDENTIAL	
☐ ELECTRICAL	☐ NEW COMMERCIAL	☐ REMODEL COMMERCIAL	
☐ PLUMBING	☐ NEW INDUSTRIAL	☐ REMODEL INDUSTRIAL	
☐ MECHANICAL	☐ NEW POOL	☐ _____	
☐ GRADING	☐ NEW SIGN	☐ _____	
☐ DEMOLITION	☐ M. H. UTILITIES	☐ _____	

COMPLETE ALL NUMBERED SPACES ! PLEASE TYPE OR PRINT ! READ INSTRUCTIONS ON THE BACK !

1 PROPERTY OWNERS NAME: DEPT. OF TRANSPORTATION DISTRICT #11 | PHONE NO.: 619-467-4053
2 MAILING ADDRESS: 7177 OPPORTUNITY ROAD, SAN DIEGO CA | ZIP CODE: 92111
3 PROJECT SITE ADDRESS: 1/4 MILE WEST OF EASTERLY HIGHWAY 98 JUNCT.
4 ASSESSORS PARCEL NO.: 59-320-02 | LEGAL DESCRIPTION: U.S.A.
5 DESCRIBE INTENDED USE: CALTRANS MAINT. YARD VEHICLE FUELING
6 DESCRIBE (CLEARLY) THE PROPOSED WORK: REMOVE U.S.T.'S
7 (ADDITIONAL SPACE FOR LINE 6)
8 ARCHITECT / ENGINEER | LICENSE NO. | PHONE NO.
9 MAILING ADDRESS | ZIP CODE
10 CONTRACTORS NAME: A.E. SCHMIDT ENVIRONMENTAL | LICENSE NO.: 710784 A-HAZ | PHONE NO.: 818-786-2373
11 MAILING ADDRESS: 16509 SATICOY ST. VAN NUYS, CA 91406 | ZIP CODE: 91406

ZONE: U.S.A.	AREA
OCCUPANCY GROUP	
CONSTRUCTION TYPE: STATE	
VALUATION	

QTY		FEE
	ELECTRICAL PERMIT	
	MAIN SERVICE (AMP)	
	BREAKER-CONTROL DEVICE	
	SWITCHES / OUTLETS	
	MOTORS / TRANSFORMERS	
	OTHER	
	OTHER	
	OTHER	
	Sub-Total	
	PLUMBING PERMIT	
	EA. FIXTURE OR TRAP	
	EA. SEWER CONNECTION	
	WATER LINE(S)	
	GAS LINE(S)	
	WATER HEATER	
	OTHER	

READ

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:

— I have and will maintain a certificate of consent to self-insure for workers' [illegible] provided for by Section 3700 of the Labor Code, [illegible] issued.

— I have and will maintain worker[illegible] Labor Code, for the performance of th[illegible] insurance carrier and policy number[illegible]

Policy Number SA[illegible]

— I certify th[illegible] any person in any[illegible] agree that if I [illegible] Labor Code[illegible]

12: Da[illegible]

WARNI[illegible] AND

DA[illegible]

ELECTRICAL A[illegible] | GAS APP. | FINALED | EXPIRED | PERMIT NO.: 003963 | DATE ISSUED: 7/5/96 | PERMIT NO.: T0995

WHITE-OFFICE MASTER / GOLDENROD-APPLICANT / YELLOW-PLAN FILE / ASSESSOR / RECEIVED BY: SPECIAL REQ.

documentation is not included at the time of application, t[illegible] accepted and will be returned to you! Additional fees may[illegible] added cost, so please make sure all information is include[illegible]

SITE Plan

PLANNING / BUILDING DEPARTMENT
COUNTY OF IMPERIAL (619) 339 - 4236

READ INSTRUCTIONS ON THE BACK! USE PEN TO DRAW--DO NOT USE PENCIL!

DRAW SITE LAYOUT PLAN TO SCALE & COMPL

1

NOTE: *You may submit a site plan in a larger format, or on blue line or on another format, however it must include all of the information shown above, and must be drawn on substantial paper with a non-erasable medium, i.e. not in pencil.*

APPENDIX B

A.E. SCHMIDT ENVIRONMENTAL

SOIL MONITORING LOG

SITE INFORMATION:

OWNER: CALTRANS DISTRICT #11

SITE: MIDWAY MTCE YARD

ADDRESS: ¼ MILE W. OF E. HIGHWAY 98

CITY: COUNTY OF IMPERIAL

ZIP:

DATE OF EXCAVATION: DECEMBER 9, 96

MONITORING INFORMATION:

PAGE No.: 1

AESE REP.: TONY GARCIA

MONITOR MFG: GAS TECH

MODEL No.: 201

CALIBRATION GAS: METHANE

TIME	VOC CONCENTRATIONS (ppm)		COMMENTS
	EACH LOAD AS REMOVED	3" ABOVE SOIL STOCKPILE SURFACE	ND= NON-DETECTABLE PPM=PARTS PER MILLION
0800		ND	
0830		ND	
0900		ND	
0915		ND	
0945		ND	
1000		ND	
1100		ND	
1200		ND	
1230		5 PPM	
1330		5 PPM	
1415		5 PPM	
1500		5 PPM	

SIGNATURE: _____ DATE: DECEMBER 9, 1996

A.E. SCHMIDT ENVIRONMENTAL

SOIL MONITORING LOG

SITE INFORMATION:

OWNER: CALTRANS DISTRICT #11

SITE: MIDWAY MTCE YARD

ADDRESS: ¼ MILE W. OF E. HIGHWAY 98

CITY: COUNTY OF IMPERIAL

ZIP:

DATE OF EXCAVATION: DECEMBER 10, 96

MONITORING INFORMATION:

PAGE No.: 1

AESE REP.: TONY GARCIA

MONITOR MFG: GAS TECH

MODEL No.: 201

CALIBRATION GAS: METHANE

TIME	VOC CONCENTRATIONS (ppm)		COMMENTS
	EACH LOAD AS REMOVED	3" ABOVE SOIL STOCKPILE SURFACE	ND= NON-DETECTABLE PPM=PARTS PER MILLION
0800		ND	
0830		ND	
0900		ND	
0915		ND	
0945		ND	
1000		ND	

SIGNATURE: _____ DATE: DECEMBER 10, 1996

A.E. SCHMIDT ENVIRONMENTAL

SOIL MONITORING LOG

SITE INFORMATION:

OWNER: CALTRANS DISTRICT #11

SITE: MIDWAY MTCE YARD

ADDRESS: ¼ MILE W. OF E. HIGHWAY 98

CITY: COUNTY OF IMPERIAL

ZIP:

DATE OF EXCAVATION: JANUARY 6, 1997

MONITORING INFORMATION:

PAGE No.: 1

AESE REP.: TONY GARCIA

MONITOR MFG: GAS TECH

MODEL No.: 201

CALIBRATION GAS: METHANE

TIME	VOC CONCENTRATIONS (ppm)		COMMENTS
	EACH LOAD AS REMOVED	3" ABOVE SOIL STOCKPILE SURFACE	ND= NON-DETECTABLE PPM=PARTS PER MILLION
0830		ND	
0900		ND	
0915		20 PPM	
0945		20 PPM	
1000		30 PPM	
1100		25 PPM	

SIGNATURE: [signature] DATE: JANUARY 16, 1997

A.E. SCHMIDT ENVIRONMENTAL

SOIL MONITORING LOG

SITE INFORMATION:

OWNER: CALTRANS DISTRICT #11

SITE: MIDWAY MTCE YARD

ADDRESS: ¼ MILE W. OF E. HIGHWAY 98

CITY: COUNTY OF IMPERIAL

ZIP:

DATE OF EXCAVATION: JANUARY 16, 1997

MONITORING INFORMATION:

PAGE No.: 1

AESE REP.: TONY GARCIA

MONITOR MFG: GAS TECH

MODEL No.: 201

CALIBRATION GAS: METHANE

TIME	VOC CONCENTRATIONS (ppm)		COMMENTS
	EACH LOAD AS REMOVED	3" ABOVE SOIL STOCKPILE SURFACE	ND= NON-DETECTABLE PPM=PARTS PER MILLION
0945		ND	
1000		ND	
1100		ND	
1200		ND	

SIGNATURE: _____ DATE: JANUARY 16, 1997

APPENDIX C

Form Approved OMB No. 2050-0039 (Expires 9-30-96)
Please print or type. Form designed for use on elite (12-pitch) writer.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

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.
CALD00-247-057	20510		

3. Generator's Name and Mailing Address
GARLAND TIRE
2121 JAM STREET
SANDIEGO CA 92110

4. Generator's Phone (619) 239-5047

A. State Manifest Document Number: 561205 10

B. State Generator's ID:

C. State Transporter's ID:

D. Transporter's Phone: 714-990-6855

E. State Transporter's ID:

F. Transporter's Phone:

G. State Facility's ID:

H. Facility's Phone: 310-537-7100

5. Transporter 1 Company Name: NIETO AND SONS TRUCKING, INC.
6. US EPA ID Number: CAT080016115

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

9. Designated Facility Name and Site Address
DEMENNO KERDOON
2000 N. ALAMEDA
COMPTON, CA 90222
10. US EPA ID Number: CAT080013352

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. NON RCRA HAZARDOUS WASTE LIQUID	001	TT	XXM75	G	State 221 EPA/Other EXEMPT
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
a. 61
b.
c.
d.

