

BMC Minerals (No. 1) Ltd.

Borehole No: WW15-01

Project: KZK Hydrogeological Assessment

Project No: ENVMIN03071-01

Location: Kudz Ze Kayah

Yukon

UTM: 414895 E; 6815770 N; Z 9

Depth (m)	Method	Soil Description	Notes and Comments	Depth (ft)
0			0.64 m	0
0 - 4.30		SAND AND GRAVEL (FILL) - trace silt, occasional cobbles and boulders, poorly graded, dry, light brown, subangular to subrounded gravel		0 - 14
4.30 - 11.20		GRAVEL - some sand, trace fine sand and silt, poorly graded, moist, dark brown, medium to coarse sand, subangular to subrounded gravel	Neat Portland Grout Surface Seal	14 - 37
11.20 - 15.23	Tricone	SAND AND GRAVEL - some silt, well graded, damp, light brown to grey, fine to coarse sand	205mm ID Water Well casing (-0.64-11.6m)	37 - 50
11.20 - 11.30		- very wet, grey brown, black and white. medium to coarse sand, angular gravel	11.20 m K-Packer ID 176mm	37 - 38
11.30 - 12.00		SAND - trace silt and fine sand, trace gravel, uniformly graded, very wet, grey brown black and white, medium to coarse sand	11.30 m 0 slot riser ID 176mm	38 - 42
12.00 - 15.23		SAND AND GRAVEL - trace silt and fine sand, well graded, very wet, white brown and grey, angular to subangular gravel	Veriperm continuous slot wire round screen, 80 slot, ID 176mm (12.00 to 15.20m)	42 - 50
15.23		END OF BOREHOLE (15.23 metres) - contact with top of bedrock water - 4.60 metres on October 4, 2015 Well installed to 15.23 metres		50



TETRA TECH EBA

Contractor: Midnight Sun Drilling

Completion Depth: 15.23 m

Drilling Rig Type: Air Rotary

Start Date: 2015 August 1

Logged By: [Redacted]

Completion Date: 2015 August 2

Reviewed By: [Redacted]

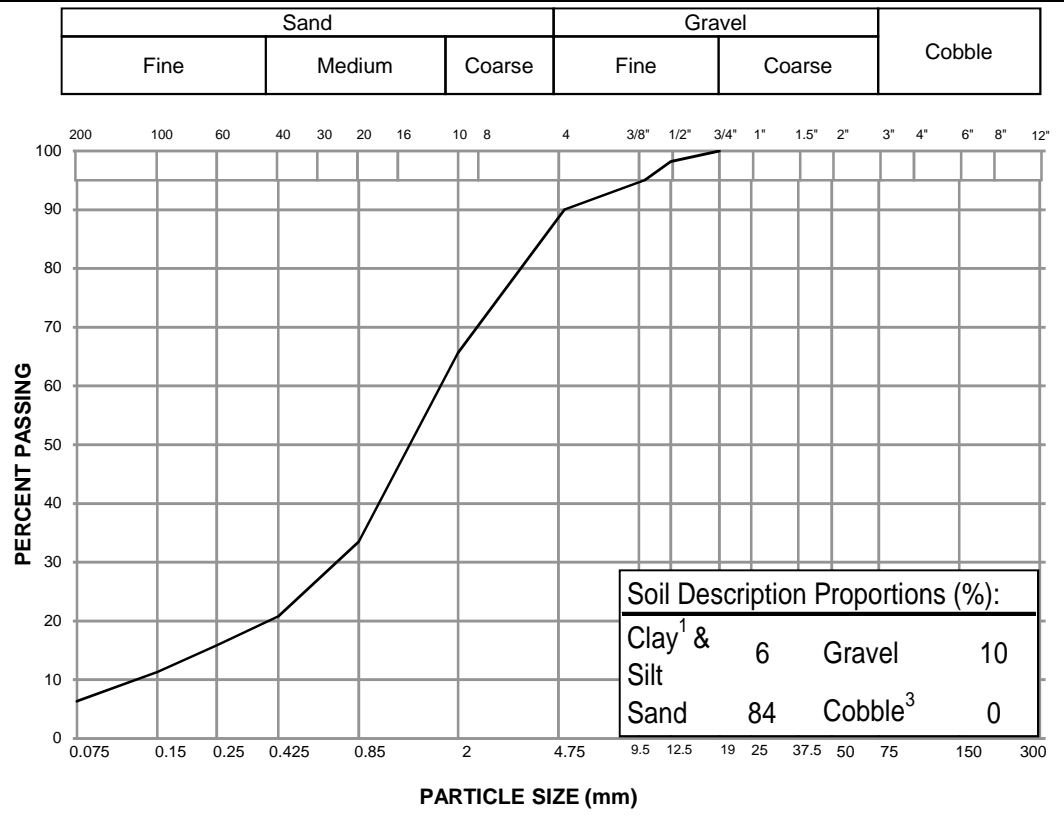
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PARTICLE SIZE ANALYSIS REPORT

