PHOTOGRAMMETRIC STRUCTURAL ANALYSIS

# RED SPRING PROPERTY

OMINECA MINING DIVISION

BRITISH COLUMBIA, CANADA

NTS Map 94D/025

56° 15’ North, 127° 10’ West

UTM ZONE 9 (NAD 83) /612,719 E, 6,234,650N


**Report prepared by:**

Farshad Shirvani, MSc.

Erik Ostensoe, P. Geo.




**Report prepared for:**

Farshad Shirvani

**Date of report:**

March 21, 2013

Report submitted in fulfillment of SOW – Event No. **5405456**.

# CONTENTS



# LIST OF TABLES



# LIST OF ILLUSTRATIONS

# 1.0 SUMMARY

The Red Spring property mineral tenures, as listed in Table 1 and illustrated in Figures 1 and 2, are located 10 km north of Motase Peak in the Skeena Mountains of northcentral British Columbia, Canada. The property comprises two clusters of titles: the ten Red Spring tenures and one Tic Toc tenure, all of which are held by Farshad Shirvani. Total area is 3191 hectares. Access to the tenures is by helicopter from Bear Lake, 37 km southeast, (seasonal) or from Smithers, 120 km south.

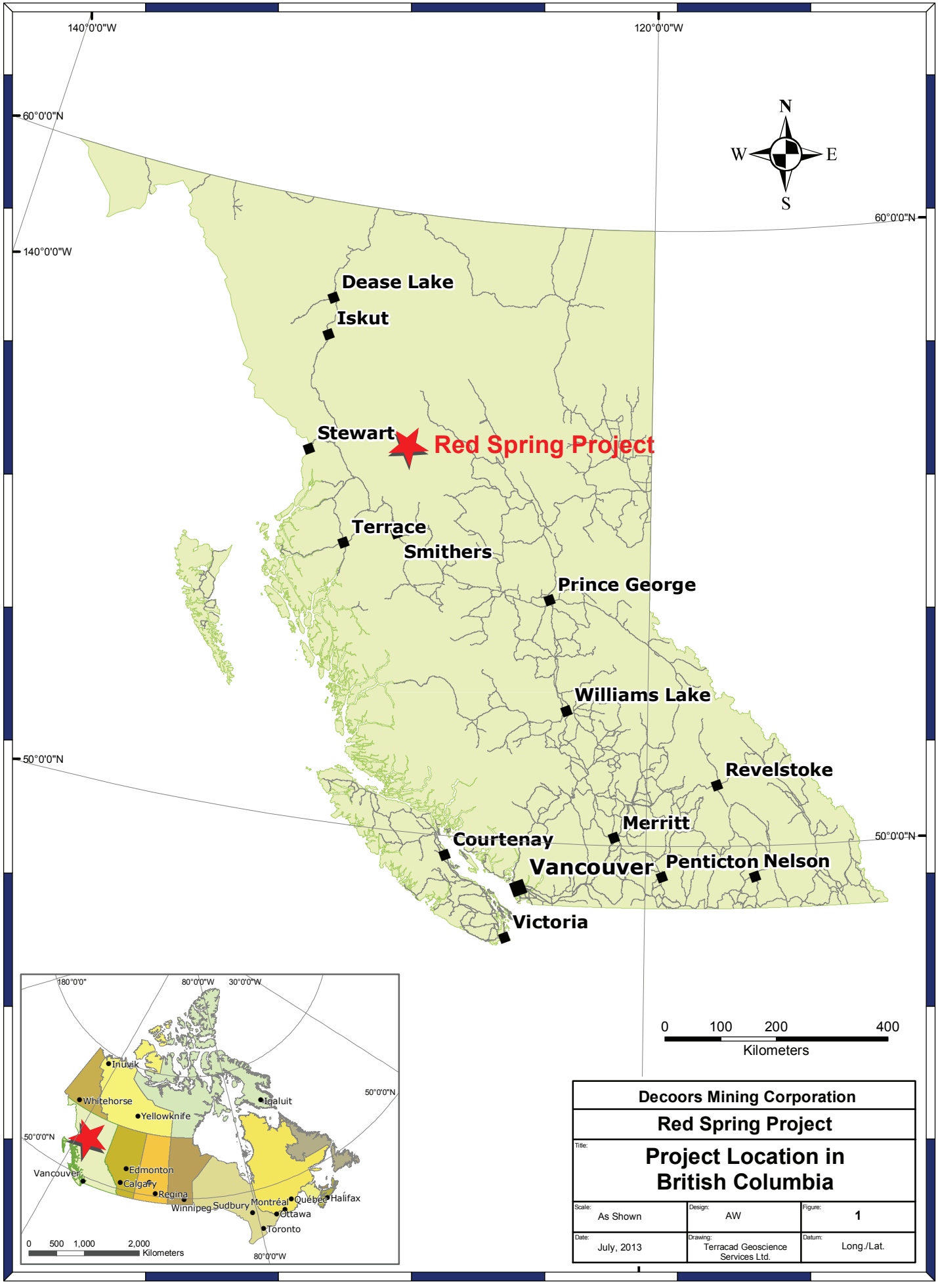
A photogrammetric structural analysis of the tenures and surrounding areas was conducted as an aid to planning fieldwork. Prospectors could access the Skeena Mountains with difficulty prior to the advent of helicopter services but in recent decades the area has been prospected and explored by major and junior companies and by individual prospectors in search of precious metal and porphyry-style calc-alkalic copper-molybdenum and alkalic copper-gold deposits.

The structural analysis identified strong patterns with orientation northwesterly (110° to 150°) and northeasterly (020° to 050°) but failed to provide useful data concerning the area of historic exploration by geophysical surveys and diamond drilling.

