

# SUMMARY REPORT

## *THE AWARUITE (NICKEL-IRON ALLOY) EXPLORATION REPORT ON FPM EXPIRED LICENSES AT RØROS-FERAGEN AREA, SØR-TRØNDELAG, NORWAY*

### **Prepared for:**

Norwegian Directorate of Mining with the Commissioner of Mines at Svalbard  
Postboks 3021 Lade  
N - 7441 Trondheim  
mail@dirmin.no

### **Prepared by:**

First Point Minerals Corp.  
Sven Hönig, M.Sc.  
Project geologist  
Bayerova 8  
60200 Brno  
Czech Republic  
s.honig@centrum.cz

### **CC to:**

Ron Britten, PhD  
VP Exploration  
First Point Minerals Corp. - FPX  
Suite 200 - 1155 West Pender St.  
Vancouver, BC V6E 2P4  
rbritten@firstpointminerals.com

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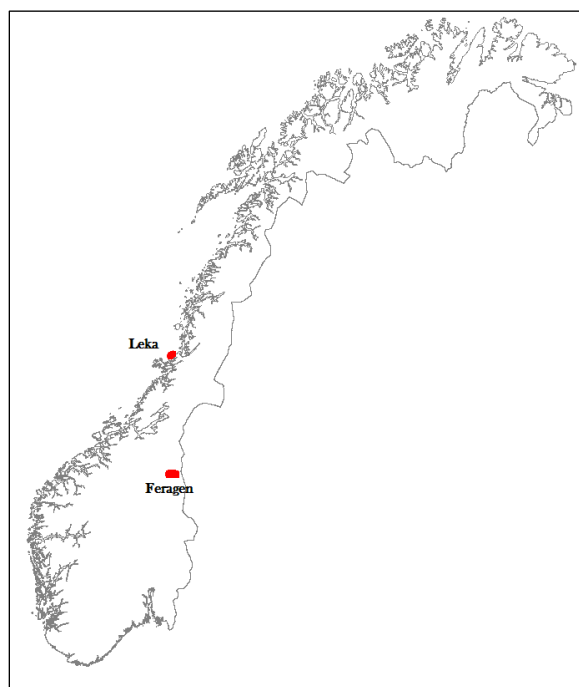
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## 1. INTRODUCTION

This report summarizes the First Point Minerals (FPM) exploration program and its results obtained by field mapping/rock sampling, field observations and GIS data evaluation during the period 2011-2013. FPM has been active in two exploration regions which are reported one by one: a) Røros - Feragen (Sør Trøndelag county and b) Leka island (Nord-Trøndelag county). The summary consists of data gathered on expired (2013) claims only, as listed in Figure 1, Table 1.

Report is accompanied by GIS files created in MapInfo software consist of digitized relevant parts of former NGU reports, NGU 250K digital geology basemap, and FPM rock samples database including the Lab assays. Moreover newspaper highlights of FPM activities and relevant FPM exploration reports made during the field work are also attached.

Some of the permits did not enclose the right type of rocks to host awaruite mineralization and consequently they haven't been explored and therefore FPM doesn't have any data to report.



Permit ID	NAME
1500-1/2011	FERAGEN 1
1501-1/2011	FERAGEN 2
1503-1/2011	FERAGEN 4
1504-1/2011	FERAGEN 5
1507-1/2011	FERAGEN 8
1508-1/2011	FERAGEN 9
1510-1/2011	FERAGEN 11
1511-1/2011	FERAGEN 12
1512-1/2011	FERAGEN 13
1516-1/2011	FERAGEN 17
1517-1/2011	FERAGEN 18
1148-1/2012	LEKA 1
1149-1/2012	LEKA 2
1150-1/2012	LEKA 3
1151-1/2012	LEKA 4

*Fig 1. Position of FPM expired (2013) claims; ID of individual permits shown in Tab 1.*

Since this report refers only to dropped claims, there was no more work performed in the area. There was no activity such as field observation or detail GIS compilation made on Raudhammer ultramafic body or further west on smaller ultramafic pods. Minor ultramafic bodies located on the west of property were found as too small for such type of target and thus those claims were liberated. More sampling and mapping were completed on still active claims, mainly on the east and southeast of the permits.

