ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

REMEDIAL ACTION COMPLETION CERTIFICATION

StID 4102 - PARKS RFTA, Dublin, CA

March 28, 2001

Mr. Marshall Marik
PARKS RFTA
5701 8th Street
Dublin, CA 94568

Dear Mr. Marik:

This letter confirms the completion of site investigation and corrective action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung, Director

cc: Chuck Headlee, RWQCB
Allan Patton, SWRCB
files-ec (campparks-8)

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StID 4102

March 28, 2001

Mr. Marshall Marik
PARKS RFTA
5701 8th Street
Dublin, CA 94568

Re: Fuel Leak Site Case Closure for PARKS RFTA, Dublin, CA

Dear Mr. Marik:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Protection Division is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- up to 4100ppm TPH as diesel exists in soil beneath the site; and,
- up to 3500ppb TPHd exists in groundwater beneath the site

If you have any questions, please contact me at (510) 567-6762.

eva chu
Hazardous Materials Specialist

enlosures: 1. Case Closure Letter 2. Case Closure Summary

c: Dennis Carrington, City of Dublin, 100 Civic Plaza, Dublin, CA 94568
files (campparks-9)

01-2512

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: August 1, 2000

Agency name: **Alameda County-HazMat** Address: **1131 Harbor Bay Pkwy**
City/State/Zip: **Alameda, CA 94502** Phone: **(510) 567-6700**
Responsible staff person: **Eva Chu** Title: **Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: **PARKS RFTA**
Site facility address: **PARKS RFTA, Building 790, Dublin, CA 94568**
RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: **4102**
URF filing date: **3/17/93** SWEEPS No: **N/A**

Responsible Parties:	Addresses:	Phone Numbers:
Marshall Marik **Parks RFTA**	**5701 8th Street** **Dublin, CA 94568**	**925/803-5638**

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
Building 888				
1	**10,000**	**Diesel**	**Removed**	**7/2/96**
2	**10,000**	**Gasoline**	**"**	**"**
3	**500**	**Waste Oil**	**"**	**"**
Building 200				
1	**275**	**Diesel**	**Removed**	**3/97**
Building 109				
1	**2,500**	**Fuel Oil**	**Removed**	**3/94**
Building 732				
1	18,000	Gasoline	Removed	3/93
2	1,000	Diesel	"	3/93

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
Building 334				
1	1,000	Gasoline	Removed	11/18/98
Building 770				
1	700	Gasoline	Removed	12/94
Building 514				
1	100	Gasoline	Removed	3/97

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: **Unknown cause; Diesel release to groundwater**
Site characterization complete? **YES**
Date approved by oversight agency: **7/11/2000**
Monitoring Wells installed? **Yes** Number: **3 by Building 109**
Proper screened interval? **Yes, 12 to 22 feet bgs**
Highest GW depth below ground surface: **10.6'** Lowest depth: **14.1' in MW-1**
Flow direction: **SE to SW**
Most sensitive current use: **Commercial**
Are drinking water wells affected? **No** Aquifer name: **NA**
Is surface water affected? **No** Nearest affected SW name: **NA**
Off-site beneficial use impacts (addresses/locations): **None**
Report(s) on file? **YES** Where is report(s) filed? **Alameda County**
1131 Harbor Bay Pkwy
Alameda, CA 94502

Treatment and Disposal of Affected Material:

Material	Amount include units)	Action (Treatment or Disposal w/destination)	Date
Tank	**10 USTs**	**Disposed by H&H, in San Francisco, or Erickson, in Richmond, CA from 1993 to 1998**	
Soil	**320 tons (Bldg 888)**	**Disposed at Vasco Rd LF, in Livermore, CA**	**2/98**
	100 tons (Bldg 888)	**Reused as backfill material for excavation**	**Ukn**
Product/Rinseate	**4,800 gal.**	**Disposed at PRC in Patterson, CA**	**3/94**

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before[1]	After[2]	Before[3]	After[4]
TPH (Gas)	**211**	**36**	**<50**	**<50**
TPH (Diesel)	**4,100[5]**	**4,100[5]**	**5,900**	**3,500**
Benzene	**.164**	**<.01**	**2.5**	**<.5**
Toluene	**.695**	**.042**	**1.2**	**<.5**
Ethylbenzene	**2.94**	**.045**	**2.5**	**<.5**
Xylenes	**16.3**	**.234**	**8.0**	**<.5**
MTBE	**NA**	**NA**	**ND**	**ND**
TOG	**28**			

NOTE: 1 soil sample collected from Building 888 (7/96)
2 soil sample from Bldg 888 after dispenser area was overexcavated, 2/98
3 maximum groundwater concentration from wells at Bldg 109
4 most recent groundwater data from wells at Bldg 109, 11/96
5 soil sample collected from Bldg 200, 3/97

IV. CLOSURE

~~Does completed corrective action protect existing beneficial uses per the~~
Regional Board Basin Plan? _____
Does completed corrective action protect potential beneficial uses per the
Regional Board Basin Plan? _____
Does corrective action protect public health for current land use? **YES**
Site management requirements: **A site safety plan must be prepared for construction workers in the event excavation/trenching is proposed in the vicinity of residual soil and groundwater contamination.**
Should corrective action be reviewed if land use changes? **YES**
Monitoring wells Decommissioned: None, pending site closure
Number Decommissioned: 0 Number Retained: 3
List enforcement actions taken: NA
List enforcement actions rescinded: NA

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: **Eva Chu** Title: **Haz Mat Specialist**

Signature: [signature] Date: 8/1/00

Reviewed by

Name: **Don Hwang** Title: **Haz Mat Specialist**

Signature: [signature] Date: 8/1/00

Name: **Thomas Peacock** Title: **Supervisor**

Signature: [signature] Date: 10-13-00

VI. RWQCB NOTIFICATION

Date Submitted to RB: Oct 23, 2000 RB Response: Concur

RWQCB Staff Name: **Chuck Headlee** Title: AEG

Signature: [signature] Date: 10/24/00

VII. ADDITIONAL COMMENTS, DATA, ETC.

Camp Parks RFTA (PRFTA) was a former military training facility. PRFTA is located in the northeast quadrant of the intersection of Interstates 580 and 680, in Dublin, CA. PRFTA occupies approximately 2800 acres and is bounded by multiple entities, including Federal Correctional Institution, Santa Rita Rehabilitation Center, Santa Rita Jail, Tassajara Creek Regional Park, local business, and residential districts. Tenant organizations that lease buildings or space at PTFTA include Federal entities, private companies, and private and public organizations. A multitude of underground storage tanks (USTs) has been uncovered at the site between 1993 through 1999. Below is a brief description of activities conducted related to the closure of the USTs.

Building 888

Building 888 is located at the intersection of Monroe and 4th Streets. The site had operated a fuel service station consisting of two pump dispensers, one oil-water separator, 1-10K diesel, 1-10K gasoline, and 1-500 gallon waste oil USTs.

On July 2, 1996, the three USTs and associated piping and dispensers were removed. An older generation of product lines was discovered between the two pump islands during tank closure activities

and was also removed. One soil sample was collected beneath the waste oil tank and soil samples were collected below each end of the two fuel USTs. Soil samples were collected in the two generations of pipeline trench and beneath the dispensers. A maximum of 1,510ppm TPHd and 211ppm TPHg were identified in the soil samples.

A total of approximately 150cy of soil was removed from the fuel tank excavation. Approximately 25 cubic yards appeared to be contaminated with petroleum hydrocarbons. Limited soil contamination remains in the southwest end of the fuel tank excavation at 14.5 feet bgs and in the product line trenches. Limited overexcavation was conducted in the vicinity of the fuel dispenser island. Approximately 20cy of soil was excavated. Confirmatory soil samples (S-5-DP-1, S-6-OGP-1, and S-6-OGP-2) were collected. Only sample S-5-DP-1 contained petroleum hydrocarbon constituents (370ppm TPHd, 36ppm TPHg, and trace BTEX and MTBE).

Five soil borings (B1 through B5) were advanced around the former fuel tank excavation to delineate the extent of soil and possible groundwater contamination. Soil samples were collected at 5 feet intervals. Sediments beneath the site consist primarily of clayey silt. Groundwater was encountered in boring B1, B2, and B3 at 15 to16 feet bgs. Groundwater was not encountered in boring B4 or B5, which were drilled to only 14.5 feet bgs. A soil sample from boring B2, at 11.5 feet bgs, was ND for TPHd, but a duplicate sample contained 23,000ppm TPHd. However, the fuel pattern did not resemble the diesel standard and hydrocarbons appeared heavier than indicated in the standard. A soil sample from boring B2 at 14.5 feet bgs was ND for petroleum hydrocarbons. PAHs and hydrocarbon constituents were not detected in any of the other boreholes. Groundwater was collected from Boring B1 and B2. Groundwater from boring B1 contained 320ppb TPHd. No other hydrocarbon constituents were above the laboratory detection limits. Groundwater from Boring B2 did not contain detectable hydrocarbon constituents. It appears the fuel release at Building 888 did not significantly impact groundwater quality beneath the site. No further action is required at this area.

Building 200

Building 200 is located at the western border of Parks RFTA at the intersection of Dougherty Road and 5th Street. A UST was formerly located north of the security building, which is currently a police station for Parks RFTA.

In March 1997 a 275-gallon diesel fuel tank was removed. Hydrocarbon staining was observed in the excavation and in the road base approximately 30 feet southwest of the UST. Soil sample B1, collected in the pit at 7 to 9 feet bgs, contained up to 4,100ppm TPHd. Soil sample O4CC, taken from the road base northwest of the police station, at 1 to 2 feet bgs, contained 270ppm TPHd. Benzene was not detected in any of the soil samples.

To further delineate the extent of soil and possible groundwater contamination, five soil borings were drilled to depths ranging from 21 to 25 feet bgs. Boring B2 was drilled through the former UST pit. And borings B1, B3, B4, and B5 were drilled adjacent to the UST pit. Groundwater was encountered at approximately 22 feet bgs. Grab groundwater samples were collected from boring B3 and B4. Unremarkable or non-detectable levels of hydrocarbons and PAHs were in the soil and groundwater samples. It appears the diesel release at this site was limited in extent and groundwater has not been significantly impacted. No further action is required in this area.

Building 109

Building 109 formerly housed a trash incinerator. During building demolition activities in March 1994, a 2,500-gallon UST was discovered under the building floor. It is suspected that the tank held fuel oil, possibly as a supplemental fuel for the incinerator. In March 22, 1994, the UST was punctured, resulting in the release of product into the excavation. Approximately 442 gallons of product were removed from the excavation and another 1,077 gallons removed from the tank. Additional water and fuel was removed from the excavation pit of six subsequent dates from March 28 through April 25, 1994.

After the UST was removed, soil samples (West and East) were collected beneath each end of the UST. Up to 490ppm TPHg, 2,300ppm TRPH, 2,000ppm TPHmo and trace to non-detect BTEX were detected. A material which appeared to be ash from the incinerator was also discovered during demolition along the excavation walls on the south side of the building at approximately 4 feet bgs. Ash samples were collected from three areas and a composite sample was prepared for PCDD, PCDF, SVOC, and metal analysis. Calculated toxicity equivalency for dioxins and furans did not exceed residential and industrial USEPA Region IX Preliminary Remediation Goals. Lead, at 1190ppm, was the only metal detected in the ash sample at concentrations above the TTLCs. DTSC is the lead agency for oversight of the ash issue.

In January 1995, three groundwater monitoring wells (MW-1 through MW-3) were installed to a total depth of approximately 22 feet bgs. Groundwater was encountered at depths ranging from 12.5 to 16 feet bgs. Boring MW-1 was drilled through a lens of ash at approximately 4 feet bgs. A sample of the ash material from the boring was collected and analyzed for hydrocarbons as well as Lead and PCDD/PCDFs (polychlorinated dioxins/furans).

In May 1995, nine borings, B-1 through B-9 were drilled to depths ranging from 6 to 12 feet bgs to assess the lateral and vertical extent of ash constituents. None of the borings encountered an ash lens similar to what was seen in the tank pit. Soil samples were collected from boring B-2 and B-9 for STLC metals analysis by CWET. Elevated concentration of soluble lead was detected in the soil sample from MW-1 at 4 feet bgs (319ppm lead (CWET) and from boring B-2 at 6 feet bgs (78.9ppm). PCDD/PCDFs were not detected at levels of concern. Soil from each borehole did not contain TPHd and only trace or non-detectable levels of TPHmo and BTEX. Groundwater samples collected from all three wells contained low levels of TPHd, ranging from 62 to 1,200ppb. The groundwater sample from well MW-1 did not contain detectable lead.

Quarterly groundwater monitoring commence in May 1996. After four quarters of sampling, low levels of TPHd continue to be detected in each well (up to 3,300ppb). However, BTEX, MTBE, and PNAs have not been detected (except for trace levels of xylenes in well MW-3). Maximum TPHd detected to date in groundwater should not pose a risk to construction workers (based on RWQCB's Tier 1 Look Up Tables) It appears that the fuel release from the former UST did not significantly impact groundwater quality beneath this area.

Building 732

Building 732 was a former vehicle maintenance building for PARKS.

In March 1993 two USTs (1-18K gallon gasoline, 1-1K gallon diesel) in separate pits and their associated piping were removed. The gasoline tank pit measured 35'x30'x14' deep. Groundwater was observed in the pit at ~13'bgs. No odor or staining was noted from the pit and/or soil samples. The native soil comprised primarily of clay with some sandy silt. The diesel tank pit measured 12'x8'x8' deep. Groundwater encountered in the pit had mixed with rainwater, which drained into both the excavation and piping trenches. Stained soil was noted at approximately one feet bgs in the excavation and trenches.

Soil samples collected from both excavations and water from the gasoline tank pit did not contain elevated hydrocarbon constituents. However, the grab groundwater/rainwater sample from the diesel pit contained up to 13,500ppb TPHg and 36,000ppb TPHd. This rain/ground-water was subsequently pumped from the excavation and another water sample collected. The final water sample did not contain elevated levels of petroleum hydrocarbon constituents.

Additional subsurface investigations were conducted around the former diesel tank excavation. Three soil borings (CP-1 through CP-3) were drilled to ~14.5 to 16 feet bgs. Soil samples were collected at 2, 5, 10, and 14 feet bgs. A water sample was also collected from each boring. Laboratory analytical results confirmed that there was minimal fuel release to the subsurface from the diesel UST. No further action is required in this area.

Building 334

A 1,000-gallon gasoline UST and all associated piping were removed by Building 334 on 11/18/98. Two soil samples (SE-10-01 and NE-10-02) were collected beneath each end of the UST and analyzed for TPHg, BTEX, MTBE, TPHd, and lead. No hydrocarbon constituents were identified. Lead levels were within acceptable geogenic levels.

Building 770

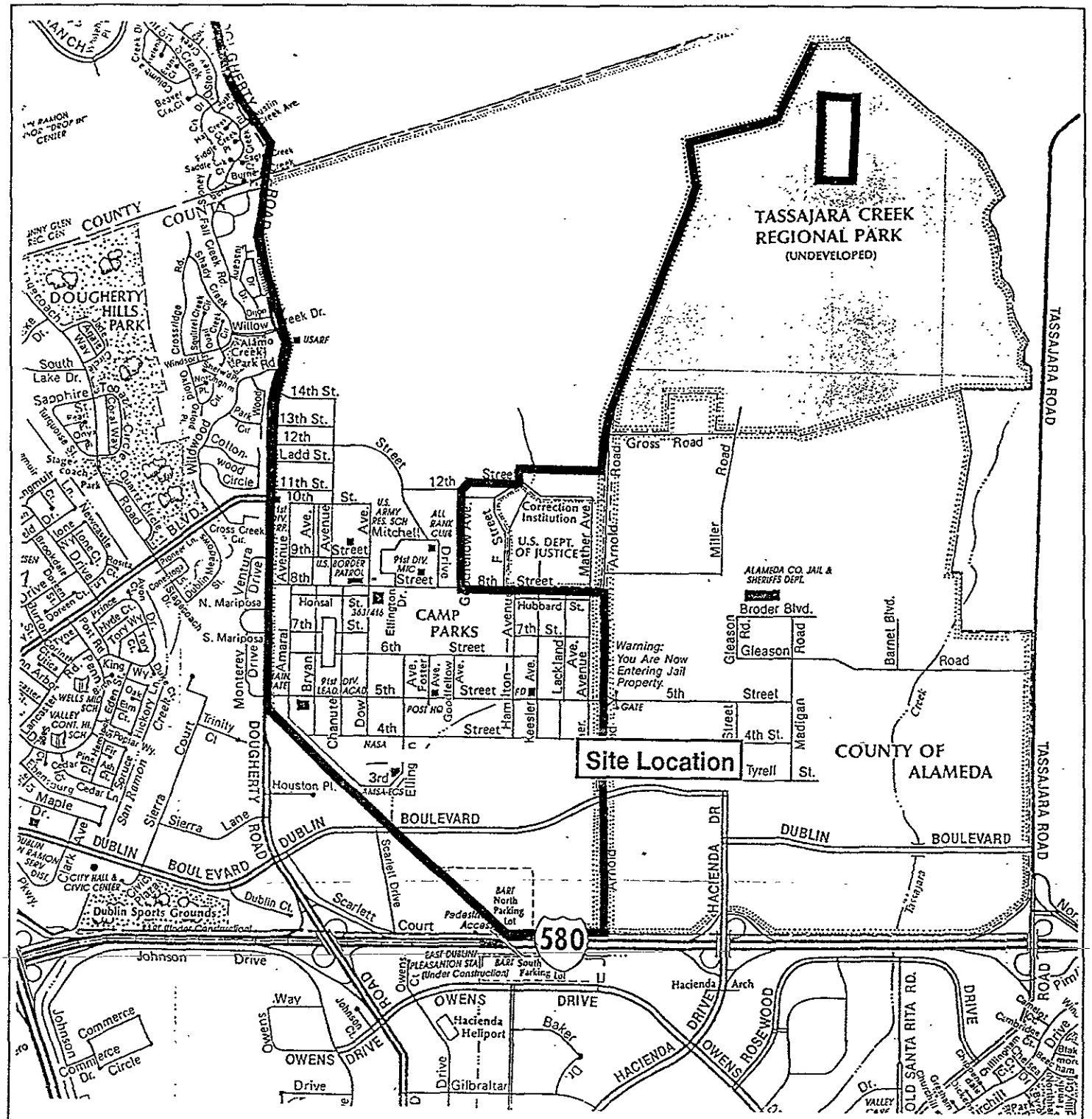
A 700-gallon gasoline tank was removed in December 1994. A soil sample was collected at 16 feet bgs (3 feet directly beneath the center of the UST). Analytical results did not reveal TPHg or BTEX above the laboratory detection limits.

Building 514

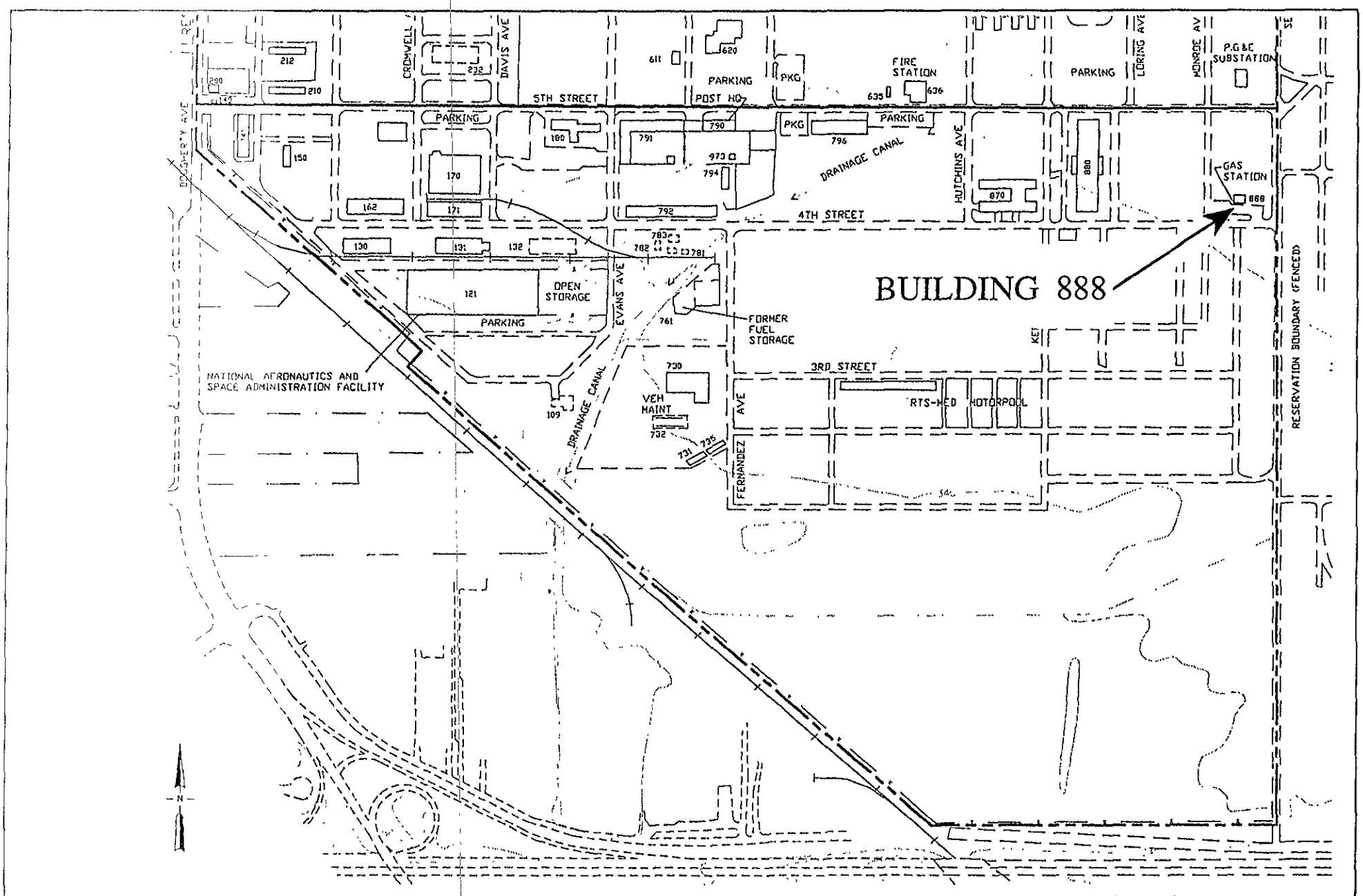
A 100-gallon gasoline UST was removed in March 1997. The tank appeared in good condition. The tank was on a concrete pad. A soil sample was collected at the edge of the concrete slab. Hydrocarbon constituents were not detected in the soil sample.

