			WAT	ER WELL RECORD	Form WWC-5	KSA 82a	-1212		
	N OF WAT	`	Fraction			ion Number	1		Range Number
	pher			1/4 SW 1/4 No		32	T 18	<u>S</u>	1 R 3 EW
Distance and H	nd direction i	s Non	th of	Mc Pherson	U 165			•	-SB07)
WATER	WELL OW	150. US /	Dept. OF	Agriculture,	FARM	SERVICE	- ALENLY		
, RR#, St. A	ddress, Box	# : P.O. BO	x 2415, s	South AGRICUIT	ure blo	6 .			Division of Water Resources
City, State,		: WASH	LING HOW T)/ OM/)			Application	Number:	
LOCATE	WELL'S LC	CATION WITH	4 DEPTH OF	COMPLETED WELL.	184	. ft. ELEVA	TION:	515.8	3
AN "X" I	N SECTION	BOX:	Depth(s) Grou	ndwater Encountered 1	フススフ	ft. :	2 <i></i>	ft. 3	3 <u>.</u> ft. _.
i [!	·	WELL O DIA	O WATER LEVEL	- • . .	Now land 30	nace measured or	i ilio/day/yi	
	- NW	14	Pu Est. Yield .	mp test data: Well wate	er was . M.M. er was Deve	los col time	mer for 2 1/2	. hours pu hours pu	umping gpm umping O £9 gpm
_≅ w⊢		E	1						. to
≦ "	! !	! []	ł	TO BE USED AS:	5 Public wate		8 Air conditioning		Injection well
Ī -	_ sw	SE	1 Domest		6 Oil field wat	er supply	9 Dewatering	12 <i>ù.4.</i> 7	Other (Specify below)
	ï	ī	2 Irrigation		7 Lawn and g	arden only (10 Monitoring we	<i>!!!</i> !.	ER LEVELS
į L	<u> </u>	<u> </u>	Was a chemica mitted	al/bacteriological sample	submitted to De		es		n, mo/day/yr sample was sub
TYPE O	F BLANK C	ASING USED:		5 Wrought iron	8 Concre	ete tile	CASING JC	INTS: Glue	d Clamped
1 Ste	eL	3 RMP (S	R)	6 Asbestos-Cement	9 Other	(specify belo	w)	Weld	led
2 PV	ري	4 ABS		7 Fiberglass				Thre	adedX
Blank casin	ng diameter	. 4	.in. to . 0-1	4.6.5. ft., Dia 4	in. to	166.5	Seft., Dia		in. to ft.
Casing heig	ght above la	nd surface	6	in., weight				or gauge N	10 <i>S.C.H . Y.O.</i>
TYPE OF S	SCREEN OF	R PERFORATIO	N MATERIAL:		7 PV	0/0; (0	stat 10 As	bestos-cem	ent
1 Ste	el	3 Stainles	s steel	5 Fiberglass	8 RM	IP (SR)	11 Ot	her (specify)
2 Bra	ISS	4 Galvania	zed steel	6 Concrete tile	9 AB	S	12 No	ne used (o _l	pen hole)
SCREEN C	OR PERFOR	ATION OPENIN	IGS ARE:	5 Gau	zed wrapped		8 Saw cut		11 None (open hole)
(T C)	ntinuous slot	: 3 M	/ill slot	6 Wire	wrapped		9 Drilled holes		
2 Lou	vered shutte	er 4 K	Key punched	7 Torc					
SCREEN-P	PERFORATE	D INTERVALS:	From						toft.
		,	From		(clf a)	ft., Fro	om	ft.	toft.
G	RAVEL PAG	CK INTERVALS	. FIOIII		189.0				toft
1			From	ft. to		ft., Fro		ft.	
_	MATERIAL			2 Cement grout					. 14.3: 5
Grout Inter					ft.				ft. to
		•	contamination:				stock pens		Abandoned water well
	ptic tank	4 Late		7 Pit privy		11 Fuel	storage		Oil well/Gas well
	wer lines	5 Cess	•	8 Sewage lag	goon	(P) Ferti	lizer storage	16 (Other (specify below)
	•	er lines 6 Seep	page pit	9 Feedyard			cticide storage		• • • • • • • • • • • • • • • • • • • •
Direction fr			LITHOLOG	10.1.00	FROM		any feet?	DILIGGING	INTERVALS
FROM	то		LITHOLOG		FROM	то		LOGGING	INTERVALO
		5 00	2 esc	(osed)					
		See	- 410	vaco .					
