TABLE 1

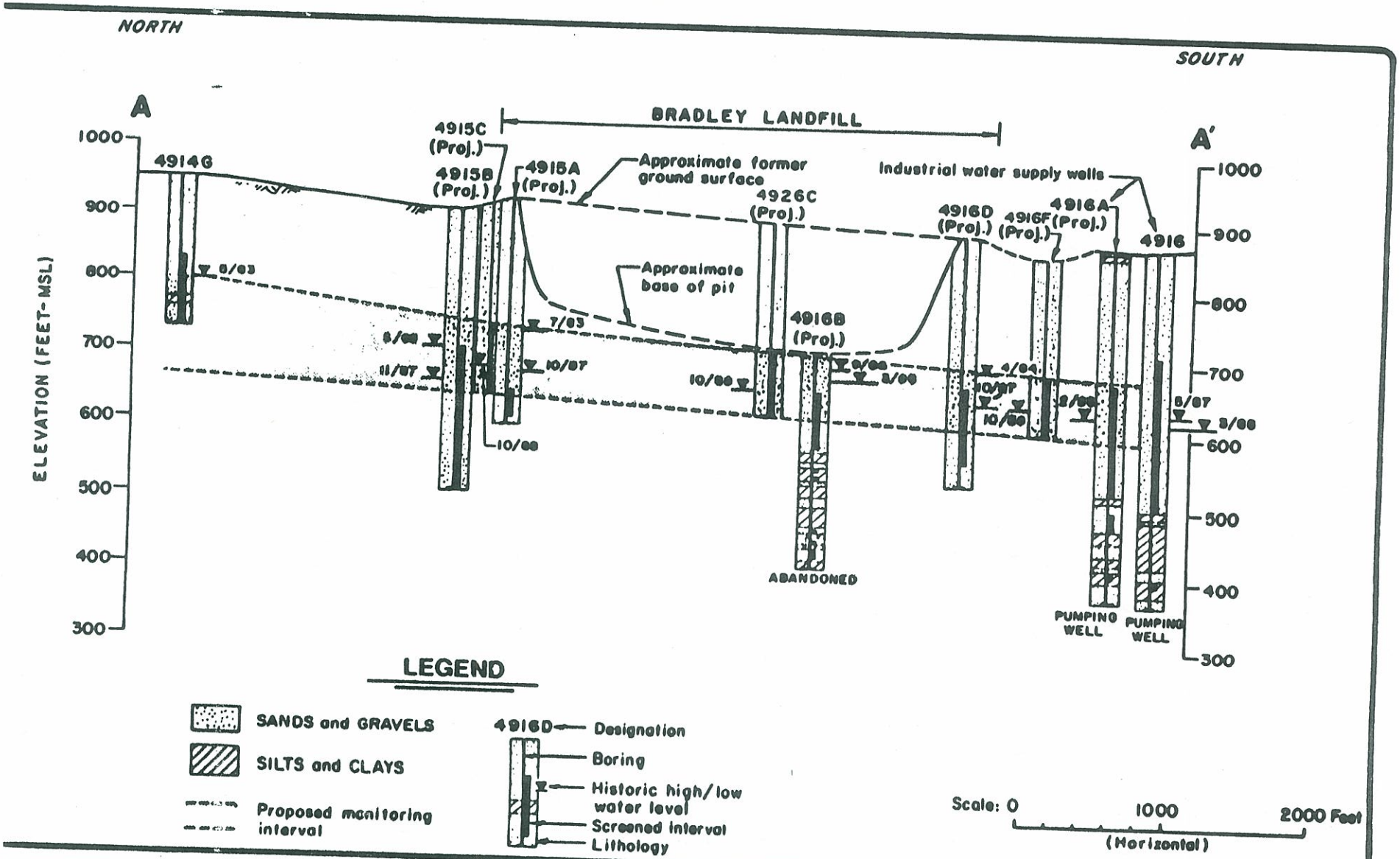
WELL CONSTRUCTION DETAILS

EMCON WELL # (2)	BORING DIAM. (IN)	DEPTH OF BORING (FT)	CASING DIAM. (IN)	CASING MATERIAL	SIZE OF PERF. (IN)	DEPTH OF PERF. (FT)	APPROX.(3) ELEV. OF PERF. INTERVAL (FT-MSL)	LENGTH OF PERF INTERVAL (FT)	METHOD OF JOINING SECTIONS OF CASING	LENGTH OF GRAVEL PACK (FT)	NATURE OF GRAVEL PACK	LENGTH OF BACKFILL (FT)	COMPOSITION OF BACKFILL	DEPTH OF SEAL (FT)	COMPOSITION OF SEAL	APPRO GROUN SURFA ELEV. (FT-M
A	9 7/8	284.6	4.5	PVC	0.02	185-280	714-619	95	FLUSH THREADED	104	MONTEREY #3 SAND	111	MONTEREY #3 SAND	0-60	CEMENT AND BENTONITE	89
B	9 7/8	259.0	4.5	PVC	0.02	169-254	690-605	85	FLUSH THREADED	93	MONTEREY #3 SAND	96	MONTEREY #3 SAND	0-60	CEMENT AND BENTONITE	85
C	9 7/8	285.0	4.5	PVC	0.02	175-280	750-645	105	FLUSH THREADED	112	MONTEREY #3 SAND	103	MONTEREY #3 SAND	0-60	CEMENT AND BENTONITE	92

Number Assigned by Los Angeles Department of Public Works.

Designation as originally presented to WMNA and RWQCB (EMCON, July 5, 1988).

Casing Elevations not available from WMNA.



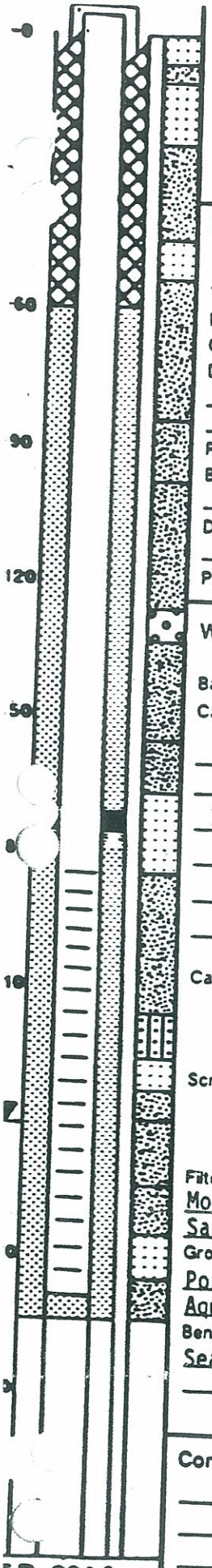
EMCON Associates

WASTE MANAGEMENT OF CALIFORNIA
BRADLEY LANDFILL
LOS ANGELES COUNTY, CALIFORNIA

CROSS SECTION A-A'

FIGURE 2

PROJECT NO.



Well No. 4926C

Boring No. X-Ref: B-1

MONITOR WELL CONSTRUCTION SUMMARY

Survey Coords:

Elevation Ground Level

Top of Casing

Drilling Summary:

Total Depth 284.6

Borehole Diameter 9 7/8"

Casing Stick-up Height:

Driller Howard Pump, Inc.
Barstow, California

Rig Howard Turner (D-1)

Bit(s) 9 7/8" Button Bit

Drilling Fluid 0-284.6 = clean water and Bentonite

Protective Casing Annodized Aluminum

Construction Time Log:

Task	Start Date	Start Time	Finish Date	Finish Time
Drilling Button Bit	9/13	1615	9/19	15:20
Geophys. Logging:				
Casing: C1	9/20	1430	9/20	1530
S1	9/20	1330	9/20	1430
Filter Placement:	9/20	1530	9/20	1900
Cementing:	9/21	1030	9/21	1230
Development:	10/20	1525	10/21	1245

Well Design & Specifications

Basis: Geologic Log X Geophysical Log ___

Casing String (s): C = Casing S = Screen.