In summary, case closure is recommended because:

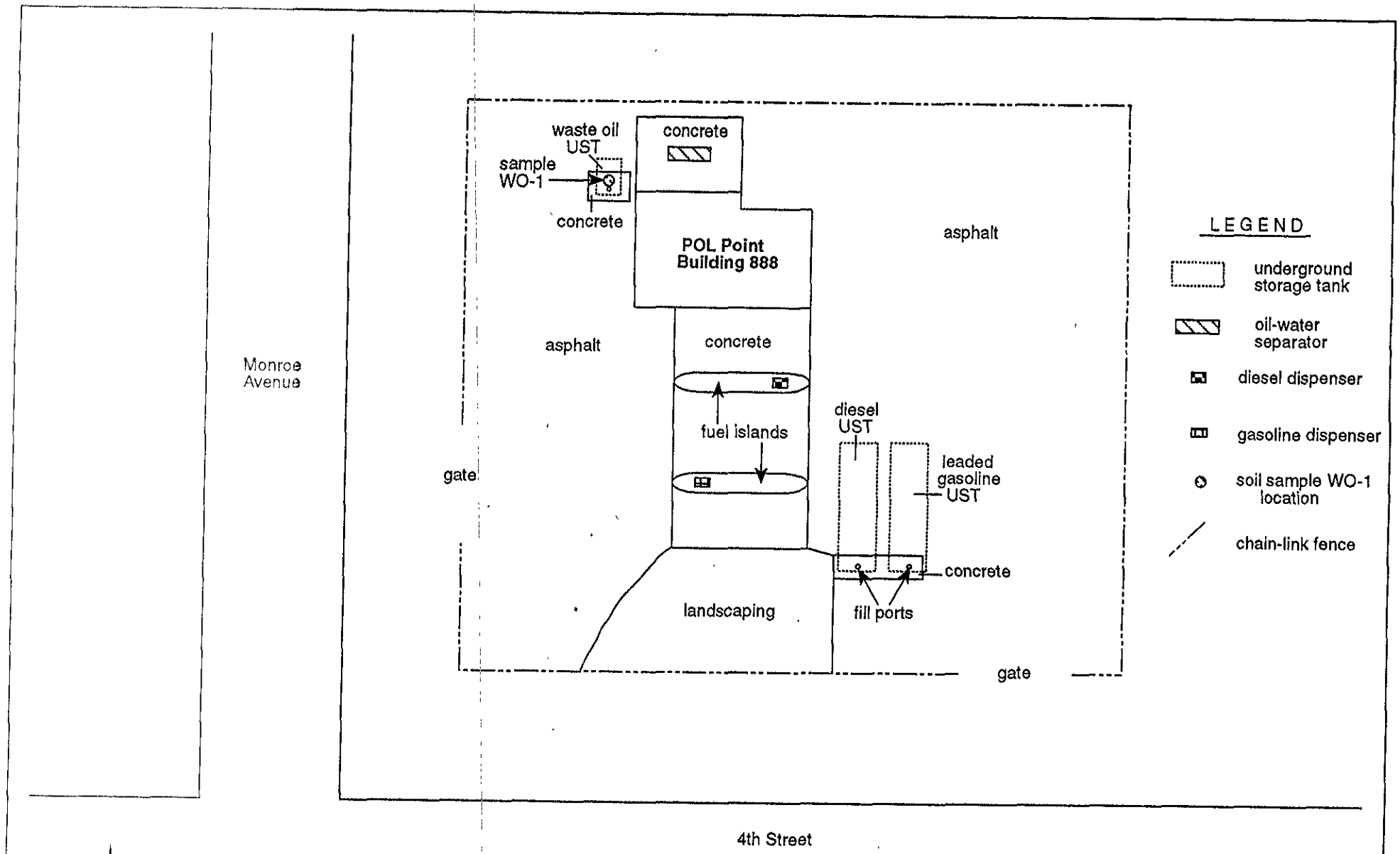
- the leak and ongoing sources have been removed;
- the site has been adequately characterized;
- the hydrocarbon concentrations in groundwater appears to have stabilized;
- no preferential pathways exist at the site;
- no water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted; and,
- the site presents no significant risk to human health or the environment.



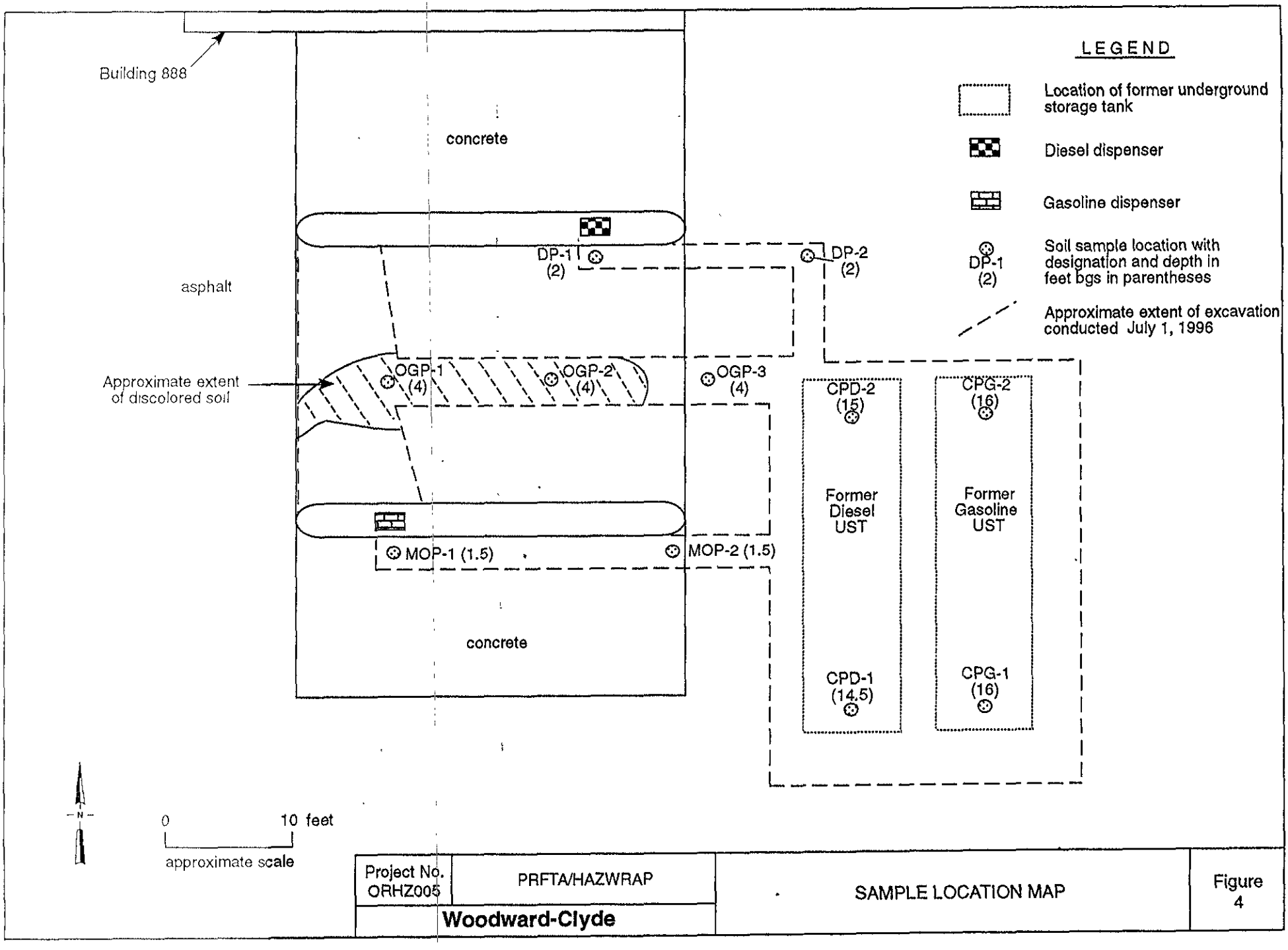
Project No. ORHZ005	PRFTA/HAZWRAP	LOCATION MAP	Figure 1
Woodward-Clyde			



Project No. ORHZ005	PRFTA/HAZWRAP	SITE LOCATION MAP	Figure 2
Woodward-Clyde			



Project No. ORHZ005	PRFTA/HAZWRAP	SITE PLAN MAP	Figure 3
Woodward-Clyde			



Project No. ORHZ005	PRFTA/HAZWRAP	SAMPLE LOCATION MAP	Figure 4
Woodward-Clyde			

Table 1 Analytical Results of Soil Samples Collected During Tank Removal Activities, July 2, 1996, POL Point Building 888, Parks RFTA, Dublin, California. All results are in mg/Kg (parts per million-ppm).

Sample Number	Location	Depth in Feet (bgs)	TPH as Diesel (1)	TPH as gasoline (1)	Benzene (2)	Toluene (2)	Ethyl-benzene (2)	Xylenes (2)	Lead (3)
CPD-1	South end Diesel UST	14.5	937 (4)	NA	<0.1 (5)	<0.1	2.94	16.3	NA
CPD-2	North end Diesel UST	15	<10	NA	<0.002	<0.002	<0.002	<0.002	NA
CPG-1	South end Gasoline UST	16	<10	0.071	<0.002	<0.002	<0.002	<0.002	7
CPG-2	North end Gasoline UST	16	<10	0.141	<0.002	<0.002	<0.002	<0.002	8
MOP-1	West end gas pipeline	1.5	<10	<0.05	<0.002	<0.002	<0.002	<0.002	7.1
MOP-2	East end gas pipeline	1.5	<10	<0.05	<0.002	<0.002	<0.002	<0.002	10.4
DP-1	West end diesel pipeline	2	1510	40.2	<0.01	0.173	0.207	0.857	11.3
DP-2	East end diesel pipeline	2	<10	0.14	<0.002	<0.002	<0.002	<0.002	5.8
OGP-1	West end old gas pipeline	4	<10	20.6	<0.002	0.055	0.0775	0.192	10.1
OGP-2	Center of old gas pipeline	4	87.6	211	0.164	0.695	1.73	2.6	11
OGP-3	East end of old gas pipeline	4	<10	<0.05	<0.002	<0.002	<0.002	<0.002	9.7
DSTP-1	Diesel Stockpile		76.8	NA	<0.002	<0.002	<0.002	<0.002	NA
GPSTP-1	Old gas pipeline Stockpile		35.7	1.38	<0.002	0.0173	<0.002	0.0317	10.1
GPSTP-2	"		<10	<0.05	<0.002	<0.002	<0.002	<0.002	11

Notes

1) Total Petroleum Hydrocarbons (TPH) as diesel and as gasoline using modified EPA Method 8015.
2) Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) using EPA Method 8020.
3) Total Lead using EPA Method 6010.
4) Shaded cells highlight concentrations detected at or above the analytical laboratory reporting limit.
5) <0.1 = Not detected at or above analytical laboratory reporting limit.

Table 2 Analytical Results of Soil Sample WO-1 Collected Below Waste Oil UST (8.5 feet bgs), July 2, 1996, POL Point Building 888, Parks RFTA, Dublin, California. All results are in mg/Kg (parts per million-ppm).

Volatile Halocarbons (1)	Extractable Organics (2)	Oil and Grease (3)	TPH as Diesel (4)	TPH as gasoline (4)	BTEX (5) Compounds	LUFT Metals (6)				
						Cadmium	Chromium	Lead	Nickel	Zinc
ND (8)	ND	28 (7)	<10 (9)	<0.05	ND	7.51	35.9	<10	38.4	48.7

Notes

1) Volatile Halocarbons using EPA Method 8010
2) Acid/Base-Neutral Extractable Organics using EPA Method 8270B
3) Extractable Hydrocarbons (Oil and Grease) using SM 503E/5520F.
4) Total Petroleum Hydrocarbons (TPH) as diesel and as gasoline using modified EPA Method 8015.
5) Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) using EPA Method 8020.
6) LUFT Metals using EPA Method 6010.
7) Shaded cells highlight concentrations detected at or above the analytical laboratory reporting limit.
8) ND = Not detected at or above analytical laboratory reporting limit for all analytes reported.
9) <10 = Not detected at or above analytical laboratory reporting limit.

SUMMARY TABLE FOR SITES UNDERGOING INVESTIGATION

SUMMARY OF SOIL AND GROUNDWATER RESULTS
Camp Parks Reserve Forces Training Area, Dublin, California

Sampling Location	Sample Description	Sample Date	Media	Analytical Method	Analyte (mg/kg for soil and mg/L for groundwater)								
					Lead	TPH (diesel)	TPH (hydraulic fluid)	TPH (gas)	MtBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
Building 200													
B200-P1	Under piping, 2-3 ft bgs	35517	Soil	EPA 8015M/8020	---	ND	---	---	ND	ND	ND	ND	ND
B200-01CC	In road base on E side of Bldg, 1-2 ft bgs	35517	Soil	EPA 8015M/8020	---	ND	---	---	ND	ND	ND	ND	ND
B200-04CC	In road base on NW corner of Bldg, 1-2 ft bgs	35517	Soil	EPA 8015M/8020	---	270	---	---	ND	ND	ND	0.06	0.36
B200-B1	Bottom of excavation, 7-9 ft bgs	35517	Soil	EPA 8015M/8020	---	4100	---	---	ND	ND	ND	0.23	0.96
B200-C1	Composite sample of excavated soil	35517	Soil	EPA 8015M/8020	---	670	---	---	ND	ND	ND	ND	0.06
Building 888													
B888-1GW	Groundwater sample collected from excavation 24hrs after detection	35521	Water	EPA 8015M/8020/6010	ND	0.84	---	82	---	ND	0.58	1.7	10.1
B888-1S-11SW	S sidewall sample at 11 ft bgs	35521	Soil	EPA 8015M/8020/6010	13	ND	---	ND	---	0.0018	0.0037	ND	ND
B888-2S-19SW	S sidewall sample at 19 ft bgs	35521	Soil	EPA 8015M/8020/6010	14	ND	---	16	---	ND	0.042	0.12	1.02
B888-1C-GD	Composite sample of excavated soil (gas & diesel excavation)	35521	Soil	EPA 8015M/8020/6010	11	7.3	---	130	---	ND	0.089	0.22	4.6
B888-2C-HF	Composite sample of excavated soil (hydraulic lift excavations)	35521	Soil	EPA 8015M	---	---	5100	---	---	---	---	---	---
B888-3S-GT8	Gas trench bottom sample, N side, 8-9 ft bgs	35521	Soil	EPA 8015M/8020/6010	14	ND	---	ND	---	ND	0.0035	ND	ND
B888-4S-GT8	Gas trench bottom sample, S side, 8-9 ft bgs	35521	Soil	EPA 8015M/8020/6010	14	ND	---	56	---	ND	0.0055	0.021	0.042
B888-5S-DT4	Diesel trench bottom sample, 4-5 ft bgs	35521	Soil	EPA 8015M/8020/6010	14	960	---	160	---	0.0052	0.004	0.35	0.033

General Notes
"---" = Not analyzed
ND = Not detected

AC PAVING

MONROE AVENUE

DIRT

DIRT

DIRT

DIRT/GRAVEL

FORMER WASTE OIL TANK

CONC.

ABANDONED BUILDING

BROKEN AC

BROKEN AC

BROKEN AC

GATE

BROKEN AC

GRAVEL

FORMER UNDERGROUND GAS STORAGE TANK

FORMER UNDERGROUND DIESEL STORAGE TANK

DIRT

BROKEN AC

CONCRETE BROKEN/SAWED

GATE

BROKEN AC

GATE

AC PAVING

4th STREET

AC PAVING

WQ–1
Oil & Grease: 28
TPHD: <10
TPHG: <0.05
BTEX: <0.002
Total Lead:–
bsg: N/A

OGP–2
TPHD: 87.6
TPHG: 211
Benzene: 0.164
Toluene: 0.695
E Benzene: 1.73
Xylenes: 2.6
Total Lead: 11
bsg: 4 FT

OGP–1
TPHD: <10
TPHG: 20.6
Benzene: <0.002
Toluene: 0.055
E Benzene: 0.0775
Xylenes: 0.192
Total Lead: 10.1
bsg: 4 FT

MOP–1
TPHD: <10
TPHG: <0.05
BTEX: <0.002
Total Lead: 7.1
bsg: 1.5 FT

DP–1
TPHD: 1510
TPHG: 40.2
Benzene: <0.01
Toluene: 0.173
E Benzene: 0.207
Xylenes: 0.857
Total Lead: 11.3
bsg: 2 FT

DP–2
TPHD: <10
TPHG: 0.14
BTEX: <0.002
Total Lead: 5.8
bsg: 2 FT

OGP–3
TPHD: <10
TPHG: <0.05
BTEX: <0.002
Total Lead: 9.7
bsg: 4 FT

CPD–2
TPHD: <10
TPHG: –
BTEX: <0.002
Total Lead:–
bsg: 15 FT

CPG–2
TPHD: <10
TPHG: 0.141
BTEX: <0.002
Total Lead: 8
bsg: 16 FT

MOP–2
TPHD: <10
TPHG: <0.05
BTEX: <0.002
Total Lead: 10.4
bsg: 1.5 FT

CPD–1
TPHD: 937
TPHG: –
BT: <0.1
E Benzene: 2.94
Xylenes: 16.3
Total Lead:–
bsg: 14.5 FT

CPG–1
TPHD: <10
TPHG: 0.071
BTEX: <0.002
Total Lead: 7
bsg: 16 FT

LEGEND:

△ PREVIOUS SOIL SAMPLE LOCATION

TPHD= Total extractable Petroleum Hydrocarbons as Diesel (EPA 8015M)

TPHG= Total extractable Petroleum Hydrocarbons as Gas (EPA 8015M)

BT/BTE/BTEX= Benzene, Toluene, Ethyl Benzene, Xylene, as indicated/included (EPA 8020)

MTBE= Methyl Tert–Butyl Ether

bsg= below surface grade

UNITS ARE IN mg/kg(ppm).

N

SCALE: 0 20 40 FT

CAL ENVIRONMENTAL INC

JOB NUMBER 2809	DRAWN BY JWB	DATE 9/18/98	
REVISED 10/5/98	CAD FILENAME 2809FIG6.DWG	SCALE 1" = 20'	

BUILDING 888: PREVIOUS SOIL SAMPLES
CAMP PARKS IN DUBLIN
ALAMEDA COUNTY, CALIFORNIA

FIG. 6

AC PAVING

MONROE AVENUE

DIRT

DIRT

DIRT/GRAVEL

DIRT

FORMER WASTE OIL TANK

WO-1

CONC.

