

RESPONDED to 2/2/2000

ENVIRONMENTAL PROTECTION

99 NOV 16 PM 4:16

SHD  
4104

FACSIMILE COVER SHEET

TO: Amir Gholami

COMPANY: Alameda County Health ~~Care Services~~ Agency

ADDRESS: Div. Environmental Protection  
Dept. of Environmental Health  
1131 Harborway Berkeley

PHONE: 510-567-6876 2nd floor Alameda CA

FAX: 510-337-9335 94502

FROM: Dylan Crouse

COMPANY: ENVIRONMENTAL RESOLUTIONS, INC.

PHONE: (415) 382-4325

FAX: (415) 382-1856

E-MAIL: dcrouse@eri-us.com

DATE: 11/11/99 - 11-15-99

PAGES (Including Cover): 24

SUBJECT: As you requested, here are the soil analytical results and samples locations for Tosco 76 Service Station 7176. 4104

COMMENTS: If you have any question please give me a call.

Thank You,

Dylan Crouse

\*\*\*\*\*  
\*\*\* TX REPORT \*\*\*  
\*\*\*\*\*

TRANSMISSION OK

TX/RX NO	3431	
CONNECTION TEL		15103379335
SUBADDRESS		
CONNECTION ID		
ST. TIME	11/11 11:27	
USAGE T	16'20	
PGS. SENT	24	
RESULT	OK	

FACSIMILE COVER SHEET

TO: Amir Gholami

COMPANY: Alameda County Health Care Services

ADDRESS:

PHONE: 510-567-6876

FAX: 510-337-9335

FROM: Dylan Crouse  
COMPANY: ENVIRONMENTAL RESOLUTIONS, INC.  
PHONE: (415) 382-4325  
FAX: (415) 382-1856  
E-MAIL: dcrouse@eri-us.com

DATE: 11/11/99

PAGES (Including Cover): 24

SUBJECT: As you requested, here are the soil analytical results and samples locations for Tosco 76 Service Station 7176.

COMMENTS: If you have any question please give me a call.

Thank You,

**TABLE 1  
SOIL ANALYTICAL DATA**

7850 Amador Valley Road  
Dublin, California

SAMPLE NO.	SAMPLE DEPTH (FEET)	SAMPLE DATE	ANALYSIS DATE	TPH-D (PPM)	TPH-G (PPM)	BENZENE (PPM)	TOLUENE (PPM)	ETHYL BENZENE (PPM)	XYLENES (PPM)	TTL C LEAD (PPM)	O&G (PPM)	8270 (PPB)	8240 (PPB)
UW-1	8	11/8/94	11-9-94	ND	ND	ND	ND	ND	ND	7.1*	ND	ND	ND
UOW-1	6	11/8/94	11-9-94	ND	ND	ND	ND	ND	ND	--	--	--	--
UT-1	3.5	11/8/94	11-9-94	ND	ND	ND	ND	ND	0.13	--	--	--	--
UT-2	3.5	11/8/94	11-9-94	1,300	100**	ND	ND	0.097	0.56	--	--	--	--
UT-3	3.5	11/8/94	11-9-94	--	3.1	0.017	0.25	36	300	--	--	--	--
UT-4	3.5	11/8/94	11-9-94	--	2,200**	ND	26	36	300	--	--	--	--
UT-5 (CS)	11	11/10/94	11-13-94	25***	740**	ND	6.5	20	110	--	--	--	--
UT-6 (CS)	11	11/10/94	11-13-94	11***	ND	ND	ND	ND	0.0070	--	--	--	--
UT-7 (CS)	19.5	11/30/94	12/2/94	50***	1,300**	ND	31	26	150	--	--	--	--
UT-8 (CS)	12	11/30/94	12/2/94	23***	180**	ND	3.8	10	19	--	--	--	--
UT-9 (CS)	8	11/30/94	12/2/94	ND	180**	ND	ND	ND	0.59	--	--	--	--
UT-10 (CS)	8	11/30/94	12/2/94	2	140**	ND	0.62	0.89	12	--	--	--	--
UT-11 (CS)	11	11/30/94	12/2/94	13***	5.1**	ND	ND	0.014	0.128	--	--	--	--
UX-1	14	11/8/94	11-9-94	9,100	--	0.98	1.8	2.7	3.4	--	--	--	--
UX-2	14	11/8/94	11-9-94	ND	--	ND	ND	ND	0.011	ND	--	--	--
UX-3	15.5	11/10/94	11-14-94	--	1,600	1.6	54	24	220	ND	--	--	--
UX-4	15.5	11/10/94	11-14-94	--	1,500**	ND	11	16	160	ND	--	--	--
UX-5	15.5	11/10/94	11-14-94	--	5.2**	0.021	0.022	0.030	0.14	--	--	--	--
UX-6	15	11/10/94	11-14-94	--	11**	0.011	0.067	0.046	0.40	--	--	--	--
UX-7	15	11/10/94	11-14-94	--	2.8**	0.0062	ND	0.016	0.16	--	--	--	--
UX-8	15	11/10/94	11-14-94	--	150	0.22	3.5	2.1	21	ND	--	--	--
UX-9 (CS)	16	11/10/94	11-13-94	36	41**	ND	0.074	0.45	0.37	--	--	--	--
UX-10 (CS)	16	11/10/94	11-13-94	75	27**	ND	0.062	0.29	0.049	--	--	--	--
UX-11 (CS)	17	11/10/94	11-13-94	15***	200**	ND	1.2	0.94	17	--	--	--	--
UX-12 (CS)	17	11/10/94	11-13-94	15***	230**	ND	2.6	1.0	24	--	--	--	--
UX-13 (CS)	15	11/10/94	11-13-94	1.6***	ND	ND	ND	ND	0.0060	--	--	--	--
UX-14 (CS)	17	11/10/94	11-13-94	16***	210**	ND	0.78	0.98	9.7	--	--	--	--

**TABLE 1  
SOIL ANALYTICAL DATA**

7850 Amador Valley Road  
Dublin, California

CS	= Confirmation Sample
TPH-G	= Total Petroleum Hydrocarbons calculated as Gasoline
TPH-D	= Total Petroleum Hydrocarbons calculated as Diesel
TTLC	= Total Threshold Limit Concentration
O&G	= Oil and Grease
8270	= Semi-Volatile Organics
8240	= Volatile Organics
PPM	= Parts Per Million
PPB	= Parts Per Billion
UW	= Waste Oil Excavation Sample Designation
UOW	= Sand/Water Separator Sample Designation
UT	= Trench Sample Designation
UX	= UST Excavation Sample Designation
*	= See Appendix A for remaining metals analytical data.
**	= Non Gas Mix and/or Weathered Gas
***	= Non Diesel Mix

Note: Analyses designated as ND were reported as not detected. See analytical reports for detection limits.

