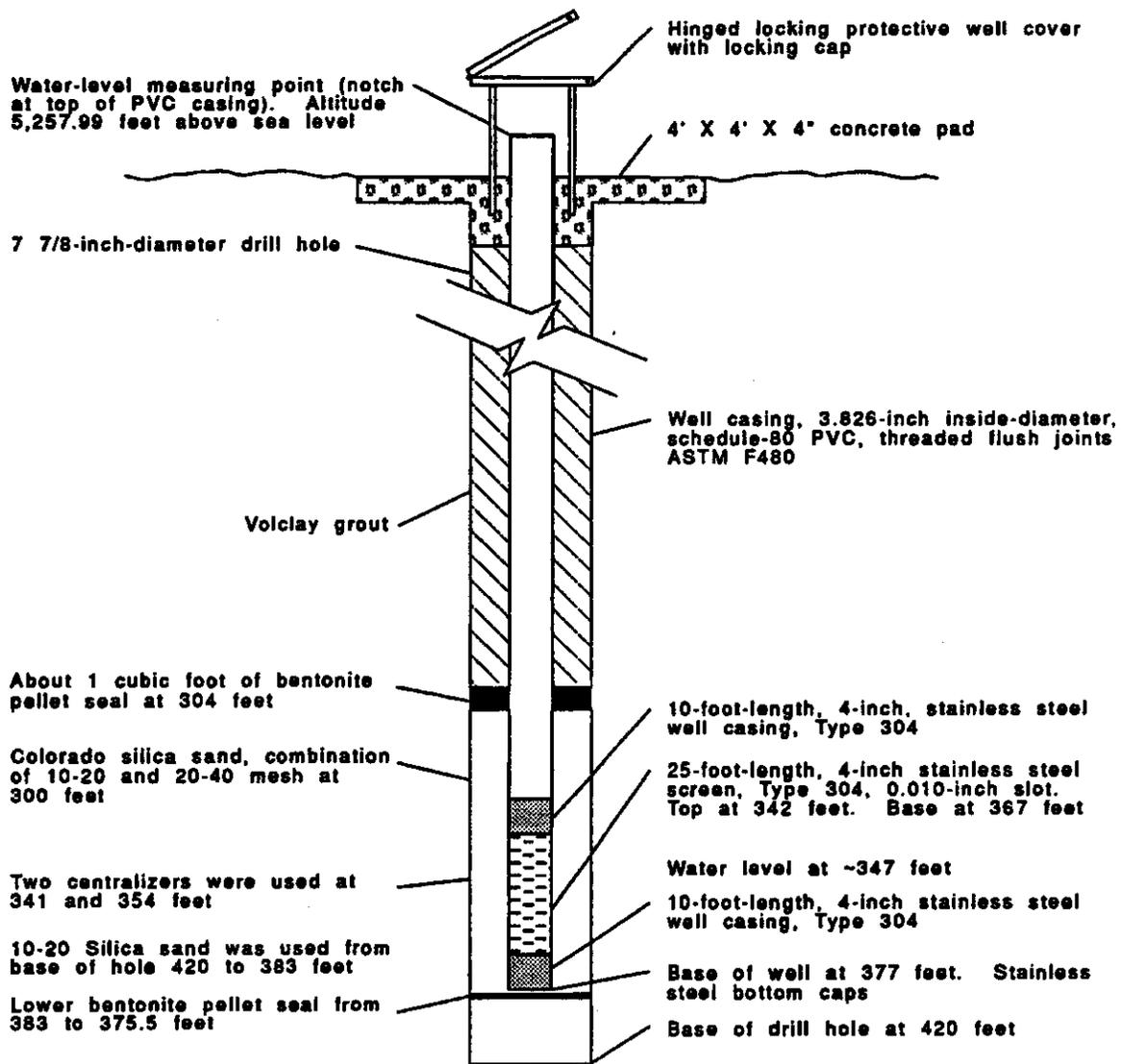


KAFB-1001 to KAFB-1009



NOT TO SCALE

Well-completion diagram for monitoring well KAFB 1001. Drilled and completed by U.S. Geological Survey, Coal Branch, Denver, Colo. Started on 04-12-92, completed on 04-20-92. Well drilled using mud rotary method with Wyoming sodium bentonite drilling fluid. All depths are feet below land surface.

KAFB-1001

AR1710

Borehole Log
KAFB1001

Project name: Kirtland Air Force Base - Phase II, Stage 2A	Sheet 1 of 2
Project number: 463536001	Site: KAFB1001
Drilling Company: USGS	Location:
Date Started drilling: 12 Apr 92	Drilling Crew: Jeff Eman, John Palmer, Bob Gilliland
Drilling Method: Mud rotary	Date completed drilling:
Borehole diameter: 7 7/8	Drilling Fluid: Bentomite
Drilling equipment: Gardner-Denver17w	Sample type:
Logged by: G. Roybal	

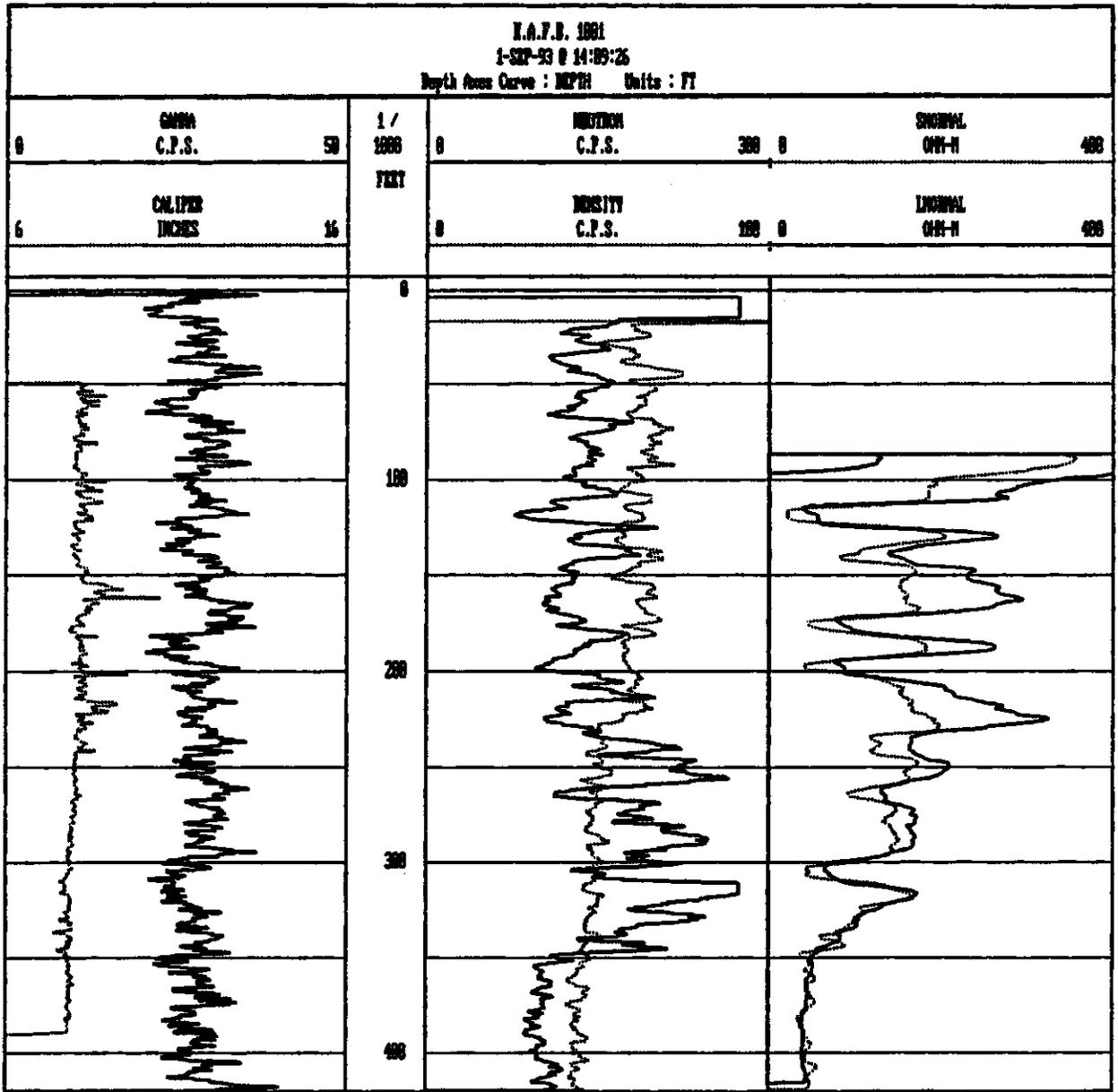
<u>Date</u>	<u>Time</u>	<u>Depth(ft)</u>	<u>Drilling Speed (Min/ft)</u>	<u>Lithology and Remarks</u>
12-Apr-92		101-105		Sand, v. fine-medium grained. Very "clean" quartz sand.
		105-125		Sand, coarse-v. coarse grained. Moderate (10-20%). Amount of volcanic ash. Small amount of fine sand.
		125-130		Clay, small gravel (< 10 mm diam) and poorly - sorted sand.
		130-135		Granules and v. coarse sand. Moderate amount of poorly-sorted sand. 10-20% volcanic ash.
		135-145		Small gravel (≤ 10 mm diam.). Trace of poorly-sorted sand. No volcanic ash.
		145-160		Granules and v. coarse sand. Moderate amount of poorly-sorted sand. Trace of small gravel. Small amount of volcanic ash.
		160-165		Small gravel (≤ 15 diam.). Trace of poorly-sorted sand.
		165-185		This interval begins with predominately coarse sand-granules with small amount of gravel (and small amount of poorly-sorted sand), and gradually gets more coarse such that by 185 feet, sample is predominately gravel (up to 15 mm diam.) with trace of v. coarse sand and granules.

AR 1710

**Borehole Log
KAFB1001**

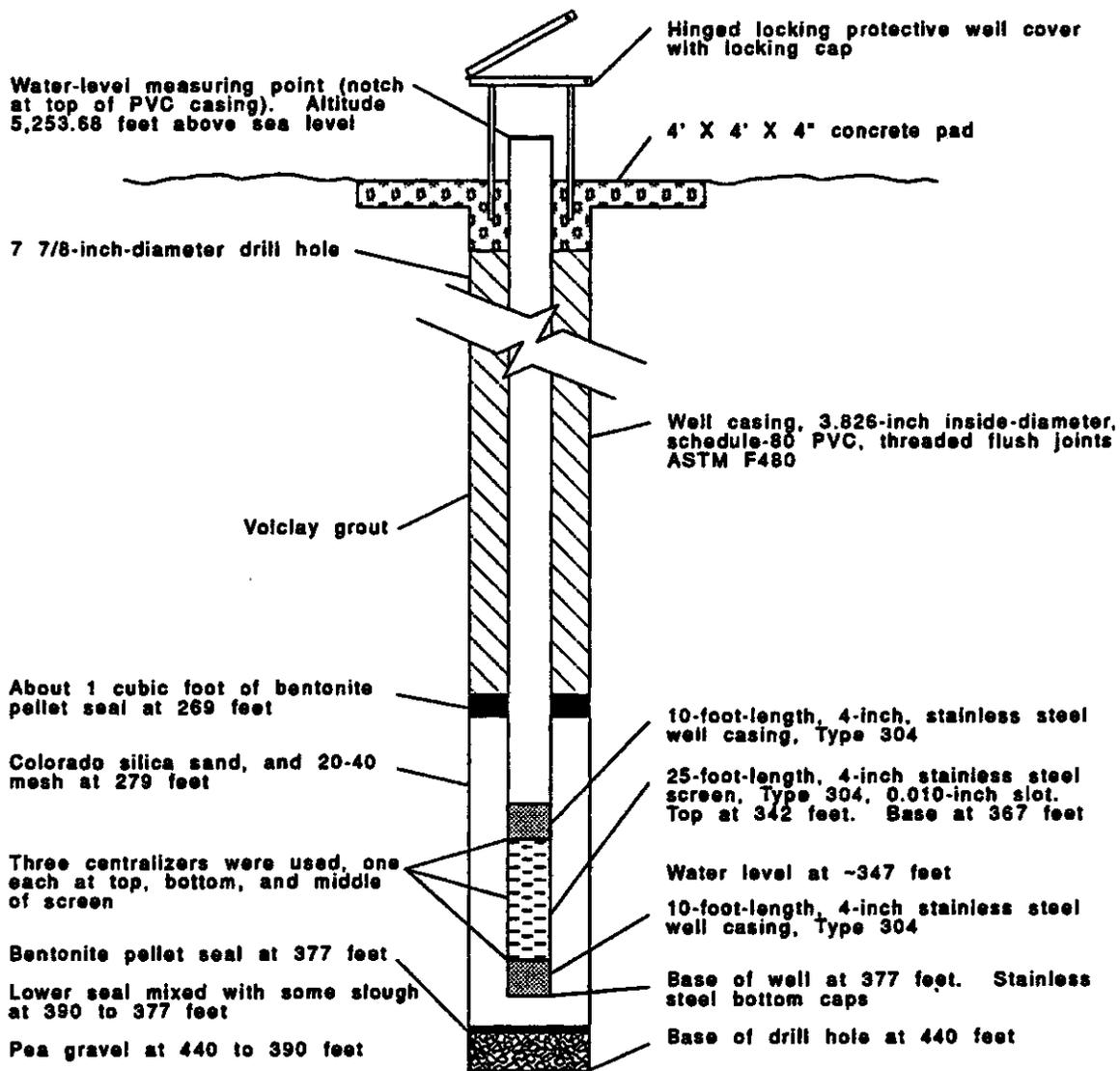
Project name: Kirtland Air Force Base - Phase II, Stage 2A	Sheet 2 of 2
Project number: 463536001	Site: KAFB1001
Drilling Company: USGS	Location:
Date Started drilling: 12 Apr 92	Surface Elevation:
Drilling Method: Mud rotary	Drilling Crew: Jeff Eman, John Palmer, Bob Gilliland
Borehole diameter: 7 7/8	Date completed drilling:
Drilling equipment: Gardner-Denver17w	Drilling Fluid: Bentonite
Logged by: G. Roybal	Total Depth:
	Sample type:

<u>Date</u>	<u>Time</u>	<u>Depth(ft)</u>	<u>Drilling Speed (Min/ft)</u>	<u>Lithology and Remarks</u>
		185-195		Granules and v. coarse sand. Small amount of poorly-sorted sand and trace of small gravel.
		195-205		Gravel (up to 20 mm diam.). Some grey clay, granules.
		205-225		Granules, poorly-sorted sand (although predominately coarse), and gravel (up to 20 mm diam.) - approximately equal amounts of each.
		225-245		Predominantly granules. Small amount of poorly-sorted sand, small amount of (small) gravel.
		245-255		Sand, fairly well-sorted medium grained, (small amount of other grain sizes).
13-Apr-92		255-310		Predominantly granules, with small amount of coarse-v. coarse sand and small amount of small (≤ 10 mm diam.) gravel.
		310-325		Brown silt, v. fine-fine sand, traces of clay, trace of coarse sand.
		325-375		Granules, small gravel (up to 10 mm diam.), poorly-sorted sand (although predominately coarse-v. coarse). Trace of silt.
		375-420		Gravel (up to 15 mm diam.), granules-coarse sand, small amount of smaller-grained poorly-sorted sand.



KAFB-1001

AR 1710



NOT TO SCALE

Well-completion diagram for monitoring well KAFB 1002. Drilled and completed by U.S. Geological Survey, Coal Branch, Denver, Colo. Started on 03-25-92, completed on 03-31-92. Well drilled using mud rotary method with Wyoming sodium bentonite drilling fluid. All depths are feet below land surface.

KAFB-1002

AR 1710

**Borehole Log
KAFB1002**

Project name: Kirtland Air Force Base - Phase II, Stage 2A	Sheet 1 of 4
Project number: 463536001	Site: KAFB1002
Drilling Company: USGS	Location: Landfill 1
Date Started drilling: 25 Mar 92	Drilling Crew: Dan Sweney, John Palmer, Dean Bohn
Drilling Method: Mud rotary	Date completed drilling: Total Depth:
Borehole diameter: 77/8	Drilling Fluid: Air 0-4 ft., Mud 4-4 ft.
Drilling equipment: Gardner-Denver17w	Sample type: Bentonite
Logged by: G. Roybal, F. Gebhardt	

<u>Date</u>	<u>Time</u>	<u>Depth(ft)</u>	<u>Drilling Speed (Min/ft)</u>	<u>Lithology and Remarks</u>
25-Mar-92		0-15		Moderate brown silt. Trace of v. fine - fine sand.
		15-20		Brown silt, trace of fine sand. Small amount of brown clay.
		20-25		Brown silt coarse - v. coarse sand and granules, trace of (small) gravel. Fairly good portion of all particles (20 - 30%) are well-rounded, white volcanic ash.
		25-35		V. coarse sand, granules, and small amount of (small) gravel. Trace of silt. Small amount of volcanic ash
		35-45		Silt, poorly-sorted sand, granules, small amount of small (≤ 15 mm diam.) gravel. Trace of clay, volcanic ash.
		45-70		Coarse - v. coarse sand, granules, small amount of small gravel, no silt, no clay, small amount of volcanic ash.
		70-80		Clay, silt some v. coarse sand, granules. Trace of small gravel. Small amount of rounded volcanic ash.
		80-85		Silt, v. coarse sand, granules. Trace of clay. Small amount of fine - med. sand, small amount of volcanic ash.
		85-110		Coarse - v. coarse sand, granules, gravel (up to 20 mm diam. Small amount of silt. Samples were nearly 50% well-rounded volcanic ash particles.

AR1710

**Borehole Log
KAFB1002**

Project name: Kirtland Air Force Base - Phase II, Stage 2A	Sheet 2 of 4
Project number: 463536001	Site: KAFB1002
Drilling Company: USGS	Location: Landfill 1
Date Started drilling: 25 Mar 92	Drilling Crew: Dan Sweney, John Palmer, Dean Bohn
Drilling Method: Mud rotary	Date completed drilling:
Borehole diameter: 7 7/8	Drilling Fluid: Air 0-4 ft., Mud 4-4 ft.
Drilling equipment: Gardner-Denver17w	Sample type: Bentonite
Logged by: G. Roybal, F. Gebhardt	

<u>Date</u>	<u>Time</u>	<u>Depth(ft)</u>	<u>Drilling Speed (Min/ft)</u>	<u>Lithology and Remarks</u>
		110-125		V. coarse sand, granules, gravel. Slightly more gravel than previous samples. Lower percentage of volcanic particles.
		125-140		V. coarse sand, granules, and gravel. very high percentage of granules. Less gravel than previous interval. Estimate volcanic ash to be about 20% of sample. No silt, no clay.
		110-125		V. coarse sand, granules, gravel. Slightly more gravel than previous samples. Lower percentage of volcanic particles.
		125-140		V. coarse sand, granules, and gravel. very high percentage of granules. Less gravel than previous interval. Estimate volcanic ash to be about 20% of sample. No silt, no clay.
26-Mar-92		140-150		Gravel (up to 25 mm diam.) and granules. Only trace of volcanic ash.
		150-160		Silt, poorly-sorted sand, granules, trace of very small gravel, trace of clay.
		160-175		Silt, poorly-sorted sand, granules, trace of clay.
		175-200		Sand, (poorly-sorted but predominately v. coarse), granules, very small gravel (generally ≤10 mm. diam.) Small amount of silt, no volcanic ash.