ABANDONED BUILDING

ESTIMATED DIRECTION OF GROUNDWATER FLOW

BROKEN AC

BROKEN AC

S-5-DP-1
TPHD: 370
TPHG: 36
Benzene:<0.010
Toluene: 0.042
E Benzene: 0.045
m,p-Xylene: 0.074
o-Xylene: 0.160
MTBE: <0.040
Total Lead: 9.69

S-6-OGP-2
TPHD: <1
TPHG: <1
BTEX: <0.005
MTBE: <0.020
Total Lead: 8.1

B-5

C

C'

B'

B-4

D

D'

DP-1

DP-2

OPG-1

OPG-2

OPG-3

GATE

BROKEN AC

S-6-OGP-1
TPHD: <1
TPHG: <1
BTEX: <0.005
MTBE: <0.020
Total Lead: 5.9

GRAVEL

CPD-2

CPG-2

MOP-1

MOP-2

CPD-1

CPG-1

B-3

B

B-1

B-2

A

A'

BROKEN AC

CONCRETE BROKEN/SAWED

GATE

GATE

BROKEN AC

FORMER UNDERGROUND GAS STORAGE TANK

FORMER UNDERGROUND DIESEL STORAGE TANK

DIRT

N

LEGEND:

⊗	B-1	SOIL BORING LOCATION
○	S-5-DP-1	SOIL SAMPLE LOCATION
△	CPG-1	PREVIOUS SOIL SAMPLE LOCATION

DESCRIPTION	ELEVATION (FT MSL)
B-1	352.34
B-2	352.51
B-3	352.58
B-4	353.15
B-5	353.82

AC PAVING

4th STREET

AC PAVING

SCALE:
0 20 40 FT

CAI INC

JOB NUMBER	2809	DRAWN BY	JWB
DATE	10/5/98	DWG FILENAME	2809FIG8.DWG
		SCALE	1"=20'
		DATE	9/18/98

BUILDING 888: SOIL BORING LOCATIONS
CAMP PARKS IN DUBLIN
ALAMEDA COUNTY, CALIFORNIA

FIG 8

Table 2

Analytical Results of Organic Constituents
Of Soil and Groundwater Samples Collected From Building 888: Soil Borings
Camp Parks RFTA
Dublin, California

Sample ID	Matrix	TPHG	TPHD	Benzene	Toluene	Ethyl-benzene	m,p-Xylene	o-Xylene	PAH	Total Lead	MTBE
S-11 5-B1	Soil	<1.3	<1.3	<0.0065	<0.0065	<0.0065	<0.0065	<0.0065	ND**	**10.0**	<0.026
S-16.5-B1	Soil	<1.2	<1.2	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	ND**	**5.5**	<0.024
S-11.5-B2	Soil	<1.3	<1.3	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	ND**	**11.0**	<0.027
S-11.5-B2 dup	Soil	<1.3	**23000**	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	ND**	**10.0**	<0.027
S-14.5-B2	Soil	<1.3	<1.3	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	ND**	**5.6**	<0.025
S-11 5-B3	Soil	<1.3	<1.3	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	ND**	**9.1**	<0.025
S-14.5-B3	Soil	<1.2	<1.2	<0.0061	<0.0061	<0.0061	<0.0061	<0.0061	ND**	**6.3**	<0.024
S-11.5-B4	Soil	<1.4	<1.4	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	ND**	**9.4**	<0.027
S-14.5-B4	Soil	<1.3	<1.3	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	ND**	**7.5**	<0.025
S-11.5-B5	Soil	<1.3	<1.3	<0.0065	<0.0065	<0.0065	<0.0065	<0.0065	ND**	**9.7**	<0.026
S-14.5-B5	Soil	<1.3	<1.3	<0.0064	<0.0064	<0.0064	<0.0064	<0.0064	ND**	**8.1**	<0.026
S-0519-1A,B	Soil	<1.4	<1.4	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	ND**	**8.9**	<0.027
W-16-B1	Water	<50	**320**	<0.5	<0.5	<0.5	<0.5	<0.5	ND**	**22.0**	<2
W-16-B1 dup	Water	<50	**81**	<0.5	<0.5	<0.5	<0.5	<0.5	ND**	**39.0**	<2
W-15-B2	Water	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	ND**	**5.2**	<2
rinsate blank	Water	<50	NA	<0.5	<0.5	<0.5	<0.5	<0.5	ND**	ND	<2
W-14-B3	Water	<50	<47	<0.5	<0.5	<0.5	<0.5	<0.5	ND**	**61**	<2

Notes.

Results measured in milligrams per kilogram

* = measured in micrograms per liter (µg/L)

** = All analyte below laboratory detection limits.

NA = Not Analyzed

TPHG = Total petroleum hydrocarbons as gasoline motor oil by EPA Method 8015 M

TPHD = Total petroleum hydrocarbons as diesel by EPA Method 8015 M

BTEX analyzed by EPA Method 8020A

PAH=Polynuclear Aromatic Hydrocarbons by EPA Method 8310

Total Lead by EPA Method 6010A

Soil Sample Notation Legend:

S-11-B1: S =soil sample
W =water sample
11 =depth
B1 =Boring No.

Table 2

Analytical Results of Organic Constituents
Of Soil and Groundwater Samples Collected From Building 888: Stockpile Soils and Former Product Line
Camp Parks RFTA
Dublin, California

Sample ID	Matrix	TPHG	TPHD	Benzene	Toluene	Ethyl-benzene	m,p-Xylene	o-Xylene	MTBE	HVOC	semiVOC	Oil & Grease
S-1218-1A-1D	Soil	<1	**2**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.020	NA	NA	NA
S-1218-2A-2D	Soil	<1	**9.4**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.020	NA	NA	NA
S-1218-3A-3D	Soil	<1	**15**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.020	NA	NA	NA
S-1218-4A-4D	Soil	<1	**620**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.020	ND	ND	170

Sample ID	Matrix	TPHG	TPHD	Benzene	Toluene	Ethyl-benzene	m,p-Xylene	o-Xylene	MTBE	Total Lead	PAH	Oil & Grease
S-6-OGP2	Soil	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.020	**8.1**	NA	NA
S-6-OGP2D	Soil	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.020	**6.6**	NA	NA
S-5-DP1	Soil	**36**	**370**	<0.010	**0.042**	**0.045**	**0.074**	**0.160**	<0.040	**9.6**	NA	NA
S-6-OGP1	Soil	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	<0.020	**5.9**	NA	NA

Notes.

Results measured in milligrams per kilogram

* = measured in micrograms per liter (µg/L)

** = All analyte below laboratory detection limits.

NA = Not Analyzed

TPHG = Total petroleum hydrocarbons as gasoline motor oil by EPA Method 8015 M

TPHD = Total petroleum hydrocarbons as diesel by EPA Method 8015 M

BTEX analyzed by EPA Method 8020A

PAH=Polynuclear Aromatic Hydrocarbons by EPA Method 8310

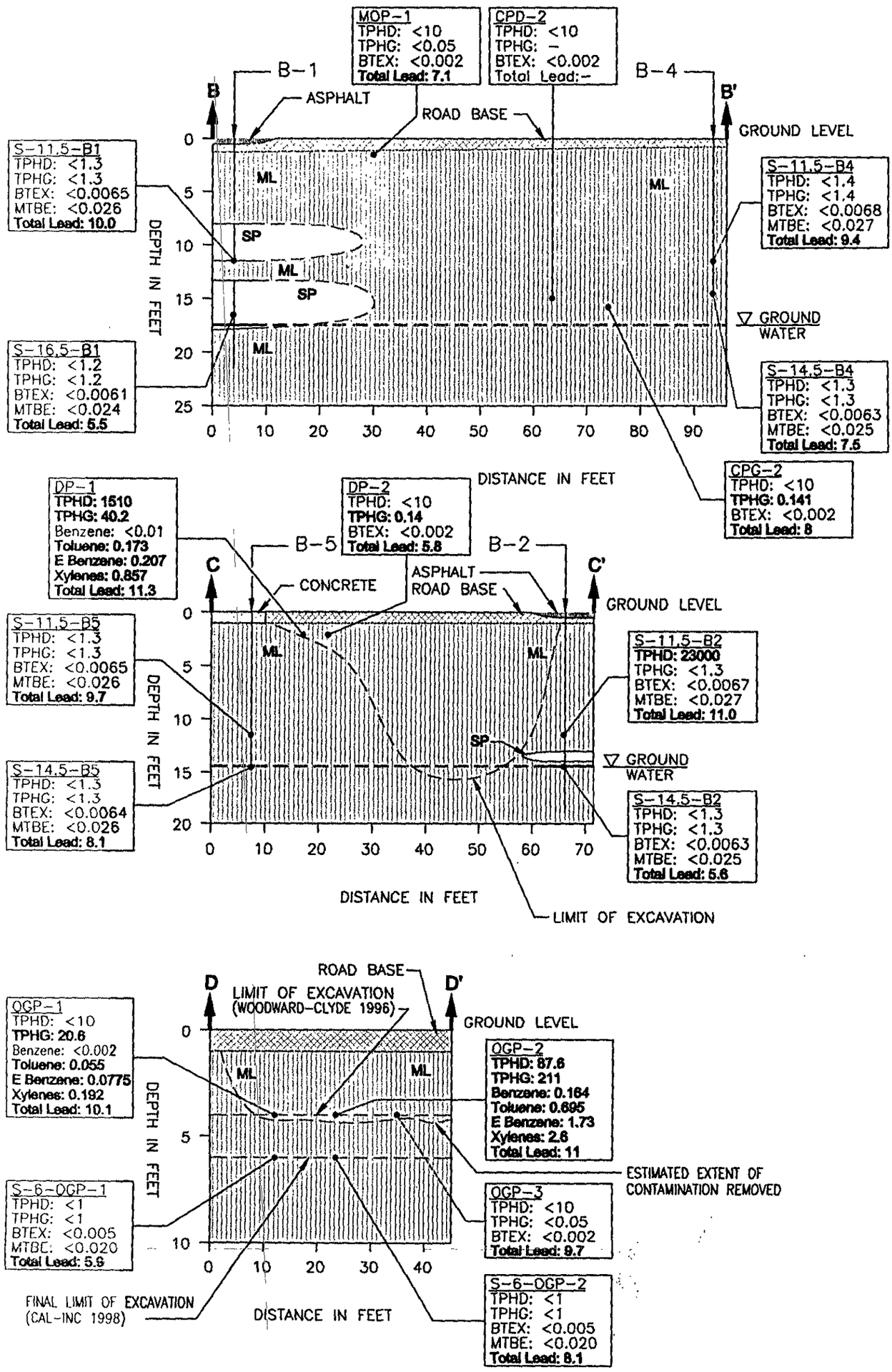
Total Lead by EPA Method 6010A

HVOC = EPA method 8010 by 8260

semiVOA = EPA method 8270

Soil Sample Notation Legend:

S-11-B1: S =soil sample
W =water sample
11 =depth
B1 =Boring No.



LEGEND:

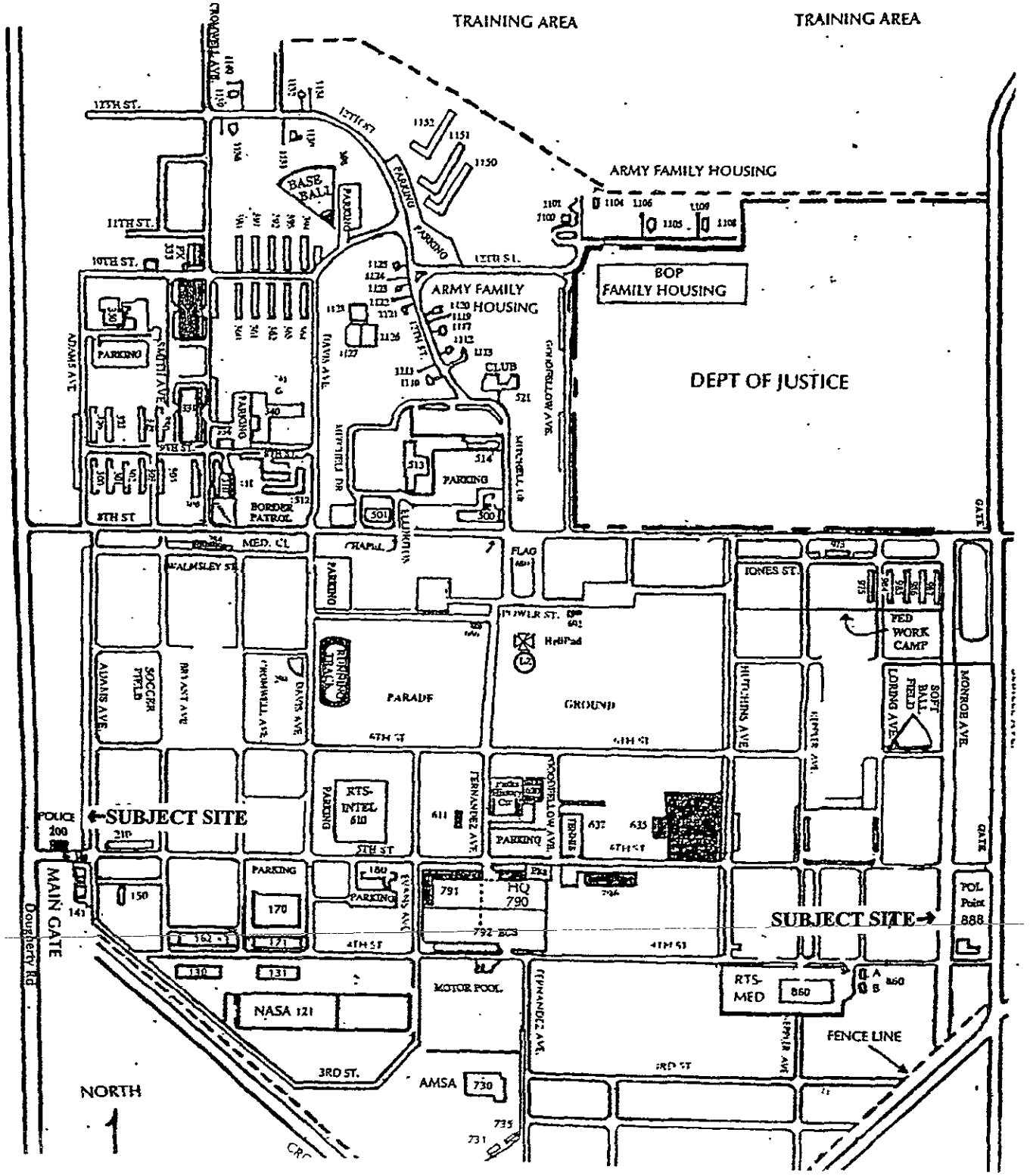
ML — CLAYEY SILT	TPHD= Total extractable Petroleum Hydrocarbons as Diesel (EPA 8015M)
SP — SAND	TPHG= Total extractable Petroleum Hydrocarbons as Gas (EPA 8015M)
• SOIL SAMPLE LOCATION	BT/BTE/BTEX= Benzene, Toluene, Ethyl Benzene, Xylene, as indicated/included (EPA 8020)
	MTBE= Methyl Tert-Butyl Ether
	UNITS ARE IN mg/kg(ppm).

ELDG 888: GEOLOGIC CROSS SECTIONS
CAMP PARKS IN DUBLIN
ALAMEDA COUNTY, CALIFORNIA

CAL INC

JOB NUMBER	2809
DATE	10/5/98
DRAWN BY	JWB
CHKD BY	
SCALE	AS SHOWN
DATE	9/18/98

FIG. 9



CAL ENVIRONMENTAL SERVICES INC VACAVILLE, CA 95688 707-446-7996	JOB NUMBER: 2809	DRAWN BY: JWB	DATE: 9/17/98
	REVISION:	CAD FILENAME: 2809FIG2.DWG	SCALE: 1"=40'

AREA SITE MAP
CAMP PARKS IN DUBLIN
ALAMEDA COUNTY, CALIFORNIA

DWG NO. FIG. 2

N

DOUGHERTY ROAD

EDGE OF ROADWAY

AC BIKE PATH

AC SWALE

SHED

LIGHT POLE

OVERHEAD POWER

B-1

B-2

B-3

B-4

B-5

B200-B1

B200-P1

B200-04CC

B200-01CC

△ B200-C1
(EXCAVATED SOIL)

A

A'

BUILDING 200 (POLICE)

EXISTING GRAVEL AREA

EXISTING AC PAVING

ESTIMATED DIRECTION OF GROUNDWATER FLOW

POWER POLE WITH LIGHT

GATE

GUARD SHACK

5th STREET

LEGEND:

⊗ **B-1** SOIL BORING LOCATION

△ B200-C1 PREVIOUS SOIL SAMPLE LOCATION

DESCRIPTION	ELEVATION (FT MSL)
B-1	348.14
B-2	347.45
B-3	347.52
B-4	347.15
B-5	347.61

SCALE:

0 20 40 FT

CAL INC

JOB NUMBER	DRAWN BY	DATE
2809	JWB	9/17/98
REVISION	DWG FILENAME	SCALE
10/5/98	2809FIG4.DWG	1 " = 20'

BUILDING 200: SOIL BORING LOCATIONS
CAMP PARKS IN DUBLIN
ALAMEDA COUNTY, CALIFORNIA

FIG. 4

SUMMARY TABLE FOR SITES UNDERGOING INVESTIGATION

SUMMARY OF SOIL AND GROUNDWATER RESULTS
Camp Parks Reserve Forces Training Area, Dublin, California

Sampling Location	Sample Description	Sample Date	Media	Analytical Method	Analyte (mg/kg for soil and mg/L for groundwater)								
					Lead	TPH (diesel)	TPH (hydraulic fluid)	TPH (gas)	MtBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
Building 200													
B200-P1	Under piping, 2-3 ft bgs	35517	Soil	EPA 8015M/8020	—	ND	—	—	ND	ND	ND	ND	ND
B200-O1CC	In road base on E side of Bldg, 1-2 ft bgs	35517	Soil	EPA 8015M/8020	—	ND	—	—	ND	ND	ND	ND	ND
B200-O4CC	In road base on NW corner of Bldg, 1-2 ft bgs	35517	Soil	EPA 8015M/8020	—	270	—	—	ND	ND	ND	0.06	0.36
B200-B1	Bottom of excavation, 7-9 ft bgs	35517	Soil	EPA 8015M/8020	—	4100	—	—	ND	ND	ND	0.23	0.96
B200-C1	Composite sample of excavated soil	35517	Soil	EPA 8015M/8020	—	670	—	—	ND	ND	ND	ND	0.06
Building 888													
B888-1GW	Groundwater sample collected from excavation 24hrs after detection	35521	Water	EPA 8015M/8020/6010	ND	0.84	—	82	—	ND	0.58	1.7	10.1
B888-1S-11SW	S sidewall sample at 11 ft bgs	35521	Soil	EPA 8015M/8020/6010	13	ND	—	ND	—	0.0018	0.0037	ND	ND
B888-2S-19SW	S sidewall sample at 19 ft bgs	35521	Soil	EPA 8015M/8020/6010	14	ND	—	16	—	ND	0.042	0.12	1.02
B888-1C-GD	Composite sample of excavated soil (gas & diesel excavation)	35521	Soil	EPA 8015M/8020/6010	11	7.3	—	130	—	ND	0.089	0.22	4.6
B888-2C-HF	Composite sample of excavated soil (hydraulic lift excavations)	35521	Soil	EPA 8015M	—	—	5100	—	—	—	—	—	—
B888-3S-GT8	Gas trench bottom sample, N side, 8-9 ft bgs	35521	Soil	EPA 8015M/8020/6010	14	ND	—	ND	—	ND	0.0035	ND	ND
B888-4S-GT8	Gas trench bottom sample, S side, 8-9 ft bgs	35521	Soil	EPA 8015M/8020/6010	14	ND	—	56	—	ND	0.0055	0.021	0.042
B888-5S-DT4	Diesel trench bottom sample, 4-5 ft bgs	35521	Soil	EPA 8015M/8020/6010	14	960	—	160	—	0.0052	0.004	0.35	0.033

General Notes
"—" = Not analyzed
ND = Not detected

N

DOUGHERTY ROAD

EDGE OF ROADWAY

AC BIKE PATH

AC SWALE

SHED

LIGHT POLE

DIESEL POWER

B200-B1
TPHD: 4100
TPHG: –
BT: <0.005
E Benzene: 0.23
Xylenes: 0.96
MTBE: <0.02
Total Lead:–
bsg: 7–9 FT

B200-C1
TPHD: 670
TPHG: –
BTE: <0.005
Xylenes: 0.06
MTBE: <0.02
Total Lead:–
bsg: N/A

(EXCAVATED SOIL)

EXISTING AC PAVING

EXISTING GRAVEL AREA

B200-P1
TPHD: <1.0
TPHG: –
BTEX: <0.005
MTBE: <0.02
Total Lead:–
bsg: 2–3 FT

B200-04CC
TPHD: 270
TPHG: –
BT: <0.005
E Benzene: 0.06
Xylenes: 0.38
MTBE: <0.02
Total Lead:–
bsg: 1–2 FT

OVERHEAD POWER

POWER POLE WITH LIGHT

BUILDING 200 (POLICE)

B200-Q1CC
TPHD: <1.0
TPHG: –
BTEX: <0.005
MTBE: <0.02
Total Lead:–
bsg: 1–2 FT

GATE

GUARD SHACK

5th STREET

LEGEND:

△ PREVIOUS SOIL SAMPLE LOCATION

TPHD= Total extractable Petroleum Hydrocarbons as Diesel (EPA 8015M)

TPHG= Total extractable Petroleum Hydrocarbons as Gas (EPA 8015M)

BT/BTE/BTEX= Benzene, Toluene, Ethyl Benzene, Xylene, as indicated/included (EPA 8020)

MTBE= Methyl Tert-Butyl Ether

bsg= below surface grade

UNITS ARE IN mg/kg(ppm).