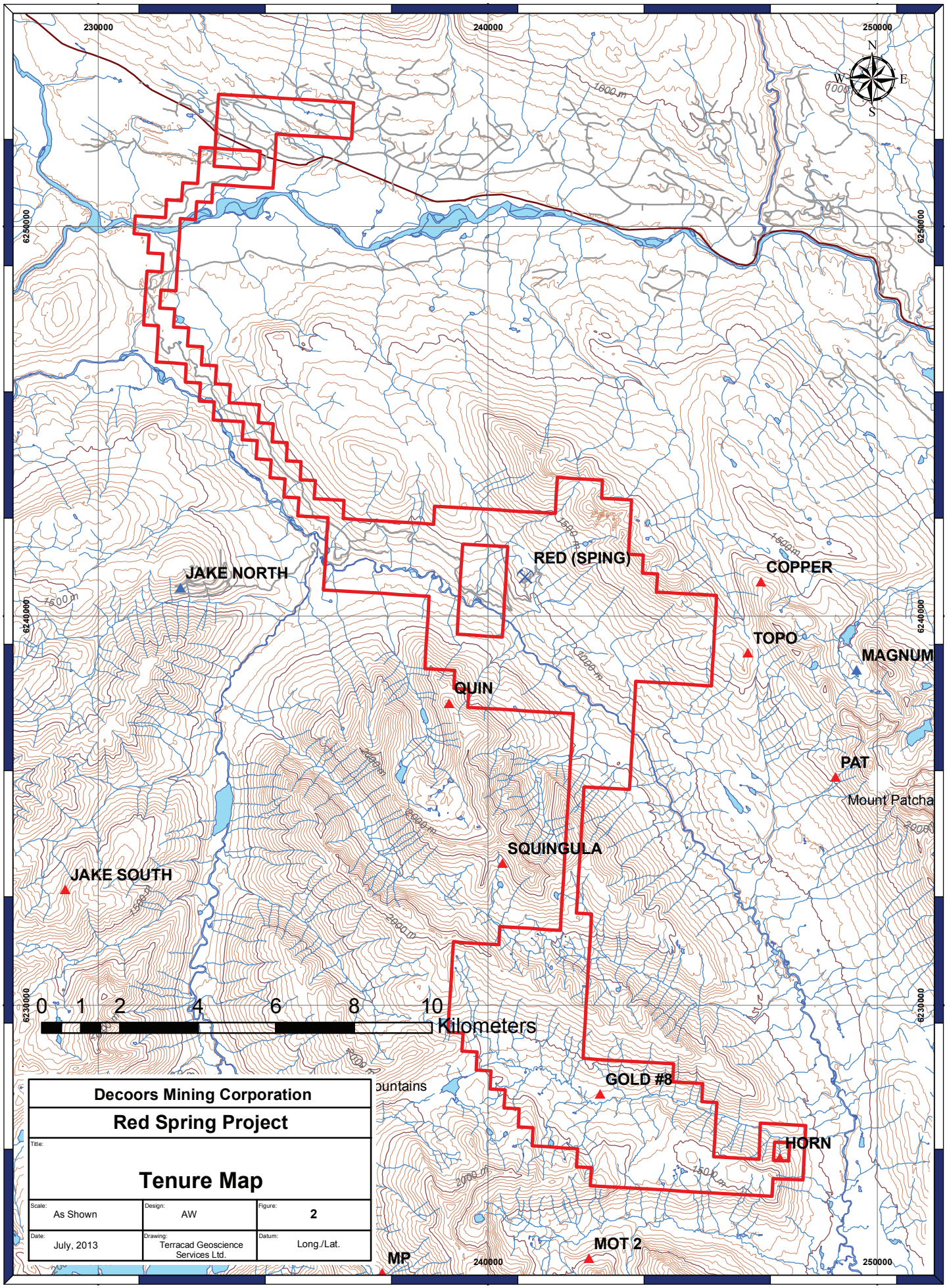
# 2.0 INTRODUCTION

The Red Spring mineral tenures that are the subject of this report are listed in Table 1 and illustrated in Figures 1 and 2 of this report. A Statement of Work, Event No. 5405456, dated September 17, 2012, applied $6399.92 of work and $2742.83 PAC to extend the expiry dates of the tenures. This report presents details of a photogrammetric structural analysis that was directed to the Red Spring tenures and nearby areas. The purpose of the study was to provide guidance for planned field programs that will operate in the area in the 2013 field season. Total area is 3191 hectares in 11 tenures.

The Red Spring property, located northeast of the valley of Squingula River, 10 km north of Motase Peak and 120 km north of Smithers in north-central British Columbia, is in the Intermontane physiographic division of the Canadian Cordillera (Bostock, 1947). Nearest habitations are at Bear Lake , 37 km southeast, and Suskeena Fishing Lodge, 8 km north. Access to the tenures is by helicopter but an historic tractor road, constructed in 1973 and now heavily overgrown, probably could be re-established if warranted by mineral exploration. Of possible longer term interest, CN Rail's branch line from Ft. St. James passes northwesterly from Bear Lake to Sustut River.




| Decoors Mining Corporation | | |
|---|---|---|
| Red Spring Project | | |
| Title: Project Location in British Columbia | | |
| Scale: As Shown | Design: AW | Figure: 1 |
| Date: July, 2013 | Drawing: Terracad Geoscience Services Ltd. | Datum: Long./Lat. |




| | | |
|---|---|---|
| **Decoors Mining Corporation** | | |
| **Red Spring Project** | | |
| Title: **Tenure Map** | | |
| Scale: As Shown | Design: AW | Figure: 2 |
| Date: July, 2013 | Drawing: Terracad Geoscience Services Ltd. | Datum: Long./Lat. |

The Red Spring area has a relatively short history of mineral exploration: copper mineralization was discovered in 1972 by personnel of Canadian Superior Exploration Ltd. That company's follow-up work included technical surveys (geological, geochemical and geophysical) and nine diamond drill holes with total length 2772 feet. City Services Mineral Corp. in 1976 drilled three holes with total length 1,156 feet. Parts of the property have been held since 1983 by G. Ryznar. Windflower Mining Ltd. and Appleton Exploration Inc. have at times optioned the property. Inco Technical Services and Bacon, Donaldson & Associates Ltd., respectively, have provided petrographic and metallurgical test work, details of which are included in ARIS reports.

The Red Spring mineral tenures (Table 1) were located in 2012 by DeCoors Mining Ltd. and subsequently transferred to Farshad Shirvani, the current owner. The Tic Toc tenure, located 8 km south of the main property, was acquired by purchase from Louis Arthur Davis. SOW, Event no. 5405456, was filed by DeCoors Mining Corp. which company subsequently transferred the tenures to Farshad Shirvani, the present owner.

## 3.0 RED SPRING TENURES

The eleven mineral tenures that comprise the Red Spring property are listed in Table 1 and illustrated in Figure 2. Total area is 3191 hectares. This technical report provides details of a photogrammetric structural study and Statement of Work, Event No. 5405456, applies the costs of the study plus PAC credits to advance the expiry dates of the tenures as shown in Table 1. The mineral tenure package that is outlined in various figures that accompany this report was re-configured subsequent to the study.

ARIS reports that present technical data from various surveys, including historic geochemical soil surveys and geophysical surveys, have not been reviewed in detail (ARIS reports are included in the Reference section of this report). The intent of those surveys was to determine if a signature, either chemical, magnetic or electrical, similar to that defining the mineralization found in outcrops and traced by drill holes, could be recognized and applied in the search for extensions of the known mineral zone.

The Red Spring mineral tenures are located near and above treeline and feature contrasting post-glaciation areas of barren rock where vegetation has not been re-established following retreat of glaciers and permanent snow, scrubby alpine evergreen trees, and areas of thick deciduous growth. Soils vary from thin and immature with much gravel, to more normal, mature podsols with defined soil horizons.

