

GL04885

WELL WA-10-2

# WELL CONSTRUCTION SUMMARY

LOCATION or COORDS: (C-27-14) 28dd

ELEVATION: GROUND LEVEL \_\_\_\_\_  
TOP OF CASING \_\_\_\_\_

### DRILLING SUMMARY:

TOTAL DEPTH 1399'  
BOREHOLE DIAMETER 24" (0-40')  
17 1/2" (40-1399')

DRILLER \_\_\_\_\_

RIG Failing 2500  
BIT(S) tricone

DRILLING FLUID bentonite

SURFACE CASING (0-40') 22" ID

### WELL DESIGN:

BASIS: GEOLOGIC LOG \_\_\_\_\_ GEOPHYSICAL LOG \_\_\_\_\_

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

<u>0</u>	<u>-</u>	<u>693</u>	<u>C<sub>1</sub></u>	<u>-</u>	<u>-</u>
<u>693</u>	<u>-</u>	<u>987</u>	<u>S<sub>1</sub></u>	<u>-</u>	<u>-</u>
<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
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CASING: C1 2" ID casing

C2 \_\_\_\_\_

C3 \_\_\_\_\_

C4 \_\_\_\_\_

SCREEN: S1 2" ID slotted pipe

S2 \_\_\_\_\_

S3 \_\_\_\_\_

S4 \_\_\_\_\_

CENTRALIZERS \_\_\_\_\_

FILTER MATERIAL sea gravel

CEMENT \_\_\_\_\_

OTHER \_\_\_\_\_

### CONSTRUCTION TIME LOG:

TASK	START		FINISH	
	DATE	TIME	DATE	TIME
DRILLING:				
GEOPHYS. LOGGING:				
CASING:				
FILTER PLACEMENT:				
CEMENTING:				
DEVELOPMENT:				
OTHER:				

### WELL DEVELOPMENT

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### COMMENTS:

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LOCATION Wab Wah Valley  
PERSONNEL \_\_\_\_\_

PROJECT \_\_\_\_\_

693

987

LOC. or COORDS. <u>Wab Wash Valley</u> <u>T2+3, R14, G1, 900 yds. N. of</u>	DRILLER <u>Jim Robbins</u> <u>M. Co. Harris</u>	START DATE <u>7/27/80</u>	FINISH DATE <u>8/5/80</u>
GROUND ELEV. <u>5080 ft</u>	RIG <u>Failine 2500 Battery</u>	TIME <u>1800</u>	<u>2400</u>
TOTAL DEPTH <u>1399 ft</u>	BIT(S) <u>12.3 Gal. Winone</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>12.3 in. 0-40 ft</u> <u>11.0 in. 40-TD</u>	FLUID <u>Barite Mud</u>	HOW LEFT <u>Cased</u>	

LOCATION Wab Wash Valley, Utah  
 LOGGED BY R. Whitlock III  
 RELEASED BY R. Whitlock III

PROJECT 114-1136  
Investigation of the

Drilled by Black & Angus

DEPTH	PENE. RATE	CIRC RET. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
0 ft	No Time			Sand with very little gravel		Sand w/v. little gravel; (0-3 ft) ( ); dk reddish gray (w 5YR 4/2) (d 5YR 7/2); 10% silt, ps to cs 90% (gz 80%, floss 15%, malic 5%); fgl (avl: to subang); volc frag 50%, qz 50%; ns; sd-subang to subang; gvl-subang to subang; structureless; n.p.; not sticky; no consol; mod HCl rxn.
3 ft	No Time			Silty sand with very little gravel		Silty sand w/v. little gravel; (3-8 ft) ( ); reddish brown (w 5YR 5/4) (d 5YR 7/3); 20% silt, ps to cs 80% (gz 40%, Rhy 30%, carb 20%, floss 5%, malic 5%); fgl; fgl to ngl, Rhy 70%, qz 30%; ps; sd-subang to subang; gvl-subang to subang; structureless; n.p.; not sticky; no consol; str HCl rxn.
10 ft	No Time			Sand with some gravel		Sand w/ some gravel; (8-12 ft) ( ); dk reddish gray (w 5YR 4/2) (d 5YR 8/2); ps-cs 100% (gz 40%, Rhy 30%, carb 20%, floss 5%, malic 5%); fgl; fgl to ngl, qz 50%, Rhy 50%; ps; sd-subang to subang; gvl-subang to subang; structureless; n.p.; not sticky; no consol; str HCl rxn.
18 ft	No Time			Silty sand		Silty sand; (12-22 ft) ( ); dk reddish brown (w 5YR 4/3) (d 5YR 7/2); 25% silt; ps-m 87.5% (40% gz, 25% malic, 20% carb, 5% malic); sd-subang to subang; ns; structureless; n.p.; not sticky; with consol; str HCl rxn.
22 ft				Sand with gravel		Sand with gravel; (22-24 ft) ( ); reddish brown (w 5YR 4/2) (d 5YR 7/2); 5% silt; ps-cs 70% (40% gz, 30% carb, 20% carb, 5% malic, 5% floss); fine to med 25% silt (16% carb, 40% qz); ps; sd-subang to subang; gvl-subang to subang; structureless; n.p.; not sticky; no consol; str HCl rxn.
30 ft				Sand with little gravel		Sand w/ little gravel; (24-30 ft) ( ); reddish brown (w 5YR 4/2) (d 5YR 7/3); 10% clay; 80% ps-cs 85% (40% gz, 20% carb, 5% floss, 5% malic); 12% fgl to 25% ngl (80% carb, 20% qz); ps; sd-subang to subang; gvl-subang to subang; structureless; n.p.; not sticky; no consol; str HCl rxn.
38 ft				Sand with some gravel		Sand w/ some gravel; (30-40 ft) ( ); reddish brown (w 5YR 4/2) (d 5YR 7/3); 5% silt; 80% med-fine to coarse (40% gz, 20% carb, 5% floss, 5% malic); fgl to 15% ngl; ps; sd-subang to subang; gvl-subang to subang; structureless; n.p.; not sticky; no consol; str HCl rxn.
40 ft				Sand with some gravel		Sand w/ some gravel; (40-45 ft) ( ); reddish brown (w 5YR 4/2) (d 5YR 7/3); 5% silt; 80% med-fine to coarse (40% gz, 20% carb, 5% floss, 5% malic); fgl to 15% ngl; ps; sd-subang to subang; gvl-subang to subang; structureless; n.p.; not sticky; no consol; str HCl rxn.

\* increased silt in lower 2 ft from 10% to 25%.

