		LOG OF BOR	ING	NO	. В	-01					P	age 1 of
CLIEN	IT ECO:LOGIC Engineering											
SITE	ECO.LOGIC Engineering		PRO	JEC	T							
.,	Washoe County, Nevada			,	ا				ater S	upply	Projec	t
В	oring Location: Pump Station Tanks					SAN	/PLES	3			TESTS	6
GRAPHIC LOG	DESCRIPTION		DЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	Refusal at approximately 1 foot. offset 3 feet west, refusal at sime encountered. Hole offset 15 feet refusal at similar depth encountered.	ilar depth et east.										
"he stra	tification lines represent the approximate b	oundary lines may be gradual.										-1
VATE	R LEVEL OBSERVATIONS, ft				100	E	BORI	NG ST	ARTE	D	***	12-7
VL 🔽		15-				E	BORI	NG CC	MPLE	TED		12-7-
\r 🚡	<u>¥</u>	1eu				F	RIG	С	ME 75	50 F	DREMA	N JI
/L										JC)B#	67055

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\bigcap	LOG OF TEST PIT	NO.	В	-01	(TF	P-01)				Page 4 of 4
CLI	ENT						,				rage 1 of 1
JIT	ECO:LOGIC Engineering	PRO	JEC								
) I	Washoe County, Nevada	PRO	3EC		Fish	Spri	nas W	ater S	vlaau	Proje	ct
	Boning Location: Pump Station Tanks					/PLES				TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	POORLY GRADED SAND with SILT and			_		_					
	GRAVEL Brown, moist, medium dense, with estimated 10-15% non-plastic fines,										
	70% coarse sand, and 10-15% sub-angular to sub-rounded coarse gravel and cobbles.			1 (RA	3					
	Cobbles have a maximum particle size of										
0 No	8" and is multilithic. POORLY GRADED GRAVEL with SILTY	_					8				
979	Red-brown, moist, medium dense to dense	1									
	with estimated 10% non-plastic fines, 40% medium to coarse sand, and 45-50%	5-4		2 (BRAE	3	-			-	-
199	coarse gravel. Unit contains areas of moderate cementation, FeOx, highly	100					- 1				-
:44	weathered granite, and boulder and gravel	- 1									
	percentage and size increase with depth.	5-									12-21-05 12-21-05
: Unit	5.75 POORLY GRADED GRAVEL with SAND	highly and gravel rith depth. 5— ith SAND risity, with 35%							1		
• Q°	Red-brown, moist, moderate density, with										
20	estimated 5% non-plastic fines, 35% coarse sand, and 60% coarse gravel. Unit										
6 C.	contains cobbles and boulders to 2-3 feet	_						}			
0.0	in diameter.	100									:
0		_									
· 0.		-									
0.0	'	-				Ì	1	i			
O.S		10-									
0.0	11	-		3 0	RAE	3	-				
7.0								7			1
							1				
									-		
								- 4			
						-					
						- 1					
	stratification lines represent the approximate boundary lines										
- 0.0	een soil and rock types: in-situ, the transition may be gradual. TER LEVEL OBSERVATIONS, ft		_		- 1	2OP!	NG ST	APTE	.D	,	12 24 05
100					_		NG CC				
V	i i i i i i i i i i i i i i i i i i i	7			۲	RIG		330C		DREMA	
WL						110	UAI	3300		B#	

BOREHOL

		LOG OF BOR	RING	NO	B	1-02	,					
CL	IENT											Page 1 of 1
	ECO:LOGIC Engineerin	g										
31	TE Washoe County, Nevad	la	PRO	JEC		Fich	Snri	ngs W	ator S	unnh	Proje	of.
	Boring Location: Pump Station Tanks		+			SAI	MPLE	S	ater 3	uppiy	TESTS	
				١.							<u></u>	
GRAPHIC LOG	DESCRIPTION		DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
3 k 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Refusal on boulder at approxin Hole offset 3 feet east, refusal Hole offset 3 feet east, refusal	at 2-1/2 feet.										
)												
The	stratification lines represent the approximate	houndary lines										
betw	een soil and rock types: in-situ, the transition	may be gradual.										
A	TER LEVEL OBSERVATIONS, ft		T					NG ST				12-7-05
	∑ NE ¥	lerr				E		NG CC		_		12-7-05
	Ž Ž	11211 ·				E	RIG	CI	ME 75	0 FC	REMA	AN JRO
WL			JOB # 6708								67055025	

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	LOG OF TEST PI	LNO	. В	-02	(TI	P-02	2)				Page 1 of 2
CLI	ENT SCOULOGIC Engineering			-							
SIT	ECO:LOGIC Engineering	PRO	DJEC	`T							
	Washoe County, Nevada	' ' '	JUL-		Fish	Spri	ings W	ater S	ylaau	Proje	ct
	Boring Location: Pump Station Tanks					MPLE			1	TESTS	
										<u> </u>	
GRAPHIC LOG	DESCRIPTION		SYMBOL			RECOVERY, in.		8	DRY UNIT WT	UNCONFINED STRENGTH, psf	
유		# ·	SYI	H.		VER	N/#	H کے ا	Ë	F ST	
₽ W W		DEPTH, ft.	USCS	NUMBER	TYPE	CO	SPT - N BLOWS / ft.	WATER CONTENT,	n ≿	NECO I	
छ जन्म	DOOD! V ODADED CAND with Oil T and	ä	\sin	ž	}	R.	유표	≩ઇ	음	ST	
	POORLY GRADED SAND with SILT and GRAVEL Dark brown, moist, medium	-	-								
	dense, with estimated 10% non-plastic to	-	100	1							
	sand, and 20% coarse gravel. Unit	-	SP	1	\$RAI	3		ļ			
	contains large, subrounded boulders with some 4-5" cemented clasts.	-									
	SILTY SAND Light brown, moist, dense,	-	-								
	with estimated 35% non-plastic fines, 60% medium to coarse sand, and trace	-	SM	20	FRA	2		5.8			-
	sub-angular to sub-rounded coarse gravel.	-	- 017.	۷,		•		0.0			
	Unit is moderately cemented and contains 2-4 foot diameter multilithic boulders.	-									-
	2-4 100t diameter multilitilic boulders.	-	-								
	5.3	5	-								-
.0.	POORLY-GRADED GRAVEL with SAND Dark brown, dry, medium dense, with] -	-						ĺ		
60	estimated 5% non-plastic fines, 40%	-									
7.	coarse sand, and 55% coarse gravel. Unit	-	1						1		
100	contains large boulders, possibly weathered in place with soil infilled	-	-								
· Q.	fractures.	-									
0 Q		-						1			
· O.5		-	1								
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0.0	4.5	_	GP	3 ¢	RAB	1					
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	Continued Next Page										
The st betwe	tratification lines represent the approximate boundary lines en soil and rock types: in-situ, the transition may be gradual.										
-	ER LEVEL OBSERVATIONS, ft				В	ORI	NG ST	ARTE	D	_	12-21-05
4.	Y NE Y		-	_	B	ORII	NG CO	MPLE	TED		12-21-05
		3[F	RIG	CAT	330C	L FO	REMA	
WL					_				10	B#	67055025

	LOG OF TEST PIT	NO.	В	-02	(TI	P-02	2)			В	2 062
CLI	IENT				_		,			F	age 2 of 2
SIT		PRO	JEC								
	Washoe County, Nevada		Γ			Spri MPLE:		ater S	upply	Projec TESTS	<u>t </u>
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
(S)	Dry Density at 4.0'=102.8 pcf. Wet Density at 4.0'=108.7 pcf.)(O	in	N		R.F.	SE E E E E E E E E E E E E E E E E E E	XX C	JO D	AU TS	
betw	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.										
	TER LEVEL OBSERVATIONS, ft ▼ NE				- 1		NG ST				12-21-05 12-21-05
- T	(# NC #				_	BURI	NG CE	MULL	- 1 50		17-71-05

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CAT 330C L FOREMAN

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	LOG OF BO	MING	140	·	-03					P	age 1
CL	IENT ECO:LOGIC Engineering										
SIT		PRO	JEC	T							
	Washoe County, Nevada							ater S	upply	Projec	t
	Boring Location: Pump Station Tanks				SA	MPLES	S		1	TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
0 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Refusal at approximately 1 foot. Hole offset 3 feet north, refusal at 1 foot. Hole offset 5 feet west, refusal at 2 feet.	0	n	2		α.	SB	80	Q	D'S	
ha	stratification lines represent the approximate boundary lines reen soil and rock types: in-situ, the transition may be gradual.										
etw											
VA	TER LEVEL OBSERVATIONS, ft						VG ST				12-7
VA ⁻	TER LEVEL OBSERVATIONS, ft V NE V V	7					VG ST				12- 12-

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	LOG OF TEST PIT	Γ NO.	. В	-03	(TF	- 03	3)				2000 1 of 2
CL	IENT ECO:LOGIC Engineering				-		,			<u>r</u>	age 1 of 2
SIT		PRC	JEC	T							
L	Washoe County, Nevada							ater S	upply	Projec	.t
	Boring Location: Pump Station Tanks					MPLE:				TESTS	
GRAPHIC LOG	DESCRIPTION	DЕРТН, ft.	USCS SYMBOL	NUMBER	ТҮРЕ	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	POORLY GRADED SAND with SILT Dark brown, damp to moist, medium dense, with estimated 5-10% non plastic	_									
	fines, 80-85% fine to coarse sand, and 10% fine to coarse subrounded gravel.	_	SP	1 (S RAI	3		5.2	93		
	Organics in upper foot. 2.5 POORLY GRADED SAND with GRAVEL Light brown, damp, dense, with estimated	_	SM	6 .1		V 1.					
	5% non plastic fines, 70% fine to coarse sand, and 25% fine to coarse subrounded gravel.	_									
0.0 0.0	SILTY SAND with GRAVEL Brown to grey, damp, very dense, with estimated 15% non plastic fines, 65% fine to coarse	_									
°0.0 °Ω°	sand, and 20% coarse subangular to angular gravel. Unit contains approximately 80% cobbles and boulders	5									
	to +3 feet in diameter. Volcanic and granitic material. Difficult excavation, soil	_	SM	2 0	RAE	3		3.6			
٠٠ ٥.	classification represents excavated material.	_									
.0.	8 POORLY-GRADED GRAVEL Light		GP	3 0	RA	3					
000	estimated 5% non plastic fines, 10% fine to coarse sand, and 85% coarse subangular				5						
0000	to angular gravel. Unit contains approximately 35% cobbles with trace boulders to +1 foot. Presence of large	10—							_		
0000	boulders decreased from previous unit.	_									
0000	·								İ		
0000		_									
000		_				į					
00	15	15—									
	Continued Next Page										
betwe	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.										- y - 1122-
	TER LEVEL OBSERVATIONS, ft					BORI	NG ST	ARTE	D		12-20-05
	¥ NE ¥				E		NG CC				12-20-05
	A A A JELL				F	RIG	CAT	330C		REMAI	
WL									JC	B# 6	67055025

	LOG OF TEST PIT	NO.	В	-03	(TI	P-03	3)	-		P	age 2 of 2
CL	ENT FCO: LOGIC Engineering								2		ago 2 01 2
SIT		PRO	JEC					-			-
	Washoe County, Nevada		T		Fish SAI	Spri MPLE:	ngs W	ater S	upply	Projec TESTS	t
GRAPHIC LOG	DESCRIPTION	ОЕРТН, А.	USCS SYMBOL	NUMBER	ТУРЕ	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
9	Dry Density at 3'=93.1 pcf. Wet Density at 3'=97.2 pcf.	Q	n e e e e e e e e e e e e e e e e e e e	N		R		MO O	Od Od	in S	
The :	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.							5: 5:	-		
WA	TER LEVEL OBSERVATIONS, ft					30RI	NG ST	ARTE	D		12-20-05
	A A A A A A A A A A A A A A A A A A A						NG CC				12-20-05
WL	ă ă IIGL					RIG	CAT	330C	L FO	DREMA	NDT

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WL WL

	LOG OF BOR	₹ING	NC). E	3-04	1					4 of 4
CL	IENT			_							age 1 of 1
SIT	ECO:LOGIC Engineering	PRC	DJEC	T							
1	Washoe County, Nevada							ater S	upply	Projec	t
	Boring Location: Pump Station Tanks				SAF	MPLES	5	 		TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
A B B B B B B B B B B B B B B B B B B	Refusal on cobble at approximately 2 feet. Hole offset 5 feet west, refusal at 2-1/2 feet. Hole offset 6 feet west, refusal at 1 feet. 2		- Company of the Comp								
The betw	stratification lines represent the approximate boundary lines reen soil and rock types: in-situ, the transition may be gradual.										
WA	TER LEVEL OBSERVATIONS, ft				F	BORI	ING ST	ARTE	D		12-7-05
VL	Ÿ NE ¥				3	RORI	NG CC	MPLE	TED		12-7-05

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BOREHOL

,	LOG OF TEST PIT	NO	. B	-04	(TF	- 04	l)			- F	Page 1 of 1
CL	IENT ECO:LOGIC Engineering									- 100	
SIT		PRO	JEC	Т					-		200
	Washoe County, Nevada		T					ater S	upply	Proje	
	Boring Location: Pump Station Tanks				SAN	/PLE	S	<u>.</u>		TESTS	
GRAPHIC LOG	DESCRIPTION	JEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	POORLY GRADED SAND with SILT and GRAVEL Brown, moist, medium dense, with estimated 10-15% non-plastic fines, 70% medium to coarse sand, and 10-15% coarse gravel to 1" in diameter. Unit contains an estimated 30% angular to	-									
	sub-angular boulders up to 3' in diameter. 2.7 POORLY GRADED SAND with GRAVEL	_	SP SM	2 (RA	3					
	Red-brown, moist, dense, with estimated 10% non-plastic fines, 65% coarse sand, and 20-25% coarse gravel. Unit is mostly	_	SP SM		RAE						
	cemented, highly weathered, FeOx stained, with 40% cobbles and boulders. POORLY GRADED SAND with GRAVEL Light brown, damp, medium dense, with estimated 5% non-plastic fines, 55% coarse sand, and 40% coarse gravel. Unit is mostly decomposed granite and schist, contains an estimated 50% boulders up to 2' diameter. Refusal at 10.3' due to large boulder.	5—	SP								
	Dry density at 2.5'=102.7 pcf. Wet density at 2.5'=109.9 pcf.										
betw	stratification lines represent the approximate boundary lines represent soil and rock types: in-situ, the transition may be gradual.					7.50					
100	TER LEVEL OBSERVATIONS, ft				_ -		NG ST				12-21-05
-	Y Y I	76	(j)				NG CC				12-21-05
						RIG	CAT	330C	_	DREMA	
WL	9995 EUG 1				- 1				IJC)B#	67055025

\cap	LOG OF BO	RING	NO). B	3-05						
CL	IENT	T	1	95 HO.	17		- "			- 1	Page 1 of 1
317	ECO:LOGIC Engineering	PRO	LIEC	т							
L	Washoe County, Nevada	1110	/3LC		Fish	Spri	ngs W	ater S	upply	Proje	ct
	Boring Location: Pump Station Tanks			_	SAI	MPLE:	S			TESTS	
GRAPHIC LOG	DESCRIPTION	ОЕРТН, 11.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ff.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND Dark brown, moist, medium dense, with estimated 15% non-plastic fines, 80-85% fine to coarse sand, and trace fine to coarse angular to sub-angular gravel.	-	SM	1	SPT	14	15				
	SILTY SAND with GRAVEL(SM) Light brown, damp, medium dense, with estimated 15% non plastic fines, 65% fine to coarse sand, and 20% fine to coarse sub-angular gravel. Driller reports decomposed rock at 7-7.5' and refusal at 7.5'.	5—	SM	2	SPT	14	28				
	7.5		SM	3	SPT	0	50	20	/		
The:	stratification lines represent the approximate boundary lines										
betw	een soil and rock types: in-situ, the transition may be gradual.										
	TER LEVEL OBSERVATIONS, ft						NG ST				12-7-05
	A A A A A A A A A A A A A A A A A A A					BORI RIG	NG CC	•	1		12-7-05
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	LOG OF TEST PI	I NO	. В	-05	(TF	2-05	5)			F	age 1 of
CL	IENT ECO:LOGIC Engineering										
317		PRO	JEC	T		_					
	Washoe County, Nevada				Fish	Spri	ngs W	ater S	upply	Projec	t
	Boring Location: Pump Station Tanks				SAI	MPLE:	3			TESTS	
		14	,							-	
GRAPHIC LOG	DESCRIPTION		USCS SYMBOL			RECOVERY, in.		%	¥	의 구 Sign	
<u>⊇</u>	DECOMI FICH	, # F	SYN	14		ÆR	3/#	~ E	Ė	STE STE	
AP		DEPTH, ft.	CS	NUMBER	TYPE	6	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	SH	ji .
S.	(1-20-27-7)	DE	ns	₽	Σ	R	SP.	80	DG pcf	UNCONFINED STRENGTH, psf	
	POORLY GRADED SAND with SILT Dark brown, moist, medium dense, with	_								in here	
	estimated 5-10% non plastic fines, 85-90%						3				
	fine to coarse sand, and 5% fine to coarse			ŀ							
T	subrounded gravel. Organics in upper 1 foot.										is.
	SILTY SAND Light brown, damp,		SM	1 (RA	3		5.1	106		
	medium dense to dense, with estimated	_	1								
1	20% non plastic fines, 80% fine to coarse \text{\sand, and trace fine to coarse subrounded}	1 -									
	to subangular gravel.	-	1								
	POORLY GRADED SAND with SILT and GRAVEL Light brown, damp, dense to	-									
	very dense, with estimated 10% non plastic	-		t g							
	fines, 60% fine to coarse sand, and 30%	5-	1	1							
	fine to coarse subrounded to angular gravel. Unit contains approximately 50%	-	-								
	cobbles and boulders to +2 feet in	-	CD	0.0	ND A	-					
	diameter. Volcanic and decomposed	-	SP	20	RA	3					
	granite boulders.	_									
								;			
	8	_									l,
	POORLY GRADED SAND with SILT and	_									i i
	GRAVEL Light brown, damp, dense to very dense, with estimated 10% non plastic										E
	fines, 60% fine to coarse sand, and 30%									3	
	fine to coarse subrounded to angular gravel. Unit contains approximately 30%	_									
	cobbles and boulders to 2 feet in diameter.	10						8			
	Volcanic and decomposed granite	-									
	boulders.	-									
		_									
		-									
		-									
		-					1	j.			
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	15	15-									
he	stratification lines represent the approximate boundary lines										7
etw	reen soil and rock types: in-situ, the transition may be gradual. TER LEVEL OBSERVATIONS, ft		_	_	T.	SORI	NG ST	ARTE	:D		12-20-0
							NG CC				12-20-0
	A A A JELL	7		1)	RIG		330C		DREMA	
VL				70	• F	710	CAI	3300	\rightarrow		
/ =									I J C)B#	6705502

