



# LOG OF BOREHOLE

BOREHOLE PI-10-1

PAGE 1 OF 14

LOC. or COORDS. 265/17W-10a ab  
Pine Valley, Utah  
 GROUND ELEV. 5300 ft  
 TOTAL DEPTH 1157 ft  
 BOREHOLE DIAM. 9 7/8 inch

DRILLER Wright Drilling  
Craig Weaver, Ken Wright  
 RIG IR-TH-60  
 BIT(S) Tricone + Mill tooth  
 FLUID Polymer + Foam 0-595; bentonite 595-70

START FINISH  
 DATE 6/8/80 6/16/80  
 TIME 0815 1445  
 GEOPHYS. LOG  YES  NO  
 HOW LEFT Cased  
unrestored

PROJECT Water Resources My Project  
 Immediate Drilling Program  
 LOCATION Pine Valley, Utah  
 LOGGED BY K. Blose, McGinnel, P. Blaine D. Baylan  
 RECORDED BY D. Williams, R. Whitworth

DEPTH	PENE RATE	CIRC RET LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
0ft				Sandy silt w/ little gravel		Sandy silt w/ little gravel; (0-10ft) (d 7.5 YR 7/4); 60% silt, 35% (40% volc, 40% qz, 20% carb); 5% fcl (40% volc, 40% qz, 20% carb); p.s.; sd-subang to subind, gyl; subang to subind; structureless, n.p.; not sticky; no iron; no Mn; no Cu; no Zn; no Pb; no Ni; no Cr; no Co; no V; no Mo; no Se; no Br; no I; no Sr; no Ba; no La; no Ce; no Pr; no Nd; no Sm; no Eu; no Gd; no Tb; no Dy; no Ho; no Er; no Tm; no Yb; no Lu; no Hf; no Ta; no W; no Re; no Os; no Ir; no Pt; no Au; no Hg; no Tl; no Pb; no Bi; no Po; no At; no Rn; no Fr; no Ra; no Ac; no Th; no Pa; no U; no Np; no Pu; no Am; no Cm; no Bk; no Cf; no Es; no Fm; no Md; no No; unclassified
10ft	4 min			Silty sand		Silty sand; (10-20ft) (d 7.5 YR 7/4); 30% silt, 70% (40% volc, 40% qz, 20% carb); n.p.s.; sd-subang to subind; structureless, n.p.; not sticky; no iron; no Mn; no Cu; no Zn; no Pb; no Ni; no Cr; no Co; no V; no Mo; no Se; no Br; no I; no Sr; no Ba; no La; no Ce; no Pr; no Nd; no Sm; no Eu; no Gd; no Tb; no Dy; no Ho; no Er; no Tm; no Yb; no Lu; no Hf; no Ta; no W; no Re; no Os; no Ir; no Pt; no Au; no Hg; no Tl; no Pb; no Bi; no Po; no At; no Rn; no Fr; no Ra; no Ac; no Th; no Pa; no U; no Np; no Pu; no Am; no Cm; no Bk; no Cf; no Es; no Fm; no Md; no No; unclassified
20ft	14 min			Sand		Sand; (20-30ft) (d 10 YR 6/2); 10% silt, 90% (40% volc, 40% qz, 20% carb); n.p.s.; sd-subang to subind; structureless, n.p.; not sticky; no iron; no Mn; no Cu; no Zn; no Pb; no Ni; no Cr; no Co; no V; no Mo; no Se; no Br; no I; no Sr; no Ba; no La; no Ce; no Pr; no Nd; no Sm; no Eu; no Gd; no Tb; no Dy; no Ho; no Er; no Tm; no Yb; no Lu; no Hf; no Ta; no W; no Re; no Os; no Ir; no Pt; no Au; no Hg; no Tl; no Pb; no Bi; no Po; no At; no Rn; no Fr; no Ra; no Ac; no Th; no Pa; no U; no Np; no Pu; no Am; no Cm; no Bk; no Cf; no Es; no Fm; no Md; no No; unclassified
30ft	14 min			Sandy silt w/ some gravel		Sandy silt w/ some gravel; (30-40ft) (d 7.5 YR 5/8); 20% silt, 80% (40% volc, 40% qz, 20% carb); 15% fcl up to 15 min (40% volc, 40% qz, 20% carb); p.s.; sd-subang to subind, gyl; subang to subind; structureless, n.p.; not sticky; no iron; no Mn; no Cu; no Zn; no Pb; no Ni; no Cr; no Co; no V; no Mo; no Se; no Br; no I; no Sr; no Ba; no La; no Ce; no Pr; no Nd; no Sm; no Eu; no Gd; no Tb; no Dy; no Ho; no Er; no Tm; no Yb; no Lu; no Hf; no Ta; no W; no Re; no Os; no Ir; no Pt; no Au; no Hg; no Tl; no Pb; no Bi; no Po; no At; no Rn; no Fr; no Ra; no Ac; no Th; no Pa; no U; no Np; no Pu; no Am; no Cm; no Bk; no Cf; no Es; no Fm; no Md; no No; unclassified