LOC. or COORDS. <u>Wah Wah Valley, Utah</u> <u>T 27S, R 41E, S 8E</u>	DRILLER <u>Indra, T. Miller</u> <u>Gene Robbins</u> <u>Mike Harris</u>	START DATE <u>7/27/80</u>	FINISH DATE <u>8/5/80</u>
GROUND ELEV. <u>5080ft</u>	RIG <u>Fairbanks 2500 Potomac</u>	TIME <u>1800</u>	<u>2100</u>
TOTAL DEPTH <u>1399ft</u>	BIT(S) <u>12.25 inch Micro 1</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>12.3 in 0-40ft</u> <u>11.0 in 40-TD</u>	FLUID <u>Barite Mud</u>	HOW LEFT <u>Open</u>	

LOCATION Wah Wah Valley, Utah  
LOGGED BY G. T. Miller, M. Harris

PROJECT Water Resources  
Indra, T. Miller, M. Harris

DEPTH	PENE. RATE	CIRC. RET. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
40ft	18 min 3200			Sand		Sand; (42ft-50ft); dark reddish grey (WSR 4/2) (d.S.R. 6/1); fcd - msd 100% sd (45% g=, 30% volc, 15% carb, 5% plasp, 5% mafic); m.s.; sd - arg to calc rd; 2% m.s., 11.0 p.; 100% K <sub>2</sub> O; no borax; moderate HCl rxn.
50ft	7 min 8600			Sand		Sand; (50-60ft); same as above - bit chatter indicates boulders encountered 50ft
60ft	9 min 2500			Sand		Sand; (60-70ft); same as above - exception of green sz - fcd to ss sd
70ft	7 min 6400			Sand		Sand; (70-80ft); same as above green sz - fcd to ss sd
80ft	10 min 7800			Sand		Sand; (80-90ft); same as above green sz - fcd to ss sd
90ft	13 min 3300			Sand		Sand; (90-100ft); same as above green sz - fcd to ss sd
100ft	16 min 2000			Sand		Sand; (100-110ft); same as above green sz - fcd to ss sd
110ft	18 min 1800			Sand		Sand; (110-120ft); same as above green sz - fcd to ss sd color: dark grey (WSR 4/2) (d.S.R. 6/1)

LOC. or COORDS. <u>Wah Wah Valley, Utah</u> <u>T27S R14W S00 282nd</u>	DRILLER <u>Wright Drilling</u> <u>Jim Perkins</u> <u>11.20 2000</u>	START DATE <u>7/27/80</u>	FINISH DATE <u>8/5/80</u>
GROUND ELEV. <u>5080 ft</u>	RIG <u>Fauling 9500 Pottery</u>	TIME <u>1800</u>	<u>2400</u>
TOTAL DEPTH <u>1399 ft</u>	BIT(S) <u>12.3 Chalk 7 1/2 in</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>12.3 in 0-40 ft</u> <u>11.0 in 40-TD</u>	FLUID <u>Bentonite Mud</u>	HOW LEFT <u>Cased</u>	

LOCATION Wah Wah Valley, Utah  
LOGGED BY G. T. Fisher, M. H. D. D.

PROJECT Wah Wah Valley  
Drilling Program

DEPTH	PENE RATE	CIRC RET LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
120 ft	8 min 58 sec			Sand		Sand (120-130 ft) ( ); dk reddish brn (w 5 YR, 4/2) (d. 5 YR, 4/2); 5% clay, 30 to 20 sd, 95% (40% qz, 35% volc, 15% carb, 5% mica, m.s.); sd-subang to subang; structureless; 1/4 pi; not sticky; No consol; moderate H <sub>2</sub> O.
130 ft	6 min 43 sec			Sand		(chips of volcanic xls and carbonate xls noted from calc logs)
140 ft						Sand (130-140 ft), same as above
150 ft	12 min 8 sec			Sand		Sand (140-150 ft), same as above - minor amounts of clay balls noted @ 150 ft.
160 ft	12 min 18 sec			Sand		Sand (150-160 ft), same as above - exception - grain size: 20 to 100
170 ft	12 min 35 sec			Sand		Sand (160-170 ft), same as above - exception - grain size: 20 to 100
180 ft	8 min 35 sec			Sand		Sand (170-180 ft) ( ); dk reddish brown (5 YR 4/2) (d. 5 YR 4/2); 30 to 20 sd, 100% (40% qz, 35% volc, 15% carb, 5% mica, m.s.); sd-subang; subang; structureless; 1/4 pi; not sticky; mod H <sub>2</sub> O.
184 ft	9 min 51 sec			Sand w/ some gravel		Sand w/ some gravel; (180-190 ft) ( ); dk reddish brown (5 YR 4/2) (d. 5 YR 4/2); 30 to 20 sd, 10% (40% qz, 35% volc, 15% carb, 5% mica, m.s.); sd-subang; subang; structureless; 1/4 pi; not sticky; mod H <sub>2</sub> O.
190 ft	14 min 50 sec			Sand w/ some gravel		Sand w/ some gravel; (180-190 ft) ( ); dk reddish brown (5 YR 4/2) (d. 5 YR 4/2); 30 to 20 sd, 10% (40% qz, 35% volc, 15% carb, 5% mica, m.s.); sd-subang; subang; structureless; 1/4 pi; not sticky; mod H <sub>2</sub> O.

LOCATION Wab. Was. Valley, 10300  
 LOGGED BY G. Dabbs

PROJECT Wab. Was. Valley

LOC. or COORDS. <u>Wab. Was. Valley, 10300</u> <u>T 219 S 40 R 15 E</u>	DRILLER <u>Jim Robinson</u> <u>Mike Harris</u>	START DATE <u>7/27/80</u>	FINISH DATE <u>7/5/80</u>
GROUND ELEV. <u>5080 ft</u>	RIG <u>Fairing 2500 Rotary</u>	TIME <u>1700</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
TOTAL DEPTH <u>1399 ft</u>	BIT(S) <u>12.3 inch Trioppe</u>	HOW LEFT <u>Cased</u> <u>Site unexcavated</u>	
BOREHOLE DIAM. <u>12.3 in; 0-40ft</u> <u>11.0 in; 40-TD</u>	FLUID <u>Reservoir mud</u>		

DEPTH	PENE. RATE	CIRC. RET. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
206ft	30 min 87 sec			Sand		Sand; (200-206ft) ( ) dk reddish gray (w/5% 4/2) (d 5/12); Fed. to as sd. 95% (45% vol, 35% qz, 10% mica, 10% carb.); gravel 5% (80% vol, 20% qz); m.s.; sd-subang to subrnd; gravel-subang to subrnd; structureless; n.p.; not sticky; no coal; mild HCl rxn. - bit chatter indicates boulders @ 208ft
208ft - 210ft	26 min 72 sec			Sand		Sand; (210-220ft) same as above
219ft - 220ft	30 min 92 sec			Sand w/ gravel		Sand w/ gravel; (220-222ft) ( ) dk brown (w/ 7.5% 4/2) (d 7.5/4); Fed. to as sd. 75% (45% vol, 30% qz, 15% mica, 10% carb) gravel to 1.3 in gravel 25% (70% vol, 20% qz, 10% mica); s.d. 2d-subang to subrnd; gravel-subang to subrnd; structureless; n.p.; not sticky; no coal; mild HCl rxn. - bit chatter indicates boulders encountered @ 221ft
220ft	36 min 47 sec			Sand w/ gravel		Sand w/ gravel; (220-222ft) same as above
227ft - 241ft	22 min 27 sec			Sand w/ gravel		Sand w/ gravel; (240-250ft) ( ) - bit chatter indicates boulders encountered @ 240ft - 241ft
252ft	39 min 29 sec			Sand w/ gravel		Sand w/ gravel (250-260ft) - same as above
263ft	47 min 13 sec			Sand w/ some gravel		Sand w/ some gravel (260-270ft) ( ) dk reddish brown (w/ 5% 4/2) (d 5/12); Fed. to as sd. 85% (45% vol, 35% qz, 10% mica, 10% carb); gravel to 1.2 in gravel 15% (70% vol, 20% qz, 10% mica); sd-subang to subrnd; gravel-subang to subrnd; structureless; n.p.; not sticky; no coal; mild HCl rxn. - bit chatter indicates boulders encountered
282ft				Sand w/ some gravel		Sand w/ some gravel (280-290ft) - same as above

