Tetra Tech, Inc.
4213 State Street, Suite 100
Santa Barbara, CA 93110-2847
VOICE (805) 681-3100 FAX (805) 681-3108

Project: **Vandenberg Air Force Base**
Log of Well No. **13-MW-6**

Location: OU4, Site 13, ABRES-A Canyon, approx. 510 feet west of Building 1790.

Date Started: 9/10/97	Completed: 9/16/97	4" PVC Bank Casing:	from 0 ft bgs to 40 ft bgs
Logged By: J. Rohrer	Checked By: K. McNamara, R. G.	0.01" Screening Casing:	from 40 ft bgs to 50 ft bgs
Drilled By: B. Carpenter, S/G Testing	Km # 6678	Bentonite/Cement Grout:	from 2 ft bgs to 35.5 ft bgs
Drilling Equipment: CME 75, 8" and 10" HSA		Bentonite Transitional Seal:	from ft bgs to ft bgs
Sampling Equipment: 2-inch I.D. Split Spoon, Hydropunch		Sand Filter Pack:	from 35.5 ft bgs to 52 ft bgs
GS Elev.: 69.8 ft above MSL	TD: 52 ft	TOC Elev.: 72.69 ft above MSL	

Depth (ft. bgs)	MATERIAL DESCRIPTION	Material Symbol	Material Type	Well Construction	Sample	Blow Counts per 6"	Percent Recovery	PID (ppm) Amb/Smp	REMARKS
	silty sand, gray (10YR 5/1), fine grained, poorly graded, rounded, loose to medium dense, dry, some silt, trace fine angular gravel (shale), alluvium.		SM					0/0	Start drilling 1320. Sample V13MW6-0 submitted for chemical tests. Sample sleeves manually pushed into soil.
5						5 5 5	83	0/0	Sample V13MW6-5 submitted for chemical tests.
10	very dark gray (5Y 3/1), medium grained, subangular to rounded, loose, wet, little to some silt.					2 2 5	83	0/0	Sample V13MW6-10 submitted for chemical tests.
15	sand, olive gray (5Y 4/2), medium grained, poorly graded, rounded, loose, wet, few silt, few coarse angular gravel, alluvium.		SP-SM			3 3 2	39	0/ 1.2	1406, groundwater encountered at 9.6 ft bgs.
20						2 2	39		

9.6 ft. bgs. ▼ Groundwater depth during drilling 10.25 ft. bgs. ▽ Groundwater depth after well development on: 10/14/97

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	sand, olive gray (5Y 4/2), medium grained, poorly graded, rounded, loose, wet, few silt, few coarse angular gravel, alluvium.		SP-SM			3			
25						0 2 4	89	0/0	
30						2 2 4	39	0/0	Drove Hydropunch from 31 ft. to 35 ft. Screen exposed from 34 ft. to 35 ft. Groundwater sample V13MW6-35W submitted for chemical tests.
35									
40	very dark grayish brown (2.5Y 3/2)					2 6 9	75	0/0	Note: Heaving sands at 40 ft bgs. 1610. End for day. Start drilling 9/11/97. Drove Hydropunch from 41 ft to 45 ft expose screen 3 ft. Groundwater sample V13MW6-45W submitted for chemical tests.
45									

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Depth (ft. bgs)	MATERIAL DESCRIPTION	Material Symbol	Material Type	Well Construction	Sample	Blow Counts per 6"	Percent Recovery	PID (ppm) Amb/Smp	REMARKS
45			SP-SM					0/0	
	sandy gravel with silt, dark olive gray (5Y 3/2), fine gravel, poorly graded, angular, medium dense, wet, some fine to coarse sand, few to little silt, trace clay, thin lense of sandy clay at 48 ft, alluvium.		GP			6 6 6 8	50		Sample V13MW6-50 submitted for physical tests.
50	moist.					6 8 9 12	40	0/0	T.D. of 8 inch pilot hole at 51 ft. 9 inch. Reamed with 10 inch auger to 52 ft. Heaving sands. Construct 4 inch well using 0.01 inch prepack screen. Unable to seal well using bentonite pellets. Well sealed using bentonite/cement grout.
	shale, gray (2.5Y 5/1), hard, slightly moist to dry, some clay alteration, Monterey Formation.		Shale			6 50/3"	33	0/30.5	End drilling 1545.
55									
60									
65									
70									

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