**TABLE 2**  
**SOIL STOCKPILE ANALYTICAL DATA**

7850 Amador Valley Road  
Dublin, California

SAMPLE NO.	SAMPLE DATE	ANALYSIS DATE	TPH-D (PPM)	TPH-G (PPM)	BENZENE (PPM)	TOLUENE (PPM)	ETHYL BENZENE (PPM)	XYLENES (PPM)	TTL C LEAD (PPM)	RCI	O&G (PPM)	8270 (PPB)	8240 (PPB)
UWS-1A-D	11/9/94	11-14-94	ND	ND	ND	ND	ND	ND	*	**	ND	ND	ND
US-1A-D	11/9/94	11-10-94	33***	--	ND	0.054	0.072	0.63	--	--	--	--	--
US-2A-D	11/9/94	11-10-94	3.5***	2.3	ND	0.013	0.0062	0.16	ND	--	--	--	--
US-3A-D	11/10/94	11-14-94	340	110****	ND	0.22	0.81	4.3	ND	**	--	--	--
US-4A-D	11/10/94	11-11-94	58	54****	ND	ND	0.35	1.4	ND	--	--	--	--
US-5A-D	11/10/94	11-11-94	27***	ND	ND	ND	ND	ND	--	--	--	--	--
US-6A-D	11/10/94	11-11-94	46***	21****	ND	ND	ND	0.11	ND	--	--	--	--
US-7A-D	11/13/94	11-14-94	35***	140****	ND	ND	0.55	8.8	ND	--	--	--	--
US-8A-D	11/13/94	11-14-94	130	130****	ND	0.57	1.0	9.4	ND	--	--	--	--
US-9A-D	11/13/94	11-14-94	160***	160****	ND	1.7	1.8	15	ND	--	--	--	--
US-10A-D	11/13/94	11-14-94	11***	66****	ND	0.55	0.61	5.1	ND	--	--	--	--
US-11A-D	11/13/94	11-14-94	13***	79****	ND	0.71	0.85	8.5	ND	--	--	--	--
US-12A-D	11/13/94	11-14-94	29***	230****	ND	0.69	0.78	18	ND	--	--	--	--
US-13A-D	11/13/94	11-14-94	12***	50****	ND	0.15	0.13	3.8	ND	--	--	--	--
US-14A-D	12-6-94	12/7/94	24***	390****	ND	5.9	3.8	43	ND	--	--	--	--
US-15A-D	12-6-94	12/7/94	21***	1,600****	ND	47	25	170	ND	--	--	--	--
US-16A-D	12-6-94	12/7/94	3.6***	ND	ND	ND	ND	0.0053	ND	--	--	--	--

**TABLE 2**  
**SOIL STOCKPILE ANALYTICAL DATA**

7850 Amador Valley Road  
Dublin, California

TPH-G	= Total Petroleum Hydrocarbons calculated as Gasoline.
TPH-D	= Total Petroleum Hydrocarbons calculated as Diesel.
TILC	= Total Threshold Limiting Concentration
RCI	= Reactivity, Corrosivity and Ignitability.
O&G	= Oil and Grease.
8270	= Semi-Volatile Organics.
8240	= Volatile Organics.
PPM	= Parts Per Million
PPB	= Parts Per Billion
UWS	= Waste Oil Soil Stockpile Designation.
US	= Soil Stockpile Designation
*	= Reported as Soluble Threshold Limit Concentration for dissolved metals. See Appendix A for remaining metals analytical data.
**	= See Appendix A for analytical data.
***	= Non Diesel Mix
****	= Weathered Gasoline

Note: Analyses designated as ND were reported as not detected. See analytical reports for detection limits.

**TABLE 1**  
**FIELD MONITORING DATA**  
 7850 Amador Valley Boulevard  
 Dublin, California

WELL NO.	MONT. DATE	CASING DIA. (IN.)	SCREENED INTERVAL (FBG)	WELL DEPTH (FT.)	WELL ELEV. (FT.)*	NORTHING	EASTING	IMMISCIBLES THICKNESS (FT.)	DEPTH TO WATER (FT.)	WATER ELEV. (FT.)**
U-1	8-Jul-95	2	10 - 30	30.00	355.62	4,952.716	3,991.469	0.00	12.59	343.03
U-2	8-Jul-95	2	10 - 30	30.00	356.59	4,949.906	3,907.966	0.00	12.68	343.91
U-3	8-Jul-95	2	10 - 30	30.00	358.13	4,838.422	3,890.009	0.00	14.58	343.55

**NOTES:**

FBG = Feet Below Grade

\* Well elevation calculated from top of casing (TOC) measurements.

\*\* Static water elevations referenced to Mean Sea Level.

Survey benchmark was a brass disk in the top of the curb at the easterly return at the most easterly corner of the intersection of Amador Valley Boulevard and Starward Street, stamped "AM-STW 1977" (Elevation = 344.17').

