

DOCKETED	
Docket Number:	21-AFC-02
Project Title:	Willow Rock Energy Storage Center
TN #:	265113
Document Title:	Willow Rock CURE Data Request 2 Response, Attachment DR136-1_Part 5_Appendix D
Description:	Resubmission of files previously submitted through Kiteworks
Filer:	Kathryn Stevens
Organization:	WSP USA Inc.
Submitter Role:	Applicant Consultant
Submission Date:	7/29/2025 8:44:21 PM
Docketed Date:	7/30/2025

Depth		Elevation (MSL)		Interval Thickness (ft)	Lithology	Strength of Intact Rock (psi)	Estimated Strength of Intact Rock (psi)	Estimated Strength of Intact Rock (psi)	Rock Quality Designation (RQD)	Fracture Spacing (ft)	Number of Joint Sets	Condition of Discontinuities										Rock Mass Rating (RMR) Classification										Q-system										Rock Mass Rating (RMR _{Ho})	Geological Strength Index (GSI)	
From (ft)	To (ft)	From (ft)	To (ft)									Discontinuity Length (ft)	Aperture Thickness (mm)	Joint Roughness (J)	Roughness (RMR)	Joint Alteration (Q)	Infilling (RMR)	Weathering / Alteration	Joint Water (Q)	Groundwater Conditions	Strength of Intact Rock Rating	Strength of Intact Rock Rating	RQD Rating	Spacing of Discontinuities Rating	Discontinuity Length Rating	Aperture Thickness Rating	Discontinuity Roughness Rating	Discontinuity Filling Rating	Weathering Alteration Rating	Groundwater Rating	Rock Mass Rating (RMR)	RMR Classification	Joint Set Number (J _s)	Joint Roughness Number (J _r)	Joint Alteration Number (J _a)	Joint Water Reduction (J _w)	Estimated Vertical Stress (psi)	Stress Condition	Stress Reduction Factor (SRF)	Q-value	Q-value Classification			
1752	1762	808	798	10	Qz Monzonite	9,966	R4	10,875	52	0.63	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	8	2	6	1	6	5	10	58	Fair Rock	6	1	1	1	2021	High Stress, Jointed Rock	4	2,167	Poor	63	58	
1762	1772	798	788	10	Qz Monzonite		R4	10,875	53	0.37	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	8	2	6	1	6	5	10	53	Fair Rock	6	1	1	1	2032	High Stress, Jointed Rock	4	1,625	Poor	58	53	
1772	1782	788	778	10	Qz Monzonite	17,820	R4	10,875	69	0.83	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	13	10	2	6	1	6	5	10	61	Good Rock	6	1	4	1	2044	High Stress, Jointed Rock	2	1,438	Poor	66	61	
1782	1792	778	768	10	Qz Monzonite		R4	10,875	42	0.63	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	8	2	6	1	6	5	10	53	Fair Rock	6	1	1	1	2055	High Stress, Jointed Rock	4	1,798	Poor	58	53	
1792	1802	768	758	10	Qz Monzonite		R4	10,875	56	0.40	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Tightly heaved, hard	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	13	8	2	6	1	6	5	10	58	Fair Rock	6	1	0.75	1	2067	High Stress, Jointed Rock	4	3,111	Poor	63	58	
1802	1812	758	748	10	Qz Monzonite		R4	10,875	24	0.33	Two joint sets plus random joints	10	2	Smooth, planar	Smooth	Tightly heaved, hard	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	1	4	5	10	41	Fair Rock	6	1	0.75	1	2078	High Stress, Jointed Rock	4	1,333	Poor	46	41	
1812	1822	748	738	10	Qz Monzonite		R4	10,875	74	0.38	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	13	8	2	6	1	6	5	10	58	Fair Rock	6	1	1	1	2090	High Stress, Jointed Rock	4	3,083	Poor	63	58	
1822	1832	738	728	10	Qz Monzonite	10,296	R4	10,875	61	0.56	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	13	8	2	6	1	6	5	10	58	Fair Rock	6	1	1	1	2101	High Stress, Jointed Rock	4	2,542	Poor	63	58	
1832	1842	728	718	10	Diabase	12,474	R4	10,875	15	0.43	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	3	8	2	6	1	6	5	10	48	Fair Rock	6	1	1	1	2113	High Stress, Jointed Rock	4	6,625	Very Poor	54	49	
1842	1852	718	708	10	Diabase / Qz Monzonite		R5	25,375	29	0.20	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	12	8	8	2	6	1	6	5	10	58	Fair Rock	6	1	1	1	2124	Medium Stress	1	4,833	Fair	63	58	
1852	1862	708	698	10	Qz Monzonite		R4	10,875	25	0.38	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	8	2	6	1	6	5	10	53	Fair Rock	6	1	1	1	2136	High Stress, Jointed Rock	4	1,042	Poor	58	53	
1862	1872	698	688	10	Qz Monzonite	18,920	R4	10,875	59	0.45	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	8	2	6	1	6	5	10	63	Good Rock	6	1	1	1	2147	High Stress, Jointed Rock	2	4,167	Poor	68	63	
1872	1882	688	678	10	Qz Monzonite		R4	10,875	34	0.25	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	8	2	6	1	6	5	10	53	Fair Rock	6	1	1	1	2159	High Stress, Jointed Rock	4	1,417	Poor	58	53	
1882	1892	678	668	10	Qz Monzonite		R4	10,875	16	0.33	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	1	6	5	10	48	Fair Rock	6	1	1	1	2170	High Stress, Jointed Rock	4	6,167	Very Poor	53	48	
1892	1902	668	658	10	Qz Monzonite		R3	4,550	10	0.56	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Slightly altered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	3	8	2	6	1	6	3	10	43	Fair Rock	6	1	2	1	2182	High Stress, Jointed Rock	14	6,060	Extremely Poor	48	43	
1902	1912	658	648	10	Qz Monzonite		R3	4,550	41	0.59	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Unaltered	Medium inflow, occasional outwash of joint fillings (many drips "rain")	Wet	0	4	8	8	2	6	1	6	6	7	48	Fair Rock	6	1	1	0.60	2193	High Stress, Jointed Rock	14	8,322	Very Poor	56	51	
1912	1922	648	638	10	Qz Monzonite		R4	10,875	51	0.33	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Slightly altered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	13	8	2	6	1	6	5	10	56	Fair Rock	6	1	2	1	2205	High Stress, Jointed Rock	4	1,063	Poor	61	56	
1922	1932	638	628	10	Qz Monzonite		R4	10,875	71	0.77	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	13	10	2	6	1	6	5	10	60	Fair Rock	6	1	1	1	2216	High Stress, Jointed Rock	4	2,958	Poor	65	60	
1932	1942	628	618	10	Qz Monzonite	17,783	R4	10,875	61	0.53	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Slightly altered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	13	8	2	6	1	4	5	10	61	Good Rock	6	1	1	1	2228	High Stress, Jointed Rock	2	2,542	Poor	66	61	
1942	1952	618	608	10	Qz Monzonite		R4	10,875	56	0.56	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	13	8	2	6	1	4	5	10	56	Fair Rock	6	1	2	1	2239	High Stress, Jointed Rock	4	1,167	Poor	61	56	
1952	1962	608	598	10	Qz Monzonite		R4	10,875	34	0.20	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Tightly heaved, hard	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	8	2	6	1	4	5	10	51	Fair Rock	6	1	0.75	1	2251	High Stress, Jointed Rock	4	1,889	Poor	56	51	
