

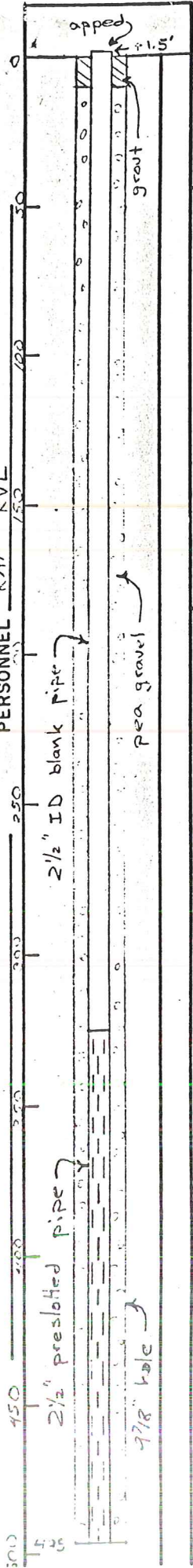
# WELL CONSTRUCTION SUMMARY

LOCATION or COORDS: Railroad Valley  
T3N, R52E, S1/2, SE 1/4

ELEVATION: GROUND LEVEL ≈ 5000'  
 TOP OF CASING +1.5' above surface

LOCATION Railroad Valley  
 PERSONNEL RAF RVL

PROJECT 1243-80



**DRILLING SUMMARY:**

TOTAL DEPTH 495'

BOREHOLE DIAMETER 9 7/8"

DRILLER Randy Talaman  
Carroll Johnson

RIG Ingersoll-Rand T4

BIT(S) 9 7/8"

DRILLING FLUID Seafoam mud

SURFACE CASING \_\_\_\_\_

**CONSTRUCTION TIME LOG:**

TASK	START		FINISH	
	DATE	TIME	DATE	TIME
DRILLING: <u>9 7/8"</u>	<u>8/14/80</u>	<u>0215</u>	<u>8/15/80</u>	<u>0200</u>
GEOPHYS. LOGGING:	<u>8/15/80</u>	<u>0200</u>	<u>8/15/80</u>	<u>0530</u>
CASING: <u>see below</u>	<u>8/17/80</u>		<u>8/17/80</u>	
FILTER PLACEMENT:	<u>8/17/80</u>		<u>8/17/80</u>	
CEMENTING:	<u>8/17/80</u>		<u>8/17/80</u>	
DEVELOPMENT:	<u>8/20/80</u>	<u>0900</u>	<u>8/20/80</u>	<u>1500</u>
OTHER:				

**WELL DESIGN:**

BASIS: GEOLOGIC LOG  GEOPHYSICAL LOG

CASING STRING(S): C=CASING S=SCREEN

<u>+1.5</u>	<u>- 325</u>	<u>C</u>		
<u>325</u>	<u>- 495</u>	<u>S</u>		
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

**WELL DEVELOPMENT**

Airlift from bottom of hole  
until water cleared up

CASING: C1 2 1/2" ID pipe (20.5')  
 C2 \_\_\_\_\_  
 C3 \_\_\_\_\_  
 C4 \_\_\_\_\_

SCREEN: S1 2 1/2" ID factory slot  
 S2 size 2" x .1' slots  
 S3 (2.2')  
 S4 \_\_\_\_\_

CENTRALIZERS N/A

FILTER MATERIAL pea gravel 10-10'

CEMENT \_\_\_\_\_  
0-10'

OTHER \_\_\_\_\_

**COMMENTS:**

Casing gravel was  
set with supervision of  
hydro-geologic team and  
inspected by J. H. ...  
15 ...  
...

# LOG OF BOREHOLE

BOREHOLE RR-5-0-1  
PAGE 1 OF 3

LOC. or COORDS. <u>T3N, R52E,</u> <u>Sec. 2 2 1/2 S5 1/4</u> GROUND ELEV. <u>= 5000'</u> TOTAL DEPTH <u>470'</u> BOREHOLE DIAM. <u>9 7/8"</u>	DRILLER <u>Randy Tolman</u> <u>R-C Drilling</u> RIG <u>Ingersoll-Rand</u> BIT(S) <u>9 7/8"</u> FLUID <u>Bentonite</u>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">START</td> <td style="width: 50%;">FINISH</td> </tr> <tr> <td>DATE <u>8/14/80</u></td> <td>_____</td> </tr> <tr> <td>TIME <u>0430</u></td> <td>_____</td> </tr> <tr> <td colspan="2">GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</td> </tr> <tr> <td colspan="2">HOW LEFT _____</td> </tr> </table>	START	FINISH	DATE <u>8/14/80</u>	_____	TIME <u>0430</u>	_____	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		HOW LEFT _____	
START	FINISH											
DATE <u>8/14/80</u>	_____											
TIME <u>0430</u>	_____											
GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO												
HOW LEFT _____												