15. Special Handling Instructions and Additional Information
NO SMOKING
WEAR APPROPRIATE PROTECTIVE CLOTHING disposal
EMERGENCY TELEPHONE # (714) 990-6855 sites
alternate * CROSBY & OVERTON
* 1630 W. 17th STREET - 310-432-5445
* LONG BEACH, CA 90813 CAD028409019

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
		12	19	96

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
SALVADOR AREOLA	Salvador Areola	12	19	96

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

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
Dennis Moody	Dennis Moody	12	14	96

DO NOT WRITE BELOW THIS LINE.

GENERATOR
TRANSPORTER
FACILI

TSC 8022A (1/95)
EPA 8700—22

Green: TRANSPORTER RETAINS

APPENDIX D

Advanced Technology
Laboratories

December 16, 1996 ELAP No.: 1838

A.E. Schmidt Environmental
16509 Saticoy Street
Van Nuys, CA 91406

ATTN: Mr. Chris Thixton

Client's Project: Midway Maintenance Station
Lab No.: 14660-001/006

Gentlemen:

Enclosed are the results for sample(s) received by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company. Please feel free to call me at (310) 989 - 4045 if I can be of further assistance to your company.

Sincerely,

Edgar P. Caballero
Laboratory Director
EPC/ms

Enclosures

This cover letter is an integral part of this analytical report.

Client: A.E. Schmidt Environmental
Attn: Mr. Chris Thixton

Client's Project: Midway Maintenance Station

Date Received: 12/12/96
Date Sampled: 12/11/96
Date Digested: 12/12/96
Digestion Method: EPA 3050
Date Amended: 12/20/96

Lab No.	Sample I.D.	Analysis	Date Analyzed	Results,	Matrix, Units	MDL	DLR	Analyst
14660-001	T1C	EPA 7420 (Lead)	12/13/96	5.0	Soil, mg/kg	5.0	5.0	DJ
14660-002	T2C	EPA 7420 (Lead)	12/13/96	ND	Soil, mg/kg	5.0	5.0	DJ
14660-003	D1C	EPA 7420 (Lead)	12/13/96	29	Soil, mg/kg	5.0	5.0	DJ
14660-004	D2C	EPA 7420 (Lead)	12/13/96	ND	Soil, mg/kg	5.0	5.0	DJ
14660-005	SP1N	EPA 7420 (Lead)	12/13/96	5.0	Soil, mg/kg	5.0	5.0	DJ
14660-006	SP1S	EPA 7420 (Lead)	12/13/96	ND	Soil, mg/kg	5.0	5.0	DJ
14660-006D	SP1S	EPA 7420 (Lead)	12/13/96	ND	Soil, mg/kg	5.0	5.0	DJ

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DF = Dilution Factor (DLR/MDL)

Reviewed/Approved By: _____ Date: 12/21/96
Cheryl De Los Reyes
Department Supervisor

The cover letter is an integral part of this analytical report.

Spike Recovery and RPD Summary Report

Method: EPA7420
Analyst: CDR/DJ
Data File: AA61217-1
QA File: 65352-1

Date Analyzed: 12-17-96
Date Digested: 12-16-96
Sample ID: 14660-006
Matrix: SOIL/SOLID

ANALYTE	UNITS	LCS Conc	LCS Res	% Rec	METH BLANK	SPL CONC	SPL DUP	% Dev	SPK ADDED	MS RESULT	MSD RESULT	%MS REC	%MSD REC	% REC Limit	RPD	RPD Limit	MDL
Lead	mg/kg	0.50	0.46	92	ND	ND	ND	0	250	245	242	98	97	51 - 124	1	18	5.0

Approved by: _____
Cheryl De Los Reyes
Inorganics Supervisor

Date: 12/19/96

Advanced Technology Laboratories

Client:	A.E. Schmidt Environmental	QC Batch #:	968015DS416
Attn:	Mr. Chris Thixton	Date Sampled:	12/11/96
		Date Received:	12/12/96
		Date Extracted:	12/13/96
		Date Analyzed:	12/13 & 16/96
Client's Project:	Midway Maintenance Station	Extraction Method:	3550
Matrix:	Soil	Extraction Material:	Methylene Chloride
Analyst Initials:	DC		
Date Amended:	12/20/96		

Method 8015M/TPH (Diesel)

Lab No.:	Sample ID:	Results, mg/kg	DLR, mg/kg	Dilution Factor
Method Blank	-----	ND	10	1
14660-001	T1C	62	10	1
14660-002	T2C	ND	10	1
14660-003	D1C	ND	10	1
14660-004	D2C	23600	200	20
14660-005	SP1N	8460	50	5
14660-006	SP1S	393	50	5
14660-002D	T2C	ND	10	1
		%Recovery	Limits	
LCS	------	96	50-150	1.0

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor

Reviewed/Approved By: _____ Date: 12/21/96

Yun Pan
Department Supervisor

The cover letter is an integral part of this analytical report.

Spike Recove and RPD Summary Report

Method : C:\HPCHEM\5\METHODS\DIESEL.M
Title : Diesel
Last Update : Mon Dec 16 08:41:01 1996
Response via : Initial Calibration

Non-Spiked Sample: D11698.D

	Spike Sample	Spike Duplicate Sample
File ID :	DS11696.D	DS11697.D
Sample :	14660-2MS 10G-10ML E-12/13/96	14660-2MSD 10G-10ML E-12/13/96
Acq Time:	13 Dec 96 06:49 PM	13 Dec 96 07:11 PM

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Diesel	ND	100	93	101	93	101	8	50	50-150

QC Batch # : 968015DS416

Reviewed/Approved by: _____ Date: 12/16/96
Yun Pan
Organics Supervisor

Client: A.E. Schmidt Environmental
Attn: Mr. Chris Thixton

Client's Project: Midway Maintenance Station

Date Received: 12/12/96
Matrix: Soil
Date Amended: 12/20/96

METHOD 8015M (Gasoline)/EPA 8020

Lab No.:			Method Blank		14660-001		14660-002		14660-003		14660-004		14660-005		14660-006		14660-001D		LCS		
Client Sample I.D.:			--		T1C		T2C		D1C		D2C		SP1N		SP1S		T1C		----		
Date Sampled:			--		12/11/96		12/11/96		12/11/96		12/11/96		12/11/96		12/11/96		12/11/96		----		
QC Batch #:			968G20S6176		968G20S6176		968G20S6176		968G20S6176		968G20S6176		968G20S6176		968G20S6176		968G20S6176		968G20S6176		
Date Analyzed:			12/13/96		12/13/96		12/13/96		12/13/96		12/13/96		12/13/96		12/13/96		12/13/96		12/13/96		
Analyst Initials:			DT		DT		DT		DT		DT		DT		DT		DT		DT		
Dilution Factor:			1.0		1.0		1.0		1.0		5.0		1.0		1.0		5.0		1.0		
Analyte	MDL	Units	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results	DLR	Results	%Rec.	Limits	
TPH (Gas)	1	mg/kg	1	ND	1	1.3*	1	ND	1	ND	5	65*	1	3.6*	1	2.2*	5	ND	93	50-150	
Benzene	5	ug/kg	5	ND	5	ND	5	ND	5	ND	25	ND	5	ND	5	ND	25	ND	89	50-150	
Toluene	5	ug/kg	5	ND	5	ND	5	ND	5	ND	25	ND	5	ND	5	ND	25	ND	90	50-150	
Ethylbenzene	5	ug/kg	5	ND	5	ND	5	ND	5	ND	25	ND	5	ND	5	ND	25	ND	90	50-150	
Xylenes (total)	5	ug/kg	5	ND	5	ND	5	ND	5	ND	25	35	5	ND	5	ND	25	ND	104	50-150	
Methyl tert-Butyl Ether	5	ug/kg	5	ND	5	ND	5	ND	5	ND	25	ND	5	ND	5	ND	25	ND	91	50-150	

Lab No.:																					
Client Sample I.D.:																					
Date Sampled:																					
QC Batch #:																					
Date Analyzed:																					
Analyst Initials:																					
Dilution Factor:																					
Analyte	MDL	Units																			
TPH (Gas)	1	mg/kg																			
Benzene	5	ug/kg																			
Toluene	5	ug/kg																			
Ethylbenzene	5	ug/kg																			
Xylenes (total)	5	ug/kg																			
Methyl tert-Butyl Ether	5	ug/kg																			

MDL = Method Detection Limit
ND = Not Detected. (Below DLR)
DLR = MDL X Dilution Factor
NA = Not Analyzed
* = The sample contains heavier compounds than gasoline, however the quantitation was based on gasoline standards.