SCALE: 0 20 40 FT

CAL ENVIRONMENTAL INC

JOB NUMBER	Drawn By	DATE
2809	JWB	9/17/98
REVISION	CAD FILENAME	SCALE
9/22/98	2809FIG3.DWG	1" = 20'

BUILDING 200: PREVIOUS SOIL SAMPLES
CAMP PARKS IN DUBLIN
ALAMEDA COUNTY, CALIFORNIA

FIG. 3

Table 2

Analytical Results of Organic Constituents
Of Soil and Groundwater Samples Collected From Building 200: Soil Borings
Camp Parks RFTA
Dublin, California

Sample ID	Matrix	TPHG	TPHD	Benzene	Toluene	Ethyl-benzene	m,p-Xylene	o-Xylene	PAH	Total Lead	MTBE
S-11-B1	Soil	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	ND**	5.8	<0.020
S-11-B1D	Soil	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	ND**	6.1	<0 020
S-21-B1	Soil	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	ND**	5	<0.020
S-12-B2	Soil	<1	1.2	<0.005	<0.005	<0.005	<0.005	<0.005	ND**	5.7	<0.020
S-21-B2	Soil	<1	8.1	<0.005	<0.005	<0.005	<0.005	<0.005	ND**	5.2	<0.020
S-11.5-B3	Soil	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	ND**	6.5	<0.020
S-20.5-B3	Soil	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	ND**	6.9	<0.020
S-11.5-B4	Soil	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	ND**	5.2	<0.020
S-20.5-B4	Soil	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	ND**	5.9	<0.020
S-11.5-B5	Soil	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	ND**	6.1	<0.020
S-20.5-B5	Soil	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	ND**	6.6	<0 020
S-0218-1A,B	Soil	<1	<1	<0.005	<0.005	<0.005	<0.005	<0.005	ND**	6	<0.02
W-22-B3*	Water	<50	58	<0.5	<0.5	<0.5	<0.5	<0.5	ND**	<3	<2
W-22-B3D*	Water	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	ND**	<3	<2
W-22-B4*	Water	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	ND**	<3	<2
W-22-B4D*	Water	NA	<50	NA	NA	NA	NA	NA	NA	NA	NA
Rinsate Blank*	Water	<50	NA	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	<2

Notes:

Results measured in milligrams per kilogram

* = measured in micrograms per liter (µg/L)

** = All analyte below laboratory detection limits.

NA = Not Analyzed

TPHG = Total petroleum hydrocarbons as gasoline motor oil by EPA Method 8015 M

TPHD = Total petroleum hydrocarbons as diesel by EPA Method 8015 M

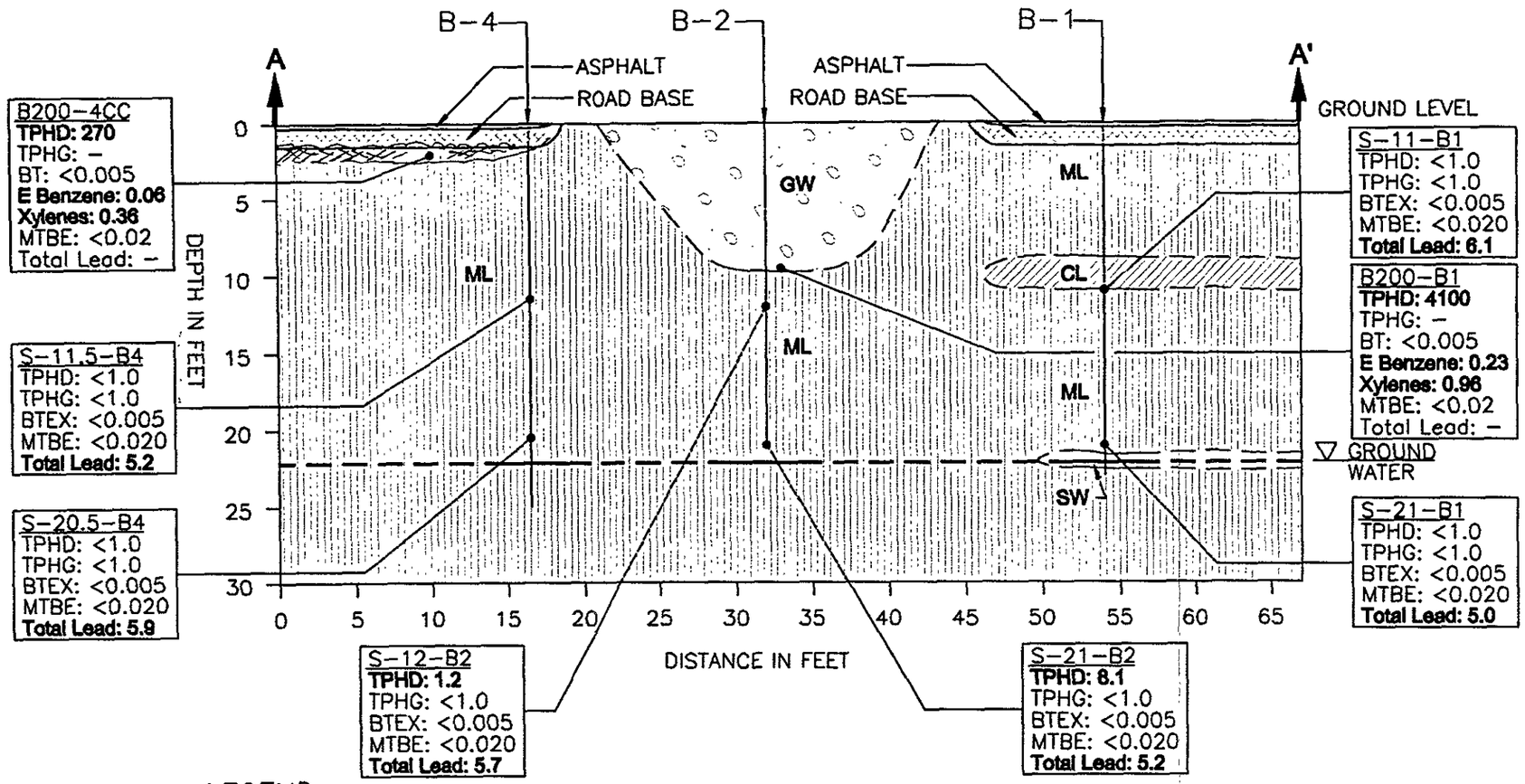
BTEX analyzed by EPA Method 8020A

PAH=Polynuclear Aromatic Hydrocarbons by EPA Method 8310

Total Lead by EPA Method 6010A

Soil Sample Notation Legend:

S-11-B1: S =soil sample
W =water sample
11 =depth
B1 =Boring No.



LEGEND:

GW	SANDY GRAVEL FILL
ML	CLAYEY SILT
CL	SANDY CLAY
SW	SAND
•	SOIL SAMPLE LOCATION

TPHD= Total extractable Petroleum Hydrocarbons as Diesel (EPA 8015M)

TPHG= Total extractable Petroleum Hydrocarbons as Gas (EPA 8015M)

BT/BTE/BTEX= Benzene, Toluene, Ethyl Benzene, Xylene, as indicated/included (EPA 8020)

MTBE= Methyl Tert-Butyl Ether

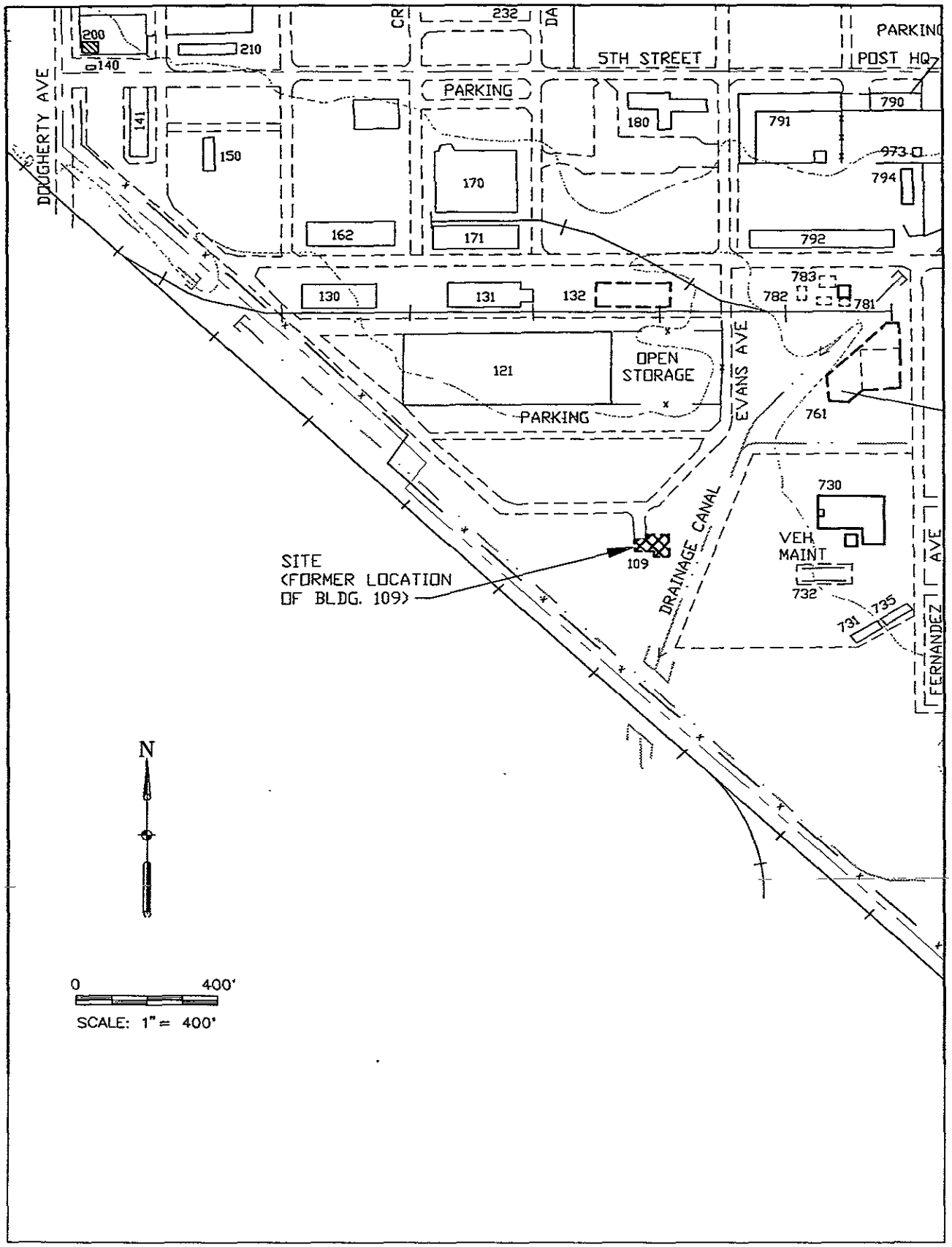
UNITS ARE IN mg/kg(ppm).

CAL ENVIRONMENTAL SERVICES INC
VACAVILLE, CA.95688 707-446-7996

JOB NUMBER:	DRAWN BY:	DATE:
2809	JWB	9/17/98
REVISION: 10/5/98	CAD FILENAME: 2809FG5R.DWG	SCALE: AS SHOWN

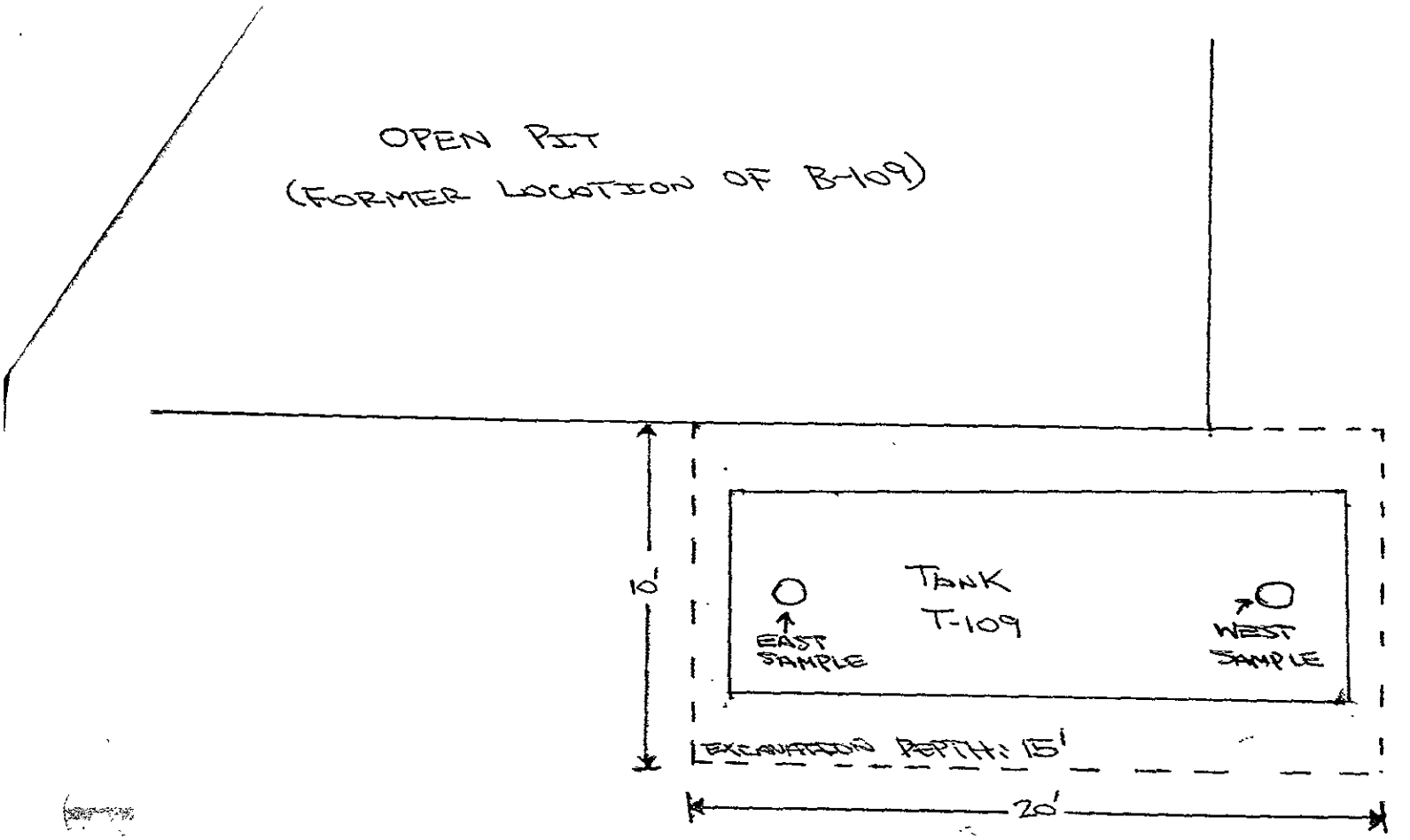
BLDG 200: GEOLOGIC CROSS SECTION
CAMP PARKS IN DUBLIN
ALAMEDA COUNTY, CALIFORNIA

DWG NO.: FIG. 5



PARK-13 052094

Project No 7112	PARKS RESERVE FORCES TRAINING AREA	SITE LOCATION BLDG 109 INVESTIGATION	Figure 2
Woodward-Clyde Consultants			



SAMPLING LOCATIONS FOR T-109, PARKS PETTA.

N

SCALE: 1" = 5 FEET

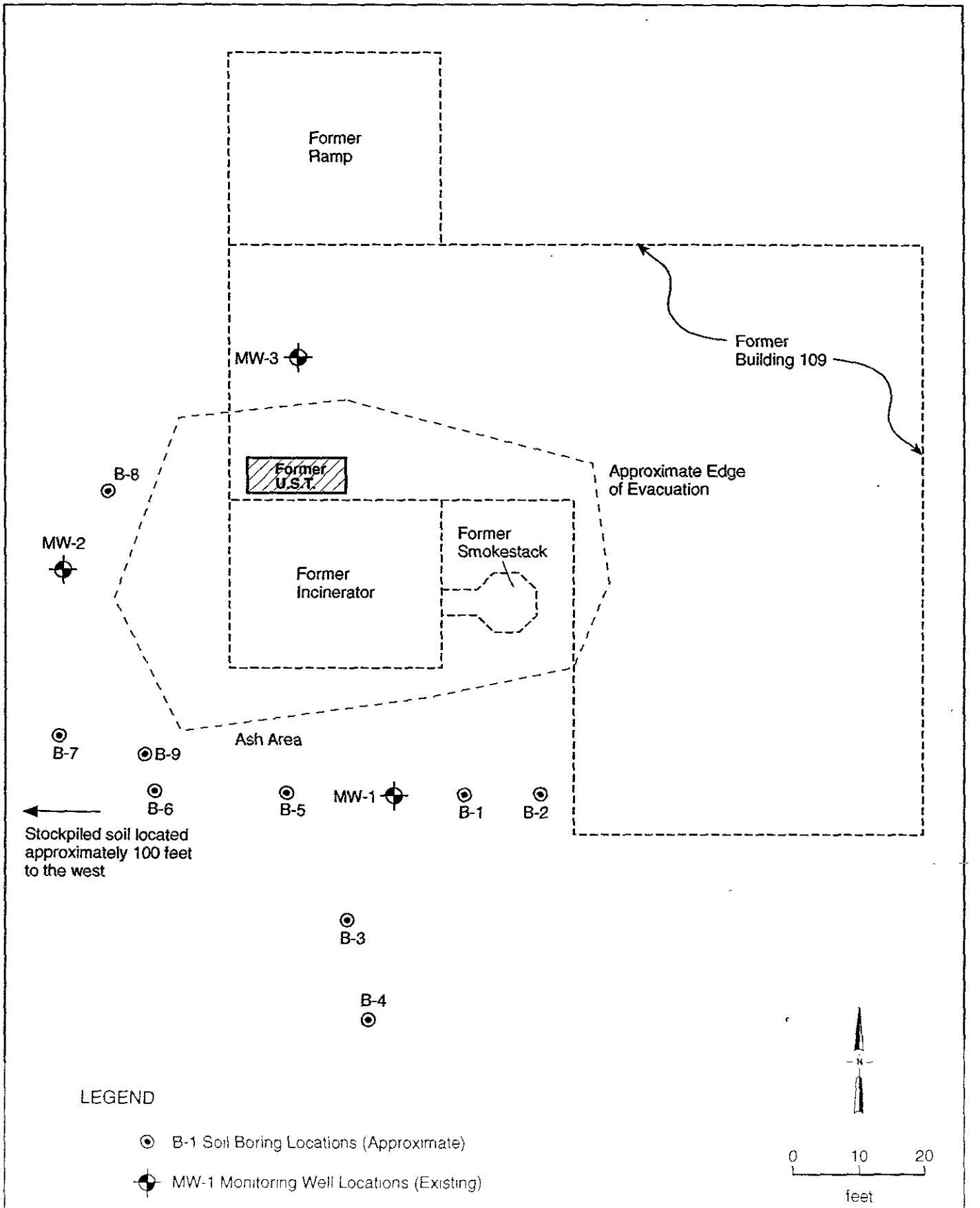
FIGURE 2

	TRPH (PPM)	TPH-Motor Oil (PPM)	Benzene (PPM)	Toluene (PPM)	Ethyl-Benzene (PPM)	Xylene (PPM)
WEST	1400	320	N.D.	N.D.	N.D.	N.D.
EAST	2300	2000	N.D.	N.D.	.91	3.9

Table 2 Petroleum Soil Sampling Results for Tank 109

	Cadmium (PPM)	Chromium (PPM)	Lead (PPM)	Nickel (PPM)	Zinc (PPM)
WEST	.72	38	11	44	55
EAST	.65	36	11	45	61

Table 3 Metals Soil Sampling Results for Tank 109



Project No 7136	Parks Reserve Forces Training Area	APPROXIMATE SOIL BORING LOCATIONS BUILDING 109 INVESTIGATION	Figure 3
Woodward-Clyde			

7136-300/090795/cum vone.mcl

TABLE 3

SOIL SAMPLES ANALYTICAL RESULTS
BUILDING 109-UST

Sample I.D. (depth)	EPA Modified Method 8015/8020				TPH by EPA Modified Method 8015			CWET Lead
	Benzene	Toluene	Ethylbenzene	Xylenes	Diesel	Motor Oil	Kerosene	
MW-1 (4')	ND	ND	ND	ND	ND	29	ND	319[1]
MW-1 (10')	ND	ND	ND	ND	ND	ND	ND	--
MW-1 (14')	ND	ND	ND	ND	ND	ND	ND	--
MW-2 (5')	ND	ND	ND	ND	ND	ND	ND	--
MW-2 (10')	ND	ND	ND	ND	ND	ND	ND	--
MW-2 (15')	ND	ND	ND	ND	ND	ND	ND	--
MW-3 (5')	ND	ND	ND	ND	ND	ND	ND	--
MW-3 (10')	ND	ND	ND	ND	ND	ND	ND	--
MW-3 (15')	0.057	0.11	0.30	1.0	ND	ND	ND	--

