ALCOR RESOURCES LTD. 2007 VLF-EM Survey SED Mineral Claim

> BC Geological Survey Assessment Report 29979

## ALCOR RESOURCES LTD.

(Owner & Operator)

#### GEOPHYSICAL ASSESSMENT REPORT

(Event Number 4193562)

on the

**SED MINERAL CLAIM** 

(Tenure 392163)

**Kamloops Mining Division** 

NTS 092I.047

Vancouver, B.C.

Laurence Sookochoff, P.Eng

#### ALCOR RESOURCES LTD. 2007 VLF-EM Survey SED Mineral Claim

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#### **SUMMARY**

Alcor Resources Ltd. owns the 20 unit SED mineral claim located 25 kilometres east of the productive Highland Valley copper-moly porphyry deposits where mineralization was first discovered in 1899. The SED claim is underlain by Nicola volcanic rocks which host small granitic plugs and sills within the area. Exploration carried out in the immediate area of the SED claim since 1972 resulted in the delineation of two correlative anomalous zones of mineralization. The northeast trending "west central zone", located adjacent to the SED claim, is open to the southeast, and trending into the SED claim, based on the anomalous IP results. Mineralization in the zones is reported as up to 700 ppb gold in the soil and up to 7,500 ppb gold in grab samples. Percussion drill results from the testing of the two zones by Texada Mines in 1972 are not available.

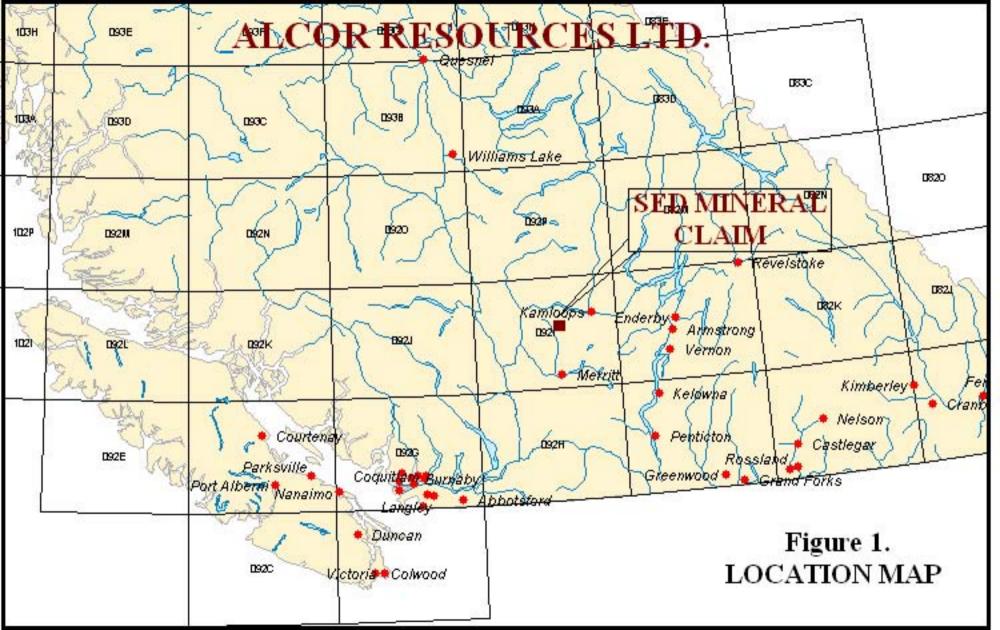
Airborne magnetic maps indicate the SED claim to cover a broad magnetic low flanked by sharply increasing magnetic gradients on three sides. The claim is at the intersection of two major structures as indicated by prominent topographical features.

The localized VLF-EM survey completed on the SED mineral claim in September, 2007 resulted in the delineation of two areas of structural intersections that may localize potentially economic mineralization.

#### **INTRODUCTION**

During September 2007 an exploration program comprised of localized VLF-EM survey was completed on the SED mineral claim property of Alcor Resources Ltd. The exploration program was a continuation of the geophysical programs completed in 2005 & 2006 by Alcor Resources Ltd. and reported on by the writer's assessment report dated May 18, 2006 and June 13, 2007.

Information for this report was obtained from sources as cited under Selected References and from exploration work as reported on herein and from work the writer has performed on the property.



#### PROPERTY DESCRIPTION & LOCATION

The property consists of one claim comprised of 20 units. Particulars are as follows:

<u>Claim Name</u> <u>Tenure No.-</u> <u>Expiry Date</u>

SED (20 units) 392163 February 17, 2009

The SED claim is registered in the name of the writer and held in trust by the writer for Alcor Resources Ltd.