**TABLE 2**  
**SOIL ANALYTICAL DATA**  
 7850 Amador Valley Boulevard  
 Dublin, California

SAMPLE NO.	DEPTH (FT.)	SAMPLE DATE	ANALYSIS DATE	TPH-D (PPM)	TPH-G (PPM)	BENZENE (PPM)	TOLUENE (PPM)	ETHYL BENZENE (PPM)	XYLENES (PPM)	TOTAL LEAD (PPM)
U-1-10.5	10.5	7/7/95	7/12/95	ND	ND	ND	ND	ND	ND	---
U-1-18.5	18.5	7/7/95	7/12/95	25*	26**	0.041	0.053	0.56	2.2	---
U-2-13	13	7/7/95	7/12/95	1.3*	ND	0.017	ND	0.071	ND	---
U-2-17.5	17.5	7/7/95	7/12/95	12*	97**	ND	0.21	1.7	1.5	---
U-3-17.5	17.5	7/7/95	7/12/95	ND	ND	ND	ND	ND	ND	---
B-1-13	13	7/8/95	7/12/95	1.5*	ND	ND	ND	ND	ND	---
B-1-18	18	7/8/95	7/12/95	1.0*	2.1	ND	ND	0.028	0.0088	---
B-2-16	16	7/8/95	7/12/95	ND	ND	ND	ND	ND	ND	---
B-3-11	11	7/8/95	7/12/95	ND	ND	ND	ND	ND	ND	---
B-3-17	17	7/8/95	7/12/95	ND	ND	ND	ND	ND	ND	---
B-4-11.5	11.5	7/8/95	7/12/95	ND	ND	ND	ND	ND	ND	---
B-4-16	16	7/8/95	7/12/95	1.7*	ND	ND	ND	ND	ND	---
B-5-14.5	14.5	7/8/95	7/12/95	ND	5.1**	0.13	0.020	0.29	0.12	---
B-5-18	18	7/8/95	7/12/95	4.8*	59**	0.068	ND	0.84	0.98	---
B-6-14.5	14.5	7/8/95	7/11/95	ND	4.9**	0.088	ND	0.099	0.22	---
B-6-19.5	19.5	7/8/95	7/12/95	10*	150**	0.21	3.0	3.2	19	---
US-1A-D	--	7/8/95	7/12/95	3.3*	ND	ND	ND	ND	0.0060	8.3

TPH-D = Total Petroleum Hydrocarbons calculated as Diesel.

TPH-G = Total Petroleum Hydrocarbons calculated as Gasoline.

PPM = Parts Per Million.

U, B = Soil Boring Designation

US = Soil Stockpile Designation

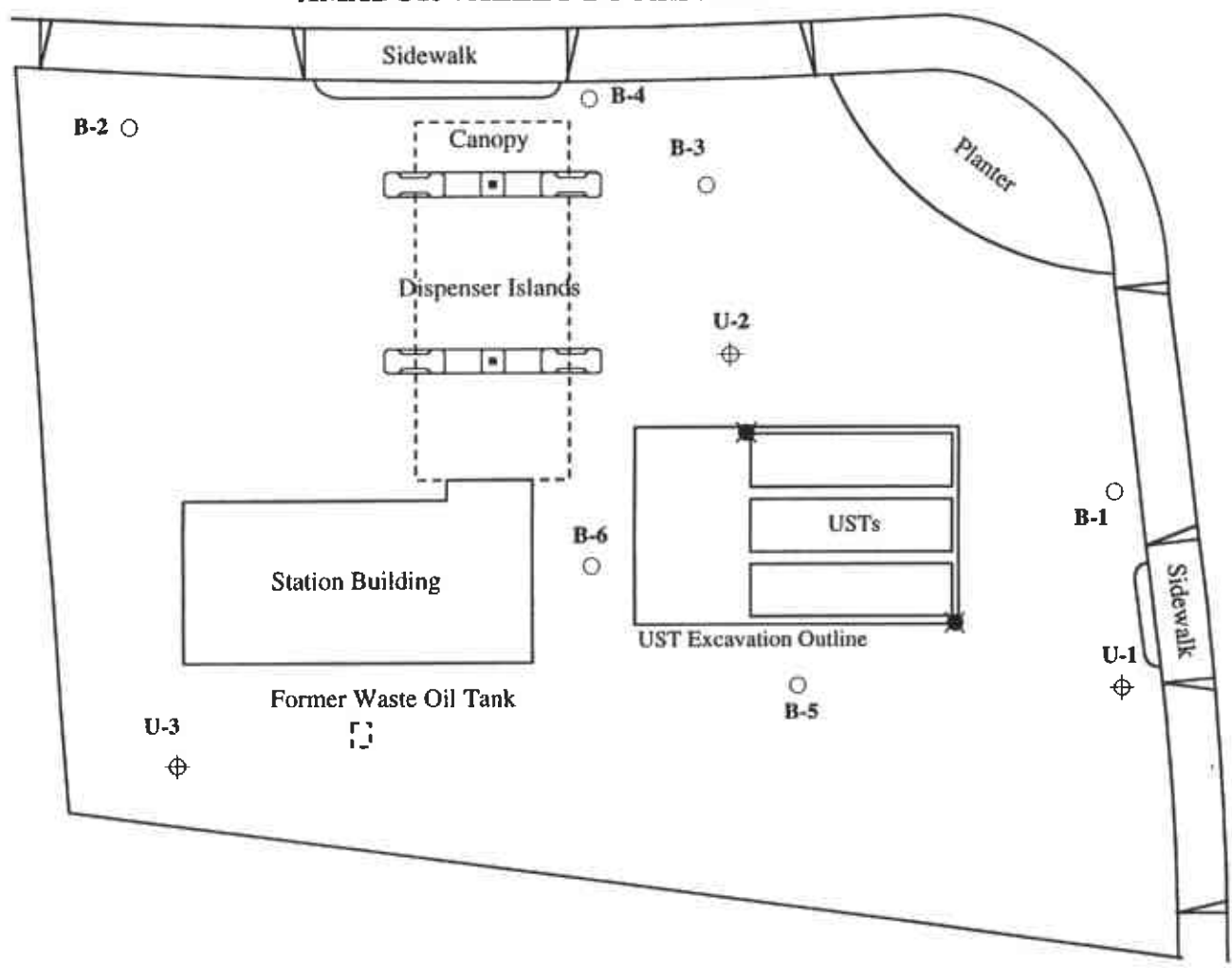
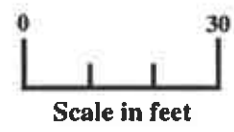
\* = Unidentified Hydrocarbon C9-C24

\*\* = Weathered Gas C6-C12

Notes: All data reported as <x are shown as ND (non detected). See laboratory analytical reports for detection limits.