40ft	14 min			Silty sand		Silty sand w/ some gravel; (40-50ft); 20% silt, 80% (40% volc, 40% qz, 20% carb); n.p.s.; sd-subang to subind; structureless, n.p.; not sticky; no iron; no Mn; no Cu; no Zn; no Pb; no Ni; no Cr; no Co; no V; no Mo; no Se; no Br; no I; no Sr; no Ba; no La; no Ce; no Pr; no Nd; no Sm; no Eu; no Gd; no Tb; no Dy; no Ho; no Er; no Tm; no Yb; no Lu; no Hf; no Ta; no W; no Re; no Os; no Ir; no Pt; no Au; no Hg; no Tl; no Pb; no Bi; no Po; no At; no Rn; no Fr; no Ra; no Ac; no Th; no Pa; no U; no Np; no Pu; no Am; no Cm; no Bk; no Cf; no Es; no Fm; no Md; no No; unclassified
50ft	14 min			Silty sand		Silty sand w/ some gravel; (50-60ft); 20% silt, 80% (40% volc, 40% qz, 20% carb); n.p.s.; sd-subang to subind; structureless, n.p.; not sticky; no iron; no Mn; no Cu; no Zn; no Pb; no Ni; no Cr; no Co; no V; no Mo; no Se; no Br; no I; no Sr; no Ba; no La; no Ce; no Pr; no Nd; no Sm; no Eu; no Gd; no Tb; no Dy; no Ho; no Er; no Tm; no Yb; no Lu; no Hf; no Ta; no W; no Re; no Os; no Ir; no Pt; no Au; no Hg; no Tl; no Pb; no Bi; no Po; no At; no Rn; no Fr; no Ra; no Ac; no Th; no Pa; no U; no Np; no Pu; no Am; no Cm; no Bk; no Cf; no Es; no Fm; no Md; no No; unclassified
60ft	14 min			Silty sand		Silty sand w/ some gravel; (60-70ft); 20% silt, 80% (40% volc, 40% qz, 20% carb); n.p.s.; sd-subang to subind; structureless, n.p.; not sticky; no iron; no Mn; no Cu; no Zn; no Pb; no Ni; no Cr; no Co; no V; no Mo; no Se; no Br; no I; no Sr; no Ba; no La; no Ce; no Pr; no Nd; no Sm; no Eu; no Gd; no Tb; no Dy; no Ho; no Er; no Tm; no Yb; no Lu; no Hf; no Ta; no W; no Re; no Os; no Ir; no Pt; no Au; no Hg; no Tl; no Pb; no Bi; no Po; no At; no Rn; no Fr; no Ra; no Ac; no Th; no Pa; no U; no Np; no Pu; no Am; no Cm; no Bk; no Cf; no Es; no Fm; no Md; no No; unclassified
70ft	14 min			Silty sand		Silty sand w/ some gravel; (70-80ft); 20% silt, 80% (40% volc, 40% qz, 20% carb); n.p.s.; sd-subang to subind; structureless, n.p.; not sticky; no iron; no Mn; no Cu; no Zn; no Pb; no Ni; no Cr; no Co; no V; no Mo; no Se; no Br; no I; no Sr; no Ba; no La; no Ce; no Pr; no Nd; no Sm; no Eu; no Gd; no Tb; no Dy; no Ho; no Er; no Tm; no Yb; no Lu; no Hf; no Ta; no W; no Re; no Os; no Ir; no Pt; no Au; no Hg; no Tl; no Pb; no Bi; no Po; no At; no Rn; no Fr; no Ra; no Ac; no Th; no Pa; no U; no Np; no Pu; no Am; no Cm; no Bk; no Cf; no Es; no Fm; no Md; no No; unclassified
80ft	14 min			Silty sand		Silty sand w/ some gravel; (80-90ft); 20% silt, 80% (40% volc, 40% qz, 20% carb); n.p.s.; sd-subang to subind; structureless, n.p.; not sticky; no iron; no Mn; no Cu; no Zn; no Pb; no Ni; no Cr; no Co; no V; no Mo; no Se; no Br; no I; no Sr; no Ba; no La; no Ce; no Pr; no Nd; no Sm; no Eu; no Gd; no Tb; no Dy; no Ho; no Er; no Tm; no Yb; no Lu; no Hf; no Ta; no W; no Re; no Os; no Ir; no Pt; no Au; no Hg; no Tl; no Pb; no Bi; no Po; no At; no Rn; no Fr; no Ra; no Ac; no Th; no Pa; no U; no Np; no Pu; no Am; no Cm; no Bk; no Cf; no Es; no Fm; no Md; no No; unclassified















