

RED FLAT NICKEL CORP.

Evaluation of the Cleopatra Ni/Co Property Mining Potential, Curry County, Oregon, U.S.A.

NI 43-101 Technical Report

TECHNICAL SPECIFICATIONS

PREPARED BY:

**André J. Rancourt, Eng., M.Sc.A.
Geological Engineer**

AJR Geoconsulting Inc.

129 Brais
St-Jean, Quebec
Canada, J3B 7W4

Email: ajrgeo@videotron.ca

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1. EXECUTIVE SUMMARY

Red Flat Nickel Corp. (hereinafter: RFN) owns a 100% interests in the Cleopatra property. The property consists of 137 claims covering approximately 2,830 acres. It lies in South-Western Oregon, some 335 miles south of Portland, Oregon. The property is situated along the California border and is located in the Coastal Range South-East of Curry County, Oregon. It can be accessed either from the south-west by taking the US 101 along the coast or from the northeast via the US 199 from Grant's Pass, Oregon. The property location is shown on Map 1 in Appendix A.

The Cleopatra property was first described by Ramp in 1978 (DOGAMI). The work they carried out consisted of geological mapping of the ultramafic rock and drilling five (5) auger holes. The regional geology was described by Ramp et al. (1977) from which they created a geological map of Curry County. The regional geology is presented on Map 2. Ramp (1978) describes significant nickel accumulations in the northern part of the property, with an assumed minimal depth of 10 ft and slumping/sliding accumulations down slope reaching a possible thickness of 50 ft.

The 2007 and 2008 drilling program and the 2009 trenching program, all completed by RFN, are the most recent and extensive work carried out on the property. A total of 748 vertical auger holes, on a 300 ft grid, were attempted during the recent drilling and trenching campaigns. This represents 5,169 ft successfully drilled and sampled holes, reaching depths from 2 to 30 ft and averaging 7 ft in depth.

Nickel concentration on the property is the result of the surface alteration of olivine rich ultramafic rocks, often called nickel laterites. They are formed by the weathering of the serpentinized peridotite generally in humid savanna climates with poor drainage and followed by dry climates and semi-arid environments. During weathering, nickel is concentrated in place while more soluble elements such as magnesium, calcium and silica are dissolved and leached rapidly. Nickel accumulates in the form of nickel-silicate veins or becomes enriched in the insoluble residue of silica, nickel hydrosilicates, and oxides of magnesium and iron.

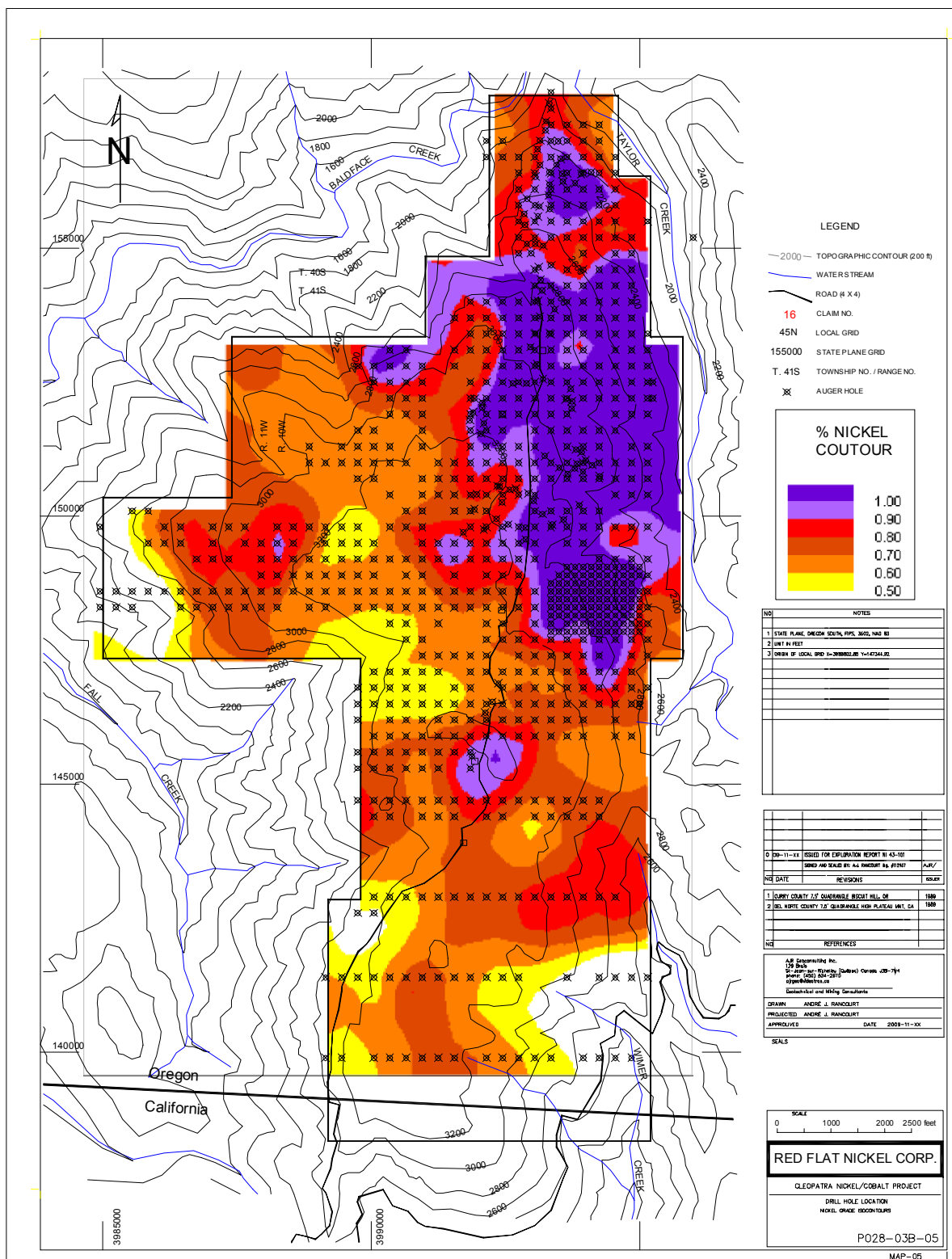
The drilling program located the mineralized zone and confirmed potentially economic Ni grades and the trenching program discovered, for the first on the property, garnierite group minerals within the corestone that assayed up to 4.1 % Ni. Since the investigations done are to relatively shallow depths, the depth of the mineralized body is still unclear. The results show a strong horizontal continuity and

a high grade Ni zone in the northeastern portion of the property. The measured, indicated and inferred resources are as follows.

Cut-off	Type	Measured		Indicated		Inferred		Total Inferred	
Ni (%)		Tons (*1000)	Ni (%)	Tons (*1000)	Ni (%)	Tons (*1000)	Ni (%)	Tons (*1000)	Ni (%)
0.7	Soil	3342	1.07	9569	0.96	12320	0.97	25231	0.98
	Rock	1913	0.83	4979	0.84	7351	0.84	14243	0.84
	Total	5255	0.98	14548	0.92	19671	0.92	39473	0.93
0.8	Soil	3342	1.07	7365	1.03	6993	1.01	17700	1.03
	Rock	1572	0.85	3605	0.84	3248	0.84	8424	0.84
	Total	4914	1.00	10970	0.97	14321	0.97	30205	0.97

Given the excellent results of the drilling and trenching programs and the fact that nickel grade increases with depth, as in other similar laterites (Hotz,1964; Hundhausen, 1954; Gleeson et al. 2004; etc.), additional work is recommended on the property to investigate the depth extension of the deposit, especially in the measured resource area.

1. Executive Summary



2. INTRODUCTION

2.1 CLIENT AND MANDATE

At the request of the President of RFN, AJR Geoconsulting Inc. (AJR) was assigned the mandate to update the resource estimate on the Cleopatra lateritic nickel/cobalt property in Curry County, Oregon and to prepare an independent, NI 43-101 compliant technical report. This is the third report, reflecting three years of extensive field investigation by RFN.

André J. Rancourt, Eng, M.A.Sc. President of AJR Geoconsulting Inc., was appointed project manager. The report was produced by André J. Rancourt. The site supervision was sub-contracted to LithoLogic Resources (LLR), with Mike D. Strickler, R.G. as the lead geologist during investigations.

2.2 REPORT OBJECTIVE

The goal of the 2009 summer field work was to upgrade the resource category. To achieve this, trenches, bulk sampling and petrographic characterization of the ore were completed. Preliminary metallurgical testing is ongoing but the results were not yet available at the time of writing this report. RFN also wishes to perform pre-feasibility and feasibility studies that will facilitate the environmental and mineral permitting needed to put the project into production.

The 2009 trenching, drilling and sampling program resulted in the estimation of measured, indicated and inferred resources.

The NI 43-101 report informs potential investors on the specific characteristics of the Cleopatra property, as defined in the instrument.

2.3 ABBREVIATIONS USED

RFN: Red Flat Nickel Corp.
AJR: AJR Geoconsulting, consulting engineer
LLR: LithoLogic Resources, geological consulting
CIM: Canadian Institute of Mining and Metallurgy
ATV: All terrain vehicles
BLM: Bureau of Land Management, www.blm.gov
USBM: United States Bureau of Mines
USGS: United States Geological Survey

DOGAMI: Oregon Department of Geology and Mineral Industries,
egov.oregon.gov/DOGAMI

MLRR: Mineral Land Regulation and Reclamation Program

DEQ: Department of Environmental Quality

NSR: Net Smelter Return

2.4 FIELD VISIT

Field work on the Cleopatra deposit was carried out during 2007, 2008 and 2009 and it consisted of trenches (2009), refractive seismology (2008) and auger drilling (2007, 2008 and 2009).

The excavation and sampling of 10 trenches was completed between July 19th and August 23rd, 2009. In addition, auger drilling was conducted to test the depth extent of the rich portions of the property (> 20 ft). Ten holes with a total length of 212.5 ft were completed in 2009.

In 2008, shallow auger testing was completed at Cleopatra for a total of 395 holes and an aggregate depth of 3,117 ft. The work took place between September 4th, and October 31st, 2008.

In 2007, the fieldwork consisted of an auger drilling program that took place between June 11th and October 12th, 2007. The 736 holes attempted achieved 4,976 ft of successfully drilling and the holes ranged from 2 to 23 ft in depth with an average depth of 6.8 ft. All the drilling and sampling were carried out under the direct supervision of LLR.

The author visited the property twice, the first visit was on November 31st, 2007, and the second visit was on August 12th, 2009. LLR geologists and crews were present for both of these visits. In 2007, AJR performed and sampled six (6) additional verification auger holes and in 2009, AJR performed complementary sampling in some of the trenches. Table 2.1 and 2.2 present the characteristics of the verification drill holes and samples. Chapter 14 presents the interpretation of verification hole results performed during the author's visit. Appendix B shows the complete list of the holes drilled and the corresponding assay results from the 2007, 2008 and 2009 sampling and drilling program supervised by LLR.

Table 2. 1 - Characteristics of the verification drill holes and samples taken by AJR

Hole No.	Sample	Coordinates ¹		Length
	(ft)	East (ft)	North (ft)	(ft)
AJR-01	0 - 6	3991869	145472	8
	6 - 8			
AJR-02	0 - 6	3993183	153123	10
	6 - 10			
AJR-03	0 - 6	3992425	151930	12
	6 - 12			
AJR-04	0 - 6	3992735	148920	10
	6 - 10			
AJR-05	0 - 6	3992384	148287	7
	6 - 7			
AJR-06	0 - 4	3991652	143948	4

¹ State Plane, Oregon South, FIPS, 3602, NAD 1983

Table 2. 2 - Characteristics of the trench samples taken by AJR in 2009

Trench No.	Sample no.	Coordinates ¹		Trench depth	Description
		East (ft)	North (ft)	(ft)	
1	A	3991890	145573	9	Corestone rind
	B				Fresh corestone
	C				Corestone
	D				Altered corestone
2	A	3993387	148637	10	Corestone rind
	B				Corestone
	C				Fresh corestone
3	A	3992165	151847	12	Corestone rind
	B				Corestone
	C				Corestone
	D				Garnierite grab sample
4	A	3894790	271625	6	Fresh corestone
	B				Corestone
	C				Corestone rind
	S1	Not located		0	Kanga
	S2			0	Corestone – dunite
	S3			0	Corestone – dunite
	S4			0	Corestone – peridotite
	S5			0	Corestone – peridotite

1 State Plane, Oregon South, FIPS, 3602, NAD 1983

3. RELIANCE ON OTHER EXPERTS

AJR has reviewed all the property titles and technical data provided by RFN and its representatives. AJR has compiled and interpreted the data from trenches, drill holes and geochemical assays for the 2007, 2008 and 2009 investigation programs supervised by LLR. AJR has also interpreted the historical data and included them in the resource calculations. A review of the publicly available information from the USGS and DOGAMI completed the technical information used in the preparation of this report. Historical drill holes were located using the original maps, scanned and pasted into the CAD drawing. AJR believes that the information used to prepare this report is valid and appropriate.

While Appendix E includes a deed that confirms the property titles, AJR is not qualified to express a legal opinion regarding the property title or its validity, and cannot be held responsible for potential issues caused by irregularities.

4. PROPERTY DESCRIPTION AND LOCATION

4.1 PROPERTY AREA

The project includes 137 claims that are 600 ft by 1,500 ft. These claims cover 2,830 acres. Map 1, in Appendix A, illustrates the property's location and the claim layout. The Cleopatra claims were reviewed using the Notice of Location provided, received and duly recorded in the official records of Curry County, Oregon. The list of claims is presented in Appendix E.

4.2 LOCATION

The property is located on the top of McGrew Summit on the west bank of Taylor Creek, in the South-East of Curry County, some 60 miles South-West of the town of Grants Pass, Oregon about 335 miles south of Portland, Oregon. It is in a mountainous forest area and it can be accessed either from the South-West by taking the US 101 or from the northeast from US 199. It can also be accessed from the South-West, from Highway 101 by taking the Rowdy Creek Road in Smith River, California, that joins Road 305 for 5.6 miles, and then an additional 18.3 miles to the Road 450 that enters the property. It can also be reached from the northeast by taking the US 199 south to the Lone Mountain Road in O'Brien, Oregon, for a distance of 22.3 miles. Road 450 is the only road that enters the property. Table 4.1 presents the northern, southern, eastern and western property limits.

Table 4. 1 - Geographic coordinates of the Cleopatra property limits

Claim	Map	Limit	Coordinates ¹	
			East	North
Cleopatra	Curry County 7.5' Quad. Biscuit Hill, OR	West	3984900	
	Curry County 7.5' Quad. Biscuit Hill, OR	East	3995100	
	Curry County 7.5' Quad. Biscuit Hill, OR	North		157850
	Del Norte County 7.5' Quad High Plateau Mountain, CA	South		138350

¹ State Plane, Oregon South, FIPS, 3602, NAD 1983

4.3 TYPE OF MINING TITLE

RFN holds lode mining claims for its Cleopatra property. The MLRR and the BLM cover in detail the rights, obligations and definitions regarding lode mining claims.

4.4 ISSUERS RIGHTS AND OBLIGATIONS

4.4.1 Surface Rights

The Cleopatra property covers 2,830 acres. The claims are renewed on a yearly basis after payment of the Annual Maintenance Fees (see attached certified documents in Appendix E).

4.4.2 Mining Royalties

RFN has a 100% interest in the Cleopatra property. According to the documents provided by RFN, the Cleopatra property is not subject to any royalties or NSR payable to a third party other than those provided for by law.

4.4.3 Agreements

No information on acquisition privileges has been found in the documents provided to AJR by RFN.

4.4.4 Claims Delimitation

The Cleopatra property was staked and claimed by LLR during the summer of 2007. AJR has checked that all the drill holes and the entire mineralized deposits included in the resource estimations were within the limits of the Cleopatra property. AJR has observed and documented actual claim monuments staked by LLR. Figures 4.1 and 4.2 show photographs of some monuments taken during field visits.

4.4.5 Location of Mineralized Zones

The lateritic surface layer containing the nickel/cobalt, lies at the surface; it is a lateritic surface horizon covering ultramafic rocks. The mineralized layer follows the ground surface and has been traced by drilling for a maximum depth of 30 ft and might reach a depth of 40 to 50 ft according to geophysics results and Ramp (1978). The ore body is highly continuous horizontally especially on the northeast part of the property.

4.4.6 Environmental Obligations

Exploration work conducted by/or on behalf of RFN must comply with the DEQ and applicable legislation. The forest management permits were valid for the years 2007, 2008 and 2009. The valid forest management permits are attached as Appendix F.

5. ACCESS, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSICAL GEOGRAPHY

5.1 ACCESS ROADS AND INFRASTRUCTURE

The property can be accessed either from the South-West by taking the US 101 or the northeast from the US 199. It can also be accessed from the South-West from Highway 101, by Rowdy Creek Road in Smith River, California, that joins Road 305 in 5.6 miles, and then an additional 18.3 miles to Road 450 that enters the property. From the northeast, taking the US 199 South to reach the Lone Mountain Road in O'Brien, Oregon for a distance of 22.3 miles. The only access to the property is from Road 450, which enters the property from the south. An ATV is required to access the southern part of the property. The Medford airport is located about 80 miles east of the property.

5.2 CLIMATE

The climate that prevails on a regional scale is temperate and of the Coastal Range type. The property lies on a mountain range that reaches approximately 4,000 ft in elevation, abutting the coastal strip. The average daily temperature on the property ranges from 32° F in the winter to 70° F in the summer. The area has morning valley fog in the summer and tends to keep marine influences out of the intermountain valleys. The winters and summers that influence the property are mild with high levels of precipitation (up to 75 in. per year). Snow covers the ground from November to April at elevations above 4,000 ft.

The Cleopatra property is located on top of a mountain in the center of the Coastal Range at around 3,200 ft. Most of the property experiences colder temperatures than the surrounding valleys. Very few people live in the Coastal Range itself.

5.3 SERVICES AND LOCAL RESOURCES

The closest center with services is the coastal city of Brookings, Oregon. The nearest airport is in Medford, located 80 miles northeast of the property. Hence, in 2007 and 2009, the drilling crew stayed on site in a temporary camp on the property. This remote location also requires the use of satellite phones for communication.

Working materials can be brought in from Medford and Brookings. The local economy is largely based on the logging industry and the coastal economy is heavily influenced by tourism in the summer.

5.4 TOPOGRAPHY, ALTITUDE AND VEGETATION

The topography of the property is made from the Coastal Range Mountains. The maximum difference in altitude on the property is 2,000 ft, and the average altitude of the property is 3,200 ft. The property lies on the top of a North-South mountain ridge, reaching a maximum altitude of 3,434 ft. The mountain top is flat with an average width of 5,000 ft and the valley sides are steep.

Due to the high altitude and the presence of ultramafic rocks, the vegetation is less abundant and less prolific than in the valley bottoms. The property is mostly covered by fir, spruce, pine and cedar trees and manzanita, salal, rhododendron and other brushy varieties. In 2002, a forest fire that burned almost every standing tree on the property, leaving only small random patches of unburned trees (figure 5.1).

6. HISTORICAL EXPLORATION AND EXPLOITATION WORKS

6.1 EXPLORATION WORKS

6.1.1 General

Nickel-bearing laterites of south-western Oregon we first discovered in 1881 at the Nickel Mountain Mine near Riddle, Oregon. This mine operated between 1954 and 1976 and provided 39 million tons of ore at nickel grades between 1 and 1.5 %. Regional investigations were carried out by DOGAMI as early as 1943. DOGAMI's work on the laterites followed the publication of a study of the Nickel Mountain deposit by the USGS (Pecora and Hobbs, 1942).

6.1.2 Type and Quantity

In 1978, Ramp (DOGAMI) explored the Cleopatra property. The exploration consisted of geological mapping of the ultramafic rock and five (5) auger drill holes. The regional geology was described by Ramp et al. (1977) and was summarized in a geological map of Curry County.

6.1.3 Results

Exploration was conducted on the northern part of the property, where DOGAMI drilled five (5) auger holes. The location of these holes is presented on map 3 in Appendix A. Table 6.1 presents the assay results from Ramp (1978) and Appendix G includes an excerpt of Ramp's (1978) report.

Table 6. 1 - Sample assay results from Ramp (1978)

Drill hole no.	Depth interval (ft)		Ni Co		Coordinates		Assay Number
	From	to	(%)		X	Y	
1	0	7.5	0.85	0.06	3993756	154472	AJG-16
2	0	7.5	1.61	0.16	3993363	153548	AJG-15
3	0	7	1.2	0.09	3993820	152884	AJG-17
4	0	3	0.65	---	3991550	149086	AIG-117
5	0	5	0.91	0.24	3991788	148824	AIG-118
5	5	10	1.06	0.2	3991788	148824	AIG-119
Average			1.05				

These five (5) auger holes were included with the data from the 2007, 2008 and 2009 drilling programs. Geological interpretations were conducted on this aggregated pool of data.

6.2 PREVIOUS MINERAL RESOURCES AND MINERAL RESERVE ESTIMATIONS

There were two previous resource estimations done on the Cleopatra property. Those preliminary estimations are dated April 2008 and March 2009, and were also prepared by AJR. This report presents an updated estimation of all the information available to date.

6.3 PREVIOUS PRODUCTION

There has been no prior Ni, Co production from the Cleopatra property.

7. GEOLOGICAL CONTEXT

The regional geology of the area was described by Walker and King (1969), Ramp et al. (1977) and on a larger scale by Irwin (1997) and Johnson and Raines (2001). The property is located on the north-western part of the Klamath Mountains physiographic terrane and is composed primarily of volcanic rocks and some ultramafic and gabbroic intrusions of Jurassic age. The Pre-Nevadan Klamath Mountain rocks are in contact to the west with younger Northern Coastal Range rocks of the Dothan Point sedimentary Formation, and to the east by the Cascade Range younger Cenozoic volcanic rocks.

7.1 REGIONAL GEOLOGY

The regional geology has been described in detail by Hotz (1964). The property is covered by Jurassic bedrock, mostly ultramafic and gabbroic intrusive rocks that envelop a large area in the south east of Curry County and extend north-easterly in the Josephine County. The ultramafic formation is 10 to 15 miles wide and extends up to 50 miles northeast and 50 miles south into California. It is bordered to the West by the Dothan and Otter Point Formation composed of volcano-sedimentary rocks and to the East by the metasedimentary rocks of the Galice Formation. The area is faulted with high angle fault zones generally striking north-easterly with some earlier granitic intrusions. Map 2 in Appendix A illustrates the regional geology.

7.2 PROPERTY GEOLOGY

The property is covered by intrusive ultramafic rocks mainly composed of partly serpentinized peridotite (wehrlite and lherzolite). The rocks are mainly composed of altered olivine, serpentine, chlorite with some ortho and clinopyroxenes. Magnetite and hematite were also observed. The hematite is present in small veinlets. Also, rocks have been intruded by a number of small diabase dikes (Ramp, 1978). In 2009, Garnierite group minerals with nickel silicate were discovered in the trenches. The outcrop area located north of trench no.9 (see map 3) has disseminated chromite locally. Petrographic analyses were made on two polished rock sections and the results are presented in Appendix D.

The mineralized horizon is a lateritic alteration profile formed by the prolonged weathering and slumping of the ultramafic rocks in sub-tropical climates. The ground surface is covered by corestones, which are remnants of surface bedrock. In the center of the property, near the summit of the mountain, the laterite cover appears to be shallower than the areas on the mountain sides. In the Northeast part, slumping

and landslides accumulated down the slope with mixed material made of cover, corestones, limonite and saprolite. The thickness of the slide area may reach up to 50 ft.

8. TYPE OF MINERAL DEPOSITS

The deposits in the Cleopatra area consist of a concentration of nickel and cobalt from the surface alteration of olivine rich ultramafic rocks often called nickel laterites. On average ultramafic rocks contain 0.2 to 0.4 % Ni. Laterites are formed by the weathering of serpentinized peridotites (wehrlite and lherzolite) generally in humid savanna climates with poor drainage and associated with dry climates and semi-arid environments. During weathering, nickel is concentrated in place while more soluble elements such as magnesium, calcium and silica are dissolved and leached rapidly. Nickel accumulates in the form of nickel-silicate veins or becomes enriched in the insoluble residue of silica, nickel hydrosilicates, and oxides of magnesium and iron. Similar Oregon laterite nickel deposits have been described by Pecora and Hobbs, (1942); Hundhausen et al., (1954); and by Hotz, (1964).

The laterites found on the property are remnants of old upland surface and according to Irwin (1997), the weathering has taken place during the Pleistocene and/or the Pliocene. Typical laterite profile is presented on table 8.1.

Table 8. 1 - Typical lateritic profile (adapted from Golightly, 2005)

Unit	Mineralogy	Structure
Landslide	Mixed of cover, corestones, limonite and saprolite	Slide and slumping accumulation of mixed structures
Cover	Goethite + Kaolinite ± Hematite ± Gibbsite + Quartz	Granular iron pebbles (kanga) with peridotite boulders (30–60 %) at surface, limonitic matrix
Limonite	Goethite ± Mn, Co oxides ± Gibbsite ± Quartz	Porous clayed limonite, some sand, some relict bedrock corestones
Upper Saprolite	Ni in serpentine + Mn, Co oxides + Quartz	Fe rich Mg poor Saprolite crusts surround Ni enriched saprolite corestones
Lower Saprolite	Ni in serpentine + Goethite	Fe poor Mg rich Saprolite crusts surround peridotite corestones
Bedrock	Forsteritic Olivine and Serpentine (± pyroxenes ± talc)	Joint blocks, serpentinite breccia

The lower areas of the northern part of the property are characterized by important slumping and sliding accumulations of soil and saprolite to a depth of 50 ft (Ramp, 1978). Figures 8.1, 8.2, 8.3 and 8.4 respectively illustrate examples of kanga cover, corestone cover, bedrock outcrop and slide accumulation. The Ni variation with depth in the laterite profiles is shown in figure 8.5 (auger holes) and in figure 8.6 (trenches). The variation of Co and Fe with depth for the auger holes is presented in

figure 8.7 and 8.8 respectively. Figures 8.5 and 8.6 show that the Ni values increase with depth. Figure 8.7 is less instructive due to the lab accuracy limitations in detecting Co. However, Co values also appear to decrease with depth. Finally, figure 8.8 shows no specific trend between Fe values and depth.

At Cleopatra, sliding and slumping seem to be the main feature in the accumulation of nickel. This assumption needs to be validated by field observations. The main deposit located in the northeastern part of the property is believed to be the result of intense accumulation and figure 8.9 illustrates a typical cross-section of the slumping/sliding geological model assumed.

9. MINERALIZATION

The nickel laterites of the project can be classified, on the basis of ore mineralogy, as clay silicate deposits and maybe some oxide deposits. The mineralized zone is typically composed of residual goethitic limonites covering altered peridotite layers (saprolite) with iron oxide veins. The mineralogy of the laterites at Nickel Mountain in Oregon, was studied by Pecora and Hobbs (1942) and Hotz (1964). Montmorillonite, chlorite and talc constitutes the clay fraction. Nickel also occurs in nontronite, a ferric iron member of the montmorillonite (Hotz, 1964; Ramp, 1978). Nickel is also concentrated in thin fracture fillings of garnierite between saprolite corestones blocks. Garnierite group minerals were discovered for the first time on the property during the 2009 field program and grab samples assayed up to 4.1 % Ni. Figure 9.1 shows typical garnierite filling in corestone joints. Mineralogical studies by Gleeson et al. (2004) for the Cerro Matoso deposit in Colombia, found that nickel occurred in phyllo-silicates like pimelite (nickeliferous talc), nimite (nickeliferous chlorite), sepiolite and nickeliferous smectites.

Map 3 in Appendix A presents the nickel concentration distribution for the soil fraction. Figure 9.2 shows the cumulative frequency of nickel grades. From this figure, three types of mineralization can be identified using straight lines. The first type is from 0 to 0.5 Ni% and represents the non mineralized zone, the second type is the first mineralization zone from 0.5 to approximately 1.2 Ni%, and the third type is the high grade mineralization zone above 1.2 Ni%.

In this report the difference between limonite and saprolite is defined in terms of the Fe/Mg ratio. A ratio above 10 indicates limonite, and a ratio below 10 indicates saprolite. The limonite is usually present above the saprolite, and ranges in thickness from 1 ft to 10 ft in the trenches (see table 12.1). The limonite is mostly composed of very fine and uniform red clay, while the saprolite is coarser with a high in place porosity. Figure 9.3 shows a typical saprolite horizon with darker iron oxide patches.

The mineralization is divided into soil and rock groups. The mineralized soil is composed of clay (limonite and saprolite), while the mineralized rock is mostly corestone with garnierite accumulations.

The horizontal continuity of the soil deposit is supported by the geostatistical results and by the consistency between borehole and trench results, especially in the high grade zone (see map 5 in Appendix A). In the zone where the average grade is above 1 % Ni, every borehole and trench exceeded the 0.8% cut-off. This indicates a

strong continuity in the soil fraction. The area with a high density of boreholes, as illustrated on map 3 in Appendix A, confirms that the grade is continuous between 300 ft x 300 ft spaced holes. The rock mineralization does not correlate well but appears to be associated with high nickel soils (> 1 % Ni).

Mineralogical analyses were ongoing at the time of releasing this report. Hence, the results will be presented in a separate report.

10. EXPLORATION WORK

10.1 GENERAL

Since RFN started exploration work on the Cleopatra property in 2007, a total of 748 auger holes covering an area of 1,950 acres and 10 hand dug trenches, were completed. Also, 3,970 ft of seismic refraction geophysics was completed. A total of 1,381 samples were taken to the laboratory for chemical assaying, and 5 large samples (> 100 lbs) were sent for mineralogical and metallurgical analysis. In addition, 14 in-place density measurements were performed on 1 ft³ soil samples, and 16 rock density measurements were performed on fist grab samples. Map 3 presents the locations of this exploration work.

10.2 MAPPING

Geological mapping of the property was completed analyzing aerial photographs, drilling results and nickel concentrations. Map 5 presents the nickel concentration indicative of the laterite locations and outcrop locations.

10.3 GEOPHYSICS

The 2008 exploration program completed by RFN included four (4) seismic refraction geophysics lines for a total length of 3,970 ft. Data was acquired between October 27th and October 30th, 2008. The objective of the seismic refraction program was primarily to validate the use of this method on this type of deposit and identify, if possible, the depth of the soil horizon.

Seismic acoustic wave velocity can be correlated to the rock/soil nature and the rock/soil quality. The wave velocity is well correlated with the density of the material. For the Cleopatra deposit, the clay fraction on the top shows a lower acoustic wave velocity (< 3000 ft/s) and the bedrock underneath the soil shows a greater acoustic wave velocity (> 3000 ft/s).

To correlate the bottom of the deposit with a seismic wave velocity, holes along the seismic line should have been drilled through the deposit to identify the bedrock. However, this information is not available, so the correlation can not be completed.

AJR went further in its analysis of the seismic lines. Auger hole logs were plotted along the seismic lines and an attempt was made to correlate drilling refusals with seismic wave velocity. AJR identified a seismic wave velocity at around 2,000 ft/sec at the level corresponding to the auger refusal depth. However, this does not represent the seismic wave velocity of the bottom of the deposit because corestones

are suspected of causing most of the auger hole refusals. This 2,000 ft/sec velocity may represent a denser corestone layer, a denser and harder iron oxide layer or the limonite-saprolite interface. Using the 3,000 ft/s velocity limit, the soil thickness varies from 10 ft to 40 ft. While a geophysical tool like seismic refraction lines can be a useful for the Cleopatra deposit, the lines should be validated by core or sonic drilling. See Appendix I.

10.4 DRILLING

See section 11.

10.5 TRENCHING

See section 12.

11. DRILLING

Most of the drilling took place in 2007 and 2008, with 7 deeper holes achieved in 2009 (> 20 ft), for a total of 748 vertical auger holes attempted. In general, the locations of the holes followed a 300 ft x 300 ft grid. This represents a total of 5,169 feet successfully drilled and sampled. The hole depth ranged from 2 to 30 ft and averaged 7 ft. The drilling was carried out under the direct supervision of LLR.

Holes were drilled using 1.6 HP hand held auger. These drills reached an average depth of 7 ft. A 5.5 HP four man auger drill was used in 2009 and it reached a maximum depth of 30 ft. All holes were logged and carefully sampled by LLR. All drill holes were surveyed using a Trimble GeoExplorer XT which has a ± 3 ft accuracy. Figures 11.1 and 11.2 show typical drilling operations. The results of the drill holes are presented in Appendix B. Hole locations, drilling results, kriging and interpretation are also presented on maps 3, 4 and 5 of Appendix A.

12. TRENCHING

In 2009, RFN completed a trenching program, which is the most recent and extensive work carried out on the property. The 10 hand dug trenches reached depths of 8 to 12 ft. Trenching began on July 19th, 2009, and was completed on August 23th, 2009.

The objective of the hand dug trenches was to obtain information about the proportion of corestones within the property and the mineralogy of the corestones. The trenching was also used to acquire large samples for mineralogical and metallurgical testing.

A total of 246 samples were taken from the 10 trenches, from which many chemical assays were conducted, 11 samples were taken for soils density analysis and four large samples (> 100 lbs) were taken for mineralogical and metallurgical testing. The trenching and sampling were carried out under the direct supervision of LLR.

12.1 HAND DUG TRENCHING

A hand dug trench allows for the visualisation of the deposit, the evaluation the corestone content and for the sampling of the clay and corestone fractions. Of the 10 trenches, 9 were located on the northeast zone where the higher grades of Ni are located. Map 3 shows the locations of the trenches. Table 12.1 provides the results for the 10 trenches. Figures 12.1 to 12.10 show a picture of each trench. Additional photographs of trenches are provided in Appendix B.

The trenches do not follow a defined grid. They were located at distances varying from 800 ft to 1,800 ft from one another. In some trenches, the corestones are mineralized with grades similar to or higher than that of the soil. In other trenches, the corestones shows only background nickel grades. In 9 out of 10 trenches, mineralized corestone was sampled.

Samples were also taken from the corestone rind, the rusty coating surrounding the fresher rock (see figure 12.5). The rind thickness varies between ¼ in to ½ in and the average corestone boulder diameter is around 1.5 ft. Table 12.2 provides the coordinates of each trench and table 12.3 presents the trench sample characteristics. Appendix B provides the corestone descriptions for each trench and additional photographs.

Table 12. 1 - Trenching results for soil, corestone and rind sample

	Trench no.																																							
	1				2				3				4				5				6				7				8				9				10			
	Depth (ft)	Ni (%)	Fe/Mg		Depth (ft)	Ni (%)	Fe/Mg		Depth (ft)	Ni (%)	Fe/Mg		Depth (ft)	Ni (%)	Fe/Mg		Depth (ft)	Ni (%)	Fe/Mg		Depth (ft)	Ni (%)	Fe/Mg		Depth (ft)	Ni (%)	Fe/Mg		Depth (ft)	Ni (%)	Fe/Mg		Depth (ft)	Ni (%)	Fe/Mg					
Soil		1	0.58	16.78 L		1	0.9	12.98 L		1	1	11.46 L		1	0.84	12.65 L		1	1.2	25.64 L		1	0.7	12.89 L		1	1.03	27.45 L		1	0.86	10.42 L		1	0.74	30.58 L		1	1.1	23.51 L
		2	0.79	20.38 L		2	1.1	7.94 S		2	1.2	12.91 L		2	1.15	12.27 L		2	0.9	2.22 S		2	1	23.40 L		2	1.1	23.90 L		2	0.96	5.75 S		2	1.04	36.44 L		2	1.3	15.92 L
		3	0.84	30.25 L		3	1.4	3.77 S		3	0.8	4.49 S		3	1.4	25.68 L		3	1.1	2.23 S		3	1	6.03 S		3	1.28	36.96 L		3	1.17	7.62 S		3	1.09	16.29 L		3	1.4	30.56 L
		4	0.86	39.92 L		4	1.3	3.91 S		4	1	5.11 S		4	1.49	43.30 L		4	1.7	9.18 S		4	0.9	3.73 S		4	1.51	37.25 L		4	0.87	3.08 S		4	1.13	15.57 L		4	1.3	6.44 S
		5	0.95	37.12 L		5	1.4	4.27 S		5	0.9	3.29 S		5	1.7	18.00 L		5	0.6	0.85 S		5	1.2	2.22 S		5	1.44	26.93 L		5	0.79	2.35 S		5	1.12	26.97 L		5	1.3	5.25 S
		6	1	26.35 L		6	1.3	2.27 S		6	1	2.86 S		6	1.63	24.94 L		6	1.2	3.68 S		6	1.2	3.94 S		6	1.38	15.28 L		6	0.85	2.31 S		6	1.07	16.91 L		6	1.3	4.01 S
		7	1.06	10.66 L		7	1.3	1.86 S		7	1.2	2.50 S		7	1.68	15.29 L		7	0.7	0.91 S		7	1.1	2.26 S		7	1.76	21.58 L		7	0.96	2.52 S		7	1.16	10.85 L		7	1.2	2.73 S
		8	1.05	4.36 S		8	1.4	1.75 S		8	0.9	1.44 S		8	1.36	5.77 S		8	0.9	1.01 S		8	0.7	1.26 S		8	1.88	20.94 L		8	0.77	2.10 S		8	0.82	4.61 S		8	1.1	2.28 S
		9	1.38	8.97 S		9	1.6	1.56 S		9	1.3	2.18 S		9	1.35	7.80 S						9	0.9	1.65 S		9	1.78	41.04 L		9	0.84	2.20 S		9	1.31	27.79 L				
						10	1.4	1.70 S		10	1.7	4.93 S		10	1.23	2.26 S																		10	1.13	42.31 L				
										11	1.5	3.38 S		11	1.39	3.68 S																								
										12	1.6	3.52 S		12	1.25	2.89 S																								
Average	0.95				1.30				1.17				1.37				1.03				0.98				1.46				0.90				1.06				1.25			

Corestone		0	0.24		0	0.3		0	0.2		0	0.24		0	0.2		0	0.2		0	0.23		0	0.23		0	0.23		0	0.23		0	0.2		0	0.2				
		2	0.24		0	0.2		0	0.5		5	0.6		2	0.73		2	0.5		4	0.2		2	0.24		2	0.25		2	0.23		2	0.2							
		4	0.24		0	0.2		0	0.2					1	1.6		4	0.2		4	0.22		4	0.22		2B	0.38		4	0.22		2B	0.3							
		5	0.23		3	0.2		3	0.2					4	0.5		4B	1.1		4B	0.26		4B	0.26		4	0.34		8	0.28		4	0.3							
		5b	0.26					4	0.5		9	0.36			0.72		6	0.8		6	0.22		4B	0.49		4B	0.49		10	0.59		4B	0.3							
		7	0.26		6	0.3		5	0.2		11	0.4		8	0.7		7	1.4		8	0.74		5	0.56		5	0.56				6	0.5								
		9	0.26		8	0.3		7	0.4								9	1.1					6	0.29		6	0.29				8	0.7								
		A	0.5		A	0.4		11	0.5		A	0.3											8	0.76		8	0.76													
		B	0.23		B	0.3		A	0.6		B	0.61											8B	0.47		8B	0.47													
		C	0.26		C	0.2		B	0.2		C	0.62											9	0.37		9	0.37													
		D	0.28					D	0.7																															
	Average	0.27				0.27				0.37				0.45				0.85				0.76				0.32				0.41				0.31				0.36		

Rind		0	0.25		0	0.4		0	0.6		0	0.38		0	0.6		0	0.8		0	0.24		0	0.34		0	0.26		0	0.22											
		2	0.39		0	0.3		0	0.7		0	0.62		1	1.6		2	0.6		2	0.52		2	0.71		1	0.22														
		2B	0.35		3	0.4		0	0.2		0B	0.61		1B	0.4		2B	1.4		4	0.58		2B	0.98		2	0.47					0	0.3								
		4	0.21		3B	0.6		3	0.6		5	0.52		4	1		4	1.5		4	0.58		4	0.59		4	0.38				2	0.4									
		5	0.5		4	0.8					7	0.52					6	1.2		6	1.1		6	0.73		8	0.65		2B	0.5											
		5B	0.28		6	1.2		4	0.5		9	1.56		8	0.8		7	1.3		8	1		6B	1.15		10	0.7		4	0.7											
		7	0.45		8	0.8		5	0.4								9	1.4					8	0.6					6	1.3											
		9	0.38					7	0.9								A	1.3					8A	1.64					8	0.2											
								11	0.6																																
	Average	0.35				0.86				0.74				1.35				0.85				1.17				1.04				0.84				0.68				1.00			

L: Limonit

S: Saprolite

Table 12. 2 - Trench location coordinates depth and corestone characteristics

Trench no.	Coordinates			Depth (ft)	Estimated corestone (%) ¹	Mineralized corestone (%) ²	Nickel grade of mineralized corestone (%)
	X (ft)	Y (ft)	Z (ft)				
1	3991890	145573	3378	9	25	0	N/A
2	3993387	148637	3101	10	45	9	0.86
3	3992165	151847	3161	12	35	4	0.74
4	3993094	153697	2862	12	20	5	1.35
5	3994101	152137	2810	8	50	15	0.85
6	3994567	154303	2441	9	15	100	0.80
7	3994386	150763	2811	9	15	15	0.84
8	3993031	150087	3059	9	40	15	0.84
9	3991477	149191	3301	10	5	5	0.68
10	3994144	148326	2934	10	60	5	1.00
			Average		31	17.3	0.88

1 Percentage of the total trench volume

2 Percentage of the rock fraction volume

Table 12.2 shows that the average corestone content from all trenches is approximately 30 % in volume. From this corestone fraction, a little more than 17 % of the rocks contain nickel concentrations above 0.7 %, and thus, represent the mineralized fraction of corestones. The average nickel grade of the mineralized corestone is approximately 0.88 %. Table 12.3 presents the statistics of the samples taken from the trenches, separated in two categories, the mineralized corestone (> 0.7 % Ni) and the non-mineralized corestone (< 0.7 % Ni). The nickel grade within the corestone appears to be linked with the possible presence of Garnierite within fractures of rocks.

Table 12. 3 - Trench sample statistics

Material	Mineralized (> 0.7 % Ni)				Non mineralized (< 0.7 % Ni)			
	Average	Min.	Max.	Nb of sample	Average	Min.	Max.	Nb of sample
Soil	1.15	0.72	1.88	96	0.58	0.58	0.58	2
Corestone	0.94	0.71	1.61	11	0.33	0.20	0.62	68
Rind	1.14	0.61	2.78	28	0.44	0.21	0.65	41

13. SAMPLING METHODS

A total of 1,084 samples were taken during the 2007, 2008 and 2009 drilling and trenching programs. A majority of samples assayed were taken from the auger rods and 246 samples were taken from trenches. Also, 5 large composite samples (> 100 lbs) were taken for mineralogical and metallurgical testing.

13.1 SAMPLES FROM AUGER

The samples taken were to be representative of a maximum of 6 ft drilling runs. Rods were carefully cleaned between each drill run. When early boulder refusals were encountered, several attempts were made in the nearby vicinity to deepen the hole. If the attempts were not successful in reaching a minimum depth of 2 ft, the hole was called a refusal. Refusals were either due to corestones preventing the drills from penetrating deeper into the soil profile, or bedrock. Figures 13.1 and 13.2 show the typical sampling procedures.

The Auger drill sampling method has some advantages and some drawbacks:

- Advantages
 - Auger drills are light and easily handled;
 - Possibility to obtain several hundreds of shallow holes rapidly;
 - Covers large areas.
- Drawbacks
 - The recovery can be very low especially in saturated materials;
 - The method is ineffective to sample corestones in the saprolite zones;
 - Is a shallow hole method.

With the sampling method used, the corestones and surface bedrock (which have nickel rich oxide and silicate coating and veins) are under-sampled.

13.2 SAMPLES FROM MANUAL TRENCHING

Samples from trenching were taken every foot along a vertical channel on the side of each trench. Samples of approximately 1 ft³ were also collected for soil density measurement, those samples weighed approximately 50 lbs. In addition, fist size rock samples were collected for bulk density measurements.

Five composite samples weighing 170 to 290 lbs, depending of the depth of the trench, were taken and sent for mineralogical and metallurgical testing to the SGS

laboratory in Ontario, Canada. The composites were obtained by blending roughly 10 lbs of material per vertical foot of trench.

14. SAMPLE PREPARATION, ANALYSIS AND SECURITY

All sampling was performed by LLR. Samples were individually wrapped and identified with a unique number. The samples were sent to the assay laboratory quickly after being recovered from the field and a register was continually updated with results. The register is also a summary of assay results for nickel, cobalt, iron and magnesium. The register and the assay results are included in Appendix B.

The laboratory, ALS Chemex of Vancouver, Canada, performed the assays using the conventional ME-ICP61 method. This Canadian laboratory is ISO/IEC 17025 certified by the Standards Council of Canada and has its own quality system.

Despite this certification and quality system, additional quality control measures were applied. Following the site visits, in 2007 AJR performed six (6) spot check drill holes and collected eleven (11) samples. In 2009, AJR collected 19 samples of corestone from the trenches. In addition, 10 samples that were already assayed by LLR were re-assayed by AJR. All assays performed by AJR were carried out using the Ni-ICP81 method.

15. DATA VERIFICATION

Field verification was conducted by AJR during the two field visits. In 2007, six (6) verification holes were stretched along a North-South line covering a distance of 10,000 ft. Also, laboratory quality verification was done by randomly selecting 10, already assayed pulp samples, and re-assaying them using the Ni-ICP81 method.

The ME-ICP61 method used by LLR is a four acid leach digestion process that provides a near total extraction. This method is the conventional low cost multi-elements package used in exploration geochemistry. AJR used the Ni-ICP81 method, which is a four acid leach digestion process combined with peroxide fusion suited for high grade samples and equivalent to the XRF method, to verify the assays.

In 2009, AJR also collected 19 corestone samples for mineralization verification.

Table 15.1 presents the assays results and the verification holes are located on Map 3 in Appendix A. Table 15.2 shows the space correlation interpretation of some verification holes in the vicinity of existing LLR holes. In general, results from AJR are in close agreement with results obtained from LLR and demonstrates the strong continuity of the mineralized zones.

Table 15. 1 - Assays results for AJR verification holes

Hole No.	Sample	Ni	Co
	(ft)	(%)	(%)
AJR-01	0 - 6	0.89	0.207
	6 - 8	0.67	0.049
AJR-02	0 – 6	1.52	0.125
	6 – 10	1.72	0.119
AJR-03	0 – 6	1.03	0.084
	6 – 12	1.21	0.066
AJR-04	0 – 6	0.82	0.101
	6 – 10	0.49	0.043
AJR-05	0 – 6	0.48	0.057
	6 - 7	0.39	0.039
AJR-06	0 – 4	0.67	0.046

Table 15. 2 - Interpretation of the verification hole results

Verif. No.	Hole AJR	Coordinates ¹		Hole LLR	Coordinates ¹		Ni ² (%)	Remarks
		East (ft)	North (ft)		East (ft)	North (ft)		
1				18S-15E	3991846	145597	0.92	Verification hole located between two N-S 300 ft spaced holes
	AJR-01	3991869	145472				0.83	
				21S-15E	3991846	145297	1.23	
2				57N-27E	3993046	153097	1.44	Verification hole located between two E-W 300 ft spaced holes
	AJR-02	3993183	153123				1.60	
				57N-30E	3993346	153097	1.67	
3	AJR-03	3992425	151930				1.12	Verification hole located 40 ft away from checked hole
				45N-21E	3992446	151897	1.23	
4	AJR-04	3992735	148920				0.69	Verification hole located 25 ft away from checked hole
				15N-27S	3992746	148897	0.83	

1 State Plane, Oregon South, FIPS, 3602, NAD 1983

2 Weighted average of all samples from the hole

Quality control assays are presented on table 15.3. This quality control consists of re-assaying samples to check for reproducibility of results. Samples were selected at random. Average variability was approximately 0.03 % Ni, which AJR considered low. The average nickel grade was 1.13 % for the LLR samples and 1.11 % for the check samples. This difference was negligible. Interpretation of these results confirms the accuracy and reproducibility of the assays performed by ALS Chemex Laboratories.

Table 15. 3 – Quality control assay results

SAMPLE NO.	Ni-ICP81 Ni (%) AJR	ICP61 Ni (%) LLR	Diff. Ni (%)
39N-18E-6	1.05	1.05	0.01
36N-27E-6	0.92	0.95	0.03
66N-42E-6	1.97	2.04	0.07
66N-33E-12	1.09	1.11	0.02
ON-36E-12	0.98	1.00	0.02
27S-3E-9	0.60	0.62	0.02
57N-45E-9	1.23	1.28	0.05
54N-45E-6	1.24	1.26	0.02
90N-36E-5	0.88	0.89	0.01
45S-27E-6	1.12	1.14	0.02
Average	1.11	1.13	0.03

During the 2009 field visit, AJR randomly collected 19 rock samples from the trenches and from the surface of the ground. The samples consisted of corestones and the rind surrounding the corestones. Table 15.4 presents the grade and characteristics of the samples. The last five samples of the table were randomly selected to represent the kanga, the dunitic bedrock and the surface peridotitic corestone. The kanga and fresh surface corestone sampled are quite rich in nickel, both above 1 % Ni.

Table 15. 4 - 2009 corestone sample taken by AJR

SAMPLE NO.	ICP61 Ni (%) AJR	Description
RF_AJR_1_A	0.5	Rind
RF_AJR_1_B	0.23	Fresh corestone
RF_AJR_1_C	0.26	Corestone
RF_AJR_1_D	0.28	Altered corestone
RF_AJR_2_A	0.43	Rind
RF_AJR_2_B	0.27	Corestone
RF_AJR_2_C	0.24	Fresh corestone
RF_AJR_3_A	0.55	Rind
RF_AJR_3_B	0.23	Corestone
RF_AJR_3_C	0.45	Corestone
RF_AJR_3_D	0.71	Rind
RF_AJR_4_A	0.30	Fresh corestone
RF_AJR_4_B	0.61	Corestone
RF_AJR_4_C	0.62	Rind
RF_AJR_S_1	1.01	Kanga
RF_AJR_S_2	1.07	Fresh Dunite surface corestone
RF_AJR_S_3	0.41	Fresh Dunite surface corestone
RF_AJR_S_4	0.47	Fresh Peridotite surface corestone
RF_AJR_S_5	0.30	Fresh Peridotite surface corestone

16. ADJACENT PROPERTIES

There are no present producing metal mines in Oregon. The Nickel Mountain laterite deposit, located 70 miles north of the property, was in production between 1954 and 1976, with a total production of 39 million tons of ore with reported smelter feed grading around 1 % to 1.5 % Ni. The area also hosts other nickel laterites that are described in Ramp (1978).

There is a placer claim block located on the property and that is illustrated on Map 1. The placer claim is the property of Viridian Environmental Design LLC and covers 429 acres; the resources associated with the placer claims were included in the estimation. Table 16.1 presents the estimated resources within the placer claim block.

Table 16. 1 – Resources from the placer claims

Cut-off Ni (%)	Type	Indicated Tons (*1000)	Ni (%)	Inferred Tons (*1000)	Ni (%)
0.7	Soil	891	0.79	1039	0.78
	Rock	358	0.85	417	0.85
	Total	1249	0.81	1456	0.80
0.8	Soil	289	0.89	362	0.88
	Rock	116	0.84	146	0.84
	Total	405	0.88	508	0.87

RFN is also conducting exploration on the Red Flat deposit, another nearby nickeliferous laterite property in Curry County, Oregon, located around 50 miles North-West of the Cleopatra property. There is also some active gold placer exploration in the north-eastern part of the property along the Rogue River.

17. ORE PROCESSING AND METALLURGICAL TESTWORK

Two large samples were obtained from five trenches on the Cleopatra property and four trenches on the Red Flat property (AJR Geoconsulting, 2009). These samples were sent for analysis to the SGS laboratory in Lakefield, Ontario, Canada. The objectives of the analysis were to perform:

1. Chemical, grain size and mineralogical characterisation of the ore;
2. Leaching program, including Bottle Roll Leach Testing and Agitated Leach Testing.

Tables 17.1 and 17.2 present the characteristics of the samples sent to SGS from the Cleopatra and Red Flat properties, respectively. SGS received and prepared a total of 588 kg from Cleopatra and 293 kg from Red Flat of wet material. Samples were separated into two composite fractions, the limonite (L) and the saprolite (S) fraction. Given that this analysis is a preliminary study and because the deposits are similar, the limonite fraction and the saprolite fraction from both properties were blended together resulting in one blended limonite fraction and one blended saprolite fraction. The blended sample of limonite from both property totalled 193 kg of material and the blended sample of saprolite from both properties totalled 688 kg, for a total wet weight of 881 kg. The assay results in tables 17.1 and 17.1 are from samples collected by LLR.

At the time of writing this report, only grain size fraction distribution and chemical assay results were available. Mineralogical and leaching analyses were ongoing and the results were expected shortly. When available, the results will be presented in a separate report.

The fractional size analysis of the limonite fraction shows an average head grade of 1.08% Ni. With the -400 mesh fraction being high grade nickel (1.2% Ni). The majority of the nickel exists in the -400 mesh fraction. When screened at 400 mesh, 80.6% of the weight was recovered and the grade increased from 1.08% to 1.2% Ni. Figure 17.1 shows the assay results according with the grain size of the limonite.

For the saprolite fraction the average head grade is 1.08% Ni. The highest grade fractions are + 1inch and -100 mesh. When screened, keeping only the +1 inch and -100 mesh, 70% of the weight was recovered and the grade increased from 1.08% to 1.3% Ni. Figure 17.2 shows the assay results according with the grain size of the saprolite.

Figure 17.3 shows the cumulative frequency of the different grain sizes. Figure 17.3 illustrates that the limonite is generally composed of finer material as 80 % passes through the 38 μ m sieve, whereas only 50 % of the saprolite passes through the 38 μ m sieve. Also, the saprolite fraction presents a coarse fraction of 10 % bigger than 20 mm.

Table 17. 1 – Characteristics of the samples from the Cleopatra property sent to SGS for mineralogical and metallurgical testing

Sample ID	Ore Type	Gross Wt	Net Wt*	Ni	Co	Cr	Fe	Mg	Fe/Mg
CL-M-1-1	L	15.16	14.88	0.58	0.093	2.49	40.6	2.42	16.8
CL-M-1-2	L	15.62	15.34	0.785	0.133	2.31	42.6	2.09	20.4
CL-M-1-3	L	14.82	14.54	0.841	0.192	2.47	47.5	1.57	30.3
CL-M-1-4	L	17.87	17.59	0.864	0.207	2.45	47.1	1.18	39.9
CL-M-1-5	L	9.37	9.09	0.954	0.202	2.13	46.4	1.25	37.1
CL-M-1-6	L	13.17	12.89	1	0.169	2.25	44.8	1.7	26.4
CL-M-1-7	L	19.81	19.53	1.055	0.148	1.75	40.1	3.76	10.7
CL-M-1-8	S	15.35	15.07	1.05	0.101	1.31	33.6	7.7	4.4
CL-M-1-9	S	12.28	12	1.38	0.149	1.76	39.2	4.37	9.0
CL-M-2-1	L	18.57	18.29	0.928	0.108	1.6	37.9	2.92	13.0
CL-M-2-2	S	17.27	16.99	1.085	0.078	1.28	34.2	4.31	7.9
CL-M-2-3	S	12.51	12.23	1.37	0.054	0.943	27.9	7.4	3.8
CL-M-2-4	S	10.04	9.76	1.29	0.066	0.993	28	7.16	3.9
CL-M-2-5	S	12.76	12.48	1.41	0.061	1.15	28.7	6.72	4.3
CL-M-2-6	S	13.23	12.95	1.3	0.047	0.824	23	10.15	2.3
CL-M-2-7	S	11.04	10.76	1.27	0.057	0.693	20.4	10.95	1.9
CL-M-2-8	S	10.05	9.77	1.37	0.047	0.671	20.4	11.65	1.8
CL-M-2-9	S	12.62	12.34	1.62	0.053	0.687	21.7	13.95	1.6
CL-M-2-10	S	17.34	17.06	1.39	0.055	0.702	19.25	11.3	1.7
CL-M-3-1	L	16.02	15.74	0.969	0.113	1.35	36.2	3.16	11.5
CL-M-3-2	L	9.92	9.64	1.15	0.13	1.51	38.6	2.99	12.9
CL-M-3-3	S	12.48	12.2	0.802	0.123	1.25	31.8	7.08	4.5
CL-M-3-4	S	9.89	9.61	1.02	0.123	1.19	31.6	6.18	5.1
CL-M-3-5	S	12.95	12.67	0.86	0.089	1.06	29.2	8.88	3.3
CL-M-3-6	S	11.3	11.02	0.969	0.074	0.992	27.3	9.53	2.9
CL-M-3-7	S	11	10.72	1.24	0.081	0.769	26.2	10.5	2.5
CL-M-3-8	S	9.13	8.85	0.913	0.058	0.59	20.2	14.05	1.4
CL-M-3-9	S	10.41	10.13	1.32	0.088	0.848	22.6	10.35	2.2
CL-M-3-10	S	10.41	10.13	1.68	0.091	1.43	31.3	6.35	4.9
CL-M-3-11	S	10.1	9.82	1.505	0.107	1.1	28.8	8.52	3.4
CL-M-3-12	S	13.25	12.97	1.57	0.093	0.85	28.5	8.1	3.5
CL-M-4-1	L	13.55	13.27	0.836	0.102	1.28	34.8	2.75	12.7
CL-M-4-2	L	10.47	10.19	1.15	0.14	1.5	37.9	3.09	12.3
CL-M-4-3	L	9.14	8.86	1.4	0.147	1.53	41.6	1.62	25.7
CL-M-4-4	L	10.06	9.78	1.485	0.181	1.42	44.6	1.03	43.3
CL-M-4-5	L	11.49	11.21	1.695	0.152	1.72	40.5	2.25	18.0
CL-M-4-6	L	8.85	8.57	1.63	0.171	2	42.4	1.7	24.9
CL-M-4-7	L	10.94	10.66	1.675	0.142	1.36	40.2	2.63	15.3
CL-M-4-8	S	8.48	8.2	1.36	0.117	1.23	33.5	5.81	5.8
CL-M-4-9	S	8.2	7.92	1.35	0.133	1.45	35.8	4.59	7.8
CL-M-4-10	S	6.87	6.59	1.23	0.116	0.947	23.7	10.5	2.3
CL-M-4-11	S	6.46	6.18	1.39	0.106	1.18	28.9	7.86	3.7
CL-M-4-12	S	9.81	9.53	1.25	0.136	1.13	25.7	8.89	2.9
CL-M-5-1	L	12.2	11.92	1.23	0.137	1.83	42.3	1.65	25.6
CL-M-5-2	S	9.6	9.32	0.919	0.047	0.864	25.3	11.4	2.2
CL-M-5-3	S	10.93	10.65	1.1	0.078	0.984	25.5	11.45	2.2
CL-M-5-4	S	12.01	11.73	1.695	0.135	1.65	38.2	4.16	9.2
CL-M-5-5	S	10.9	10.62	0.583	0.042	0.641	14.9	17.5	0.9
CL-M-5-6	S	8.54	8.26	1.17	0.07	1.48	30.7	8.34	3.7
CL-M-5-7	S	8.42	8.14	0.72	0.026	0.521	15.2	16.7	0.9
CL-M-5-8	S	9.77	9.49	0.862	0.036	0.624	16.2	16.1	1.0

Total 588.15 kg
6.18 kg / sample in comp
51 samples
315.18 kg in comp

*Net Wt includes plastic sample bag

RED FLAT NICKEL CORP.**Evaluation of the Cleopatra Ni/Co Property Mining Potential,
Curry County, Oregon, U.S.A.****NI 43-101 TECHNICAL REPORT****17. Ore Processing and Metallurgical Testwork****Table 17. 2 - Characteristics of the samples from the Red Flat property sent to SGS
for mineralogical and metallurgical testing**

Sample ID	Ore Type	Gross Wt	Net Wt*	Ni	Co	Cr	Fe	Mg	Fe/Mg
RF-M-1-1	L	5.83	5.55	0.795	0.071	1.66	36.1	3.31	10.91
RF-M-1-2	L	5.43	5.15	1.26	0.075	1.8	42	2.09	20.10
RF-M-1-3	S	4.67	4.39	1.23	0.104	1.64	36	4.79	7.52
RF-M-1-4	S	5.58	5.30	1.15	0.062	0.864	24.9	9.88	2.52
RF-M-1-5	S	6.11	5.83	1.06	0.046	0.695	22.8	10.95	2.08
RF-M-1-6	S	5.49	5.21	1.08	0.053	0.819	25.8	9.91	2.60
RF-M-1-7	S	6.21	5.93	1.14	0.047	0.958	21.8	11.2	1.95
RF-M-1-8	S	4.97	4.69	0.917	0.028	0.462	13.75	16	0.86
RF-M-1-12	S	12.64	12.36	0.629	0.022	0.38	11.1	17.9	0.62
RF-M-2-1	S	4.63	4.63	0.95	0.049	0.806	25.1	6.53	3.84
RF-M-2-2	S	4.65	4.37	0.783	0.024	0.401	12.3	16.9	0.73
RF-M-2-3	S	4.26	4.26	0.853	0.02	0.296	11.9	16.85	0.71
RF-M-2-4	S	4.88	4.60	0.457	0.024	0.41	14.6	12.75	1.15
RF-M-2-5	S	4.07	3.79	0.605	0.017	0.244	9.83	16.1	0.61
RF-M-2-6	S	4.92	4.92	0.521	0.015	0.213	9.3	17.2	0.54
RF-M-2-7	S	5.99	5.71	0.288	0.014	0.206	8.79	16.75	0.52
RF-M-2-8	S	4.53	4.53	0.283	0.014	0.206	8.83	17.15	0.51
RF-M-3-1	S	8.47	8.47	0.27	0.038	1.21	28.6	2.99	9.57
RF-M-3-2	L	9.49	9.21	0.745	0.029	1.84	46.4	1.09	42.57
RF-M-3-3	L	6.17	5.97	0.815	0.045	1.83	47.9	0.92	52.07
RF-M-3-4	L	9.38	9.10	0.821	0.098	1.91	44.3	1.07	41.40
RF-M-3-5	L	9.51	9.23	0.71	0.18	1.11	39.9	2.07	19.28
RF-M-3-6	L	8.51	8.51	0.782	0.199	1.07	40	2.17	18.43
RF-M-3-7	L	9.67	9.39	1.01	0.176	1.47	43.6	2.06	21.17
RF-M-3-8	S	8.27	8.27	0.765	0.125	0.968	34.8	5.04	6.90
RF-M-3-9	S	8.80	8.52	0.736	0.128	0.87	30.9	5.48	5.64
RF-M-3-10	S	8.19	8.19	0.882	0.126	0.894	32.2	4.51	7.14
RF-M-3-11	S	8.89	8.61	0.919	0.105	0.883	32.5	4.02	8.08
RF-M-3-12	S	8.01	8.01	1.02	0.086	0.823	29.1	4.76	6.11
RF-M-3-13	S	8.07	7.79	1.01	0.078	0.875	29.9	4.53	6.60
RF-M-3-14	S	7.43	7.43	0.979	0.086	0.82	29	6.29	4.61
RF-M-3-15	S	6.93	6.65	1.02	0.075	1.05	27.2	7	3.89
RF-M-3-21	S	9.55	9.55	1.44	0.066	0.628	24.8	7.08	3.50
RF-M-4-1	L	9.06	9.06	1.03	0.086	2.82	50	0.64	78.13
RF-M-4-2	S	9.77	9.49	1.25	0.22	2.07	39.9	4.53	8.81
RF-M-4-3	S	8.96	8.68	1.57	0.187	0.749	28.1	7.08	3.97
RF-M-4-4	S	9.85	9.85	1.75	0.166	0.795	28.4	6.79	4.18
RF-M-4-5	S	10.97	10.69	1.32	0.15	0.61	20.8	11.8	1.76
RF-M-4-6	S	10.41	10.41	1.66	0.179	1.03	29.5	7.19	4.10
RF-M-4-7	S	11.41	11.13	1.48	0.156	0.825	20.7	11.35	1.82

Total 293.43 kg
3.79 kg / sample in comp
40 samples
151.6 kg in comp

*Net Wt excludes plastic sample bag

18. MINERAL RESOURCE AND MINERAL RESERVE ESTIMATION

18.1 GENERAL

The data used in the resource estimation comes from the 2007 and 2008 auger testing program and the 1978 DOGAMI drill data. In 2009, trenching was conducted to obtain more accurate geological profiles and increase the knowledge in the resources.

18.2 RESOURCE CATEGORY DEFINITIONS

18.2.1 Measured Mineral Resource

As defined by the CIM:

A Measured Mineral Resource is the part of a mineral resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.

18.2.2 Indicate Mineral Resource

As defined by the CIM:

An Indicated Mineral Resource is the part of a mineral resource for which, quantity, grade or quality, densities, shape, and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.

18.2.3 Inferred Mineral Resource

As defined by the CIM:

An Inferred Mineral Resource is the part of a mineral resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity.

The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

18.3 DEFINITION OF RESERVE CATEGORIES

18.3.1 Proven Mineral Reserve

As defined by the CIM:

Proven Mineral Reserve is the economically minable part of a Measured Mineral Resource demonstrated by at least a Preliminary Feasibility Study. This study must include adequate information on mining, processing, metallurgical, economic, and other relevant factors that demonstrate, at the time of reporting, that economic extraction is justified.

18.3.2 Probable Mineral Reserve

As defined by the CIM:

Probable Mineral Reserve is the economically minable part of an Indicated, and in some circumstances, a Measured Mineral Resource, demonstrated by at least a Preliminary Feasibility Study. This study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.