		i H.	109-						
		Line							
		~							
-									
•									
7-70									
7 00:	L	D ANDOM:	Die OFFICIA	ATIONI, This		ated (C)		aluess d	adar mar ingladiaties and are
/ CONTR	ACTOR'S	JH LANDOWNE	20 CENTIFIC	ATION: This water well	was (1) constru	ictea, (2) red	constructed, or (3)	plugged ur	nder my jurisdiction and war nowledge and ballist Kansa
completed	on (mo/day/	year)	561		M-U D 1	and this red	ora is true to the b	pest of my k	Nowienge and pellet Kansa:
			4000	Inis Water	vveii Hecord wa	as completed	ature)	$\mathcal{L}(\mathcal{O})$	Will 10
unger the	business na	me or $fill$				by (sign	alure) / June	~ K	mu au

Argonne National Laboratory Soil Boring ID: Log Type: Soil E									
Project:	Hilton	Ground Elevation:	1515.93	Total Depth:	184	Driller Comp		me ompany	
Date: 1	/1/94	Plot Date:	4/28/97	Geologist:	Meyer/L	aFreni ng:	Rig		
Depth (feet)		LITH	IOLOGY			Well Wescription	Construc	<u>8</u>	
0 _ 5 _ 10 _	Silty Silty Silty Silty Silty Clay C	with nodules: Rewith scattered very solles with nodules solles in ed with abundantizon type soils with nodules: Rewith scattered very with nodules: Rewith nodules: Care with nodu	own. Chip sample own. Chip sample own. Chip sample own. Chip sample own. The careous clay . The careous clay . The careous clay . The careous clay is an an ing. Town silty clay were a highly calcare the manganese own	les In silty clay with out in a calcareous clay matrix, in odules present. Poiron content. Ity clay with numer nodules throughous arbonate nodules arbonate nodules arbonate nodules scate and manganese manganese nodules scate and manganese manganese nodules scate and scate a	s clay Color on sssible rous sut	4' schedule 40 PVC fror 0 -146.5'	m	grout (to 136.5')	

disseminated manganese throughout. 000 Clay with nodules: Slightly silty clay with a significant reduction in the amount of calcium carbonate nodules present. Non-calcareous matrix clays becomming more olive gray in color with depth. Finely dissemminated manganése throughout. Silty Clay: Olive gray silty clay pervasively iron strained. Non-calcareous with manganese present as abundant nodules and finely disseminated material throughout the section. 30 Silty Clay: Mottled olive gray silty clay and heavily iron stained brown clay. Non-calcareous with small manganese nodules scattered throughout. Silty Clay: Mottled olive gray and reddish brown iron stained silty clay. Clay is slightly more silty than that described above with manganese nodules scattered throughout. Clay with nodules: Mottled olive gray and reddish brown silty clay with scattered calcium carbonate nodules which 35 increase in frequency of occurrence with depth. Matrix clays 4' schedule grout (to becoming increasingly calcareous with nodules forming a 40 PVC from Ĭ36.5'Ì thin layer of caliche. Finely disseminated 0 -146.5 manganese throughout. Clay with nodules: As described above but increasingly calcareous matrix clays and a significant increase in calcareous nodules. Clay with nodules: Mottled olive gray and dark reddish brown pervasively iron stained silty clay with tiny calcium carboatenodules scattered throughout. Matrix clays are decreasingly calcareous with depth. Manganese nodules andfinely dissemminated manganese are scattered throught. Clay becomes increasingly silty with depth. Silty Clay: Mottled reddish brown iron stained and dark gray. non-calcareous silty clay. Highly bioturbated. Silty Clay: Grayish brown, bioturbated silty clay. Evidence of bioturbation less pronounced than above. Silty Clay: Mottled reddish brown and olive gray, noncalcareous silty clay. Highly bioturbated with manganese dissemminated throughout. Increasingly more iron stained 45 with depth. Silty Clay: Mottled light olive gray and reddish-brown, very silty clay which is slightly calcareous from 46-47'. Magnesium scattered throughout. Silty Clay: Light olive gray, non-calcareous silty clay Clay with nodules: Light olive gray silty clay with calcium carbonate concretions in a non-calcareous matrix. 50 Silty Clay: Olive gray, non-calcareous silty clay. Clay with nodules: Transitional zone with increasingly reddish brown silty clay with occasional white calcareous nodules in a non-calcareous matrix. Clay with nodules: Red brown very silty clay with trace of sand. Calcareous nodules and possible tiny shell fragments

	0 0 0 0 0 0 0	increasingly abundant with depth. Calcareous clay matrix.	