Reviewed/Approved By: _____
Yun Pan
Department Supervisor

Date: 12/21/96

The cover letter is an integral part of this analytical report.

Advanced Technology Laboratories

Spike Recove... and RPD Summary ...

Method : C:\HPCHEM\5\METHODS\8025EXT.M
Title : 8015GAS/ 8020(BTXE)
Last Update : Mon Dec 16 10:07:00 1996
Response via : Initial Calibration

Non-Spiked Sample: V04438.D

	Spike Sample	Spike Duplicate Sample
File ID :	VS4439.D	VS4440.D
Sample :	14664-023 3ppm MS Gas(+BTEX)	14664-023 3ppm MSD Gas(+BTEX)
Acq Time:	13 Dec 96 03:31 PM	13 Dec 96 03:55 PM

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Gasoline (mg/kg)	ND	3	3	3	99	102	3	12	47-140
Benzene (ug/kg)	ND	48	36	36	75	75	1	12	66-121
Toluene (ug/kg)	ND	255	234	234	92	92	0	14	62-127

QC Batch #:968G20S6176

Reviewed and Approved by: _____ Date: 12/16/96
Yun Pan
Organics Supervisor

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 310 989-4045 Fax: 310 989-4040

A.E. SCHMIDT ENVIRONMENTAL
509 SATICOY STREET
VAN NUYS, CALIFORNIA 91406
(818)-786-2373

CHAIN OF CUSTODY RECORD

DATE: 12-11-96 PAGE: 1 of 1

CLIENT: CALTRANS DISTRICT #11
PROJECT NAME: MIDWAY MAINTENANCE STATION
LOCATION: MIDWAY MAINTENANCE STATION
PROJECT MGR: C. THIXTON
SAMPLER: C. THIXTON

SAMPLE IDENTIFICATION	DATE	TIME	418.1	8020 w/ MTBE	8015	8015m (GAS)	8015m (DIE)	7420 PB	8010	8080	8240	8260	CAM 17							NUMBER OF CONTAINERS
T1C	12-11-96	1320		X		X	X	X												1
T2C	12-11-96	1325		X		X	X	X												1
D1C	12-11-96	1330		X		X	X	X												1
D2C	12-11-96	1335		X		X	X	X												1
SP1N	12-11-96	1340		X		X	X	X												1
SP1E	12-11-96	1345		X		X	X	X												1

ANALYSES/PARAMETERS

TURN AROUND TIME: 24hrs. ☐ 48hrs. ☒ 1week ☐ normal ☐

OBSERVATIONS/COMMENTS: 48 TURNAROUND PER CONTRACT, FAX RESULTS TO AESE @ FAX (ELC) 786-5440

RELINQUISHED BY: Chris Thixton	SIGNATURE: Chris Thixton per tele.	A.E. SCHMIDT ENVIRONMENTAL	DATE: 12/12	TIME: 12:??	TOTAL NUMBER OF CONTAINERS → 6
RECEIVED BY:	SIGNATURE: MIKE STAGGS	COMPANY: A.T.L.	DATE: 12/12/96	TIME: 12:00	METHOD OF SHIPMENT
RELINQUISHED BY:	SIGNATURE	COMPANY	DATE	TIME	SPECIAL SHIPMENT HANDLING OR STORAGE INSTRUCTIONS
RECEIVED BY: Diane Galvan	SIGNATURE: Diane Galvan	COMPANY: ATL	DATE: 12-12-96	TIME: 1540	

D:\FORMS\COC.CDR

Advanced Technology
Laboratories

January 9, 1997

ELAP No.: 1838

A.E. Schmidt Environmental
16509 Saticoy Street
Van Nuys, CA 91406

ATTN: Mr. Chris Thixton

Client's Project: Caltrans Midway MTCE Yard
Lab No.: 15037-001/010

Gentlemen:

Enclosed are the results for sample(s) received by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company. Please feel free to call me at (310) 989 - 4045 if I can be of further assistance to your company.

Sincerely,

Edgar P. Caballero
Laboratory Director
EPC/ms

Enclosures

This cover letter is an integral part of this analytical report.

509 SATICOY STREET
VAN NUYS, CALIFORNIA 91406
(818)-786-2373

CHAIN OF CUSTODY RECORD

DATE: 01-06-97 PAGE: 1 of 1

CLIENT: CALTRANS
PROJECT NAME: CALTRANS MIDWAY MTCE YARD
LOCATION: MIDWAY WELLS
PROJECT MGR: C. THIXTON
SAMPLER: C. THIXTON

SAMPLE IDENTIFICATION	DATE	TIME	418.1	8020	8015	8015m (GAS)	8015m (DIE)	7420	8010	8080	8240	8260	CAM 17							OBSERVATIONS/COMMENTS	NUMBER OF CONTAINERS
BN-9'	1-6-97	1132					X													BOTTOM NORTH 9' BGS	1
BS-13'	1-6-97	1135					X													BOTTOM SOUTH 13 BGS	1
NW-8'	1-6-97	1137					X													NORTH WALL 9' BGS	1
EW-10'	1-6-97	1140					X													EAST WALL 10' BGS	1
SW-12'	1-6-97	1141					X													SOUTH WALL 12' BGS	1
WW-10'	1-6-97	1145					X													WEST WALL 10' BGS	1
SP2-N	1-6-97	1148					X													STOCKPILE 2 NORTH END	1
SP2-W	1-6-97	1150					X													STOCKPILE 2 WEST END	1
SP2-S	1-6-97	1155					X													STOCKPILE 2 SOUTH END	1
SP2-E	1-6-97	1157					X													STOCKPILE 2 EAST END	1

ANALYSES/PARAMETERS

TURN AROUND TIME: 24hrs. ☐ 48hrs. ☒ 1week ☐ normal ☐

OBSERVATIONS/COMMENTS: TURN AROUND TIME PER CONTRACT

NUMBER OF CONTAINERS

RELINQUISHED BY: C. Thixton	SIGNATURE	A.E. SCHMIDT ENVIRONMENTAL	DATE 1-6-97	TIME 1130	TOTAL NUMBER OF CONTAINERS → 10
RECEIVED BY:	SIGNATURE MIKE STAGGS	COMPANY A.T.L.	DATE 1-7-97	TIME 1:05	METHOD OF SHIPMENT
RELINQUISHED BY:	SIGNATURE	COMPANY	DATE	TIME	SPECIAL SHIPMENT HANDLING OR STORAGE INSTRUCTIONS
RECEIVED BY: Diane Galvan	SIGNATURE Diane Galvan	COMPANY A.T.L	DATE 1-7-97	TIME 1430	

D:\FORMS\COC.CDR

Advanced Technology Laboratories

January 20, 1997 ELAP No.: 1838

A.E. Schmidt Environmental
16509 Saticoy Street
Van Nuys, CA 91406

ATTN: Mr. Chris Thixton

Client's Project: Caltrans Midway MTCE Yard
Lab No.: 15217-001/005

Gentlemen:

Enclosed are the results for sample(s) received by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company. Please feel free to call me at (310) 989 - 4045 if I can be of further assistance to your company.

Sincerely,

Edgar P. Caballero
Laboratory Director
EPC/ms

Enclosures

This cover letter is an integral part of this analytical report.