	LOG OF BO	RING	NO	. В	-06					, I	Page 1 of
CLI	ENT ECO:LOGIC Engineering										7.
3IT	E	PRO	JEC								
	Washoe County, Nevada Boring Location: Pump Station (Old Location)	=	Τ			Spri MPLE:		ater S	upply	/ Project	
တ	boing coodion. Fullip Oldion (Old coodion)		~								
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND with GRAVEL Brown, damp, medium dense, with estimated 20% non-plastic fines, 60% fine to coarse sand, and 20% fine to coarse sub-angular gravel. Refusal at 4'. Moved 15' east, refusal at 3.5'.		SW		SPT		17	80	0 &	200	
4 A	4										
)											
						:					
								-			
The	stratification lines represent the approximate boundary lines						200				
betwe	een soil and rock types: in-situ, the transition may be gradual.	_					10.55	4500			40 = 1
	TER LEVEL OBSERVATIONS, ft ▼ NE ▼						NG ST				12-7-05
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۷L		asses							JC	OB#	6705502

	LOG OF TEST PI	ΓNO	В	-06	(TF	- 06	3)				
CL	IENT				1 -		,			ŀ	Page 1 of 1
	ECO:LOGIC Engineering										
317		PRC	JEC		T: - L	0	14/				_
	Washoe County, Nevada Boring Location: Pump Station (Old Location)	-	T			SPII MPLE:		ater S	upply	Project TESTS	:t
	borning Education. I dirip Station (Sid Education)										
GRAPHIC LOG	DESCRIPTION	DЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	SILTY SAND Dark brown, moist, loose to medium dense, with estimated 15% non plastic fines, 80% fine to coarse sand, and trace fine to coarse subrounded gravel.	_									
	Organics in upper 1 foot.	-									
	POORLY GRADED SAND with SILT Light brown, damp, medium dense, with	-	SP	1 0	FRAI	3			-		
	estimated 10% non plastic fines, 80% fine to coarse sand, and 10% fine to coarse	-	SM								
	subrounded gravel.	_									
	4										
	SILTY SAND with GRAVEL Light brown, damp, dense to very dense, with estimated	_									
300	15% non plastic fines, 50% fine to coarse	5—									
	sand, and 35% fine to coarse subrounded to subangular gravel. Unit contains	_							i		
, o c	approximately 25% cobbles and boulders to 2 feet in diameter.	_									
7	to 2 rest in diameter.	_						ĺ			
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PC	15	15—									
The s	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.										
WA	TER LEVEL OBSERVATIONS, ft				E	BORI	NG ST	ARTE)		12-20-05
VL	Ÿ NE ¥				E	BORI	NG CO	MPLE	TED		12-20-05
WL	i i i i i i i i i i i i i i i i i i i				F	RIG		330C		REMA	
WL				_ '	~ -				JO	B#	67055025

	LOG OF TEST	PIT N	10.	P1	 ГР-(<u> </u>					2000 4 of 4
CL	IENT	T					-				Page 1 of 1
317	ECO:LOGIC Engineering	PRO	UEC	т							
וכ	Washoe County, Nevada	1110	JLO		Fish	Spri	ngs W	ater S	vlaqui	Projec	:t
	Boring Location: Pump Station Septic (Old Location)					/PLE				TESTS	
GRAPHIC LOG	DESCRIPTION	ОЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
0	foot. POORLY GRADED SAND with GRAVEL	-	SP	1 (SRAI	3		4.6	85		
0	Medium brown, damp, medium dense, with estimated 5% non plastic fines, 80% fine to coarse sand, and 15% fine to coarse subrounded gravel. Percolation test at approximately 3 feet: Water drained in < 1 minute. POORLY GRADED SAND with SILT and GRAVEL Medium brown, damp, dense, with estimated 10% non plastic fines, 50% fine to coarse sand, and 40% fine to coarse subrounded to subangular gravel. Unit contains approximately 45% cobbles to 1 foot in diameter. Decomposed granite boulders present.	5—	SP	2 0	SRA	3		5.9	100		
	POORLY GRADED SAND with SILT and GRAVEL Medium brown, dry to damp, dense, with estimated 10% non plastic fines, 50% fine to coarse sand, and 40% fine to coarse subrounded to subangular gravel. Unit contains approximately 45% cobbles to 1 foot in diameter. Size of cobbles/boulders increases with depth.	10									
betw	stratification lines represent the approximate boundary lines veen soil and rock types: in-situ, the transition may be gradual.					POP!	NG ST	ADT			12 22 25
					- 45-		NG ST				12-20-05 12-20-05
	A A A JELL			1		RIG		330C		DREMA	
VL.		JL	-		- -	KIG .	CAT	33UC	\rightarrow		
A P									EJC)B#	67055025

	LOG OF TEST	PIT N	10.	PT	P-()2) n m n d n f d
CI	IENT										age 1 of 1
31	ECO:LOGIC Engineering	PRC	JEC	Т							
1	Washoe County, Nevada							ater S	upply	Projec	
1	Boring Location: Pump Station Septic Disposal Area				SAN	MPLE:	5			TESTS	
GRAPHIC LOG	DESCRIPTION	DEРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	POORLY GRADED SAND with SILT Dark brown, moist, medium dense, with estimated 5-10% non plastic fines, 85-90%	_									
	fine to coarse sand, and 5% fine to coarse subrounded gravel. POORLY GRADED SAND with SILT and	_									
	GRAVEL Light brown, damp, medium dense to dense, with estimated 10% non plastic fines, 75% fine to coarse sand, and		SP SM		RAI	3		7.2	96		
	15% fine to coarse subrounded gravel.										
	POORLY GRADED SAND with SILT and GRAVEL Medium brown, damp to moist,	5—									
	dense to very dense, with estimated 10% non plastic fines, 50% fine to coarse sand, and 40% fine to coarse subrounded to							==			
	angular gravel. Unit contains cobbles and boulders to +2 feet in diameter. Decomposed granite present.	_ _	SP SM	2 0	RA	3		5.5	112		
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		10									
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	13	_									
	· ·			ĺ							
								123			
The	stratification lines represent the approximate boundary lines veen soil and rock types: in-situ, the transition may be gradual.										
	TER LEVEL OBSERVATIONS, ft				ŗ	SORI	NG ST	ARTE	D.		12-20-05
νL				_			NG CC				12-20-05
WL	Ā Ā Ā JELS				F	RIG		330C		DREMA	
WL					200				-)B#	67055025

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Γ	LOG OF TEST	PIT	10.	P	rp-()3				P	age 1 of 1
CL	ENT									•	aye i oi i
317	ECO:LOGIC Engineering	PRO	JEC	T							
J.,	Washoe County, Nevada		/UL \		Fish	Spri	ngs W	ater S	upply	Projec	t
	Boring Location: Pump Station Septic				SAN	/PLES	3			TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND with GRAVEL Brown, moist,		SM		RAL		О У Ш		0 4	207	
	dense, with estimated 25% non-plastic fines, 60% fine to coarse sand, and 15% fine to coarse gravel with a maximum grain size of >2 inches in diameter.										
90	SILTY SAND with GRAVEL Brown, moist,	-									
	dense, with estimated 25% low plasticity fines, 60% fine to coarse sand, and 15%		1								
	fine to coarse gravel with a maximum grain size of >2 inches in diameter.	5	SM	2 (RAE	3					
		-									
	9		3								
	SILTY SAND with GRAVEL Brown, moist, dense, with estimated 20% non-plastic] _	SM	3 (RAE	3					
	fines, 60% fine to coarse sand, and 20% fine to coarse gravel.	10		,							
3 13	13	-									
Th.											
betw	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.										
P	TER LEVEL OBSERVATIONS, ft				- 1-		NG ST				4-13-06
VL WL		7				BORII RIG	NG CO			DEMA.	4-13-06
WL		UL				NG	CA	T 314		DREMAI	N GCS

\bigcap	LOG OF TEST	PIT I	NO.	P	ΓP-	04					Page 1 of 1
<u> </u>	ECO:LOGIC Engineering										age i or i
SITI	E Washoe County, Nevada	PRO	DJEC		Fish	Snri	ngs W	ater S	unnh	, Proje	ct
	Boring Location: Pump Station Septic					MPLE		ater Q	uppi	TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	SILTY SAND with GRAVEL Brown, moist, dense, with estimated 25% low plasticity fines, 60% fine to coarse sand, and 15% fine to coarse gravel.	- - - - -	SM	1 (SRAI	8					
	SILTY SAND with GRAVEL Brown, moist, dense, with estimated 25% low plasticity fines, 60% fine to coarse sand, and 15% fine to coarse gravel. Unit contains trace boulders greater than 2 feet in diameter.	5—	SM	2 (\$RAI	8					
10000000000000000000000000000000000000	SILTY SAND with GRAVEL Brown, moist, dense, with estimated 25% low plasticity fines, 60% fine to coarse sand, and 15% fine to coarse gravel. Unit contains trace boulders greater than 2 feet in diameter.	10	SM	3 (SRA.	8					
betwe	tratification lines represent the approximate boundary lines en soil and rock types: in-situ, the transition may be gradual. ER LEVEL OBSERVATIONS, ft	·				BORI	NG ST	ARTE	D		4-13-06
	¥ NE ¥	7					NG CC		_		4-13-06
WL 3	i i i i i i i i i i i i i i i i i i i		-(F	RIG	CA	T 314		DREMA	N GCS 67055025

Ì		LOG OF TEST	PIT I	NO.	P.	TP-	07					Page 1 of 1
	CL	ENT ECO:LOGIC Engineering										
	SIT	E	PRO	DJEC	Т							
		Washoe County, Nevada	-				Spri MPLE	ngs W	ater S	upply	Proje TESTS	
		Boring Location: Pump Station	003				VIII LL					
	GRAPHIC LOG	DESCRIPTION	DEРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
		SILTY SAND with GRAVEL Brown, moist, dense to very dense, with estimated 35% non-plastic fines, 50% fine to coarse sand, 15% fine to coarse gravel. Fines toward bottom. Practical refusal on hardpan at 9 feet.	5	SM	2 (GRA	В					
٦			-									-
		9		SM	4 (3RAI	3					
355025 GINT.GPJ TERRACON.GDT 6772006	The s	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.										
35502		TER LEVEL OBSERVATIONS, ft		_		1	BORI	NG ST	ARTE	D		4-12-06
	7.				_			NG CC				4-12-06
┈	WL WL	A A A JELL	عال				RIG	CA	T 314		OREMA	
ŏ										100	r sur TT	01000020

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CLIE											age i oi
SITE	ECO:LOGIC Engineering	PRO	JEC	т							
3116	Washoe County, Nevada		<i>7</i> 320		Fish	Spri	ngs W	ater S	upply	Projec	t
	Boring Location: Pump Station					/PLE			1	TESTS	
GRAPHIC LOG	DESCRIPTION	DЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown, moist, dense, with estimated 30% non-plastic fines, 60% fine to coarse sand, and 10% fine to coarse gravel. Boulders up to 2 feet in diameter below 5 feet.	5—	SM	20	SRAE SRAE	3					
etwe VAT	tratification lines represent the approximate boundary lines en soil and rock types: in-situ, the transition may be gradual. ER LEVEL OBSERVATIONS, ft		-		- Illian	BORI	NG ST	ARTE	D		4-11-0
	Ž NE	7			E	BORI	NG CC	MPLE	TED		4-11-0
AF Z	I I I I I I I I I I I I I I I I I I I	حال			F	RIG	CA	T 314	C FC	REMA	N GCS
VL									JC	B# (6705502

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C	IENT	-11 1	10.	KI		U I				F	Page 1 of 1
	ECO:LOGIC Engineering										
SIT		PRO	JEC		Tie b	Ci	14/	-10		D .	
\vdash	Washoe County, Nevada Boring Location: Pump Station/Substation Access Road					SPI MPLE:		ater 5	uppiy	Project TESTS	
GRAPHIC LOG	DESCRIPTION	DЕРТН, ft.	USCS SYMBOL	NUMBER	ТУРЕ	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT paf	UNCONFINED STRENGTH, psf	
	CLAYEY SAND Brown, moist, dense, with estimated 40% medium plasticity fines and 60% fine to coarse sand. SILTY SAND Tan, moist, dense, with estimated 40% low plasticity fines, 60% fine to coarse sand, and trace gravel. Dry below 4.5 feet.	5	SM	2 0	RA RA	8		27.2		Σ	
betw WA	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual. TER LEVEL OBSERVATIONS, ft Very NE Very Very Very Very Very Very Very Very	3 C					NG ST NG CC		TED C FC	DREMA	4-14-06 4-14-06 N GCS 67055025

	LOG OF TEST I	PIT N	10.	R	ГР-(02				P	age 1 of 1
CL	JENT FCO: LOGIC Engineering									-	
SI	ECO:LOGIC Engineering TE	PRO	JEC	T							
	Washoe County, Nevada							ater S	upply	Projec	<u>t </u>
	Boring Location: Pump Station/Substation Access Road			\vdash	SAN	/PLE	<u>\$</u> 			TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
The state of the s	SILTY SAND Brown, moist, medium dense to dense, with estimated 30% low to non-plastic fines and 70% fine to coarse sand.	5—	SM	1 (SRAE	3		6.8			
Th -	A STATE OF THE STA										
i ne betw	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.										
	TER LEVEL OBSERVATIONS, ft				B	ORI	NG ST	ARTE	D	- 10	4-13-06
-	Ä Ä Ä JELL				В	ORI	NG CC	MPLE	ETED		4-13-06
٧L	$\hat{\mathbf{x}}$				F	RIG	CA	T 314	C FC	REMAN	N GCS

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	LOG OF TEST I	PIT N	10.	RI	ΓP-(03				Р	age 1 of 1
CL	IENT							-			age i oi i
SIT	ECO:LOGIC Engineering	PRO	JEC	т							
	Washoe County, Nevada							ater S	upply	/ Projec	t
	Boring Location: Pump Station/Substation Access Road				SAN	MPLE:	S			TESTS	
GRAPHIC LOG	DESCRIPTION	DЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown, moist, medium dense to dense, with estimated 30% low to	_									
	non-plastic fines and 70% fine to coarse sand. Some boulders greater than 1 foot in diameter below 5 feet.	-	SM	1 (SRAI	3					
		-									
		5-									
		-	SM	2 (RA	3					
		-									
	8.	-							:		
			,							7	
							-				
The betw	stratification lines represent the approximate boundary lines leen soil and rock types: in-situ, the transition may be gradual.	- 222	. 97								
	TER LEVEL OBSERVATIONS, ft			90-T	E	BORI	NG ST	ARTE	D		4-13-06
	A NE A A SELLO				E		NG CC		1		4-13-06
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	LOG OF TEST P	N TI	Ο.	ST	TP-	-01				P	age 1 of 1
CI	LIENT ECO:LOGIC Engineering		-								<u> </u>
SI	TE Washoe County, Nevada	PRO	JEC		Fish	Snri	nas W	ator S	unnly	Projec	•
	Boring Location: Surge Tank		T			MPLE:		ater C	<u>ubbi3</u>	TESTS	
GRAPHIC LOG	DESCRIPTION	ОЕРТН, А.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
17 13 1 17 13 1		-									
	CLAYEY SAND with GRAVEL Brown, moist, dense, with estimated 15% low plasticity fines, 60% fine to coarse sand, and 23% fine to coarse gravel.		SC	1 (RAI	3					
		_	SC	2 (RAI	3		12.3			l
	Practical refusal at 4 feet due to bedrock.	_									
							;				
90											
ON.GDI 647720					-						
Lega Gint GPU TERRACON GDT 6772006 The detailed and the control of the control o											
The bet	e stratification lines represent the approximate boundary lines ween soil and rock types: in-situ, the transition may be gradual.										
447	ATER LEVEL OBSERVATIONS, ft				- 1-		NG ST				5-1 - 06

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	LOG OF TEST	PIT N	0.	ST	TP-	02				F	Page 1 of 1
CL	IENT ECON OCIC Engineering										
SIT	ECO:LOGIC Engineering	PRO	JEC	T							
	Washoe County, Nevada				Fish	Spri	ngs W	ater S	upply	Projec	t
	Boring Location: Surge Tank					/PLE			,	TESTS	
GRAPHIC LOG	DESCRIPTION	ОЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
1. S	TOPSOIL	_									
	POORLY GRADED SAND with SILT AND GRAVEL Brown, moist, very dense, with estimated 10% non-plastic fines, 60% fine to coarse sand, and 30% fine to coarse subangular gravel.		SP SM	1 0	RAI	3		16.7			
		-						10.1			
		-	1								
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		5—									
		_	SP	2 0	RA	3					
betw	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual. TER LEVEL OBSERVATIONS, ft			300° 2° C	E	BORI	NG ST	ARTE	D		5-1-06
	Y Y T TELL	_			E		NG CC	MPLE	TED		5-1-06
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	LOG OF TEST	PIT	NO	. T	P-0	1				F	Page 1 of 1
CL	IENT ECO: LOGIC Engineering										
317	ECO:LOGIC Engineering	PRC	JEC	Т							
	Washoe County, Nevada							ater S	upply	Projec	
	Boring Location: Water Transmission Main				SAN	VPLES	3			TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	ТҮРЕ	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	TOPSOIL Light brown, dry, medium dense, with estimated 10% non plastic fines, 70% fine to coarse sand, and 20% fine to coarse subangular gravel. SILTY SAND Dark brown, damp, loose to medium dense, with estimated 15% non plastic fines, 85% fine to coarse sand, and trace fine subangular gravel. Grades to a lighter brown color with depth.	-	SM	10	5RAL	3					
	POORLY GRADED SAND with SILT Light brown, damp, loose to medium dense, with estimated 10% non plastic fines, 90% fine to coarse sand (mostly fine to medium), and trace fine subangular gravel.	10-	SP SM		BRAE BRAE						
betw WA	stratification lines represent the approximate boundary lines veen soil and rock types: in-situ, the transition may be gradual. TER LEVEL OBSERVATIONS, ft						NG ST				12-12-05 12-12-05
_	¥ ¥ Territoria	7)[F	RIG		se 58	- 1	REMA	
WL.					_ -						67055025

