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To: LIBERTY STAR URANIUM & METALS
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 Total # Pages: 2 (A - D)
 Plus Appendix Pages
 Finalized Date: 6-FEB-2021
 This copy reported on 8-FEB-2021
 Account: LIBSTA

CERTIFICATE TU21006588

Project: Red Rock Canyon

This report is for 28 samples of Rock submitted to our lab in Tucson, AZ, USA on 11-JAN-2021.

The following have access to data associated with this certificate:

JAY CRAWFORD	PATRICIA MADARIS
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SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SND-ALS	Send samples to internal laboratory
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-22Y	Split Sample - Boyd Rotary Splitter
PUL-31	Pulverize up to 250g 85% <75 um

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
Au-GRA21	Au 30g FA-GRAV finish	WST-SIM
ME-MS41	Ultra Trace Aqua Regia ICP-MS	

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Saa Traxler, General Manager, North Vancouver



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CERTIFICATE OF ANALYSIS TU21006588

Sample Description	Method Analyte Units LOD	WEI-21	Au-GRA21	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	
		Recvd Wt. kg	Au ppm	Ag ppm	Al %	As ppm	Au ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm	Cr ppm
		0.02	0.05	0.01	0.01	0.1	0.02	10	10	0.05	0.01	0.01	0.01	0.02	0.1	1
314110		1.73	0.73	1.65	0.03	86.9	0.74	10	10	0.05	0.02	0.20	0.09	0.58	0.3	35
314111		1.75	<0.05	1.85	0.04	49.9	0.05	<10	20	<0.05	0.03	0.08	0.06	0.49	0.3	53
314112		1.77	4.83	0.68	0.14	221	4.81	<10	20	0.24	0.03	2.85	0.58	4.14	0.7	27
314113		1.70	1.49	2.20	0.06	218	1.58	<10	10	0.07	0.03	1.39	0.17	0.93	0.7	27
314114		1.77	0.28	0.18	0.13	110.5	0.30	<10	10	0.25	0.05	16.30	0.69	6.90	1.7	8
314115		1.94	0.17	1.01	0.04	24.4	0.24	10	10	0.05	0.02	0.12	0.20	0.35	0.4	44
314116		1.62	<0.05	0.29	0.10	13.4	0.02	<10	10	0.11	0.03	13.75	0.60	1.71	1.0	9
314117		1.82	<0.05	0.83	0.14	9.5	0.04	<10	30	0.08	0.08	0.85	0.20	3.04	0.7	33
314118		2.09	<0.05	0.10	0.08	7.4	<0.02	<10	20	0.14	0.06	9.79	0.93	3.22	1.0	17
314119		1.82	<0.05	0.17	0.06	4.8	<0.02	<10	10	<0.05	0.04	0.77	0.10	2.35	0.5	49
314120		1.75	<0.05	0.68	0.07	1.5	<0.02	<10	10	0.06	0.03	0.58	0.10	0.60	0.4	37
314121		1.85	<0.05	0.10	0.18	19.9	<0.02	<10	20	0.26	0.04	4.91	0.29	5.58	1.0	24
314122		2.16	0.07	1.98	0.06	25.1	0.14	<10	40	0.06	0.02	0.39	0.10	2.98	0.4	28
314123		1.98	0.24	0.98	0.07	33.5	0.30	<10	100	<0.05	0.02	0.07	0.04	2.35	0.3	37
314124		1.86	2.57	1.91	0.03	182.0	2.60	<10	20	<0.05	0.01	0.52	0.12	0.52	0.4	32
314125		2.00	0.82	3.16	0.06	175.0	0.92	10	30	0.06	0.01	0.35	0.14	0.78	0.4	33
314126		1.75	7.79	1.31	0.09	407	8.30	10	110	0.06	0.26	0.46	0.22	0.42	0.6	47
314127		1.81	<0.05	0.13	0.33	32.4	0.05	<10	40	0.39	0.04	2.00	0.16	7.20	1.2	30
314128		1.56	0.26	6.25	0.10	33.2	0.38	<10	10	0.08	0.03	1.93	0.08	1.17	0.4	25
314129		1.62	0.58	8.33	0.48	15.0	2.58	<10	60	0.21	0.02	1.43	0.10	2.73	0.5	35
314130		1.60	2.05	6.99	0.16	508	2.07	10	20	1.03	0.06	1.33	0.15	2.56	1.0	28
314131		2.14	0.45	0.34	0.29	64.8	0.55	<10	50	0.39	0.08	0.27	0.26	16.75	0.8	24
314132		1.87	0.59	0.27	0.06	27.3	0.35	<10	30	0.25	0.04	2.25	0.12	1.11	0.4	22
314133		1.86	<0.05	0.26	0.06	8.6	0.12	<10	20	0.05	0.02	0.30	0.04	0.41	0.4	39
314134		1.78	1.46	1.27	0.21	213	1.56	<10	30	0.43	0.06	0.80	0.13	11.05	1.1	29
314135		1.70	0.10	1.34	0.09	55.6	0.28	10	60	0.09	0.04	0.17	0.08	1.18	0.5	38
314136		2.00	0.17	1.30	0.08	58.8	0.38	10	30	0.06	0.02	0.21	0.06	0.92	0.4	38
314137		1.67	<0.05	1.72	0.23	5.3	0.14	<10	20	0.16	0.02	0.72	0.19	1.65	1.1	30