	Total Metals by EPA Method 6010A (7471 for Hg)																
	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
MW-1 (14')	ND	5.1	112	ND	ND	19.6	9.0	15.6	5.6	ND	ND	26.5	ND	ND	ND	31.0	32.9
MW-2 (15')	ND	3.9	--	ND	ND	15.0	--	10.7	4.3	ND	--	19.4	ND	ND	ND	-	23.4
MW-3 (15')	ND	4.4	86	ND	ND	16.5	7.5	11.6	4.4	ND	ND	19.3	ND	ND	ND	27.9	28.0

NOTES: All results are in mg/kg
ND = not detected
-- = not analyzed
[1] MW-1-4 appeared to be ash, results reported in mg/L

TABLE 3

ASH AND SOIL SAMPLES METALS ANALYTICAL RESULTS
BUILDING 109-ASH

	Total Metals by EPA Method 6010A (7471 for Hg)[1]																
	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
ASH-1	ND[2]	7.6	1220	ND	19.2	80.1	14.2	501	**1190**[4]	ND	ND	72	ND	8.3	ND	29.9	1540
MW-1 (14')	ND	5.1	112	ND	ND	19.6	9.0	15.6	5.6	ND	ND	26.5	ND	ND	ND	31.0	32.9
MW-2 (15')	ND	3.9	--[3]	ND	ND	15.0	--	10.7	4.3	ND	--	19.4	ND	ND	ND	-	23.4
MW-3 (15')	ND	4.4	86	ND	ND	16.5	7.5	11.6	4.4	ND	ND	19.3	ND	ND	ND	27.9	28.0

	Soluble (STLC) Metals by CWET and EPA Method 6010A (7471 for Hg)[5]																
	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Pb	Hg	Mo	Ni	Se	Ag	Tl	V	Zn
MW-1 (4')	--	--	--	--	--	--	--	--	**319**[6]	--	--	--	--	--	--	--	--
B-2 (6')	ND	0.49	2.6	ND	0.064	0.34	ND	4.7	**78.9**[6]	0.0030	ND	5.1	ND	ND	ND	0.81	80.1
B-9 (5.5')	ND	ND	13.3	ND	ND	ND	0.53	ND	ND	0.00044	ND	0.98	ND	ND	ND	0.59	ND

[1] Results are in mg/Kg
[2] ND = not detected
[3] -- = not analyzed
[4] Exceeds Lead TTLC regulatory **limit of 1000 mg/Kg**
[5] Results are in mg/L
[6] Exceeds Lead STLC regulatory **limit of 5 mg/L**

TABLE 4

GROUNDWATER SAMPLES ANALYTICAL RESULTS
BUILDING 109-UST

Sample I.D.	Date Sampled	EPA Modified Method 8015/8020				TPH by Modified Method 8015		6010-A Lead	8290 PCDD/ PCDF
		Benzene	Toluene	Ethylbenzene	Xylenes	Diesel	Kerosene		
MW-1	1/25/95	ND	ND	ND	ND	62	ND	ND	ND
MW-2	1/25/95	ND	ND	ND	ND	300	ND	--	--
MW-3	1/25/95	2.5	1.2	2.5	8.0	1200	820	--	--

NOTES: All results are in μg/kg
ND = not detected
-- = not analyzed

TABLE 2

DETECTED PCDD/PCDF AND TEQ CALCULATION
ASH-1 COMPOSITE

DIOXINS:	Concentration (pg/g)		Toxicity Equivalency Factors (TEF)	Toxicity Equivalency (TEQ)
2,3,7,8-TCDD	ND		1	-
Total TCDD		ND	NA	-
1,2,3,7,8-PeCDD	ND		0.5	-
Total PeCDD		ND	NA	-
1,2,3,4,7,8-HxCDD	ND		0.1	-
1,2,3,6,7,8-HxCDD	ND		0.1	-
1,2,3,7,8,9-HxCDD	ND		0.1	-
Total HxCDD		22	NA	-
1,2,3,4,6,7,8-HpCDD	94		0.01	0.94
Total HpCDD		160	NA	-
OCDD		460	0.001	0.46
		642		
FURANS:				
2,3,7,8-TCDF	4.4		0.1	0.44
Total TCDF		90	NA	-
1,2,3,7,8-PeCDF	ND		0.05	-
2,3,4,7,8-PeCDF	ND		0.5	-
Total PeCDF		27	NA	-
1,2,3,4,7,8-HxCDF	ND		0.1	-
1,2,3,6,7,8-HxCDF	ND		0.1	-
2,3,4,6,7,8-HxCDF	ND		0.1	-
1,2,3,7,8,9-HxCDF	ND		0.1	-
Total HxCDF		ND	NA	-
1,2,3,4,6,7,8-HpCDF	34		0.01	0.34
1,2,3,4,7,8,9-HpCDF	ND		0.01	-
Total HpCDF		49	NA	-
OCDF		ND	0.001	-
		166		
TOTAL PCDD/PCDF:		808	TOTAL TEQ:	2.96

Notes:

Residential PRG for 2,3,7,8-TCDD = 3.8 pg/g
Industrial PRF for 2,3,7,8-TCDD = 24 pg/g
Adult EMEG for 2,3,7,8-TCDD = 700 pg/g
Child EMEG for 2,3,7,8-TCDD = 50 pg/g

Table 2 Analytical Results for Groundwater Samples Collected at Building 109, Camp Parks RFTA, Dublin, California.
All results are in parts per million (mg/L).

Sample Location	Date Collected	BTEX(1)					TPH as Diesel(2)	TPH as Kerosene(2)	TPH as Fuel Oil #4 (2)	Semi-Volatiles PNAs (3)	TPH as gasoline (4)
		MtBE	Benzene	Toluene	Ethyl-benzene	Xylene					
MW-1	1/25/95	NA	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.062	< 0.050	NA	NA	NA
	5/21/96	< 0.005 (5)	< 0.0005	< 0.0005	< 0.0005	< 0.005	< 0.050	< 0.050	< 0.050	NA	NA
	8/21/96	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.005	0.073	< 0.050	NA	NA	NA
	11/21/96	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	0.075	NA	NA	NA	NA
	2/20/97	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	0.081	NA	NA	NA	<0.050
MW-2	1/25/95	NA	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.003	< 0.050	NA	NA	NA
	5/21/96	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.005	0.55	< 0.050	< 0.050	NA	NA
	8/21/96	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.005	0.38	< 0.050	NA	NA	NA
	11/21/96	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	0.52	NA	NA	NA	NA
	2/20/97	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	0.77	NA	NA	NA	<0.050
MW-3	1/25/95	NA	0.0025	0.0012	0.0025	0.008	1.2	0.820	NA	NA	NA
	5/21/96	< 0.005	< 0.0005	< 0.0005	< 0.0005	0.0012	3.6	< 0.10	< 0.10	NA	NA
	8/21/96	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.005	5.9	< 0.25	NA	NA	NA
	11/21/96	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	3.5	NA	NA	ND	0.43 ##
	2/20/97	<0.005	<0.0005	<0.0005	<0.0005	0.00074	1.94	NA	NA	NA	0.2 ##
MW-4*	5/21/96	< 0.005	< 0.0005	< 0.0005	< 0.0005	0.001	0.61	< 0.050	< 0.050	NA	NA
	8/21/96	< 0.005	< 0.0005	< 0.0005	< 0.0005	< 0.005	7.3	< 0.25	NA	NA	NA
	11/21/96	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	0.43	NA	NA	NA	NA
	2/20/97	<0.005	<0.0005	<0.0005	<0.0005	0.00073	3.3	NA	NA	NA	0.47 ##
		0.035 (6)	*0.001 (6)*	*0.15 (6)*	*0.7 (6)*	*1.75 (6)*					

Notes

1) MtBE (Methyl tert-Butyl Ether), Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) using modified EPA Method 8021.
2) Total Petroleum Hydrocarbons (TPH) as Diesel, as Kerosene, and as Fuel Oil #4 using modified EPA Method 8015.
3) Semi-Volatile Organics-Polynuclear Aromatic partial using EPA Method 8270.
4) Total Petroleum Hydrocarbons as gasoline using modified EPA Method 8015.
5) All less than values indicate not detected at or above laboratory reporting limits.
6) California Maximum Contaminant Levels

* = duplicate of sample MW-3 for 5/21/96, 8/21/96, 2/20/97sampling events. Duplicate of MW-2 for 11/21/96 sampling event.
NA = Not analyzed
ND = Not detected at or above laboratory reporting limit for all requested analytes.
= chromatogram pattern does not resemble a typical gasoline chromatogram pattern. See Analytical Data Review.

Woodward-Clyde Consultants PROJECT NAME Camp Parks NO. 7136

BORING LOCATION CP- Bldg: 109 1L' east of MW-1		ELEVATION AND DATUM	
DRILLING AGENCY Ruihang	DRILLER Rod Furlow	DATE STARTED 5/8/95 DATE FINISHED	
DRILLING EQUIPMENT B-53 Mobile Drill		COMPLETION DEPTH 10	SAMPLER: 2 1/2.5" CA ID
DRILLING METHOD hollow Stem Auger	DRILL BIT 6"	NO. OF SAMPLES / DIST.	UNDIST.
SIZE AND TYPE OF CASING —		WATER ELEV. / FIRST	COMPL. / 24 HRS
TYPE OF PERFORATION —	FROM TO FT.	LOGGED BY Bilir	CHECKED BY:
SIZE AND TYPE OF PACK —	FROM TO FT.		
TYPE OF SEAL Portland Cement	FROM 0 TO 1 FT.		

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG: Lithology	GRAPHIC LOG: Piezometer Installation	Water Content	Piezometer Data	SAMPLES: Type Nu	SAMPLES: Recov In	SAMPLES: Penetra Resist (Blows/6 in)	REMARKS (Drill Rate, Fluid loss, Odor, etc.)
2	Clayey gravel-Rubble —FILL— Brown to dark brown, aggregate (brick), medium stiff, low plasticity, dry to moist, organic matter (roots)	GM/GC						12	Begun Drill 0910 Redo due to poor recovery w/ Moss System
	becomes very stiff, non plastic							26	
								38	
	Clay brown with very dark brown, stiff, slight plasticity to low plasticity, cobbles up to 2", moist, some light	CL						5	
5	brown							7	
								12	
								18	
	Ash Rubble Rusty Stains, various color aggregate, mostly brown-black, glass fragments, porcelain chips, slag, pebbles, moist								
7								3	
								2	
8								6	
	becomes wet							8	
9								4	
								8	
								22	
10	CLAY yellowish brown, some fine sand/silt, aggregate at top, damp	CL/ML							Bottom of Boring 1020

FIELD LOG OF BORING NO B-1 SHEET 1 of 1

Woodward-Clyde Consultants PROJECT NAME Camp Parks NO. 7136

BORING LOCATION Bldg 109 5'W & 20'S of MW-1		ELEVATION AND DATUM	
DRILLING AGENCY Vilhaug	DRILLER Rod Furlow	DATE STARTED / DATE FINISHED 5/8/95	
DRILLING EQUIPMENT B-53 Mobile Drill		COMPLETION DEPTH 12	SAMPLER 2 1/2.5" CA ID
DRILLING METHOD Hollow Stem Auger	DRILL BIT 6"	NO. OF SAMPLES / DIST.	UNDIST.
SIZE AND TYPE OF CASING 3 —		WATER ELEV. / FIRST	COMPL. / 24 HRS
TYPE OF PERFORATION —	FROM TO FT.	LOGGED BY BiLir	CHECKED BY:
SIZE AND TYPE OF PACK —	FROM TO FT.		
TYPE OF SEAL Portland Cement	FROM 0 TO 12 FT.		

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG: Lithology	GRAPHIC LOG: Piezometer Installation	Water Content	Piezometer Data	SAMPLES: Type No.	SAMPLES: Recov. In	SAMPLES: Penetr. Resist (Blows/6 in.)	REMARKS (Drill Rate, Fluid loss, Odor, etc.)
0	Clayey gravel – FILL – Gray to brown, various colors of aggregate, aggregate up to 2"	GM/GC							Begin drill 1055
2								12	
						X		14	
	Ash Rubble							30	poor recovery
4	various color aggregate and matrix, clayey and sandy matrix, pebbles glass and metal fragments, some ash (less percent Rubble than in B-1 and B-2)							11	
								16	
						X		24	
								20	
6	becomes black, coal like matter, fine sand size, some aggregate							7	
	becomes as above							10	
						X		20	B-2-6 1115
8	becomes moist,							7	
								4	
								4	
						X		10	
	becomes wet, black							7	
								8	
10						X		11	
								6	
								5	
						X		5	
	CLAY dark brown - gray brown, medium dense, stiff, slightly plastic	CL						18	
12									Bottom 1130

FIELD LOG OF BORING NO B-3 SHEET 1 of 1

Woodward-Clyde Consultants PROJECT NAME Camp Parks NO. 7136

BORING LOCATION Bldg 109 30' S of MW-1		ELEVATION AND DATUM	
DRILLING AGENCY Kuilhavg	DRILLER Rod Furlow	DATE STARTED 5/8/95	
DRILLING EQUIPMENT B-53 Mobile Drill		COMPLETION DEPTH 12	SAMPLER 2 1/2.5" CAID
DRILLING METHOD Hollow Stem Auger	DRILL BIT 6"	NO. OF SAMPLES / DIST.	UNDIST.
SIZE AND TYPE OF CASING —		WATER ELEV. / FIRST	COMPL. / 24 HRS
TYPE OF PERFORATION —	FROM TO FT.	LOGGED BY BILIR	CHECKED BY:
SIZE AND TYPE OF PACK —	FROM TO FT.		
TYPE OF SEAL Portland Cement	FROM 0 TO 12 FT.		

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG: Lithology	GRAPHIC LOG: Piezometer Installation	Water Content	Piezometer Data	SAMPLES: Type No	SAMPLES: Recov ft	SAMPLES: Penetr Resist (Blows/6 in)	REMARKS (Drill Rate, Fluid loss, Odor, etc.)
0	Clayey gravel -FILL- gray to brown, various color aggregate dry, dense, sandy clayey matrix, nonplastic, pebbles up to 1cm (not like B-1, B-2) no ash detected	GM/GC				12			Begin Drill 1140
2						14			
	With more Sand - silt					20			
	trace glass fragments, coal like fragments					12			Poor Recovery
4						14			
	becomes loose, some glass fragments and chunks up to 15cm					7			
						8			
6						2			
						2			
	becomes wet					3			
						5			
8						3			
						3			
						4			
						3			
						4			
10	trace porcelain fragments up to 1cm					4			
						6			
						6			
	CLAY Brown to dark grey, moist - damp, medium dense, slightly plastic	CL				5			
12						5			
									Bottom @ 12

FIELD LOG OF BORING NO B-4 SHEET 1 of 1

Woodward-Clyde Consultants

PROJECT NAME Camp Parks 109 UST NO. 7137-0100

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG: Lithology	GRAPHIC LOG: Piezometer Installation	Water Content	Penetrometer Data	SAMPLES: Type No	SAMPLES: Recov. ft	SAMPLES: Penetro Resist (Blows/6 in.)	REMARKS (Drill Rate, Fluid loss, Odor, etc.)
15	becomes moist								
	Silty sand becomes wet, brown to light orange rust color, medium sand with fines	SM/SC		5-10					MW-3-15 0900 Strong product odor
17									
	CLAY gray to light brown, medium dense, slight plasticity	ML/CL							product odor
19									
21									product odor
22	TD @ 22'								TD 0945 Monument well protector placed at surface Stickup

FIELD LOG OF BORING NO MW-3 SHEET 2 of 2

Woodward-Clyde Consultants PROJECT NAME Camp Parks 109 UST NO. 7137-0100

BORING LOCATION ~10' North of 109 UST. On excavated pile.		ELEVATION AND DATUM	
DRILLING AGENCY KVILHAUG	DRILLER	DATE STARTED / DATE FINISHED 12/20/94	
DRILLING EQUIPMENT B-53 Mobile Drill		COMPLETION DEPTH 22	SAMPLER 2" CA. I.D.
DRILLING METHOD Hollow Stem Auger	DRILL BIT 10"	NO. OF SAMPLES / DIST.	UNDIST. 3
SIZE AND TYPE OF CASING 4" PVC Sch: 40		WATER ELEV. / FIRST 16	COMPL. 14.3 24 HRS
TYPE OF PERFORATION 0.020-inch	FROM 12 TO 22 FT.	LOGGED BY SBILIR	CHECKED BY:
SIZE AND TYPE OF PACK Lonestar 2/12	FROM 10 TO 22 FT.		
TYPE OF SEAL Portland Cement	FROM 0 TO 9 FT.		

Bentonite 9-10

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG: Lithology	GRAPHIC LOG: Piezometer Installation	Water Content	Piezometer Data	SAMPLES: Type No.	SAMPLES: Recovery (ft)	SAMPLES: Penetration Resist. (Blows/6 in.)	REMARKS (Drill Rate, Fluid loss, Odor, etc.)
2	Clayey gravel (Rubble) Dark brown, various color aggregate, Moist (due to rain), gravels up to 4cm, Slight plasticity	GM/GC							Begin drill 0815
4	Clay Dark brown, pockets of medium and fine sand (orange to rust colored stains), some gravels	ML/CL							
6	becomes Mostly clay, disturbed texture (compacted)			<5		X		5 7 9	MW-3-5 0836
8									
10	becomes mottled with gray, low plasticity, medium dense and stiff, damp			<5		X		9 15 17	MW-3-10 0850
12									
14									

FIELD LOG OF BORING NO MW-3 SHEET 1 of 2

Woodward-Clyde Consultants

PROJECT NAME Camp PARKS 109 UST NO. 7137-0100

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG: Lithology	GRAPHIC LOG: Piezometer Installation	OVA (ppm)	Piezometer Data	SAMPLES: Type No	SAMPLES: Recov in	SAMPLES: Penetra Resist (Blows/6 in.)	REMARKS (Drill Rate, Fluid loss, Odor, etc.)
14		ML/CL							
	SILTY/CLAYEY SANDS light brown, very soft, non plastic, wet, some sand, pockets of clay	SM/SC						3 3 3 4	MW-2-15 1220
16									
	CLAY light to medium brown, medium stiff dense, sand and silt at top	ML/CL							
18									
20									
22	TD@22'								Monument well protector placed at surface
									Stick up

FIELD LOG OF BORING NO MW-2 SHEET 2 of 2

Woodward-Clyde Consultants

PROJECT NAME Camp Parks 109 UST NO. 7137-010C

BORING LOCATION ~30' west of Bldg. 109 - Incinerator Room		ELEVATION AND DATUM	
DRILLING AGENCY Kvilhaug	DRILLER -	DATE STARTED / DATE FINISHED 12/12/94	
DRILLING EQUIPMENT Hollow Stem Auger		COMPLETION DEPTH 22	SAMPLER 2" ID CA
DRILLING METHOD B-61 Mobile Drill	DRILL BIT 10"	NO. OF SAMPLES DIST.	UNDIST. 3
SIZE AND TYPE OF CASING 4" PVC Sch. 40		WATER ELEV. FIRST 14.5	COMPL. 13 24 HRS
TYPE OF PERFORATION 0.020-inch	FROM 12 TO 22 FT.	LOGGED BY S BILIR	CHECKED BY:
SIZE AND TYPE OF PACK Lonestar 2/12	FROM 10 TO 22 FT.		
TYPE OF SEAL Portland Cement	FROM 0 TO 9 FT.		
Bentonite	9-10		

DEPTH (FEET)	DESCRIPTION	Lithology	OVA	Samples	Penetr. Resist (Blows/6 in)	REMARKS (Drill Rate, Fluid loss, Odor, etc.)
0	SILTY/CLAYEY GRAVEL Rubble. Dark brown with various color aggregate, moist (due to rain) to damp, slight plasticity, loose gravels up to 5cm	GM/GC	<5			OVA Cal 0730 Begin 1120
2-4	GRAVELLY CLAY Dark brown to brown, various color aggregate, slight to low plasticity, loose	ML/CL			5, 12, >15	
5-6	becomes light brown with some pebbly gravel up to 2cm.		<5	X	6, 6, 18, 21	MW-2-5 1135
10	becomes grayish brown, brown stains (organic matter), low plasticity, damp, medium dense, medium stiff		<5	X	8, 16, 18, 30	MW-2- 1205
13	becomes moist					
14		SM/SC				

FIELD LOG OF BORING NO MW-2 SHEET 1 of 2

Woodward-Clyde Consultants

PROJECT NAME Camp Parks 109 UST NO. 7137-0100

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG: Lithology	GRAPHIC LOG: Piezometer installation	OVA: Reading (ppm)	Penetrometer Data	SAMPLES: Type No	SAMPLES: Recovery %	SAMPLES: Penetration Resist (Blows/6 in.)	REMARKS (Drill Rate, Fluid loss, Odor, etc.)
15	Some aggregate	CL/ML							
17									
19									
21									
22	TD @ 22								TD @ 1145 Monument well protector placed at surface Stick up