**Borehole Log
KAFB1002**

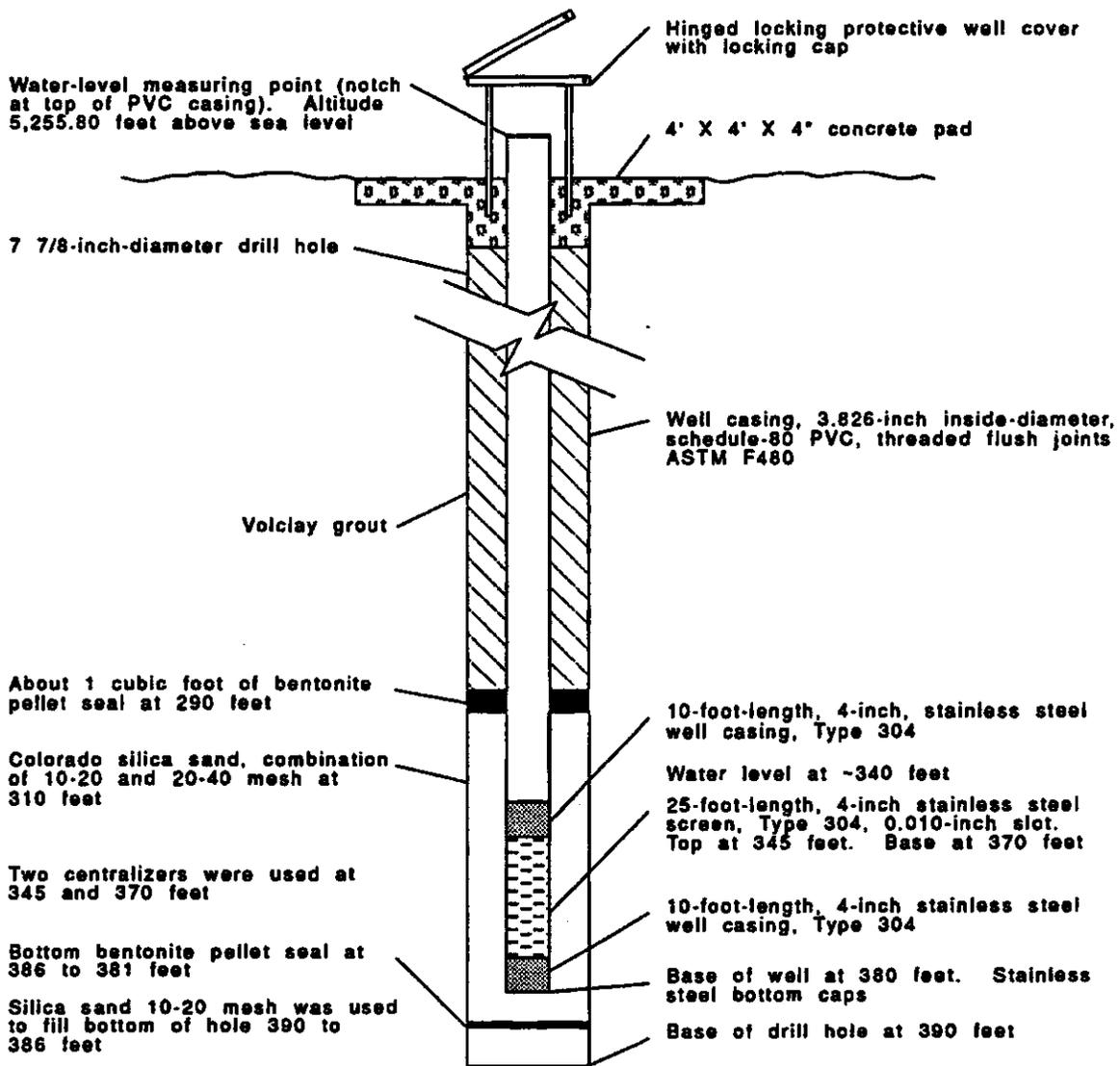
Project name: Kirtland Air Force Base - Phase II, Stage 2A	Sheet 3 of 4
Project number: 463536001	Site: KAFB1002
Drilling Company: USGS	Location: Landfill 1
Date Started drilling: 25 Mar 92	Drilling Crew: Dan Sweney, John Palmer, Dean Bohn
Drilling Method: Mud rotary	Date completed drilling:
Borehole diameter: 7 7/8	Drilling Fluid: Air 0-4 ft., Mud 4-4 ft.
Drilling equipment: Gardner-Denver17w	Sample type: Bentonite
Logged by: G. Roybal, F. Gebhardt	

<u>Date</u>	<u>Time</u>	<u>Depth(ft)</u>	<u>Drilling Speed (Min/ft)</u>	<u>Lithology and Remarks</u>
		200-205		Poorly-sorted sand, silt, small gravel (≤15 mm diam.), trace of volcanic ash.
		205-220		Small gravel, granules, small amount of poorly-sorted sand, small amount of silt.
		220-230		Brown clay, small gravel, granules. No ash.
		230-250		Poorly-sorted sand, granules, trace of small (<15 mm diam.) Gravel. Interval top has large amount of silt (and trace of clay) which gradually gets phased out by 250 feet.
		255-260		Granules, v. coarse sand. Small amount of poorly-sorted sand and silt.
		260-280		Granules, small gravel, v. coarse sand. Small amount of other assorted sand sizes, trace of silt.
		280-285		Small gravel (<15 mm diam.) and granules.
		285-290		Poorly-sorted sand, silt, granules, trace of small gravel.
		290-295		Clay (both light brown and moderate brown). Small amount of silt, granules, and poorly-sorted sand.

**Borehole Log
KAFB1002**

Project name: Kirtland Air Force Base - Phase II, Stage 2A	Sheet 4 of 4
Project number: 463536001	Site: KAFB1002
Drilling Company: USGS	Location: Landfill 1
Date Started drilling: 25 Mar 92	Drilling Crew: Dan Sweney, John Palmer, Dean Bohn
Drilling Method: Mud rotary	Date completed drilling:
Borehole diameter: 77/8	Drilling Fluid: Air 0-4 ft., Mud 4-4 ft.
Drilling equipment: Gardner-Denver17w	Sample type: Bentonite
Logged by: G. Roybal, F. Gebhardt	

<u>Date</u>	<u>Time</u>	<u>Depth(ft)</u>	<u>Drilling Speed (Min/ft)</u>	<u>Lithology and Remarks</u>
26-Mar-92		295-320		Granules and poorly-sorted sand (especially v. coarse). Interval top has large amount of brown clay and silt which gradually phases out by interval bottom (320 feet).
		320-330		Silt, poorly-sorted sand, granules, trace of clay.
		330-340		Granules, coarse - v. coarse sand. Trace of fine sand-silt.
		340-355		Granules, clay, v. coarse sand. Small amount of silt.
		355-440		Granules, v. coarse sand. Small amount of small (≤ 15 mm diam.), gravel, small amount of poorly-sorted sand.



NOT TO SCALE

Well-completion diagram for monitoring well KAFB 1003. Drilled and completed by U.S. Geological Survey, Coal Branch, Denver, Colo. Started on 05-18-92, completed on 05-22-92. Well drilled using mud rotary method with Wyoming sodium bentonite drilling fluid. All depths are feet below land surface.

KAFB-1003

AR 1710

**Borehole Log
KAFB1003**

Project name: Kirtland Air Force Base - Phase II, Stage 2A	Sheet 1 of 2
Project number: 463536001	Site: KAFB1003
Drilling Company: USGS	Location: McCormick Ranch Surface Elevation:
Date Started drilling: 18 May 92	Drilling Crew: Jeff Eman, Dean Bohn, Bob Gilliland
Drilling Method: Mud rotary	Date completed drilling: Total Depth:
Borehole diameter: 7 7/8	Drilling Fluid: Air 0-4 ft., Mud 4-4 ft.
Drilling equipment: Gardner-Denver17w	Sample type:
Logged by: F. Gebhardt	

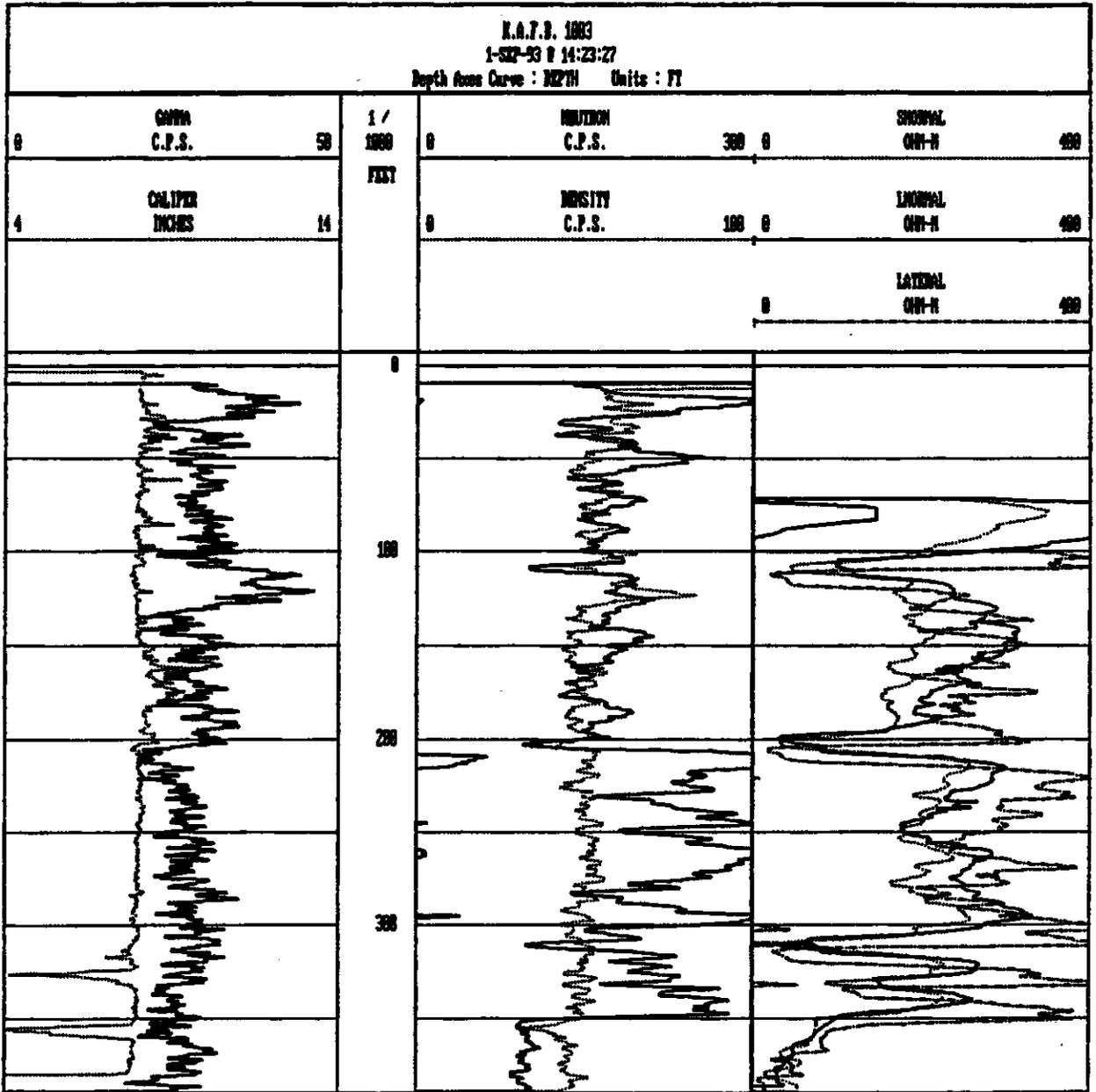
<u>Date</u>	<u>Time</u>	<u>Depth(ft)</u>	<u>Drilling Speed (Min/ft)</u>	<u>Lithology and Remarks</u>
18-May-92		0-20		Not collected.
		20-35		Coarse sand and small gravels, ≤ 5 mm, there is also small amount of silt.
		35-40		Silt and fine sand.
		40-70		Coarse sand mixed with small gravel ≤ 10 mm. There is also small amounts of volcanic ash. Poorly sorted.
		70-75		Silt and coarse sand.
		75-100		Coarse sand with small gravel ≤ 10 mm, volcanic ash.
		100-105		This interval is fine sand, but the majority is volcanic ash. Well sorted.
		105-120		Volcanic ash mix with med-coarse sand.
		120-140		This interval is about 50% silt and 50% med-coarse sand and volcanic ash.
		140-150		Coarse sand mix with small gravel ≤ 5 mm and volcanic ash.
		150-175		This interval is the same as previous sample, but it appears that the volcanic ash is not at this depth.
		175-210		Med-coarse sand, with gravel ≤ 20 mm.
		210-220		Same as previous interval with the addition of small amounts of clay.
19-May-92		220-230		Clay with small amount of coarse sand and a few gravels ≤ 20 mm.

AR 1710

**Borehole Log
KAFB1003**

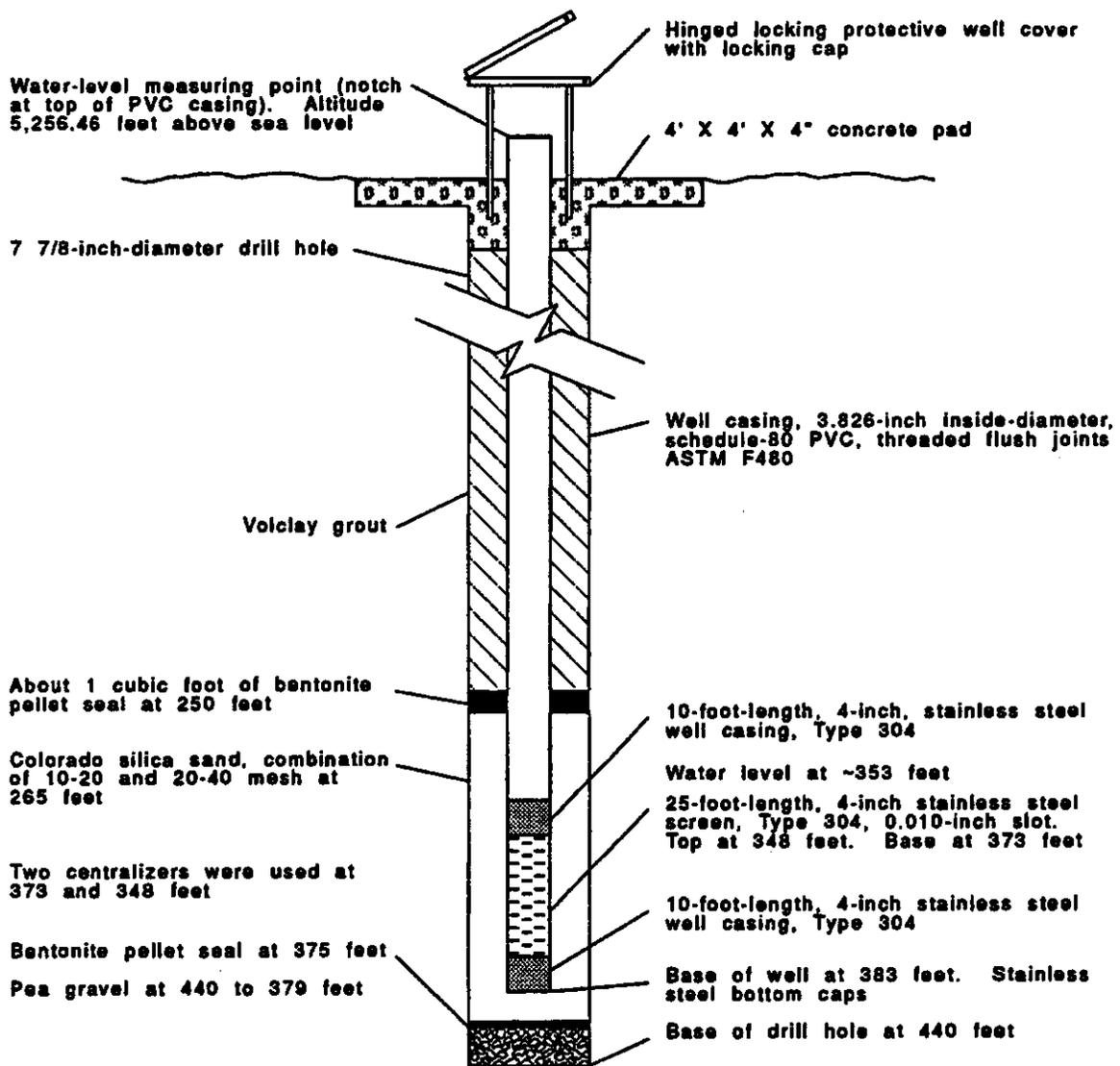
Project name: Kirtland Air Force Base - Phase II, Stage 2A	Sheet 2 of 2
Project number: 463536001	Site: KAFB1003
Drilling Company: USGS	Location: McCormick Ranch Surface Elevation:
Date Started drilling: 18 May 92	Drilling Crew: Jeff Eman, Dean Bohn, Bob Gilliland
Drilling Method: Mud rotary	Date completed drilling: Total Depth:
Borehole diameter: 7 7/8	Drilling Fluid: Air 0-4 ft., Mud 4-4 ft.
Drilling equipment: Gardner-Denver17w	Sample type:
Logged by: F. Gebhardt	

<u>Date</u>	<u>Time</u>	<u>Depth(ft)</u>	<u>Drilling Speed (Min/ft)</u>	<u>Lithology and Remarks</u>
19-May-92		200-255		Coarse sand and gravel ≤ 20 mm poorly sorted.
		255-260		Same as above, except gravel size has decreased ≤ 5 mm.
		260-300		Still same as above but the gravel size has increased ≤ 15 mm.
		300-320		Well sorted med-coarse sand ≤ 4 mm.
		320-350		Silt with small amounts of med-coarse sand.
		350-390		Very well sorted coarse sand with traces of silt.



KAFB - 1003

AR 1710



NOT TO SCALE

Well-completion diagram for monitoring well KAFB 1004. Drilled and completed by U.S. Geological Survey, Coal Branch, Denver, Colo. Started on 04-21-92, completed on 04-25-92. Well drilled using mud rotary method with Wyoming sodium bentonite drilling fluid. All depths are feet below land surface.

KAFB-1004

AR 1710

1

**Borehole Log
KAFB1004**

Project name: Kirtland Air Force Base - Phase II, Stage 2A		Sheet 1 of 1
Project number: 463536001	Site: KAFB1004	
Drilling Company: USGS	Location: Landfill 1	Surface Elevation:
Date Started drilling: 21 Aug 92	Drilling Crew: Dan Sweney, John Palmer	
Drilling Method: Mud rotary	Date completed drilling:	Total Depth:
Borehole diameter: 77/8	Drilling Fluid: Air 0-4 ft., Mud 4-4 ft.	
Drilling equipment: Gardner-Denver17w	Sample type:	
Logged by: Dam		

<u>Date</u>	<u>Time</u>	<u>Depth(ft)</u>	<u>Drilling Speed (Min/ft)</u>	<u>Lithology and Remarks</u>
29-Jan-92		3-7	Recovery	Upper .8' silt light brown 5 YR 5/6. The next .5' is silt mixed with pieces of caliche, light brown 5 YR 6/4. The following .4' is a caliche layer. Below this is another section of silt very similar in color to the top of sample. Well sorted.
		10		Into large limestone gravel ≥ 5 cm.
		24-27	3.0	Upper 1.2' silty-sand medium grains. 5 YR 6/4 subangular-subrounded poorly sorted. Mixed with gravel ≥ 4 mm. Some pieces are greater than 5 cm. Next, 5 feet is large layer of fragmented limestone and a little felspar. Lower part of sample hard packed silt 5 YR 5/6, with gravel ≤ 15 mm. Felspar and limestone.
		49-50	1.3	Upper .5' is silty - sand 5 YR 5/6/ mixed with gravel ≤ 10 mm. Lower part of sample cemented med. coarse sand and gravel ≤ 10 mm, mixed with caliche, very hard well packed.

AR 1710

Borehole Log
KAFB1004

Project name: Kirtland Air Force Base - Phase II, Stage 2A		Sheet 1 of 3
Project number: 463536001	Site: KAFB1004	
Drilling Company: USGS	Location: Landfill 1	Surface Elevation:
Date Started drilling: 21 Aug 92	Drilling Crew: Dan Sweney, John Palmer	
Drilling Method: Mud rotary	Date completed drilling:	Total Depth:
Borehole diameter: 7 7/8	Drilling Fluid: Air 0-4 ft., Mud 4-4 ft.	
Drilling equipment: Gardner-Denver17w	Sample type:	
Logged by: Dam		

<u>Date</u>	<u>Time</u>	<u>Depth(ft)</u>	<u>Drilling Speed (Min/ft)</u>	<u>Lithology and Remarks</u>
21-Apr-92		0-35		Not collected.
		35-40		Silt and brown clay. Trace of fine sand.
		40-45		V. coarse sand and granules. Small amount of silt and clay. Trace of fine sand, trace of small gravel.
		45-60		Granules, v. coarse sand, small gravel (10 mm diam.). Small amount of poorly-sorted sand.
		60-70		Clay. Some silt, some granules, some poorly-sorted sand (especially v. coarse).
		70-80		Poorly-sorted sand, small gravel (<10 mm diam.), granules, trace of silt. Small amount of volcanic ash.
		80-85		Clay, poorly-sorted sand, granules.
		85-90		Poorly-sorted sand, granules, trace of clay, trace of small gravel.
		90-95		Granules, small gravel (<20 mm diam.), poorly-sorted sand. Small amount of volcanic ash.
		95-105		Poorly-sorted sand, clay, granules and small gravel.
		105-125		Poorly-sorted sand, small gravel, granules (some volcanic ash).