18.4 MINERAL RESOURCE

Nickel resources were estimated using cut-offs of 0.7 and 0.8% Ni. These cut-offs were selected to obtain an average grade as close as possible to 1 % Ni. Data analysis indicates cobalt, chrome and iron as potential sub-products but the actual resource estimate does not include these elements.

The resources were divided into two groups, soil and rock. The grade of the soil is primarily calculated using the auger drilling and the grade of the rock is calculated using the trenching information. The volume of both groups was based on the proportions measured from the trenches.

The measured resource was calculated using a geostatistical model using block kriging estimates of the soil and the half distance method for the trenching information. The measured area was divided into nine (9) resources blocks with one trench per block. The boundary between the blocks was located halfway between the trenches. The blocks are illustrated in map 5.

The indicated and inferred resources were calculated using a geostatistical model and block kriging estimates. The volumes and grades for the rock fraction were based on the results from the trenches. Indicated resources are assumed under the measured zone to a depth of 20 ft. An additional inferred extension from 20 to 40 ft is applied to resources blocks 1, 7, 8 and 9; where it is assumed that the deposit thickness increases due to possible slumping and sliding (see Map 4 in Appendix A).

The depth used in calculating the inferred resource is supported by the fact that most of the holes were not refused by bedrock, and that there is strong geological evidence that mineralization increases with depth and culminates just above the surface of the bedrock (Hotz, 1964; Hundhausen et al., 1954; Gleeson et al., 2004; etc.). Table 18.1 presents the statistical parameters for 483 of the 748 auger holes performed by LLR. Table 18.2 shows the average depth and grade of auger hole data for two cut-offs. Table 17.3 present the statistical parameters of the corestone fraction, for both the mineralized on non-mineralized corestone fractions.

Table 18. 1 - Statistical information of auger hole population included in the 0.7% Ni cut-off resource (nb of sample =483)

Parameter	Average	Standard deviation	Minimum	Maximum
Ni (%)	1.03	0.25	0.70	2.10
Co (%)	0.06	0.03	0.02	0.27
Cr (%)	1.19	0.44	0.34	3.47
Fe (%)	28.74	7.16	9.32	47.10
Mg (%)	8.16	3.52	0.63	26.20
Borehole depth (ft)	7.64	3.45	3.00	23.00

Table 18. 2 - Average depth and grade of auger hole data by cut-off

Cut-Off	Average depth	Ni (%)	Co (%)	Cr (%)	Fe (%)	Mg (%)	nb of sample
0.7	7.64	1.03	0.06	1.19	28.74	8.16	483
0.8	7.98	1.09	0.07	1.20	28.93	8.10	400

Table 18.3 presents the resource estimates. In table 18.3, the block kriging average grade differs from the borehole results in table 18.2. This is due to the weighting effect of kriging in a 2D plane, in relation with borehole locations and Ni grades on the extrapolated blocks. Block-by-block kriging results and a breakdown of the calculation and hypothesis for the depth extension are included in Appendices C and H respectively.

**Table 18. 3 - Summary of the resources estimation results
in US tons calculated on a dry basis**

Cut-off Ni (%)	Type	Measured Tons (*1000) Ni (%)	Indicated Tons (*1000) Ni (%)	Inferred Tons (*1000) Ni (%)	Total Inferred Tons (*1000) Ni (%)
0.7	Soil	3,342 1.07	9,569 0.96	12,320 0.97	25,231 0.98
	Rock	1,913 0.83	4,979 0.84	7,351 0.84	14,243 0.84
	Total	5,255 0.98	14,548 0.92	19,671 0.92	39,473 0.93
0.8	Soil	3,342 1.07	7,365 1.03	6,993 1.01	17,700 1.03
	Rock	1,572 0.85	3,605 0.84	3,248 0.84	8,424 0.84
	Total	4,914 1.00	10,970 0.97	14,321 0.97	30,205 0.97

As a first step, the volume of each fraction (rock and soil) of the resource was calculated. Then the volume of each fraction was transformed into a tonnage by multiplying the volume by the weighed dry density average of the material. Density measurements were done on limonite/saprolite soil samples and corestone samples.

18.4.1 Bulk Density

The Dry Bulk Density was measured on 14 in-place 1 ft³ soil samples. In situ dry bulk density values are important to evaluate the available bulk dry resource tonnage that can be associated with a metal weight percentage measured on dry samples. Laterites are composed of two different density materials, a limonitic/saprolitic porous clay with low dry density and corestones and saprolite bedrock which consists of heavy ultramafic rocks with higher density. The 2009 trenching allowed RFN to sample and measure the density of the corestones and the percentage of corestone in the resource.

Fourteen (14) large soil samples of approximately 1 ft³ in volume were collected by LLR who carefully measured the volume and the wet and dry weights. Figure 18.1 outlines the procedures used to collect and measure these samples.

Results of in-place soil density tests are presented in table 18.4. The location of the soil density samples are illustrated on Map 1, in Appendix A. The average dry bulk density, as listed in table 18.4, is 0.76 g/cm³, which is approximately 47.5 lbs/pi³.

The literature reports limonitic/saprolitic clay density varies from 0.5 to 2 g/cm³, with average values around 1.0 (Golightly, 2005; Gleeson et al., 2004; see Appendix G).

Gleeson et al. (2004) have reported density values from the Eight Dollar Mountain Deposit in Oregon.

LLR collected 16 rock samples of fist size for density measurements. Results of rock density tests are presented on table 18.5. The average dry bulk density of samples listed in table 18.5 is 2.55 g/cm³, which is about 159 lbs/pi³.

**Table 18. 4 – In place large scale density measurements
on lominitic/saprolitic clay material**

Sample no.	Depth (ft)	Location		Bulk Wet Density (g/cm ³)	Bulk Dry Density (g/cm ³)	Moisture Content (%)	Nickel (%)
		X	Y				
2008-1	1	3991928	145238	1.44	0.86	40.33	-
2008-2	1	3993019	149751	1.54	1.04	31.99	-
2008-3	1	3993173	153209	1.33	0.75	43.82	-
2009-1	4	3991890	145573	1.31	0.69	47.38	1.06
2009-1	7.5	3991890	145573	1.27	0.61	52.23	1.38
2009-2	4	3993387	148637	1.21	0.64	47.35	1.41
2009-2	8	3993387	148637	1.36	0.78	43.33	1.29
2009-3	4	3992165	151847	1.27	0.78	38.66	0.93
2009-3	8	3992165	151847	1.51	0.94	38.21	0.94
2009-4	4	3993094	153697	1.20	0.68	43.14	1.47
2009-4	8	3993094	153697	1.21	0.62	48.85	1.61
2009-4	12	3993094	153697	1.26	0.62	51.17	1.61
2009-5	4	3994101	152137	1.20	0.72	40.01	0.94
2009-5	8	3994101	152137	1.40	0.93	33.93	1.09
Average				1.32	0.76	42.89	1.25

The average, as presented in table 18.4, is 0.76 g/cm³ (± 47.45 lbs/ft³), which is the value used in estimating the resource volumes.

Table 18. 5 - Rock density measurements results

Sample no.	Bulk Dry Density (g/cm³)	Weight (lb/ft³)
1	2.53	157.76
2	2.31	144.35
3	2.72	169.61
4	2.75	171.64
5	2.42	150.81
6	2.52	157.03
7	2.47	153.99
8	2.80	174.80
9	2.73	170.49
10	2.48	154.93
11	2.51	156.51
12	2.91	181.70
13	2.39	149.12
14	2.58	161.02
15	2.42	151.00
16	2.28	142.26
Average	2.55	159.19

The average rock density, as presented in table 18.5, is 2.55 g/cm³ ($\pm$ 159 lbs/ft³), which is the value used in estimating the resource volumes.

18.4.2 Methods Used in the Resources Estimations

The measured resources were calculated using the conventional tributary area method. Measured resources were divided into blocks with a minimum of one trench per block. The depth of the blocks was set to 8 ft, which corresponds to the average auger drill hole depth in the measured zone. The nickel grade for the soil fraction was based on results from the Auger drilling and the trenching. The nickel grade for the rock fraction was estimated using the results from the trenches.

For the indicated and inferred resources, the rock percentage and the rock mineralization were assumed based on the measured resource results. Hence, 30 % of the volume of the indicated and inferred resource was assumed to be composed of rock. Therefore, the total resource volume was divided into three types of material: soil, waste rock and resource rock as in table 18.6.

Table 18. 6 – Volume fraction and indicated and inferred resource assumptions

Fraction	(%)	Type of material	(%)
Rock	30	Waste	22
		Resource	8
Soil	70	Resource	70

Eight per cent of the rock volume is mineralized, and the other 22 % is considered waste material because it has less the 0.7 % Ni. The nickel grade of the rock fraction is assumed to be the same as the grade for the soil fraction. Thus, when the soil grade is below cut-off, the rock grade will also be below cut-off.

The nickel grade of the soil fraction was calculated using the kriging method, which is a geostatistical method (Journel and Huijbregts, 1991). A block size of 300 ft x 300 ft was defined over the property. This block size was chosen because it fit the claim (600 ft x 1,500 ft) dimensions so as to have at least one hole in each block and because it is well under the variogram range of 1,100 ft (see table 18.6 and figure 18.5).

All boreholes were used to estimate the Ni grade and depth of the each block. Statistical analysis of the data includes frequency distribution analysis and variogram definition. Kriging was used to define the nickel grade of each block and auger holes within the respective block were used to estimate the depth of each block.

The geostatistical method provides two parameters for each block, the Ni grade and a confidence of the estimate. The confidence estimate is given in the form of a variance and it provides a guideline in the resource type classification. The detailed results of the block kriging are included in Appendix C. Detailed resources calculations are presented in Appendix H. The software used was GS+ ver. 9.0 developed by Gamma Design Software, LLC. Figures 18.2 and 18.3 present the histograms of Ni and Co respectively.

The theoretical variogram parameters used for the kriging are shown in table 17.7. The variogram is isotropic. It can be observed that the range for the Ni value is 1,100 ft which is 3.5 times the sampling spacing of 300 ft. The variogram was calculated for weighted Ni of holes and the graphs corresponding to this variogram are presented in figure 18.4.

Table 18. 7 - Variograms parameters for Ni borehole values

Parameter	Variogram type	Nugget effect	Sill	Range (ft)
Ni (%)	spherical	0.03 % ²	0.07 % ²	1,100

18.4.3 Measured Resources

The measured resource is limited to the area where corestone information is available from the trenches. The measured resource area is located on the northeastern portion of the property, where the corestones were sampled and assayed. The measured resource was divided into the 9 blocks presented on map 4. The percentage of soil and rock for each block was calculated using tables 12.1, 12.2, 18.8 and 18.9 corestone and rock observations. The volume of each block was calculated with the block area multiplied by the assumed thickness of 8 ft. The block volume was thus separated into soil and rock parts. Tables 18.8 and 18.9 present the summary of measured block parameters.

Table 18.8 presents the percentage of corestone, the percentage of mineralized corestone, and the calculated average nickel grade of corestone. The grade of the corestone was calculated with the following model.

The corestone was assumed to be a sphere with average diameter of 1.5 ft. Each corestone is composed of a fresh center and an altered rind that surround the fresh center. The average rind thickness is assumed to be 3/8 in. Thus using the following equation for the volume of a sphere:

$$V = \frac{4}{3}\pi(r_1^3 - r_2^3) \quad (17.1)$$

With r_1 being the radius of the outside of the sphere (including the rind) and r_2 being the radius of the inside of the fresh rock sphere (excluding the rind). The calculation results in 90 % of the corestone volume being composed of fresh core and 10 % of the volume being composed of altered rind. Those average volume proportions, together with the average nickel concentrations of both the fresh rock and the rind, enabled the calculation of a weighted average corestone nickel grade for each resource block (see table 18.9).

Table 18. 8 – Summary of measured resources block parameters

Resource Block no.	Average Auger hole depth (ft)	Average Auger hole nickel (%)	Number of Auger holes	Resource block area (ft ²)	Trench no.	Estimated percentage of corestone (%)	Percentage of corestone with mineralization ¹ (%)	Nickel grade of corestone ² (%)
1	8.27	1.11	23	2,399,195	T-06	15	100.0	0.80
2	7.30	1.00	42	2,730,645	T-04	20	3.0	1.35
3	7.07	1.00	41	3,514,454	T-03	35	9.7	0.71
4	8.43	0.86	27	2,860,188	T-09	5	1.7	0.70
5	8.01	1.03	36	2,338,327	T-08	40	10.0	0.84
6	9.30	1.07	35	1,904,948	T-02	45	5.7	0.86
7	9.49	1.05	82	2,685,201	T-10	60	15.9	0.73
8	6.86	1.25	36	3,799,234	T-07	15	25.3	0.75
9	6.98	1.27	41	4,431,424	T-05	50	100.0	0.85
	7.97					32		

1 Cut-off of 0.7 % nickel

2 Corestone and rind (see table 17.9)

Table 18. 9 - Corestone and rind proportion and grade

Resource block no.	Average corestone grade (% Ni)	Percentage of mineralized corestone (%)	Average rind grade (% Ni)	Percentage of mineralized rind (%)	Waste fraction (%)	Mineralized corestone fraction (%)	Weighted average corestone grade (% Ni)
1	0.76	100	1.17	100	0	100	0.80
2	< 0.70	0	1.35	30	97	3	1.35
3	0.71	8	0.74	25	90.3	9.7	0.71
4	< 0.70	0	0.68	17	98.3	1.7	0.7
5	< 0.70	0	0.84	100	90	10	0.84
6	< 0.70	0	0.86	57	94.3	5.7	0.86
7	0.70	14	1	33	84.1	15.9	0.73
8	0.74	17	0.84	100	74.7	25.3	0.75
9	0.85	100	0.85	100	0	100	0.85

1 90% of corestone and 10% rind by volume (see equation 17.1)

18.4.4 Indicated Resources

Part of the indicated resource was assumed to be underneath the measured area (down to a depth of 20 ft). Thus, the 9 resource blocks were extended down using the same nickel grade as the block above. Outside the measured area, the indicated resource was estimated using block kriging only. Each block had a Ni grade based on the variogram and block kriging estimates. The volume of each block was calculated with the following equation:

- Block volume = 300 ft x 300 ft x 12 ft depth.

- The block indicated resource volume proportions were taken from table 18.6.

The total resource is the sum of all the blocks with a grade greater than the cut-off grade.

18.4.5 Inferred Resources

Part of the inferred resource was assumed in the measured area. This inferred portion was underneath the indicated area, from 20 ft to a maximum depth of 40 ft for blocks 1, 7, 8 and 9 (only where increased thickness of the deposit by sliding and slumping is assumed). Subsequently, the 4 resource blocks were extended down using the same nickel grade as the block above. Outside the measured resources area, inferred resources are assumed to be present below the indicated resource for depths up to 15 ft. Nickel grade for the inferred resource is assumed to be the same that of the upper part. This assumption is considered conservative because the available information seems to indicate enriched nickel in the lower part of the deposit.

19. OTHER PERTINENT DATA AND INFORMATION

There is no other pertinent data.

20. INTERPRETATION AND CONCLUSIONS

1. Garnierite group mineral concentration was discovered within corestones during the 2009 trenching program. Garnierite accumulation seems to be present underneath high grade soil (> 1 % Ni). This is the first time Garnierite group minerals are identified on the Cleopatra property. One grab Garnierite chip sample assayed up to 4.1 % Ni.
2. The resources were divided into two groups, the soil resource and the rock resource.
3. Measured resources were estimated using trench information. Measured resources include soil and rock fractions established according to the closest trench. Measured resources have known depth and density parameters. The measured resource covers 615 acres with an average measured depth of 8 ft and the measured area is inferred down to 40 ft.
4. Indicated and inferred resources outside the measured area were estimated using realistic assumptions of 70 % soil and 30 % rock fraction. Twenty eight percent (28%) of the rock fraction volume is mineralized and the other rock part (72%) is considered waste.
5. Variogram results showed that the Ni (%) grade in soils has a range of 1,100 ft and that the sample grid spacing of 300 ft was adequate.
6. The deposit shows a strong horizontal continuity and historical DOGAMI holes correlate well with the 2007, 2008 and 2009 results.
7. In 2009, ten auger drill holes were completed in the measured resource area, seven of them reached depths greater than 20 ft, and one reached 30 ft.
8. The limited penetration capacity of the auger drilling and manually dug trenches limited the depth investigation (8 ft to 12 ft). The depth of the deposit has yet to be determined.
9. Verifications performed by AJR show very good agreement with LLR data both geologically and chemically.
10. There is an accumulation in the northeast that represents the heart of the deposit. It covers 949 acres and the deepest auger hole reached 30 ft and the area averages 1.12 % Ni.

11. The deposit assumed thickness in the report varies from 15 ft to 40ft, in the northeast slope. According with Ramp (1978) some of the slumping/sliding area might extend down to 50 ft.
12. The nickel grade should increase with depth, especially in the rich measured area where garnierite group minerals were concentrated within corestones and bedrock.

21. RECOMMENDATIONS

With priority to deep sonic drilling, the recommendations are as follows:

1. To perform extensive a seismic geophysical survey on the measured area;
2. To perform a 1000 ft x 1000 ft grid deep drilling program in the measured area to establish the depth of the deposit;
3. To perform more weight analysis on the corestone and soils;
4. To conduct the auger testing program to complete the 300 ft x 300 ft. grid;
5. To develop a mining scenario adapted to the geometry of the deposit;
6. To realize required pre-feasibility and feasibility studies.

22. REFERENCES

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23. SIGNATURE PAGE

NI 43-101 evaluation of the mining potential of Cleopatra nickel/cobalt property

Prepared for:

Red Flat Nickel Corp.
888 SW Fifth Avenue, Suite 300
Portland, OR
97204-2089


André J. Rancourt, Eng., M.A.Sc.


AJR Geoconsulting Inc.

129, Brais

St-Jean, Québec

Canada, J3B 7W4

**24. SUPPLEMENTARY RULES FOR TECHNICAL REPORTS ON PROPERTIES
AT THE DEVELOPMENT STAGE AND PROPERTIES IN PRODUCTION**

Currently, the property is only at the exploration stage.

25. PERMIT MAP

Map 01 is attached as Appendix A.

26. CERTIFICATE OF AUTHOR AND CONSENT

I, André J. Rancourt, of St-Jean (Québec), Canada, certifies that:

1. I am a geological engineer, president of AJR Geoconsulting Inc., I reside at 129 Brais, St-Jean (Québec) Canada, J3B 7W4.
2. I graduated from École Polytechnique de Montréal in geological engineering (coop program) in 1993 and I have received my master in mining in 1996.
3. I am a member of the *Ordre des Ingénieurs du Québec*. Licence No. 112457.
4. I have worked since 1993 as project engineer for several mining, civil and hydro-electric projects around the world.
5. I have read the definition of qualified persons as defined in Regulation 43-101 (NI-43-101). I certify that, given my education, my experience and the nature of the mining project covered by this report, I have the technical capacity required by NI 43-101.
6. I am responsible for the preparation of the technical report entitled *Evaluation of the Mining Potential of the Cleopatra Nickel/Cobalt Property, Curry County, Oregon, U.S.A.*, dated November, 2009.
7. I hereby certify that I had no interest in Red Flat Nickel Corp. or the Cleopatra property on the date this report was produced, and that I meet the criteria for independence as defined in Section 1.4 of NI 43-101.
8. I attest that, to the best of my knowledge, the report contains all the scientific and technical information that is required to be disclosed so as not to make it misleading.
9. I have read NI 43-101, and the technical report has been prepared in compliance with the instrument.
10. I, André J. Rancourt, consent to the publication of the technical report *Evaluation of the Cleopatra Ni/Co Property Mining Potential, Curry County, Oregon, U.S.A.* and to the inclusion of extracts or a summary of the report of the written information to be filed in 2010, by Red Flat Nickel Corp., and to the publication of the technical report and the filing of the report with the securities regulatory authorities.

RED FLAT NICKEL CORP.

**Evaluation of the Cleopatra Ni/Co Property Mining Potential,
Curry County, Oregon, U.S.A.**

NI 43-101 TECHNICAL REPORT

26. Certificate of Author and Consent

11. I, André J. Rancourt, undertake to review the written information to be filed in 2010 by Red Flat Nickel Corp., and to ensure that it accurately reflects the information contained in this technical report.

Signed in St-Jean on November 23, 2009



André J. Rancourt, Eng., M.A.Sc.

27. ILLUSTRATIONS



Figure 4. 1 - Typical corner claim post



Figure 4. 2 - Typical claim post with a bottle containing the Notice of Location



Figure 5. 1 - Typical vegetation on the property



Figure 8. 1 - Typical iron oxide gravel cover called 'kanga'



Figure 8. 2 - Typical corestone cover



Figure 8. 3 - Bedrock outcropping in the central part of the property



Figure 8. 4 - Road cut in possible sliding material near the southern part of the property

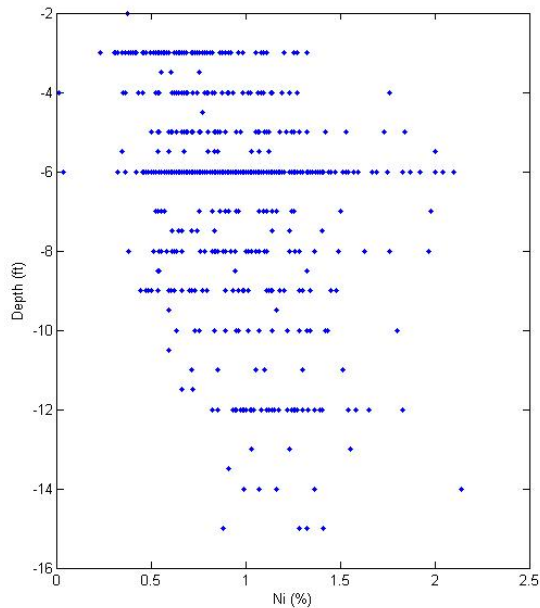


Figure 8. 5 - Variation of Ni versus depth from Auger holes

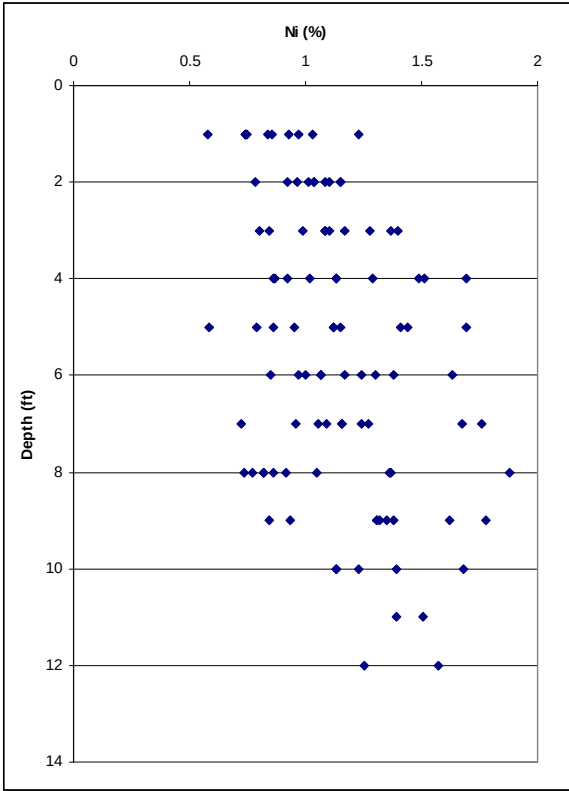


Figure 8. 6 - Variation of Ni versus depth from trenches

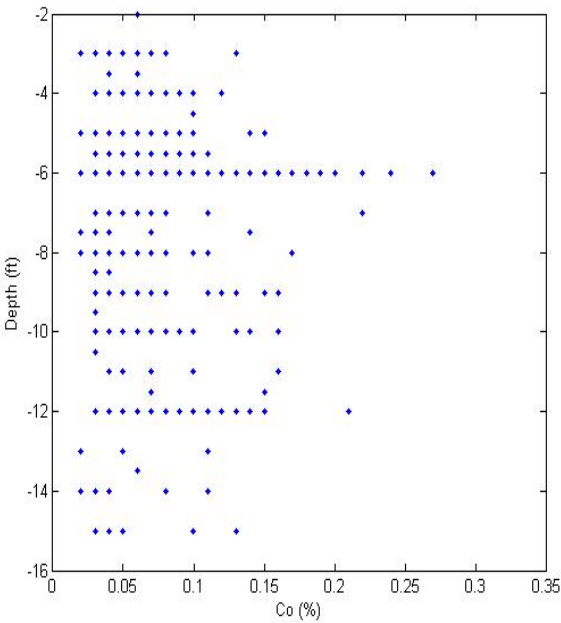


Figure 8. 7 - Variation of Co versus depth

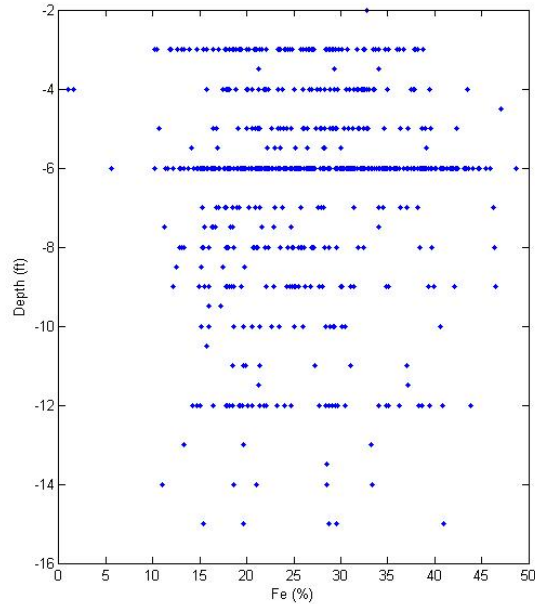


Figure 8. 8 - Variation of Fe versus depth

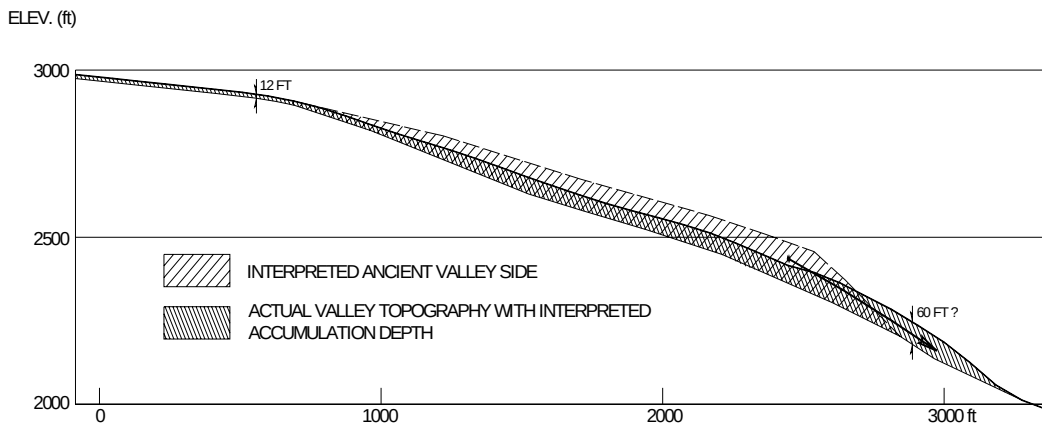


Figure 8. 9 - Typical cross-section of the slumping/sliding accumulation area (based on Ramp, 1978)



Figure 9. 1 - Typical Garnierite filling in corestone, Trench no. 2

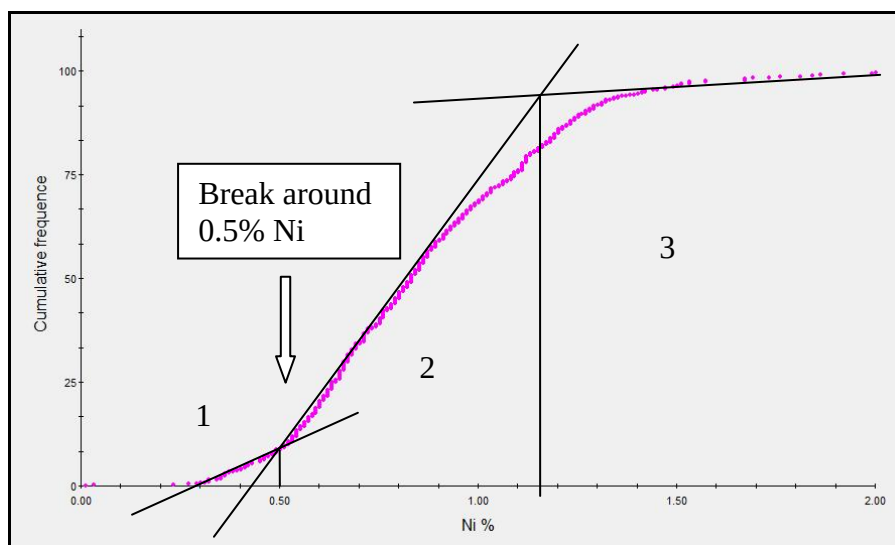


Figure 9. 2 - Cumulate frequency of the samples Ni grad



Figure 9. 3 - Typical light and porous saprolite, Trench no. 3



Figure 11. 1 - Drilling operation – Photo 1



Figure 11. 2 - Drilling operation – Photo 2



Figure 12. 1 – Trench no.1



Figure 12. 2 – Trench no.2



Figure 12. 3 – Trench no.3

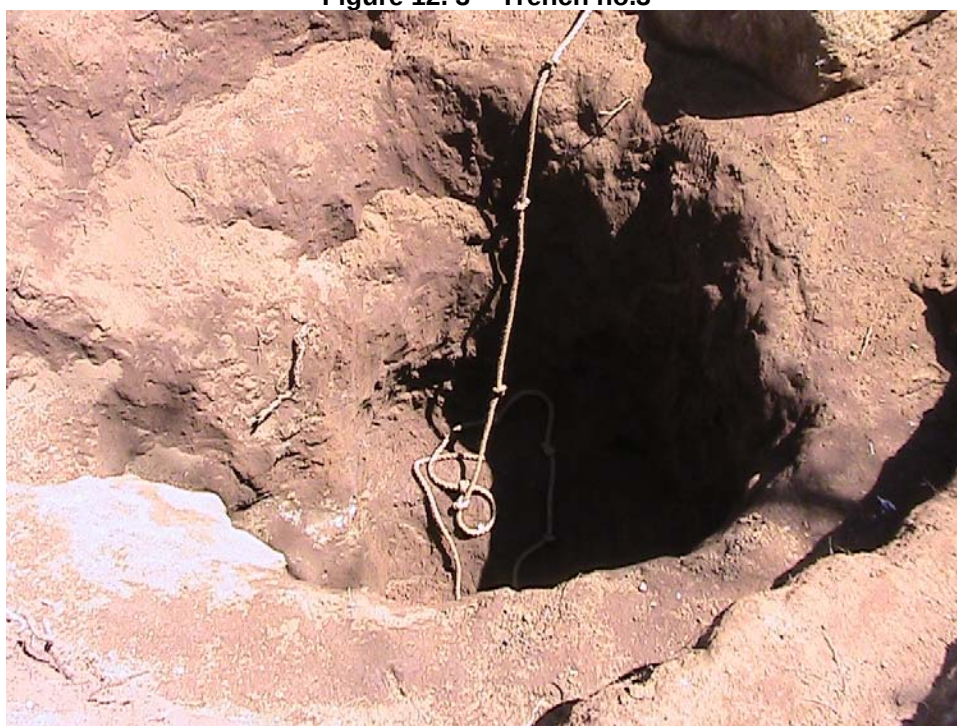


Figure 12. 4 – Trench no.4



Figure 12. 5 – Trench no.5



Figure 12. 6 – Trench no.6



Figure 12. 7 - Trench no.7



Figure 12. 8 - Trench no.8



Figure 12. 9 - Trench no.9



Figure 12. 10 - Trench no.10



Figure 13. 1 - Typical 6 feet sample



Figure 13. 2 - Systematic rod cleaning between sampling runs

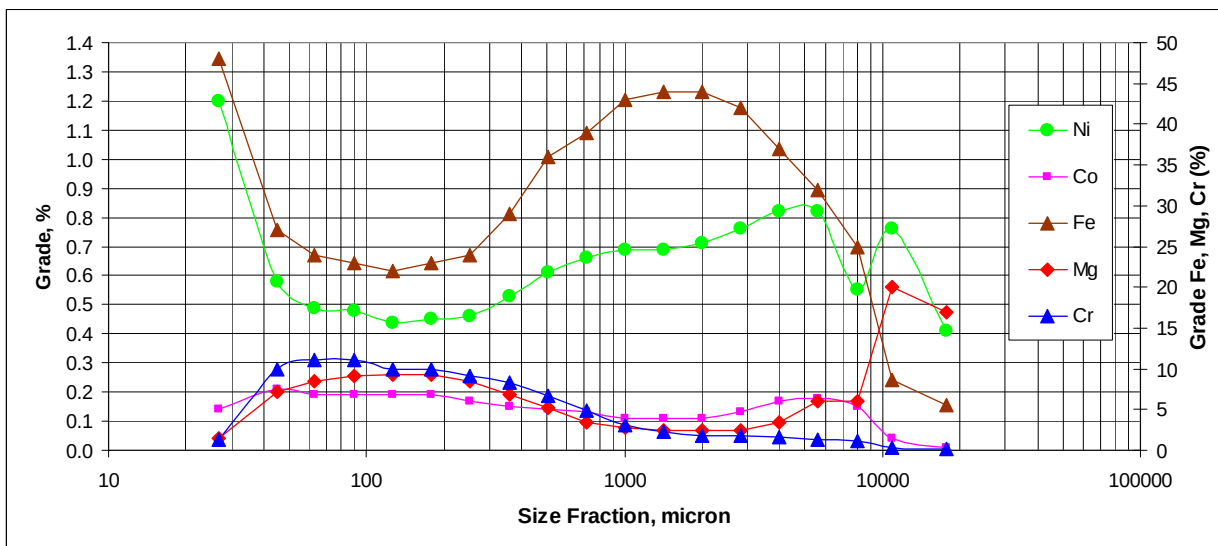


Figure 17. 1 – Assay results according with grain size for the limonite composite sample

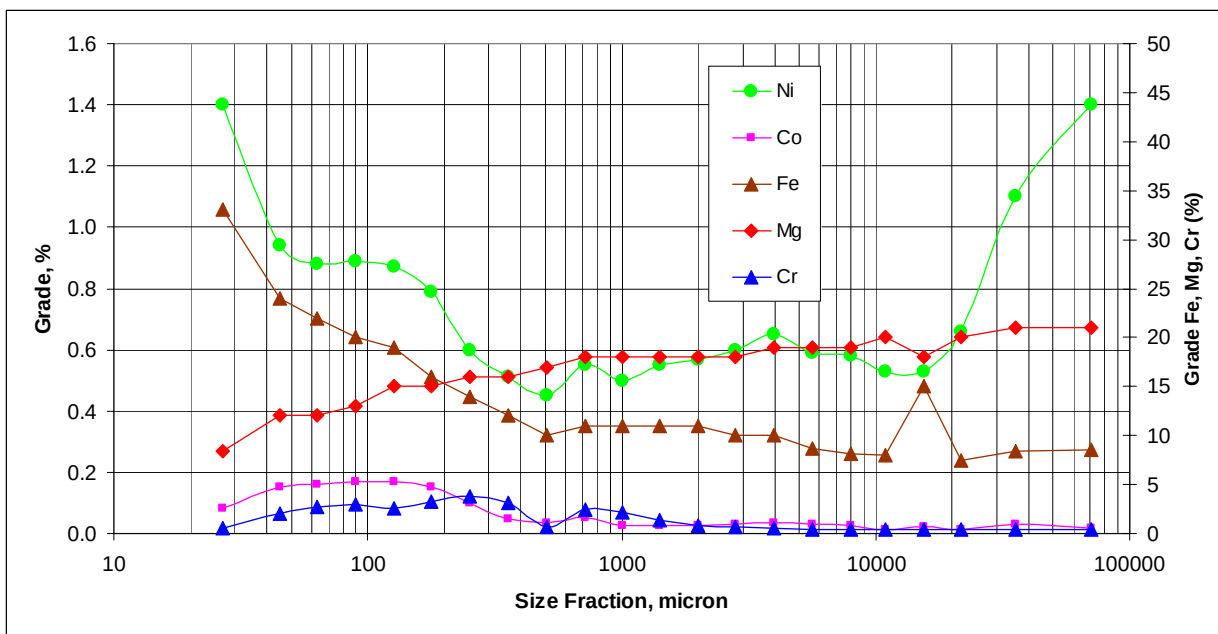


Figure 17. 2 – Assay results according with grain size for the saprolite composite sample

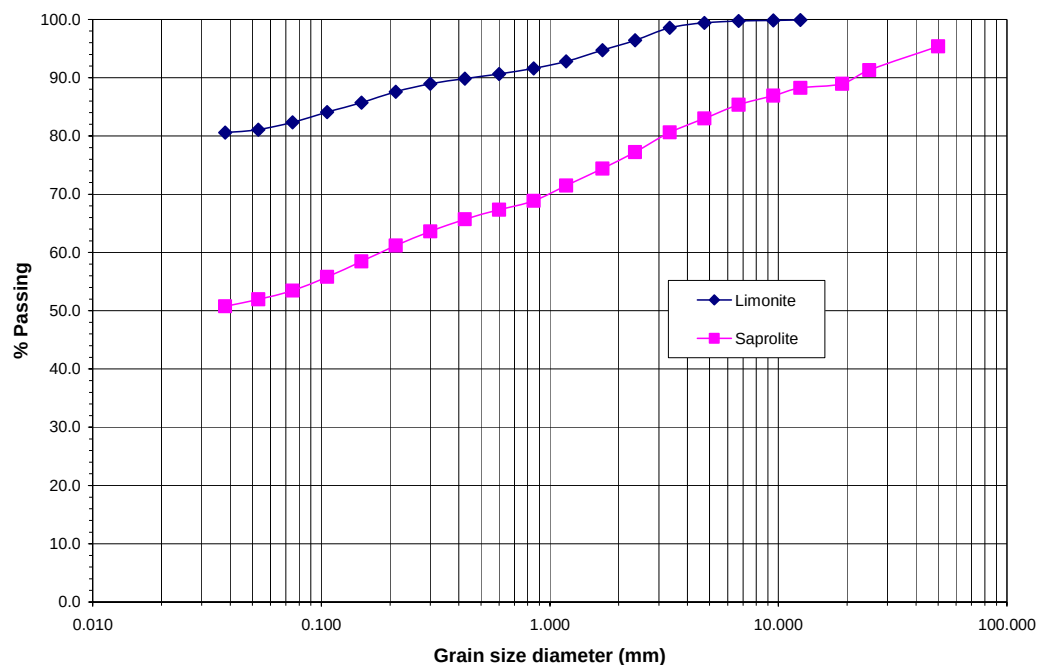
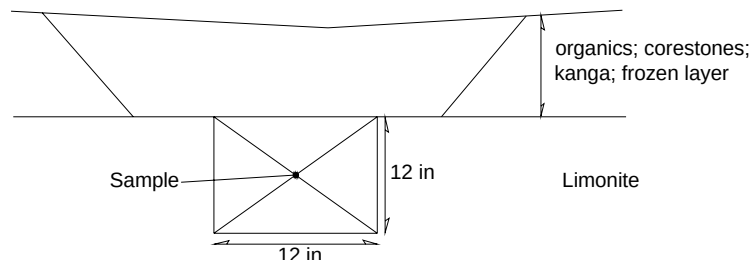


Figure 17. 3 – Cumulative frequency of the different grain size for the limonite and the saprolite fraction



Notes :

Procedure for in place density test

1. Remove the organic cover layer
2. Prepare an horizontal surface
3. Excavate a hole of approximately 12 in X 12 in
4. Carefully sample all the excavated material
5. Measure the exact volume of the hole with pre-measured volume of sand
6. Weight the wet sample (in place density)
7. Oven dry the sample
8. Weight the dry sample (in place dry density)

Figure 18. 1 - In place density sampling procedure

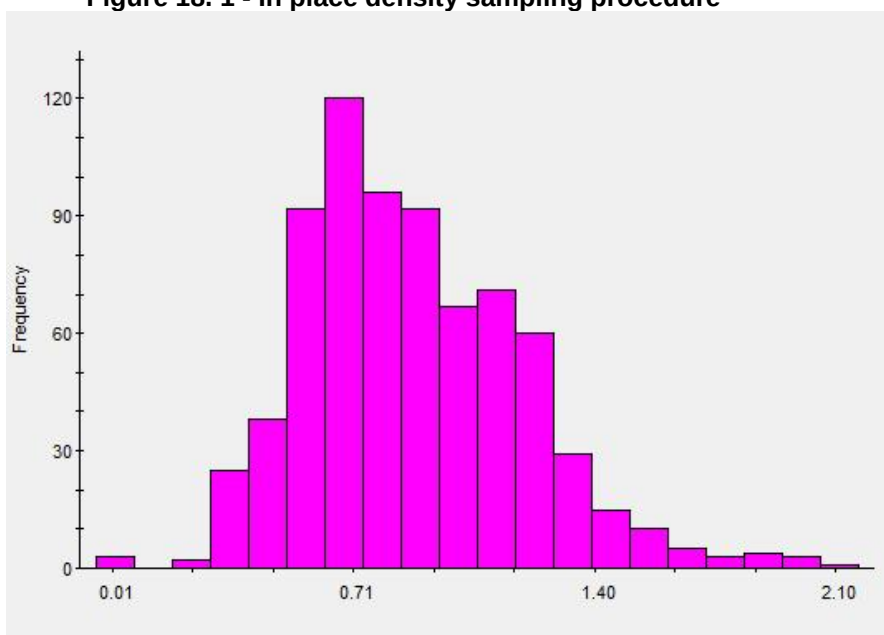


Figure 18. 2 - Histogram of Ni (%)

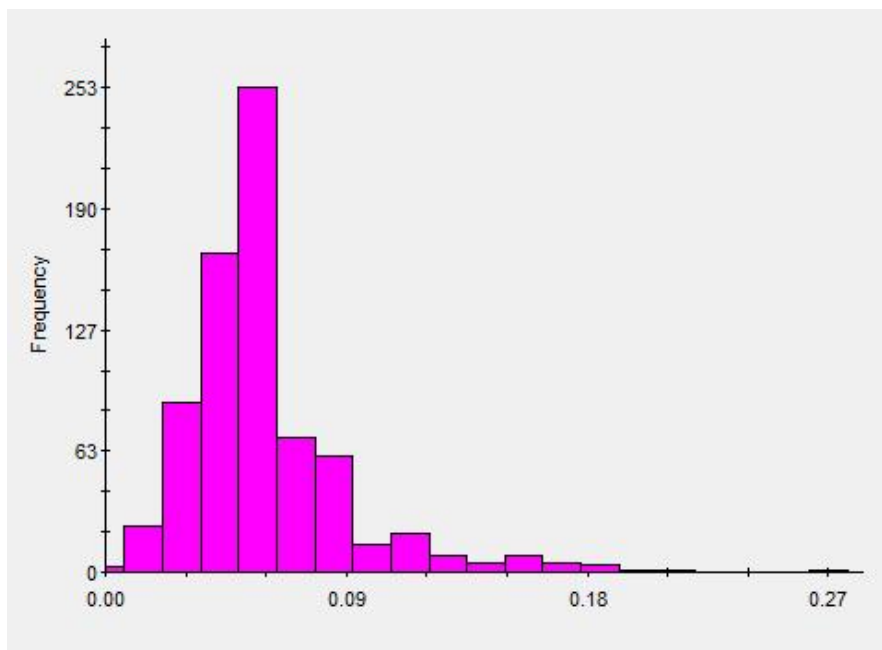
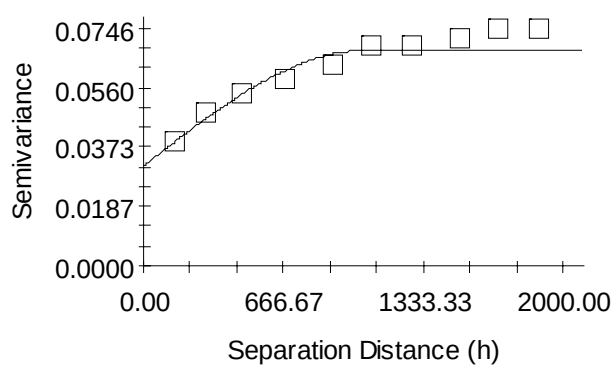


Figure 18. 3 - Histogram of Co

ni: Isotropic Variogram

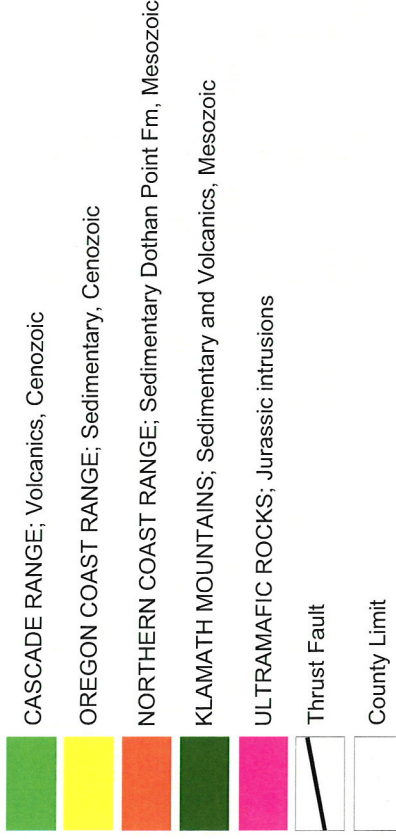


Spherical model (Co = 0.03142; Co + C = 0.06774; Ao = 1055.85; r2 = 0.925;
 RSS = 1.304E-04)

Figure 18. 4 - Variogram of Ni

APPENDIX A

MAPS

[illegible]

AJR Geoconsulting inc.
129 Bras
St-Jean-sur-Richelieu (Quebec) Canada J3B-7W4
phone: (450) 524-2670
ajrgeo@videotron.ca

Geotechnical and Mining Consultants

DRAWN ANDRÉ J. RANCOURT

PROJECTED ANDRÉ J. RANCOURT

APPROVED

1. Introduction

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André-J. Rancourt

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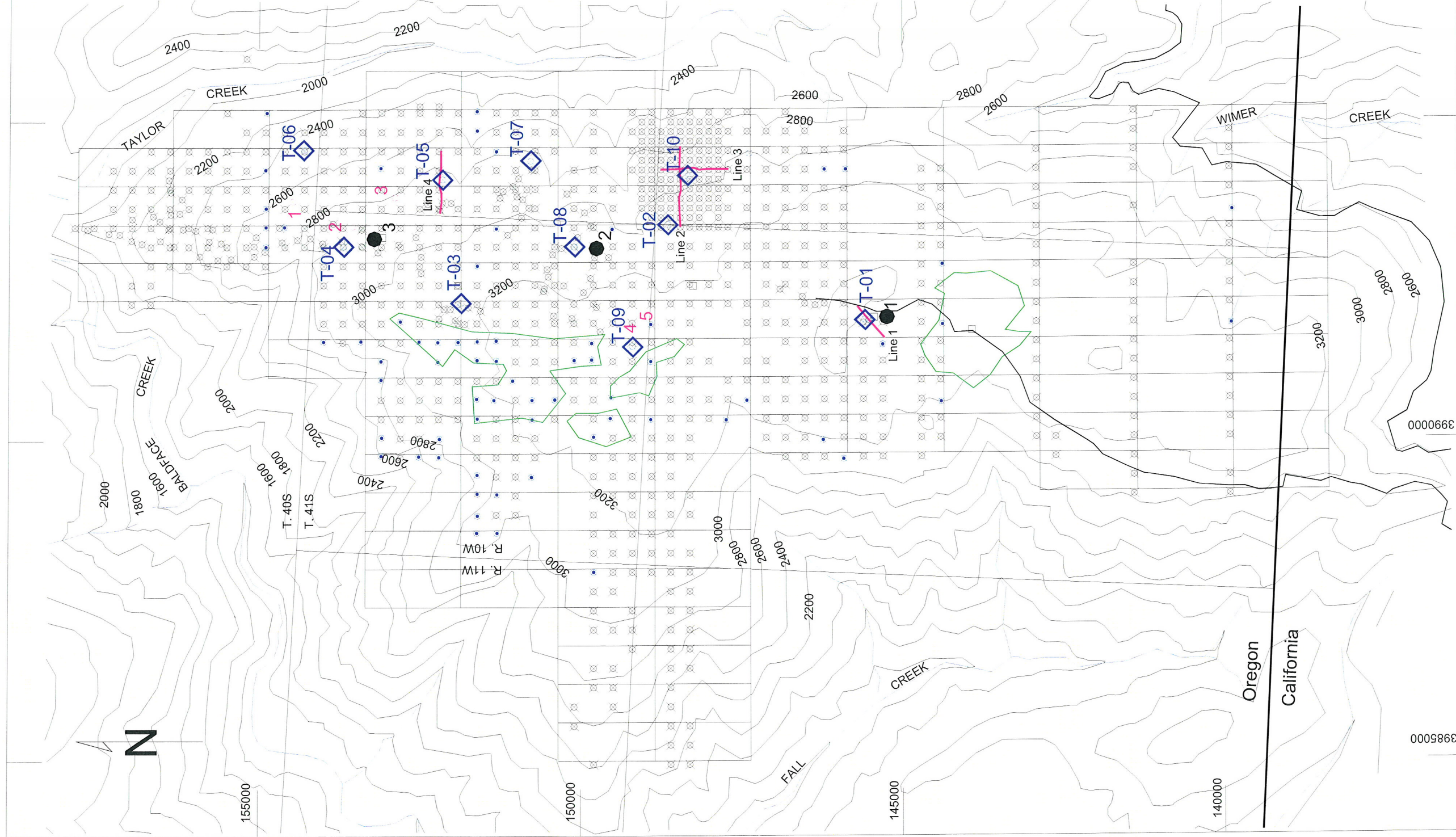
CLEOPATRA NICKEL/CO

REGIONAL COUNCIL

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LEGEND

- TOPOGRAPHIC CONTOUR (200 ft)
- WATER STREAM
- ROAD (4 X 4)
- LOCAL GRID
- STATE PLANE GRID
- T. 41S
- DENSITY SAMPLE LOCATION
- SISMIC REFRACTION LINE
- AUGER HOLE
- REFUSAL
- AIR AUGER HOLE
- DOGAMI DRILL HOLE (Ramp, 1978)
- TRENCH 2009
- OUTCROP AREA

NOTES	
1	STATE PLANE, OREGON SOUTH, T15S, R10W, M43
2	UNIT IN FEET
3	GRID OF LOCAL GRID X=398902.85 Y=47244.92

REVISIONS	
NO	DATE
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REFERENCES	
1	OREGON COUNTY 7.5 QUADRANGLE BESSIE HILL, OR
2	OREGON COUNTY 7.5 QUADRANGLE HIGH PLATEAU MNT, CA
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Red Flat Nickel Corp.
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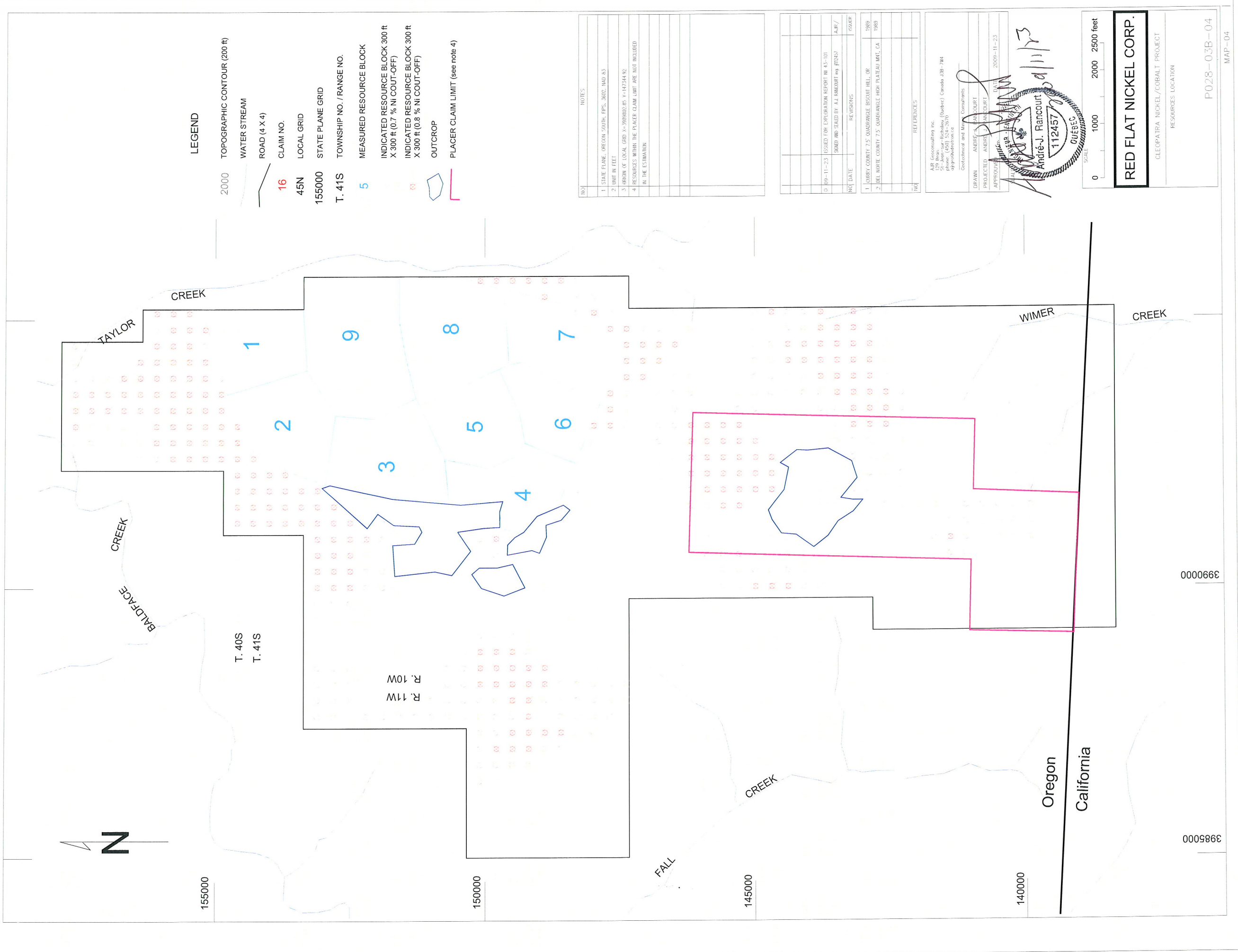
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RED FLAT NICKEL CORP.

CLEOPATRA NICKEL/COBALT PROJECT
DRILL HOLE LOCATION
EXPLORATION WORKS

P028-03B-03

MAP-03



APPENDIX B

DRILL AND TRENCH LOGS AND ADDITIONNAL PHOTOGRAPHS

Cleopatra Drilling Matrix									
Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
105N	18E	157897	3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346	4.0	1.180	0.026	0.337	13.250	16.550
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
102N	18E	157597	3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346	3.0	0.734	0.053	1.110	28.300	6.600
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
99N	18E	157297	3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346	6.0	0.830	0.063	1.060	36.300	5.380
				10.0	0.548	0.029	0.529	15.600	14.850
	33E		3993646	3.5	0.700	0.041	2.520	22.400	11.350
	36E		3993946	6.0	0.707	0.041	1.360	24.500	10.200
				7.0	0.565	0.031	1.290	19.900	12.850
	39E		3994246	6.0	0.656	0.034	1.030	21.400	11.850
	42E		3994546						
96N	18E	156997	3992146	5.0	0.631	0.058	1.300	30.800	5.760
	21E		3992446	3.5	0.433	0.037	0.806	19.500	12.850
	24E		3992746						
	27E		3993046						
	30E		3993346	6.0	1.145	0.070	1.890	37.500	5.110
				7.0	1.110	0.072	1.790	37.400	5.180
	33E		3993646	6.0	0.935	0.064	1.530	31.800	5.430
				11.0	1.040	0.036	0.650	18.850	11.000

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	36E		3993946	6.0	0.891	0.055	1.080	30.100	5.920
				12.0	0.805	0.037	0.684	20.600	10.650
				13.0	0.784	0.029	0.444	16.200	14.200
	39E		3994246	3.0	0.493	0.044	2.260	30.500	7.640
	42E		3994546						
93N	18E	156697	3992146	5.0	0.414	0.039	1.100	19.900	10.950
	21E		3992446	6.0	0.958	0.038	0.689	21.200	12.100
	24E		3992746	5.0	0.721	0.039	0.915	19.400	13.500
	27E		3993046	6.0	0.786	0.174	1.330	40.200	4.550
				10.0	0.409	0.046	0.476	14.050	18.000
	30E		3993346	6.0	1.070	0.066	1.590	35.300	5.440
				11.0	1.290	0.055	0.844	25.700	10.050
	33E		3993646	6.0	1.300	0.092	2.200	42.500	2.430
				12.0	0.811	0.039	0.780	18.550	10.100
	36E		3993946	3.0	0.658	0.040	1.620	24.700	9.070
	39E		3994246	3.0	0.704	0.056	1.500	32.300	5.470
	42E		3994546	6.0	0.603	0.034	1.210	23.800	11.650
90N	18E	156397	3992146						
	21E		3992446						
	24E		3992746	3.0	0.710	0.057	3.470	34.700	4.830
	27E		3993046	6.0	0.610	0.030	0.432	15.000	11.500
				8.5	0.544	0.025	0.509	12.450	11.200
	30E		3993346	6.0	0.666	0.109	1.290	35.600	4.560
				8.0	0.758	0.097	1.400	32.400	6.610
	33E		3993646	6.0	1.300	0.034	0.947	19.250	9.600
				7.5	1.395	0.029	0.644	16.300	11.200
	36E		3993946	5.0	0.894	0.048	1.030	29.400	7.290
	39E		3994246	3.0	0.872	0.058	1.560	32.400	5.210
	42E		3994546	3.0	0.408	0.029	0.938	16.950	12.950
	45E		3994846						
	48E		3995146						
87N	18E	156097	3992146						
	21E		3992446						
	24E		3992746	6.0	0.775	0.031	0.639	18.050	13.000
	27E		3993046	6.0	0.687	0.030	0.667	17.150	12.500
	30E		3993346	6.0	1.200	0.070	1.620	38.600	3.420
	33E		3993646	6.0	1.450	0.028	0.448	15.500	12.450
	36E		3993946	6.0	0.949	0.024	0.480	16.500	14.200
	39E		3994246	6.0	1.120	0.036	0.674	21.600	9.500

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	42E		3994546	3.0	0.516	0.024	0.563	13.100	16.200
	45E		3994846						
	48E		3995146						
84N	18E	155797	3992146						
	21E		3992446						
	24E		3992746	5.5	1.025	0.037	0.812	23.000	9.980
	27E		3993046	5.0	1.105	0.040	0.966	20.900	9.170
	30E		3993346	6.0	0.707	0.031	0.637	17.600	13.950
				12.0	1.080	0.041	0.897	23.200	8.270
	33E		3993646	4.0	0.824	0.036	0.841	21.200	9.830
	36E		3993946	6.0	1.585	0.025	0.490	14.700	13.400
				10.0	1.795	0.031	0.673	18.550	12.500
	39E		3994246	6.0	1.400	0.033	0.574	18.600	11.800
				12.0	1.330	0.026	0.468	14.700	13.650
				13.0	1.225	0.024	0.394	13.350	12.300
	42E		3994546	6.0	1.260	0.038	0.656	19.250	11.400
				12.0	1.265	0.037	0.637	19.300	11.350
				14.0	1.065	0.020	0.338	10.950	15.700
	45E		3994846						
	48E		3995146						
81N	18E	155497	3992146						
	21E		3992446						
	24E		3992746	3.0	0.733	0.033	1.010	19.450	11.050
	27E		3993046	4.0	1.055	0.043	0.863	23.800	8.650
	30E		3993346	6.0	0.953	0.059	1.530	33.800	3.810
	33E		3993646	5.0	1.100	0.041	1.030	23.900	8.780
	36E		3993946	6.0	1.125	0.027	0.443	15.850	13.450
				9.0	1.115	0.027	0.486	15.500	13.300
	39E		3994246	3.0	0.591	0.041	1.590	30.100	5.420
	42E		3994546	6.0	0.772	0.027	0.556	14.850	14.050
				7.0	0.746	0.032	0.683	16.800	12.450
	45E		3994846						
	48E		3995146	4.0	1.130	0.060	0.967	27.500	6.940
78N	18E	155197	3992146						
	21E		3992446						
	24E		3992746	3.0	0.641	0.030	0.605	15.700	13.850
	27E		3993046	3.0	0.916	0.059	1.540	34.000	4.320
	30E		3993346	6.0	0.934	0.039	0.823	21.600	10.850
				7.5	0.829	0.030	0.601	16.650	14.700

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	33E		3993646	6.0	1.005	0.072	2.110	39.400	2.340
	36E		3993946	6.0	1.025	0.054	1.210	26.300	8.170
	39E		3994246	6.0	0.688	0.036	0.785	19.600	12.150
				7.0	0.824	0.035	0.743	19.200	12.600
	42E		3994546	5.0	0.587	0.035	0.962	19.100	12.300
	45E		3994846	6.0	0.689	0.044	1.120	26.100	7.750
				7.5	0.639	0.042	1.040	24.700	8.420
	46.5E		3995996	4.0	0.530	0.047	1.150	26.900	7.200
75N	06E	154897	3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						
	21E		3992446						
	24E		3992746	6.0	0.711	0.028	0.461	14.300	13.250
				8.0	1.070	0.044	0.774	23.600	8.210
	27E		3993046						
	30E		3993346						
	33E		3993646						
	36E		3993946	6.0	0.574	0.042	0.722	22.800	9.430
	39E		3994246						
	42E		3994546	6.0	1.090	0.028	0.408	13.800	12.650
				7.0	1.090	0.029	0.496	15.250	12.950
	45E		3994846	6.0	0.541	0.050	1.640	28.600	6.060
	48E		3995146						
72N	06E	154597	3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046	5.5	1.070	0.067	0.829	22.200	9.250
	30E		3993346						
	33E		3993646	3.0	0.672	0.050	1.170	26.600	6.100
	36E		3993946	6.0	0.645	0.039	0.776	21.000	8.820
	39E		3994246	6.0	0.813	0.031	0.643	16.400	10.800
				11.0	1.100	0.045	0.694	21.400	9.040
	42E		3994546	6.0	1.020	0.037	0.573	20.200	10.350

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
				8.5	1.320	0.029	0.484	15.150	13.500
	45E		3994846	6.0	1.330	0.039	0.566	21.200	12.050
				12.0	1.040	0.026	0.423	15.000	15.150
	48E		3995146						
69N	06E	154297	3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046	6.0	0.955	0.060	1.180	29.700	7.430
				10.0	0.961	0.057	1.150	28.400	8.280
	30E		3993346	5.0	0.857	0.057	1.060	32.000	7.130
	33E		3993646	5.0	0.952	0.043	0.868	24.200	10.950
	36E		3993946	4.0	0.827	0.041	0.978	21.800	11.650
	39E		3994246	6.0	1.050	0.035	0.593	18.150	14.100
				9.0	1.110	0.030	0.505	16.000	15.550
	42E		3994546	6.0	1.050	0.038	0.677	22.000	11.050
				10.0	1.070	0.036	0.634	20.600	12.400
	45E		3994846	6.0	1.170	0.037	0.584	19.800	11.450
				12.0	1.170	0.034	0.506	18.100	11.900
				15.0	1.280	0.029	0.403	15.350	13.800
	48E		3995146						
66N	06E	153997	3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846	6.0	0.760	0.028	0.664	15.400	14.950
	18E		3992146	3.0	1.250	0.029	0.568	15.350	13.900
	21E		3992446	6.0	1.120	0.064	1.320	28.600	6.510
	24E		3992746	6.0	0.509	0.040	0.879	22.600	11.800
				10.0	1.420	0.029	0.514	15.200	14.150
	27E		3993046	6.0	1.250	0.104	1.070	30.300	5.970
				10.0	1.340	0.081	0.989	28.900	7.480
	30E		3993346	6.0	1.570	0.032	0.492	17.050	12.950
	33E		3993646	6.0	1.150	0.040	0.716	22.000	10.350
				12.0	1.110	0.032	0.574	18.200	12.800
	36E		3993946	3.0	0.910	0.049	1.120	28.900	5.790
	39E		3994246	6.0	0.930	0.030	0.484	16.400	13.650

