

5090
Ser 1842.2/5042
22 May 1995

California Regional Water Quality Control Board
San Francisco Bay Region
Attn: Ms. Shin-Roei Lee
2101 Webster Street, Suite 500
Oakland, California 94612

Subj: INSTALLATION RESTORATION PROGRAM (IRP), NAVAL FUEL
DEPOT, POINT MOLATE (NFDPM), CA; TEMPORARY EMBANKMENT

Dear Ms. Lee:

This letter responds to your information request dated 2 May 1995 to LT Ron Black. The temporary embankment is necessary to complete construction of our groundwater collection and treatment trench at the Naval Fuel Depot, Point Molate. In several previous meetings between your representatives and the Navy, the absolute need for a temporary embankment to allow equipment to dig the trench was discussed. Also, the details of the temporary embankment were set forth in the 100% design drawings which were sent to your office in May 1994.

The purpose of the temporary fill material was to provide a stable platform to allow construction equipment to excavate the groundwater collection trench in a non-wetland area of Point Molate. The temporary fill is to be removed upon completion of the trench. This temporary embankment was constructed under the provisions of the Navy Installation Restoration Program and the Comprehensive Response, Compensation and Liability Act (CERCLA).

Specific technical answers are as follows (item numbers match your information requests in your letter):

1. Beginning and end dates of temporary embankment installation are as follows: Work began on March 13, 1995 and fill and riprap placement was completed on April 4, 1995.
2. Weather conditions, tides and water elevations were consistent with those in the greater San Francisco Bay area during the construction period; there were two days of rainy conditions with the remaining work days dry; tides were not specifically recorded on site. Daily activities consisted of the construction described in items number 3 and 8.

3. Best management practices: Fill was placed as such that no soil spilled outside of the concrete bags area, thus preventing impact to water quality; Riprap wall was constructed atop the temporary embankment fill to prevent/minimize erosion; the riprap design consists of a 2-foot thick layer of stones (at least 50 percent larger than 1 foot in the smallest dimension) placed on top of filter fabric; a single row of 2.5-foot minimum dimension angular stone riprap was placed on filter fabric immediately adjacent to the existing cement bag wall; this riprap design (shown on Drawing C-4 of the construction drawings) is consistent with standard civil engineering practice for temporary riprap.
4. The temporary fill area consisted of riprap boulder shore protections area with a small area of pickleweed vegetation. The pickleweed vegetation was surrounded by riprap boulders in an isolated patch. Navy environmental specialists reviewing the project concluded the site had extremely limited value to wildlife. (See Photograph 1, attached.)
5. Attachment A to this letter contains photographs taken before and after temporary embankment construction. Photographs are not available documenting construction activities.
6. The construction specifications required that care be taken when placing fill to avoid spilling soil outside the concrete bag area. A construction engineer was on site to monitor filling activities and to ensure compliance with construction specifications. PRC Environmental Management, Inc. (PRC) surveyed this area after construction. Based on visual inspection, it appears that the environment outside of the concrete bag area was not affected by construction activities.
7. Clean fill was placed in an area approximately 30 feet wide and 120 feet long during temporary embankment construction. Maximum depth of fill is approximately 10 feet.
8. Prior to placing fill in the concrete bag area, filter fabric was placed on the ground within the concrete bag area. The filter fabric serves to prevent permanent damage to the underlying vegetation and to identify fill from underlying soils during removal of the temporary embankment. Clean soil was placed on top of the filter fabric in 1-foot compacted lifts. A total of approximately 450 cubic yards of fill was placed in this area.
9. A certified clean gravelly clay material was used as fill material. Physical data for the soil is included in Attachment B.
10. Fill placement began on March 29 and continued through April 4, 1995.
11. It is difficult to accurately estimate when the temporary embankment will be removed as this activity is dependent on the progress of trench construction. The Navy estimates, however, that the embankment will be removed by the end of July 1995.
12. Fill will be removed using an excavator until the underlying filter fabric is exposed. At this point, soil will be removed both manually and using heavy equipment. The

contractor has been instructed to take care in not damaging the filter fabric and preventing soil from spilling outside the bermed (concrete bag) area.

13. See response to item number 8.

14. Removed fill will be used as backfill (not along shoreline) and boulders will be relocated to an upland area of the Naval Fuel Depot Point Molate.

15. No additional shoreline protection is required as previous shoreline protection existed on the site. The temporary fill was only needed to support the weight of the construction equipment excavating the trench in that particular location.