**Borehole Log
KAFB1004**

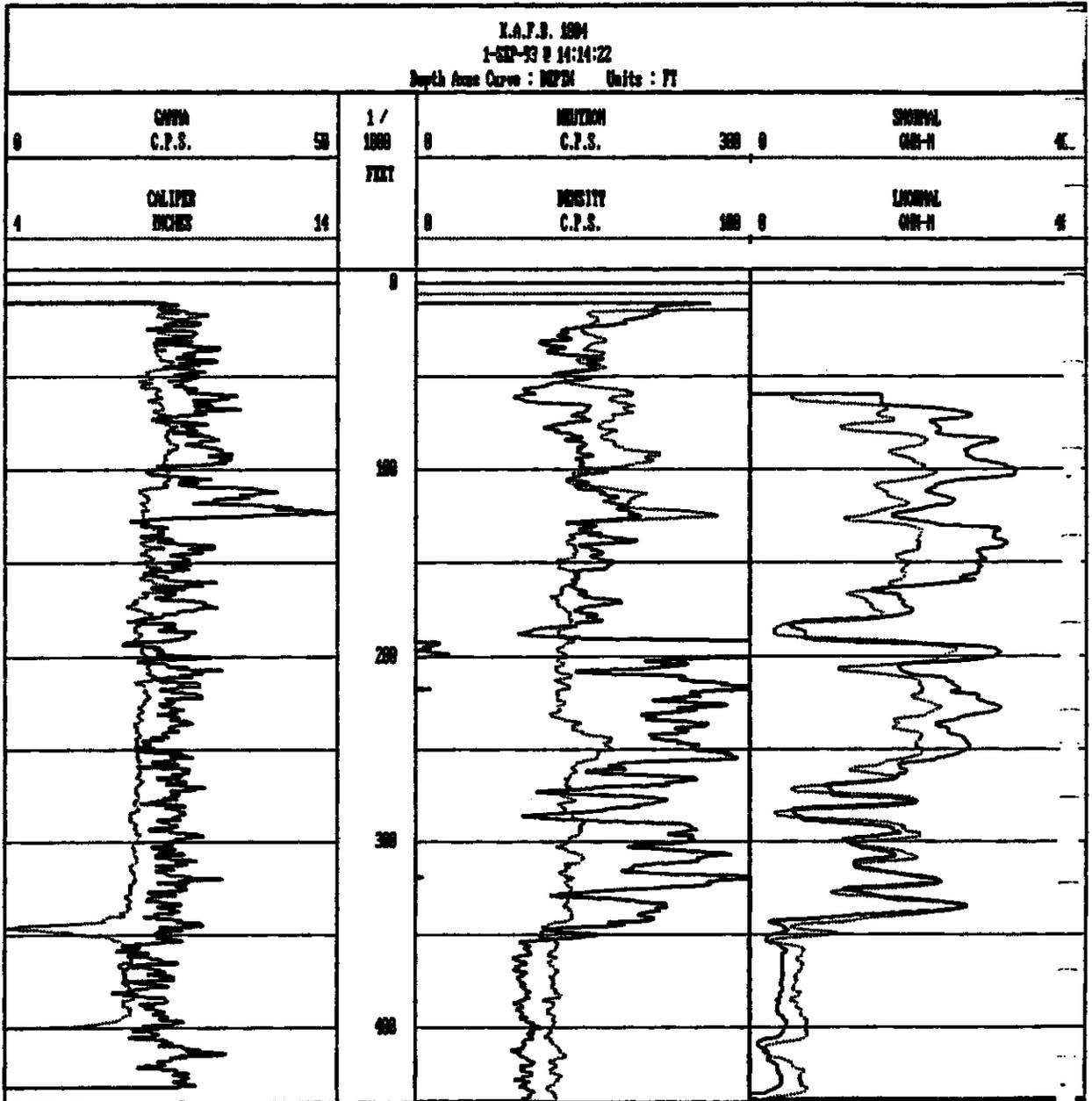
Project name: Kirtland Air Force Base - Phase II, Stage 2A	Sheet 2 of 3
Project number: 463536001	Site: KAFB1004
Drilling Company: USGS	Location: Landfill 1
Date Started drilling: 21 Aug 92	Drilling Crew: Dan Sweney, John Palmer
Drilling Method: Mud rotary	Date completed drilling:
Borehole diameter: 7 7/8	Drilling Fluid: Air 0-4 ft., Mud 4-4 ft.
Drilling equipment: Gardner-Denver17w	Sample type:
Logged by: Dam	

<u>Date</u>	<u>Time</u>	<u>Depth(ft)</u>	<u>Drilling Speed (Min/ft)</u>	<u>Lithology and Remarks</u>
		125-135		Poorly-sorted sand, granules, clay. (Still some volcanic ash)
		135-140		Poorly-sorted sand, granules, clay, and gravel (up to 15 mm diam.)
		140-165		Gravel (up to 20 mm diam.), granules, poorly-sorted sand, small amounts of clay and silt.
22-Apr-92		175-190		Poorly-sorted sand, gravel, granules.
		190-195		Clay, poorly-sorted sand, gravel, and granules.
		195-220		Brown clay. Small amount of poorly-sorted and small gravel
		220-235		Gravel (≤15 mm diam.), poorly-sorted sand, granules.
		235-245		Gravel (≤15 mm diam.), brown clay, poorly-sorted sand.
		245-255		Granules, poorly-sorted sand, brown clay, small gravel.
		255-265		Granules, brown clay, poorly-sorted sand, gravel.
		265-270		Granules, poorly-sorted sand (especially coarse), small gravel.

**Borehole Log
KAFB1004**

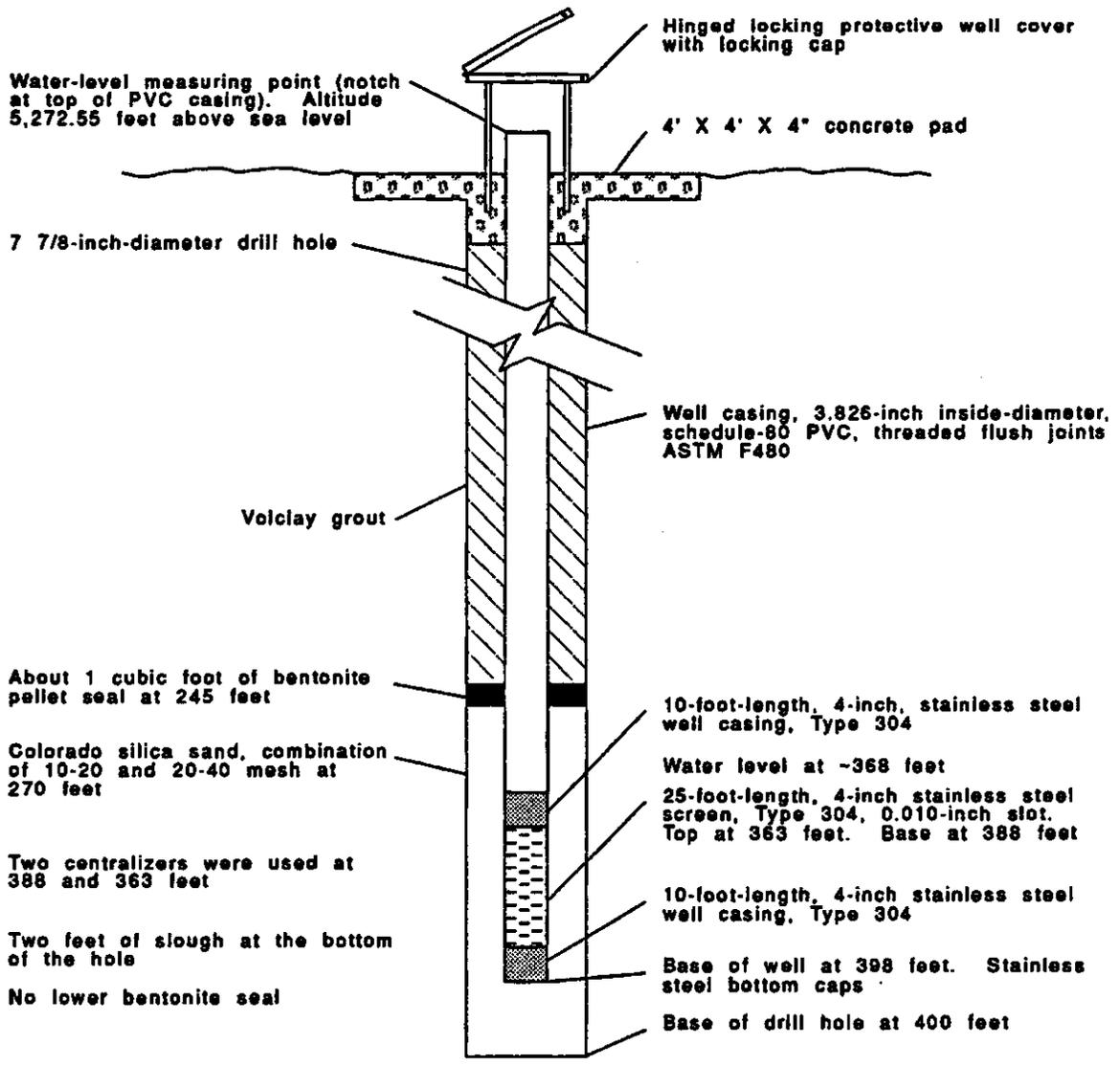
Project name: Kirtland Air Force Base - Phase II, Stage 2A	Sheet 3 of 3
Project number: 463536001	Site: KAFB1004
Drilling Company: USGS	Location: Landfill 1
Date Started drilling: 21 Aug 92	Drilling Crew: Dan Sweney, John Palmer
Drilling Method: Mud rotary	Date completed drilling:
Borehole diameter: 7 7/8	Drilling Fluid: Air 0-4 ft., Mud 4-4 ft.
Drilling equipment: Gardner-Denver17w	Total Depth:
Logged by: Dam	Sample type:

<u>Date</u>	<u>Time</u>	<u>Depth(ft)</u>	<u>Drilling Speed (Min/ft)</u>	<u>Lithology and Remarks</u>
		270-295		Gravel (≤ 20 mm diam.), brown clay balls (with fine sand in the matrix), granules, poorly-sorted sand.
		295-365		Granules, brown clay (balls), poorly-sorted sand, trace of gravel (≤ 10 mm diam.).
		365-440		Brown clay (now constituting about half of sample's mass), poorly-sorted sand, granules, small gravel.



KAFB-1004

AR 1710



NOT TO SCALE

Well-completion diagram for monitoring well KAFB 1005. Drilled and completed by U.S. Geological Survey, Coal Branch, Denver, Colo. Started on 05-23-92, completed on 05-27-92. Well drilled using mud rotary method with Wyoming sodium bentonite drilling fluid. All depths are feet below land surface.

KAFB-1005

AR 1710

Borehole Log
KAFB1005

Project name: Kirtland Air Force Base - Phase II, Stage 2A Sheet 1 of 2
 Project number: 463536001 Site: KAFB1005
 Drilling Company: USGS Location: McCormick Ranch Surface Elevation:
 Date Started drilling: 23 May 92 Drilling Crew: Jeff Eman, Bob Gilliland, Dean Bohn
 Drilling Method: Mud rotary Date completed drilling: Total Depth:
 Borehole diameter: 77/8 Drilling Fluid: Bentomite
 Drilling equipment: Gardner-Denver17w Sample type:
 Logged by: F. Gebhardt

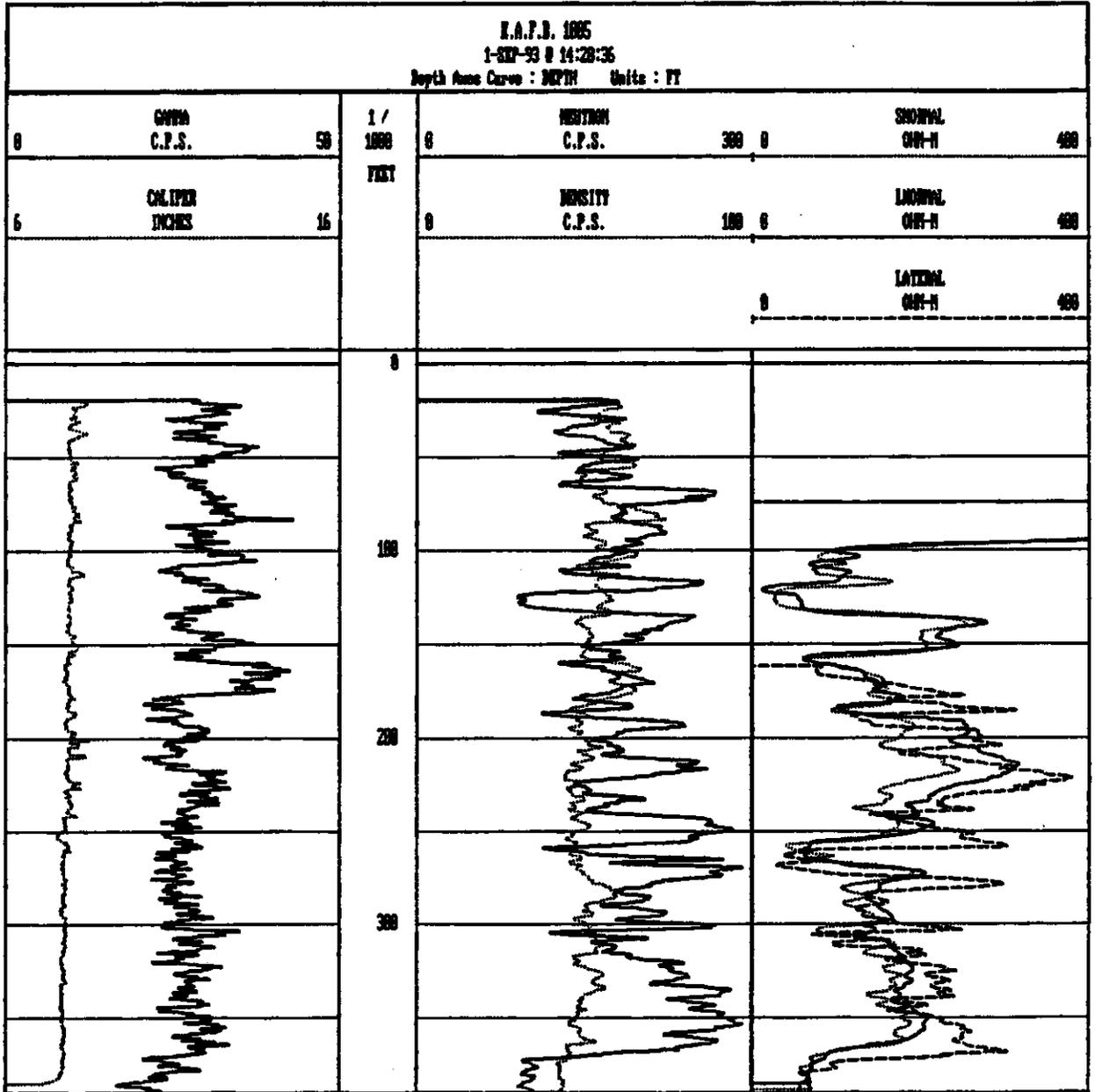
<u>Date</u>	<u>Time</u>	<u>Depth(ft)</u>	<u>Drilling Speed (Min/ft)</u>	<u>Lithology and Remarks</u>
23-May-92		0-20		Not collected.
		20-70		Silt, and clay make up the majority of these samples. Fine med. sand few coarse sand. Large amount of caliche.
		75-100		These intervals begin with predominately coarse sand with small gravels ≤ 4 mm, well sorted. Gradually the samples have large gravel ≤ 20 mm. There is also a moderate amount of volcanic ash, higher quantities at the upper end of this interval, gradually decreasing as the depth increases.
		105-135		The majority of this interval is silt with coarse sand and small gravel. Gravel is ≤ 5 mm however there are some 10 mm. There is also small amounts of clay.
		140-160		Poorly-sorted coarse sand and small gravel, little amount of med-sand. Majority of gravel ≤ 10 mm., small as large as 20 mm.
		165-175		Well-sorted coarse sand, small gravels ≤ 5 mm.
		180-245		Coarse sand and gravel ≤ 20 mm., small gravel as large as 30 mm. There is also a trace of silt of mix through this interval. As the depth increased so did the average size of the gravel fragments.

AR 1710

Borehole Log
KAFB1005

Project name: Kirtland Air Force Base - Phase II, Stage 2A Sheet 2 of 2
 Project number: 463536001 Site: KAFB1005
 Drilling Company: USGS Location: McCormick Ranch Surface Elevation:
 Date Started drilling: 23 May 92 Drilling Crew: Jeff Eman, Bob Gilliland, Dean Bohn
 Drilling Method: Mud rotary Date completed drilling: Total Depth:
 Borehole diameter: 77/8 Drilling Fluid: Bentomite
 Drilling equipment: Gardner-Denver17w Sample type:
 Logged by: F. Gebhardt

<u>Date</u>	<u>Time</u>	<u>Depth(ft)</u>	<u>Drilling Speed (Min/ft)</u>	<u>Lithology and Remarks</u>
23-May-92		245-265		This interval is basically the same as the previous interval. The average size of the gravel fragment as decreasing ≤ 10 mm.
		265-275		Silt with fine-coarse sand, and small gravel ≤ 10 mm.
		275-290		Same as above, however there is also small amounts of clay nodules.
		290-305		Coarse sand and small gravel ≤ 6 mm, mixed with small traces of silt.
		305-310		Same as above, however, there is also clay modules.
		310-390		Coarse sand and small gravel ≤ 6 mm, mixed with traces of silt. At 355 feet the silt content increases as the depth of the hole increases, at 390 feet the silt is about 30% of the sample.
		390-398		Same as above, except for a few clay nodules.



KAFB-1005

AR 1710

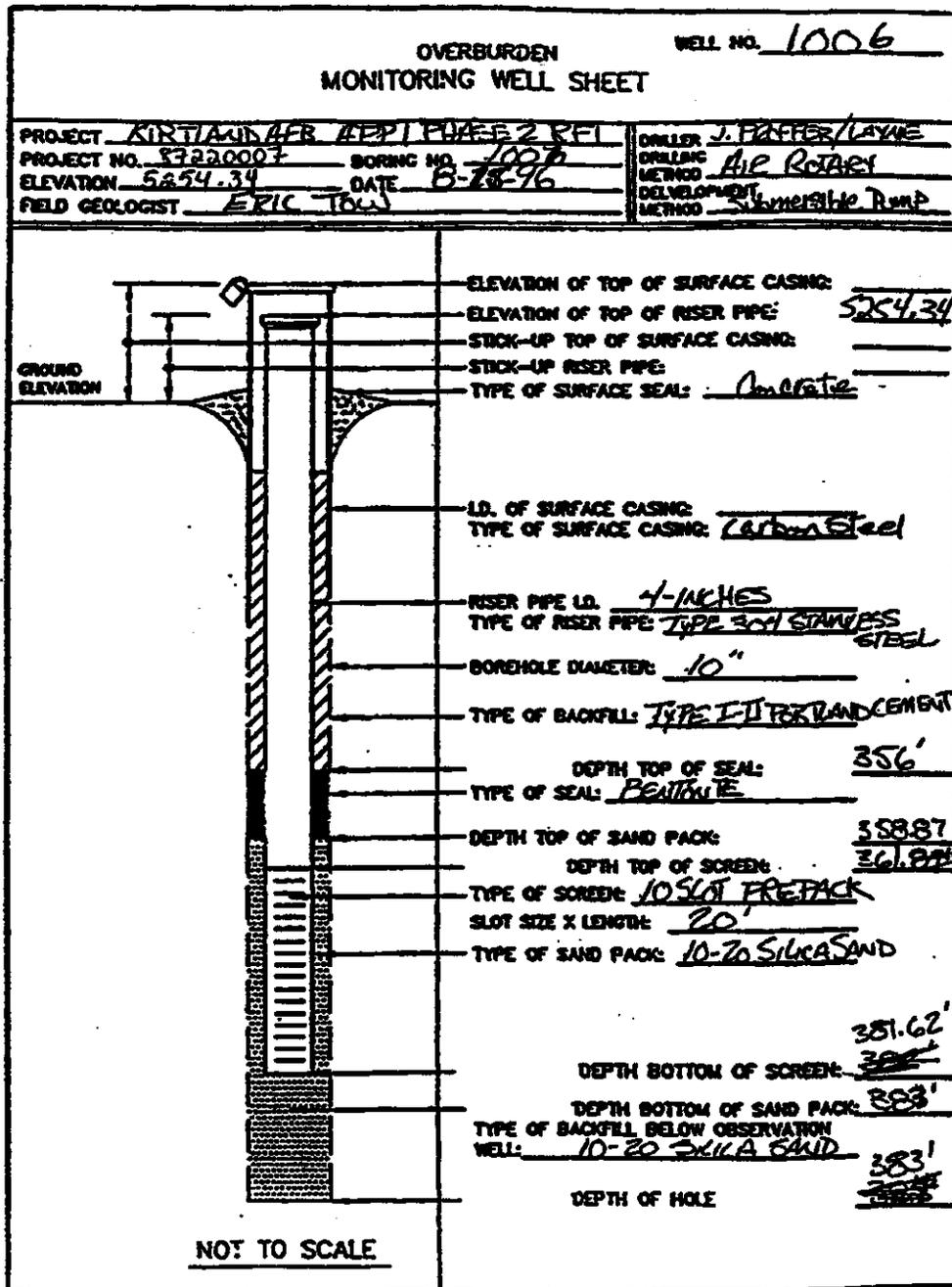


Figure A1.8-1

Overburden Monitoring Well Construction Diagram

HTRW DRILLING LOG		DISTRICT		OMAHA TERC		HOLE NO.	
1. COMPANY NAME Foster Wheeler Environmental		2. DRILLING SUBCONTRACTOR Layne Environmental		SHEET 1 OF 23 SHEETS			
3. SITE Kirtland AFB Phase 2 RFI		4. LOCATION OT28-1006					
5. NAME OF DRILLER Jason Proffer		6. MANUFACTURERS DESIGNATION OF DRILL Schramm Air Rotary					
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT		Schramm Air Rotary		8. HOLE LOCATION 1438510.58N, 401108.28E			
		Model: T685-1499		9. SURFACE ELEVATION 5254.34 ft. MSL			
		Reverse Circulation Casing OD 8 5/8" 8" ID, 10" Hole size		10. DATE STARTED 08/08/96		11. DATE COMPLETED 08/10/96	
12. OVERBURDEN THICKNESS 383 ft.		15. DEPTH GROUNDWATER ENCOUNTERED 357.62 ft.					
13. DEPTH DRILLED INTO ROCK 0 ft.		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED 360.12					
14. TOTAL DEPTH OF HOLE 383 ft.		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)					
18. GEOTECHNICAL SAMPLES N		DISTURBED		UNDISTURBED		19. TOTAL NUMBER OF CORE BOXES NA	
20. SAMPLES FOR CHEMICAL ANALYSIS N		VOC		METALS		OTHERS (SPECIFY)	
						21. TOTAL CORE REC. %	
22. DISPOSITION OF HOLE Well Installed		BACKFILLED		MONITORING WELL		OTHERS (SPECIFY)	
						23. SIGNATURE OF INSPECTOR E. Tow	
ENG FORM 5056-R, AUG 94 By Engr Daniel GTJ		PROJECT #: SITE NAME		872200070320 Kirtland AFB Phase 2 RFI		HOLE NO.: OT28-1006	

AR 220

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1008	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 2 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5252	2						
5250	4						
5248	6						
5246	8						
5244	10	(SP) Fine to medium sand, trace subangular to subrounded gravel, 2.5YR 7/4 pink, dry, non-plastic, non-cemented.					
5242	12						
5240	14						
5238	16						
5236	18						

ENG FORM 5058-R, AUG 94
BY FHWY DAMEL GTI

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1008

HTRW DRILLING LOG		DISTRICT OMAHA TERC			HOLE NO. OT28-1006		
1. PROJECT # 872200070320		2. INSPECTOR E. Tow			SHEET 3 OF 23 SHEETS		
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5234	20	(SP) Fine sand, little fine subangular to subrounded gravel, 7.5YR 8/4 light brown, dry, non-plastic, non-cemented.					
5232	22						
5230	24						
5228	26						
5226	28						
5224	30						
5222	32						
5220	34						
5218	36	(SP) Fine sand, trace fine subangular to subrounded gravel, 7.5YR 8/4 light brown, dry, non-plastic, non-cemented.					