1962	1972	598	588	10	Qz Monzonite	8,654	R4	10,875	11	0.22	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	1	6	6	10	49	Fair Rock	6	1	1	1	2262	High Stress, Jointed Rock	6	6,386	Very Poor	54	49	
1972	1982	588	578	10	Qz Monzonite		R4	10,875	30	0.20	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	8	2	6	1	6	5	10	53	Fair Rock	6	1	1	1	2274	High Stress, Jointed Rock	4	1,250	Poor	58	53	
1982	1992	578	568	10	Qz Monzonite		R4	10,875	52	0.67	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	13	10	2	6	1	6	5	10	60	Fair Rock	6	1	1	1	2285	High Stress, Jointed Rock	4	2,167	Poor	65	60	
1992	2002	568	558	10	Qz Monzonite	20,405	R4	10,875	82	0.77	Three joint sets	10	Closed	Smooth, planar	Smooth	Tightly heaved, hard	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	17	10	2	6	1	4	5	10	62	Good Rock	9	1	0.75	1	2297	High Stress, Jointed Rock	4	3,037	Poor	67	62	
2002	2012	558	548	10	Qz Monzonite		R4	10,875	80	0.83	Three joint sets	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	17	10	2	6	1	4	5	10	67	Good Rock	9	1	1	1	2308	High Stress, Jointed Rock	2	4,444	Fair	72	67	
2012	2022	548	538	10	Qz Monzonite		R4	10,875	77	0.43	Three joint sets	10	Closed	Smooth, planar	Smooth	Tightly heaved, hard	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	17	8	2	6	1	4	5	10	60	Fair Rock	9	1	1	0.75	1	2320	High Stress, Jointed Rock	4	2,852	Poor	65	60
2022	2032	538	528	10	Qz Monzonite	12,102	R4	10,875	70	0.77	Three joint sets	10	Closed	Smooth, planar	Smooth	Slightly altered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	13	10	2	6	1	4	5	10	58	Fair Rock	9	1	2	1	2331	High Stress, Jointed Rock	4	6,972	Very Poor	63	58	
2032	2042	528	518	10	Qz Monzonite		R4	10,875	100	2.00	Three joint sets	10	Closed	Smooth, planar	Smooth	Tightly heaved, hard	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	20	15	2	6	1	6	5	10	72	Good Rock	9	1	0.75	1	2343	High Stress, Jointed Rock						

Data (Elevation (MSL))										Conditions of Discontinuities										Rock Mass Rating (RMR) Classification										Q-system											
Depth (ft)	From (ft)	To (ft)	Interval Thickness (ft)	Lithology	Strength of Intact Rock (psi)	Estimated Strength of Intact Rock (psi)	Estimated Strength of Rock Quality Designation (RQD)	Fracture Spacing (ft)	Number of Joint Sets	Discontinuity Length (ft)	Aperture Thickness (mm)	Joint Roughness (R)	Roughness (RMR)	Joint Alteration (Q)	Infilling (RMR)	Weathering / Alteration	Joint Water (Q)	Groundwater Conditions	Strength of Intact Rock Rating	Strength of Intact Rock Rating	RQD Rating	Spacing of Discontinuities Rating	Discontinuity Length Rating	Aperture Thickness Rating	Discontinuity Roughness Rating	Discontinuity Filling Rating	Weathering / Alteration Rating	Groundwater Rating	Rock Mass Rating (RMR)	RMR Classification	Joint Set Number (J ₁)	Joint Roughness Number (J ₂)	Joint Alteration Number (J ₃)	Joint Water Reduction (J ₄)	Estimated Vertical Stress (psi)	Stress Condition	Stress Reduction Factor (SRF)	Q-value	Q-value Classification	Rock Mass Rating (RMR ₉₀)	Geological Strength Index (GSI)
1750	760	820	60	Qtz Monzonite	24,860	72	1.25	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Slightly altered joint walls	Soft filling <5mm	Unaltered	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	13	10	2	6	1	2	5	10	61	Good Rock	6	1	2	1	2018	Medium Stress	1	4,600	Fair	66	61
1760	770	810	40	Qtz Monzonite		R4 10,875	78	1.00	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	13	10	2	6	1	6	5	10	61	Good Rock	6	1	2	1	2018	High Stress, Jointed Rock	2	5,750	Fair	65	60
1770	780	800	20	Qtz Monzonite	14,036		69	0.71	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	13	10	2	6	1	6	5	10	61	Good Rock	6	1	1	1	2041	High Stress, Jointed Rock	2	5,750	Fair	65	60
1780	790	790	0	Qtz Monzonite		R4 10,875	71	0.63	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	13	8	2	6	1	6	5	10	58	Fair Rock	6	1	1	1	2053	High Stress, Jointed Rock	4	2,958	Poor	62	58
1790	800	780	-20	Diorite/Qtz Monzonite		R4 10,875	36	0.29	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	8	2	6	1	4	5	10	51	Fair Rock	6	1	0.75	1	2064	High Stress, Jointed Rock	4	2,000	Poor	56	51
1800	810	770	-40	Qtz Monzonite		R4 10,875	30	0.45	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	8	2	6	1	6	6	10	54	Fair Rock	6	1	1	1	2076	High Stress, Jointed Rock	4	1,250	Poor	59	54
1810	820	760	-40	Qtz Monzonite		R4 10,875	65	0.37	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Slightly rough	Tightly healed, hard	Hard filling <5mm	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	8	2	6	1	4	6	10	59	Fair Rock	6	1.5	0.75	1	2087	High Stress, Jointed Rock	4	5,417	Fair	64	59
1820	830	750	-40	Qtz Monzonite		R4 10,875	30	0.45	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Tightly healed, hard	Hard filling <5mm	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	8	2	6	1	4	6	10	52	Fair Rock	6	1	0.75	1	2099	High Stress, Jointed Rock	4	1,667	Poor	57	52
1830	840	740	-40	Qtz Monzonite		R4 10,875	14	0.42	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Tightly healed, hard	Hard filling <5mm	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	1	4	6	10	47	Fair Rock	6	1	0.75	1	2110	High Stress, Jointed Rock	4	0,778	Very Poor	52	47
1840	850	730	-40	Qtz Monzonite		R4 10,875	45	0.24	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	8	8	2	6	1	6	6	10	54	Fair Rock	6	1	1	1	2122	High Stress, Jointed Rock	4	1,875	Poor	59	54
1850	860	720	-40	Qtz Monzonite	15,752		35	0.45	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	8	8	2	6	1	6	6	10	59	Fair Rock	6	1	1	1	2133	High Stress, Jointed Rock	2	2,917	Poor	64	59
1860	870	710	-40	Qtz Monzonite	4,686		27	0.33	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Decomposed	Dry excavations or minor inflow (humid or a few drips)	Damp	4	0	8	8	2	6	1	6	0	10	45	Fair Rock	6	1	1	1	2145	High Stress, Jointed Rock	12	0,375	Very Poor	50	45
1870	880	700	-40	Qtz Monzonite	16,610		48	0.63	Two joint sets plus random joints	10	Closed	Smooth, undulating	Smooth	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	8	8	2	6	1	6	6	10	59	Fair Rock	6	2	1	1	2156	High Stress, Jointed Rock	2	8,000	Fair	64	59
1880	890	690	-40	Qtz Monzonite	17,182		52	0.91	Two joint sets plus random joints	10	Closed	Slickensided, undulating	Slickensided	Slightly altered joint walls	Soft filling <5mm	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	13	10	2	6	0	2	6	10	61	Good Rock	6	1.5	2	1	2168	High Stress, Jointed Rock	2	2,168	Fair	61	61