Mailing Address: P.O. Box 9108 Newport Beach, CA 92658
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 310 989-4045 Fax: 310 989-4040

Client:	A.E. Schmidt Environmental	QC Batch #:	F978015DS030
Attn:	Mr. Chris Thixton	Date Sampled:	01/15/97
		Date Received:	01/16/97
		Date Extracted:	01/17/97
		Date Analyzed:	01/17 & 20/97
Client's Project:	Clatrans Midway MTCE Yard	Extraction Method:	3550
Matrix:	Soil	Extraction Material:	Methylene Chloride
Analyst Initials:	DC		

Method 8015M/TPH (Diesel)

Lab No.:	Sample ID:	Results, mg/kg	DLR, mg/kg	Dilution Factor
Method Blank	----	ND	1.0	1.0
15217-001	BBS-16'	4920	200	200
15217-002	SSW-12'	11	1.0	1.0
15217-003	SP3-N	1600	20	20
15217-004	SP3-W	2210	100	100
15217-005	SP3-E	12	1.0	1.0
15217-005D	SP3-E	13	1.0	1.0
		%Recovery	Limits	
LCS	-------	71	50-150	1

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor

Reviewed/Approved By: for Yun Pan
Department Supervisor

Date: 1/20/97

The cover letter is an integral part of this analytical report.

Method : C:\HPCHEM\5\METHODS\DIESEL.M
Title : Diesel
Last Update : Mon Jan 20 09:22:07 1997
Response via : Initial Calibration

n-Spiked Sample: F9700252.D

	Spike Sample	Spike Duplicate Sample
File ID :	F97S0253.D	F97S0254.D
Sample :	15217-2MS 30G-1ML E-1/17/97	15217-2MSD 30G-1ML E-1/17/97
Acq Time:	17 Jan 97 07:03 PM	17 Jan 97 07:26 PM

Compound	Sample Conc	Spike Added	Spike Res	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits RPD	QC Limits % Rec
Diesel	323	100	392	387	69	64	8	50	50-150

QC Batch # : F978015DS030

Reviewed/Approved by: _____ Date: 1/20/97
for Yun Pan
Organics Supervisor

Advanced Technology Laboratories
1510 E. 33rd Street Signal Hill, CA 90807 Tel: 310 989-4045 Fax: 310 989-4040

16509 SATICOY STREET
VAN NUYS, CALIFORNIA 91406
(818)-786-2373

CHAIN OF CUSTOI RECORI

DATE: 1·16·97 PAGE: 1 of 1

CLIENT: CALTRANS
PROJECT NAME: CALTRANS MIDWAY MTCE YARD
LOCATION: MIDWAY, CA
PROJECT MGR: CHRIS THIXTON
SAMPLER: J.E. TUBBS

SAMPLE IDENTIFICATION	DATE	TIME	418.1	8010	8015M (DIE)	8020	8240	8260	8270	8080	CAM 17	413.2	# OF CONTAINERS	OBSERVATIONS/COMMENTS
BBS-16'	1·15·97	1141			X								1	BOTTOM BOTTOM SOUTH-16' DIRECTLY UNDER BS-13'
SSW-12'	1·15·97	1211			X								1	SOUTH SOUTH WALL-12' @ 8' FARTHER SOUTH @ 12' DEEP
~~SP-3~~ SP3-N	1·15·97	1230			X								1	STOCKPILE 3 - NORTH END
SP3-W	1·15·97	1225			X								1	STOCKPILE 3 - WEST END
SP3-E	1·15·97	1228			X								1	STOCKPILE 3 - EAST END

TURN AROUND TIME: 24hrs. ☐ 48hrs. ☒ 1week ☐ normal ☐

OBSERVATIONS/COMMENTS: TURN AROUND TIME PER CONTRACT

	SIGNATURE	COMPANY	DATE	TIME
RELINQUISHED BY: J.E. TUBBS	James E. Tubbs	A.E. SCHMIDT ENVIRONMENTAL	1/16/97	
RECEIVED BY:	SIGNATURE	COMPANY	DATE	TIME
	MIKE STAGGS	A.T.L.	1/16/97	10:24
RELINQUISHED BY:	SIGNATURE	COMPANY	DATE	TIME
RECEIVED BY:	SIGNATURE	COMPANY	DATE	TIME

TOTAL NUMBER OF CONTAINERS → 5

METHOD OF SHIPMENT

SPECIAL SHIPMENT HANDLING OR STORAGE INSTRUCTIONS

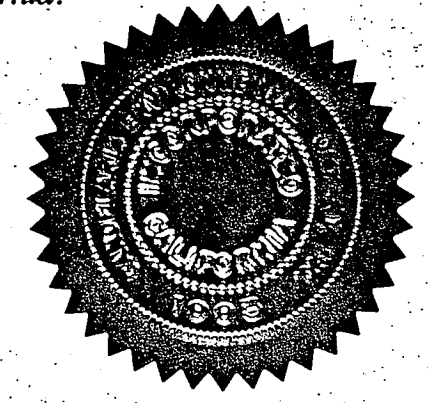
APPENDIX E

CERTIFICATE OF SOIL RECYCLING

This document is to certify that Candelaria Environmental Co. has completed the treatment of 119.84 *tons of hydrocarbon contaminated soil accepted from:*

CalTrans, District 11
Highway 98 & Interstate 8
Midway Wells, CA

on 6/26/97 *under Manifest / Acceptance number* 970623-SD-138A *and that the soil has been properly recycled to approved regulatory standards at the C.E.C. Treatment and Recycling facility in Anza, California.*



Date: 10/22/97

Candelaria Environmental Co.

CANDELARIA ENVIRONMENTAL COMPANY
Contaminated Soils
Treatment & Recycling Facility
EPA ID # IRC356613091

SOIL ACCEPTANCE APPLICATION

Applicant: A.E. SCHMIDT ENVIRONMENTAL — CHRIS THIXTON
Company — Contact

16509 SATICOY STREET VAN NUYS, CA. 91406 — 818-786-2373
Address — Phone #

Generator: CALTRANS DISTRICT # 11 — PAUL SEEGMILLER
Company — Contact

2829 JUAN ST. SAN DIEGO, CA. 92110 — 619-688-3698
Address — Phone #

Site Information: CALTRANS MIDWAY

Location/Identification: SEE SITE BELOW

Site History: CALTRANS MAINTENANCE YARD SINCE THE 1960's THE UST'S WERE INSTALLED IN 1960 / REMOVED 12-11-96

Source & Type of Contamination (specific): PETROLEUM HYDROCARBON CONTAMINATION FROM LEAKING UST'S (GAS/DIESEL). SEE ATTACHED LAB RESULTS

Level/Degree of Contamination (approx.): SEE ATTACHED LAB RESULTS

Amount of Soil involved (approx. tons or cubic yards): Appx. 200 TONS.

Soil Type (general): SAND

Site Owner (if not generator): SITE: CALTRANS DISTRICT #11 ~~STATE "G" [illegible]~~ ~~[illegible] [illegible]~~ V4 WEST OF EASTERLY HIGHWAY 98/I-8 JUNCTION MIDWAY WELLS, CA.

To the best of my knowledge the contaminated soil described above is nonhazardous and that the information of above is accurate, complete, and correct. I hereby authorize Candelaria Environmental Company (CEC) to sample, at their discretion, any soil delivered from the above site to verify the chemical analysis submitted. I further agree to reimburse CEC for sampling and analysis, and removal of the soil from CEC facility at my expense if contaminants are present above hazardous levels as determined by a California Certified Laboratory (as defined by RCRA and Title 22, Chapter 30, Article 11, of the California Code of Regulations).

W Paul Seegmiller — HAZ. WASTE CO-ORD. — 6/23/97
Signature — Title — Date

C. NDELARIA ENVIRONMENTA. CO.

15857

BIOTREATMENT FACILITY

EPA ID# IRC 356613091

NON-HAZARDOUS MATERIALS HAULING MANIFEST

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurements Standards of the California Department of Food and Agriculture.

GENERATOR

NAME: CALTRANS - DISTRICT 11

ADDRESS: HIGHWAY 98 & INTERSTATE 8 PHONE NO. 619-688-3698

CITY, STATE, ZIP MIDWAY WELLS, CA APN: 970623-SD-138

WASTE DESCRIPTION NON HAZ SOIL GENERATING PROCESS UST

COMPONENTS OF WASTE (PPM)	COMPONENTS OF WASTE (PPM)
TPH (DIESEL) < 12000	

PROPERTIES: SOLID YES

HANDLING INSTRUCTIONS: WEAR APPROPRIATE CLOTHING

GENERATOR CERTIFIES THAT THESE WASTES ARE RCRA NON-HAZARDOUS, CALIFORNIA REGULATED ONLY, BASED ON THE INFORMATION PROVIDED BY THE GENERATOR ON THE SOIL ACCEPTANCE APPLICATION AND THE ACCOMPANYING LABORATORY DATA.