LOCATION LOGGED BY

PROJECT

DEPTH	PENE RATE	CIRC RET	AIRLIFT LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
0	77/hr						
10	0430						Sands
	46						Valley fill composed of interbedded sands and gravels with minor amounts of clay. Sands and gravels consist of multicolored angular fragments and rounded grains of volcanic debris
20	0443						
	37.5						
	0451						
	75						
30	0455						
	60						
	0510						
	44						
40	0522						
	60						
	0531						
50	0531						
	33						
	0540						
	25						
60	0552						
	0718						Gravels w/ sand
	0723						
	75						
	0727						
	75						
	0731						
	99						
80	0734						
	50						
	0740						
	60						
	0745						
	60						
	0750						
	60						
100	0755						
	60						
	0800						
	75						
120	0804						
	0819						
	35						
	35						
120	0820						
	N/A						This interval penetration rate is not accurate
	0855						Large pebbles with clay in large balls
	43						Large broken up pebbles
	0902						
	43						
	0909						
	0943						
	43						
140	0947						
	50						
	0955						
	50						Large rounded pebbles.
	1001						
	43						
	1002						
	50						
160	1014						

# LOG OF BOREHOLE

BOREHOLE RR-3-0-1

PAGE 2 OF 3

LOC. or COORDS. <u>T3N, R52E</u> <u>Sec 2, E 1/2, SE 1/4</u>	DRILLER <u>Randy Tolman</u> <u>R-C Drilling</u>	START DATE <u>8/14/80</u>	FINISH DATE _____
GROUND ELEV. <u>≈ 5000'</u>	RIG <u>Ingersoll-Rand</u>	TIME <u>0430</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
TOTAL DEPTH <u>470'</u>	BIT(S) <u>9 7/8" rock tricone</u>	HOW LEFT _____	
BOREHOLE DIAM. <u>9 7/8"</u>	FLUID <u>barite</u>		

LOCATION  
LOGGED BY

PROJECT

DEPTH	PENE. RATE	CIRC. RET. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
160 1218						
1224	50					
1224						
170	50					
175 1236						
180 1243	43					
185 1251	37.5					
1303						
1311	33.3					
1322	27					
1330	37.5					
1340	18.8					
1346	N/A					
1410	43					
1417	50					
220 1427	30					
1433	43					
1440	50					
1446	75					
1454	100					
240 1458	60					
1501	43					
1506	75					
1513	75					
260 1517	60					
1549	75					
1553	75					
1557	60					
1600	60					
280 1607	75					
1611	60					
1619	50					
1624	301					
1630	N/A					
1650	27					
1700	19					
1710	60					
1720						
1730						
1740						
1750						
1760						
1770						
1780						
1790						
1800						

Large rounded pebbles with consolidated clay.

Valley fill composed of interbedded sands and gravels with minor amounts of clay. Sands and gravels consist of multicolored angular fragments and rounded grains of volcanic debris.

water content

# LOG OF BOREHOLE

BOREHOLE RR-S-0-1

PAGE 3 OF 3

LOC. or COORDS. <u>T3N, R52E</u> <u>sec 2, E1/2, S21/4</u> GROUND ELEV. <u>5000'</u> TOTAL DEPTH <u>470'</u> BOREHOLE DIAM. <u>2 1/2"</u>	DRILLER <u>Randy Tolman</u> <u>R-C Drilling</u> RIG <u>Imperial-Rand</u> BIT(S) <u>970 tricone</u> FLUID <u>Ben-telite</u>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">START</td> <td style="text-align: center;">FINISH</td> </tr> <tr> <td>DATE <u>8/14/80</u></td> <td>_____</td> </tr> <tr> <td>TIME <u>0430</u></td> <td>_____</td> </tr> <tr> <td colspan="2">GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</td> </tr> <tr> <td colspan="2">HOW LEFT _____</td> </tr> </table>	START	FINISH	DATE <u>8/14/80</u>	_____	TIME <u>0430</u>	_____	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		HOW LEFT _____	
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TIME <u>0430</u>	_____											
GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO												
HOW LEFT _____												

LOCATION LOGGED BY

PROJECT

DEPTH	PENE. RATE	CIRC. RET. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
320 1737						
1744	60					Valley fill composed of interbedded sands and gravels with minor amounts of clay. Sands and gravels consist of multicolored angular fragments and rounded grains of volcanic debris.
1747	100					
1753	50					
180	60					
340 1810	75					
1810	75					
1817	167					
1817	43					
350 1824	33					
1830	38					
1837	30					
370 1857	27					
1857	30					
1922	43					
1929	43					
1946	33					
1955	38					
2002	30					
2007	38					
2014	27					
420 2019	25					
2022	19					
2028	18					
2125	50					
2147	75					
440 2155	75					
2154	23					
2203	43					
2216	43					
460 2225	43					
2233	60					
2243						
480						

white chips

very irregular drilling - boulder?