AMADOR VALLEY BOULEVARD



REGIONAL STREET

**EXPLANATION**

- Soil Boring Location
- ⊕ Monitoring Well Location
- Conductor Casing Location

PLATE  
**2**

**SITE PLAN**  
Unocal SS No. 7176  
7850 Amador Valley Boulevard  
Dublin, California

**enviros**<sup>®</sup>  
95132.02

Drawn By: CJG

Date: 9-7-95

Approved By: *DAV*

Date: *10/10/95*

		MAJOR DIVISIONS	USCS SYMBOL	TYPICAL NAMES		
COARSE-GRAINED SOILS MORE THAN HALF IS LARGER THAN 200 SIEVE	GRAVELS	Clean gravels with little or no fines	GW		Well-graded gravels, gravel-sand mixtures	
			GP		Poorly graded gravels, gravel-sand mixtures	
		Gravels with appreciable amounts of fines	GM		Silty gravels, poorly graded gravel-sand-clay mixtures	
			GC		Clayey gravels, poorly graded gravel-sand-clay mixtures	
	SANDS	Clean sands with little or no fines	SW		Well graded sands, gravelly sands	
			SP		Poorly graded sands, gravelly sands	
		Sands with appreciable amounts of fines	SM		Silty sands, poorly graded sand-silt mixtures	
			SC		Clayey sands, poorly graded sand-silt mixtures	
			Sils and clays Liquid limit 50% or less	ML		Inorganic silts and very fine sands. Rock flour, silty or clayey fine sands or clayey silts with slight plasticity
				CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
Sils and clays. Liquid limit greater than 50%	OL		Organic clays and organic silty clays of low plasticity			
	MH		Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts			
	CH		Inorganic clays of high plasticity, fat clays			
	OH		Organic clays of medium to high plasticity, organic silts			
Highly organic soils		PT		Peat and other highly organic soils		
Debris created or generated by man				Building debris or rubble		

**KEY TO FIELD DATA**

- Blows/6" - 140 lb. hammer dropped 30 inches.
- PPM - Parts per million
- OVM - Organic Vapor Meter
- Soil Color - Munsell Color Chart (1988 Edition)
- First encountered groundwater
- Equilibrated groundwater level
- Soil sample interval
- No soil sample recovery

PLATE	UNIFIED SOIL CLASSIFICATION SYSTEM ASTM D2487-85	<b>enviros</b> <sup>®</sup> 94000.00
	Drawn By: JLP	

# Field Exploratory Boring Log B-1

OVM (ppm)	Blows/6"	Sample Number	Depth (ft)	Soil Group (USCS)	Materials Description
			0	Asphalt	
			5	Silty Clay (CL)	Black (10YR 2/1); very stiff, moist, 80% clay, 15% silt, 5% very fine sand.
0	6 6 7		7		Color change to Gray (5Y 5/1); stiff, wet.
0	5 10 13	B-1-13'	13		Change to very stiff, moist.
0	12 12 15	B-1-18'	18	▽	Color change to Dark Grayish Brown (10YR 4/2), very stiff, moist to wet, increase in very fine sand content.  Saturated at 18 ft.
					Total Depth of Boring = 18.0 feet.

**BORING  
B-1**

**UNOCAL CORPORATION - CERT**  
 Unocal SS No. 7176  
 7850 Amador Valley Boulevard  
 Dublin, California

Borehole Diameter: 8 inches  
 Logged by: C. Galantine  
 Driller: Mitchell  
 Date Started: 7-7-95  
 Date Completed: 7-7-95

**enviros®**  
95132.02

# Field Exploratory Boring Log B-2

OVM (ppm)	Blows/6"	Sample Number	Depth (ft)	Soil Group (USCS)	Materials Description
			0	Asphalt	
			1	Silty Clay (CL)	Black (10YR 2/1); very stiff, moist, 80% clay, 15% silt, 5% very fine sand.
			2	Gravel with Clay (GW-GC)	Dark Grayish Brown (10YR 4/2), medium dense, moist, 75% fine gravel, 10% clay, 15% fine to coarse sand.
	7		3	Clayey Silt (ML)	Dark Grayish Brown (10YR 4/2), stiff, moist, 65% silt, 30% clay, 5% very fine sand.
0	7		4		
	8		5		
			6	Silty Clay (CL)	Dark Grayish Brown (10YR 4/2); very stiff, moist, 65% clay, 30% silt, 5% very fine sand.
			7		
0	9		8		
	11		9		
	13		10		
			11		
			12		
			13		
			14		
			15		
0	9		16		Change to damp, increase in clay content, trace fine gravel.
	13				
	17	B-2-16'			
					Total Depth of Boring = 16.0 feet.

<b>BORING B-2</b>	<b>UNOCAL CORPORATION - CERT</b> Unocal SS No. 7176 7850 Amador Valley Boulevard Dublin, California	Borehole Diameter: 8 inches Logged by: C. Galantine Driller: Mitchell Date Started: 7-7-95 Date Completed: 7-7-95	<b>enviros</b> ®  95132.02
-----------------------	--	---	----------------------------------

# Field Exploratory Boring Log B-3

OVM (ppm)	Blows/6"	Sample Number	Depth (ft)	Soil Group (USCS)	Materials Description
			0	Asphalt	
			5	Silty Clay (CL)	Black (10YR 2/1); very stiff, moist, 85% clay, 10% silt, 5% very fine sand.
0	4 7 7		5		Color change to Dark Gray (5Y 4/1).
			10		Change to very stiff, increase in silt content.
0	7 9 12	B-3-11'	10		
0	8 10 13		10		Change to 75% clay, 20% silt, 5% very fine sand.
			15		Color change to Olive Gray (10YR 4/2), 70% clay, 20-25% silt, 5-10% very fine sand.
0	9 9 15	B-3-17'	15		Change to 60% clay, 20% silt, 20% fine to coarse sand.
0	8 11 13		15		
			19.5	Gravel with Clay (GW-GC)	Olive Gray (5Y 4/2), medium dense, wet, 75% fine gravel, 10% clay, 15% fine to coarse sand.
			19.5		Total Depth of Boring = 19.5 feet.

