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Appendix C

2

Table C-1. Aquifer Slug Test

3

Table C-2. Aquifer Tables

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Table C-1. Aquifer Slug Tests

Well Name	Borehole ID	RI SAP ID #	Aquifer Tests Completed - Field Data								Storage Coefficient	Specific Storage (m ⁻¹)	Hydraulic Conductivity (m/d)	Notes
			Date	Static Water Level (ft bgs)	Slug Test	Slug Volume (ft ³)	Screen Interval (ft bgs)	Screen Length (ft)	xD Initial (ft)	xD Max (ft)				
199-K-183	C7683	1	6/21/2010	61.00	1	0.3276	47.00-107.00	60.00	8.69	9.17	1.E-05	7.65E-03	15	Slug tests were performed using a Level Troll 700 In-Situ model data logger. A total of six (6) slugs were performed using three (3) different slug volumes. The actual slug results were stored in the data logger. UNVARIFIED field data contain xD Max as the slug was inserted rather than removed.
199-K-183	C7683	1	6/21/2010	61.00	2	0.3276	47.00-107.00	60.00	8.69	9.15				
199-K-183	C7683	1	6/21/2010	61.00	3	0.6877	47.00-107.00	60.00	8.69	9.3				
199-K-183	C7683	1	6/21/2010	61.00	4	0.6877	47.00-107.00	60.00	8.69	9.3				
199-K-183	C7683	1	6/21/2010	61.00	5	1.0112	47.00-107.00	60.00	8.69	10.16				
199-K-183	C7683	1	6/21/2010	61.00	6	1.0112	47.00-107.00	60.00	8.69	10.31				
199-K-185	C7685	2	8/16/2010	52.90	1	not fully submerged	38.50-133.50	95.00	24.87	--	Radial Zones (Inner and Outer)			Slug tests logged using Level Troll 700 In-Situ Rugged Reader.
199-K-185	C7685	2	8/16/2010	52.90	2	0.6877	38.50-133.50	95.00	24.87	--	1.E-05 (inner)	4.07E-07 (inner)	28 (inner)	
199-K-185	C7685	2	8/16/2010	52.90	3	1.0112	38.50-133.50	95.00	24.87	--	1.E-03 (outer)	4.07E-05 (outer)	2.3 (outer)	
199-K-186	C7686	9	3/10/2011	80.66	1	0.3276	71.83-131.90	60.07	--	--	The well is screened in very permeable material and displacements dissipate too quickly. No values estimated.			Slug tests logged using Level Troll 700 In-Situ Rugged Reader.
199-K-187	C7687	3	8/16/2010	111.87	1	0.3276	97.20-157.20 177.20-197.20	60 20	26.15	--	1.E-05	7.25E-07	27	Slug tests logged using Level Troll 700 In-Situ Rugged Reader.
199-K-187	C7687	3	8/16/2010	111.87	2	0.6877	97.20-157.20 177.20-197.20	60 20	26.15	--				
199-K-187	C7687	3	8/16/2010	111.87	3	1.0112	97.20-157.20 177.20-197.20	60 20	26.15	--				
199-K-189	C7689	5	9/29/2010	74.44	1	0.3276	64.00-154.00	90.00	34.59	--	Radial Zones (Inner and Outer)			Slug tests logged using Level Troll 700 In-Situ Rugged Reader.
199-K-189	C7689	5	9/29/2010	74.44	2	0.6877	64.00-154.00	90.00	34.59	--	1.E-05 (inner)	4.26E-07 (inner)	27 (inner)	
199-K-189	C7689	5	9/29/2010	74.44	3	1.0112	64.00-154.00	90.00	34.59	--	1.E-04 (outer)	4.26E-06 (outer)	1.1 (outer)	
199-K-190	C7690	4	9/29/2010	57.10	1	0.3276	93.40-133.50	40.10	16.8	--	1.E-05	8.14E-07	12	Slug tests logged using Level Troll 700 In-Situ Rugged Reader.
199-K-190	C7690	4	9/30/2010	56.99	1	0.6877	93.40-133.50	40.10	16.89	--				
199-K-190	C7690	4	9/30/2010	56.99	2	1.0112	93.40-133.50	40.10	16.89	17.04				

