

Appendix 4.8.1 – Hydraulic Conductivity Results

Borehole	Easting	Northing	Test interval top (mgs)	Test interval bottom (mgs)	Test Type	Completed by	Unit	Tested Lithology	Hydraulic Conductivity (m/s)
RCAW404	561717	4397364	Test in installed well with unsealed annulus or open well. Response zone is entire water column		Falling head (test incomplete)	Golder	VC	Predominantly argillic alteration, with some silica - alunite and silica - clay alteration.	10-10 to 10-9
RCAW407	561625	4398616			Falling head (test incomplete)	Golder	VC	Silica alunite, silica clay and massive silica alteration.	10-10 to 10-9
RCAW408	560871	4397975			Falling head	Golder	VC	Screen interval is silicified volcanoclastics (massive silica alteration), overlying saturated zone is silica alunite alteration; drilling indicated a flowing fracture zone in massive silica at the borehole base.	3x10-4
RCAW286	561533	4398618			Well yield	Unknown Contractor*	VC	Silica clay alteration.	10-7 to 10-8
RCAW287	561003	4397849			Well yield	Unknown Contractor*	VC	Silica alunite, silica clay, argillic clay and clay alteration (Lydian descriptions).	5x10-8 to 5x10-7
RCAW289	560537	4398497			Well yield	Unknown Contractor*	LV FZN	Clay alteration (interpreted as a fault zone) and argillic clay alteration.	5x10-7 to 5x10-6
RCAW401	561335.9	4403138			Falling head	Golder	LV	Advanced argillic clay alteration.	3x10-5
RCAW399	560702	4402856			Falling head	Golder	LV	Fresh andesite porphyry.	2x10-5
RCAW400	561263	4402314			Falling head	Golder	LV	Argillic altered and (fractured) fresh andesite porphyry.	1x10-4
DDGW001	565751	4397752			Well yield	Unknown Contractor*	Basalt	Quaternary Basalt	1x10-6 to 1x10-5
DDGW002	565685	4396431			Well yield	Unknown Contractor*	Basalt	Quaternary Basalt	1x10-7 to 1x10-6
DDGW003	566545	4395357			Well yield	Unknown Contractor*	Basalt	Quaternary Basalt	1x10-8 to 1x10-7
GGSC035	552753.9	4398474			4	11	Falling head	Golder	COLL
GGDW016A	552170.1	4398445	6	12	Falling head	Golder	Basalt	Quaternary Basalt	3.0x10-5
GGDW016	552174	4398443	53	59	Falling head	Golder	LV	Andesite (SW, R3)	4.6x10-6
GGDW016	552174	4398443	15	29.2	Packer test	Golder	Basalt	Quaternary Basalt	6.2x10-7 to 4.2x10-5

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GGDW016	552174	4398443	15	30	Packer test	Golder	Basalt	Quaternary Basalt	1.2x10 ⁻⁵ to 2.7x10 ⁻⁵
GGDW014	552384.7	4398975	70.5	79.5	Falling head	Golder	Basalt	Quaternary Basalt	5.3x10 ⁻⁷
GGDW013	553219.9	4399010	54	60	Falling head	Golder	LV	Andesite (SW, R2)	8.9x10 ⁻⁶ to 9.1x10 ⁻⁶
GGDW013	553219.9	4399010	15.6	34.5	Packer test	Golder	LV	Andesite (SW, R2)	1.1x10 ⁻⁸ to 9.3x10 ⁻⁷
GGDW010A	553901.6	4399558	16.6	22.6	Falling head	Golder	LV	Argillic tuff-andesite	4.9x10 ⁻⁶
GGDW010A	553901.6	4399558	16.6	22.6	Falling head	Golder	LV	Argillic tuff-andesite	6.0x10 ⁻⁶
GGDW010B	553897.9	4399557	60	69	Falling head	Golder	LV	Argillic andesite (SW, R2)	2.2x10 ⁻⁶
GGDW015	554003.1	4399203	53	59	Falling head	Golder	LV	Andesite (SW, R3)	1.6x10 ⁻⁷
GGDW015	554003.1	4399203	12.6	30	Packer test	Golder	LV	Andesite (SW, R3)	2.0x10 ⁻⁷ to 9.5x10 ⁻⁶
GGDW015	554003.1	4399203	30.6	60	Packer test	Golder	LV	Andesite (SW, R3)	1.2x10 ⁻⁸ to 5.9x10 ⁻⁶
GGDW007	552536	4398302	121.5	127.6	Falling head	Golder	LV	Andesite	4.3x10 ⁻⁵
GGDW008	552932.2	4398566	52.5	58.5	Falling head	Golder	LV	Andesite (SW, R3)	2.5x10 ⁻⁶
GGDW008	552932.2	4398566	52.5	58.5	Falling head	Golder	LV	Andesite (SW, R3)	6.0x10 ⁻⁶
GGDW011	554714.3	4399713	50	59	Falling head	Golder	LV	Argillic andesite (SW, R3)	2.5x10 ⁻⁸
GGDW012	553947.5	4398843	60.9	69.9	Falling head	Golder	LV	Argillic andesite	Unable to analyze data
GGDW012	553947.5	4398843	60.9	69.9	Falling head	Golder	LV	Argillic andesite (SW, R2)	2.0x10 ⁻⁴
GGDW009	552978.5	4399660	108	117	Falling head	Golder	LV	Argillic andesite (SW, R4)	1.1x10 ⁻⁵
GGSC049	560063.3	4401493	13	19	Falling head	Golder	Clay and Basalt	Clay (13 -16) and Basalt (16 - 19)	1.2x10 ⁻⁸
GGSC050	560542.5	4401892	9.5	15.5	Falling head	Golder	COLL	sandy clay. (Colluvium?)	1.4x10 ⁻⁵
#N/A	559883.7	4401861	23	29	Falling head	Golder	Basalt	Quaternary Basalt	Unable to analyze data
DDAW011A	559883.7	4401861	30.125	48.6	Packer test	Golder	Basalt	Quaternary Basalt	1.2x10 ⁻⁵ to 5.5x10 ⁻⁵
DDAW011A	559883.7	4401861	48.125	89	Packer test	Golder	Basalt	Basalt and scoria (80 - 89 m)	8.9x10 ⁻⁶ to 2.0x10 ⁻⁵
DDAW013	560225	4402622	30.125	60	Packer	Golder	Basalt	Quaternary Basalt	5.2x10 ⁻⁵

