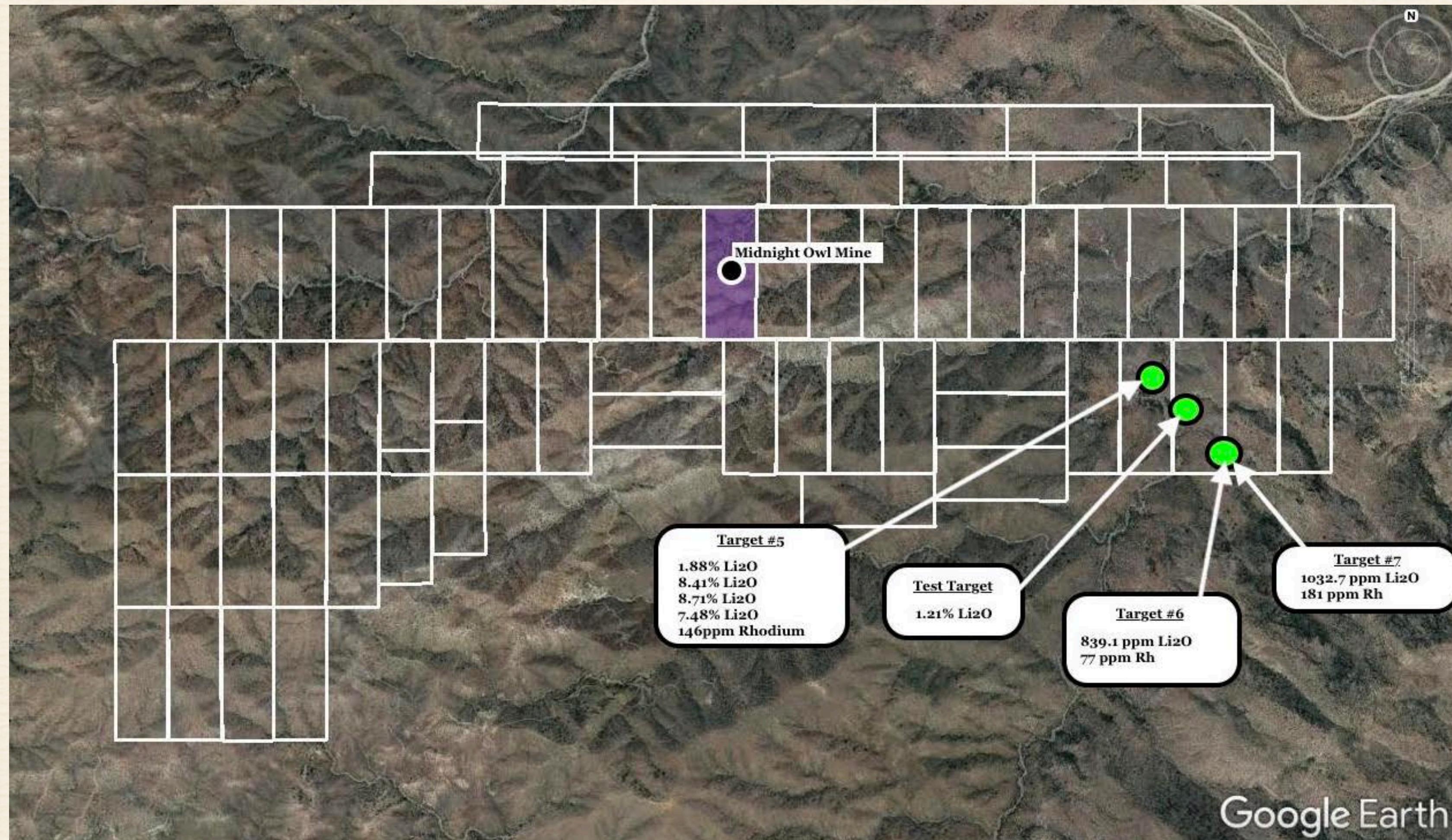


# MIDNIGHT OWL LITHIUM PROJECT

## XRD RESULTS 2022



# Testing Equipment

## Z-903 LIBS Analyzer

Every element in the periodic table, in seconds, in a handheld.

### One analyzer, every element

The Z-903 accomplishes what no other portable analyzer has done. It's a handheld analyzer that measures every element in the periodic table of the elements – from H to U.

It uses the same powerful laser as SciAps other Z-900 models, but with an extended spectrometer range from 190 nm out to 950 nm.