We trust that this information satisfies your inquiries and the substantive requirement of the CERCLA process has been met.

I regret that some aspects of this construction have seemed to have been viewed as questionable by members of your staff. While the project is complex and in some aspects confusing, I am certain that we share the same goal of seeing an extensive intercept trench costing millions of dollars up and operating as soon as possible. Please contact me or the Remedial Project Manager, Dean Sakakihara at (415) 244-2552 if you have any questions. If you are unable to contact me, you can leave a telephone message with Lou Ocampo and he can forward your message. His number is (415) 244-2712.

Sincerely,

Original signed by:

ELDON M. JEMTRUD
Manager, Non-BRAC Closure Bases

Copy to:

California Department of Toxic Substances Control (Attn: Randy Adams)
PRC Environmental Management, Inc. (Attn: Jeff Reichmuth)
Naval Fuel Depot Point Molate (Attn: LT Ron Black)
Fleet Industrial Supply Center, Oakland (Attn: R. Hegarty, Code 714)

Blind copy to:

18, 1842, 1842.1, 1842.2
1852 D. Pomeroy
09CNB N. Bollo
LT. M. Blumenberg
Admin Record (3 copies)
Chron, pink, green
File: NFD Point Molate

**ATTACHMENT A
PHOTOGRAPHS**



PHOTOGRAPH #1
OFFICIAL PHOTOGRAPH - PRC ENVIRONMENTAL
MANAGEMENT, INC.

SUBJECT: Facing Southwest at concrete bay area
prior to filling.

LOCATION: NFD Point Molate

DATE: June 10, 1994

PHOTOGRAPHER: Jeff Reichmuth

PROJECT NO.: 004-0248IRRDTR



PHOTOGRAPH #2
OFFICIAL PHOTOGRAPH - PRC ENVIRONMENTAL
MANAGEMENT, INC.

SUBJECT: Facing South at temporary embankment
LOCATION: NFD Point Molate
DATE: April 25, 1995
PHOTOGRAPHER: David West
PROJECT NO.: 004-0248IRRDTR

ATTACHMENT B
TEMPORARY FILL PHYSICAL DATA

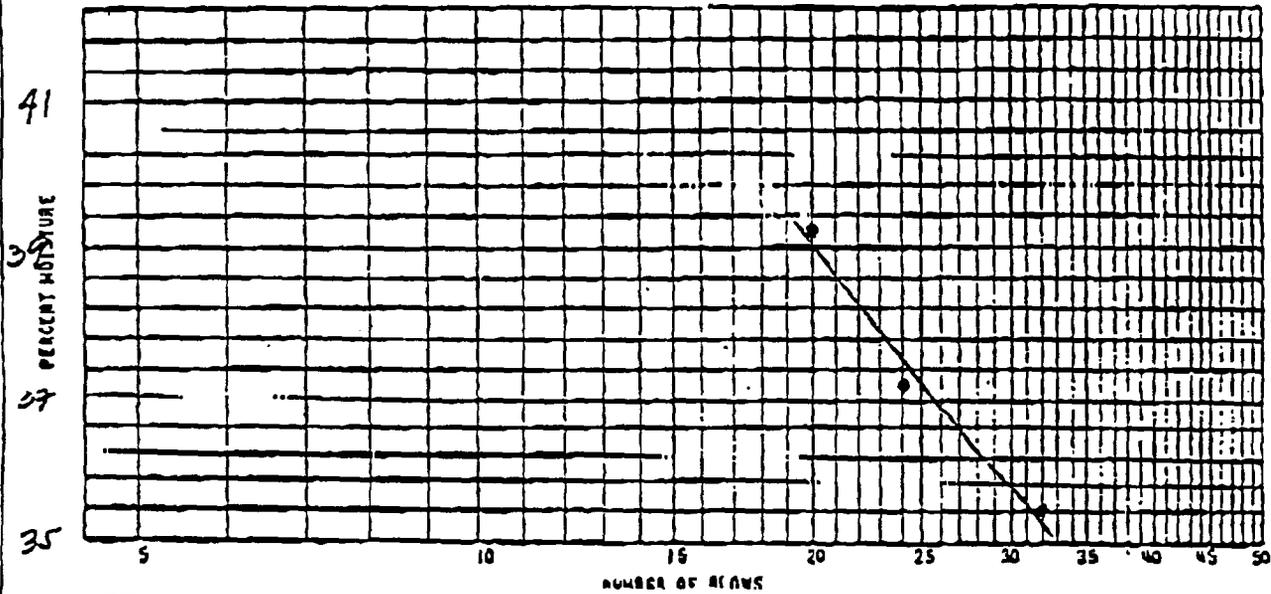
LIQUID LIMIT - PLASTIC LIMIT - PLASTICITY INDEX