Table C-1. Aquifer Slug Tests

Well Name	Borehole ID	RI SAP ID #	Aquifer Tests Completed - Field Data								Storage Coefficient	Specific Storage (m ⁻¹)	Hydraulic Conductivity (m/d)	Notes
			Date	Static Water Level (ft bgs)	Slug Test	Slug Volume (ft ³)	Screen Interval (ft bgs)	Screen Length (ft)	xD Initial (ft)	xD Max (ft)				
199-K-191	C7691	6	8/17/2010	72.85	1	0.3276	52.30-102.31	50.01	24.93	--	Radial Zones (Inner and Outer)			Slug tests logged using Level Troll 700 In-Situ Rugged Reader.
199-K-191	C7691	6	8/17/2010	72.85	2	0.6877	52.30-102.31	50.01	24.93	--	1.E-05 (inner)	1.22E-06 (inner)	55 (inner)	
199-K-191	C7691	6	8/17/2010	72.85	3	1.0112	52.30-102.31	50.01	24.93	--	1.E-02 (inner)	1.22E-03 (outer)	0.5 (outer)	
199-K-193	C7693	7	2/8/2011	78.10	1	1.0112	61.30-101.30 131.3-161.3	40.00	55.55	55.61	Radial Zones (Inner and Outer)			Slug tests logged using Win-Situ Mobile Rugged Reader.
199-K-193	C7693	7	2/8/2011	78.10	2	0.6877	61.30-101.30 131.3-161.3	40.00	55.55	--	1.E-05 (inner)	1.62E-06 (inner)	142 (inner)	
199-K-193	C7693	7	2/8/2011	78.10	3	0.3276	61.30-101.30 131.3-161.3	40.00	55.55	55.64	1.E-04 (outer)	1.62E-05 (outer)	1.0 (outer)	
199-K-194	C7694	8	2/4/2011	83.00	1	1.0112	72.80-107.80	35.00	25.71	--	Radial Zones (Inner and Outer)			Slug tests logged using Win-Situ Mobile Rugged Reader.
199-K-194	C7694	8	2/7/2011	82.70	1	0.6877	72.80-107.80	35.00	25.00	--	1.E-05 (inner)	1.32E-06 (inner)	117 (inner)	
199-K-194	C7694	8	2/7/2011	82.70	2	0.3276	72.80-107.80	35.00	25.00	--	1.E-03 (outer)	1.32E-04 (outer)	0.7	
RUM Wells														
199-K-184*	C7684	R1	2/25/2011	74.35	1	1.0112	117.80-162.80	45.00	38.93	--	1.E-05	7.28E-07	6.4	Slug tests logged using In-Situ Rugged Reader.
199-K-184*	C7684	R1	2/25/2011	74.35	2	0.6877	117.80-162.80	45.00	38.93	--				
199-K-188*	C7688	R3	3/1/2011	97.70	1	0.4715	92.80-127.80	35.00	12.35	--	1.E-05	1.09E-06	16	Slug tests logged using Level Troll 700 In-Situ Rugged Reader.
199-K-188*	C7688	R3	3/1/2011	97.70	2	0.3276	92.80-127.80	35.00	12.35	--				
199-K-192	C7692	R2	12/10/2010	30.90	1	0.3276	175.20 - 185.20	10.00	65.55	--	1.E-05	3.28E-06	0.2	Slug tests logged using Win-Situ Mobile Rugged Reader.
199-K-192	C7692	R2	12/13/2010	29.93	1	1.0112	175.20 - 185.20	10.00	66.33	--				
199-K-195*	C7695	R4	1/20/2011	85.30	1	0.3276	78.20-123.20	45.00	41.33	--	1.E-05	2.80E-07	15	Slug tests logged using Win-Situ Mobile Rugged Reader. Test was done twice.
199-K-195*	C7695	R4	1/20/2011	85.30	1	0.3276	78.20-123.20	45.00	41.33	--				
Boreholes Converted to Temporary Wells														
199-K-200	C7831	116-K-2												Not Done.
199-K-201	C7832	116-K-2												Not Done.