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
				12.0	0.992	0.027	0.441	14.250	15.500
	42E		3994546	6.0	2.040	0.039	0.767	18.600	12.950
	45E		3994846	6.0	1.120	0.064	1.690	30.000	6.300
	48E		3995146						
63N	06E	153697	3990946						
	09E		3991246						
	12E		3991546	3.0	1.050	0.043	1.370	20.800	11.000
	15E		3991846	3.0	0.714	0.031	0.893	17.650	12.600
	18E		3992146	6.0	0.683	0.037	0.761	20.500	12.550
				7.5	0.605	0.029	0.474	15.500	14.700
	21E		3992446	6.0	0.921	0.069	1.380	34.600	5.160
				7.0	0.908	0.069	1.410	34.500	4.990
	24E		3992746	6.0	1.390	0.045	0.837	24.600	8.810
				10.0	1.320	0.041	0.855	21.400	9.640
	27E		3993046	6.0	1.440	0.129	1.380	37.700	3.690
				12.0	1.580	0.117	1.300	38.600	4.120
				13.0	1.550	0.105	1.160	33.200	5.590
	30E		3993346	6.0	1.290	0.062	1.060	29.900	6.320
				10.0	1.140	0.056	0.902	26.000	8.010
	33E		3993646	6.0	0.944	0.038	0.725	21.200	9.940
				8.0	1.010	0.040	0.759	22.300	9.130
	36E		3993946	6.0	0.845	0.022	0.389	12.850	17.050
	39E		3994246	6.0	1.750	0.139	2.180	42.200	2.570
				12.0	1.830	0.122	1.680	36.200	5.520
				14.0	2.140	0.105	1.220	28.500	8.810
	42E		3994546	6.0	1.260	0.095	1.110	28.900	6.860
				7.5	1.140	0.138	1.230	34.000	5.260
	45E		3994846	6.0	1.020	0.048	0.830	26.500	8.430
				9.0	0.964	0.047	0.845	26.800	8.340
	48E		3995146						
60N	30W	153397	3987346						
	27W		3987646						
	24W		3987946						
	21W		3988246						
	18W		3988546						
	15W		3988846						
	12W		3989146						
	09W		3989446						
	06W		3989746						

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	03W		3990046						
	00E		3990346						
	03E		3990646						
	06E		3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846	6.0	0.897	0.056	0.775	23.900	11.350
				8.0	0.875	0.052	0.733	21.900	12.500
	18E		3992146	6.0	0.540	0.034	0.696	19.550	13.200
	21E		3992446	6.0	0.584	0.039	0.804	25.200	10.750
	24E		3992746	6.0	1.200	0.047	1.180	28.200	8.990
				7.5	1.230	0.044	1.010	21.600	12.950
	27E		3993046	6.0	1.365	0.085	1.500		
	30E		3993346	5.0	1.305	0.068	1.460		
	33E		3993646	6.0	1.335	0.115	2.290	43.300	2.030
				7.0	1.135	0.082	1.960	37.000	5.530
	36E		3993946	5.5	0.846	0.030	0.614	16.850	14.700
	39E		3994246	6.0	1.270	0.044	0.793	25.400	9.140
	42E		3994546	6.0	1.040	0.098	0.994	28.300	8.560
				12.0	1.025	0.045	0.508	17.950	12.800
				13.0	1.025	0.054	0.615	19.650	12.000
	45E		3994846	6.0	1.170	0.068	1.530	37.000	4.280
				8.0	1.225	0.046	0.944	25.500	11.050
	48E		3995146	3.0	1.265	0.072	1.390	36.200	3.910
57N	30W	153097	3987346						
	27W		3987646						
	24W		3987946						
	21W		3988246						
	18W		3988546						
	15W		3988846						
	12W		3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046						
	00E		3990346	3.0	0.708	0.040	0.941	23.400	11.050
	03E		3990646	6.0	1.160	0.055	1.320	26.800	9.960
	06E		3990946						
	09E		3991246						
	12E		3991546	6.0	0.831	0.068	1.360	38.200	3.710

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
				8.0	0.848	0.054	1.070	28.300	7.690
	15E		3991846	5.0	1.100	0.151	2.170	38.700	2.890
	18E		3992146	6.0	0.848	0.046	1.090	23.100	12.500
	21E		3992446	3.0	0.526	0.041	1.810	21.000	10.100
	24E		3992746	3.0	1.090	0.070	1.450	38.200	2.350
	27E		3993046	6.0	1.380	0.100	1.570	41.300	2.380
				11.0	1.510	0.065	1.210	27.300	9.580
	30E		3993346	6.0	1.690	0.078	1.560	34.100	5.720
				12.0	1.650	0.073	1.330	28.400	8.990
	33E		3993646	6.0	0.660	0.036	0.845	22.100	11.250
	36E		3993946	6.0	0.570	0.031	0.781	17.950	15.200
				8.0	0.512	0.027	0.655	15.900	15.800
	39E		3994246						
	42E		3994546	6.0	1.320	0.047	1.000	28.200	7.590
				12.0	1.220	0.031	0.615	17.800	12.200
	45E		3994846	6.0	1.285	0.058	1.400	31.200	6.100
				9.0	1.275	0.046	0.874	24.600	10.650
	48E		3995146	6.0	1.825	0.032	0.622	14.750	13.950
				8.0	1.965	0.037	0.793	18.550	12.100
54N	30W	152797	3987346						
	27W		3987646						
	24W		3987946						
	21W		3988246						
	18W		3988546						
	15W		3988846						
	12W		3989146						
	09W		3989446						
	06W		3989746	3.0	0.540	0.036	1.700	20.200	12.400
	03W		3990046	3.0	0.820	0.049	1.880	26.700	7.570
	00E		3990346	5.5	2.000	0.105	1.520	30.000	7.880
	03E		3990646	3.0	0.633	0.069	2.250	33.700	4.500
	06E		3990946	6.0	1.110	0.070	1.600	36.000	4.720
	09E		3991246						
	12E		3991546	3.0	0.744	0.053	1.220	30.700	6.810
	15E		3991846						
	18E		3992146	4.0	0.670	0.060	1.390	31.400	5.400
	21E		3992446	3.0	0.683	0.064	2.210	28.800	4.060
	24E		3992746	6.0	1.670	0.064	1.580	35.300	4.260
	27E		3993046	5.0	1.730	0.088	1.980	37.100	2.830

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	30E		3993346	6.0	0.851	0.083	1.480	33.800	4.030
				9.0	0.889	0.081	1.280	30.100	4.950
	33E		3993646	5.0	0.672	0.077	1.050	26.100	7.340
	36E		3993946	4.0	0.741	0.065	1.500	32.200	5.200
	39E		3994246	5.0	1.120	0.063	1.580	31.300	5.240
	42E		3994546	5.0	0.711	0.042	0.888	24.200	9.540
	45E		3994846	6.0	1.260	0.060	1.100	33.200	7.130
				11.0	1.300	0.035	0.740	19.650	11.900
	48E		3995146	5.0	1.240	0.072	1.240	30.400	7.520
51N	30W	152497	3987346						
	27W		3987646						
	24W		3987946						
	21W		3988246						
	18W		3988546						
	15W		3988846						
	12W		3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046	3.0	0.746	0.047	1.320	24.600	7.880
	00E		3990346	4.0	1.010	0.077	1.940	37.800	1.910
	03E		3990646	3.0	1.080	0.076	1.570	38.000	1.640
	06E		3990946	6.0	0.931	0.062	1.890	32.900	6.030
	09E		3991246						
	12E		3991546						
	15E		3991846	3.0	0.626	0.043	0.851	24.600	10.250
	18E		3992146	6.0	0.726	0.064	1.620	31.500	7.630
	21E		3992446	3.0	0.982	0.063	2.320	28.500	7.820
	24E		3992746	5.0	1.420	0.063	1.310	32.800	5.400
	27E		3993046	6.0	1.300	0.055	1.220	26.900	8.440
				9.0	1.140	0.037	0.744	17.800	13.800
	30E		3993346	6.0	0.852	0.047	1.010	25.000	9.550
	33E		3993646	6.0	1.290	0.266	1.840	37.700	5.410
	36E		3993946	6.0	1.690	0.160	2.160	42.000	2.690
	39E		3994246	3.0	1.320	0.055	1.190	29.100	26.200
	42E		3994546	5.0	1.840	0.040	0.795	19.950	11.750
	45E		3994846	6.0	1.290	0.043	0.840	24.000	10.300
				8.0	1.760	0.031	0.557	15.400	13.850
	48E		3995146	6.0	1.540	0.165	1.540	37.500	4.830
				8.0	1.490	0.172	1.830	39.700	3.830

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	49E		3995246	4.0	1.190	0.092	1.890	37.500	3.030
48N	30W	152197	3987346						
	27W		3987646						
	24W		3987946						
	21W		3988246						
	18W		3988546						
	15W		3988846						
	12W		3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046						
	00E		3990346	3.0	0.616	0.051	1.300	24.100	9.160
	03E		3990646	3.0	0.668	0.063	1.270	27.000	7.070
	06E		3990946	6.0	0.918	0.093	1.580	38.900	3.050
	09E		3991246						
	12E		3991546						
	15E		3991846	3.0	0.664	0.052	1.090	26.000	7.640
	18E		3992146	6.0	0.907	0.150	1.320	34.100	4.740
	21E		3992446	4.0	1.090	0.033	0.594	17.450	13.600
	24E		3992746	6.0	0.992	0.083	1.580	38.500	4.260
	27E		3993046	4.0	1.090	0.033	0.594	17.450	13.600
	30E		3993346	6.0	1.350	0.064	1.830	33.400	5.360
	33E		3993646	6.0	0.662	0.060	1.430	30.300	5.380
	36E		3993946	6.0	1.180	0.066	0.883	24.100	9.860
				10.0	1.280	0.048	0.668	19.600	12.000
	39E		3994246	6.0	1.140	0.051	0.978	27.800	7.960
				7.0	0.949	0.039	0.802	21.400	10.450
	42E		3994546	6.0	2.100	0.025	0.540	13.350	15.300
	45E		3994846	6.0	1.440	0.062	1.570	33.600	5.350
				12.0	1.540	0.051	1.240	29.400	7.770
	48E		3995146	6.0	1.470	0.166	2.000	41.800	2.980
	49E		3995246	6.0	1.590	0.046	0.737	24.800	9.150
	49E			10.0	1.430	0.092	1.140	28.400	10.450
45N	30W	151897	3987346						
	27W		3987646						
	24W		3987946						
	21W		3988246						
	18W		3988546						
	15W		3988846						

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	12W		3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046						
	00E		3990346	3.0	0.813	0.061	1.320	35.100	6.680
	03E		3990646	3.0	0.467	0.042	0.810	23.600	10.700
	06E		3990946	6.0	0.587	0.106	1.530	45.900	1.870
				9.0	0.615	0.148	1.690	42.100	3.470
	09E		3991246						
	12E		3991546						
	15E		3991846	6.0	0.861	0.058	1.090	30.700	8.830
	18E		3992146	6.0	1.255	0.150	1.170	35.000	5.560
				12.0	1.390	0.145	0.986	30.500	7.480
				15.0	1.315	0.128	0.839	29.500	8.210
	21E		3992446	6.0	1.140	0.112	1.560	40.000	2.930
				12.0	1.270	0.085	1.240	34.800	6.300
				14.0	1.360	0.084	1.230	33.400	6.850
	24E		3992746	6.0	0.950	0.064	1.030	34.500	5.520
	27E		3993046	6.0	1.175	0.082	1.420	41.900	2.280
	30E		3993346	6.0	1.505	0.082	1.970	39.000	3.600
	33E		3993646	4.0	1.760	0.041	0.739	17.950	13.150
	36E		3993946						
	39E		3994246						
	42E		3994546	6.0	1.200	0.059	1.130	32.900	5.570
				9.0	1.295	0.053	1.030	30.000	7.280
	45E		3994846	6.0	1.225	0.037	0.819	22.300	9.450
	48E		3995146	6.0	1.915	0.074	1.770	38.800	4.670
42N	30W	151597	3987346						
	27W		3987646						
	24W		3987946						
	21W		3988246						
	18W		3988546						
	15W		3988846						
	12W		3989146						
	09W		3989446						
	06W		3989746	4.0	0.617	0.040	1.070	23.300	10.450
	03W		3990046	6.0	0.749	0.038	0.753	22.800	11.000
				10.0	0.750	0.038	0.747	22.600	10.700
	00E		3990346						

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	03E		3990646						
	06E		3990946	6.0	0.827	0.165	1.740	44.700	1.200
				12.0	0.936	0.135	2.120	43.800	1.870
	09E		3991246						
	12E		3991546						
	15E		3991846	6.0	0.953	0.088	1.280	35.800	3.760
				12.0	0.925	0.048	0.976	24.700	9.790
	18E		3992146	6.0	0.996	0.046	1.040	25.300	8.630
	21E		3992446	5.0	1.180	0.088	1.600	42.300	2.540
	24E		3992746						
	27E		3993046	4.0	0.661	0.042	1.470	20.600	11.300
	30E		3993346	6.0	0.980	0.040	0.847	22.200	11.100
	33E		3993646	6.0	1.020	0.052	1.120	28.100	9.290
	36E		3993946	6.0	0.721	0.031	0.687	16.200	15.450
	39E		3994246	6.0	1.330	0.070	1.660	37.800	5.460
				8.0	1.360	0.044	0.969	24.900	9.550
	42E		3994546	6.0	1.240	0.045	1.010	25.200	10.300
	45E		3994846						
	48E		3995146						
39N	30W	151297	3987346						
	27W		3987646						
	24W		3987946						
	21W		3988246						
	18W		3988546						
	15W		3988846	3.0	0.562	0.049	1.030	27.100	8.820
	12W		3989146						
	09W		3989446	4.0	0.776	0.037	1.360	18.000	13.450
	06W		3989746	3.0	0.357	0.033	1.000	17.750	13.050
	03W		3990046	3.0	0.648	0.054	1.220	31.700	5.760
	00E		3990346	4.0	0.683	0.048	0.994	29.300	5.580
	03E		3990646						
	06E		3990946	3.0	0.549	0.040	1.440	21.600	10.050
	09E		3991246						
	12E		3991546						
	15E		3991846	6.0	0.509	0.032	0.595	18.550	15.000
	18E		3992146	6.0	1.050	0.055	1.240	30.200	8.350
				12.0	1.300	0.042	0.755	22.100	11.100
	21E		3992446	6.0	1.090	0.054	1.170	30.900	7.170
				12.0	1.170	0.033	0.613	18.450	13.950

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	24E		3992746	6.0	0.622	0.030	0.495	17.600	14.000
				8.0	0.584	0.024	0.411	13.050	17.100
	27E		3993046	6.0	1.170	0.042	0.855	20.900	11.900
	30E		3993346						
	33E		3993646	6.0	1.530	0.056	1.380	28.900	6.680
	36E		3993946	6.0	1.160	0.062	1.260	28.300	9.660
				12.0	1.110	0.034	0.702	16.450	15.900
	39E		3994246	6.0	1.470	0.083	1.730	43.100	2.160
	42E		3994546						
	45E		3994846	6.0	1.240	0.056	1.450	29.700	6.620
	48E		3995146	6.0	1.390	0.050	0.967	29.400	7.890
				7.0	1.500	0.038	0.558	20.200	11.000
36N	30W	150997	3987346						
	27W		3987646						
	24W		3987946						
	21W		3988246						
	18W		3988546						
	15W		3988846	3.0	0.657	0.047	0.907	25.700	7.960
	12W		3989146	6.0	0.646	0.063	1.100	32.600	6.380
				7.0	0.518	0.052	0.890	28.200	8.290
	09W		3989446	4.0	0.538	0.044	0.745	25.000	11.400
	06W		3989746	6.0	0.661	0.065	0.969	30.000	8.810
	03W		3990046	3.0	0.742	0.073	1.040	37.900	2.410
	00E		3990346	3.0	0.576	0.057	1.270	29.400	7.020
	03E		3990646	4.0	0.793	0.057	1.170	32.400	5.040
	06E		3990946						
	09E		3991246	4.0	0.349	0.035	0.760	18.150	14.150
	12E		3991546	5.5	0.800	0.088	1.480	39.100	3.820
	15E		3991846	6.0	0.994	0.074	1.360	34.700	5.680
				9.0	0.992	0.054	1.200	28.000	8.640
	18E		3992146	6.0	0.965	0.163	1.720	40.600	4.250
				7.0	1.110	0.218	1.810	46.200	1.940
	21E		3992446	6.0	0.933	0.073	1.270	32.300	7.550
				9.0	0.790	0.068	1.360	31.000	7.060
	24E		3992746	4.0	1.020	0.063	1.080	28.900	8.730
	27E		3993046	6.0	0.946	0.080	1.270	31.300	7.080
				9.0	1.175	0.063	0.906	24.200	9.600
	30E		3993346	6.0	0.956	0.039	0.756	22.300	13.400
	33E		3993646	6.0	1.380	0.059	1.390	32.100	6.980

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
				9.0	1.475	0.050	1.040	28.000	9.590
	36E		3993946	6.0	1.405	0.056	1.320	30.000	9.500
				8.0	1.110	0.045	1.000	24.800	12.900
	39E		3994246	6.0	0.869	0.041	0.829	20.400	14.400
				7.5	0.742	0.035	0.733	18.450	15.400
	42E		3994546	6.0	0.975	0.043	0.936	21.000	13.300
				8.5	0.942	0.037	0.763	17.400	14.150
	45E		3994846	6.0	1.670	0.046	0.994	25.300	10.600
	48E		3995146	4.0	1.080	0.050	1.310	29.700	7.830
33N	30W	150697	3987346						
	27W		3987646						
	24W		3987946						
	21W		3988246						
	18W		3988546						
	15W		3988846						
	12W		3989146						
	09W		3989446						
	06W		3989746	6.0	0.650	0.052	1.540	33.800	6.320
	03W		3990046	6.0	0.706	0.119	1.940	39.700	2.700
				9.0	0.527	0.061	1.170	26.200	8.550
	00E		3990346						
	03E		3990646						
	06E		3990946	3.0	0.490	0.043	1.510	21.400	10.650
	09E		3991246	6.0	0.749	0.063	1.560	40.100	3.400
	12E		3991546	6.0	0.605	0.053	0.953	28.200	10.750
				8.0	0.657	0.054	0.949	29.500	10.700
	15E		3991846	6.0	1.085	0.096	1.460	34.000	7.440
				12.0	1.395	0.096	1.400	34.100	6.630
	18E		3992146	6.0	0.887	0.139	1.900	42.500	3.000
				10.0	1.005	0.160	2.290	40.600	2.890
	21E		3992446	6.0	0.645	0.143	1.430	36.000	5.440
				8.0	0.626	0.112	1.150	28.700	8.740
	24E		3992746	6.0	0.864	0.072	1.490	34.700	5.920
	27E		3993046	6.0	0.774	0.041	0.664	20.200	13.750
				11.0	0.851	0.035	0.649	18.500	14.400
	30E		3993346	5.0	1.055	0.078	1.240	32.400	5.930
	33E		3993646	3.0	0.960	0.074	1.570	36.700	4.830
	36E		3993946	6.0	0.999	0.066	3.720	43.300	2.400
				9.0	1.340	0.074	2.120	39.900	3.960

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	39E		3994246	4.0	1.135	0.069	1.380	37.700	4.430
	42E		3994546	6.0	1.995	0.040	0.922	19.850	12.450
				7.0	1.980	0.034	0.726	17.050	13.600
	45E		3994846	6.0	1.250	0.039	0.879	21.800	12.000
	48E		3995146	6.0	1.445	0.039	0.711	21.500	11.300
				7.0	1.250	0.035	0.624	18.900	13.050
30N	54W	150397	3984946						
	51W		3985246						
	48W		3985546						
	45W		3985846						
	42W		3986146						
	39W		3986446						
	36W		3986746						
	33W		3987046						
	30W		3987346						
	27W		3987646						
	24W		3987946						
	21W		3988246						
	18W		3988546						
	15W		3988846						
	12W		3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046						
	00E		3990346	6.0	0.744	0.082	1.630	38.400	2.770
				10.0	0.625	0.076	1.860	29.200	5.020
	03E		3990646						
	06E		3990946	3.0	0.587	0.048	1.530	23.400	8.090
	09E		3991246	6.0	0.759	0.065	1.020	35.900	2.780
	12E		3991546	3.0	0.716	0.055	1.660	28.400	6.140
	15E		3991846	6.0	0.839	0.097	1.270	30.800	6.840
				10.0	0.826	0.072	0.793	25.100	9.740
	18E		3992146	6.0	0.852	0.069	1.160	31.500	5.840
	21E		3992446	6.0	0.649	0.038	0.743	19.050	10.850
	24E		3992746	6.0	0.840	0.117	1.810	40.800	2.440
	27E		3993046	6.0	1.070	0.079	1.240	31.700	5.540
				7.0	1.160	0.070	1.130	27.600	7.040
	30E		3993346						
	33E		3993646						

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	36E		3993946						
	39E		3994246						
	42E		3994546	6.0	1.120	0.049	0.941	25.200	8.970
				7.0	1.140	0.049	0.955	25.800	8.730
	45E		3994846	3.0	1.200	0.057	1.210	29.800	5.720
	48E		3995146	5.0	0.970	0.036	0.683	21.100	10.750
27N	54W	150097	3984946						
	51W		3985246						
	48W		3985546	3.0	0.287	0.027	0.626	13.550	14.550
	45W		3985846	3.0	0.488	0.039	1.330	20.200	11.450
	42W		3986146						
	39W		3986446						
	36W		3986746						
	33W		3987046						
	30W		3987346						
	27W		3987646						
	24W		3987946						
	21W		3988246						
	18W		3988546						
	15W		3988846						
	12W		3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046						
	00E		3990346						
	03E		3990646	6.0	0.605	0.050	0.904	28.200	7.730
	06E		3990946	6.0	0.581	0.116	1.630	41.600	1.470
				7.0	0.552	0.107	1.400	36.400	1.650
	09E		3991246						
	12E		3991546	3.0	0.585	0.047	1.650	23.500	7.900
	15E		3991846	6.0	0.694	0.078	1.130	28.900	6.740
	18E		3992146	6.0	0.756	0.067	1.250	32.300	6.210
	21E		3992446						
	24E		3992746						
	27E		3993046	6.0	0.923	0.041	1.030	24.600	8.030
				8.0	0.836	0.041	0.818	21.000	10.900
	30E		3993346	6.0	0.941	0.082	1.370	30.300	6.000
				12.0	1.260	0.110	2.100	40.800	2.760
				15.0	1.410	0.102	1.930	40.900	2.280

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	33E		3993646	5.0	1.320	0.073	1.520	30.800	4.390
	36E		3993946	6.0	1.870	0.088	2.040	42.300	2.260
				8.0	1.630	0.065	1.410	31.900	6.950
	39E		3994246	5.0	1.210	0.067	1.760	32.900	4.870
	42E		3994546						
	45E		3994846						
	48E		3995146						
24N	54W	149797	3984946	3.0	0.269	0.017	0.279	9.130	19.450
	51W		3985246						
	48W		3985546						
	45W		3985846						
	42W		3986146	3.0	0.707	0.033	0.810	17.150	14.200
	39W		3986446	4.0	0.825	0.038	0.806	20.300	12.700
	36W		3986746						
	33W		3987046	6.0	0.976	0.073	1.080	36.600	3.060
				6.5	0.909	0.044	0.674	21.200	10.400
	30W		3987346	3.5	0.742	0.057	1.150	29.500	8.120
	27W		3987646	3.0	0.479	0.050	1.320	23.800	8.460
	24W		3987946						
	21W		3988246	3.0	0.892	0.059	1.070	29.200	6.700
	18W		3988546	6.0	0.902	0.054	1.640	29.700	7.410
	15W		3988846	6.0	0.991	0.082	1.180	34.200	4.410
				9.0	1.005	0.079	0.913	31.400	5.280
	12W		3989146	5.0	0.829	0.055	1.120	27.900	7.610
	09W		3989446	4.0	0.362	0.037	0.643	18.800	14.050
	06W		3989746	5.0	0.634	0.052	0.922	29.500	7.070
	03W		3990046						
	00E		3990346	3.0	0.342	0.028	0.866	15.400	14.900
	03E		3990646	6.0	1.080	0.052	0.914	26.300	8.720
				12.0	0.947	0.037	0.721	19.500	12.500
	06E		3990946	6.0	1.065	0.074	0.812	26.400	8.930
				8.0	0.918	0.053	0.918	24.400	9.830
	09E		3991246						
	12E		3991546						
	15E		3991846	3.0	0.778	0.045	0.944	26.500	8.430
	18E		3992146	6.0	0.687	0.053	0.653	22.800	11.400
				9.0	0.597	0.040	0.534	18.200	13.700
	21E		3992446	6.0	0.976	0.192	1.300	39.600	4.720
				11.0	1.045	0.157	0.989	37.000	6.400

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	24E		3992746	6.0	0.879	0.060	1.120	28.700	10.050
				9.0	0.925	0.046	0.708	22.900	10.050
	27E		3993046	5.0	1.250	0.144	1.760	39.000	4.120
				8.0	1.260	0.110	1.220	38.400	5.500
	30E		3993346	6.0	1.480	0.070	1.720	37.600	4.280
				9.0	1.530	0.059	1.170	30.500	7.700
	33E		3993646	6.0	1.150	0.039	0.613	19.400	14.150
				9.5	1.160	0.033	0.535	17.200	15.700
	36E		3993946	6.0	1.370	0.098	1.880	40.900	3.840
				8.0	1.100	0.064	1.090	27.100	11.700
	39E		3994246	6.0	0.644	0.023	0.595	11.550	17.950
				7.5	0.659	0.023	0.550	11.200	18.450
	42E		3994546	5.0	0.593	0.019	0.360	10.700	17.600
	45E		3994846	6.0	0.915	0.033	0.713	17.700	15.150
				7.0	0.888	0.035	0.700	18.500	14.750
	48E		3995146	3.0	0.855	0.063	1.870	33.500	4.180
21N	54W	149497	3984946						
	51W		3985246						
	48W		3985546						
	45W		3985846	3.0	0.459	0.032	1.930	17.850	13.650
	42W		3986146	3.0	0.607	0.041	1.360	21.200	11.000
	39W		3986446	4.0	0.655	0.036	0.734	18.150	12.500
	36W		3986746						
	33W		3987046	4.0	0.800	0.066	1.440	27.000	8.330
	30W		3987346						
	27W		3987646	4.0	0.864	0.068	1.350	33.500	4.170
	24W		3987946	4.0	0.909	0.058	1.260	35.000	4.340
	21W		3988246	5.0	0.666	0.063	1.700	31.300	4.950
	18W		3988546	6.0	1.085	0.117	1.210	31.500	6.480
				7.0	1.235	0.107	1.170	34.100	5.580
	15W		3988846						
	12W		3989146	4.0	0.870	0.067	1.320	31.700	5.870
	09W		3989446	4.0	0.453	0.039	0.632	17.950	14.550
	06W		3989746	3.0	0.624	0.045	0.941	24.800	10.300
	03W		3990046	3.0	0.463	0.034	0.864	18.500	13.450
	00E		3990346						
	03E		3990646						
	06E		3990946	6.0	0.831	0.061	0.870	23.400	10.650
	09E		3991246	6.0	0.857	0.178	1.580	37.100	4.970

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
				9.0	0.698	0.111	1.010	25.200	12.400
	12E		3991546	12.0	1.150	0.126	0.878	27.700	9.340
	15E		3991846	6.0	1.110	0.106	1.450	36.000	4.550
				11.0	1.510	0.100	1.020	31.100	9.730
	18E		3992146	6.0	0.811	0.060	0.894	25.500	10.900
	21E		3992446	4.0	0.931	0.099	1.790	33.600	6.800
	24E		3992746	6.0	1.030	0.095	1.060	30.600	7.640
				12.0	1.140	0.057	0.779	24.000	11.350
	27E		3993046	6.0	1.000	0.066	1.180	31.700	7.670
				8.0	0.775	0.042	0.628	21.000	14.150
	30E		3993346						
	33E		3993646	6.0	1.240	0.053	1.310	29.500	9.480
				9.0	1.450	0.054	1.240	27.700	11.000
	36E		3993946	6.0	1.380	0.066	1.330	36.200	5.310
	39E		3994246						
	42E		3994546						
	45E		3994846						
	48E		3995146						
18N	54W	149197	3984946						
	51W		3985246						
	48W		3985546						
	45W		3985846						
	42W		3986146						
	39W		3986446						
	36W		3986746	4.0	0.645	0.032	0.861	16.550	13.200
	33W		3987046	5.0	0.992	0.056	1.310	28.100	9.290
	30W		3987346	6.0	0.773	0.047	1.170	24.300	8.390
				11.0	0.884	0.037	0.722	19.750	10.850
	27W		3987646						
	24W		3987946	4.0	0.902	0.067	2.200	33.000	4.740
	21W		3988246	6.0	0.849	0.043	0.839	22.000	11.000
	18W		3988546	6.0	1.190	0.091	1.490	35.900	3.690
				9.0	0.984	0.052	0.981	25.500	9.970
	15W		3988846	6.0	0.694	0.040	0.663	18.950	14.900
				10.5	0.585	0.032	0.705	15.750	16.300
	12W		3989146	4.0	0.431	0.032	0.494	15.750	15.850
	09W		3989446	6.0	0.517	0.062	0.897	28.100	7.970
	06W		3989746	5.0	0.631	0.083	1.160	29.400	7.370
	03W		3990046	6.0	0.448	0.022	0.416	11.300	18.150

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	00E		3990346	5.0	0.751	0.101	1.790	39.600	3.290
	03E		3990646	4.0	0.531	0.047	0.727	26.000	8.890
	06E		3990946	6.0	0.586	0.107	0.975	31.400	6.200
				11.5	0.715	0.152	1.190	37.100	3.630
	09E		3991246	6.0	0.827	0.159	1.200	37.000	4.260
				11.5	0.657	0.070	0.775	21.300	12.800
	12E		3991546	6.0	0.992	0.148	1.850	43.100	2.210
				12.0	1.240	0.144	1.850	39.500	3.310
	15E		3991846	6.0	0.714	0.043	0.821	20.900	13.250
	18E		3992146	5.5	0.668	0.102	0.957	26.400	10.450
	21E		3992446	6.0	1.010	0.126	1.200	31.700	6.880
				8.0	1.050	0.095	0.963	26.100	10.150
	24E		3992746	6.0	0.967	0.070	1.330	34.700	6.240
	27E		3993046	3.0	0.787	0.053	1.690	26.900	7.850
	30E		3993346						
	33E		3993646						
	36E		3993946						
	39E		3994246	6.0	1.060	0.078	2.040	40.800	1.900
				7.0	1.070	0.061	1.550	31.400	8.080
	42E		3994546	5.5	0.834	0.057	1.670	28.200	7.620
	45E		3994846	5.0	0.836	0.036	0.872	20.900	9.130
	48E		3995146	6.0	1.070	0.086	2.020	34.600	5.050
				7.0	0.857	0.055	1.110	23.000	12.400
16.5N	30E	149047	3993346						
	31.5E		3993496						
	33E		3993646	6.0	1.220	0.052	1.050	31.700	7.800
				10.0	0.970	0.032	0.521	17.700	15.300
	34.5E		3993796	6.0	0.922	0.040	0.934	21.300	11.850
				7.0	1.055	0.034	0.692	18.050	13.750
	36E		3993946	6.0	1.090	0.053	1.450	28.400	7.850
				8.5	1.290	0.045	0.983	24.700	10.050
	37.5E		3994096	6.0	1.270	0.123	2.450	>50	0.570
				8.5	1.350	0.116	1.570	38.600	5.900
	39E		3994246	6.0	1.160	0.076	1.240	28.100	10.450
				9.5	1.335	0.075	1.410	31.700	7.720
	40.5E		3994396	6.0	1.115	0.064	1.650	32.000	8.060
				12.0	1.405	0.048	1.080	23.600	11.700
	42E		3994546	6.0	0.887	0.054	1.510	25.700	11.500
				8.0	0.997	0.034	0.860	15.600	16.000

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	43.5E		3994696	6.0	0.984	0.069	1.990	33.800	7.890
				12.0	0.834	0.033	0.708	17.150	15.650
				14.0	0.777	0.029	0.603	14.200	17.500
	45E		3994846	6.0	1.205	0.071	1.750	37.600	3.670
				7.0	1.130	0.060	1.360	29.600	7.260
	46.5E		3994996	6.0	1.115	0.036	0.758	20.300	12.200
15N	54W	148897	3984946						
	51W		3985246						
	48W		3985546						
	45W		3985846						
	42W		3986146						
	39W		3986446						
	36W		3986746						
	33W		3987046						
	30W		3987346						
	27W		3987646						
	24W		3987946	6.0	0.670	0.050	1.060	27.200	8.980
	21W		3988246	6.0	1.125	0.110	0.834	24.700	9.810
				8.0	0.999	0.083	0.811	20.700	11.650
	18W		3988546	6.0	0.925	0.059	1.250	32.200	7.090
	15W		3988846	5.0	0.602	0.052	1.080	28.300	9.110
	12W		3989146	3.5	0.552	0.040	0.887	21.300	11.750
	09W		3989446	6.0	0.723	0.042	0.623	19.350	13.400
				8.0	0.607	0.032	0.555	15.400	14.700
	06W		3989746	4.5	0.769	0.103	1.790	47.100	0.630
	03W		3990046	6.0	0.886	0.131	1.170	32.400	6.830
				7.5	0.709	0.068	0.678	18.250	14.400
	00E		3990346						
	03E		3990646	3.5	0.748	0.061	1.170	34.100	5.220
	06E		3990946	6.0	0.591	0.048	0.879	30.900	6.360
	09E		3991246						
	12E		3991546	6.0	0.931	0.058	1.150	31.500	6.730
	15E		3991846						
	18E		3992146	5.5	1.120	0.077	1.090	28.300	8.390
	21E		3992446	6.0	0.783	0.068	1.150	31.500	7.100

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	24E		3992746	6.0	0.907	0.079	1.720	35.600	5.200
				8.0	0.615	0.036	0.748	18.050	14.750
	27E		3993046						
	30E		3993346						
	31.5E		3993496	6.0	1.260	0.072	1.620	35.200	5.180
				12.0	1.325	0.050	0.882	25.500	9.300
				18.0	1.255	0.043	0.699	22.500	10.800
	33E		3993646	6.0	1.230	0.060	1.560	34.100	5.670
				8.0	0.942	0.031	0.802	17.750	14.300
	34.5E		3993796	6.0	1.265	0.080	2.430	42.200	2.400
				9.0	1.080	0.063	1.530	31.800	6.380
	36E		3993946	6.0	1.240	0.083	1.150	34.400	5.370
				12.0	1.300	0.075	0.700	35.100	4.940
	37.5E		3994096	6.0	1.035	0.106	1.410	34.700	4.960
				9.0	1.030	0.066	0.692	20.600	12.900
	39E		3994246	5.0	1.070	0.055	1.040	26.400	7.260
	40.5E		3994396	6.0	0.910	0.062	1.240	30.100	9.850
				12.0	0.903	0.035	0.701	16.700	15.900
	42E		3994546	5.0	1.530	0.068	1.450	31.800	7.310
	43.5E		3994696	6.0	1.250	0.097	2.360	43.500	1.750
				7.0	1.070	0.069	1.430	32.700	8.540
	45E		3994846	3.0	1.110	0.082	1.930	38.800	3.310
	46.5E		3994996	6.0	1.110	0.074	1.700	36.300	4.400
				12.0	0.974	0.047	0.944	23.900	11.350
				13.0	0.873	0.039	0.778	20.200	13.650
	48E		3995146	6.0	1.150	0.072	1.800	36.700	4.360
13.5N	30E	148747	3993346	6.0	1.150	0.050	1.100	25.700	9.280
				12.0	1.805	0.070	1.360	36.700	4.510
				15.0	1.460	0.040	0.786	20.300	13.350
	31.5E		3993496	6.0	0.689	0.038	0.783	20.400	12.950
				12.0	0.813	0.028	0.521	15.300	15.850
	33E		3993646	6.0	1.295	0.114	1.680	44.900	2.100
				9.0	1.915	0.090	0.634	46.800	2.130
	34.5E		3993796	6.0	0.874	0.060	0.890	25.800	10.450
				7.0	0.780	0.041	0.826	20.300	12.550
	36E		3993946	6.0	1.540	0.109	1.840	43.000	1.810
				12.0	1.505	0.081	1.420	35.000	5.160
				14.5	1.345	0.051	0.980	24.300	10.750
	37.5E		3994096	6.0	1.210	0.089	1.580	32.500	6.230

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
				12.0	1.430	0.081	1.240	30.300	8.530
	39E		3994246	6.0	0.967	0.057	1.200	30.100	7.630
				12.0	0.845	0.033	0.660	17.500	14.500
				14.0	0.972	0.050	1.090	23.500	12.350
	40.5E		3994396	6.0	0.970	0.043	0.979	24.900	10.600
				12.0	0.807	0.029	0.559	15.950	15.750
				18.5	0.724	0.027	0.554	14.500	16.900
	42E		3994546	6.0	1.210	0.088	2.050	42.500	2.270
				7.5	1.260	0.081	2.320	41.400	3.730
	43.5E		3994696	6.0	1.160	0.083	2.160	39.900	2.700
				12.0	1.245	0.062	1.440	31.300	8.780
				13.0	1.335	0.062	1.410	31.100	8.690
	45E		3994846	6.0	1.190	0.061	1.470	28.000	8.150
				12.0	1.295	0.045	0.798	19.900	12.850
				13.0	1.290	0.037	0.610	16.350	14.450
12N	54W	148597	3984946	3.0	0.403	0.047	1.720	29.800	5.730
	51W		3985246	4.5	0.348	0.019	0.421	10.650	17.850
	48W		3985546	4.0	0.409	0.019	0.370	11.100	18.350
	45W		3985846	3.0	0.432	0.022	0.526	11.900	17.350
	42W		3986146	3.0	0.316	0.017	0.443	8.930	13.400
	39W		3986446	4.0	0.364	0.018	0.456	10.500	16.850
	36W		3986746	3.0	0.347	0.022	0.588	14.250	15.400
	33W		3987046	4.0	1.170	0.026	0.745	12.200	15.950
	30W		3987346	3.0	0.762	0.045	1.475	26.600	7.640
	27W		3987646	6.0	0.669	0.055	1.050	28.200	7.000
				11.0	0.493	0.041	0.777	13.050	4.180
	24W		3987946	3.5	0.604	0.075	1.860	31.500	5.770
	21W		3988246	4.5	0.872	0.091	2.580	38.500	2.960
	18W		3988546	3.0	0.688	0.059	1.505	31.800	4.500
	15W		3988846	6.0	0.500	0.043	1.110	23.700	11.500
				7.0	0.386	0.031	0.552	16.000	16.250
	12W		3989146	4.5	0.785	0.044	0.945	25.000	8.640
	09W		3989446	6.0	0.622	0.055	0.745	23.300	11.200
				12.0	0.723	0.043	0.662	19.500	13.350
				15.0	0.667	0.033	0.513	15.250	15.450
	06W		3989746	6.0	0.758	0.192	1.580	40.300	2.650
				8.0	0.737	0.096	0.937	26.700	9.740
	03W		3990046	6.0	0.662	0.109	1.545	36.100	4.140
	00E		3990346	3.0	0.657	0.058	1.660	32.700	5.030

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	03E		3990646	6.0	0.631	0.059	1.440	28.500	7.530
				9.0	0.577	0.049	0.929	25.000	10.800
	06E		3990946	4.0	0.567	0.038	0.913	20.900	11.550
	09E		3991246	3.0	0.554	0.056	1.250	31.000	5.130
	12E		3991546	6.0	0.824	0.067	1.260	37.000	4.150
				7.5	0.687	0.056	1.135	30.400	7.750
	15E		3991846	6.0	0.750	0.046	0.798	25.700	9.590
				7.0	0.817	0.050	0.658	25.300	10.400
	18E		3992146	6.0	0.824	0.058	1.080	27.400	8.670
				12.0	0.785	0.041	0.624	19.500	12.750
	21E		3992446	3.0	0.808	0.062	1.360	39.700	2.250
	24E		3992746	6.0	0.532	0.027	0.593	16.350	13.500
	27E		3993046	5.0	0.833	0.041	1.160	24.300	9.660
	30E		3993346	6.0	1.060	0.030	0.478	14.200	15.700
				10.0	0.728	0.035	0.539	15.550	16.250
	31.5E		3993496	6.0	1.020	0.048	0.865	25.100	10.400
				12.0	0.991	0.039	0.676	20.700	12.750
	33E		3993646	6.0	1.140	0.056	1.010	24.800	9.870
				11.0	1.260	0.043	0.688	21.800	11.450
	34.5E		3993796	6.0	0.989	0.052	1.110	30.200	6.770
				9.0	1.370	0.060	0.926	29.300	7.310
	36E		3993946	6.0	1.145	0.060	1.470	31.400	6.050
				7.0	1.170	0.049	1.070	25.600	9.360
	37.5E		3994096	6.0	0.865	0.049	0.937	28.700	9.220
				12.0	0.886	0.040	0.784	22.800	12.650
	39E		3994246	6.0	0.943	0.058	1.440	29.000	8.350
				8.0	1.140	0.050	1.030	25.600	10.800
	40.5E		3994396	6.0	1.190	0.054	1.120	30.700	6.880
				11.0	1.160	0.037	0.670	21.300	11.750
	42E		3994546	6.0	1.120	0.064	1.520	33.200	5.940
				10.0	1.280	0.040	0.741	20.800	13.000
	43.5		3994696	6.0	1.155	0.066	1.590	33.600	5.840
				10.5	1.040	0.058	1.420	30.200	8.020
	45E		3994846	6.0	1.605	0.079	2.070	36.200	4.900
				8.0	1.450	0.063	1.600	29.700	8.280
	46.5E		3994996	3.0	0.515	0.026	0.609	14.350	15.750
	48E		3995146	4.0	0.485	0.022	0.489	10.450	18.600
10.5N	30E	148447	3993346	6.0	1.205	0.092	1.030	29.800	7.130
				12.0	1.175	0.056	0.754	21.400	12.500

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
				13.0	1.155	0.054	0.748	20.500	13.000
	31.5E		3993496	6.0	1.150	0.052	0.815	27.100	8.670
				12.0	1.065	0.038	0.635	20.200	13.300
				13.0	1.105	0.041	0.694	20.600	12.500
	33E		3993646	6.0	1.350	0.055	1.080	29.600	6.160
				9.0	1.350	0.039	0.637	19.800	11.350
	34.5E		3993796	6.0	1.175	0.046	0.926	24.300	10.250
				9.0	0.910	0.027	0.478	14.300	16.750
	36E		3993946	6.0	1.025	0.049	0.984	29.500	7.270
				12.0	0.820	0.050	1.050	29.700	6.840
				18.0	0.919	0.046	0.791	26.500	8.400
				22.0	0.893	0.037	0.578	20.200	11.500
	37.5E		3994096	6.0	1.550	0.068	1.480	36.800	4.250
				12.0	1.305	0.052	1.020	30.000	7.520
				14.5	1.385	0.038	0.729	22.200	11.450
	39E		3994246	6.0	1.140	0.074	1.700	38.300	4.370
				12.0	1.175	0.058	1.250	29.900	9.470
				14.0	0.969	0.041	0.833	21.400	13.350
	40.5E		3994396	6.0	1.165	0.069	1.420	34.500	5.370
	42E		3994546	6.0	1.240	0.064	1.260	35.700	4.630
				12.0	1.175	0.043	0.819	24.200	10.750
				14.0	1.150	0.041	0.734	22.800	12.050
	43.5E		3994696	5.0	1.160	0.049	0.948	27.700	8.990
	45E		3994846	6.0	0.932	0.049	1.030	27.800	8.490
				8.5	0.789	0.041	0.773	22.900	10.800
	46.5E		3994996	6.0	0.901	0.047	0.937	26.200	8.040
				9.0	0.699	0.030	0.577	16.350	14.000
09N	54W	148297	3984946	4.0	0.803	0.071	2.400	37.200	2.740
	51W		3985246	4.0	0.394	0.031	0.990	17.550	13.650
	48W		3985546	3.0	0.402	0.023	0.735	14.250	16.650
	45W		3985846						
	42W		3986146						
	39W		3986446	4.5	0.353	0.023	0.812	13.550	15.550
	36W		3986746	3.0	0.486	0.028	0.853	14.950	15.100
	33W		3987046	3.0	0.565	0.036	1.120	20.800	11.650
	30W		3987346	3.5	0.846	0.016	0.349	9.320	19.200
	27W		3987646	6.0	0.984	0.046	1.070	23.800	10.250
				8.0	0.960	0.041	0.695	21.900	11.950
	24W		3987946	6.0	0.742	0.065	1.600	32.400	12.150

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
				9.0	0.501	0.044	0.857	22.000	13.300
	21W		3988246	3.0	0.758	0.070	2.250	35.700	5.070
	18W		3988546						
	15W		3988846	4.0	0.559	0.054	2.280	31.200	7.200
	12W		3989146	3.0	0.544	0.031	0.721	14.100	14.700
	09W		3989446						
	06W		3989746	3.5	0.617	0.116	1.710	32.700	6.540
	03W		3990046	6.0	0.607	0.062	1.330	27.000	7.080
				9.0	0.501	0.045	0.670	19.050	14.250
	00E		3990346	4.0	0.599	0.048	1.550	25.100	9.310
	03E		3990646	5.0	0.813	0.071	1.420	39.000	2.900
	06E		3990946	4.0	0.535	0.036	0.758	19.400	12.150
	09E		3991246	3.0	0.836	0.072	2.100	35.300	4.290
	12E		3991546	6.0	0.531	0.030	0.665	16.450	14.150
				9.0	0.501	0.035	0.609	16.700	15.050
	15E		3991846	4.0	0.793	0.073	1.470	35.500	3.950
	18E		3992146	6.0	0.626	0.049	0.756	24.100	9.690
				12.0	0.825	0.053	0.930	27.300	7.720
				15.0	0.669	0.041	0.664	21.500	11.400
	21E		3992446	6.0	0.450	0.040	0.679	19.400	14.350
				7.0	0.439	0.047	0.918	23.300	10.400
	24E		3992746	6.0	0.861	0.052	1.110	28.100	7.120
	27E		3993046	3.0	0.628	0.054	1.750	27.400	6.280
	30E		3993346	6.0	1.100	0.061	1.090	28.600	7.230
				9.0	1.320	0.041	0.621	20.000	12.450
	31.5E		3993496	6.0	1.130	0.070	1.300	34.100	4.400
				12.0	1.175	0.041	0.559	18.700	12.850
				15.5	1.180	0.035	0.492	16.850	13.650
	33E		3993646	6.0	1.285	0.106	2.010	42.200	2.070
				9.0	1.590	0.085	1.740	41.600	2.570
	34.5E		3993796	6.0	1.080	0.055	0.920	28.300	7.950
				8.0	1.080	0.056	0.999	28.700	9.400
	36E		3993946	6.0	1.035	0.052	1.340	28.600	6.750
				12.0	1.125	0.053	1.160	28.700	7.740
				15.0	1.270	0.035	0.620	17.900	12.650
	37.5E		3994096	6.0	0.993	0.063	1.140	32.600	6.300
				10.5	0.928	0.051	0.958	27.100	9.670
	39E		3994246	6.0	0.846	0.048	1.100	25.200	8.770
				10.5	1.150	0.043	0.818	22.900	10.350

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	40.5E		3994396	4.0	0.633	0.036	1.370	20.700	13.050
	42E		3994546	6.0	1.450	0.070	1.830	37.400	3.490
				12.0	1.235	0.057	1.530	27.800	7.470
				15.0	1.175	0.056	2.040	25.300	8.590
	43.5E		3994696	6.0	1.150	0.061	1.250	34.300	4.620
				10.5	1.100	0.042	0.709	22.300	10.600
	45E		3994846	5.5	1.225	0.050	1.240	27.500	7.710
	46.5E		3994996	6.0	0.650	0.042	0.807	22.500	11.900
	48E		3995146	4.0	0.574	0.039	1.280	18.450	14.150
07.5N	30E	148147	3993346	6.0	1.210	0.088	1.900	43.000	3.380
				11.0	1.380	0.058	1.120	28.300	9.810
	31.5E		3993496	6.0	1.340	0.099	1.450	37.800	4.370
				12.0	1.660	0.081	1.620	42.800	3.790
				17.5	1.190	0.044	0.774	23.500	12.550
	33E		3993646	6.0	1.210	0.069	1.220	38.900	4.320
	34.5E		3993796	6.0	0.986	0.045	0.968	27.300	9.620
				8.5	0.877	0.030	0.563	17.800	15.450
	36E		3993946	6.0	0.875	0.037	0.829	22.100	11.800
				11.5	0.698	0.026	0.536	15.650	17.000
	37.5E		3994096	6.0	0.959	0.064	1.510	38.400	3.990
				9.5	1.200	0.059	1.140	34.300	6.680
	39E		3994246	6.0	0.841	0.041	1.060	25.700	9.910
				12.0	1.050	0.039	0.817	23.300	10.850
	40.5E		3994396	6.0	0.884	0.049	1.100	29.500	8.730
				12.0	1.100	0.041	0.802	24.300	10.900
				18.0	1.060	0.033	0.640	19.600	13.100
				21.0	1.160	0.033	0.590	18.750	13.100
	42E		3994546	6.0	1.000	0.038	0.742	22.500	8.410
				8.5	1.360	0.039	0.858	24.700	10.650
	43.5E		3994696	6.0	1.190	0.047	0.859	29.000	9.180
				9.0	0.939	0.030	0.568	17.600	14.500
	45E		3994846	6.0	1.080	0.044	0.990	27.000	9.240
	46.5E		3994996	3.0	0.760	0.049	1.480	27.400	9.420
06N	54W	147997	3984946						
	51W		3985246						
	48W		3985546						
	45W		3985846						
	42W		3986146						
	39W		3986446						

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	36W		3986746						
	33W		3987046						
	30W		3987346						
	27W		3987646						
	24W		3987946						
	21W		3988246						
	18W		3988546						
	15W		3988846						
	12W		3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046						
	00E		3990346	3.0	0.422	0.031	0.644	16.350	15.000
	03E		3990646	3.0	0.360	0.038	1.010	15.100	14.200
	06E		3990946						
	09E		3991246	3.0	0.681	0.054	1.170	30.600	5.630
	12E		3991546						
	15E		3991846						
	18E		3992146	3.0	0.555	0.030	0.700	17.850	12.100
	21E		3992446	3.0	0.456	0.035	2.020	18.800	12.450
	24E		3992746						
	27E		3993046	6.0	0.911	0.098	1.630	37.100	4.170
				11.0	0.856	0.051	1.030	25.800	9.490
	30E		3993346	6.0	1.095	0.164	1.740	41.500	3.240
				9.0	0.975	0.198	1.380	35.800	6.440
	33E		3993646	6.0	0.937	0.054	1.170	27.900	9.130
				9.5	0.853	0.040	0.585	16.850	15.000
	34.5E		3993796	6.0	1.080	0.039	0.945	25.600	11.250
				10.0	0.901	0.022	0.468	13.500	18.200
	36E		3993946	6.0	0.890	0.047	0.765	21.800	12.300
				12.0	0.754	0.025	0.458	14.150	17.100
				15.0	0.727	0.027	0.451	13.900	17.950
	37.5E		3994096	6.0	0.866	0.042	0.985	26.000	9.990
				7.5	0.925	0.040	0.866	24.200	11.300
	39E		3994246	6.0	0.901	0.049	0.749	26.500	8.440
				12.0	1.155	0.049	0.756	26.500	8.870
				15.0	1.385	0.050	1.010	28.100	8.480
	40.5E		3994396	6.0	1.110	0.050	1.030	29.100	8.480
				12.0	1.130	0.036	0.811	21.800	12.400

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
				18.0	1.280	0.035	0.646	20.100	12.800
				23.0	1.280	0.029	0.517	17.050	14.050
	42E		3994546	6.0	0.943	0.040	0.942	21.500	11.350
	43.5E		3994696	4.0	0.868	0.042	1.030	23.900	11.000
	45E		3994846	6.0	0.854	0.053	1.390	29.800	5.920
				7.0	0.882	0.043	1.010	23.800	9.730
	45.5E		3994996	6.0	0.801	0.038	0.749	22.900	11.250
				8.5	0.756	0.030	0.536	17.550	13.800
	48E		3995146	6.0	1.070	0.048	1.050	26.000	9.100
				9.0	0.852	0.027	0.525	15.200	14.850
04.5N	30E	147847	3993346	6.0	0.690	0.104	1.210	34.100	5.700
				12.0	0.865	0.069	0.967	28.200	8.500
				13.0	0.796	0.062	0.951	27.000	8.970
	31.5E		3993496	6.0	1.170	0.076	1.900	41.100	4.710
				7.0	1.340	0.068	1.490	34.000	7.570
	33E		3993646	6.0	1.030	0.067	2.170	34.700	7.080
				8.5	0.802	0.047	1.150	26.000	9.950
	34.5E		3993796	5.5	0.874	0.043	0.933	27.100	9.460
	36E		3993946	6.0	0.826	0.031	0.678	18.300	13.900
				11.0	1.150	0.049	0.963	28.200	8.010
	37.5E		3994096	6.0	1.100	0.036	0.790	20.700	12.100
				11.0	0.985	0.049	1.060	30.300	7.780
	39E		3994246	6.0	1.220	0.049	0.982	28.900	8.630
				12.0	1.180	0.045	0.913	25.400	11.250
				13.0	1.140	0.057	1.300	33.200	7.450
	40.5E		3994396	6.0	1.210	0.044	0.821	26.500	6.830
				12.0	1.480	0.045	0.769	26.200	10.500
				14.0	0.968	0.058	1.820	36.400	4.420
	42E		3994546	3.0	1.030	0.042	0.881	26.000	10.450
	43.5E		3994696	5.5	0.815	0.040	0.958	23.700	11.400
	45E		3994846	4.0	0.928	0.033	0.593	21.000	12.550
	46.5E		3994996	6.0	0.851	0.027	0.442	16.350	15.050
				9.0	0.889	0.058	1.740	29.700	8.720
03N	54W	147697	3984946						
	51W		3985246						
	48W		3985546						
	45W		3985846						
	42W		3986146						
	39W		3986446						

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	36W		3986746						
	33W		3987046						
	30W		3987346						
	27W		3987646						
	24W		3987946						
	21W		3988246						
	18W		3988546						
	15W		3988846						
	12W		3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046						
	00E		3990346						
	03E		3990646	3.0	0.487	0.036	0.868	18.650	11.050
	06E		3990946	3.0	0.562	0.040	1.785	20.900	10.650
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146	3.0	0.753	0.036	0.744	22.100	11.400
	21E		3992446	6.0	0.848	0.053	1.080	30.900	6.200
				7.5	0.642	0.040	0.631	22.900	10.800
	24E		3992746	6.0	0.831	0.128	1.450	35.200	5.240
	27E		3993046	6.0	1.105	0.090	1.430	37.800	2.770
	30E		3993346	6.0	0.787	0.134	1.820	37.800	3.000
	33E		3993646	5.0	1.050	0.055	1.160	28.900	7.300
	36E		3993946	3.0	0.513	0.053	1.220	28.800	6.350
	39E		3994246	7.0	0.964	0.038	0.833	20.900	11.400
	42E		3994546	5.0	1.275	0.041	0.832	22.600	9.990
	45E		3994846	6.0	1.030	0.034	0.713	18.950	11.550
	48E		3995146	3.0	0.505	0.030	0.448	14.650	14.850
00N	54W	147397	3984946						
	51W		3985246						
	48W		3985546						
	45W		3985846						
	42W		3986146						
	39W		3986446						
	36W		3986746						
	33W		3987046						
	30W		3987346						

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	27W		3987646						
	24W		3987946						
	21W		3988246						
	18W		3988546						
	15W		3988846						
	12W		3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046						
	00E		3990346						
	03E		3990646						
	06E		3990946	3.0	0.816	0.056	1.070	32.500	4.220
	09E		3991246	4.0	0.540	0.037	1.510	20.100	9.840
	12E		3991546	4.0	0.666	0.049	1.025	26.700	7.280
	15E		3991846	5.0	0.537	0.050	0.943	23.300	9.260
	18E		3992146	6.0	0.868	0.049	0.939	23.600	8.310
	21E		3992446						
	24E		3992746	6.0	0.587	0.084	1.075	30.100	6.490
				7.0	0.530	0.033	0.526	17.850	10.100
	27E		3993046	4.0	0.619	0.048	0.635	22.300	11.800
	30E		3993346	7.0	0.531	0.083	0.828	23.800	10.800
	33E		3993646	6.0	0.672	0.038	0.626	19.500	13.600
	36E		3993946	6.0	0.712	0.087	1.200	33.800	5.700
				12.0	1.000	0.041	0.575	20.100	11.750
				14.0	0.986	0.042	0.638	21.000	11.950
	39E		3994246	6.0	1.325	0.118	1.370	36.200	5.360
				12.0	1.360	0.053	0.586	19.200	12.550
	42E		3994546						
	45E		3994846	4.0	0.984	0.070	1.050	32.300	5.300
	48E		3995146	3.0	0.618	0.039	0.700	19.250	12.600
03S	06W	147097	3989746						
	03W		3990046	3.0	0.567	0.039	0.817	22.300	11.600
	00E		3990346	3.0	0.458	0.047	1.140	26.900	8.840
	03E		3990646	4.5	0.497	0.038	0.735	21.100	12.400
	06E		3990946	6.0	0.643	0.044	0.961	27.900	7.880
				7.0	0.407	0.026	0.501	15.450	15.950
	09E		3991246	4.0	0.595	0.050	0.924	28.500	7.580
	12E		3991546						
	15E		3991846	6.0	0.571	0.068	1.170	31.400	7.330

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
				10.5	0.691	0.048	0.884	26.700	9.210
	18E		3992146	5.0	0.616	0.046	1.430	25.800	9.360
	21E		3992446	5.0	0.513	0.075	1.380	28.400	6.970
	24E		3992746	6.0	0.379	0.072	0.852	21.500	10.150
				12.0	0.691	0.068	1.330	30.300	8.380
	27E		3993046	6.0	0.600	0.078	1.150	28.000	9.690
				12.0	0.904	0.101	1.520	34.900	6.320
				15.0	0.806	0.059	1.050	25.500	11.100
	30E		3993346	4.5	0.764	0.061	1.170	32.400	6.060
	33E		3993646	6.0	0.503	0.031	0.718	16.800	15.300
				9.0	0.614	0.029	0.557	15.900	14.950
	36E		3993946	6.0	0.807	0.041	0.745	21.800	11.850
				12.0	0.754	0.035	0.501	18.550	13.950
				14.0	0.613	0.030	0.510	16.350	16.500
	39E		3994246	5.5	1.150	0.076	2.080	39.400	4.830
	42E		3994546	5.0	1.030	0.048	1.130	26.100	8.900
	45E		3994846	3.5	0.467	0.030	0.695	18.650	13.500
	48E		3995146						
06S	06W	146797	3989746	6.0	0.567	0.044	1.150	25.100	10.350
	03W		3990046	6.0	0.449	0.041	0.829	22.400	12.450
	00E		3990346	6.0	0.532	0.041	0.727	22.800	11.800
				8.0	0.372	0.027	0.446	14.550	18.200
	03E		3990646	6.0	0.779	0.058	0.940	34.600	3.380
				11.0	0.582	0.042	0.572	24.000	11.000
	06E		3990946	3.0	0.367	0.029	0.921	17.050	14.800
	09E		3991246						
	12E		3991546	4.0	0.563	0.034	1.070	20.700	12.650
	15E		3991846	6.0	0.541	0.034	0.564	19.200	13.900
				7.0	0.456	0.028	0.537	15.550	16.500
	18E		3992146						
	21E		3992446	6.0	0.817	0.088	1.170	35.300	3.980
				8.0	0.726	0.069	1.310	32.600	6.120
	24E		3992746	6.0	0.953	0.081	1.840	35.500	5.200
				8.0	1.015	0.081	1.220	36.200	5.180
	27E		3993046	6.0	0.721	0.052	1.040	26.400	9.610
				7.0	0.492	0.032	0.572	16.100	16.050
	30E		3993346	6.0	0.545	0.043	0.885	20.600	12.850
	33E		3993646	6.0	0.647	0.049	1.070	25.000	9.010
				10.0	0.668	0.032	0.553	16.200	14.550

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	36E		3993946	4.5	0.857	0.057	1.060	30.900	6.400
	39E		3994246	4.0	0.852	0.053	1.270	29.900	7.090
	42E		3994546	6.0	1.005	0.047	1.130	24.300	10.250
	45E		3994846	3.0	0.711	0.043	1.570	25.300	9.140
	48E		3995146	3.0	0.604	0.031	0.515	16.150	14.300
09S	06W	146497	3989746	6.0	0.552	0.043	0.972	24.600	10.400
	03W		3990046	5.5	0.340	0.025	0.530	14.100	16.100
	00E		3990346	4.0	0.631	0.052	1.160	30.600	5.810
	03E		3990646	3.0	0.401	0.044	1.420	23.300	9.980
	06E		3990946	6.0	0.480	0.071	1.200	25.800	7.360
				9.0	0.481	0.044	0.861	22.100	12.950
	09E		3991246	6.0	0.419	0.031	0.543	16.250	15.850
	12E		3991546	6.0	0.495	0.048	0.710	20.600	13.550
				9.0	0.586	0.122	1.210	35.100	6.090
	15E		3991846	6.0	0.572	0.053	0.979	27.000	10.200
	18E		3992146	3.0	0.584	0.055	1.220	26.900	6.940
	21E		3992446	4.0	0.627	0.057	1.340	33.500	5.650
	24E		3992746	2.0	0.370	0.061	1.490	32.800	4.870
	27E		3993046	6.0	0.933	0.105	1.570	38.900	5.650
				8.0	1.275	0.169	1.810	46.400	1.560
	30E		3993346	6.0	0.752	0.091	1.040	35.200	4.570
	33E		3993646	5.0	0.762	0.063	1.190	32.400	5.480
	36E		3993946	6.0	0.831	0.043	0.900	24.200	9.800
				9.0	0.712	0.030	0.550	15.950	15.400
	39E		3994246	6.0	0.628	0.033	0.632	17.600	14.700
				9.0	0.771	0.031	0.601	18.550	14.100
	42E		3994546	6.0	0.880	0.032	0.667	18.250	13.800
	45E		3994846	6.0	0.954	0.044	1.030	24.800	11.100
				9.0	0.707	0.033	0.830	18.350	14.350
	46.5E			4.0	0.780	0.043	0.880	21.900	11.100
	48E		3995146						
12S	06W	146197	3989746	4.0	0.800	0.046	1.160	28.300	7.740
	03W		3990046						
	00E		3990346	6.0	0.759	0.049	1.000	27.100	10.500
	03E		3990646	4.0	0.535	0.062	1.370	32.500	5.500
	06E		3990946	6.0	0.945	0.200	1.710	48.700	1.130
				9.0	0.706	0.121	1.230	34.800	7.740
	09E		3991246	6.0	0.670	0.116	1.070	32.500	9.220
				10.0	0.625	0.140	1.010	30.100	10.350

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	12E		3991546	6.0	0.930	0.193	1.240	33.800	6.170
				12.0	0.822	0.208	1.060	28.800	9.330
	15E		3991846	4.0	0.520	0.055	1.130	27.800	8.640
	18E		3992146	6.0	1.070	0.187	1.520	37.200	3.590
				9.0	1.200	0.158	1.590	39.300	5.730
	21E		3992446	3.0	0.983	0.129	1.260	36.000	4.780
	24E		3992746	6.0	0.658	0.068	0.858	21.400	13.100
				8.0	0.554	0.074	0.701	20.800	13.800
	27E		3993046	5.0	0.795	0.091	1.200	34.600	5.790
	30E		3993346	6.0	0.923	0.190	1.720	44.100	4.150
				10.0	0.725	0.100	1.040	29.300	10.800
	33E		3993646	6.0	0.707	0.049	0.677	20.500	14.000
				11.0	0.714	0.048	0.685	19.900	13.900
	36E		3993946	5.0	0.723	0.052	0.957	27.400	10.450
	39E		3994246						
	42E		3994546	5.0	0.607	0.030	0.680	16.800	14.850
	45E		3994846						
	48E		3995146						
15S	06W	145897	3989746						
	03W		3990046	6.0	0.696	0.047	0.905	27.000	9.330
	00E		3990346	5.5	0.533	0.050	0.859	25.200	11.400
	03E		3990646	6.0	0.837	0.142	1.210	30.100	8.580
	06E		3990946	6.0	0.766	0.073	1.350	35.700	4.990
	09E		3991246	5.0	0.586	0.065	1.130	29.200	10.300
	12E		3991546	6.0	0.866	0.220	1.930	43.600	1.730
	15E		3991846	6.0	0.807	0.078	1.620	39.400	3.540
	18E		3992146	6.0	0.873	0.174	1.290	33.300	6.250
				9.0	0.789	0.122	0.901	24.800	11.050
	21E		3992446	6.0	1.330	0.168	1.430	43.200	3.070
				10.0	1.220	0.126	1.020	30.500	8.950
				12.0	1.020	0.109	0.663	20.600	15.150
	24E		3992746	6.0	0.751	0.062	0.779	18.600	16.250
				10.0	0.890	0.065	0.665	15.900	16.750
	27E		3993046	4.0	1.270	0.122	2.010	39.500	3.920
	30E		3993346	6.0	0.471	0.027	0.436	12.200	19.000
	33E		3993646	5.0	0.528	0.031	0.704	16.400	16.300
	36E		3993946	6.0	0.705	0.043	1.100	23.300	11.350
	39E		3994246						
	42E		3994546	3.0	0.453	0.030	0.607	17.000	15.800