BY: Andre Al-Ghani / Andre Al-Ghani Agent for Caltrans DATE: 6/26/97

Signature / Print or Type Full Name

HAULER

COMPANY NAME Hernandez Trucking PHONE NO.

ADDRESS P.O Box 2541 SERVICE ORDER NO.

CITY, STATE, ZIP El Centro Ca 92244 PICK UP DATE

TRUCK TYPE: DUMP ____ ROLL OFF ____ OTHER Transfer

TRUCK LIC. # B2 Veliz TRUCK ID #

WEIGHT TICKET # TRUCK GROSS WEIGHT 35.43

DRIVER NAME Roberto Veliz TRUCK TARE WEIGHT 14.57

TRUCK NET WEIGHT 20.86

DRIVER SIGNATURE Roberto Veliz

PROCESSOR

TIME LEFT JOB LOAD # 4

JOB SITE REPRESENTATIVE

Name Signature

CANDELARIA ENVIRONMENTAL CO. (619) 941-3267 FAX 941-8388

4001 Candelaria Lane 24hr Emergency (619) 979-3585

Anza, CA 92539

DATE WEIGHED 6/26/97 DEPUTY IN TONS SIGNATURE

☐ GROSS ☐ TARE

N 9-94

C. DELARIA ENVIRONMENTA CO.

15860

BIOTREATMENT FACILITY

EPA ID# IRC 356613091

NON-HAZARDOUS MATERIALS HAULING MANIFEST

WEIGHMASTER CERTIFICATE

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GENERATOR

NAME: CALTRANS - DISTRICT 11

ADDRESS: HIGHWAY 98 & INTERSTATE 8 PHONE NO. 619-688-3698

CITY, STATE, ZIP MIDWAY WELLS, CA APN: 070623-SD-138

WASTE DESCRIPTION NON HAZ SOIL GENERATING PROCESS UST

COMPONENTS OF WASTE (PPM) COMPONENTS OF WASTE (PPM)

TPH (DIESEL) < 12000

PROPERTIES: SOLID YES

HANDLING INSTRUCTIONS: WEAR APPROPRIATE CLOTHING

GENERATOR CERTIFIES THAT THESE WASTES ARE RCRA NON-HAZARDOUS, CALIFORNIA REGULATED ONLY, BASED ON THE INFORMATION PROVIDED BY THE GENERATOR ON THE SOIL ACCEPTANCE APPLICATION AND THE ACCOMPANYING LABORATORY DATA

BY: Andrea Al-Khani/Andre Al-Khani; Agent for CalTrans DATE: 6/26/97

Signature / Print or Type Full Name

HAULER

COMPANY NAME HERNANDEZ TRUCK INC PHONE NO. 353-4527

ADDRESS PO BOX 2541 SERVICE ORDER NO.

CITY, STATE, ZIP EL CENTRO PICK UP DATE

TRUCK TYPE: DUMP ✓ ROLL OFF ____ OTHER ____

TRUCK LIC. # 2F24214 TRUCK ID #

WEIGHT TICKET # TRUCK GROSS WEIGHT 20.18

DRIVER NAME TRUCK TARE WEIGHT 10.00

TRUCK NET WEIGHT 10.18

DRIVER SIGNATURE Jose C. D. clean up load

PROCESSOR

TIME LEFT JOB LOAD #

JOB SITE REPRESENTATIVE

Name Signature

CANDELARIA ENVIRONMENTAL CO. (619) 941-3267 FAX 941-8388

4001 Candelaria Lane 24hr Emergency (619) 979-3585

Anza, CA 92539

DATE WEIGHED 6/26/97 IN TONS DEPUTY SIGNATURE

☐ GROSS ☐ TARE

9-94

CANDELARIA ENVIRONMENTAL CO.

15861

BIOTREATMENT FACILITY

EPA ID# IRC 356613091

NON-HAZARDOUS MATERIALS HAULING MANIFEST

WEIGHMASTER CERTIFICATE

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GENERATOR

NAME: CALTRANS - DISTRICT 11

ADDRESS: HIGHWAY 98 & INTERSTATE 8 PHONE NO. 619-688-3698

CITY, STATE, ZIP MIDWAY WELLS, CA APN: 970623-SD-138

WASTE DESCRIPTION NON HAZ SOIL GENERATING PROCESS UST

COMPONENTS OF WASTE (PPM)		COMPONENTS OF WASTE (PPM)	
TPH (DIESEL)	< 12000		

PROPERTIES: SOLID YES

HANDLING INSTRUCTIONS: WEAR APPROPRIATE CLOTHING

GENERATOR CERTIFIES THAT THESE WASTES ARE RCRA NON-HAZARDOUS, CALIFORNIA REGULATED ONLY, BASED ON THE INFORMATION PROVIDED BY THE GENERATOR ON THE SOIL ACCEPTANCE APPLICATION AND THE ACCOMPANYING LABORATORY DATA.

BY: Andre Al-Ghani / Andre Al-Ghani Agent for Caltrans DATE: 6/26/97

Signature / Print or Type Full Name

HAULER

COMPANY NAME Hernandez Trkg PHONE NO. (619) 353-4527

ADDRESS P.O. Box 2541 SERVICE ORDER NO.

CITY, STATE, ZIP El Centro Ca. 92244 PICK UP DATE 6/26/97

TRUCK TYPE: DUMP ____ ROLL OFF ____ OTHER Trailer

TRUCK LIC. # 001 TRUCK ID # 007

WEIGHT TICKET # TRUCK GROSS WEIGHT 43.14

DRIVER NAME Manuel Zamora TRUCK TARE WEIGHT 14.60

TRUCK NET WEIGHT 28.54

DRIVER SIGNATURE

PROCESSOR

TIME LEFT JOB LOAD # 3

JOB SITE REPRESENTATIVE

Name Signature

CANDELARIA ENVIRONMENTAL CO. (619) 941-3267 FAX 941-8388

4001 Candelaria Lane 24hr Emergency (619) 979-3585

Anza, CA 92539

DATE WEIGHED 6/26/97 DEPUTY IN TONS SIGNATURE

☒ GROSS ☐ TARE

V 9-94

C IDELARIA ENVIRONMENTA CO.

15862

BIOTREATMENT FACILITY

EPA ID# IRC 356613091

NON-HAZARDOUS MATERIALS HAULING MANIFEST

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code. administered by the Division of Measurements Standards of the California Department of Food and Agriculture.

GENERATOR

NAME: CALTRANS - DISTRICT 11

ADDRESS: HIGHWAY 98 & INTERSTATE 8 PHONE NO. 619-688-3698

CITY, STATE, ZIP MIDWAY WELLS, CA APN: 070623-SD-138

WASTE DESCRIPTION NON HAZ SOIL GENERATING PROCESS UST

COMPONENTS OF WASTE (PPM) COMPONENTS OF WASTE (PPM)

TPH (DIESEL) < 12000

PROPERTIES: SOLID YES

HANDLING INSTRUCTIONS: WEAR APPROPRIATE CLOTHING

GENERATOR CERTIFIES THAT THESE WASTES ARE RCRA NON-HAZARDOUS, CALIFORNIA REGULATED ONLY, BASED ON THE INFORMATION PROVIDED BY THE GENERATOR ON THE SOIL ACCEPTANCE APPLICATION AND THE ACCOMPANYING LABORATORY DATA

BY: Andre Al-Ghani / Andre Al-Ghani Agent for Caltrans DATE: 6/26/97

Signature / Print or Type Full Name

HAULER

COMPANY NAME N.C. McDonald PHONE NO. 909-877-3234

ADDRESS P.O. Box 957 SERVICE ORDER NO.

CITY, STATE, ZIP Bloomington Ca 92316 PICK UP DATE 6-26-97

TRUCK TYPE: DUMP X ROLL OFF ____ OTHER ____

TRUCK LIC. # SP58855 TRUCK ID # 613A

WEIGHT TICKET # TRUCK GROSS WEIGHT 44.34

DRIVER NAME N.C. McDonald TRUCK TARE WEIGHT 15.47

TRUCK NET WEIGHT 28.87

DRIVER SIGNATURE N.C. McDonald

PROCESSOR

TIME LEFT JOB LOAD #

JOB SITE REPRESENTATIVE

Name Signature

CANDELARIA ENVIRONMENTAL CO. (619) 941-3267 FAX 941-8388

4001 Candelaria Lane 24hr Emergency (619) 979-3585

Anza, CA 92539

DATE WEIGHED 6/26/97 DEPUTY IN TONS SIGNATURE

☐ GROSS ☐ TARE

9-94

CANDELARIA ENVIRONMENTAL CO. 15863

BIOTREATMENT FACILITY

EPA ID# IRC 356613091

NON-HAZARDOUS MATERIALS HAULING MANIFEST

WEIGHMASTER CERTIFICATE

I, IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurements Standards of the California Department of Food and Agriculture.