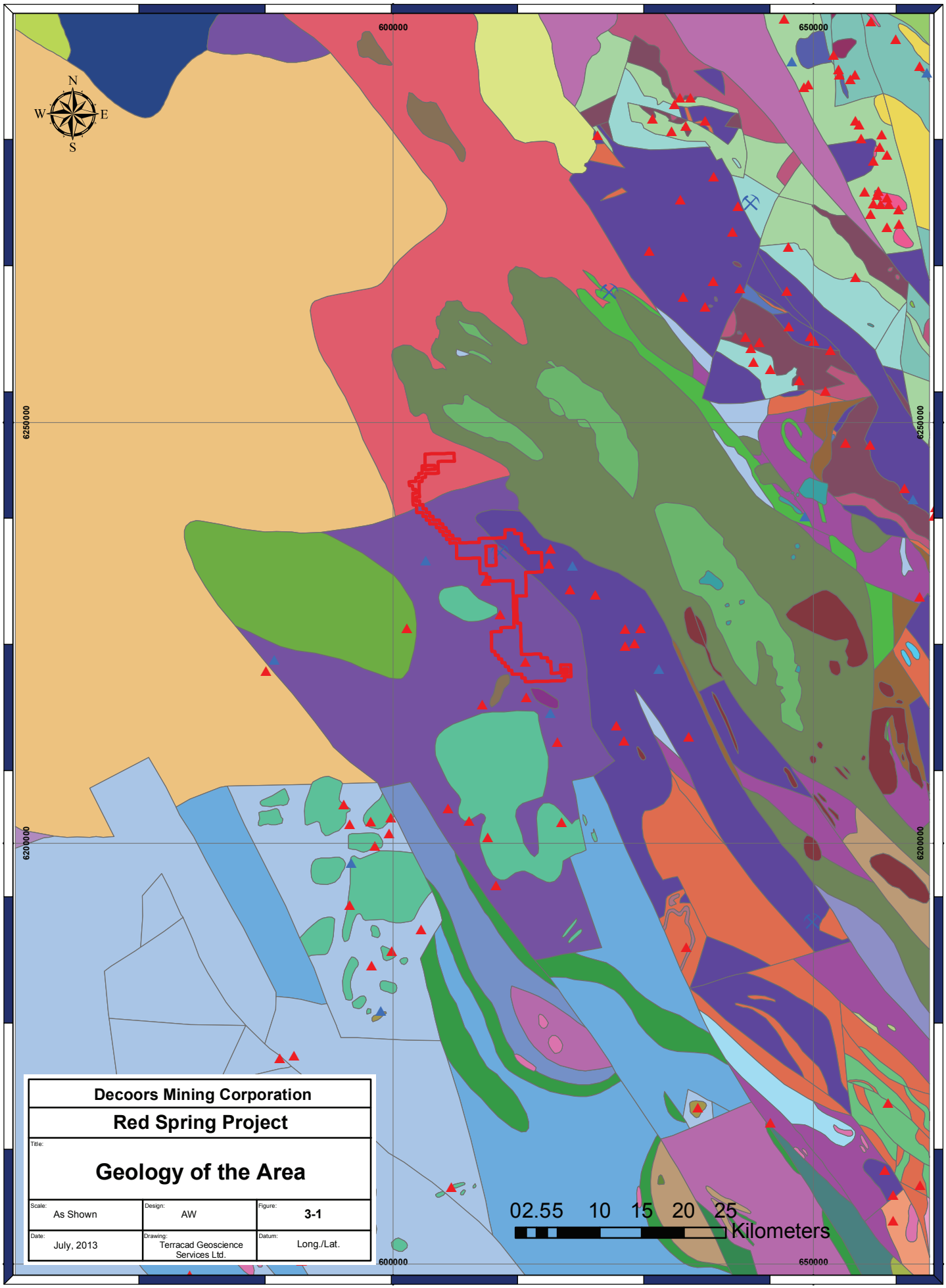
**Table 1: Red Spring Mineral Tenures**

| Tenure No. | Name | Owner | Issue Date | Good to Date | Area (hectares) |
|---|---|---|---|---|---|
| 897987 | Tic Toc | F. Shirvani | 2011/sep/19 | 2013/sep/13 | 72.13 |
| 945229 | Sping | F. Shirvani | 2012/feb/01 | 2013/sep/25 | 17.98 |
| 945270 | F2 | F. Shirvani | 2012/feb/01 | 2013/sep/23 | 197.77 |
| 947129 | Tic Toc 2 | F. Shirvani | 2012/feb/08 | 2013/sep/10 | 432.80 |
| 949349 | Eastern Promise | F. Shirvani | 2012/feb/14 | 2013/sep/05 | 449.60 |
| 949350 | Eastern Promise 2 | F. Shirvani | 2012/feb/14 | 2013/jul/31 | 449.56 |
| 950145 | Pie | F. Shirvani | 2012/feb/16 | 2013/jul/31 | 107.91 |
| 950583 | Red Spring | F. Shirvani | 2012/feb/18 | 2013/jul/31 | 701.21 |
| 950589 | RS South | F. Shirvani | 2012/feb/18 | 2013/jul/31 | 413.73 |
| 950629 | RS Northeast | F. Shirvani | 2012/feb/18 | 2013/jul/31 | 413.40 |
| 950649 | RS Southeast | F. Shirvani | 2012/feb/18 | 2013/jul/31 | 323.91 |

## 4.0 HISTORIC GEOLOGY AND GEOCHEMISTRY

The Red Spring property area was included in 1973 in Geological Survey of Canada regional geological mapping at scale 1:250,000 (Eisbacher, 1973), updated in 2007 (Evanchick, et al, 2007). A sequence of east-west trending, southerly dipping Lower and Middle Jurassic age Hazelton Group mafic volcanic rocks with felsic volcanic members, arenites, shales and limestone is present north of Squingula River. Bowser Lake Group clastic rocks were mapped south of the river (Figures 3-1, 3-2).

Canadian Superior Ltd., in 1973 - 1975, following the discovery in 1972 of copper mineralization by prospectors, completed induced polarization geophysical surveys, geochemical soil surveys, geological mapping (dePaoli, 1975) and nine diamond drill holes. A resource of 4.5 M tonnes grading 0.5% copper and 11.9 g/tonne silver was outlined. City Services Mineral Corp. in 1976 drilled an additional three holes: data from that work may not have been reported.


N
W
E
S
600000
650000
6250000
6200000
02.55 10 15 20 25
Kilometers
Decoors Mining Corporation
Red Spring Project
Title:
Geology of the Area
Scale: As Shown
Design: AW
Figure: 3-1
Date: July, 2013
Drawing: Terracad Geoscience Services Ltd.
Datum: Long./Lat.