ENG FORM 5058-R, AUG 94
By F. J. Daniel G11

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1006

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1008	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 4 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	SEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5216	38						
5214	40						
5212	42						
5210	44						
5208	46	(SP) Medium gravelly sand, little subangular to subrounded gravel, 7.5YR 6/2 pinkish gray, dry, non-plastic, non-cemented.					
5206	48						
5204	50						
5202	52						
5200	54						

ENG FORM 5056-B, AUG 94
by Peter Daniel 611

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1008

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1006	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 5 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
588	56	(SP) Gravely medium sand, little fine subangular to subrounded gravel, 7.5YR 8/2 pinkish gray, non-plastic, dry.					
580	58						
584	60	(SP) Medium to fine sand, 10YR 6/2 light brownish gray, dry, non-plastic.					
582	62						
580	64	(SP) Medium to fine sand, 10YR 6/2 light brownish gray, dry, non-plastic.					
588	66	(SC) Fine clayey sand, 5YR 5/4 reddish brown, moist, soft, low-plasticity.					
588	68						
584	70						
582	72						

ENG FORM 5056-R AUG 84
By Peter Daniel GTI

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1006

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1006	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 6 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5180	74						
5178	76						
5176	78						
5174	80	(SP) Coarse to fine sand, little subangular to subround gravel, 5YR 6/4 light reddish brown, dry, non-plastic.					
5172	82	d-85 (SP) Medium to fine sand, trace fine gravel, subangular to subrounded, 5YR 5/2 reddish gray, non-plastic, dry.					
5170	84						
5168	86						
5166	88						
5164	90	(SP) Coarse to fine sand, little subangular to subrounded gravel, 7.5YR 6/4 light brown, non-plastic.					

ENG FORM 5056-R, AUG 94
by Fluor Daniel 617

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 BEI

HOLE NO.: OT28-1006

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1008	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 7 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5182	92	(ML) Sandy silt, trace fine gravel, 7.5YR 5/4 brown, moist, medium plasticity.					
5160	94						
5138	96						
5138	98						
5154	100	(SP) Medium to fine sand, trace subangular to subrounded fine gravel, 5YR 5/2 reddish gray, non-plastic, dry.					
5152	102						
5150	104						
5148	106	(SP) Medium to fine sand, trace subangular to subrounded fine gravel, 5YR 5/2 reddish gray, non-plastic, dry.					
5148	108						

ENG FORM 5056-R, AUG 94
By Peter Daniel 671

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1008

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1008	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 8 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5144	110						
5142	112						
5140	114						
5138	116	(SP) Medium to fine sand, trace subangular to subrounded fine gravel, 10YR 5/3 brown, non-plastic, non-cemented, dry.					
5136	118	(CL) Lean clay, little medium to fine sand, 2.5YR 5/3 light olive brown, moist, medium plasticity.					
5134	120						
5132	122						
5130	124						
5128	126	(SP) Coarse to fine sand, trace medium to fine subangular to subrounded gravel, 10YR 5/3 brown, dry, non-plastic, non-cemented.					

ENG FORM 5058-R, AUG 94 By Ekor, Daniel 671	PROJECT #: SITE NAME	872200070320 Kirtland AFB Phase 2 RFI	HOLE NO.: OT28-1008
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HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1006	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 9 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5128	128						
5124	130						
5122	132						
5120	134						
5118	136	(SP) Medium to fine sand, trace fine subangular to subrounded gravel, 7.5% R 7/3 pink, dry, non-plastic, non-cemented.					
5118	138						
5114	140						
5112	142						
5110	144						

ENG FORM 5056-R, AUG 84
by Flor Daniel 611

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1006

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1008	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET # OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5108	146	(SP) Coarse to fine sand, trace medium to fine subangular to subrounded gravel, 7.5YR 6/3 light brown, dry, non-plastic, non-cemented.					
5108	148						
5104	150						
5102	152						
5100	154						
5098	156	(SP) Medium to fine sand, trace fine subangular to subrounded gravel, 10YR 5/3 brown, slightly moist, non-plastic, non-cemented.					
5098	158						
5094	160		LEL=0% O2=20.5%				
5092	162						

ENG FORM 5056-R, AUG 94 By Fred Daniel 617	PROJECT #: 872200070320 SITE NAME Kirtland AFB Phase 2 REI	HOLE NO.: OT28-1008
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HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1006	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET # OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEO TECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5090	164	(SP) Medium to fine sand, trace fine subangular to subrounded gravel, 10YR 5/3 brown, slightly moist, non-plastic, non-cemented.					
5088	166						
5086	168	(SM) Silty sand, 10YR 5/3 brown, slightly moist, low plasticity.					
5084	170	(SM) Well-graded sand with gravel, 7YR 4/3 brown, slightly moist.	RAD=64 cpm				
5082	172						
5080	174	(SM) Well-graded sand with gravel, 7YR 4/3 brown, dry.					
5078	176						
5076	178						
5074	180		LEL=0% O2=21%				

ENG FORM 5056-B, AUG 94 BY Fugro Daniel GTI	PROJECT #: SITE NAME	872200070320 Kirtland AFB Phase 2 RFI	HOLE NO.: OT28-1006
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HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1008	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 12 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5072	182						
5070	184						
5068	186						
5066	188						
5064	190						
5062	192						
5060	194						
5058	196	(SP) Medium to fine sand, trace medium to fine subangular to subrounded gravel, 7.5YR 6/2 pinkish gray, dry, non-plastic, non-cemented.	LEL=0% O2=20.5% RAD=88 cpm				
5056	198						

ENG FORM 5058-R, AUG 94
by Fred Daniel 677

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 REI

HOLE NO.: OT28-1008

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1006	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 13 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5054	200	(SP) Coarse to fine sand, trace medium to fine subangular to subrounded gravel, 7.5YR 6/2 pinkish gray, dry, non-plastic, non-cemented.					
5052	202						
5050	204						
5048	206						
5046	208						
5044	210		LEL=0% O2=21% RAD=64 cpm				
5042	212						
5040	214	(SP) Coarse to fine sand, trace medium to fine subangular to subrounded gravel, 7.5YR 6/2 pinkish gray, dry, non-plastic, non-cemented.					
5038	216						

ENG FORM 5056-R, AUG 94
 by Elmer Daniel GTI

PROJECT #: 872200070320
 SITE NAME: Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1006

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1008	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 14 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEO TECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5038	218						
5034	220						
5032	222						
5030	224						
5028	226	(SP) Coarse to fine sand, trace medium to fine subangular to subrounded gravel, 7.5YR 6/2 pinkish gray, dry, non-plastic, non-cemented.	RAD=78 cpm				
5026	228						
5024	230		LEL=0% O2=21%				
5022	232						
5020	234						

ENG FORM 5050-R, AUG 94
By Peter Denier 617

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1008

HTRW DRILLING LOG		DISTRICT OMAHA TERC			HOLE NO. OT28-1008		
1. PROJECT # 872200070320		2. INSPECTOR E. Tow			SHEET 15 OF 23 SHEETS		
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
508	238	(SP:SM) Medium to fine sand with silt and medium to fine gravel, subangular to subrounded, 7.5YR 6/2 pinkish gray, dry, non-plastic, non-cemented.					
508	238						
504	240						
502	242						
500	244						
500	248	(SP) Medium to fine sand, trace medium to fine subangular to subrounded gravel, 7.5YR 6/2 pinkish gray, dry, non-plastic, non-cemented.					
500	248						
504	250		PPM=0 ppm LEL=0% O2=21%				
502	252						

ENG FORM 5056-R, AUG 94
by Floyd Daniel GT

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1008

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1008	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET # OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5000	254	(SP) Coarse to fine sand, little fine subangular to subrounded gravel, 7.5YR 5/2 brown, dry, non-plastic, non-cemented.					
4998	256						
4996	258						
4994	260						
4992	262	(SP) Coarse to fine sand with gravel, fine subangular to subrounded gravel, 7.5YR 6/2 pinkish gray, dry, non-plastic, non-cemented.					
4990	264						
4988	266						
4986	268						
4984	270						

ENG FORM 5098-R, AUG 94
By Fher Daniel GT

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1008

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1006	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 17 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEO TECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
4982	272						
4980	274						
4978	276		PID=0 cpm LEL=0% O2=21% RAD=73 cpm				
4978	278						
4974	280						
4972	282						
4970	284						
4968	286	(SP) Medium to fine sand, trace fine subangular to subrounded gravel, 10YR 5/2 grayish brown, slightly moist, non-plastic, non-cemented.					
4966	288						

ENG FORM 5056-R, AUG 04
by Fluor Daniel G11

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 REI

HOLE NO.: OT28-1006

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1008	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET #8 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
4994	290						
			P10=0 ppm LEL=0% O2=21% RAD=83 cpm				
4992	292						
4990	294						
4988	296	(SP) Coarse to fine sand, little medium to fine subangular to subrounded gravel, 10YR 5/2 grayish brown, non-plastic, non-cemented.					
4986	298						
4984	300		P10=0 ppm LEL=0% O2=21%				
4982	302						
4980	304						
4978	306	(SP) Coarse to fine sand, little medium to fine subangular to subrounded gravel, 10YR 5/3 brown, slightly moist, non-plastic, non-cemented.					

ENG FORM 5056-R, AUG 94
BY Paul (encl 6T)

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1008

HTRW DRILLING LOG			DISTRICT			HOLE NO.	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			OT28-1008	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	BEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
4948	308						
4944	310						
4942	312						
4940	314						
4938	316	(SP) Medium to fine sand, trace fine subangular to subrounded gravel, 10YR 6/3 pale brown, dry, non-plastic, non-cemented.					
4936	318						
4934	320		PID=0 ppm LEL=0% O2=21% RAD=72 cpm				
4932	322						
4930	324						

ENG FORM 5058-R, AUG 94
by Fred Daniel G11

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1008

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1006	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 20 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
4928	326	(SP) Medium to fine sand, trace fine subangular to subrounded gravel, 10YR 8/3 pale brown, dry, non-plastic, non-cemented.					
4926	328						
4924	330	(SM) Medium to fine silty sand, little fine subangular to subrounded gravel, 7.5YR 5/4 brown, moist, non-plastic, medium dry strength 330 ft to 332 ft.					
4922	332						
4920	334						
4918	336	(SM) Medium to fine silty sand, trace fine subangular to subrounded gravel, 7.5YR 6/2 pinkish gray, dry, non-plastic, non-cemented.	RAD=15 cpm				
4916	338						
4914	340		PID=0 ppm LEL=0% O2=21% RAD=90 cpm				
4912	342						

ENG FORM 5058-R AUG 94
By Fwy Daniel G1

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1006

HTRW DRILLING LOG		DISTRICT			OMAHA TERC		HOLE NO. OT28-1008	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 21 OF 23 SHEETS		
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h	
4910	344	(SM-SM) Medium to fine sand with silt, trace fine gravel, 7.5YR 6/2 pinkish gray, dry, non-cemented, non-plastic.						
4908	346							
4906	348							
4904	350			PID=0 ppm LEL=0% O2=21%				
4902	352	(SP) Medium to fine sand, trace to fine subangular to subrounded gravel, 7.5YR 5/3 brown, moist, non-plastic, non-cemented.						
4900	354							
4898	356			RAD=86 cpm				
4896	358							
4894	360							

ENG FORM 5056-R, AUG 84
by Fmor Daniel 671

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1008

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1008	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 22 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
4892	362	(SP) Coarse to fine sand, trace fine subangular to subrounded gravel, 10YR 5/4 yellowish brown, non-plastic, non-cemented, wet.					
4890	364						
4888	366						
4886	368						
4884	370						
4882	372						
4880	374						
4878	376			PID=0 ppm LEL=0% O2=21%			
4876	378						
4874	380						

ENG FORM 5058-R, AUG 84 BY FLOW DENSE 611	PROJECT #: SITE NAME	872200070320 Kirtland AFB Phase 2 RFI	HOLE NO.: OT28-1008
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HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1008	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 23 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEO TECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
							378
4874	380						380
4872	382						382
		Bottom of boring at 383 ft.					
4870	384						384
4868	386						386
4866	388						388
4864	390						390
4862	392						392
4860	394						394
4858	396						396

ENG FORM 5056-R, AUG 94
by Fluor Daniel G1

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RE1

HOLE NO.: OT28-1008

Southwest Geophysical Services, Inc.

GEOPHYSICAL WELL LOG: NATURAL GAMMA RAY NEUTRON CALIPER	PERM. DATUM: GROUND LEVEL LOG MEASURED FROM: G.L. ELEVATION: 5252.34 ft. MSL	OTHER SERVICES: NONE
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COMPANY: FLUOR DANIEL / GTI PROJECT/FIELD: Kirtland AFB WELL: 1006 LOCATION: SEC: T: R: NORTH= 1438510.58' EAST= 401108.28' COUNTY: BERNALILLO STATE: NEW MEXICO	ELEVATION KB: DF: GL: 5252 ft
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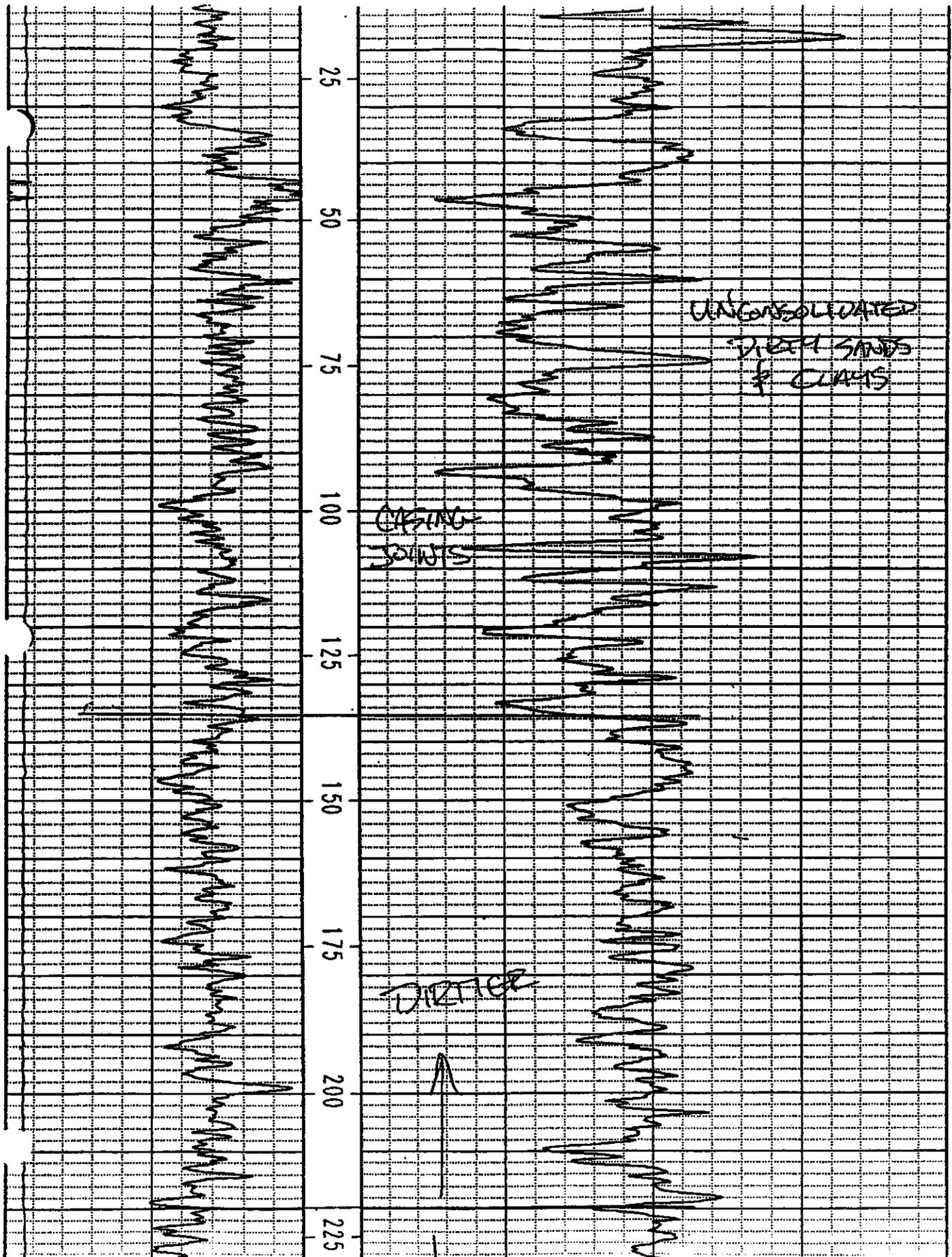
COMPANY: FLUOR-DANIEL / GTI
WELL: 1006

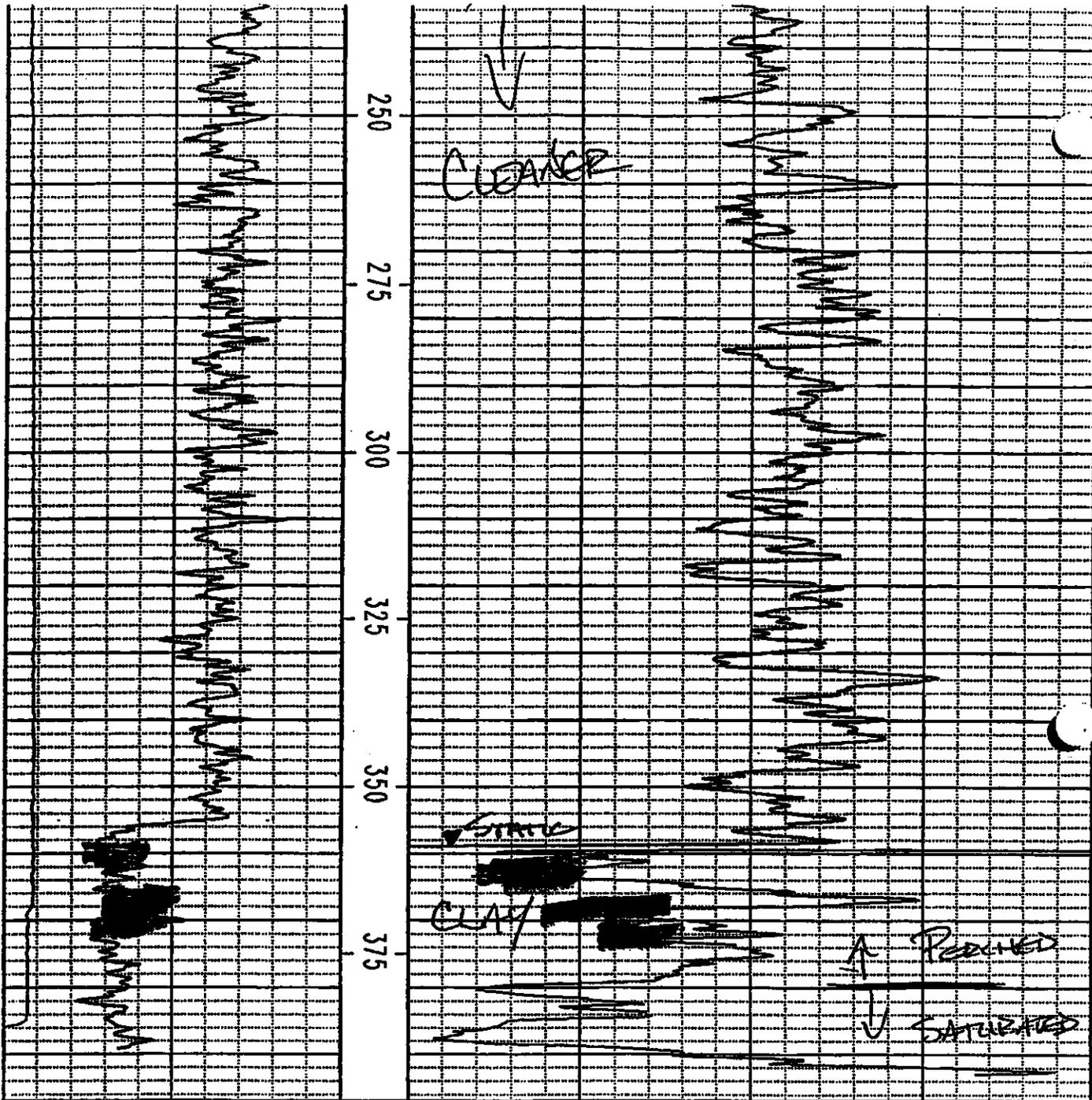
	RUN NO. 1		RUN NO. 1
DATE	7/20/96	FLUID LEVEL	359 ft.
DEPTH DRILLER	395 ft.	FLUID NATURE	WATER
DEPTH LOGGER	394 ft.	FLUID VISCOSITY	
BOTTOM LOGGED	393 ft.	FL. RESISTIVITY	
TOP LOGGED INT.	SURFACE	FL. RES. @ B.H.T.	
CASING LEVEL	ALL	CIRCULATION TEMP.	
CASING SIZE	8 in.	BOT HOLE TEMP.	
CASING SIZE	STEEL	TOOL #	COMBO
BIT SIZE		LOGGED BY:	SHERRY MARIN
BIT SIZE		WITNESSED BY:	CARL LIVERGOOD

REMARKS:
 FLUID LEVEL (RES) = 358.5 FT.
 FLUID LEVEL (NEUT) = 359.0 FT.