1890	900	680	-40	Qtz Monzonite		R4 10,875	19	0.56	Two joint sets plus random joints	10	Closed	Smooth, undulating	Smooth	Slightly altered joint walls	Hard filling <5mm	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	1	4	6	10	47	Fair Rock	6	2	2	2	2179	High Stress, Jointed Rock	4	0,792	Very Poor	52	47
1900	910	670	-40	Qtz Monzonite		R4 10,875	10	0.25	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	1	4	6	10	47	Fair Rock	6	1	1	1	2191	High Stress, Jointed Rock	4	0,280	Very Poor	52	47
1910	920	660	-40	Qtz Monzonite		R4 10,875	10	0.25	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	1	4	6	10	46	Fair Rock	6	1	1	1	2202	High Stress, Jointed Rock	4	0,417	Very Poor	51	46
1920	930	650	-40	Qtz Monzonite		R4 10,875	10	0.29	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Slightly altered joint walls	Hard filling <5mm	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	1	4	3	10	44	Fair Rock	6	1	2	1	2214	High Stress, Jointed Rock	4	0,280	Very Poor	49	44
1930	940	640	-40	Qtz Monzonite		R4 10,875	10	0.32	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	1	6	6	10	49	Fair Rock	6	1	1	1	2225	High Stress, Jointed Rock	6	0,417	Very Poor	54	49
1940	950	630	-40	Qtz Monzonite		R4 10,875	43	0.36	Two joint sets plus random joints	10	Closed	Slickensided, undulating	Slickensided	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	8	2	6	0	6	3	10	50	Fair Rock	6	1.5	1	1	2237	High Stress, Jointed Rock	4	2,688	Poor	55	50
1950	960	620	-40	Qtz Monzonite	18,272		23	0.40	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Slightly altered joint walls	Hard filling <5mm	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	3	8	2	6	3	4	6	10	54	Fair Rock	6	3	2	2	2248	High Stress, Jointed Rock	2	2,875	Poor	59	54
1960	970	610	-40	Qtz Monzonite		R4 10,875	80	0.42	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	17	8	2	6	1	6	6	10	60	Good Rock	6	1	1	1	2260	High Stress, Jointed Rock	2	6,667	Fair	69	60
1970	980	600	-40	Qtz Monzonite	25,410		55	1.11	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	13	10	2	6	1	6	6	10	61	Good Rock	6	1	1	1	2271	High Stress, Jointed Rock	2	4,583	Fair	66	61
1980	990	590	-40	Qtz Monzonite		R4 10,875	87	0.48	Two joint sets plus random joints	10	Closed	Smooth, undulating	Smooth	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	17	8	2	6	1	6	6	10	68	Good Rock	6	2	2	1	2283	Medium Stress	1	29,000	Good	73	68
1990	1000	580	-40	Qtz Monzonite		R4 10,875	95	0.83	Three joint sets	10	Closed	Smooth, planar	Smooth	Slightly altered joint walls	Hard filling <5mm	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	20	10	2	6	1	4	6	10	66	Good Rock	9	1	2	2	2294	High Stress, Jointed Rock	4	1,319	Poor	71	66
2000	1010	570	-40	Qtz Monzonite	26,635		92	0.77	Three joint sets	10	Closed	Smooth, undulating	Smooth	Slightly altered joint walls	Hard filling <5mm	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	20	10	2	6	1	4	6	10	71	Good Rock	9	2	2	2	2306	Medium Stress	1	10,222	Good	76	71
2010	1020	560	-40	Qtz Monzonite		R4 10,875	50	0.50	Three joint sets	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	13	8	2	6	1	6	6	10	61	Good Rock	9	3	1	1	2317	High Stress, Jointed Rock	4	4,187	Fair	66	61
2020	1030	550	-40	Qtz Monzonite		R4 10,875	74	0.56	Three joint sets	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	13	8	2	6	3	6	6	10	61	Good Rock	9	3	1	1	2329	High Stress, Jointed Rock	4	6,167	Fair	66	61
2030	1040	540	-40	Qtz Monzonite		R4 10,875	55	0.34	Three joint sets	10	Closed	Smooth, undulating	Smooth	Slightly altered joint walls	Soft filling <5mm	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	13	8	2	6	1	2	6	10	55	Fair Rock	9	1	2	2	2340	High Stress, Jointed Rock	4	1,528	Fair	60	55
2040	1050	530	-40	Qtz Monzonite	27,231		100	0.83	Three joint sets	10	Closed	Smooth, planar	Smooth	Slightly altered joint walls	Soft filling <5mm	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	20	10	2	6	1	2	6	10	69	Good Rock	9	1	2	1	2352	Medium Stress	1	5,556	Fair	74	69
2050	1060	520	-40	Qtz Monzonite		R4 10,875	100	0.59																																	

Depth (ft)	Elevation (MSL) (ft)	Interval Thickness (ft)	Lithology	Strength of Intact Rock (psi)	Estimated Strength of Intact Rock	Estimated Strength of Intact Rock (psi)	Rock Quality Designation (RQD)	Fracture Spacing (ft)	Number of Joint Sets	Condition of Discontinuities										Groundwater Conditions	Rock Mass Rating (RMR) Classification										Q-system							Rock Mass Rating (RMR ₉₀)	Geological Strength Index (GSI)			
										Discontinuity Length (ft)	Aperture Thickness (mm)	Joint Roughness (J)	Roughness (RMR)	Joint Alteration (Q)	Infilling (RMR)	Weathering / Alteration	Joint Water (Q)	Strength of Intact Rock Rating	Strength of Intact Rock Rating		RQD Rating	Spacing of Discontinuities in Rating	Discontinuity Length Rating	Aperture Thickness Rating	Discontinuity Roughness Rating	Discontinuity Filling Rating	Weathering / Alteration Rating	Groundwater Rating	Rock Mass Rating (RMR)	RMR Classification	Joint Set Number (J ₁)	Joint Roughness Number (J ₂)	Joint Alteration Number (J ₃)	Joint Water Reduction (J ₄)	Estimated Vertical Stress (psi)	Stress Condition	Stress Reduction Factor (SRF)			Q-value	Q-value Classification	
1751	1761	819	809	10	Qz Monzonite	R3	4,550	16	0.40	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	3	8	2	6	1	6	5	10	45	Fair Rock	6	1	1	1	2019	High Stress, Jointed Rock	12	4,222	Very Poor	50	45
1761	1771	799	789	10	Qz Monzonite	R4	10,875	20	0.42	Two joint sets plus random joints	10	Closed	Roughly irregular, planar	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	3	6	5	10	50	Fair Rock	6	3	1	1	2031	High Stress, Jointed Rock	4	1,290	Poor	58	50
1771	1781	799	789	10	Qz Monzonite	R4	10,875	24	0.34	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	3	8	2	6	3	6	5	10	55	Fair Rock	6	3	1	1	2042	High Stress, Jointed Rock	2	6,080	Fair	60	55
1781	1791	789	779	10	Qz Monzonite	R4	10,875	22	0.33	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	1	6	3	10	46	Fair Rock	6	1	1	1	2054	High Stress, Jointed Rock	4	4,917	Very Poor	51	46
1791	1801	779	769	10	Qz Monzonite	R4	10,875	17	0.33	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	3	6	5	10	50	Fair Rock	6	3	1	1	2065	High Stress, Jointed Rock	4	2,125	Poor	55	50
1801	1811	769	759	10	Qz Monzonite	R4	10,875	12	0.33	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	3	6	5	10	50	Fair Rock	6	1.5	1	1	2077	High Stress, Jointed Rock	4	4,798	Very Poor	55	50