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	LOG OF TEST	PIT	NO	. Т	P-0	2				F	Page 1 of 1
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317	ECO:LOGIC Engineering	PRO	JEC	Т							
	Washoe County, Nevada							ater S	upply	Projec	
	Boring Location: Water Transmission Main				SAN	MPLES	5		1	TESTS	W
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	POORLY GRADED SAND with SILT Brown, damp, loose to medium dense, with estimated 10% non plastic fines, 90% fine to coarse sand, and trace fine to coarse subangular gravel.	5	SP		FA		0,11	A O			
	POORLY GRADED SAND with SILT Brown, damp, loose to medium dense, with estimated 10% non plastic fines and 90% fine to coarse sand. 10.5 Test pit abandoned at approximately 10-1/2 feet due to loose trench walls caving.	10-	SP SM	2 0	RAL	3					
betw WA	stratification lines represent the approximate boundary lines ween soil and rock types: in-situ, the transition may be gradual. TER LEVEL OBSERVATIONS, ft V NE V V				- 10-		NG ST	MPLE	TED	OREMA	12-12-05 12-12-05 N NDT

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CLI	IENT										Page 1 of 1
_	ECO:LOGIC Engineering										
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	Washoe County, Nevada Boring Location: Water Transmission Main		I			OPLES MPLES	ngs W	ater 5	uppiy	TESTS	
	Doning Location. Water Hallsmission Wall										6
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
, V.	0.5 POORLY GRADED GRAVEL with SAND		10								
	Black-gray, dry, medium dense, with estimated 5% non plastic fines, 35% fine to coarse sand, and 60% fine to coarse subangular gravel. SILTY SAND Medium brown, damp, loose to medium dense, with estimated 15% non plastic fines, 85% fine to coarse sand, and trace fine to coarse subangular gravel. Trace cobbles to 1 foot diameter present.	5—	SM	10	∌RA	3					
	stratification lines represent the approximate boundary lines	phis o		_						-	
	reen soil and rock types: in-situ, the transition may be gradual. TER LEVEL OBSERVATIONS, ft	-		-	—	ROP!	NG ST	Λρτε	:D	1	12 12 05
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-	TE Washoe County, Nevada Boring Location: Substation	PRO								1.6	ige 1 of 1
Ĺ	TE Washoe County, Nevada	PRO									
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APHIC LOG	Boring Location: Substation		,,,,		Fish	Spri	ngs W	ater S	upply	Project	
APHIC LOG					SAN	/PLES	3			TESTS	
GR	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	Brown, moist, dense, with estimated 5% non-plastic fines, 80% fine to coarse sand, and 15% fine to coarse subrounded gravel. Common boulders to 2 feet in diameter.		SP	1 (RA	3					
	SILTY SAND Light brown, moist, dense, with estimated 15% non-plastic fines, 80% fine to coarse sand, and 5% fine to coarse subrounded gravel up to 6 inches in diameter.	5	SM		RA						
	12	10-	SM	3 0	RAE	3					
The	stratification lines represent the approximate boundary lines ween soil and rock types: in-situ, the transition may be gradual.										
W.A	ATER LEVEL OBSERVATIONS, ft						NG ST				5-1-06
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	LOG OF TEST	PIT	NO	. Т	P-0	4					Page 1 of 1
CI	IENT ECO:LOGIC Engineering									!	Page 1 of 1
SI	TE	PRO	JEC								
\vdash	Washoe County, Nevada Boring Location: Water Transmission Main	 	Т			Spri MPLE:	ngs W S	ater S	upply	Proje	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	ТҮРЕ	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND Medium brown, damp to moist, loose to medium dense, with estimated 15% non plastic fines, 85% fine to coarse sand, and trace fine to coarse subangular gravel. Thin coarse sand and fine gravel lens present at approximately 1 foot.		SM	10	\$RAL	3					
	SILTY SAND Medium brown, damp to moist, loose to medium dense, with estimated 20% non plastic fines and 80% fine to medium sand. Test pit abandoned at approximately 10 feet due to loose soil in trench walls caving.		SM	2 (\$RAL	3					
WL WL	stratification lines represent the approximate boundary lines ween soil and rock types: in-situ, the transition may be gradual. ATER LEVEL OBSERVATIONS, ft V NE V V	90				BORI	NG ST NG CC	MPLE	TED	DREMA	12-12-05 12-12-05 NN NDT
ğ WL									JC)B#	67055025

	LOG OF TEST	PIT N	10.	TF	- 04	B				Р	age 1 of 1
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SITE	ECO:LOGIC Engineering	PRC	JEC	Т							
	Washoe County, Nevada		1					ater S	upply	/ Projec	t
GRAPHIC LOG	Boring Location: Substation DESCRIPTION	ОЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	SILTY SAND with GRAVEL Brown, moist, dense, with estimated 5% non-plastic fines, 80% fine to coarse sand, and 15% fine to coarse, subround to round gravel. Boulders common up to 3 feet in diameter. Pit collapsed at 4 feet and 7.5 feet.	5	SM	10	GRANGRAM	3	S BI	W 0	Od.	1n	
WAT	tratification lines represent the approximate boundary lines sen soil and rock types: in-situ, the transition may be gradual. ER LEVEL OBSERVATIONS, ft					BORI	NG ST	MPLE	TED	OPEMA	5-1-06 5-1-06
	i lett		C			RIG		at 314		OREMA	
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	LOG OF TEST	PIT	NO	. Т	P-0	5	_			F	Page 1 of 1
	IENT ECO:LOGIC Engineering										aye i oi i
SIT	Washoe County, Nevada	PRC	JEC					ater S	upply	Projec	:t
	Boring Location: Water Transmission Main				SAN	APLES	3			TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	ТУРЕ	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	POORLY GRADED SAND with SILT FILL Light brown, damp, loose to medium dense, with estimated 10% non plastic fines and 90% fine to coarse sand. Thin layer of coarse gravel on surface. SILTY SAND Dark brown, damp to moist, loose, with estimated 15% non plastic fines, 85% fine to coarse sand (mostly fine to medium), and trace fine subangular gravel. POORLY GRADED SAND with SILT Dark brown, moist, loose to medium dense, with estimated 10% non plastic fines, 90% fine to coarse sand, and trace fine to coarse subangular gravel. Weakly cemented/more consolidated with depth (at approximately 10.0 feet). Trace cobbles to +8 inches present at depth.	5—	SP	1 (₽ BRA	3		N			
The	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.										
WA	TER LEVEL OBSERVATIONS, ft				T	BORI	NG ST	ARTE	.D	_	12-12-05
1 1000	¥ NE ¥						NG CC				12-12-05
WL WL	A A A A A A A A A A A A A A A A A A A					RIG	Ca	ase 58		DREMA	N NDT 67055025

LOG OF TEST	PIT N	10.	TF	P-05	B				Pa	ge 1 of 1
CLIENT ECOL OCIC Engineering										90
ECO:LOGIC Engineering	PRO	JEC	Т							
Washoe County, Nevada				Fish	Spri	ngs W	ater S	upply	Project	
Boring Location: Substation				SAN	MPLE:	3		 F	TESTS	
DESCRIPTION	DЕРТН, ft.	USCS SYMBOL	NUMBER	ТУРЕ	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pdf	UNCONFINED STRENGTH, psf	
0.5 TOPSOIL			1							
POORLY GRADED SAND WITH SILT Brown, moist, dense, with estmated 10% non-plastic fines, 80% fine to coarse sand, and 10% fine to coarse sub-rounded to rounded clasts. Boulders up to 2 feet in diameter. 8 Trench repeatedly collapsed at 8 feet. Could not excavate further.	5—			RA						
The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual. WATER LEVEL OBSERVATIONS, ft						NG ST				5-1-06 5-1-06
										5-1-06
NL ¥ ¥	UL				RIG	C	at 314	CFC	REMAN	SAN

Γ	LOG OF TEST	PIT	NO	. Т	P-0	6					Page 1 of 1
CL	IENT FCO: LOGIC Engineering									- 11	ago . c.
SIT	ECO:LOGIC Engineering	PRC	JEC	Т							
	Washoe County, Nevada							ater S	upply	Proje	
	Boring Location: Water Transmission Main			_	SAN	/PLES	3			TESTS	3
GRAPHIC LOG	DESCRIPTION	ОЕРТН, А.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	POORLY GRADED SAND with SILT Light brown, damp, medium dense, with						A C				
	estimated 10% non plastic fines, 80% fine to coarse sand, and 10% fine to coarse	_									
	subangular gravel. Thin layer of coarse	-									
	gravel on surface. SILTY SAND Dark brown, moist, medium	_	SM	1 (RAI	3					1
	dense, with estimated 40% non plastic to low plasticity fines and 60% fine to medium										
	3.5 sand.	_							1		
	SILTY SAND Light brown, damp to moist, loose to medium dense, with estimated	_					4				
	15% non plastic fines and 85% fine to coarse sand.	_									
		5—									
		_	SM	2 (RA	3					
		_									
							- 1				
	8.5	_									
	POORLY GRADED SAND with SILT Light brown, moist, loose to medium										
	dense, with estimated 10% non plastic										
	fines and 90% fine to medium sand. Minor lumps of more cohesive material (SC?)	10-									
	present at depth.										
	12										
200010											
							- 1				
							- 1	1			
	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.				*			,			•
The second	TER LEVEL OBSERVATIONS, ft					BORI	NG ST	ARTE	D		12-12-05
5.4	Ÿ NE ¥						NG CC	MPLE	TED		12-12-05
WL	Y Y I TELL				F	RIG	Ca	ase 58	-	DREMA	
WL									IJC)B#	67055025

	LOG OF TE	ST PIT	NO	. T	P-0	7					age 1 of 1
CL	IENT										age i or i
SIT	ECO:LOGIC Engineering	DD/	DJEC	т						· · · · · · · · · · · · · · · · · · ·	<u> </u>
511	Washoe County, Nevada	PRO	JJEC		Fish	Spri	ngs W	ater S	ylqqui	Projec	t
-	Boring Location: Water Transmission Main					MPLE				TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	ТУРЕ	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND Dark brown, moist, dense to very dense, with estimated 45% low plasticity fines and 55% fine sand.	-									
		-	SM	1 (\$RAI	В		7.9		2000	
	POORLY-GRADED SAND Light brown, dry to damp, loose, with estimated 5% non plastic fines and 95% fine to medium sand. Minor moderately cemented layers.	5-	SP	2 (SRA!	3					
	12	10-	SP	3 (₽RA!	3		V			
The:	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.										
Section.	TER LEVEL OBSERVATIONS, ft			44.00	T	BORI	NG ST	ARTE	D		12-12-05
	AND THE RESIDENCE OF THE PROPERTY OF THE PROPE						NG CC				12-12-05
WL		rac				RIG				DREMA	
WL					-1-				_		67055025

	LOG OF TES	T PIT	NO	. T	P-0	8					Page 1 o
CLI	ENT										ago i o
SIT	ECO:LOGIC Engineering	DDC	VIEC	_							
211	Washoe County, Nevada	PRC	JEC		Fish	Spri	nas W	ater S	unnh	Proje	ct
	Boring Location: Water Transmission Main				SAN	MPLE:	3		ирріј	TESTS	
						,					
GRAPHIC LOG	DESCRIPTION	DЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
EX CARBONACION DE LA COMPANION DE LA COMPANION DE LA CARBONACION DEL CARBONACION DE LA CARBONACION DE LA CARBONACION DE LA CARBONACION DEL CARBONACION DE LA CARBONACION DE LA CARBONACION DE LA CARBONACION DE LA CARBONACION DE LA CARBONACION DE LA CARBONACION DEL CARBONACION DE LA CARBONACION DEL CARBONACION DEL CARBONACION DEL CARBONACION DEL CARBONACION DEL CARBONACION DEL CARBONACION D	SILTY SAND Grey-brown, moist, medium dense to dense, with estimated 15-20% non plastic fines, 75% fine to coarse sand, and 5-10% fine gravel. Loose to approximately 1-1/2 feet. Very well cemented layers below approximately 1-1/2 feet.	5	SM	1 0	FRAE	3					
			e								
he si etwe	tratification lines represent the approximate boundary lines en soil and rock types: in-situ, the transition may be gradual.				- Ch						
-	ER LEVEL OBSERVATIONS, ft		_	_	P	ORI	NG ST	ARTE	D		12-13-0
						-	NG CO				12-13-0
_	i i i i i i i i i i i i i i i i i i i					RIG				DEMA	
					T P	uG	∪a	ise 58	UIFC	REMA	N S/

	LOG OF TES	T PIT	NO	. Т	P-0	9				F	Page 1 of 1
CLI	ENT ECO:LOGIC Engineering										
3IT		PRO	JEC	T							
	Washoe County, Nevada	3		Г				ater S	upply	Projec	
	Boring Location: Water Transmission Main	1			SAI	MPLE:	5			TESTS	
GRAPHIC LOG	DESCRIPTION	DЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT paf	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown, moist, medium dense to dense, with 30% non plastic fines and 70% fine to coarse sand. Moderately to very well cemented. Clayey Sand (SC) layer approximately 2 inches thick at approximately 5 feet. Sparse Clayey Sand (SC) interbedding <1" thick between 8-10 feet.	5	SM		3RA(3RA(:		10.5	72		
The :	stratification lines represent the approximate boundary lines										
betw	een soil and rock types: in-situ, the transition may be gradual.			_		2001	NO CT	ADTO			40.40.00
	TER LEVEL OBSERVATIONS, ft				100		NG ST				12-13-05 12-13-05
NL	ă ă ISU	76				RIG		ase 5		DREMA	
NL					- -						67055025

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CL	ECO:LOGIC Engineering										
317		PRO	DJEC	Т			_				
	Washoe County, Nevada			1				ater S	upply	Proje	
	Boring Location: Water Transmission Main				SAI	MPLE	<u>s</u>	1		TESTS	-
۵			7			. <u>:</u>) psf	Į.
GRAPHIC LOG	DESCRIPTION	یے ا	MB			Α,	نے	, 'L	≥	지 프	
Ĕ		I E	SS	BER	311	8	NS/	HEN HE	N N	NO NI	
3KS		DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in	SPT - N BLOWS / ft.	WATER CONTENT,	DRY UNIT WT	UNCONFINED STRENGTH, psf	
Ĭ	POORLY-GRADED SAND with SILT		F	-	-		0,10	30	1 D E	200	
	Brown, damp to moist, medium dense, with 10% non plastic fines and 90% fine to			8							
	medium sand.	-	1								
		-									ii.
			SP	1	SPT	18	27				
			SM								
	4										
	POORLY-GRADED SAND Light brown, damp, dense, with estimated 5% non										
	plastic fines and 95% fine to coarse sand.	5-									
		"	SP	2	SPT	18	48				10
		1									
	6.5										
	POORLY-GRADED SAND with SILT Medium brown, damp, very dense, with										
	estimated 10% non plastic fines and 90%	-									
	fine to coarse sand.	_	SP	3	SPT	16	51	9.8	114		
	•	1 -	"								
		2			\sqcup						-
Щ	9.5	- 1									
	POORLY-GRADED SAND Light brown, damp to moist, very dense, with estimated	10-	CD	4		47					
	5% non plastic fines and 95% fine to	-	SP	4	SPT	17	55				
	coarse sand.							,			
		-	\vdash								
\dashv	POORLY-GRADED SAND Medium	-									
	brown, damp, dense, with estimated 5%		SP	5	SPT	18	47				
	non plastic fines and 95% fine to coarse sand.	-	31	J		10					
	Junu.	-									
		-									
П	14.5	+ -									
111	Continued Next Page	15—	\vdash								
he	stratification lines represent the approximate boundary lines	_									
etw	een soil and rock types: in-situ, the transition may be gradual.				_						
	TER LEVEL OBSERVATIONS, ft				100		NG ST				12-9
	¥ 20.0						NG CC				12-9
	¥ 20.0 ¥ ¥					RIG	С	ME 7	-	DREMA	
۷L									JC)B#	670550

	LOG OF BORING	NO.	TF	2-10	0 (E	3-10))			-	Page 2 of 4
CL	LIENT ECO:LOGIC Engineering										ago a c.
317	TE	PRC	DJEC	T							
L	Washoe County, Nevada							later S	supply	/ Projec	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED ST STRENGTH, psf	
	POORLY-GRADED SAND with SILT Medium brown, damp to moist, dense, with estimated 10-15% non plastic fines and 85-90% fine to medium sand.		SP SM	6	SPT		36	<u>> </u>	La	7 %	
	POORLY-GRADED SAND with SILT Medium brown, moist, dense, with 7% non plastic fines and 93% fine to medium sand.		SP SM		SPT	15	32	26.4			
	SILTY SAND Medium brown, moist to wet, dense, with estimated 35% non plastic fines and 65% fine to medium sand. Possible perched GWT at approximately 20.0 feet. CLAYEY SAND Medium brown, moist to	20-	SM	8	SPT	13	30				_
	wet, dense, with estimated 30-35% low to medium plasticity fines and 65-70% fine to medium sand.		SC	9	SPT	12	11				
	SILTY SAND Medium brown, moist, medium dense, with 34% low plasticity fines, 66% fine to medium sand, and trace gravel. Minor clay (SC) lens present at approximately 25.0 feet.	25—	SM	10	SPT	15	14	29.8			
	SILTY, CLAYEY SAND Medium brown, moist to wet, medium dense, with estimated 25% low to medium plasticity fines and 75% fine to medium sand.		SC	11	SPT	12	18				
	29.5 Continued Next Page	30									
	stratification lines represent the approximate boundary lines veen soil and rock types: in-situ, the transition may be gradual.										
-	TER LEVEL OBSERVATIONS, ft		-	577	T	PORI	NG ST	-ADTE	-	_	12-9-05
10		_	_	_			NG CO				12-9-05
100	¥ 20.0 ¥ ¥ 1	30		1		RIG		ME 75		DREMA	
WL				,					-		67055025