LOC. or COORDS. <u>Wabash Valley Sta</u> <u>1200 2nd St 3800'</u>	DRILLER <u>Wright Drilling</u> <u>Jim Robbins</u> <u>Mike Harris</u>	START DATE <u>7/27/80</u>	FINISH DATE <u>8/5/80</u>
GROUND ELEV. <u>5090 ft</u>	RIG <u>Fairbanks 4000 Rotary</u>	TIME <u>1900</u>	<u>2400</u>
TOTAL DEPTH <u>1399 ft</u>	BIT(S) <u>12.25" bit</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>11.0 in 40-TD</u>	FLUID <u>Barite mud</u>	HOW LEFT <u>Cased</u> <u>Site unsaturated</u>	

LOCATION 1100 Wabash Valley Sta  
LOGGED BY [Signature]

PROJECT Wabash Valley Sta

DEPTH	PENE RATE	CIRC ACT LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
280 ft 281 ft			38 min	Sand w/ gravel		Sand w/ gravel; (280-281 ft) dk nodular brown (w 5% R 3/4) (w 5% R 3/8); Fed to cs sd 85% (40% vol, 20% carb, 10% mica, 15% malic); Part to 1.2 cm gravel (60% vol, 30% carb, 10% mica); p. s.; sd to subrv; grt-avg to subrv; structureless; mod HCl rxn.
290 ft			18 min	Sand w/ gravel		Sand w/ gravel; (290-291 ft) dk nodular brown (w 5% R 3/4) (w 5% R 3/8); Fed to cs sd 85% (40% vol, 20% carb, 10% mica, 15% malic); Part to 1.2 cm gravel (60% vol, 30% carb, 10% mica); p. s.; sd to subrv; grt-avg to subrv; structureless; mod HCl rxn.
300 ft			13 min	Sand w/ gravel		Sand w/ gravel; (300-301 ft) dk nodular brown (w 5% R 3/4) (w 5% R 3/8); Fed to cs sd 85% (40% vol, 20% carb, 10% mica, 15% malic); Part to 1.2 cm gravel (60% vol, 30% carb, 10% mica); p. s.; sd to subrv; grt-avg to subrv; structureless; mod HCl rxn.
310 ft			37 min	Sand w/ gravel		Sand w/ gravel; (310-311 ft) dk nodular brown (w 5% R 3/4) (w 5% R 3/8); Fed to cs sd 85% (40% vol, 20% carb, 10% mica, 15% malic); Part to 1.2 cm gravel (60% vol, 30% carb, 10% mica); p. s.; sd to subrv; grt-avg to subrv; structureless; mod HCl rxn.
320 ft			14 min	Sand w/ little gravel		Sand w/ little gravel; (320-321 ft) dk nodular brown (w 5% R 3/4) (w 5% R 3/8); Fed to cs sd 85% (40% vol, 20% carb, 10% mica, 15% malic); Part to 1.2 cm gravel (60% vol, 30% carb, 10% mica); p. s.; sd to subrv; grt-avg to subrv; structureless; mod HCl rxn.
330 ft			13 min	Sand w/ little gravel		Sand w/ little gravel; (330-331 ft) dk nodular brown (w 5% R 3/4) (w 5% R 3/8); Fed to cs sd 85% (40% vol, 20% carb, 10% mica, 15% malic); Part to 1.2 cm gravel (60% vol, 30% carb, 10% mica); p. s.; sd to subrv; grt-avg to subrv; structureless; mod HCl rxn.
340 ft			37 min	Sand w/ little gravel		Sand w/ little gravel; (340-341 ft) dk nodular brown (w 5% R 3/4) (w 5% R 3/8); Fed to cs sd 85% (40% vol, 20% carb, 10% mica, 15% malic); Part to 1.2 cm gravel (60% vol, 30% carb, 10% mica); p. s.; sd to subrv; grt-avg to subrv; structureless; mod HCl rxn.
350 ft			37 min	Sand w/ little gravel		Sand w/ little gravel; (350-351 ft) dk nodular brown (w 5% R 3/4) (w 5% R 3/8); Fed to cs sd 85% (40% vol, 20% carb, 10% mica, 15% malic); Part to 1.2 cm gravel (60% vol, 30% carb, 10% mica); p. s.; sd to subrv; grt-avg to subrv; structureless; mod HCl rxn.

LOC. or COORDS. <u>Walden Well</u>	DRILLER <u>Wright Drilling</u>	START DATE <u>7/27/80</u>	FINISH DATE <u>8/5/80</u>
GROUND ELEV. <u>5080</u>	<u>Mike Harris</u>	TIME <u>1800</u>	<u>2400</u>
TOTAL DEPTH <u>1399 ft</u>	RIG <u>Franklin 2000 motor</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>12.25 in 0.40 ft</u>	BIT(S) <u>12.25 in 2000</u>	HOW LEFT <u>12.25 in</u>	
<u>11.0 in 40-TD</u>	FLUID <u>Water</u>	<u>into unit (barrel)</u>	

DEPTH	PENE RATE	CIRC RET LOSS	AIRLIFT O (ppm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
360 ft	117 min 59 sec			Sand w/ little gravel		Sand w/ little gravel (350-370 ft) dusky red (w 3.5% MnO <sub>2</sub> ) (2.5% Fe <sub>2</sub> O <sub>3</sub> ); 5% clay; 40% ss (93% (45% rsl, 47% qz, 10% calc, 10% mica) each 2% (70% rsl, 20% qz, 10% calc, 10% mica) each 2% - 40% to 50% of structure; n.p.; nat. silty; well-sal. Str. HLL n.p. bit chatter indicates boulders @ 360 ft. (boulders 2-3" diameter approximate in nature)
370 ft	41 min 53 sec			Sand w/ little gravel		Sand w/ little gravel; (370-380 ft) - same as above
380 ft	52 min 28 sec			Sand w/ little gravel		Sand w/ little gravel (380-390 ft) - same as above
390 ft	53 min 47 sec			Sand w/ little gravel		Sand w/ little gravel (390-400 ft) - same as above except 15% clay fraction increased to 10%, and 5% - excessive chatter of bit indicates boulders encountered @ 391 ft and 392 ft
400 ft	1 hour 30 sec			Sand w/ little gravel		Sand w/ little gravel (400-410 ft) - same as above except 15% clay fraction increased to 10%, and 5% - excessive chatter of bit indicates boulders encountered @ 391 ft and 392 ft
410 ft	1 hour 17 sec			Sand with some gravel		Sand w/ little gravel (410-420 ft) - same as above except 15% clay fraction increased to 10%, and 5% - excessive chatter of bit indicates boulders encountered @ 391 ft and 392 ft
420 ft	1 hour 10 sec			Sand with some gravel		Sand w/ little gravel (420-430 ft) - same as above except 15% clay fraction increased to 10%, and 5% - excessive chatter of bit indicates boulders encountered @ 391 ft and 392 ft
430 ft	1 hour 3 sec			Sand with some gravel		Sand w/ little gravel (430-440 ft) - same as above except 15% clay fraction increased to 10%, and 5% - excessive chatter of bit indicates boulders encountered @ 391 ft and 392 ft

LOCATION LOGGED BY

PROJECT

LOC. or COORDS. <u>W. of Valley, 1/2 mi. S. of 110, 30 1823</u>	DRILLER <u>W. J. ...</u>	START DATE <u>1/23/50</u>	FINISH DATE <u>3/5/50</u>
GROUND ELEV. <u>5080 ft</u>	TIME <u>11:00 AM</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
TOTAL DEPTH <u>1392 ft</u>	RIG <u>Fairlie 2500 Rotary</u>	HOW LEFT <u>Completed</u>	
BOREHOLE DIAM. <u>12.2 in 0-40 ft</u> <u>11.0 in 40-TD</u>	BIT(S) <u>12 3/4 in - 11000 ft</u>	FLUID <u>Barite mud</u>	

LOCATION W. of Valley, 1/2 mi. S. of 110, 30 1823  
 LOGGED BY W. J. ...