1811	1821	759	749	10	Qz Monzonite	R4	10,875	18	0.38	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	3	6	5	10	50	Fair Rock	6	3	1	1	2088	High Stress, Jointed Rock	4	1,125	Poor	49	44
1821	1831	749	739	10	Qz Monzonite	R4	10,875	33	1.00	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Slightly rough	Slightly altered joint walls	Soft filling <5mm	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	10	2	6	3	2	5	10	53	Fair Rock	6	1.5	2	1	2100	High Stress, Jointed Rock	4	1,831	Poor	58	53
1831	1841	739	729	10	Qz Monzonite	R4	10,875	47	0.71	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	8	10	2	6	3	6	5	10	62	Good Rock	6	1.5	1	1	2111	High Stress, Jointed Rock	2	5,875	Fair	67	62
1841	1851	729	719	10	Qz Monzonite	R4	10,875	23	0.63	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	3	6	5	10	51	Fair Rock	6	3	1	1	2123	High Stress, Jointed Rock	4	2,875	Poor	56	51
1851	1861	719	709	10	Qz Monzonite	R4	10,875	15	0.59	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Slightly altered joint walls	Soft filling <5mm	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	3	8	2	6	3	2	6	10	47	Fair Rock	6	3	2	1	2134	High Stress, Jointed Rock	4	4,938	Very Poor	52	47
1861	1871	709	699	10	Qz Monzonite	R4	10,875	21	0.42	Two joint sets plus random joints	10	Closed	Smooth, undulating	Smooth	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	3	8	2	6	1	6	6	10	54	Fair Rock	6	2	1	1	2146	High Stress, Jointed Rock	2	3,500	Poor	59	54
1871	1881	699	689	10	Qz Monzonite	R4	10,875	14	0.48	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	3	8	2	6	1	6	6	10	54	Fair Rock	6	1	1	1	2157	High Stress, Jointed Rock	2	1,167	Poor	59	54
1881	1891	689	679	10	Discrete Qz Monzonite	R4	10,875	36	0.59	Two joint sets plus random joints	10	Closed	Smooth, undulating	Smooth	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	8	2	6	1	6	6	10	54	Fair Rock	6	2	1	1	2169	High Stress, Jointed Rock	4	3,080	Poor	59	54
1891	1901	679	669	10	Discrete Qz Monzonite	R4	10,875	10	0.48	Two joint sets plus random joints	10	Closed	Smooth, undulating	Smooth	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	1	6	6	10	49	Fair Rock	6	1	1	1	2180	High Stress, Jointed Rock	4	4,833	Very Poor	54	49
1901	1911	669	659	10	Qz Monzonite	R4	10,875	28	0.56	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	0	13	8	2	6	3	6	10	61	Good Rock	6	3	1	1	2192	High Stress, Jointed Rock	6	4,667	Fair	66	61
1911	1921	659	649	10	Qz Monzonite	R4	10,875	28	0.56	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	0	13	8	2	6	3	6	10	61	Good Rock	6	3	1	1	2192	High Stress, Jointed Rock	6	4,667	Fair	66	61
1921	1931	649	639	10	Qz Monzonite	R4	10,875	30	0.48	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	8	8	2	6	3	6	6	10	61	Good Rock	6	3	1	1	2215	Medium Stress	1	15,800	Good	66	61
1931	1941	639	629	10	Qz Monzonite	R3	4,550	47	0.83	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Slightly altered joint walls	Hard filling <5mm	Highly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	13	10	2	6	1	4	1	10	51	Fair Rock	6	1	2	1	2226	High Stress, Jointed Rock	14	4,339	Very Poor	56	51
1941	1951	629	619	10	Qz Monzonite	R4	10,875	10	0.45	Two joint sets plus random joints	10	Closed	Discontinuous joints	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	1	6	5	10	50	Fair Rock	6	4	1	1	2238	High Stress, Jointed Rock	4	1,667	Poor	55	50
1951	1961	619	609	10	Qz Monzonite	R4	10,875	10	0.48	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	1	6	5	10	48	Fair Rock	6	1	1	1	2249	High Stress, Jointed Rock	4	4,617	Poor	53	48
1961	1971	609	599	10	Qz Monzonite	R4	10,875	40	0.91	Two joint sets plus random joints	10	Closed	Smooth, undulating	Smooth	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	10	2	6	1	6	6	10	56	Fair Rock	6	2	1	1	2261	High Stress, Jointed Rock	4	4,333	Poor	56	51
1971	1981	599	589	10	Qz Monzonite	R4	10,875	90	1.67	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	20	10	2	6	3	6	5	10	69	Good Rock	6	3	1	1	2272	High Stress, Jointed Rock	4	11,250	Good	74	69
1981	1991	589	579	10	Qz Monzonite	R4	10,875	47	0.83	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	13	10	2	6	3	6	3	10	60	Fair Rock	6	3	1	1	2284	High Stress, Jointed Rock	4	4,375	Fair	65	60
1991	2001	579	569	10	Qz Monzonite	R4	10,875	47	0.67	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	10	2	6	1	6	3	10	53	Fair Rock	9	1	1	1	2295	High Stress, Jointed Rock	4	1,386	Poor	58	53
2001	2011	569	559	10	Qz Monzonite	R4	10,875	10	0.29	Three joint sets	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	8	2	6	1	6	5	10	48	Fair Rock	9	1	1	1	2307	High Stress, Jointed Rock	4	4,278	Very Poor	53	48
2011	2021	559	549	10	Qz Monzonite	R4	10,875	30	0.32	Three joint sets	10	Closed	Rough, irregular, planar	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	8	8	2	6	3	6	5	10	60	Fair Rock	9	1.5	1	1	2318	High Stress, Jointed Rock	2	4,508	Poor	61	56
2021	2031	549	539	10	Qz Monzonite	R4	10,875	50	1.00	Three joint sets	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	13	10	2	6	1	6	3	10	58	Fair Rock	9	1	1	1	2330	High Stress, Jointed Rock	4	1,380	Poor	63	58
2031	2041	539	529	10	Qz Monzonite	R3	4,550	50	1.00	Three joint sets	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Highly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	13	10	2	6	1	6	1	10	41	Good Rock	9	1	1	1	2341	High Stress, Jointed Rock	14	4,397	Poor	58	53</

Condition of Discontinuities												Rock Mass Rating (RMR) Classification												Q-system																			
Depth		Elevation (MSL)		Interval Thickness (ft)	Lithology	Strength of Intact Rock (psi)	Estimated Strength of Intact Rock (psi)	Rock Quality Designation (RQD)	Fracture Spacing (ft)	Number of Joint Sets	Discontinuity Length (ft)	Aperture Thickness (mm)	Joint Roughness (RMR)	Joint Alteration (Q)	Infilling (RMR)	Weathering / Alteration	Groundwater Conditions	Strength of Intact Rock Rating	Strength of Intact Rock Rating	RQD Rating	Spacing of Discontinuities Rating	Discontinuity Length Rating	Aperture Thickness Rating	Discontinuity Roughness Rating	Discontinuity Filling Rating	Weathering Alteration Rating	Groundwater Rating	Rock Mass Rating (RMR)	RMR Classification	Joint Set Number (J _s)	Joint Roughness Number (J _r)	Joint Alteration Number (J _a)	Joint Water Reduction (J _w)	Estimated Vertical Stress (psi)	Stress Condition	Stress Reduction Factor (SRF)	Q-value	Q-value Classification	Rock Mass Rating (RMR _b)	Geological Strength Index (GSI)			