THANK YOU

(a:1006.cp0)		SOUTHWEST GEOPHYSICAL SERVICES, INC.			
API GAMMA RAY 0 100	API (DRY) NEUTRON 1000 180				
INCHES CALIPER 7 17	API (WET) 400 NEUTRON 600				
<table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> <td style="width: 25%;"></td> </tr> </table>					





INCHES CALIPER 7 17	400 NEUTRON 600
API GAMMA RAY 0 100	API (DRY) NEUTRON 1000 1800
(α:1006.cp0) SOUTHWEST GEOPHYSICAL SERVICES, INC.	

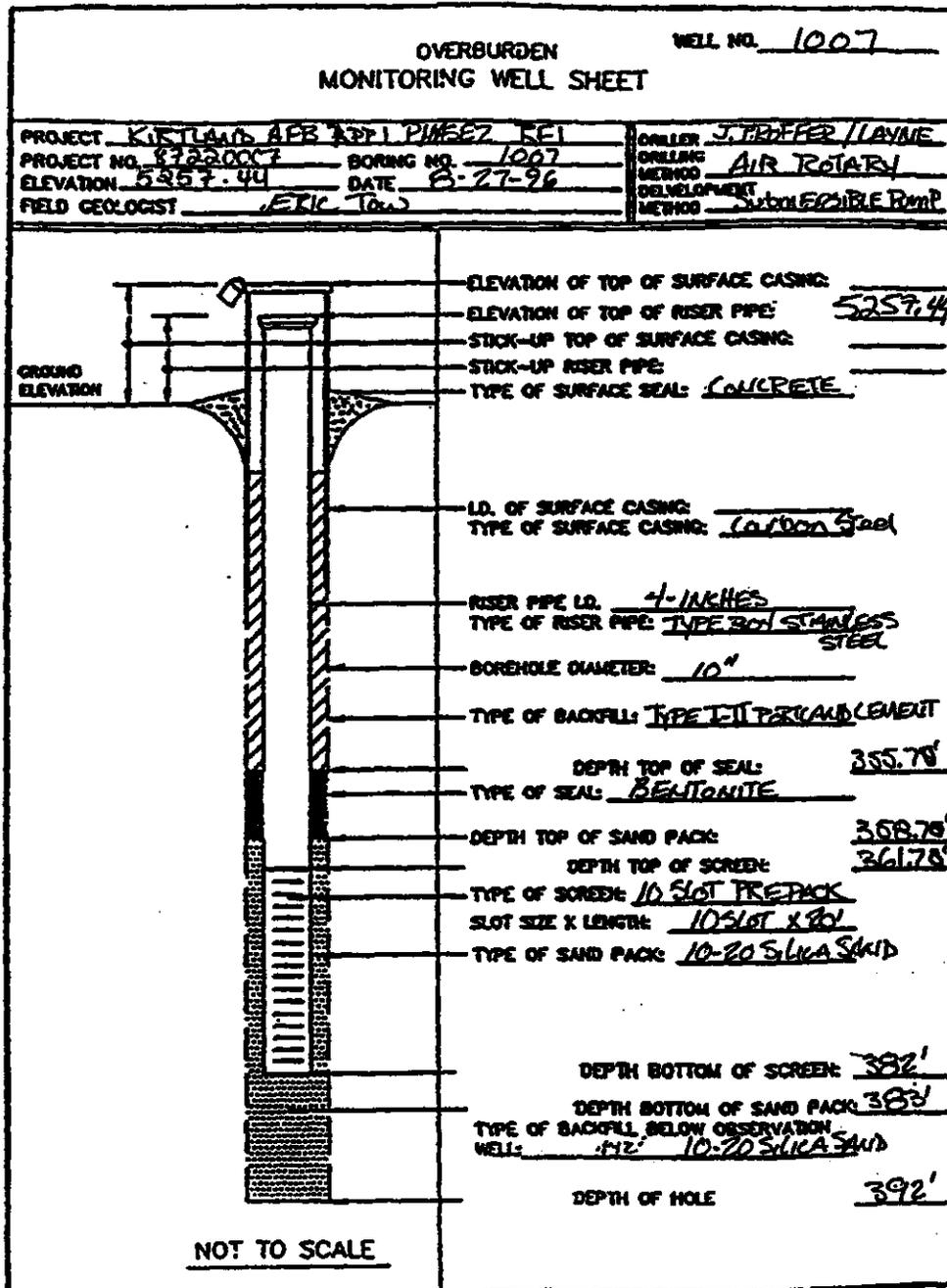


Figure A1.8-1

Overburden Monitoring Well Construction Diagram

HTRW DRILLING LOG		DISTRICT		OMAHA TERC		HOLE NO.	
1. COMPANY NAME Foster Wheeler Environmental		2. DRILLING SUBCONTRACTOR Layne Environmental		HOLE NO. OT28-1007		SHEET 1 OF 23 SHEETS	
3. SITE Kirtland AFB Phase 2 RFI		4. LOCATION OT28-1007					
5. NAME OF DRILLER Jason Proffer		6. MANUFACTURERS DESIGNATION OF DRILL Schramm Air Rotary					
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT	Schramm Air Rotary		8. HOLE LOCATION 1439988.55N, 400893.02E				
	Model: T685-1499		9. SURFACE ELEVATION 5257.44 ft. MSL				
	Reverse Circulation Casing OD 8 5/8" 8" ID, 10" Hole size		10. DATE STARTED 08/20/96		11. DATE COMPLETED 08/27/96		
12. OVERBURDEN THICKNESS 392 ft.		15. DEPTH GROUNDWATER ENCOUNTERED ft.					
13. DEPTH DRILLED INTO ROCK 0 ft.		16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED					
14. TOTAL DEPTH OF HOLE 392 ft.		17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY)					
18. GEOTECHNICAL SAMPLES N	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES NA				
20. SAMPLES FOR CHEMICAL ANALYSIS N	VOC	METALS	OTHERS (SPECIFY)	OTHERS (SPECIFY)	OTHERS (SPECIFY)	21. TOTAL CORE REC. %	
22. DISPOSITION OF HOLE Well Installed	BACKFILLED	MONITORING WELL	OTHERS (SPECIFY)	23. SIGNATURE OF INSPECTOR E. Tow			
<small>ENG FORM 5056-R, AUG 94 By Engr Daniel GTJ</small>		PROJECT #: SITE NAME		872200070320 Kirtland AFB Phase 2 RFI		HOLE NO.: OT28-1007	

AR:220

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1007	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 2 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
		(SM) Fine silty sand, 7.5YR 6/4 light brown, non-cemented, non-plastic, dry.					
5255	2						
5253	4						
5251	6						
5249	8						
5247	10						
5245	12						
5243	14						
5241	16						
5239	18						

ENG FORM 5056-B, AUG 94
By F. W. Daniel (61)

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 REI

HOLE NO.: OT28-1007

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1007	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 3 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5237	20	(SW) Fine to coarse, well-graded sand, little silt, trace fine subangular gravel, 10YR 8/3 pale brown, dry, non-plastic, non-cemented.					
5235	22						
5233	24						
5231	26						
5229	28						
5227	30	(SW) Fine to coarse, well-graded sand, little silt, trace fine subangular gravel, 10YR 8/3 pale brown, dry, non-plastic, non-cemented.					
5225	32						
5223	34						
5221	36	(ML) Clayey silt, little fine sand, 7.5YR 5/8 strong brown, moist, low plasticity.					

ENG FORM 5056-R, AUG 94
by Fred Daniel GTI

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1007

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1007	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 4 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5219	38						
5217	40						
5215	42						
5213	44						
5211	46	(SP) Medium to fine sand, little silt, trace fine subrounded gravel, dry, non-plastic.					
5209	48						
5207	50						
5205	52						
5203	54						

ENG FORM 5056-R, AUG 84
By Floor Daniel 071

PROJECT #: 872200070320
SITE NAME: Kirtland AFB Phase 2 RFI

PROJECT #: 872200070320
SITE NAME: Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1007

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1007	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 5 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5201	56						
5199	58						
5197	60	(SP) Medium to fine sand, trace silt, trace fine subrounded gravel, dry, non-plastic.					
5195	62						
5193	64						
5191	66	(ML) Silt with fine sand, trace fine subangular to subrounded gravel, slightly moist, 10YR 6/3 pale brown, non-plastic.					
5189	68						
5187	70						
5185	72						

ENG FORM 5056-B, AUG 94
by Fluz Daniel GT

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 REI

HOLE NO.: OT28-1007

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1007	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 6 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	SEDTech SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5183	74						
5181	76	(SP) Medium to fine sand, trace fine subangular to subrounded gravel 10YR 5/3 brown, dry, non-plastic.					
5179	78						
5177	80						
5175	82	(SP) Coarse to fine sand, little medium to fine subangular to subrounded gravel, trace silt, 7.5YR 6/2 pinkish gray, dry, non-plastic.					
5173	84						
5171	86						
5169	88						
5167	90						

ENG FORM 5050-R, AUG 84
by Fluor Daniel 611

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 REI

HOLE NO.: OT28-1007

HTRW DRILLING LOG			DISTRICT OMAHA TERC				HOLE NO. OT28-1007
1. PROJECT # 872200070320			2. INSPECTOR E. Tow				SHEET 7 OF 23 SHEETS
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5165	92	(SP) Coarse to fine sand with medium to fine subangular to subrounded gravel, 7.5YR 6/3 light brown, dry, cemented, low strength, non-plastic.					
5163	94						
5161	96						
5159	98						
5157	100	(SP) Medium to fine sand, trace fine subangular to subrounded gravel, 7.5YR 6/3 light brown, dry, non-cemented.					
5155	102						
5153	104						
5151	106	(SP) Coarse to fine sand with medium to fine subangular to subrounded gravel, 7.5YR 6/3 light brown, dry, non-cemented.					
5149	108						

ENG FORM 5058-R, AUG 94
BY Philip Daniel GTI

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1007

HTRW DRILLING LOG		DISTRICT				HOLE NO.	
1. PROJECT # 872200070320		2. INSPECTOR E. Tow				OT28-1007	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH. SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
517	110						
515	112						
513	114						
511	116						
509	118						
517	120	(SP) Medium to fine sand, trace fine subangular to subrounded gravel, 10YR 6/4 light brown, dry, non-cemented.					
505	122						
503	124						
501	126						

ENG FORM 5050-R AUG 94
BY FWH/ GARDNER GTI

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 REI

HOLE NO.: OT28-1007

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1007	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 9 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	BEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5129	128	(SP) Medium to fine sand, little medium to fine subangular to subrounded gravel, 7.5YR 7/4 pink, slightly moist, non-cemented.					
5127	130						
5125	132						
5123	134						
5121	136						
5119	138						
5117	140	(SP) Medium to fine sand with gravel, medium to fine angular to subrounded gravel, little silt, 10YR 8/3 pale brown, dry, non-plastic, non-cemented.					
5115	142						
5113	144						

ENG FORM 5056-B, AUG 94
by Fred Daniel GTJ

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1007

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1007	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 10 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEO TECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5100	146						
5109	148						
5107	150						
5105	152	(ML) Silt with fine sand, trace fine gravel, 7.5YR 5/3 brown, moist, low plasticity.					
5103	154						
5101	158	(SP) Medium sand, little medium to fine gravel, subangular to subrounded, 7.5YR 5/3 brown, dry, non-cemented.					
5099	158						
5097	160		LEL=0% O2=20.5%				
5095	162						

ENG FORM 5050-R, AUG 84
by F. Daniel 671

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 REI

HOLE NO.: OT28-1007

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1007	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET II OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5083	164	(SP) Fine sand, trace medium to fine subrounded to rounded gravel, 10YR 6/3 pale brown, dry, non-cemented.					
5081	166						
5080	168						
5087	170			RAD=64 cpm			
5085	172	(SP) Coarse to fine sand, little medium to fine subangular to subrounded gravel 10YR 6/3 pale brown, dry, non-cemented.					
5083	174						
5081	176						
5079	178						
5077	180		LEL=0% O2=21%				

ENG FORM 5058-R, AUG 94
 by Fluor Daniel (61)

PROJECT #: 872200070320
 SITE NAME: Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1007

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1007	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 12 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5075	182	(SP) Coarse to fine sand with medium to fine subangular to subrounded gravel, 7.5YR 5/3 brown, moist, non-cemented.					
5073	184						
5071	186	(SP) Medium to fine sand, little medium to fine subangular to subrounded gravel 7.5YR 6/2 pinkish gray, dry, non-cemented.					
5069	188						
5067	190						
5065	192	(SP) Interbedded layers of medium to fine sand, trace fine subangular to subrounded gravel, 7.5YR 5/3 brown, dry, non-cemented and coarse to fine sand with medium to fine gravel, subangular to subrounded 7.5YR 4/3 brown, moist, non-cemented.					
5063	194						
5061	196		LEL=0% O2=20.5% RAD=68 cpm				
5059	198						

ENG FORM 5050-R, AUG 94
By: Elmer Daniel GTI

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 REI

HOLE NO.: OT28-1007

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1007	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 13 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5057	200	(SP:SM) Medium to fine sand with silt, little medium to fine gravel, 10YR 8/2 light brownish gray, dry, non-cemented, non-plastic.					
5055	202						
5053	204						
5051	206						
5049	208						
5047	210		LEL=0% O2=21% RAD=64 cpm				
5045	212	(ML) Silty with very fine sand, 7.5YR 5/4 brown, moist, non-plastic, non-cemented.					
5043	214						
5041	216	(SP) Coarse medium to fine sand, trace medium to fine subangular to subrounded gravel, 10YR 5/3 brown, dry, non-cemented.					

ENG FORM 5058-R, AUG 84
BY FBox David GT

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1007

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1007	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 14 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5039	218						
5037	220						
5035	222						
5033	224	(SP) Medium to fine sand, trace medium to fine subangular to subrounded gravel, 10YR 6/2 light brownish gray, dry, non-cemented.					
			RAD=78 cpm				
5031	226						
5029	228						
5027	230						
				LEL=0% O2=21%			
5025	232						
5023	234						

ENG FORM 5056-R, AUG 04
by Pflug, Daniel (61)

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 REI

HOLE NO.: OT28-1007

HTRW DRILLING LOG		DISTRICT			HOLE NO.		
		OMAHA TERC			OT28-1007		
1. PROJECT #		2. INSPECTOR			SHEET 15		
872200070320		E. Tow			OF 23 SHEETS		
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5021	236	(SP) Coarse to fine sand, little fine gravel, subangular to subrounded, 10YR 6/2 pinkish gray, non-cemented.					
5019	238						
5017	240						
5015	242	(SP) Coarse to fine sand with medium to fine subangular to subrounded gravel, 7.5YR 6/2 pinkish gray, dry, non-cemented.					
5013	244						
5011	246						
5009	248						
5007	250		PPM=0 CDm LEL=0% O2=21%				
5005	252	(SP) Medium to fine sand, trace medium to fine subrounded to subangular gravel, 7.5YR 6/2 pinkish gray, dry, non-cemented.					

ENG FORM 5056-R, AUG 94
by Peter Daniel GTI

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1007

HTRW DRILLING LOG			DISTRICT OMAHA TERC				HOLE NO. OT28-1007
1. PROJECT # 872200070320			2. INSPECTOR E. Tow				SHEET # OF 23 SHEETS
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
5003	254						
5001	256						
4999	258						
4997	260						
4995	262	(SM) Fine silty sand, trace medium to fine subangular to subrounded gravel, 7.5YR 6/2 pinkish white, dry, non-plastic.					
4993	264						
4991	266	(SP) Medium to fine sand, little medium to fine subangular to subrounded gravel, 7.5YR 6/3 light brown, dry, non-cemented.					
4989	268						
4987	270						

ENG FORM 5058-R, AUG 94
By Flier (Davis GT)

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 REI

HOLE NO.: OT28-1007

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1007	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 17 OF 23 SHEETS	
ELEV. b	DEPTH d	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
4985	272	(SP) Medium to fine sand, little medium to fine subangular to subrounded gravel, 10YR 5/3 brown, dry, non-cemented.					
4983	274						
4981	276			P10=0 ppm LEL=0% O2=21% RAD=73 cpm			
4979	278						
4977	280						
4975	282	(GP) Medium to fine gravel with sand, subangular to subrounded, 10YR 5/3 brown, dry, non-cemented.					
4973	284						
4971	286						
4969	288						

ENG FORM 5056-R AUG 94
by Fred Daniel GTI

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RE1

HOLE NO.: OT28-1007

HTRW DRILLING LOG		DISTRICT			OMAHA TERC		HOLE NO.	
1. PROJECT # 872200070320		2. INSPECTOR E. Tow			SHEET 18 OF 23 SHEETS			
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h	
4867	290		PID=0 ppm LEL=0% O2=21% RAD=83 cpm					
4865	292							
4863	294							
4861	296	(SP) Coarse to fine sand, trace coarse to fine subangular to subrounded gravel, 10YR 6/2 light brownish gray, dry, non-cemented.						
4859	298							
4857	300	(SP) Medium to fine sand, trace medium to fine subangular to subrounded gravel, 10YR 6/2 light brownish gray, dry, non-cemented.	PID=0 ppm LEL=0% O2=21%					
4855	302	d-305 (SP) Coarse to fine sand with coarse to fine subangular to subrounded gravel, 10YR 6/3 brown, dry, non-cemented.						
4853	304							
4851	306							

ENG FORM 5056-R, AUG 94
By Philip Deibel 917

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 REI

HOLE NO.: OT28-1007

HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1007	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 19 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
							308
		(SM) Fine silty sand, little fine subrounded to subangular gravel, 10YR 6/3 brown, dry, non-cemented.					308
4949	308	(SM) Fine silty sand, little fine subrounded to subangular gravel, 10YR 5/4 yellowish brown, moist, non-cemented, non-plastic.					308
							310
4947	310						310
							312
4945	312						312
							314
4943	314						314
		(SP) Coarse to fine sand, little medium to fine subangular to subrounded gravel, 10YR 6/3 pale brown, non-cemented.					316
4941	316						316
							318
4839	318						318
							320
4937	320		PID=0 ppm LEL=0% O2=21% RAD=72 cpm				320
							322
4935	322	(SP,SM) Medium to fine sand with silt, trace medium to fine subangular to subrounded gravel, 10YR 8/3 pale brown, dry, non-cemented, non-plastic.					322
							324
4933	324						324

ENG FORM 5056-R, AUG 84
by Fluor Daniel 671

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1007

HTRW DRILLING LOG			DISTRICT OMAHA TERC				HOLE NO. OT28-1007
1. PROJECT # 872200070320			2. INSPECTOR E. Tow				SHEET 20 OF 23 SHEETS
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEO TECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
4937	326						
4929	328						
4927	330	(SP) Medium to fine sand, trace fine subangular to subrounded gravel, 10YR 6/3 pale brown, slightly moist, non-cemented.					
4925	332						
4923	334	(SP) Coarse to fine sand, little medium to fine subangular to subrounded gravel, 10YR 6/3 pale brown, slightly moist, non-cemented.					
			RAD=1.5 cpm				
4921	336						
4919	338	(SP:SM) Medium to fine sand with silt and coarse to fine subangular to subrounded gravel, 10YR 5/3 brown, non-cemented, non-plastic.					
4917	340						
			PID=0 ppm LEL=0% O2=21% RAD=90 cpm				
4915	342						

ENG FORM 5056-B, AUG 04 BY FLOW Denis GT	PROJECT #: SITE NAME	872200070320 Kirtland AFB Phase 2 RFI	HOLE NO.: OT28-1007
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HTRW DRILLING LOG			DISTRICT OMAHA TERC			HOLE NO. OT28-1007	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			SHEET 21 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
4913	344						
4911	348						
4909	348						
4907	350	(SP) Medium to fine sand, trace medium to fine subangular to subrounded gravel, 10YR 5/3 brown, slightly moist, non-plastic.	P10=0 ppm LEL=0% O2=21%				
4905	352						
4903	354						
4901	358		RAD=88 cpm				
4899	358						
4897	360						

ENG FORM 5058-R AUG 94
by Flint Daniel G11

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 RFI

HOLE NO.: OT28-1007

HTRW DRILLING LOG		DISTRICT			OMAHA TERC		HOLE NO.	
1. PROJECT # 872200070320		2. INSPECTOR E. Tow			SHEET 22 OF 23 SHEETS			
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	BEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h	
4895	362	(SP) Medium to fine sand, trace medium to fine subangular to subrounded gravel, 7.5YR 4/3 brown, moist, non-cemented.						
4893	364	(SP:SM) Coarse to fine sand with silt and medium to fine subangular to subrounded gravel, 10YR 6/3 pale brown, dry, non-plastic, non-cemented						
4891	368							
4889	368	(ML) Silt with medium to fine sand, 7.5YR 8/2 pinkish white, dry, non-cemented.						
4887	370							
4885	372	(SP) Medium to fine sand, trace medium to fine subangular to subrounded gravel, 7.5YR 5/3 brown, wet and dry layers.						
4883	374							
4881	376		PI0=0 ppm LEL=0% O2=21%					
4879	378							