**BORING  
B-3**

**UNOCAL CORPORATION - CERT**  
Unocal SS No. 7176  
7850 Amador Valley Boulevard  
Dublin, California

Borehole Diameter: 8 inches  
Logged by: C. Galantine  
Driller: Mitchell  
Date Started: 7-7-95  
Date Completed: 7-7-95

**enviros**®

95132.02

# Field Exploratory Boring Log b-4

OVM (ppm)	Blows/6"	Sample Number	Depth (ft)	Soil Group (USCS)	Materials Description
			0	Concrete	
			5	Silty Clay (CL)	Black (10YR 2/1); very stiff, moist, 85% clay, 10% silt, 5% very fine sand.
			10	Clayey Silt (ML)	Dark Brown (10YR 3/3); stiff, moist, 60% silt, 35% clay, 5% very fine sand.
0	4 5 8		11.5		
0	6 9 10	B-4-11.5'			Change to very stiff.
0	7 10 14	B-4-16'	16		Color change to Olive Gray (10YR 4/2).
Total Depth of Boring = 16 feet.					

**BORING  
B-4**

**UNOCAL CORPORATION - CERT**  
Unocal SS No. 7176  
7850 Amador Valley Boulevard  
Dublin, California

Borehole Diameter: 8 inches  
Logged by: C. Galantine  
Driller: Mitchell  
Date Started: 7-7-95  
Date Completed: 7-7-95

**enviros®**

95132.02

# Field Exploratory Boring Log B-5

OVM (ppm)	Blows/6"	Sample Number	Depth (ft)	Soil Group (USCS)	Materials Description
			0	Asphalt	
			5	Silty Clay (CL)	Black (10YR 2/1); stiff, moist, 75% clay, 20% silt, 5% very fine sand.
	5		6	Clayey Silt (ML)	Very Dark Grayish Brown (10YR 3/2); stiff, moist, 70% silt, 25% clay, 5% very fine to coarse sand, sand stringers and pockets.
	6		9	Sandy Silt (ML)	Black (5Y 2.5/2); stiff, moist, 80% silt, 20% very fine to medium sand.
0	9		10	Silty Clay (CL)	Dark Olive Gray (5Y 3/2); very stiff, moist, 55% clay, 40% silt, 5% very fine sand.
	7		14	Silty Sand (SM)	Dark Olive Gray (5Y 3/2); medium dense, moist, 75% fine to medium sand, 25% silt.
0	9		16	Sandy Clay (CL)	Dark Olive Gray (5Y 3/2); very stiff, moist, 65% clay, 20% very fine sand, 15% silt.
	5		15	Silty Clay (CL)	Dark Gray (5Y 4/1); hard, moist to wet, 70% clay, 20% silt, 10% very fine sand.
0	10	B-5-14.5'	19.5	Gravel with Clay (GW-GC)	Olive Gray (5Y 4/2), dense, saturated, 75% fine gravel, 15% fine to coarse sand, 10% clay.
11	12				
	15				
0	18	B-5-18'			
	10				
	13				
	19				

Saturated at 19 ft.

Total Depth of Boring = 19.5 feet.

<b>BORING B-5</b>	<b>UNOCAL CORPORATION - CERT</b> Unocal SS No. 7176 7850 Amador Valley Boulevard Dublin, California	Borehole Diameter: 8 inches Logged by: C. Galantine Driller: Mitchell Date Started: 7-7-95 Date Completed: 7-7-95	<b>enviro</b>  95132.02
-----------------------	--	---	-------------------------------

# Field exploratory Boring Log b-6

OVM (ppm)	Blows/6"	Sample Number	Depth (ft)	Soil Group (USCS)	Materials Description
			0	Concrete	
			5	Silty Clay (CL)	Black (10YR 2/1); stiff, moist, 80% clay, 15% silt, 5% very fine sand.
0	14 20 23		5		Color change to Dark Gray (5Y 4/1); stiff, moist, 70% clay, 20% silt, 10% very fine sand.
0	20 21 26		10		Change to 80% clay, 15% silt, 5% very fine sand.
0	20 23 30	B-6-14.5'	15		Color change to Dark Olive Gray (5Y 3/2).
0 6	19 23 29 16 24 31	B-6-19.5'	19.5	Gravel with Clay (GW-GC)	Dark Gray (10YR 4/1), very dense, wet, 75% fine gravel, 10% clay, 15% fine to coarse sand.
					Total Depth of Boring = 19.5 feet.

**BORING  
B-6**

**UNOCAL CORPORATION - CERT**  
Unocal SS No. 7176  
7850 Amador Valley Boulevard  
Dublin, California

Borehole Diameter: 8 inches  
Logged by: C. Galantine  
Driller: Mitchell  
Date Started: 7-7-95  
Date Completed: 7-7-95