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CERTIFICATE OF ANALYSIS TU21006588

Sample Description	Method Analyte Units LOD	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	
		Cs	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na
		ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
		0.05	0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05	0.01
314110		0.42	4.2	0.86	0.55	<0.05	<0.02	0.50	<0.005	0.01	0.3	1.7	0.02	69	1530	<0.01
314111		0.15	2.0	0.67	0.44	<0.05	<0.02	0.06	<0.005	0.01	0.2	0.9	0.01	49	380	<0.01
314112		0.42	4.1	1.27	0.57	<0.05	0.03	0.15	<0.005	0.03	2.1	9.8	0.65	142	47.3	<0.01
314113		0.13	3.3	1.00	0.43	<0.05	<0.02	0.45	<0.005	<0.01	0.4	4.4	0.56	82	582	<0.01
314114		0.15	20.5	1.03	0.54	<0.05	0.03	0.07	<0.005	0.01	3.3	9.8	8.52	486	17.50	0.01
314115		0.94	2.2	0.61	0.38	<0.05	<0.02	0.27	<0.005	0.01	<0.2	3.6	0.06	65	864	<0.01
314116		0.09	6.5	0.39	0.35	0.05	<0.02	0.03	<0.005	<0.01	0.9	10.6	8.23	178	15.20	0.01
314117		0.59	10.1	0.39	0.81	<0.05	0.03	0.07	0.005	0.03	1.3	7.5	0.12	98	438	<0.01
314118		0.16	4.1	0.52	0.25	<0.05	0.02	0.05	<0.005	0.01	1.3	4.9	5.07	215	13.95	<0.01
314119		0.39	1.8	0.45	0.42	<0.05	0.02	0.03	<0.005	0.02	1.1	4.9	0.09	70	11.35	<0.01
314120		0.26	2.3	0.46	0.26	<0.05	<0.02	0.09	<0.005	0.01	0.3	2.4	0.16	65	391	<0.01
314121		0.33	2.5	0.51	0.68	<0.05	0.04	0.04	<0.005	0.04	2.6	10.9	2.26	130	7.04	0.01
314122		1.30	3.4	0.63	0.62	<0.05	<0.02	0.20	<0.005	0.02	1.4	2.7	0.02	83	729	<0.01
314123		2.86	1.7	0.51	0.92	<0.05	<0.02	0.02	<0.005	0.04	1.3	1.6	0.02	61	133.5	<0.01
314124		0.35	2.8	0.93	0.29	<0.05	<0.02	0.53	<0.005	0.01	0.2	1.9	0.03	59	500	<0.01
314125		3.23	4.0	1.18	0.75	<0.05	<0.02	0.33	<0.005	0.03	0.4	1.8	0.02	75	2250	<0.01
314126		0.27	3.0	1.36	0.38	<0.05	<0.02	0.59	<0.005	0.01	0.2	3.6	0.19	71	856	<0.01
314127		0.83	3.0	0.63	1.40	<0.05	0.03	0.04	<0.005	0.03	3.8	21.4	0.37	128	6.10	<0.01
314128		0.38	3.5	0.60	0.59	<0.05	<0.02	0.09	<0.005	0.04	0.6	7.8	0.02	53	202	<0.01
314129		1.07	2.8	0.57	1.60	<0.05	0.03	0.01	<0.005	0.52	1.4	18.1	0.05	59	142.5	<0.01
314130		1.70	25.2	2.58	1.21	0.05	0.02	0.18	0.005	0.06	1.0	9.0	0.03	76	1045	<0.01
314131		1.64	3.7	0.67	1.21	<0.05	0.03	0.14	0.008	0.07	8.6	14.0	0.23	103	10.60	<0.01
314132		0.36	3.2	0.62	0.25	<0.05	<0.02	0.03	<0.005	0.07	0.5	12.8	0.02	58	10.40	<0.01
314133		0.89	2.4	0.51	0.41	<0.05	<0.02	0.08	<0.005	0.02	0.2	5.3	0.07	54	270	<0.01
314134		2.18	5.5	1.10	0.98	0.05	0.04	0.62	0.008	0.12	6.1	27.3	0.04	90	49.3	<0.01
314135		1.97	7.1	0.72	0.59	<0.05	<0.02	0.20	<0.005	0.02	0.5	2.3	0.04	95	1945	<0.01
314136		0.81	4.2	0.77	0.52	<0.05	<0.02	0.67	<0.005	0.02	0.5	3.6	0.10	70	1945	<0.01
314137		1.16	4.3	0.53	1.73	<0.05	<0.02	0.16	<0.005	0.03	0.8	19.7	0.46	52	113.0	<0.01