ENG FORM 5056-R, AUG 94
by Fikar Daniel GT

PROJECT #:
SITE NAME

872200070320
Kirtland AFB Phase 2 REI

HOLE NO.: OT28-1007

HTRW DRILLING LOG			DISTRICT			HOLE NO.	
1. PROJECT # 872200070320			2. INSPECTOR E. Tow			OT28-1007	
I. PROJECT #			2. INSPECTOR			SHEET 23 OF 23 SHEETS	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	GEOTECH SAMPLE OR CORE BOX NO. e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	COMMENTS h
4877	380						
4875	382						
4873	384						
4871	386						
4869	388						
4867	390	(GP) Medium to fine gravel with sand, 10YR 6/3 pale brown, subangular to subrounded, dry, non-cemented.					
4865	392	End of boring at 392 ft.					
4863	394						
4861	396						

ENG FORM 5056-R, AUG 84
by Fred Daniel GTI

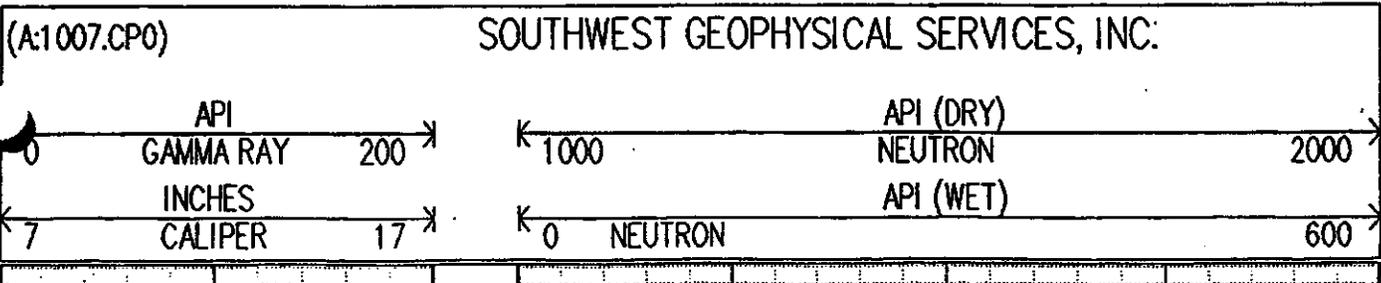
PROJECT #:
SITE NAME

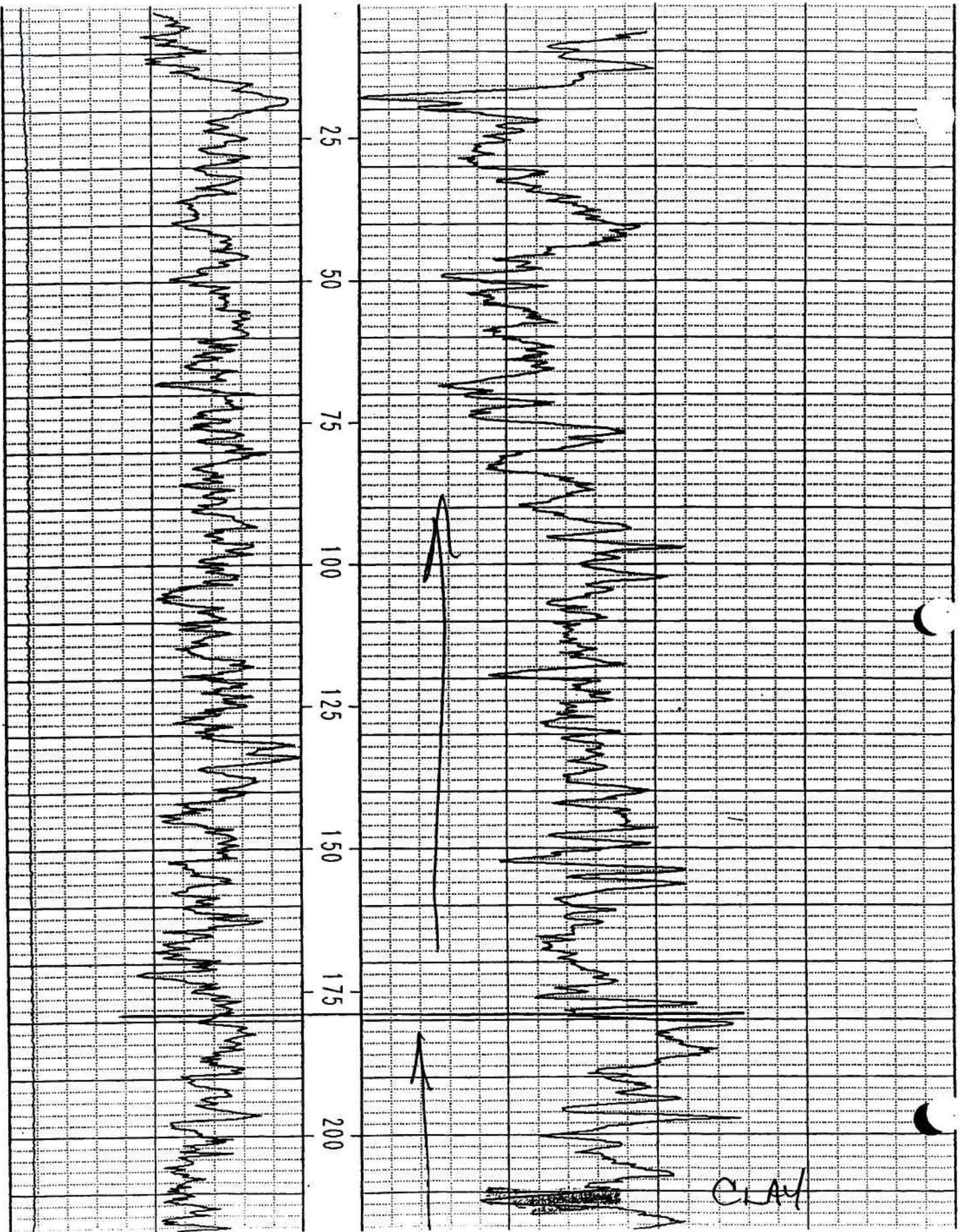
872200070320
Kirtland AFB Phase 2 RFI

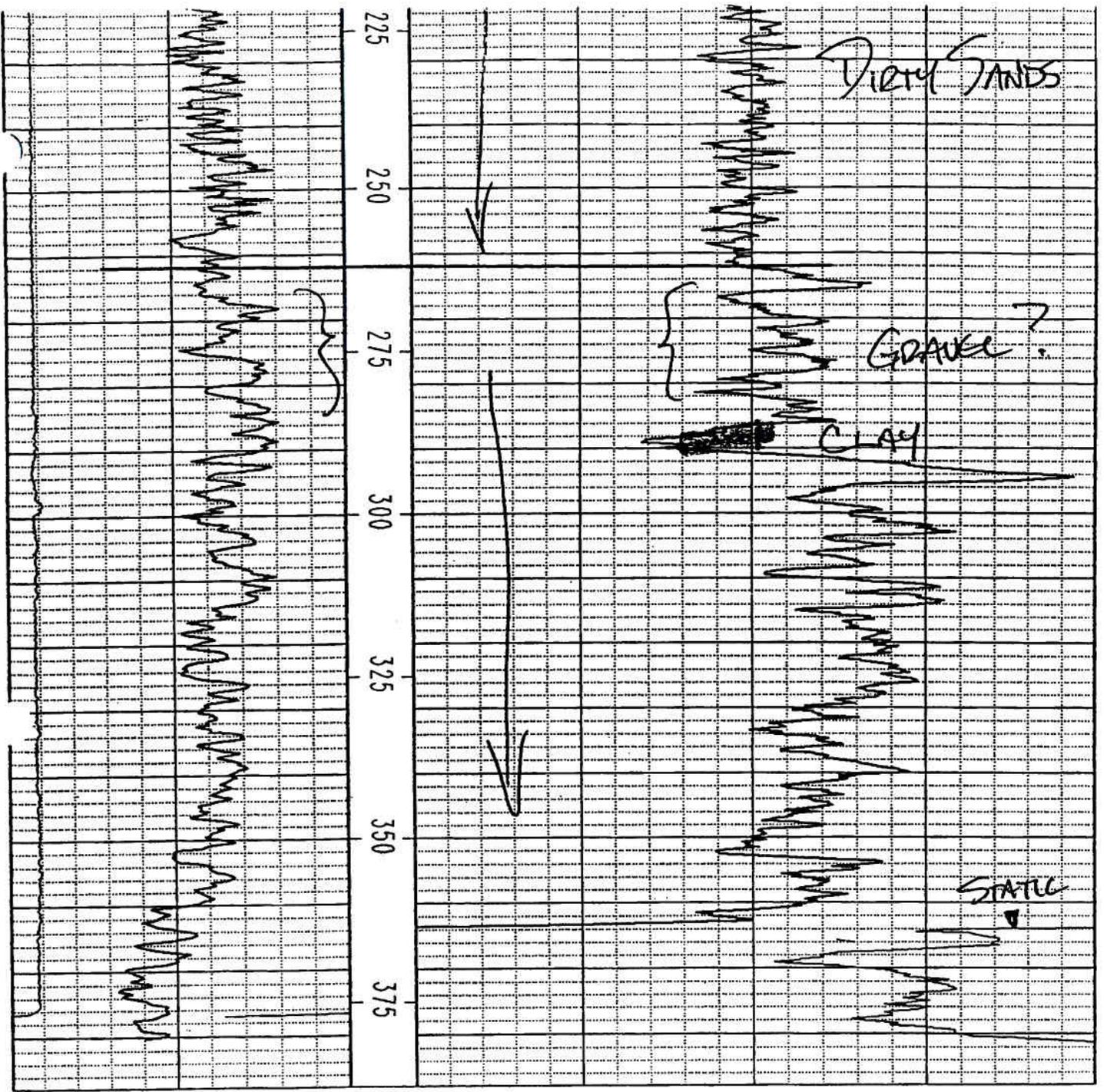
HOLE NO.: OT28-1007

Southwest Geophysical Services, Inc.

GEOPHYSICAL WELL LOG: NATURAL GAMMA RAY NEUTRON CALIPER	PERM. DATUM: GROUND LEVEL LOG MEASURED FROM: G.L. ELEVATION: 5257.44 ft. MSL	OTHER SERVICES: NONE	
COMPANY: FLUOR DANIEL / GTI PROJECT/FIELD: Kirtland AFB WELL: 1007 LOCATION: SEC: T: R: NORTH= 1439988.55' EAST= 400893.02' COUNTY: BERNALILLO STATE: NEW MEXICO		ELEVATION KB: DF: GL: 5257 ft	
		COMPANY: FLUOR-DANIEL / GTI WELL: 1007	
	RUN NO. 1		RUN NO. 1
DATE	8/25/96	FLUID LEVEL	364 ft.
DEPTH DRILLER	392 ft.	FLUID NATURE	WATER
DEPTH LOGGER	385 ft.	FLUID VISCOSITY	
BOTTOM LOGGED	384 ft.	FL. RESISTIVITY	
TOP LOGGED INT.	SURFACE	FL. RES. @ B.H.T.	
CASING LEVEL	ALL	CIRCULATION TEMP.	
CASING SIZE	8 in.	BOT HOLE TEMP.	
CASING SIZE	STEEL	TOOL #	COMBO
BIT SIZE		LOGGED BY:	SHERRY MARIN
BIT SIZE		WITNESSED BY:	CARL LIVERGOOD
REMARKS: FLUID LEVEL (NEUT) = 364 FT.		THANK YOU	

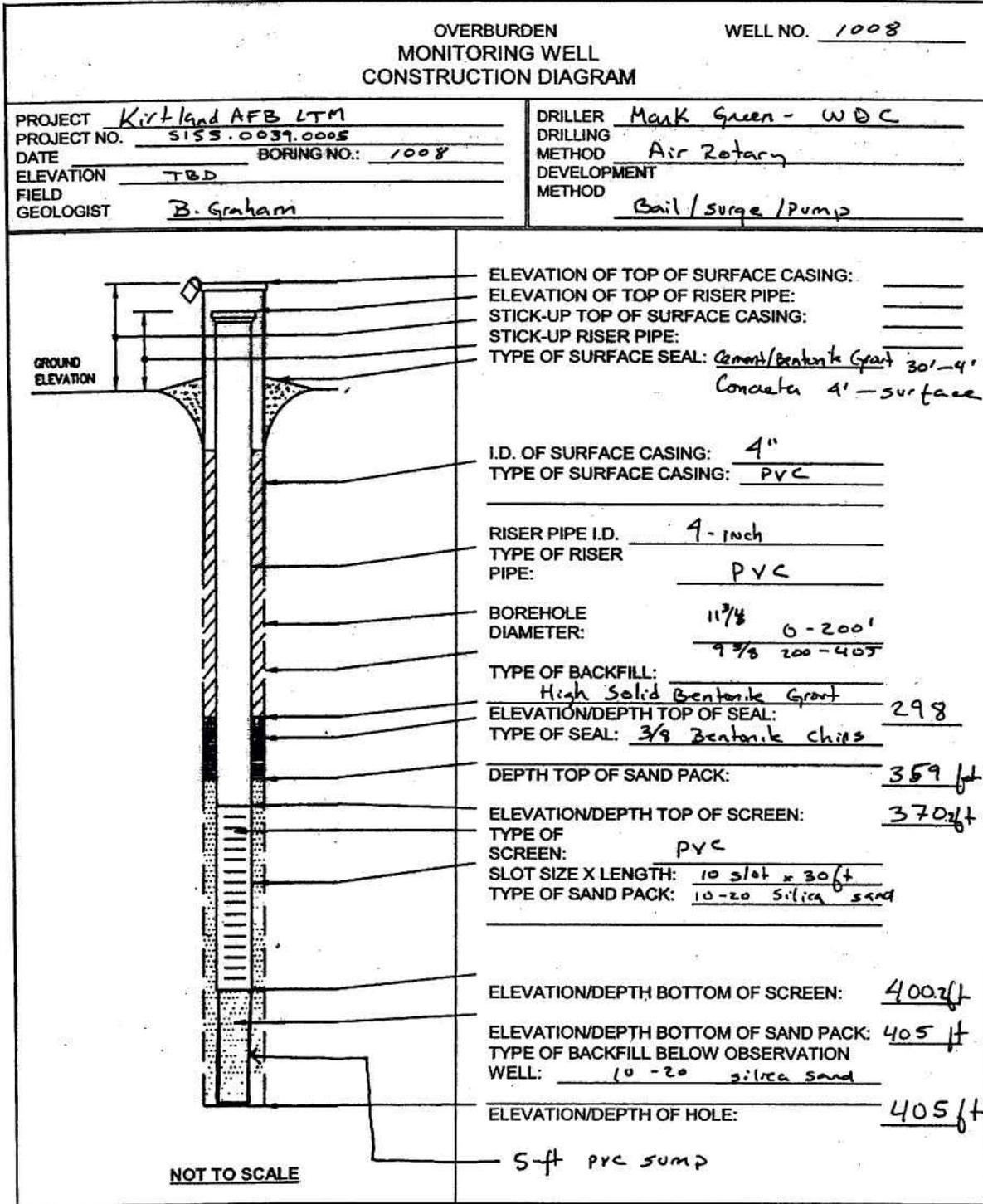






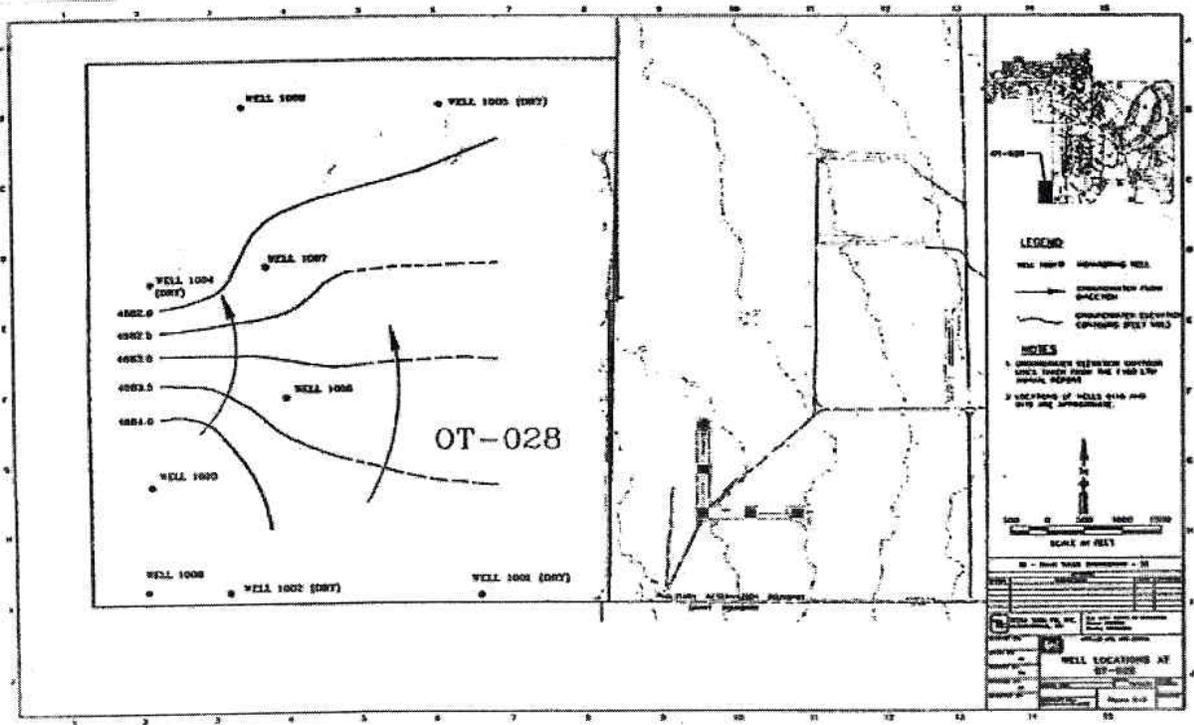
INCHES CALIPER	7	17	K 0	NEUTRON	600
API GAMMA RAY	0	200	K 1000	API (WET) NEUTRON	2000

(A:1007.CP0) SOUTHWEST GEOPHYSICAL SERVICES, INC.



AR 2866

HTW DRILLING LOG				HOLE NO 1008			
1. COMPANY NAME Tetra Tech EC		2. DRILLING CONTRACTOR WDC		SHEET 1 of 22			
3. PROJECT LF-001 adn OT-028 Well Installation			4. LOCATION Kirtland AFB				
5. NAME OF DRILLER Mark Green			6. MANUFACTURERS DESIGNATION OF DRILL				
7. SIZES & TYPES OF DRILLING & SAMPLING EQUIPMENT GEFCO Star 50K-CH air rotary 11 3/4" cas. 0-200 ft 9 5/8" cas. 200-505 ft		8. HOLE LOCATION McCormick Ranch Range					
		9. SURFACE ELEVATION 5255.80					
		10. DATE STARTED 9-15-04		11. DATE COMPLETED 9-21-04			
12. OVERBURDEN THICKNESS 405 ft.			15. DEPTH GROUNDWATER ENCOUNTERED 370 ft.				
13. DEPTH DRILLED INTO ROCK 0 ft.			16. DEPTH TO WATER & TIME AFTER DRILLING COMPLETED 268.25 ft.				
14. TOTAL DEPTH OF HOLE 405 ft.			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA				
18. GEOTECHNICAL SAMPLES NA		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES NA			
18. SAMPLES FOR CHEMICAL ANALYSIS NA		VOC	METALS	OTHER (Specify)	OTHER (Specify)	OTHER	21. TOTAL CORE REC. %
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER	23. SIGNATURE OF INSPECTOR 		
			X				



PROJECT KAFB OT-028 HOLE NO. 1008

AR 2866

HTW DRILLING LOG (continuation sheet)							HOLE NO 1008
PROJECT KAFB OT-028				INPSECTOR Bryan Graham			SHEET 2 of 22
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5255.0	1.0	Silty Sand 0-25 ft. Dry, loose, brown (7.5YR 6/4), fine sand, minor gravel, non-plastic, (SM)					
5254.0	2.0						
5253.0	3.0						
5252.0	4.0						
5251.0	5.0						
5250.0	6.0						
5249.0	7.0						
5248.0	8.0						
5247.0	9.0						
5246.0	10.0		end of day 9-15-04 drill depth 10 ft.				
5245.0	11.0						
5244.0	12.0						
5243.0	13.0						
5242.0	14.0						
5241.0	15.0						
5240.0	16.0						
5239.0	17.0						
5238.0	18.0						
5237.0	19.0						
5236.0	20.0						

PROJECT KAFB OT-028

HOLE NO. 1008

HTW DRILLING LOG (continuation sheet)

HOLE NO 1008

PROJECT KAFB OT-028

INSPECTOR Bryan Graham

SHEET 3 of 22

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h	
5235.0	21.0							
5234.0	22.0							
5233.0	23.0							
5232.0	24.0							
5231.0	25.0	<p>Poorly Graded Sand with Silt 25-37 ft. Dry, loose, pinkish gray (7.5YR 7/2), fine sand, increasing grain size to coarse, minor silt and gravel, (SP)</p>						
5230.0	26.0							
5229.0	27.0							
5228.0	28.0							
5227.0	29.0							
5226.0	30.0							
5225.0	31.0							
5224.0	32.0							
5223.0	33.0							
5222.0	34.0							
5221.0	35.0							
5220.0	36.0							
5219.0	37.0	<p>Poorly Graded Sand with Gravel 37- 82 ft Dry, loose, brown (7.5YR 5/3), silt decreases, gravel increases, (SP)</p>						
5218.0	38.0							
5217.0	39.0							
5216.0	40.0							
		PROJECT KAFB OT-028					HOLE NO. 1008	