DEPTH	PENE. RATE	CIRC. REC. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM. BOL	DESCRIPTION and COMMENTS
4460 ft	89 min 51 sec			Sand w/ some gravel		Sand with some gravel (440-460 ft); 2% red to green (w. 5YR 4/2 (d) 5YR 8/1); 10% clay, red to as red (45% qz, 40% calc, 10% carb, 10% silty); 5% (70% calc, 30% qz, 10% carb); m.s.; 2d-orig to suborig; ori-ang to suborig; structure; N p.; v. stky; no consol; weak H <sub>2</sub> O.
4500 ft	73 min 31 sec			Sand		Sand; (450-460 ft); 10% clay (w. 5YR 5/2 (d)); 15% clay, red to as red (50% 40% qz, 50% qz, 5% carb, 5% m.s.); 3d-orig to suborig; structure; N p.; v. stky; no consol; weak H <sub>2</sub> O.
4550 ft	49 min 44 sec			Sand		Sand; (460-470 ft); same as above
4700 ft	60 min 47 sec			Sand		Sand; (470-480 ft); same as above except for clay fraction reduced to 10% 3d to suborig; structure increased to 20%
4800 ft	42 min 22 sec			Sand		Sand; (480-490 ft); same as above except for clay fraction reduced to 10% 3d to suborig; structure increased to 20%
4850 ft	41 min 46 sec			Sand		Sand; (490-500 ft); same as above except for clay fraction reduced to 15% 3d to suborig; structure increased to 25%
4900 ft	38 min 55 sec			Sand		Sand; (500-510 ft); same as above except for clay fraction reduced to 10% 3d to suborig; structure increased to 20%
4950 ft	37 min 55 sec			Sand		Sand; (510-520 ft); same as above except for clay fraction reduced to 10% 3d to suborig; structure increased to 20%

PROJECT W. of Valley, 1/2 mi. S. of 110, 30 1823  
 LOGGED BY W. J. ...



LOC. or COORDS. 57 S 24 W 20 S 20

GROUND ELEV. 1080

TOTAL DEPTH 1000

BOREHOLE DIAM. 2 1/2

DRILLER W. H. ...

RIG Fairfax 7000 - Rotary

BIT(S) 1 1/2" - 1 1/2" - 1 1/2"

FLUID Br. Shale (Mud)

START DATE 7/27/80 FINISH DATE 7/27/80

TIME 1800 2400

GEOPHYS. LOG  YES  NO

HOW LEFT (Closed)

LOCATION W. H. ...  
 LOGGED BY ...  
 PROJECT ...

DEPTH	PENE. RATE	CIRC. RET. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
520ft 521ft	57min 1100			Sand		Sand; (520-530ft) ( ), dark brown (67.5% clay), 10% clay, red to med. 20% (30% vol) 30% of 60% vol. No uncoll. med. H&K. No uncoll. med. H&K. No uncoll. med. H&K.
530ft 531ft	45min 5450			Sand		Sand; (530-540ft) ( ), pink. wh. (55% clay), 10% clay, red to med. 20% (30% vol) 30% of 60% vol. No uncoll. med. H&K. No uncoll. med. H&K.
540ft 541ft	45min 9000			Sand		Sand; (540-550ft) ( ), some shale. 10% clay, red to med. 20% (30% vol) 30% of 60% vol. No uncoll. med. H&K. No uncoll. med. H&K.
550ft 551ft	71min 3650			Sand		Sand; (550-560ft) ( ), some shale. 10% clay, red to med. 20% (30% vol) 30% of 60% vol. No uncoll. med. H&K. No uncoll. med. H&K.
560ft 561ft	82min 3500			Sand		Sand; (560-570ft) ( ), some shale. 10% clay, red to med. 20% (30% vol) 30% of 60% vol. No uncoll. med. H&K. No uncoll. med. H&K.
570ft 571ft	81min 4000			Sand		Sand; (570-580ft) ( ), some shale. 10% clay, red to med. 20% (30% vol) 30% of 60% vol. No uncoll. med. H&K. No uncoll. med. H&K.
580ft 581ft	71min 4700			Sand		Sand; (580-590ft) ( ), some shale. 10% clay, red to med. 20% (30% vol) 30% of 60% vol. No uncoll. med. H&K. No uncoll. med. H&K.
590ft 591ft	61min 5000			Sand		Sand; (590-600ft) ( ), some shale. 10% clay, red to med. 20% (30% vol) 30% of 60% vol. No uncoll. med. H&K. No uncoll. med. H&K.
600ft 601ft	51min 5000			Sand		Sand; (600-610ft) ( ), some shale. 10% clay, red to med. 20% (30% vol) 30% of 60% vol. No uncoll. med. H&K. No uncoll. med. H&K.
610ft 611ft	41min 5000			Sand		Sand; (610-620ft) ( ), some shale. 10% clay, red to med. 20% (30% vol) 30% of 60% vol. No uncoll. med. H&K. No uncoll. med. H&K.
620ft 621ft	31min 5000			Sand		Sand; (620-630ft) ( ), some shale. 10% clay, red to med. 20% (30% vol) 30% of 60% vol. No uncoll. med. H&K. No uncoll. med. H&K.
630ft 631ft	21min 5000			Sand		Sand; (630-640ft) ( ), some shale. 10% clay, red to med. 20% (30% vol) 30% of 60% vol. No uncoll. med. H&K. No uncoll. med. H&K.
640ft 641ft	11min 5000			Sand		Sand; (640-650ft) ( ), some shale. 10% clay, red to med. 20% (30% vol) 30% of 60% vol. No uncoll. med. H&K. No uncoll. med. H&K.
650ft 651ft	1min 5000			Sand		Sand; (650-660ft) ( ), some shale. 10% clay, red to med. 20% (30% vol) 30% of 60% vol. No uncoll. med. H&K. No uncoll. med. H&K.

LOC. or COORDS. <u>17810' Yellow Pine</u> <u>1975, R411, 2nd 8800'</u>	DRILLER <u>Wright Drilling</u> <u>John Robinson</u>	START DATE <u>4/4/50</u>	FINISH DATE <u>4/5/50</u>
GROUND ELEV. <u>5080 FT</u>	RIG <u>Electric Drive Kato</u>	TIME <u>1900</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
TOTAL DEPTH <u>1399 FT</u>	BIT(S) <u>2 1/2" bit</u>	HOW LEFT <u>1000'</u>	
BOREHOLE DIAM. <u>1.75" (NPT)</u>	FLUID <u>Water</u>		

LOCATION Yellow Pine Valley 17810'  
 LOGGED BY C. P. ...  
 PROJECT ...