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Sample Description	Method Analyte Units LOD	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	
		Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta	Te	Th
		ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
		0.05	0.2	10	0.2	0.1	0.001	0.01	0.05	0.1	0.2	0.2	0.2	0.01	0.01	0.2
314110		0.05	1.8	20	6.0	0.8	0.002	0.02	13.40	0.1	5.5	<0.2	46.5	<0.01	0.01	<0.2
314111		<0.05	1.5	40	3.2	0.4	<0.001	0.02	5.82	0.1	3.1	<0.2	16.4	<0.01	0.01	<0.2
314112		<0.05	4.1	190	3.0	2.1	0.004	0.01	2.06	0.4	1.7	<0.2	25.7	<0.01	0.01	0.4
314113		<0.05	2.8	110	2.6	0.3	0.001	0.01	3.65	0.2	3.5	<0.2	20.7	<0.01	0.01	<0.2
314114		<0.05	5.0	170	5.1	0.7	0.001	<0.01	1.09	0.7	0.6	<0.2	59.4	<0.01	0.03	0.2
314115		<0.05	2.5	20	2.0	1.9	0.001	<0.01	5.83	0.1	3.5	<0.2	16.4	<0.01	<0.01	<0.2
314116		<0.05	4.0	40	2.2	0.4	0.001	<0.01	0.44	0.4	0.3	<0.2	33.3	<0.01	0.01	<0.2
314117		<0.05	2.6	130	5.6	2.8	0.002	0.01	4.28	0.4	0.8	<0.2	12.2	<0.01	0.02	0.2
314118		0.05	2.8	140	4.7	0.6	0.001	<0.01	0.45	0.4	0.3	<0.2	29.0	<0.01	0.02	0.3
314119		<0.05	2.5	70	3.9	1.4	<0.001	<0.01	0.49	0.2	<0.2	<0.2	4.6	<0.01	0.01	0.2
314120		<0.05	2.1	80	2.5	0.7	<0.001	0.01	1.21	0.1	<0.2	<0.2	6.2	<0.01	0.01	<0.2
314121		<0.05	7.1	350	5.2	2.9	0.001	0.01	0.46	0.6	0.3	<0.2	25.8	<0.01	0.02	0.7
314122		<0.05	1.3	100	6.1	2.5	<0.001	<0.01	5.28	0.2	1.1	<0.2	16.5	<0.01	0.01	<0.2
314123		<0.05	1.3	40	4.0	4.6	<0.001	0.02	1.78	0.2	0.9	<0.2	30.4	<0.01	0.01	0.2
314124		<0.05	1.8	50	1.4	0.8	<0.001	0.02	3.75	0.1	3.2	<0.2	24.2	<0.01	0.01	<0.2
314125		<0.05	1.6	70	2.0	5.2	<0.001	0.01	7.78	0.2	4.7	<0.2	45.5	<0.01	0.01	<0.2
314126		<0.05	3.4	50	2.7	0.5	<0.001	0.02	11.05	0.1	3.2	<0.2	23.2	<0.01	0.02	<0.2
314127		<0.05	3.1	170	3.8	3.3	<0.001	0.01	0.39	0.6	<0.2	<0.2	13.4	<0.01	0.02	0.4
314128		<0.05	1.5	80	8.9	4.1	0.001	0.01	7.20	0.2	1.5	<0.2	44.0	<0.01	0.04	<0.2
314129		<0.05	3.0	90	5.5	42.9	0.005	0.01	1.91	0.5	0.9	<0.2	37.0	<0.01	0.01	0.2
314130		0.05	5.3	80	6.6	8.1	0.004	0.02	20.1	0.5	9.0	<0.2	39.4	<0.01	0.04	0.2
314131		0.08	2.9	360	6.0	8.6	<0.001	0.02	0.58	0.8	0.3	<0.2	8.3	<0.01	0.03	0.7
314132		<0.05	1.3	40	5.9	6.1	0.001	<0.01	0.77	0.2	0.4	<0.2	31.0	<0.01	0.02	<0.2
314133		<0.05	1.6	30	12.5	2.3	0.001	<0.01	5.03	0.1	0.5	<0.2	6.9	<0.01	0.01	<0.2
314134		0.12	4.6	260	7.1	14.3	<0.001	<0.01	1.73	0.8	2.6	<0.2	20.2	<0.01	0.05	0.9
314135		<0.05	3.2	80	4.4	3.8	<0.001	0.01	6.89	0.2	1.8	<0.2	16.8	<0.01	0.01	0.2
314136		<0.05	1.9	30	3.3	2.0	<0.001	0.01	5.59	0.2	2.2	<0.2	10.5	<0.01	<0.01	<0.2
314137		0.07	2.6	30	24.3	3.8	<0.001	<0.01	1.49	0.4	0.4	<0.2	6.6	<0.01	0.01	0.3