## Legend

### Geology-Area

**UNIT**

- EBdr - Cenozoic - Babine Plutonic Suite dioritic intrusive rocks
- EBfp - Cenozoic - Babine Plutonic Suite feldspar porphyritic intrusive rocks
- EBgd - Cenozoic - Babine Plutonic Suite granodioritic intrusive rocks
- EJEK - Mesozoic - Eskay Porphyry, Knipple Porphyry or Inel Stock feldspar porphyritic intrusive rocks
- EJMLM - Mesozoic - Melville and Lehto Plutons, Mitchell Intrusions, Red Bluff Porphyry Stock monzodioritic to gabbroic intrusive rocks
- EJdg - Mesozoic - Unnamed monzodioritic to gabbroic intrusive rocks
- EJdr - Mesozoic - Unnamed dioritic intrusive rocks
- EJqd - Mesozoic - Unnamed quartz dioritic intrusive rocks
- EKMdr - Mesozoic - McCauley Island Plutonic Suite dioritic intrusive rocks
- EKaqp - Cenozoic - Kastberg Plutonic Suite high level quartz phyric, felsitic intrusive rocks
- EONvb - Cenozoic - Nechako Plateau Group - Newman Formation - Porphyritic Flows Member basaltic volcanic rocks
- ETqd - Cenozoic - Unnamed quartz dioritic intrusive rocks
- JBMC - Mesozoic - Bowser Lake Group - Muskaboo Creek Assemblage sandstone, siltstone, conglomerate
- JBRA - Mesozoic - Bowser Lake Group - Ritchie-Alger Assemblage sandstone, sitstone, rare conglomerate
- JBTo - Mesozoic - Bowser Lake Group - Todagin Assemblage laminated siltstone and fine-grained sandstone, chert pebble conglomerate
- LKBg - Mesozoic - Bulkley Plutonic Suite intrusive rocks, undivided
- LTrgb - Mesozoic - Unnamed gabbroic to dioritic intrusive rocks
- LTrum - Mesozoic - Unnamed ultramafic rocks
- MKAgb - Mesozoic - Axelgold Intrusion gabbroic to dioritic intrusive rocks
- MKqd - Mesozoic - Unnamed quartz dioritic intrusive rocks
- PA - Paleozoic - Asitka Group bimodal volcanic rocks
- PeEs - Cenozoic - Unnamed undivided sedimentary rocks
- Qvb - Cenozoic - Unnamed basaltic volcanic rocks
- lJHAm - Mesozoic - Hazelton Group - Ankwell Member basaltic volcanic rocks
- lJHCa - Mesozoic - Hazelton Group - Carruthers Member basaltic volcanic rocks
- lJHNk - Mesozoic - Hazelton Group - Nilkitkwa Formation undivided sedimentary rocks
- lJHT - Mesozoic - Hazelton Group - Telkwa Formation calc-alkaline volcanic rocks
- lJHva - Mesozoic - Hazelton Group andesitic volcanic rocks
- lKS - Mesozoic - Skeena Group undivided sedimentary rocks
- lKSH - Mesozoic - Skeena Group - Hanawald Conglomerate conglomerate, coarse clastic sedimentary rocks
- lKSKC - Mesozoic - Skeena Group - Kitsuns Creek Formation coarse clastic sedimentary rocks
- lKSKC - Mesozoic - Skeena Group - Kitsuns Creek Formation undivided sedimentary rocks
- lKSRs - Mesozoic - Skeena Group - Red Rose Formation coarse clastic sedimentary rocks
- lKSRs - Mesozoic - Skeena Group - Red Rose Formation undivided sedimentary rocks
- lKSRv - Mesozoic - Skeena Group - Rocky Ridge Formation alkaline volcanic rocks
- lmJHSHvb - Mesozoic - Hazelton Group - Saddle Hill Formation - Mafic Submarine Volcanic Member basaltic volcanic rocks
- luKSu - Mesozoic - Sustut Group undivided sedimentary rocks
- luKSusc - Mesozoic - Sustut Group coarse clastic sedimentary rocks
- mJHSms - Mesozoic - Hazelton Group - Smithers Formation undivided sedimentary rocks
- mJKB - Mesozoic - Bowser Lake Group undivided sedimentary rocks
- muJHmd - Mesozoic - Hazelton Group mudstone/laminite fine clastic sedimentary rocks
- uJBAm - Mesozoic - Bowser Lake Group - Ashman Formation mudstone, siltstone, shale fine clastic sedimentary rocks
- uJBT - Mesozoic - Bowser Lake Group - Trout Creek Formation conglomerate, coarse clastic sedimentary rocks
- uJBT - Mesozoic - Bowser Lake Group - Trout Creek Formation undivided sedimentary rocks
- uJBv - Mesozoic - Bowser Lake Group undivided volcanic rocks
- uJKBGG - Mesozoic - Bowser Lake Group - Groundhog-Gunanoot Assemblage sandstone, siltstone, carbonaceous and calcareous mudstone, minor conglomerate
- uJKBJC - Mesozoic - Bowser Lake Group - Jenkins Creek Assemblage mudstone, siltstone, fine-medium grained sandstone; minor conglomerate, coal
- uJKBS - Mesozoic - Bowser Lake Group - Skelhorne Assemblage intermixed and varicoloured siltstone, sandstone and conglomerate, minor coal
- uJKBu - Mesozoic - Bowser Lake Group - Undivided undivided sedimentary rocks
- uKESuB - Mesozoic to Cenozoic - Sustut Group - Brothers Peak Formation undivided sedimentary rocks
- uKESuT - Mesozoic to Cenozoic - Sustut Group - Tango Creek Formation undivided sedimentary rocks
- uTrTD - Mesozoic - Takla Group - Dewar Formation coarse clastic sedimentary rocks
- uTrTM - Mesozoic - Takla Group - Moosevale Formation conglomerate, coarse clastic sedimentary rocks
- uTrTSa - Mesozoic - Takla Group - Savage Mountain Formation basaltic volcanic rocks
- uTrTsf - Mesozoic - Takla Group mudstone, siltstone, shale fine clastic sedimentary rocks
- uTrTv - Mesozoic - Takla Group undivided volcanic rocks
- Claim Boundary