DEPTH	PENE. RATE	CIRC. REC. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
600ft	40 5700			Clay sand		Clay Sand, (600-610ft) ( ) dk reddish brn (w 5% R 9%) (2.5% F 7%), 20% clay, fed to as sd 20% (50% fine, 20% 20-30% fine, 10% coarse, 10% 10-20% coarse) structureless, N.P.; not silty; no consol. at this
610ft	31 5700			Clay sand		Clay Sand, (610-620ft), same as above
620ft	31 5700			Sand		Sand, (620-630ft) ( ); dk reddish brn (3% R 3) (5% R 7%), 20% clay, fed to as sd 20% (50% fine, 20% 20-30% fine, 10% coarse, 10% 10-20% coarse) structureless, N.P.; not silty; no consol.; bit chatter indicates boulders encountered @ 630ft
630ft	31 5700			Sand		Sand, (630-640ft), same as above. - claylike at base @ 640ft
640ft	31 5700			Sand		Sand, (640-650ft), same as above
650ft	31 5700			Sand		Sand, (650-660ft); same as above
660ft	31 5700			Sand		Sand, (660-670ft); same as above
670ft	31 5700			Sand		Sand, (670-680ft); same as above
680ft	31 5700			Sand		Sand, (680-690ft); same as above
690ft	31 5700			Sand		Sand, (690-700ft); same as above
700ft	31 5700			Sand		Sand, (700-710ft); same as above
710ft	31 5700			Sand		Sand, (710-720ft); same as above
720ft	31 5700			Sand		Sand, (720-730ft); same as above
730ft	31 5700			Sand		Sand, (730-740ft); same as above
740ft	31 5700			Sand		Sand, (740-750ft); same as above
750ft	31 5700			Sand		Sand, (750-760ft); same as above
760ft	31 5700			Sand		Sand, (760-770ft); same as above
770ft	31 5700			Sand		Sand, (770-780ft); same as above
780ft	31 5700			Sand		Sand, (780-790ft); same as above
790ft	31 5700			Sand		Sand, (790-800ft); same as above
800ft	31 5700			Sand		Sand, (800-810ft); same as above
810ft	31 5700			Sand		Sand, (810-820ft); same as above
820ft	31 5700			Sand		Sand, (820-830ft); same as above
830ft	31 5700			Sand		Sand, (830-840ft); same as above
840ft	31 5700			Sand		Sand, (840-850ft); same as above
850ft	31 5700			Sand		Sand, (850-860ft); same as above
860ft	31 5700			Sand		Sand, (860-870ft); same as above
870ft	31 5700			Sand		Sand, (870-880ft); same as above
880ft	31 5700			Sand		Sand, (880-890ft); same as above
890ft	31 5700			Sand		Sand, (890-900ft); same as above
900ft	31 5700			Sand		Sand, (900-910ft); same as above
910ft	31 5700			Sand		Sand, (910-920ft); same as above
920ft	31 5700			Sand		Sand, (920-930ft); same as above
930ft	31 5700			Sand		Sand, (930-940ft); same as above
940ft	31 5700			Sand		Sand, (940-950ft); same as above
950ft	31 5700			Sand		Sand, (950-960ft); same as above
960ft	31 5700			Sand		Sand, (960-970ft); same as above
970ft	31 5700			Sand		Sand, (970-980ft); same as above
980ft	31 5700			Sand		Sand, (980-990ft); same as above
990ft	31 5700			Sand		Sand, (990-1000ft); same as above

17-10-2-10-18

LOC. or COORDS. <u>Wab. 1st. 1st. 1st.</u> <u>725 (214) 2nd. 1st.</u>	DRILLER <u>D. J. Harris</u>	START DATE <u>10/25/52</u>	FINISH DATE <u>11/5/52</u>
GROUND ELEV. <u>5080+</u>	<u>Duke Harris</u>	TIME <u>1100</u>	<u>1400</u>
TOTAL DEPTH <u>12.99 ft</u>	RIG <u>Franklin 2500 Rotary</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>12.3 in c-40ft</u> <u>11.0 in 40-TD</u>	BIT(S) <u>1 1/2 in c-40ft</u>	HOW LEFT <u>As set</u>	
	FLUID <u>Water</u>	<u>Water</u>	

LOCATION Wab. 1st. 1st. 1st.  
LOGGED BY D. J. Harris

PROJECT Water Resources  
Wab. 1st. 1st. 1st.

DEPTH	PENE RATE	CIRC RET	AIRLIFT LOSS	Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
680ft	12 min 5700				Sand		Sand; (680-690ft) ( ) at 100 ft below (25% clay, 20% silt, 20% fine sand, 30% 15% carb, 50% mica) in 2; sd-2.2 to 2.5 in; 2 Structure, sp. of str. in 1000 ft
690ft	25 min 9200				Sand		Sand; (690-700ft); same as above
700ft	22 min 6200				Sand		Sand; (700-710ft); same as above
710ft	24 min 4600				Sand		Sand; (710-720ft) same as above
720ft	21 min 1800				Sand		Sand; (720-730ft) same as above 1/2 clay - clay part increased to 10% sd in fraction decreased to 90%
730ft	28 min 3500				Sand		Sand; (730-740ft) same as above 1/2 clay - clay part increased to 10% sd in fraction decreased to 90%
740ft	49 min 4300				Sand		Sand; (740-750ft) same as above 1/2 clay - clay part increased to 10% sd in fraction decreased to 90%
750ft	51 min 3800				Sand		Sand; (750-760ft) ( ) at 100 ft below (25% clay, 20% silt, 20% fine sand, 30% 15% carb, 50% mica) in 2; sd-2.2 to 2.5 in; 2 Structure, sp. of str. in 1000 ft

LOC. or COORDS. <u>Whitish Valley, Wash T-9+8 Road</u>	DRILLER <u>Drift</u>	START DATE <u>4/27/80</u>	FINISH DATE <u>8/5/80</u>
GROUND ELEV. <u>5080 ft</u>	<u>W. De Borne</u>	TIME <u>1800</u>	<u>2400</u>
TOTAL DEPTH <u>1399 ft</u>	RIG <u>Fr. 2500 Rotary</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>12.31 in</u>	BIT(S) <u>12.2 inch</u>	HOW LEFT <u>Open</u>	
<u>40-TD</u>	FLUID <u>Refractive Mud</u>	<u>100% water</u>	

LOCATION Whitish Valley, Wash  
LOGGED BY Drift

PROJECT Whitish Valley  
100% water

DEP	TH	PENE RATE	CIRC RET	AIRLIFT LOSS	Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
760	ft	23 min 24 sec				Sand w/ little gravel		Sand w/ little gravel (760-770 ft) (w/ 5YR 4/2) 5YR 4/2 clay, 15% silt, 15% coarse, 10% fine, 10% med. HCL mod.
770	ft	16 min 38 sec				Sand		Sand (770-780 ft) (w/ 5YR 3/4) (w/ 5YR 3/4) 15% clay, 10% silt, 10% coarse, 10% fine, 10% med. HCL mod.
780	ft	44 min 38 sec				Sand		Sand (780-790 ft); sand as above
790	ft	23 min 37 sec				Sand		Sand (790-800 ft) same as above except for mod. HCL silt
800	ft	44 min 18 sec				Very sand		Very sand (800-810 ft) (w/ 5YR 3/4) (w/ 5YR 3/4) 40% clay, 10% silt, 10% coarse, 10% fine, 10% med. HCL mod.
810	ft	37 min 00 sec				Very sand		Very sand (810-820 ft) same as above
820	ft	44 min 18 sec				Very sand		Very sand (820-830 ft) same as above
830	ft	44 min 18 sec				Very sand		Very sand (830-840 ft) same as above
840	ft	44 min 18 sec				Very sand		Very sand (840-850 ft) same as above
850	ft	44 min 18 sec				Very sand		Very sand (850-860 ft) same as above
860	ft	44 min 18 sec				Very sand		Very sand (860-870 ft) same as above
870	ft	44 min 18 sec				Very sand		Very sand (870-880 ft) same as above
880	ft	44 min 18 sec				Very sand		Very sand (880-890 ft) same as above
890	ft	44 min 18 sec				Very sand		Very sand (890-900 ft) same as above
900	ft	44 min 18 sec				Very sand		Very sand (900-910 ft) same as above
910	ft	44 min 18 sec				Very sand		Very sand (910-920 ft) same as above
920	ft	44 min 18 sec				Very sand		Very sand (920-930 ft) same as above
930	ft	44 min 18 sec				Very sand		Very sand (930-940 ft) same as above
940	ft	44 min 18 sec				Very sand		Very sand (940-950 ft) same as above