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Sample Description	Method Analyte Units LOD	ME-MS41 Ti %	ME-MS41 Tl ppm	ME-MS41 U ppm	ME-MS41 V ppm	ME-MS41 W ppm	ME-MS41 Y ppm	ME-MS41 Zn ppm	ME-MS41 Zr ppm
314110		<0.005	1.18	1.01	24	0.21	0.22	4	<0.5
314111		<0.005	1.85	0.35	18	0.56	0.13	3	<0.5
314112		<0.005	0.78	0.51	27	0.88	2.46	9	1.2
314113		<0.005	0.21	0.68	13	0.31	0.42	14	<0.5
314114		<0.005	0.90	1.37	10	0.22	3.64	56	0.8
314115		<0.005	0.26	1.29	12	0.23	0.14	9	<0.5
314116		<0.005	0.12	2.09	6	0.14	0.83	28	<0.5
314117		<0.005	0.33	1.28	15	0.18	1.10	14	1.0
314118		<0.005	0.07	0.39	7	0.10	1.53	19	0.8
314119		<0.005	0.04	0.41	4	0.06	0.74	7	0.5
314120		<0.005	0.20	0.38	6	0.06	0.22	10	<0.5
314121		<0.005	0.08	0.52	10	0.19	2.30	7	1.2
314122		<0.005	0.97	0.71	19	0.94	0.43	2	<0.5
314123		<0.005	0.27	0.31	15	0.15	0.22	<2	<0.5
314124		<0.005	0.24	0.87	12	0.14	0.21	5	<0.5
314125		<0.005	0.37	2.23	40	0.29	0.33	5	<0.5
314126		<0.005	0.48	1.42	14	0.19	0.18	21	<0.5
314127		<0.005	0.02	0.36	17	0.11	1.82	9	0.8
314128		<0.005	0.68	0.23	32	0.60	0.34	5	0.5
314129		<0.005	0.52	0.37	83	0.41	1.00	11	1.1
314130		<0.005	2.33	1.58	114	6.65	0.66	15	0.9
314131		<0.005	0.06	0.30	14	0.17	2.08	28	0.8
314132		<0.005	0.08	0.35	8	0.39	0.27	4	<0.5
314133		<0.005	0.16	0.26	19	0.12	0.23	4	<0.5
314134		<0.005	0.16	0.47	11	0.43	3.91	16	1.1
314135		<0.005	0.21	0.87	35	0.22	0.49	7	0.5
314136		<0.005	0.27	1.24	30	0.13	0.29	8	<0.5
314137		<0.005	0.09	0.29	32	0.17	0.45	19	<0.5



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Page: Appendix 1
 Total # Appendix Pages: 1
 Finalized Date: 6-FEB-2021
 Account: LIBSTA

Project: Red Rock Canyon

CERTIFICATE OF ANALYSIS TU21006588

	CERTIFICATE COMMENTS								
Applies to Method:	<p style="text-align: center;">ANALYTICAL COMMENTS</p> <p>Gold determinations by this method are semi-quantitative due to the small sample weight used (0.5g). ME-MS41</p>								
Applies to Method:	<p style="text-align: center;">LABORATORY ADDRESSES</p> <p>Processed at ALS Reno located at 4977 Energy Way, Reno, NV, USA. Au-GRA21</p>								
Applies to Method:	<p>Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada. ME-MS41</p>								
Applies to Method:	<p>Processed at ALS Tucson, Arizona, USA</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">CRU-31</td> <td style="width: 33%;">CRU-QC</td> <td style="width: 33%;">LOG-22</td> <td style="width: 33%;">PUL-31</td> </tr> <tr> <td>PUL-QC</td> <td>SND-ALS</td> <td>SPL-22Y</td> <td>WEI-21</td> </tr> </table>	CRU-31	CRU-QC	LOG-22	PUL-31	PUL-QC	SND-ALS	SPL-22Y	WEI-21
CRU-31	CRU-QC	LOG-22	PUL-31						
PUL-QC	SND-ALS	SPL-22Y	WEI-21						