-	000000000000000000000000000000000000000	Clay with nodules: Reddish brown silty clay with calcareous nodules throughout. Manganese nodules present. A 4" long calcareous concretion lies vertically in the section with a pale olive color alteration zone. Manganese nodules present in a calcareous matrix.	
60		Clay with nodules: As described above with non-calcareous matrix clays.	
65	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Clay with nodules: Dark brown silty, non-calcareous clay with very tiny calcareous and manganese nodules. Manganese is finely disseminated throughout the section. The frequency of occurrence of the calcareous nodules increases significantly with depth.	
-		Silty Clay: Mottled, dense, dark brown iron stained, non- calcareous silty clay. Silty Clay: Light olive gray, non-calcareous to calcareous	
70 _		silty clay with a trace of tiny calcareous nodules.	
75 _	111111		
80 _	H #19191919191919191919191919191919191919	Caliche: Zone of calcareous rubble which is slightly silicified. 1.5" long calcareous pebble present in sample. Clay: Reddish-brown, calcareous clay. Silty Clay: Highly calcareous, mottled yellowish-brown and reddish-brown, slightly silty clay. Silty Clay: Light yellowish-brown, highly calcareous very slightly silty clay with manganese throughout. Silty Clay: Light yellowish-brown, very slightly silty clay with a trace of calcareous concretions. Matrix calcareous in part.	
	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Caliche: Zone of calcareous rubble in clay as described above. Clayey Silt: Reddish-yellow, clayey silt to very silty clay in a highly calcareous matrix with a trace of calcareous nodules.	
	7 7 7 7 7 7 7 7 7 7	Silty Clay: Transition zone to very silty, non-calcareous clay, mottled reddish-yellow and dark gray with a single 2.5 " long calcareous nodule in sample.	
85 _	1 2 2	Silty Clay: Gray-brown silty clay. Less silty than described above with manganese finely disseminated throughout.	

	Silty Clay: Reddish-brown, non-calcareous, silty clay with minor, finely disseminated manganese.	
90 _	Clay with nodules: Reddish-brown, non-calcareous, silty clay with occasional minute calcareous nodules.	
_		
95	Clay with nodules: Dark reddish-brown, silty clay with occasional minute calcareous nodules and finely dissemminated manganese throughout.	
30 <u> </u>	定式 Caliche: Zone of Calcareous rubble.	
_	Clay with nodules: Dark reddish-brown, silty clay with occasional minute calcareous nodules and finely dissemminated manganese throughout. Caliche: Zone of Calcareous rubble. Clay with nodules: Dark reddish-brown silty clay with occasional calcareous nodules and very abundant manganese nodules and finely disseminated manganese.	
100_	Clay with nodules: Brown, non-calcareous silty clay with minor, tiny calcareous nodules and abundant finely disseminatedmanganese throughout.	
-	Caliche: Calcareous rubble zone partially silicified in clay as	
-	described above. Silty Clay: Light brown, slightly silty, non-calcareous clay with minor trace of calcareous and manganese nodules.	
105_	Caliche: Zone of calcareous rubble.	
-	Silty Clay: Light brown slightly silty, non-calcareous clay with a trace of calcareous and manganese nodules. Caliche: Zone of calcareous rubble.	
-	Silty Clay: Light brown slightly silty, non-calcareous clay with	
	Caliche: Zone of calcareous rubble in clay as described above.	
110_	Caliche: Zone of calcareous rubble in clay as described above. Silty Clay: Light brown, non-calcareous, silty clay with trace of calcareous and manganese nodules. Clay with nodules: Strong brown, non-calcareous slightly silty clay with scattered intermittent calcareous nodules .Pockets of abundant manganese nodules are present as is finely dissemminated manganese throughout the section. Areas of olive green reduction zones surround minute calcareous (possibly shell) fragments.	