### **3. LEKA ISLAND REGION**

#### **3.1 GEOLOGICAL SETTING OF LEKA ISLAND OPHIOLITE**

Leka, as the most complete ophiolite complex among the other bodies of ophiolite fragments within Upper Allochthon of Scandinavian Caledonides (Furnes et al, 1980), and as almost totally exposed surface offers a good potential for awaruite nickel-iron alloy recognition. Moreover, the awaruite were described from the Leka by Johannesen (1992) during the survey targeting the PGMs. For more details see please mentioned publication.

#### **3.2 FPM OBSERVATIONS**

FPM's geologists visited to the Leka only one time (August 2012) and were staying 3 days. During the trip 4 Rock samples, 10 cobble samples and 9 silt samples were collected. Samples were processed same way as those from Feragen. Results including lab assays are graphically displayed on Figure 12, for more details see Tables 7, 8, 9.

The claims have been decided to drop mainly due to relatively low Ni8FPX numbers and the higher content of sulfur (sulfides observed in most samples). Other unfavorable characteristics for awaruite mineralization are common massive pyroxenite dykes, only weakly serpentinized ultramafic bodies and layered cumulates were noted (Figure 13). Ni content in pyroxenite and layered sequences is lower compared to serpentinized peridotite and will not generate a significant amount of Ni-Fe alloy mineralization.