# LOG OF BOREHOLE

BOREHOLE PI-10-1  
PAGE 9 OF 14

LOC. or COORDS. <u>265/17W-100ab</u> <u>Pine Valley, Utah</u>	DRILLER <u>Wright Drilling</u> <u>Craig Weaver, Ken Wright</u>	START DATE <u>6/8/80</u>	FINISH DATE <u>6/16/80</u>
GROUND ELEV. <u>5300 ft</u>	RIG <u>IR-TH-60</u>	TIME <u>0815</u>	<u>1445</u>
TOTAL DEPTH <u>1157 ft</u>	BIT(S) <u>Tricone + Mill tooth</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>9 7/8 inch</u>	FLUID <u>Polymer + Foam 0-595, bentonite 595-110</u>	HOW LEFT <u>Cased</u> <u>Unrestored</u>	

DEPTH	PENE. RATE	CIRC. RET. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
640 ft	8 min 7 sec			Sand		Sand (640-650 ft) ( ) reddish brn (w/5YR 6/3, d/5YR 7/3; fsd to m. sd 100% (70% vol, 10% mafics, 10% qz, 10% carb); m.s.; sd-subang to sub sand str. veless; n.p.; Not silty; no con sol; wk HCl rxn.
650 ft	11 min 50 sec			Sand		Sand (650-660 ft) ( ) same as above. exception - 10% clay, 90% sand
660 ft				Sand		sand (660-670 ft) ( ) same as above. exception fsd - csd 100%
670 ft	11 min 55 sec			Sand		sand (660-670') ( ) same as above. exception: fsd - csd - 100%
680 ft	23 min 25 sec			Sand		Sand (670-680') ( ) same as above. exception: clay - 5%, fsd - m. sd - 95%
690 ft	26 min 30 sec			Sand		Sand (680-690') ( ) same as above.
700 ft	14 min 0 sec			Sand		Sand (690-700') ( ) same as above. exception: fsd - m. sd - 100% w.s.
710 ft	24 min 1 sec			Sand		Sand (700-710') ( ) same as above. exception - fsd - 100%
720 ft	34 min 25 sec			Sand		Sand (710-720') ( ) same as above.