	LOG OF BORING	NO.	TF	- -10	0 (E	3-10)				Page 3 o
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SIT	E	PRO	JEC								
-	Washoe County, Nevada		1			Spri MPLES	ngs W	ater S	up p ly	Proje TESTS	
					JA	VIII L.C.					
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND Light to medium brown, damp, very dense, with 16% non plastic fines and 84% fine to medium sand. Reddish-brown staining.	-	SM	12	SPT	13	56	13.9			
	34.5										
	SILTY SAND Medium brown, damp, medium dense, with estimated 40% non plastic to low plasticity fines and 60% fine to medium sand.	35-	SM	13	SPT	14	25				
	39	-									
	SILTY SAND Light brown, moist, very dense, with estimated 20% non plastic										
	fines and 80% fine to medium sand. Weakly cemented.	40	SM	14	SPT	15	70				
	43.5 SILTY, CLAYEY SAND Medium brown,										
	damp to moist, very dense, with estimated 25% non plastic to low plasticity fines and 75% fine to medium sand. Continued Next Page	45—		2.53.98							
he	stratification lines represent the approximate boundary lines										
etw	een soil and rock types: in-situ, the transition may be gradual.	541-		_	_		NO 57	A P	-		44 -
	TER LEVEL OBSERVATIONS, ft				- 16-		NG ST				12-9-
	¥ 20.0 ¥ ¥ Y Y Y Y Y Y Y Y Y Y	76				RIG		ME 7		DREMA	12-9- N N
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	LOG OF BORING	NO.	TF	P-10	0 (E	3-10)			Pr	age 4 of 4
CL	IENT ECO:LOGIC Engineering										
SIT	TE TE	PRC	JEC		-						
1	Washoe County, Nevada		T	1		Spri MPLE:		ater S	upply	Project TESTS	t
					OA:	VIPLE	>				
GRAPHIC LOG	DESCRIPTION	ОЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY, CLAYEY SAND Medium brown, damp to moist, very dense, with estimated 25% non plastic to tow plasticity fines and 75% fine to medium sand.	-	SC SM	15	SPT	13	52				
	SILTY SAND Light to medium brown, damp to moist, very dense, with estimated 20% non plastic fines and 80% fine to coarse sand.	50	SM	16	SPT	14	79				
The	stratification lines represent the approximate boundary lines										
betw	reen soil and rock types: in-situ, the transition may be gradual. TER LEVEL OBSERVATIONS, ft	-				POPI	NG ST	ADTE	<u> </u>	-	12.0.05
100					- 1		NG ST				12-9-05 12-9-05
WL		20				RIG		ME 75		PREMAN	
WL					- h				-		37055025

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CL	IENT										age 1 of 1
317	ECO:LOGIC Engineering	PRO	JEC	Т							
	Washoe County, Nevada		JOE 0		Fish	Spri	ngs W	ater S	upply	Ргојес	t
	Boring Location: Water Transmission Main				SAI	MPLE	S			TESTS	
GRAPHIC LOG	DESCRIPTION	ОЕРТН, Л.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
7 0 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	TOPSOIL 1.5										
	SILTY SAND with GRAVEL Brown, moist, medium dense, with estimated 20% non plastic fines, 65% fine to coarse sand, and 15% fine to coarse subangular to subrounded gravel. Weakly cemented.										
2 000 00000000000000000000000000000000	SILTY SAND WITH GRAVEL Brown, moist, medium dense, with estimated 15% non plastic fines, 70% fine to coarse sand, and 15% fine gravel. Weakly cemented.	5-	SM	10	RAL	3					
	POORLY-GRADED SAND with SILT and GRAVEL Brown, moist, medium dense, with estimated 10% non plastic fines, 60% fine to coarse sand, and 30% fine to coarse subangular to angular gravel.	10—	SM SP SM		RAE						
A.	12	_									
	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.										
١	TER LEVEL OBSERVATIONS, ft						NG ST				12-13-05
_	A NE A TELL	7					NG CC				12-13-05
WL WL		۲L				RIG	Ca	ese 58		REMAI	
AAL									JO	B# 6	67055025

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CLI	ECO:LOGIC Engineering										
SIT		PRO	JEC	T							
	Washoe County, Nevada							ater S	upply	Projec	:t_
	Boring Location: Water Transmission Main			_	SAN	VPLES	S		7	TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
34,	TOPSOIL	_									
	SILTY SAND with GRAVEL Brown, moist, medium dense, with estimated 20% low plasticity fines, 60% fine to coarse sand, and 20% subrounded to subangular gravel. Weakly cemented.	-	SM	1 (RAI	3					
	SILTY SAND Brown, moist, medium dense to dense, with estimated 30% low plasticity fines, 60% fine to coarse sand, and 10% fine gravel. Well to very well cemented.	5—	SM	2 (RAI	3					
	SILTY SAND Brown, moist, medium dense to dense, with estimated 30% low plasticity fines, 60% fine to coarse sand, and 10% fine gravel. Well to very well cemented.	- -	SM	3 0	RA	3					
	POORLY-GRADED SAND with SILT and GRAVEL Brown to grey, moist, very dense, with estimated 10% non plastic fines, 70% fine to coarse sand, and 20% fine subangular groups.	_ _ _	SP	4 0	RAE	3					
	fine subangular gravel. Very well cemented.		SM								
betwe	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.					ROP!	NG ST	APTE			12.42.0
					-	-	NG ST			-	12-13-0
	i i i i i i i i i i i i i i i i i i i				1	RIG		ase 58	77.7	REMAI	
4 F 1					- 1 1	414	Ui	ಎಎರ ೮೮	ソフィドし	ᇧᇉᄧᅜ	ישוא או

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CLI	ENT ECO:LOGIC Engineering							-	-		-
SITI		PRO	JEC	T							
	Washoe County, Nevada							ater S	upply	Projec	
	Boring Location: Water Transmission Main				SAN	MPLE:	S T	-		TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND Dark brown, damp to moist, dense, with estimated 15% non plastic fines and 85% fine to medium sand.	-									
	2.5	_	SM	1 (FAI	3					
	POORLY GRADED SAND with SILT Light brown, damp to moist, loose to medium dense, with estimated 10% non-plastic fines, 90% fine to coarse sand, and trace fine subangular gravel.										
		5									53
<u>.</u>	POORLY-GRADED SAND Light brown,	_	SP SM	2 (RA	3					
	damp to moist, loose, with estimated trace non plastic fines and 95%+ fine to coarse sand.										
		_ _	SP	3 0	RAE	3			:	·	
	1	10									
	Trench repeatedly collapsed at 10' - could not excavate further.					,					
The s	tratification lines represent the approximate boundary lines	_									
vetwe	en soil and rock types: in-situ, the transition may be gradual. ER LEVEL OBSERVATIONS, ft		_	_		BORI	NG ST	ARTE	D		12-13-0
_	Ž NE Ž				E	BORI	NG CC	MPLE	TED		12-13-0
	A A A A A A A A A A A A A A A A A A A		.C		F	RIG	Ca	ase 58		REMA	
VL	1								JC	B# (6705502

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CLI	ENT ECOL OCIC Engineering	3									50 . 0.
SIT	ECO:LOGIC Engineering	PRO	DJEC	т							
	Washoe County, Nevada				Fish	Spri	ngs W	ater S	upply	Project	
	Boring Location: Water Transmission Main				SAM	/PLE	s I			TESTS	
GRAPHIC LOG	DESCRIPTION	DЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	SILTY SAND Dark brown, damp to moist, medium dense, with estimated 25% non plastic fines and 75% fine to medium sand. SILTY SAND Light brown, damp, dense to very dense, with estimated 40% non plastic fines and 60% fine to medium sand. Minor moderately cemented sections present.		SM		RA						
	POORLY-GRADED SAND Light brown, damp to moist, loose to medium dense, with estimated 5% non plastic fines, 90% fine to coarse sand, and trace fine subangular gravel. Minor decomposed granite present.	5	SP	2 (RAE	3					
	POORLY-GRADED SAND with SILT Light brown, damp to moist, dense to very dense, with estimated 10% non-plastic fines, 80% fine to coarse sand, and 10% fine to coarse subangular to angular gravel. Increasing decomposed granite and fine gravel present with depth.	10	SP SM	3 (GRAB						
vetwe	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.						NG ST			1	2-13-0
VA1	een soil and rock types: in-situ, the transition may be gradual.	7					NG CC		TED		2-13-0 2-13-0

CLIEN	LOG OF TEST	1								F	Page 1
	ECO:LOGIC Engineering										
SITE		PRC	OJEC								
12	Washoe County, Nevada	4.5			Fish	Spri	ings W	later S	supply	y Projec	
Bo	oring Location: Water Transmission Main		'		SAN	MPLES	S	-	T	TESTS	-
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GRAPHIC LOG	DESCRIPTION		MBC			χ, .	يے ا	%	¥	H. P.	
<u>₹</u>		l ∉ π	SY	HÄ	1	VEF	NS/	A E	Į K	NEI	
KA		DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY,	SPT - N BLOWS / ft.	WATER CONTENT, 9	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
2//	WEATHERED BEDROCK Grey, white,	Ō	<u>5</u>	Ž	F	~	<u> </u>	≩ŏ	2 2	250	
	orange, and brown, damp to moist, dense	-	GP	11	GRA	<u>_</u>	-				-
	to very dense, excavates out as a Poorly-Graded Gravel with Sand, with	-	GM			<u> </u>	 	-		-	1
	estimated 5% non plastic fines, 30% fine to	_	- 1				'		1		
**	coarse sand, and 65% fine to coarse angular gravel. In situ material mainly	-	-				1	'			
\gg	weathered bedrock.	-	- 1				[]	'		1	
	WEATHERED BEDROCK Black, moist, very dense. Material excavates out as a	-	1	1			1	1		1	
	Poorly-Graded Gravel with Silt and Sand	-	1	'			1	'		1	
\gg	(GP-GM) with 10% low plasticity fines, 20% fine to coarse sand, and 70% fine to	-	1					1	1 1	('	
	coarse gravel.	-	1			1				1	
		5—						1	1	1	
\geqslant			GP	2 (RAB	3		9.6	-		f
A) -	Practical Refusal	-	GM			-					1
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ne strati etween i	tification lines represent the approximate boundary lines soil and rock types: in-situ, the transition may be gradual.										
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ΓĀ	Jer.	7				RIG					12-1
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011	Washoe County, Nevada	FRO	JJEC		Eich	Spri	nac M	latar S	واصماء	Project	
	Boring Location: Water Transmission Main		T			MPLE		ater 5	uppiy	TESTS	
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GRAPHIC LOG	DESCRIPTION	H, A.	USCS SYMBOL	3ER		RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
GRA		DEPTH, ft.	USCS	NUMBER	TYPE	RECC	SPT -	WATE	ORY (JNCC	
۵	POORLY GRADED SAND with GRAVEL Dark brown, moist, dense, with estimated	_									
,	5% non plastic fines, 80-85% fine to coarse sand, and 10-15% fine to coarse gravel.	-	SP	1 (RA	3					
	2.5 WEATHERED BEDROCK Decomposed	_									
	granite, very dense. Practical refusal.										
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twe	tratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.									- 1/-	
	ER LEVEL OBSERVATIONS, ft						IG ST				2-13
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SI	TE Washoe County, Nevad	طم	PRO	DJEC.		Sieh	enri	-me W	latar S	·	- Projec	-4
-	Boring Location: Water Transmission	· · · · · · · · · · · · · · · · · · ·	+	T	<u> </u>		MPLES		ater 5	uppiy	y Projec TESTS	
	Donnig Econtonia Transaction	I tasciii										
9	DESCRIPTION	r		BOL		1	in .	1	%	5	UNCONFINED STRENGTH, psf	
GRAPHIC LOG	DESCRIPTION		±	USCS SYMBOL	K		RECOVERY, in	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	NIE GT	
AP			DEPTH, ft.	SS	NUMBER	W /	00	N-T SWC	EN I	5 /	SON	
GR			DE	U.S.	≥	TYPE	RE	SP BL(\$8	Pg H	NO	
	SILTY SAND Dark brown, moi with estimated 15% non to low	ist, dense,										
N	fines and 85% fine to medium	sand.	_					1 '		1	1 '	
	1.5							1		1	1 '	
	SILTY SAND Light brown, dam to very dense, with estimated 1	np, dense	_		1		1 1	1		1	1	1
	12.5 plastic fines and 85% fine to me	nedium sand	_		<u> </u>			<u> </u>				1
	SILTY SAND Dark brown, dam very dense, with estimated 15%	np to moist, % non plastic	_	SM	1 0	GRAE	ا ق	1 '		1	1	1
	3.5 fines and 85% fine to coarse sa	and.		igsquare		\sqcup		<u> </u>			<u> </u>	-
W	4 WEATHERED BEDROCK Dec	composed		1			1	1		1	1	1
	Practical refusal		_]]	1		1	1			1	1
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The	stratification lines represent the approximate	boundary lines										
3	ween soil and rock types: in-situ, the transition	n may be graquai.		_	_	Tı	BORI	NG ST	ARTE	:D		12-14-05
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CII	LOG OF TEST	· · ·								Pa	age 1 of 1
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	Washoe County, Nevada		T	Ι		Spri MPLE:		ater S		Project	
	Boring Location: Water Transmission Main				SAI	WIFLE			Ī	IESIS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	POORLY GRADED SAND with SILT Dark brown, moist, medium dense, with estimated 10% non-plastic fines, 85% fine to coarse sand, and 5% fine to coarse subangular gravel. POORLY GRADED SAND with SILT Light brown, moist, dense to very dense, with estimated 10% non plastic fines and 90% fine to coarse sand (mostly medium to coarse). Decomposed granite appearance (coarse sand). Moderately cemented. SILTY, CLAYEY SAND Medium brown, moist, dense, with estimated 40% non to low plasticity fines and 60% fine to medium sand.	5	SM	1 (FARA RAIL	3	<i>5</i> /4			000	
	SILTY SAND Light brown, moist, dense, with estimated 25% non to low plasticity fines, 75% fine to coarse sand, and trace fine to coarse subangular gravel.	10-	SM	3 (BRA	3			,		
WAT	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual. FER LEVEL OBSERVATIONS, ft						NG ST				12-14-05 12-14-05
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	LOG OF TEST	PIT	NO	. T	P-1	9				F	Page 1 of
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0.	Washoe County, Nevada							ater S	upply	Projec	
	Boring Location: Water Transmission Main				SAN	APLES	3	-		TESTS	E 172
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	SILTY SAND Dark brown, moist, medium dense, with estimated 15% non plastic fines and 85% fine to coarse sand.	_									
	SILTY, CLAYEY SAND Light brown, damp, dense to very dense, with estimated 40% non to low plasticity fines and 60% fine to medium sand.	-	SM	1 (SRA	3					
	SILTY SAND Light brown, damp, medium dense, with estimated 20% non plastic fines and 80% fine to coarse sand.	5—	SM	2 (RAE	3					
	SILTY, CLAYEY SAND Light brown, dry to damp, dense to very dense, with estimated 40% non to low plasticity fines and 60% fine to medium sand. SILTY SAND Dark brown, damp, medium dense, with estimated 20% non plastic fines, 80% fine to coarse sand, and trace fine subangular gravel.	10									
	12									:	
	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.		·								
	FER LEVEL OBSERVATIONS, ft			_	Te	BORI	NG ST	ARTF	D		12-14-0
_							NG CC				12-14-0
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٧L				_					JC)B#	6705502