115_		

120_	Clay with nodules: Brownish-yellow non-calcareous silty clay with scattered calcareous nodules. Abundant minute calcareous (possibly shell) fragments present. Clay with nodules: Brownish-yellow non-calcareous slightly silty clay more gray in color than above. Scattered calcareous nodules throughout. Evidence of bioturbation. Clay with nodules: Yellowish-brown silty clay with abundant scattered (possibly shell) fragments. The clay becomesmore calcareous and less silty with depth.	
-	Clay with nodules: Brownish-yellow non-calcareous slightly silty clay more gray in color than above. Scattered calcareous nodules throughout. Evidence of bioturbation.	
_	Clay with nodules: Yellowish-brown silty clay with abundant scattered (possibly shell) fragments. The clay becomesmore calcareous and less silty with depth.	
125_		
-		
-	Caliche: Zone of calcareous rubble-gravelly in appearance and silicified in part. Clay with nodules: Reddish brown very slightly silty clay with a few scattered calcareous nodules. Finely dissemminated manganese is present throughout. Caliche: Zone of calcareous rubble in clay as described	
-	Caliche: Zone of calcareous rubble in clay as described above.	
130_	Clay with nodules: Reddish brown, very slightly silty clay with minor scattered calcareous nodules. Finely disseminated manganese is present throughout.	
-	Caliche: Zone of calcareous rubble in very slightly silty clay as described above.	
135_	Caliche: Zone of calcareous rubble in very slightly silty clay as described above. Clay with nodules: Reddish brown very slightly silty clay to clayey silt with calcareous debris and nodules decreasing significantly with depth. Manganese is less abundant and finely disseminated.	
	Clay with nodules: Reddish brown, non-calcareous silty clay with a few scattered calcareous nodules and debris.	
-	with a few scattered calcareous nodules and debris.	
140_	Silty Clay: Reddish brown, non-calcareous, very silty clay to clayey silt. Caliche: Zone of clacareous rubble.	bentonite seal
. 140_	[] []	
_	with a trace of sand.	
-		: : : 33.25 33.25 33.25
145_	Caliche: Zone of calcareous rubble.	
_	Silty Clay: Reddish brown silty clay. Clayey Silt: Yellowish-brown clayey silt.	
	Sandy Clay: Yellowish-brown sandy clay progressivley more	

71.4.411	quay only. Followion brown buildy only progressively more		⊩—th va	val I .
	shid with depth.			
_	Fine Sand: Yellowish-brown fine grained sand. Non-calcareous with rounded to sub-rounded clear quartz grainsunconsolidated.			
150_	Fine Sand: Fine grained sand with faint evidence of bedding visible resulting from concentration of dark minerals probably magnetite. Quartz and feldspar grains are subrounded.	20' .01 continuous slotted 4" PVC screen,		
	Fine sand: Fine to minor coarse grained calcareous sand.	schedule 40		
	Sand, mg: Fine to medium grained sand, non-calcareous with subangular to subrounded quarts and feldspar grains.			
	Fine Sand: Fine grained, cross-bedded quartz sand.			
155	Sand, mg: Pale brown, fine to medium grained sand. Subangular to subrounded quartz and feldspar grains. Calcareous in part.			sand filter pack (from
	Sand, mg: Fine to medium grained sand. Non-calcareous, Subangular to subrounded quartz and feldspar grains with magnetite.			(a) 143.5 - 164)
160_				
	Coarse Sand: Coarse to very coarse grained calcareous sand. Subangular to subrounded quartz and feldspar grains.Chert and magnetite also present.			
	Sand, mg: Fine to medium grained sand. Subangular to subrounded quartz and feldspar with chert and magnetite.			
165	Sand, mg: As described above with increase in clay content.			
- 000	Shale: Bedrock-Wellington Shale. Mottled red and light green shale which is highly weathered. The light green shale is highly calcareous. Little indurated rock recovered.			
170_				
- FEEE		PVC sump		
175_				8 % 8 % 8 % 8 % 8 % 8 %
- (200 -				