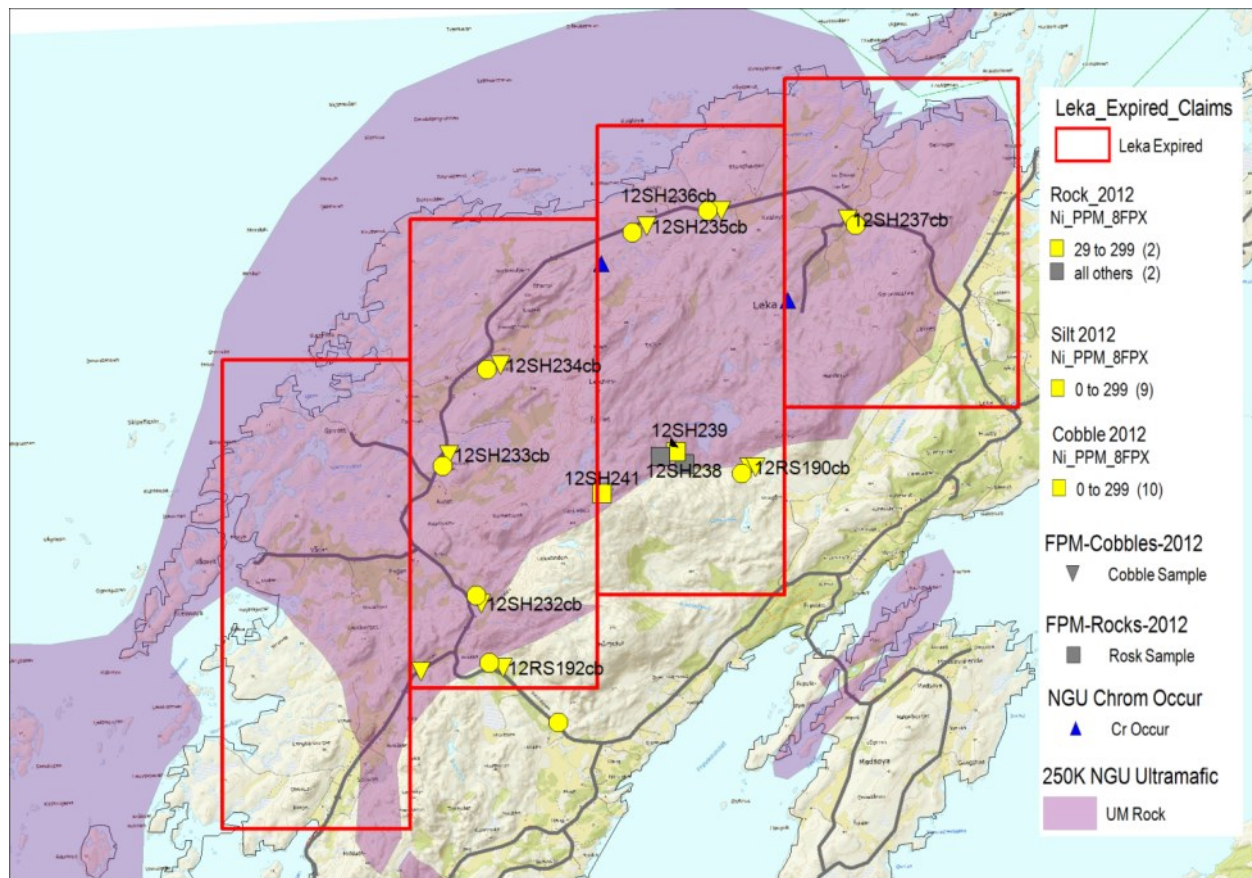


Figure 12: Leka island field visit results: Plot shows collected Rock and Silt samples collected during the field visit (2012). Nickel content in alloy (Ni8FPX) seems to be too low for further follow up.

Sample_#	Easting	Northing	Rock_Type	mag_text	Awar_size	Awar_range	awar_%	Sulphide	mag_susc	Ni_PPM_8FPX	Ni_PPM_1E	Fe_PPM_8FPX	Fe__1E	Mg_PP_M_8FPX	Mg__1E	S_PPM_8FPX	S__1E	Ca__1E	Al__1E	Cr__1E
12SH238	623853.47	7220464.15	p	pale-green serp	0	0	0	0	m	0	0	0	0	0	0	0				0
12SH239	623812.87	7220476.36	p	finegrained, fluid	3	3	c-a	0	s	167	2048	225	0	1675	0	0	<0.1	<0.01	0.25	3171
12SH240	623804.27	7220470.13	p/d	fluid	0	0	0	0	s	0	0	0	0	0	0	0				0
12SH241	623048.24	7220083.85	p	finegrained, diss awar	2	2	w	maybe	s	148	1686	0	0	1237	0	0	<0.1	0.02	0.3	3661



Table 7 – Rock samples collected during 2012 field work at Leka island.

Sample_#	Easting	Northing	Rock_Type	Sample Comment	Mag_text	Awar_size	Awar_range	awar_%	Sulphide	Mag_Susc	Ni_PPM_8FPX	Ni_PPM_1E	Fe_PPM_8FPX	Fe__1E	Mg_PPM_8FPX	Mg__1E	S_PPM_8FPX	S__1E	Ca__1E	Al__1E	Cr__1E
12RS190cb	624622.6	7220363.3	p	not awar content	fg px, w	0	0	0		m	0	0	0	0	0	0	0				0
12RS192cb	621991.6	7218220.2	p	3 of 7 contain diss awar	layered	2	2	w	Py	m	208	1090	3324	0	1683	0	0	0.2	1.76	2.14	1330
12SH230cb	624685.4	7220357.6	p	4 of 9 contain diss awar	fg px	1	1	r-w	Py	m	10	746	220	0	552	0	0	<0.1	2.98	1.3	1680
12SH231cb	621117.8	7218182.8	p	7 of 10 contain awar	fg px	3	3	w-a	Py	s	33	805	341	0	428	0	0	<0.1	2.72	1.06	1619
12SH232cb	621761.4	7218906.8	p/d	3 of 7 contain diss awar,	fg px	1	1	r	Py	m	67	1280	0	0	532	0	0	<0.1	0.24	0.87	3545
12SH233cb	621415.7	7220495.6	p/d	6 of 6 contain awar diss	fg px, ms	1	1	c-a		m-s	84	1801	771	0	2001	0	0	<0.1	0.08	0.26	3613
12SH234cb	621967.1	7221450.1	d	2 of 6 contain diss awar	msv text	2	2	w		m	41	1595	549	0	2178	0	0	<0.1	0.14	0.17	2533
12SH235cb	623527.3	7222929.3	p	2 of 7 contain diss awar,	fg px	1	1	w		m	39	2374	308	0	1667	0	0	<0.1	0.18	0.31	3452
12SH236cb	624322.5	7223098.7	p/d	not awar content	fg px	0	0	0	Py	m	0	0	0	0	0	0	0	0	0	0	0
12SH237cb	625669.3	7223002.6	p/d	9 of 9 contain diss awar	yellowis	2	2	w-a	Py	s	217	1846	470	0	1289	0	0	<0.1	2.39	1.15	4651