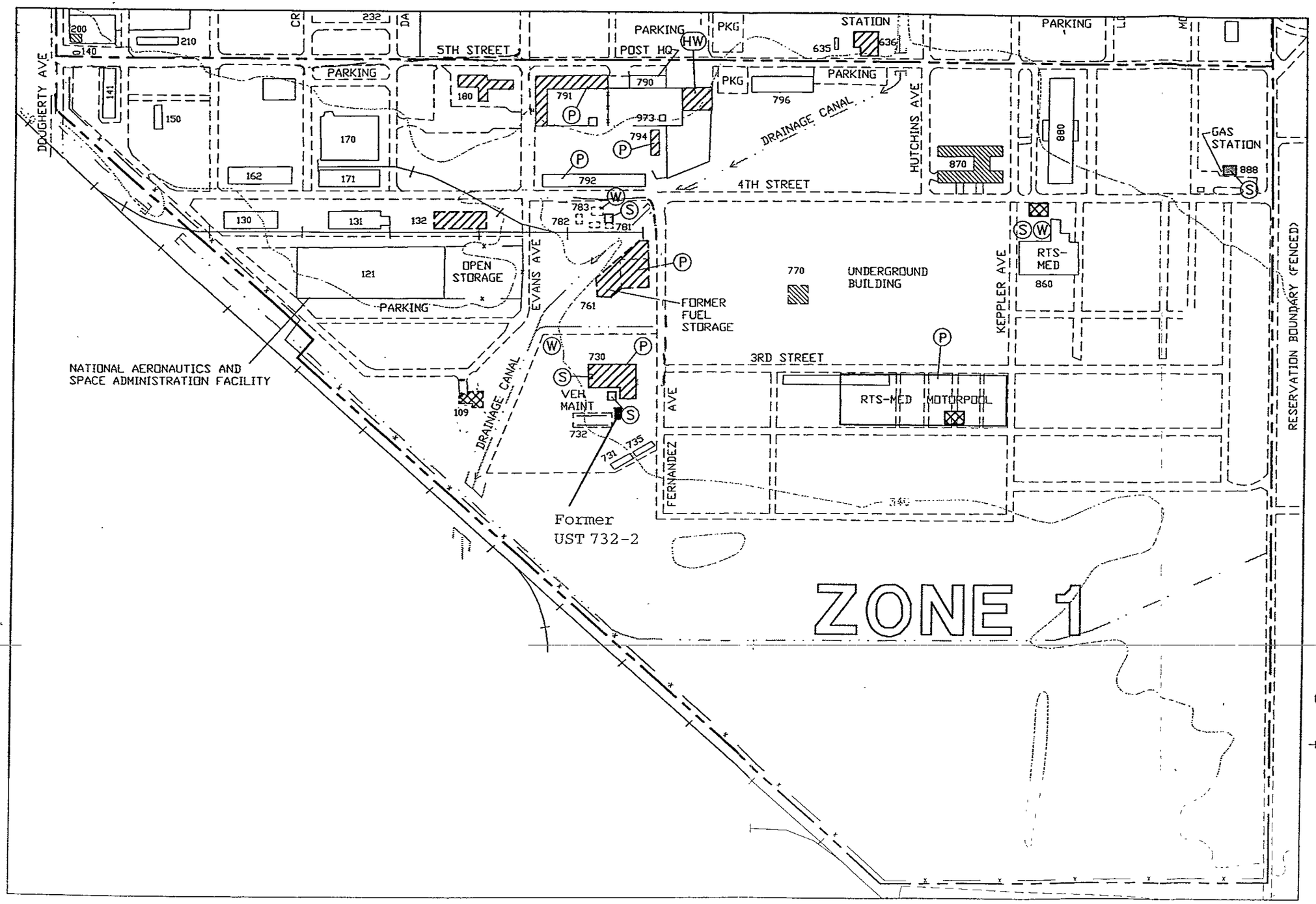
FIELD LOG OF BORING NO MW-1 SHEET 2 of 2

Woodward-Clyde Consultants PROJECT NAME Camp Parks UST109 NO. 7137-0100

BORING LOCATION ~30' South of Incinerator Room Bldg 109		ELEVATION AND DATUM	
DRILLING AGENCY KVILL-AUG	DRILLER	DATE STARTED / DATE FINISHED	12/20/94
DRILLING EQUIPMENT B-53 Mobile Drill		COMPLETION DEPTH 22	SAMPLER 2" CA. I.D.
DRILLING METHOD Hollow Stem Auger	DRILL BIT 10"	NO. OF SAMPLES / DIST.	UNDIST. 3
SIZE AND TYPE OF CASING 4" PVC Sch. 40		WATER ELEV. / FIRST ∇ 13.5	COMPL. 14 24 HRS
TYPE OF PERFORATION 0.020-inch	FROM 12 TO 22 FT.	LOGGED BY	CHECKED BY:
SIZE AND TYPE OF PACK Lonestar 2/12	FROM 10 TO 22 FT.	SBilir	
TYPE OF SEAL Portland Cement	FROM 0 TO 9 FT.		

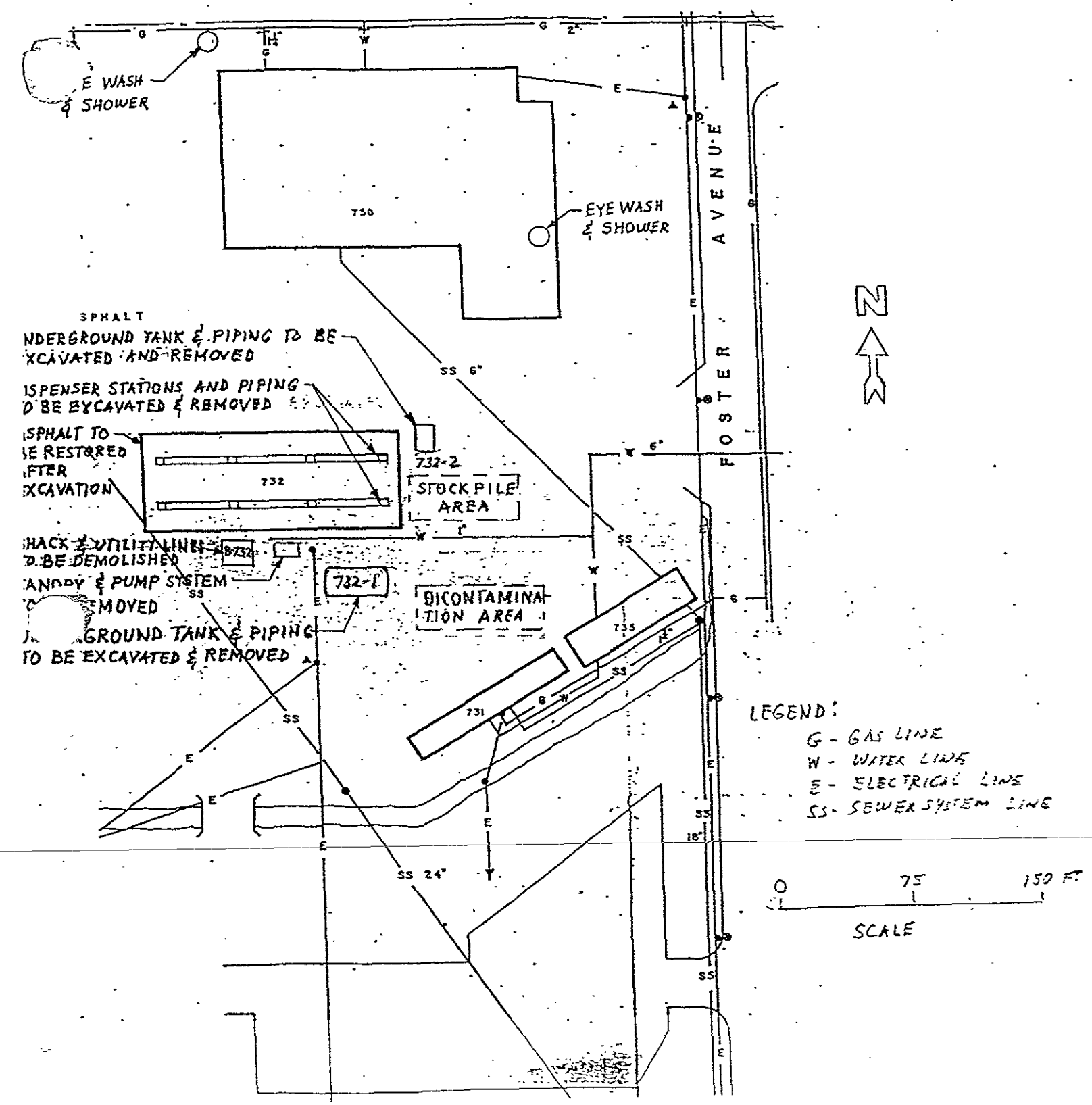
DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG Lithology	Piezometer Installation	OVA Water Content	Piezometer Data	SAMPLES Type No	Hexdy II	Penetro Resist (Blows/6 in)	REMARKS (Drill Rate, Fluid loss, Odor, etc.)
	Bentonite 9-10								
2	CLAYEY GRAVEL - Rubble Dark brown, various color aggregate, brick fragments, damp (Rain), Medium dense	GM / GC						7 10 11	Begin drill 1025
4	CLAY gray with brown, medium dense and stiff, low plasticity	CL						15	
5	DSH Rubble Rusty stains and various color aggregate, mostly black-brown, glass fragments, pebbles up to 2cm			<5				6 9 15 17	MW-1-4 1040
7	CLAY Dark brown, some fine sand/silt pockets and aggregate, slightly plastic, damp, medium dense	CL / ML							
9	becomes light brown to brown			<5				10 12 19 24	MW-1-10 1110 Duplicate
11	becomes silty and damp								
13	becomes wet			<5				5 6 6	MW-1-14 1130

FIELD LOG OF BORING NO MW-1 SHEET 1 of 2



Project No.	PARKS RESERVE FORCES TRAINING AREA	ZONE 1 PARKS RESERVE FORCES TRAINING AREA DUBLIN, CALIFORNIA	Figure
7128			2
Woodward-Clyde			

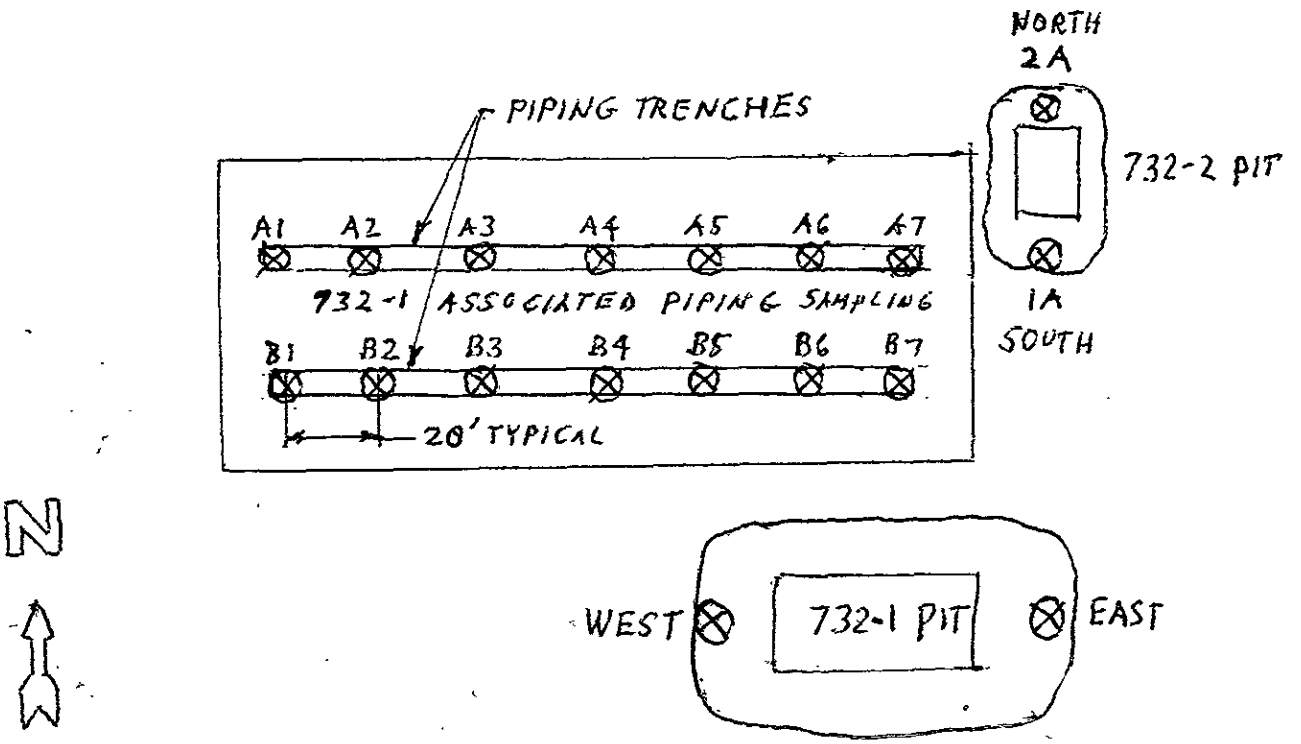
PARK-07 041394



CAMP PARKS (ECS-30)

PLOT PLAN B-732

SKETCH #2



CAMP PARKS (ECS-30)

SAMPLING LOCATIONS FOR PIT B-732-1 AND B-731-1 PITS AND ASSOCIATED PIPING

SKETCH # 4

TABLE 1

SUMMARY OF ANALYTICAL RESULTS FOR SOIL AND WATER TESTED FOR LEAD, PURGEABLE AROMATICS AND TOTAL PETROLEUM HYDROCARBONS FOR TANK NO. B-732-1 (18,000 GALS) AND ITS ASSOCIATED PIPING.

SOIL SAMPLE DATE	LOCATION	SAMPLE NO.	DETECTED CONSTITUENTS	CONCENTRATIONS (PPM)
	Pit 732-1			
3/17/93	East	93-03-195	None	None
"	West	"	TPH-D	51
	Piping trenches			
"	732-A1	"	None	None
"	732-A2	"	None	None
"	732-A3	"	None	None
"	732-A4	"	None	None
"	732-A5	"	None	None
"	732-A6	"	None	None
"	732-A7	"	None	None
"	732-B1	"	TPH-D	60
"	732-B2	"	None	None
"	732-B3	"	None	None
"	732-B4	"	None	None
"	732-B5	"	None	None
"	732-B6	"	None	None
"	732-B7	"	None	None

STOCKPILE SOIL SAMPLE	LOCATION	SAMPLE NO.	DETECTED CONSTITUENTS	CONCENTRATIONS (PPM)
2/23/93	1A,B,C,D Composite	93-02-208	None	None
"	2A,B,C,D Composite	"	None	None

WATER SAMPLE DATE	LOCATION	SAMPLE NO.	DETECTED CONSTITUENTS	CONCENTRATIONS MG/L(PPM)
2/23/93	Pit 732-1	93-02-208	Ethyl Benzene	.0006
			Xylene	.0023
			TPH-G	.065
3/17/93	Pit 732-1A	93-03-195	None	None

Note:

1. Pit 732-1 East and West sample (soil from the tank pit) were tested for Lead, Purgeable Aromatics, TPH.

2. Samples 732-A1 to A7 and 732-B1 to B7 (soil from the excavation of its associated piping trench) were tested for Lead, Purgeable Aromatics and TPH.

3. Stockpile samples 1A,B,C,D and 2A,B,C,D Composite (soil from the excavated tank pit 732-2) were tested for Purgeable Aromatics and TPH.

4. Water sample 732-1 (from the pit of tank 732-1) and sample 732-1A (taken on 3/17/93 for verification) were tested for Purgeable Aromatics and TPH.

TABLE 2

SUMMARY OF ANALYTICAL RESULTS FOR SOIL AND WATER TESTED FOR O&G, TPH, BTEX, OTHER METALS, CHLOROHYDROCARBONS AND LEAD FOR TANK NO. B-732-2 (1,000 gals)

SOIL SAMPLE DATE	LOCATION	SAMPLE NO.	DETECTED CONSTITUENTS	CONCENTRATIONS (PPM)
5/6/93	1A South	93-05-068	1,2-Dichloro Benzene	.120
			1,3-Dichloro Benzene	.203
			Hexochloroethane	.013
			Tetrachlorobenzene	.002
			Pentachloroethane	.116
			Lead	5.4
			Toluene	.02
			Xylene	.014
"	2A North	"	None	None
5/14/93	1A South	93-05-172	Lead	8.8
"	2A North	"	Lead	7.4

STOCKPILE SOIL SAMPLE	LOCATION	SAMPLE NO.	DETECTED CONSTITUENTS	CONCENTRATIONS (PPM)
2/23/93	3A,B,C,D Comp.	93-02-208	Chromium	20.7
			Nickel	28.2
			Zinc	39.2
			Lead	12.9
			Cadmium	.19
			Ethyl Benzene	.159
			Xylene	.440
			TPH-G	46.3
			TPH-D	13.5
			TRPH	32

WATER SAMPLE DATE	LOCATION	SAMPLE NO.	DETECTED CONSTITUENTS	CONCENTRATIONS MG/L(PPM)
INITIAL WATER SAMPLE				
2/23/93	Pit 732-2	93-02-208	Chromium	.007
			Zinc	.085
			Lead	.054
			Ethyl Benzene	.196
			Toluene	.118
			Xylene	.939
			TPH-G	13.5
			TPH-D	36.4
FINAL WATER SAMPLE				
5/3/93	Pit 732-2	93-05-012	Zinc	.02
5/6/93	Pit 732-2	93-05-071	None	None

Note:

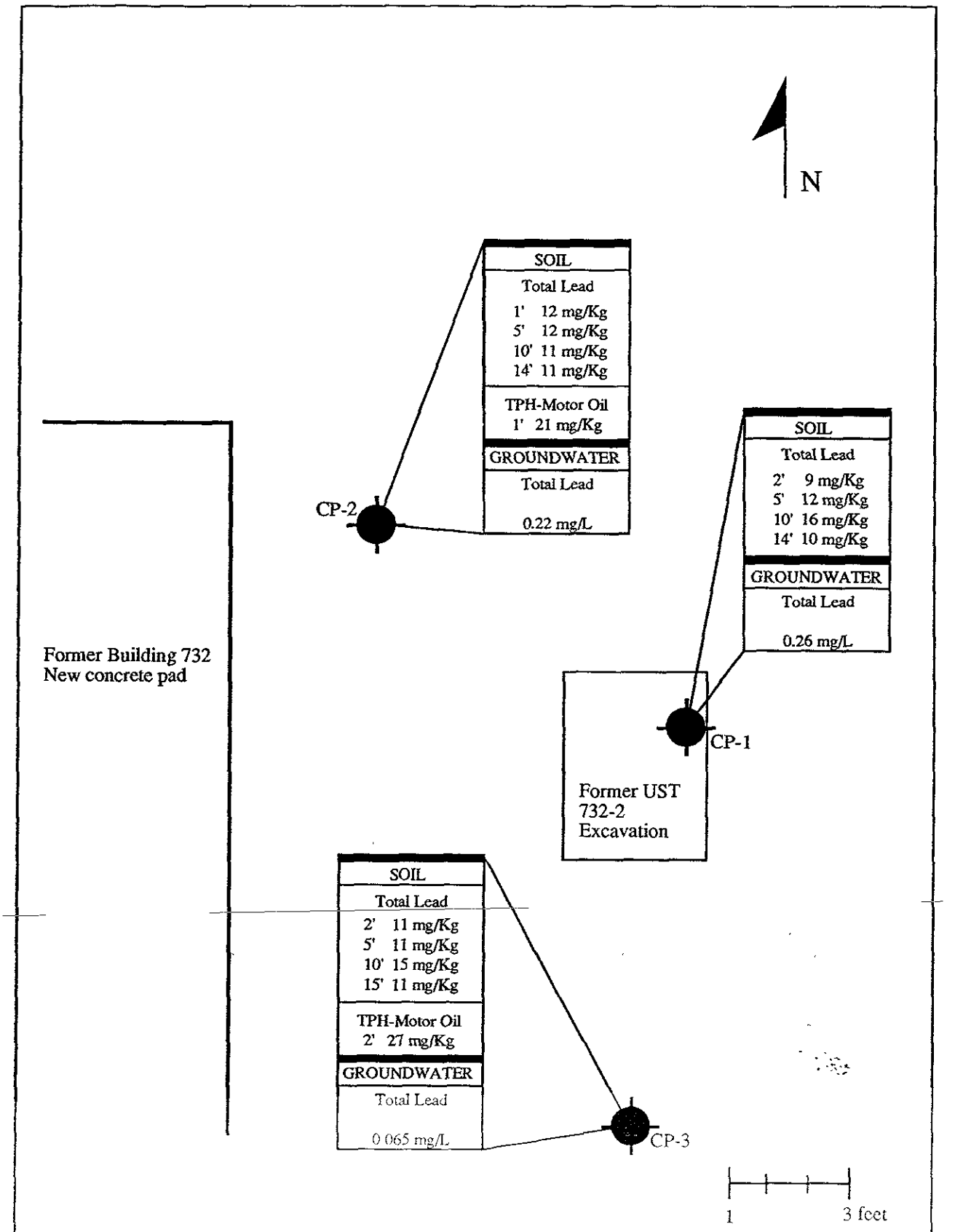
1. 1A South and 1A North samples (soil from the tank pit) were tested for O&G, Lead, Purgeable Aromatics, TPH and Chlorinated Hydrocarbon. Samples were taken again at the same location on 5/14/93 for verification.