HTW DRILLING LOG (continuation sheet)

HOLE NO 1008

PROJECT KAFB OT-028

INSPECTOR Bryan Graham

SHEET 4 of 22

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5215.0	41.0						
5214.0	42.0						
5213.0	43.0						
5212.0	44.0						
5211.0	45.0						
5210.0	46.0						
5209.0	47.0						
5208.0	48.0						
5207.0	49.0						
5206.0	50.0	Same as above, color change to pinkish gray (7.5YR 6/2), gravel increases					
5205.0	51.0						
5204.0	52.0						
5203.0	53.0						
5202.0	54.0						
5201.0	55.0						
5200.0	56.0						
5199.0	57.0						
5198.0	58.0						
5197.0	59.0						
5196.0	60.0						
		PROJECT KAFB OT-028					HOLE NO. 1008

HTW DRILLING LOG (continuation sheet)							HOLE NO 1008
PROJECT KAFB OT-028				INSPECTOR Bryan Graham			SHEET 5 of 22
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5195.0	61.0	Same as above, gravel increases					
5194.0	62.0						
5193.0	63.0						
5192.0	64.0						
5191.0	65.0						
5190.0	66.0						
5189.0	67.0						
5188.0	68.0						
5187.0	69.0						
5186.0	70.0						
5185.0	71.0						
5184.0	72.0						
5183.0	73.0						
5182.0	74.0						
5181.0	75.0						
5180.0	76.0						
5179.0	77.0						
5178.0	78.0						
5177.0	79.0						
5176.0	80.0						

PROJECT KAFB OT-028

HOLE NO. 1008

HTW DRILLING LOG (continuation sheet)							HOLE NO 1008
PROJECT KAFB OT-028				INPSECTOR Bryan Graham			SHEET 6 of 22
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5175.0	81.0						
5174.0	82.0	Poorly Graded Gravel with Sand 82-85 ft. Dry, medium, light brown (7.5YR 6/3), (GP)					
5173.0	83.0						
5172.0	84.0						
5171.0	85.0	Poorly Graded Sand with Gravel 85-155 ft. Dry, loose, brown (7.5YR 5/3), occassional layers of more gravelly material, (SP)					
5170.0	86.0						
5169.0	87.0						
5168.0	88.0						
5167.0	89.0						
5166.0	90.0						
5165.0	91.0						
5164.0	92.0						
5163.0	93.0						
5162.0	94.0						
5161.0	95.0						
5160.0	96.0						
5159.0	97.0						
5158.0	98.0						
5157.0	99.0						
5156.0	100.0						
PROJECT KAFB OT-028						HOLE NO. 1008	

HTW DRILLING LOG (continuation sheet)							HOLE NO 1008
PROJECT KAFB OT-028				INPSECTOR Bryan Graham			SHEET 7 of 22
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5155.0	101.0						
5154.0	102.0						
5153.0	103.0						
5152.0	104.0						
5151.0	105.0						
5150.0	106.0						
5149.0	107.0						
5148.0	108.0						
5147.0	109.0						
5146.0	110.0						
5145.0	111.0						
5144.0	112.0						
5143.0	113.0						
5142.0	114.0						
5141.0	115.0						
5140.0	116.0						
5139.0	117.0						
5138.0	118.0	Fine to medium sand layer, less gravel					
5137.0	119.0						
5136.0	120.0						
PROJECT KAFB OT-028						HOLE NO. 1008	

HTW DRILLING LOG (continuation sheet)							HOLE NO 1008
PROJECT KAFB OT-028				INPSECTOR Bryan Graham			SHEET 8 of 22
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5135.0	121.0						
5134.0	122.0						
5133.0	123.0						
5132.0	124.0						
5131.0	125.0						
5130.0	126.0						
5129.0	127.0						
5128.0	128.0						
5127.0	129.0						
5126.0	130.0						
5125.0	131.0						
5124.0	132.0						
5123.0	133.0						
5122.0	134.0						
5121.0	135.0	Fine to medium sand lenses, less gravel					
5120.0	136.0						
5119.0	137.0						
5118.0	138.0						
5117.0	139.0						
5116.0	140.0						
PROJECT KAFB OT-028						HOLE NO. 1008	

HTW DRILLING LOG (continuation sheet)							HOLE NO 1008
PROJECT KAFB OT-028				INPSECTOR Bryan Graham			SHEET 9 of 22
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5115.0	141.0						
5114.0	142.0						
5113.0	143.0						
5112.0	144.0						
5111.0	145.0						
5110.0	146.0						
5109.0	147.0						
5108.0	148.0						
5107.0	149.0						
5106.0	150.0						
5105.0	151.0						
5104.0	152.0						
5103.0	153.0						
5102.0	154.0						
5101.0	155.0						
5100.0	156.0	Poorly Graded Gravel with Sand 155-195 ft. Dry, medium, brown (7.5YR 5/2), (GP)					
5099.0	157.0						
5098.0	158.0						
5097.0	159.0						
5096.0	160.0						
PROJECT KAFB OT-028						HOLE NO. 1008	

HTW DRILLING LOG (continuation sheet)

HOLE NO 1008

PROJECT KAFB OT-028

INPSECTOR Bryan Graham

SHEET 10 of 22

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5095.0	161.0	medium gravely sand					
5094.0	162.0						
5093.0	163.0						
5092.0	164.0						
5091.0	165.0						
5090.0	166.0						
5089.0	167.0						
5088.0	168.0						
5087.0	169.0						
5086.0	170.0						
5085.0	171.0						
5084.0	172.0						
5083.0	173.0						
5082.0	174.0						
5081.0	175.0						
5080.0	176.0						
5079.0	177.0						
5078.0	178.0						
5077.0	179.0						
5076.0	180.0						
		PROJECT KAFB OT-028					HOLE NO. 1008

HTW DRILLING LOG (continuation sheet)

HOLE NO 1008

PROJECT KAFB OT-028

INSPECTOR Bryan Graham

SHEET 11 of 22

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h	
5075.0	181.0	180 ft, gravel increases						
5074.0	182.0							
5073.0	183.0							
5072.0	184.0							
5071.0	185.0							
5070.0	186.0							
5069.0	187.0							
5068.0	188.0							
5067.0	189.0							
5066.0	190.0							
5065.0	191.0							
5064.0	192.0							
5063.0	193.0							
5062.0	194.0							
5061.0	195.0		Poolry Graded Sand with Gravel 195-200 ft. Dry, medium, brown (7.5YR 5/3), (SP)					
5060.0	196.0							
5059.0	197.0							
5058.0	198.0							
5057.0	199.0							
5056.0	200.0							
		PROJECT KAFB OT-028					HOLE NO. 1008	

HTW DRILLING LOG (continuation sheet)							HOLE NO 1008
PROJECT KAFB OT-028				INSPECTOR Bryan Graham			SHEET 12 of 22
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5055.0	201.0	Poorly Graded Gravel with Sand 200-206 ft. Dry, medium, brown (7.5YR 5/3), (GP)					
5054.0	202.0						
5053.0	203.0						
5052.0	204.0						
5051.0	205.0						
5050.0	206.0	Silty Sand 206-220 ft. Dry, medium, brown (7.5YR 5/4), (SM)					
5049.0	207.0						
5048.0	208.0						
5047.0	209.0						
5046.0	210.0						
5045.0	211.0						
5044.0	212.0						
5043.0	213.0						
5042.0	214.0						
5041.0	215.0						
5040.0	216.0						
5039.0	217.0						
5038.0	218.0						
5037.0	219.0						
5036.0	220.0						
PROJECT KAFB OT-028						HOLE NO. 1008	

HTW DRILLING LOG (continuation sheet)							HOLE NO 1008
PROJECT KAFB OT-028				INSPECTOR Bryan Graham			SHEET 13 of 22
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5035.0	221.0	Poorly Graded Sand with Gravel 220-282 ft. Dry, medium, brown (7.5YR 5/3), non-plastic, (SP)					
5034.0	222.0						
5033.0	223.0						
5032.0	224.0						
5031.0	225.0						
5030.0	226.0						
5029.0	227.0						
5028.0	228.0						
5027.0	229.0						
5026.0	230.0						
5025.0	231.0						
5024.0	232.0						
5023.0	233.0						
5022.0	234.0						
5021.0	235.0						
5020.0	236.0						
5018.0	238.0		end of day 9-19-05 drill depth 238 ft.				
5017.0	239.0						
5016.0	240.0						

PROJECT KAFB OT-028

HOLE NO. 1008

HTW DRILLING LOG (continuation sheet)							HOLE NO 1008
PROJECT KAFB OT-028				INPSECTOR Bryan Graham			SHEET 14 of 22
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5015.0	241.0	medium sand with gravel					
5014.0	242.0						
5013.0	243.0						
5012.0	244.0						
5011.0	245.0						
5010.0	246.0						
5009.0	247.0						
5008.0	248.0						
5007.0	249.0						
5006.0	250.0						
5005.0	251.0						
5004.0	252.0						
5003.0	253.0						
5002.0	254.0						
5001.0	255.0						
5000.0	256.0						
4999.0	257.0						
4998.0	258.0						
4997.0	259.0						
4996.0	260.0						

PROJECT KAFB OT-028

HOLE NO. 1008

HTW DRILLING LOG (continuation sheet)

HOLE NO 1008

PROJECT KAFB OT-028

INSPECTOR Bryan Graham

SHEET 15 of 22

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
4995.0	261.0	medium sand with gravel					
4994.0	262.0						
4993.0	263.0						
4992.0	264.0						
4991.0	265.0						
4990.0	266.0						
4989.0	267.0						
4988.0	268.0						
4987.0	269.0						
4986.0	270.0						
4985.0	271.0						
4984.0	272.0						
4983.0	273.0						
4982.0	274.0						
4981.0	275.0						
4980.0	276.0						
4979.0	277.0						
4978.0	278.0						
4977.0	279.0						
4976.0	280.0						
PROJECT KAFB OT-028						HOLE NO. 1008	

HTW DRILLING LOG (continuation sheet)

HOLE NO 1008

PROJECT KAFB OT-028

INSPECTOR Bryan Graham

SHEET 16 of 22

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
4975.0	281.0						
4974.0	282.0	Well Graded Sand 282-294 ft. Dry, dense, brown (7.5YR 5/3), non-plastic, (SW)					
4973.0	283.0						
4972.0	284.0						
4971.0	285.0						
4970.0	286.0						
4969.0	287.0						
4968.0	288.0						
4967.0	289.0						
4966.0	290.0						
4965.0	291.0						
4964.0	292.0	Poorly Graded Gravel with Sand 294-300 ft. Dry, dense, brown (7.5YR 5/3), non-plastic, (GP)					
4963.0	293.0						
4962.0	294.0						
4961.0	295.0						
4960.0	296.0						
4959.0	297.0						
4958.0	298.0						
4957.0	299.0						
4956.0	300.0						
			PROJECT KAFB OT-028				

HTW DRILLING LOG (continuation sheet)							HOLE NO 1008
PROJECT KAFB OT-028				INSPECTOR Bryan Graham			SHEET 17 of 22
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
4955.0	301.0	Well Graded Sand with Gravel 300-324 Dry, dense, light brown (7.5YR 6/3), (SW)					
4954.0	302.0						
4953.0	303.0						
4952.0	304.0						
4951.0	305.0						
4950.0	306.0						
4949.0	307.0						
4948.0	308.0						
4947.0	309.0						
4946.0	310.0						
4945.0	311.0						
4944.0	312.0						
4943.0	313.0						
4942.0	314.0						
4941.0	315.0						
4940.0	316.0	same as above, layers of gravel and well to poorly graded sand					
4939.0	317.0						
4938.0	318.0						
4937.0	319.0						
4936.0	320.0						

PROJECT KAFB OT-028

HOLE NO. 1008

HTW DRILLING LOG (continuation sheet)

HOLE NO 1008

PROJECT KAFB OT-028

INPSECTOR Bryan Graham

SHEET 18 of 22

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
4935.0	321.0						
4934.0	322.0						
4933.0	323.0						
4932.0	324.0	----- Silty Sand 324-330 ft. Damp, dense, brown (7.5YR 4/4), (SM)					
4931.0	325.0						
4930.0	326.0						
4929.0	327.0						
4928.0	328.0						
4927.0	329.0						
4926.0	330.0	----- Well Graded Sand with Gravel 330-342 ft. Dry, dense, light brown (7.5YR 6/3), (SW)					
4925.0	331.0						
4924.0	332.0						
4923.0	333.0						
4922.0	334.0						
4921.0	335.0						
4920.0	336.0						
4919.0	337.0						
4918.0	338.0						
4917.0	339.0						
4916.0	340.0						

PROJECT KAFB OT-028

HOLE NO. 1008

HTW DRILLING LOG (continuation sheet)							HOLE NO 1008
PROJECT KAFB OT-028				INSPECTOR Bryan Graham			SHEET 19 of 22
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
4915.0	341.0						
4914.0	342.0	Poorly Graded Sand with Gravel 342-347 ft. Dry, dense, light brown (7.5YR 6/3), (SP)					
4913.0	343.0						
4912.0	344.0						
4911.0	345.0						
4910.0	346.0						
4909.0	347.0	Well Graded Sand with Gravel 347-358 ft. Dry, dense, light brown (7.5YR 6/3), (SW)					
4908.0	348.0						
4907.0	349.0						
4906.0	350.0						
4905.0	351.0						
4904.0	352.0						
4903.0	353.0						
4902.0	354.0						
4901.0	355.0						
4900.0	356.0						
4899.0	357.0						
4898.0	358.0	Poorly Graded Sand with Gravel 358-391 ft. Damp, dense, brown (7.5YR 4/3), (SP)					
4897.0	359.0						
4896.0	360.0						
PROJECT KAFB OT-028						HOLE NO. 1008	

HTW DRILLING LOG (continuation sheet)

HOLE NO 1008

PROJECT KAFB OT-028

INSPECTOR Bryan Graham

SHEET 20 of 22

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
4895.0	361.0	dense sand with gravel					
4894.0	362.0						
4893.0	363.0						
4892.0	364.0						
4891.0	365.0						
4890.0	366.0						
4889.0	367.0						
4888.0	368.0						
4887.0	369.0						
4886.0	370.0						
4885.0	371.0						
4884.0	372.0						
4883.0	373.0						
4882.0	374.0						
4881.0	375.0						
4880.0	376.0						
4879.0	377.0						
4878.0	378.0						
4877.0	379.0						
4876.0	380.0						
		PROJECT KAFB OT-028					HOLE NO. 1008

HTW DRILLING LOG (continuation sheet)							HOLE NO 1008
PROJECT KAFB OT-028				INPSECTOR Bryan Graham			SHEET 21 of 22
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
4875.0	381.0	Wet, medium, dark brown (7.5YR 3/2), (SP)					
4874.0	382.0						
4873.0	383.0						
4872.0	384.0						
4871.0	385.0						
4870.0	386.0						
4869.0	387.0						
4868.0	388.0						
4867.0	389.0						
4866.0	390.0						
4865.0	391.0	Clayey Sand 391-395 ft. Damp, dense, grayish green (Gley 1 10Y 6/1), (SC)					
4864.0	392.0						
4863.0	393.0						
4862.0	394.0						
4861.0	395.0	Silty Sand 395-405 ft. Damp, dense, dark brown (7.5YR 3/2), (SM)					
4860.0	396.0						
4859.0	397.0						
4858.0	398.0						
4857.0	399.0						
4856.0	400.0						

PROJECT KAFB OT-028

HOLE NO. 1008

HTW DRILLING LOG (continuation sheet)

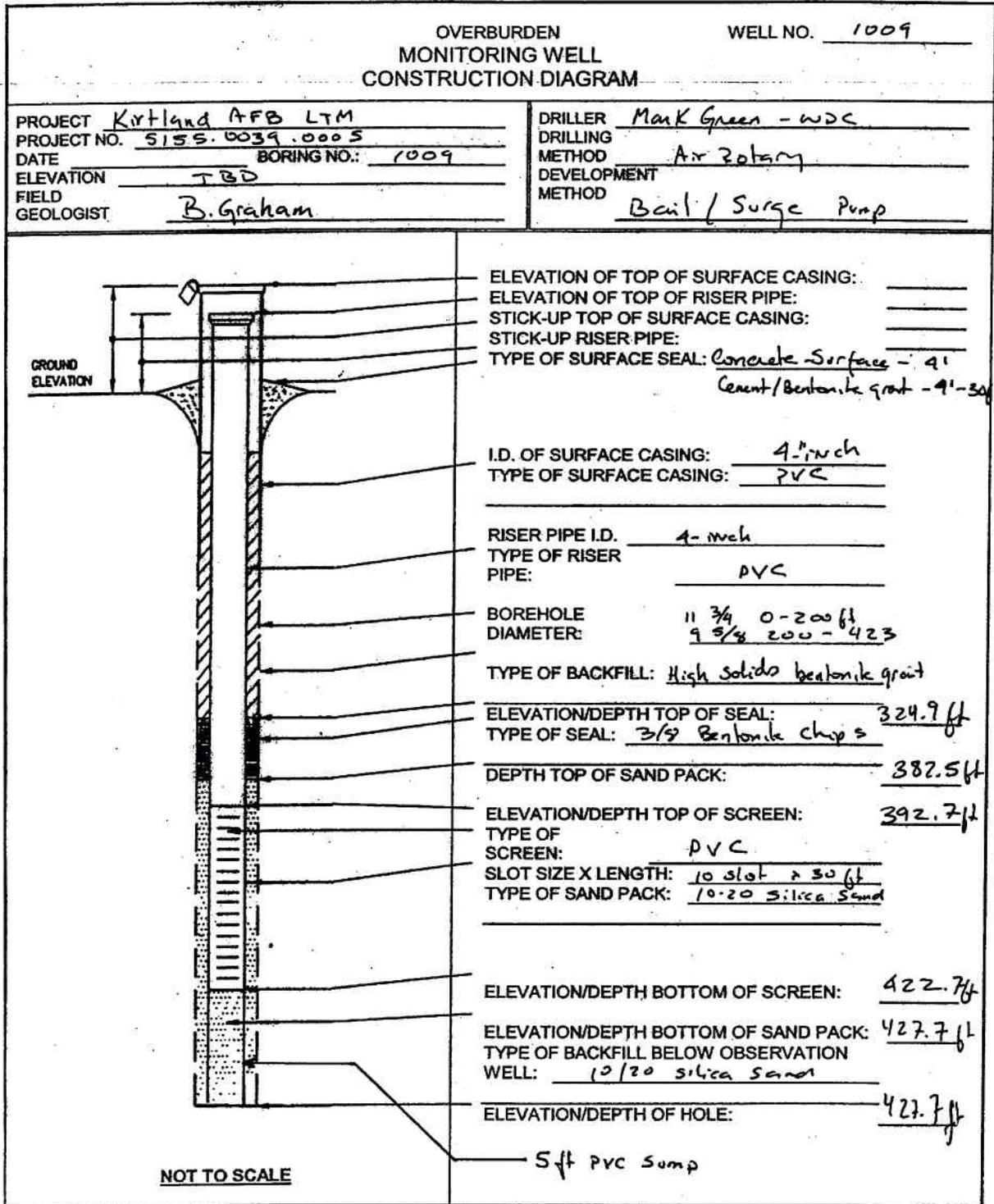
HOLE NO 1008

PROJECT KAFB OT-028

INSPECTOR Bryan Graham

SHEET 22 of 22

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
4855.0	401.0	silty sand					
4854.0	402.0						
4853.0	403.0						
4852.0	404.0						
4851.0	405.0		end of day 9-20-05 total drill depth 405 ft				
4850.0	406.0						
4849.0	407.0						
4848.0	408.0						
4847.0	409.0						
4846.0	410.0						
4845.0	411.0						
4844.0	412.0						
4843.0	413.0						
4842.0	414.0						
4841.0	415.0						
4840.0	416.0						
4839.0	417.0						
4838.0	418.0						
4837.0	419.0						
4836.0	420.0						
PROJECT KAFB OT-028						HOLE NO. 1008	