Table 8 – Cobble samples collected during 2012 field work at Leka island.

SAMPLE_#	Easting	Northing	Cobbles	Gradient	Cobble_#	Ni_PPM_8FPX	Ni_PPM_1E	Fe_PPM_8FPX	Fe__1E	Mg_PPM_8FPX	Mg__1E	S_PPM_8FPX	S__1E	Ca__1E	Al__1E	Cr__1E
12RS191s	622583.4	7217639.21	no	moderate, 15°		10	122	1392	6.58	288	4.01	0	0	3.82	7.58	724
12RS192s	621991.97	7218223.7	p	moderate, 15°	3 of 7 contain diss awar	10	135	2604	5.35	319	3.03	0	0	5.9	7.36	2368
12SH230s	624659.98	7220360.52	p	moderate, 15°	4 of 9 contain diss awar	68	434	907	5.52	945	4.52	0	0	3.37	5.26	1405
12SH232s	621751.53	7218913.8	d/p	steep, 25°	3 of 7 contain diss awar, yellowish grains	35	803	224	7.29	689	14.03	0	0	2.58	1.93	4116
12SH233s	621407.64	7220500.29	d/p	low, 5°	6 of 6 contain awar diss awar	66	504	1539	14.62	656	6.53	0	0	7.31	3.4	>10000
12SH234s	621959	7221450.85	d	low, 5°	2 of 6 contain diss awar	66	270	1346	6.58	539	7.53	0	0	9.41	3.88	>10000
12SH235s	623529.06	7222930.6	p	moderate, 15°	2 of 7 contain diss awar,	90	2764	456	11.63	1221	10.11	0	0	1.6	1.69	3880
12SH236s	624321.31	7223099.97	p	moderate, 10°	7 of 7, not awar content	58	716	2562	7.55	1117	5.7	0	0	3.92	4.3	7523
12SH237s	625671.95	7223005.39	d/p	steep, 20°	9 of 9 contain diss awar	23	352	1615	6.27	684	4.91	0	0	4.98	5.03	>10000

Table 9 – Silt samples collected during 2012 field work at Leka island.

<p>1 – Example of pyroxenite (left) and medium grained peridotite (right) contact</p>	<p>2 – Well exposed cumulate magmatic layering</p>
	

*Figure 13: Typical rock types observed during the field visit to Leka island ultramafic body.*

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## **5. Appendix 1 – Analytical Methods**

Total nickel was assayed by Acme Laboratory, Vancouver, BC, Canada, using a four acid digestion, which determines the total nickel present, in both nickel-iron alloy and silicate form in rock samples. This method would also include nickel in sulphide and other forms of nickel, if they were present.

Alloy nickel was analyzed by Acme using an alloy-selective analytical method (8FPX) that selectively dissolves nickel present as nickel-iron alloy and does not extract the nickel present within rock-forming silicate minerals. Following independent studies, including the development of certified standards to monitor accuracy, this analytical method has been certified by Dr. Barry Smee of Smee & Associates Consulting Ltd. Dr. Smee is a consulting geologist/geochemist who works internationally. His work includes: evaluating the performance of assay laboratories; recommending to companies effective assay quality control procedures; and certifying laboratory standards. As part of the quality control program implemented by the Company, these standards, plus blanks and duplicates, were assayed for total nickel and nickel present as nickel-iron alloy.

This commercially certified alloy-selective analytical method has been developed for the exclusive use of, and is proprietary to, First Point Minerals.