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	45E		3994846	3.0	0.666	0.025	0.449	11.850	16.800
	48E		3995146						
18S	06W	145597	3989746	3.0	0.593	0.038	1.030	23.500	9.870
	03W		3990046	5.0	0.684	0.039	0.758	20.600	11.450
	00E		3990346	6.0	0.867	0.074	1.540	34.800	4.390
				8.0	0.816	0.060	1.290	31.900	5.580
	03E		3990646	3.0	0.744	0.062	1.530	36.700	4.390
	06E		3990946	3.0	0.653	0.045	1.580	24.400	7.590
	09E		3991246	5.0	0.691	0.050	1.240	27.800	8.740
	12E		3991546	6.0	0.818	0.051	1.070	25.500	9.910
	15E		3991846	6.0	0.879	0.074	1.140	30.600	6.700
				12.0	0.968	0.084	1.080	29.700	7.020
				13.5	0.905	0.061	1.300	28.500	7.260
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346						
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
	45E		3994846						
	48E		3995146						
21S	06W	145297	3989746	6.0	1.080	0.131	2.010	43.100	1.680
				7.0	1.070	0.111	1.670	38.200	5.180
	03W		3990046	6.0	0.759	0.067	1.190	32.300	6.080
	00E		3990346	6.0	0.645	0.059	1.010	29.500	9.170
	03E		3990646	5.0	0.831	0.072	1.280	36.400	3.870
	06E		3990946	6.0	0.551	0.036	0.693	23.100	11.950
				9.0	0.467	0.026	0.627	19.450	14.850
	09E		3991246	5.5	0.591	0.041	0.950	23.600	10.800
	12E		3991546						
	15E		3991846	4.0	1.230	0.101	2.170	43.500	2.390
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346						

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
	45E		3994846						
	48E		3995146						
24S	06W	144997	3989746						
	03W		3990046						
	00E		3990346						
	03E		3990646						
	06E		3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346						
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
	45E		3994846						
	48E		3995146						
27S	06W	144697	3989746	5.0	0.849	0.049	0.807	24.700	10.350
	03W		3990046	6.0	0.790	0.074	0.696	25.400	9.120
				8.0	0.629	0.053	0.460	15.300	14.800
	00E		3990346	6.0	0.818	0.073	1.090	35.200	4.470
	03E		3990646	6.0	0.890	0.106	1.830	43.400	1.740
				9.0	0.623	0.056	0.863	24.800	10.950
	06E		3990946	5.0	0.714	0.056	0.783	29.100	6.880
	09E		3991246	6.0	0.705	0.047	0.810	30.100	6.120
	12E		3991546	6.0	0.361	0.031	0.413	15.200	16.600
				8.0	0.375	0.027	0.387	13.300	18.700
	15E		3991846	6.0	1.085	0.114	1.810	45.500	1.680
				9.0	1.130	0.126	1.950	46.500	3.700
	18E		3992146	3.0	0.819	0.055	1.460	27.000	7.280
	21E		3992446	6.0	0.753	0.049	0.838	24.100	10.850

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
				8.0	0.887	0.052	0.926	25.800	9.700
	24E		3992746	6.0	0.905	0.068	1.530	37.700	5.790
				12.0	0.849	0.041	0.767	21.800	10.600
				15.0	0.878	0.037	0.738	19.600	12.350
	27E		3993046	6.0	0.508	0.038	0.740	21.100	13.200
	30E		3993346	3.0	0.670	0.061	1.510	26.300	8.360
	33E		3993646	6.0	0.903	0.079	1.560	40.700	3.180
				12.0	0.925	0.075	1.770	38.300	4.370
				15.0	0.877	0.053	1.220	28.700	9.540
	36E		3993946	6.0	0.662	0.026	0.575	15.750	12.800
				12.0	1.025	0.038	0.934	21.400	12.200
				14.0	1.160	0.034	0.777	18.650	12.950
	39E		3994246	6.0	0.625	0.037	1.110	19.900	12.000
	42E		3994546						
	45E		3994846						
	48E		3995146						
30S	06W	144397	3989746						
	03W		3990046	6.0	0.932	0.055	1.110	31.000	5.900
				10.0	0.952	0.042	0.839	23.400	7.930
	00E		3990346	5.0	0.709	0.045	0.886	26.000	7.860
	03E		3990646						
	06E		3990946	6.0	0.640	0.044	0.960	26.100	7.500
	09E		3991246	6.0	0.706	0.055	1.110	33.000	3.210
	12E		3991546	3.0	0.647	0.048	1.140	26.300	6.400
	15E		3991846						
	18E		3992146	6.0	0.921	0.090	1.360	34.100	6.350
	21E		3992446	3.0	0.572	0.049	2.030	24.000	8.660
	24E		3992746						
	27E		3993046	3.0	0.376	0.025	0.899	13.050	14.500
	30E		3993346	3.0	0.507	0.035	1.020	20.000	10.750
	33E		3993646	3.0	0.774	0.058	1.840	38.000	3.970
	36E		3993946	6.0	0.724	0.046	1.400	25.700	10.450
	39E		3994246	6.0	1.020	0.059	1.290	34.200	6.510
				8.0	0.939	0.045	0.876	25.900	9.930
	42E		3994546						
	45E		3994846						
	48E		3995146						
33S	06W	144097	3989746						
	03W		3990046						

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	00E		3990346						
	03E		3990646						
	06E		3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346						
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
	45E		3994846						
	48E		3995146						
36S	06W	143797	3989746						
	03W		3990046						
	00E		3990346						
	03E		3990646						
	06E		3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346						
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
	45E		3994846						
	48E		3995146						
39S	06W	143497	3989746						
	03W		3990046						
	00E		3990346						

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	03E		3990646						
	06E		3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346						
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
	45E		3994846						
	48E		3995146						
42S	06W	143197	3989746						
	03W		3990046						
	00E		3990346						
	03E		3990646						
	06E		3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346						
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
	45E		3994846						
	48E		3995146						
45S	12W	142897	3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046	6.0	0.652	0.041	0.832	21.600	11.000

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	00E		3990346	6.0	0.422	0.020	0.364	10.200	19.150
	03E		3990646	6.0	0.455	0.051	1.050	22.400	11.950
	06E		3990946	4.0	0.623	0.061	1.960	32.800	3.790
	09E		3991246	6.0	0.682	0.057	0.947	31.100	5.370
				9.0	0.440	0.033	0.613	17.900	15.650
	12E		3991546	3.5	0.595	0.058	1.050	29.300	7.620
	15E		3991846	6.0	0.982	0.123	1.220	39.100	3.140
				8.0	0.832	0.059	0.846	27.000	9.720
	18E		3992146	6.0	0.952	0.072	1.200	31.200	7.190
	21E		3992446	5.0	0.497	0.048	0.913	21.400	12.750
	24E		3992746	6.0	0.666	0.078	0.815	20.600	13.800
				9.0	0.659	0.056	0.556	14.900	17.200
	27E		3993046	6.0	1.140	0.063	1.130	30.800	6.970
				12.0	1.250	0.059	0.889	29.100	8.460
	30E		3993346	6.0	0.937	0.065	1.260	34.700	4.490
				9.0	0.730	0.049	0.899	25.100	10.050
	33E		3993646	6.0	0.991	0.054	1.020	28.700	6.930
				12.0	0.981	0.036	0.662	19.550	12.200
	36E		3993946	6.0	0.813	0.045	1.020	23.100	11.150
				8.0	0.663	0.033	0.748	17.900	14.400
	39E		3994246	5.0	0.679	0.037	0.869	21.400	12.650
	42E		3994546	6.0	1.260	0.049	1.020	25.700	9.330
				8.0	1.030	0.055	1.240	26.900	7.730
	45E		3994846						
	48E		3995146						
48S	12W	142597	3989146						
	09W		3989446						
	06W		3989746	3.0	0.230	0.018	0.580	10.200	14.800
	03W		3990046	3.0	0.423	0.037	1.480	18.800	12.950
	00E		3990346						
	03E		3990646						
	06E		3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	30E		3993346						
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
	45E		3994846						
	48E		3995146						
51S	12W	142297	3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046						
	00E		3990346						
	03E		3990646						
	06E		3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346						
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
	45E		3994846						
	48E		3995146						
54S	12W	141997	3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046						
	00E		3990346						
	03E		3990646						
	06E		3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346						
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
	45E		3994846						
	48E		3995146						
57S	12W	141697	3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046						
	00E		3990346						
	03E		3990646						
	06E		3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346						
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
	45E		3994846						
	48E		3995146						
60S	12W	141397	3989146	6.0	0.646	0.027	0.525	15.300	15.500
				7.5	0.642	0.028	0.587	16.400	15.100
	09W		3989446	5.0	0.830	0.048	1.000	21.200	12.300
	06W		3989746	6.0	0.662	0.042	0.862	24.100	11.200
				8.5	0.532	0.033	0.791	19.750	13.400
	03W		3990046	6.0	0.632	0.043	0.855	22.600	12.250
				9.5	0.588	0.028	0.545	15.900	16.400
	00E		3990346	6.0	0.321	0.024	0.379	13.000	16.050

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	03E		3990646	6.0	0.809	0.057	0.974	25.600	11.250
				7.0	0.574	0.036	0.620	17.650	15.650
	06E		3990946	6.0	1.260	0.240	2.110	44.800	1.230
				12.0	1.120	0.146	1.210	29.100	7.740
	09E		3991246	6.0	0.595	0.099	1.250	32.500	8.110
	12E		3991546	4.0	0.693	0.048	0.986	29.300	6.160
	15E		3991846	6.0	0.572	0.095	1.400	37.200	2.980
				7.0	0.522	0.068	0.958	27.900	8.810
	18E		3992146	4.0	0.716	0.059	1.690	30.900	7.090
	21E		3992446	3.0	0.297	0.021	0.518	12.650	16.750
	24E		3992746	6.0	0.604	0.045	1.710	26.700	7.510
	27E		3993046						
	30E		3993346						
	33E		3993646	3.0	0.315	0.017	0.417	10.450	17.550
	36E		3993946						
	39E		3994246	3.0	0.362	0.021	0.646	13.250	15.950
	42E		3994546	4.0	0.009	0.001	0.013	1.590	0.160
	45E		3994846	4.0	0.008	0.001	0.011	1.030	0.100
	48E		3995146	6.0	0.034	0.001	0.026	5.600	0.460
63S	12W	141097	3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046						
	00E		3990346						
	03E		3990646						
	06E		3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346						
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
	45E		3994846						

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	48E		3995146						
66S	12W	140797	3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046						
	00E		3990346						
	03E		3990646						
	06E		3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346						
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
	45E		3994846						
	48E		3995146						
69S	12W	140497	3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046						
	00E		3990346						
	03E		3990646						
	06E		3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346						
	33E		3993646						
	36E		3993946						

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	39E		3994246						
	42E		3994546						
	45E		3994846						
	48E		3995146						
72S	12W	140197	3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046						
	00E		3990346						
	03E		3990646						
	06E		3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346						
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
	45E		3994846						
	48E		3995146						
75S	12W	139897	3989146	3.0	0.376	0.027	0.597	16.400	13.450
	09W		3989446	4.0	0.609	0.034	0.823	17.750	14.000
	06W		3989746						
	03W		3990046	6.0	0.572	0.033	0.643	17.150	14.500
				8.0	0.541	0.024	0.442	12.850	17.350
	00E		3990346	6.0	0.584	0.040	0.591	16.700	15.650
				9.0	0.495	0.026	0.575	12.100	17.500
	03E		3990646	4.0	0.638	0.038	0.806	20.000	13.400
	06E		3990946	6.0	0.817	0.139	1.210	32.400	8.220
	09E		3991246	5.0	0.603	0.054	1.090	23.600	11.350
	12E		3991546	4.0	0.830	0.064	1.220	31.900	4.580
	15E		3991846						
	18E		3992146	6.0	0.742	0.046	0.846	25.500	8.190
				8.0	0.664	0.038	0.640	21.100	13.450

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	21E		3992446	3.0	0.679	0.031	0.466	18.600	11.700
	24E		3992746	4.0	0.679	0.049	0.835	26.000	7.370
	27E		3993046	3.0	0.554	0.035	0.613	19.150	10.500
	30E		3993346	4.0	0.608	0.042	0.857	22.100	9.300
	33E		3993646						
	36E		3993946	6.0	0.589	0.029	0.605	16.650	15.000
				8.0	0.756	0.035	0.717	18.550	25.200
	39E		3994246	3.0	0.317	0.025	0.709	13.850	16.600
	42E		3994546	3.0	0.309	0.022	0.637	11.900	16.550
	45E		3994846	3.0	0.385	0.035	1.125	18.100	11.800
	48E		3995146						
78S	12W	139597	3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046						
	00E		3990346						
	03E		3990646						
	06E		3990946						
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346						
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
	45E		3994846						
	48E		3995146						
81S	12W	139297	3989146						
	09W		3989446						
	06W		3989746						
	03W		3990046						
	00E		3990346						
	03E		3990646						
	06E		3990946						

Proposed drill/sample locations				Sample Information					
Grid cords		State Plane		Sample No. / Depth	Assay values (in percent)				
N-S	E-W	Northing	Easting		Ni	Co	Cr	Fe	Mg
	09E		3991246						
	12E		3991546						
	15E		3991846						
	18E		3992146						
	21E		3992446						
	24E		3992746						
	27E		3993046						
	30E		3993346						
	33E		3993646						
	36E		3993946						
	39E		3994246						
	42E		3994546						
	45E		3994846						
	48E		3995146						
				1084					

Drill / Sample Log**Project:** Cleo - TR-1

Date: 7/19/09

Sampler: Hutchins

Grid Cords: -18.24 N — 15.44 E

Time: 1425

Weather: Clear

On Grid: Northing: 145,521.0

Easting: 3,991,862.0

Elevation: 3379.0

Offset: Distance: NA ft.

Bearing: NA deg.

Angle: NA deg.

Δ Northing: NA ft.

Δ Easting: NA ft.

Δ Elevation: NA ft.

Actual: Northing: 145,521.0

Easting: 3,991,862.0

Elevation: 3379.0

Total Depth: 24.0

Refusals: N/A

Surface desc: Dark brownish red, 25-35% boulders, 5-15% gravel, 5-15% sand, 35-45% fines, dry, non-plastic, medium amounts of kanga

Sampling Log

Sample No.	Depth	Description
CL-R-1-21	15-21	Brown, 90-95% fines, 5-10% sand, 0-5% gravel, wet, medium plasticity, medium density
		Analysis: Ni: 0.774 Co: 0.068 Cr: 0.858
CL-R-1-24	24.0	Light yellowish brown, 85-95% fines, 5-15% sand, 0-5% gravel, wet to saturated, low to medium plasticity, medium density.
		Analysis: Ni: 0.816 Co: 0.068 Cr: 0.892
		Analysis: Ni: Co: Cr:
		Analysis: Ni: Co: Cr:

Drill / Sample Log**Project:** Cleo - TR-2

Date: 7/23/09

Sampler: Shallcross

Grid Cords: 12.40 N — 30.41 E

Time: 1020

Weather: Sunny and windy

On Grid: Northing: 148,634.0

Easting: 3,993,385.0

Elevation: 3100.0

Offset: Distance: NA ft.

Bearing: NA deg.

Angle: NA deg.

Δ Northing: NA ft.

Δ Easting: NA ft.

Δ Elevation: NA ft.

Actual: Northing: 148,634.0

Easting: 3,993,385.0

Elevation: 3100.0

Total Depth: 24.0

Refusals: N/A

Surface desc: Dark brownish red, 40-50% cobbles and boulders, 5-10% gravel, 10-15% sand, 25-45% fines, dry, non-plastic, kanga present

Sampling Log

Sample No.	Depth	Description
CL-R-2-21	15-21	Brown, 90-95% fines, 5-10% sand, trace gravel, wet, low to medium plasticity, medium density
		Analysis: Ni: 1.180 Co: 0.043 Cr: 0.539
CL-R-2-24	24.0	Yellowish brown, 80-90% fines, 5-10% sand, 5-10% gravel, saturated, medium plasticity, medium density.
		Analysis: Ni: 1.110 Co: 0.035 Cr: 0.420
		Note: Rock was encountered and drilled through 3 separate times. 23' was total depth of adjacent borehole approximately 10' NE and designated the initial center of Trench 2.
		Analysis: Ni: Co: Cr:
		Analysis: Ni: Co: Cr:

Drill / Sample Log**Project:** Cleo - TR-3Date: 9/8/09Sampler: HutchinsGrid Cords: 44.50 N — 18.19 ETime: 1200Weather: Clear**On Grid:** Northing: 151,892.0 Easting: 3,993,061.0 Elevation: UNKOffset: Distance: NA ft. Bearing: NA deg. Angle: NA deg. Δ Northing: NA ft. Δ Easting: NA ft. Δ Elevation: NA ft.**Actual:** Northing: 151,892.0 Easting: 3,993,061.0 Elevation: UNKTotal Depth: 31.0 Refusals: 6 at 3 to 6' bgs.Surface desc: Reddish brown, 30-40% boulders, 10-15% gravel, 10-15% sand, 25-25% fines, dry, non-plastic, low amounts of kanga**Sampling Log**

Sample No.	Depth	Description
CL-R-3-21	15-21	Light reddish brown, 80-90% fines, 10-20% sand, 0-5% gravel, wet, low plasticity, medium density Analysis: Ni: <u>0.967</u> Co: <u>0.069</u> Cr: <u>0.479</u>
CL-R-3-27	27.0	Light reddish brown, 80-90% fines, 10-20% sand, 0-5% gravel, wet, low to medium plasticity, medium density Analysis: Ni: <u>1.205</u> Co: <u>0.030</u> Cr: <u>0.517</u>
CL-R-3-31	31.0	Light reddish brown, 80-90% fines, 10-20% sand, 0-5% gravel, wet, low to medium plasticity, medium density Analysis: Ni: <u>1.185</u> Co: <u>0.027</u> Cr: <u>0.453</u>
		Analysis: Ni: <u></u> Co: <u></u> Cr: <u></u>

Drill / Sample Log**Project:** Cleo - TR-4

Date: 9/9/09

Sampler: Hutchins

Grid Cords: 63.00 N — 27.48 E

Time: 1000

Weather: Clear/Cloudy

On Grid: Northing: 153,697.0 Easting: 3,993,094.0 Elevation: 2862.0

Offset: Distance: NA ft. Bearing: NA deg. Angle: NA deg.

 Δ Northing: NA ft. Δ Easting: NA ft. Δ Elevation: NA ft.**Actual:** Northing: 153,697.0 Easting: 3,993,094.0 Elevation: 2862.0

Total Depth: 20.0 Refusals: UNK

Surface desc: Dark reddish brown, 5-10% boulders, 5-10% gravel, 5-15% sand, 60-70% fines, dry, non-plastic, minor amounts of kanga

Sampling Log

Sample No.	Depth	Description
CL-R-4-20	15-20	Light reddish brown, 90-95% fines, 5-10% sand, 0-5% gravel, wet, medium plasticity, medium to high density
		Analysis: Ni: 1.495 Co: 0.035 Cr: 0.614
		Note: Hole was hard to drill due to high soil density, 0 to 4 feet bgs contained increased amount of boulders indicated by multiple refusals in same area.
		Analysis: Ni: Co: Cr:
		Analysis: Ni: Co: Cr:
		Analysis: Ni: Co: Cr:

Drill / Sample Log**Project:** Cleo - TR-5Date: 8/20/09Sampler: HutchinsGrid Cords: 47.40 N — 37.55 ETime: UNKWeather: Clear**On Grid:** Northing: 152,137.0 Easting: 3,994,101.0 Elevation: 2810.0Offset: Distance: NA ft. Bearing: NA deg. Angle: NA deg. Δ Northing: NA ft. Δ Easting: NA ft. Δ Elevation: NA ft.**Actual:** Northing: 152,137.0 Easting: 3,994,101.0 Elevation: 2810.0Total Depth: 13.0 Refusals: None, hole advanced from bottom of trenchSurface desc: NA**Sampling Log**

Sample No.	Depth	Description
CL-R-5-13	7-13	Reddish brown, 60-70% fines, 15-20% sand, 15-20% gravel, wet, low plasticity, low density
		Analysis: Ni: <u>0.896</u> Co: <u>0.024</u> Cr: <u>0.477</u>
		Analysis: Ni: <u></u> Co: <u></u> Cr: <u></u>
		Analysis: Ni: <u></u> Co: <u></u> Cr: <u></u>
		Analysis: Ni: <u></u> Co: <u></u> Cr: <u></u>

Drill / Sample Log**Project:** CleopatraDate: 10/2/08Sampler: HutchinsGrid Cords: 6N-36ETime: 1130Weather: Rain**On Grid:** Northing: 147,997.0Easting: 3,993,946.0Elevation: 3,016.9Offset: Distance: NA ft.Bearing: NA deg.Angle: NA deg. Δ Northing: NA ft. Δ Easting: NA ft. Δ Elevation: NA ft.**Actual:** Northing: 147,997.0Easting: 3,993,947.0Elevation: 3013.7Total Depth: 18.0Refusals: 2Surface desc: No soil visible, 95-100% boulders, 0-5% gravel, 0-5% sand, 0-5% fines, dry, non-plastic**Sampling Log**

Sample No.	Depth	Description
6N-36E-6	6.0	Light reddish brown, 90-100% fines, 0-5% sand, 0-5% gravel, moist-wet, med-plasticity, med-density Analysis: Ni: 0.890 Co: 0.047 Cr: 0.765
6N-36E-12	12.0	Light reddish brown, 75-85% fines, 15-20% sand, 0-5% gravel, wet-saturated, low plasticity, med-density Analysis: Ni: 0.754 Co: 0.025 Cr: 0.458
6N-36E-15	15.0	Light reddish brown, 75-85% fines, 15-25% sand, 0-5% gravel, wet-saturated, low plasticity, med-density, not stopped at 15' Analysis: Ni: 0.727 Co: 0.027 Cr: 0.451
----- Deepened on 8/26/09 by Hutchins with 4-man auger		
CL-6N-36E-18	18.0	Brown, 50-60% fines, 15-25% sand, 15-25% gravel, moist, non-plastic Analysis: Ni: 0.531 Co: 0.020 Cr: 0.377

Drill / Sample Log**Project:** CleopatraDate: 10/2/08Sampler: HutchinsGrid Cords: 6N-39ETime: 1220Weather: Rain**On Grid:** Northing: 147,997.0Easting: 3,994,246.0Elevation: 2,941.9Offset: Distance: NA ft.Bearing: NA deg.Angle: NA deg. Δ Northing: NA ft. Δ Easting: NA ft. Δ Elevation: NA ft.**Actual:** Northing: 148,008.0Easting: 3,994,277.0Elevation: 2922.6Total Depth: 21.0Refusals: 4Surface desc: Dark brownish red, 70-80% boulders, 5-10% gravel, 5-10% sand, 5-10% fines, dry, non-plastic**Sampling Log**

Sample No.	Depth	Description
6N-39E-6	6.0	Light reddish brown, 85-95% fines, 5-10% sand, 0-5% gravel, moist-wet, med-high plasticity, med-density Analysis: Ni: 0.901 Co: 0.049 Cr: 0.749
6N-39E-12	12.0	Light reddish brown, 85-95% fines, 5-10% sand, 0-5% gravel, wet, med- plasticity, high density Analysis: Ni: 1.150 Co: 0.049 Cr: 0.756
6N-39E-15	15.0	Light reddish brown, 85-95% fines, 5-10% sand, 0-5% gravel, wet, med- plasticity, high density Analysis: Ni: 1.385 Co: 0.050 Cr: 1.010
----- Deepened on 8/26/2009 by Hutchins with 4-man auger -----		
CL-6N-39E-21	21.0	Light reddish brown, 70-80% fines, 10-20% sand, 5-10% gravel, wet, low plasticity, medium density (easy drilling) Analysis: Ni: 1.100 Co: 0.045 Cr: 1.060

Drill / Sample Log**Project:** CleopatraDate: 10/14/08Sampler: StineGrid Cords: 9N-31.5ETime: 1340Weather: Clear**On Grid:** Northing: 148,297.0Easting: 3,993,496.0Elevation: 3,114.6Offset: Distance: NA ft.Bearing: NA deg.Angle: NA deg. Δ Northing: NA ft. Δ Easting: NA ft. Δ Elevation: NA ft.**Actual:** Northing: 148,254.0Easting: 3,993,433.0Elevation: 3115.8Total Depth: 20.0Refusals: 8Surface desc: Reddish brown, 65-75% boulders, 5-10% gravel, 5-10% sand, 10-20% fines, dry, non-plastic**Sampling Log**

Sample No.	Depth	Description
9N-31.5E-6	6.0	Reddish brown, 60-70% fines, 30-40% med sand, 0-5% gravel, moist, high plasticity, med-high density Analysis: Ni: 1.130 Co: 0.070 Cr: 1.300
9N-31.5E-12	12.0	Yellowish brown, 70-80% fines, 20-30% med-coarse sand, 0-5% gravel, moist, high plasticity, med-density Analysis: Ni: 1.175 Co: 0.041 Cr: 0.559
9N-31.5E-15.5	15.5	Yellowish brown, 70-80% fines, 20-30% med-coarse sand, 0-5% gravel, moist, high plasticity, med-density from 12-13' and noticably easier drilling/low density from 13-15.5' Analysis: Ni: 1.180 Co: 0.035 Cr: 0.492
----- Deepened on 8/26/2009 by Hutchins with 4-man auger -----		
CL-9N-31.5E-20	20.0	Brown, 75-85% fines, 10-20% sand, 0-5% gravel, wet, medium plasticity, medium density Analysis: Ni: 1.080 Co: 0.032 Cr: 0.559

Drill / Sample Log**Project:** CleopatraDate: 9/18/08Sampler: StineGrid Cords: 9N-36ETime: 910Weather: Clear**On Grid:** Northing: 148,297.0Easting: 3,993,946.0Elevation: 3,012.9Offset: Distance: NA ft.Bearing: NA deg.Angle: NA deg. Δ Northing: NA ft. Δ Easting: NA ft. Δ Elevation: NA ft.**Actual:** Northing: 148,309.0Easting: 3,993,955.0Elevation: 2994.8Total Depth: 21.5Refusals: 0Surface desc: Dark reddish brown, 70-80% boulders, 5-15% gravel, 5-15% sand, 5-15% fines, dry, non-plastic, small amounts of kanga present**Sampling Log**

Sample No.	Depth	Description
9N-36E-6	6.0	Reddish brown, 70-80% fines, 20-30% sand, 0-5% gravel, moist, low-med plasticity, low-med density Analysis: Ni: 1.035 Co: 0.052 Cr: 1.340
9N-36E-12	12.0	Medium brown, 70-80% fines, 20-30% sand, 0-5% gravel, wet, m-high plasticity, m-high density Analysis: Ni: 1.125 Co: 0.053 Cr: 1.160
9N-36E-15	15.0	Light brown, 70-80% fines, 20-30% sand, 0-5% gravel, wet, med-high plasticity, m-high density, end of rod-no refusal @15' Analysis: Ni: 1.270 Co: 0.035 Cr: 0.620
----- Deepened on 8-25-2009 by Hutchins with 4-man auger -----		
CL-9N-36E-21.5	21.5	Light reddish brown, 70-80% fines, 10-15% sand, 0-5% gravel, wet, medium density, low plasticity. Analysis: Ni: 1.190 Co: 0.030 Cr: 0.624

Cleopatra: Trench #1

Analytic Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_A_1_1	0.582	0.093	2.490	40.60	2.42	Oxidized Surface Layer	SANDY CLAY (ML), dark brownish red, 70-80% fines, 10-20% sand, 0-5% gravel, dry, non-plastic, low density. Minor kanga.
CL_A_1_2	0.785	0.133	2.310	42.60	2.09	Limonite	SANDY CLAY (ML), dark brownish red, 75-85% fines, 5-15% sand, 0-5% gravel, dry, non-plastic, low density.
CL_A_1_3	0.841	0.192	2.470	47.50	1.57	Limonite	SANDY CLAY (ML), dark reddish brown, 75-85% fines, 10-20% sand, 0-5% gravel, dry, non-plastic, med density.
CL_A_1_4	0.864	0.207	2.450	47.10	1.18	Saprolite	SANDY CLAY (ML), dark reddish brown, 75-85% fines, 10-20% sand, 0-5% gravel, dry-moist, non plastic, med density.
CL_A_1_5	0.954	0.202	2.130	46.40	1.25	Saprolite	SANDY CLAY (ML), dark reddish brown, 85-95% fines, 5-15% sand, 0-5% gravel, dry-moist, non-plastic, med density.
CL_A_1_6	1.000	0.169	2.250	44.80	1.70	Saprolite	SANDY CLAY (ML), dark reddish brown, 85-95% fines, 5-10% sand, 0-5% gravel, moist, non plastic, med density.
CL_A_1_7	1.055	0.148	1.750	40.10	3.76	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-90% fines, 10-20% sand, 0-5% gravel, moist, low plasticity, med density.
CL_A_1_8	1.050	0.101	1.310	33.60	7.70	Saprolite	SANDY CLAY (ML), reddish brown, 85-95% fines, 0-10% sand, 0-5% gravel, moist-wet, low plasticity, med density.
CL_A_1_9	1.380	0.149	1.760	39.20	4.37	Saprolite	SANDY CLAY (ML), reddish brown, 85-90% fines, 0-10% sand, 0-5% gravel, wet, low plasticity, med density.
Average	0.946	0.155	2.102	42.43	2.89		

Cleopatra: Trench #1

Corestone Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_1_0	0.245	0.013	0.195	6.29	24.00	Rind	Weathered rind from 4 surface boulders varying in size.
CL_CSC_1_0	0.235	0.012	0.193	6.28	24.00	Core	Peridotite core sample from 4 surface boulders varying is size.
CL_CSR_1_2	0.392	0.014	0.206	6.70	22.80	Rind	Sample is of a hard rind material collected off a 2' diameter boulder.
CL_CSC_1_2	0.244	0.012	0.186	6.34	23.50	Core	Sample is of a peridotite core from a 2' diameter boulder.
CL_CSR_1_4	0.210	0.037	0.457	8.10	16.00	Rind	Sample contains soft rind material from the bottom of a 5' diameter boulder. Rind was approximately 2-3.5" thick.
CL_CSC_1_4	0.236	0.012	0.202	6.20	24.80	Core	Sample contains fresh peridotite collected from within a 5' diameter boulder.
CL_CSR_1_7	0.446	0.023	0.530	10.55	19.45	Rind	Sample contains soft rind material measuring 0.5 to 1" thick. Boulder was 1.5' in diameter.
CL_CSC_1_7	0.263	0.012	0.209	6.35	25.70	Core	Sample contains peridotite core off a boulder measuring 1.5' in diameter.
CL_CSR_1_9	0.379	0.015	0.271	8.07	23.10	Rind	Sample contains soft and hard rind material from a 2.5' diameter boulder.
CL_CSC_1_9	0.257	0.012	0.174	6.34	25.40	Core	Sample contains peridotite core off a boulder measuring 2.5' in diameter.
Rind Average	0.334	0.020	0.332	7.942	21.070		
Core Average	0.247	0.012	0.193	6.30	24.68		
Grab Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_1_2b	0.352	0.015	0.254	7.16	24.10	Vein	Sample contains serpentine from cracks/veins in boulders.

Cleopatra: Trench #2

Analytic Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_A_2_1	0.928	0.108	1.600	37.90	2.92	Oxidized Surface Layer	SANDY CLAY (ML), dark brownish red, 80-90% fines, 5-10% sand, 0-5% gravel, dry, non-plastic, low density. Minor kanga.
CL_A_2_2	1.085	0.078	1.280	34.20	4.31	Limonite	SANDY CLAY (ML), dark brownish red, 80-90% fines, 5-10% sand, 0-5% gravel, dry, non-plastic, low-med density.
CL_A_2_3	1.370	0.054	0.943	27.90	7.40	Saprolite	SANDY CLAY (ML), dark reddish brown, 90-95% fines, 5-10% sand, 0-5% gravel, moist, non-plastic, low-med density.
CL_A_2_4	1.290	0.066	0.993	28.00	7.16	Saprolite	SANDY CLAY (ML), dark reddish brown, 90-95% fines, 5-10% sand, 0-5% gravel, moist, low plasticity, low-med density.
CL_A_2_5	1.410	0.061	1.150	28.70	6.72	Saprolite	SANDY CLAY (ML), dark reddish brown, 90-95% fines, 5-10% sand, 0-5% gravel, moist, low plasticity, med density.
CL_A_2_6	1.300	0.047	0.824	23.00	10.15	Saprolite	SANDY CLAY (ML), dark reddish brown, 85-95% fines, 5-10% sand, 0-5% gravel, moist, low plasticity, med density.
CL_A_2_7	1.270	0.057	0.693	20.40	10.95	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-90% fines, 10-15% sand, 0-5% gravel, moist, low plasticity, med density.
CL_A_2_8	1.370	0.047	0.671	20.40	11.65	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-90% fines, 5-15% sand, 0-5% gravel, moist, low plasticity, med density.
CL_A_2_9	1.620	0.053	0.687	21.70	13.95	Saprolite	SANDY CLAY (ML), dark reddish brown, 85-90% fines, 10-15% sand, 0-5% gravel, moist, low plasticity, med-high density.
CL_A_2_10	1.390	0.055	0.702	19.25	11.30	Saprolite	SANDY CLAY (ML), dark reddish brown, 75-85% fines, 10-20% sand, 0-5% gravel, moist, low plasticity, med-high density.
Average	1.303	0.063	0.954	26.15	8.65		

Cleopatra: Trench #2

Corestone Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_2_0	0.316	0.014	0.155	6.70	23.80	Rind	Weathered rind from surface boulders.
CL_CSC_2_0	0.240	0.012	0.167	6.20	24.30	Core	Peridotite core sample from surface boulders.
CL_CSR_2_3	0.366	0.015	0.249	7.85	22.60	Rind	Rind ranged from approximately 1mm to 7mm width.
CL_CSC_2_3	0.224	0.011	0.162	6.08	24.70	Core	From a boulder 3' diameter with peridotite center.
CL_CSR_2_4	0.841	0.024	0.382	9.77	18.75	Rind	Highly weathered 2-3 mm serpentine vein on outside edge of boulder approximately. Small amounts of limonite in sample.
CL_CSR_2_6	1.205	0.047	0.637	20.60	11.70	Rind	Sample contains soft rind material from a small boulder.
CL_CSC_2_6	0.275	0.011	0.180	6.22	24.10	Core	Core sample of a small peridotite boulder.
CL_CSR_2_8	0.801	0.024	0.441	10.60	18.30	Rind	Sample contains soft rind material from a small boulder.
CL_CSC_2_8	0.272	0.011	0.166	6.18	23.70	Core	Core sample of a small boulder with peridotite center.
Rind Average	0.706	0.025	0.373	11.10	19.03		
Core Average	0.253	0.011	0.169	6.17	24.20		
Grab Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_2_3b	0.577	0.012	0.180	6.89	23.00	Vein	Sample contains serpentine from cracks in boulders. Small amounts of soft garnierite material is coating the serpentine.

Cleopatra: Trench #3

Analytic Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_A_3_1	0.969	0.113	1.350	36.20	3.16	Oxidized Surface Layer	SANDY CLAY (ML), dark brownish red, 55-65% fines, 15-20% sand, 5-15% gravel, dry, non-plastic, low density. Minor kanga.
CL_A_3_2	1.150	0.130	1.510	38.60	2.99	Limonite/Saprolite	SANDY CLAY (ML), dark brownish red, 80-90% fines, 5-15% sand, 0-5% gravel, dry, non-plastic, low density.
CL_A_3_3	0.802	0.123	1.250	31.80	7.08	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-90% fines, 0-5% gravel, 5-15% sand, dry-moist, non-plastic, low-med density.
CL_A_3_4	1.020	0.123	1.190	31.60	6.18	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-90% fines, 5-15% sand, 0-5% gravel, moist, low plasticity, and low-med density.
CL_A_3_5	0.860	0.089	1.060	29.20	8.88	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-95% fines, 0-10% sand, 0-5% gravel, moist, non-plastic, med density.
CL_A_3_6	0.969	0.074	0.992	27.30	9.53	Saprolite	SANDY CLAY (ML), dark reddish brown, 85-90% fines, 5-10% sand, 0-5% gravel, moist, non-plastic, med density.
CL_A_3_7	1.240	0.081	0.769	26.20	10.50	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-90% fines, 5-15% sand, 0-5% gravel, moist, low plasticity, and med density.
CL_A_3_8	0.913	0.058	0.590	20.20	14.05	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-90% fines, 5-15% sand, 0-5% gravel, moist, low plasticity, and med density.
CL_A_3_9	1.325	0.088	0.848	22.60	10.35	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-90% fines, 10-20% sand, 0-5% gravel, moist-wet, low plasticity, med density.
CL_A_3_10	1.680	0.091	1.430	31.30	6.35	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-90% fines, 0-5% gravel, 10-20% sand, wet, low plasticity, med density.
CL_A_3_11	1.505	0.107	1.100	28.80	8.52	Saprolite	SANDY CLAY (CL), dark reddish brown, 80-90% fines, 10-20% sand, 0-5% gravel, wet, low-med plasticity, med density.
CL_A_3_12	1.570	0.093	0.854	28.50	8.10	Saprolite	SANDY CLAY (CL), dark reddish brown, 85-90% fines, 5-15% sand, 0-5% gravel, wet, med plasticity, med density.
Average	1.167	0.098	1.079	29.36	7.97		

Corestone Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_3_0	0.241	0.013	0.206	6.44	23.30	Rind	Weathered rind off surface boulders taken from multiple boulders ranging in size from 5" to 3'.
CL_CSC_3_0	0.234	0.012	0.175	6.40	26.30	Core	Peridotite core sample from surface boulders

Cleopatra: Trench #3

CL_CSR_3_3	0.610	0.050	0.575	16.25	14.90	Rind	From a 2'x3'x2.5' boulder that was completely serpentinized with veins of garnierite.
CL_CSC_3_3	0.234	0.011	0.116	5.68	22.40	Core	From a 2'x3'x2.5' boulder that was completely serpentinized with veins of garnierite.
CL_CSR_3_4	0.520	0.021	0.177	7.33	21.20	Rind	Boulder was completely serpentinized and contained minor amounts of garnierite. Sample contains hard rind material
CL_CSC_3_4	0.501	0.012	0.132	5.79	22.00	Core	Boulder was completely serpentinized and contained minor amounts of garnierite.
CL_CSR_3_5	0.408	0.031	0.277	9.65	20.20	Rind	Boulder was completely serpentinized and contained minor amounts of garnierite. Rind also contains small amounts of garnierite.
CL_CSC_3_5	0.243	0.011	0.150	5.51	22.40	Core	Boulder was completely serpentinized and contained minor amounts of garnierite.
CL_CSR_3_7	0.853	0.038	0.291	9.06	19.05	Rind	Boulder was completely serpentinized and contained minor amounts of garnierite.
CL_CSC_3_7	0.434	0.011	0.120	5.42	22.20	Core	Boulder was completely serpentinized and contained minor amounts of garnierite.
CL_CSR_3_11	0.624	0.014	0.217	7.32	21.50	Rind	Boulder was completely serpentinized and contained minor amounts of garnierite. Sample contains hard rind material
CL_CSC_3_11	0.494	0.011	0.179	6.13	22.20	Core	Boulder was completely serpentinized and contained minor amounts of garnierite.
Rind Average	0.543	0.028	0.291	9.34	20.03		
Core Average	0.306	0.010	0.125	4.99	19.64		

Grab Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_3_A	4.080	0.022	0.084	4.68	17.00	Vein	Contains pure sample of green vein material from serpentine boulders at various depths in trench.

Cleopatra: Trench #4

Analytic Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_A_4_1	0.836	0.102	1.280	34.80	2.75	Oxidized Surface Layer	SANDY CLAY (ML), dark brownish red, 60-70% fines, 15-25% sand, 0-5% gravel, dry, non-plastic, low density. Minor kanga/organics.
CL_A_4_2	1.150	0.140	1.500	37.90	3.09	Limonite	SANDY CLAY (ML), dark brownish red, 80-90% fines, 5-15% sand, 0-5% gravel, dry, non-plastic, med density.
CL_A_4_3	1.400	0.147	1.530	41.60	1.62	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-90% fines, 10-20% sand, 0-5% gravel, moist, non-plastic, med density.
CL_A_4_4	1.485	0.181	1.420	44.60	1.03	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-90% fines, 10-20% sand, 0-5% gravel, moist, non-plastic, med density.
CL_A_4_5	1.695	0.152	1.720	40.50	2.25	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-90% fines, 10-20% sand, 0-5% gravel, moist, low plasticity, med density.
CL_A_4_6	1.630	0.171	2.000	42.40	1.70	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-95% fines, 5-15% sand, 0-5% gravel, moist, low plasticity, med density.
CL_A_4_7	1.675	0.142	1.360	40.20	2.63	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-95% fines, 5-15% sand, 0-5% gravel, moist, low plasticity, med density.
CL_A_4_8	1.360	0.117	1.230	33.50	5.81	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-90% fines, 5-10% sand, 0-5% gravel, moist, low plasticity, med density.
CL_A_4_9	1.350	0.133	1.450	35.80	4.59	Saprolite	SANDY CLAY (CL), dark reddish brown, 85-95% fines, 5-10% sand, 0-5% gravel, moist, med plasticity, med density.
CL_A_4_10	1.230	0.116	0.947	23.70	10.50	Saprolite	SANDY CLAY (CL), dark reddish brown, 85-95% fines, 5-10% sand, 0-5% gravel, moist, med plasticity, med density.
CL_A_4_11	1.390	0.106	1.180	28.90	7.86	Saprolite	SANDY CLAY (CL), dark reddish brown, 80-90% fines, 5-10% sand, 0-5% gravel, moist, med plasticity, med density.
CL_A_4_12	1.250	0.136	1.130	25.70	8.89	Saprolite	SANDY CLAY (CL), dark reddish brown, 85-95% fines, 5-10% sand, 0-5% gravel, moist-wet, med plasticity, med density.
Average	1.371	0.137	1.396	35.80	4.39		

Cleopatra: Trench #4

Corestone Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_4_0	0.378	0.023	0.210	6.67	23.80	Rind	Weathered rind from 3 surface boulders varying in size.
CL_CSC_4_0	0.238	0.011	0.188	6.18	24.50	Core	Peridotite core sample from 3 surface boulders varying is size.
CL_CSR_4_5	0.519	0.016	0.227	7.82	21.40	Rind	Sample contains hard weathered and soft weathered rind material collected from a 7'x4'x3.5 boulder.
CL_CSC_4_5	0.603	0.013	0.162	6.09	20.80	Core	Sample is of a serpentine boulder measuring 7'x4'x3.5.
CL_CSR_4_9	1.560	0.070	0.450	14.45	15.25	Rind	Sample contains soft rind material from a 1'x1'x8" boulder.
CL_CSC_4_9	0.360	0.011	0.141	6.24	22.30	Core	Sample contains peridotite core material collected from a 1'x1'x8" boulder.
CL_CSR_4_11	1.135	0.070	0.452	13.85	15.70	Rind	Sample contains soft rind material with serpentine veins. Boulder was 7"x7"x1' in size.
CL_CSC_4_11	0.402	0.012	0.151	5.90	23.70	Core	Sample contains serpentine core with veins of dendritic garnierite.
Rind Average	0.898	0.045	0.335	10.70	19.04		
Core Average	0.401	0.012	0.161	6.10	22.83		
Grab Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_4_7	0.515	0.024	0.316	11.60	17.30	Vein	Sample contains soft rind material collected off the bottom of a 7'x4'x3.5' boulder.

Cleopatra: Trench #5

Analytic Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_A_5_1	1.230	0.137	1.830	42.30	1.65	Oxidized Surface Layer	SANDY CLAY (ML), dark brownish red, 80-90% fines, 15-20% sand, 0-5% gravel, dry, non-plastic, low density. Minor kanga/organics.
CL_A_5_2	0.919	0.047	0.864	25.30	11.40	Saprolite	SANDY CLAY (ML), dark brownish red, 80-95% fines, 5-15% sand, 0-5% gravel, dry, non-plastic, low density.
CL_A_5_3	1.100	0.078	0.984	25.50	11.45	Saprolite	SANDY CLAY (ML), dark reddish brown, 75-85% fines, 5-15% sand, 5-10% gravel, dry, non-plastic, low-med density.
CL_A_5_4	1.695	0.135	1.650	38.20	4.16	Saprolite	SANDY CLAY (ML), dark reddish brown, 75-85% fines, 5-15% sand, 5-10% gravel, moist, non-plastic, med density.
CL_A_5_5	0.583	0.042	0.641	14.90	17.50	Saprolite	SANDY CLAY (ML), dark reddish brown, 65-80% fines, 10-15% sand, 5-10% gravel, moist, non-plastic, med density.
CL_A_5_6	1.170	0.070	1.480	30.70	8.34	Saprolite	SANDY CLAY (ML), dark reddish brown, 75-85% fines, 5-15% sand, 0-5% gravel, moist, non-plastic, med density.
CL_A_5_7	0.721	0.026	0.521	15.20	16.70	Saprolite	SANDY CLAY (ML), dark reddish brown, 75-80% fines, 10-15% sand, 5-10% gravel, moist, low plasticity, med density.
CL_A_5_8	0.862	0.036	0.624	16.20	16.10	Saprolite	SANDY CLAY (ML), dark reddish brown, 75-80% fines, 10-15% sand, 5-10% gravel, moist, low plasticity, med density.
Average	1.035	0.071	1.074	26.04	10.91		

Corestone Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_5_0	0.555	0.014	0.161	6.61	23.90	Rind	Weathered hard rind from 2-3 surface boulders varying in size.
CL_CSC_5_0	0.206	0.010	0.144	5.63	22.00	Core	Weathered peridotite core sample from 2-3 surface boulders varying in size.
CL_CSR_5_1	1.570	0.030	0.294	9.78	18.75	Rind	Hard and soft weathered rind material collected from a 1'x1'x7" boulder. Sample contains small amounts of garnierite.
CL_CSR_5_1B	0.355	0.006	0.342	3.31	11.45	Rind	Sample contains a single piece of fibrous serpentine found in trench. Possibly came from a weathered serpentine vein.
CL_CSC_5_1	1.610	0.012	0.163	6.22	21.40	Core	Sample is of a serpentine boulder measuring 1'x1'x7". Sample contains small amounts of visible garnierite.
CL_CSR_5_4	0.967	0.026	0.565	14.55	15.40	Rind	Sample contains soft rind material from a 3'x3'x3.5' boulder. Rind material is 1" to 6" thick.
CL_CSC_5_4	0.470	0.010	0.182	5.89	22.30	Core	Sample contains serpentine core material collected from a 3'x3'x3.5' boulder.

Cleopatra: Trench #5

CL_CSR_5_8	0.820	0.039	0.624	16.40	16.35	Rind	Sample contains soft rind material with small gravel size pieces of serpentine. Boulder was 1'x2'x3' in size.
CL_CSC_5_8	0.738	0.011	0.195	5.78	22.10	Core	Sample contains serpentine core material from a 1'x2'x3' boulder.

Rind Average	0.853	0.023	0.397	10.13	17.17
Core Average	0.756	0.011	0.171	5.88	21.95

Bulk Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_5_2/4	0.728	0.023	0.544	11.70	15.60	Bulk	Sample is a bulk sample of serpentine gravels and soil. Represents white areas in trench photos.

Grab Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_5_A	3.960	0.024	0.151	5.49	17.60	Vein	Grab sample: garnierite material from all depths in trench.
CL_CSR_5_J	0.719	0.006	0.016	2.17	20.40	Vein	Grab sample: garnierite and brown jasper material from all depths in trench.

Cleopatra: Trench #6

Analytic Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_A_6_1	0.747	0.061	2.290	33.00	2.56	Oxidized Surface Layer	SANDY CLAY (ML), dark brownish red, 90-95% fines, 5-10% sand, 0-5% gravel, dry, non-plastic, med density. Minor kanga/organics.
CL_A_6_2	1.015	0.070	1.610	37.90	1.62	Saprolite	SANDY CLAY (ML), dark reddish brown, 85-90% fines, 10-15% sand, 0-5% gravel, dry, non-plastic, med density.
CL_A_6_3	0.989	0.056	1.240	31.80	5.27	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-90% fines, 10-15% sand, 0-5% gravel, moist, low plasticity, med-high density.
CL_A_6_4	0.923	0.051	1.005	27.50	7.37	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-90% fines, 10-15% sand, 0-5% gravel, moist, low plasticity, med-high density.
CL_A_6_5	1.150	0.041	0.722	23.30	10.50	Saprolite	SANDY CLAY (CL), dark reddish brown, 80-90% fines, 10-15% sand, 0-5% gravel, moist, low-med plasticity, med-high density.
CL_A_6_6	1.240	0.053	0.664	29.30	7.44	Saprolite	SANDY CLAY (CL), dark reddish brown, 80-90% fines, 10-15% sand, 0-5% gravel, moist, low-med plasticity, med-high density.
CL_A_6_7	1.090	0.039	0.949	22.40	9.90	Saprolite	SANDY CLAY (CL), dark reddish brown, 80-90% fines, 10-20% sand, 0-5% gravel, moist, low-med plasticity, high density.
CL_A_6_8	0.733	0.029	0.665	16.90	13.45	Saprolite	SANDY CLAY (CL), dark reddish brown, 80-90% fines, 10-20% sand, 0-5% gravel, moist, low-med plasticity, high density.
CL_A_6_9	0.934	0.037	0.752	20.00	12.10	Saprolite	SANDY CLAY (CL), dark reddish brown, 80-90% fines, 10-20% sand, 0-5% gravel, moist, med plasticity, high density.
Average	0.980	0.049	1.100	26.90	7.80		

Corestone Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_6_0	0.750	0.017	0.200	6.49	20.70	Rind	Weathered hard rind from surface and .5in into surface boulders varying in size. Some material weathered completely black.
CL_CSC_6_0	0.222	0.011	0.173	5.96	22.70	Core	Weathered peridotite core sample from multiple surface boulders varying in size.
CL_CSR_6_2	0.614	0.034	0.476	12.75	16.70	Rind	Sample contains soft weathered rind material. Sample also contains small amounts of laterite.
CL_CSR_6_2B	1.415	0.018	0.307	8.94	18.15	Rind	Sample contains hard weathered rind material.
CL_CSC_6_2	0.537	0.010	0.200	5.89	22.10	Core	Sample contains partially serpentinized peridotite.

Cleopatra: Trench #6

CL_CSR_6_4	1.455	0.026	0.426	11.90	17.50	Rind	Sample contains a mix of soft and hard rind material.
CL_CSC_6_4	0.204	0.010	0.155	5.62	22.80	Core	Sample contains weathered peridotite with serpentine veins on edge of rock fragments.

CL_CSR_6_6	1.240	0.032	0.772	19.50	12.20	Rind	Sample contains soft rind material approximately 0.5 to 1" thick. Boulder contains small amounts of garnierite.
CL_CSC_6_6	0.756	0.010	0.213	5.82	21.30	Core	Sample contains weathered peridotite core material. Rock contains small amounts of garnierite.

CL_CSR_6_7	1.270	0.019	0.501	10.35	18.00	Rind	Sample taken from the bottom of a 2'x3'x2' boulder. Sample contains hard rind material, with serpentine and/or garnierite veins making up 10% of the sample.
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CL_CSR_6_9	1.350	0.029	0.454	15.15	15.45	Rind	Sample contains soft and hard rind material from a 10" diameter boulder. Rock contains small amounts of garnierite.
CL_CSC_6_9	1.060	0.012	0.275	6.58	20.30	Core	Sample contains weathered peridotite with small amounts of powdered garnierite in veins.

Rind Average	1.156	0.025	0.448	12.15	16.96		
Core Average	0.556	0.011	0.203	5.97	21.84		

Bulk Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_B_6_4	1.110	0.012	0.250	6.66	20.40	Bulk	Sample of a peridotite boulder measuring 7"x8"x5". Sample contains a mix of core and rind material.
CL_B_6_7	1.440	0.018	0.329	9.70	17.55	Bulk	Bulk sample that contains both rind and core material from a 7"x7"x5" boulder. Rock was highly weathered throughout.

Bulk Average	1.275	0.015	0.290	8.18	18.98		
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Grab Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_6_A	1.280	0.018	0.225	9.47	17.60	Vein	Sample contains garnierite from all depths as well as other vein material. Some limonite is also present in sample.

Cleopatra: Trench #7

Analytic Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_A_7_1	1.030	0.117	2.480	42.00	1.53	Oxidized Surface Layer	SANDY CLAY (ML), dark brownish red, 80-90% fines, 10-20% sand, 0-5% gravel, dry, non-plastic, low density. Minor kanga/organics.
CL_A_7_2	1.100	0.134	2.450	42.30	1.77	Saprolite/Limonite	SANDY CLAY (ML), dark reddish brown, 85-95% fines, 5-10% sand, 0-5% gravel, dry, non-plastic, med density. Minor organics.
CL_A_7_3	1.280	0.089	2.290	46.20	1.25	Saprolite	SANDY CLAY (ML), dark reddish brown, 90-95% fines, 2-5% sand, 0-2% gravel, moist, non-plastic, med-high density.
CL_A_7_4	1.510	0.107	2.120	44.70	1.20	Saprolite	SANDY CLAY (ML), dark reddish brown, 90-95% fines, 2-5% sand, 0-2% gravel, moist, non-plastic, med-high density.
CL_A_7_5	1.440	0.115	2.350	44.70	1.66	Saprolite	SANDY CLAY (ML), dark reddish brown, 95-100% fines, 0-5% sand, 0-2% gravel, moist, low plasticity, high density.
CL_A_7_6	1.380	0.084	2.090	41.40	2.71	Saprolite	SANDY CLAY (ML), dark reddish brown, 95-100% fines, 0-5% sand, 0-2% gravel, moist, low-plasticity, high density.
CL_A_7_7	1.760	0.097	2.300	43.80	2.03	Saprolite	SANDY CLAY (ML), dark reddish brown, 95-100% fines, 0-5% sand, 0% gravel, moist, low-plasticity, high density.
CL_A_7_8	1.880	0.086	2.570	44.60	2.13	Saprolite	SANDY CLAY (ML), dark reddish brown, 95-100% fines, 0-5% sand, 0% gravel, moist, low-plasticity, high density.
CL_A_7_9	1.780	0.097	2.560	47.20	1.15	Saprolite	SANDY CLAY (ML), dark reddish brown, 95-100% fines, 0-5% sand, 0% gravel, moist, low-plasticity, high density.
Average	1.462	0.103	2.357	44.10	1.71		

Corestone Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_7_0	0.244	0.011	0.202	5.55	25.00	Rind	Weathered hard rinds from 3 surface boulders. Sample also contains small amounts of weathered serpentine.
CL_CSC_7_0	0.234	0.011	0.210	5.86	24.60	Core	Weathered peridotite core sample from multiple surface boulders varying is size.
CL_CSR_7_2	0.524	0.017	0.315	7.69	21.30	Rind	Sample contains soft and hard weathered rind material from a 1'x1'6"x1.25' boulder. Boulder contains no visible garnierite.
CL_CSC_7_2	0.240	0.011	0.210	5.45	23.60	Core	Sample contains weathered peridotite core sample off a 1'x1'6"x1.25' boulder. Boulder contains no visible garnierite.
CL_CSR_7_4	0.575	0.015	0.263	7.99	21.20	Rind	Sample contains hard rind with veins of serpentine collected off a 1'x1'x1.25' boulder.
CL_CSC_7_4	0.218	0.011	0.210	5.29	23.60	Core	Sample contains weathered peridotite with serpentine veins.

Cleopatra: Trench #7

CL_CSR_7_6	1.100	0.015	0.338	7.68	21.00	Rind	Sample contains hard rind with small amounts of saprolite on edges of material.
CL_CSC_7_6	0.219	0.011	0.217	5.32	23.90	Core	Sample contains fresh to weathered peridotite collected from a 1.5'x2'x1.5' boulder.

CL_CSR_7_8	0.996	0.015	0.293	7.47	20.70	Rind	Sample contains hard rind material from a 1'x7"x7" boulder.
CL_CSC_7_8	0.738	0.012	0.175	5.45	21.60	Core	Sample contains weathered peridotite with no visible garnierite.

Rind Average	0.688	0.015	0.282	7.28	21.84		
Core Average	0.330	0.011	0.204	5.47	23.46		

Bulk Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_B_7_4	0.255	0.010	0.197	5.17	23.00	Bulk	Sample contains a mix of rind, core, and garnierite veins from a 1'x2'x2' peridotite boulder.

Grab Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_7_4B	2.780	0.014	0.139	4.80	19.95	Vein	Sample contains garnierite vein sample from large boulder. A photo was taken of boulder and vein surface prior to sampling.

Cleopatra: Trench #8

Analytic Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_A_8_1	0.856	0.074	1.550	36.80	3.53	Saprolite/Limonite	SANDY CLAY (ML), dark reddish brown, 65-75% fines, 10-20% sand, 5-10% gravel, dry, non-plastic, med density. Minor kanga, 20% saprolite.
CL_A_8_2	0.964	0.075	1.290	34.30	5.97	Saprolite/Limonite	SANDY CLAY (ML), dark reddish brown, 80-90% fines, 10-20% sand, 0-5% gravel, dry, non-plastic, med density.
CL_A_8_3	1.170	0.064	1.405	37.40	4.91	Saprolite	SANDY CLAY (ML), dark reddish brown, 85-90% fines, 10-15% sand, 0-2% gravel, dry, non-plastic, med density.
CL_A_8_4	0.867	0.050	0.989	28.40	9.22	Saprolite	SANDY CLAY (ML), dark reddish brown, 80-90% fines, 10-15% sand, 0-2% gravel, dry, non-plastic, med-high density.
CL_A_8_5	0.790	0.046	0.918	24.80	10.55	Saprolite	SANDY CLAY (ML), dark reddish brown, 85-95% fines, 5-10% sand, 0-2% gravel, moist, low-plasticity, med-high density.
CL_A_8_6	0.850	0.047	0.819	23.90	10.35	Saprolite	SANDY CLAY (ML), dark reddish brown, 85-95% fines, 5-10% sand, 0-2% gravel, moist, low-plasticity, med-high density.
CL_A_8_7	0.955	0.048	0.772	28.00	11.10	Saprolite	SANDY CLAY (ML), dark reddish brown, 95-100% fines, 0-5% sand, 0-2% gravel, moist, low-plasticity, med-high density.
CL_A_8_8	0.774	0.037	0.790	22.40	10.65	Saprolite	SANDY CLAY (ML), dark reddish brown, 90-95% fines, 5-10% sand, 0-2% gravel, moist, low-plasticity, high density.
CL_A_8_9	0.841	0.039	0.668	23.10	10.50	Saprolite	SANDY CLAY (ML), dark reddish brown, 95-100% fines, 5-10% sand, 0-2% gravel, moist, low-plasticity, high density.
Average	0.896	0.053	1.022	28.79	8.53		

Corestone Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_8_0	0.342	0.017	0.198	7.53	25.30	Rind	Weathered hard rind from peridotite boulders on surface.
CL_CSC_8_0	0.227	0.011	0.182	6.40	25.70	Core	Weathered peridotite core sample from multiple surface boulders varying is size.
CL_CSR_8_2	0.710	0.041	0.843	19.80	12.10	Rind	Sample contains soft rind material off a small 6" diameter boulder. Boulder contains veins of garnierite.
CL_CSC_8_2	0.250	0.012	0.196	6.53	26.30	Core	Sample contains fresh weathered peridotite from a boulder 1' diameter. Small amounts of garnierite in boulder.

Cleopatra: Trench #8

CL_CSR_8_4	0.590	0.017	2.820	8.95	21.10	Rind	Sample contains soft and hard rind material with veins of garnierite. Photo was taken of rock before sampling.
CL_CSC_8_4	0.341	0.010	0.186	5.75	23.00	Core	Sample contains peridotite with large amounts of garnierite veins in it. Photo was taken prior to sampling.

CL_CSR_8_6	0.732	0.030	0.591	16.60	14.30	Rind	Sample contains soft rind material from a 1'x6"x6" boulder.
CL_CSR_8_6B	1.150	0.017	0.146	5.67	21.70	Rind	Sample contains hard rind with small amounts of saprolite on edges of material.
CL_CSC_8_6	0.288	0.011	0.191	6.16	23.50	Core	Sample contains weathered peridotite with veins of garnierite on some edges of the material.

CL_CSR_8_8	0.595	0.024	0.494	14.00	16.05	Rind	Sample contains soft rind material. Boulder contains garnierite.
CL_CSC_8_8	0.759	0.016	0.286	8.28	19.15	Core	Sample contains weathered cores of small 4" boulders all having garnierite and small jasper veins in them.

Rind Average	0.687	0.024	0.849	12.09	18.43		
Core Average	0.373	0.012	0.208	6.62	23.53		

Bulk Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_B_8_2	0.375	0.014	0.204	7.30	24.30	Bulk	Sample contains almost all of a 4" diameter boulder including the rind, core, and veins of garnierite.
CL_B_8_4	0.486	0.011	0.156	5.65	22.60	Bulk	Sample contains a whole piece of rock with intersecting veins of garnierite. Veins are 1mm to 2mm thick.
CL_B_8_5	0.560	0.013	0.219	6.87	22.70	Bulk	Sample contained a mix of core, rind, and garnierite vein material from a 7" (average size for the hole) boulder.
CL_B_8_8	0.466	0.014	0.244	7.88	22.40	Bulk	Sample contains a whole 5"x2"x2" boulder including rind, core, and garnierite veins.
CL_B_8_9	0.370	0.012	0.205	7.04	23.30	Bulk	Sample contains a whole 6"x3"x2" boulder including rind, core, and garnierite veins.
Bulk Average	0.451	0.013	0.206	6.95	23.06		

Cleopatra: Trench #8

Grab Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_8_2B	0.983	0.028	0.254	9.80	18.40	Vein	Sample contains pure garnierite from veins off boulders at depths of 0 to 3'. Also contains small amounts of limonite.
CL_CSR_8_A	1.635	0.009	0.031	3.51	20.80	Vein	Composite sample of garnierite veins collected from rock stockpiles prior to backfill.

Cleopatra: Trench #9

Analytic Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_A_9_1	0.743	0.139	1.470	41.90	1.37	Oxidized Surface Layer	SANDY CLAY (ML), dark brownish red, 70-80% fines, 10-20% sand, 0-5% gravel, dry, non-plastic, low density. Increased kanga w/ trace organics.
CL_A_9_2	1.035	0.168	1.790	43.00	1.18	Saprolite/Limonite	SANDY CLAY (ML), dark reddish brown, 85-95% fines, 5-10% sand, 0-2% gravel, moist, non-plastic, med density.
CL_A_9_3	1.085	0.249	2.180	40.90	2.51	Saprolite	SANDY CLAY (ML), dark reddish brown, 90-95% fines, 5-10% sand, 0-2% gravel, moist, low plasticity, med density.
CL_A_9_4	1.130	0.224	1.720	39.40	2.53	Saprolite	SANDY CLAY (ML), dark reddish brown, 90-95% fines, 5-10% sand, 0-2% gravel, moist, low plasticity, med density.
CL_A_9_5	1.120	0.232	1.760	41.00	1.52	Saprolite	SANDY CLAY (ML), dark reddish brown, 90-95% fines, 5-10% sand, 0-2% gravel, moist, low plasticity, med-high density.
CL_A_9_6	1.065	0.236	2.030	41.10	2.43	Saprolite	SANDY CLAY (ML), dark reddish brown, 95-100% fines, 0-5% sand, 0% gravel, moist, low-plasticity, high density.
CL_A_9_7	1.155	0.200	1.570	38.10	3.51	Saprolite	SANDY CLAY (ML), dark reddish brown, 95-100% fines, 0-5% sand, 0% gravel, moist, low-plasticity, high density.
CL_A_9_8	0.822	0.166	1.310	30.70	6.66	Saprolite	SANDY CLAY (ML), dark reddish brown, 95-100% fines, 0-5% sand, 0% gravel, moist, low-plasticity, high density.
CL_A_9_9	1.310	0.254	2.530	45.30	1.63	Saprolite	SANDY CLAY (ML), dark reddish brown, 95-100% fines, 0-5% sand, 0% gravel, moist, low-plasticity, high density.
CL_A_9_10	1.130	0.276	2.850	49.50	1.17	Saprolite	SANDY CLAY (CL), dark reddish brown, 95-100% fines, 0-5% sand, 0% gravel, moist, med plasticity, high density.
Average	1.060	0.214	1.921	41.09	2.45		

Corestone Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_9_0	0.257	0.020	0.243	6.87	24.90	Rind	Weathered hard rind from multiple surface boulders.
CL_CSC_9_0	0.231	0.013	0.179	6.64	25.60	Core	Fresh peridotite core sample from multiple surface boulders varying is size.
CL_CSR_9_1	0.215	0.030	0.243	4.67	22.90	Rind	Sample contains 1" thick fibrous serpentine vein from outside edge of boulder.