2. Stockpile 3A,B,C,D Composite sample (soil from the excavation) was tested for Metals, Total Recoverable Petroleum Hydrocarbons, Purgeable Aromatics, TPH and Chlorinated Hydrocarbons. The stockpiled soil was placed on and covered by plastic. This soil will be disposed in accordance with Federal and State regulations.

3. The initial water sample Pit 732-2 (water from the pit after the tank was removed) and the final water samples (verified before disposal) were tested for Metals, Purgeable Aromatics and TPH.

4. Water sample Pit 732-2 which was taken on 5/3/93 was tested for Chlorinated Hydrocarbon, O&G, Metals and Purgeable Aromatics.

5. Water sample from pit 732-2 which was taken on 5/6/93 was tested for TPH and Purgeable Aromatics.



Project No. 7128	Parks Reserve Forces Training Area	SOIL BORING LOCATION AND DETECTED RESULTS FORMER UST 732-2 PARKS RFTA, DUBLIN, CALIFORNIA	Figure 3
Woodward-Clyde			

TABLE 1
ANALYTICAL RESULTS FOR PARAMETERS DETECTED IN SOIL
CAMP PARKS, DUBLIN, CALIFORNIA

Soil Boring Number	Depth (feet)	EPA METHOD 7420 Total Lead[1] (mg/Kg)	MODIFIED EPA METHOD 8015 TPH reported as Motor Oil[2] (mg/Kg)
CP-1	2	9	--
	5	12	--
	10	16	--
	14	10	--
CP-2	1	12	21[3]
	5	12	--
	10	11	--
	14	11	--
CP-3	2	11	27[3]
	5	11	--
	10	15	--
	15	11	--

Notes:
-- Sample analyzed for TPH-diesel, neither diesel nor motor oil was detected
1 Sample preparation using EPA 3050
2 Sample preparation using EPA 3550
3 TPH found in samples were in the heavier, motor oil range.
Each soil sample was 6 inches. Number denoted represents the top of the soil sample

TABLE 2
ANALYTICAL RESULTS FOR DETECTED PARAMETER IN GROUNDWATER
CAMP PARKS, DUBLIN, CALIFORNIA

Soil Boring Number	EPA METHOD 7421 Total Lead[1] (mg/L)
CP-1	0.26
CP-2	0.22/0.22[2]
CP-3	0.065

Note:
1 Sample preparation using EPA 3005.
2 Duplicate sample

Woodward-Clyde Consultants PROJECT NAME Camp Parks-Bldg 732 NO. 7128

BORING LOCATION CP-1 (2' NE of UST 732-2) center		ELEVATION AND DATUM	
DRILLING AGENCY KUILNAUG	DRILLER Rod Furlow	DATE STARTED / DATE FINISHED 7/15/94	
DRILLING EQUIPMENT Mobile Drill B-53		COMPLETION DEPTH 14.5	SAMPLER 2" ID Mod. CA
DRILLING METHOD Hollow Stem Auger	DRILL BIT 6"	NO. OF SAMPLES / DIST.	UNDIST. 4
SIZE AND TYPE OF CASING N/A		WATER ELEV. / FIRST 14.25	COMPL. / 24 HRS
TYPE OF PERFORATION N/A	FROM / TO / FT.	LOGGED BY S.BILIR	CHECKED BY: M. Castillon
SIZE AND TYPE OF PACK N/A	FROM / TO / FT		
TYPE OF SEAL Portland Neat grout	FROM 0 TO 14.5 FT.		

DEPTH (FEET)	DESCRIPTION	Graphic Log: Lithology	Piezometer Installation: HNU	Water Content	Piezometer Data	SAMPLES: Type No.	Recov. ft	Penetr. Resist. (Blows/6 in.)	REMARKS (Drill Rate, Fluid loss, Odor, etc.)
1	CLAYEY/SILTY GRAVEL Light gray (10YR7/1), up to 6cm gravel, subrounded to angular, dry, loose	GM/GC						12	Started 1200 HNU cal. 0740 Drill to 1' Poor Recovery
	becomes dark yellowish brown (10YR 4/4) with multicolored gravels, iron oxide stains							13	
								10	CP-1-2 1210 Drill to 4.5'
	CLAY (5Y 2.5/1) BLACK, low plasticity, dry, medium dense, medium stiff	CL						5	
5	becomes mottled w/ olive gray (5Y 4/2)		-5					9	Headspace
								14	CP-1-5 1220
	as above, trace gravel & sand								Drill to 9.5'
10	becomes soft, olive gray (5Y 4/2)		41					5	Headspace
								7	CP-1-10 1230
								12	Drill to 13'
	becomes dark gray (5Y 4/1), increase in fine sand & coarse silt, angular to subrounded, slight plasticity, moist, loose							5	
14	becomes WET		41	▼				5	Headspace
								6	CP-1-14 1245

FIELD LOG OF BORING NO CP-1 SHEET 1 of 2

Woodward-Clyde Consultants

PROJECT NAME Camp Parks Bldg 7320. 7128

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG: Lithology	GRAPHIC LOG: ~~Parameter~~ HNU	WATER LEVEL	Piezometer Data	SAMPLES: Number	SAMPLES: Blows/6 in.	REMARKS (Drill Rate, Fluid loss, Odor, etc.)
14								
	TD @ 14.5'							TD @ 1245 HNU readings of cores unless otherwise noted. Retrievable screen + tip used on hydroporch

FIELD LOG OF BORING NO CP-1 SHEET 2 of 2

Woodward-Clyde Consultants PROJECT NAME Camp Parks Bldg 732 NO. 7128

BORING LOCATION CP-2 (9' NW of center of UST 732)		ELEVATION AND DATUM	
DRILLING AGENCY Kuichaug	DRILLER Rod Furlow	DATE STARTED / DATE FINISHED 7/15/94	
DRILLING EQUIPMENT Mobile Drill B-53		COMPLETION DEPTH 14.5	SAMPLER 2" ID MOD. CA
DRILLING METHOD Hollow Stem Auger	DRILL BIT 6"	NO. OF SAMPLES / DIST	UNDIST. 4
SIZE AND TYPE OF CASING N/A		WATER ELEV. / FIRST 14	COMPL. / 24 HRS
TYPE OF PERFORATION N/A	FROM TO FT.	LOGGED BY S. Bilik	CHECKED BY: M. Castellano
SIZE AND TYPE OF PACK N/A	FROM TO FT.		
TYPE OF SEAL Portland Neat Grout	FROM 0 TO 14.5 FT.		

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG: Lithology	GRAPHIC LOG: Piezometer Installation	GRAPHIC LOG: Water Encountered	GRAPHIC LOG: Piezometer Data	SAMPLES: Type & Number	SAMPLES: Recovery (ft)	SAMPLES: Penetration Resist. (Blows/6 in.)	REMARKS (Drill Rate, Fluid loss, Odor, etc.)
1	SILTY GRAVEL Light gray (10 YR 7/1), up to 6cm gravels, subrounded to angular, loose, dry	GM/GC							Start 1420
	becomes multi-colored gravels, iron oxide stains								HNU calib. 0740
									Drill to 1'
								13	CP-2-1 1425
								11	Poor Recovery
								11	
									Drill to 4.5'
	CLAY Black (5Y 2.5/1), low plasticity, dry, stiff, trace gravel	CL							
5	as above, mottled with olive gray (5Y 4/2)		1-5					5	Headspace
								8	CP-2-5 1430
								12	
									Drill to 9.5'
	becomes olive gray (5Y 4/2)								
10	becomes light olive brown (2.5Y 5/4), medium stiff, with dark gray (5Y 4/1), damp, soft		<1					5	
								8	CP-2-10 1440
								12	Headspace
									Drill to 13'
	becomes medium plasticity, moist, soft								
14	becomes wet, very soft		<1	▼				5	
	increase in very fine sand & silt							5	Headspace
								5	CP-2-14 1450

FIELD LOG OF BORING NO CP-2 SHEET 1 of 2

Woodward-Clyde Consultants

PROJECT NAME Camp Parks Bldg 732 NO. 7128

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG: Lithology	GRAPHIC LOG: ~~Piezometer~~ Installation	Water	Piezometer Data	SAMPLES: Type No.	SAMPLES: Recov. ft	SAMPLES: Penetr. Resist. (Blows/6 in.)	REMARKS (Drill. Rate, Fluid loss, Odor, etc.)
14			HNU						
	TD @ 14.5'								TD @ 1450 HNU readings of cores unless otherwise noted. Retrievable screen used in hydropunch

FIELD LOG OF BORING NO CP-2 SHEET 2 of 2

Woodward-Clyde Consultants PROJECT NAME Camp Parks - Bldg 732 NO. 7128

BORING LOCATION CP-3 (9' S of center UST 732-2)		ELEVATION AND DATUM	
DRILLING AGENCY KVILHAUG	DRILLER Rod Forlow	DATE STARTED / DATE FINISHED 7/15/94	
DRILLING EQUIPMENT Mobile drill B-53		COMPLETION DEPTH 16	SAMPLER 2" ID MOD. CA
DRILLING METHOD Hollow Stem Auger	DRILL BIT 6"	NO. OF SAMPLES / DIST.	UNDIST. 4
SIZE AND TYPE OF CASING n/a		WATER ELEV. FIRST 14.25	COMPL. / 24 HRS
TYPE OF PERFORATION n/a	FROM TO FT.	LOGGED BY S. Bilir	CHECKED BY: M. Castellanos
SIZE AND TYPE OF PACK n/a	FROM TO FT.		
TYPE OF SEAL Portland Neat Grout	FROM 0 TO 16 FT.		

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG Lithology	Piezometer Installation	HNU	Water Content	Piezometer Data	SAMPLES Type No.	Recov. ft.	Penetr. Resist. (Blows/6 in.)	REMARKS (Drill Rate, Fluid loss, Odor etc.)
	SILTY/CLAYEY GRAVEL Light gray (10YR 7/1), up to 6 cm, loose, dry, angular	GM/GC								Start 0900 Restart 0908 HNU Calibr. 0740
1	GRAVELLY CLAY Grayish brown and very dark gray-brown (10YR 5/2 and 10YR 3/2) some sand/gravel, low plasticity, dry, medium stiff	CL							6 4 8	Drill to 1' Poor recovery
				<1						CP-3-2 0910
	CLAY Grayish brown and very dark grayish brown (10YR 5/2 and 10YR 3/2) low plasticity, damp, medium dense/stiff	ML/CL							5 6 13	
	becomes black (10YR 2/1), trace gravel, roots			<1						Headspace
5									4 8	
				1						Headspace
	becomes dark gray (5Y 4/1), trace coarse sand			<1					14	CP-3-5 0925
									5 10 18	
	as above, mottled with olive brown (2.5Y 4/3), various colors, pockets of sand (medium), stiff, some roots			<1					5 9 17	
	as above			<1					5 8 15	
10	dark gray (5Y 4/1), medium plasticity, soft								5	CP-3-10 0955
				2-5					8 11	Headspace
	olive brown (2.5Y 4/3) mottled with dark gray (5Y 4/1), olive brown is medium stiff/low plasticity, dark gray is soft/medium plasticity								5 8 10	
	becomes dark grayish brown (2.5Y 4/2), some medium sand, high plasticity, moist, soft								5 6 8	
	becomes wet				▼					

FIELD LOG OF BORING NO CP-3 SHEET 1 of 2

Woodward-Clyde Consultants

PROJECT NAME Camp Parks-Bldg 732 NO 7128

DEPTH (FEET)	DESCRIPTION	GRAPHIC LOG: Lithology	GRAPHIC LOG: Piezometer Installation	Water Content	Permeameter Data	SAMPLES: Type	SAMPLES: Recovery (in.)	SAMPLES: Penetration Resist. (Blows/6 in.)	REMARKS (Drill Rate, Fluid Loss, Odor, etc.)
	as above, increase in medium sand, very soft	ML/CL	#NW			X		3 3 5	CP-3-15 1020
16	TD @ 16'								TD @ 1025 #All readings of core unless otherwise noted. Retrievable screen did not retrieve when using hydropunch.

FIELD LOG OF BORING NO CP-3 SHEET 2 of 2

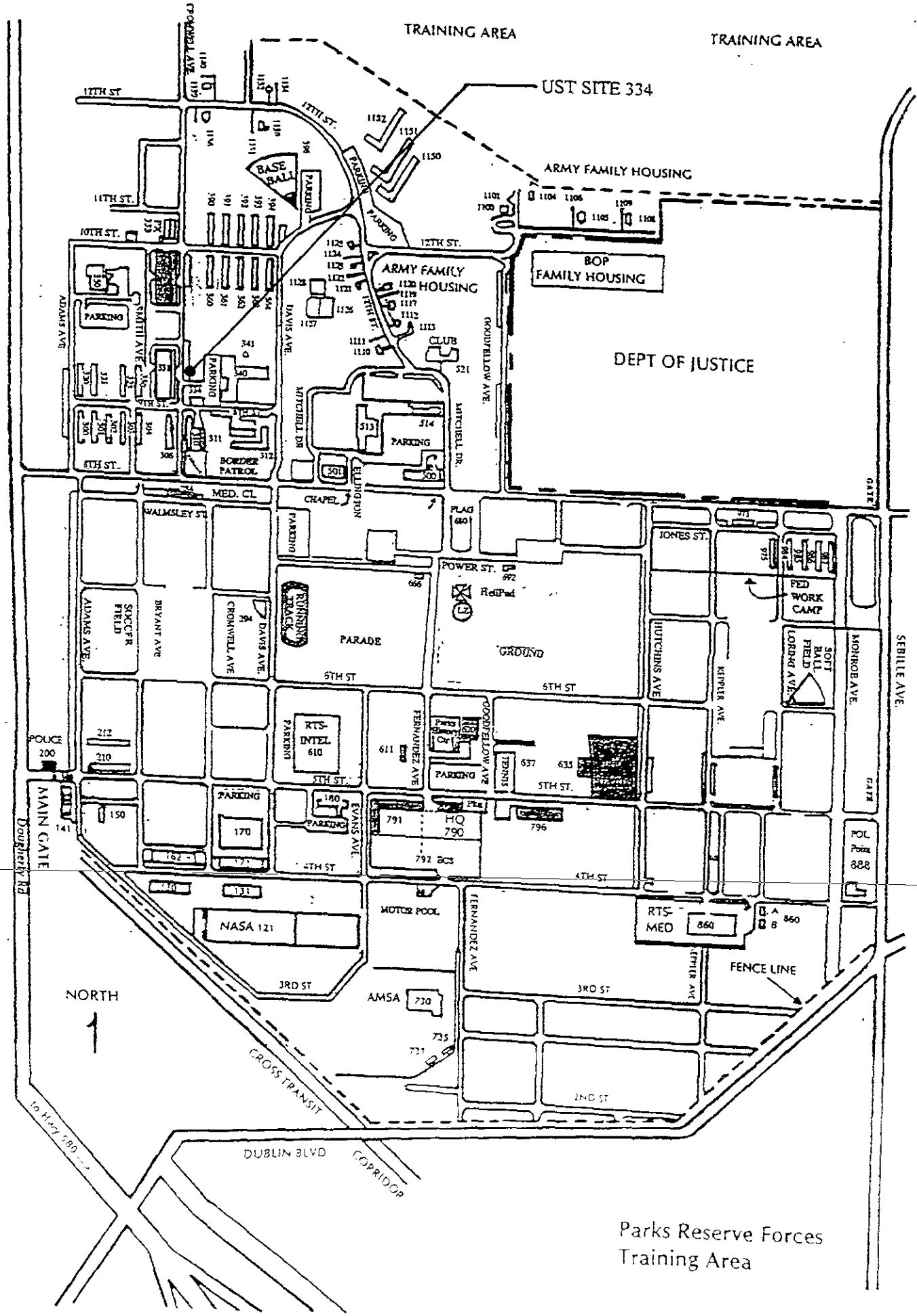
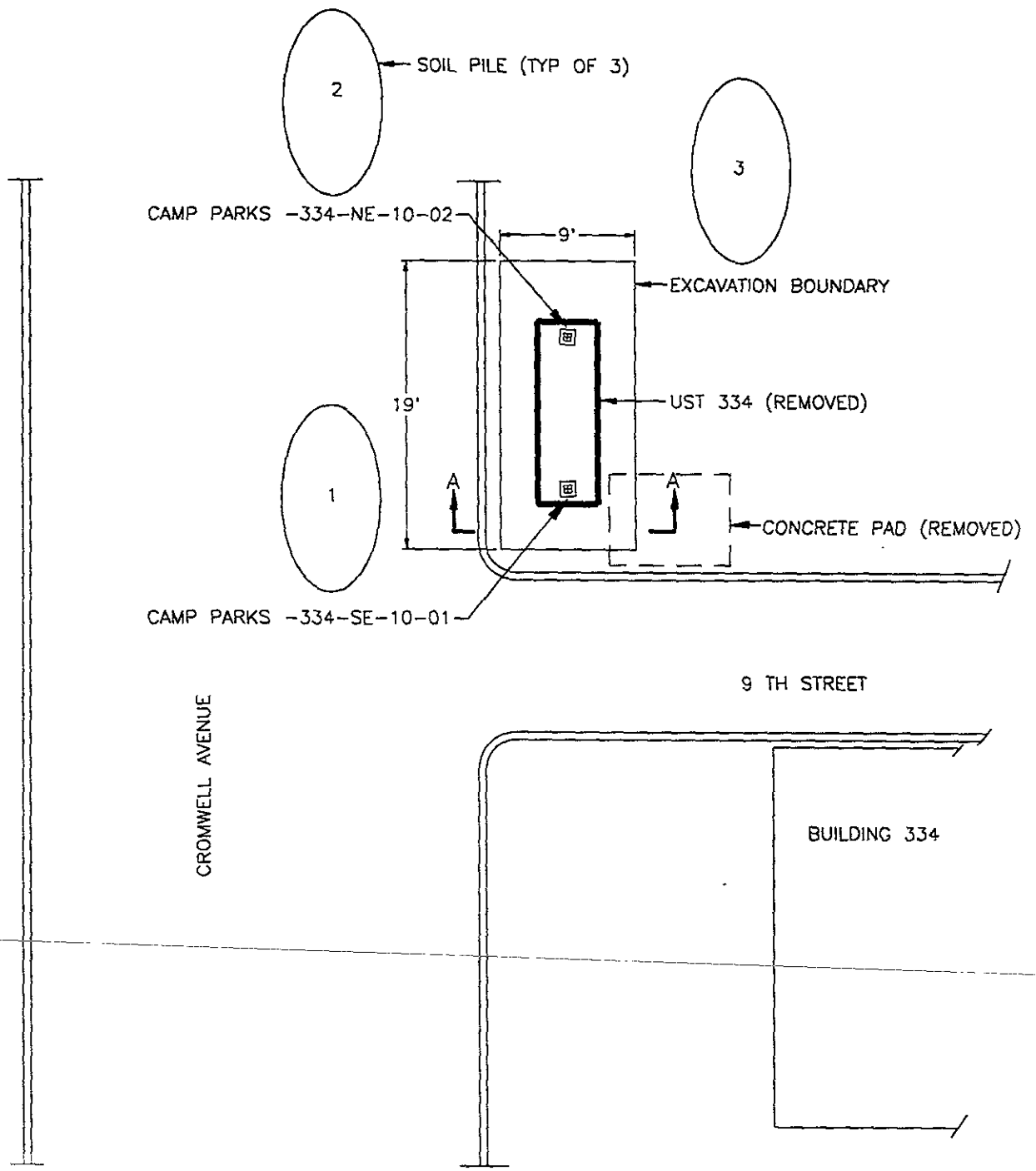