- The extended range allows emission lines from elements H, F, N, O, Br, Cl, Rb, Cs and S to be measured. These lines cannot be measured with the other Z-900 series analyzers.
- There are other benefits to the extended range. For example, it measures a more sensitive line for lithium near 675 nm to achieve limits of detection in the 2-5 ppm range.
- It also measures a more sensitive, and interference-free line for potassium (K). The more traditional potassium lines have heavy iron interference, whereas the line used by the Z-903 is free of such interference.

### In use globally

The Z-903 is most widely used for mineral exploration including lithium in both hard rock and brines. It is also used in forensics, authentication, archeology and oil/gas exploration due to the wide elemental range.

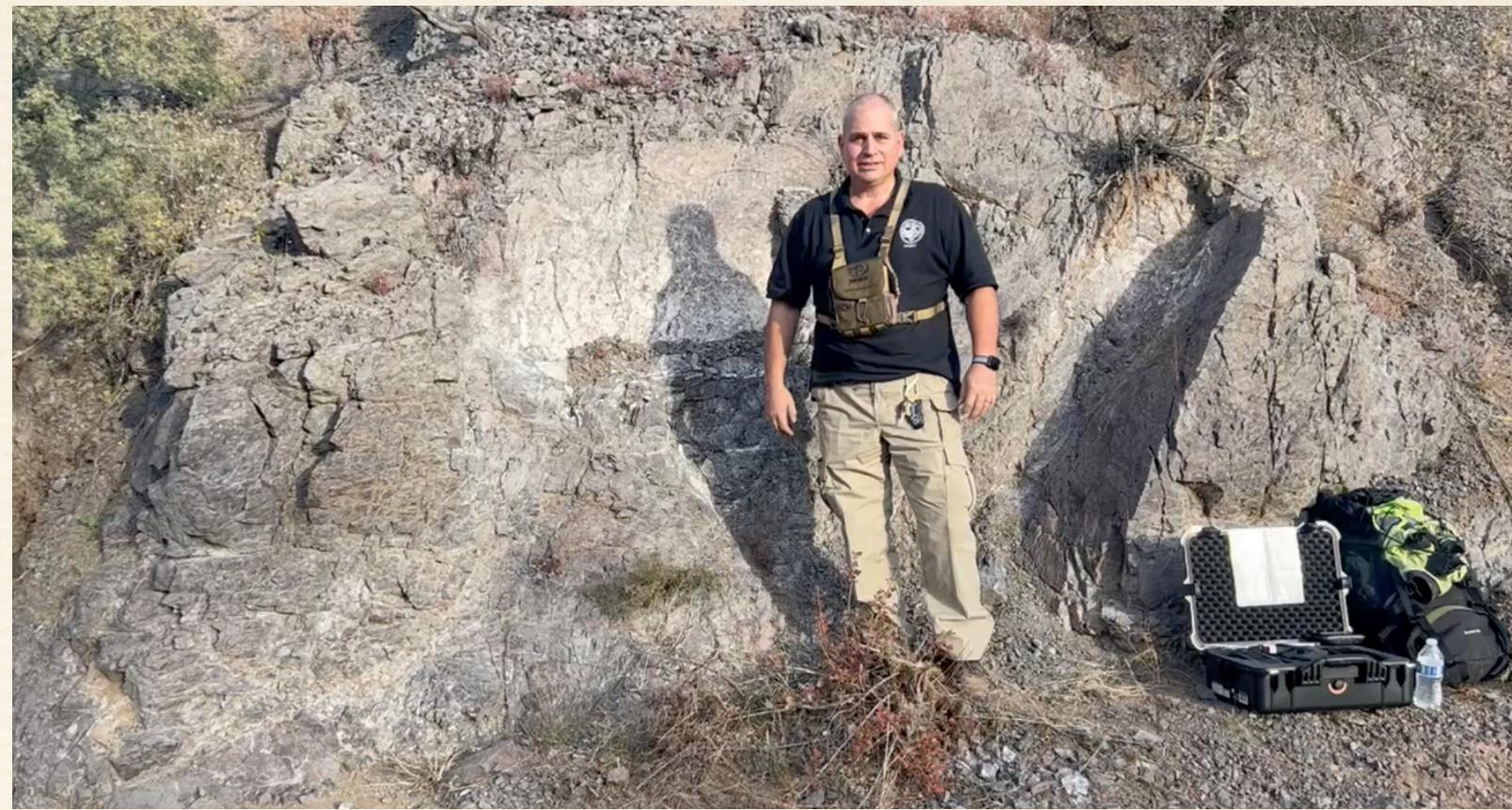
### Complete user control

The laser strike pattern, cleaning shots, spectrometer settings are all under user control. The analyzer includes advanced software for modifying all settings, comparing spectral data, and for generating quantitative calibration curves. The Z-903 features the same Android OS and intuitive App-driven software as all other SciAps models.