Depth	String(s)	Elevation
- 185	C1	-
185 - 280	S1	-
-		-
-		-
-		-

Casing: C1 4½" diameter Sch. 40 PVC, Flush threaded

C2

Screen: S1 4½" diameter Sch. 40 PVC, Flush threaded

S2

Filter Pack: 280-284.6; 178.5-280 Mont. Sand #3; 176-178.5 no. 40 Sand; 60-171 Monterey Sand #3

Grout Seal: 0-60', 5:1 Portland type I & II cement plus Aquagel Gold Seal. (Bentonite)

Bentonite Seal: 171-176 Aquagel Gold Seal (Bentonite)

Well Development:

10/20 1525-1755 Bail
10/21 0700-0800 SWAB
10/21 0820-0933 Bail
10/21 0935-1245 Submersible Pump
Total gallons removed: 1570 gallon

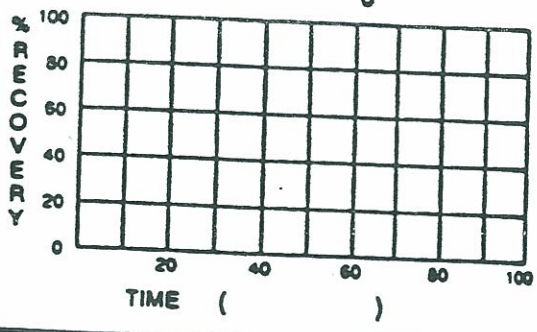
Stabilization Test Data:

All times 10/21/88

Time	pH	Spec. Cond.	Temp (C)
1031	7.46	586	22.49
1052	7.29	480	25.41
1131	7.21	484	25.79
1146	7.19	503	25.52
1200	7.22	529	25.08

Recovery Data:

Q= S_o=



Comments: (1) All dates are 1988

SITE NAME Bradley Landfill

LOCATION Sun Valley, CA

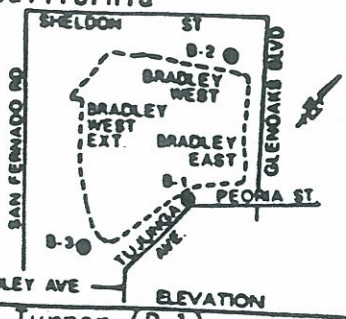
WC 01120

SUPERVISED BY Kurt Easthouse

DATE 10/25/88

SOIL BOREHOLE LOG

SITE NAME AND LOCATION: Bradley Landfill, Sun Valley, California



DRILLING METHOD: Mud Rotary

SAMPLING METHOD: Bag (B)

BORING NO. B-1

SHEET 1 OF 8

WATER LEVEL					DRILLING START	DRILLING FINISH
TIME					TIME 1615	TIME 1520
DATE					DATE 9/13/88	DATE 9/19/88
CASING DEPTH						

DATUM MSL BRADLEY AVE ELEVATION

DRILL RIG Howard Turner (D-1)

ANGLE vertical BEARING --

SAMPLE HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level access road south of Bradley East Landfill

DRILLING CONTR. Howard Pump, Inc.

Tony Villanueva

DEPTH IN FEET (ELEVATION)	BLOWS/6 IN ON SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
0			Pale yellow (2.5Y 7/4) SAND; trace fines; fine to medium grained; 10% coarse grained; fine to coarse gravel; quartz and lithic fragments (SP-SW)	B BB							
5		1	@7': Boulder								
0		2	pale yellow (2.5Y 7/4) SAND; fine to medium grained; angular quartz, lithic and granitic fagments (SW)								
5		3	olive yellow (2.5Y 6/6) SAND; fine to coarse grained; 5% cobbles; angular; quartz, lithics, granitic fragments (SP-SW)								
			@17': Boulder								
		4	@20': Light olive brown (2.5Y 5/6); 10% cobbles								
			@23': Boulders and cobbles								
		5	olive yellow (2.5Y 6/6) SAND; fine to coarse grained; 30% fine gravel; angular quartz and lithic fragments (SW)								
		6	@30': 5% fine gravel								
			@32.5': Boulder								
		7	@35': 20 to 25% fine gravel								

LOGGED BY Kurt Easthouse / Jeff Hawkins

DATE 10/25/88 CHK'D BY KE

SL 00292

SOIL BOREHOLE LOG

SITE NAME AND LOCATION

DRILLING METHOD: Mud Rotary

SAMPLING METHOD: Bag (B)

BORING NO. B-1

SHEET 2 OF 8

DRILLING START TIME DATE / FINISH TIME DATE

WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

DATUM MSL ELEVATION

DRILL RIG Howard Turner (D-1)

ANGLE vertical BEARING --

SAMPLE HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level access road south of Bradley East Landfill

DRILLING CONTR Howard Pump, Inc.

Tony Villanueva

DEPTH IN FEET (ELEVATION)	BLOWS/6 IN ON SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
40			8 Dark grayish brown (2.5Y 4/2) SAND, trace fines; fine to coarse grained; 35% fine gravel; angular quartz and lithic fragments (SW)	B BB							
			9 @40-50': Boulders								
			@45': grayish brown (2.5Y 5/2)								
50			10 Light brownish gray (2.5Y 6/2) SAND, trace fines; fine to coarse grained; trace fine gravel; angular quartz and lithic fragments (SP-SW)								
			@52-53': Boulder								
55			11 Light yellowish brown (2.5Y 6/4) SAND; fine to coarse grained; 50% fine gravel; angular quartz and lithic fragments (SW)								
60			12 @60': 5-10% fine gravel								
			@65': trace fines; 15-20% fine gravel								
65			13 @70': 15% fine gravel								
			14								
			@75': 5-10% fine gravel								
75			15								

SL 00293

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

SOIL BOREHOLE LOG

SITE NAME AND LOCATION

DRILLING METHOD: Mud Rotary

SAMPLING METHOD: Bag (B)

BORING NO. B-1

SHEET 3 OF 8

					DRILLING START	DRILLING FINISH
WATER LEVEL					TIME	TIME
TIME						
DATE					DATE	DATE
CASING DEPTH						

DATUM MSL ELEVATION

DRILL RIG Howard Turner (D-1)

ANGLE vertical BEARING --

SAMPLE HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level access road south of Bradley East Landfill

DRILLING CONTR. Howard Pump, Inc.

Tony Villanueva

DEPTH IN FEET (ELEVATION)	BLOWS/6 IN ON SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
75			Light yellowish brown (2.5Y 6/4) SAND (SW) (continued)	B BB							
80		16									
85		17	@85': trace fine gravel								
90		18	Light yellowish brown (2.5Y 6/4) SAND, fine to medium grained; 15% coarse grained; angular quartz and lithic fragments (SW-SP)								
95		19	@95': 15 to 20% coarse grained								
100		20									
105		21	Light brownish gray (2.5Y 6/2) SAND, trace fines; fine to coarse grained; 5% fine gravel; angular quartz and lithic fragments (SW)								
			@105': 10% fine gravel								
		22	@106-112': Boulders								
			@110': 5 to 10% fine gravel								

SL 00294

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

SOIL BOREHOLE LOG

SITE NAME AND LOCATION

DRILLING METHOD: Mud Rotary

SAMPLING METHOD: Bag (B)

BORING NO. B-1

SHEET 4 OF 8

DRILLING START TIME DATE / FINISH TIME DATE

WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

DATUM MSL ELEVATION

DRILL RIG Howard Turner (d-1)

ANGLE vertical BEARING --

SAMPLE HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level access road south of Bradley East Landfill

DRILLING CONTR Howard Pump, Inc.

Tony Villanueva

DEPTH IN FEET (ELEVATION)	BLOWS/6 IN ON SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
115		23	Light brownish gray (2.5Y 6/2) SAND (SW) (continued)	B BB							
			@112-120': Boulders and cobbles								
		24	@115': 5% fine gravel								
			@120-130': Boulders and cobbles								
125		25	@125': 10 to 15% fine gravel; metamorphic, sedimentary and granitic lithic fragments								
130		26	Light yellowish brown (2.5Y 6/4) GRAVEL, trace fines; 50% fine to coarse sand; fine gravel; angular lithic fragments (GP)								
135		27	@130-135': Boulders								
140		28	Light yellowish brown (2.5Y 6/4) SAND, trace fines; fine to coarse grained; 5% fine gravel; angular quartz and lithic fragments (SW)								
			@140': medium to coarse grained; 30% fine grained; 5 to 10% fine gravel								
		29									
150		30	@150': fine to coarse gravel; trace fine gravel								

SL 00295

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

SOIL BOREHOLE LOG

SITE NAME AND LOCATION

DRILLING METHOD: Mud Rotary

SAMPLING METHOD: Bag(B)

BORING NO. B-1

SHEET 5 OF 8

WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

DRILLING: START TIME / DATE; FINISH TIME / DATE

DATUM MSL ELEVATION

DRILL RIG Howard Turner (D-1)

ANGLE vertical BEARING --

SAMPLE HAMMER TORQUE FT.-LBS

SURFACE CONDITIONS Level access road south of Bradley East Landfill

DRILLING CONTR Howard Pump, Inc.