LOC. or COORDS. <u>Wabash Valley, etc</u>	DRILLER <u>Wabash Valley</u>	START	FINISH
T 279, R14W, S30E	<u>One Robinson</u>	DATE <u>7/27/88</u>	<u>8/5/88</u>
GROUND ELEV. <u>5070 ft</u>	<u>Robinson</u>	TIME <u>1:00</u>	<u>2:00</u>
TOTAL DEPTH <u>1399 ft</u>	RIG <u>Ensign 1000</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>12.3 in</u> <u>0-40 ft</u>	BIT(S) <u>2 1/2 in</u>	HOW LEFT <u>100%</u>	
<u>11.0 in</u> <u>40-TD</u>	FLUID <u>Water</u>	<u>11.0 in</u>	

LOCATION Wabash Valley, etc  
 LOGGED BY [Signature]

DEPTH	PENE RATE	CIRC RET	AIRLIFT LOSS	Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
840 ft	80 min 850 ft				Clay sand		Clay sand; (840-850 ft) (redish brn (w/5% R5) (d 7.5 VR 7/4), 20% clay, 80% sand (40% 20-40 mesh, 50% 40-60 mesh, 20% 60-100 mesh) - some to coarse for fine; sl. sticky; no coal; no HCS. etc.
850 ft					Clay sand		Clay sand; (850-860 ft), same as above
854 ft	13 min 860 ft				Clay sand		-bit chatter indicates boulders encountered @ 854 ft
860 ft					Clay sand		Clay sand; (860-870 ft) (redish brn (w/5% R5) (d 5 VR 7/2), 40% clay, 60% sand (40% 20-40 mesh, 20% 40-60 mesh, 10% 60-100 mesh) - subeng to subeng; sl. sticky; no coal; no HCS. etc.
870 ft					Clay sand		Clay sand; (870-880 ft), same as above
876 ft	35 min 880 ft				Clay sand		-bit chatter indicates boulders encountered @ 876 ft
880 ft					Clay sand		Clay sand; (880-890 ft) same as above
890 ft	30 min 890 ft				Clay sand		Clay sand; (890-900 ft) (redish brn (w/5% R5) (d 5 VR 7/2), 40% clay, 60% sand (40% 20-40 mesh, 20% 40-60 mesh, 10% 60-100 mesh) - subeng to subeng; sl. sticky; no coal; no HCS. etc.
900 ft					Clay sand		Clay sand; (900-910 ft) same as above
910 ft	30 min 890 ft				Clay sand		Clay sand; (910-920 ft) same as above
920 ft					Clay sand		Clay sand; (920-930 ft) same as above
930 ft					Clay sand		Clay sand; (930-940 ft) same as above
940 ft					Clay sand		Clay sand; (940-950 ft) same as above

PROJECT Wabash Valley Resource

LOC. or COORDS. <u>W. 1/4 Sec 26, T. 27S, R. 14W</u>	DRILLER <u>Wright Drilling</u>	START DATE <u>7/27/80</u>	FINISH DATE <u>8/5/80</u>
GROUND ELEV. <u>5080 ft</u>	<u>Gene Robinson</u>	TIME <u>1800</u>	<u>2400</u>
TOTAL DEPTH <u>1399 ft</u>	RIG <u>Fowler 2500 Rotary</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE, DIAM. <u>12.31" 40-40" 11.0" 40-TD</u>	BIT(S) <u>19.25" Turbine</u>	HOW LEFT <u>Passed</u>	
	FLUID <u>Brine - 2000</u>		

LOCATION W. 1/4 Sec 26, T. 27S, R. 14W  
 LOGGED BY [Signature]

PROJECT [Blank]

DEPTH	PENE RATE	CIRC RET LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
930 ft	48 min 14 sec			Clay sand		Clay sand; (920-930 ft); reddish gray (w/5YR 5/6) (2.5YR 7/2); 20% clay; Fed to med 80% (40% s, 40% m, 15% f, 5% c); n.s.; 2-arg. to subrd; structure; p.; not sticky; no consol; no twk fl.
930 ft	42 min 7 sec			Clay sand		Clay sand; (920-940 ft); reddish gray
940 ft	50 min 31 sec			Clay sand		Clay sand; (940-950 ft); reddish gray (w/5YR 5/6) (2.5YR 7/2); 20% clay; Fed to med 75% (40% s, 40% m, 15% f, 5% c); n.s.; 2-arg. to subrd; structure; p.; sticky; no consol; no twk fl.
950 ft	49 min 50 sec			Clay sand		Clay sand; (950-960 ft); same as above
960 ft	52 min 28 sec			Clay sand		Clay sand; (960-970 ft); same as above
970 ft	51 min 10 sec			Clay sand		Clay sand; (970-980 ft); same as above
980 ft	51 min 10 sec			Clay sand		Clay sand; (980-990 ft); same as above
990 ft	51 min 10 sec			Clay sand		Clay sand; (990-1000 ft); same as above
1000 ft	51 min 10 sec			Clay sand		Clay sand; (1000-1010 ft); same as above
1010 ft	51 min 10 sec			Clay sand		Clay sand; (1010-1020 ft); same as above
1020 ft	51 min 10 sec			Clay sand		Clay sand; (1020-1030 ft); same as above
1030 ft	51 min 10 sec			Clay sand		Clay sand; (1030-1040 ft); same as above
1040 ft	51 min 10 sec			Clay sand		Clay sand; (1040-1050 ft); same as above
1050 ft	51 min 10 sec			Clay sand		Clay sand; (1050-1060 ft); same as above
1060 ft	51 min 10 sec			Clay sand		Clay sand; (1060-1070 ft); same as above
1070 ft	51 min 10 sec			Clay sand		Clay sand; (1070-1080 ft); same as above
1080 ft	51 min 10 sec			Clay sand		Clay sand; (1080-1090 ft); same as above
1090 ft	51 min 10 sec			Clay sand		Clay sand; (1090-1100 ft); same as above
1100 ft	51 min 10 sec			Clay sand		Clay sand; (1100-1110 ft); same as above
1110 ft	51 min 10 sec			Clay sand		Clay sand; (1110-1120 ft); same as above
1120 ft	51 min 10 sec			Clay sand		Clay sand; (1120-1130 ft); same as above
1130 ft	51 min 10 sec			Clay sand		Clay sand; (1130-1140 ft); same as above
1140 ft	51 min 10 sec			Clay sand		Clay sand; (1140-1150 ft); same as above
1150 ft	51 min 10 sec			Clay sand		Clay sand; (1150-1160 ft); same as above
1160 ft	51 min 10 sec			Clay sand		Clay sand; (1160-1170 ft); same as above
1170 ft	51 min 10 sec			Clay sand		Clay sand; (1170-1180 ft); same as above
1180 ft	51 min 10 sec			Clay sand		Clay sand; (1180-1190 ft); same as above
1190 ft	51 min 10 sec			Clay sand		Clay sand; (1190-1200 ft); same as above