LOCATION Pine Valley, Utah  
 PROJECT Water Resources 14 Project  
 LOGGED BY K. Blase, M. Gemmel, P. Blaine, D. Baylan  
 RECORDED BY P. Williams  
Intermediate Drilling Program

# LOG OF BOREHOLE

BOREHOLE PI-10-1  
PAGE 10 OF 14

PROJECT WATER RESOURCES RE PROJECT  
 Intermediate Drilling Program  
 LOCATION Pine Valley, Utah  
 LOGGED BY K. Blase, M. Gemmel, P. Blaine, D. Baylan  
 RELEASED BY D. Williams, R. Williams, R. Williams

LOC. or COORDS. <u>265/17W - 10a ab</u> <u>Pine Valley, Utah</u> GROUND ELEV. <u>5300 ft</u> TOTAL DEPTH <u>1157 ft</u> BOREHOLE DIAM. <u>9 7/8 inch</u>	DRILLER <u>Wright Drilling</u> <u>Craig Weaver, Ken Wright</u> RIG <u>IR-TH-60</u> BIT(S) <u>Tricone + Mill tooth</u> FLUID <u>Polymer + Foam 0-595, 720-1000</u>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">START DATE <u>6/8/80</u></td> <td style="width: 50%;">FINISH DATE <u>6/16/80</u></td> </tr> <tr> <td>TIME <u>0815</u></td> <td><u>1445</u></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 <u>Cased</u></td> </tr> <tr> <td colspan="2">FLUID <u>unrestored</u></td> </tr> </table>	START DATE <u>6/8/80</u>	FINISH DATE <u>6/16/80</u>	TIME <u>0815</u>	<u>1445</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		HOW LEFT <u>Cased</u>		FLUID <u>unrestored</u>	
START DATE <u>6/8/80</u>	FINISH DATE <u>6/16/80</u>											
TIME <u>0815</u>	<u>1445</u>											
GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO												
HOW LEFT <u>Cased</u>												
FLUID <u>unrestored</u>												

DEPTH	PENE RATE	CIRC RET. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
720	105 min 51 sec.			Sand		Sand (720-730) ( ) reddish brn (w SYR 4/4) (d SYR 6/4) fsd-msd 100% (85% qz, 10% volc, 5% mafics) w.s.; sd-subang to subang; structureless; n.p.; not stky, no consol, no Hcl rxn.
730	61 min 05 sec.			Sand		Sand (730-740) ( ) same as above exception: fsd-msd - 95% clay - 5%
740	78 min 26 sec.			Clay Sand		Clay Sand (740-750) ( ) dk reddish gray (w SYR 4/2) (d SYR 5/2) 25% clay, 75% fsd-msd (qtz 80%, volc 15%, carb 5%) p.s., sd-subang-subang; structureless; s.p.; no consol, no Hcl rxn.
750	17 min 29 sec.			Clay Sand		Clay Sand (750-760) ( ) same as above exception 20% - clay 80% - sd.
760	13 min 47 sec.			Clay Sand		Clay Sand (760-770) ( ) same as above exception: 25% clay 75% - sd.
770	17 min 41 sec.			Sand		Sand (770-780) ( ) reddish brn (w SYR 4/3) (d SYR 6/3) clay = 15% fsd-msd = 85% (qtz 80%, volc 10%, carb 10%) m.s., sd-subang; structureless; n.p., not stky, no consol; wk Hcl rxn.
780	17 min 52 sec.			Sand		Sand (780-790) ( ) same as above exception: clay 5% fsd-msd = 95% (75% qtz, 15% volc, 5% mafics, 5% carb).
790	25 min 3 sec.			Sand		sd-p.s.; no Hcl rxn. Sand (790-800) ( ) same as above.
860						

# LOG OF BOREHOLE

BOREHOLE PI-10-1

PAGE 11 OF 14

LOC. or COORDS. <u>265/17W-10a ab</u> <u>Pine Valley, Utah</u>	DRILLER <u>Wright Drilling</u> <u>Craig Weaver, Ken Wright</u>	START DATE <u>6/8/80</u>	FINISH DATE <u>6/10/80</u>
GROUND ELEV. <u>5300 ft</u>	RIG <u>IR-TH-60</u>	TIME <u>0815</u>	<u>1445</u>
TOTAL DEPTH <u>1157 ft</u>	BIT(S) <u>Tricone + Mill tooth</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>9 7/8 inch</u>	FLUID <u>Polymer + Foam 0-525; bentonite 525'-TD</u>	HOW LEFT <u>Cased</u> <u>Unrestored</u>	