GENERATOR

NAME: CALTRANS - DISTRICT 11

ADDRESS: HIGHWAY 98 & INTERSTATE 8 PHONE NO. 619-688-3698

CITY, STATE, ZIP MIDWAY WELLS, CA APN: 970623-SD-138

WASTE DESCRIPTION NON HAZ SOIL GENERATING PROCESS UST

COMPONENTS OF WASTE (PPM)		COMPONENTS OF WASTE (PPM)	
TPH (DIESEL)	< 12000		

PROPERTIES: SOLID YES

HANDLING INSTRUCTIONS: WEAR APPROPRIATE CLOTHING

GENERATOR CERTIFIES THAT THESE WASTES ARE RCRA NON-HAZARDOUS, CALIFORNIA REGULATED ONLY, BASED ON THE INFORMATION PROVIDED BY THE GENERATOR ON THE SOIL ACCEPTANCE APPLICATION AND THE ACCOMPANYING LABORATORY DATA

BY: Andre Al-Shami / Hadie Al-Ghani Agent for Caltrans DATE: 6/26/97

Signature / Print or Type Full Name

HAULER

COMPANY NAME DAYTON TRUCKING PHONE NO. 909 628 4151

ADDRESS 12387 ACACIA SERVICE ORDER NO.

CITY, STATE, ZIP CHINO CA 91710 PICK UP DATE 6-26-97

TRUCK TYPE: DUMP X ROLL OFF ____ OTHER ____

TRUCK LIC. # DAYTN18 TRUCK ID # 138

WEIGHT TICKET # 1 TRUCK GROSS WEIGHT 45.87

DRIVER NAME MIKE GRAWCAMPER TRUCK TARE WEIGHT 14.48

TRUCK NET WEIGHT 31.39

DRIVER SIGNATURE Mike Grawcamper

PROCESSOR

TIME LEFT JOB ____ LOAD # 1

JOB SITE REPRESENTATIVE ____

Name Signature

CANDELARIA ENVIRONMENTAL CO. (619) 941-3267 FAX 941-8388

4001 Candelaria Lane 24hr Emergency (619) 979-3585

Anza, CA 92539

DATE WEIGHED 6/26/97 DEPUTY IN TONS SIGNATURE

~~☐ GROSS~~ ~~☐ TARE~~

9-94

APPENDIX F

...technical & testing division of NICKLAUS ENGINEERING, ...C.
West 24th Street, Yuma, Arizona 85364
) 344-8374 Fax (520) 726-6994
ERNET nei@primenet.com

TO: A.E. Schmidt Environmental
16509 Saticoy St.
Van Nuys, CA 91406

LAB. NO.: 5468 Job No. G97-075E
DATE: 7-01-97 FIELD: 6-26/30-97

Excavation backfill compaction

JOB: Tank Removal Backfill, Caltrans Maintenanc
Midway Yard, Hwy. 98, East Mesa, CA

☐ SAND CONE ☐ VOLUMETER ☒ NUCLEAR

SOIL DENSITY TESTS

Test No.	Depth of Test Below Surface, Ft.	Depth of Fill Ft.	Field Moisture %	Dry Field Density Lbs./Cu. Ft.	Max. Dry Density Lbs./Cu. Ft.	% Compaction
1	8-9	Native	11.5	99.4	107.8	92.2
2	7-8	Native	13.9	98.3	107.8	91.2
3	7-8	Native	17.2	103.0	107.8	95.5
4	5-6	Native	14.2	100.6	107.8	93.3
5	5-6	Native	6.8	102.4	107.8	95.0
6	4-5	2	12.9	102.9	111.2	92.6
7	4-5	2	7.9	101.6	111.2	91.4
8	4-5	2	7.5	103.8	111.2	93.4
9	3-4	3	9.7	106.0	111.2	95.3
10	3-4	3	12.6	104.6	111.2	94.1
11	3-4	3	10.4	106.9	111.2	96.2
12	3-4	3	5.0	103.1	111.2	92.7
13	2-3	4	10.1	111.4	111.2	100+
14	2-3	4	12.1	106.8	111.2	96.0
15	2-3	4	8.3	110.9	111.2	99.7
16	2-3	4	11.0	108.0	111.2	97.1
17	1-2	6	9.8	109.8	111.2	98.7
18	1-2	6	14.0	107.8	111.2	97.0
19	0-1	6	7.3	107.6	111.2	96.8
20	0-1	6	7.0	110.1	111.2	99.0
21	1-2	6	9.1	107.6	111.2	96.7
22	0-1	6	9.3	108.7	111.2	97.7

Test No's 1-5 taken in the pit floor native sandy soil. Results comply (min. 90% compaction). Test No's 6-22 taken in the pit granular backfill material (washed East Mesa sand). Results comply (min. 90% compaction, 2' below subgrade elevation & min. 95% compaction, 0-2').

BY E. Vonne Nicklaus
E. Vonne Nicklaus, P.E., CA-31217

technical & testing division of NICKLAUS ENGINEERIN(
West 24th Street, Yuma, Arizona 85364
) 344-8374 Fax (520) 726-6994
ERNET nei@primenet.com

E. Vonne Nicklaus, P.E., Presid CEO
Karen A. Nicklaus, Secretary/Treasurer
Courtney Arviso, P.E.
Gerald Schroeter, Director of Operations

•APPLIED SOIL MECHANICS
•FOUNDATION ENGINEERING

780 N. 4th St.
P.O. Box 1350
El Centro, CA 92244

1201 W. 9th St.
Yuma, AZ 85364

TO: A.E. Schmidt Environmental Services

LAB. NO.: 5468 Job No. G97-075E
DATE: 7-01-97 FIELD: 6-26/30-97

JOB: Tank Removal backfill Caltrans Maintenance
Midway Yard, Hwy. 98, East Mesa

☐ SAND CONE ☐ VOLUMETER X☐ NUCLEAR

SOIL DENSITY TESTS

TEST NO.	LOCATION
1	South pit, south section.
2	South pit, north section.
3	South pit, center section.
4	North pit, east section.
5	North pit, west section.
6	South pit, north section.
7	South pit, center section.
8	South pit, south section.
9	South pit, south section.
10	South pit, north section.
11	North pit, west section.
12	North pit, east section.
13	South pit, south section.
14	South pit, north section.
15	North pit, east section.
16	North pit, west section.
17	South pit, south section.
18	South pit, north section.
19	South pit, north section.
20	South pit, south section.
21	North pit, east section.
22	North pit, west section.