LOC. or COORDS. <u>W. of D. Valley 10th</u>	DRILLER <u>D. Smith</u>	START DATE <u>12/7/80</u>	FINISH DATE <u>8/5/80</u>
GROUND ELEV. <u>5080 ft</u>	RIG <u>Faluga 5500 Rotary</u>	TIME <u>1800</u>	HOW LEFT <u>YES</u> <input type="checkbox"/> <u>NO</u> <input type="checkbox"/>
TOTAL DEPTH <u>13090</u>	BIT(S) <u>1300</u>	HOW LEFT <u>Good</u>	
BOREHOLE DIAM. <u>13.2" 2-1/2"</u> <u>11.0" 40-TD</u>	FLUID <u>Berkoute Mud</u>	HOW LEFT <u>Unaffected</u>	

LOCATION W. of D. Valley 10th  
 LOGGED BY M. Brown  
 PROJECT 114 D. Valley

DEPTH	PENE RATE	CIRC RET	AIRLIFT LOSS	(ppm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
1000ft	19 min 3 sec				Clay sand		Clay sand; (1000-1010ft) reddish grey (0.5% RZ) (0.5% RZ 7/2); 40% clay, 30 to 40% silt (40% qz, 50% fcl, 15% conc. 10% mica); m.s. 1st Subar to surface; Dr. 1000; particle; slight sticky; m. 1000
1010ft	64 min 43 sec				Clay sand		Clay sand; (1010-1030ft) same as above - sand fraction decreased to 55%
1030ft	38 min 59 sec				Clay sand		Clay sand; (1030-1040ft) same as above - sand fraction increased to 60%
1040ft	19 min 53 sec				Clay sand		Clay sand; (1040-1045ft) same as above - sand fraction increased to 60%
1045ft	107 min 23 sec				Clay sand		bit chattered 1045-1048ft Clay sand; (1045-1050ft) same as above - sand fraction decreased to 50%
1050ft	138 min 50 sec				Clay sand		Clay sand; (1050-1055ft) same as above - sand fraction decreased to 50%
1055ft	55 min 13 sec				Clay sand		Clay sand; (1055-1060ft) same as above - sand fraction decreased to 50%
1060ft					Sandy clay		Sandy clay; (1060-1065ft) same as above - sand fraction decreased to 50%

LOC. or COORDS. <u>Well 1122 Valley Vista</u> <u>T 27S R 14W S 9 22nd</u>	DRILLER <u>Wright Drilling</u> <u>Jim Robbins</u> <u>Mike Harris</u>	START DATE <u>7/27/80</u>	FINISH DATE <u>8/5/80</u>
GROUND ELEV. <u>5080ft</u>	RIG <u>Fauling 9500 Rotary</u>	TIME <u>1800</u>	<u>2400</u>
TOTAL DEPTH <u>1209ft</u>	BIT(S) <u>1 3/8 A. Tricone</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>12.25 0-40ft</u> <u>11.0 40-TD</u>	FLUID <u>Bentonite Mud</u>	HOW LEFT <u>Case</u> <u>11.4 + stored</u>	

LOCATION Well 1122 Valley Vista  
LOGGED BY W. Harris

PROJECT Mr. Walter Be...  
Intersect to Drilled Log...

DEPTH	PENE RATE	CIRC RET LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
1080ft	57min 4300			Sandy clay		Sandy clay; (1080-1090ft) ( ); brn (w7.5YR 5/4) (27.5YR 7/4); 60% clay; fsd-mud 40% (30% qz, 25% volc, 10% carb, 10% matrics, 5% laminae constitut); m.s.; sd- subarc to subarc; structureless; plastic, stky, no consol, wk H2O.
1090ft	87min 1700			clay sand		clay sand; (1090ft-1100ft) ( ); reddish brown (w5YR 5/4) (d.5YR, 8/2); 35% clay, 65% fsd to mud (40% qz, 40% volc, 10% carb, 10% matrics); sd-arc to subarc; structureless; slightly stky; p; no consol; wk H2O.
1100ft	72min 6500			clay sand		clay sand; (1100ft-1110ft) same as above exception - 45% clay fraction - 55% sand fraction
1110ft						
1114ft	66min 1900			Sandy clay		Sandy clay; (1110-1120ft) ( ); brwn (w7.5YR 7/4) (27.5YR 8/2); 60% clay; fsd-mud 40% (50% qz, 30% volc, 10% carb, 10% matrics); m.s.; sd- subarc to subarc; structureless; slightly stky; slightly plastic; no consol; wk H2O; - bit chatter indicates boulders encountered @ 1114ft
1120ft						Sandy clay (1120-1130ft); same as above
1130ft	114min 6200			Sandy clay		- bit chatter indicates boulders encountered @ 1130-1130ft
1130ft	84min 3700			Sand + clay		Sand + clay; (1130-1140) ( ); brn (w7.5YR 5/6) (27.5YR 8/2); 50% clay, 50% fsd-mud (40% volc, 30% qz, 15% carb, 15% matrics); m.s.; sd- subarc to subarc; structureless; non-stky; slightly p; no consol; slight H2O; bit chatter indicates boulders encountered @ 1130ft
1140ft						clay sand; (1140-1150ft); same as above exception - 35% clay fraction - bit chatter indicates boulders encountered @ 1140ft
1150ft	54min 1500			clay sand		
1150ft						clay sand; (1150-1160) ( ); brn (w7.5YR 5/6) (27.5YR 8/2); 40% clay, fsd-mud 40% (35% qz, 30% volc, 15% carb, 10% matrics); p; sd- subarc to subarc; structureless; 4 qz; no consol; wk H2O.



# LOG OF BOREHOLE

BOREHOLE WA-10-2  
PAGE 1 OF 18

LOC. or COORDS. <u>Walden Valley, Utah</u> <u>T-10-1410 300 2-30</u>	DRILLER <u>Wright Drilling</u> <u>Wright Drilling</u> <u>Wright Drilling</u>	START DATE <u>7/27/80</u>	FINISH DATE <u>8/5/80</u>
GROUND ELEV. <u>5080 ft</u>	RIG <u>Franklin 2500 Rotary</u>	TIME <u>1800</u>	<u>2400</u>
TOTAL DEPTH <u>1399 ft</u>	BIT(S) <u>12.39 in. Mickey</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>12.3 in. 7-40 ft</u> <u>11.0 in. 40-77</u>	FLUID <u>P. &amp; bentonite mud</u>	HOW LEFT <u>cased</u> <u>uncased</u>	

DEPTH	PENE. RATE	CIRC. RET. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM. BOL.	DESCRIPTION and COMMENTS
1160 ft	2.2 in 1.5 sec			clay sand w/ some gravel		clay sand w/ some gravel; (1160-1170 ft) (.....); brn (7.5% Fe), (0.75% Mn), 35% clay, 35% sand, 50% (35% quartz, 20% volc, 15% carb, 10% mica); P. & B. 15% (35% quartz, 30% volc, 15% carb, 10% mica); p.s.; 2-30% sand to gravel; gravel - some rounded; structureless; N.P.; non-lithological; 100% H <sub>2</sub> O.
1170 ft	5.5 in 1.5 sec			clay sand w/ some gravel		clay sand w/ some gravel; (1170-1180); same as above exception = 50% clay fraction 55% sd fraction 15% gravel fraction
1180 ft	7.0 in 1.5 sec			clay sand w/ some gravel		clay sand w/ some gravel; (1180-1190); same as above exception = 30% clay fraction 55% sd fraction 15% gravel fraction
1190 ft	12.0 in 1.5 sec			clay sand w/ little gravel		but chatter indicates boundaries determined at 1183 ft clay sand w/ little gravel; (1190-1200); same as above exception = 30% clay fraction 65% sd fraction 5% gravel fraction
1200 ft				clay sand w/ little gravel		but chatter indicates boundaries determined at 1198 ft clay sand w/ little gravel; (1200-1210); same as above exception = 30% clay fraction 65% sd fraction 5% gravel fraction
1210 ft				clay sand w/ little gravel		clay sand w/ little gravel; (1210-1220); same as above exception = 30% clay fraction 70% sd fraction 5% gravel fraction
1220 ft				clay sand		clay sand; (1220-1230); same as above 75% sd, 25% clay; 25% sand, 25% clay, 25% gravel, 25% mica, 15% carb, 10% mica; p.s.; 2-30% sand to gravel; structureless; non-lithological; 100% H <sub>2</sub> O.
1230 ft				clay sand		clay sand; (1230-1240); same as above
1240 ft				clay sand		clay sand; (1240-1250); same as above
1250 ft				clay sand		clay sand; (1250-1260); same as above
1260 ft				clay sand		clay sand; (1260-1270); same as above
1270 ft				clay sand		clay sand; (1270-1280); same as above
1280 ft				clay sand		clay sand; (1280-1290); same as above
1290 ft				clay sand		clay sand; (1290-1300); same as above