GRAPHIC LOG	ECO:LOGIC Engineering E Washoe County, Nevada Boring Location: Water Transmission Main	PRO	DJEC:	T				- 22- 10		•	age 1 of
	E Washoe County, Nevada	PRO)JEC	т	-						
GRAPHIC LOG				1							
GRAPHIC LOG	Boring Location: Water Transmission Main		1					ater S	upply	Projec	<u>:t</u>
GRAPHIC LOG					SAN	/IPLES	.			TESTS	
जनमं	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	POORLY GRADED SAND with SILT Dark brown, moist, medium dense to dense, with estimated 10% non plastic fines, 90% fine to coarse sand, and trace fine subangular gravel. POORLY GRADED SAND with SILT Light brown, damp to moist, medium dense to dense, with estimated 10% rion plastic fines and 90% fine to coarse sand.	- - - - -	SP SM	10	RAE	3					
	POORLY GRADED SAND with SILT Light brown, moist, medium dense, with estimated 10% non plastic firres, 90% fine to coarse sand, and trace fine subangular gravel.	5	SP SM	2 (RAB	3					
	12	10	SP SM	3 (SRAB						
betwe	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transltion may be gradual. TER LEVEL OBSERVATIONS, ft						NG ST.				12-14-0
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	LOG OF TEST	r PIT	NO	. T	P-2	1					Dave 4 of 4
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SIT	ECO:LOGIC Engineering	PRO	JEC	T					· ·		
_	Washoe County, Nevada						ngs W	ater S	upply		
	Boring Location: Water Transmission Main			-	SAN	/PLE	S			TESTS	
GRAPHIC LOG	DESCRIPTION	ОЕРТН, А.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown, moist, dense, with estimated 20%-30% non-plastic fines and 70%-80% fine to coarse sand.		SM		RAL						
	SILTY SAND with GRAVEL Grey-brown, damp, dense, with estimated 20% non-plastic fines, 50% fine to coarse sand, 30% fine to coarse gravel. Oxide stains and trace cobbles present.	5	SM	3 (RA.	3			П		
	9.5 SILTY SANDRed-brown, moist, cemented, dense to very dense, with estimated 25% non-plastic fines and 75% fine to coarse sand.	10-	SM		BRAE	:					
The betw	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.										
	TER LEVEL OBSERVATIONS, ft						NG ST				3-24-06
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	Washoe County, Nevada	1110			Fish	Spri	ngs W	ater S	upply	Projec	at
	Boring Location: Water Transmission Main				SAI	MPLE	S		1	TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SANDBrown, moist, medium dense to dense, with estimated 20%-35% non-plastic fines and 65%-80% fine to coarse sand. Fines toward top.	5	SM	2 (SRAI	В					
	SILTY SAND Red-brown, moist, dense, with estimated 30% non-plastic fines, 65% fine to coarse sand, and 5% fine to coarse gravel. Cobbles up to 6 inches in diameter.	10— - -	SM	4 0	RAI	3	-				
国基 基		_									
The	stratification lines represent the approximate boundary lines	<u> </u>								•	
betw	reen soil and rock types: in-situ, the transition may be gradual.						No	455	· D		
	TER LEVEL OBSERVATIONS, ft				- 1		NG ST				3-24-06
WL						RIG		at 314		DREMA	3-24-06 N GCS
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	LOG OF TEST	PIT	NO	. T	P-2	3			- 0	P	age 1 of 1
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	Washoe County, Nevada							ater S	upply	Project	t
	Boring Location: Water Transmission Main				SAN	/PLES	S		1	TESTS	
GRAPHIC LOG	DESCRIPTION	DEРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown, moist, dense, with estimated 30% non-plastic fines and 70% fine to coarse sand. Appears to be decomposed granite at bottom of unit.		SM	10	RA	3					U
	SILTY SAND with GRAVEL White-grey, dry, very dense, with estimated 25% non-plastic fines, 60% fine to coarse sand, and 15% fine to coarse gravel. Cobbles up to 6 inches in diameter. Refusal on bedrock at 5.5 feet.	5—	SM	2-30	RAE	3					
The s	tratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.										
WA1	ER LEVEL OBSERVATIONS, ft			-	TE	BORI	NG ST	ARTE	D		3-24-06
and the second	Ÿ NE ¥				E	BORI	NG CC	MPLE	ETED		3-24-06
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317		LOGIC Engineerin	9	DDC	VIEC	<u> </u>							
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		Vater Transmission			Τ			MPLES			арріј	TESTS	
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GRAPHIC LOG		DESCRIPTION		DЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	dense, with	D Brown to red-brown estimated 10%-20% ines and 80%-90% inc.	%	-	SM		GRAI	3					
					SM	2 (RA	3					
				_	SM	3 (3RAI	3					
				-									
				5	-								
				-	-								
	rama.			_	-								
20	6.5 SILTY SAND	with GRAVEL Gre	ev. moist.	-	SM	4 (SRAL	3					
p S	dense, with	estimated 15% non	-plastic	-							Ì		
500	coarse grave	ine to coarse and 5° el. Cobbles to 4 incl	hes in	-									
	diameter. De	ecomposed granite.		-	SM	5 (RA	3					
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The	stratification lines repre	esent the approximate	boundary lines										-11-2-
betw	een soil and rock type	s: in-situ, the transition	may be gradual.						NO 0-		<u></u>		0.04.00
	TER LEVEL OBSE	RVATIONS, ft	-						NG ST				3-24-06
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	LOG OF TEST	PIT	NO	. Т	P-2	25				ı	Page 1 of
CLI	ENT ECO:LOGIC Engineering										
SIT		PRO	DJEC	T							
	Washoe County, Nevada		1				ngs W	ater S	upply		
	Boring Location: Water Transmission Main				SAI	MPLE	S	-	T T	TESTS	<u>;</u>
GRAPHIC LOG	DESCRIPTION	DЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown to red-brown, moist, dense, with estimated 25% non-plastic fines and 75% fine to coarse sand.	_	SM	1 (GRA	В					
	3	_	SM	2 (GRA	В					
	SILTY SAND with GRAVEL Red-brown, moist, dense, with estimated 20% non-plastic fines, 80% fine to coarse sand, and trace gravel. Unit contains cobbles to 4 inches in diameter. Decomposed granite.	-	SM	3 (\$RAI	В		9.1			
		5—									
00000 00000			SM	4 (SRAI	3	7				
	10 SILTY SAND with GRAVEL Red-brown,	10—	SM	5 (SRAI	3					
	moist, very dense, with estimated 20% non-plastic fines, 65% fine to coarse sand, and 15% fine to coarse gravel. Unit contains cobbles up to 6 inches in diameter. Decomposed granite.	-									-
The s	stratification lines represent the approximate boundary lines								- 100-		
betwe	een soil and rock types: in-situ, the transition may be gradual.				Т.	000	NO OT	A D.T.		0.	0.01.0
h	TER LEVEL OBSERVATIONS, ft ▼ NE ▼						NG ST				3-24-0
F	ă ă 16l.				7	RIG		at 314		DREMA	
WL					- F			GE 0 14	+-	OB#	6705502

	LOG OF TEST	PIT	NO	. Т	P-2	6					Page 1 of 1
CL	ECO:LOGIC Engineering										
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-	Washoe County, Nevada		1					ater S	upply	Proje	
	Boring Location: Water Transmission Main				SAI	MPLE	5			TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown to red-brown, moist, dense, with estimated 20%-30% non-plastic fines and 70%-80% fine to coarse sand.	-	SM	1	GRA	В					
		_	SM	2 (SRAI	3					1
	5.5	5-									
	SILTY SAND Red-brown, moist, dense, with estimated 20% non-plastic fines and 80% fine to coarse sand. Decomposed granite.		SM	3 (3RAI	3					-
	SILTY SAND with GRAVEL Red-brown to grey, dry, dense to very dense, with		SM	4 (SRA	3					
	estimated 15% non-plastic fines, 70% fine to coarse sand, and 15% fine to coarse gravel. Decomposed granite. Refusal on bedrock at 11.5 feet.	10-									
	11.5	_	SM	5 (SRA	3					
The :	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.									-2000	
A	TER LEVEL OBSERVATIONS, ft					BORI	NG ST	ARTE	D		3-24-06
-	À NE					30RI	NG CC	MPLE	TED		3-24-06
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	LOG OF TEST	PIT	NO.	. Т	P-2	7					age 1 of 1
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317	ECO:LOGIC Engineering	PRC	JEC	T							
	Washoe County, Nevada					Spri //PLE:		ater S	upply	Project TESTS	t
L	Boring Location: Water Transmission Main				SAN	//FLE					
GRAPHIC LOG	DESCRIPTION	ОЕРТН, А.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown, moist, dense, with estimated 20% non-plastic fines and 80% fine to coarse sand. 2.5	-	SM		RAI				-		
	SILTY SAND Red-brown, moist, dense, with estimated 25% low to non-plastic fines	_	SM	2 (RA	3					
	and 75% fine to coarse sand.										
	4.5	_									
	SILTY SAND with GRAVEL Red-brown, moist, dense, with estimated 20% non-plastic fines, 80% fine to coarse sand and trace gravel to 3 inches in diameter. Decomposed granite.	5— 5—	SM	3 (RAE	3					
2000 000 000 000 000 000 000 000 000 00		10—	SM	4 (RAB	3					
	12	_									
				_							
The betw	stratification lines represent the approximate boundary lines reen soil and rock types: In-situ, the transition may be gradual.										
	TER LEVEL OBSERVATIONS, ft				E	BORI	N G ST	ARTE	D		3-24-06
	∑ NE				E	3OR!	NG CC	MPLE	TED		3-24-06
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	LOG OF TE	ST PIT	NO	Т	P-2	2					
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_	ECO:LOGIC Engineering										
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D	Washoe County, Nevada Boring Location: Water Transmission Main		Т			APLES		ater S	u pply	TESTS	
	bonng Location. Water Transmission Main										T
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	ТҮРЕ	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown, moist, dense, with estimated 20% non-plastic fines and 80% fine to coarse sand.	-	SM	1 (RAE	3					
	CLAYEY SAND Red-brown, moist, dense, with estimated 25% low to medium plasticity fines and 75% fine to coarse gravel.	-	SC	2 0	RA	3					
	SILTY SAND with GRAVEL Red-brown, moist, weakly cemented, dense, with estimated 20% non-plastic fines, 70% fine to coarse sand and 10% fine to coarse gravel. Decomposed granite. Refusal on bedrock at 10 feet.	5									
			SM	3 (RAE	3					
	10	10-									
The s	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.	4776		200			5324	CAN PE			**
WA	TER LEVEL OBSERVATIONS, ft				Е	BORII	NG ST	ARTE	D	***	3-24-06
VL	Ÿ NE ¥		_	_	E	BORII	NG CC	MPLE	TED		3-24-06
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.WL									-)B#	67055025

	LOG OF TEST	r PIT	NO	T	P-2	<u>a</u>					
CL	IENT		-	• •	-2			.		F	Page 1 of 1
_	ECO:LOGIC Engineering										
SIT	Washoe County, Nevada	PRO	DJEC		Fich	Spri	inas W	ater S	unnly	/ Projec	•
	Boring Location: Water Transmission Main					MPLE		ater c	uppij	TESTS	
၂			~			c c				l se	
GRAPHIC LOG	DESCRIPTION	نو	USCS SYMBOL	~		RECOVERY, in.	نے	, "	DRY UNIT WT	UNCONFINED STRENGTH, psf	
APH		DEPTH, ft.	SSS	NUMBER	М	SOVE	SPT - N BLOWS / ft.	WATER CONTENT,	N .	CONF	
S S		DEF			TYPE		SP.	Š.Q.	Por	STR	
	SILTY SAND Brown, moist, dense, with estimated 20% non-plastic fines and 80%	-	SM	1 (RAI	В	i				
	fine to coarse sand. Decomposed granite.	-	-								
	2	-									
	POORLY-GRADED SAND with SILT Grey, moist, dense, with estimated 10%										
	non-plastic fines and 90% fine to coarse sand. Decomposed granite. Refusal on	-	SP	2 (FA	2		8.1			
	bedrock at 7 feet.	-	SM	2 (,		0,1			·
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GINT.GPJ TERRACON.GDT 6/7/2006											
	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.										
	TER LEVEL OBSERVATIONS, ft			•	Е	ORI	NG ST	ARTE	D		3-24-06
	Y NE Y				E		NG CC	MPLE	TED		3-24-06
	A A JELL	حال			F	RIG	Ca	at 314	C FC	REMA	N GCS
Mr Mr									JC	B #	67055025

	LOG OF TEST	PIT	NO	. Т	P-3	0					Page 1 of 1
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SIT	ECO:LOGIC Engineering	PRO	JEC	T							
	Washoe County, Nevada						ngs W	ater S	upply		
	Boring Location: Water Transmission Main				SAN	MPLE:	S			TESTS	3
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown, moist, dense with estimated 20% non-plastic fines and 80%	_									
	fine to coarse sand.	-	SM	1.0	3RAI	b					_
		_	SIVI	10	ÞΚΑΙ	В					
		-									-
	3.5 SILTY SAND Brown to red-brown, moist,	-	SM	2.0	RAI	0					-
	weakly cemented, dense with estimated	-	Sivi	2 (,					
	40% non-plastic fines, 60% fine to coarse sand, and trace gravel.	_									
		5—	SM	3 0	RA	3					1
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		_									
		-									
	8										
	SILTY SAND with GRAVEL Grey, moist, very dense with estimated 20% non-plastic	_	SM	4 0	RA	3					
	g fines, 65% fine to coarse sand, and 15 % fine to coarse gravel. Decomposed granite.	_		-	-						
	Refusal on bedrock at 9 feet.										
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										i.	
The s	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.				9		-				
	TER LEVEL OBSERVATIONS, ft			_		RORI	NG ST	ΔRTF	D	_	3-27-06
-	The state of the s			_	l line		NG CC				3-27-06
F	A A A ISL					RIG		at 314		OREM/	
WL				_					JL	DB#	67055025

	LOG OF TES	T DIT	NO		D_3	1				
CI	JENT	1 [1]	140		- -3					Page 1 of 1
	ECO:LOGIC Engineering									
31	ΓE	PRO	JEC							
	Washoe County, Nevada		T					ater Su	pply Pr	
	Boring Location: Water Transmission Main				SAN	/PLES	>		IE.	STS
GRAPHIC LOG	DESCRIPTION	DЕРТН, ft.	USCS SYMBOL	NUMBER	ТҮРЕ	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf UNCONFINED	STRENGTH, psf
	CLAYEY SAND Red-brown, dry, dense with estimated 40% medium plasticity fines and 60% fine to coarse sand.	-	SC		RA					
	2.5 CLAYEY SAND with GRAVEL Red-brown, dry, dense with estimated 25% low to medium plasticity fines, 60% fine to coarse sand, and 15% fine to coarse gravel. Cobbles up to 4 inches in diameter. Refusal on bedrock at 3.5 feet.		SC	2 0	BRAE	3				
	ixelusar on bedrock at 3.5 feet.									
The	stratification lines represent the approximate boundary lines	1		1		1				
betw	een soil and rock types: in-situ, the transition may be gradual.				_				 .	
	TER LEVEL OBSERVATIONS, ft							ARTED		3-27-06
	å å Jell				В			MPLET	T	3-27-06
	à à le le le le le le le le le le le le le	CL			R	IG	Ca	t 314C		
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\bigcap	LOG OF TEST	PIT	NO	. Т	P-3	2				Ď	age 1 of 1
CLI	ENT										age i oi i
SIT	ECO:LOGIC Engineering	PRO	JEC								
J.,	Washoe County, Nevada	' ' `	<i>7</i> 520		Fish	Spri	ngs W	ater S	upply	Projec	:t
	Boring Location: Water Transmission Main				SAM	/PLE	S			TESTS	
GRAPHIC LOG	DESCRIPTION	DЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown to dark brown, moist, dense with estimated 30%-40% non-plastic fines and 60%-70% fine to coarse sand.		SM	1 (RAI	3					
		-	SM	2.0	BRA						
		-	SIVI	2 (ÞΚΑΙ	3					:
	SILTY SAND with GRAVEL Red-brown, dry, weakly cemented, dense with estimated 35%-40% non-plastic fines, 45%-50% fine to coarse sand, and 15% fine to coarse gravel. Cobbles up to 6 inches in diameter.	5	SM	3 (RA	3		6.5			
		-						0.5			
		10-	SM		RAE						
	12	-								1 1	
The s	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.										
	TER LEVEL OBSERVATIONS, ft				E	BORI	NG ST	ARTE	D		3-27-06
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CLIE	NT ECO:LOGIC Engineering										age 1
SITE		PRO	JEC	T							
	Washoe County, Nevada				Fish	Spri	ngs W	ater S	upply	Projec	t
E	Boring Location: Water Transmission Main				SAI	MPLE	S			TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	ТҮРЕ	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown, dry, medium dense with estimated 25% non-plastic fines and 75% fine to coarse sand. Problems with hole collapsing.	5	SM	20	ERAL	3	dS B)	Dod	NU ST	
etweer	atification lines represent the approximate boundary lines in soil and rock types: in-situ, the transition may be gradual.				B	SORIJ	NG ST.	ARTE	D		3-27

		LOG OF TEST	PIT	NO)_]	ΓP	-34						- 4 - 8 4
ŀ	CLI	ENT	T										Page 1 of 1
	3IT	ECO:LOGIC Engineering	DB(DJEC	· T								
	ווכ	Washoe County, Nevada	PRO	JJEC	·	Fis	sh S	prin	as W	ater S	dagui	y Proje	ct
		Boring Location: Water Transmission Main		T			SAMP					TESTS	
	GRAPHIC LOG	DESCRIPTION	#	USCS SYMBOL	<u>K</u>			RECOVERY, in.	1 5 / ft.	, NT, %	LIT WT	UNCONFINED STRENGTH, psf	
	GRAP		DEPTH, ft.		NUMBER			RECOV	SPT - N BLOWS / ft.	WATER CONTENT,	DRY UNIT WT	UNCON	
		CLAYEY SAND Brown, dry, dense with estimated 30% low to medium plasticity fines and 70% fine to coarse sand. 1.5	-	SC	1	GF	RAB						
		SILTY SAND Brown, dry, dense with estimated 25% non-plastic fines and 75% fine to coarse sand.	- - - -	SM	2	GR	КАВ						
			-	SM	3	GR	КАВ						
Managaran.		6.5	5-						:				
0.0.00		SILTY SAND with GRAVEL Red-brown, dry, dense with estimated 20% non-plastic fines, 65% fine to coarse sand, and 15% fine to coarse gravel. Cobbles up to 6 inches in diameter.	-	SM	4	GR	AB						
A. 6. 70 % . 6. 70 %	20000		10—										
المناه والمناه	10000000000000000000000000000000000000		-	SM	5	GR	AB			,			
OT 6/7/2006	7.4 7.0	13	-	-					,			4	
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7 GII	he s	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.											i
V 855		TER LEVEL OBSERVATIONS, ft					ВС	RIN	IG ST	ARTE	D	-	3-27-06
1	\rightarrow	Ÿ NE ¥					ВС	RIN	IG CC	MPLE	ETED		3-27-06
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	LOG OF TEST	PIT	NO	. Т	P-3	8				1	Page 1 of 1
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317	ECO:LOGIC Engineering	PRO	JEC	Т							
	Washoe County, Nevada	-						ater S	upply	Proje	
	Boring Location: Water Transmission Main				SAM	/PLE	S	 	[TESTS	<u>; </u>
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown, moist, dense with estimated 20% non-plastic fines and 80% fine to coarse sand. Pit collapses at 10 feet.	-	SM		RAI			4.5			-
	10	5—	SM	3 (FRAE	3					
betw WA	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual. TER LEVEL OBSERVATIONS, ft						NG ST				3-27-06
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WL WL					• F	RIG	C	at 314		DREMA	
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	LOG OF TEST	PIT	NO	. Т	P-4	2				-	Page 1 of 1
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21.1	Washoe County, Nevada	'''	<i>7</i> 0LO		Fish	Spri	ngs W	ater S	upply	/ Proje	ct
	Boring Location: Water Transmission Main					/PLE				TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	SILTY SAND Red-brown, moist, dense with estimated 30% low to medium plasticity fines and 70% fine to coarse sand.	-	SM		SRA	-					
	SILTY SAND with GRAVEL Red-brown, moist, weakly cemented, dense with estimated 20% non-plastic fines, 55%-65% fine to coarse sand, and 15%-25% fine to	5	SM	2 (RAI	3					
	coarse gravel.		SM	3 (RA	3					
		10	SM	4 0	RAE	3					
<u>0 (</u>	2	_									
The s betwe	tratification lines represent the approximate boundary lines en soil and rock types: in-situ, the transition may be gradual.										
	ER LEVEL OBSERVATIONS, ft				E	BORI	NG ST	ARTE	D		3-27-06
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3IT	ECO:LOGIC Engineering	PRO	JEC	Т							
	Washoe County, Nevada	1110	<i>,</i> 0LO		Fish	Spri	ngs W	ater S	upply	/ Projec	t
	Boring Location: Water Transmission Main					/PLE				TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	CLAYEY SAND Brown, moist, medium dense with estimated 35% medium plasticity fines, 65% fine to coarse sand, and trace gravel to 2 inches in diameter.	-	SC	1 (RA	3					
これでいるこ	SILTY SAND with GRAVEL Red-brown, moist, dense with estimated 30% low plasticity fines, 55% fine to coarse sand, and 15% fine to coarse gravel.	-	SM	3 (RAE	3					
	SILTY SAND with GRAVEL Red-brown, moist, cemented, very dense with estimated 20%-30% low plasticity fines, 50% fine to coarse sand, and 20%-30% fine to coarse gravel. Refusal on hardpan and boulders.	5—	SM	3 0	RAE	3					
		-	SM	4 0	RAE	3					
4.111.4											i c
- 1	8									1	
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The s	tratification lines represent the approximate boundary lines										
betwe	stratification lines represent the approximate boundary lines sen soil and rock types: in-situ, the transition may be gradual.										
betwe WA7	een soil and rock types: in-situ, the transition may be gradual. ER LEVEL OBSERVATIONS, ft				- ⊩		NG ST				3-28-0
WA7	een soil and rock types: in-situ, the transition may be gradual.				- ⊩		NG CC		TED	DREMA	3-28-0