Cleopatra: Trench #9

CL_CSR_9_2	0.469	0.068	0.602	16.50	14.15	Rind	Sample contains soft weathered rind material from a 1' diameter boulder.
CL_CSC_9_2	0.234	0.013	0.199	6.45	26.30	Core	Sample contains fresh peridotite core sample off a 1' diameter boulder.
CL_CSR_9_4	0.378	0.053	0.523	13.65	18.60	Rind	Sample contains hard and soft rind material collected from a 1'x7"x7" boulder.
CL_CSC_9_4	0.221	0.012	0.180	6.16	25.00	Core	Sample contains fresh peridotite core material from a 1'x7"x7" boulder.
CL_CSR_9_8	0.649	0.126	1.160	26.80	8.48	Rind	Sample contains soft rind material off a 6" diameter boulder. Rind was 1-2" thick.
CL_CSC_9_8	0.275	0.019	0.293	8.62	24.00	Core	Sample contains whole core of a small 6in boulder. Sample also contains small amounts of hard rind material.
CL_CSR_9_10	0.704	0.031	0.179	7.75	21.90	Rind	Sample contains soft and hard rind material. Rock contains veins of garnierite.
CL_CSC_9_10	0.591	0.015	0.127	6.57	23.10	Core	Sample contains weathered peridotite with garnierite in vein surfaces.
Rind Average	0.445	0.055	0.492	12.71	18.49		
Core Average	0.310	0.014	0.196	6.89	24.80		

Cleopatra: Trench #10

Analytic Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_A_10_1	1.085	0.070	1.530	39.50	1.68	Oxidized Surface Layer	SANDY CLAY (ML), dark brownish red, 75-85% fines, 10-20% sand, 5-10% gravel, dry, non-plastic, low density. Minor kanga/organics.
CL_A_10_2	1.275	0.071	1.480	39.80	2.50	Saprolite/Limonite	SANDY CLAY (ML), dark reddish brown, 85-90% fines, 5-10% sand, 0-5% gravel, dry, non-plastic, low-med density.
CL_A_10_3	1.430	0.067	1.510	43.70	1.43	Saprolite	SANDY CLAY (ML), dark reddish brown, 95-100% fines, 0-5% sand, 0-2% gravel, moist, non-plastic, med density.
CL_A_10_4	1.305	0.058	1.405	32.20	5.00	Saprolite	SANDY CLAY (ML), dark reddish brown, 90-95% fines, 2-5% sand, 0-2% gravel, moist, low plasticity, med density.
CL_A_10_5	1.295	0.062	1.050	32.30	6.15	Saprolite	SANDY CLAY (ML), dark reddish brown, 90-95% fines, 0-5% sand, 0-5% gravel, moist, low plasticity, med density.
CL_A_10_6	1.340	0.055	1.050	28.30	7.05	Saprolite	SANDY CLAY (ML), dark reddish brown, 90-95% fines, 0-5% sand, 0-2% gravel, moist, low-plasticity, med density.
CL_A_10_7	1.175	0.051	0.907	25.40	9.32	Saprolite	SANDY CLAY (ML), dark reddish brown, 90-95% fines, 0-5% sand, 0-2% gravel, moist, low-plasticity, med density.
CL_A_10_8	1.075	0.041	0.967	23.50	10.30	Saprolite	SANDY CLAY (ML), dark reddish brown, 90-95% fines, 0-5% sand, 0-5% gravel, moist, low-plasticity, med density.
Average	1.248	0.059	1.237	33.09	5.43		

Corestone Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_10_0	0.316	0.012	0.176	6.29	23.20	Rind	Weathered hard rind off of multiple surface boulders.
CL_CSC_10_0	0.233	0.011	0.184	6.10	23.30	Core	Weathered peridotite core sample from multiple surface boulders varying in size.
CL_CSR_10_2	0.417	0.025	0.411	11.10	19.55	Rind	Sample contains soft and hard rind material collected from a 1'x2'x2'6" boulder. Boulder contains minor traces of garnierite.
CL_CSC_10_2	0.237	0.011	0.194	6.32	25.70	Core	Sample contains fresh peridotite core sample with small amounts of garnierite vein material.
CL_CSR_10_4	0.679	0.044	1.040	23.30	10.20	Rind	Sample contains soft rind material collected off a 7" boulder. Boulder contains veins of garnierite. Picture taken prior to sampling.
CL_CSC_10_4	0.255	0.012	0.195	6.18	24.80	Core	Sample contains fresh peridotite and small amounts of garnierite vein material collected off a 7" diameter boulder.

Cleopatra: Trench #10

CL_CSR_10_6	1.325	0.035	0.345	10.90	17.00	Rind	Sample contains soft rind material off a 6" diameter boulder. Rock contains garnierite veins.
CL_CSC_10_6	0.549	0.013	0.173	6.58	23.00	Core	Sample contains fresh peridotite with small amounts of hard rind and garnierite vein material.

CL_CSR_10_8	0.248	0.011	0.157	6.32	25.20	Rind	Sample contains soft and hard rind material collected off a 1' diameter boulder. Picture taken prior to sampling. Rock contained small amounts of garnierite(?) located near rinds in vein surfaces.
CL_CSC_10_8	0.660	0.030	0.701	16.55	14.70	Core	Sample contains fresh peridotite core material collected off a 1' diameter boulder. Picture was taken prior to sampling.

Rind Average	0.597	0.025	0.426	11.58	19.03		
Core Average	0.387	0.015	0.289	8.35	22.30		

Bulk Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_B_10_2	0.261	0.011	0.192	6.53	24.60	Bulk	Mix of rind, core, and small amounts of garnierite vein material. Sample collected from a 1/4 section of a large 1'x2'x2.5' boulder.
CL_B_10_4	0.341	0.014	0.271	7.59	23.10	Bulk/Rind	Sample contains 2" rind with garnierite(?) veins throughout. Sample consisted of one whole piece of rock.

Bulk Average	0.301	0.013	0.232	7.06	23.85		
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Grab Samples	Ni%	Co%	Cr%	Fe%	Mg%	Horizon	Description
CL_CSR_10_2B	0.474	0.016	0.166	7.17	20.80	Vein	Sample contains pure garnierite vein material collected off multiple boulders from 1' to 3'.

Cleopatra: 2009 Trenching Program Corestone Location Log

Distance and bearing relative to Local Reference Hub

Trench #1

Date	Sampler	Local Reference Hub		
		Northing	Easting	Elevation
7/20/09	Hutchins	145548	3991876	3378

Surface Description

Dark brownish red soil, containing 35-45% fines, 5-15% sand, 5-15% gravel, 25-35% boulders, dry, non-plastic, with med amounts of kanga.

Center of Trench:		Offset (ft)	Bearing	Depth (ft)
		29.5	208	9

Size	Depth (ft)	Offset (ft)	Bearing	Sample
4.3	0-1.5	23.0	192	N/S
2	0-2	25.0	200	N/S
1.3	0-2	30.3	192	N/S
1.6	0-1.5	25.0	245	N/S
1.8	0-1.5	30.0	236	N/S
1.6	0-2	34.5	230	N/S
1.6	0-3	27.0	200	N/S
4.6	.5-4	36.0	204	N/S
2	1.2-4.2	34.6	209	CI-CSx-1-2
1	1.2-2	31.2	220	N/S
1	.5-1.5	28.0	211	N/S
1.2	.5-1.5	30.5	220	N/S
1.7	1-2.7	30.0	194	N/S
1	4-5	39.7	210	N/S
1.2	4-5	32.8	195	N/S
1.3	2.5-5	30.5	206	CI-CSx-1-4
1.8	4-5.5	31.8	203	N/S
1.2	1-2	26.0	188	N/S
1	.5-1.2	28.0	185	N/S

Cleopatra: 2009 Trenching Program Corestone Location Log

Distance and bearing relative to Local Reference Hub

Trench #1 (cont.)

Size	Depth (ft)	Offset (ft)	Bearing	Sample
1.4	6.4-7	29.0	204	N/S
1.4	6.4-7	29.7	195	CI-CSx-1-7
1	5.8-6.2	30.0	196	N/S
1.8	6.5-7.2	31.7	204	N/S
6x2.6x3.3*	4.5-7.2	30.0	209	N/S
1.2	7.5-8.5	32.0	205	N/S
1.5	8-9.5	33.5	185	CI-CSRx-1-9
1.1x3x4*	5-7	32.0	209	N/S
2x4x4*	5-8	34.0	206	N/S

* Left in excavation

Cleopatra: 2009 Trenching Program Corestone Location Log

Distance and bearing relative to Local Reference Hub

Trench #2

Date	Sampler	Local Reference Hub		
		Northing	Easting	Elevation
7/29/09	Hutchins	148612	3993382	3101

Surface Description

Dark brownish red soil, containing 20-30% fines, 10-15% sand, 5-10% gravel, 50-60% boulders, dry, non-plastic, with med amounts of kanga.

Center of Trench:		Offset (ft)	Bearing	Depth (ft)
		25.0	8	10

Size	Depth (ft)	Offset (ft)	Bearing	Sample
1	1-1.3	21.0	350	N/S
1	2.1-3	21.1	355	N/S
1.5	0-2	20.9	355	N/S
3x2x3	0-2	18.5	345	N/S
1.5	2.5-4	27.0	5	N/S
1	2-3	24.0	355	N/S
2x3x5	1-4	22.0	10	CI-CSx-2-3
1x3x6	1-3	28.5	350	N/S
1	2-3	21.0	355	N/S
1.1	.5-2	20.0	5	N/S
1	2.5-3	25.0	8	N/S
1	2-2.5	21.0	345	N/S
2.2	2.5-4	21.0	345	N/S
1.6	4-4.6	21.5	4	CI-CSR-2-4
1	1-2	25.5	6	N/S
1.8	0-1.5	30.0	3	N/S
2.5x3x3	0-3	29.0	4	N/S
3x2x7	.3-2	24.0	10	N/S
2	1-3	22.0	21	N/S

Cleopatra: 2009 Trenching Program Corestone Location Log

Distance and bearing relative to Local Reference Hub

Trench #2 (cont.)

Size	Depth (ft)	Offset (ft)	Bearing	Sample
1x2x1	2-3	27.0	15	N/S
3	0-4	28.0	9	N/S
1x1x.5	3-4.5	23.0	10	N/S
1x1x.5	1-2	30.0	349	N/S
2	1-3	30.5	359	N/S
2	1-3	30.5	358	N/S
1x2x1	4-5	24.0	358	N/S
2	3-5	27.5	2	N/S
1x1x7	4-4.8	25.0	0	N/S
2x3x1	4-6	26.0	4	N/S
1x1.5x.5	5-6	25.0	6	N/S
1	5-6	28.0	5	CI-CSC-2-6
1	5.5-6.5	28.0	4	N/S
0.6	6-6.6	24.0	358	N/S
0.7	6.5-7.5	24.0	4	N/S
1.2x1x.3	7-8	24.0	6	N/S
1x2x1	8-9	25.0	8	CI-CSx-2-8
4x5x3*	2-6	21.0	354	N/S
3x2x6*	2.5-6	25.0	337	N/S
3x1.5x1*	4-5.5	28.2	356	N/S
3x1x2*	4-6.5	25.0	0	N/S

* Left in excavation

Cleopatra: 2009 Trenching Program Corestone Location Log

Distance and bearing relative to Local Reference Hub

Trench #3

Date	Sampler	Local Reference Hub		
		Northing	Easting	Elevation
8/4/09	Hutchins	151854	3992185	3161

Surface Description

Light reddish brown soil, containing 30-41% fines, 5-15% sand, 5-10% gravel, 45-55% boulders, dry, non-plastic, with low amounts of kanga.

Center of Trench:		Offset (ft)	Bearing	Depth (ft)
		22.5	261	12

Size	Depth (ft)	Offset (ft)	Bearing	Sample
5x3x2	0-2	31.6	261	CI-CSx-3-0
1x1x5	0-2	23.0	274	N/S
1	0-1	25.0	255	N/S
2x1.3.1	0-1	21.0	260	N/S
.6x1.1x1.8	0-2	23.6	257	N/S
2x2.6x4	0-2	19.0	270	N/S
2x1.5x3	1-2	23.6	273	N/S
1x1x.5	1-2	23.0	287	N/S
2x2.5x2.5	1-3	21.0	254	N/S
1x.6x.5	2-3	25.5	245	N/S
2x3x2.5	1-3	23.0	266	CI-CSx-3-3
1x1x.3	1-2	21.5	275	N/S
2x1x1.4	2-3	23.0	375	N/S
1x1.2x2	2-3	22.8	266	N/S
1x1.6x.8	2-3	25.7	264	N/S
2.5x1x1	2-4	24.3	254	N/S
2.5x1.2x1	2-4	25.7	254	N/S
1	1-2	28.0	254	N/S
1x1x2.2	2-3	25.2	262	N/S

Cleopatra: 2009 Trenching Program
Corestone Location Log

Distance and bearing relative to Local Reference Hub

Trench #3 (cont.)

Size	Depth (ft)	Offset (ft)	Bearing	Sample
2.4x1x1.5	2-3	19.0	271	N/S
2x2.5x2.6	4-6	24.5	257	CI-CSx-3-5
3x2.5x3.5*	4-7.5	25.0	259	CI-CSx-3-7
1x1x1.5	5.5-7	23.5	254	N/S
1.2x1x.5	3-4	21.0	249	N/S

* Left in excavation

Cleopatra: 2009 Trenching Program Corestone Location Log

Distance and bearing relative to Local Reference Hub

Trench #4

Date	Sampler	Local Reference Hub		
		Northing	Easting	Elevation
8/11/09	Hutchins	153701	3993073	2862

Surface Description

Dark brownish red soil, containing 45-60% fines, 10-20% sand, 10-15% gravel, 30-40% boulders, dry, non-plastic, with med amounts of kanga.

Center of Trench:		Offset (ft)	Bearing	Depth (ft)
		22.0	281	12

Size	Depth (ft)	Offset (ft)	Bearing	Sample
3x3x1.5	0-2	21.5	296	N/S
1	0-1	22.0	298	N/S
1x1.5x1.6	1-2	19.4	304	N/S
1x.6x1	0-1	23.7	273	N/S
1	1-2	16.0	300	N/S
2x2x.8	1-2	21.5	290	N/S
.6x1x1.5	2-3	14.0	270	N/S
.5x1.5x1.4	1-3	15.2	264	N/S
4x4.5x3*	1-5	15.8	281	N/S
2x2x3	2-4	16.5	275	N/S
7x4x3.5	3-9	24.0	285	CI-CSx-4-5;-7
1.5x1x1	5-6	24.5	282	N/S
.5x1x.6	2-3	18.5	285	N/S
1x1x.7	2-3	18.7	286	N/S
1x1.2x.5	8-9	20.6	270	CI-CSx-4-9
1x1x.6	10-11	22.4	282	N/S
.6x.6x1	10-11	23.0	282	CI-CSx-4-11

* Left in excavation

Cleopatra: 2009 Trenching Program Corestone Location Log

Distance and bearing relative to Local Reference Hub

Trench #5

Date	Sampler	Local Reference Hub		
		Northing	Easting	Elevation
8/18/09	Hutchins	152130	3994124	2810

Surface Description

Brownish red soil, containing 10-15% fines, 10-15% sand, 20-25% gravel, 30-40% boulders, dry, non-plastic, with low amounts of kanga.

Center of Trench:		Offset (ft)	Bearing	Depth (ft)
		24.5	120	8

Size	Depth (ft)	Offset (ft)	Bearing	Sample
1x1x.6	0-1	21.5	122	CI-CSx-5-1
1x1.6x2	.5-2	26.0	105	N/S
1x1x.4	.5-2	26.4	95	N/S
1x1x.5	.5-2	20.0	130	N/S
1	2-3	26.4	170	N/S
1x2x1.2	2-3	21.0	119	N/S
.4x1.4x1.2	.4-2	17.0	132	N/S
1x1.2x.4	.4-2	19.4	126	N/S
1x1x.6	3-4	23.5	121	N/S
3x3x2.5	2-5	25.0	110	CI-CSx-5-4
1x1x.9	4-5	24.5	117	N/S
.9x1x.6	5-6	25.0	123	N/S
1x2x1.6	3-5	25.5	123	N/S
1x2x2.5	5-6	25.0	117	N/S
3x4x6	4-8	24.5	100	N/S
1x2x3	7-8	24.0	110	CI-CSx-5-8
1.6x2x3	7.5-9	23.0	126	N/S
1x2x1	8-9	24.5	117	N/S

* Left in excavation



Trench no.1 – Boulder removal



Trench no. 1 – Density sample



Trench no.2 – Facing north



Trench no. 2 – Typical saprolite (4 ft)



Trench no.3 – Garnierite in fractures



Trench no.3 – Rock pile



Trench no. 4 – Facing west



Trench no. 4 – Saprolite (8 ft)



Trench no. 5 – Rock (4ft)



Trench no. 5 – Rock pile



Trench no. 6 –Garnierite on small boulders



Trench no. 6 – Saprolite (7 ft)



Trench no. 7 – Garnierite (4 ft)



Trench no. 7 – Rock pile



Trench no. 8 – Thick Garnierite



Trench no. 8 –Rock pile



Trench no. 9 – Corestone rind



Trench no. 9 – Rock and soil piles



Trench no. 10 – Boulder rind



Trench no. 10 – Rock pile

APPENDIX C

KRIGING BLOCK RESULTS

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3985221	147397	0.56	0.0429	3.56
3985221	147697	0.55	0.0337	3.58
3985221	147997	0.5	0.0205	3.59
3985221	148297	0.47	0.0091	3.85
3985221	148597	0.42	0.0088	4.13
3985221	148897	0.4	0.0177	3.56
3985221	149197	0.38	0.0236	3.42
3985221	149497	0.36	0.0221	3.34
3985221	149797	0.35	0.0181	3.27
3985221	150097	0.36	0.0201	3.29
3985521	147397	0.55	0.0435	3.56
3985521	147697	0.52	0.0344	3.55
3985521	147997	0.47	0.0217	3.54
3985521	148297	0.42	0.0098	3.26
3985521	148597	0.4	0.0087	3.82
3985521	148897	0.4	0.0165	3.55
3985521	149197	0.4	0.0207	3.39
3985521	149497	0.41	0.019	3.31
3985521	149797	0.4	0.0159	3.27
3985521	150097	0.39	0.013	3.13
3985821	147397	0.53	0.0456	3.55
3985821	147697	0.49	0.0362	3.59
3985821	147997	0.43	0.0247	3.55
3985821	148297	0.39	0.0142	3.48
3985821	148597	0.4	0.0094	3.23
3985821	148897	0.43	0.0154	3.5
3985821	149197	0.46	0.0168	3.36
3985821	149497	0.49	0.0116	3.14
3985821	149797	0.5	0.012	3.41
3985821	150097	0.49	0.0115	3.16
3986121	147397	0.51	0.0458	3.54
3986121	147697	0.46	0.0368	3.54
3986121	147997	0.42	0.0252	3.59
3986121	148297	0.38	0.0147	3.55
3986121	148597	0.38	0.0094	3.22
3986121	148897	0.44	0.0146	3.54
3986121	149197	0.52	0.0147	3.57
3986121	149497	0.59	0.0088	3.24
3986121	149797	0.63	0.009	3.23
3986121	150097	0.6	0.0159	3.72
3986421	147397	0.5	0.0451	4.11
3986421	147697	0.47	0.0354	4.06
3986421	147997	0.44	0.0223	3.76
3986421	148297	0.4	0.0103	4.11
3986421	148597	0.42	0.0085	3.8
3986421	148897	0.51	0.0136	3.65
3986421	149197	0.59	0.0133	4.11
3986421	149497	0.68	0.0087	3.99

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3986421	149797	0.73	0.0097	3.99
3986421	150097	0.7	0.0196	4.03
3986721	147397	0.53	0.0445	4.39
3986721	147697	0.53	0.0342	4.32
3986721	147997	0.52	0.0204	4.19
3986721	148297	0.51	0.0089	3.53
3986721	148597	0.55	0.0081	3.52
3986721	148897	0.63	0.0119	4.03
3986721	149197	0.7	0.0097	4.15
3986721	149497	0.76	0.0107	4.36
3986721	149797	0.79	0.0133	4.31
3986721	150097	0.76	0.0222	4.28
3987021	147397	0.62	0.0445	4.53
3987021	147697	0.63	0.0338	4.49
3987021	147997	0.63	0.02	4.64
3987021	148297	0.66	0.0087	3.7
3987021	148597	0.76	0.008	4.21
3987021	148897	0.78	0.0112	4.86
3987021	149197	0.82	0.0084	5.02
3987021	149497	0.82	0.0084	4.31
3987021	149797	0.83	0.0104	5.67
3987021	150097	0.79	0.0214	4.5
3987321	147397	0.65	0.0449	4.8
3987321	147697	0.68	0.0339	4.81
3987321	147997	0.73	0.0199	5.05
3987321	148297	0.77	0.0087	4.23
3987321	148597	0.8	0.008	4.08
3987321	148897	0.82	0.0114	5.37
3987321	149197	0.83	0.0091	8.45
3987321	149497	0.81	0.0096	4.95
3987321	149797	0.78	0.0095	4.04
3987321	150097	0.77	0.0206	4.54
3987621	147397	0.67	0.0447	4.9
3987621	147697	0.73	0.0342	5.18
3987621	147997	0.76	0.0199	5.41
3987621	148297	0.79	0.0087	6.99
3987621	148597	0.75	0.0078	8.57
3987621	148897	0.78	0.0113	6.17
3987621	149197	0.81	0.0108	5.57
3987621	149497	0.79	0.0083	4.54
3987621	149797	0.73	0.0098	3.75
3987621	150097	0.74	0.0213	4.72
3987621	150397	0.76	0.0336	4.74
3987621	150697	0.76	0.0418	4.82
3987621	150997	0.77	0.0456	4.98
3987621	151297	0.76	0.0465	4.47
3987621	151597	0.74	0.0463	4.36
3987621	151897	0.7	0.0458	4.14

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3987621	152197	0.7	0.0464	4.25
3987621	152497	0.67	0.0474	4.11
3987621	152797	0.72	0.0497	4.21
3987621	153097	0.73	0.0497	4.04
3987921	147397	0.7	0.0448	5.05
3987921	147697	0.73	0.0343	5.4
3987921	147997	0.75	0.0202	5.75
3987921	148297	0.74	0.0088	7.44
3987921	148597	0.73	0.0072	4.87
3987921	148897	0.78	0.0079	5.99
3987921	149197	0.83	0.0079	4.84
3987921	149497	0.82	0.0078	4.56
3987921	149797	0.77	0.0124	5.01
3987921	150097	0.78	0.0226	5.17
3987921	150397	0.75	0.0326	4.9
3987921	150697	0.74	0.0395	4.69
3987921	150997	0.74	0.0426	4.67
3987921	151297	0.72	0.0436	4.49
3987921	151597	0.72	0.0444	4.53
3987921	151897	0.66	0.0452	4.37
3987921	152197	0.66	0.0467	4.2
3987921	152497	0.77	0.05	4.21
3987921	152797	0.72	0.0497	4.2
3987921	153097	0.73	0.0497	4.03
3988221	147397	0.71	0.0456	5.28
3988221	147697	0.72	0.0352	5.44
3988221	147997	0.72	0.0212	5.42
3988221	148297	0.73	0.0095	4.19
3988221	148597	0.78	0.0071	5.12
3988221	148897	0.87	0.007	6.9
3988221	149197	0.89	0.007	5.88
3988221	149497	0.86	0.0072	5.34
3988221	149797	0.85	0.0099	4.12
3988221	150097	0.8	0.0203	5.15
3988221	150397	0.75	0.0299	5
3988221	150697	0.73	0.0344	4.71
3988221	150997	0.69	0.0355	4.56
3988221	151297	0.66	0.0363	4.47
3988221	151597	0.68	0.0397	4.59
3988221	151897	0.69	0.0433	4.2
3988221	152197	0.66	0.048	4.24
3988221	152497	0.77	0.0497	4.2
3988221	152797	0.73	0.0496	4.03
3988221	153097	0.74	0.0493	4.18
3988521	147397	0.67	0.0429	5.72
3988521	147697	0.69	0.0357	5.8
3988521	147997	0.67	0.0227	5.24
3988521	148297	0.68	0.0123	5.02

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3988521	148597	0.74	0.0075	4.25
3988521	148897	0.84	0.007	5.97
3988521	149197	0.91	0.0071	7.58
3988521	149497	0.93	0.0074	6.6
3988521	149797	0.9	0.009	5.89
3988521	150097	0.83	0.0186	5.54
3988521	150397	0.75	0.0263	5.15
3988521	150697	0.7	0.027	4.81
3988521	150997	0.65	0.0241	4.51
3988521	151297	0.68	0.0254	4.5
3988521	151597	0.66	0.0317	4.51
3988521	151897	0.66	0.0404	4.19
3988521	152197	0.66	0.0462	4.08
3988521	152497	0.71	0.0483	4.03
3988521	152797	0.71	0.0488	4.01
3988521	153097	0.71	0.0486	3.89
3988821	147397	0.62	0.0407	5.41
3988821	147697	0.62	0.0338	5.32
3988821	147997	0.62	0.0219	5.27
3988821	148297	0.62	0.01	4.7
3988821	148597	0.64	0.0072	6.33
3988821	148897	0.69	0.007	5.47
3988821	149197	0.77	0.0074	8.45
3988821	149497	0.85	0.0092	6.15
3988821	149797	0.88	0.0092	7.61
3988821	150097	0.82	0.0175	5.84
3988821	150397	0.75	0.0232	5.06
3988821	150697	0.69	0.02	4.95
3988821	150997	0.66	0.0121	3.62
3988821	151297	0.64	0.0133	3.61
3988821	151597	0.63	0.025	4.36
3988821	151897	0.64	0.0359	4.2
3988821	152197	0.65	0.0427	4.08
3988821	152497	0.67	0.0454	4.02
3988821	152797	0.64	0.0458	3.93
3988821	153097	0.68	0.0469	3.87
3989121	147397	0.59	0.0372	5.25
3989121	147697	0.6	0.0318	5.49
3989121	147997	0.61	0.0217	5.45
3989121	148297	0.61	0.0097	4.17
3989121	148597	0.64	0.0071	5.26
3989121	148897	0.62	0.007	4.8
3989121	149197	0.63	0.0071	4.99
3989121	149497	0.72	0.0075	4.82
3989121	149797	0.76	0.0089	5.25
3989121	150097	0.74	0.0168	5.37
3989121	150397	0.69	0.0212	5.2
3989121	150697	0.66	0.0169	5.05

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3989121	150997	0.64	0.0094	6.06
3989121	151297	0.63	0.0126	4.54
3989121	151597	0.64	0.0218	4.51
3989121	151897	0.64	0.031	4.1
3989121	152197	0.64	0.0369	4.08
3989121	152497	0.65	0.0388	3.94
3989121	152797	0.65	0.0396	3.84
3989121	153097	0.67	0.0416	3.84
3989421	139897	0.56	0.0126	4.5
3989421	140197	0.57	0.0207	5.85
3989421	140497	0.58	0.0284	6.29
3989421	140797	0.62	0.028	6.47
3989421	141097	0.66	0.0193	6.56
3989421	141397	0.67	0.0109	5.62
3989421	141697	0.61	0.0187	6.45
3989421	141997	0.56	0.0262	6.28
3989421	142297	0.53	0.0272	6.09
3989421	142597	0.51	0.0258	5.77
3989421	147397	0.56	0.0316	5.54
3989421	147697	0.56	0.0292	5.7
3989421	147997	0.59	0.0222	5.73
3989421	148297	0.63	0.0124	6.32
3989421	148597	0.66	0.0075	10.75
3989421	148897	0.65	0.007	7.19
3989421	149197	0.58	0.007	5.76
3989421	149497	0.58	0.007	4.49
3989421	149797	0.59	0.0088	4.47
3989421	150097	0.64	0.0162	5.11
3989421	150397	0.64	0.0191	5.42
3989421	150697	0.62	0.0144	5.04
3989421	150997	0.62	0.0083	4.46
3989421	151297	0.63	0.0092	4.27
3989421	151597	0.64	0.0168	4.56
3989421	151897	0.64	0.0249	4.16
3989421	152197	0.65	0.0293	4.05
3989421	152497	0.65	0.0288	3.7
3989421	152797	0.67	0.0283	3.75
3989421	153097	0.72	0.0339	3.99
3989721	139897	0.57	0.0161	6.14
3989721	140197	0.58	0.0216	6.3
3989721	140497	0.59	0.0283	6.51
3989721	140797	0.6	0.0276	6.7
3989721	141097	0.63	0.0188	6.86
3989721	141397	0.63	0.0104	7.91
3989721	141697	0.58	0.0175	6.73
3989721	141997	0.52	0.0236	6.29
3989721	142297	0.46	0.0206	5.66
3989721	142597	0.44	0.0135	3.86

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3989721	147397	0.53	0.0246	5.01
3989721	147697	0.54	0.0251	5.17
3989721	147997	0.57	0.0188	5.63
3989721	148297	0.63	0.0097	4.73
3989721	148597	0.69	0.0072	7.29
3989721	148897	0.69	0.007	5.46
3989721	149197	0.61	0.007	5.03
3989721	149497	0.56	0.0072	3.82
3989721	149797	0.56	0.0091	4.87
3989721	150097	0.58	0.0157	5.24
3989721	150397	0.62	0.0162	5.3
3989721	150697	0.63	0.0097	5.65
3989721	150997	0.62	0.0073	5.49
3989721	151297	0.6	0.0073	3.79
3989721	151597	0.63	0.0103	4.32
3989721	151897	0.67	0.0183	4.16
3989721	152197	0.69	0.0213	3.81
3989721	152497	0.7	0.0179	3.7
3989721	152797	0.72	0.0141	3.33
3989721	153097	0.74	0.0236	3.68
3990021	139897	0.58	0.0126	7.55
3990021	140197	0.58	0.0204	6.67
3990021	140497	0.6	0.028	6.66
3990021	140797	0.61	0.0275	6.84
3990021	141097	0.61	0.0187	7.04
3990021	141397	0.59	0.0104	8.61
3990021	141697	0.56	0.0175	6.89
3990021	141997	0.51	0.0232	6.34
3990021	142297	0.46	0.0193	5.69
3990021	142597	0.44	0.0104	3.93
3990021	142897	0.51	0.0109	5.8
3990021	143197	0.56	0.0219	5.68
3990021	143497	0.62	0.0307	5.98
3990021	143797	0.7	0.0309	6.12
3990021	144097	0.77	0.0224	6.79
3990021	144397	0.83	0.011	8.62
3990021	144697	0.82	0.0085	7.31
3990021	144997	0.81	0.0113	6.25
3990021	145297	0.78	0.008	6.01
3990021	145597	0.73	0.0073	5.25
3990021	145897	0.68	0.0083	5.68
3990021	146197	0.63	0.0096	5.34
3990021	146497	0.54	0.0075	5.46
3990021	146797	0.51	0.0074	5.66
3990021	147097	0.51	0.0103	3.94
3990021	147397	0.52	0.0182	4.82
3990021	147697	0.52	0.0202	4.44
3990021	147997	0.54	0.0149	5.48

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3990021	148297	0.61	0.0082	7.5
3990021	148597	0.68	0.0071	6.18
3990021	148897	0.7	0.0073	6.73
3990021	149197	0.6	0.0072	5.54
3990021	149497	0.55	0.008	3.95
3990021	149797	0.55	0.0118	5.12
3990021	150097	0.59	0.0152	5.76
3990021	150397	0.62	0.0139	5.88
3990021	150697	0.66	0.0088	7.39
3990021	150997	0.65	0.0071	4.02
3990021	151297	0.64	0.0072	3.83
3990021	151597	0.67	0.0086	7.35
3990021	151897	0.7	0.0135	4.32
3990021	152197	0.74	0.014	3.81
3990021	152497	0.82	0.0095	3.37
3990021	152797	0.88	0.0088	3.35
3990021	153097	0.86	0.0169	3.81
3990321	139897	0.6	0.0108	8.14
3990321	140197	0.61	0.0191	6.7
3990321	140497	0.63	0.0275	6.69
3990321	140797	0.63	0.0273	6.86
3990321	141097	0.62	0.0187	7.03
3990321	141397	0.58	0.0104	6.47
3990321	141697	0.58	0.0179	6.8
3990321	141997	0.55	0.0245	6.43
3990321	142297	0.5	0.0225	5.97
3990321	142597	0.48	0.0146	5.68
3990321	142897	0.5	0.0098	5.9
3990321	143197	0.56	0.0193	5.85
3990321	143497	0.62	0.0284	6.01
3990321	143797	0.69	0.0289	6.35
3990321	144097	0.74	0.0205	6.51
3990321	144397	0.78	0.0098	5.81
3990321	144697	0.79	0.0081	6.36
3990321	144997	0.77	0.0111	6.34
3990321	145297	0.75	0.0079	5.98
3990321	145597	0.73	0.007	6.76
3990321	145897	0.68	0.0072	5.45
3990321	146197	0.63	0.0075	5.72
3990321	146497	0.55	0.0071	4.82
3990321	146797	0.51	0.007	6.79
3990321	147097	0.52	0.0084	3.96
3990321	147397	0.51	0.0143	4.46
3990321	147697	0.5	0.0144	4.04
3990321	147997	0.51	0.0094	3.68
3990321	148297	0.59	0.0072	4.52
3990321	148597	0.67	0.0074	4.2
3990321	148897	0.68	0.0092	5.46

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3990321	149197	0.64	0.0081	5.25
3990321	149497	0.6	0.0103	5.51
3990321	149797	0.59	0.0096	4.37
3990321	150097	0.61	0.0122	6.14
3990321	150397	0.64	0.0105	8.37
3990321	150697	0.66	0.0108	5.22
3990321	150997	0.66	0.0079	3.93
3990321	151297	0.67	0.0082	4.32
3990321	151597	0.68	0.0106	4.85
3990321	151897	0.71	0.0089	3.78
3990321	152197	0.77	0.0081	3.53
3990321	152497	0.95	0.0073	3.91
3990321	152797	1.11	0.0073	4.71
3990321	153097	0.97	0.0106	3.52
3990621	139897	0.65	0.0105	4.88
3990621	140197	0.66	0.0187	6.34
3990621	140497	0.67	0.0272	6.61
3990621	140797	0.69	0.0272	6.84
3990621	141097	0.71	0.0187	7.2
3990621	141397	0.7	0.0104	7.04
3990621	141697	0.67	0.0183	6.9
3990621	141997	0.61	0.026	6.38
3990621	142297	0.56	0.0254	6.17
3990621	142597	0.53	0.0175	5.94
3990621	142897	0.52	0.0103	5.93
3990621	143197	0.56	0.0188	5.73
3990621	143497	0.61	0.0277	5.71
3990621	143797	0.66	0.0286	6.27
3990621	144097	0.7	0.0215	6.32
3990621	144397	0.74	0.0124	6.49
3990621	144697	0.75	0.0085	7.82
3990621	144997	0.73	0.0111	6.14
3990621	145297	0.73	0.0079	5.38
3990621	145597	0.73	0.007	4.35
3990621	145897	0.72	0.007	5.64
3990621	146197	0.64	0.007	5.12
3990621	146497	0.54	0.007	4.49
3990621	146797	0.54	0.007	8.32
3990621	147097	0.55	0.0078	4.82
3990621	147397	0.55	0.011	4.32
3990621	147697	0.52	0.009	3.37
3990621	147997	0.53	0.0077	3.52
3990621	148297	0.61	0.0071	4.77
3990621	148597	0.64	0.0071	6.95
3990621	148897	0.66	0.0075	4.66
3990621	149197	0.66	0.0079	5.11
3990621	149497	0.7	0.0102	6.82
3990621	149797	0.73	0.008	9.62

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3990621	150097	0.67	0.0084	6.27
3990621	150397	0.64	0.011	6
3990621	150697	0.64	0.0115	4.92
3990621	150997	0.66	0.0089	4.46
3990621	151297	0.67	0.0108	4.93
3990621	151597	0.68	0.0112	5.11
3990621	151897	0.67	0.0078	3.93
3990621	152197	0.78	0.007	3.85
3990621	152497	0.96	0.007	3.63
3990621	152797	1.03	0.0072	3.58
3990621	153097	1.02	0.0101	5.25
3990921	139897	0.7	0.0105	5.97
3990921	140197	0.7	0.0187	6.12
3990921	140497	0.71	0.0272	6.6
3990921	140797	0.73	0.0272	6.86
3990921	141097	0.77	0.0187	7.19
3990921	141397	0.82	0.0104	10.07
3990921	141697	0.74	0.0186	6.96
3990921	141997	0.68	0.0269	6.74
3990921	142297	0.62	0.0267	6.22
3990921	142597	0.59	0.0184	5.97
3990921	142897	0.58	0.0104	4.74
3990921	143197	0.59	0.0187	5.63
3990921	143497	0.62	0.0275	5.92
3990921	143797	0.65	0.0281	6.09
3990921	144097	0.68	0.0203	6.38
3990921	144397	0.7	0.0099	6.18
3990921	144697	0.7	0.0082	5.62
3990921	144997	0.68	0.0111	6.11
3990921	145297	0.66	0.008	7.43
3990921	145597	0.69	0.007	4.38
3990921	145897	0.71	0.007	5.99
3990921	146197	0.66	0.007	7.57
3990921	146497	0.54	0.0071	7.76
3990921	146797	0.52	0.0073	4.5
3990921	147097	0.57	0.0073	5.99
3990921	147397	0.61	0.0078	3.62
3990921	147697	0.58	0.0082	3.29
3990921	147997	0.58	0.0095	3.9
3990921	148297	0.61	0.0074	4.14
3990921	148597	0.63	0.0071	4.62
3990921	148897	0.65	0.0074	5.99
3990921	149197	0.71	0.0073	9.55
3990921	149497	0.79	0.0077	6.94
3990921	149797	0.82	0.0078	7.77
3990921	150097	0.7	0.0078	6.75
3990921	150397	0.64	0.008	4.17
3990921	150697	0.6	0.0085	3.81

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3990921	150997	0.61	0.0102	4.94
3990921	151297	0.64	0.0094	3.98
3990921	151597	0.69	0.0092	9.18
3990921	151897	0.71	0.0084	7.47
3990921	152197	0.81	0.0082	5.51
3990921	152497	0.91	0.008	5.38
3990921	152797	0.98	0.0088	5.4
3990921	153097	1	0.0143	4.86
3991221	139897	0.71	0.0107	5.24
3991221	140197	0.72	0.019	5.78
3991221	140497	0.73	0.0274	6.24
3991221	140797	0.73	0.0273	6.44
3991221	141097	0.75	0.0187	6.64
3991221	141397	0.75	0.0104	6.3
3991221	141697	0.73	0.0187	6.5
3991221	141997	0.7	0.0271	6.44
3991221	142297	0.67	0.0271	6.16
3991221	142597	0.64	0.0187	6.08
3991221	142897	0.63	0.0104	7.85
3991221	143197	0.64	0.0187	5.81
3991221	143497	0.66	0.0274	5.85
3991221	143797	0.67	0.0279	6.09
3991221	144097	0.69	0.0195	6.07
3991221	144397	0.68	0.009	5.96
3991221	144697	0.67	0.008	6.01
3991221	144997	0.68	0.0115	5.94
3991221	145297	0.67	0.0085	5.73
3991221	145597	0.7	0.0071	5.64
3991221	145897	0.71	0.007	5.72
3991221	146197	0.66	0.007	8.41
3991221	146497	0.55	0.0074	6.53
3991221	146797	0.52	0.0094	5.9
3991221	147097	0.58	0.0078	4.72
3991221	147397	0.61	0.0079	4.27
3991221	147697	0.62	0.0108	4.27
3991221	147997	0.64	0.009	3.58
3991221	148297	0.67	0.0074	3.89
3991221	148597	0.67	0.0074	4.5
3991221	148897	0.73	0.0092	6.91
3991221	149197	0.8	0.0074	9.88
3991221	149497	0.86	0.0077	8.77
3991221	149797	0.82	0.0108	7.55
3991221	150097	0.73	0.0104	6.38
3991221	150397	0.68	0.0075	5.78
3991221	150697	0.65	0.0072	5.76
3991221	150997	0.6	0.0085	4.97
3991221	151297	0.64	0.0122	6.35
3991221	151597	0.71	0.0139	6.64

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3991221	151897	0.74	0.0142	6.48
3991221	152197	0.81	0.014	5.57
3991221	152497	0.85	0.0132	4.91
3991221	152797	0.89	0.0126	4.87
3991221	153097	0.93	0.0152	5.08
3991221	153397	0.94	0.0192	5.32
3991221	153697	0.95	0.0229	5.07
3991221	153997	0.94	0.0299	5.22
3991221	154297	0.94	0.0384	5.42
3991221	154597	0.9	0.0437	5.77
3991521	139897	0.74	0.0121	4.51
3991521	140197	0.73	0.0201	5.55
3991521	140497	0.71	0.028	5.68
3991521	140797	0.71	0.0275	5.87
3991521	141097	0.7	0.0187	5.9
3991521	141397	0.69	0.0104	4.81
3991521	141697	0.7	0.0187	6.14
3991521	141997	0.7	0.0272	6.07
3991521	142297	0.7	0.0272	6.19
3991521	142597	0.7	0.0187	6.13
3991521	142897	0.69	0.0104	4.52
3991521	143197	0.7	0.0187	5.94
3991521	143497	0.7	0.0275	5.91
3991521	143797	0.71	0.0281	5.69
3991521	144097	0.69	0.0201	5.72
3991521	144397	0.69	0.0096	4.29
3991521	144697	0.68	0.0083	7.15
3991521	144997	0.75	0.0123	6.25
3991521	145297	0.8	0.011	6.5
3991521	145597	0.81	0.0076	6.44
3991521	145897	0.77	0.007	6.61
3991521	146197	0.7	0.007	9.59
3991521	146497	0.58	0.0071	7.97
3991521	146797	0.55	0.0081	5.21
3991521	147097	0.59	0.0095	5.43
3991521	147397	0.63	0.0086	4.34
3991521	147697	0.64	0.0128	4.58
3991521	147997	0.66	0.012	5.03
3991521	148297	0.68	0.0078	7.43
3991521	148597	0.75	0.0073	6.92
3991521	148897	0.84	0.0079	6.71
3991521	149197	0.93	0.0073	10.19
3991521	149497	0.96	0.0077	10.26
3991521	149797	0.85	0.0106	7.49
3991521	150097	0.73	0.0084	4.65
3991521	150397	0.73	0.0072	4.5
3991521	150697	0.74	0.007	7.21
3991521	150997	0.72	0.0079	6.26

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3991521	151297	0.72	0.0123	7.38
3991521	151597	0.76	0.0145	7.8
3991521	151897	0.79	0.0151	7.21
3991521	152197	0.79	0.0148	6.27
3991521	152497	0.78	0.0133	5.4
3991521	152797	0.83	0.0098	3.92
3991521	153097	0.9	0.0097	6.82
3991521	153397	0.92	0.0126	5.37
3991521	153697	0.93	0.012	3.97
3991521	153997	0.93	0.0196	5.41
3991521	154297	0.93	0.0307	5.97
3991521	154597	0.89	0.0394	5.86
3991821	139897	0.74	0.0161	5.29
3991821	140197	0.72	0.0217	5.37
3991821	140497	0.69	0.0284	5.33
3991821	140797	0.66	0.0276	5.4
3991821	141097	0.64	0.0187	5.56
3991821	141397	0.63	0.0104	6.52
3991821	141697	0.64	0.0187	5.93
3991821	141997	0.67	0.0272	6.05
3991821	142297	0.71	0.0272	6.36
3991821	142597	0.74	0.0187	6.44
3991821	142897	0.78	0.0104	7.34
3991821	143197	0.75	0.0188	6.34
3991821	143497	0.74	0.0276	5.92
3991821	143797	0.74	0.0285	5.81
3991821	144097	0.75	0.0213	5.97
3991821	144397	0.77	0.0124	6.34
3991821	144697	0.83	0.0087	7.85
3991821	144997	0.89	0.0125	6.36
3991821	145297	0.96	0.0101	5.41
3991821	145597	0.92	0.0081	10.51
3991821	145897	0.84	0.0071	6.8
3991821	146197	0.72	0.007	5.64
3991821	146497	0.62	0.0071	6.39
3991821	146797	0.59	0.0075	6.72
3991821	147097	0.61	0.0077	8.23
3991821	147397	0.64	0.0081	5.16
3991821	147697	0.66	0.0121	5.34
3991821	147997	0.67	0.012	6.07
3991821	148297	0.71	0.0079	5.23
3991821	148597	0.79	0.0074	7.04
3991821	148897	0.87	0.0092	7.94
3991821	149197	0.91	0.0074	7.11
3991821	149497	0.95	0.0072	9.26
3991821	149797	0.84	0.0076	5.11
3991821	150097	0.76	0.0072	6.39
3991821	150397	0.81	0.007	8.38

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3991821	150697	0.9	0.007	9.67
3991821	150997	0.88	0.0072	8.5
3991821	151297	0.82	0.0081	7.29
3991821	151597	0.87	0.0088	10.19
3991821	151897	0.86	0.0088	6.83
3991821	152197	0.8	0.0087	4.42
3991821	152497	0.74	0.0089	4.03
3991821	152797	0.78	0.0097	4.72
3991821	153097	0.86	0.0077	5.11
3991821	153397	0.84	0.0077	6.75
3991821	153697	0.84	0.0077	4.21
3991821	153997	0.9	0.0109	5.82
3991821	154297	0.93	0.0228	6.14
3991821	154597	0.91	0.0335	5.98
3992121	139897	0.7	0.0126	6.99
3992121	140197	0.7	0.0204	5.21
3992121	140497	0.67	0.0281	5.11
3992121	140797	0.63	0.0275	5.23
3992121	141097	0.6	0.0187	5.13
3992121	141397	0.59	0.0104	4.48
3992121	141697	0.61	0.0187	5.83
3992121	141997	0.65	0.0272	6.3
3992121	142297	0.7	0.0272	6.52
3992121	142597	0.75	0.0187	6.42
3992121	142897	0.79	0.0104	6.25
3992121	143197	0.77	0.0187	6.23
3992121	143497	0.74	0.0276	6.12
3992121	143797	0.72	0.0284	6.3
3992121	144097	0.76	0.0206	6.04
3992121	144397	0.8	0.01	5.92
3992121	144697	0.86	0.0085	4.56
3992121	144997	0.94	0.0142	6.98
3992121	145297	0.98	0.0154	7.9
3992121	145597	0.98	0.0128	7.74
3992121	145897	0.92	0.0078	8.28
3992121	146197	0.84	0.007	7.99
3992121	146497	0.68	0.0074	4.54
3992121	146797	0.64	0.0092	6.03
3992121	147097	0.64	0.0076	5.61
3992121	147397	0.69	0.0076	5.92
3992121	147697	0.69	0.0081	4.34
3992121	147997	0.64	0.008	4.62
3992121	148297	0.69	0.0072	10.92
3992121	148597	0.78	0.0071	9.52
3992121	148897	0.88	0.0075	6.46
3992121	149197	0.87	0.0071	6.33
3992121	149497	0.88	0.007	6.77
3992121	149797	0.82	0.0071	8.05

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3992121	150097	0.78	0.0074	6.51
3992121	150397	0.82	0.0071	6.64
3992121	150697	0.9	0.007	9.02
3992121	150997	0.95	0.007	7.9
3992121	151297	0.99	0.007	10.4
3992121	151597	1.03	0.007	7.41
3992121	151897	1.04	0.007	11.36
3992121	152197	0.91	0.007	6.23
3992121	152497	0.8	0.0072	5.58
3992121	152797	0.77	0.0075	4.38
3992121	153097	0.77	0.0071	5.48
3992121	153397	0.75	0.007	5.87
3992121	153697	0.83	0.007	6.68
3992121	153997	0.97	0.0089	4.47
3992121	154297	0.98	0.0187	6.36
3992121	154597	0.92	0.0276	6.06
3992421	139897	0.67	0.0108	3.64
3992421	140197	0.66	0.0191	4.72
3992421	140497	0.63	0.0275	4.76
3992421	140797	0.6	0.0276	4.93
3992421	141097	0.55	0.0191	4.86
3992421	141397	0.54	0.0107	3.86
3992421	141697	0.57	0.0191	5.77
3992421	141997	0.63	0.0275	6.29
3992421	142297	0.69	0.0273	6.66
3992421	142597	0.73	0.0187	6.91
3992421	142897	0.73	0.0104	5.74
3992421	143197	0.74	0.0187	6.71
3992421	143497	0.73	0.0276	6.62
3992421	143797	0.71	0.0284	6.48
3992421	144097	0.68	0.0203	5.8
3992421	144397	0.71	0.0097	4.24
3992421	144697	0.81	0.0087	7.38
3992421	144997	0.89	0.0161	7.31
3992421	145297	0.96	0.0197	7.77
3992421	145597	1.01	0.0161	7.64
3992421	145897	0.99	0.0084	9.63
3992421	146197	0.86	0.007	4.76
3992421	146497	0.72	0.0071	4.95
3992421	146797	0.68	0.0075	7.15
3992421	147097	0.65	0.0076	6.01
3992421	147397	0.69	0.0092	6.2
3992421	147697	0.71	0.0076	6.71
3992421	147997	0.65	0.0074	4.65
3992421	148297	0.64	0.0071	6.69
3992421	148597	0.75	0.007	4.93
3992421	148897	0.84	0.007	6.5
3992421	149197	0.91	0.007	7.46

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3992421	149497	0.92	0.007	5.74
3992421	149797	0.89	0.0077	9.29
3992421	150097	0.81	0.0099	7.48
3992421	150397	0.79	0.0077	6.71
3992421	150697	0.83	0.007	8.04
3992421	150997	0.92	0.007	8.58
3992421	151297	1.02	0.0071	10.4
3992421	151597	1.06	0.0073	6.8
3992421	151897	1.11	0.0071	10.93
3992421	152197	1.04	0.007	5.15
3992421	152497	0.98	0.007	4.28
3992421	152797	0.9	0.007	3.73
3992421	153097	0.81	0.007	4.21
3992421	153397	0.8	0.007	5.91
3992421	153697	0.93	0.007	6.85
3992421	153997	1.03	0.0085	6.56
3992421	154297	1.01	0.0162	7.13
3992421	154597	0.92	0.0212	6.35
3992421	154897	0.86	0.0215	5.86
3992421	155197	0.82	0.0214	5.5
3992421	155497	0.81	0.0212	5.27
3992421	155797	0.8	0.02	5.34
3992421	156097	0.76	0.0182	5.28
3992421	156397	0.71	0.014	5.73
3992421	156697	0.69	0.0084	5.95
3992421	156997	0.62	0.0099	4.57
3992421	157297	0.66	0.0211	5.85
3992421	157597	0.71	0.0325	6.12
3992721	139897	0.64	0.0105	4.1
3992721	140197	0.63	0.0188	4.42
3992721	140497	0.59	0.0277	4.56
3992721	140797	0.55	0.0285	4.61
3992721	141097	0.55	0.0209	4.88
3992721	141397	0.53	0.0128	5.66
3992721	141697	0.56	0.021	5.8
3992721	141997	0.63	0.0285	6.44
3992721	142297	0.7	0.0277	7.02
3992721	142597	0.75	0.0188	7.48
3992721	142897	0.77	0.0104	8.43
3992721	143197	0.77	0.0188	7.62
3992721	143497	0.74	0.0276	7.13
3992721	143797	0.68	0.0286	6.3
3992721	144097	0.63	0.0213	6.21
3992721	144397	0.64	0.0124	6.28
3992721	144697	0.73	0.0092	11.42
3992721	144997	0.84	0.017	7.67
3992721	145297	0.9	0.0213	7.26
3992721	145597	0.98	0.0174	7.77

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3992721	145897	0.92	0.0087	8.57
3992721	146197	0.81	0.007	7.29
3992721	146497	0.7	0.007	4.29
3992721	146797	0.72	0.007	7.43
3992721	147097	0.66	0.0071	9.67
3992721	147397	0.69	0.0075	7.03
3992721	147697	0.76	0.0076	6.27
3992721	147997	0.74	0.0092	6.93
3992721	148297	0.72	0.0074	6.49
3992721	148597	0.74	0.0071	6.53
3992721	148897	0.85	0.0074	7.36
3992721	149197	0.91	0.0071	6.46
3992721	149497	0.98	0.007	9.77
3992721	149797	0.97	0.0077	8.57
3992721	150097	0.91	0.0101	8.14
3992721	150397	0.85	0.0077	6.72
3992721	150697	0.86	0.007	6.7
3992721	150997	0.92	0.007	5.91
3992721	151297	0.92	0.0074	7.9
3992721	151597	0.98	0.0092	7.48
3992721	151897	1.05	0.0074	6.48
3992721	152197	1.11	0.007	6.14
3992721	152497	1.2	0.007	5.01
3992721	152797	1.23	0.007	5.73
3992721	153097	1.13	0.007	4.55
3992721	153397	1.1	0.007	7.25
3992721	153697	1.15	0.007	8.91
3992721	153997	1.09	0.008	9.05
3992721	154297	1.02	0.0129	7.86
3992721	154597	0.94	0.0146	6.5
3992721	154897	0.85	0.0111	7.04
3992721	155197	0.81	0.0095	4.07
3992721	155497	0.84	0.0092	3.97
3992721	155797	0.88	0.0091	5.48
3992721	156097	0.8	0.0088	6.06
3992721	156397	0.73	0.0082	4.51
3992721	156697	0.71	0.008	5.64
3992721	156997	0.69	0.0133	6.39
3992721	157297	0.73	0.0207	6.27
3992721	157597	0.77	0.0278	6.18
3993021	139897	0.6	0.0107	3.43
3993021	140197	0.59	0.0191	4.22
3993021	140497	0.56	0.0283	4.32
3993021	140797	0.52	0.03	4.4
3993021	141097	0.49	0.0249	4.52
3993021	141397	0.51	0.0205	5.03
3993021	141697	0.56	0.025	6.05
3993021	141997	0.64	0.03	6.54

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3993021	142297	0.72	0.0281	7.08
3993021	142597	0.83	0.0189	7.96
3993021	142897	0.89	0.0104	10.5
3993021	143197	0.84	0.0187	7.66
3993021	143497	0.76	0.0275	7.15
3993021	143797	0.67	0.0281	7.01
3993021	144097	0.61	0.0202	6.48
3993021	144397	0.56	0.0099	4.46
3993021	144697	0.65	0.0088	6.33
3993021	144997	0.75	0.0171	7.16
3993021	145297	0.82	0.0218	7.32
3993021	145597	0.85	0.0171	7.14
3993021	145897	0.89	0.0087	5.33
3993021	146197	0.81	0.007	5.91
3993021	146497	0.78	0.007	7.33
3993021	146797	0.73	0.007	7.18
3993021	147097	0.69	0.007	11.23
3993021	147397	0.71	0.007	5.9
3993021	147697	0.85	0.007	6.89
3993021	147997	0.89	0.0073	9.77
3993021	148297	0.87	0.0071	6.63
3993021	148597	0.88	0.0073	7.31
3993021	148897	0.91	0.0095	8.63
3993021	149197	0.95	0.0083	5.51
3993021	149497	1.04	0.0076	8.32
3993021	149797	1.1	0.0073	8.21
3993021	150097	1.03	0.0077	8.29
3993021	150397	0.97	0.0076	7.36
3993021	150697	0.93	0.0071	9.11
3993021	150997	0.97	0.0071	8.08
3993021	151297	0.98	0.0075	6.36
3993021	151597	0.96	0.0076	5.2
3993021	151897	1.1	0.0071	5.99
3993021	152197	1.15	0.007	5.01
3993021	152497	1.25	0.007	7.47
3993021	152797	1.36	0.007	5.76
3993021	153097	1.35	0.007	9.04
3993021	153397	1.33	0.007	7.04
3993021	153697	1.31	0.007	10.68
3993021	153997	1.2	0.0072	9.25
3993021	154297	1.04	0.0083	9.06
3993021	154597	0.94	0.0096	6.15
3993021	154897	0.89	0.0109	5.53
3993021	155197	0.89	0.0078	4.1
3993021	155497	0.93	0.007	4.68
3993021	155797	0.94	0.007	5.38
3993021	156097	0.84	0.007	6.26
3993021	156397	0.77	0.007	7.74

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3993021	156697	0.77	0.0079	8.83
3993021	156997	0.78	0.0128	7.41
3993021	157297	0.79	0.0165	6.93
3993021	157597	0.82	0.0195	6.86
3993321	139897	0.58	0.012	4.03
3993321	140197	0.56	0.0202	4.14
3993321	140497	0.52	0.0291	4.26
3993321	140797	0.47	0.0308	4.28
3993321	141097	0.44	0.0261	4.23
3993321	141397	0.48	0.022	5.24
3993321	141697	0.52	0.0261	5.84
3993321	141997	0.63	0.0306	6.55
3993321	142297	0.74	0.0283	7.21
3993321	142597	0.83	0.0189	7.94
3993321	142897	0.89	0.0104	8.76
3993321	143197	0.86	0.0187	7.77
3993321	143497	0.78	0.0272	7.25
3993321	143797	0.71	0.0276	7.54
3993321	144097	0.65	0.0192	6.53
3993321	144397	0.6	0.0088	4.4
3993321	144697	0.65	0.0086	4.65
3993321	144997	0.73	0.0171	6.91
3993321	145297	0.75	0.0218	7.35
3993321	145597	0.73	0.0174	6.69
3993321	145897	0.75	0.0087	6.4
3993321	146197	0.77	0.007	8.39
3993321	146497	0.75	0.007	6.72
3993321	146797	0.69	0.007	6.7
3993321	147097	0.67	0.007	6.31
3993321	147397	0.71	0.0069	7.27
3993321	147697	0.87	0.0058	7.38
3993321	147997	1.04	0.0048	9.48
3993321	148297	1.09	0.0046	10.13
3993321	148597	1.07	0.0049	10.8
3993321	148897	1.08	0.008	11.13
3993321	149197	1.09	0.0108	9.53
3993321	149497	1.15	0.0103	8.75
3993321	149797	1.23	0.0075	8.86
3993321	150097	1.17	0.0076	11.76
3993321	150397	1.07	0.01	7.92
3993321	150697	1.04	0.0076	6.05
3993321	150997	1.07	0.0074	6.33
3993321	151297	1.1	0.0092	6.63
3993321	151597	1.1	0.0074	5.9
3993321	151897	1.22	0.007	5.84
3993321	152197	1.19	0.007	6.05
3993321	152497	1.12	0.007	6.37
3993321	152797	1.15	0.007	7.87

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3993321	153097	1.27	0.007	9.7
3993321	153397	1.3	0.007	6.5
3993321	153697	1.28	0.007	9.29
3993321	153997	1.22	0.007	7
3993321	154297	1.01	0.0076	6.11
3993321	154597	0.91	0.0109	6.35
3993321	154897	0.89	0.0121	5.56
3993321	155197	0.94	0.008	6.57
3993321	155497	0.97	0.007	5.92
3993321	155797	1	0.007	9.15
3993321	156097	0.99	0.007	6.51
3993321	156397	0.92	0.007	7.83
3993321	156697	0.94	0.0072	9.5
3993321	156997	0.92	0.0082	7.57
3993321	157297	0.83	0.0089	8.74
3993321	157597	0.83	0.0103	4.51
3993621	139897	0.54	0.016	4.45
3993621	140197	0.52	0.0217	4.31
3993621	140497	0.49	0.0293	4.17
3993621	140797	0.43	0.0302	3.98
3993621	141097	0.4	0.0236	3.85
3993621	141397	0.42	0.016	3.61
3993621	141697	0.47	0.0236	5.61
3993621	141997	0.58	0.0298	6.32
3993621	142297	0.72	0.0281	6.97
3993621	142597	0.82	0.0188	7.88
3993621	142897	0.88	0.0104	10.5
3993621	143197	0.87	0.0187	8.13
3993621	143497	0.81	0.0272	7.83
3993621	143797	0.76	0.0274	7.57
3993621	144097	0.71	0.0188	6.85
3993621	144397	0.72	0.0087	4.78
3993621	144697	0.76	0.0086	11.48
3993621	144997	0.75	0.0171	7.69
3993621	145297	0.73	0.022	7.42
3993621	145597	0.69	0.0173	6.99
3993621	145897	0.66	0.0088	5.91
3993621	146197	0.71	0.007	8.97
3993621	146497	0.73	0.007	6.2
3993621	146797	0.7	0.007	8.88
3993621	147097	0.68	0.007	8.42
3993621	147397	0.73	0.0069	6.97
3993621	147697	0.88	0.0052	6.87
3993621	147997	1.06	0.0039	9.58
3993621	148297	1.19	0.0036	10.32
3993621	148597	1.15	0.0036	10.7
3993621	148897	1.15	0.0042	9.93
3993621	149197	1.2	0.0091	9.97

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3993621	149497	1.23	0.0083	8.72
3993621	149797	1.28	0.0072	8.92
3993621	150097	1.28	0.0079	6.48
3993621	150397	1.2	0.011	7.58
3993621	150697	1.13	0.0079	5.11
3993621	150997	1.19	0.0072	8.05
3993621	151297	1.22	0.0075	6.34
3993621	151597	1.17	0.0073	6.24
3993621	151897	1.26	0.0074	5.06
3993621	152197	1.17	0.0071	6.15
3993621	152497	1.09	0.007	6.01
3993621	152797	0.96	0.007	5.93
3993621	153097	0.97	0.007	6.59
3993621	153397	1.1	0.007	7.38
3993621	153697	1.12	0.007	7.83
3993621	153997	1.08	0.007	9.59
3993621	154297	0.94	0.0072	5.72
3993621	154597	0.82	0.0085	4.48
3993621	154897	0.84	0.0108	5.8
3993621	155197	0.94	0.0078	6.06
3993621	155497	1.04	0.007	5.67
3993621	155797	1.09	0.007	5.58
3993621	156097	1.14	0.007	6.58
3993621	156397	1.06	0.007	7.48
3993621	156697	0.99	0.007	10.04
3993621	156997	0.91	0.007	9.41
3993621	157297	0.8	0.0079	5.34
3993621	157597	0.82	0.0133	6.58
3993921	139897	0.49	0.0125	6.83
3993921	140197	0.47	0.0204	4.53
3993921	140497	0.43	0.0286	4.25
3993921	140797	0.39	0.0292	3.98
3993921	141097	0.37	0.0225	4.03
3993921	141397	0.37	0.017	4.66
3993921	141697	0.43	0.0225	5.63
3993921	141997	0.53	0.0289	6.16
3993921	142297	0.67	0.0277	6.82
3993921	142597	0.79	0.0187	7.44
3993921	142897	0.83	0.0104	7.84
3993921	143197	0.85	0.0187	8.11
3993921	143497	0.84	0.0274	7.79
3993921	143797	0.82	0.0277	7.39
3993921	144097	0.79	0.0191	7.31
3993921	144397	0.78	0.0088	6.59
3993921	144697	0.79	0.0087	11.28
3993921	144997	0.74	0.0175	7.68
3993921	145297	0.69	0.0226	6.86
3993921	145597	0.66	0.0183	6.94

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3993921	145897	0.65	0.0098	6.09
3993921	146197	0.7	0.0076	5.88
3993921	146497	0.76	0.0071	8.15
3993921	146797	0.79	0.007	6.17
3993921	147097	0.82	0.007	10.94
3993921	147397	0.86	0.0069	11.44
3993921	147697	0.88	0.0052	6.82
3993921	147997	0.93	0.0036	11.44
3993921	148297	1.06	0.0036	12.45
3993921	148597	1.16	0.0036	10.07
3993921	148897	1.17	0.0036	10.22
3993921	149197	1.18	0.007	8.71
3993921	149497	1.22	0.0078	7.19
3993921	149797	1.25	0.0071	7.92
3993921	150097	1.33	0.0079	7.62
3993921	150397	1.27	0.011	7.15
3993921	150697	1.19	0.0079	7.88
3993921	150997	1.21	0.007	7.63
3993921	151297	1.2	0.007	9.49
3993921	151597	1.14	0.0076	6.55
3993921	151897	1.19	0.0099	6.81
3993921	152197	1.24	0.0076	8.09
3993921	152497	1.2	0.007	5.98
3993921	152797	0.94	0.0071	5.09
3993921	153097	0.87	0.0073	7.32
3993921	153397	0.99	0.0071	6.51
3993921	153697	1.06	0.007	6.77
3993921	153997	1.02	0.007	5.19
3993921	154297	0.89	0.007	5.56
3993921	154597	0.79	0.0073	6.28
3993921	154897	0.79	0.008	6.18
3993921	155197	0.9	0.0073	6.3
3993921	155497	1.05	0.007	7.98
3993921	155797	1.2	0.007	8.65
3993921	156097	1.12	0.007	6.32
3993921	156397	0.98	0.007	5.82
3993921	156697	0.84	0.007	5
3993921	156997	0.78	0.007	10.02
3993921	157297	0.74	0.0085	6.95
3993921	157597	0.77	0.0178	6.6
3994221	139897	0.41	0.0108	3.48
3994221	140197	0.41	0.019	4.2
3994221	140497	0.37	0.0276	4.17
3994221	140797	0.33	0.028	4.01
3994221	141097	0.3	0.0204	4.19
3994221	141397	0.3	0.0126	3.56
3994221	141697	0.35	0.0204	5.21
3994221	141997	0.46	0.028	5.97

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3994221	142297	0.64	0.0276	6.64
3994221	142597	0.77	0.0191	6.92
3994221	142897	0.81	0.0107	5.75
3994221	143197	0.86	0.0194	7.65
3994221	143497	0.86	0.0284	7.71
3994221	143797	0.86	0.0294	7.49
3994221	144097	0.85	0.0215	7.56
3994221	144397	0.83	0.0109	7.74
3994221	144697	0.77	0.0107	6.63
3994221	144997	0.72	0.0196	6.9
3994221	145297	0.67	0.024	6.84
3994221	145597	0.63	0.0199	6.79
3994221	145897	0.63	0.0134	5.98
3994221	146197	0.69	0.0102	6.26
3994221	146497	0.77	0.0075	7.94
3994221	146797	0.88	0.007	5.64
3994221	147097	0.97	0.0071	6.67
3994221	147397	1.06	0.0072	10.5
3994221	147697	1.05	0.0053	9.13
3994221	147997	1.04	0.0036	13.33
3994221	148297	1.01	0.0036	11.38
3994221	148597	1.08	0.0036	10.67
3994221	148897	1.12	0.0036	8.76
3994221	149197	1.14	0.0063	8.07
3994221	149497	1.03	0.0099	7.46
3994221	149797	1.03	0.0078	7.35
3994221	150097	1.18	0.0082	5.72
3994221	150397	1.26	0.0105	6.31
3994221	150697	1.23	0.0077	5.4
3994221	150997	1.18	0.0071	7.34
3994221	151297	1.21	0.0074	6.77
3994221	151597	1.22	0.0078	7.64
3994221	151897	1.27	0.0101	6.84
3994221	152197	1.35	0.0077	6.76
3994221	152497	1.31	0.007	4.61
3994221	152797	1.09	0.0074	5.57
3994221	153097	1	0.0092	7.21
3994221	153397	1.13	0.0074	7.06
3994221	153697	1.27	0.007	11.08
3994221	153997	1.17	0.007	9.96
3994221	154297	1.04	0.007	8.58
3994221	154597	0.91	0.0074	9.24
3994221	154897	0.82	0.0092	6.83
3994221	155197	0.81	0.0074	6.96
3994221	155497	0.92	0.007	5.15
3994221	155797	1.1	0.007	10.08
3994221	156097	1.01	0.007	6.16
3994221	156397	0.82	0.007	4.35