Tony Villanueva

DEPTH IN FEET (ELEVATION)	BLOWS/ 6 IN ON SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
150			Light yellowish brown (2.5Y 6/4) SAND (SW) (continued)	B BB							
155		31	@154-160': Boulders and cobbles								
160		32	Light brownish gray (2.5Y 6/2) SAND, medium to coarse grained; 20-30% fine grained; angular quartz and lithic fragments (SW-SP)								
			@160': fine to coarse grained								
165		33	@165': trace to 5% fines								
170		34	Light brownish gray (2.5Y 6/2) SAND, trace fines; fine to medium grained; trace coarse grained; quartz and lithic fragments (SP)								
175		35	@175': trace to 5% coarse grained								
180		36	@180': 5% coarse grained								
			@184-185': Boulder								
		37	Light brownish gray (2.5Y 6/2) SAND, fine to coarse grained; trace fine gravel; angular quartz and lithic fragments (SW)								

SL 00296

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

SOIL BOREHOLE LOG

SITE NAME AND LOCATION

DRILLING METHOD: Mud Rotary

SAMPLING METHOD: Bag (B)

BORING NO. B-1

SHEET 6 OF 8

WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

DRILLING	START	FINISH
TIME		
DATE		

DATUM MSL ELEVATION

DRILL RIG Howard Turner (D-1)

ANGLE vertical BEARING --

SAMPLE HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level access road south of Bradley East Landfill

DRILLING CONTR Howard Pump, Inc.

Tony Villanueva

DEPTH IN FEET (ELEVATION)	BLOWS/6 IN ON SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
190		38	Light brownish gray (2.5Y 6/2) SAND (SW) (continued)	B BB							
			@187': Boulders								
			@190': 15% fine gravel								
		39	@191': Boulders								
			@195': 10-15% fine gravel								
200		40	@200': 15-20% fine gravel								
205		41	@205': 20% fine gravel; angular to sub-angular fragments; rare sub-rourded fragments								
210		42	@210': 5-10% fine gravel								
			@215': 40-45% fine gravel								
215		43	olive yellow (2.5Y 6/6) SILTY SAND, low to moderate plasticity, fine to coarse grained; trace fine gravel (SM)								
		44									
25		45									

SL 00282

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DATE 10/25/88 CHK'D BY KE

SOIL BOREHOLE LOG

SITE NAME AND LOCATION

DRILLING METHOD: Mud Rotary

SAMPLING METHOD: Bag (B)

BORING NO. B-1

SHEET 7 OF 8

DRILLING START TIME DATE / FINISH TIME DATE

WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

DATUM MSL ELEVATION

DRILL RIG Howard Turner (D-1)

ANGLE vertical BEARING --

SAMPLE HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level access road south of Bradley East Landfill

DRILLING CONTR Howard Pump, Inc.

Tony Villanueva

DEPTH IN FEET (ELEVATION)	BLOWS/6 IN ON SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
225			olive yellow (2.5Y 6/6) SILTY SAND (SM) (continued)	B BB							
-230		46	olive yellow (2.5Y 6/6) SAND to SILTY SAND, low plasticity; fine to coarse grained; lithic fragments (SP-SM)								
-235		47	olive yellow (2.5Y 6/6) SAND to SILTY SAND, low plasticity; fine to coarse grained; trace to 5% fine gravel (SW-SM)								
			@237': Boulders and cobbles								
240		48	Light yellowish brown (2.5Y 6/4) SAND, trace fines; fine to coarse grained; trace fine grained; angular quartz and lithic fragments (SW)								
245		49	@245-250': Boulders and cobbles								
			@250': 30% fine gravel								
250		50	@252-254': Boulders and cobbles								
255		51	Light yellowish brown (2.5Y 6/4) SAND, trace to 5% fines; fine to coarse grained; quartz and lithic fragments (SW-SP)								
		52	@257-262': Boulders and cobbles								

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DATE 10/25/88 CHK'D BY KE

SL 00297

SOIL BOREHOLE LOG

NAME AND LOCATION

DRILLING METHOD: Mud Rotary

BORING NO. B-1

SAMPLING METHOD: Bag (B)

SHEET 8 OF 8

WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

DRILLING: START TIME / DATE; FINISH TIME / DATE

MSL ELEVATION

G Howard Turner (D-1)

vertical BEARING --

HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level access road south of Bradley East Landfill

DRILLING CONTR Howard Pump, Inc.

Tony Villanueva

BLOWS/6 IN ON SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPCFIC GRAVITY	OTHER TESTS
	S3	Light yellowish brown (2.5Y 6/4) SAND (SW-SP) (continued)	B							
		@265': trace fines	BB							
	S4	Light olive brown (2.5Y 5/4) SAND, trace to 5% fines; fine to medium grained; trace coarse grained; angular quartz and lithic fragments (SP)								
	S5	Light olive brown (2.5Y 5/4) SAND, trace fines; fine to medium grained; 10% coarse grained; angular quartz and lithic fragments (SW-SP)								
	S6	@275-276': Boulders								
		@280': trace to 5% fines; 25% coarse grained								
	S7	@284.6': trace fine gravel								
		Total depth of Exploratory Boring: 284.6'								

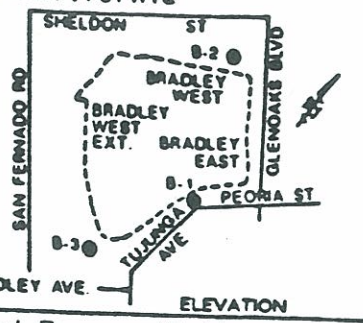
LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

SL 00304

SOIL BOREHOLE LOG

SITE NAME AND LOCATION Bradley Landfill, Sun Valley, California



DRILLING METHOD: Mud Rotary

SAMPLING METHOD: Bag (B)

BORING NO. B-2

SHEET 1 OF 8

					DRILLING START	DRILLING FINISH
WATER LEVEL						
TIME					TIME 0900	TIME 1200
DATE					DATE 9/26/88	DATE 9/30/88
CASING DEPTH						

DATUM MSL ELEVATION

DRILL RIG Howard Turner (D-1)

ANGLE vertical BEARING --

SAMPLE HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level open area in north corner of landfill

DRILLING CONTR. Howard Pump, Inc.

Tony Villanueva

DEPTH IN FEET (ELEVATION)	BLOWS/6 IN ON SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
			Light yellowish brown (2.5Y 6/4) SAND, trace fines; fine to coarse grained; angular quartz, feldspar, and lithic fragments (SP-SW)	B BB							
5		1	@5.5-10': Boulders								
10		2	Light yellowish brown (2.5Y 6/4) SAND, fine to coarse grained; angular lithic fragments (SW)								
			@15': angular to sub-angular quartz, feldspar, and lithic fragments								
15		3	@15-20': Boulders								
20		4	@20': Light yellowish brown (2.5Y 6/4) to light brownish gray (2.5Y 6/2)								
			@25': 5-10% fine gravel								
25		5	@30': 15% fine gravel; rare sub-rounded grains								
30		6	@35': 5-10% fine gravel								
		7									

SL 00305

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

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STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

No. 058910

FX-4: CBI/Trade Secret

[redacted]

ADDITIONAL SPACE IS NEEDED. USE NEXT CONSECUTIVELY NUMBERED FORM

SOIL BOREHOLE LOG

SITE NAME AND LOCATION

DRILLING METHOD: Mud Rotary

SAMPLING METHOD: Bag (B)

BORING NO. B-2

SHEET 3 OF 8

WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

DRILLING: START TIME / DATE; FINISH TIME / DATE

DATUM MSL ELEVATION

DRILL RIG Howard Turner (D-1)

ANGLE vertical BEARING --

SURFACE CONDITIONS Level open area in north corner of landfill

SAMPLE HAMMER TORQUE -- FT.-LBS

DRILLING CONTR. Howard Pump, Inc.