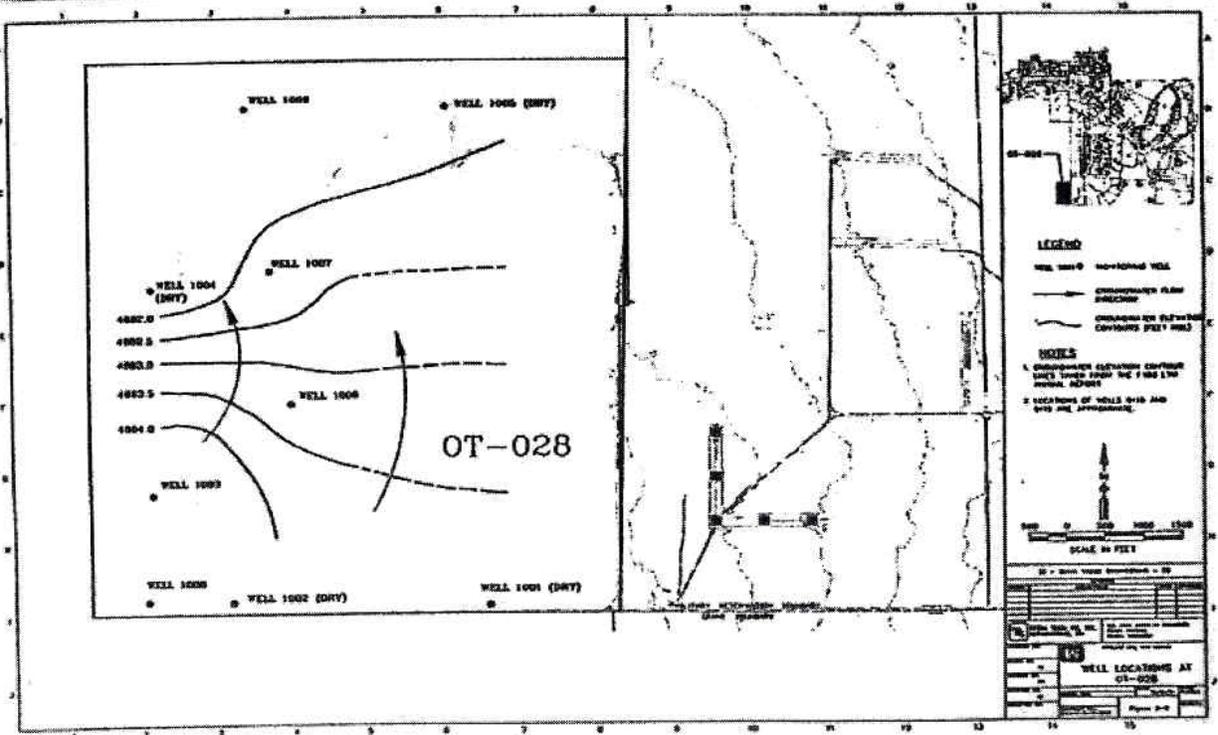


AR 2866

HTW DRILLING LOG

HOLE NO 1009

1. COMPANY NAME Tetra Tech EC		2. DRILLING CONTRACTOR WDC		SHEET 1 of 23		
3. PROJECT LF-001 and OT-028 Well Installation			4. LOCATION Kirtland AFB			
5. NAME OF DRILLER Mark Green			6. MANUFACTURERS DESIGNATION OF DRILL			
7. SIZES & TYPES OF DRILLING & SAMPLING EQUIPMENT GEFCO Star 50K-CH air rotary 1 1/4" cas. 0-200 ft 9 5/8" cas. 200-505 ft		8. HOLE LOCATION McCormick Ranch Range				
		9. SURFACE ELEVATION 5267.25				
		10. DATE STARTED 9-15-04		11. DATE COMPLETED 9-18-04		
12. OVERBURDEN THICKNESS 425 ft.			16. DEPTH GROUNDWATER ENCOUNTERED 385 ft.			
13. DEPTH DRILLED INTO ROCK 0 ft.			16. DEPTH TO WATER & TIME AFTER DRILLING COMPLETED 390.51 ft			
14. TOTAL DEPTH OF HOLE 425 ft.			17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY) NA			
18. GEOTECHNICAL SAMPLES NA		DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES NA		
18. SAMPLES FOR CHEMICAL ANALYSIS NA		VOC	METALS	OTHER (Specify)	OTHER (Specify)	OTHER
22. DISPOSITION OF HOLE		BACKFILLED	MONITORING WELL	OTHER	23. SIGNATURE OF INSPECTOR	
			X		<i>[Signature]</i>	



PROJECT KAFB OT-028

HOLE NO. 1009

AK 2866

HTW DRILLING LOG (continuation sheet)							HOLE NO 1009
PROJECT KAFB OT-028				INPSECTOR Bryan Graham			SHEET 2 of 23
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5266.0	1.0	Poorly Graded Sand with Gravel 0-29 ft. Dry, loose at surface to medium dense, light brown (7.5YR 6/4), fine grained, non-plastic, non-cohesive, fine sand, minor silt, (SW)					
5265.0	2.0						
5264.0	3.0						
5263.0	4.0						
5262.0	5.0						
5261.0	6.0						
5260.0	7.0						
5259.0	8.0						
5258.0	9.0						
5257.0	10.0						
5256.0	11.0						
5255.0	12.0	gravel lense					
5254.0	13.0						
5253.0	14.0						
5252.0	15.0						
5251.0	16.0						
5250.0	17.0						
5249.0	18.0						
5248.0	19.0	gravel lense					
	20.0						

PROJECT KAFB OT-028

HOLE NO. 1009

HTW DRILLING LOG (continuation sheet)							HOLE NO 1009
PROJECT KAFB OT-028				INSPECTOR Bryan Graham		SHEET 3 of 23	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5246.0	21.0						
5245.0	22.0						
5244.0	23.0						
5243.0	24.0						
5242.0	25.0						
5241.0	26.0						
5240.0	27.0						
5239.0	28.0						
5238.0	29.0	Silty Sand 29-43 ft. Dry, medium dense, pink (5YR 7/4), coarse gravel, (SP)					
5237.0	30.0						
5236.0	31.0						
5235.0	32.0						
5234.0	33.0						
5233.0	34.0						
5232.0	35.0						
5231.0	36.0						
5230.0	37.0						
5229.0	38.0						
5228.0	39.0						
	40.0						
PROJECT KAFB OT-028						HOLE NO. 1009	

HTW DRILLING LOG (continuation sheet)							HOLE NO 1009
PROJECT KAFB OT-028				INPSECTOR Bryan Graham		SHEET 4 of 23	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5226.0	41.0						
5225.0	42.0						
5224.0	43.0	Poorly Graded Sand with Gravel 43-69 ft. Dry, medium dense, pink (5YR 7/4), (GP)					
5223.0	44.0						
5222.0	45.0						
5221.0	46.0						
5220.0	47.0						
5219.0	48.0						
5218.0	49.0						
5217.0	50.0						
5216.0	51.0						
5215.0	52.0						
5214.0	53.0						
5213.0	54.0						
5212.0	55.0						
5211.0	56.0						
5210.0	57.0						
5209.0	58.0						
5208.0	59.0						
	60.0						
PROJECT KAFB OT-028						HOLE NO. 1009	

HTW DRILLING LOG (continuation sheet)							HOLE NO 1009
PROJECT KAFB OT-028				INPSECTOR Bryan Graham			SHEET 5 of 23
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5206.0	61.0						
5205.0	62.0						
5204.0	63.0						
5203.0	64.0						
5202.0	65.0						
5201.0	66.0						
5200.0	67.0						
5199.0	68.0						
5198.0	69.0	Poorly Graded Gravel with Sand 69-73 ft. Dry, loose, brown (7.5YR 5/3), non-plastic, non-cohesive, minor gravel, (SM)					
5197.0	70.0						
5196.0	71.0						
5195.0	72.0						
5194.0	73.0	Gravel 73-111 ft. Dry, medium dense, subangular to well rounded gravel, (SP)					
5193.0	74.0						
5192.0	75.0						
5191.0	76.0						
5190.0	77.0						
5189.0	78.0						
5188.0	79.0						
	80.0						
PROJECT KAFB OT-028						HOLE NO. 1009	

HTW DRILLING LOG (continuation sheet)

HOLE NO 1009

PROJECT KAFB OT-028

INSPECTOR Bryan Graham

SHEET 6 of 23

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5186.0	81.0	medium dense gravel					
5185.0	82.0						
5184.0	83.0						
5183.0	84.0						
5182.0	85.0						
5181.0	86.0						
5180.0	87.0						
5179.0	88.0						
5178.0	89.0						
5177.0	90.0						
5176.0	91.0						
5175.0	92.0						
5174.0	93.0						
5173.0	94.0						
5172.0	95.0						
5171.0	96.0						
5170.0	97.0						
5169.0	98.0						
5168.0	99.0						
	100.0						
PROJECT KAFB OT-028						HOLE NO. 1009	

HTW DRILLING LOG (continuation sheet)

HOLE NO 1009

PROJECT KAFB OT-028

INSPECTOR Bryan Graham

SHEET 7 of 23

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5166.0	101.0	gravel % decreases, more sand, still (SP)					
5165.0	102.0						
5164.0	103.0						
5163.0	104.0						
5162.0	105.0						
5161.0	106.0						
5160.0	107.0						
5159.0	108.0						
5158.0	109.0						
5157.0	110.0						
5156.0	111.0	Poorly Graded Gravel with Sand 111-121 ft. Damp, mildly cohesive, non-plastic, color change to brown (7.5YR 4/3), (GP)					
5155.0	112.0						
5154.0	113.0						
5153.0	114.0						
5152.0	115.0						
5151.0	116.0						
5150.0	117.0						
5149.0	118.0						
5148.0	119.0						
	120.0						

PROJECT KAFB OT-028

HOLE NO. 1009

HTW DRILLING LOG (continuation sheet)

HOLE NO 1009

PROJECT KAFB OT-028

INSPECTOR Bryan Graham

SHEET 8 of 23

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5146.0	121.0	Poorly Graded Sand 121-259 ft. Dry, medium dense, light brown (7.5YR 6/3), (SP)					
5145.0	122.0						
5144.0	123.0						
5143.0	124.0						
5142.0	125.0						
5141.0	126.0						
5140.0	127.0						
5139.0	128.0						
5138.0	129.0						
5137.0	130.0						
5136.0	131.0						
5135.0	132.0						
5134.0	133.0						
5133.0	134.0						
5132.0	135.0						
5131.0	136.0						
5130.0	137.0						
5129.0	138.0						
5128.0	139.0						
	140.0						

PROJECT KAFB OT-028

HOLE NO. 1009

HTW DRILLING LOG (continuation sheet)

HOLE NO 1009

PROJECT KAFB OT-028

INSPECTOR Bryan Graham

SHEET 10 of 23

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No. e	Analytical Sample No. f	Blow Counts g	REMARKS h
5106.0	161.0						
5105.0	162.0						
5104.0	163.0						
5103.0	164.0						
5102.0	165.0						
5101.0	166.0						
5100.0	167.0						
5099.0	168.0						
5098.0	169.0						
5097.0	170.0	gravel predominantly quartz					
5096.0	171.0						
5095.0	172.0						
5094.0	173.0						
5093.0	174.0						
5092.0	175.0	moisture content increases in gravel layer					
5091.0	176.0						
5090.0	177.0						
5089.0	178.0						
5088.0	179.0						
	180.0						

PROJECT KAFB OT-028

HOLE NO. 1009

HTW DRILLING LOG (continuation sheet)

HOLE NO 1009

PROJECT KAFB OT-028

INSPECTOR Bryan Graham

SHEET 11 of 23

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No. e	Analytical Sample No. f	Blow Counts g	REMARKS h
5086.0	181.0						
5085.0	182.0						
5084.0	183.0						
5083.0	184.0						
5082.0	185.0						
5081.0	186.0						
5080.0	187.0						
5079.0	188.0						
5078.0	189.0						
5077.0	190.0						
5076.0	191.0						
5075.0	192.0						
5074.0	193.0						
5073.0	194.0						
5072.0	195.0	color change to brown (7.5YR 4/4), sand is mildly cohesive, dampness increases, more subrounded gravel, still (SP)					
5071.0	196.0						
5070.0	197.0						
5069.0	198.0	end of day 9-15-04 drill depth 198 ft.					
5068.0	199.0						
	200.0						

PROJECT KAFB OT-028

HOLE NO. 1009

HTW DRILLING LOG (continuation sheet)

HOLE NO 1009

PROJECT KAFB OT-028

INSPECTOR Bryan Graham

SHEET 12 of 23

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5066.0	201.0						
5065.0	202.0						
5064.0	203.0						
5063.0	204.0						
5062.0	205.0						
5061.0	206.0						
5060.0	207.0						
5059.0	208.0						
5058.0	209.0	gravel percentage increases					
5057.0	210.0						
5056.0	211.0						
5055.0	212.0						
5054.0	213.0						
5053.0	214.0						
5052.0	215.0						
5051.0	216.0						
5050.0	217.0						
5049.0	218.0						
5048.0	219.0						
	220.0						

PROJECT KAFB OT-028

HOLE NO. 1009

HTW DRILLING LOG (continuation sheet)							HOLE NO 1009
PROJECT KAFB OT-028				INPSECTOR Bryan Graham		SHEET 13 of 23	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5046.0	221.0	some gravels up to 5 cm, subrounded quartz, volcanics, color change to pinkish gray (7.5YR 7/2)					
5045.0	222.0						
5044.0	223.0						
5043.0	224.0						
5042.0	225.0						
5041.0	226.0						
5040.0	227.0						
5039.0	228.0						
5038.0	229.0						
5037.0	230.0	gravel % increases, damp, slightly cohesive coarse sand					
5036.0	231.0						
5035.0	232.0						
5034.0	233.0						
5033.0	234.0						
5032.0	235.0						
5031.0	236.0						
5030.0	237.0						
5029.0	238.0						
5028.0	239.0						
	240.0						
PROJECT KAFB OT-028						HOLE NO. 1009	

HTW DRILLING LOG (continuation sheet)							HOLE NO 1009
PROJECT KAFB OT-028			INPSECTOR Bryan Graham			SHEET 14 of 23	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5026.0	241.0						
5025.0	242.0						
5024.0	243.0						
5023.0	244.0						
5022.0	245.0						
5021.0	246.0						
5020.0	247.0						
5019.0	248.0						
5018.0	249.0						
5017.0	250.0	gravel % increases					
5016.0	251.0						
5015.0	252.0						
5014.0	253.0						
5013.0	254.0						
5012.0	255.0	gravel % decreases					
5011.0	256.0						
5010.0	257.0						
5009.0	258.0						
5008.0	259.0						
	260.0						
PROJECT KAFB OT-028						HOLE NO. 1009	

HTW DRILLING LOG (continuation sheet)							HOLE NO 1009
PROJECT KAFB OT-028				INPSECTOR Bryan Graham			SHEET 15 of 23
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
5006.0	261.0	Poorly Graded Gravel 259-263 ft. Dry, medium dense, volcanics, quartz, minor metamorphic, (GP)					
5005.0	262.0						
5004.0	263.0	Poorly Graded Sand 263-285 ft. Dry, medium dense, light brown (7.5YR 6/3), alternating layers of increased gravel with color change to brown (7.5YR 5/4), (SP)					
5003.0	264.0						
5002.0	265.0						
5001.0	266.0						
5000.0	267.0						
4999.0	268.0						
4998.0	269.0						
4997.0	270.0						
4996.0	271.0						
4995.0	272.0						
4994.0	273.0						
4993.0	274.0						
4992.0	275.0						
4991.0	276.0						
4990.0	277.0						
4989.0	278.0						
4988.0	279.0						
	280.0						
PROJECT KAFB OT-028						HOLE NO. 1009	

HTW DRILLING LOG (continuation sheet)							HOLE NO 1009
PROJECT KAFB OT-028				INPSECTOR Bryan Graham			SHEET 16 of 23
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
4986.0	281.0						
4985.0	282.0						
4984.0	283.0						
4983.0	284.0						
4982.0	285.0	Silty Sand					
4981.0	286.0	285-305 ft. Damp, loose, brown (7.5YR 5/4), fine grained, well sorted fines, non-plastic, cohesive, trace gravel, (SM)					
4980.0	287.0						
4979.0	288.0						
4978.0	289.0						
4977.0	290.0						
4976.0	291.0						
4975.0	292.0						
4974.0	293.0						
4973.0	294.0						
4972.0	295.0						
4971.0	296.0						
4970.0	297.0						
4969.0	298.0						
4968.0	299.0						
	300.0						
PROJECT KAFB OT-028						HOLE NO. 1009	

HTW DRILLING LOG (continuation sheet)							HOLE NO 1009
PROJECT KAFB OT-028				INPSECTOR Bryan Graham			SHEET 17 of 23
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
4966.0	301.0						
4965.0	302.0						
4964.0	303.0						
4963.0	304.0						
4962.0	305.0	Poorly Graded Sand					
4961.0	306.0	305-307 ft. Dry, medium dense, light brown (7.5YR 6/3), (SP)					
4960.0	307.0	Silty Sand					
4959.0	308.0	307-319 ft. Damp, loose, brown (7.5YR 5/4), fine grained, well sorted fines, non-plastic, cohesive, trace gravel, (SM)					
4958.0	309.0						
4957.0	310.0						
4956.0	311.0						
4955.0	312.0						
4954.0	313.0						
4953.0	314.0						
4952.0	315.0						
4951.0	316.0						
4950.0	317.0						
4949.0	318.0						
4948.0	319.0	Poorly Graded Sand with Gravel					
	320.0	319-350 ft. Dry, medium dense, brown (7.5YR 5/3), (SP)					
PROJECT KAFB OT-028						HOLE NO. 1009	

HTW DRILLING LOG (continuation sheet)							HOLE NO 1009
PROJECT KAFB OT-028				INPSECTOR Bryan Graham			SHEET 18 of 23
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
4946.0	321.0	medium dense sand with gravel					
4945.0	322.0						
4944.0	323.0						
4943.0	324.0						
4942.0	325.0						
4941.0	326.0						
4940.0	327.0						
4939.0	328.0						
4938.0	329.0						
4937.0	330.0						
4936.0	331.0						
4935.0	332.0						
4934.0	333.0						
4933.0	334.0						
4932.0	335.0						
4931.0	336.0						
4930.0	337.0						
4929.0	338.0						
4928.0	339.0						
	340.0						
PROJECT KAFB OT-028						HOLE NO. 1009	

KAFB-1001 to KAFB-1009

HTW DRILLING LOG (continuation sheet)							HOLE NO 1009
PROJECT KAFB OT-028				INPSECTOR Bryan Graham		SHEET 19 of 23	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
4926.0	341.0						
4925.0	342.0						
4924.0	343.0						
4923.0	344.0						
4922.0	345.0						
4921.0	346.0						
4920.0	347.0						
4919.0	348.0						
4918.0	349.0						
4917.0	350.0	Silty Sand 350-363 ft. Damp, meidum to loose, brown (7.5YR 4/3), low plasticity, cohesive, (SM)					
4916.0	351.0						
4915.0	352.0						
4914.0	353.0						
4913.0	354.0						
4912.0	355.0						
4911.0	356.0						
4910.0	357.0						
4909.0	358.0						
4908.0	359.0						
	360.0						
PROJECT KAFB OT-028						HOLE NO. 1009	

HTW DRILLING LOG (continuation sheet)							HOLE NO 1009
PROJECT KAFB OT-028				INPSECTOR Bryan Graham		SHEET 20 of 23	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No. e	Analytical Sample No. f	Blow Counts g	REMARKS h
4906.0	361.0						
4905.0	362.0						
4904.0	363.0	Poorly Graded Sand with Silt 363-385 ft. Damp, medium dense, brown (7.5YR 5/3), non-plastic, (SP-SM)					
4903.0	364.0						
4902.0	365.0						
4901.0	366.0						
4900.0	367.0						
4899.0	368.0						
4898.0	369.0						
4897.0	370.0						
4896.0	371.0						
4895.0	372.0						
4894.0	373.0						
4893.0	374.0						
4892.0	375.0						
4891.0	376.0						
4890.0	377.0						
4889.0	378.0	end of day 9-16-04 drill depth 378 ft.					
4888.0	379.0						
	380.0						
PROJECT KAFB OT-028						HOLE NO. 1009	

HTW DRILLING LOG (continuation sheet)

HOLE NO 1009

PROJECT KAFB OT-028

INPSECTOR Bryan Graham

SHEET 21 of 23

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
4886.0	381.0						
4885.0	382.0						
4884.0	383.0						
4883.0	384.0						
4882.0	385.0	Silty Sand 385-388 ft. Silty sand layer (SM)					
4881.0	386.0						
4880.0	387.0						
4879.0	388.0	Poorly Graded Sand 388-413 ft. Damp, medium, brown (7.5YR 4/3), fine to coarse sand, minor gravel, (SP)					
4878.0	389.0						
4877.0	390.0						
4876.0	391.0						
4875.0	392.0						
4874.0	393.0						
4873.0	394.0						
4872.0	395.0						
4871.0	396.0						
4870.0	397.0						
4869.0	398.0						
4868.0	399.0						
	400.0						

PROJECT KAFB OT-028

HOLE NO. 1009

HTW DRILLING LOG (continuation sheet)							HOLE NO 1009
PROJECT KAFB OT-028				INPSECTOR Bryan Graham		SHEET 22 of 23	
ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
4866.0	401.0						
4865.0	402.0						
4864.0	403.0						
4863.0	404.0						
4862.0	405.0						
4861.0	406.0						
4860.0	407.0						
4859.0	408.0						
4858.0	409.0						
4857.0	410.0						
4856.0	411.0						
4855.0	412.0						
4854.0	413.0	Poorly Graded Gravel with Sand 413-420 ft. Wet, medium dense, brown (7.5YR 4/3), (GP)					
4853.0	414.0						
4852.0	415.0						
4851.0	416.0						
4850.0	417.0						
4849.0	418.0						
4848.0	419.0						
	420.0						
PROJECT KAFB OT-028						HOLE NO. 1009	

HTW DRILLING LOG (continuation sheet)

HOLE NO 1009

PROJECT KAFB OT-028

INSPECTOR Bryan Graham

SHEET 23 of 23

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	Field Screening Results d	Geotech Sample or Core Bore No.	Analytical Sample No. f	Blow Counts g	REMARKS h
4846.0	421.0	<p>Silty Sand with Gravel 420-425 ft. Wet, medium dense, brown (7.5 YR 4/4), minor gravel, (SM)</p> <div style="border: 1px solid black; padding: 2px; margin: 10px auto; width: 60%;"> end of day 9-17-04 total depth 425 ft. </div>					
4845.0	422.0						
4844.0	423.0						
4843.0	424.0						
4842.0	425.0						
4841.0	426.0						
4840.0	427.0						
4839.0	428.0						
4838.0	429.0						
4837.0	430.0						
4836.0	431.0						
4835.0	432.0						
4834.0	433.0						
4833.0	434.0						
4832.0	435.0						
4831.0	436.0						
4830.0	437.0						
4829.0	438.0						
4828.0	439.0						
	440.0						

PROJECT KAFB OT-028

HOLE NO. 1009