From (ft)	To (ft)	From (ft)	To (ft)																																								
1746	1756	796.7	796.7	10	Qtz Monazite	2,957		48	1.00		Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Highly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	2	0	8	10	2	6	1	6	1	10	46	Fair Rock	6	1	1	1	2014	High Stress, Jointed Rock	20	0.400	Very Poor	51	46
1756	1766	796.7	776.7	10	Qtz Monazite			53	0.83		Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Highly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	4	0	13	10	2	6	1	6	1	10	53	Fair Rock	6	1	1	1	2025	High Stress, Jointed Rock	16	0.552	Very Poor	58	53
1766	1776	776.7	767.7	10	Qtz Monazite	3,752	R2	1,270	0.40		Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Highly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	2	13	10	2	6	1	6	1	10	49	Fair Rock	6	1	1	1	2037	High Stress, Jointed Rock	20	0.508	Very Poor	54	49
1776	1786	767.7	756.7	10	Qtz Monazite	10,145		35	0.67		Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	8	10	2	6	1	6	1	10	57	Fair Rock	6	3	1	1	2048	High Stress, Jointed Rock	4	4.375	Fair	62	57
1786	1796	756.7	746.7	10	Qtz Monazite	8,079		57	0.43		Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	13	8	2	6	1	6	5	10	58	Fair Rock	6	1	1	1	2060	High Stress, Jointed Rock	6	1.583	Poor	63	58
1796	1806	746.7	736.7	10	Qtz Monazite	4,440		50	0.67		Two joint sets plus random joints	10	Closed	Smooth, undulating	Smooth	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	4	0	13	10	2	6	1	6	3	10	55	Fair Rock	6	2	1	1	2071	High Stress, Jointed Rock	12	1.289	Poor	60	55
1806	1816	736.7	726.7	10	Qtz Monazite			62	0.67		Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	13	10	2	6	1	6	3	10	55	Fair Rock	6	2	1	1	2083	High Stress, Jointed Rock	12	0.861	Very Poor	60	55
1816	1826	726.7	716.7	10	Qtz Monazite	13,817		35	0.83		Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	8	10	2	6	1	6	5	10	57	Fair Rock	6	3	1	1	2094	High Stress, Jointed Rock	2	0.750	Fair	62	57
1826	1836	716.7	706.7	10	Qtz Monazite			51	0.59		Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	13	8	2	6	3	6	3	10	55	Fair Rock	6	3	1	1	2106	High Stress, Jointed Rock	12	2.125	Poor	60	55
1836	1846	706.7	696.7	10	Qtz Monazite	4,141		46	0.63		Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	4	0	8	8	2	6	1	6	3	10	48	Fair Rock	6	1	1	1	2117	High Stress, Jointed Rock	14	0.548	Very Poor	53	48
1846	1856	696.7	686.7	10	Qtz Monazite			31	0.36		Two joint sets plus random joints	10	Closed	Smooth, undulating	Smooth	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	2	8	8	2	6	1	6	3	10	46	Fair Rock	6	2	1	1	2129	High Stress, Jointed Rock	20	0.517	Very Poor	51	46
1856	1866	686.7	676.7	10	Qtz Monazite			51	0.22		Two joint sets plus random joints	10	Closed	Discontinuous joints	Rough	Unaltered joint walls	None	Highly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	1	13	8	2	6	5	6	1	10	52	Fair Rock	6	4	1	1	2140	High Stress, Jointed Rock	20	1.700	Poor	61	52
1866	1876	676.7	666.7	10	Qtz Monazite	926		10	0.50		Two joint sets plus random joints	10	Closed	Discontinuous joints	Rough	Unaltered joint walls	None	Highly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	2	0	3	8	2	6	5	6	1	10	43	Fair Rock	6	4	1	1	2152	High Stress, Jointed Rock	20	0.333	Very Poor	48	43
1876	1886	666.7	656.7	10	Qtz Monazite	1,494		1	0.25		Two joint sets plus random joints	10	Closed	Discontinuous joints	Rough	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	2	0	3	8	2	6	5	6	3	10	45	Fair Rock	6	4	1	1	2163	High Stress, Jointed Rock	20	0.833	Extremely Poor	56	45
1886	1896	656.7	646.7	10	Qtz Monazite	13,434		34	0.63		Two joint sets plus random joints	10	Closed	Smooth, undulating	Smooth	Unaltered joint walls	None	Highly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	8	8	2	6	1	6	3	10	49	Fair Rock	6	2	1	1	2175	High Stress, Jointed Rock	2	5.667	Fair	54	49
1896	1906	646.7	636.7	10	Qtz Monazite			40	0.18		Two joint sets plus random joints	10	Closed	Discontinuous joints	Rough	Unaltered joint walls	None	Highly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	1	8	5	2	6	5	6	1	10	44	Fair Rock	6	4	1	1	2186	High Stress, Jointed Rock	20	1.333	Poor	49	44
1906	1916	636.7	626.7	10	Qtz Monazite			17	0.29		Two joint sets plus random joints	10	Closed	Discontinuous joints	Rough	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	2	3	8	2	6	5	6	3	10	45	Fair Rock	6	4	1	1	2198	High Stress, Jointed Rock	4	0.567	Very Poor	56	45
1916	1926	626.7	616.7	10	Qtz Monazite	9,959		15	0.29		Two joint sets plus random joints	10	Closed	Smooth, planar	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	3	8	2	6	3	6	5	10	50	Fair Rock	6	1	1	1	2209	High Stress, Jointed Rock	4	0.625	Very Poor	55	50
1926	1936	616.7	606.7	10	Qtz Monazite	1,869		9	0.33		Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	2	0	3	8	2	6	1	6	5	10	43	Fair Rock	6	1	1	1	2221	High Stress, Jointed Rock	20	0.675	Extremely Poor	48	43
1936	1946	606.7	596.7	10	Qtz Monazite			27	0.63		Two joint sets plus random joints	10	Healed	Rough, irregular, planar	Smooth	Tightly heeled, hard	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	8	2	6	3	4	5	10	53	Fair Rock	6	1.5	0.75	1	2232	High Stress, Jointed Rock	4	2.250	Poor	58	53
1946	1956	596.7	586.7	10	Qtz Monazite	5,715		43	0.43		Two joint sets plus random joints	10	Closed	Smooth, undulating	Smooth	Tightly heeled, hard	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	4	0	8	8	2	6	1	6	5	10	48	Fair Rock	6	2	0.75	1	2244	High Stress, Jointed Rock	10	1.911	Poor	53	48
1956	1966	586.7	576.7	10	Qtz Monazite	13,879		42	0.83		Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	8	10	2	6	3	6	5	10	57	Fair Rock	6	3	1	1	2255	High Stress, Jointed Rock	2	10.500	Good	62	57
1966	1976	576.7	566.7	10	Qtz Monazite	19,981		59	0.35		Two joint sets plus random joints	10	Healed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	8	10	2	6	3	4	5	10	53	Fair Rock	6	3	0.75	1	2267	High Stress, Jointed Rock	2	6.333	Fair	60	53
1976	1986	566.7	556.7	10	Qtz Monazite	30,734		21	0.40		Two joint sets plus random joints	10	Closed	Discontinuous joints	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	3	8	2	6	3	6	5	10	55	Fair Rock	6	3	1	1	2278	High Stress, Jointed Rock	1	10.500	Good	60	55
1986	1996	556.7	546.7	10	Qtz Monazite			36	0.40		Two joint sets plus random joints	10	Closed	Discontinuous joints	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	8	8	2	6	1	6	5	10	50	Fair Rock	6	2	1	1	2290	High Stress, Jointed Rock	14	0.714	Poor	55	50