DEPTH	PENE RATE	CIRC RET LOGS	AIRLIFT Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
800	150 min 26 sec			Sand		Sand (800-810) ( ) dk brn (w 7.5 YR 3/4) (d 7.5 YR 4/4) clay 5%, fsd - msd 95% (95% qtz, 5% volc, 5% mafics) ms; subnd to subang; n.p., not stky, no consol; no Hcl rxn
810	160 min 48 sec			Sand Silty Sand		Sand (805-815) ( ) same as above  Silty Sand - (815-820) ( ) brown (w 7.5 YR 5/4) (d 7.5 YR 4/4) clay 10%, silt 30%, fsd 60% (85% qtz, 10% mafics, 5% acc. minerals) ws, sd - subnd to subang; structureless, n.p.; not stky, no consol, no Hcl rxn
820	32 min 53 sec			Sandy Clay		Sandy clay - (820-830) ( ) gray (w 5Y 5/1) (d 5Y 1/1) clay 55%, fsd - msd 45% (70% qtz, 15% volc, 10% carb, 5% mafics) ms, sd - subnd - subang; structureless; s.p.; stky, no consol, mod Hcl rxn
830	35 min			Clayey Sand		Clayey Sand (830-840) ( ) dk grayish brn (w 2.5 Y 4/2) (d 2.5 Y 4/2) 35% clay, 65% fsd - msd (65% qtz, 20% volc, 10% carb, 5% mafics) ms, sd - subang, structureless, s.p., stky, no consol, wk Hcl rxn
840	46 min 30 sec			Clayey Sand Sandy clay		Clayey Sand (840-844) ( ) same as above exception clay 20% fsd - msd 80%, n.p., not stky
850	28 min 36 sec			Sandy clay		Sandy clay (844-850) ( ) gray (w 10 YR 5/1) (d 10 YR 6/1) 70% clay, 30% fsd - msd (50% qtz, 35% carb, 15% volc) ms, sd - subnd; structureless; s.p., stky, no consol, wk Hcl rxn
860	19 min 24 sec			Sand		Sandy clay (850-860) ( ) same as above  Sand (860-870) ( ) dk yellow sh brn (w 10 YR 4/4) (d 10 YR 6/1) 15% clay, 85% fsd (80% qtz, 15% carb, 10% mafics) ws, sd - subnd - subang; structureless, n.p.; not stky; no consol; no Hcl rxn
870	66 min 47 sec			Clayey Sand		Clayey Sand (870-880) ( ) dk grayish brn (w 10 YR 4/4) (d 10 YR 6/1) 20% clay, 80% fsd - msd (75% qtz, 15% carb, 5% volc, 5% mafics) ms, sd - subnd; s.p., not stky, no consol; wk Hcl rxn
880						

PROJECT NUMBER KE sources 114 Project  
 LOCATION Pine Valley, Utah  
 LOGGED BY K. Blase, M. Gemmel, P. Blaine D. Baylan  
 RELOGGED BY D. Williams (R. Williams)

# LOG OF BOREHOLE

BOREHOLE PI-10-1  
PAGE 12 OF 14

PROJECT NUMBER Resources 144 Project  
 LOCATION Pine Valley, Utah  
 LOGGED BY K. Blase, McGemmel, P. Blaine, D. Baylan  
 RELEASED BY D. Williams, J. R. Whitworth

LOC. or COORDS. <u>265/17W-10a2b</u> <u>Pine Valley, Utah</u>	DRILLER <u>Wright Drilling</u> <u>Craig Weaver, Ken Wright</u>	START DATE <u>6/8/80</u>	FINISH DATE <u>6/16/80</u>
GROUND ELEV. <u>5300 ft</u>	RIG <u>IR-TH-60</u>	TIME <u>0815</u>	<u>1445</u>
TOTAL DEPTH <u>1157 ft</u>	BIT(S) <u>Tricone + Mill tooth</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>9 7/8 inch</u>	FLUID <u>Polymer + Foam 0-595; bentonite 585-70</u>	HOW LEFT <u>Cased</u> <u>unrestored</u>	