### Minfile

**STATUS_D**

- Anomaly
- Developed Prospect
- Past Producer
- Producer
- Prospect
- Showing

**Decoors Mining Corporation**

**Red Spring Project**

Title: **Geology of the Area Legend**

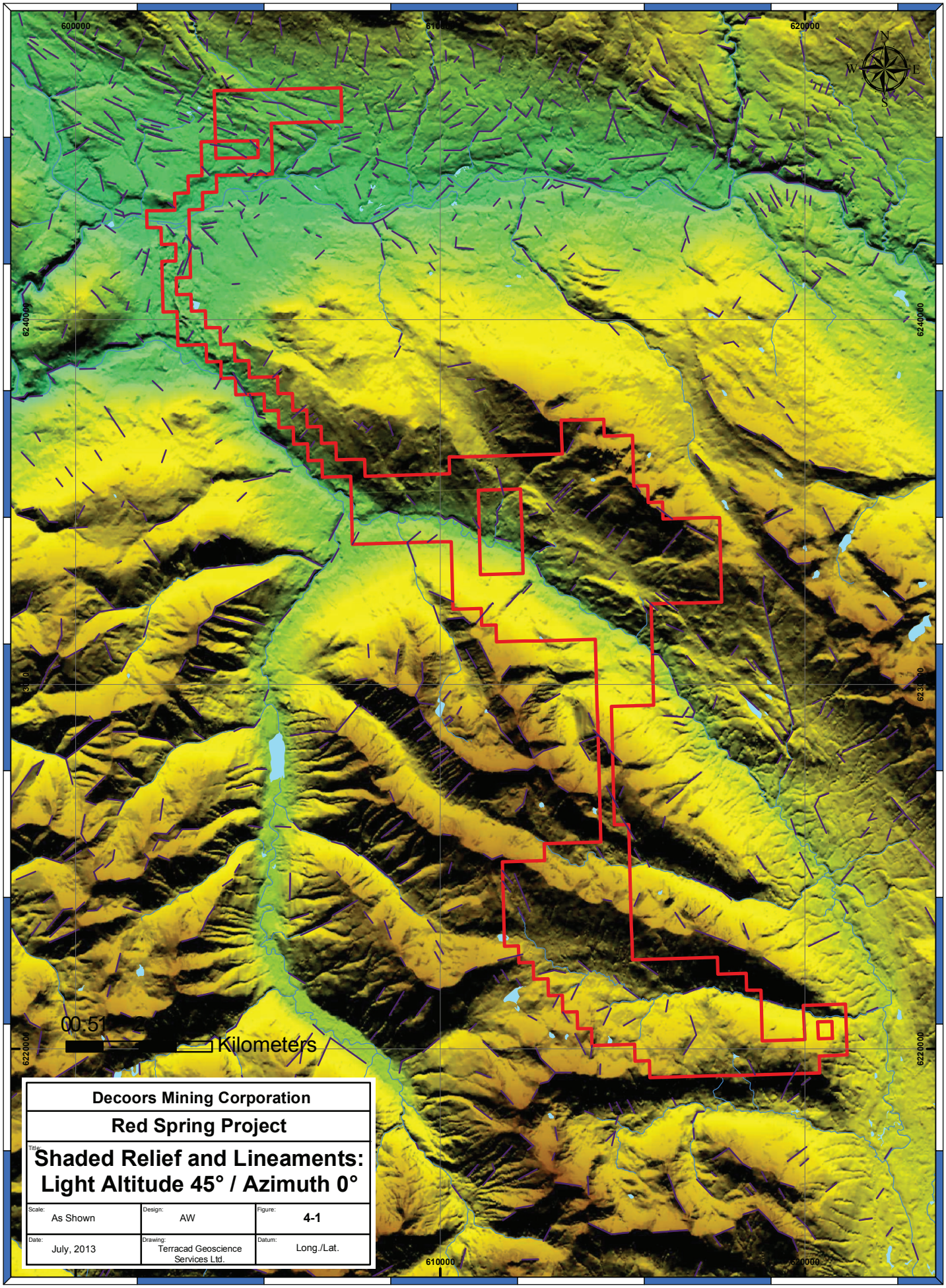
| Scale: | Design: | Figure: |
|---|---|---|
| As Shown | AW | 3-2 |
| Date: | Drawing: | Datum: |
| July, 2013 | Terracad Geoscience Services Ltd. | Long./Lat. |

As recorded in ARIS report #29622, in 2007 the area presently covered by the Red Spring mineral tenures was explored by a geological and geochemical survey (Butrenchuk, 2007). Work included 321 soil samples and 19 rock samples, and reconnaissance mapping at a scale of 1:10,000. The report includes detailed descriptions of the intercalated andesite and basalt flows and pyroclastic units. The latter are largely mafic crystal, lapilli and dacitic tuffs. Easterly trending subaerial and marine mafic volcanic rocks are described and illustrated in photographs and two stages of faulting and shearing that influence the distribution of the mineralized limestone unit are postulated. In addition to the previously explored copper mineralization, the geochemical work identified "...a strong coincident 750 metre long lead-zinc-silver-mercury and cadmium anomaly south of the main mineralized zone" (Butrenchuk, 2007, p. 4). Recommendations at that time included a detailed geochemical survey of known mineralization and of the 2007 geochemical anomaly.

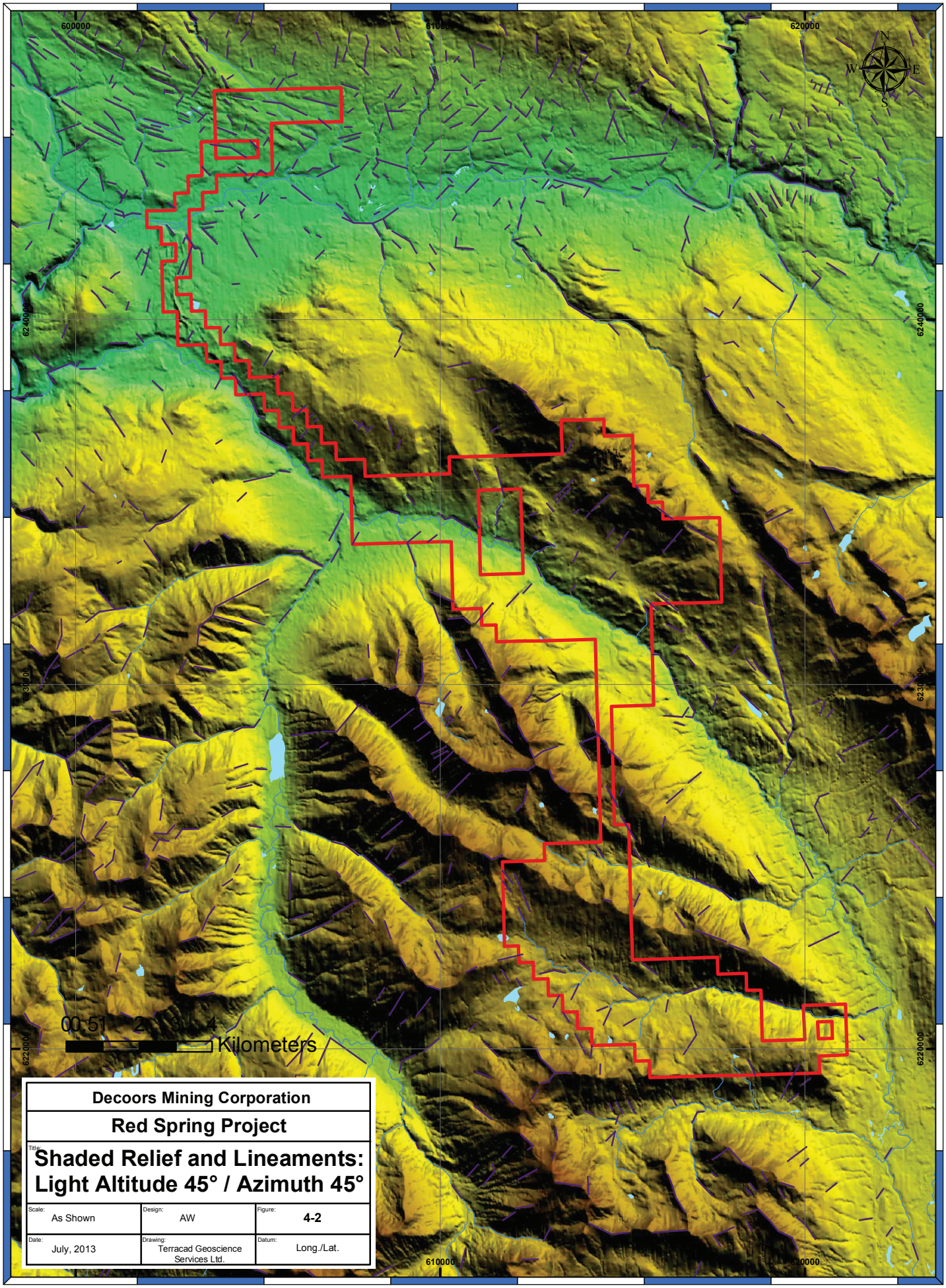
The Tic Toc mineral tenure (#897987), located 10 km south of the Red Spring tenures, covers an area of elevated metal values in geochemical soil samples and small silver and gold bearing mineral structures (Drummond, 1985).