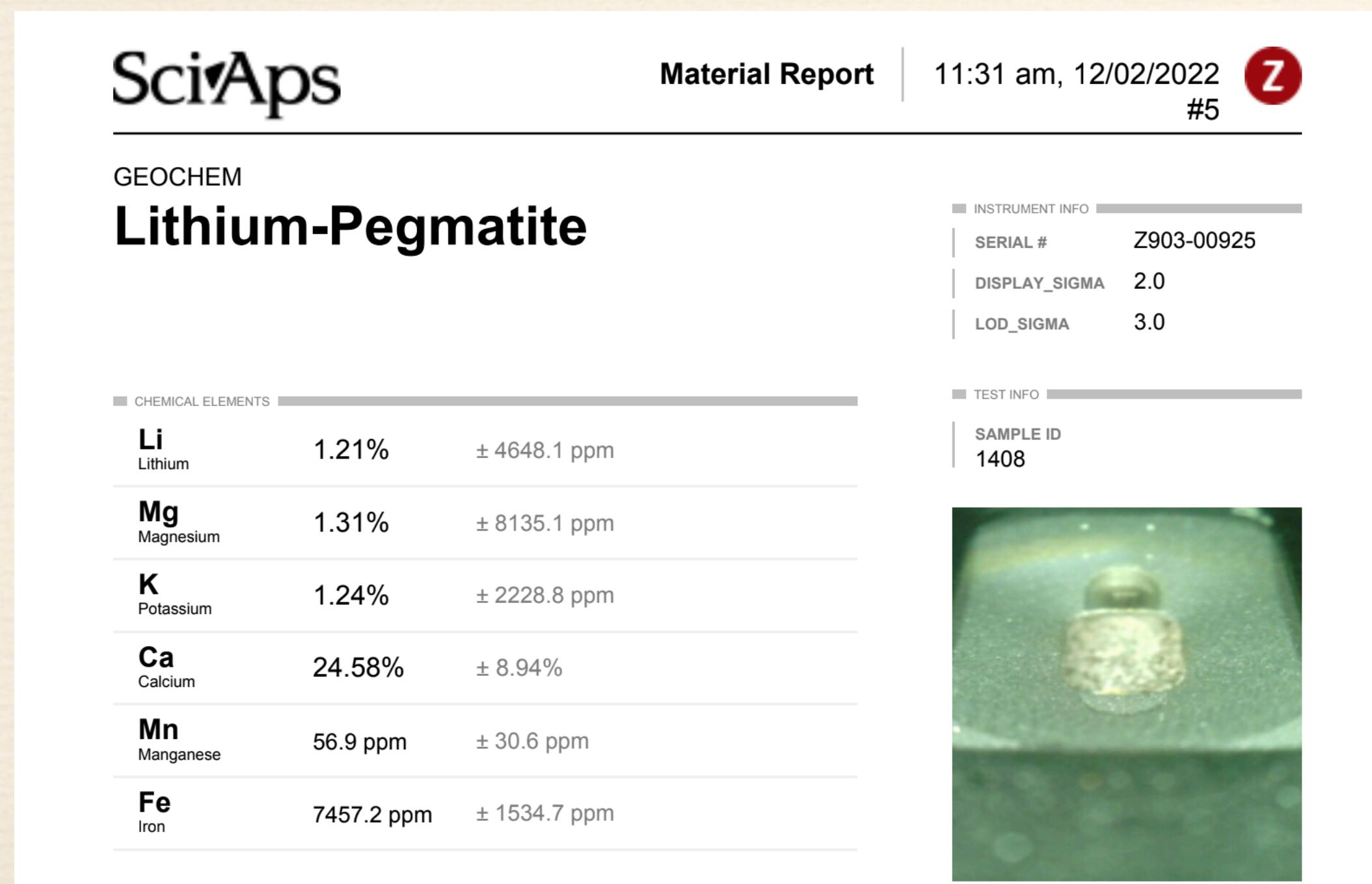
{ 190nm **3X** 950nm }  
RESOLUTION



Sample ID	Geochem Li	Element Pro Li	Lithium Pegmatite	Lithium Mica
Test Target				
1408	23.3ppm	3.14RA @ 100.0 likelihood ranking	<b>1.21%</b>	96.7ppm