**enviros**®  
95132.02



# Field Exploratory Boring Log of Well U-1

OVM PPM	Blows/6"	Sample Number	Well Construction	Depth (ft)	Soil Group (USCS)	Materials Description
			Cement	1		Asphalt
			2-in. Sch. 40 PVC	2		Silt with Sand (ML) Fill Material Very Dark Grayish Brown (10YR 3/2); stiff, moist, 75% silt, 15% fine to coarse sand, 10% fine gravel.
0	7 9 13		Bent. 1- Ft.	3		
			2-in. Sch. 40 PVC	4		Silty Sand (SM) Dark Grayish Brown (10YR 4/2); medium dense, moist, 75% very fine sand, 20% silt, 5% fine gravel.
0	8 8 14	U-1-10.5'	Bent. 1- Ft.	5		
			2-in. Sch. 40 PVC	6		Silty Clay (CL) Dark Grayish Brown (10YR 4/2); very stiff, moist, 70% clay, 25% silt, 5% very fine sand, plastic, rootlets.
0	5 10 13		Bent. 1- Ft.	7		
			2-in. Sch. 40 PVC	8		
0	12 14 17	U-1-18.5'	Bent. 1- Ft.	9		
			2-in. Sch. 40 PVC	10		
			2-in. Sch. 40 PVC	11		
			2-in. Sch. 40 PVC	12		Silt (ML) Dark Olive Gray (5Y 3/2); very stiff, moist, 80% silt, 10% clay, 10% fine sand.
			2-in. Sch. 40 PVC	13		
			2-in. Sch. 40 PVC	14		
			2-in. Sch. 40 PVC	15		
			2-in. Sch. 40 PVC	16		
			2-in. Sch. 40 PVC	17		
20	12 14 17	U-1-18.5'	Bent. 1- Ft.	18		
			2-in. Sch. 40 PVC	19		Saturated at 19 ft. Gravel with Silt and Sand (GW-GM) Olive Gray (5Y 4/2); dense, saturated, 75% fine to coarse gravel, 15% fine to coarse sand, 10% silt.
			2-in. Sch. 40 PVC	20		
			2-in. Sch. 40 PVC	21		Silty Clay (CL) Dark Olive Gray (5Y 3/2); stiff, wet, 70% clay, 25% silt, 5% very fine sand.
			2-in. Sch. 40 PVC	22		
			2-in. Sch. 40 PVC	23		
0	9 13 16		Bent. 1- Ft.	24		
			2-in. Sch. 40 PVC	25		Color change to Dark Grayish Brown (10YR 4/2); very stiff, wet, increase in clay content.
			2-in. Sch. 40 PVC	26		
			2-in. Sch. 40 PVC	27		
			2-in. Sch. 40 PVC	28		
			2-in. Sch. 40 PVC	29		
0	12 17 26		Bent. 1- Ft.	30		
Total Depth of Boring = 30 ft.						

**WELL**  
**U-1**

**UNOCAL CORPORATION - CERT**  
Unocal SS No. 7176  
7850 Amador Valley Road  
Dublin, California

Borehole Diameter: 8 inches  
Logged by: C. Galantine  
Driller: Mitchell  
Date Started: 7-6-95  
Date Completed: 7-6-95

**enviros**®  
95132.02

# Field Exploratory Boring Log of well U-2

OVM PPM	Blows/6"	Sample Number	Well Construction	Depth (ft)	Soil Group (USCS)	Materials Description
			Cement	1	Asphalt	Asphalt
			2-in. Sch. 40 PVC	2	Silt with Sand (ML) Fill Material	Silt with Sand (ML) Fill Material
			Bent. 1- Ft.	3	Very Dark Grayish Brown (10YR 3/2); stiff, moist, 75% silt, 15% fine to coarse sand, 10% fine gravel.	Very Dark Grayish Brown (10YR 3/2); stiff, moist, 75% silt, 15% fine to coarse sand, 10% fine gravel.
0	6			4	Silty Clay (CL)	Silty Clay (CL)
	8			5	Black (10YR 2/1); very stiff, moist, 80% clay, 15% silt, 5% very fine sand.	Black (10YR 2/1); very stiff, moist, 80% clay, 15% silt, 5% very fine sand.
	9			6	Color change to Very Dark Grayish Brown (10YR 3/2); very stiff, moist, 60% clay, 30% silt, 10% very fine sand.	Color change to Very Dark Grayish Brown (10YR 3/2); very stiff, moist, 60% clay, 30% silt, 10% very fine sand.
	11			7	Color change to Dark Olive Gray (5Y 3/2).	Color change to Dark Olive Gray (5Y 3/2).
0	15			8	Color change to Dark Olive Gray (5Y 3/2).	Color change to Dark Olive Gray (5Y 3/2).
	10			9	Color change to Very Dark Gray (10YR 3/1).	Color change to Very Dark Gray (10YR 3/1).
	15	U-2-13'		10	Color change to Very Dark Gray (10YR 3/1).	Color change to Very Dark Gray (10YR 3/1).
0	15			11	Color change to Very Dark Gray (10YR 3/1).	Color change to Very Dark Gray (10YR 3/1).
	12			12	Color change to Dark Olive Gray (5Y 3/2).	Color change to Dark Olive Gray (5Y 3/2).
2	12			13	Color change to Dark Olive Gray (5Y 3/2).	Color change to Dark Olive Gray (5Y 3/2).
	18			14	Color change to Dark Olive Gray (5Y 3/2).	Color change to Dark Olive Gray (5Y 3/2).
	9			15	Color change to Dark Olive Gray (5Y 3/2).	Color change to Dark Olive Gray (5Y 3/2).
34	14	U-2-17.5'		16	Color change to Dark Olive Gray (5Y 3/2).	Color change to Dark Olive Gray (5Y 3/2).
	17			17	Saturated at 17.5 ft.	Saturated at 17.5 ft.
			Lonestar #3 Sandpack	18	Sandy Silt (ML)	Sandy Silt (ML)
			2-in. Sch. 40 PVC - 0.02-in. Mill Slot	19	Olive Gray (5Y 4/2); very hard, wet to saturated, 60% silt, 35% very fine sand, 5% clay.	Olive Gray (5Y 4/2); very hard, wet to saturated, 60% silt, 35% very fine sand, 5% clay.
				20	Sandy Clay (CL)	Sandy Clay (CL)
				21	Dark Gray (5Y 4/1); very stiff, wet, 60% clay, 20% silt, 20% very fine sand.	Dark Gray (5Y 4/1); very stiff, wet, 60% clay, 20% silt, 20% very fine sand.
	5			22	Dark Gray (5Y 4/1); very stiff, wet, 60% clay, 20% silt, 20% very fine sand.	Dark Gray (5Y 4/1); very stiff, wet, 60% clay, 20% silt, 20% very fine sand.
0	12			23	Dark Gray (5Y 4/1); very stiff, wet, 60% clay, 20% silt, 20% very fine sand.	Dark Gray (5Y 4/1); very stiff, wet, 60% clay, 20% silt, 20% very fine sand.
	16			24	Dark Gray (5Y 4/1); very stiff, wet, 60% clay, 20% silt, 20% very fine sand.	Dark Gray (5Y 4/1); very stiff, wet, 60% clay, 20% silt, 20% very fine sand.
				25	Dark Gray (5Y 4/1); very stiff, wet, 60% clay, 20% silt, 20% very fine sand.	Dark Gray (5Y 4/1); very stiff, wet, 60% clay, 20% silt, 20% very fine sand.
				26	Dark Gray (5Y 4/1); very stiff, wet, 60% clay, 20% silt, 20% very fine sand.	Dark Gray (5Y 4/1); very stiff, wet, 60% clay, 20% silt, 20% very fine sand.
				27	Dark Gray (5Y 4/1); very stiff, wet, 60% clay, 20% silt, 20% very fine sand.	Dark Gray (5Y 4/1); very stiff, wet, 60% clay, 20% silt, 20% very fine sand.
				28	Silty Clay (CL)	Silty Clay (CL)
	13			29	Dark Brown (10YR 3/3); hard, wet, 85% clay, 10% silt, 5% very fine sand.	Dark Brown (10YR 3/3); hard, wet, 85% clay, 10% silt, 5% very fine sand.
6.3	20			30	Dark Brown (10YR 3/3); hard, wet, 85% clay, 10% silt, 5% very fine sand.	Dark Brown (10YR 3/3); hard, wet, 85% clay, 10% silt, 5% very fine sand.
					Total Depth of Boring = 30 ft.	