## 5.0 PHOTOGRAMETRIC STRUCTURAL STUDY

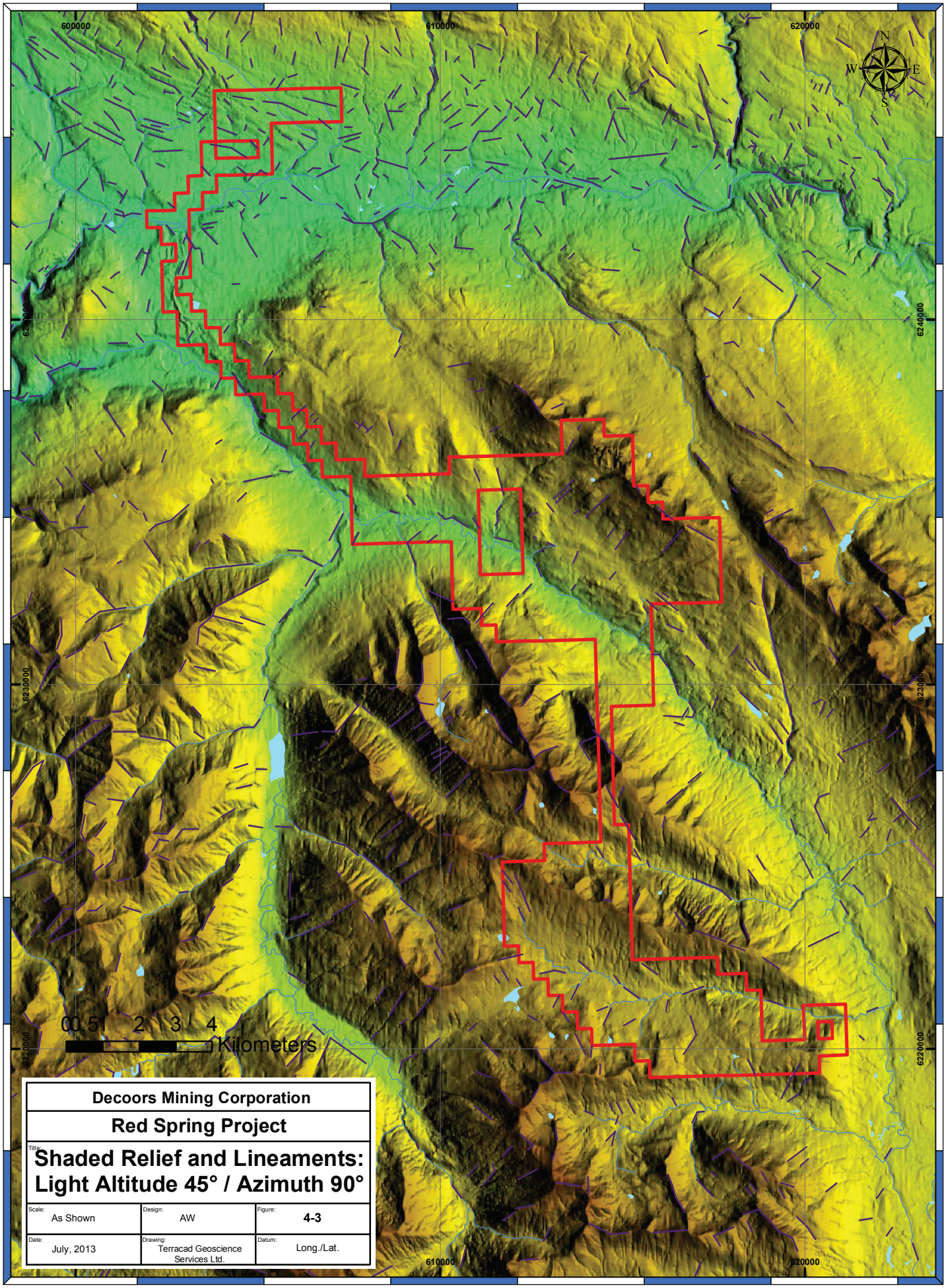
A structural study using satellite imagery and computer methods was undertaken in order to better define patterns of fracturing in the general Red Spring area and, possibly, to relate regional and property geochemical data to those patterns. The fracture analysis was completed by Farshad Shirvani, MSc., a GIS specialist, who utilized ArcGIS, AutoCAD, MapInfo and microDEM programs. The study area was outlined and sub-divided into sub-areas, each of which was then enlarged and inspected followed by detailed identification of fracture features. Where structures or possible structures were selected, they were further tested by application of an inclined moveable light source, inclined at 45°, that illuminated the structure from several aspects: 000°, 045°, 090°, 135°. Similarly, areas that seemed to lack textures and/or fractures were rotated and viewed from various directions: linear features that otherwise would have gone unnoticed were then selected. Many photographic image features that at first glance appeared to be linears did not qualify for inclusion in the study. Figures 4-1 to 4-4 illustrate the distribution of fractures relative to topography and the Red Spring mineral tenures.




| | | |
|---|---|---|
| **Decoors Mining Corporation** | | |
| **Red Spring Project** | | |
| Title: **Shaded Relief and Lineaments: Light Altitude 45° / Azimuth 0°** | | |
| Scale: As Shown | Design: AW | Figure: **4-1** |
| Date: July, 2013 | Drawing: Terracad Geoscience Services Ltd. | Datum: Long./Lat. |




| | | |
|---|---|---|
| **Decoors Mining Corporation** | | |
| **Red Spring Project** | | |
| Title: **Shaded Relief and Lineaments: Light Altitude 45° / Azimuth 45°** | | |
| Scale: As Shown | Design: AW | Figure: **4-2** |
| Date: July, 2013 | Drawing: Terracad Geoscience Services Ltd. | Datum: Long./Lat. |