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DDAW013	560225	4402622	59.1	84.8	Packer test	Golder	Basalt	Quaternary Basalt	4.5x10 ⁻⁵
DDAW012	560817.2	4401622	27	33	Falling head	Golder	LV	Argillic andesite (MW, R2)	2.6x10 ⁻⁹
DDAW012	560817.2	4401622	22.625	34	Packer test	Golder	LV	Argillic andeiste (MW, R2)	2.5x10 ⁻⁸
GGDW002	555308.9	4401314	2.62	24.7	Packer test: Falling head test and five stage injection test	Golder	Clay and Basalt	Clay horizon logged within basalt sequence, approx 6 m to 16 m.	5 x 10 ⁻⁷
GGDW002	555308.9	4401314	29.97	66	Packer test: falling head test and five stage injection test	Golder	Basalt	Quaternary Basalt	3 to 5 x 10 ⁻⁷
GGDW002	555308.9	4401314	63.47	100.5	Packer test: falling head test and five stage injection test	Golder	Basalt	Quaternary Basalt	7 to 8 x 10 ⁻⁷
GGDW004	557280.3	4402880	20	30	Packer test: single stage injection test	Golder	Basalt	Quaternary Basalt	5 x 10 ⁻⁶
DDAW006A	561042.3	4398817	15	30	Falling head (pre-install)	Golder	LV	Argillic andesite (S2, W3)	3 x 10 ⁻⁸
DDAW006A	561042.3	4398817	30	60	Falling head (pre-install)	Golder	LV	Argillic andesite (S3, W3)	1 x 10 ⁻⁹
DDAW006A	561042.3	4398817	60	90	Falling head (pre-install)	Golder	LV	Argillic andesite (S3, W3)	3 x 10 ⁻⁸
DDAW006A	561042.3	4398817	90	120	Falling head (pre-install)	Golder	LV	Argillic andesite (S2, W3)	9 x 10 ⁻⁹

Borehole	Easting	Northing	Test interval top (mgs)	Test interval bottom (mgs)	Test Type	Completed by	Unit	Tested Lithology	Hydraulic Conductivity (m/s)
GGDW003A	556155.5	4401409	86.2	100	Falling head (post-install)	Golder	Basalt	Quaternary Basalt	2 x 10 ⁻⁷
GGDW005	556023.5	4402134	73.3	83.8	Falling head (post-install)	Golder	Basalt	Quaternary Basalt	8 x 10 ⁻⁸
GGDW002	555308.9	4401314	47.4	100.5	Falling head (post-install)	Golder	Basalt	Quaternary Basalt	No response apparent, low conductivity
GGDW006	557305.5	4402292	100.7	112	Falling head (post-install)	Golder	Basalt	Quaternary Basalt	Dry well, No response apparent
GGDW004	557280.3	4402880	100.9	113	Falling head (post-install)	Golder	Basalt	Quaternary Basalt	1 x 10 ⁻⁵
GGDW004A/ GGDW004B	557277.5	4402896	49.1	60	Falling head (post-install)	Golder	Basalt	Quaternary Basalt	1 x 10 ⁻⁶
DDAW008	560799.9	4400236	47.7	66	Falling head (post-install)	Golder	VC	Volcanoclastics	5 x 10 ⁻⁷
DDAW007	561248.5	4399368	72.8	82.7	Falling head (post-install)	Golder	LV	Argillic andesite (S4, W2)	5 x 10 ⁻⁷

*Well yield test result reported in Geoteam (2010), permeability estimated using Logan (1964).