DEPTH	PENE. RATE	CIRC. RET. LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM. BOL	DESCRIPTION and COMMENTS
880	25 min 15 sec			Sand		Sand (880-890) ( ) dk. grayish brn (w/10 yr 4/2) (d. 10 yr. 6/2) 15% clay, 85% fsd-msd (75% qtz, 15% carb, 5% volc, 5% mafics) ms, sd-brnd, structureless; n.p., not stky, no consol, wk Hel. rxn.
890	26 min 8 sec			Sand		Sand (890-900) ( ) same as above exception: clay 5% fsd-msd - 95%
900	36 min 3 sec			Clayey Sand		Clayey Sand (900-910) ( ) gray (w/10 yr 5/1) (d. 10 yr 7/1) 30% clay, 70% fsd-msd (65% qtz, 20% carb, 10% volc, 5% mafics) ms, sd-subang; structureless; s.p., stky, no consol, wk Hel. rxn.
910	33 min 17 sec			Clayey Sand		Clayey Sand (910-920) ( ) same as above
920	40 min 40 sec			Sandy clay		Sandy clay (920-930) ( ) light gray (w/10 yr 6/1) (d. 10 yr 7/1) 75% clay, 25% fsd-msd (65% qtz, 20% carb, 15% volc) ms, sd-subang; structureless; plastic; stky; no consol, no Hel. rxn.
930	11 min 17 sec			Clayey Sand		Clayey Sand (930-940) ( ) dk gray (w/10 yr 4/1) (d. 10 yr 6/1) 20% clay, 80% fsd-msd (70% qtz, 20% volc, 10% carb) ms, sd-subang, structureless; n.p., not stky, no consol, wk Hel. rxn.
940	70 min 23 sec			Clayey Sand		Clayey Sand (940-950) ( ) gray (w/10 yr 5/1) (d. 10 yr 6/1) 25% clay, 75% fsd-msd (50% qtz, 20% volc, 20% carb, 10% mafics) ps, sd-subang; structureless; n.p., stky; no consol, wk Hel. rxn.
950	17 min 25 sec			Sand		Sand (950-960) ( ) dk tan (w/10 yr 4/2) (d. 7.5 yr 3/2) clay 10%, fsd to msd 90% (40% qtz, 35% carb, 20% volc, 5% mafics) ms, sd-subang to subang; structureless; n.p.; not stky, no consol; str. Hel. rxn.
960						

# LOG OF BOREHOLE

BOREHOLE PI-10-1  
PAGE 13 OF 14

PROJECT UNDER RESOURCES 144 Project  
 Intermediate Drilling Program  
 LOCATION Pine Valley, Utah  
 LOGGED BY K. Blase, McEmmel, Blaine Baylan  
 RELEASED BY P. Williams (P. Williams)

LOC. or COORDS. <u>265/17W-10aeb</u> <u>Pine Valley, Utah</u>	DRILLER <u>Wright Drilling</u> <u>Craig Weaver, Ken Wright</u>	START DATE <u>6/8/80</u>	FINISH DATE <u>6/16/80</u>
GROUND ELEV. <u>5300 ft</u>	RIG <u>IR-TH-60</u>	TIME <u>0815</u>	TIME <u>1445</u>
TOTAL DEPTH <u>1157 ft</u>	BIT(S) <u>Tricone + Mill tooth</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>9 7/8 inch</u>	FLUID <u>Polymer + Foam 0-595, Pentrite 585-70</u>	HOW LEFT <u>Cased</u> <u>Unrestored</u>	