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3994221	156697	0.7	0.0071	4.29
3994221	156997	0.65	0.0079	4.53
3994221	157297	0.66	0.0108	6.1
3994221	157597	0.73	0.0225	6.26
3994521	139897	0.37	0.0108	3.3
3994521	140197	0.36	0.019	3.95
3994521	140497	0.35	0.0274	4.09
3994521	140797	0.28	0.0273	4.19
3994521	141097	0.23	0.0189	4.53
3994521	141397	0.19	0.0107	4.23
3994521	141697	0.28	0.019	5.18
3994521	141997	0.42	0.0278	5.79
3994521	142297	0.62	0.0287	6.58
3994521	142597	0.78	0.0215	6.81
3994521	142897	0.88	0.0134	7.63
3994521	143197	0.87	0.022	7.67
3994521	143497	0.88	0.0313	7.68
3994521	143797	0.88	0.0334	7.54
3994521	144097	0.82	0.0284	7.23
3994521	144397	0.8	0.022	6.91
3994521	144697	0.73	0.0219	6.63
3994521	144997	0.7	0.0261	6.7
3994521	145297	0.66	0.0268	6.84
3994521	145597	0.61	0.02	5.94
3994521	145897	0.6	0.0107	4.01
3994521	146197	0.68	0.0083	5.27
3994521	146497	0.8	0.0072	5.82
3994521	146797	0.88	0.007	6.01
3994521	147097	0.96	0.0074	5.75
3994521	147397	1.06	0.009	6.99
3994521	147697	1.11	0.0056	6.96
3994521	147997	1.05	0.0036	9.2
3994521	148297	1.09	0.0036	11.64
3994521	148597	1.16	0.0036	10.49
3994521	148897	1.11	0.0036	8.28
3994521	149197	1.02	0.0065	7.32
3994521	149497	0.88	0.0108	7.66
3994521	149797	0.87	0.0087	5.78
3994521	150097	1.04	0.0103	5.99
3994521	150397	1.22	0.0084	6.62
3994521	150697	1.36	0.0072	6.62
3994521	150997	1.26	0.0074	7.64
3994521	151297	1.26	0.0094	7.03
3994521	151597	1.28	0.0081	6.64
3994521	151897	1.36	0.0077	8.04
3994521	152197	1.53	0.0071	6.55
3994521	152497	1.45	0.007	6.03
3994521	152797	1.17	0.0071	6.05

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3994521	153097	1.15	0.0075	10.08
3994521	153397	1.19	0.0071	10.75
3994521	153697	1.3	0.007	8.3
3994521	153997	1.35	0.007	7.48
3994521	154297	1.17	0.007	9.46
3994521	154597	1.02	0.0071	8.59
3994521	154897	0.88	0.0075	7.37
3994521	155197	0.77	0.0073	6.19
3994521	155497	0.85	0.0076	7.12
3994521	155797	0.96	0.008	10.7
3994521	156097	0.82	0.0082	4.59
3994521	156397	0.66	0.0084	4.28
3994521	156697	0.62	0.0097	5.79
3994521	156997	0.6	0.0153	5.55
3994521	157297	0.62	0.0215	5.98
3994521	157597	0.7	0.0311	6.06
3994821	139897	0.37	0.0134	3.25
3994821	140197	0.35	0.0214	3.89
3994821	140497	0.34	0.0287	4.14
3994821	140797	0.27	0.0278	4.4
3994821	141097	0.19	0.019	4.67
3994821	141397	0.14	0.0107	4.31
3994821	141697	0.24	0.0192	5.26
3994821	141997	0.39	0.0288	5.74
3994821	142297	0.6	0.0315	6.41
3994821	142597	0.76	0.0283	6.72
3994821	142897	0.85	0.0247	7.1
3994821	143197	0.84	0.0293	7.13
3994821	143497	0.83	0.0358	7.5
3994821	143797	0.88	0.0389	7.57
3994821	144097	0.79	0.0366	6.94
3994821	144397	0.76	0.0338	6.68
3994821	144697	0.69	0.0339	6.36
3994821	144997	0.7	0.0346	6.44
3994821	145297	0.67	0.0315	6.69
3994821	145597	0.63	0.0226	5.34
3994821	145897	0.64	0.0122	3.75
3994821	146197	0.7	0.011	5.17
3994821	146497	0.77	0.0071	7.05
3994821	146797	0.77	0.007	4.09
3994821	147097	0.78	0.0076	4.15
3994821	147397	0.88	0.0076	4.67
3994821	147697	0.93	0.0054	5.89
3994821	147997	0.94	0.0036	6.53
3994821	148297	1.03	0.0036	7.17
3994821	148597	1.09	0.0037	8.32
3994821	148897	1.12	0.0037	6.69
3994821	149197	1	0.0066	6.92

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3994821	149497	0.88	0.0109	7.07
3994821	149797	0.88	0.0091	6.58
3994821	150097	0.99	0.0112	5.62
3994821	150397	1.19	0.008	4.29
3994821	150697	1.33	0.007	6.01
3994821	150997	1.35	0.0072	6.1
3994821	151297	1.32	0.0083	6.22
3994821	151597	1.37	0.0103	6.96
3994821	151897	1.44	0.0077	6.65
3994821	152197	1.52	0.0069	9.54
3994821	152497	1.43	0.0069	7.56
3994821	152797	1.3	0.0069	9.29
3994821	153097	1.27	0.007	8.54
3994821	153397	1.23	0.0071	8.25
3994821	153697	1.22	0.0078	8.91
3994821	153997	1.24	0.0082	7.57
3994821	154297	1.16	0.0083	12.31
3994821	154597	1.04	0.0083	10.57
3994821	154897	0.85	0.0082	6.88
3994821	155197	0.8	0.0085	7.58
3994821	155497	0.86	0.0115	7.27
3994821	155797	0.88	0.0146	7.07
3994821	156097	0.78	0.0169	6.11
3995121	139897	0.43	0.0244	3.98
3995121	140197	0.4	0.0281	4.03
3995121	140497	0.36	0.0321	4.34
3995121	140797	0.29	0.0302	4.48
3995121	141097	0.22	0.0216	4.88
3995121	141397	0.17	0.0133	5.7
3995121	141697	0.26	0.0219	5.47
3995121	141997	0.4	0.0315	5.72
3995121	142297	0.56	0.0356	6.24
3995121	142597	0.71	0.0359	6.58
3995121	142897	0.79	0.0353	6.95
3995121	143197	0.81	0.0375	7.57
3995121	143497	0.79	0.0409	7.62
3995121	143797	0.8	0.0429	7.04
3995121	144097	0.78	0.0426	7
3995121	144397	0.74	0.0415	6.49
3995121	144697	0.8	0.0416	6.53
3995121	144997	0.71	0.0419	6.58
3995121	145297	0.67	0.0379	5.71
3995121	145597	0.68	0.0306	5.58
3995121	145897	0.67	0.0236	4.86
3995121	146197	0.7	0.0186	4.94
3995121	146497	0.72	0.0123	4.73
3995121	146797	0.68	0.01	3.75
3995121	147097	0.67	0.0119	4.48

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3995121	147397	0.71	0.0091	3.89
3995121	147697	0.77	0.0074	4.41
3995121	147997	0.81	0.006	7.38
3995121	148297	0.76	0.0059	5.46
3995121	148597	0.81	0.0062	5.7
3995121	148897	1	0.0063	7.26
3995121	149197	1	0.0085	7.14
3995121	149497	0.93	0.0132	6.81
3995121	149797	0.93	0.0112	4.36
3995121	150097	0.99	0.0134	5.36
3995121	150397	1.12	0.0097	5.22
3995121	150697	1.26	0.0084	6.4
3995121	150997	1.31	0.0084	4.94
3995121	151297	1.37	0.0096	6.71
3995121	151597	1.45	0.0128	7.01
3995121	151897	1.54	0.0089	6.47
3995121	152197	1.51	0.0064	6.88
3995121	152497	1.42	0.0063	7.51
3995121	152797	1.38	0.0077	6.35
3995121	153097	1.41	0.0083	7.76
3995121	153397	1.31	0.0096	5.06
3995121	153697	1.23	0.0147	8.39
3995121	153997	1.19	0.0174	8.99
3995121	154297	1.11	0.0183	9.22
3995121	154597	0.96	0.0175	8.82
3995121	154897	0.85	0.0164	7.71
3995121	155197	0.84	0.0147	7.4
3995121	155497	0.89	0.0131	5.04
3995121	155797	0.85	0.0208	6.17
3995121	156097	0.81	0.0278	6.12
3995421	147397	0.67	0.0204	4.86
3995421	147697	0.69	0.0193	5.36
3995421	147997	0.7	0.0183	5.89
3995421	148297	0.72	0.0182	6.08
3995421	148597	0.79	0.0182	6.51
3995421	148897	0.89	0.0191	6.81
3995421	149197	0.95	0.0202	7.26
3995421	149497	0.94	0.0223	6.68
3995421	149797	0.98	0.0221	6.1
3995421	150097	1.02	0.0224	5.39
3995421	150397	1.09	0.0205	5.53
3995421	150697	1.22	0.0191	5.81
3995421	150997	1.3	0.0191	6.08
3995421	151297	1.39	0.0201	6.68
3995421	151597	1.47	0.0211	6.88
3995421	151897	1.51	0.0181	6.93
3995421	152197	1.5	0.0145	7.46
3995421	152497	1.43	0.0143	6.84

Kriging results

STATE PLANE		Block Estimate Ni (%)	Estimation Variance Ni (%) ²	Depth of block (ft)
X	Y			
3995421	152797	1.42	0.0169	7.18
3995421	153097	1.42	0.0189	7.52
3995721	147397	0.66	0.0349	5
3995721	147697	0.68	0.0352	5.63
3995721	147997	0.66	0.0341	5.69
3995721	148297	0.74	0.0341	6.14
3995721	148597	0.84	0.034	6.63
3995721	148897	0.85	0.0358	6.79
3995721	149197	0.89	0.0348	6.91
3995721	149497	0.91	0.0354	6.62
3995721	149797	1.02	0.0355	6.17
3995721	150097	1.07	0.0348	5.53
3995721	150397	1.08	0.034	5.7
3995721	150697	1.21	0.0332	5.73
3995721	150997	1.29	0.033	6.01
3995721	151297	1.37	0.0335	6.35
3995721	151597	1.45	0.0335	6.88
3995721	151897	1.46	0.0319	7.12
3995721	152197	1.5	0.0301	7.29
3995721	152497	1.46	0.0301	7
3995721	152797	1.45	0.0315	7.29
3995721	153097	1.38	0.0332	7.51

Kriging results

APPENDIX D
PETROGRAPHIC REPORT

REPORT ON THE PETROGRAPHIC ANALYSIS OF ROCK SAMPLES POLISH SECTIONS (Translated from French by AJR)

The present report include the petrographic analysis of 2 polish sections made from two rock samples collected by AJR during the site visit. The analysis were done using a polarizing microscope with transmitted light for the observation of the silicates and in reflected light for the observation of oxides and sulphurs. Also the reports present photographs that illustrate minerals and observed textures.

Sample C1

Mineralogical assemblage

Silicates minerals

Altered olivine	50%
Serpentinitized chlorite	45%
Clinopyroxène	3%

Dark minerals

Oxide:	
Magnetite	2%

Name of the rock:

Peridotite - Wehrlite

Description of minerals

Olivine – $(Mg, Fe)_2SiO_4$

Olivine is easily altered by fluid circulation and presents a metamorphism of the upper greenschist and the lower amphibolite facies. The observation revealed that the olivine is a intermediary composition between the forsterite and the fayalite.

The olivine is altered in serpentine, in iddingsite, in bowlingite and in chlorophaeite. Those last three minerals are mixes of clay, phyllosilicates and oxides. The iddingsite is composed of smectite, chlorite, goethite and calcite. In the thin section, those alterations replace progressively the olivines.

Serpentine - $Mg_3Si_2O_5(OH)_4$

Serpentine is a phyllosilicate that can be observed in several mineral species. Nickeliferous serpentine are named garnierite, pecoraite, nepouite, etc. The section analysed present mainly the bowlingite serpentine variety, composed of mixes of goethite, amorphous oxides an clayed minerals (montmorillonite). Some hematite veinlets are also associated with the iddingsite.

Chlorite - $(Mg, Fe^{2+}, Fe^{3+}, Mn, Al)_{12}(Si, Al)_8O_{20}(OH)_{16}$

Chlorite indicates that the ultramafic rocks are rich in aluminium and magnesium. The chlorite is also a phyllosilicate resulting in the olivine alteration. Secondary magnetite is included inside the chlorite sheets.

Clinopyroxene - $(Mg, Fe, Ca, Mn)_2(Si_2O_6)$

Prismatic pyroxene crystals are associated with olivine. In the section they are mainly clinopyroxene (diopside, hedenbergite and augite).

Dark minerals

Oxides

Magnetite (Fe_3O_4 with often significant quantities of Mg, Mn, Al, Cr et Ti)

Magnetite is a secondary alteration product and is included in the iddingsite, the bowlingite, the chlorophaeite and the chlorite. It is the result of the iron rich olivine and pyroxene alteration.

Sample C2

Mineralogical assemblage

Silicates minerals

Altered olivine	85%	
Orthopyroxene		7%
Clinopyroxène	3%	

Dark minerals

Oxide:

Magnetite	3%
Hematite	2%

Name of the rock:

Peridotite - Lherzolite

Description of minerals

Olivine – $(Mg, Fe)_2SiO_4$

Olivine in the thin section is much better preserved than in C1. There is also alteration by fluid circulation with important quantities of iddingsite, chlorophaeite and bowlingite veinlets. Alteration processes to form those minerals are the same as in C1.

Orthopyroxène - $(Mg, Fe)_2(Si_2O_6)$

The observed orthopyroxenes are more on the magnesium side (enstatite) characteristic of plutonic rocks. Those minerals are of primary origin.

Clinopyroxene - $(Mg, Fe, Ca, Mn)_2(Si_2O_6)$

Prismatic pyroxene crystals are associated with olivine. In the section they are mainly augite.

Dark minerals

Oxides

Magnetite (Fe_3O_4 with often significant quantities of Mg, Mn, Al, Cr et Ti)

Magnetite is a secondary alteration product and is included in the iddingsite, the bowlingite, the chlorophaeite and the chlorite. It is the result of the iron rich olivine and pyroxene alteration.

Hématite (Fe_2O_3)

It is associated with iddingsite and the intense olivine and pyroxene serpentinisation.

Montréal, le 17 janvier 2008.

Objet : rapport final sur l'analyse pétrographique de lames minces polies.

Ce rapport final contient les analyses pétrographiques détaillées des 4 lames minces polies effectuées à partir de 4 échantillons de roches. Les informations sur la localisation exacte et la géologie locale et régionale de ces échantillons n'ont pas été données au pétrographe afin de préserver la confidentialité totale du site actuellement exploré. Ces analyses ont été effectuées au microscope polarisant en lumière transmise pour l'observation des silicates et en lumière réfléchie pour l'observation des oxydes et des sulfures.

Ce rapport contient des photos en couleur pour illustrer les minéraux et les textures observés afin de faciliter la compréhension de la lecture des descriptions.

Numéro de l'échantillon : C1

Numéro de la lame mince polie : C1

Assemblage minéralogique

Minéraux silicatés

Olivine altérée : 50%

Serpentine-chlorite : 45% - la chlorite domine.

Clinopyroxène : 3%

Nom de la roche :

Péridotite - Wehrlite (orthopyroxène absent mais il est peut-être totalement altéré?).

Minéraux opaques

Oxide :

Magnétite : 2%

Description des minéraux

Olivine – $(Mg, Fe)_2SiO_4$

L'olivine est un minéral facilement altérable par lessivage relié à la circulation de fluides météoritiques et/ou métamorphiques (faciès des schistes verts supérieur – amphibolites inférieur).

L'olivine a deux membres extrêmes : la forstérite, le membre purement magnésien (Mg_2SiO_4) et la fayalite, le membre purement ferrique (Fe_2SiO_4). Les membres purs sont inexistant dans la nature où l'on trouve des olivines avec des compositions intermédiaires en Mg et Fe.

Le contexte lithologique et les produits d'altération retrouvés dans cette lame mince, montrent que l'olivine est une solution solide avec une composition intermédiaire entre la forstérite et la fayalite.

Par métamorphisme et circulations de fluides, l'olivine s'altère en serpentine, en iddingsite, en bowlingite et en chlorophaeite. La serpentine témoigne d'un métamorphisme de bas grade aux faciès des schistes verts supérieur – amphibolite inférieur. L'iddingsite, la bowlingite et la chlorophaeite sont des mélanges d'argiles, de phyllosilicates et d'oxydes.

L'iddingsite se compose de smectites, de chlorite, et de goéthite-hématite. La bowlingite est un mélange de smectites, de chlorite, de serpentine, de talc, de micas et de quartz. La chlorophaeite contient de la chlorite, des smectites, de la goéthite et de la calcite.

Dans cette lame, ces altérations remplacent progressivement l'olivine. Elles se forment par diffusion des hydrogènes H^+ dans la structure de l'olivine où ils s'attachent temporairement aux oxygènes. Les ions Mg, Fe^{2+} et Si sont alors libérés de leurs sites et

sont remplacés par Al, Fe³⁺ et Ca. Le passage de l'iddingsite à la bowlingite dépend de l'état d'oxydation du fer. La chlorophaeite n'est pas trop différente de l'iddingsite. Elle est plus variable en couleur et contient moins de Fe³⁺ et plus de Fe²⁺.

L'iddingsite et la bowlingite reprennent parfaitement la forme des cristaux de l'olivine. On observe alors des fantômes d'olivine qui conservent les mêmes caractéristiques cristallines. En lumière naturelle, les cristaux sont craquelés et présentent un fort relief. L'iddingsite est de couleur rougeâtre, tandis que la bowlingite et la chlorophaeite sont de couleur verdâtre. Les altérations donnent un aspect flou aux cristaux.

En lumière transmise, on observe que certains cristaux d'olivine montrent encore des couleurs de forte biréfringence caractéristique de l'olivine primaire. L'extinction droite de ces cristaux est caractéristique de l'olivine.

Serpentine - $Mg_3Si_2O_5(OH)_4$

La serpentine est un phyllosilicate qui se présente sous plusieurs espèces minérales : la lizardite, l'antigorite et le chrysotile sont les plus importantes. Le contexte des échantillons analysés ici laisse sous-entendre que cette serpentine est une variété nickélique (le Ni remplace le Mg dans la structure du minéral). Elle se nomme alors garniérite, pécoraïte - $Ni_3Si_2O_5(OH)_4$ - ou népouïte - $(Ni, Mg)_3Si_2O_5(OH)_4$. *Seules des analyses chimiques précises (microsonde électronique,...) pourraient permettre de distinguer les différentes variétés de serpentine.*

La variété de serpentine la plus répandue dans cette lame fait partie de la bowlingite. L'iddingsite fait aussi partie de la famille des serpentines. On observe que ces types de serpentines sont composés d'un mélange de goëthite, d'oxydes amorphes et de minéraux argileux comme la montmorillonite. Des veinules d'hématite secondaire sont associées à l'iddingsite.

Chlorite ferromagnésienne et magnésienne - $(Mg, Fe^{2+}, Fe^{3+}, Mn, Al)_{12}(Si, Al)_8O_{20}(OH)_{16}$

La présence de chlorite dans cette lame montre que cette roche ultrabasique contient de l'aluminium.

En lumière naturelle, la chlorite est totalement incolore. Elle est donc magnésienne. La chlorite est un phyllosilicate et montre une forme identique à celle des micas, en feuillets lamellaires. Elle résulte de l'altération des minéraux magnésiens tels que l'olivine ou le clinopyroxène (de type diopside). En nicols croisés, elle montre une biréfringence faible avec des teintes de polarisation dans les gris du début du 1^{er} ordre et une extinction irrégulière. De la magnétite secondaire se retrouve à l'intérieur des feuillets de chlorite. La serpentine peut aussi être mélangée à la chlorite. Dans ce cas, il est pratiquement impossible de faire la distinction entre ces deux phyllosilicates car ils ont des caractéristiques cristallines semblables.

Clinopyroxène - $(Mg, Fe, Ca, Mn)_2(Si_2O_6)$

Des cristaux prismatiques de pyroxènes coexistent avec l'olivine. Leur pléochroïsme vert pâle en lumière naturelle et leur extinction oblique en nicols croisés les caractérisent en tant que clinopyroxène. On distingue nettement ses clivages. Le contexte lithologique le classe dans la famille des pyroxènes magnésiens ferrifères et calciques de type diopside – hédénbergite – augite.

Les cristaux montrent une biréfringence élevée. Ce clinopyroxène est un 'diallage'. Il ne diffère de l'augite que par un clivage très fin et est fréquent dans les roches ultrabasiques. Leur altération importante explique leur rareté (3%) dans la lame mince.

Minéraux opaques

Les oxides

Magnétite (Fe_3O_4 avec souvent des quantités significatives de Mg, Mn, Al, Cr et Ti)

Elle montre une couleur grise bleutée en lumière naturelle. Elle est isotrope en nicols croisés. Elle est associée aux produits d'altération secondaire dont elle découle. Elle se retrouve dans l'iddingsite, la bowlingite, la chlorophaeite et la chlorite. Elle résulte de l'altération de l'olivine et des pyroxènes qui contiennent un pourcentage de fer.

Numéro de l'échantillon : C2

Numéro de la lame mince polie : C2

Assemblage minéralogique

Minéraux silicatés

Olivine altérée : 85%

Orthopyroxène : 7%

Clinopyroxène : 3%

Nom de la roche :

Péridotite - Lherzolite (orthopyroxène et clinopyroxène présents).

Minéraux opaques

Oxides :

Magnétite : 3%

Hématite : 2%

Description des minéraux

Olivine – $(Mg, Fe)_2SiO_4$

Malgré l'oxydation et la couleur rouge intense de l'échantillon, les cristaux d'olivine sont beaucoup mieux préservés que dans l'échantillon C1. En effet, on distingue nettement les cristaux craquelés à fort relief dans la lame mince. Ils sont aussi en relief positif dans l'échantillon macroscopique. Ils sont caractérisés par leur forte biréfringence en nicols croisés et forment alors une mosaïque multicolore.

La serpentinisation de l'olivine se traduit par un pourcentage important d'iddingsite et de chlorophaeite, de couleur rouge en lumière naturelle. Ces altérations envahissent les craquelures des cristaux pour les diviser en cristaux plus petits. On observe aussi de la bowlingite, de couleur verdâtre. L'iddingsite et la chlorophaeite se composent de smectites, de chlorite, de talc, et de goethite-hématite. La bowlingite est un mélange de smectites, de chlorite, de serpentine, de talc, de micas et de quartz.

Les processus de formation de ces altérations sont les mêmes que ceux explicités pour la lame C1.

Cette lame montre aussi des cristaux d'olivine mâclés montrant une forte biréfringence et une extinction droite.

Orthopyroxène - $(Mg, Fe)_2(Si_2O_6)$

Les cristaux prismatiques montrent un léger pléochroïsme rosâtre en lumière naturelle. En nicols croisés, l'olivine et l'orthopyroxène montrent une extinction droite. Cependant,

l'orthopyroxène a une faible biréfringence dans les gris pâle qui les distingue de l'olivine qui possède des couleurs de biréfringence élevée.

Il existe deux membres purs d'orthopyroxène : l'énstatite ($Mg_2Si_2O_6$) et la ferrosilite ($Fe_2Si_2O_6$). Mais ces solutions pures n'existent pas dans la nature où l'on retrouve des orthopyroxènes à composition intermédiaire. Le contexte lithologique de ces cristaux leur confère une composition plus magnésienne que ferrière.

Les cristaux observés montrent une structure lamellaire caractéristique des orthopyroxènes très magnésiens des roches plutoniques. Les lamelles très fines s'orientent parallèlement et confèrent aux cristaux une texture zébrée. Ces lamelles montrent une biréfringence beaucoup plus élevée car elles contiennent des exsolutions d'un clinopyroxène riche en calcium. Elles se sont formées lors du refroidissement de la roche.

Clinopyroxène - $(Mg, Fe, Ca, Mn)_2(Si_2O_6)$

Des cristaux prismatiques de pyroxènes coexistent avec l'olivine. Leur pléochroïsme vert pâle en lumière naturelle et leur extinction oblique en nicols croisés les caractérisent en tant que clinopyroxène. On distingue nettement leurs clivages. Les cristaux montrent une biréfringence élevée.

Certains cristaux sont mâclés et caractérisent donc l'augite, un clinopyroxène commun dans les roches ultrabasiques.

Minéraux opaques

Les oxydes

Magnétite (Fe_3O_4 avec souvent des quantités significatives de Mg, Mn, Al, Cr et Ti)

Elle montre une couleur grise bleutée en lumière naturelle. Elle est isotrope en nicols croisés. Elle est associée à l'iddingsite et se retrouve parmi les petits cristaux d'olivine. Elle résulte de l'altération de l'olivine et des pyroxènes qui contiennent un pourcentage de fer.

Hématite (Fe_2O_3)

Elle est associée à l'iddingsite et donc à la serpentinisation intense de l'olivine et des pyroxènes. De couleur brun-rouge en lumière naturelle, elle montre une anisotropie en nicols croisés.

Fait le 21 janvier 2008 à Montréal par :

Sandrine CADERON, Geo., Ph.D.
5481, Terrasse Moreau
Saint-Hubert, (QC)
J3Y 6N2

Tél : (450) 926-0409
Courriel : alexandrine_geo@yahoo.ca

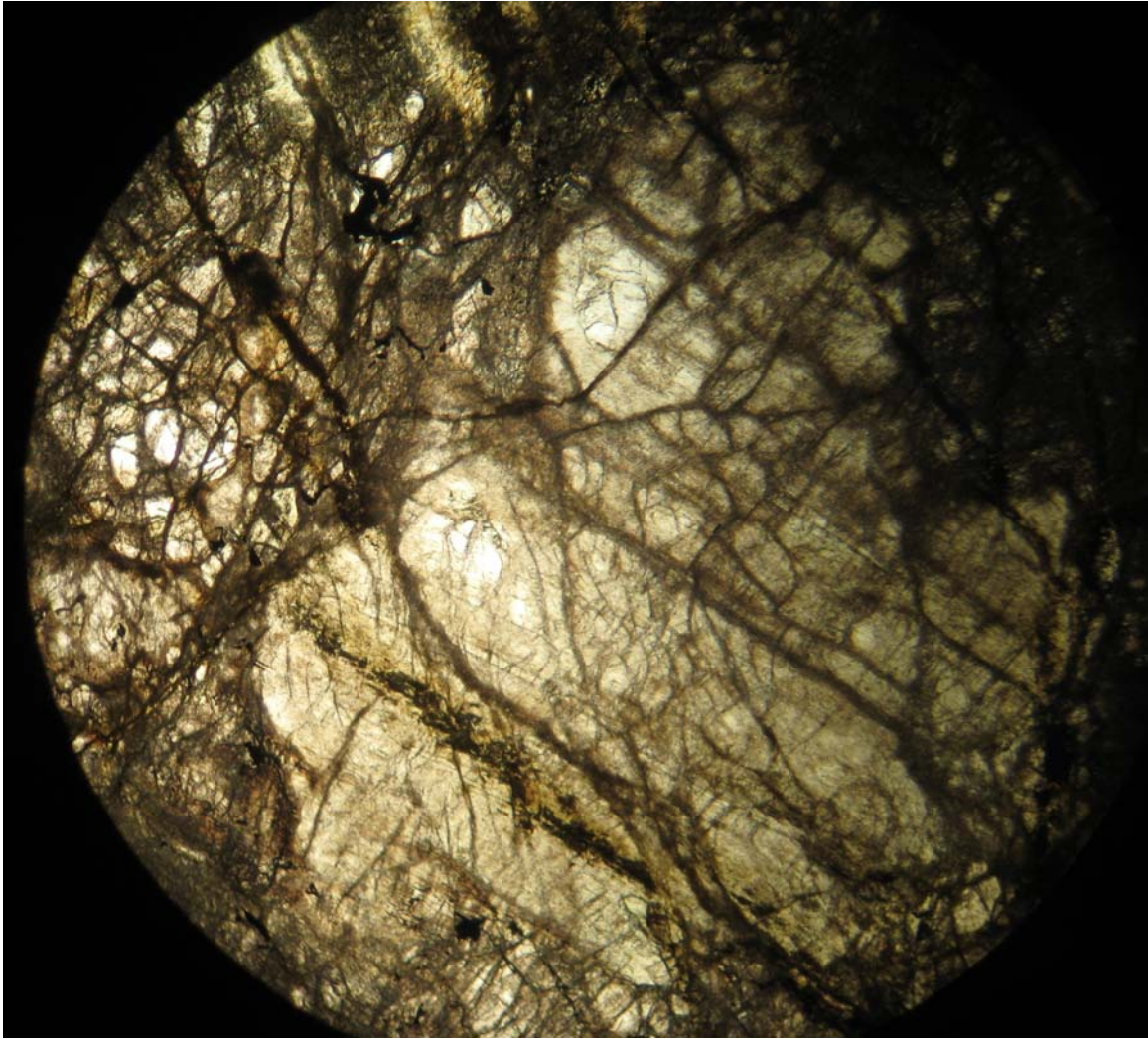


Photo 1 : LM C1. LN – X5. Fantômes d’olivine. Les cristaux sont remplacés par de la bowlingite de couleur grise-verdâtre. La forme des cristaux d’olivine primaire subsiste.

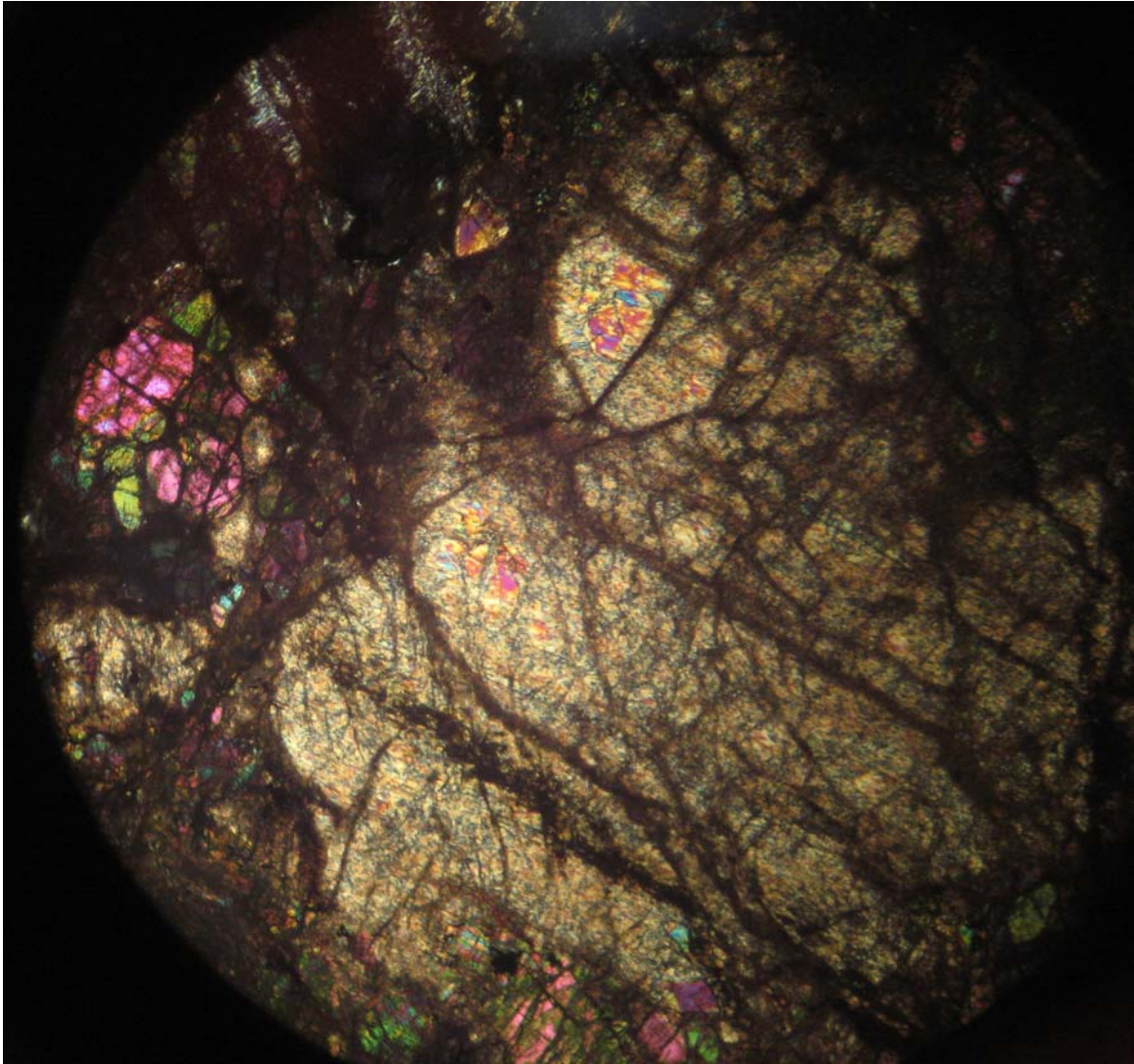


Photo 2 : LM C1. LP – X5. Idem que la photo 1 mais en LP. Des morceaux d’olivine primaire (biréfringence élevée) subsistent dans les cristaux altérés. On observe nettement les craquelures du cristal primaire d’olivine. *Haut gauche* : cristaux d’olivine avec biréfringence rose-vert.

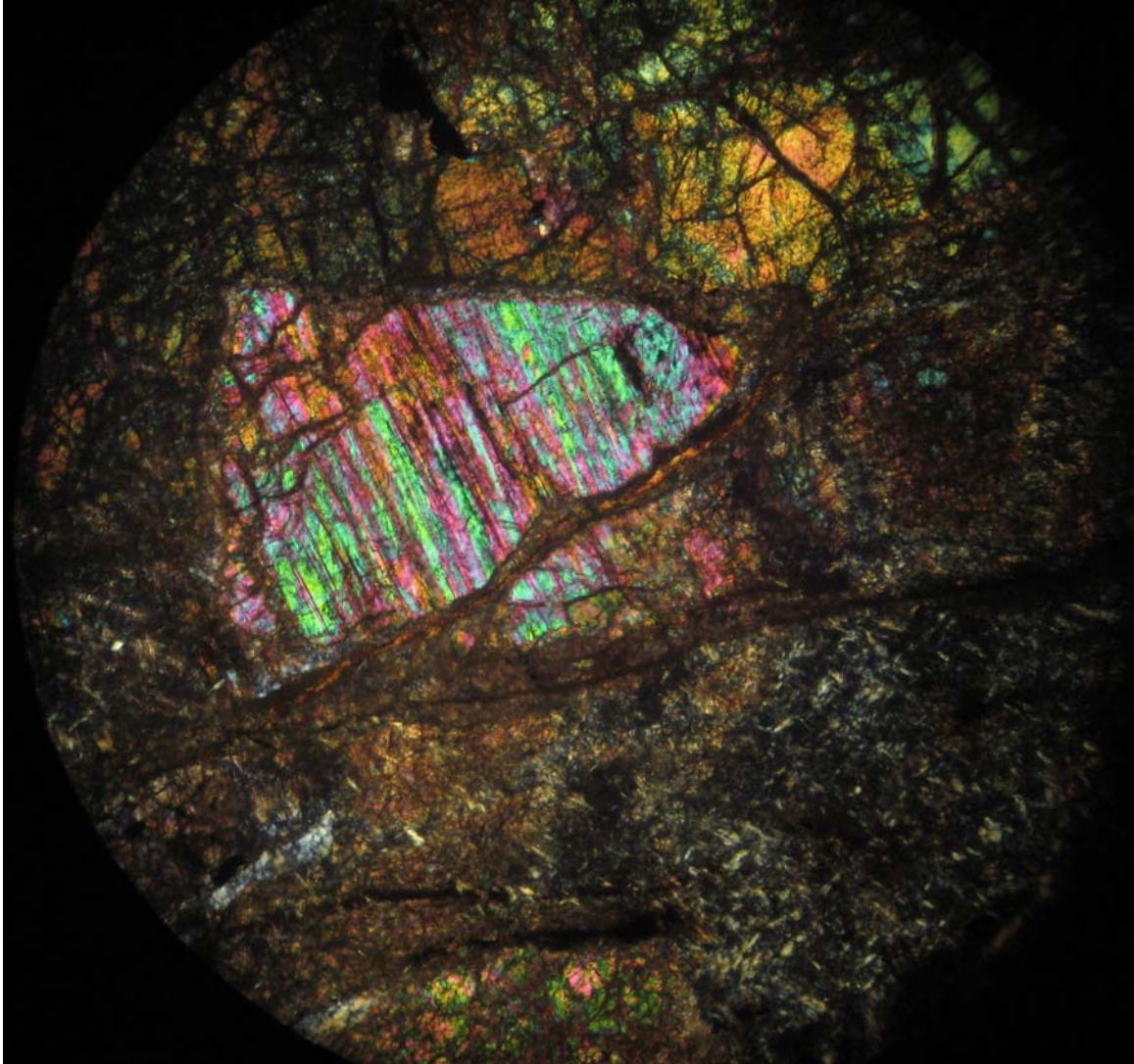


Photo 3 : LM C1. LP – X5. Cpx + Ol + Idd + Serp + Chlo. Cristal de clinopyroxène avec des couleurs de biréfringence élevée et des clivages bien marqués. L’olivine montre des craquelures et un relief fort en plus d’une forte biréfringence. L’iddingsite, de couleur rouge-brun, se mélange avec la serpentine et la chlorite de couleur grise-noire.

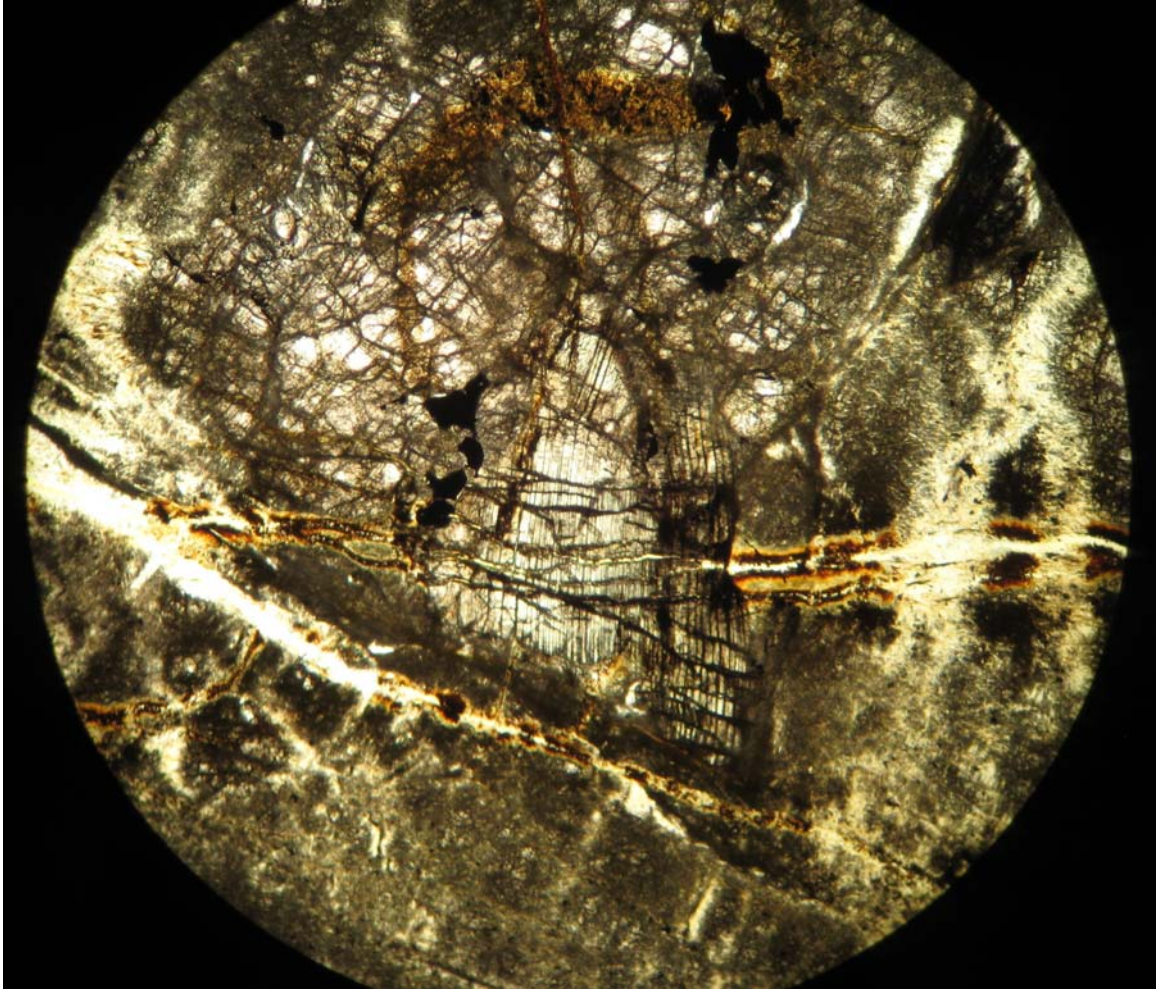


Photo 4 : LM C1. LN – X5. Cpx + Ol + Bow + Serp + Mag. *Centre* : cristaux de clinopyroxènes avec des clivages bien marqués. *Haut* : l'olivine montre des craquelures et un relief fort. La bowlingite montre une couleur verte foncée. La magnétite se retrouve dans les produits d'altération. Des veinules hématisées recoupent les minéraux.

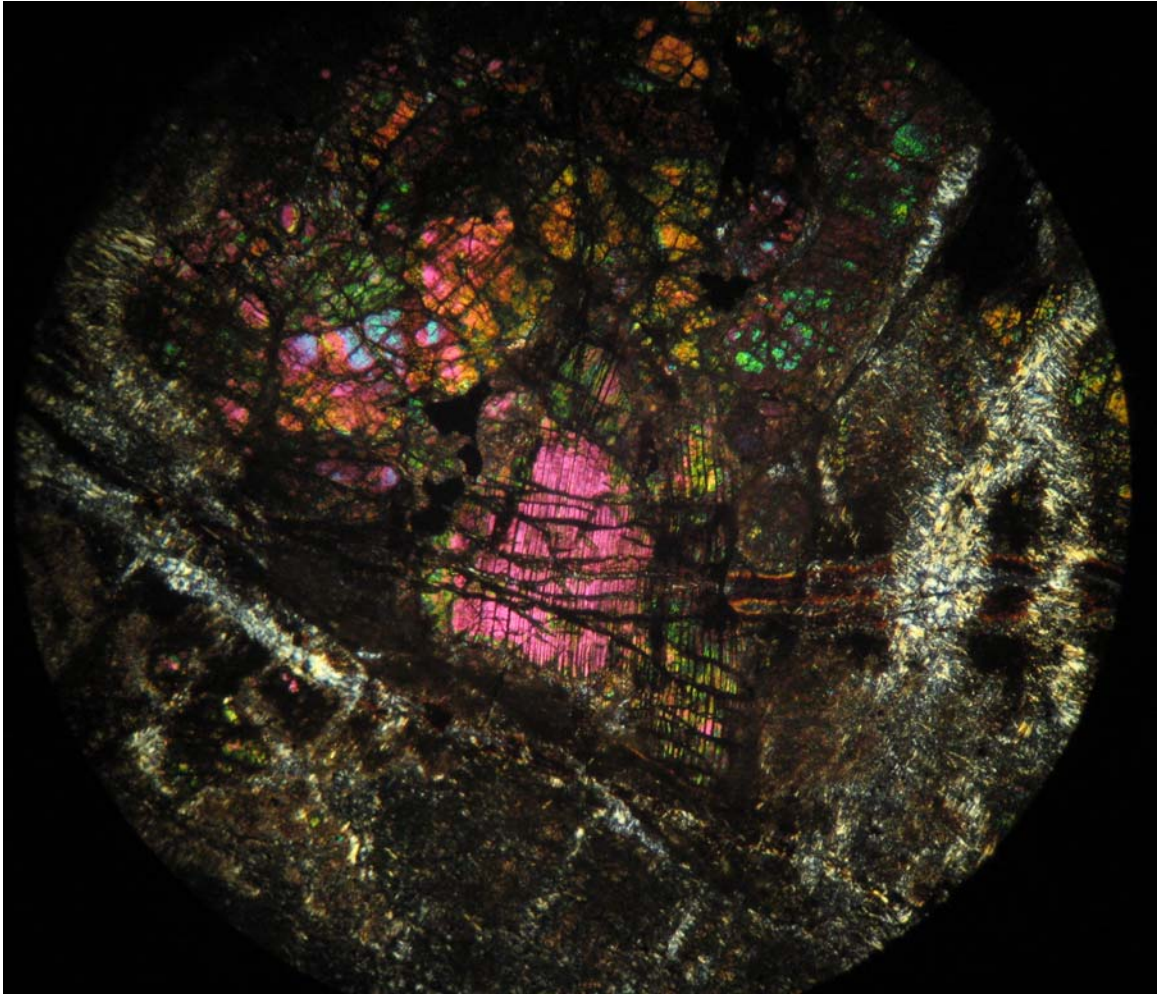


Photo 5 : LM C1. LP – X5. Idem que la photo 4 en LP. Le clinopyroxène montre une biréfringence rose-verte avec des clivages bien marqués. *Droite* : la serpentine se colore en gris orangé. L'hématite se caractérise par sa couleur rouge-brun.

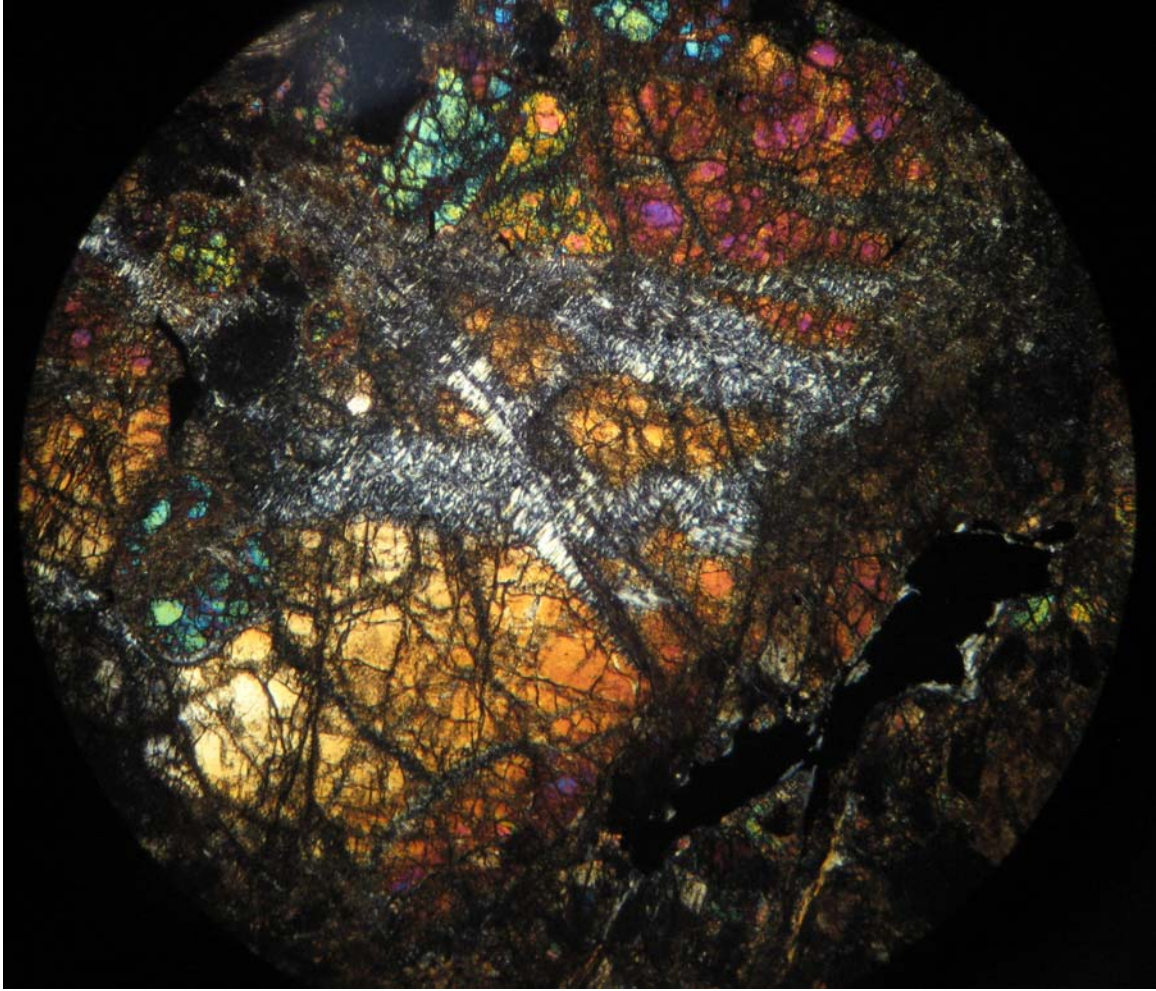


Photo 6 : LM C1. LP – X5. Ol + Serp + Mag. Serpentinisation des cristaux d’olivine à biréfringence élevée (orange-rose-bleu-verte). La serpentine envahit les craquelures des cristaux avant de former des veinules qui séparent les porphyroblastes en petits cristaux. La magnétite résulte de l’altération de l’olivine et est reliée à la serpentinisation.

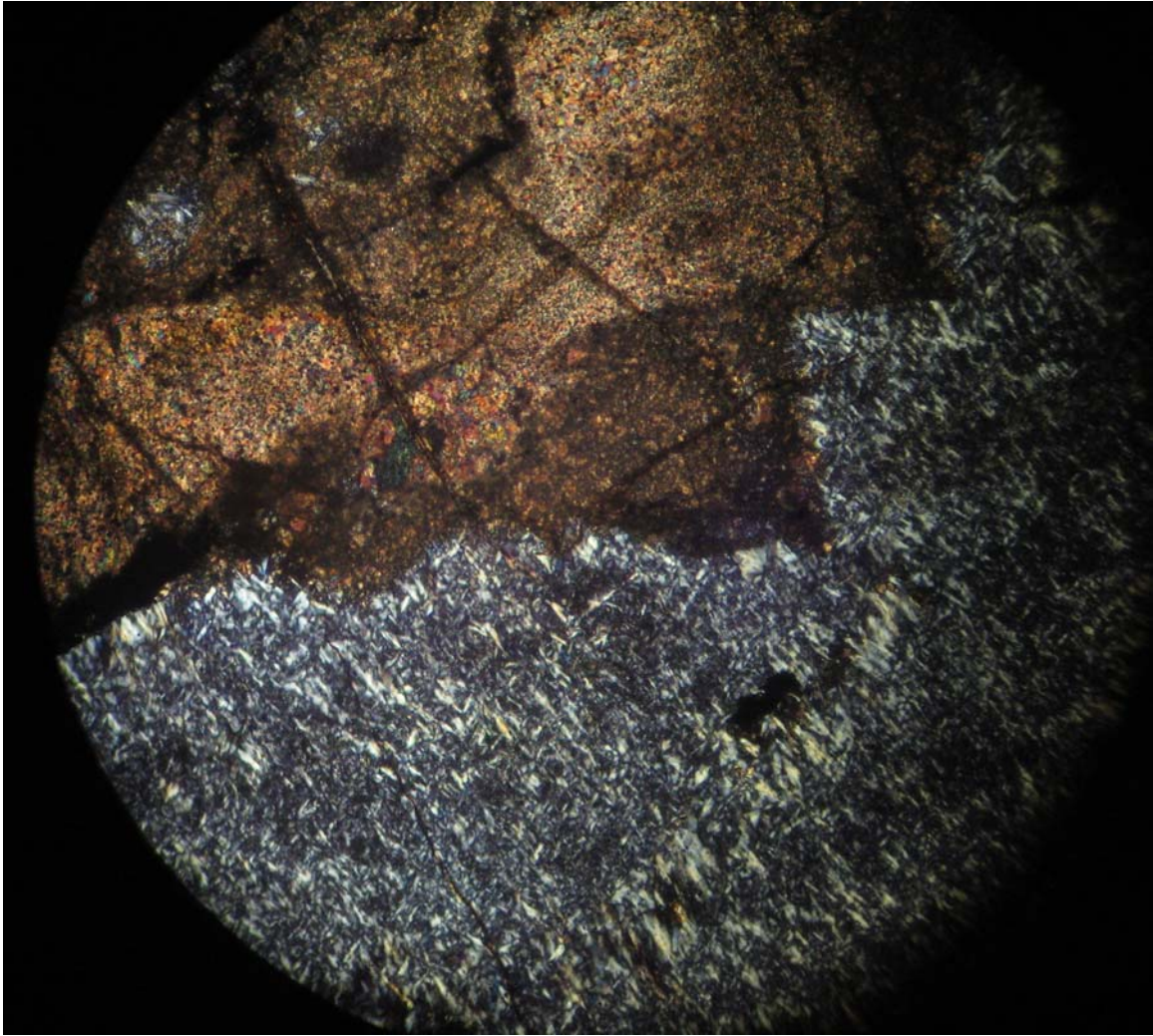


Photo 7: LM C1. LP – X5. Idd + Ol + chlo + Serp + Mag. *Haut gauche* : altération brune (iddingsite) de l’olivine. On observe quelques restants d’olivine montrant une forte biréfringence dans l’iddingsite. *Bas droite* : serpentine et chlorite avec exsolutions de magnétite. Ces altérations remplacent l’olivine et les pyroxènes.

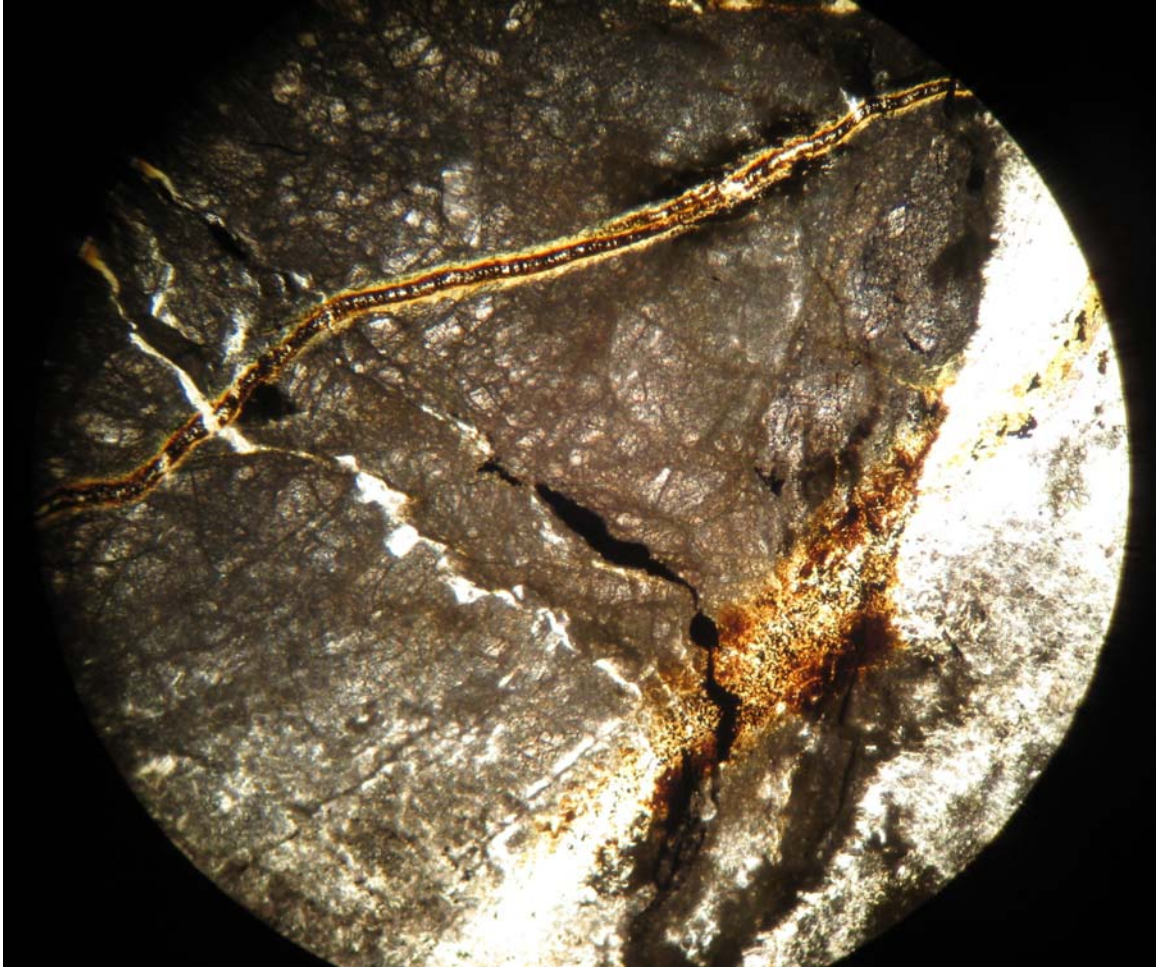


Photo 8 : LM C1. LN – X5. Bow + Hém + Mag + Chlo + Serp. *Droite:* la chlorite est translucide et ne présente aucun pléochroïsme. Les veinules d'hématite semblent tardives car elles recoupent l'altération.

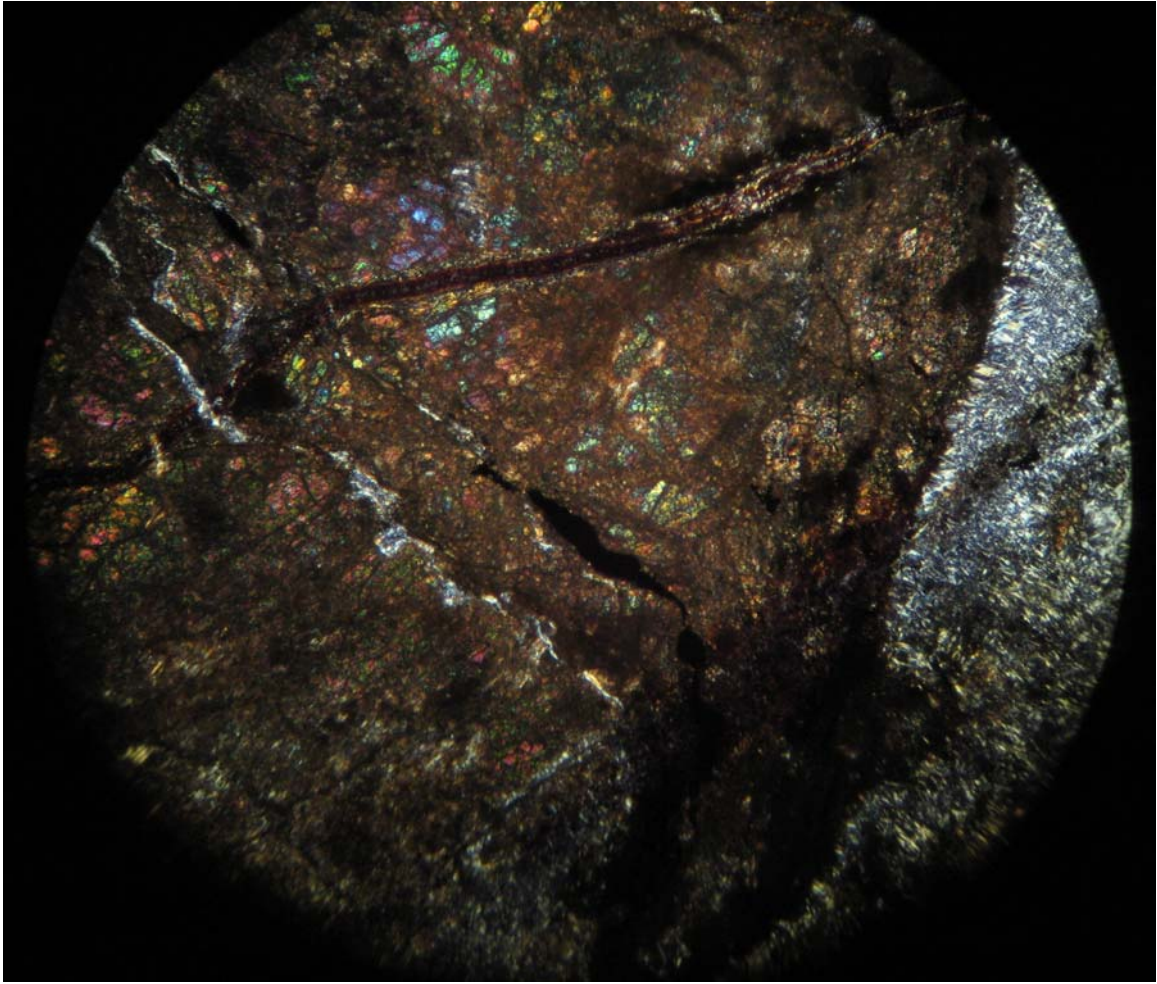


Photo 9 : LM C1. LP – X5. Idem que la photo 8 en LP.

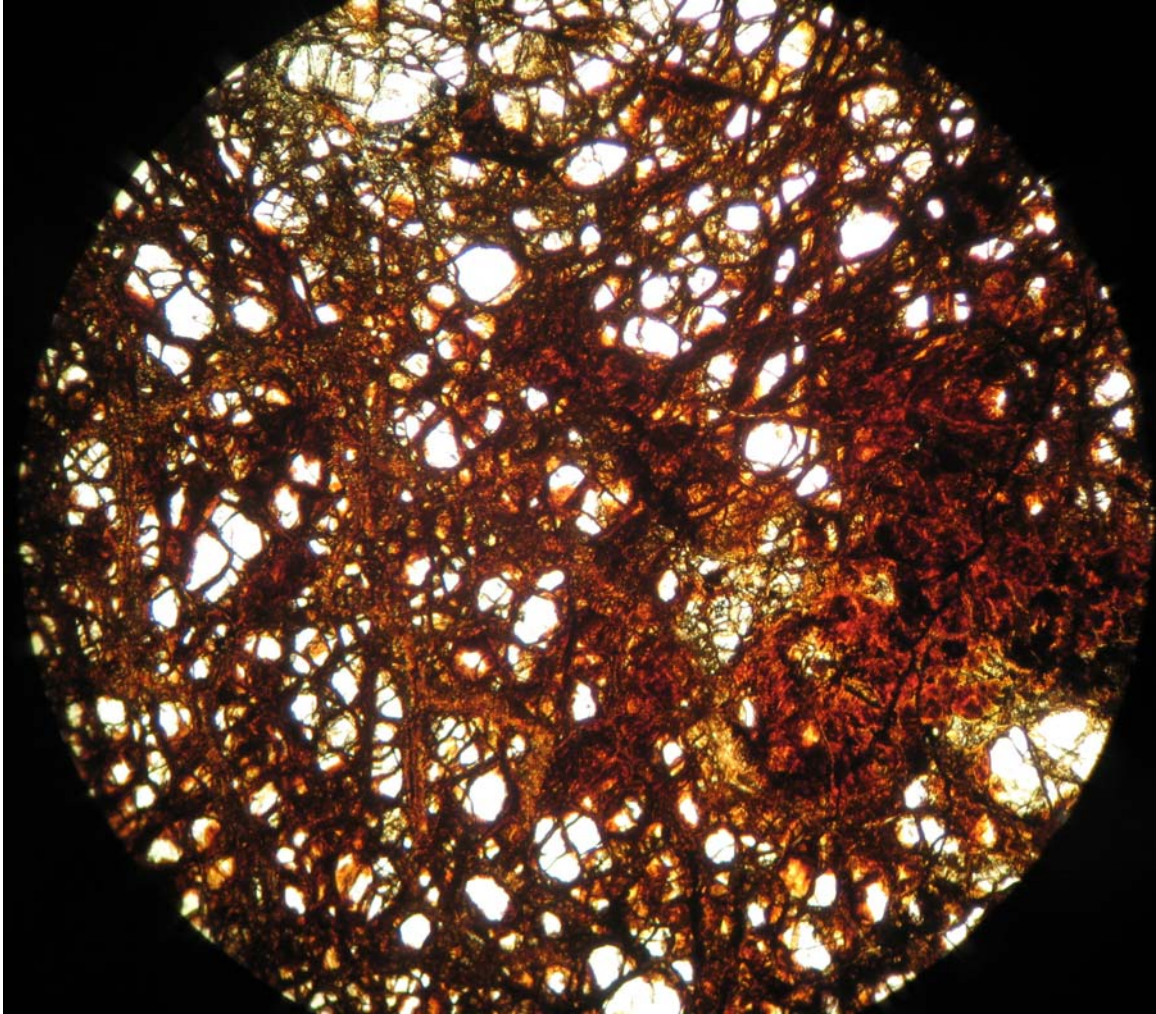


Photo 10 : LM C2. LN – X5. Ol + Idd + Bow + Hém. La serpentinisation envahit les cristaux d'olivine et les sépare en petits fragments formant une mosaïque. L'iddingsite se caractérise par sa couleur rouge-brun, tout comme l'hématite. La bowlingite, de couleur verdâtre, est aussi présente.