	LOG OF TEST	PIT	NO	. T	P-4	8					4 of 4
CL	ENT			-			-				Page 1 of 1
SIT	ECO:LOGIC Engineering	PRO	JEC				4				
~	Washoe County, Nevada							ater S	upply	Proje	
	Boring Location: Water Transmission Main				SAN	/IPLE	S		<u> </u>	TESTS	<u> </u>
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pdf	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown, moist, medium dense with estimated 35%-40% low	_	SM	1 (RA	3					
5, O. K.	1 plasticity fines, 25%-35% fine to coarse	_	CNA	0.0			1				
0.50 Composition (2) Compositi	\sand, and 10% fine gravel. SiLTY SAND with GRAVEL Red-brown, moist, dense with estimated 25%-35% non-plastic fines, 55%-60% fine to coarse sand, and 15% fine gravel.	- - -	SM	20	FRAE	3					
; \d	SILTY SAND with GRAVEL Red-brown,	-	SM	3 (RAE	3					1
	moist, cemented, very dense with estimated 15%-20% non-plastic fines, 55% fine to coarse sand, and 25% fine to coarse gravel.	5							;		
oc oc	7.5	_									
	POORLY GRADED GRAVEL with SAND and SiLT Red-brown, dry, cemented, very	_	GP	4 0	RAB	3					
	fines, 25% fine to coarse sand, and 60% fine to coarse gravel.		GM							-	
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			-								
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The	stratification lines represent the approximate boundary lines						,				
betw	een soil and rock types: in-situ, the transition may be gradual.										
	TER LEVEL OBSERVATIONS, ft						NG ST				3-28-06
Belle in	A A A A JGUSTANE A	7					NG CO				3-28-06
WL					╸┞	RIG	Ca	at 314		REMA	N GCS 67055025

	LOG OF TEST	PIT	NO	. Т	P-5	0					Dama 4 of 4
CL	IENT			_							Page 1 of 1
317	ECO:LOGIC Engineering	PRC	JEC	T							
_	Washoe County, Nevada						ngs W	ater S	upply		
	Boring Location: Water Transmission Main				SA	MPLE:	3			TESTS	}
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown to red-brown, moist, medium dense to dense with estimated	_	SM	1 (RA	3					
	25%-35% low to non-plastic fines, 65%-75% fine to coarse sand, and trace gravel.	_									
		_	SM	2 (RAI	3					
		_				9					
		_									
		5—									
		_	SM	3 (FRA	3					
RUIC	7 CH TV CAND WAS CRAVEL Drawn dry	-	014							-	
	SILTY SAND with GRAVEL. Brown, dry, cemented, very dense with estimated 20% non-plastic fines, 65% fine to coarse sand,	_	SM	4 (RAI	3					
	and 15% fine to coarse gravel.										
		_									
		10									
		_	SM	5 (RA	3					-
.0) C	12	-		-							
			1								
betw	stratification lines represent the approximate boundary lines reen soil and rock types: in-situ, the transition may be gradual.				1						
	TER LEVEL OBSERVATIONS, ft □ NE □ NE				- 11-		NG ST				3-28-06
and the second	A A I I I I I I I I I I I I I I I I I I					RIG	NG CC	at 314		DREMA	3-28-06 AN GCS
WL						10				OB#	67055025

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CLIE	LOG OF TEST	T									Page 1 d
CLIE	ECO:LOGIC Engineering										
SITE		PRO	JEC	Т							
	Washoe County, Nevada						ngs W	ater S	upply		
- 1	Boring Location: Water Transmission Main				SAN	/PLES	S 			TESTS	3
GRAPHIC LOG	DESCRIPTION	ОЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	CLAYEY SAND Brown, wet, medium dense with estimated 40% medium	<u> </u>	SM		GRAI		47.13				
1	plasticity fines and 60% fine to coarse	-	014								
	SiLTY SAND with GRAVEL Red-brown, moist, dense with estimated 25% non-plastic fines, 45% fine to coarse sand, and 20% fine to coarse gravel. Cobbles and boulders up to 15 inches in diameter start at 3.5' to bottom of pit.	-	SM	21	GRAI	3					
	SILTY SAND with GRAVEL Red-brown, moist, very dense with estimated 25% low	5— 5—	SM	3 (SRA	3					
2000	to medium plasticity fines, 55% fine to coarse sand, and 20% fine to coarse gravel. Gravel fraction increases with	-									
0000	depth.	-	SM	4 (RAE	3					
000		_									
0.0		10-	SM	5 (RAE	3		1			
000		_									
JC 12	2	-									
			I V								
he str	ratification lines represent the approximate boundary lines en soil and rock types: in-situ, the transition may be gradual.			-						-	
	ER LEVEL OBSERVATIONS, ft			_	E	BORI	NG ST	ARTE	D		3-28
r Z	Z NE ¥					BORI	NG CC	MPLE	TED		3-28
r Z					1	RIG	C	at 314	CFC	DREMA	
L				_					110)B#	67055

SITE Washoe County, Nevada Boring Location: Water Transmission Main DESCRIPTION FAT CLAYRed-brown, wet, stiff with estimated 20% neval and and an observation of the coarse sand, and 30% fine to coarse somet. Red-brown, Refusal on bedrock at 7 feet. The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual. The stratification lines represent the approximate boundary lines between soil and rock types: in-situ, the transition may be gradual. WATER LEVEL OBSERVATIONS, R VL YNE PROJECT Fish Springs Water Supply Project SAMPLES TESTS TESTS THE STATION TO BE A STATE BORNING STARTED BORING STARTED BORING COMPLETED RIS Cat 314C FOREMAN											Page 1
Boring Location: Water Transmission Main DESCRIPTION FAT CLAYRed-brown, wet, stiff with estimated 60% high plasticity fines and 40% fine to coarse sand, and 30% fine to coarses sand, and 30% fine to coarses sand, and 30% fine to coarses sand, and 30% fine to coarses sand, and 30% fine to coarses sand, and 30% fine to coarses sand, and 30% fine to coarses sand, and 30% fine to coarses sand, and 30% fine to coarses sand. Refusal on bedrock at 7 feet. SM 2 GRAB 10.4 SM 3 GRAB 10.4 SM 2 GRAB 10.4 SM 2 GRAB 10.4 SM 2 GRAB 10.4 SM 2 GRAB 10.4 SM 2 GRAB 10.4 SM 2 GRAB 10.4 SM 2 GRAB 10.4 SM 2 GRAB 10.4 SM 2 GRAB 10.4 SM 2 GRAB 10.4 SM 2 GRAB 10.4 SM 2 GRAB 10.4 SM 2 GRAB 10.4 SM 2 GRAB 10.4 SM 3 GRAB 10.4 SM 3 GRAB 10.4 SM 2 GRAB 10.4 SM 3 GRAB 10.4 SM 2 GRAB 10.4 SM 3 GRAB 10.4 SM 2 GRAB 10.4 SM 3 GRAB 10.4 SM 3 GRAB 10.4 SM 3 GRAB 10.4 SM 3 GRAB 10.4 SM 2 GRAB 10.4 SM 3 G	OGIC Engineering										
Boring Location: Water Transmission Main DESCRIPTION FAT CLAYRed-brown, wet, stiff with estimated 60% high plasticity fines and 40% fine to coarse sand, and 30% fine to coarse sand, and 30% fine to coarse sand, and 30% fine to coarse sand, and 30% fine to coarse sand, and 30% fine to coarse sand, and 30% fine to coarse sand, and 30% fine to coarse sand, and 30% fine to coarse sand, and 30% fine to coarse sand. SM 2 GRAB 10.4 SM 3 GRAB 10.4 SM 3 GRAB 10.4 SM 3 GRAB 10.4 Boring Started boundary lines streets and and and and and and and and and and		PRO	JEC								
DESCRIPTION I			I	1	Fish	Spri	ngs W	ater S	upply		
FAT CLAYRed-brown, wet, stiff with estimated 60% high plasticity fines and 40% fine to coarse sand. SILTY SAND with GRAVEL Red-brown, moist to dry, very dense with estimated 20% non-plastic fines, 50% fine to coarse sand, and 30% fine to coarse gravel. Gravel fraction increases with depth. Refusal on bedrock at 7 feet. SM 2 GRAB 10.4 SM 3 GRAB SM 3 GRAB SM 3 GRAB ATER LEVEL OBSERVATIONS, ft BORING STARTED	ater Transmission Main			-	SAN	MPLE	S			TESTS	T
## FAT CLAYRed-brown, wet, stiff with estimated 60% high plasticity fines and 40% fine to coarse sand. SILTY SAND with GRAVEL Red-brown, moist to dry, very dense with estimated 20% non-plastic fines, 50% fine to coarse gravel. Gravel fraction increases with depth. Refusal on bedrock at 7 feet. SM 2 GRAB	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
Refusal on bedrock at 7 feet. SM 2 GRAB 10.4 SM 3 GRAB The stratification lines represent the approximate boundary lines tween soil and rock types: in-situ, the transition may be gradual. ATER LEVEL OBSERVATIONS, ft BORING STARTED	% high plasticity fines and coarse sand. with GRAVEL Red-brown, very dense with estimated stic fines, 50% fine to coarse % fine to coarse gravel.	-	СН	1 (3				7111	
e stratification lines represent the approximate boundary lines tween soil and rock types: in-situ, the transition may be gradual.	edrock at 7 feet.	-	SM	2 0	RA	3		10.4			
the stratification lines represent the approximate boundary lines stratification lines represent the approximate boundary lines strated and rock types: in-situ, the transition may be gradual.		5—									
ATER LEVEL OBSERVATIONS, ft BORING STARTED	<u></u>		SM	3 0	RA	3					
ATER LEVEL OBSERVATIONS, ft BORING STARTED											
VATER LEVEL OBSERVATIONS, ft BORING STARTED	sent the approximate boundary lines	5									
L ₹ NE BORING COMPLETED	The state of the s				E	BORI	NG ST	ARTE	D		3-28
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L ¥ RIG Cat 314C FOREMAN											

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	317	E		PRO	JEC							<u></u>	
	<u> </u>	Washoe County, Nevada Boring Location: Water Transmission			T			Spri MPLE:		ater S	upply	Project TESTS	
		Borning Location. Water Transmission	Line				1						
	ဗို	DESCRIPTION			BOL			, in.		%	ΤΛ	UNCONFINED STRENGTH, psf	
	일	DESCRIPTION		# -	SYM	盗		VER	S / ft.	A L	TIN	NEN TEST	
	GRAPHIC LOG	W1		DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in	SPT.N BLOWS/ft.	WATER CONTENT, %	DRY UNIT WT pcf		
	<u> </u>	SILTY SAND with GRAVEL Re	ddish	٥	ő	Ž	F	œ	22.22	≷ŏ	2 8	האַל <u>.</u>	
		brown, moist, very dense, with	estimated	-	1								
	.00	15% non-plastic fines, 50% fine sand, and 35% fine to coarse s	ubangular	-	SM	1 (RA	3					
		gravel. Trace cobbles up to 1 f diameter.			SM	2 (RAI	3					
		Practical refusal at 2 feet due to	bedrock.										
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O	7										Ì		
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9		*											1
77/200										i	ĺ		
DT 6													- 1
CON						İ							:
ERRA													
SPJ T													
355025 GINT.GPJ TERRACON.GDT 6/7/2006	The	stratification lines represent the approximate	boundary lines	1				1					
5025	betw	een soil and rock types: in-situ, the transition	may be gradual.										
S	447	TER LEVEL OBSERVATIONS, ft							NG ST				5-3-06
57	*	Ā NE Ā	Jerr	7			E		NG CC				5-3-06
REHOL	WL			CL				RIG	Ca	at 314		DREMAN	SAN 7055025

	LOG OF TEST	PIT	NO	. T	P-6	6				Р	age 1 of 1
C	LIENT ECO:LOGIC Engineering		7 10								-
31	TE	PRO	JEC	T							
	Washoe County, Nevada							ater S	upply	Projec	t
	Boring Location: Water Transmission Line			-	SAN	/PLE	S			TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	SILTY SAND with GRAVEL Reddish brown, moist, very dense, with estimated 15% low plasticity fines, 50% fine to coarse sand, and 35% fine to coarse subangular gravel. Trace boulders up to 1.5 feet in diameter. Practical refusal at 5 feet due to bedrock.	5-	SM	_	RAB						
55025 GINT.GPJ TERRACON.GDT 6/7/2006 A G G G G G G G G G G G G G G G G G G											
The bety	stratification lines represent the approximate boundary lines ween soil and rock types: In-situ, the transition may be gradual.						,				
milition, T. T.	TER LEVEL OBSERVATIONS, ft						IG ST				5-3-06
4	i i i i i i i i i i i i i i i i i i i	76			В		IG CO				5-3-06
Mr Nr	ā is is is is in the second of	JL.	, U		R	IG	Ca	t 3140		REMAN	I SAN
Mr Mr									JOI	B# 6	7055025

\bigcap	L	OG OF TEST	PIT I	NO	. TI	P-6	7					Page 1 of 1
С	LIENT ECO:LOGIC Engineering											
3	TE		PRO	JEC	Ŧ							
1	Washoe County, Nevada						Spri MPLE	ngs W	ater S	upply		
	Boring Location: Water Transmission t	Line				SAI	VIPLE:	5			TESTS	
GRAPHIC LOG	DESCRIPTION		DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
The The Target of Target o	SILTY SAND Brown, moist, medidense, with estimated 45% non-fines, 50% fine to coarse sand, a to coarse, subrounded gravel up inches in diameter. Unit is well of the substitution of the s	plastic and 5% fine to 3 cemented.	5	SM	1 0	₽ BRA	В		15.4			
The	stratification lines represent the approximate bo	oundary lines										
2	ween soil and rock types: in-situ, the transition n	nay be gradual.		_	_	7	200	NO OF	A D.T.			F 0 00
VV.	TER LEVEL OBSERVATIONS, ft V NE V NE	75				- 1	_	NG ST				5-3-06
1907	Ā Ā	Terra					RIG	NG CC	at 314		DREMA	5-3-06 N SAN
WL						•	<u>.</u>		at 3-14		B#	67055025

		LOG OF TEST	PIT	NΩ	Т	P-6	R					
	CL	IENT LOG OF TEOT	1		• •						P	age 1 of 1
	7	ECO:LOGIC Engineering	556		_							-
	317	Washoe County, Nevada	PRO	JEC		Fich	Snri	nas W	ater S	unnly	Projec	•
		Boring Location: Water Transmission Line					MPLES			арріј	TESTS	
	١.										4	
	GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
		POORLY GRADED SAND with SILT and GRAVEL Brown, moist, very dense, with estimated 10% low plasticity fines, 50% fine to coarse sand, and 40% fine to coarse gravel. Many boulders up to 2 feet in diameter.	-	SP	1 ()RA	3		·			
		4		SM SP	2 (RA	3					
		Practical refusal at 4 feet due to boulders and bedrock.		SM								
	ļ											
055025 GINT.GPJ TERRACON,GDT 6/7/2006.												
25 GIN	The	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.										
35502		TER LEVEL OBSERVATIONS, ft				E	30RI	NG ST	ARTE	D.		5-3-06
(NG CC				5-3-06
OREHOLE	WL	A ME A A JELL	30			F	RIG	C	at 314	C FC	DREMAI	
ORE	WL				_	_				IC)B# (37055025

		LOG OF TEST	PIT	NO	Т	P-6	9					
	CL	JENT	T		-	• -	_				<u>F</u>	Page 1 of 1
	317	ECO:LOGIC Engineering TE	DDC	LEC	-							
-	ادر	Washoe County, Nevada	PRC	JEC		Fish	Spri	nae W	lator S	i uninh	Projec	
		Boring Location: Water Transmission Line					MPLE:		ater 5	uppiy	TESTS	
	l											
	GRAPHIC LOG	DESCRIPTION	DЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	7 1/4 V	0.5 TOPSOIL						. 07 Ш	20	0.6	200	
		SILTY SAND with GRAVEL Brown, moist, dense, with estimated 15% low plasticity fines, 60% fine to coarse sand, and 25% fine to coarse subangular gravel.		SM		RAI						
	(((((((((((((((((((Practical refusal at 4 feet due to bedrock.	-	SIVI								
055025 GINT.GPJ TERRACON.GDT 6772006												
S GIP	The s	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.										
05502		TER LEVEL OBSERVATIONS, ft		_		Б		NG ST	A D T C (<u> </u>		E 2 00
								VG CO				5-3-06 5-3-06
<u></u>		A A A JELI				l	RIG		at 314	T	REMAI	
ᇒ	WL					╹┟			AL J 141	_		67055025

	LOG OF TEST	PIT	NO	. Т	P-7	0				D	age 1 o
CLI	ENT										age 10
SITI	ECO:LOGIC Engineering	DDC	JEC	T	200						
3111	Washoe County, Nevada	PRO	JJEC		Fish	Spri	nas W	ater S	vlagu	Projec	t
	Boring Location: Water Transmission Line					/PLE				TESTS	
GRAPHIC LOG	DESCRIPTION	#	USCS SYMBOL	£.		RECOVERY, in.	/ ft.	NT, %	IIT WT	UNCONFINED STRENGTH, psf	
	TOROGU	DEPTH, ft.	uscs s	NUMBER	TYPE	RECOV	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCON	
	0.5 TOPSOIL										
	CLAYEY SAND with GRAVEL Brown, moist, medium dense, with estimated 45% non-plastic fines, 50% fine to coarse sand, and 5% fine gravel. Unit is well cemented.	5	SC		RA			20.3			
	POORLY GRADED SAND with SILT and GRAVEL Brown, moist, very dense, with estimated 10% low plasticity fines, 60% fine to coarse sand, and 20% fine to coarse subrounded gravel.	10	SP	3 (RAE		genac				
The s	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.										
	ER LEVEL OBSERVATIONS, ft					BORII	NG ST	ARTE	D	100	5-3
	i i i i i i i i i i i i i i i i i i i				E	ORII	NG CC	MPLE	TED		5-3
VL 3	i il Citi		·C		F	RIG	Ca	at 314	C FC	REMAI	v s
VL					- -				JO	B# 6	370550