**Test Target**



Sample ID	Geochem Li	Lithium Pegmatite	Lithium Mica	Lithium Clay	XRF Rh
1411-1	20.7ppm	-	250.5ppm	-	77ppm
1411-2	724.4ppm	<b>2581.0ppm</b>	103.2ppm	-	<b>123ppm</b>
1411-3	792.5ppm	-	69.4ppm	-	<b>115ppm</b>
1411-4	423.6ppm	-	69.6ppm	-	<b>146ppm</b>



Target #5

OTCMKTS : BRGC



1411-4 Sample

## 1411-4 Material Report

SciAps

Material Report

04:25 pm, 12/02/2022  
#16 X

### MINING

#### CHEMICAL ELEMENTS

**LE**  
Hydrogen 37.8249% ± 0.5033

**Mg**  
Magnesium 10.5479% ± 0.1883

**Al**  
Aluminum 6.1683% ± 0.0579

**Si**  
Silicon 28.8348% ± 0.0647

**P**  
Phosphorus 1868 ppm ± 51

**S**  
Sulfur 77 ppm ± 33

**K**  
Potassium 2.2316% ± 0.0075

**Ca**  
Calcium 7.9307% ± 0.0131

**Ti**  
Titanium 6545 ppm ± 248

**V**  
Vanadium 255 ppm ± 68

**Cr**  
Chromium 396 ppm ± 45

**Mn**  
Manganese 724 ppm ± 37

**Fe**  
Iron 4.8669% ± 0.0199

**Co**  
Cobalt 182 ppm ± 30

**Ni**  
Nickel 174 ppm ± 11

**Cu**  
Copper 104 ppm ± 13

**Zn**  
Zinc 67 ppm ± 4.5

**Rb**  
Rubidium 32 ppm ± 2.0

**Sr**  
Strontium 1529 ppm ± 8.4

**Y**  
Yttrium 28 ppm ± 6.3

1/2

#### CHEMICAL ELEMENTS

**Zr**  
Zirconium 112 ppm ± 5.0

**Rh**  
Rhodium 146 ppm ± 23

**Ba**  
Barium 3651 ppm ± 754



# Target #5 Grab Samples

Sample ID	Lithium Pegmatite
1411-4 VUG #159	<b>1852.9ppm</b>
1411-4 VUG #160	<b>343.7ppm</b>
1411-4 VUG #161	<b>ND</b>
1411-4 VUG #162	<b>3.70%</b>
1411-4 VUG #163	<b>8.41%</b>
1411-4 VUG #164	<b>2.01%</b>
1411-4 VUG #165	<b>8.71%</b>
1411-4 VUG #166	<b>1.59%</b>
1411-4 VUG #167	<b>7.48%</b>



SciAps

Material Report

05:33 pm, 12/11/2022  
#163 Z

GEOCHEM

## Lithium-Pegmatite

CHEMICAL ELEMENTS		
Li Lithium	8.41%	± 2.48%
Mg Magnesium	2.85%	± 3674.0 ppm
K Potassium	1879.4 ppm	± 502.8 ppm
Ca Calcium	22.65%	± 4.52%
Mn Manganese	980.1 ppm	± 385.8 ppm
Fe Iron	ND	< 783.6 ppm

INSTRUMENT INFO  
SERIAL # Z903-00925  
DISPLAY\_SIGMA 2.0  
LOD\_SIGMA 3.0

TEST INFO  
SAMPLE ID XRD 1411-4 Vug

SciAps

Material Report

05:35 pm, 12/11/2022  
#165 Z

GEOCHEM

## Lithium-Pegmatite

CHEMICAL ELEMENTS		
Li Lithium	8.71%	± 1.97%
Mg Magnesium	5.10%	± 6513.0 ppm
K Potassium	3167.6 ppm	± 693.5 ppm
Ca Calcium	13.81%	± 3.65%
Mn Manganese	1287.8 ppm	± 414.2 ppm
Fe Iron	2789.3 ppm	± 716.6 ppm