COPIES: 1-Client

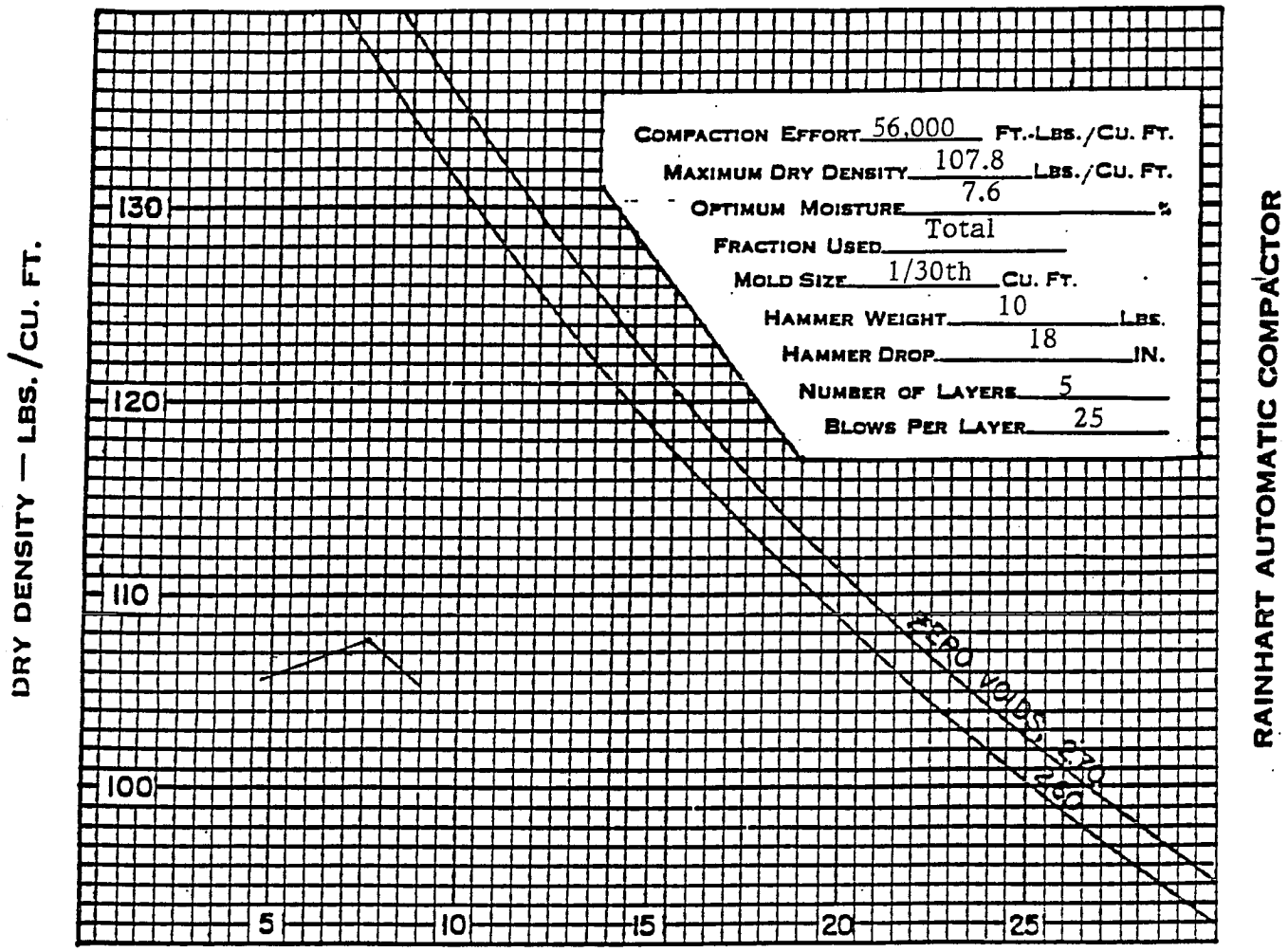
BY E. Vonne Nicklaus
E. Vonne Nicklaus, P.E., CA-31217

SOURCE OF SAMPLE: Tank removal backfill, Caltrans Maintenance Midway Yard, Hwy. 98, East Mesa

SAMPLED BY: NEI Geotech 6-25-97, at the project site. (native soil, floor of pit)

UNIFIED SOIL CLASSIFICATION: Silty fine grained sand

LABORATORY COMPACTION TEST ASTM D-1557,Method A



ATTERBURG LIMITS

LIQUID LIMIT _____

PLASTIC LIMIT _____

PLASTICITY INDEX _____

SHRINKAGE LIMIT _____

SHRINKAGE RATIO _____

PARTICLE SIZE DISTRIBUTION

SIEVE SIZE	PERCENT PASSING

Schmidt Environmental Services
16509 Saticoy St.
Van Nuys, CA 91406

Job No. G97-075E

LAB No. 5468
DATE 7-01-97

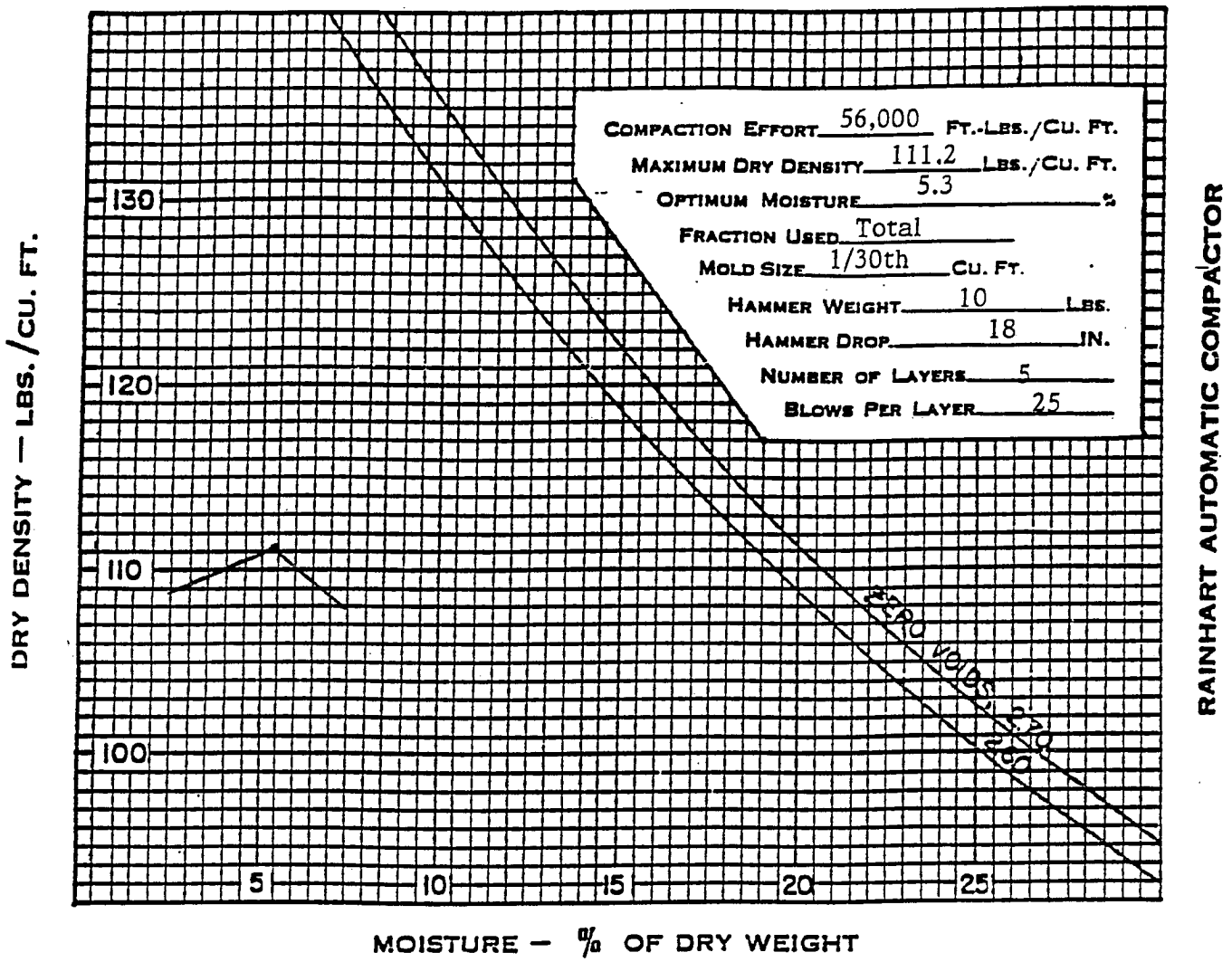
NEI GEOTECHNICAL
A geotechnical & testing division of NICKLAUS ENGINEERING, INC.