Tony Villanueva

DEPTH IN FEET (ELEVATION)	BLOWS/6 IN. ON SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
75			dark grayish brown (2.5Y 4/2) SAND (SW) (continued)	B BB							
80		16	@80': 20% fine gravel								
			@85': 45-50% fine gravel								
85		17	@85-86.6': Boulder								
			@90': 15% fine gravel								
90		18	@95': trace to 5% fines; 25-30% fine gravel								
		19									
			@100': dark grayish brown (2.5Y 4/2) to olive brown (2.5Y 4/4); 20% fine gravel								
95		20									
			@105': 40% fine to coarse gravel								
		21									
			@110': 25% fine to coarse gravel								
		22									

SL 00307

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

BOREHOLE LOG

TE NAME AND LOCATION

DRILLING METHOD: Mud Rotary

BORING NO. B-2

SAMPLING METHOD: Bag (B)

SHEET 4 OF 8

DRILLING

WATER LEVEL					START	FINISH
TIME					TIME	TIME
DATE						
CASING DEPTH					DATE	DATE

UM MSL ELEVATION

LL RIG Howard Turner (D-1)

GLE vertical BEARING --

MPLE HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level open area in north corner of landfill

(Elevation)	BLOWS/6 IN SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
15		23	dark grayish brown (2.5Y 4/2) to olive brown (2.5Y 4/4) SAND (SW) (continued)	B BB							
			@115': Light yellowish brown (2.5Y 6/4); trace fines; 15% fine gravel								
		24	@114-120': Boulders and cobbles								
			@120': 10-15% fine gravel								
5		25	@125': 40-45% fine gravel								
			@125-130': Boulders and cobbles								
		26	@130': 10% fine gravel								
		27	@135': trace fines; 15-20% fine gravel								
			@135-139': Boulders and cobbles								
		28	@140': 15% fine gravel								
			@145': trace to 5% fines; 35% fine gravel								
		29	@150': 15 to 20% fine gravel								
		30									

DRILLING CONTR Howard Pump, Inc.

Tony Villanueva

SL 00308

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

SOIL BORINGHOLE LOG

SITE NAME AND LOCATION

DRILLING METHOD: Mud Rotary

BORING NO. B-2

SHEET 5 OF 8

SAMPLING METHOD: Bag (B)

DRILLING

						START	FINISH
WATER LEVEL						TIME	TIME
TIME							
DATE						DATE	DATE
CASING DEPTH							

DATUM MSL ELEVATION

DRILL RIG Howard Turner (D-1)

ANGLE vertical BEARING --

SAMPLE HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level open area in north corner of landfill

DRILLING CONTR Howard Pump, Inc.

Tony Villanueva

DEPTH IN FEET (ELEVATION)	BLOWS/6 IN OR SAMPLE RECOVERY	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
150			Light yellowish brown (2.5Y 6/4) SAND (SW) (continued)	B BB							
155		31	@155': 5% fines; angular quartz, feldspar, and lithic fragments								
6		32	@160': 45-50% fine to coarse gravel; angular to sub-angular grains								
			@160-165': Boulders								
65		33	@165': trace fine gravel								
70		34	@170': trace fines								
75		35	@175': 5% fine gravel								
0		36	@180': 15% fine gravel								
		37									

SL 00309

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

BORINGHOLE LOG

TE NAME AND LOCATION

DRILLING METHOD:	Mud Rotary
SAMPLING METHOD:	Bag (B)
BORING NO.	B-2
SHEET	6 OF 8
DRILLING START TIME / DATE	
DRILLING FINISH TIME / DATE	

WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

TUM MSL ELEVATION

LL RIG Howard Turner (D-1)

GLE vertical BEARING --

MPLE HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level open area in north corner of landfill

DRILLING CONTR Howard Pump, Inc.

Tony Villanueva

(ELEVATION)	BLOWS/6 IN ON SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPC'FIC GRAVITY	OTHER TESTS
90		38	Light olive brown (2.5Y 5/4) SAND fine to coarse grained; 20% fine gravel (SW)	B BB							
			@190': 20% fine gravel; angular quartz and lithic fragments								
		39	@195': 10% fine gravel								
00		40	@200': 5% fines; 5-10% fine gravel								
5		41	@205': 15 to 20% fine gravel								
			@210': 25% fine gravel								
0		42	@215': 30 to 35% fine gravel								
		43	@220': 15% fine gravel								
			@222': Boulders								
		44	@225': 15 to 20% fine gravel								
		45									

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

SL 00310

SOIL BOREHOLE LOG

SITE NAME AND LOCATION

DRILLING METHOD: Mud Rotary

SAMPLING METHOD: Bag (B)

BORING NO. B-2

SHEET 7 OF 8

DRILLING

	START	FINISH
TIME		
DATE		

WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

DATUM MSL ELEVATION

DRILL RIG Howard Turner (D-1)

ANGLE vertical BEARING --

SAMPLE HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level open area in north corner of landfill

DRILLING CONTR. Howard Pump, Inc.

Tony Villanueva

DEPTH IN FEET (ELEVATION)	BLOWS/6 IN ON SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
225			Light olive brown (2.5Y 5/4) SAND (SW) (continued)	B BB							
230		46	@230': trace to 5% fine gravel								
235		47	Light olive brown (2.5Y 5/4) SAND, trace fines; fine to coarse grained; angular to sub-angular quartz and lithic fragments (SW-SP)								
240		48	Light olive brown (2.5Y 5/4) SAND, trace fines; fine to coarse grained; 15% fine gravel; angular quartz and lithic fragments (SW)								
245		49	@245': 15-20% fine gravel								
250		50	@250': 10-15% fine gravel								
255		51	@255': trace to 5% fine gravel								
		52	@260': 5% fine gravel								

SL 00311

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

TE NAME AND LOCATION	DRILLING METHOD: Mud Rotary	BORING NO. B-2
	SAMPLING METHOD: Bag (B)	SHEET 8 OF 8
		DRILLING START TIME / FINISH TIME
	WATER LEVEL / TIME / DATE / CASING DEPTH	DATE / DATE

TUM MSL ELEVATION

LL RIG Howard Turner (D-1)

GLE vertical BEARING --

MPLE HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level open area in north corner of landfill

DRILLING CONTR Howard Pump, Inc.

Tony Villanueva

ELEVATION	BLOWS/6 IN ON SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
265		S3	Light olive brown (2.5Y 5/4) SAND (SW) (continued)	B BB							
			@265': Light brownish gray (2.5Y 6/2); 10% fine gravel								
		S4									
			@270': trace to 5% fine gravel								
75		S5	@273': Boulders and cobbles								
			@275': 25-30% fine gravel								
30		S6									
			@280': 5-10% fine gravel								
5		S7									
			@285': 10% fine gravel								
0			Total depth of exploratory boring: 285'								

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

SL 00312

Well No. 4916F

Boring No. X-Ref: B-3

MONITOR WELL CONSTRUCTION SUMMARY

Survey Coords:

Elevation Ground Level

Top of Casing

Drilling Summary:

Total Depth 259

Borehole Diameter 9 7/8

Casing Stick-up Height:

Driller Howard Pump, Inc.
Barstow, CA 92311

Rig Howard Turner (D-1)

Bit(s) 9 7/8" Button Bit

Drilling Fluid 0-259 = clean water and Bentonite

Protective Casing Annodized Aluminum

Construction Time Log:

Task	Start Date	Start Time	Finish Date	Finish Time
Drilling Button Bit	10/10	1700	10/12	0841
Geophys. Logging:				
Casing:				
C1	10/12	1230	10/12	1300
S1	10/12	1210	10/12	1230
Filter Placement:	10/12	1320	10/12	1515
Cementing:	10/13	1200	10/13	1330
Development:	10/19	1630	10/20	1253

Well Design & Specifications

Basis: Geologic Log X Geophysical Log ___

Casing String (s): C = Casing S = Screen.