INSTRUMENT INFO  
SERIAL # Z903-00925  
DISPLAY\_SIGMA 2.0  
LOD\_SIGMA 3.0

TEST INFO  
SAMPLE ID XRD 1411-4 Vug

SciAps

Material Report

05:36 pm, 12/11/2022  
#167 Z

GEOCHEM

## Lithium-Pegmatite

CHEMICAL ELEMENTS		
Li Lithium	7.48%	± 2.01%
Mg Magnesium	4.53%	± 1.05%
K Potassium	705.3 ppm	± 127.2 ppm
Ca Calcium	26.67%	± 3.38%
Mn Manganese	373.6 ppm	± 122.0 ppm
Fe Iron	ND	< 410.3 ppm

INSTRUMENT INFO  
SERIAL # Z903-00925  
DISPLAY\_SIGMA 2.0  
LOD\_SIGMA 3.0

TEST INFO  
SAMPLE ID XRD 1411-4 Vug

Sample ID	Geochem Li	Lithium Pegmatite	Lithium Mica	Lithium Clay	XRF Rh
1410-1	<b>839.1ppm</b>	-	250.5ppm	-	<b>77ppm</b>
1410-2	28.8ppm	-	64.9ppm	-	-
1410-3	597.5ppm	-	67.3ppm	-	56ppm
1410-4	409.9ppm	-	76.9ppm	-	41ppm



## 1410-1 Material Report

SciAps Material Report 02:06 pm, 12/02/2022 #8 X

MINING

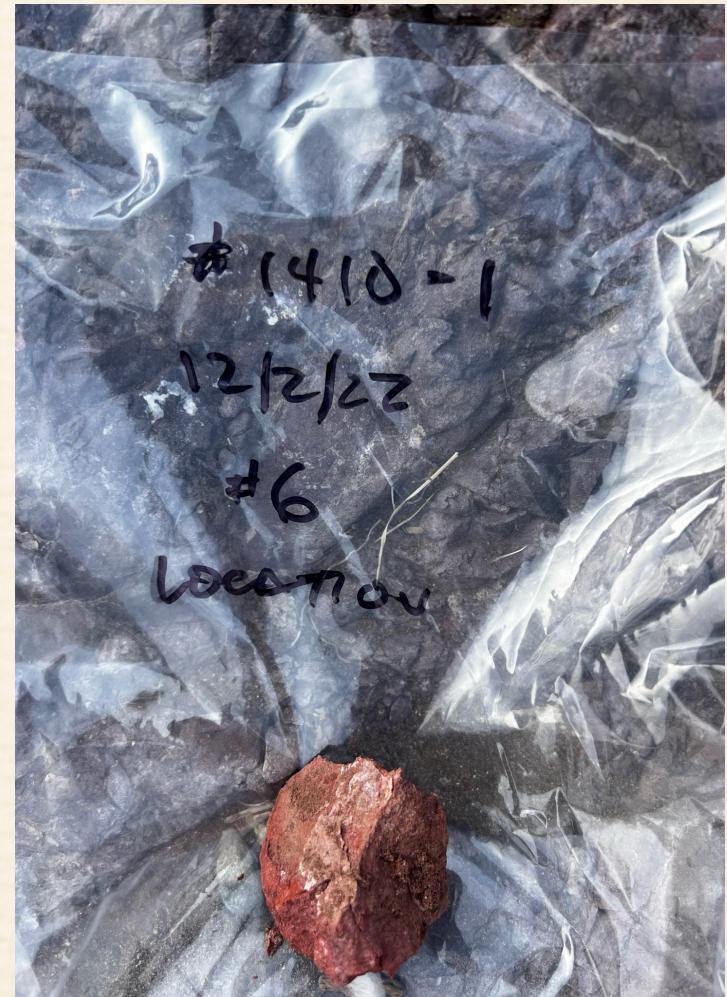
Element	Value	Error
LE	58.1823%	± 0.7175
Mg	2.6529%	± 0.1153
Al	6.7332%	± 0.0539
Si	25.3890%	± 0.0571
P	857 ppm	± 35
K	6813 ppm	± 40
Ca	2.9063%	± 0.0073
Ti	3300 ppm	± 160
Cr	93 ppm	± 28
Mn	1254 ppm	± 38
Fe	2.5906%	± 0.0127
Co	76 ppm	± 19
Ni	64 ppm	± 6.5
Cu	18 ppm	± 7.7
Zn	29 ppm	± 2.7
Rb	15 ppm	± 1.4
Sr	1248 ppm	± 6.5
Y	8.9 ppm	± 4.7
Rh	77 ppm	± 18
Ba	1583 ppm	± 628