	LOG OF TEST	PIT	NO	. т	P-7	1					
CI	LIENT	T				-		<u> </u>		P	age 1 of 1
्री हा	ECO:LOGIC Engineering TE	DDC) IEO								
	Washoe County, Nevada	PRO	DJEC		Fish	Spri	ngs W	ater S	upply	Project	t
	Boring Location: Water Transmission Main				SAN	/PLE	3			TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT · N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pof	UNCONFINED STRENGTH, psf	
1 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/	TOPSOIL	_									
	POORLY GRADED SAND with SILT and GRAVEL Light brown, moist, very dense, with estimated 10% non-plastic fines, 50% fine to coarse sand, and 40% fine to coarse gravel. Unit contains trace boulders up to 2.5 feet in diameter. 3.5 Practical refusal at 3.5 feet due to bedrock.		SP SM SP SM		RAE						
65025 GINT.GPJ TERRACON.GDT 67/2006 Red at the control of the con	stratification lines represent the approximate boundary lines										
WA	reen soil and rock types: in-situ, the transition may be gradual. TER LEVEL OBSERVATIONS, ft		· /		В	ORIN	IG STA	RTF	<u> </u>		5-2-06
VL							IG CO				5-2-06
WL WL	A A A JELL				R	IG	CA	Г 314	+	REMAN	SAN
SAAF		v							JO	B# 6	7055025

	LOG OF TEST	PIT	NO	. Т	P-7	2				P:	age 1 of 1
CL	IENT ECO:LOGIC Engineering										
317		PRO	JEC	Т							
1	Washoe County, Nevada	-	1			Spri MPLE:		ater S	uppiy	Project	<u>t</u>
	Boring Location: Water Transmission Main				J	VIPLE				TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
11 1/2 A	TOPSOIL										
7200	1										
	CLAYEY SAND with GRAVEL Reddish brown, moist, dense to very dense, with estimated 20% medium plasticity fines, 60% fine to coarse sand, and 20% fine to coarse gravel up to 3 inches in diameter. Gravel increases with depth.		SC	1 (\$RAI	3					
	6 Practical refusal at 6 feet due to bedrock.	5	SC	2 (RAI	3					
The	stratification lines represent the approximate boundary lines										
betw	een soil and rock types: in-situ, the transition may be gradual.			_							
	TER LEVEL OBSERVATIONS, ft						NG ST				5-2-06
	A A ISL					RIG	NG CC	мрце Т 314		DREMAN	5-2-06 N SAN
WL					1			7 014	+		7055025

CLIENT	LOG OF TE		-					-		P	age 1
CLIENT	ECO:LOGIC Engineering										
SITE		PRO	DJEC	T							
	Washoe County, Nevada				Fish	Spri	ings W	ater S	Supply	Project	t
Borin	g Location: Water Transmission Main					MPLE			, ,	TESTS	
(1)										<u>+</u>	
GRAPHIC LOG	DESCRIPTION		USCS SYMBOL			RECOVERY, in.		8	DRY UNIT WT pcf	t, ps	
을		#	S. S.	2		ÆR.	3/#	~ \E	Ė	FF	
AP		ОЕРТН, ft.	CS	NUMBER	TYPE	ő	SPT - N BLOWS / ft.	WATER CONTENT,	5 /	SEN	
<u>5</u>		0 0	Sn	Ž	F	R.	SP	\$8	Pg B	UNCONFINED STRENGTH, psf	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TOPSOIL						- IFF			-87	
1											
	FAT CLAY Grey, moist, stiff, with estimated 60% medium to high plasticity							ĺ			
2	fines, 30% fine to coarse sand, and 10%			1							
	fine gravel. POORLY-GRADED SAND with GRAVEL		SP	1 (RA	3					
	Grey, moist, very dense, with estimated		SM								
	10% low plasticity fines, 60% fine to coarse	-									
	sand, and 30% fine to coarse sub-angular gravel. Weathered bedrock.	-									
	3.4.4	-								1	
			1 1								
		5—				1				- 11	
		-	SP	2 (RAE	3					
		-	SM								
		-							-		
		_							Ì	- 1	
										- 1	
8.5					}				i		
	Practical refusal on bedrock at 8.5 feet	_									
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16				İ					- 4		
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1											
Marian Maria	A. 6										
ne stratifica etween soil	tion lines represent the approximate boundary lines and rock types: in-situ, the transition may be gradual.										
	EVEL OBSERVATIONS, ft		_			ODI	IC ST	٨٥٣٠			
L ¥ NE							NG ST				5-2
r <u>a</u> ne					B		IG CO		_		5-2
r x		GL	LJ.		R	IG	CA	T 314	CFO	REMAN	S
									JOE		

LOG OF TEST PIT NO. TP-74											age 1 of 1			
	CI	JENT	D:LOGIC Engineeri	na										
	31	TE	Z. E O O O E II GIII CEITI	9	PRO	JEC	T							
			shoe County, Neva					Fish	Spri	ngs W	ater S	upply	Projec	:t
		Boring Location	: Water Transmissio	on Main				SAI	MPLE	S			TESTS	1
	GRAPHIC LOG		DESCRIPTION	ı	DЕРТН, ft.	USCS SYMBOL	NUMBER	ТҮРЕ	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pof	UNCONFINED STRENGTH, psf	
	3 /y . s	TOPSOIL				 								
		estimated fine to coa	ND with GRAVEL Be e, very well cemente 20% low plasticity fi rse sand, and 15% efusal on very well o	ed, with nes, 65% fine gravel.		SM	1 0	RA	3					
GDT 6772006		soil.												
5025	wA.	een soil and rock type TER LEVEL OBSI		may be gradual.	,			- ⊩-		NG STA				5-2-06
SIL.		₹ NE	¥ ¥	Merra	76			В		NG CO				5-2-06
漏上	NL NL		-					■ R	RIG	CA	Г 3140	_	REMAN B# 6	N SAN 87055025

	LOG OF TEST PIT NO. TP-75												F	Page 1 of
	_	LIENT ECO	:LOGIC Engineering	ng										
	31	TE		-	PRO	JEC								
			noe County, Nevac					Fish	Spri	ngs W	ater S	upply	Projec	
		Boning Location:	Water Transmissio	n Main			-	SAI	MPLE	S	-		TESTS	Τ
	GRAPHIC LOG		DESCRIPTION	I	ОЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, In.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	<u>3 1/4 1 1</u>	TOPSOIL								-7,2				
	17.31.1	1			_									
		dense, with fines, 50% fine to coar	D with GRAVEL Brown estimated 15% not be set of the brown of the set of the brown o	n-plastic , and 35% el. Unit										
		GRAVEL Be estimated 1 to coarse sa subangular up to 1 foot	RADED SAND with rown, moist, very de 0% non-plastic fine and, and 25% fine to gravel. Unit contain in diameter. fusal at 6 feet due to	ense, with es, 65% fine o coarse ns cobbles	5									
5025	betw	een soil and rock types	esent the approximate Is: in-situ, the transition	boundary lines may be gradual.										
S		TER LEVEL OBSE	RVATIONS, ft					_	ORIN	IG STA	RTE			5-2-06
		ŸNE				В	ORIN	IG COI	MPLE	TED		5-2-06		
H _		Ā	Ţ	Jen	JL			R	iG	CAT	3140	FO	REMAN	N SAN
P.	WL											JOE	3# 6	7055025

ļ		LOG OF TEST	PIT	NO	. T	P-7	'6				P	age 1 of 1
1	CL	ECO:LOGIC Engineering									_	
	SIT	E	PRO	JEC	Т							
1	9	Washoe County, Nevada		,	····				ater S	upply	Projec	t
		Boring Location: Water Transmission Main				SAI	MPLE	S		F	TESTS	
	S GRAPHIC LOG	DESCRIPTION	ОЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
7,	4 & & & & & & & & & & & & & & & & & & &	TOPSOIL Dark brown, moist, medium dense, with estimated 15% low plasticity fines, 80% fine to coarse sand, and 5% fine gravel.	_									
		SILTY SAND Brown, moist, medium dense to very dense, with estimated 20% non-plastic to low plasticity fines, 70% fine to coarse sand, and 10% fine to coarse gravel. Unit contains cobbles up to 6 inches in diameter.	5									
		Practical refusal at 7 feet due to bedrock.										
bi	ne s etwe	tratification lines represent the approximate boundary lines en soil and rock types: in-situ, the transition may be gradual.										
-	and the owner, where the party is	ER LEVEL OBSERVATIONS, ft	- 34-4			P	OPI	NG STA) RTE)	-	5-2-06
N		7				- 10-		VG CO				5-2-06
W	-	i i i i i i i i i i i i i i i i i i i					IG		13140		REMAN	
W	L					• F		UA	3141	JOI		SAN 7055025

	LOG OF TEST	PIT	NO	—). Т	P-7	7					
CI	JENT									P	a ge 1 of '
31	ECO:LOGIC Engineering TE	DD(DJEC	· T							
	Washoe County, Nevada	FRO	JJEC		Fish	Spri	nas W	ater S	unnly	Project	•
	Boring Location: Water Transmission Main					MPLE:			арріу	TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ff.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	SILTY SAND Dark brown, moist, medium		+-	_		-	0,111	>0		- 00	
	dense, with estimated 25% low plasticity fines, 70% fine to coarse sand, and 5% fine gravel.		SM	1 (RAI	3					
	CLAYEY SAND Brown, moist, medium dense, with estimated 40% medium plasticity fines, 55% fine to coarse sand, and 10% fine gravel. Fines decrease with depth.	5—	SC	2 0	iRAE			20.1			
	8.5 CLAYEY SAND with GRAVEL Brown,		SC		RAB						
	moist, medium dense, with estimated 15% medium plasticity fines, 60% fine to coarse sand, and 25% fine subangular gravel. Unit contains cobbles up to 6 inches in diameter. Fines decrease with depth.	10	SC	4 G	RAB						
WAT	tratification lines represent the approximate boundary lines sen soil and rock types: in-situ, the transition may be gradual. ER LEVEL OBSERVATIONS, ft						G STA				5-2-06 5-2-06
로 WL	A A A JELLS				R			3140	1	REMAN	SAN
WL WL					 				JOB		055025

		LOG OF TEST	PIT	NO		P-7	9					
	CL	IENT	1								Р	age 1 of 1
	317	ECO:LOGIC Engineering										
	31	Washoe County, Nevada	PRO	DJEC		Fish	Spri	nae W	ator S	e comple	Projec	
		Boring Location: Water Transmission Main		T			MPLE		ater 5	uppiy	TESTS	
	GRAPHIC LOG	DESCRIPTION	DЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	<u> </u>	TOPSOIL						0,20				
		CLAYEY SAND with GRAVEL Brown, moist, medium dense, with estimated 40% high plasticity fines, 35% fine to coarse sand, and 25% fine to coarse subangular gravel. Boulders up to 2 feet in diameter. SILTY SAND with GRAVEL Brown, damp, very dense, with estimated 40% high		SC	1 (RAE	3		33.2			
10.00 kg		plasticity fines, 40% fine to coarse sand, and 20% fine to coarse subangular gravel.	5	SM SM		GRAB GRAB	- 1					
									٠			
055025 GINT.GPJ TERRACON.GOT 67/2006	The si	tratification lines represent the approximate boundary lines en soil and rock types: in-situ, the transition may be gradual.										
cilib.		ER LEVEL OBSERVATIONS, ft				III.	ORIN	G STA	RTED)		5-2-06
1		Y NE Y TRICE				В		G CON	/IPLET	ED		5-2-06
SOREHOIN A		i i i i i i i i i i i i i i i i i i i		U		RI	G	CAT	3140	+	REMAN	SAN
8										JOE	# 67	7055025

		LOG O	F TEST	PIT	NO	. T	P-8	30					
	CL	IENT										<u>P</u>	age 1 of 1
(31.	ECO:LOGIC Engineering		DDC	JEC	т							
1	2	Washoe County, Nevada		FRC	JJEC		Fish	Spri	ngs W	ater S	vlaau	Projec	ef .
		Boring Location: Water Transmission Main				<u> </u>	SA	MPLE	S			TESTS	
	GRAPHIC LOG	DESCRIPTION		DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT · N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
		CLAYEY SAND with GRAVEL Reddish-brown, moist, dense, with 35%			SC		RA	_	07.03	20	0.0		
	6/8/ ////	medium to high plasticity fines, 50% fine coarse sand, and 15% fine to coarse	to	_									
		gravel.											
		SILTY SAND Reddish-brown, dry, very dense, with estimated 15% non-plastic		_	SM	2 (RA	3					
		fines, 60% fine to coarse sand, and 25% fine to coarse gravel.											
		g.a.c.		-									
												!	
		5.5		5					ŀ				
ľ	I-F-	Practical refusal at 5.5 feet due to											
	À.	boulders.											
	2												
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-1												ŀ	
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900													
6/7/20													
N.GDT				1								:	
RACO													
PJ TE													
SINT.G	bo et	tratification lines and the											
202	etwe	tratification lines represent the approximate boundary line en soil and rock types: in-situ, the transition may be grad	s ual.										
All Property lies	TAV	ER LEVEL OBSERVATIONS, ft						ORIN	G STA	RTED	·		4-13-06
	AF Z	Y NE Y Y	פווב				В		G CON	/IPLET			4-13-06
	/L				U		RI	G	Cat	314C		REMAN	GCS
Ø.											JOB	# 67	7055025

	LOG OF TEST	PIT	NO	. T	P-8	1					Page 1
CLIE	NT ECO:LOGIC Engineering										-0
SITE		PRI	OJEC	т							
	Washoe County, Nevada	FIN	JUE		Fish	Spri	nas W	later S	Junnh	/ Proje	nt.
E	Boring Location: Water Transmission Main		7			APLE:		Tares C)uppi3	TESTS	
GRAPHIC LOG	DESCRIPTION	ОЕРТН, ft.	USCS SYMBOL	NUMBER	tar .	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
GR/)EP.	SC	Ž	TYPE	Ä	F 0	NO.	ا کر پخ	NC	
	SILTY SAND with GRAVEL Brown, moist, medium dense, with estimated 15% non-plastic to low plasticity fines, 60% fine to coarse sand, and 25% fine to coarse	-	SM	1 (SRAI	3	N.E	50] D Ø	
	gravel. Unit contains cobbles to 8 inches in diameter. SILTY, CLAYEY SAND Reddish-brown, moist, dense, with estimated 22% medium	-	-	-		•					
	plasticity fines, 66% fine to coarse sand, and 13% fine to coarse gravel. Unit contains cobbles to 6 inches in diameter.	-									
		5—					,				
			SC SM	3 0	RAB			12.9			
8 0 0 0 0 0 0 0	SILTY SAND with GRAVEL Reddish-brown, moist, very dense, with estimated 25% non-plastic fines, 60% fine to coarse sand, 15% fine to coarse gravel.	- 	SM	4 0	RAB						
) 10 0	Unit contains trace boulders greater than 2 feet in diameter. SILTY SAND with GRAVEL Reddish brown, moist, very dense with estimated	10-	SM	5.0	RAB						
) (11.	15% non-plastic fines, 55% fine to coarse		Sivi	0	100			1			
ihe stra between	atification lines represent the approximate boundary lines a soil and rock types: in-situ, the transition may be gradual.										
	R LEVEL OBSERVATIONS, ft				T _D	ΩĐΙ λ	IG ST	• DTE		-	4.4
	The state of the s										4-13
VL Y	NE TO TELL	26			R		IG CO				4-13
	116114	حاك	.u		R	IG	Ca	it 3140	C FO	REMA	N C
VL									JOI	R# (67055

CLI	IENT	1		-		_					Page 1
2.45	ECO:LOGIC Engineering			-57							
SIT		PRO	DJEC							100	7.7
	Washoe County, Nevada	1	1	1			ings W	ater S	upply		
	Boring Location: Water Transmission Main				SA	MPLE:	S	-	Т	TESTS	3
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown, damp, medium dense, with estimated 30% non-plastic to low plasticity fines, 60% fine to coarse sand, and 10% fine gravel.		SM		RAI					2 %	
7°	SILTY SAND with GRAVEL Brown, damp, medium dense, with estimated 20% non-plastic to low plasticity fines, 60% fine to coarse sand, and 20% fine to coarse	5—	SM	2 (RAE	3					
	to coarse sand, and 20% fine to coarse gravel. Unit contains boulders up to 2.5 feet in diameter.		SM	3 (RAE	}		9.1			
	SILTY SAND with GRAVEL Reddish brown, moist, damp, with estimated 25% low plasticity fines, 60% fine to coarse sand, and 20% fine to coarse gravel.		SM	4 G	RAB						
0.1	3										
VAT	tratification lines represent the approximate boundary lines ten soil and rock types: in-situ, the transition may be gradual. ER LEVEL OBSERVATIONS, ft				В	ORII	NG STA	ARTE	D		4-13
ΓZ	Ÿ NE ¥						NG CO				4-13
1 7	A A A A A A A A A A A A A A A A A A A	26				IG		t 314		REMA	
F Z			_			10.4	Co	· /1//			N G