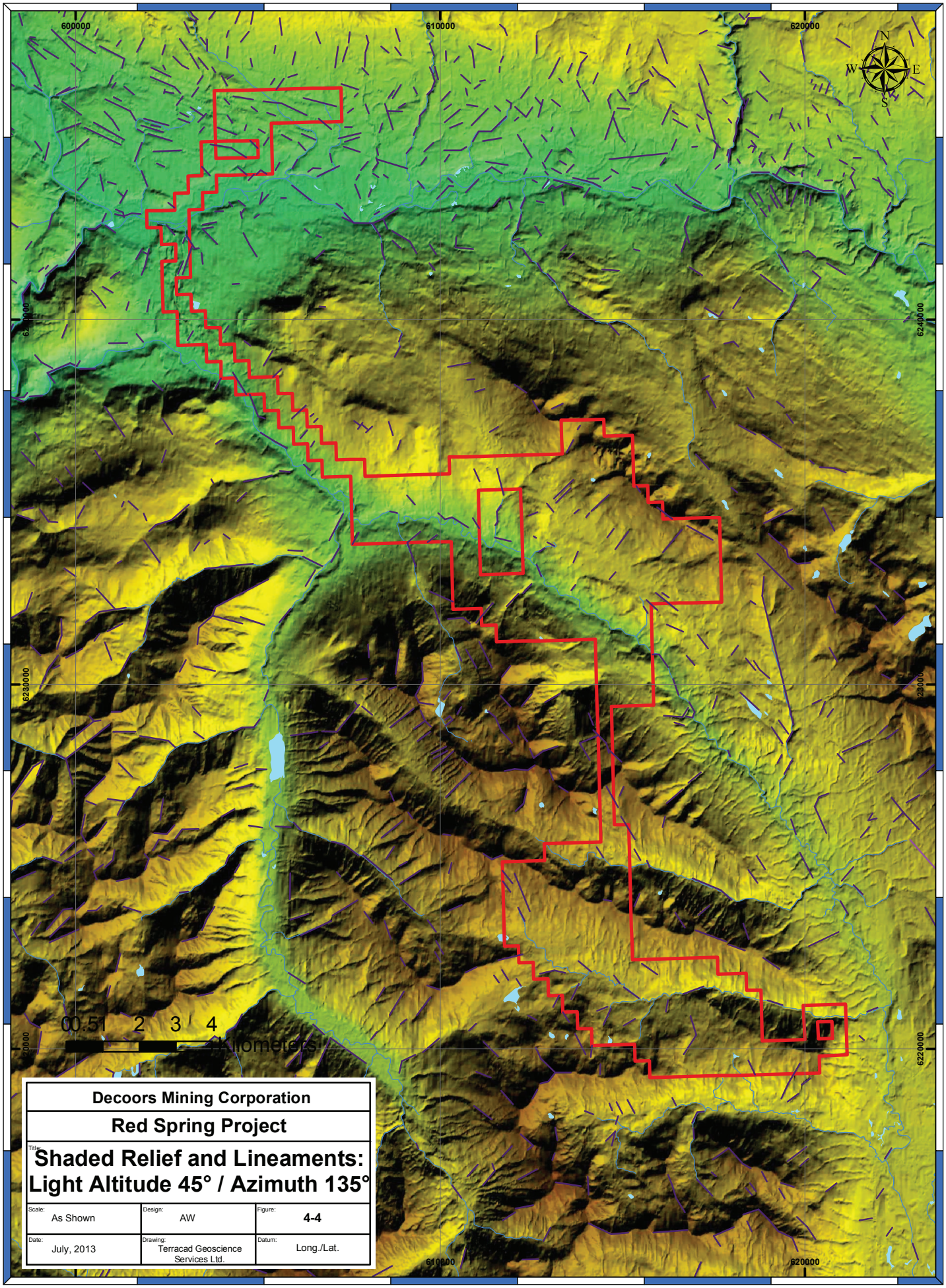



**Decoors Mining Corporation**

**Red Spring Project**

Title:
**Shaded Relief and Lineaments: Light Altitude 45° / Azimuth 90°**

| Scale: | Design: | Figure: |
|---|---|---|
| As Shown | AW | **4-3** |
| Date: | Drawing: | Datum: |
| July, 2013 | Terracad Geoscience Services Ltd. | Long./Lat. |




| | | |
|---|---|---|
| **Decoors Mining Corporation** | | |
| **Red Spring Project** | | |
| Title: **Shaded Relief and Lineaments: Light Altitude 45° / Azimuth 135°** | | |
| Scale: As Shown | Design: AW | Figure: **4-4** |
| Date: July, 2013 | Drawing: Terracad Geoscience Services Ltd. | Datum: Long./Lat. |

For classification purposes linear features were aggregated into rose diagrams (Figure 5) that illustrate various simple statistical parameters: average length, median length, maximum length, and direction. Approximately 1200 linear features were identified.

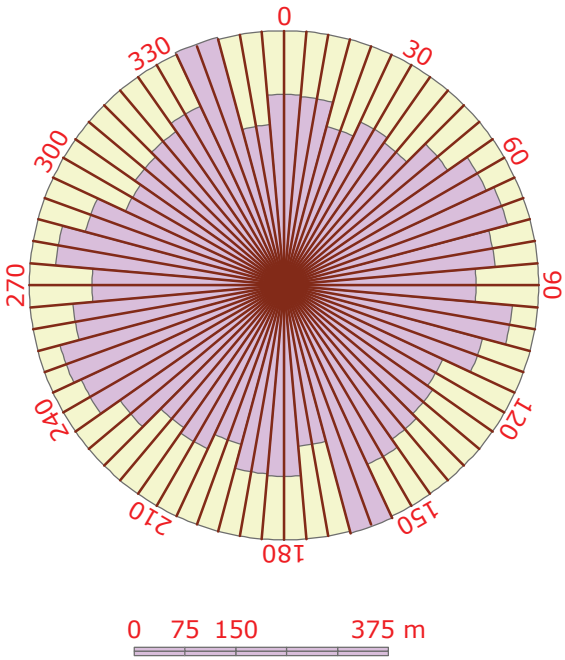
Figure 5 illustrates two very strong clusters of lineaments at 130° to 150° and 020° to 050°. Lengths of such features appear to be relatively similar, perhaps due in part to homogeneity of the bedrock formations. Maximum lineament length is extremely biased by one very prominent feature oriented at 170° that is located a short distance east of the property boundary. Secondary strong directions are 070° and 100°; a 150° alignment is slightly weaker with respect to length. The latter may simply reflect the strong Cordilleran northwesterly regional fabric.

The influence of glaciation in modifying the terrain has not been investigated.

## 6.0 INTERPRETATION

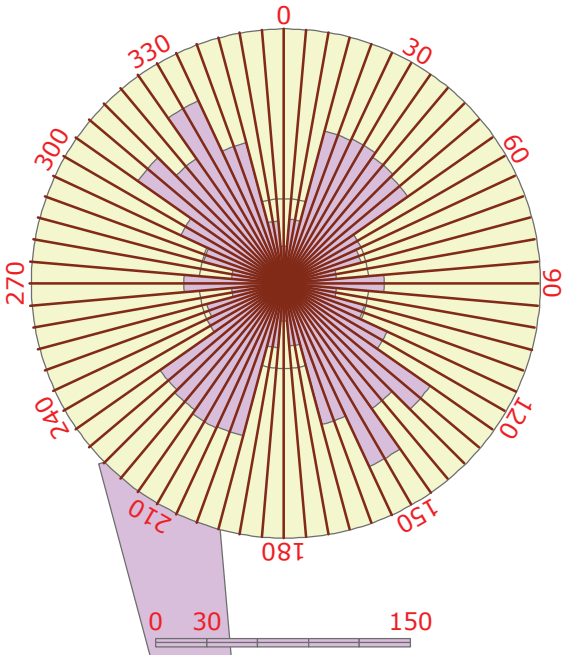
Work in 2007 for Appleton Exploration Inc. determined that much of the Red Spring area is underlain by andesite and basalt flows and pyroclastic strata, the latter comprising various tuffs that, where sheared, may be intensely silicified (Butrenchuk, 2007, p. 12). Other historic exploration data, including diamond drill data, indicate that the main area of Red Spring copper occurrences is hosted by bioclastic limestone and tuffaceous volcanic rocks. It is not apparent if the mineralization can be defined as of “Red Bed”-type sedimentary origin or is replacement.

The photogrammetric structural study included a large area and failed to show compelling evidence of dominant or lesser structural features that may be used to guide further exploration of the Red Spring tenures.