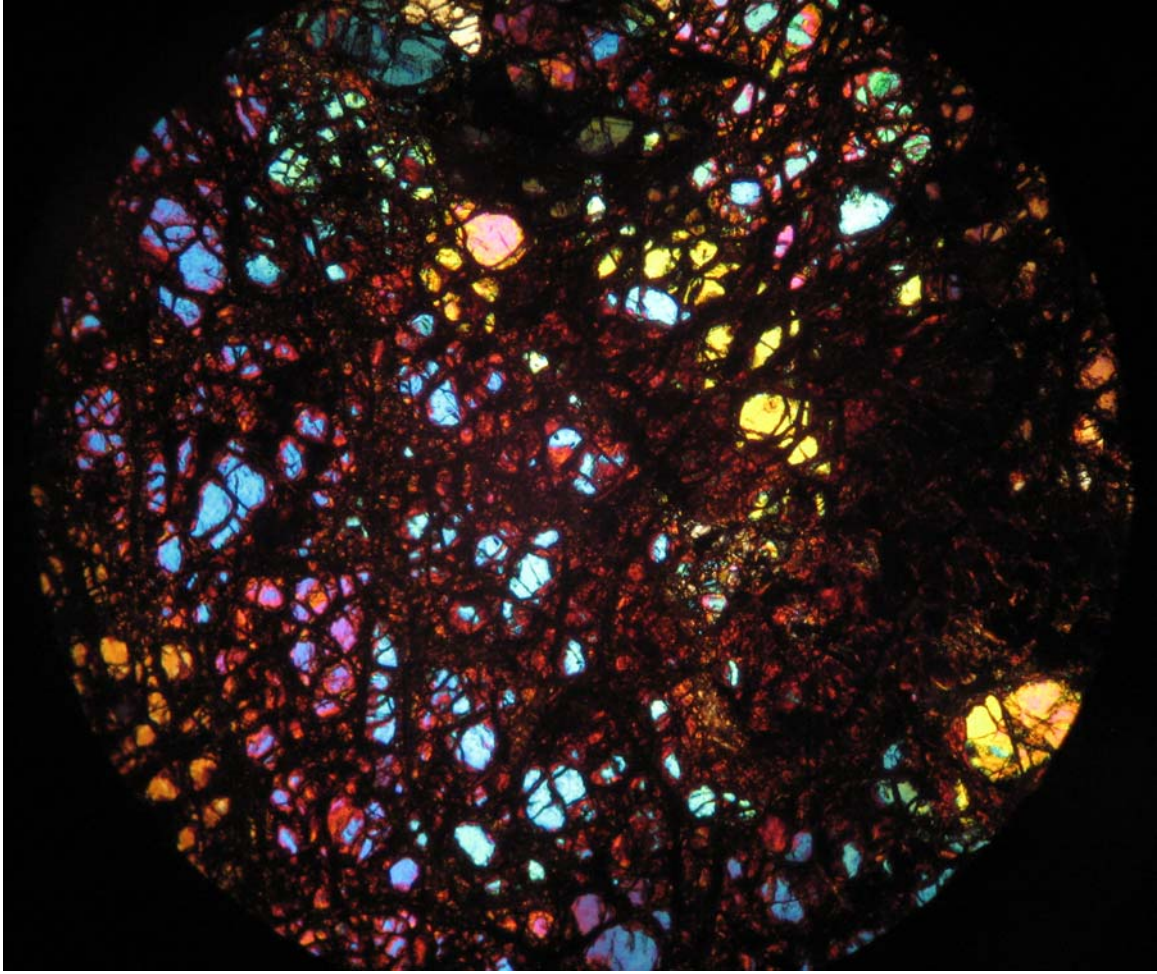


Photo 11 : LM C2. LP – X5. Idem que la photo 10 en LP.

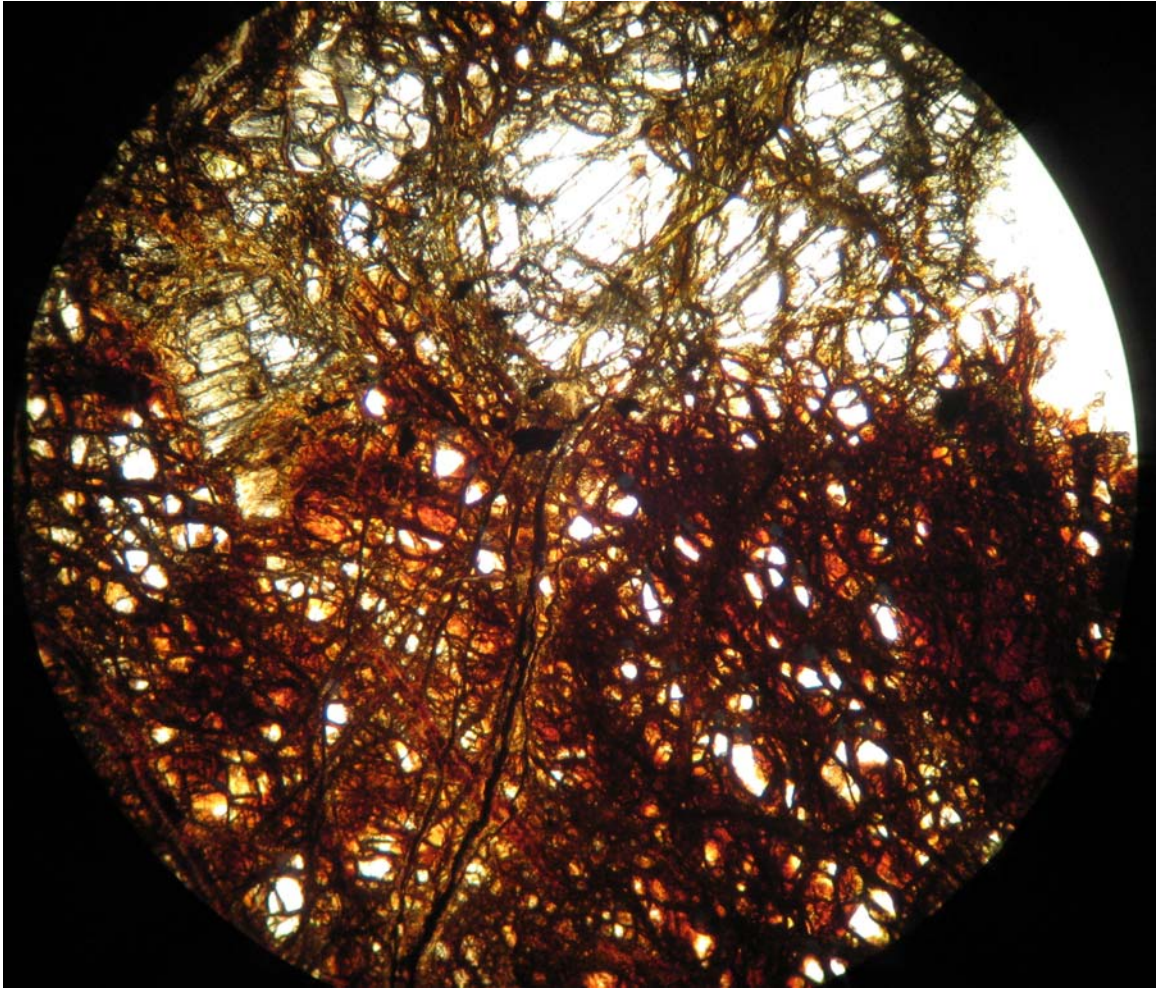


Photo 12 : LM C2. LN – X5. Ol + Idd + Bow. Altération d'iddingsite (rouge-brun) et de bowlingite (verdâtre).

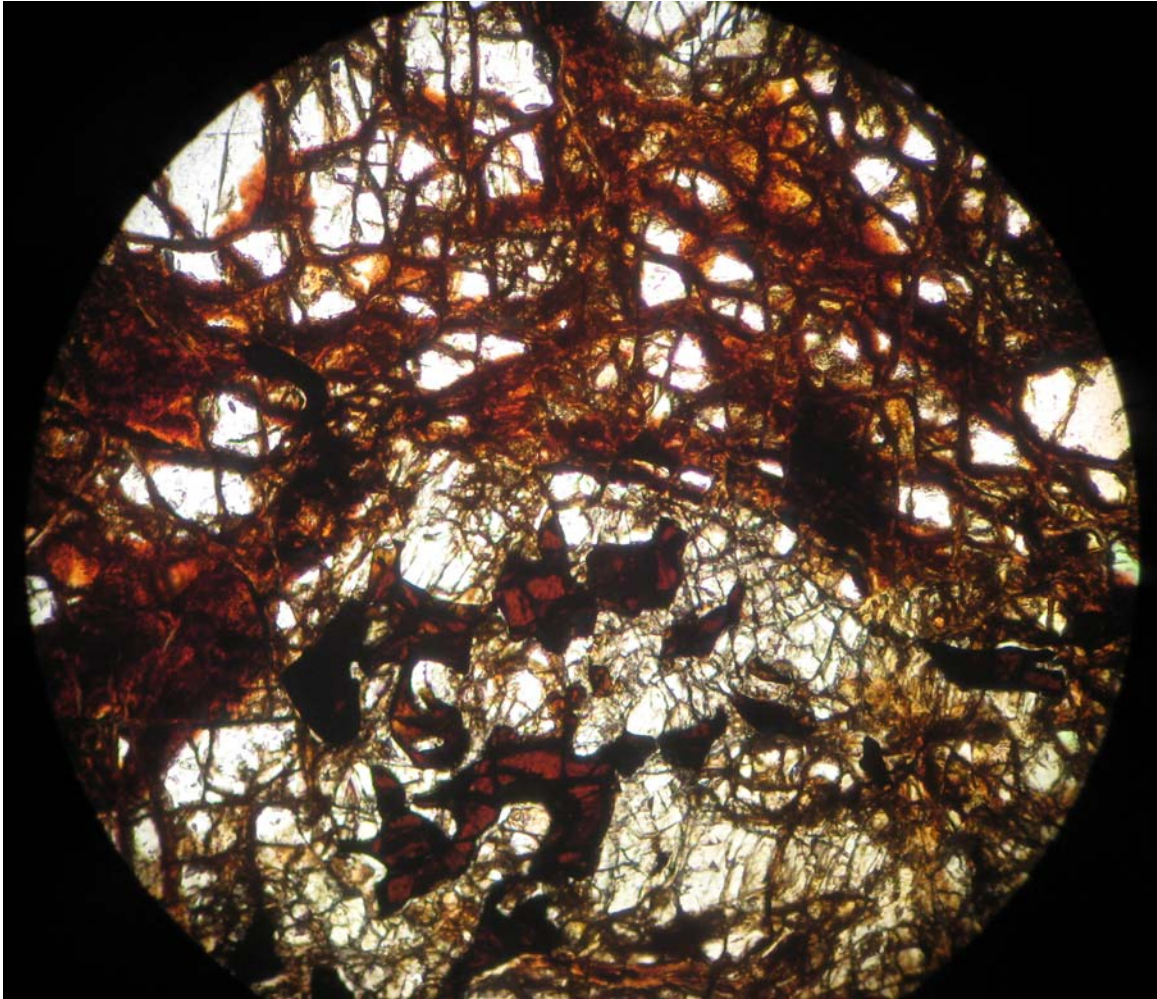


Photo 12 : LM C2. LN – X10. Ol + Hém + Idd. Exsolutions d'hématite reliées à l'altération de l'olivine en iddingsite.

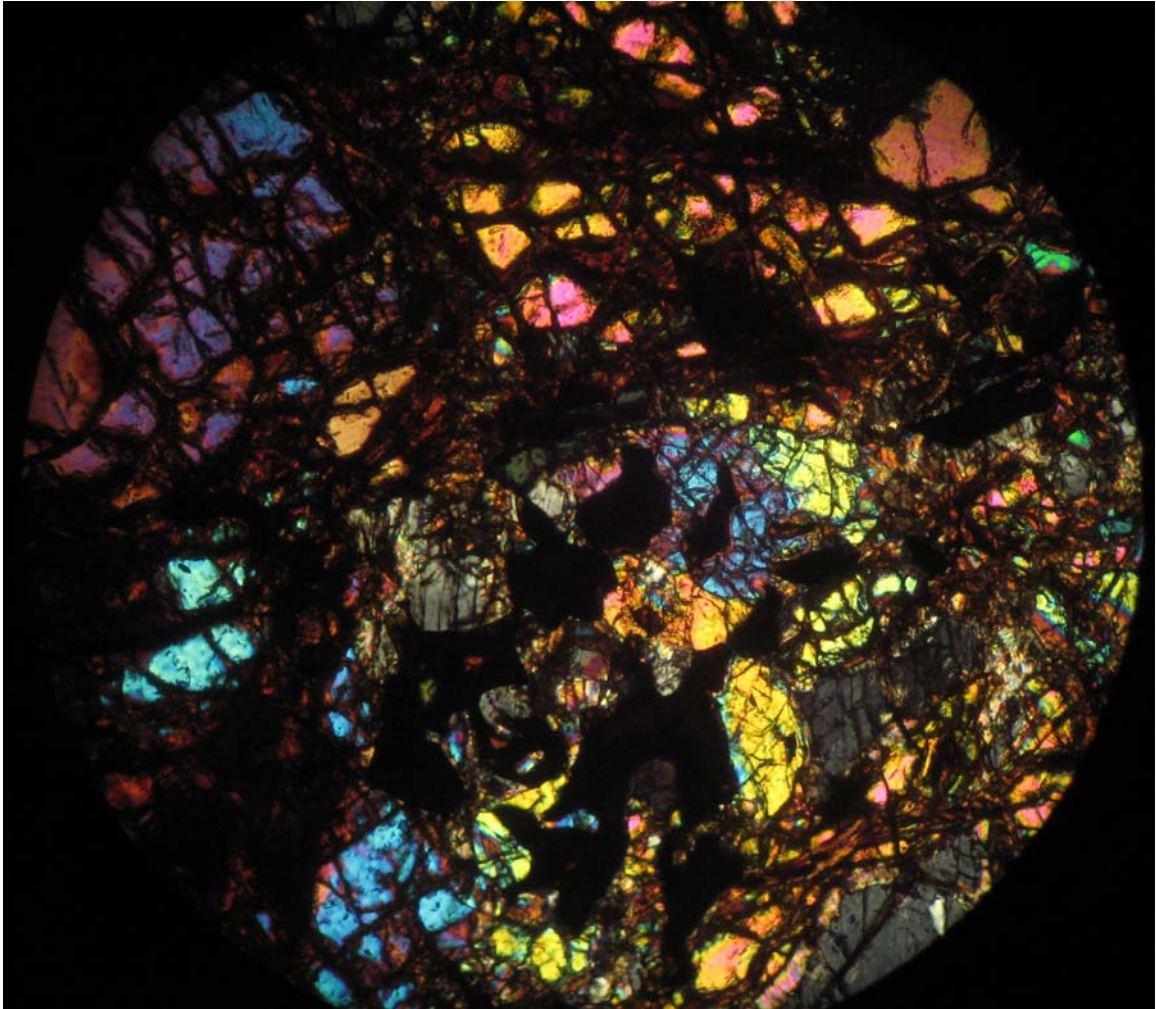


Photo 13 : LM C2. LP – X10. Idem que la photo 12 en LP. Cristaux d’olivine à forte biréfringence.

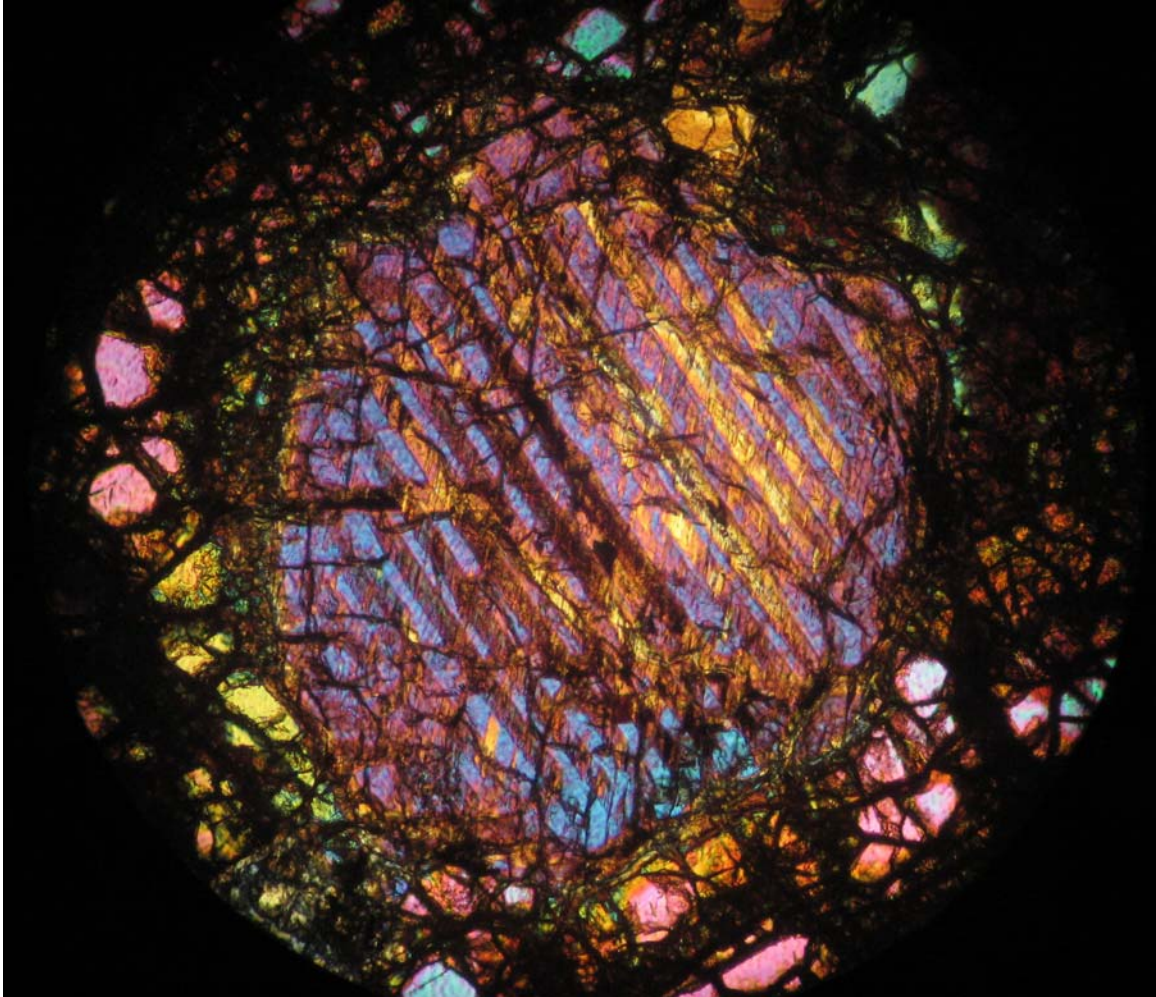


Photo 14 : LM C2. LP – X10. Ol. Cristal porphyroblastique d’olivine mâclée. Ce cristal est entouré de cristaux d’olivine plus petits.

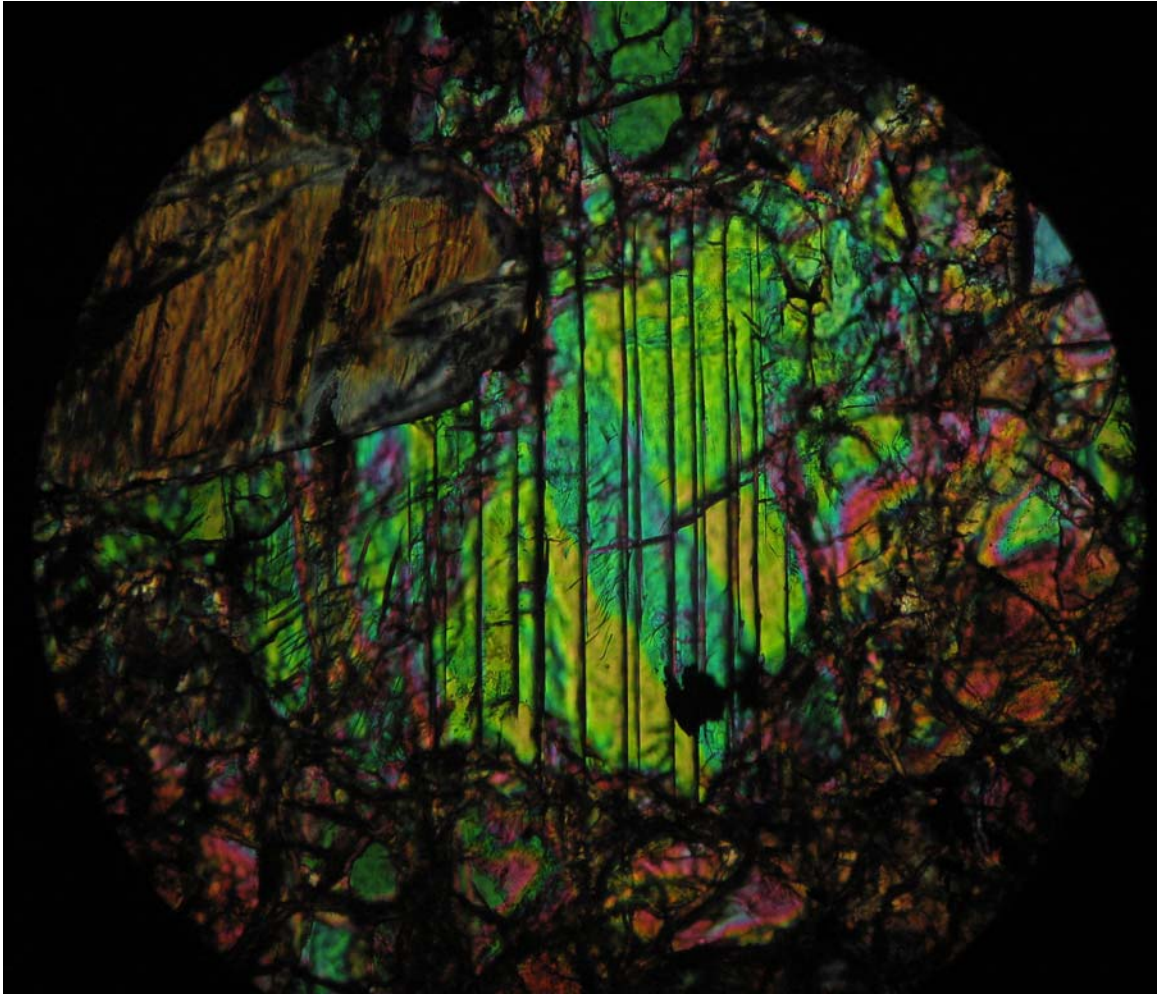


Photo 15 : LM C2. LP – X20. Cpx + Ol. Cristal porphyroblastique de clinopyroxène (augite) mâclé à biréfringence élevée (vert). Ce cristal est entouré de petits cristaux d'olivine.

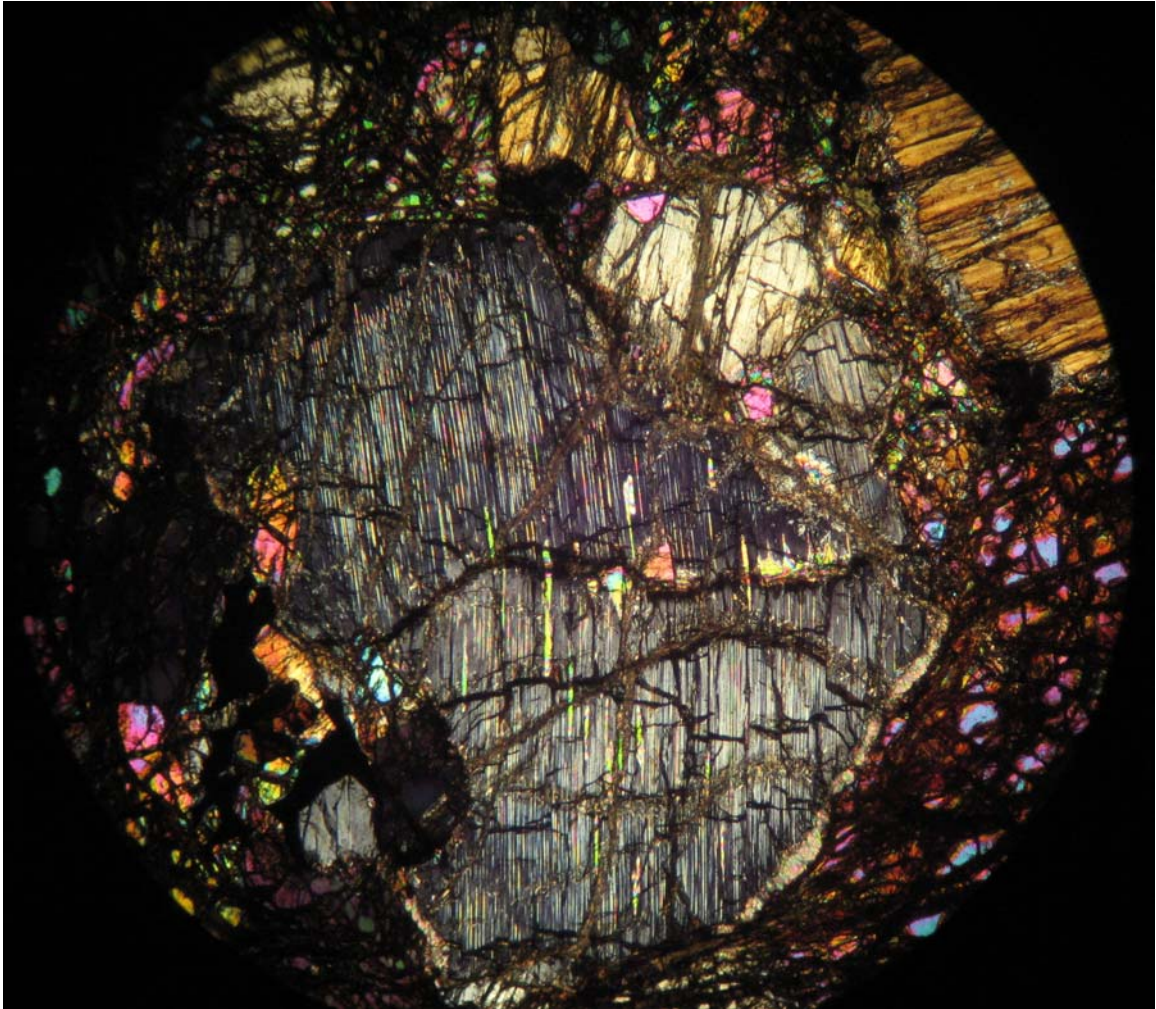


Photo 16 : LM C2. LP – X5. Opx + Ol + Mag. Cristal lamellaire d'orthopyroxène (biréfringence faible : gris). Les lamelles contiennent un clinopyroxène calcique (biréfringence élevée). L'orthopyroxène est entouré d'olivine à fort relief montrant des couleurs vives de biréfringence.

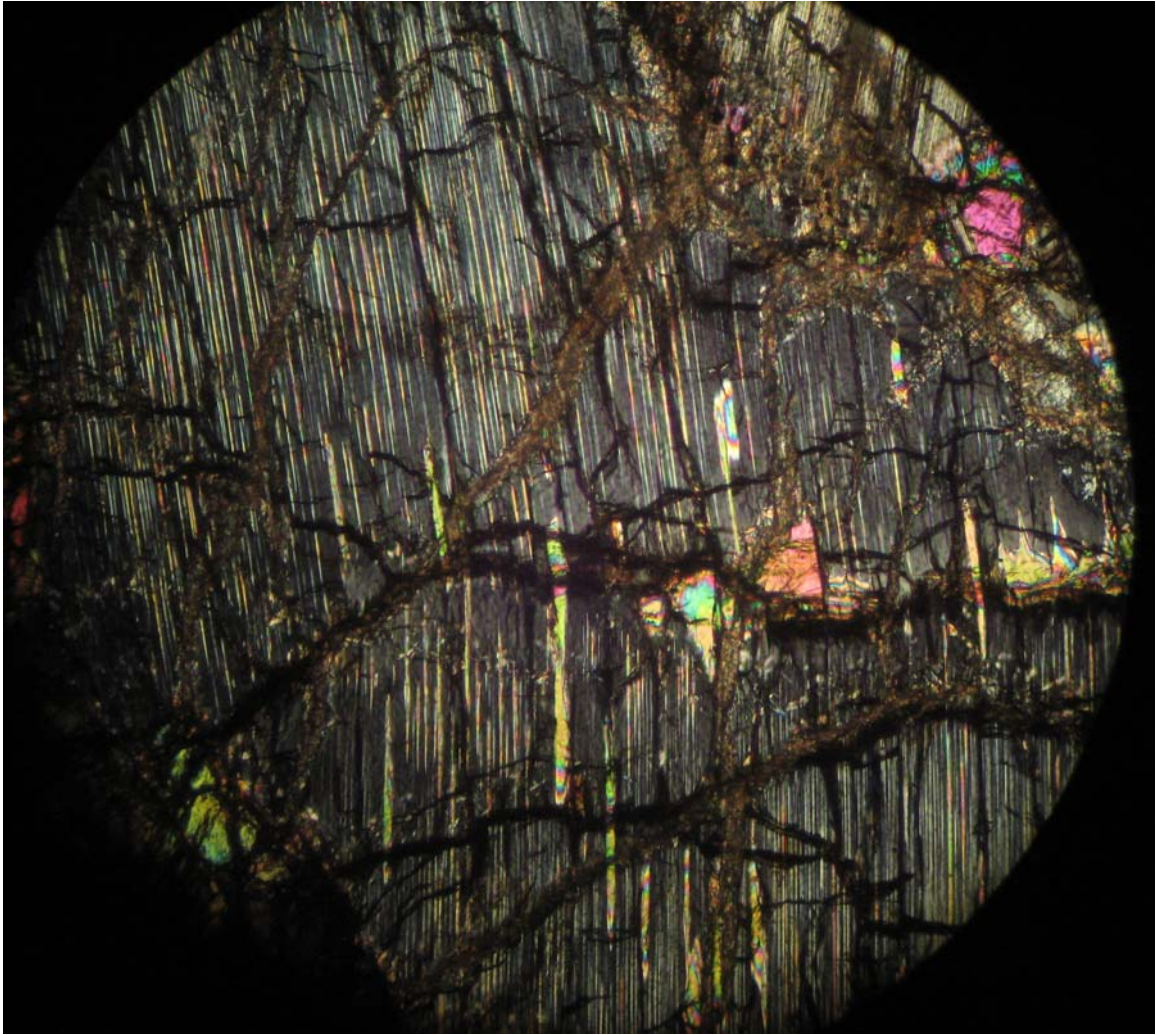


Photo 17: LM C2. LP – X10. Idem que la photo 16 à plus fort grossissement. Le clinopyroxène calcique montre des couleurs vives de biréfringence.

APPENDIX E

LIST OF CLAIMS AND DEED

United States Department of the Interior
Bureau of Land Management
 DIV OF MANAGEMENT SERVICES
 P.O. BOX 2965
 PORTLAND, OR 97208
 Phone: (503) 808-6008

Receipt

No: 1638879

Transaction #: 1692717	
Date of Transaction: 01/16/2008	
CUSTOMER:	BULLIVANT/HOUSER/BAILEY PC 300 PIONEER TOWER 888 SW FIFTH AVENUE PORTLAND, OR 97204

LINE #	QTY	DESCRIPTION	REMARKS	UNIT PRICE	TOTAL
1	1.00	LOCATABLE MINERALS / MINING CLAIMS- NOT NEW-UNADJUD, ONE AUTH NO. ONLY / MINING CLAIM MONEY RECEIVED (455) CASES: ORMC161516/\$2510.00		- n/a -	2510.00
TOTAL:					\$2,510.00

PAYMENT INFORMATION			
1	AMOUNT:	\$2,510.00	POSTMARKED: N/A
	TYPE:	CHECK	RECEIVED: 01/16/2008
	CHECK NO:	171415	
	NAME:	BULLIVANT/HOUSER/BAILEY PC 300 PIONEER TOWER 888 SW FIFTH AVENUE PORTLAND OR 97204	

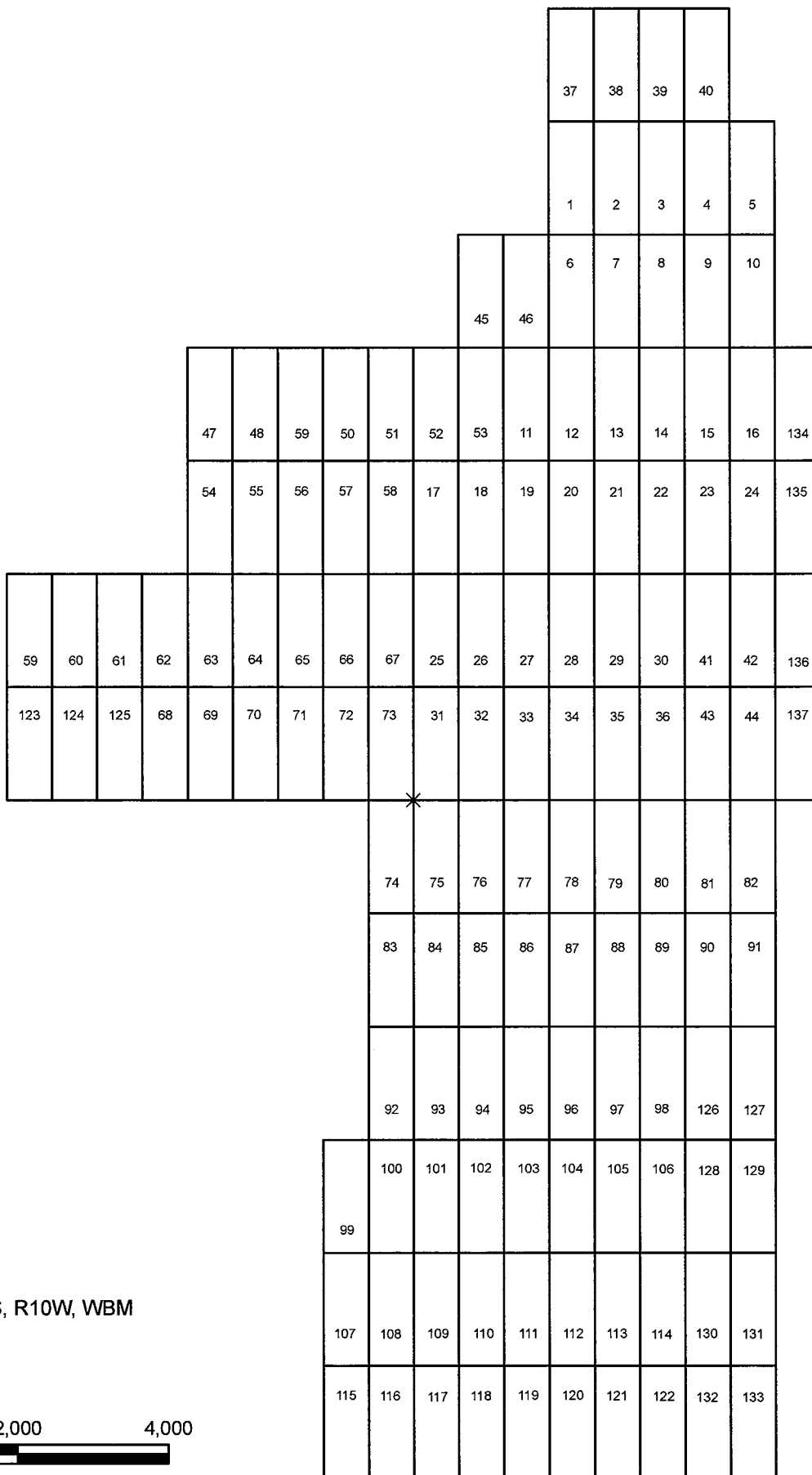
REMARKS
<i>Paid in full for 251 claims - Quit claim - P. R. Kerckhoff</i>

This receipt was generated by the automated BLM Collections and Billing System and is a paper representation of a portion of the official electronic record contained therein.

BUREAU OF LAND MGMT.

2008 JAN 25 PM 3:38

OREGON STATE OFFICE
PORTLAND, OR



Legend

20 Cleo Mining Claim

X SE Corner, Sec. 6, T41S, R10W, WBM

2,000 1,000 0 2,000 4,000



SCALE IN FEET

Prepared for Red Flat Nickel Corp., Inc.
by LithoLogic Resources, LLC

Michael D. Strickler, R.G.
www.LithoLogic.com

DATE 5/29/07
DWN JOS
APP
REV 1/7/08

**CLEOPATRA
CLEO MINING CLAIMS**
Curry County, Oregon
January, 2008

BUREAU OF LAND MGMT.

2008 JAN 25 PM 3:38

OREGON STATE OFFICE
PORTLAND, OR



Legend

- 91 RF Mining Claim
- Discovery Monument
- X SE Corner, Sec. 24, T37S, R14W, WBM

0 750 1,500 3,000 4,500 6,000

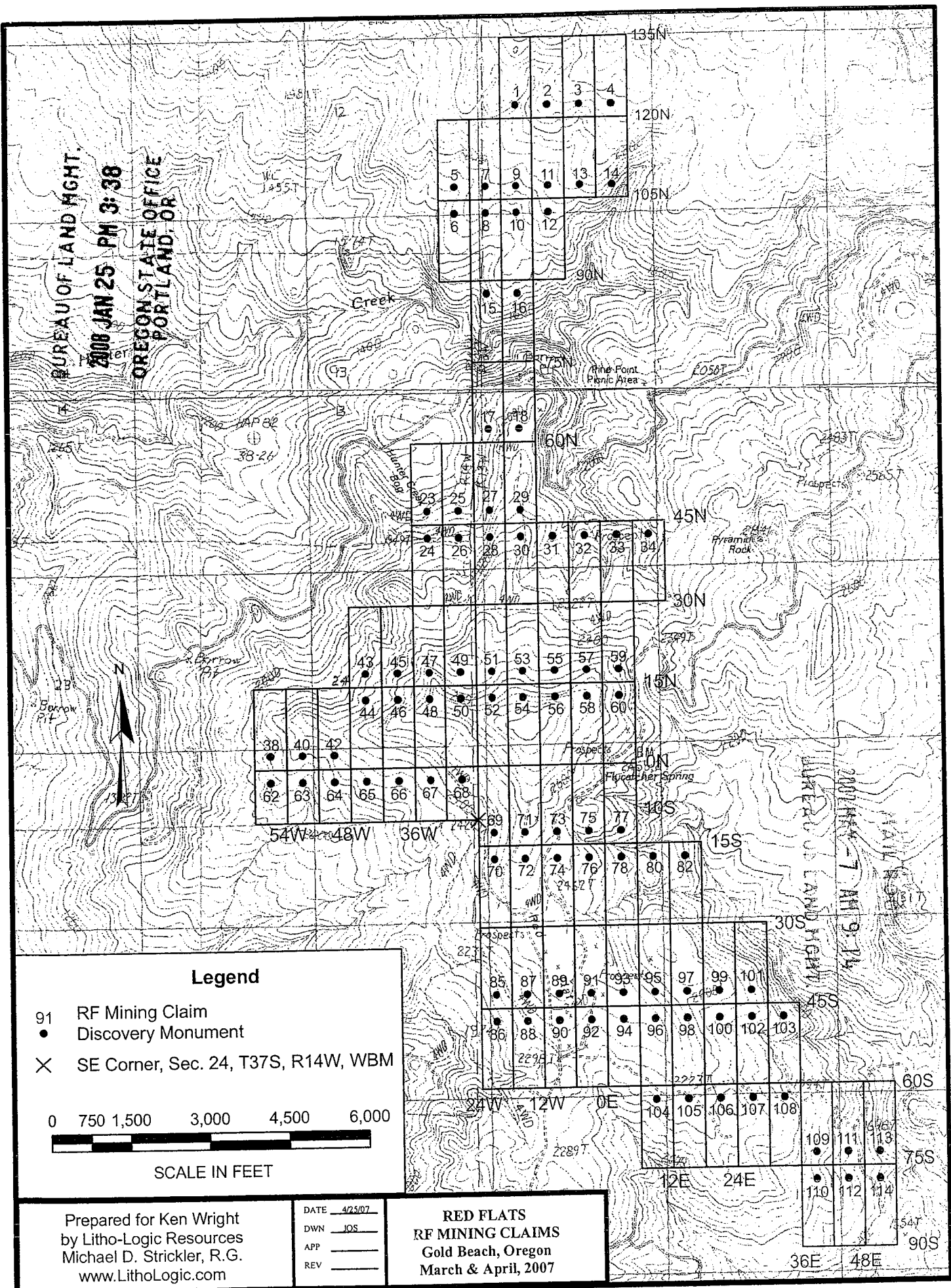


SCALE IN FEET

Prepared for Ken Wright
by Litho-Logic Resources
Michael D. Strickler, R.G.
www.LithoLogic.com

DATE 4/23/07
DWN JOS
APP _____
REV _____

RED FLATS
RF MINING CLAIMS
Gold Beach, Oregon
March & April, 2007



**Recording requested by, and
after recording return to:**
John A. Magliana, Esq.
Bullivant Houser Bailey PC
888 S.W. Fifth Avenue, Suite 300
Portland, Oregon 97204

CURRY COUNTY, OREGON
LAND-DEQC
Cnt=1 Pgs=3 RECC
\$15.00 \$11.00 \$10.00
2007-6768
12/21/2007 02:22 PM
\$36.00



00004483200700067680030031

I Renee' Kolen, County Clerk, certify that the
within document was received and duly recorded
in the official records of Curry County.

Renee' Kolen
Renee' Kolen - Curry County Clerk



**Until a change is requested,
all tax statements shall be sent
to the following address:**
No Change.

STATUTORY QUITCLAIM DEED

KEN WRIGHT, Grantor, releases and quitclaims to RED FLAT NICKEL CORP., INC., a Nevada corporation, Grantee, all right, title and interest in and to the "RF" and "Cleo" groups of unpatented lode mining claims situated in Curry County, Oregon, as further described on Exhibit A attached hereto and by this reference incorporated herein.

TOGETHER WITH all and singular tenements, hereditaments and appurtenances thereunto belonging, or in any way appertaining, and the reversion and reversions, remainder and remainders, rents issues and profits thereof.

TOGETHER WITH all minerals and all veins and lodes of mineral-bearing rock therein and all dips, spurs and angels thereof.

The true consideration for this conveyance is value given other than money.

BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 197.352. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES, TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30.930 AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 197.352.

DATED this 14 day of December, 2007.

Ken Wright
Name: Ken Wright

2008 JAN 25 PM 3:38
BUREAU OF LAND MGMT.
OREGON STATE DEPT
PORTLAND, OR

STATE OF OREGON)
) ss.
County of Lane)

This instrument was acknowledged before me on December 14, 2007 by
Ken Wright.



Jennifer E. Allen
Notary Public of Oregon
My Commission Expires: 9/17/11

OREGON STATE OFFICE
PORTLAND, OR
2008 JAN 25 PM 3:38
BUREAU OF LAND MGMT.

EXHIBIT A

RED FLATS NICKEL CORP.

<u>Claim Number</u>	<u>Instrument Number</u>
RF 34	2007-3955
RF 89	2007-3956

CLEO

<u>Claim Number</u>	<u>Instrument Number</u>
Cleo 38 through Cleo 40	2007-3957 through 2007-3959
Cleo 134 through Cleo 137	2007-5517 through 2007-5520

BUREAU OF LAND MGMT.
2008 JAN 25 PM 3:39
OREGON STATE OFFICE
PORTLAND, OR

Claim List: Cleopatra Claim Block

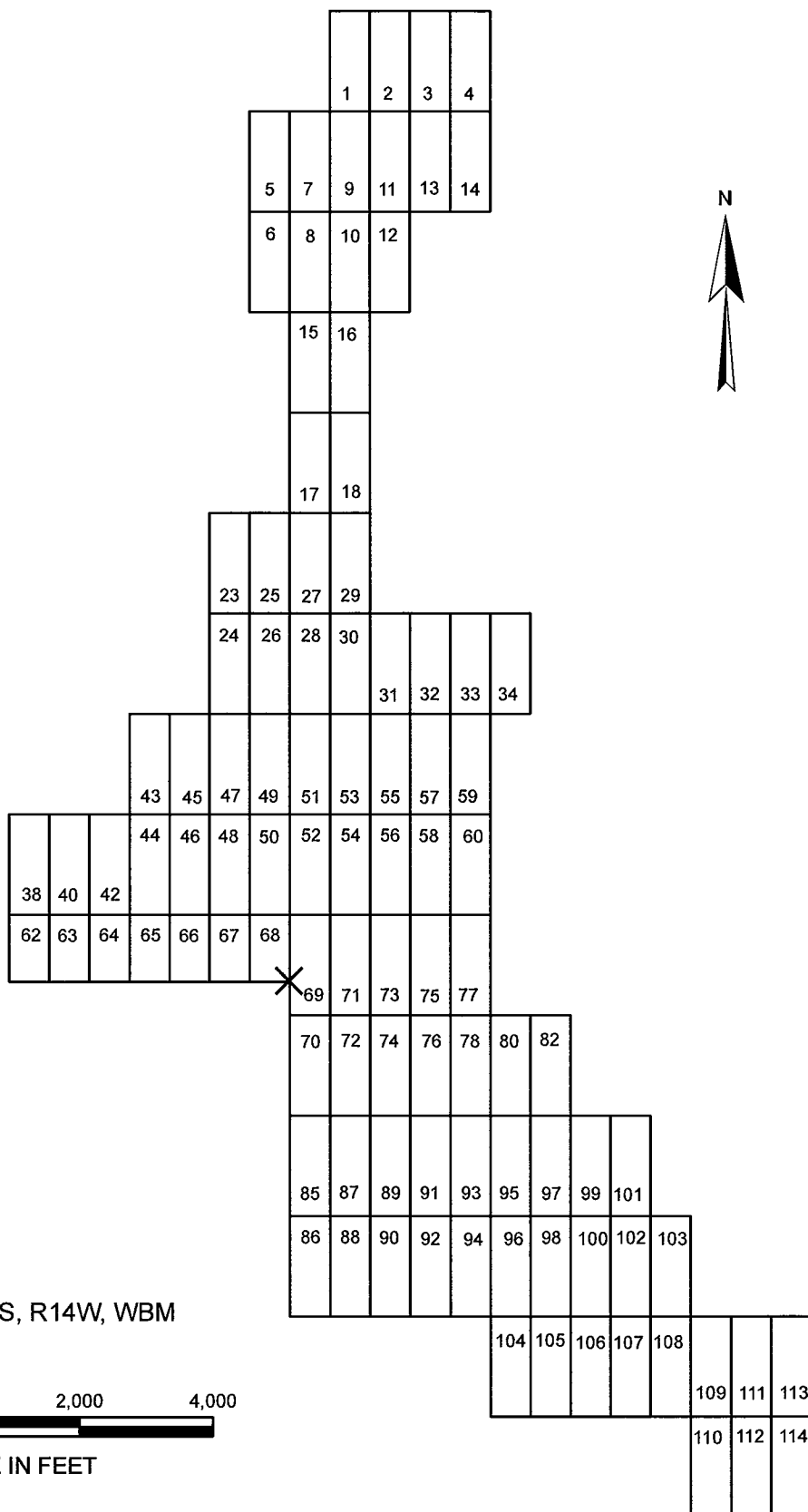
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Cleo # 2	161517	Cleo # 47	161774	Cleo # 92	161819
Cleo # 3	161518	Cleo # 48	161775	Cleo # 93	161820
Cleo # 4	161519	Cleo # 49	161776	Cleo # 94	161821
Cleo # 5	161520	Cleo # 50	161777	Cleo # 95	161822
Cleo # 6	161521	Cleo # 51	161778	Cleo # 96	161823
Cleo # 7	161522	Cleo # 52	161779	Cleo # 97	161824
Cleo # 8	161523	Cleo # 53	161780	Cleo # 98	161825
Cleo # 9	161524	Cleo # 54	161781	Cleo # 99	161826
Cleo # 10	161525	Cleo # 55	161782	Cleo # 100	161827
Cleo # 11	161526	Cleo # 56	161783	Cleo # 101	161828
Cleo # 12	161527	Cleo # 57	161784	Cleo # 102	161829
Cleo # 13	161528	Cleo # 58	161785	Cleo # 103	161830
Cleo # 14	161529	Cleo # 59	161786	Cleo # 104	161831
Cleo # 15	161530	Cleo # 60	161787	Cleo # 105	161832
Cleo # 16	161531	Cleo # 61	161788	Cleo # 106	161833
Cleo # 17	161532	Cleo # 62	161789	Cleo # 107	161834
Cleo # 18	161533	Cleo # 63	161790	Cleo # 108	161835
Cleo # 19	161534	Cleo # 64	161791	Cleo # 109	161836
Cleo # 20	161535	Cleo # 65	161792	Cleo # 110	161837
Cleo # 21	161536	Cleo # 66	161793	Cleo # 111	161838
Cleo # 22	161537	Cleo # 67	161794	Cleo # 112	161839
Cleo # 23	161538	Cleo # 68	161795	Cleo # 113	161840
Cleo # 24	161539	Cleo # 69	161796	Cleo # 114	161841
Cleo # 25	161540	Cleo # 70	161797	Cleo # 115	161842
Cleo # 26	161541	Cleo # 71	161798	Cleo # 116	161843
Cleo # 27	161542	Cleo # 72	161799	Cleo # 117	161844
Cleo # 28	161543	Cleo # 73	161800	Cleo # 118	161845
Cleo # 29	161544	Cleo # 74	161801	Cleo # 119	161846
Cleo # 30	161545	Cleo # 75	161802	Cleo # 120	161847
Cleo # 31	161546	Cleo # 76	161803	Cleo # 121	161848
Cleo # 32	161547	Cleo # 77	161804	Cleo # 122	161849
Cleo # 33	161548	Cleo # 78	161805	Cleo # 123	161850
Cleo # 34	161549	Cleo # 79	161806	Cleo # 124	161851
Cleo # 35	161550	Cleo # 80	161807	Cleo # 125	161852
Cleo # 36	161551	Cleo # 81	161808	Cleo # 126	161853
Cleo # 37	161764	Cleo # 82	161809	Cleo # 127	161854
Cleo # 38	161765	Cleo # 83	161810	Cleo # 128	161855
Cleo # 39	161766	Cleo # 84	161811	Cleo # 129	161856
Cleo # 40	161767	Cleo # 85	161812	Cleo # 130	161857
Cleo # 41	161768	Cleo # 86	161813	Cleo # 131	161858
Cleo # 42	161769	Cleo # 87	161814	Cleo # 132	161859
Cleo # 43	161770	Cleo # 88	161815	Cleo # 133	161860
Cleo # 44	161771	Cleo # 89	161816	Cleo # 134	162421
Cleo # 45	161772	Cleo # 90	161817	Cleo # 135	162422
				Cleo # 136	162423
				Cleo # 137	162424

Claim List: RF Claim Block					
Claim	ORMC #		Claim	ORMC #	
RF # 1	161335		RF # 60	161385	
RF # 2	161336		RF # 62	161386	
RF # 3	161337		RF # 63	161387	
RF # 4	161338		RF # 64	161388	
RF # 5	161339		RF # 65	161389	
RF # 6	161340		RF # 66	161390	
RF # 7	161341		RF # 67	161391	
RF # 8	161342		RF # 68	161392	
RF # 9	161343		RF # 69	161393	
RF # 10	161344		RF # 70	161394	
RF # 11	161345		RF # 71	161395	
RF # 12	161346		RF # 72	161396	
RF # 13	161347		RF # 73	161397	
RF # 14	161348		RF # 74	161398	
RF # 15	161349		RF # 75	161399	
RF # 16	161350		RF # 76	161400	
RF # 17	161351		RF # 77	161401	
RF # 18	161352		RF # 78	161402	
RF # 23	161353		RF # 80	161403	
RF # 24	161354		RF # 82	161404	
RF # 25	161355		RF # 85	161405	
RF # 26	161356		RF # 86	161406	
RF # 27	161357		RF # 87	161407	
RF # 28	161358		RF # 88	161408	
RF # 29	161359		RF # 89	161409	
RF # 30	161360		RF # 90	161410	
RF # 31	161361		RF # 91	161411	
RF # 32	161362		RF # 92	161412	
RF # 33	161363		RF # 93	161413	
RF # 34	161364		RF # 94	161414	
RF # 38	161365		RF # 95	161415	
RF # 40	161366		RF # 96	161416	
RF # 42	161367		RF # 97	161417	
RF # 43	161368		RF # 98	161418	
RF # 44	161369		RF # 99	161419	
RF # 45	161370		RF # 100	161420	
RF # 46	161371		RF # 101	161421	
RF # 47	161372		RF # 102	161422	
RF # 48	161373		RF # 103	161423	
RF # 49	161374		RF # 104	161424	
RF # 50	161375		RF # 105	161425	
RF # 51	161376		RF # 106	161426	
RF # 52	161377		RF # 107	161427	
RF # 53	161378		RF # 108	161428	
RF # 54	161379		RF # 109	161429	
RF # 55	161380		RF # 110	161430	
RF # 56	161381		RF # 111	161431	
RF # 57	161382		RF # 112	161432	
RF # 58	161383		RF # 113	161433	
RF # 59	161384		RF # 114	161434	

BUREAU OF LAND MGMT.

2008 JAN 25 PM 3:40

OREGON STATE OFFICE
PORTLAND, OR



91 RF Mining Claim

X SE Corner, Sec. 24, T37S, R14W, WBM

2,000 1,000 0 2,000 4,000
SCALE IN FEET

Prepared for Red Flat Nickel Corp., Inc.
by LithoLogic Resources, LLC

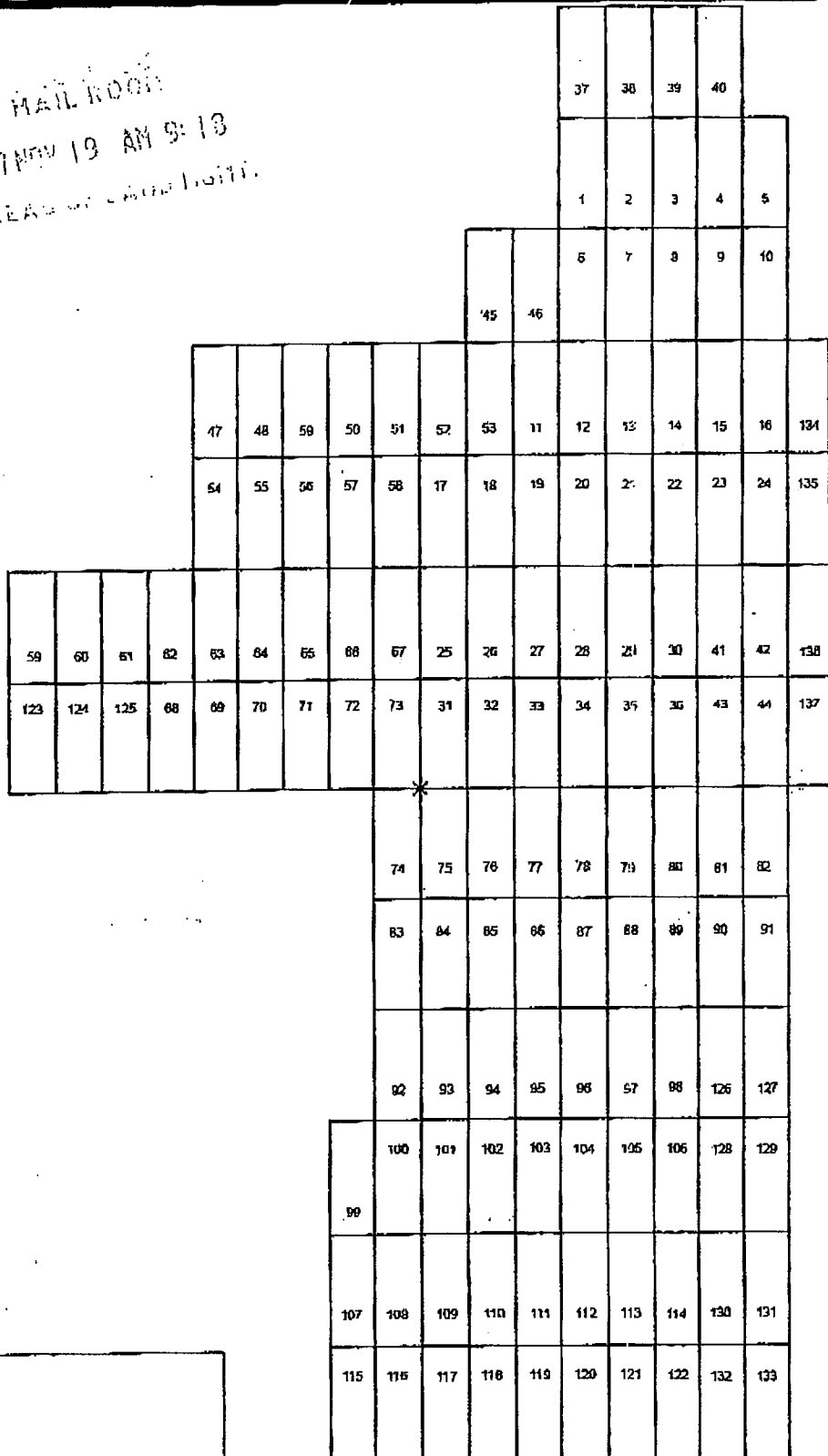
Michael D. Strickler, R.G.
www.LithoLogic.com

DATE 1/7/08
DWN JOS
APP _____
REV _____

**RED FLAT
RF MINING CLAIMS**
Curry County, Oregon
January 7, 2008

MAIL ROOM
2007 NOV 19 AM 9:13
BUREAU OF LAND MGMT.

BUREAU OF LAND MGMT.
2008 JAN 25 PM 3:40
OREGON STATE OFFICE
PORTLAND, OR



Legend

- Cleo Mining Claim
- 20 Discovery Monument
- X SE Corner, Sec. 6, T41S, R10W, WBM

2,000 1,000 0 2,000 4,000
SCALE IN FEET

Prepared for Ken Wright
by LithoLogic Resources, LLC
Michael D. Strickler, R.G.
www.LithoLogic.com

DATE 2/29/07
DWN KE
APP
REV 10/23/07

CLEOPATRA
CLEO MINING CLAIMS
Curry County, Oregon
October, 2007

**Recording requested by, and
after recording return to:**
John A. Magliana, Esq.
Bullivant Houser Bailey PC
888 S.W. Fifth Avenue, Suite 300
Portland, Oregon 97204

**Until a change is requested,
all tax statements shall be sent
to the following address:**
No Change.

CURRY COUNTY, OREGON
LAND-DEQC
Cnt=1 Pgs=3 RECC
\$15.00 \$11.00 \$10.00
2007-5762
10/24/2007 02:03 PM
\$36.00



00003287200700057620030035

I, Renee' Kolen, County Clerk, certify that the
within document was received and duly recorded
in the official records of Curry County.

Renee' Kolen
Renee' Kolen - Curry County Clerk



STATUTORY QUITCLAIM DEED

KEN WRIGHT, Grantor, releases and quitclaims to RED FLAT NICKEL CORP., INC., a Nevada corporation, Grantee, all right, title and interest in and to the "RF" and "Cleo" groups of unpatented lode mining claims situated in Curry County, Oregon, as further described on Exhibit A attached hereto and by this reference incorporated herein.

TOGETHER WITH all and singular tenements, hereditaments and appurtenances thereunto belonging, or in any way appertaining, and the reversion and reversions, remainder and remainders, rents issues and profits thereof.

TOGETHER WITH all minerals and all veins and lodes of mineral-bearing rock therein and all dips, spurs and angels thereof.

The true consideration for this conveyance is value given other than money.

BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 197.352. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES, TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30.930 AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 197.352.

DATED this 17th day of October, 2007.

OREGON STATE OFFICE
PORTLAND, OR

2008 JAN 25 PM 3:40

BUREAU OF LAND MGMT.

Ken Wright
Name: Ken Wright

STATE OF OREGON)
) ss.
County of Multnomah)

This instrument was acknowledged before me on October 17, 2007 by Ken Wright.



Linda Jones
Notary Public of Oregon
My Commission Expires: 10/9/2009

OREGON STATE OFFICE
PORTLAND, OR
2008 JAN 25 PM 3:41
BUREAU OF LAND MGMT.

EXHIBIT A

RED FLATS NICKEL CORP.

<u>Claim Number</u>	<u>Instrument Number</u>
RF 1 through 16	2007-2372 through 2007-2387
RF 17 through 18	2007-2166 through 2007-2167
RF 23 through 30	2007-1923 through 2007-1930
RF 31 through 34	2007-2168 through 2007-2171
RF 38	2007-2388
RF 40	2007-2389
RF 42	2007-2390
RF 43 through 50	2007-1931 through 2007-1938
RF 51 through RF 60	2007-1683 through 2007-1692
RF 62 through RF 64	2007-2391 through 2007-2393
RF 65 through 68	2007-1939 through 2007-1942
RF 69 through 78	2007-1693 through 2007-1702
RF 80	2007-2394
RF 82	2007-2395
RF 85 through 108	2007-1703 through 2007-1726
RF 109 through 114	2007-1943 through 2007-1948

CLEO

<u>Claim Number</u>	<u>Instrument Number</u>
Cleo 1 through 36	2007-2909 through 2007-2944
Cleo 37	2007-4187
Cleo 38 through 40	2007-3957 through 2007-3959
Cleo 41 through 57	2007-4188 through 2007-4204
Cleo 58	2007-4280
Cleo 59 through 133	2007-4205 through 2007-4279

BUREAU OF LAND MGMT.
2008 JAN 25 PM 3:41
OREGON STATE OFFICE
PORTLAND, OR

Claim List: Cleopatra Claim Block

Claim	ORMC #	Claim	ORMC #	Claim	ORMC #
Cleo # 1	161516	Cleo # 46	161773	Cleo # 91	161818
Cleo # 2	161517	Cleo # 47	161774	Cleo # 92	161819
Cleo # 3	161518	Cleo # 48	161775	Cleo # 93	161820
Cleo # 4	161519	Cleo # 49	161776	Cleo # 94	161821
Cleo # 5	161520	Cleo # 50	161777	Cleo # 95	161822
Cleo # 6	161521	Cleo # 51	161778	Cleo # 96	161823
Cleo # 7	161522	Cleo # 52	161779	Cleo # 97	161824
Cleo # 8	161523	Cleo # 53	161780	Cleo # 98	161825
Cleo # 9	161524	Cleo # 54	161781	Cleo # 99	161826
Cleo # 10	161525	Cleo # 55	161782	Cleo # 100	161827
Cleo # 11	161526	Cleo # 56	161783	Cleo # 101	161828
Cleo # 12	161527	Cleo # 57	161784	Cleo # 102	161829
Cleo # 13	161528	Cleo # 58	161785	Cleo # 103	161830
Cleo # 14	161529	Cleo # 59	161786	Cleo # 104	161831
Cleo # 15	161530	Cleo # 60	161787	Cleo # 105	161832
Cleo # 16	161531	Cleo # 61	161788	Cleo # 106	161833
Cleo # 17	161532	Cleo # 62	161789	Cleo # 107	161834
Cleo # 18	161533	Cleo # 63	161790	Cleo # 108	161835
Cleo # 19	161534	Cleo # 64	161791	Cleo # 109	161836
Cleo # 20	161535	Cleo # 65	161792	Cleo # 110	161837
Cleo # 21	161536	Cleo # 66	161793	Cleo # 111	161838
Cleo # 22	161537	Cleo # 67	161794	Cleo # 112	161839
Cleo # 23	161538	Cleo # 68	161795	Cleo # 113	161840
Cleo # 24	161539	Cleo # 69	161796	Cleo # 114	161841
Cleo # 25	161540	Cleo # 70	161797	Cleo # 115	161842
Cleo # 26	161541	Cleo # 71	161798	Cleo # 116	161843
Cleo # 27	161542	Cleo # 72	161799	Cleo # 117	161844
Cleo # 28	161543	Cleo # 73	161800	Cleo # 118	161845
Cleo # 29	161544	Cleo # 74	161801	Cleo # 119	161846
Cleo # 30	161545	Cleo # 75	161802	Cleo # 120	161847
Cleo # 31	161546	Cleo # 76	161803	Cleo # 121	161848
Cleo # 32	161547	Cleo # 77	161804	Cleo # 122	161849
Cleo # 33	161548	Cleo # 78	161805	Cleo # 123	161850
Cleo # 34	161549	Cleo # 79	161806	Cleo # 124	161851
Cleo # 35	161550	Cleo # 80	161807	Cleo # 125	161852
Cleo # 36	161551	Cleo # 81	161808	Cleo # 126	161853
Cleo # 37	161764	Cleo # 82	161809	Cleo # 127	161854
Cleo # 38	161765	Cleo # 83	161810	Cleo # 128	161855
Cleo # 39	161766	Cleo # 84	161811	Cleo # 129	161856
Cleo # 40	161767	Cleo # 85	161812	Cleo # 130	161857
Cleo # 41	161768	Cleo # 86	161813	Cleo # 131	161858
Cleo # 42	161769	Cleo # 87	161814	Cleo # 132	161859
Cleo # 43	161770	Cleo # 88	161815	Cleo # 133	161860
Cleo # 44	161771	Cleo # 89	161816	Cleo # 134	162421
Cleo # 45	161772	Cleo # 90	161817	Cleo # 135	162422
				Cleo # 136	162423
				Cleo # 137	162424

Claim List: RF Claim Block

Claim	ORMC #	Claim	ORMC #
RF # 1	161335	RF # 60	161385
RF # 2	161336	RF # 62	161386
RF # 3	161337	RF # 63	161387
RF # 4	161338	RF # 64	161388
RF # 5	161339	RF # 65	161389
RF # 6	161340	RF # 66	161390
RF # 7	161341	RF # 67	161391
RF # 8	161342	RF # 68	161392
RF # 9	161343	RF # 69	161393
RF # 10	161344	RF # 70	161394
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RF # 17	161351	RF # 77	161401
RF # 18	161352	RF # 78	161402
RF # 23	161353	RF # 80	161403
RF # 24	161354	RF # 82	161404
RF # 25	161355	RF # 85	161405
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RF # 31	161361	RF # 91	161411
RF # 32	161362	RF # 92	161412
RF # 33	161363	RF # 93	161413
RF # 34	161364	RF # 94	161414
RF # 38	161365	RF # 95	161415
RF # 40	161366	RF # 96	161416
RF # 42	161367	RF # 97	161417
RF # 43	161368	RF # 98	161418
RF # 44	161369	RF # 99	161419
RF # 45	161370	RF # 100	161420
RF # 46	161371	RF # 101	161421
RF # 47	161372	RF # 102	161422
RF # 48	161373	RF # 103	161423
RF # 49	161374	RF # 104	161424
RF # 50	161375	RF # 105	161425
RF # 51	161376	RF # 106	161426
RF # 52	161377	RF # 107	161427
RF # 53	161378	RF # 108	161428
RF # 54	161379	RF # 109	161429
RF # 55	161380	RF # 110	161430
RF # 56	161381	RF # 111	161431
RF # 57	161382	RF # 112	161432
RF # 58	161383	RF # 113	161433
RF # 59	161384	RF # 114	161434

JOHN A. MAGLIANA, JR.
Direct Dial: (503) 499-4648
E-mail: john.magliana@bullivant.com

January 17, 2008

Ken Wright, President
Red Flat Nickel Corp.
1400 Candlelight Dr., Sp. 137
Eugene, OR 97402

Re: Red Flat Nickel Corp.