DEPTH	PENE. RATE	CIRC. RET. LOSS	AIRLIFT LOSS (gpm)	MATERIAL	SYM. BOL	DESCRIPTION and COMMENTS
960	50min 43 sec.			Sand		Sand - (960-970) ( ) dk grayish brn (w/10 YR 4 1/2) (d 10 YR 5 1/2) clay 5%, fsd to csd 95% (40% qtz, 40% carb, 20% volc) ps; sd-subang; structureless; n.p.; not stky; no consol; mod Hcl rxn.
970	39 min 25 sec.			Sand		Sand (970-980) ( ) same as above exception: fsd-msd: 85% clay 15%
980	46 min 14 sec.			Sand		Sand (980-990) ( ) same as above
990	68 min 09 sec.			Sand		Sand (990-1000) ( ) same as above exception: very dk grayish brn (w/10 YR 3 1/2) (d 10 YR 5 1/2) fsd-msd = 95% clay - 5%
1000	47 min 02 sec.			Clay		Clay (1000-1010) ( ) brn (w/7.5 YR 5 1/2) (d 7.5 YR 7 1/2) 85% clay, 15% fsd (40% qtz, 40% carb, 15% volc, 5% mafics) m.s.; sd-subang; structureless; plastic; stky; no consol; wk Hcl rxn.
1010	46 min 27 sec.			Sandy clay		Sandy clay (1010-1020) ( ) brn (w/7.5 YR 5 1/2) (d 7.5 YR 7 1/2) 65% clay, 35% fsd-msd (40% qtz, 35% carb, 25% volc) ps; sd-subang; structureless; plastic; stky; no consol; wk Hcl rxn.
1020	57 min 42 sec.			Sandy clay		Sandy clay (1020-1030) ( ) same as above exceptions: 55% clay 45% fsd-msd
1030	61 min 32 sec.			Clayey Sand		Clayey Sand (1030-1040) ( ) brn (w/7.5 YR 4 1/2) (d 7.5 YR 6 1/2) 30% clay, 70% fsd-msd (50% qtz, 30% carb, 15% volc, 5% mafics) m.s.; sd-subang to subang; structureless; s.p.; not stky; no consol; mod Hcl rxn.
1040				Sand		

# LOG OF BOREHOLE

BOREHOLE PI-10-1  
PAGE 14 OF 14

LOC. or COORDS. <u>265/17W-10a2b</u> <u>Pine Valley, Utah</u>	DRILLER <u>Wright Drilling</u> <u>Craig Weaver, Ken Wright</u>	START DATE <u>6/8/80</u>	FINISH DATE <u>6/16/80</u>
GROUND ELEV. <u>5300 ft</u>	RIG <u>IR-TH-60</u>	TIME <u>0815</u>	<u>1445</u>
TOTAL DEPTH <u>1157 ft</u>	BIT(S) <u>Tricone + Mill tooth</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
BOREHOLE DIAM. <u>9 7/8 inch</u>	FLUID <u>Polymer + Foam 0-595, bentonite 595-110</u>	HOW LEFT <u>Cased</u> <u>unrestored</u>	

DEPTH	PENE RATE	CIRC RET LOSS	AIRLIFT Q (gpm)	MATERIAL	SYM BOL	DESCRIPTION and COMMENTS
1040	56 min 47 sec			Clayey Sand		Clayey Sand (1040'-1050') ( ) brn (w 7.5 YR 4/1) (d 7.5 YR 6/1) 20% clay, 80% fsc - msd (50% grt, 30% carb, 20% volc) ms; sd - subind to subang; structureless; n.p, not stky; no consol; wk Hel rxn.
1050	51 min 47 sec			Clayey Sand		Clayey Sand (1050'-1060') ( ) same as above.
1060	66 min 55 sec			Clayey Sand		Clayey Sand (1060'-1070') ( ) same as above exception: 25% clay 75% fsc - msd
1070	64 min 55 sec			Clayey Sand		Clayey Sand (1070'-1080') ( ) same as above exception: 20% clay 80% fsc - msd
1080	200 min 70 sec			Sandy Clay		Sandy clay (1080'-1090') ( ) brn (7.5 YR 5/2) (7.5 YR 6/2) 55% clay, 45% fsc - msd (50% grt, 30% carb, 15% volc, 5% mafics) ps; sd - subind; structureless; plastic, stky, no consol; no Hel rxn.
1090				Sand		Sand (1090'-1094') ( ) dk grayish brown (w 10 YR 4/2) (d 10 YR 6/2) clay 10%, fsc - msd 90% (65% grt, 20% carb, 10% volc) ms; sd - subind; structureless, n.p, not stky; no consol; str Hel rxn.
1100				Sandy clay		Sand (1094'-1100') ( ) same as above Sandy clay (1100'-1110') ( ) dk grayish brown (w 10 YR 4/2) (d 10 YR 6/2) clay 55%, fsc - msd 45% (65% grt, 20% carb, 10% volc) ms, sd - subind, structureless, plastic, stky, no consol, wk Hel rxn
1110				Sand		Sand (1110'-1120') ( ) very dk grayish brn (w 10 YR 3/2) (d 10 YR 5/2) 10% clay, fsc - msd 90% (70% grt, 10% carb, 10% volc, 10% mafics) ms, sd - subind to subang; structureless; n.p, not stky, no consol, mod Hel rxn
1120						