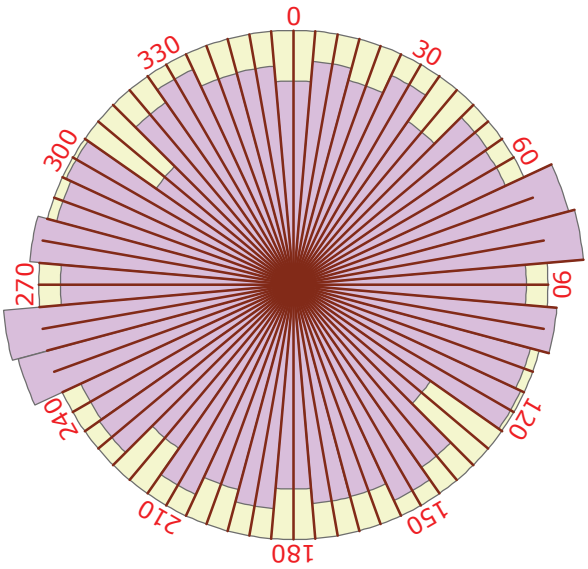

0 75 150 375 m

Average Lineament Length



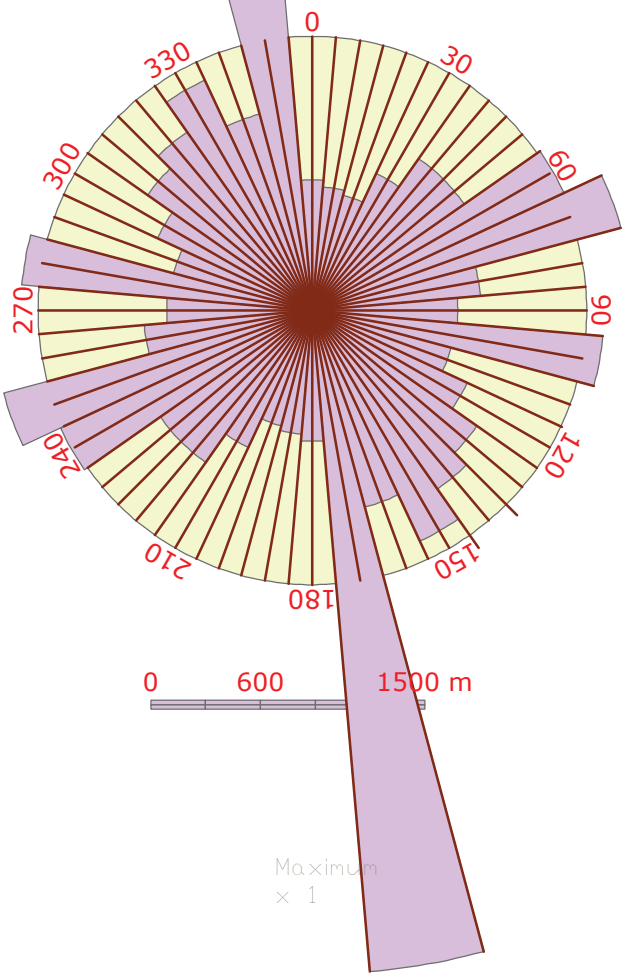

0 30 150

Lineament Count - Direction




0 75 150 375 m

Median Lineament Length




0 600 1500 m

Maximum Lineament Length

| Decoors Mining Corporation | | |
|---|---|---|
| **Red Spring Project** | | |
| Title: **Lineament Statistics** | | |
| Scale: As Shown | Design: AW | Figure: **5** |
| Date: July, 2013 | Drawing: Terracad Geoscience Services Ltd. | Datum: Long./Lat. |

## 7.0 RECOMMENDATIONS

Exploration of the various Red Spring mineral tenures should recognize that the area was the subject of technical surveys and diamond drilling in the period 1972-1976: Canadian Superior drilled nine holes in 1975 and City Services Mineral Corp. in 1976 drilled three holes. A non-NI 43-101 compliant resource of 4,500,000 tonnes grading 0.5% copper and 11.9 g/tonne silver was indicated. Additional field work by Appleton Exploration Inc. in 2007 added to the data base but did not result in further diamond drilling.

It is recommended that the present owners of the Red Spring mineral tenures continue data compilation and interpretation, and initiate field work. The field work should include prospecting and geological reconnaissance with particular attention to the geochemically anomalous area, first recognized by Appleton, that lies to the south of the partially delineated copper mineralization. Decisions concerning further induced polarization surveys should be delayed pending that field work and an overall review of the property. Drilling may follow. The Tic Toc tenure (#897987) should be re-sampled to re-locate and verify elevated metal values reported by Drummond (1985).

## 8.0 REFERENCES

The following sources of information were consulted in preparation of the accompanying report:


ARIS – databank of technical reports filed with the Ministry of Energy and Mines, accessed from the Ministry website.

Baker, J., (1976), Diamond Drilling Report on the Red Property, ARIS #5946

Bostock, H. S., 1947, Physiography of the Canadian Cordillera, Geol. Surv. Canada, Memoir 247.

Butrenchuk, Stephen B., 2007, Geological and Geochemical Report on the Sping Property, report for Appleton Exploration Inc., ARIS # 29622

DePaoli, G. M., (1975), Geophysical Report on the Red Group, ARIS #5552

Drummond, A. D., (1985), Geological and Geochemical Report on the Gold Mineral Claims, Omineca Mining Division, British Columbia, ARIS #14073

Eisbacher, G. H., 1973, Sustut Basin, North-Central British Columbia, Geol. Surv. Canada, Map 14-1973

Ryznar, G., (1986), Petrological Study Sping Claim, ARIS #15861

(1990), Metallurgical Testwork Sping Claim, ARIS #20364

(1994), Geological Report, Sping Property, Omineca Mining Division, ARIS #23227

## 9.0 STATEMENTS OF QUALIFICATIONS

Farshad Shirvani, MSc.

Principal of Terracad Geoscience Services Ltd., holds BSc. (1983) and MSc. (1986) degrees from Shiraz University (Iran). He worked eight years in Iran in mineral exploration, engineering geology and hydrogeology and as Project Manager of the Malayer Reservoir Dam and City pipeline to Hamadan. Resident of Canada since 1996. Citizen of Canada since 2002. Has worked in Canada as a geologist, web designer, AutoCAD specialist, 3D modeler and GIS specialist. Principal owner of Terracad since 1998.

Erik Ostensoe, P. Geo.

Consulting geologist. BSc. (Hons.) University of British Columbia. More than 40 years experience in mineral exploration in British Columbia and elsewhere.

## 10.0 STATEMENT OF EXPENDITURES

The following expenditures were incurred in preparation of materials included in the accompanying report (prepared from Terracad Geoscience records):

Research and compilation of background data concerning Red Spring and nearby areas, interpretation, preparation of text – E. Ostensoe, P. Geo., Sept. 10, 2012, March 7, 8, 13, 2013 - 4 days @ $600/day $2400.

Structural Analysis and Interpretation – F. Shirvani, MSc., GIS specialist, Sept. 4 – 6, 2012, March 7, 8, 2013 - 5 days @ $700/day $3500.

Charge for computers, printers, software programs, allow $ 500.

Total – $6400.