ASTM D422, C136 & C117

Project:	Kudz Ze Kyah		Sample No.:	1
Project No.:	ENVMIN03071		Material Type:	Sand
Site:	Kudz Ze Kyah		Sample Loc.:	WW15-01
Client:	BMC		Sample Depth:	12.2 m (40 ft) bg
Client Rep.:			Sampling Method:	Drilled with air rotary, from
Date Tested:	August 1, 2015	By: ██████	Date sampled:	August 1, 2015
Soil Description ² :	SAND (med to coarse), trace silt, fine sand, gravel		Sampled By:	██████████
Moisture Content:	-100.0%		USC Classification:	Cu: 13.8 Cc: 2.3

Particle Size (mm)	Percent Passing
300	
200	
150	
100	
75	
50	
38	
25	
19	100
12.5	98
10	95
5	90
2	66
0.85	33
0.425	21
0.25	16
0.15	11
0.075	6



Notes: ¹ The upper clay size of 2 um, per the Canadian Foundation Engineering Manual
² The description is visually based & subject to EBA description protocols
³ If cobbles are present, sampling procedure may not meet ASTM C702 & D75

Specification: _____

Remarks: _____

Reviewed By: ██████ _____

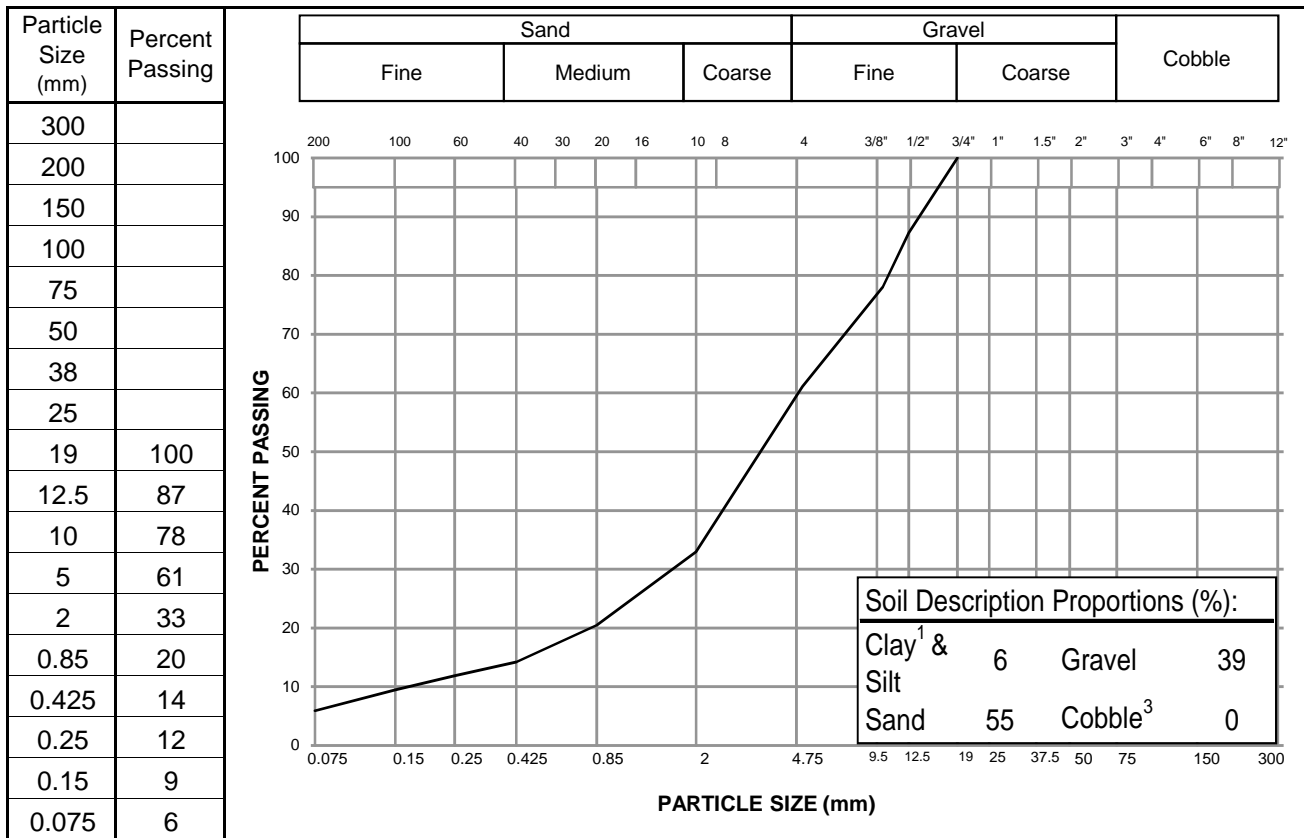
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PARTICLE SIZE ANALYSIS REPORT