SM 1 GRAB SW 2 GRAB SM 3 GRAB SM 3 GRAB India	CH	LOG OF TEST P CLIENT ECO:LOGIC Engineering	711 N	IU.	- 11	IP.	-01				F	age '
Fish Springs Water Supply Project SAMPLES TESTS ORCONERY, In. 18 SPT - N SSPT - N		ECO:LOGIC Engineering										
SAMPLES SAMPLES TESTS DEPTH, ft. DEPTH, ft. SW 2 GRAB SM 1 GRAB SM 2 GRAB ONCONTENT SM 3 GRAB ONCONTENT SM 3 GRAB ONCONTENT ONCONT	SIT	ïE	PRO	JEC	T							
SAMPLES SAMPLES TESTS DEPTH, ft. DEPTH, ft. SW 2 GRAB SM 1 GRAB SM 1 GRAB SM 2 GRAB ONCONTENT SM 3 GRAB Inse, es, lie and is		Washoe County, Nevada				Fish	Spri	ngs W	ater S	ylaau	Projec	ŧ
Brown, ed 10% rse SM 1 GRAB SM 2 GRAB ONLEDY, II. MUMBER SW 2 GRAB ONLEDY, II. MUMBER SW 3 GRAB ONLEDY, III. MILED STRENGTH, psf III. MILED SW 3 GRAB		Boring Location: Terminal Tank				SAI	MPLE	S				
Srown, ed 10% rse SM 1 GRAB SW 2 GRAB 6.3 SM 3 GRAB es, es, ee, ee, ee, ee, ee, ee, ee, ee,	GRAPHIC LOG	DESCRIPTION	ЭЕРТН, ft.	JSCS SYMBOL	JUMBER	YPE	ECOVERY, in.	SPT - N SLOWS / ft.	VATER CONTENT, %	RY UNIT WT	NCONFINED TRENGTH, psf	
SM 1 GRAB SW 2 GRAB SW SM 3 GRAB SM 3 GRAB SM 3 GRAB SM 3 GRAB	1	TOPSOIL		-		-	L.	SUШ	>0		⊃ ທ	
SM 1 GRAB SW 2 GRAB SW SM 3 GRAB SM 3 GRAB SM 3 GRAB SM 3 GRAB	1. 3. 3.1/	1	_								1	
SW 2 GRAB 6.3 SM 3 GRAB es, lee and is		WELL GRADED SAND with SILT Brown, moist, medium dense, with estimated 10% low plasticity fines, 85% fine to coarse sand, and 5% fine gravel.	-	SM	1 0	RA	3					
es, ne ind is			_		2 G	RAB			6.3			
	9	gravel. Unit is very well cemented and is decomposed granite. Practical Refusal at 9 feet on cemented		SM	3 G	RAB						
		soils.							s .			
be gradual. BORING STARTED 5-1	/ATE	ratification lines represent the approximate boundary lines on soil and rock types: in-situ, the transition may be gradual. ER LEVEL OBSERVATIONS, ft					_					5-′
BORING COMPLETED 5-1 RIG Cat 314C FOREMAN S	Ā		سل ا			BC	_	G CON	IPLET	ED		5-1
RIG Cat 314C FOREMAN S	111					RI	G	Cat	314C	FOR	EMAN	5
JOB# 67	L					KI	-	Cat	314C	V 1		-

01.11	LOG OF TEST	PIT N	10.	П	TP.	-02				Р	age :
CLI	ECO:LOGIC Engineering									•	~50
SITE		PRO	DJEC	T							
	Washoe County, Nevada				Fish	Spri	ngs W	ater S	Supply	Projec	t
	Boring Location: Terminal Tank				SAI	MPLE:	3		, , ,	TESTS	
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0 [0	DESCRIPTION	نه	MB			۲۲, آ	£.	8	Ĭ.	A P	
GRAPHIC LOG		F	SSY	BER		OVE	Z/S/	R E	N	NGT NGT	
GR.		ОЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
7.77	TOPSOIL	1				<u> </u>	υш	>0	0 6	200	
2.3		_									
9 を必 シシ シシ シカ1	.5										
	GRAVEL Light brown moist very dense	-									
	with estimated 5% non-plastic fines, 60% fine to coarse sand, and 35% fine to coarse										
	gravel. Unit contains cobbles to 6 inches in	-	SW	1.0	RAE						
4	diameter. Unit is composed mainly of decomposed granite.	_	SM		RAD	'		5.2			
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O etm	tification lines represent the										
e stra	tification lines represent the approximate boundary lines soil and rock types: in-situ, the transition may be gradual.										
ATE	R LEVEL OBSERVATIONS, ft		_	- 100	ВС	RIN	G STA	RTFD		-	5.4
ATE	R LEVEL OBSERVATIONS, ft				-		G STA				
tweer	R LEVEL OBSERVATIONS, ft		0	П	-	PRIN	G COM		ED	EMAN	5-1 5-1

		L	OG OF TEST F	PIT N	10.	TT	TP.	-03					
	CI	LIENT ECO:LOGIC Engineeria											Page 1 of 1
7 110	SI	TE	ig	DDC	DJEC								
	Ĺ	Washoe County, Nevac	la	FRO	JJEC		Fich	Snni	nac M	lata- E		Donto	- 4
		Boring Location: Terminal Tank			T		SAN	MPLE	ngs w	ater 5	uppiy	Project TESTS	
									<u> </u>				
	GRAPHIC LOG	7.700			占			. <u>=</u>			_	UNCONFINED STRENGTH, psf	
	101	DESCRIPTION		نيد	₽			RY,	æ:	% L	≥	Ä.	
- 1	PH.			E	SS	BER	l l) VE	z/S/	K III		E E	
J	GR/			DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT,	DRY UNIT WT	SE	
ı	11/4. 2	1.5 POORLY GRADED GRAVEL w Brown, moist, very dense, with trace non-plastic fines, 45% fin sand, and 55% fine to coarse g				Z	-	∝	N E	≥ŏ		<u>⊃</u> ∾	
ŀ	1 11/	i		_				į					
	7.1.7	1.5		_									
	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	POORLY GRADED GRAVEL W	/th SAND	_									
	ان ان ان ان ان	Brown, moist, very dense, with	estimated	_	00	- 4							
5	Őζ	trace non-plastic fines, 45% fin sand, and 55% fine to coarse g	e to coarse		GP		RA	[
9)-[. /o.	Practical Refusal at 3 feet on b	raver.	_	GP	2 0	RAE	3					
- 1		Fractical Relusal at 3 feet on b	еагоск			-							
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E T	he st	tratification lines represent the approximate be	oundary lines										
202	GIME	en soil and rock types: in-situ, the transition i	may be gradual.										
1		ER LEVEL OBSERVATIONS, ft				600	ВС	PRIN	G STA	RTED			5-1-06
		⁷ NE ▼		_	_				G COM		ED		5-1-06
夏 W	L Z	<u>Y</u>	Jeus			M	RIC			314C		EMAN	
SOREHO M	'L						F	-	- Cal	3140	+ -		SAN
	_						_				JOB	# 67	7055025

	LOG OF TEST	PIT N	10.	П	TP	-04				D	200 1 of
1	LIENT ECO:LOGIC Engineering					15-11-1					age 1 of
31	ITE W	PRO	DJEC								
	Washoe County, Nevada Boring Location: Terminal Tank	4			Fish	Spri	ngs W	ater S	upply l		<u>t </u>
	Borng Location. Terminar rank			-	SAI	MPLE:	S	-	· ·	FESTS	-
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	VUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
<u>3 / 2 3</u>	TOPSOIL				-	<u> </u>	ഗമ	SO		⊃ö	
772006	POORLY GRADED GRAVEL with SAND Brown, moist, very dense, with estimated 5% non-plastic fines, 45% fine to coarse sand, and 50% fine to coarse gravel. 3.5 Practical Refusal on Bedrock at 3.5 feet.		SP SP		RA						
WAT	stratification lines represent the approximate boundary lines sen soil and rock types: in-situ, the transition may be gradual.					DRING	G STA	RTED			5-1-06
1000	A A I IGLE				ВС	RIN	G COM	1PLET	ED		5-1-06
E .	i 116119			П	RI	<u> </u>	Cat	314C	FORE	MAN	SAN
Mr Mr									JOB #	67	055025

		PIT N	10.	П	TP.	-05					220 1 of 4
J											age i oi i
	3ITE	PRO	OJEC	T							
ECC:LOGIC Engineering SITE Washoe County, Nevada Boring Location: Terminal Tank DESCRIPTION SAMPLES TESTS DESCRIPTION SILTY SAND Dark brown, moist, medium dense, with estimated 20% low plesticity fire gravel. GRAVEL Light brown, moist, very dense, with estimated 10% non-plastic fines, 70% fire to coarse gravel and oxbites up to 6 inches in diameter. POORLY GRADED SAND with GRAVEL Light brown, moist, very dense, with estimated 5% non-plastic fines, 80% fine to coarse gravel and oxbites up to 12 inches in diameter.		t									
	Boring Location: Terminal Tank				SAI	MPLE:	S				
		DЕРТН, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	JNCONFINED STRENGTH, psf	
	dense, with estimated 20% low plasticity fines, 70% fine to coarse sand, and 10% fine gravel. 2 WELL GRADED SAND with SILT and GRAVEL Light brown, moist, very dense, with estimated 10% non-plastic fines, 70%	-									
	fine to coarse sand, and 20% fine to coarse gravel and cobbles up to 6 inches in			1 (RAE	3		6.6			
	Light brown, moist, very dense, with estimated 5% non-plastic fines, 60% fine to coarse sand, and 35% fine to coarse grayel	5	SP	2 6	RAB						
The	e stratification lines represent the approximate boundary lines		_							145	
	ween soil and rock types: in-situ, the transition may be gradual. ATER LEVEL OBSERVATIONS, ft										
	VIER LEVEL OBSERVATIONS, IT						G STA				5-1-06
144					BC	PRIN	G COM	IPLET	ED		5-1-06

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BORING COMPLETED
RIG Cat 314C FOREMAN

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JOB# 67055025

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SITE	ECO:LOGIC Engineering	- DD	150	-						
7	Washoe County, Nevada	PRO	DJEC		Eich	C	maa M	la4 0		
Во	oring Location: Well Field Collection System/Well				SAN	JPLE:	ngs w	ater S		
Ho	ouse									12313
8	DECODIDATION		Ö			.≘			_	psf
2	DESCRIPTION	#	Y.MB	~		R.Y.	نے	%	≱	E E
AP		Ę	SS	B 1		8	Z S	R E	Z	RS S
S. S.	ring Location: Well Field Collection System/Well SAMPLES TESTS									
	SILTY SAND Dark brown, damp,						φ <u>π</u>	>0		⊃ Ø
	medium dense, with estimated 35% low plasticity fines, 60% fine to coarse sand	-								
1.5	and 5% fine to coarse gravel. Some roots	-	SM	1 (RA	3				
	and organics present. SILTY SAND Light brown, damp								-+	
	medium dense, weakly cemented, with	_	SM	2 (RAE			11.7	-+	
medium dense, with estimated 35% low plasticity fines, 60% fine to coarse sand, and 5% fine to coarse gravel. Some roots and organics present. SILTY SAND Light brown, damp, medium dense, weakly cemented, with estimated 40% non plastic fines, 60% fine to coarse sand, and trace fine to coarse subrounded gravel. SM 2 GRAB 11.7 SM 2 GRAB 11.7 SM 3 GRAB POORLY GRADED SAND with SILT and GRAVEL Light grey, damp, medium dense to dense, with estimated 10% low plasticity fines, 65% fine to coarse sand, and 25% fine to coarse sub-rounded to	-									
	subrounded gravel.	-								2
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					_		11.7			
		1 -	SM 1 GRAB SM 2 GRAB 11.7 SM 3 GRAB							
		-						-		
		-								
10		-								
	POORLY GRADED SAND with SILT and	10	SP	4 (5)	₹ΔR	+				
	GRAVEL Light grey, damp, medium									
	plasticity fines, 65% fine to coarse sand	+	-	-	-	-	150			
112	and 25% fine to coarse sub-rounded to	-								
17416	Tourided graver.	-					re-			
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1					133					
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ne stratifi	cation lines represent the posterior to the second		_							
tween so	cation lines represent the approximate boundary lines oil and rock types: in-situ, the transition may be gradual.									
	LEVEL OBSERVATIONS, ft		_	-	I PC	DINI	2 0 7 4	DTER		
L \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\						_	G STA			12-7
Ā	1err	7			_		3 CON		1	12-7
			U		RIC	3	CAT	314C	FORE	EMAN S
					1				JOB #	# 67055

CI	LOG OF TEST P	۱ Tاد	10.	W	ΓP-	02					Page 1
5	ECO:LOGIC Engineering										
SIT		PRC	DJEC		-ish	Snri	-ae W	fator S		Proje	- A
	Boring Location: Well Field Collection System/Wellhouse		T		SAI	Spri MPLE:	ngs vv S	ater s	Supply	Proje TESTS	
GRAPHIC LOG	DESCRIPTION	ОЕРТН, Я.	USCS SYMBOL	NUMBER	ТҮРЕ	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown, damp, medium dense, well cemented, with estimated 20% low plasticity fines, 70% fine to coarse sand, and 10% fine gravel.	_ <u></u>	SM		3RA		ΩШ	> C			
	SILTY SAND Light brown, dry, medium dense, with estimated 20% low plasticity fines, 70% fine to coarse sand, and 10% fine gravel. Gypsum layer 2" thick at 3'.	- - - -	SM	2 (RA	3					-
	POORLY-GRADED SAND with SILT Light brown, dry, dense, with estimated 10% non plastic fines, 90% fine to coarse sand, and trace fine gravel.	5	SP SM		RAB			6.3			
	SANDY LEAN CLAY with GRAVEL Dark brown, moist, medium stiff, with estimated	10	SP SM		RAB						
1	55% medium plasticity fines, 30% fine to coarse sand and 15% fine to coarse well rounded gravel. SILTY SAND Light brown, dry, very well cemented, with estimated 15% low plasticity fines, 80% fine to medium sand, and 5% fine gravel.		SM	6 G	RAB						
he si	stratification lines represent the approximate boundary lines een soil and rock types: in-situ, the transition may be gradual.			1							
	ER LEVEL OBSERVATIONS, ft					ORIN	IG STA	ARTE	5		12-7
_	A NE Â		-		В	ORIN	IG CO	MPLE	TED		12-7
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/L									JOE		670550

	LOG OF TEST	PIT	NO.	W	TP-	03				Pi	age 1 o
_	JENT ECO:LOGIC Engineering							-			49-
SIT		PR	OJE	T							
	Washoe County, Nevada	Fish Springs Water Supply Project									
	Boring Location: Well Field Collection System/Well House			<u></u>	SAI	MPLE	S			TESTS	
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf	
	SILTY SAND Brown, damp, medium dense, with estimated 35% non plastic fines, 6% fine to coarse sand, and 5% fine	-									
	to coarse gravel.	-	-								
		-	SM	. 10	BRAE	3					
		-						7.9			
		-						7.0			
		_									
		5	SM	2 6	RAB						
8	SILTY SAND Dark brown, damp,										
	medium dense, with estimated 45% low plasticity fines, 50% fine to coarse sand,			-					:		
	and 5% fine to coarse gravel.	- -	SM	3 61	RAB	_					
1	1	10						+			
\ 0 \ 12	SILTY SAND with GRAVEL Dark brown, moist, dense, with estimated 15% low plasticity fines, 50% fine to coarse sand,	1	SM	4 G F	RAB						
	and 35% fine to coarse rounded to sub-rounded gravel. Cobbles up to 5". Moderate difficulty in excavation.	+									
	The Control of the Co										
ne str	atification lines represent the approximate boundary lines in soil and rock types: in-situ, the transition may be gradual.										_
	ER LEVEL OBSERVATIONS, ft	-		_	BC	RING	3 STAI	OTED.			10.7.01
ATE					800	A CILA		11511		- 2	/ / / / / /
ATE											2-7-0
/ATE	NE ¥			П		RING	G COM	PLET	ED		2-7-0: 2-7-0: SAN

CL	LOG OF TEST	PIT	NO.	W	TP-	04				31	Page 1		
	ECO:LOGIC Engineering								0				
SIT	Washoe County, Nevada	PROJECT Fish Springs Water Supply Project											
	Boring Location: Well Field Collection System			-	SAN	/PLE	S			TESTS			
GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT · N BLOWS / ff.	WATER CONTENT, %	DRY UNIT WT pcf	UNCONFINED STRENGTH, psf			
	SILTY SAND Brown, dry, loose, with estimated 30% low plasticity fines, 60% fine to coarse sand, and 10% fine to coarse sub-rounded to rounded gravel.	5	SM	,	RAB	,	Ø 00	80	06.	IN SI			
6 0 0 10 10	SILTY SAND Brown, dry, dense, well cemented, with estimated 40% low plasticity fines, 50% fine to coarse sand, and 10% fine gravel.	-	SM	2 GF 3 GF	RAB								
	atification lines represent the approximate boundary lines												
WATE	R LEVEL OBSERVATIONS, ft NE Y Telephonia and rock types: in-situ, the transition may be gradual. R LEVEL OBSERVATIONS, ft V Telephonia and rock types: in-situ, the transition may be gradual.					RING	STAF	_		EMAN	12-7-0 12-7-0 SA		

-	LOG OF TEST	PIT I	NO.	W	TP-	05							
CL	IENT ECO:LOGIC Engineering									:	Page 1 of		
317	TE	PR	OJEC	T		-							
1	Washoe County, Nevada		Fish Springs Water Supply Project										
	Boring Location: Well Field Collection System/Well House				SA	/PLE	3			TESTS			
G GRAPHIC LOG	DESCRIPTION	DEPTH, ft.	USCS SYMBOL	NUMBER	TYPE	RECOVERY, in.	SPT - N BLOWS / ft.	WATER CONTENT, %	DRY UNIT WT	UNCONFINED STRENGTH, psf			
	SILTY GRAVEL with SAND Grey, moist, dense, with estimated 25% non plastic fines, 35% fine to coarse sand, and 45% fine to coarse subrounded to rounded gravel.												
			GM	1 (RAE	3							
	SILTY SAND Light grey, dry, loose, with estimated 35% non plastic fines, 60% fine to coarse sand, and 5% fine grayel. Thin									1			
	1" well cemented layers.		SM	2 6	RAB			9.1					
	3												
	SILTY SAND Brown, damp, medium dense, with estimated 40% low plasticity fines, 50% fine to coarse sand, and 10% fine to coarse gravel.		SM	3 G	RAB								
10 6/7/2006	2												
GINT.GPJ TERRACON.GDT 6/1/2006													
OINT.GPJ	ratification lines represent the consequences.												
betwee	ratification lines represent the approximate boundary lines en soil and rock types: in-situ, the transition may be gradual. ER LEVEL OBSERVATIONS, ft	_			D/	DIN	G STA	DTES		-81	40 = ==		
					_						12-7-05		
140							G CON				12-7-05		
Mr A					RI	٥	CAT	314C	-	REMAN			
ă									JOB	# 6	7055025		