Depth	String(s)	Elevation
- 169	C1	-
169 - 254	S1	-
-		-
-		-
-		-

Casing: C1 4½" diameter Sch. 40 pvc flush threaded

C2

Screen: S1 4½" diameter Sch. 40 pvc flush threaded

S2

Filter Pack: 259-254; 163-254 Monterey Sand #3; 161-163 #40 Sand; 60-156 Monterey Sand #3

Grout Seal: 0-60', 5:1 Portland type I & II cement plus Aquagel Gold Seal (Bentonite)

Bentonite Seal: 156-161 Aquagel Gold Seal (Bentonite)

Well Development:

10/19 1630-1730 Bail
10/20 0745-0845 SWAB
10/20 0900-1000 Bail
10/20 1052-1253 Submersible Pump
Total gallons removed: 1380 gallon

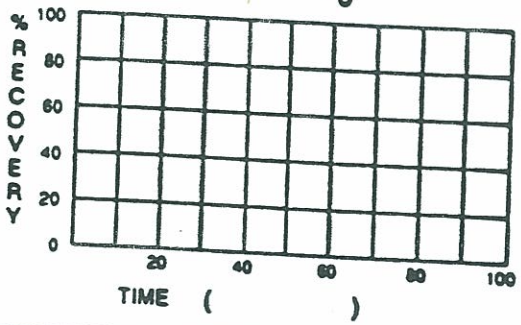
Stabilization Test Data:

All times 10/20/88

Time	pH	Spec. Cond.	Temp (C)
1114	8.55	520	19.74
1126	8.52	510	19.52
1137	8.49	499	19.58
1229	8.36	508	20.35
1243	8.36	506	20.07

Recovery Data:

Q= S_o=



Comments: (1) All dates are 1988

SITE NAME Bradley Landfill

LOCATION Sun Valley, CA

WC 01122

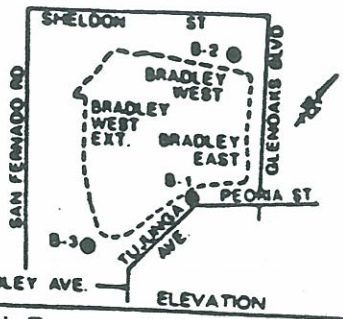
SUPERVISED BY Kurt Easthouse

DATE 10/25/88

D. 259

BOREHOLE LOG

SITE NAME AND LOCATION: Bradley Landfill, Sun Valley, California



DATUM MSL

DRILL RIG: Howard Turner (D-1)

ANGLE: vertical BEARING: --

SAMPLE HAMMER TORQUE: -- FT.-LBS

DRILLING METHOD: Mud Rotary

SAMPLING METHOD: Bag (B)

WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

BORING NO. B-3

SHEET 1 OF 7

DRILLING	START	FINISH
TIME	1700	0841
DATE	10/10/88	10/12/88

SURFACE CONDITIONS: Level open area at southern position of landfill. Approximately 300' to the NE of Verdugo Fault.

DRILLING CONTR. Howard Pump, Inc.

Tony Villanueva

ELEVATION	BLOWS/6" OR SAMPLE RECOVERY	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
			Olive brown (2.5Y 4/4) SILTY SAND, moderate plasticity fines; fine to coarse grained; angular quartz and lithic fragments (SM)	B BB							
			Light olive brown (2.5Y 5/4) SAND, 5% fines; fine to medium grained; 20% coarse grained; angular quartz and lithic fragments (SP-SW)								
			Light olive brown (2.5Y 5/4) SAND, 5% fines; fine to coarse grained; trace fine gravel; angular to sub-angular quartz and lithic fragments (SW)								
			@14.5': Cobbles								
			@15': Trace fines								
			@20': 10% fine gravel; sub-angular to sub-rounded grains								
			@25': Trace coarse gravel								
			@30': 45% fine gravel; 5% coarse gravel								
			@35': 10% fine gravel								

TEST RESULTS

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

SL 00313

SOIL BOREHOLE LOG

AND LOCATION

DRILLING METHOD: Mud Rotary

SAMPLING METHOD: Bag (B)

BORING NO. B-3

SHEET 2 OF 7

DRILLING

						START	FINISH
WATER LEVEL						TIME	TIME
TIME							
DATE						DATE	DATE
CASING DEPTH							

MSL ELEVATION

Howard Turner (D-1)

vertical BEARING --

MMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level open area at southern portion of landfill. Approximately 300' to the NE of the Verdugo Fault

DRILLING CONTR Howard Pump, Inc.

Tony Villanueva

UNDISTURBED SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
		Light olive brown (2.5Y 5/4) SAND (SW) (continued)	B BB							
9		@40': 25% fine gravel; angular to sub-angular								
10		@45': 5-10% fine gravel								
11		@50': 30% fine gravel								
12		@55': 20% fine gravel; angular to sub-rounded								
13		@60': 15% fine gravel; trace coarse gravel								
14		Light olive brown (2.5Y 5/4) SAND to SILTY SAND; 5-12% fines; fine to coarse grained; 25% fine gravel; angular to sub-rounded quartz and lithic fragmants (SW-SM)								
15		Light olive brown (2.5Y 5/4) SAND, trace fines; fine to coarse grained; 10% fine gravel; angular quartz and lithic fragments (SW)								
16		@74': cobbles @75': 15% fine gravel								

SL 00400

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

SOIL BOREHOLE LOG

TE NAME AND LOCATION

DRILLING METHOD: Mud Rotary

BORING NO. B-3

SAMPLING METHOD: Bag (B)

SHEET 4 OF 7

DRILLING

					START	FINISH
WATER LEVEL					TIME	TIME
TIME						
DATE					DATE	DATE
CASING DEPTH						

TUM MSL ELEVATION

ILL RIG Howard Turner (D-1)

NGLE vertical BEARING --

MPLE HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level open area at souther portion of landfill. Approximately 300' NE of Verdugo Fault.

DRILLING CONTR Howard Pump, Inc.

Tony Villanueva

DEPTH (ELEVATION)	BLOWS/6 IN SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
115		24	Light olive brown (2.5Y 5/4) SAND (SW) (continued)	B BB							
			@115': 20% fine gravel; angular to sub-angular								
		25	@120': 10% fine gravel								
25		26									
30		27									
			@130': 15-20% fine gravel								
5		28	@132-137': Boulders and cobbles								
			@135': 5% fines								
0		29	@140': Angular to well rounded grains								
		30	Light olive brown (2.5Y 5/4) SAND to SILTY SAND, 5-12% fines; fine to coarse grained; 10% fine gravel; angular quartz and lithic fragments (SW-SM)								
		31									

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

SL 00398

SOIL BOREHOLE LOG

NAME AND LOCATION

DRILLING METHOD: Mud Rotary

SAMPLING METHOD: Bag (B)

BORING NO. B-3

SHEET 5 OF 7

WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

DRILLING: START TIME / DATE; FINISH TIME / DATE

MSL ELEVATION

G Howard Turner (D-1)

vertical BEARING --

HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level open area at southern portion of landfill. Approximately 300' NE of the Verdugo Fault.

DRILLING CONTR Howard Pump, Inc.

Tony Villanueva

BLOWS/6" OR SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
		Light olive brown (2.5Y 5/4) SAND to SILTY SAND (SW-SM) (continued)	B BB							
	32	@150': angular to sub-angular grains								
		@155': trace coarse gravel								
	33	Light olive brown (2.5Y 5/4) SAND, 5% fines; fine to coarse grained; trace fine gravel; angular quartz and lithic fragments (SW)								
	34	@165': trace to 5% coarse gravel								
	35	@170': trace fines; 10% fine gravel								
		@172-177': boulders and cobbles								
	36	@175': 20% fine gravel								
	37	@180': trace fine gravel								
		@182-191': boulders and cobbles								
	38	@185': 15% fine gravel; angular to sub-rounded								

SL 00397

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

BOREHOLE LOG

NAME AND LOCATION

DRILLING METHOD: Mud Rotary

BORING NO. B-3

SAMPLING METHOD: Bag (B)

SHEET 7 OF 7

DRILLING START TIME DATE / FINISH TIME DATE

WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

DATUM MSL ELEVATION

DRILL RIG Howard Turner (D-1)

HOLE vertical BEARING --

SAMPLE HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level open area at southern portion of landfill. Approximately 300' NE of the Verdugo Fault.