FIGURE 1
UST SITE 334 LOCATION
PARKS RESERVE FORCES TRAINING AREA



LEGEND

SOIL SAMPLE

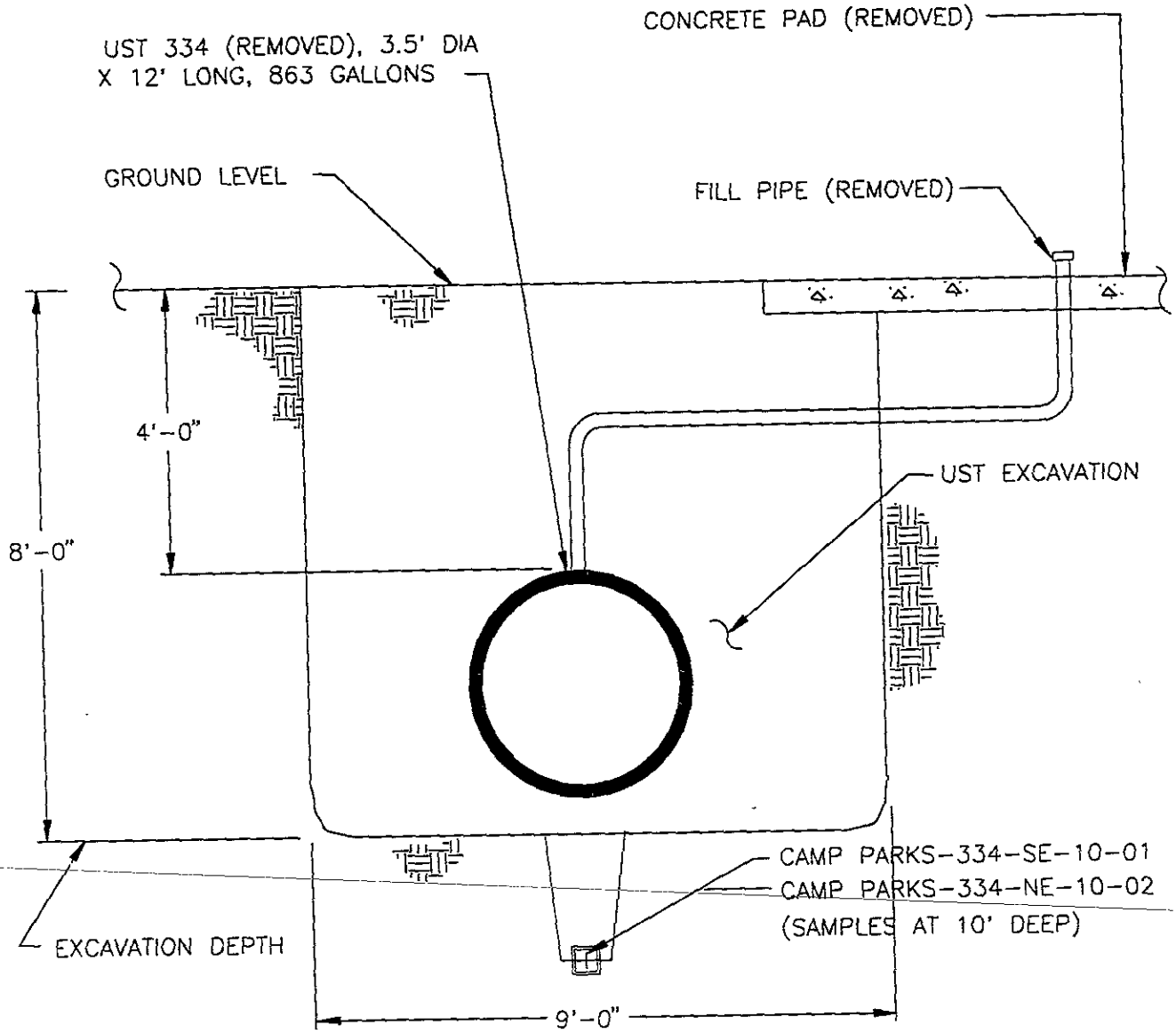
REMOVED TANK

N

FIGURE 2 (PLAN VIEW)

EXCAVATION AND SAMPLING

UNDERGROUND STORAGE TANK SITE 334
PARKS RESERVE FORCES TRAINING AREA
DUBLIN, CALIFORNIA



SECTION A-A

LEGEND

SOIL SAMPLE

REMOVED TANK

0' 2' 4'

FIGURE 3 (SECTION A-A)

EXCAVATION AND SAMPLING

UNDERGROUND STORAGE TANK SITE 334
PARKS RESERVE FORCES TRAINING AREA
DUBLIN, CALIFORNIA

4.2.2 The soil samples were analyzed for: 1) Benzene, Toluene, Ethylbenzene and Xylene (BTE & X); 2) Total Petroleum Hydrocarbons (TPH) using diesel and gasoline as a standard; 3) Methyl Tertiary - Butyl Ether (MTBE); and 4) Lead.

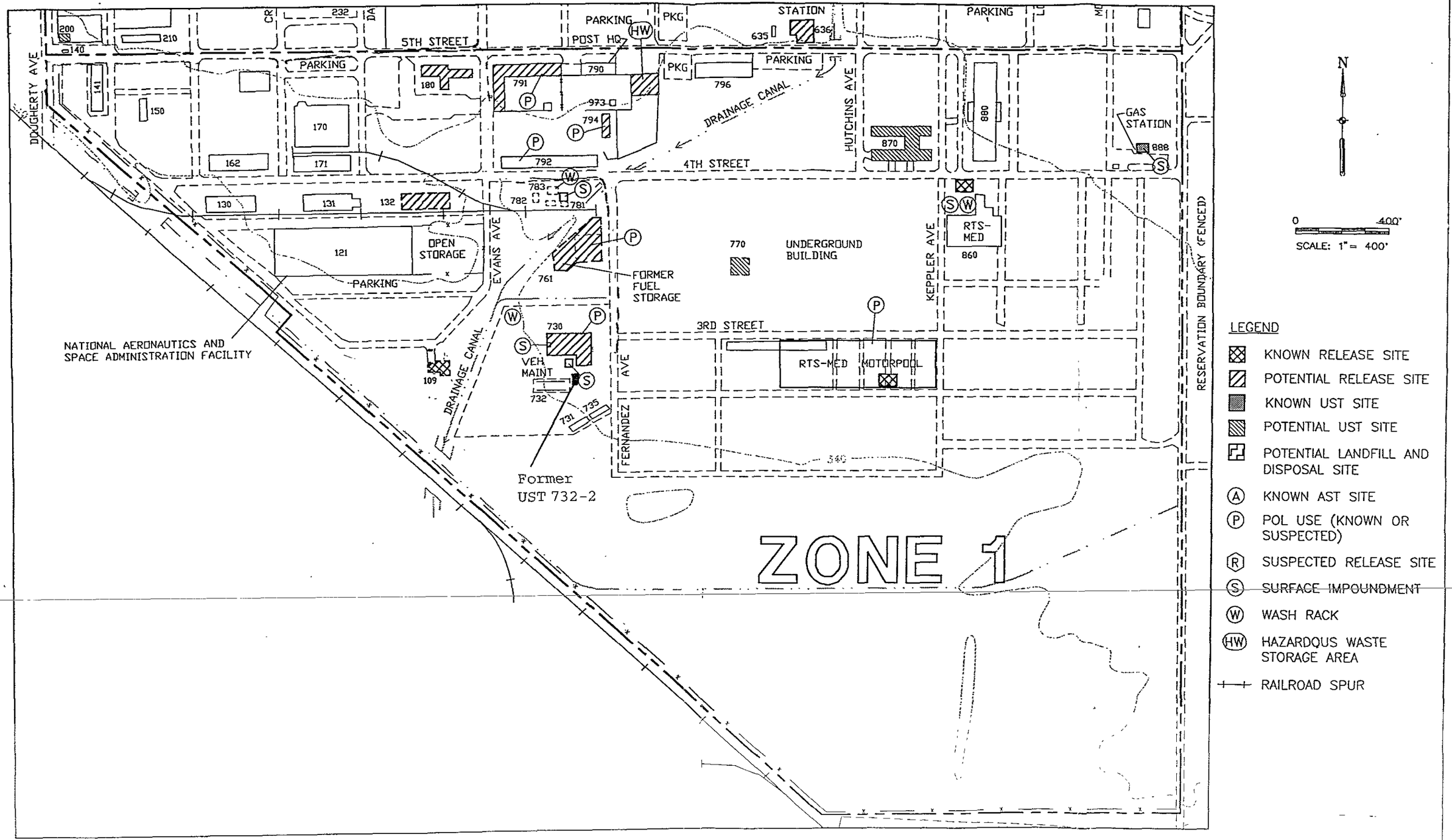
Table 1A. Analytical Results of Samples taken at the Bottom of Excavation

Analyte	Soil Sample Number Camp Parks-334-SE-10-01 mg/kg (ppm)	Soil Sample Number Camp Parks-334-NE-10-02 mg/kg (ppm)	US EPA Method Number
Benzene	ND	ND	5030A/8020A
Toluene	ND	ND	5030A/8020A
Ethylbenzene	ND	ND	5030A/8020A
Xylenes (total)	ND	ND	5030A/8020A
TPH (diesel)	ND	ND	8015M
TPH (gasoline)	ND	ND	8015M
MTBE	ND	ND	5030A/8020A
Lead	7.6	15	7420

Table 1B. Analytical Results of Samples taken at the Excavated Soil Piles

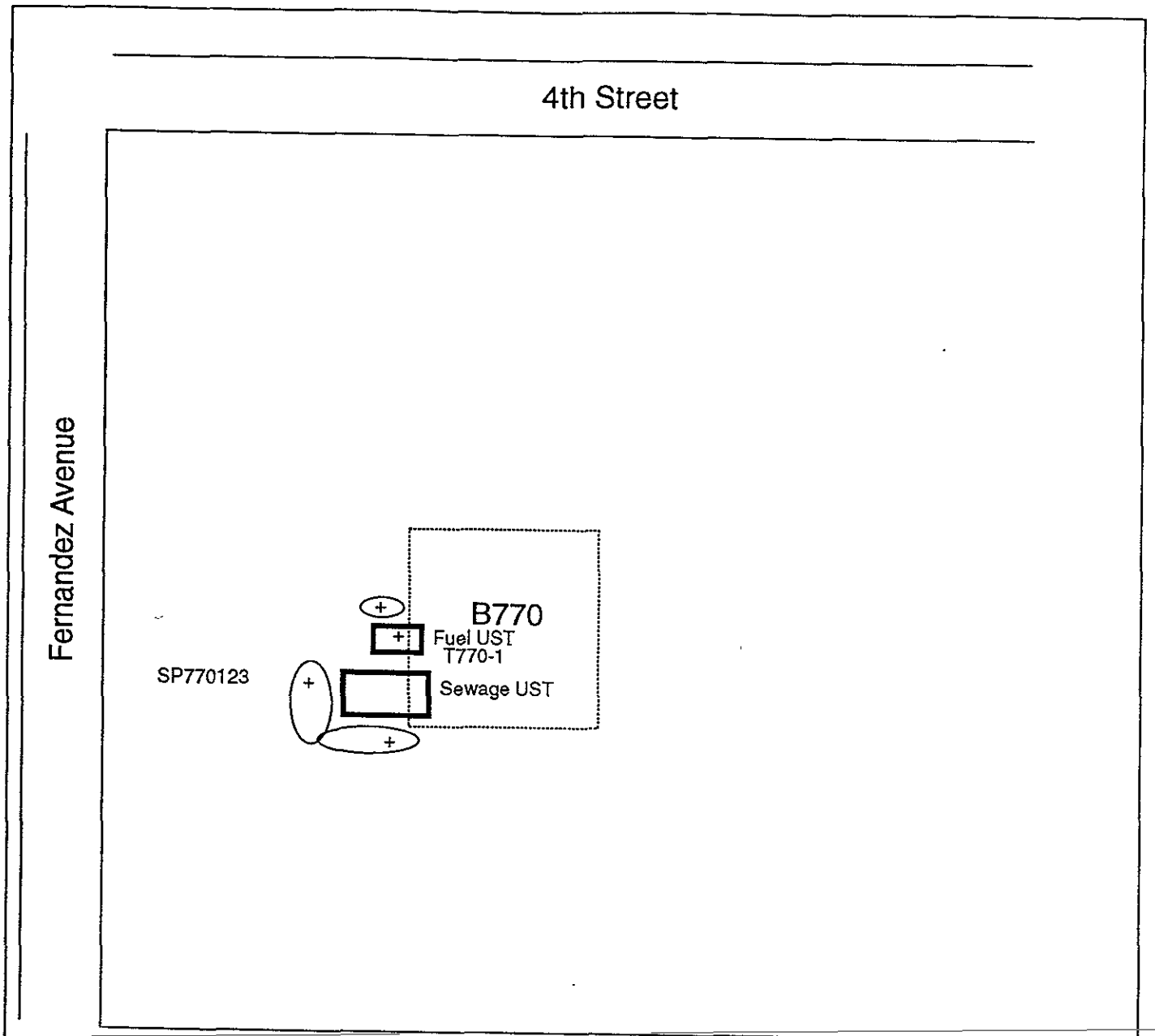
Analyte	Soil Sample Number Camp Parks-334-Piles-01 & 02 mg/kg (ppm)	Soil Sample Number Camp Parks-334-Pile-03 mg/kg (ppm)	US EPA Method Number
Benzene	ND	ND	5030A/8020A
Toluene	ND	ND	5030A/8020A
Ethylbenzene	ND	ND	5030A/8020A
Xylenes (total)	ND	ND	5030A/8020A
TPH (diesel)	ND	ND	8015M
TPH (gasoline)	ND	ND	8015M
MTBE	ND	ND	5030A/8020A
Lead	7.4	15	7420

Notes.
1 All soil samples were taken on November 18, 1998
2 ND - Not Detected at the laboratory reporting limit



Project No. 7128	PARKS RESERVE FORCES TRAINING AREA	ZONE 1 PARKS RESERVE FORCES TRAINING AREA DUBLIN, CALIFORNIA	Figure 2
Woodward-Clyde			

PARK-07 041394



Legend

- Former building location
- UST excavation
- Stockpiled soil
- T770-1 — Sample designation
- \+ — Soil sample location (November 1994)

0 60
Approximate scale in feet

N

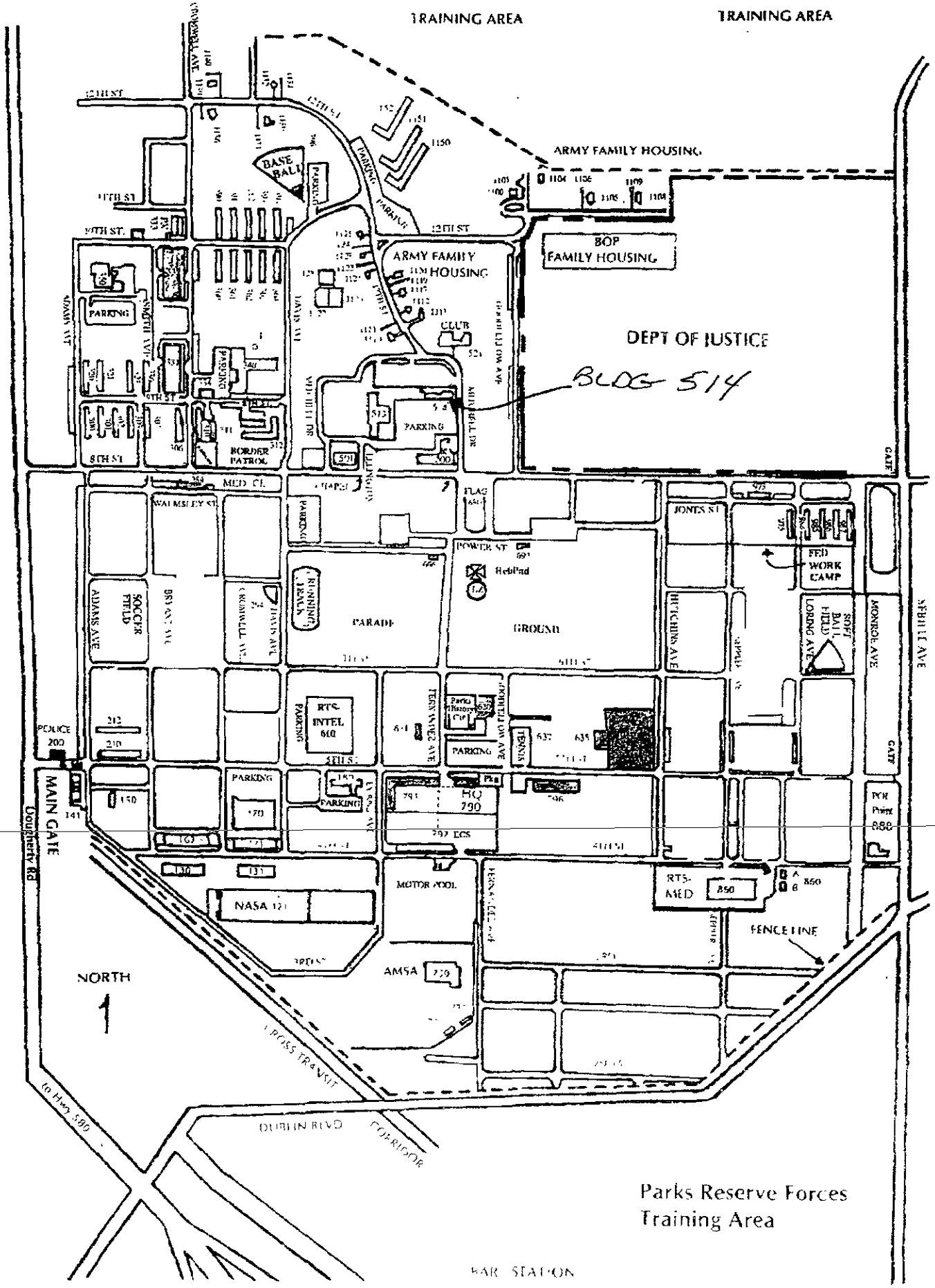
Project No. 7112	Parks Reserve Forces Training Area Dublin, California	BUILDING 770 NOVEMBER 1994 INVESTIGATION	Figure 5
Woodward-Clyde			

Table 2. Summary of Laboratory Results, PRFTA, Dublin, California

Sample Identification	TPH-Diesel (ppm)	TPH-Gasoline (ppm)	BTEX (ppm)	Total Lead (ppm)
T1135-S1	ND	NT	ND	NT
T1136-S1	2,000	NT	ND	NT
SP1135-S1	350	NT	ND	NT
SP1136-S1	ND	NT	ND	NT
SP1135-S2	ND	NT	ND	NT
T770-1	NT	ND	ND	6.4
SP770123	NT	ND	ND	6.1
E1136-S1	ND	NT	ND	NT
E1136-S2	ND	NT	ND	NT
E1136-S3	ND	NT	ND	NT
E1136-S4	ND	NT	ND	NT
E1136-S5	ND	NT	ND	NT
SP1136-1109	240	NT	ND	NT

Note: ND - Not detected at or above detection limits for the analysis (see Appendix C for detection limits)
NT - Not Tested

TO: EVA CHY


TRAINING AREA
TRAINING AREA
ARMY FAMILY HOUSING
BOP FAMILY HOUSING
ARMY FAMILY HOUSING
DEPT OF JUSTICE
BLDG 514
CLUB
PARKING
BORDER PATROL
MED CTL
PARADE GROUND
HeliPad
SOCCER FIELD
RUNNING TRACK
RTS-INTEL 610
HQ 790
MOTOR POOL
NASA
AMSA
RTS-MED 850
FENCE LINE
FED WORK CAMP
JONES ST
POWER ST
HUTCHINS AVE
MONROE AVE
SHERIDAN AVE
MAIN GATE
POLICE 200
Dougherty Rd
NORTH
CROSS TRANSIT
DUBLIN BLVD CORRIDOR
to Hwy 580
BAR STATION
Parks Reserve Forces Training Area

SUMMARY TABLE FOR CLOSURE

SUMMARY OF SOIL AND GROUNDWATER RESULTS
Camp Parks Reserve Forces Training Area, Dublin, California

Sampling Location	Sample Description	Sample Date	Media	Analytical Method	Analyte (mg/kg for soil and mg/L for groundwater)								
					Lead	TPH (diesel)	TPH (hydraulic fluid)	TPH (gas)	MtBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
Building 514													
B514-B1	Bottom of excavation, 3-5 ft bgs	3/26/97	Soil	EPA 8015M/8020/6010	49	ND	—	ND	—	ND	ND	ND	ND
B514-C1	Composite sample of excavated soil	3/26/97	Soil	EPA 8015M/8020/6010	22	ND	—	ND	—	ND	ND	ND	ND
Building 1105													
B1105-B1	Bottom of excavation, 5-7 ft bgs	3/25/97	Soil	EPA 8015M	—	ND	—	—	—	—	—	—	—
B1105-C1	Composite sample of excavated soil	3/25/97	Soil	EPA 8015M/8020	—	1100J	—	—	R	R	R	0.05J	0.46J
Building 1108													
B1108-B1	Bottom of fill end of tank to close in place, 3-5 ft bgs	3/25/97	Soil	EPA 8015M/8020	—	660	—	ND	ND	ND	0.03	0.09	0.47
Building 1137													
B1137-B1	Bottom of excavation, 7-9 ft bgs	3/25/97	Soil	EPA 8015M	—	ND	—	—	—	—	—	—	—
B1137-C1	Composite sample of top 4 ft of excavated soil	3/25/97	Soil	EPA 8015M	—	ND	—	—	—	—	—	—	—
B1137-C2	Composite sample of stained soil, excavated below 4 ft bgs	3/25/97	Soil	EPA 8015M/8020	—	390	—	—	ND	ND	ND	ND	0.16
Building 1139													
B1139-B1	Bottom of excavation, 3-5 ft bgs	3/25/97	Soil	EPA 8015M	—	260J	—	—	—	—	—	—	—
B1139-C1	Composite sample of excavated soil	3/25/97	Soil	EPA 8015M	—	100J	—	—	—	—	—	—	—

General Notes
"—" = Not analyzed
ND = Not detected
R = Rejected
J = Estimated