1996	2006	546.7	536.7	10	Qtz Monazite			21	0.40		Two joint sets plus random joints	10	Closed	Smooth, undulating	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	3	8	2	6	1	6	5	10	45	Fair Rock	6	2	1	1	2301	High Stress, Jointed Rock	14	0.500	Very Poor	50	45
2006	2016	536.7	526.7	10	Qtz Monazite	11,548		19	0.40		Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	3	8	2	6	1	6	3	10	46	Fair Rock	6	1	1	1	2313	High Stress, Jointed Rock	4	0.792	Fair	51	46
2016	2026	526.7	516.7	10	Qtz Monazite	10,638		36	0.33		Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Smooth	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	8	8	2	6	1	6	3	10	56	Fair Rock	6	3	1	1	2325	High Stress, Jointed Rock	6	4.500	Fair	64	56
2026	2036	516.7	506.7	10	Qtz Monazite	15,432		3																																			

From (ft)		To (ft)		Elevation (MSL)	Interval Thickness (ft)	Lithology	Strength of Intact Rock (psi)	Estimated Strength of Intact Rock (psi)	Estimated Strength of Intact Rock (psi)	Rock Quality Designation	Fracture Spacing (ft)	Number of Joint Sets	Condition of Discontinuities										Groundwater	Rock Mass Rating (RMR) Classification										Q-system				Rock Mass Rating (RMR _a)	Geological Strength Index (GSI)																													
													Discontinuity Length (ft)		Aperture Thickness (mm)		Joint Roughness (Q)		Joint Alteration (Q)		Infilling (RMR)		Weathering / Alteration		ROD Rating		Strength of Intact Rock		Strength of Intact Rock		Spacing of Discontinuities		Discontinuity Length Rating		Aperture Thickness Roughness Rating		Discontinuity Filling Rating		Weathering / Alteration Rating		Groundwater Rating		Rock Mass Rating (RMR)		RMR Classifications		Joint Set Number (J _s)		Joint Roughness Number (J _r)		Joint Alteration Number (J _a)		Joint Water Reduction (J _w)		Estimated Vertical Stress (psi)		Stress Condition		Stress Reduction Factor (SRF)		Q-value		Q-value Classification		Rock Mass Rating (RMR _a)		Geological Strength Index (GSI)	
1745	1755	796.1	796.1	10	Qtz Monzonite	1,380				73	2.00	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Highly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	2	0	13	15	2	6	1	6	1	10	56	Fair Rock	6	1	1	1	2013	High Stress, Jointed Rock	20	0.610	Very Poor	61	56																								
1755	1765	796.1	796.1	10	Qtz Monzonite / Pegmatite Dike	876				58	1.43	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Decomposed	Dry excavations or minor inflow (humid or a few drips)	Damp	2	0	13	10	2	6	1	6	0	10	50	Fair Rock	6	1	1	1	2024	High Stress, Jointed Rock	20	0.485	Very Poor	50	50																								
1765	1775	796.1	796.1	10	Qtz Monzonite	567			R1	450	48	5.00	Two joint sets plus random joints	10	Closed	Discontinuous joints	Slightly rough	Unaltered joint walls	None	Decomposed	Dry excavations or minor inflow (humid or a few drips)	Damp	1	0	8	15	2	6	3	6	0	10	51	Fair Rock	6	4	1	1	2036	High Stress, Jointed Rock	20	1.087	Poor	56	51																							
1775	1785	796.1	796.1	10	Qtz Monzonite	43				43	10.00	Two joint sets plus random joints	10	Closed	Discontinuous joints	Slightly rough	Unaltered joint walls	None	Highly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	1	8	20	2	6	3	6	1	10	57	Fair Rock	6	4	1	1	2047	High Stress, Jointed Rock	20	1.436	Poor	62	57																								
1785	1795	796.1	796.1	10	Qtz Monzonite	1,204				46	5.00	Two joint sets plus random joints	10	Closed	Smooth, planar	Slightly rough	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	2	0	8	15	2	6	3	6	3	10	55	Fair Rock	6	1	1	1	2059	High Stress, Jointed Rock	20	0.837	Very Poor	60	55																								
1795	1805	796.1	796.1	10	Qtz Monzonite / Diorite	17,321				68	1.67	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	13	10	2	6	3	6	5	10	67	Good Rock	6	1.5	1	1	2070	High Stress, Jointed Rock	2	8.464	Fair	72	67																								
1805	1815	796.1	796.1	10	Qtz Monzonite / Pegmatite Dike	84			R4	10,875	84	2.00	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	17	15	2	6	5	6	5	10	73	Good Rock	6	3	1	1	2082	High Stress, Jointed Rock	4	18.561	Good	78	73																							
1815	1825	796.1	796.1	10	Qtz Monzonite	21,244				66	2.50	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	13	15	2	6	3	6	5	10	72	Good Rock	6	3	1	1	2093	Medium Stress	1	22.650	Good	77	72																								
1825	1835	796.1	796.1	10	Qtz Monzonite / Pegmatite Dike	8,065				57	0.67	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Slightly rough	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	13	10	2	6	3	6	6	10	63	Good Rock	6	1.5	1	1	2105	High Stress, Jointed Rock	6	2.356	Poor	68	63																								
1835	1845	796.1	696.1	10	Qtz Monzonite	32,797				65	1.67	Two joint sets plus random joints	10	Closed	Smooth, planar	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	13	10	2	6	3	6	5	10	67	Good Rock	6	1	1	1	2116	Medium Stress	1	18.915	Good	72	67																								
1845	1855	696.1	696.1	10	Qtz Monzonite / Pegmatite Dike	73			R4	10,875	73	1.43	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	13	10	2	6	5	6	5	10	64	Good Rock	6	3	1	1	2128	High Stress, Jointed Rock	4	8.061	Fair	69	64																							
1855	1865	696.1	676.1	10	Qtz Monzonite / Diorite	13,486				75	1.67	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	13	10	2	6	5	6	5	10	64	Good Rock	6	1.5	1	1	2139	High Stress, Jointed Rock	2	9.341	Fair	69	64																								
1865	1875	676.1	666.1	10	Qtz Monzonite	30,767				64	1.67	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	13	10	2	6	5	6	5	10	69	Good Rock	6	1.5	1	1	2151	Medium Stress	1	15.979	Good	74	69																								
1875	1885	666.1	656.1	10	Qtz Monzonite	19,328				37	1.67	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	8	10	2	6	3	6	3	10	60	Fair Rock	6	3	1	1	2162	High Stress, Jointed Rock	2	3.193	Fair	65	60																								
1885	1895	656.1	646.1	10	Qtz Monzonite	46			R4	10,875	39	1.43	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	10	2	6	5	6	5	10	54	Fair Rock	6	3	1	1	2174	High Stress, Jointed Rock	4	1.328	Poor	59	54																							
1895	1905	646.1	636.1	10	Qtz Monzonite	46				43	1.67	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Rough	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	10	2	6	5	6	3	10	57	Fair Rock	6	3	1	1	2185	High Stress, Jointed Rock	4	4.488	Fair	62	57																								