LOCATION Pine Valley, Utah  
 LOGGED BY K. Blase, M. Gemmel, P. Blaine D. Baylan  
 RELOGGED BY D. Williams R. O. King  
 PROJECT Water Resources R4 Project  
Intermediate Drilling Program

# LOG OF BOREHOLE

BOREHOLE PI-10-A  
PAGE 15 OF 15

PROJECT WEADER RESOURCES 14x Project  
 Intermediate Drilling Program  
 LOCATION Pine Valley, Utah  
 LOGGED BY K. Blase, McGemmel, P. Blaine D. Baylan  
 RELEASED BY D. Williams, R. Whitworth

LOC. or COORDS. <u>265/17W-10aob</u> <u>Pine Valley, Utah</u> GROUND ELEV. <u>5300 ft</u> TOTAL DEPTH <u>1157 ft</u> BOREHOLE DIAM. <u>9 7/8 inch</u>	DRILLER <u>Wright Drilling</u> <u>Craig Weaver, Ken Wright</u> RIG <u>IR-TH-60</u> BIT(S) <u>Tricone + Mill tooth</u> FLUID <u>Polymer + Foam 0-595, bentonite 595-10</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>6/8/80</u></td> <td><u>6/16/80</u></td> </tr> <tr> <td>TIME <u>0815</u></td> <td><u>1445</u></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 <u>Cased</u></td> </tr> <tr> <td colspan="2"><u>Unrestored</u></td> </tr> </table>	START	FINISH	DATE <u>6/8/80</u>	<u>6/16/80</u>	TIME <u>0815</u>	<u>1445</u>	GEOPHYS. LOG <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		HOW LEFT <u>Cased</u>		<u>Unrestored</u>	
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DEPTH	PENE. RATE	CIRC. RET. LOG	AIRLIFT LOG Q (gpm)	MATERIAL	SYM-BOL	DESCRIPTION and COMMENTS
1120	266 min 30 sec			Sand		Sand (1120-1130) ( ) dk. grayish brn (w/10YR 4h) (d. 10YR 5/2) 15% clay, 85% fsd to msd (70% qtz, 10% carb, 10% volc, 10% mafics) ws, sd-subrnd to subang; structureless; n.p.; not sticky; no consol, wk. Hcl rxn.
1130	85 min 65 sec			Sand		Sand (1130-1140) ( ) same as above
1140	89 min 78 sec			Clayey Sand		Clayey Sand (1140-1150) ( ) dk grayish brn (w/10YR 4h) (d. 10YR 5/2) 43% clay, 55% fsd to msd (65% qtz, 15% volc, 10% carb, 10% mafics) ms; sd-subrnd; structureless; plastic; sticky, no consol, wk Hcl rxn.
1150	49 min 31 sec			Sandy clay		Sandy clay (1150-1160) ( ) grayish brown (w/10YR 5/2) (d. 10YR 6/2) 53% clay, 45% fsd to msd (65% qtz, 20% volc, 10% carb, 5% mafics)
1157				1157' C.D.		