INSTRUMENT INFO: SERIAL # X505-01303

TEST INFO: SAMPLE ID 1410-1



Target #6



1410-1 Sample



# 1409-3 Material Report

Sample ID	Geochem Li	Lithium Pegmatite	Lithium Mica	Lithium Clay	XRF Rh
1409-1	-	512.7ppm	-	-	75ppm
1409-2	-	<b>1032.7ppm</b>	-	-	49ppm
1409-3	-	350.9ppm	79.4ppm	-	<b>181ppm</b>
1409-4	927.6ppm	-	149.2ppm	-	79ppm



Target #7

OTCMKTS : BRGC



1409-3 Sample

SciAps

Material Report

01:33 pm, 12/02/2022  
#5 X

## MINING

■ CHEMICAL ELEMENTS ■  
**LE**  
Hydrogen 21.9280% ± 0.2778

**Mg**  
Magnesium 14.4509% ± 0.2117

**Al**  
Aluminum 7.8742% ± 0.0652

**Si**  
Silicon 41.3660% ± 0.0801

**P**  
Phosphorus 1359 ppm ± 49

**K**  
Potassium 5390 ppm ± 42

**Ca**  
Calcium 5.4709% ± 0.0112

**Ti**  
Titanium 6736 ppm ± 233

**V**  
Vanadium 293 ppm ± 65

**Cr**  
Chromium 206 ppm ± 41

**Mn**  
Manganese 1551 ppm ± 49

**Fe**  
Iron 7.1585% ± 0.0235

**Co**  
Cobalt 269 ppm ± 35

**Ni**  
Nickel 210 ppm ± 13

**Cu**  
Copper 121 ppm ± 13

**Zn**  
Zinc 106 ppm ± 5.4

**As**  
Arsenic 23 ppm ± 11

**Rb**  
Rubidium 2.9 ppm ± 1.6

**Sr**  
Strontium 876 ppm ± 6.6

**Y**  
Yttrium 26 ppm ± 6.4

1/2

## CHEMICAL ELEMENTS

**Zr**  
Zirconium 107 ppm ± 4.3

**Rh**  
Rhodium 181 ppm ± 24

**Ta**  
Tantalum 47 ppm ± 19

**Pb**  
Lead 9.9 ppm ± 4.0



# Results Summary

Sample ID	Geochem Li	Lithium Pegmatite	Lithium Mica	Lithium Clay	XRF Rh
1408	23.3ppm	<b>1.21%</b>	96.7ppm	-	ND
1409-1	ND	512.7ppm	ND	-	75ppm
1409-2	-	1032.7ppm	-	-	49ppm
1409-3	-	350.9ppm	79.4ppm	-	<b>181ppm</b>
1409-4	927.6ppm	ND	149.2ppm	-	79ppm
1410-1	839.1ppm	ND	250.5ppm	-	77ppm
1410-2	28.8ppm	ND	64.9ppm	-	ND
1410-3	597.5ppm	ND	67.3ppm	-	56ppm
1410-4	409.9ppm	ND	76.9ppm	-	41ppm
1411-1	20.7ppm	ND	99.6ppm	-	96ppm
1411-2	724.4ppm	2581.0ppm	103.2ppm	-	<b>123ppm</b>
1411-3	792.5ppm	ND	69.4ppm	-	115ppm
1411-4	423.6ppm	ND	69.6ppm	-	<b>146ppm</b>
1411-4 VUG #51	12.4ppm	ND	162.4ppm	<b>1.88%</b>	-

Sample ID (Grab Samples)	Lithium Pegmatite
1411-4 VUG #159	<b>1852.9ppm</b>
1411-4 VUG #160	<b>343.7ppm</b>
1411-4 VUG #161	<b>ND</b>
1411-4 VUG #162	<b>3.70%</b>
1411-4 VUG #163	<b>8.41%</b>
1411-4 VUG #164	<b>2.01%</b>
1411-4 VUG #165	<b>8.71%</b>
1411-4 VUG #166	<b>1.59%</b>
1411-4 VUG #167	<b>7.48%</b>