1905	1915	636.1	626.1	10	Qtz Monzonite / Diorite	37				0.43	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	8	8	2	6	3	6	5	10	55	Fair Rock	6	1.5	1	1	2197	High Stress, Jointed Rock	4	2.313	Poor	60	55																									
1915	1925	626.1	616.1	10	Qtz Monzonite	39			R4	10,875	39	0.42	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Rough	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	8	2	6	5	6	5	10	57	Fair Rock	6	1.5	1	1	2208	High Stress, Jointed Rock	4	2.454	Poor	62	57																							
1925	1935	616.1	606.1	10	Qtz Monzonite	35				0.83	Two joint sets plus random joints	10	Closed	Discontinuous joints	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	10	2	6	3	6	5	10	57	Fair Rock	6	4	1	1	2220	High Stress, Jointed Rock	4	5.807	Fair	62	57																									
1935	1945	606.1	596.1	10	Qtz Monzonite	45				1.11	Two joint sets plus random joints	10	Closed	Smooth, undulating	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	8	10	2	6	3	6	5	10	57	Fair Rock	6	2	1	1	2231	High Stress, Jointed Rock	2	7.523	Fair	62	57																									
1945	1955	596.1	586.1	10	Qtz Monzonite / Diorite	18				3.33	Two joint sets plus random joints	10	Closed	Discontinuous joints	Rough	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	15	2	6	5	6	6	10	60	Fair Rock	6	4	1	1	2243	High Stress, Jointed Rock	4	2.948	Poor	65	60																									
1955	1965	586.1	576.1	10	Qtz Monzonite	21			R4	10,875	21	2.50	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	3	15	2	6	5	6	5	10	57	Fair Rock	6	1.5	1	1	2254	High Stress, Jointed Rock	4	2.368	Poor	62	57																							
1965	1975	576.1	566.1	10	Qtz Monzonite	48				1.43	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	10	2	6	5	6	3	10	57	Fair Rock	6	3	1	1	2266	High Stress, Jointed Rock	4	5.941	Fair	62	57																									
1975	1985	566.1	556.1	10	Qtz Monzonite	5,884				47	2.50	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	4	0	8	15	2	6	5	6	5	10	61	Good Rock	6	3	1	1	2277	High Stress, Jointed Rock	10	2.342	Poor	66	61																								
1985	1995	556.1	546.1	10	Qtz Monzonite	44			R4	10,875	44	3.33	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Rough	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	15	2	6	5	6	5	10	64	Good Rock	6	1.5	1	1	2290	High Stress, Jointed Rock	4	2.764	Poor	69	64																							
1995	2005	546.1	536.1	10	Qtz Monzonite	2,821				68	2.50	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	2	0	13	15	2	6	5	6	5	10	64	Good Rock	6	1.5	1	1	2300	High Stress, Jointed Rock	20	8.647	Very Poor	69	64																								
2005	2015	536.1	526.1	10	Qtz Monzonite	12,252				47	1.11	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Rough	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	8	10	2	6	5	6	3	10	57	Fair Rock	6	1.5	1	1	2312	High Stress, Jointed Rock	4	2.924	Poor	62	57																								
2015	2025	526.1	516.1	10	Qtz Monzonite	20,194				50	0.77	Two joint sets plus random joints	10	Closed	Discontinuous joints	Slightly rough	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	8	10	2	6	3	6	3	10	60	Fair Rock	6	4	1	1	2323	High Stress, Jointed Rock	2	14.523	Good	65	60																								
2025	2035	516.1	506.1	10	Qtz Monzonite	10,688				61	0.67	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Rough	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	13	10	2	6	5	6	6	10	65	Good Rock	6	1.5	1	1	2335	High Stress, Jointed Rock	4	3.790	Poor	70	65																								
2035	2045	506.1	496.1	10	Qtz Monzonite	14,204				28	0.91	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Rough	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7</																																														

Depth	Elevation (MSL)		Interval Thickness (ft)	Lithology	Strength of Intact Rock (psi)	Estimated Strength of Intact Rock (psi)	Rock Quality Designation (RQD)	Fracture Spacing (ft)	Number of Joint Sets	Condition of Discontinuities										Groundwater Conditions	Rock Mass Rating (RMR) Classification										Q-system						Rock Mass Rating (RMR ₉₀)	Geological Strength Index (GSI)				
	From (ft)	To (ft)								Discontinuity Length (ft)	Aperture Thickness (mm)	Joint Roughness (J)	Joint Alteration (Q)	Infilling (RMR)	Weathering / Alteration	Joint Water (Q)	Strength of Intact Rock Rating	Strength of Intact Rock Rating	RQD Rating		Spacing of Discontinuities Rating	Discontinuity Length Rating	Aperture Thickness Rating	Discontinuity Roughness Rating	Discontinuity Filling Rating	Weathering Alteration Rating	Groundwater Rating	Rock Mass Rating (RMR)	RMR Classification	Joint Set Number (J ₁)	Joint Roughness Number (J ₂)	Joint Alteration Number (J ₃)	Joint Water Reduction (J ₄)	Estimated Vertical Stress (psi)	Stress Condition	Stress Reduction Factor (SRF)			Q-value	Q-value Classification		
1750	1760	798.8	788.8	10	Qtz Monzonite	1,264		70	1.67	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	2	0	13	10	2	6	1	6	3	10	53	Fair Rock	6	4	1	1	2018	High Stress, Jointed Rock	20	0.583	Very Poor	58	53
1760	1770	788.8	778.8	10	Qtz Monzonite	1,376		76	5.00	Two joint sets plus random joints	10	Closed	Discontinuous joints	Slightly rough	Unaltered joint walls	None	Highly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	2	0	17	15	2	6	3	6	1	10	62	Good Rock	6	4	1	1	2030	High Stress, Jointed Rock	20	2.533	Poor	67	62
1770	1780	778.8	768.8	10	Qtz Monzonite	1,162		76	0.10	Two joint sets plus random joints	10	Closed	Discontinuous joints	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	2	0	17	5	2	6	3	6	5	10	56	Fair Rock	6	4	1	1	2041	High Stress, Jointed Rock	20	2.533	Poor	61	56
1780	1790	768.8	758.8	10	Qtz Monzonite	145		60	0.10	Two joint sets plus random joints	10	Closed	Discontinuous joints	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	0	13	5	2	6	3	6	5	10	50	Fair Rock	6	4	1	1	2053	High Stress, Jointed Rock	20	2.000	Poor	55	50
1790	1800	758.8	748.8	10	Qtz Monzonite	14,532		66	1.43	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	13	10	2	6	3	6	5	10	67	Good Rock	6	3	1	1	2064	High Stress, Jointed Rock	2	16.500	Good	72	67
1800	1810	748.8	738.8	10	Qtz Monzonite	4,844		58	1.25	Two joint sets plus random joints	10	Closed	Smooth, undulating	Smooth	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	4	0	13	10	2	6	1	6	3	10	55	Fair Rock	6	2	1	1	2076	High Stress, Jointed Rock	12	1.611	Poor	60	55