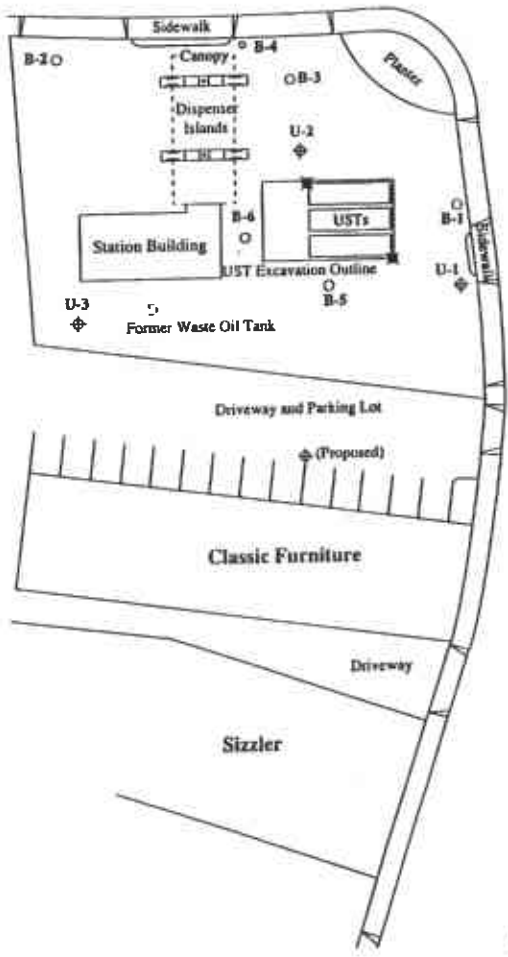
<b>WELL</b> <b>U-2</b>	<b>UNOCAL CORPORATION - CERT</b> Unocal SS No. 7176 7850 Amador Valley Road Dublin, California	Borehole Diameter: 8 inches Logged by: C. Galantine Driller: Mitchell Date Started: 7-6-95 Date Completed: 7-6-95	 <b>95132.02</b>
---------------------------	---	---	---------------------

# Field Exploratory Boring Log of Well U-3

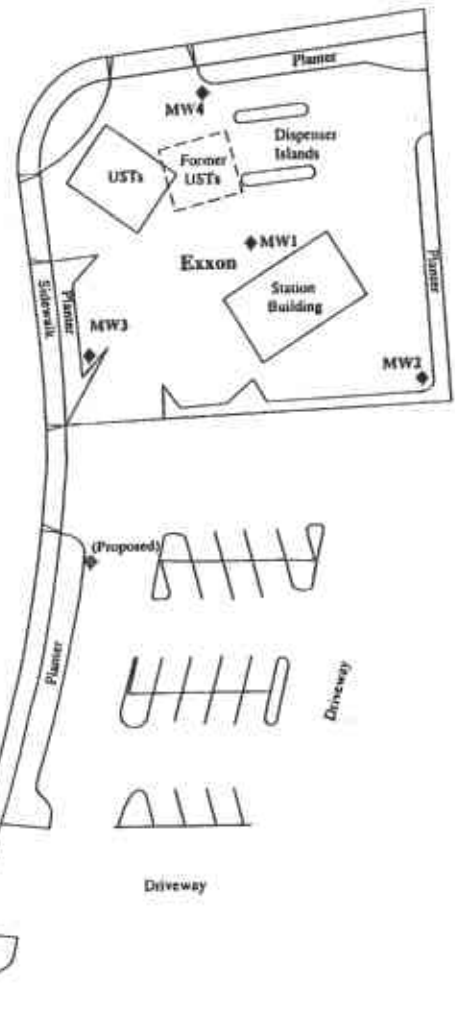
OVM PPM	Blows/6"	Sample Number	Well Construction	Depth (ft)	Soil Group (USCS)	Materials Description
			Cement	1		Asphalt
				2		Silt with Sand (ML) Fill Material Very Dark Gray (10YR 3/1); stiff, moist, 80% silt, 20% fine sand.
			2-in. Sch. 40 PVC	3		
	8			4		Silty Clay (CL) Black (10YR 2/1); very stiff, moist, 80% clay, 15% silt, 5% very fine sand.
0	16			5		Sandy Silt (ML) Dark Grayish Brown (10YR 4/2); hard, moist, 55% silt, 40% very fine to coarse sand, 5% clay.
				6		
				7		
			Bent. 1- Ft.	8		
	9			9		Increase in silt and clay content.
0	13			10		
				11		
				12		Clayey Silt (ML) Dark Grayish Brown (10YR 4/2); hard, moist, 60% silt, 30% clay, 10% very fine to fine sand.
				13		
	7			14		
0	17			15		
				16		
			2-in. Sch. 40 PVC - 0.02-in. Mill Slot	17		Silty Clay (CL) Dark Grayish Brown (10YR 4/2); very stiff, moist to saturated, 55% clay, 40% silt, 5% very fine sand. Saturated at 18 ft.
0	12			18		
				19		
			Lonestar #3 Sandpack	20		
				21		
				22		
				23		Color change to Dark Grayish Brown (10YR 4/2); hard, wet, increase in clay content.
				24		
0	13			25		
				26		
				27		
				28		
	12			29		
0	15			30		
	22					Total Depth of Boring = 30 ft.