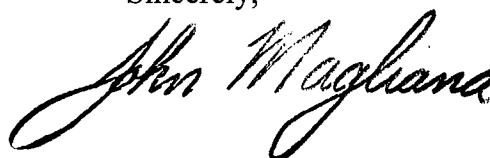
Dear Ken:

This will confirm that Bullivant Houser Bailey, PC, represents Red Flat Nickel Corp. ("Red Flat"), a Nevada corporation. In connection with that representation, this firm undertook the actions necessary to transfer the claims attached to this letter from Ken Wright to Red Flat and to record the deed in Curry County evidencing Red Flat's ownership.

In addition, this firm has also filed the attached deeds and their associated claims with the Bureau of Land Management and all required fees have been paid (see attachment).

If you need any further information regarding the filing of these deeds and claims, please contact me.

Sincerely,



John A. Magliana, Jr.

JAM:cs

Enclosures

cc: Joseph W. West

10445312.1

APPENDIX F

NOTICES OF EXPLORATION



File Code: 2810

Date: June 23, 2009

Michael D. Strickler
Agent Red Flat Nickel Corp.
Litho Logic Resources, LLC
P. O. Box 369
Selma, OR 97538

CERTIFIED MAIL
7005 2570 0001 6709 2995

RE: Cleopatra placer mining

Dear Strickler:

I reviewed your 2009 notice of intent (NOI). Your proposal states that you and your company wishes to continue exploration on your unpatented mining claims that are located in the Rogue River/Siskiyou National Forest, Wild Rivers Ranger District, near Curry County. The legal location has been established as Township 41 south, Range 10 west, southeast section 6, Willamette Meridian.

Based on the information you provided in your NOI and in a pre-season inspection report, it is my understanding that your proposed operations are as followed:

1. Operations are proposed to begin in late June, early July and will be completed with your second stage of sampling by November 30, 2009 (Weather permitting).
2. Access to the site will be on existing roads and trails and that there will be no new roads constructed. Access route will be Rowdy Creek Road to Forest Service road 305 to Forest Service road 450.
3. The proposed exploratory activity will take place in claims # 7, 16, 36 & 87 of the Cleopatra mining claims, as identified in the NOI.
4. You are proposing to continue your exploration of lateritic materials. Your intent is to dig five test holes. Each test hole will be approximately 8 feet wide x 6 feet long to bedrock (approximant average depth is 10 feet deep).
5. Five cubic feet of materials will be removed and processed off site. The remaining material will be placed back into the original test site and reclaimed. Individual test site will not exceed 20 cubic yards this season.
6. No chemicals will be used.
7. Projection of timeframes for each test site is 7 to 14 days.
8. Equipment and crew are as followed:
 - Pick & shovel



- Spatial control will be established utilizing a hand-held GPS unit
 - A geologist to oversee sampling, provide direction and supervise four geotechnicians.
9. No work will take place within 200 feet of any active bogs, streams, creeks or seeps.
 10. Minimal to no brush will be removed at selected test sites.
 11. No structures will be constructed.

Based on review of the Siskiyou Forest Plan, your proposed exploratory site testing activities are not likely to cause significant resource disturbance of surface resources. You do not need to submit a Plan of Operations for the activities you have proposed, as stated herein for July 2009 through November 2009.

As a reminder, you are required to follow all State and Federal mining and water quality rules and regulations.

Thank you for notifying our office and if you have any questions concerning the above measures, please call Karla Gallegos at 541-471-6708.

Sincerely,

/s/ Joel T. King
JOEL T. KING
District Ranger



United States
Department of
Agriculture

Forest
Service

Rogue River-Siskiyou
National Forest

Wild Rivers Ranger District
26568 Redwood Hwy
Cave Junction, OR 97523

File Code: 2810

Date: August 20, 2007

VERBAL AGT.
PER H. JUBAS
9/23/07 9:50a
will put
NOTE IN
FILE

Mike Strickler
Agent for Ken Wright, claimant
Litho Logic Resources, LLC
PO Box 369
Selma, OR 97538

**CERTIFIED MAIL - RETURN
RECEIPT REQUESTED
NUMBER: 7003 3110 0005 9639 2056**

Dear Mike,

I received your Notice of Intent for Mining Activities (NOI) dated 08/15/07 through an email on August 17, 2007 from our Minerals Administrator, Howard Jubas. I have reviewed your proposal and photographs of your exploratory drilling for nickel, cobalt, and chromium. Based on the information you provided in your NOI, I understand that:

1. Operations are proposed to begin on August 21, 2007 with seasonal shutdown by December 15, 2007. Operations will continue seasonally (spring through fall) until the subsurface shallow drilling of no more than 500 holes is completed. *AT/PEOK*
2. Accessing the site will be on existing roads and that there will be no new road or trail construction.
3. The proposed exploratory activity will take place on the Cleopatra claims #1-133 only which are located in T40S, R10W; T41S, R10W and R11W.
4. All exploration is subsurface drilling using a total of 3 augers drilling to a maximum depth of 20 feet with the two man auger and averaged depths ranging from 6-8 feet for the two (2) single man augers. Crew size for this operation is no more than ~~5~~ people. *10-12*
5. Holes are to be drilled in a grid pattern across the landscape at approximately 300' from each other and no more 500 holes will be drilled.
6. No holes will be drilled within 200' of any intermittent stream and there are no perennial streams in the testable limits of your proposed operations area.
7. A small generator may be used on site to charge GPS equipment.
8. You will follow all Industrial Fire Precaution Level (IFPL) requirements for internal combustions engine requirements. You will plug each hole upon completion of sampling and spread any excess soil to grade by hand.
9. You will not be using heavy earth moving equipment.
10. There will be no cutting of vegetation.
11. There will be no construction of any structures. Intermittent camping in tents is expected to occur for crew members only at Sourdough Camp. The camp will be kept clean and orderly and all materials and debris will be removed on a weekly basis when the camp is in use.

PER JUBAS
9/23/07

PER JUBAS
9/23/07

OR MS GREW - per JUBAS



Caring for the Land and Serving People

Printed on Recycled Paper



12. Fuel for the augers and generator will be stored in the back of the crew vehicle and no more than one quart per auger will be packed into the test sites.

Based on past years observations of similar operations, and a review of the revised Suction Dredge Checklist and the checklist in Appendix 1 of the Revised Environmental Assessment, Siskiyou National Forest, Proposal to Amend the Siskiyou National Forest Land and Resource Management Plan for Mining Operations In Riparian Reserves (1996), your proposed exploratory drilling activities are not likely to cause significant resource disturbance of surface resources nor significantly retard or prevent attainment of the Aquatic Conservation Strategy Objectives. You do not need to submit a Plan of Operations for the activities you have proposed as stated herein, on Cleopatra claims for the 2007 operating season.

You will be held responsible for checking daily any changes to the IFPL which you will follow for the use of internal combustion engines. Additionally you will follow Order No. RSF-102 for Fire and Off Road Vehicle Use.

As a reminder, you are required to follow all State and Federal mining and water quality rules and regulations. You are hereby notified that you must apply to the U.S. Army Corps of Engineers and obtain or be covered by a Section 404 permit, which encompasses Section 401 certification by the State of Oregon, before conducting any suction dredging or similar mining operations in a stream or its riparian area. For more information, you may contact the Corps of Engineers at the following address: U.S. Army Corps of Engineers, Regulatory Branch, 333 S.W. First Avenue, Portland, OR 97208-2946. The telephone number is (503) 326-6995.

If you are working where Coho Salmon or any other endangered species are present, it is your responsibility to comply with the Endangered Species Act, which prohibits the take of any endangered species.

Thank you for notifying our office and if you have any questions concerning your operations please call Howard Jubas at 471-6760.

Sincerely,

/s/Joel T. King
JOEL T. KING
District Ranger

**NOTICE OF INTENT FOR MINING ACTIVITIES
ON NATIONAL FOREST SYSTEM LANDS**

USE OF THIS FORM IS OPTIONAL! 1st TIME USERS SHOULD DIRECT QUESTIONS REGARDING THIS FORM OR REGULATIONS (36 CFR 228A) TO THE FOREST SERVICE DISTRICT OFFICE NEAREST YOUR AREA OF INTEREST.

Submitted by: <u>Michael D. Strickler</u>	<u>Agent for Ken Wright, claimant</u>	<u>08/15/07</u>
Signature	Title	Date (mm/dd/yy)
_____	_____	_____
Plan Received by: _____	_____	_____
Signature	Title	Date (mm/dd/yy)

I. GENERAL INFORMATION

- A. Name of Mine/Project: Cleopatra
- B. Type of Operation: Exploration of lode mining claims (Cleo 1 through Cleo 133)
(lode, placer, mill, exploration, development, production, other)
- C. Is this a (☒ new/☐ continuing) operation? (check one). If continuing a previous operation, this plan (☐ replaces/☐ modifies/☐ supplements) a previous plan of operations. (check one)
- D. Proposed start-up date (mm/dd/yy) of operation: 08/21/07
- E. Expected total duration of this operation: Ongoing until completed (possibly seasonal)
- F. If seasonal, expected date (mm/dd/yy) of annual reclamation/stabilization close out: 12/15/07
- G. Expected date (mm/dd/yy) for completion of all required reclamation: _____

II. PRINCIPALS

- A. Name, address and phone number of operator: Ken Wright; 1400 Candlelight Drive, Space #137, Eugene, OR 97402; 360-556-3755
- B. Name, address, and phone number of authorized field representative (if other than the operator). Attach authorization to act on behalf of operator. LithoLogic Resources, LLC; Michael D. Strickler, P.O. Box 369, Selma, OR 97538; 541-597-4086; please see attached authorization
- C. Name, address and phone number of owners of the claims (if different than the operator):

- D. Name, address and phone number of any other lessees, assigns, agents, etc., and briefly describe their involvement with the operation, if applicable:

(If more space is needed to fill out a block of information, use additional sheets and attach form)

III. PROPERTY OR AREA

Name of claim, if applicable, and the legal land description where the operation will be located.

ORMC#	Name	Sections	Township	Range
<u>161516-161551</u>	<u>Cleopatra claims #1 thru #36</u>	<u>PB42, PB43</u>	<u>40S</u>	<u>10W</u>
<u>and</u>		<u>5, 6, 7, 8, 17, 18</u>	<u>41S</u>	<u>10W</u>
<u>Pending</u>	<u>Cleopatra claims #37 thru #133</u>	<u>1, 12</u>	<u>41S</u>	<u>11W</u>

IV. DESCRIPTION OF THE OPERATION

- A. **Access.** Show on a map (USGS quadrangle map or a National Forest map, for example) the claim boundaries, if applicable, and all access needs such as roads and trails, on and off the claim. Specify which Forest Service roads will be used, where maintenance or reconstruction is proposed, and where new construction is necessary. For new construction, include construction specifications such as widths, grades, etc., location and size of culverts, describe maintenance plans, and the type and size of vehicles and equipment that will use the access routes.

Access into the claim block is via Road 305 (2 wheel drive accessible), to road 450 (4WD only). Road 305 can be accessed from the west via Rowdy Creek Road (junction with US 101 in Smith River, California), from the south via road 17N49 (junction with Hwy. 199 immediately west of Gasquet, California), or from the east via Lone Mountain Road (meets 199 in O'Brien Oregon) to road 4402/305. No construction or maintenance of the existing roads will be needed.

Access through the claim block is by foot – there are no established trails, and none are anticipated.

- B. **Map, Sketch or Drawing.** Show location and layout of the area of operation. Identify any streams, creeks or springs if known. Show the size and kind of all surface disturbances such as trenches, pits, settling ponds, stream channels and run-off diversions, waste dumps, drill pads, timber disposal or clearance, etc. Include sizes, capacities, acreage, amounts, locations, materials involved, etc.

See attached map.

(If more space is needed to fill out a block of information, use additional sheets and attach form)

- D. **Equipment and Vehicles.** Describe that which is proposed for use in your operation (Examples: drill, dozer, wash plant, mill, etc.). Include: sizes, capacity, frequency of use, etc.

Two (2) General Equipment, Model M240 One Man Hole Diggers (1.5 HP): these drill a 2.25" diameter hole to a maximum depth of ten to twelve feet. Each auger will run four (4) ten-hour shifts per week.

One (1) General Equipment Series 300 Two Man Hole Digger (5 HP): this drills a 2.25" diameter hole to a depth of fifteen to twenty feet. The use of this auger will be intermittent, and based upon results obtained by the smaller augers testing at 300 foot spacings.

In addition, a small generator may be used during selected weeks to re-charge the GPS unit.

- E. **Structures.** Include information about fixed or portable structures or facilities planned for the operation. Show locations on the map. Include such things as living quarters, storage sheds, mill buildings, thickener tanks, fuel storage, powder magazines, pipelines, water diversions, trailers, sanitation facilities including sewage disposal, etc. Include engineering design and geotechnical information for project facilities, justification and calculations for sizing of tanks, pipelines and water diversions, etc.

No fixed or permanent structures are planned; however, tents may be used for camping at either Sourdough Camp or within the boundaries of the claim block itself (most likely at the junction of roads 450 and 550). The duration of stay is not expected to exceed four (4) nights per week during the field season. No open fires will be built while fire restrictions are in effect, and all materials and debris will be removed on a weekly basis.

V. ENVIRONMENTAL PROTECTION MEASURES (SEE 36 CFR 228.8)

- A. **Air Quality.** Describe measures proposed to minimize impacts on air quality such as obtaining a burning permit for slash disposal or dust abatement on roads.

No air quality impact is anticipated.

(If more space is needed to fill out a block of information, use additional sheets and attach form)

B. **Water Quality.** State how applicable state and federal water quality standards will be met. Describe measures or management practices to be used to minimize water quality impacts and meet applicable standards.

1. State whether water is to be used in the operation, and describe the quantity, source, methods and design of diversions, storage, use, disposal, and treatment facilities. Include assumptions for sizing water conveyance or storage facilities.

2. Describe methods to control erosion and surface water runoff from all disturbed areas, including waste and tailings dumps.

3. Describe proposed surface water and groundwater quality monitoring, if required, to demonstrate compliance with federal or state water quality standards.

4. Describe the measures to be used to minimize potential water quality impacts during seasonal closures, or for a temporary cessation of operations.

5. If land application is proposed for waste water disposal, the location and operation of the land application system must be described. Also describe how vegetation, soil, and surface and groundwater quality will be protected if land application is used.

No fluids of any kind are used in the testing process, and no live streams are found within the proposed exploration area. All testing will maintain a 200 foot buffer around any seasonal watercourse. No impact is expected.

C. **Solid Wastes.** Describe the quantity and the physical and chemical characteristics of solid waste produced by the operation. Describe how the wastes will be disposed of including location and design of facilities, or treated so as to minimize adverse impacts.

All unsampled material from the testing will be spread at the site and blended with the natural slope of the land. No impact is anticipated.

D. **Scenic Values.** Describe protection of scenic values such as screening, slash disposal, or timely reclamation.

No impact is anticipated.

(If more space is needed to fill out a block of information, use additional sheets and attach form)

E. **Fish and Wildlife.** Describe measures to maintain and protect fisheries and wildlife, and their habitat (includes threatened, endangered, and sensitive species) affected by the operations.

No impacts anticipated.

F. **Cultural Resources.** Describe measures for protecting known historic and archeological values, or new sites in the project area.

No impacts anticipated.

G. **Hazardous Substances.**

1. Identify the type and volume of all hazardous materials and toxic substances which will be used or generated in the operations including cyanide, solvents, petroleum products, mill, process and laboratory reagents.

Fuel (a standard chainsaw mix for the augers, and straight gas for the generator, when used) will be stored in appropriate containers in the back of the crew vehicle. Small amounts of the mixed gas (approximately one (1) quart per auger) will be packed on a daily basis to fuel the testing equipment.

2. For each material or substance, describe the methods, volume, and frequency of transport (include type of containers and vehicles), procedures for use of materials or substances, methods, volume, and containers for disposal of materials and substances, security (fencing), identification (signing/labeling), or other special operations requirements necessary to conduct the proposed operations.

None

(If more space is needed to fill out a block of information, use additional sheets and attach form)

3. Describe the measures to be taken for release of a reportable quantity of a hazardous material or the release of a toxic substance. This includes plans for spill prevention, containment, notification, and cleanup.

None

H. **Reclamation.** Describe the annual and final reclamation standards based on the anticipated schedule for construction, operations, and project closure. Include such items as the removal of structures and facilities including bridges and culverts, a revegetation plan, permanent containment of mine tailings, waste, or sludges which pose a threat of a release into the environment, closing ponds and eliminating standing water, a final surface shaping plan, and post operations monitoring and maintenance plans.

Upon completion of each test hole and the collection of the necessary samples, the hole will be plugged and tagged, excess soil spread, and the area cleaned and returned to natural grade.

VI. FOREST SERVICE EVALUATION OF NOTICE OF INTENT

A. Required changes/modifications/special mitigation for notice of intent:

(If more space is needed to fill out a block of information, use additional sheets and attach form)

- B. **Bond.** Reclamation of all disturbances connected with this plan of operations is covered by Reclamation Performance Bond No. _____, dated (mm/dd/yy) _____, signed by _____ (Principal) and _____ (Surety), for the penal sum of _____. This Reclamation Performance Bond is a guarantee of faithful performance with the terms and conditions listed below, and with the reclamation requirements agreed upon in the plan of operations. This Reclamation Performance Bond also extends to and includes any unauthorized activities conducted in connection with this operation.

The bond amount for this Reclamation Performance Bond was based on a bond calculation worksheet. The bond amount may be adjusted during the term of this proposed plan of operations in response to changes in the operations or to changes in the economy. Both the Reclamation Performance Bond and the bond calculation worksheet are attached to and made part of this plan of operations.

Acceptable bond securities (subject to change) include:

1. Negotiable Treasury bills and notes which are unconditionally guaranteed as to both principle and interest in an amount equal at their par value to the penal sum of the bond; or
2. Certified or cashier's check, bank draft, Post Office money order, cash, assigned certificate of deposit, assigned savings account, blanket bond, or an irrevocable letter of credit equal to the penal sum of the bond.

VII. TERMS AND CONDITIONS

- A. If a bond is required, it must be furnished before approval of the plan of operations.
- B. Information provided with this plan marked confidential will be treated in accordance with the agency's laws, rules, and regulations.
- C. Approval of this plan does not constitute certification of ownership to any person named herein and/or recognition of the validity of any mining claim named herein.
- D. Approval of this plan does not relieve me of my responsibility to comply with other applicable state or federal laws, rules, or regulations.
- E. If previously undiscovered cultural resources (historic or prehistoric objects, artifacts, or sites) are exposed as a result of operations, those operations will not proceed until notification is received from the Authorized Officer that provisions for mitigating unforeseen impacts as required by 36 CFR 228.4(e) and 36 CFR 800 have been complied with.
- F. This plan of operations has been approved for a period of _____ or until (mm/dd/yy) _____. A new or revised plan must be submitted in accordance with 36 CFR part 228, subpart A, if operations are to be continued after that time period.

(If more space is needed to fill out a block of information, use additional sheets and attach form)

VIII. NOTICE OF INTENT ACCEPTANCE

☐I/☐We have reviewed and agreed to comply with all conditions in this notice of intent including the required changes, modifications, special mitigation, and reclamation requirements.

☐I/☐We understand that the bond will not be released until the Authorized Officer in charge gives written approval.

☐Operator (or ☐Authorized Representative)

(Date)
(mm/dd/yy)

IX. NOTICE OF INTENT APPROVAL

(Name)

(Title)

(Authorized Officer)

(Date)
(mm/dd/yy)

“According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB number. The valid OMB number for this information collection is 0596-0022. The time required to complete this information collection is estimated to average 8 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.”

(If more space is needed to fill out a block of information, use additional sheets and attach form)

United States
Department of
Agriculture

Forest
Service

Rogue River-Siskiyou
National Forest

Gold Beach Ranger District
29279 Ellensburg Ave
Gold Beach, OR 97444

File Code: 2820

Date: January 30, 2008

Mike Strickler
Agent for Red Flat Nickel Corp., claimant
LithoLogic Resource, LLC
P. O. Box 369
Selma, OR 97538

**CERTIFIED MAIL - RETURN
RECEIPT REQUESTED
NUMBER: 7007 0710 0003 0544 9995**

Dear Mr. Strickler,

We have reviewed your proposal submitted in your 12/20/2007 email. Based on the information you provided in your Notice of Intent for Mining Activities (NOI) I understand that:

1. Operations are proposed to begin in early February.
2. Access to the site will be on existing roads and that there will be no new road or trail construction.
3. The proposed exploratory activity will take place on Lobe B (claims 1-18, 23-34, 38, 40, 42-60, and 62-78) of the RF Mining claims, as identified in the NOI.
4. All exploration is subsurface drilling using one or two-man augers drilling to a maximum of 15-25 feet.
5. Crew size is no more than 5 people, including the layout geologist.
6. Holes are to be drilled in a grid pattern across the landscape at approximately 300 feet from each other and no more than 500 holes will be drilled.
7. No holes will be drilled within 200 feet of bogs, seasonal streams or seeps. You will stay completely out of any riparian area. Perennial stream buffer (no holes drilled within) should be 300'. Avoid Hunter Creek inner gorge.
- > 8. You have stated that the brush clearing should be as minimal as possible. Please keep the brushing minimal and non-linear, go around clumps of brush when possible. No cutting of brush is otherwise allowed. ---
- > 9. Use only roads and spur trails that will allow passage by the ATV, no cutting of trees or brush to open roads or trails.
10. There will be no construction of any structures.
11. There will be no camping on National Forest Lands, unless authorized by forest officer.

To minimize the spread of *Phytophthora lateralis* root disease to uninfected stands of Port-Orford-cedar, all vehicles or ground equipment shall be cleaned prior to such equipment being moved onto the National Forest and the project area. Cleaning will consist of pressure washing to remove all soil and debris from vehicles and equipment.



with ULTRA Clorox treated water (1 gallon/1000 gallons). Wash sites will be designated and agreed to by a Forest Service representative to avoid runoff into other water sources and to avoid movement of the root disease prior to leaving a main access road onto closed spur roads. Additional wet weather measures include:

- Additional cleaning of personal gear such as boots and hand tools if soil movement on such gear is occurring;
- Vehicle/equipment travel will occur under dry like conditions behind gated roads (cessation of vehicle travel will occur when indicators such as puddles in the roadway or water running in roadside ditches occur in more than isolated locations.);
- Four-wheeler equipment may be washed and left behind gates. Rewashing would be necessary if removed and used on un-gated areas;
- All four-wheelers or track equipment are required to stay on existing roads or skid roads;
- All vehicle, four-wheeler, or track equipment use will cease during significant rain events when movement of soil is likely on both gated or un-gated roads/skid roads;
- Travel routes into the proposed treatment areas will be agreed to;
- Re-washing may be necessary if Forest Service contracting representative determines vehicles/equipment are being used in areas where *P.lateralis* root disease exists and can be transferred back into the project area due to wet weather conditions. If rewashing is necessary within the Project Area due to a change in condition, cleaning will consist of pressure washing to remove all soil and debris from vehicles and equipment with ULTRA Clorox treated water (1 gallon/1000 gallons). Wash sites will be designated by a Forest Service representative to avoid runoff into other water sources.
- Only ATV or small tracked vehicles will go behind locked gates. Old skid trails could be used for access with minimal clearing within the old road/trail prism.
- Reseeding of disturbed soil will be required. Obtain seed from the District Office to spread over any disturbed soil.

Based on review of the Siskiyou Forest Plan, your proposed exploratory drilling activities are not likely to cause significant resource disturbance of surface resources including riparian areas. You do not need to submit a Plan of Operations for the activities you have proposed, as stated herein for February 2008 through September 2008, weather dependent.

As a reminder, you are required to follow all State and Federal mining and water quality rules and regulations. You are hereby notified that you must apply to the U.S. Army Corps of Engineers and obtain or be covered by a section 404 permit, which encompasses Section 401 certification by the State of Oregon, before conducting any suction dredging or the similar mining operations in a stream or its riparian area (please see the attached letter from the Corp). Since the Corp's requirements may change periodically, you should contact the Corps of Engineers at the following address: U.S.

Army Corps of Engineers, Regulatory Branch, 333 S.W. First Avenue, Portland, OR.
97208-2946. Phone: (503) 326-6995.

If you are working where Coho Salmon or any other endangered species are present or found, which our documentation shows they are not present within the project area, it is your responsibility to comply with the Endangered Species Act, which prohibits the take of any endangered species.

Please notify our office 48 hours prior to starting the layout of the drilling locations. Also, we would like a copy of your drilling results, as requested in the field meeting. Thank you for notifying our office and if you have any questions concerning the above measures, please call Nancy Schwieger at 247-3640.

Sincerely,



ALAN VANDIVER
District Ranger

cc: John R Nolan



United States
Department of
Agriculture

Forest
Service

Rogue River-Siskiyou
National Forest

Wild Rivers Ranger District
26568 Redwood Hwy
Cave Junction, OR 97523

File Code: 2810

Date: March 11, 2008

Mike Strickler
Agent for Ken Wright, Claimant
Litho Logic Resources, LLC
PO Box 369
Selma, OR 97538

**CERTIFIED MAIL - RETURN
RECEIPT REQUESTED
NUMBER: 7003 3110 0005 9643 6576**

Dear Mike,

I received your Notice of Intent for Mining Activities (NOI) dated 02/27/08 through an email on February 27, 2008 from our Minerals Administrator, Howard Jubas. I have reviewed your proposal for continued exploratory drilling for nickel, cobalt, and chromium. Based on the information you provided in your NOI and from the phone conversation of March 3, 2008 with Howard Jubas I understand that the proposed exploratory testing is a continuation of last years testing, which is 35% completed and will include the following:

1. Operations are proposed to begin when weather allows with completion of testing by December 31, 2008. Operations will continue seasonally (spring through fall) until the subsurface shallow drilling of no more than 1000 holes is completed.
2. Accessing the site will be on existing roads and that there will be no new road or trail construction. Minor road maintenance to the 4402450 road will be performed by hand, including patching of pot holes using native material from local side cast or from a local borrow pit.
3. The proposed exploratory activity will take place on the Cleopatra claims #1-133 only, which are located in T40S, R10W; T41S, R10W and R11W.
4. All exploration is subsurface drilling using a total of 3 augers drilling to a maximum depth of 20 feet with the two man auger and averaged depths ranging from 6-8 feet for the two (2) single man augers. Crew size for this operation is no more than 5 people.
5. Holes are to be drilled in a grid pattern across the landscape at approximately 300' from each other and no more 1000 holes will be drilled.
6. No holes will be drilled within 200' of any intermittent stream and there are no perennial streams in the testable limits of your proposed operations area.
7. You will plug each hole upon completion of sampling and spread any excess soil to grade by hand.
8. You will not be using heavy earth moving equipment. There will be no cutting of vegetation. A small generator may be used on site to charge GPS equipment.
9. There will be no construction of any structures. Intermittent camping in tents is expected to occur for crew members only at Sourdough Camp. The camp will be kept clean and orderly and all materials and debris will be removed on a weekly basis when the camp is in use.

Jubas
3/20/08
CLAIMS
OK - NO
PERMANENT REC



10. Fuel for the augers and generator will be stored in the back of the crew vehicle and no more than one quart per auger will be packed into the test sites.
11. You will follow all Industrial Fire Precaution Level (IFPL) requirements for internal combustions engine requirements.
12. Seismic testing will be accomplished with geophone sensors connected to a seismic meter. The meter will record and measure time from impact (delivered by striking a sledge hammer to the ground surface) to the sensors.

Based on past years observations of your and similar operations, and a review of the revised Suction Dredge Checklist and the checklist in Appendix 1 of the Revised Environmental Assessment, Siskiyou National Forest, Proposal to Amend the Siskiyou National Forest Land and Resource Management Plan for Mining Operations In Riparian Reserves (1996), your proposed exploratory drilling activities are not likely to cause significant resource disturbance of surface resources nor significantly retard or prevent attainment of the Aquatic Conservation Strategy Objectives. You do not need to submit a Plan of Operations for the activities you have proposed, as stated herein, on Cleopatra claims for the 2008 operating season.

You will be held responsible for checking changes to the IFPL which you will follow for the use of internal combustion engines.

As a reminder, you are required to follow all State and Federal mining and water quality rules and regulations. You are hereby notified that you must apply to the U.S. Army Corps of Engineers and obtain or be covered by a Section 404 permit, which encompasses Section 401 certification by the State of Oregon, before conducting any suction dredging or similar mining operations in a stream or its riparian area. For more information, you may contact the Corps of Engineers at the following address: U.S. Army Corps of Engineers, Regulatory Branch, 333 S.W. First Avenue, Portland, OR 97208-2946. The telephone number is (503) 326-6995.

If you are working where Coho Salmon or any other endangered species are present, it is your responsibility to comply with the Endangered Species Act, which prohibits the take of any endangered species.

Thank you for notifying our office and if you have any questions concerning your operations please call Howard Jubas at 471-6760.

Sincerely,

George Panik
for JOEL T. KING
District Ranger



United States
Department of
Agriculture

Forest
Service

Rogue River-Siskiyou
National Forest

Gold Beach Ranger District
29279 Ellensburg Ave
Gold Beach, OR 97444

File Code: 2820

Date: June 2, 2008

Michael D. Strickler
Agent for Red Flat Nickel Corp.
LithoLogic Resources, LLC
P. O. Box 368
Selma, OR 97538

Dear Mr. Strickler,

We have reviewed your proposal submitted in your 3/21/2008 email. Based on the information you provided in your Notice of Intent for Mining Activities (NOI), and the addendum, I understand that:

1. Operations are proposed to begin in June through November 1, 2008.
2. Access to the site will be on existing roads and that there will be no new road or trail construction.
3. The proposed exploratory activity will take place on Lobe A (RD #1 through RF#114) Mining claims, as identified in the NOI.
4. All exploration is subsurface drilling using a track mounted sonic core drill to 10 sites in Lobe A as shown on map submitted 4/30/08. One single test hole will be drilled at each location. Locations will fall upon existing system or roads and trails, no new road or trails will be created.
5. Upon completion of each test hole the hole will be plugged and tagged, excess soil will be spread to a natural grade and the area will be cleaned up.
6. You have stated that the brush clearing should be as minimal as possible.
7. Resource protection measures will be applied as described in the May 29, 2008 addendum to your Notice of Intent.

Based on review of the Siskiyou Forest Plan, your proposed sonic exploratory drilling activities are not likely to cause significant resource disturbance of surface resources including riparian areas and we don't anticipate there will be any effects to Threatened and Endangered species. You do not need to submit a Plan of Operations for the activities you have proposed, as stated herein for June 2008 through November 2008, weather dependent.

As a reminder, you are required to follow all State and Federal mining and water quality rules and regulations.

Please notify our office 48 hours prior to project initiation.



Thank you for notifying our office and if you have any questions concerning the above measures, please call Nancy Schwieger at 247-3640.

Sincerely,

A handwritten signature in black ink that reads "Alan Vandiver". The signature is written in a cursive, flowing style.

ALAN VANDIVER
District Ranger

Addendum to Notice of Intent

Red Flat Nickel Corp.
Lobe A (RF #1-RF114)
Curry County, Oregon
May 30, 2008

1. No holes will be drilled within 200 feet of bogs, seasonal streams or seeps. You will stay completely out of any riparian area. Perennial stream buffer (no holes drilled within) should be 300'. Hunter Creek inner gorge will be avoided.
2. There will be no construction of any structures.
3. There will be no camping on National Forest Lands, unless authorized by a Forest officer.
4. All vehicles or ground equipment will be cleaned prior to being moved onto the National Forest and the project area. Cleaning will consist of pressure washing to remove all soil and debris from vehicles and equipment with ULTRA Clorox treated water (1 gallon/1000 gallons). Wash sites will be designated and agreed to by a Forest Service representative to avoid runoff into other water sources and to avoid movement of the root disease prior to leaving a main access road onto closed spur roads. Additional wet weather measures include:
 - Additional cleaning of personal gear such as boots and hand tools if soil movement on such gear is occurring;
 - Vehicle/equipment travel will occur under dry conditions behind gated roads (cessation of vehicle travel will occur when indicators such as puddles in the roadway or water running in roadside ditches occur in more than isolated locations.);
 - Four-wheeler equipment will be washed and may be left behind gates. They will be washed again if removed and used on un-gated areas;
 - All four-wheelers or track equipment will stay on existing roads or skid roads;
 - All vehicle, four-wheeler, or track equipment use will cease during significant rain events when movement of soil is likely on both gated or un-gated roads/skid roads;
 - Travel routes into the proposed treatment areas will be agreed to with the Forest Service;
 - If Forest Service contracting representative determines vehicles/equipment are being used in areas where *P.lateralis* root disease exists and can be transferred back into the project area due to wet weather conditions, vehicles will be washed again. If rewashing is necessary within the Project Area due to a change in

condition, cleaning will consist of pressure washing to remove all soil and debris from vehicles and equipment with ULTRA Clorox treated water (1 gallon/1000 gallons). Wash sites will be designated by a Forest Service representative to avoid runoff into other water sources.

- Only ATV or small tracked vehicles will go behind locked gates. Old skid trails could be used for access with minimal clearing within the old road/trail prism.
- Reseeding of disturbed soil will be done. We will obtain seed from the District Office to spread over any disturbed soil.

APPENDIX G

REFERENCE ARCHIVAL DOCUMENTS

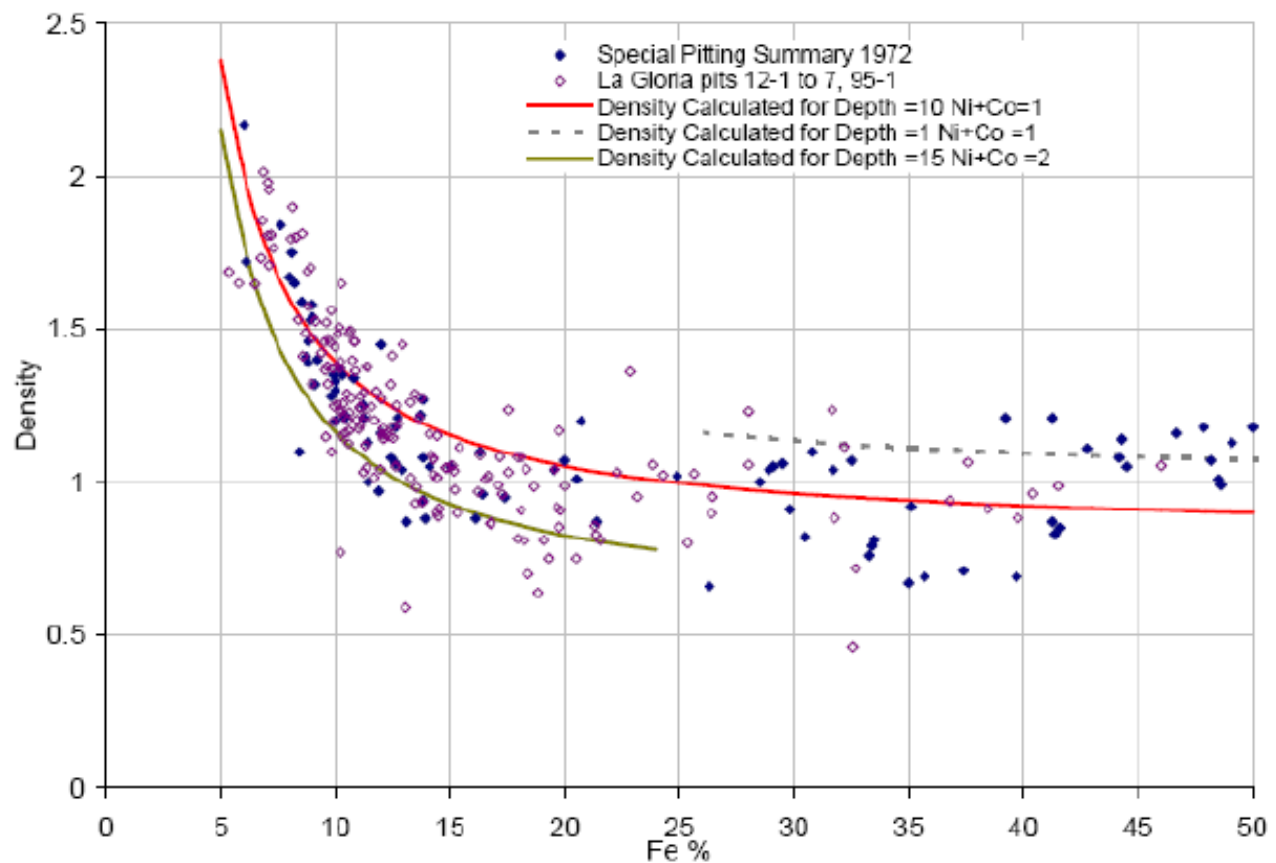


Figure 22 Dry Bulk Density from Area 212 as reported in the Special Pitting Program reports. Curves give values of density calculated using equation 1 in the text for particular values of Ni + Co and depth.

Fenix Nickel Project, Guatemala; Skye Resources

Taken from Golightly, 2005

CERRO MATOSO NI LATERITE DEPOSIT, COLOMBIA

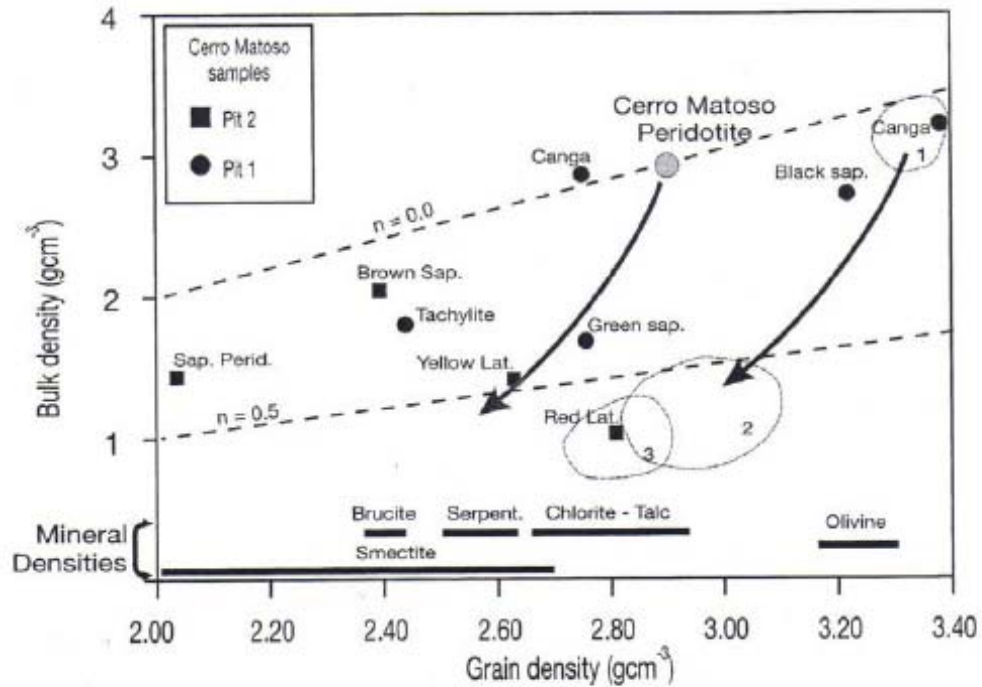


FIG. 10. A plot of bulk density vs. grain density for the different units at Cerro Matoso, with calculated porosity of rocks and soils (n). In general, as lateritic weathering proceeds, a trajectory from high grain and bulk density and low porosity (peridotite) to lower bulk and grain density and high porosity (saprolites and laterites) is expected. Brimhall and Dietrich (1987) present such a trend for the weathering of peridotites at Eight Dollar Mountain, Oregon, and their general weathering fields are encircled (1 = protolith, 2 = soils, 3 = saprolite). Many of the units at Cerro Matoso do not lie on the predicted trajectory. Black sap. = black saprolite, Brown sap. = brown saprolite, Green sap. = green saprolite, Red Lat. = red laterite, Sap. Perid. = saprolitized peridotite, Yellow Lat. = yellow laterite.

Taken from Gleeson et al., 2004

STATE OF OREGON
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
1069 State Office Building, Portland, Oregon 97201

MISCELLANEOUS PAPER 20

INVESTIGATIONS OF NICKEL IN OREGON

Len Ramp, Resident Geologist
Grants Pass Field Office
Oregon Department of Geology and Mineral Industries

Conducted in conformance with ORS 516.030



1978

GOVERNING BOARD
Leeanne MacColl, Chairperson, Portland
Robert W. Doty Talent
John Schwabe Portland

STATE GEOLOGIST
Donald A. Hull

appears to be about 0.60 percent Ni, 0.07 percent Co, and 1.30 percent Cr.

The three small areas to the northwest along the peridotite-diorite contact were mapped from aerial photographs and have not been examined in the field. They appear to be quite rocky and may not be laterites.

Chrome Creek laterites (17)

Location: The areas designated as Chrome Creek (Figure 9) are arbitrarily separated from the Spokane Creek laterite areas by the drainage divide line between the two creeks, so the laterite area in secs. 8 and 17 is assigned, in part, to the Spokane Creek laterites. The patches of lateritic soil mapped in the Chrome Creek area are in unsurveyed secs. 7, 8, 9, 17, and 18, T. 40 S., R. 10 W.

Geology: The area is near the western edge of the Josephine ultramafic sheet about 2 mi from the thrust-fault contact with underlying Dothan Formation marine sediments. The ultramafic rocks consist of harzburgite and serpentinite that have been intruded by numerous dikes of dacitic and diabasic composition. Amphibolite of uncertain age, possibly Upper Triassic and equivalent to the Briggs Valley omphibolite, occurs as a tectonic slice in the northwestern part of the area, underlying the peridotite and overlying the Dothan Formation.

Deposits: The area has been examined only briefly in the field, and the southern patches mapped later from aerial photographs have not been inspected and sampled. The main area is on the west side of Chrome Creek in sec. 7. The more promising deposits occupy an area of about 40 acres with apparently marginal surrounding ground of about 75 or 80 acres. The two small patches in the northeastern part of the area (NE/NE sec. 8 and NW/NW sec. 9) together cover about 32 acres. They are very rocky and appear to be slump areas similar to the small 15-acre bench located about 1 mi to the southwest in secs. 8 and 17. The average amount of unweathered rock in the soil of the examined areas is estimated to be 45 percent by volume. Table 8 shows assay results of auger samples taken in the area. Additional field investigation is needed to evaluate the areas mapped from aerial photographs.

Table 8. Sample assay results, Chrome Creek area

Sample number*	Assay number	Depth interval (ft)	$\frac{1}{2}$	Location			Elevation (ft)	Percent		
				Sec.	T.(S.)	R.(W.)		Ni	Co	Cr
1	ALG-61	0-7	NW/NW	9	40	10	3,180	0.69	0.09	0.45
2	ALG-64	0-3.2	S $\frac{1}{2}$ /NW $\frac{1}{2}$	7	40	10	2,825	0.81	----	0.63
3	ALG-63	0-5.5	SE/NW	7	40	10	2,810	0.75	0.15	1.57
4	ALG-62	0-2.7	Center	7	40	10	2,700	0.76	----	1.16
5	ALG-60	0-5.2	$\frac{1}{2}$ cor	8-17	40	10	3,260	0.39	----	----

* These numbers are found in Figure 9 and indicate locations from which samples were taken

Cleopatra - Taylor Creek laterites (24, Plate 1)

Location: Four patches of lateritic soil occur in secs. 31 and 32, T. 40 S., R. 10 W., and in secs. 5, 6, and 7, T. 41 S., R. 10 W., on the north end of Cleopatra Ridge, west of Taylor Creek. The area is about 1 mi north of the old McGrew wagon road, which at one time furnished access from the Wimer road to the Cleopatra lookout tower, now destroyed.

Geology: The area is underlain by partly serpentinized harzburgite and some dunite. These ultramafic rocks have been intruded by a few small diorite and diabase dikes; near the head of Taylor Creek, a fairly large complex diorite dike or stock cuts across the North Fork of Diamond Creek into California.

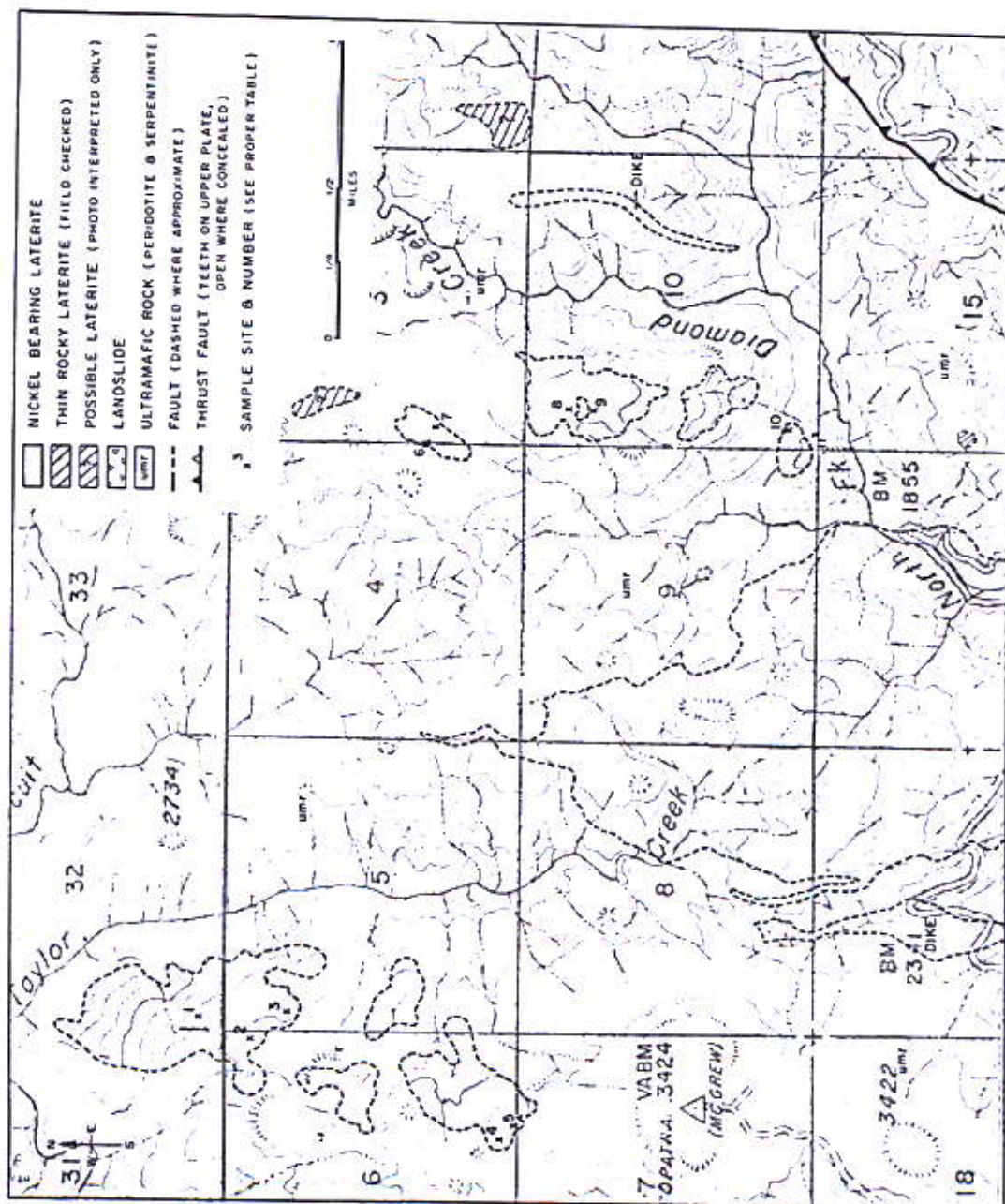


Figure 10. Geologic map of Cleopatra-Taylor Creek and Diamond areas. Sample assay results appear in Tables 9 and 11.

The mapped areas of lateritic soil total about 245 acres (Figure 10). The areas above about 2,800 ft are probably erosional remnants of a more extensive blanket of lateritic soil. Some areas below 2,800 ft probably include some slump material.

Deposits: The lower northern area is very rocky on the surface and may contain as much as 60 percent rock by volume. At least part of the lower area appears to have interesting accumulations of soil and saprolite which may reach a maximum depth of about 50 ft on slump benches. The average depth of soil and saprolite development for the mapped areas is estimated to be 10 ft. Assay results of preliminary auger samples are listed in Table 9. The average grade of soil and saprolite is about 1 percent Ni, 0.10 percent Co, and 1.80 percent Cr. Although on preliminary examination the area appears to lack value due to the abundance of unweathered rock at the surface, further investigation may be justified.

Table 9. Sample assay results, Cleopatra-Taylor Creek area

Sample number*	Assay number	Depth interval (ft)	Location Sec. T.(S.) R.(W.)	Elevation (ft)	Percent		
					Ni	Co	Cr
1	AJG-16	0- 7.5	SW/SW 32 40 10	2,600	0.85	0.06	1.43
2	AJG-15	0- 7.5	NE/NE 6 41 10	1,850	1.61	0.16	1.98
3	AJG-17	0- 7.0	NW 5 41 10	2,750	1.20	0.09	2.01
4	AIG-117	0- 3	S/SE 6 41 10	3,300	0.65	----	----
5	AIG-118	0- 5	S/SE 6 41 10	3,300	0.91	0.24	----
5	AIG-119	5-10	S/SE 6 41 10	3,300	1.06	0.20	----

* These numbers are found in Figure 10 and indicate locations from which samples were taken

Cottonwood Camp laterites (13, Plate 1)

Location: This area is in unsurveyed sec. 22, T. 39 S., R. 11 W., north of Cottonwood Camp at the headwaters of the South Fork of the Chetco River on the southwest flank of Red Mountain. Aerial photographs indicate small slide or slump areas of possible nickel laterite at the head of Red Mountain Creek (Figure 11).

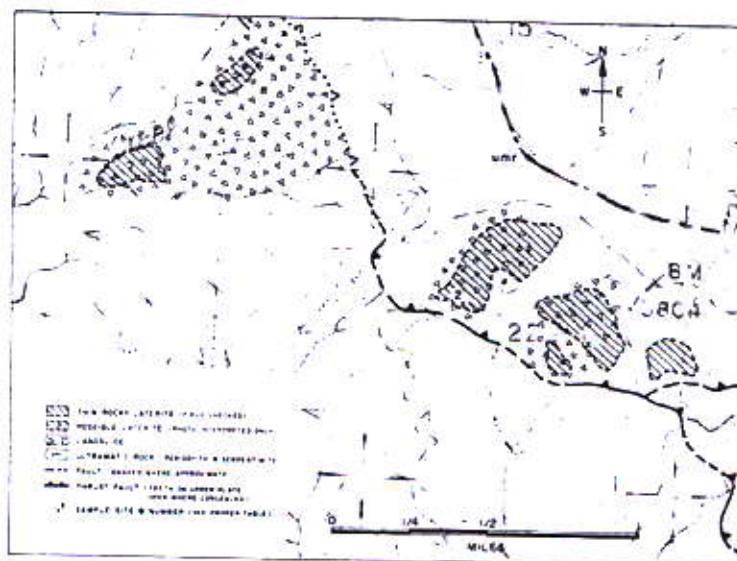


Figure 11. Geologic map of Cottonwood Camp area. Sample assay results appear in Table 10.

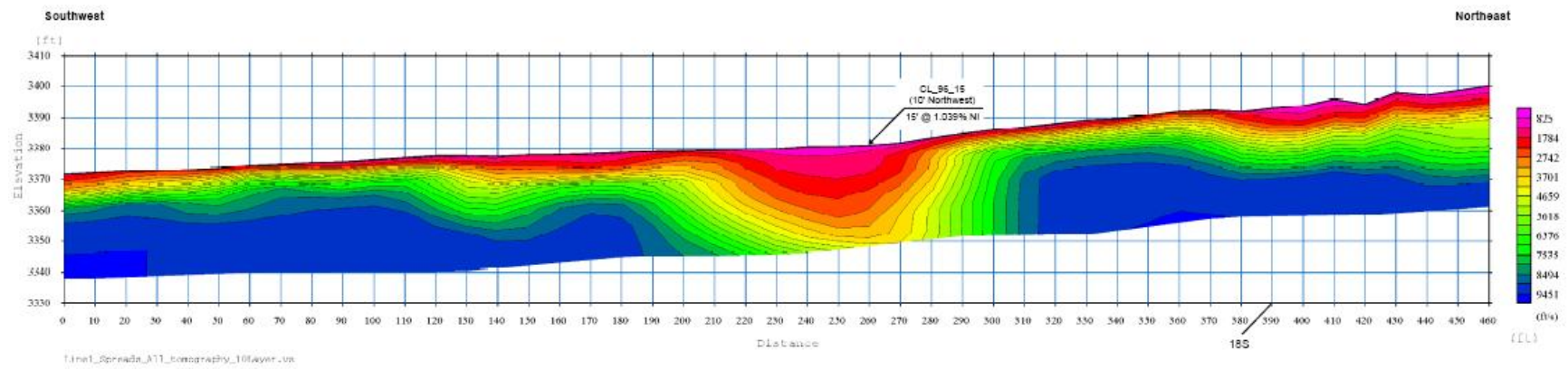
APPENDIX H

BREAKDOWN OF RESOURCE CALCULATION

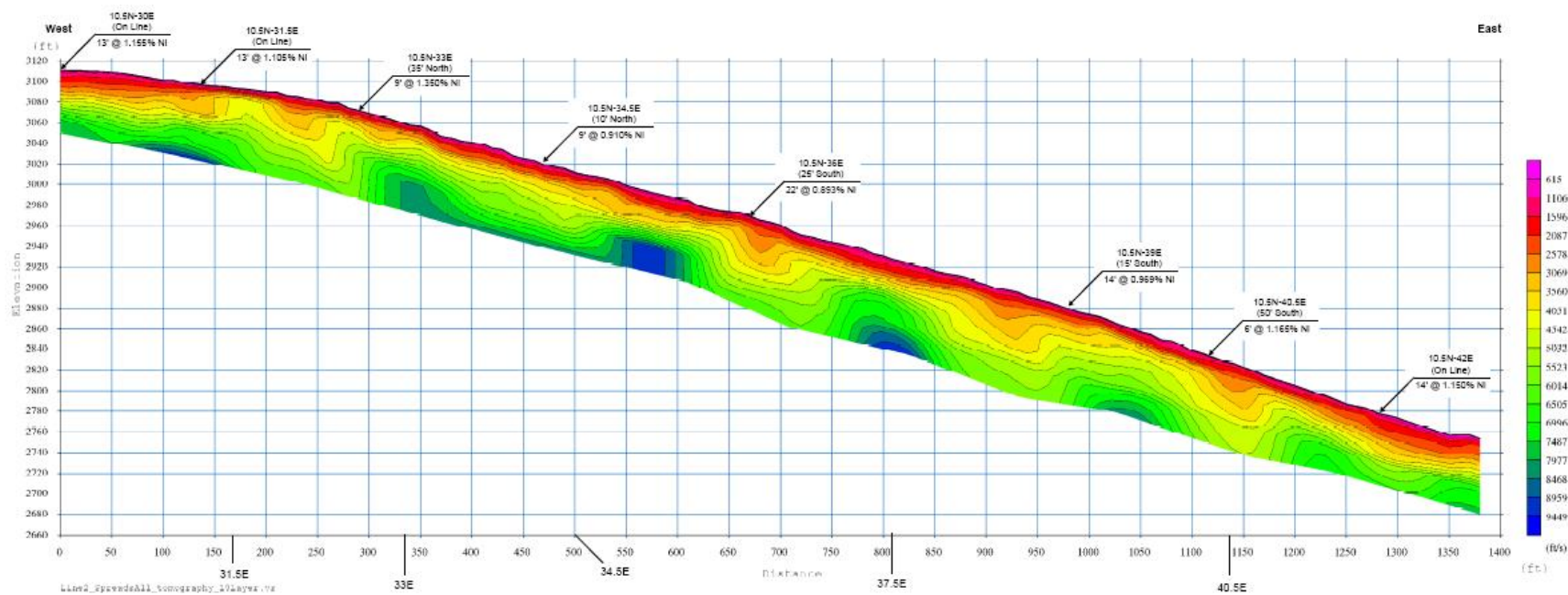
Cut-off Ni (%)	Resources description	Type	Measured Tons (*1000)	Ni (%)	Indicated Tons (*1000)	Ni (%)	Inferred Tons (*1000)	Ni (%)	Total Inferred Tons (*1000)	Ni (%)
0.7	Inside the measured zone From 0 ft to depth of trench	Soil	3342	1.07						
		Rock	1913	0.83						
	Inside the measured zone Depth of trench to 20ft	Soil			5301	1.08				
		Rock			3265	0.83				
	Inside the measured zone Depth 20ft to 30ft	Soil					4321	1.08		
		Rock					2589	0.83		
	Inside the measured zone Blocks 1, 7, 8 and 9; Depth 30ft to 40ft	Soil					2033	1.20		
		Rock					2366	0.83		
	Outside the measured zone Depth 0ft to 6ft	Soil			3377	0.82				
		Rock			1356	0.88				
	Outside the measured zone Depth 6ft to 15ft	Soil					4927	0.81		
		Rock					1979	0.88		
	Outside the measured zone Contested placer claims	Soil			891	0.79	1039	0.78		
		Rock			358	0.85	417	0.85		
		Soil	3342	1.07	9569	0.96	12320	0.97	25231	0.98
		Rock	1913	0.83	4979	0.84	7351	0.84	14243	0.84
		Total	5255	0.98	14548	0.92	19671	0.92	39473	0.93

Cut-off Ni (%)	Resources description	Type	Measured Tons (*1000)	Ni (%)	Indicated Tons (*1000)	Ni (%)	Inferred Tons (*1000)	Ni (%)	Total Inferred Tons (*1000)	Ni (%)
0.8	Inside the measured zone From 0 ft to depth of trench	Soil	3342	1.07						
		Rock	1572	0.85						
	Inside the measured zone Depth of trench to 20ft	Soil			5301	1.08				
		Rock			2776	0.84				
	Inside the measured zone Depth 20ft to 30ft	Soil					4321	1.08		
		Rock					2174	0.85		
	Inside the measured zone Blocks 1, 7, 8 and 9; Depth 30ft to 40ft	Soil					2033	1.20		
		Rock					2048	0.84		
	Outside the measured zone Depth 0ft to 6ft	Soil			1775	0.89				
		Rock			713	0.84				
	Outside the measured zone Depth 6ft to 15ft	Soil					2310	0.89		
		Rock					928	0.84		
	Outside the measured zone Contested placer claims	Soil			289	0.89	362	0.88		
		Rock			116	0.84	146	0.84		
		Soil	3342	1.07	7365	1.03	6993	1.01	17700	1.03
		Rock	1572	0.85	3605	0.84	3248	0.84	8424	0.84
		Total	4914	1.00	10970	0.97	14321	0.97	30205	0.97

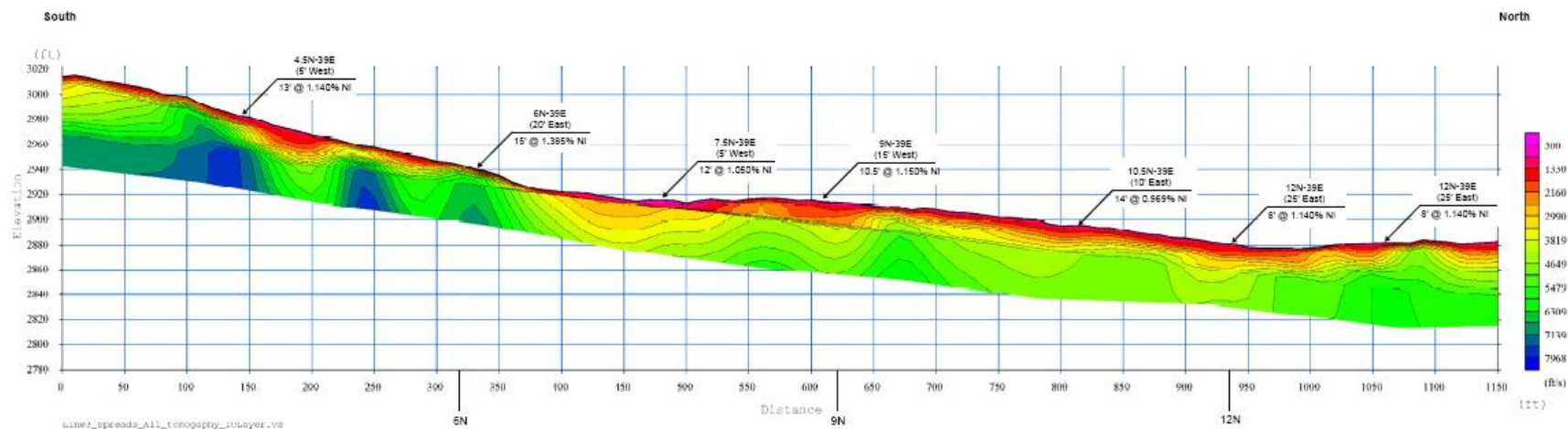
APPENDIX I
GEOPHYSIC SEISMIC LINES



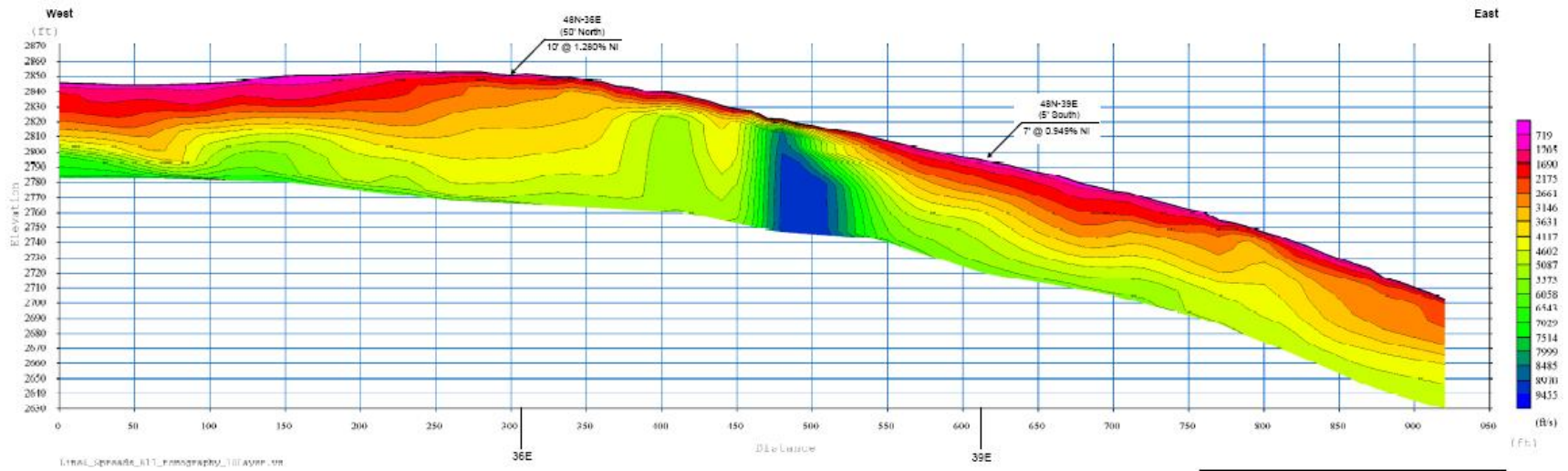
Line 1



Line 2



Line 3



Line 4