DRILLING CONTR Howard Pump, Inc.

Tony Villanueva

BLOWS/6 IN ON SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
		Light olive brown (2.5Y 6/4) SAND to SILTY SAND (SW-SM) (continued)	B BB							
	47	@230': 10-15% fine gravel; angular quartz and lithic fragments								
		@232-242': boulders and cobbles								
	48	Grayish brown (2.5Y 5/2) to light olive brown (2.5Y 5/4) SAND, trace fines; fine to coarse grained; trace to 5% fine gravel; angular to sub-angular quartz and lithic fragments (SW)								
	49	@240': 15% fine gravel								
	50	@245': 20% fine gravel; angular to sub-rounded								
		@245-251': boulders and cobbles								
	51	@250': 5% fines; trace fine gravel								
		@255': angular to sub-angular grains								
	52									
	53	@259': 15% fine gravel								
		Total depth of exploratory Boring: 259'								

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

SL 00395

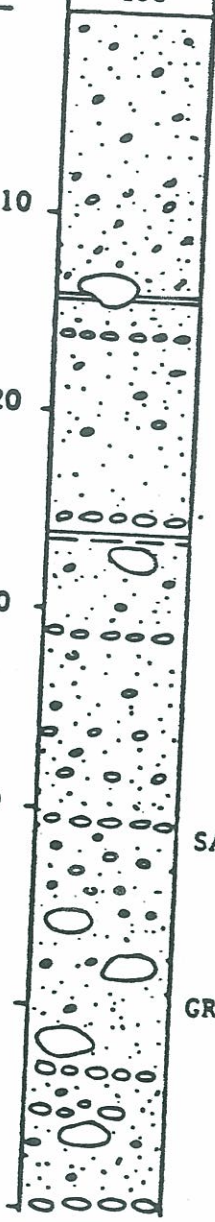
WELL LOG

OWNER: Valley Reclamation Co.
DRILLED BY: Howard Pump Inc.
LOCATION: approximately 250' northwest of the northeast corner of Truesdale Street and Glenoaks Boulevard

WELL NO. 4914G
USGS NO.

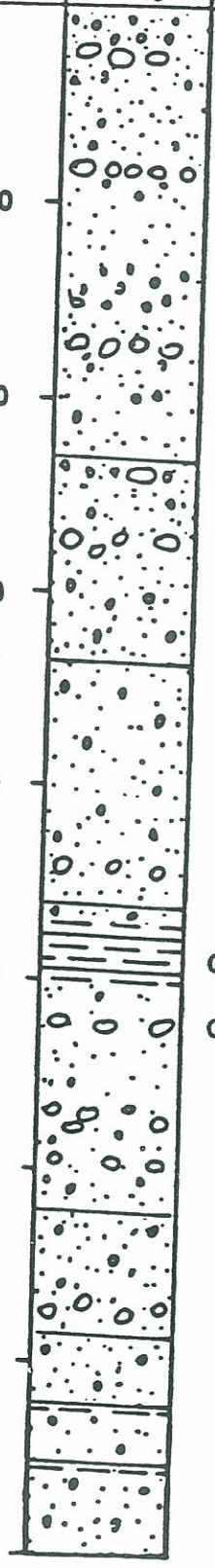
DRILLING METHOD: Rotary Wash
BOREHOLE DEPTH: 221'
CASING: 4" PVC
PERFORATIONS: 120' to 220'
STATIC WATER LEVEL: 153.88' below ground surface
SPECIFIC CAPACITY: GPM/FT
GROUND ELEVATION:

DATE COMPLETED: June 6, 1980
BOREHOLE DIAMETER: 8-3/4"
DRAWDOWN:
YIELD:
ELECTRICAL CONDUCTANCE: MICROMHOS
TOP OF CASING ELEVATION:

DEPTH	GRAPHIC LOG	DESCRIPTION OF MATERIALS
		GRAVELLY SAND - Tan, predominantly medium to coarse sand and gravel to ½" in diameter with occasional cobbles
10		Increasing gravel
		Boulder
		Streaks of Clay
20		Increasing fine to coarse Sand
		Cobble zone
		Cobble zone
		Streaks of Clay and Silt
30		Boulder
		Cobble zone
		Cobble Zone
40		Cobble Zone
		SANDY GRAVEL:- Tan, predominantly medium to coarse subangular gravel to 3/4" in diameter and fine to coarse Sand with occasional cobbles
		Boulder
50		Boulder
		GRAVELLY SAND - Tan, predominantly medium to coarse sand with fine to coarse well-rounded gravel
		Boulder
		Cobbles
		Cobbles
60		Boulder
		Cobbles

MARKS:

WELL LOG

Depth	Graphic log	Description of materials
		SANDY GRAVEL
		Cobbles
		Decreasing coarse gravel
		GRAVELLY SAND - Tan, predominantly medium to coarse Sand and fine gravel, cobbles, coarse gravel lens
150		
		Coarse gravel lens
		Cobbles
160		
		Streaks of Clay
		Coarse gravel lens, occasional cobbles
		Cobbles
170		
		Streaks of Clay
180		
		Cobbles
		Streaks of Clay
190		CLAYEY SILT - Orange-tan, slight amount of interbedded gravelly Sand
		GRAVELLY SAND - Tan, predominantly medium to coarse Sand and fine to medium subangular to moderately rounded gravel with cobbles
		Cobbles
200		Cobbles
		Streaks of Clay
		Cobbles
210		Streaks of reddish-brown Clay
		Streaks of bluish-grey clayey silt
		Streaks of bluish-grey clayey silt
220		

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in
No. 127230

State Well No. _____

FX-4: CBI/Trade Secret

[redacted]

OF
THE CITY OF LOS ANGELES

4916

Well Number or Name Consolidated Rock Products Co. Well #512 (sheet 2)

LOCATION

WORK STARTED May 10, 1941 WORK COMPLETED MAP No.

ft. of in. lb./ga. casing left in well

Type of perforator used

Perforated ft. to ft. holes per ft.

Diameter of perforations in., length in.

Depth at which water was first found ft.

Standing level before perforating ft.

Standing level after perforating ft.

Give your observation of any change in water level while drilling

Date tested 19

Water level when first started test ft.

Draw down from standing level ft.

G. P. M. at beginning of test

G. P. M. at completion of test

Draw down at completion of test ft.

If reducing strings of casing were cut off, state how cut

Depth from surface cut ft.

Size of casing cut in.

Depth in larger casing ft.

Was adapter or cement used?

If casing was swedged or repaired, state depth, describe repairs and condition in which casing was left and probable future effect:

Is well straight top to bottom, if not, what is the variation?

Will there be any detrimental effect on pump, and if so, what?

Give any additional data which may be of future value:

Total depth of well 600 (Planned depth) ft.

Formation: Mention size of water gravel—

ft. to ft.

6-6-41 Pit dug to 103'

7-1-41 First water at 157'

7-2-41 Stopped digging at 159' (much water

Well will be finished by drilling by Saunders, Whittier, California to about 60

8-5-41 Started drilling

8-7-41 Drilled to 180'

8-8-41 Drilled to 200'

(End of observation)

Date of Report 19

Well No. 4916F

Boring No. X-Ref: B-3

MONITOR WELL CONSTRUCTION SUMMARY

Survey Coords:

Elevation Ground Level

Top of Casing

Drilling Summary:

Total Depth 259

Borehole Diameter 9 7/8

Casing Stick-up Height:

Driller Howard Pump, Inc.
Barstow, CA 92311

Rig Howard Turner (D-1)

Bit(s) 9 7/8" Button Bit

Drilling Fluid 0-259 = clean water and Bentonite

Protective Casing Annodized Aluminum

Construction Time Log:

Task	Start Date	Start Time	Finish Date	Finish Time
Drilling Button Bit	10/10	1700	10/12	0841
Geophys. Logging:				
Casing:				
C1	10/12	1230	10/12	1300
S1	10/12	1210	10/12	1230
Filter Placement:	10/12	1320	10/12	1515
Cementing:	10/13	1200	10/13	1330
Development:	10/19	1630	10/20	1253

Well Design & Specifications

Basis: Geologic Log X Geophysical Log ___

Casing String (s): C = Casing S = Screen.