<b>WELL</b>  <span style="font-size: 2em; font-weight: bold;">U-3</span>	<b>UNOCAL CORPORATION - CERT</b> Unocal SS No. 7176 7850 Amador Valley Road Dublin, California	Borehole Diameter: 8 inches Logged by: C. Galantine Driller: Mitchell Date Started: 7-6-95 Date Completed: 7-6-95	<span style="font-size: 1.5em; font-weight: bold; font-style: italic;">enviros</span> ®  95132.02
--	---	---	---

AMADOR VALLEY BOULEVARD



REGIONAL STREET



EXPLANATION

- Soil Boring Location
- ⊕ Proposed Ground Water Monitoring Well Location
- ✱ Conductor Casing Location
- ◆ Abandoned Ground Water Monitoring Well Location



PLATE

2

PROPOSED BORING/WELL LOCATION MAP

Unocal SS No. 7176  
7850 Amador Valley Boulevard  
Dublin, California

Drawn By: CIG

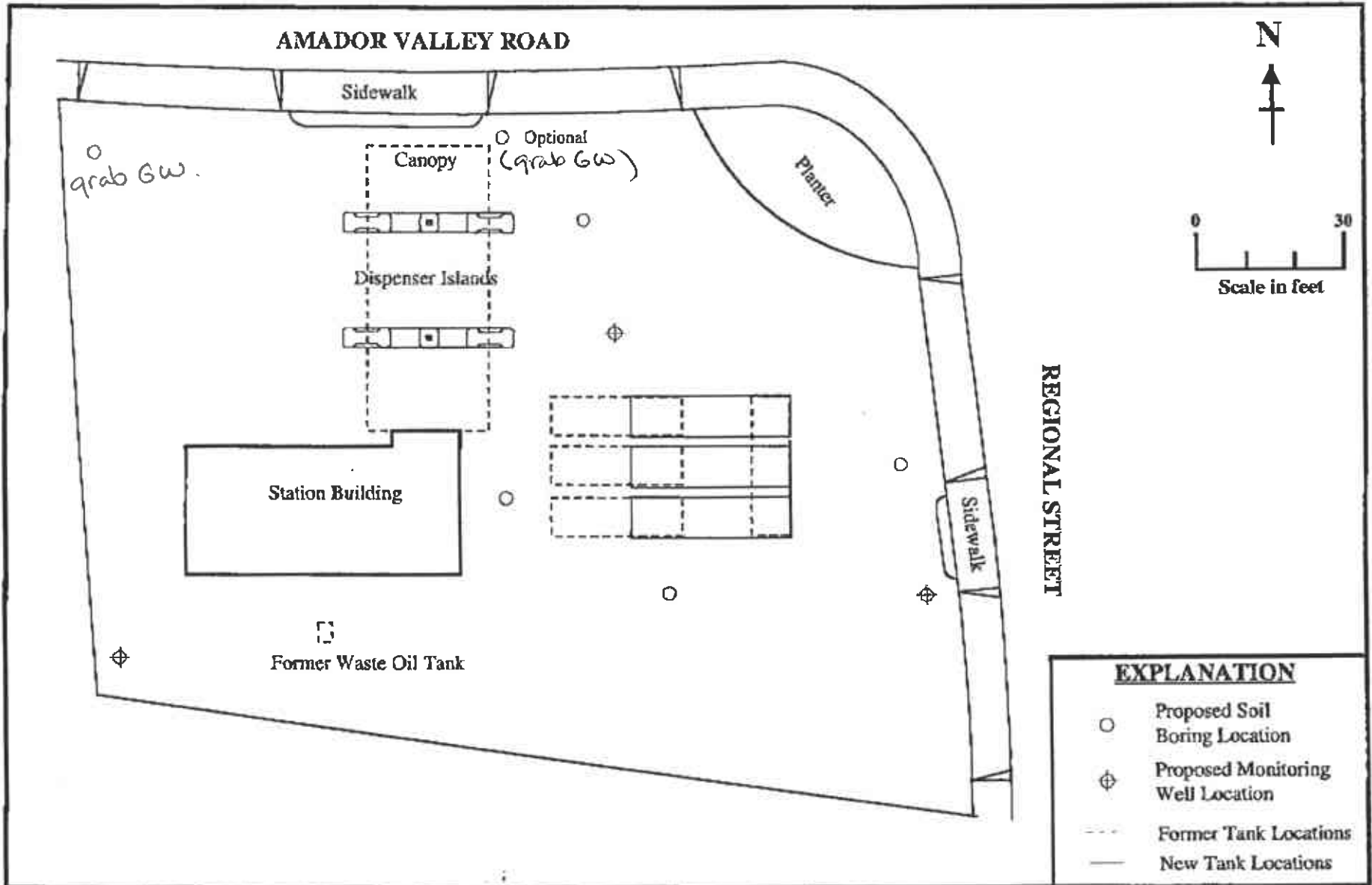
Date: 6-10-95

**enviros**  
96132

Approved By: CJG Date: 6/29/95

EXHIBIT "A"

SS7176B-11-C-95



EXPLANATION	
○	Proposed Soil Boring Location
⊕	Proposed Monitoring Well Location
---	Former Tank Locations
—	New Tank Locations

PLATE  
**2**

**PROPOSED SOIL BORING/MONITORING WELL MAP**  
Unocal SS No. 7176  
7850 Amador Valley Boulevard  
Dublin, California

**enviros**<sup>®</sup>  
95132.02P

Drawn By: GLV

Date: 11-26-94

Approved By: *DJV*

Date: *6-2-95*