LOCATION Walden Valley, Utah  
 LOGGED BY [Signature]  
 PROJECT Walden Valley, Utah

# LOG OF BOREHOLE

BOREHOLE DA 10-2  
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LOC. or COORDS. <u>Wahkiakum Co. Walla Walla</u> <u>T-270 R-110 S-15-25</u>	DRILLER <u>Wright Drilling</u> <u>Gene Robinson</u> <u>Mike Adams</u>	START DATE <u>7/27/80</u>	FINISH DATE <u>7-19-80</u>
GROUND ELEV. <u>2080'</u>	RIG <u>Hydraulic Power Unit</u>	TIME <u>1800</u>	
TOTAL DEPTH <u>1100'</u>	BIT(S) <u>12 1/2" Tri-cone</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>4 1/2" (4.40")</u> <u>4 1/2" (4.25")</u>	FLUID <u>Brackish Water</u>	HOW LEFT <u>boxed</u> <u>not restored</u>	

LOCATION LOGGED BY

PROJECT

DEPTH	PENE RATE	CIRC RET LOSS	AIRLIFT Q (gpm)	MATERIAL	SYMBOL	DESCRIPTION and COMMENTS
1240 ft	44 min 58 sec			Clay sand		Clay sand (1240-1250 ft) (W 75% R 25%) (27.5% R 8/2); 35% clay, fss to essd 65% (35% oqz, 35% vob, 50% carb, 10% maliccs); M.S.; ed-ana to sand; structure; p; not sticky; no mud; WR #1 1/2" dia.
1250 ft	59 min 59 sec			Clay sand		Clay sand; (1250-1260 ft) same as above exception - 30% clay fraction - 70% sand fraction
1260 ft	1 hr 59 sec			Clay sand		Clay sand (1260-1270 ft) same as above - 30% clay fraction - 70% sand fraction bit chatter indicates sandstone encountered 12126
1270 ft	58 min 43 sec			Clay sand		Clay sand; (1270-1280 ft) same as above exception: 20% clay fraction - 70% sand fraction bit chatter indicates sandstone encountered 12157
1280 ft	1 hr 15 sec			Sand		Sand; (1280-1290 ft) (W 60% R 40%) 27.5% R 8/2, 15% clay, fss to med 80% (40% oqz, 40% - 10% carb, 10% maliccs); M.S.; ed-ana to sand; structure; p; not sticky; no mud.
1290 ft	1 hr 52 sec			Clay sand		Clay sand; (1290-1300 ft) (W 60% R 40%) (27.5% R 8/2, 15% clay, fss to med 80% (45% oqz, 50% carb, 10% maliccs); 5% Pavl (50% oqz, 50% carb, ed-ana to sand) M.S.; ed-ana to sand; structure; p; not sticky; no mud.
1300 ft	1 hr 52 sec			Clay sand		Clay sand; (1300-1310 ft) (W 60% R 40%) (27.5% R 8/2, 15% clay, fss to med 80% (40% oqz, 50% carb, 10% maliccs); 5% Pavl (50% oqz, 50% carb, ed-ana to sand) M.S.; ed-ana to sand; structure; p; not sticky; no mud.
1310 ft	1 hr 52 sec			Clay sand		Clay sand; (1310-1320 ft) (W 60% R 40%) (27.5% R 8/2, 15% clay, fss to med 80% (40% oqz, 50% carb, 10% maliccs); 5% Pavl (50% oqz, 50% carb, ed-ana to sand) M.S.; ed-ana to sand; structure; p; not sticky; no mud.
1320 ft	1 hr 52 sec			Clay sand		Clay sand; (1320-1330 ft) (W 60% R 40%) (27.5% R 8/2, 15% clay, fss to med 80% (40% oqz, 50% carb, 10% maliccs); 5% Pavl (50% oqz, 50% carb, ed-ana to sand) M.S.; ed-ana to sand; structure; p; not sticky; no mud.

# LOG OF BOREHOLE

BOREHOLE WA-IT-5  
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LOC. or COORDS. <u>Inland Valley, etc.</u> <u>T 17 S R 11 W S 20 S 2d</u>	DRILLER <u>W. J. ...</u>	START DATE <u>7/27/80</u>	FINISH DATE <u>8/5/80</u>
GROUND ELEV. <u>5080 ft</u>	RIG <u>Fauling 2500 Rotary</u>	TIME <u>1800</u>	<u>2400</u>
TOTAL DEPTH <u>1399 ft</u>	BIT(S) <u>12.250 Tricone</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>12.3 in</u> <u>11.0 in 110-TL</u>	FLUID <u>Ben Deane Blue</u>	HOW LEFT <u>(open)</u> <u>(unwatered)</u>	

DEPTH	PENE RATE	CIRC RET LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
1330 ft	4 1/2 min 37 sec			clay sand		Clay sand; (1320-1330 ft); reddish brown (w/ 5% R 3/4) (d 5% R 1/2); 40% clay, 60% fsd - msd (60% qz, 15% vlc, 15% carb, 10% mafics); ms; sd - subang to 3/64; structureless; plastic; not sticky; no coal; 40 HCL %
1330 ft	3 5/8 min 28 sec			clay sand		Clay sand; (1330-1340 ft); same as above
1340 ft	3 7/8 min 28 sec			clay sand		Clay sand; (1340-1350 ft); same as above exception = clay fraction 35% = sand fraction 65%
1350 ft	3 3/4 min 27 sec			clay sand		Clay sand; (1350-1360 ft); same as above exception = clay fraction 35% = sand fraction 65%
1360 ft	5 1/2 min 32 sec			clay sand		Clay sand; (1360-1370 ft); dk reddish brown (w/ 5% R 3/4) (d 5% R 1/2); 25% clay, 75% fsd to msd (50% qz, 15% vlc, 15% carb, 15% mafics); ms; sd - ang to 3/64; structureless; plastic; not sticky; no coal; wk HCL %
1370 ft	5 0 min 31 sec			clay sand		Clay sand; (1370-1380 ft); same as above
1380 ft	5 4 min 32 sec			clay sand		Clay sand; (1380-1390 ft); same as above exception = 30% clay 70% sand
1390 ft	5 0 min 31 sec			clay sand		Clay sand; (1390-1400 ft); same as above exception = 30% clay 70% sand

LOCATION Inland Valley, etc.  
 LOGGED BY W. J. ...  
 PROJECT WA-IT-5