Note: * Drilled down to the RUM but was completed and screened directly above the RUM.

Table C-2. Aquifer Tube Water Quality Field Data

Tube Data				Sample Water Quality Parameters							Post Sampling Water Quality Parameters				Comments	Conductivity Percent Change
Aquifer Tube ID	Sample Date	HEIS Sample #	Number of Sample Containers	Start Time	Conductivity μ S/cm	Temp $^{\circ}$ C	pH	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Time	Conductivity μ S/cm	Temp $^{\circ}$ C	pH		
C7641	8/15/2010	B26NK0,B26NK1,B26NK2,B26NK3,B26NK4,B26NK5,B26P45,B26P46,B26P47,B26P74,B26P75	11	11:43	174	20.1	7.30	130	8.79	3.57	12:15	167	22.2	7.51	Good flow rate, field equipment kit not calibrated, field checked all ok. Duplicate sample.	-4%
C7641	8/29/2010	B25DD2, B25DD5	2	9:50	182	18.0	6.91	189	8.85	112	10:03	186	18.2	7.18		2%
C7641	11/22/2010	B27TY6, B27TY7, B27TY9, B28FV2, B28HF5, B28HF6	6	10:54	132	10.1	6.84	281	10.83	199	11:10	141	10.2	6.99		7%
C7641	12/19/2010	B29XY5, B29XY3, B29XY4, B2B4J0, B2B4K6, B2B4K7, B2B4MY	7	9:51	132	7.1	6.91	222	8.92	6.9	10:07	140	9.2	7.23		6%
C7642	8/15/2010	B26NK8,B26NK9,B26NL1,B26P76,B26P77,B26P78	6	12:24	342	20.1	8.25	38	7.04	26.20	12:50	336	19.4	8.15	Flow rate low, turbidity high, could be normal for a shallow Aq. With a long tube outlet.	-2%
C7642	8/29/2010	B25DD3, B25DD6	2	9:23	315	16.8	7.67	1.03	7.44	42.2	9:37	313	16.8	7.66		-1%
C7642	11/22/2010	B27V00, B27V01, B27V02, B27V03, B27V04, B27V05, B28FV3, B28FV4, B28HF7, B28HF8, B28HF9, B28HH0	12	11:34	236	11	7.68	235	8.04	8.02	11:59	235	10.5	7.89	Duplicate sample	0%
C7642	12/19/2010	B2B4M1, B2B4M2, B2B4M3, B2B4M4, B2B4M5, B2B4M6, B2B4M8	7	10:11	234	6.6	7.3	252	6.71	21.1	10:27	234	10.4	7.85		0%
C7643	8/15/2010	B26NL2,B26NL3,B26NL5,B26P79,B26P80,B26P81	6	12:59	249	20.4	8.47	7	7.08	17.1	13:22	246	19.8	8.3	Flow rate low, turbidity high, could be normal for a shallow Aq. With a long tube outlet.	1%
C7643	8/29/2010	B25DD4, B25DD7	2	10:14	218	20.1	8.19	167	6.34	8.63	10:26	217	18.2	8.13		0%
C7643	11/22/2010	B282T6, B282T7, B28HM7, B28JN2, B28JN3, B28PY1	6	11:12	155	10.1	7.43	247	8.00	22.8	11:30	157	10.3	7.51		-1%
C7643	12/19/2010	B29Y00, B29XY6, B29XY7, B29XY8, B29Y62, B29XY9, B2B4J1, B2B4J2, B2B4K8, B2B4K9, B2B4L0, B2B4L1, B2B4M9	13	10:32	167	7.3	8.07	273	7.56	11	11:14	173	6.4	8.05	Duplicate sample	-4%

DO: Dissolved oxygen

Turb: Turbidity

ORP: Oxygen Reduction Potential

HEIS: Hanford Environmental Information System

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