ASTM D422, C136 & C117

Project:	Kudz Ze Kyah	Sample No.:	2	Material Type:	
Project No.:	ENVMIN07071	Sample Loc.:	WW15-01	Sample Depth:	14 m (46 ft) bg
Site:	Kudz Ze Kyah	Sampling Method:	Drilled with air rotary, from		
Client:	BMC	Date Tested:	August 1, 2015	Date sampled:	August 1, 2015
Client Rep.:		By:	█	Sampled By:	█
Soil Description ² :	SAND (med to coarse) and GRAVEL, tra		USC Classification:	Cu:	28.5
Moisture Content:	-100.0%			Cc:	3.6



Notes: ¹ The upper clay size of 2 um, per the Canadian Foundation Engineering Manual
² The description is visually based & subject to EBA description protocols
³ If cobbles are present, sampling procedure may not meet ASTM C702 & D75

Specification: _____

Remarks: _____

Reviewed By: █ _____

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Site: Kudz Ze Kyah
Job No.: ENVMIN03071
Well ID: WW15-01
Date: August 1 & 2, 2015
Development Method: Jetting and air lifting

Development Record

Date	Time	Time Spent Developing (min)	Estimated Purge Rate During Development (US GPM)	Total Volume Purged During Development (gal)	Total Volume Purged During Development (L)	Turbidity (estimated tablespoons sand in 5 gal pail)	Notes
1 Aug, 2015	16:45	0	250	0	0	-	commence development
	16:47	2	250	500	1893	7 - 8	
	16:55	10	250	2500	9464	1	
	17:03	18	250	4500	17034	6	moved down screen
	17:10	25	250	6250	23659	-	halted development due to water blowing out around casing. Welded three HQ drill rods to the casing to relieve pressure
	17:40	25	250	6250	23659	-	re-commenced development
	17:45	30	250	7500	28391	2	
	17:58	43	250	10750	40693	1.5	
	18:20	65	250	16250	61513	2	
	18:30	75	250	18750	70976	-	halted development, end of day
2 Aug, 2015	8:27	75	250	18750	70976	-	re-commenced development
	8:30	78	250	19500	73815	2	
	8:45	93	250	23250	88011	0.3	up high in screen
	9:20	128	250	32000	121133	0.5	
	9:35	143	250	35750	135328	0.3	
	9:55	163	250	40750	154255	0.2	
	9:57	165	250	41250	156148	-	Halted development - sump was almost full and in danger of overflowing.

Notes: Did not surge during development as driller worried about pressure blowing water to surface outside of the casing.