1810	1820	738.8	728.8	10	Qtz Monzonite	12,788		42	0.83	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	8	10	2	6	1	6	5	10	55	Fair Rock	6	1	1	1	2087	High Stress, Jointed Rock	2	3.500	Poor	60	55
1820	1830	728.8	718.8	10	Qtz Monzonite			32	3.33	Two joint sets plus random joints	10	Closed	Smooth, undulating	Smooth	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	8	15	2	6	1	6	3	10	55	Fair Rock	6	2	1	1	2099	High Stress, Jointed Rock	12	0.889	Very Poor	63	55
1830	1840	718.8	708.8	10	Qtz Monzonite	9,942		41	3.33	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	8	15	2	6	1	6	5	10	60	Fair Rock	6	1	1	1	2110	High Stress, Jointed Rock	4	1.788	Poor	65	60
1840	1850	708.8	698.8	10	Qtz Monzonite			47	3.33	Two joint sets plus random joints	10	Closed	Discontinuous joints	Slightly rough	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	8	15	2	6	3	6	3	10	57	Fair Rock	6	4	1	1	2122	High Stress, Jointed Rock	12	2.611	Poor	62	57
1850	1860	698.8	688.8	10	Qtz Monzonite	2,686		45	0.10	Two joint sets plus random joints	10	Closed	Discontinuous joints	Slightly rough	Unaltered joint walls	None	Highly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	2	0	8	5	2	6	3	6	1	10	43	Fair Rock	6	4	1	1	2133	High Stress, Jointed Rock	20	1.400	Poor	48	43
1860	1870	688.8	678.8	10	Qtz Monzonite			51	2.50	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	13	10	2	6	1	6	3	10	60	Fair Rock	6	1	1	1	2145	High Stress, Jointed Rock	12	0.788	Very Poor	65	60
1870	1880	678.8	668.8	10	Qtz Monzonite			63	1.25	Two joint sets plus random joints	10	Closed	Smooth, undulating	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	13	10	2	6	3	6	5	10	59	Fair Rock	6	2	1	1	2156	High Stress, Jointed Rock	12	1.750	Poor	64	59
1880	1890	668.8	658.8	10	Qtz Monzonite			56	2.00	Two joint sets plus random joints	10	Closed	Smooth, undulating	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	13	15	2	6	3	6	5	10	64	Good Rock	6	2	1	1	2168	High Stress, Jointed Rock	12	1.956	Poor	69	64
1890	1900	658.8	648.8	10	Qtz Monzonite	10,538		36	1.43	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	8	10	2	6	3	6	5	10	57	Fair Rock	6	3	1	1	2179	High Stress, Jointed Rock	4	4.500	Fair	62	57
1900	1910	648.8	638.8	10	Qtz Monzonite			55	0.77	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	13	10	2	6	3	6	5	10	62	Good Rock	6	1.5	1	1	2191	High Stress, Jointed Rock	4	3.438	Poor	67	62
1910	1920	638.8	628.8	10	Qtz Monzonite			48	1.25	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	10	2	6	3	6	5	10	57	Fair Rock	6	1.5	1	1	2202	High Stress, Jointed Rock	4	3.000	Poor	62	57
1920	1930	628.8	618.8	10	Qtz Monzonite	12,360		29	0.77	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	8	10	2	6	1	6	5	10	55	Fair Rock	6	1	1	1	2214	High Stress, Jointed Rock	4	1.288	Poor	60	55
1930	1940	618.8	608.8	10	Qtz Monzonite			39	0.71	Two joint sets plus random joints	10	Healed	Rough, irregular, planar	Slightly rough	Tightly healed, hard	Hard filling <5mm	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	10	2	6	3	4	5	10	55	Fair Rock	6	1.5	0.75	1	2225	High Stress, Jointed Rock	4	3.250	Poor	68	55
1940	1950	608.8	598.8	10	Qtz Monzonite			48	3.33	Two joint sets plus random joints	10	Healed	Rough or irregular, undulating	Slightly rough	Tightly healed, hard	Hard filling <5mm	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	7	8	15	2	6	3	4	5	10	60	Fair Rock	6	3	0.75	1	2237	High Stress, Jointed Rock	4	8.000	Fair	65	60
1950	1960	598.8	588.8	10	Qtz Monzonite			32	1.00	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	12	0	8	10	2	6	3	6	5	10	62	Good Rock	6	1.5	1	1	2248	High Stress, Jointed Rock	2	4.000	Fair	67	62
1960	1970	588.8	578.8	10	Qtz Monzonite			48	1.25	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	8	10	2	6	1	6	3	10	50	Fair Rock	6	1	1	1	2260	High Stress, Jointed Rock	14	0.571	Very Poor	55	50
1970	1980	578.8	568.8	10	Diorite / Qtz Monzonite			57	1.25	Two joint sets plus random joints	10	Closed	Smooth, undulating	Smooth	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	13	10	2	6	1	6	5	10	57	Fair Rock	6	2	1	1	2271	High Stress, Jointed Rock	14	1.357	Poor	62	57
1980	1990	568.8	558.8	10	Qtz Monzonite			47	0.91	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	8	10	2	6	3	6	5	10	57	Fair Rock	6	3	1	1	2283	High Stress, Jointed Rock	4	5.875	Fair	62	57
1990	2000	558.8	548.8	10	Qtz Monzonite			43	1.43	Two joint sets plus random joints	10	Closed	Rough, irregular, planar	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	8	10	2	6	3	6	5	10	54	Fair Rock	6	1.5	1	1	2294	High Stress, Jointed Rock	14	0.768	Very Poor	59	54
2000	2010	548.8	538.8	10	Qtz Monzonite			38	0.83	Two joint sets plus random joints	10	Closed	Smooth, undulating	Smooth	Unaltered joint walls	None	Moderately altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	8	10	2	6	1	6	3	10	50	Fair Rock	6	2	1	1	2306	High Stress, Jointed Rock	14	0.905	Very Poor	55	50
2010	2020	538.8	528.8	10	Diorite / Qtz Monzonite			43	1.25	Two joint sets plus random joints	10	Closed	Smooth, planar	Smooth	Unaltered joint walls	None	Unaltered	Dry excavations or minor inflow (humid or a few drips)	Damp	7	0	8	10	2	6	1	6	6	10	56	Fair Rock	6	1	1	1	2317	High Stress, Jointed Rock	4	1.792	Poor	61	56
2020	2030	528.8	518.8	10	Diorite / Qtz Monzonite			60	1.00	Two joint sets plus random joints	10	Healed	Smooth, planar	Smooth	Tightly healed, hard	Hard filling <5mm	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	13	10	2	6	1	4	5	10	55	Fair Rock	6	1	0.75	1	2329	High Stress, Jointed Rock	14	0.952	Very Poor	60	55
2030	2040	518.8	508.8	10	Qtz Monzonite			38	1.00	Two joint sets plus random joints	10	Healed	Smooth, planar	Slightly rough	Tightly healed, hard	Hard filling >5mm	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	8	10	2	6	3	2	5	10	50	Fair Rock	6	1	0.75	1	2340	High Stress, Jointed Rock	14	0.603	Very Poor	55	50
2040	2050	508.8	498.8	10	Qtz Monzonite			51	1.67	Two joint sets plus random joints	10	Healed	Rough, irregular, planar	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	13	10	2	6	3	6	5	10	59	Fair Rock	6	1.5	1	1	2352	High Stress, Jointed Rock	4	3.083	Poor	64	59
2050	2060	498.8	488.8	10	Qtz Monzonite			42	2.00	Two joint sets plus random joints	10	Closed	Rough or irregular, undulating	Slightly rough	Unaltered joint walls	None	Slightly altered	Dry excavations or minor inflow (humid or a few drips)	Damp	0	4	8	15	2	6	3	6	5	10	59	Fair Rock	6	3	1	1	2363						