

WELL DRILLER'S REPORT

Please complete this form in its entirety

PRINT OR TYPE ONLY

NOTICE OF INTENT NO. 9837

1. OWNER Hawthorne Army Ammunition Plant ADDRESS AT WELL LOCATION Hawthorne Army Ammunition Plant, Old Burn/Old Bomb test range
 MAILING ADDRESS Commander (SMCHW-OR) HWAAP Hawthorne, NV 89416
 2. LOCATION 1/4 SE 1/4 Sec 32 T 7 N S R 31 E Mineral County
 PERMIT NO. _____ Issued by Water Resources Parcel No. _____ Subdivision Name _____

3. TYPE OF WORK
 New Well Recondition
 Deepen Other

4. PROPOSED USE
 Domestic Irrigation Test
 Municipal Industrial Stock

5. TYPE WELL
 Cable Rotary
 Other air rotary

6. LITHOLOGIC LOG HWAAP-02

Material	Water Strata	From	To	Thick-ness
fine sand	dry	0	10.0ft	10ft
Fine silty sand	dry	10.0ft	30ft	20ft
Fine sand w/gravel	dry	30ft	40ft	10ft
Fine gravel	dry	40ft	50ft	10ft
Fine silty sand	dry	50ft	60ft	10ft
Fine sand	dry	60ft	70ft	10ft
Gravel w/ fine sand	dry	70ft	80ft	10ft
Fine sand	dry	80ft	90ft	10ft
Fine to coarse sand	dry	90ft	101ft	11ft
Fine sand	dry	101ft	135ft	24ft
Medium sand	moist	135ft	142ft	7ft
Granodiorite boulder	wet	142ft	147ft	5ft
Fine sand	wet	147ft	155ft	8ft
Cemented sandy gravel	moist	155ft	182ft	27ft
Fine to coarse sand	wet	182ft	190ft	8ft

Handwritten notes:
 6-11-88
 MAY 12
 STATE OF NEVADA

8. WELL CONSTRUCTION
 Diameter 4" inches Total depth 182 feet
 Casing record Mild steel schedule 40
 Weight per foot _____ Thickness _____
 Diameter From To
4" inches 0 feet 182 feet
 _____ inches _____ feet _____ feet

Surface seal: Yes No Type cement grout
 Depth of seal 158; 165w/bentonite feet
 Gravel packed: Yes No
 Gravel packed from 165 feet to 184 feet

Perforations: continuous slot stainless steel
 Type perforation _____
 Size perforation .020"
 From 172 feet to 182 feet
 From _____ feet to _____ feet

Date started 3-22 19 88
 Date completed 3-24 19 88

7. WELL TEST DATA

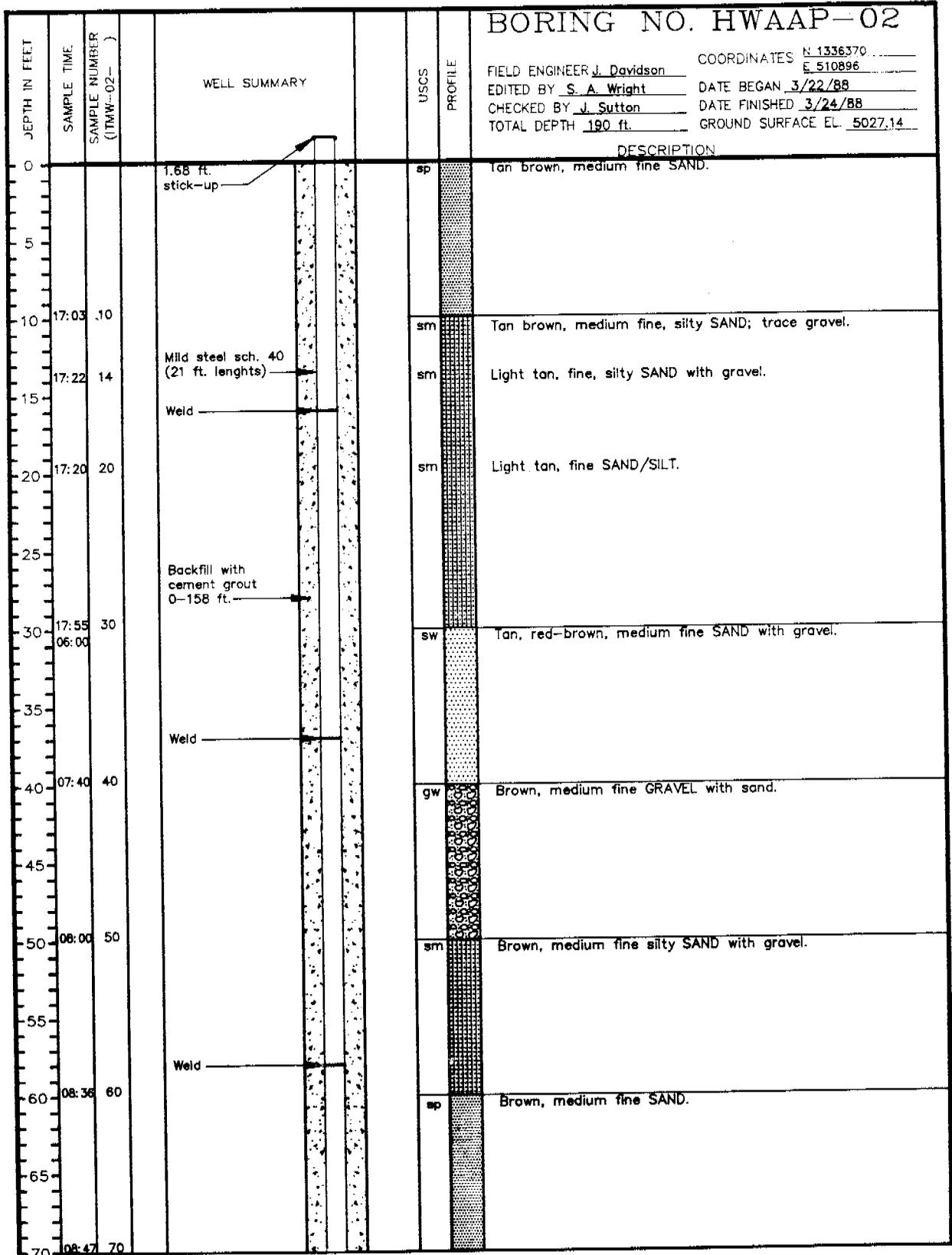
Pump RPM	G.P.M.	Draw Down	After Hours Pump