SOURCE OF SAMPLE: Tank removal backfill, Caltrans Maintenance Midway Yard, Hwy. 98, East Mes

SAMPLED BY: NEI Geotech 6-25-97, at the project site stockpile

UNIFIED SOIL CLASSIFICATION: Washed, medium grained sand (East Mesa Pit)

LABORATORY COMPACTION TEST ASTM D-1557,Method A



ATTERBURG LIMITS

LIQUID LIMIT _____

PLASTIC LIMIT _____

PLASTICITY INDEX _____

SHRINKAGE LIMIT _____

SHRINKAGE RATIO _____

PARTICLE SIZE DISTRIBUTION

SIEVE SIZE	PERCENT PASSING

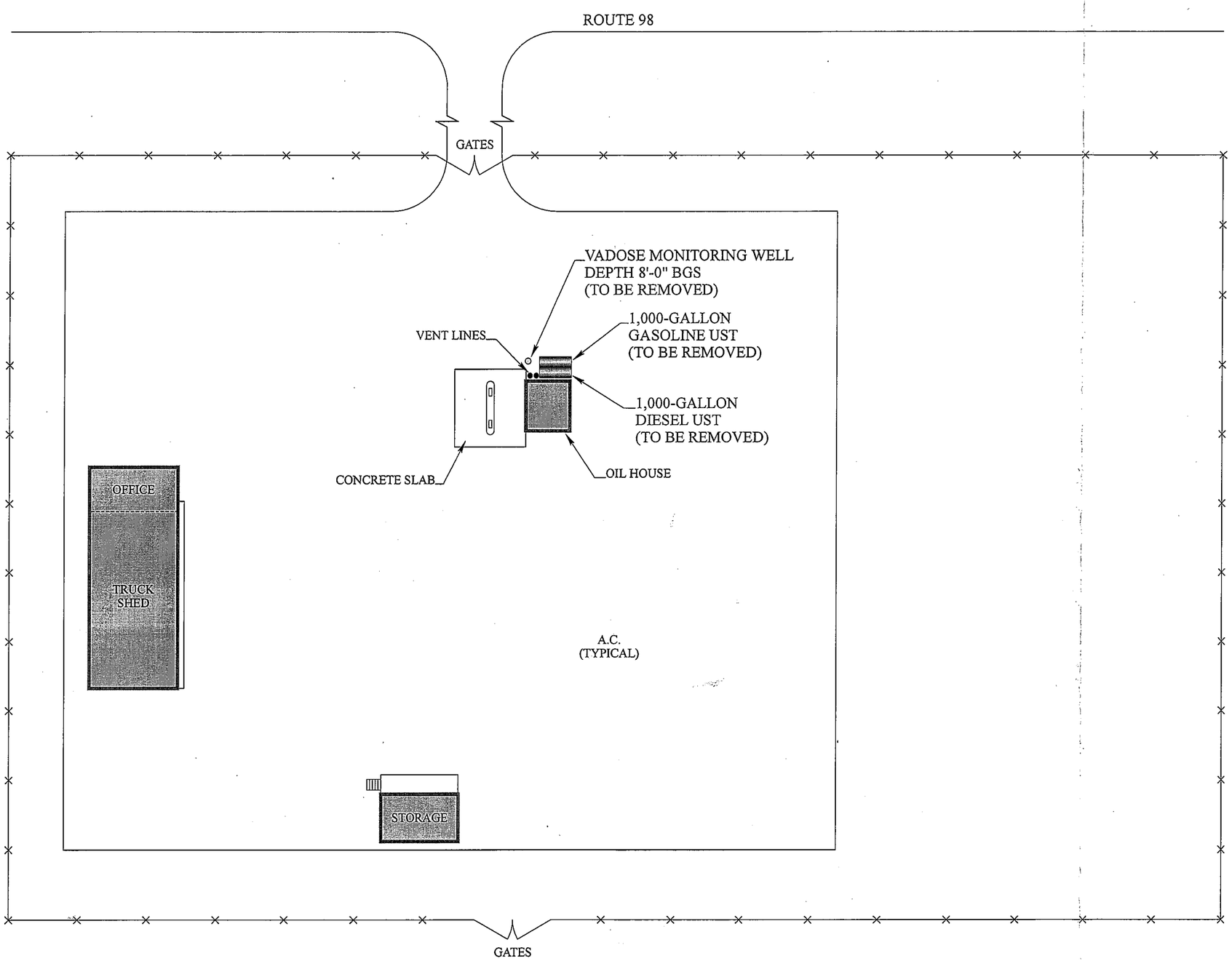
A.E. Schmidt Environmental Ser.
16509 Saticoy St.
Van Nuys, CA 91406

Job No. G97-075E

85

LAB No. 5468
DATE 7-01-97

NEI GEOTECHNICAL
A geotechnical & testing division of NICKLAUS ENGINEERING, INC.



AESE
A.E. SCHMIDT ENVIRONMENTAL INC
CONSULTANTS AND CONTRACTORS
16509 Saticoy Street, Van Nuys, CA 91402 1-800-701-2373

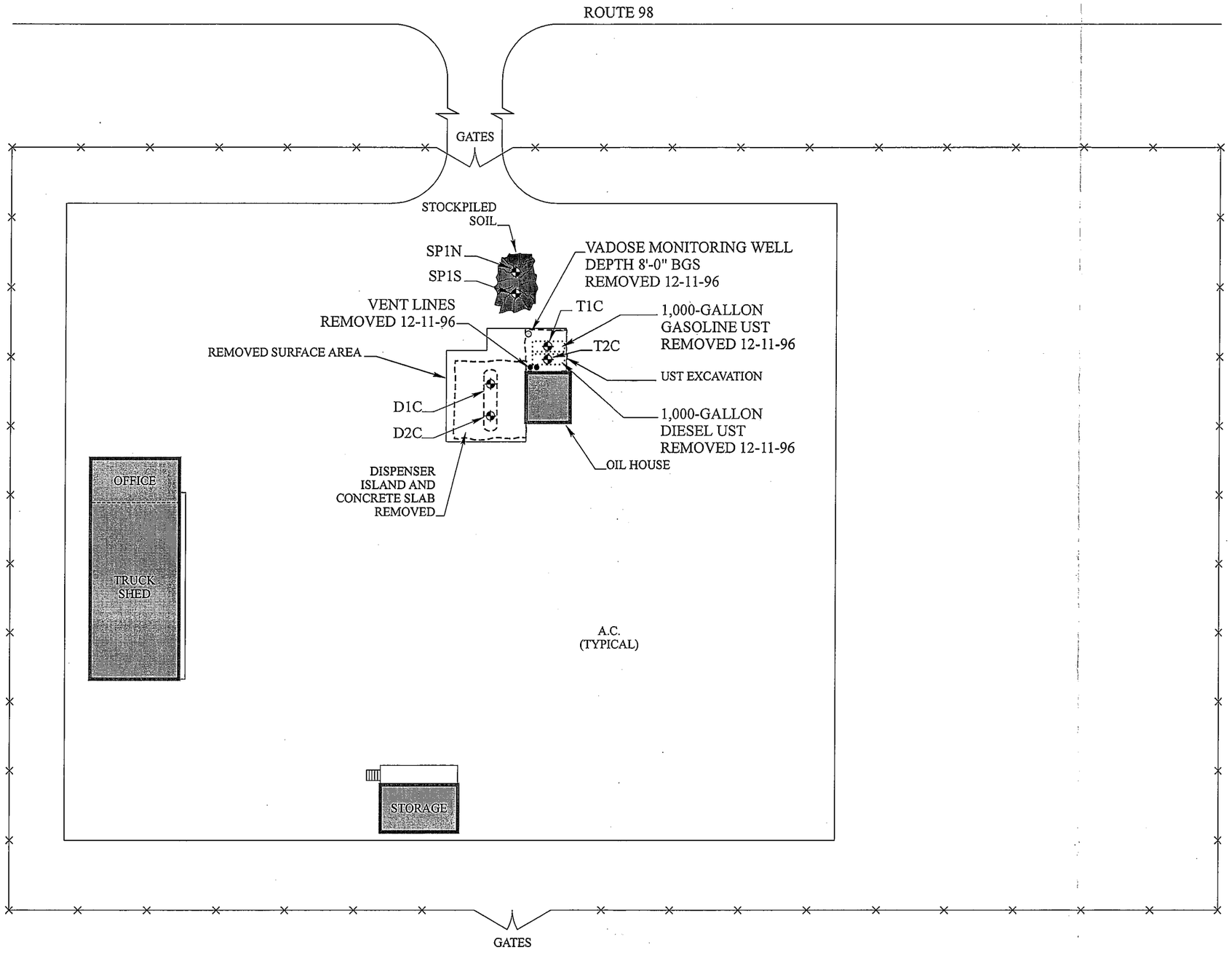
Caltrans

Caltrans
Midway Maintenance Station
1/4 mile west of Easterly Highway / Route 98 Junction
Imperial County, CA

Drawn By:	B. Price
Approved By:	C. Thixton
Date:	6-21-96
Job No.:	1046
File Name:	1046-2
Scale In Ft.	0 40 80

FIGURE
2

NORTH



AESE
A.E. SCHMIDT ENVIRONMENTAL INC
CONSULTANTS AND CONTRACTORS
16509 Saticoy Street, Van Nuys, CA 91402 1-800-701-2373

Caltrans

Caltrans
Midway Maintenance Station
1/4 mile west of Easterly Highway / Route 98 Junction
Imperial County, CA

Drawn By:	B. Price
Approved By:	C. Thixton
Date:	12-30-96
Job No.:	1046
File Name:	1046-3
Scale In Ft.	0 40 80

FIGURE
3

NORTH