Depth	String(s)	Elevation
- 169	C1	-
169 - 254	S1	-
-		-
-		-
-		-

Casing: C1 4½" diameter Sch. 40 pvc flush threaded

C2

Screen: S1 4½" diameter Sch. 40 pvc flush threaded

S2

Filter Pack: 259-254; 163-254 Monterey Sand #3; 161-163 #40 Sand; 60-156 Monterey Sand #3

Grout Seal: 0-60', 5:1 Portland type I & II cement plus Aquagel Gold Seal (Bentonite)

Bentonite Seal: 156-161 Aquagel Gold Seal (Bentonite)

Well Development:

10/19 1630-1730 Bail
10/20 0745-0845 SWAB
10/20 0900-1000 Bail
10/20 1052-1253 Submersible Pump
Total gallons removed: 1380 gallon

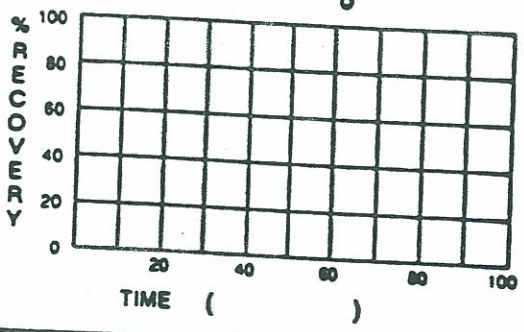
Stabilization Test Data:

All times 10/20/88

Time	pH	Spec. Cond.	Temp (C)
1114	8.55	520	19.74
1126	8.52	510	19.52
1137	8.49	499	19.58
1229	8.36	508	20.35
1243	8.36	506	20.07

Recovery Data:

Q= S_o=



Comments: (1) All dates are 1988

SITE NAME Bradley Landfill

LOCATION Sun Valley, CA

WC 01122

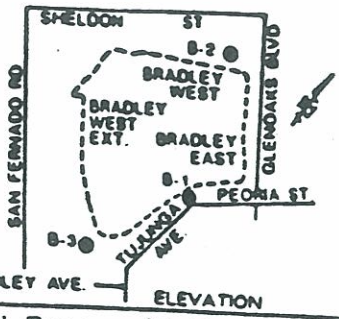
SUPERVISED BY Kurt Easthouse

DATE 10/25/88

D. 259

BOREHOLE LOG

SITE NAME AND LOCATION: Bradley Landfill, Sun Valley, California



DATUM MSL ELEVATION

DRILL RIG: Howard Turner (D-1)

ANGLE: vertical BEARING: --

SAMPLE HAMMER TORQUE: -- FT.-LBS

DRILLING METHOD: Mud Rotary

SAMPLING METHOD: Bag (B)

WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

BORING NO. B-3

SHEET 1 OF 7

DRILLING	START	FINISH
TIME	1700	0841
DATE	10/10/88	10/12/88

SURFACE CONDITIONS: Level open area at southern position of landfill. Approximately 300' to the NE of Verdugo Fault.

DRILLING CONTR. Howard Pump, Inc.

Tony Villanueva

DEPTH (ELEVATION)	BLOWS/6" OR SAMPLE RECOVERY	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
			Olive brown (2.5Y 4/4) SILTY SAND, moderate plasticity fines; fine to coarse grained; angular quartz and lithic fragments (SM)	B BB							
			Light olive brown (2.5Y 5/4) SAND, 5% fines; fine to medium grained; 20% coarse grained; angular quartz and lithic fragments (SP-SW)								
			Light olive brown (2.5Y 5/4) SAND, 5% fines; fine to coarse grained; trace fine gravel; angular to sub-angular quartz and lithic fragments (SW)								
			@14.5': Cobbles								
			@15': Trace fines								
			@20': 10% fine gravel; sub-angular to sub-rounded grains								
			@25': Trace coarse gravel								
			@30': 45% fine gravel; 5% coarse gravel								
			@35': 10% fine gravel								

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

SL 00313

SOIL BOREHOLE LOG

AND LOCATION

DRILLING METHOD: Mud Rotary

SAMPLING METHOD: Bag (B)

BORING NO. B-3

SHEET 2 OF 7

DRILLING START TIME DATE / FINISH TIME DATE

WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

MSL ELEVATION

Howard Turner (D-1)

vertical BEARING --

HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level open area at southern portion of landfill. Approximately 300' to the NE of the Verdugo Fault

DRILLING CONTR Howard Pump, Inc.

Tony Villanueva

UNDISTURBED SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
9		Light olive brown (2.5Y 5/4) SAND (SW) (continued)	B BB							
		@40': 25% fine gravel; angular to sub-angular								
10		@45': 5-10% fine gravel								
11		@50': 30% fine gravel								
12		@55': 20% fine gravel; angular to sub-rounded								
13		@60': 15% fine gravel; trace coarse gravel								
14		Light olive brown (2.5Y 5/4) SAND to SILTY SAND; 5-12% fines; fine to coarse grained; 25% fine gravel; angular to sub-rounded quartz and lithic fragmants (SW-SM)								
15		Light olive brown (2.5Y 5/4) SAND, trace fines; fine to coarse grained; 10% fine gravel; angular quartz and lithic fragments (SW)								
16		@74': cobbles @75': 15% fine gravel								

SL 00400

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

SOIL BOREHOLE LOG

TE NAME AND LOCATION

DRILLING METHOD: Mud Rotary

BORING NO. B-3

SAMPLING METHOD: Bag (B)

SHEET 4 OF 7

DRILLING

					START	FINISH
WATER LEVEL					TIME	TIME
TIME						
DATE					DATE	DATE
CASING DEPTH						

TUM MSL ELEVATION

ILL RIG Howard Turner (D-1)

SURFACE CONDITIONS Level open area at souther portion of landfill. Approximately 300' NE of Verdugo Fault.

GLE vertical BEARING --

MPLE HAMMER TORQUE -- FT.-LBS

DRILLING CONTR. Howard Pump, Inc.

Tony Villanueva

ELEVATION	BLOWS/6 IN OR BAR WT (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
115		24	Light olive brown (2.5Y 5/4) SAND (SW) (continued)	B BB							
			@115': 20% fine gravel; angular to sub-angular								
		25	@120': 10% fine gravel								
25		26									
30		27									
			@130': 15-20% fine gravel								
5		28	@132-137': Boulders and cobbles								
			@135': 5% fines								
0		29									
			@140': Angular to well rounded grains								
		30	Light olive brown (2.5Y 5/4) SAND to SILTY SAND, 5-12% fines; fine to coarse grained; 10% fine gravel; angular quartz and lithic fragments (SW-SM)								
		31									

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

SL 00398

SOIL BOREHOLE LOG

AME AND LOCATION

DRILLING METHOD:	Mud Rotary
SAMPLING METHOD:	Bag (B)
BORING NO.	B-3
SHEET	5 OF 7
DRILLING START TIME / DATE	
DRILLING FINISH TIME / DATE	

WATER LEVEL				
TIME				
DATE				
CASING DEPTH				

MSL ELEVATION

G Howard Turner (D-1)

vertical BEARING --

HAMMER TORQUE -- FT.-LBS

SURFACE CONDITIONS Level open area at southern portion of landfill. Approximately 300' NE of the Verdugo Fault.

DRILLING CONTR Howard Pump, Inc.