Sample No. _____ Date 3/13/95 Project IT CORP. - POINT HAUZ Job No. 0420 0009

EXCAVATION NO. GALLAGHER AND BURK QUARRY
SEPTA _____

LIQUID LIMIT - PLASTIC LIMIT - PLASTICITY INDEX						
TRIAL NO.	PLASTIC LIMIT		LIQUID LIMIT			
	1	2	1	2	3	4
DISK NO.	F	C	BB	DD	EE	
NO. OF BLOWS			32	24	20	
1 WT. DISH + WET SOIL	40.0	41.17	17.05	18.54	15.05	...
2 WT. DISH + DRY SOIL	38.96	39.50	14.20	15.27	12.45	
3 WT. OF DISH	33.73	33.68	6.15	6.48	5.82	
4 WT. OF WATER (1-2)	1.14	1.37	2.55	3.27	2.60	
5 WT. OF DRY SOIL (2-3)	5.13	6.17	8.05	8.79	6.63	
6 % MOISTURE (4/5 x 100)	22.2	22.4	35.4	37.2	39.2	
7 AVERAGE PLASTIC LIMIT	22					

FLOW CURVE



LIQUID LIMIT (LL)	37	PLASTIC LIMIT (PL)	22	PLASTICITY INDEX (PI = LL - PL)	15
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SHRINKAGE TEST

1 SHRINKAGE DISH NO.		8 VOL. SHRINKAGE DISH (V)	
2 WT. OF DISH + WET SOIL		9 VOL. DRY SOIL (V ₀)	
3 WT. OF DISH + DRY SOIL		10 V ₁ = (8-9)	
4 WT. OF WATER		11 $\frac{V_1 - V_0}{V_0} \times 100 = (\frac{10}{8} \times 100)$	
5 WT. OF DRY SOIL (V ₀) = (3-4)		12 SHRINKAGE LIMIT (7-11)	
6 % MOISTURE (5/6 x 100)		13 SHRINKAGE RATIO (8/9)	

REMARKS: Soil passing # 200
Sieve is classified
as Brown Silty Clay (CL)

TESTED BY JULIUS GO DATE 3/13/95
COMPUTED BY JULIUS GO DATE 3/14/95
CHECKED BY _____ DATE _____

PROCTOR COMPACTION TEST

PROJECT IT CORP. - POINT MADATE JOB 04200009
 DATE SAMPLED 3/9/95 BY CALL CHAN
 SOIL DESCRIPTION ⁽⁶⁰⁾ ORANGE BROWN SANDY, CLAYEY GRANULATED 3/10/95
 LOCATION GALLAGHER AND BUNK QUARRY TESTED BY JGU
 BORING NO. _____ SAMPLE NO. _____ DEPTH _____ SPECIFIC GRAVITY _____
 COMPACTION TYPE MECHANICAL - ASTM D1557 6"
 BLOWS PER LAYER 56 NO LAYERS 5 HIT. DROP (INS) 18
 WT. TAMPING ROD (lbs) 10 VOL. MOLD (cu ft) 1/13.33

DENSITY DETERMINATION

TEST NUMBER	1	2	3	4	5	6
WATER ADDEDD (cc)	0	-100	-200	100		
WEIGHT MOLD + WET SOIL (gm)	7585	7532	7287	7498		
WEIGHT OF MOLD (gm)	2790	2790	2790	2790		
WEIGHT OF WET SOIL (gm)	4795	4742	4497	4708		
WET DENSITY (pcf)	140.9	139.4	133.2	138.4		
DRY DENSITY (pcf)	129.4	128.7	123.7	123.9		

MOISTURE DETERMINATION

TEST NUMBER	1	2	3	4	5	6
WEIGHT OF WET SOIL + TARE (gm)	340.6					
WEIGHT OF DRY SOIL + TARE (gm)	308.5					
WEIGHT OF WATER (gm)	32.1					
WEIGHT OF TARE (gm)						
WEIGHT OF DRY SOIL (gm)						
MOISTURE CONTENT (%)	10.4	8.4	6.7	12.2		