9. WATER LEVEL
 Static water level 142.6 feet below land surface
 Flow _____ G.P.M. _____ P.S.I.
 Water temperature 62 °F Quality _____

10. DRILLER'S CERTIFICATION
 This well was drilled under my supervision and the report is true to the best of my knowledge.
 Name Water Development Corporation
 Address 220 N East St., Woodland, CA
 Nevada contractor's license number issued by the State Contractor's Board 0012852
 Nevada contractor's driller's number issued by the Division of Water Resources _____
 Nevada driller's license number issued by the Division of Water Resources, the on-site driller 1015
 Signed _____
 Date 5-2-89

BAILER TEST

G.P.M. _____ Draw down _____ feet _____ hours
 G.P.M. _____ Draw down _____ feet _____ hours
 G.P.M. _____ Draw down _____ feet _____ hours



PROJECT NO. 190257
 CLIENT: US Army Corps of Engineers
 Hunstville, Alabama

SEE LEGEND FOR LOGS AND TEST PITS
 FOR EXPLANATION OF SYMBOLS AND TERMS



...Creating a Safer Tomorrow

DEPTH IN FEET		SAMPLE TIME		SAMPLE NUMBER (ITMW-02--)		WELL SUMMARY		USCS PROFILE		BORING NO. HWAAP-02	
										FIELD ENGINEER <u>J. Davidson</u> COORDINATES <u>N 1336370</u> EDITED BY <u>S. A. Wright</u> DATE BEGAN <u>3/22/88</u> CHECKED BY <u>J. Sutton</u> DATE FINISHED <u>3/24/88</u> TOTAL DEPTH <u>190 ft.</u> GROUND SURFACE EL. <u>5027.14</u>	
										DESCRIPTION	
70								gp		White-gray, medium, angular, GRAVEL with brown, fine sand.	
75											
80	09:30	80				Weld		sp		Brown, medium fine SAND; trace gravel.	
85											
90	10:10	90						sc		Brown, fine to coarse SAND, some clay.	
95						Backfill with cement grout 0-158 ft.					
100	10:50	100				Weld		sp		Light brown-tan, medium fine SAND.	
105											
110	11:17	110						sp		Brown, medium fine SAND; trace gravel.	
115											
120	11:30	120				Weld		sp		Light brown, medium fine SAND; trace gravel.	
125											
130	11:50	130						sp		Dark brown, medium fine SAND; trace gravel.	
135											
140	12:20	140						sp		Dark brown, medium SAND; trace gravel.	

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HWAAP-02(HW1)

E.2-2

LOG 32120

DEPTH IN FEET		SAMPLE TIME	SAMPLE NUMBER (TMW-02-)	WELL SUMMARY	USCS	PROFILE	BORING NO. HWAAP-02	
							FIELD ENGINEER <u>J. Davidson</u> COORDINATES <u>N 1336370</u> EDITED BY <u>S. A. Wright</u> DATE BEGAN <u>3/22/88</u> CHECKED BY <u>J. Sutton</u> DATE FINISHED <u>3/24/88</u> TOTAL DEPTH <u>190 ft.</u> GROUND SURFACE EL. <u>5027.14</u>	
							DESCRIPTION	
140	12:30	142		Weld	sp		∇ Water at 143.7'; 14:35 hrs., 3/24/88. Water at 142.6'; 4/10/88. Granodiorite boulder, 5' thick from 142'.	
145	15:07	147		Backfill with cement grout 0-158 ft.	sp		Dark brown, medium fine SAND.	
150	16:58	150		Sch. 30 S.S. blank				
160	17:11	160		#60 sand 1/4-1/2" bentonite pellets	gp		Cemented sandy GRAVEL; moist. ∇ Water at 164'; 08:00 hrs., 3/23/88.	
170	17:35	170		#20 slot screen sch. 5 S.S. 172-182'	gp		Cemented medium sandy GRAVEL; moist.	
175	17:44	176		#2/12 sand			Wet cuttings at 176' during drilling.	
180	18:00 07:45	180					Cemented sandy medium GRAVEL; wet.	
185				Hole caved in from 190-184 ft.	SC		Brown, fine to coarse SAND with some clay.	
190	12:15	190					TOTAL DEPTH 190 FEET	
							DRILLING INFORMATION SUBCONTRACTOR: The Water Development Corporation EQUIPMENT: Keehring SS-15THH, carrier mounted METHOD: Air Rotary Casing Hammer TEMPORARY DRILL CASING: 9 5/8" O.D. flush threaded BIT: 8 1/2" Mill Tooth Roller Bit to 142' depth. 8" hole hammer, button head bit to 147'. Roller Bit to 190'. DRILLER SUPT.: Miller Smith	

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HWAAP-02(HW1)