Tony Villanueva

BLOWS/6 IN OR SAMPLE RECOVERY	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
		Light olive brown (2.5Y 5/4) SAND to SILTY SAND (SW-SM) (continued)	B BB							
32		@150': angular to sub-angular grains								
		@155': trace coarse gravel								
33										
		Light olive brown (2.5Y 5/4) SAND, 5% fines; fine to coarse grained; trace fine gravel; angular quartz and lithic fragments (SW)								
34		@165': trace to 5% coarse gravel								
35		@170': trace fines; 10% fine gravel								
		@172-177': boulders and cobbles								
36		@175': 20% fine gravel								
37		@180': trace fine gravel								
		@182-191': boulders and cobbles								
38		@185': 15% fine gravel; angular to sub-rounded								

SL 00397

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

BOREHOLE LOG

NAME AND LOCATION	
DRILLING METHOD:	Mud Rotary
BORING NO.	B-3
SAMPLING METHOD:	Bag (B)
SHEET	7 OF 7
DRILLING START TIME / DATE	
DRILLING FINISH TIME / DATE	
WATER LEVEL / TIME / DATE / CASING DEPTH	
DATUM	MSL ELEVATION
RIG	Howard Turner (D-1)
ANGLE	vertical BEARING --
SAMPLE HAMMER TORQUE	-- FT.-LBS
SURFACE CONDITIONS	Level open area at southern portion of landfill. Approximately 300' NE of the Verdugo Fault.
DRILLING CONTR	Howard Pump, Inc.
	Tony Villanueva

BLOWS/6 IN. ON SAMPLER (RECOVERY)	SYMBOL	SAMPLE NUMBER AND DESCRIPTION OF MATERIAL	SAMPLER AND BIT	CASING TYPE	BLOWS/FOOT ON CASING	TEST RESULTS: WATER CONTENT %	LIQUID LIMIT %	PLASTIC LIMIT %	SPECIFIC GRAVITY	OTHER TESTS
		Light olive brown (2.5Y 6/4) SAND to SILTY SAND (SW-SM) (continued)	B BB							
	47	@230': 10-15% fine gravel; angular quartz and lithic fragments								
		@232-242': boulders and cobbles								
	48	Grayish brown (2.5Y 5/2) to light olive brown (2.5Y 5/4) SAND, trace fines; fine to coarse grained; trace to 5% fine gravel; angular to sub-angular quartz and lithic fragments (SW)								
	49	@240': 15% fine gravel								
	50	@245': 20% fine gravel; angular to sub-rounded								
		@245-251': boulders and cobbles								
	51	@250': 5% fines; trace fine gravel								
		@255': angular to sub-angular grains								
	52									
	53	@259': 15% fine gravel								
		Total depth of exploratory Boring: 259'								

LOGGED BY Kurt Easthouse

DATE 10/25/88 CHK'D BY KE

SL 00395

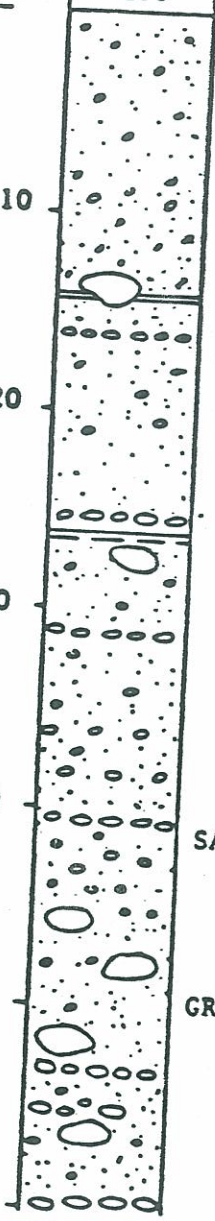
WELL LOG

OWNER: Valley Reclamation Co.
DRILLED BY: Howard Pump Inc.
LOCATION: approximately 250' northwest of the northeast corner of Truesdale Street and Glenoaks Boulevard

WELL NO. 4914G
USGS NO.

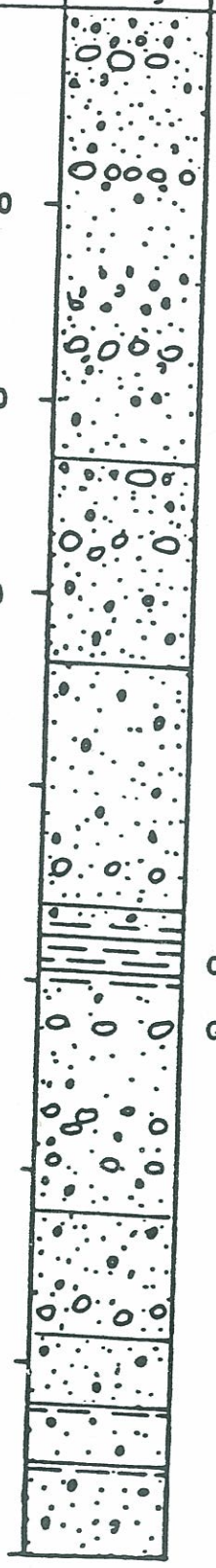
DRILLING METHOD: Rotary Wash
BOREHOLE DEPTH: 221'
CASING: 4" PVC
PERFORATIONS: 120' to 220'
STATIC WATER LEVEL: 153.88' below ground surface
SPECIFIC CAPACITY: GPM/FT
GROUND ELEVATION:

DATE COMPLETED: June 6, 1980
BOREHOLE DIAMETER: 8-3/4"
DRAWDOWN:
YIELD:
ELECTRICAL CONDUCTANCE: MICROMHOS
TOP OF CASING ELEVATION:

DEPTH	GRAPHIC LOG	DESCRIPTION OF MATERIALS
		GRAVELLY SAND - Tan, predominantly medium to coarse sand and gravel to ½" in diameter with occasional cobbles
10		Increasing gravel
		Boulder
		Streaks of Clay
20		Increasing fine to coarse Sand
		Cobble zone
		Cobble zone
		Streaks of Clay and Silt
30		Boulder
		Cobble zone
		Cobble Zone
40		Cobble Zone
		SANDY GRAVEL:- Tan, predominantly medium to coarse subangular gravel to 3/4" in diameter and fine to coarse Sand with occasional cobbles
		Boulder
50		Boulder
		GRAVELLY SAND - Tan, predominantly medium to coarse sand with fine to coarse well-rounded gravel
		Boulder
		Cobbles
		Cobbles
60		Boulder
		Cobbles

MARKS:

WELL LOG

Depth	Graphic log	Description of materials
		SANDY GRAVEL
		Cobbles
		Decreasing coarse gravel
		GRAVELLY SAND - Tan, predominantly medium to coarse Sand and fine gravel, cobbles, coarse gravel lens
150		
		Coarse gravel lens
		Cobbles
160		
		Streaks of Clay
		Coarse gravel lens, occasional cobbles
		Cobbles
170		
		Streaks of Clay
180		
		Cobbles
		Streaks of Clay
190		CLAYEY SILT - Orange-tan, slight amount of interbedded gravelly Sand
		GRAVELLY SAND - Tan, predominantly medium to coarse Sand and fine to medium subangular to moderately rounded gravel with cobbles
		Cobbles
200		Cobbles
		Streaks of Clay
		Cobbles
210		Streaks of reddish-brown Clay
		Streaks of bluish-grey clayey silt
		Streaks of bluish-grey clayey silt
220		

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not fill in

No. 127230

State Well No. _____

FX-4: CBI/Trade Secret

[redacted]

OF
THE CITY OF LOS ANGELES

4916

Well Number or Name Consolidated Rock Products Co. Well #512 (sheet 2)

LOCATION

WORK STARTED May 10, 1941 WORK COMPLETED MAP No.

ft. of in. lb./ga. casing left in well

Type of perforator used

Perforated ft. to ft. holes per ft.

Diameter of perforations in., length in.

Depth at which water was first found ft.

Standing level before perforating ft.

Standing level after perforating ft.

Give your observation of any change in water level while drilling

Date tested 19

Water level when first started test ft.

Draw down from standing level ft.

G. P. M. at beginning of test

G. P. M. at completion of test

Draw down at completion of test ft.

If reducing strings of casing were cut off, state how cut

Depth from surface cut ft.

Size of casing cut in.

Lap in larger casing ft.

Was adapter or cement used?

If casing was swedged or repaired, state depth, describe repairs and condition in which casing was left and probable future effect:

Is well straight top to bottom, if not, what is the variation?

Will there be any detrimental effect on pump, and if so, what?

Give any additional data which may be of future value:

Total depth of well - 600 (Planned depth) ft.

Formation: Mention size of water gravel—

ft. to ft.

6-6-41 Pit dug to 103'

7-1-41 First water at 157'

7-2-41 Stopped digging at 159' (much water

Well will be finished by drilling by Saunders, Whittier, California to about 60

8-5-41 Started drilling

8-7-41 Drilled to 180'

8-8-41 Drilled to 200'

(End of observation)

Date of Report 19

py

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES
WATER WELL DRILLERS REPORT

Do not w. 11(
No. 127459 C

FX-4: CBI/Trade Secret

[redacted]

License No. 281814 Date of this report Jan. 28, 1