COMMENTS: 129.0 pcf @ 9.5%

JOB: 0420 0009

DATE: 3/10/95

FIGURE: _____

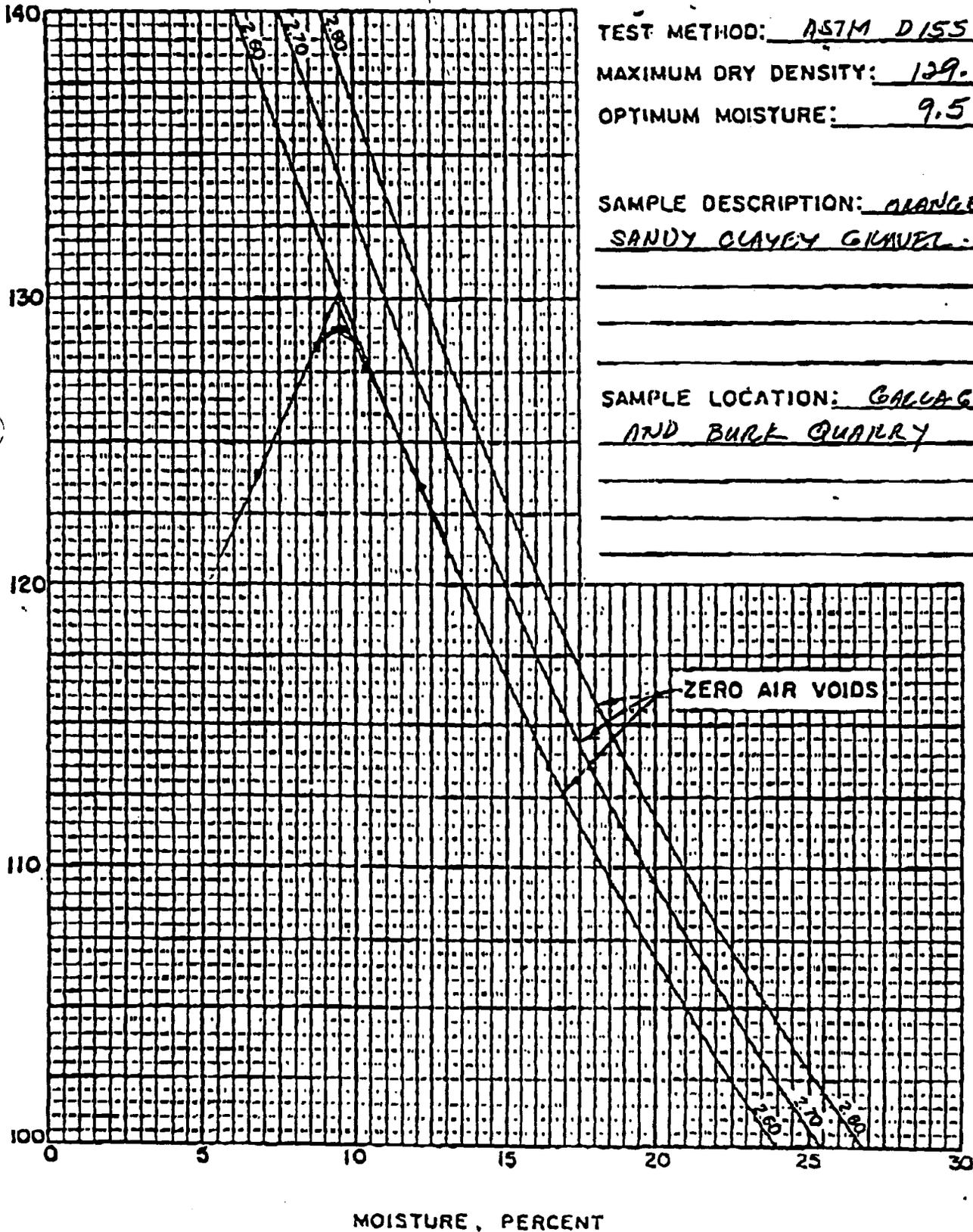
TEST METHOD: ASTM D1557

MAXIMUM DRY DENSITY: 129.0 PCF

OPTIMUM MOISTURE: 9.5 %

SAMPLE DESCRIPTION: ORANGE BROWN SANDY CLAYEY GRAVEL (GC)

SAMPLE LOCATION: GALLAGHER AND BURK QUARRY



DRY DENSITY, PCF

MOISTURE, PERCENT