The property is located between Desmond Lake to the south and the Logan Lake-Kamloops highway to the north, within NTS 090I.047 in the Kamloops Mining Division. The major coppermoly porphyry deposits of the Highland Valley are 20 to 25 km west of the property and the formerly productive Afton deposit is 30 km to the northeast.

# ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE & PHYSIOGRAPHY

Access to the property is from the No.5 highway to a junction with the Logan Lake highway near Walloper Lake. The Logan Lake highway is taken for approximately seven km westward to the Summit Lake road. The northern boundary of the property is within two km south along the Summit Lake road and passes through the eastern portion of the claim.

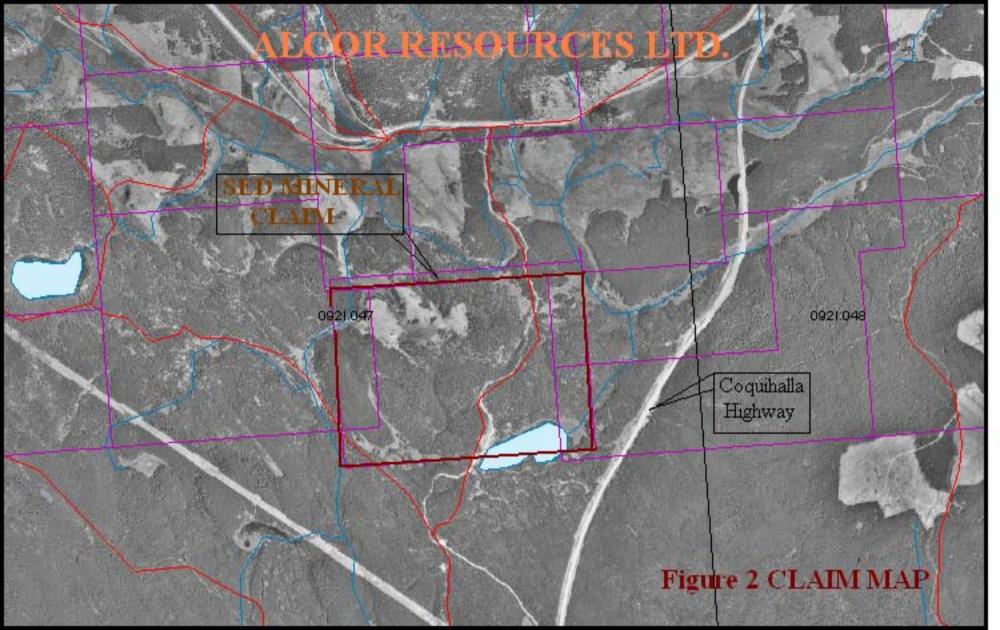
The property occupies an area characterized by gently sloping hills with elevations ranging from 1,215 to 1,350 metres above sea level. Open meadows alternate with a dense forest of pine, fir and spruce, with very little or no underbrush. The area has a continental climate characterized by cold winters and hot summers. The property is within the B.C. dry belt.

Logan Lake is 20 km west of the property and provides the infrastructure for the Highland Valley mine. Kamloops an historic mining centre 30 km northeast of the property, provided the infrastructure for the Afton Mine. Any of these centres could be a source of experienced and reliable exploration and mining personnel and a supply for most mining related equipment. Kamloops is serviced daily by commercial airline and is a hub for road and rail transportation. Vancouver, a port city on the southwest corner of, and the largest city in the Province of British Columbia, is four hours distant by road and less than one hour by air from Kamloops.

Sufficient water for all phases of the exploration program could be available from many steams and ponds within the confines of the property.

#### **HISTORY**

Historical exploration adjacent to, or on, the ground covered by the SED mineral claim is as follows:



#### **HISTORY** (cont'd)

1972 – Texada Mines Ltd. completed a magnetometer survey, a soil geochemical survey, and 1,400 feet of percussion drilling (AR 4,041) on the Plug claims which subsequently lapsed and now is ground covered in part by the northeast corner of the SED mineral claim. The surveys covered a small portion of the property adjacent to the SED mineral claim. The results of the surveys outlined four geochemical anomalies and one magnetometer anomaly.

The prime geochemical anomalies were isolated one station anomalies with values of just over 100 ppm copper. They were designated as the "B" anomaly, located within 50 metres of the northern boundary of the SED mineral claim, and the "A" anomaly located next to Meadow Creek and within 1,000 metres east of the eastern boundary of the SED mineral claim. Muti-station magnetic highs are correlative with the copper anomalous zones. There is no reported information on the results of the percussion drilling.

1972 – Texada Mines Ltd. completed an Induced Potential survey which resulted in the determination of a chargeability anomaly, SP anomaly and a resistivity low correlative with the "B" soil anomaly and sub-correlative with the "A" anomaly.

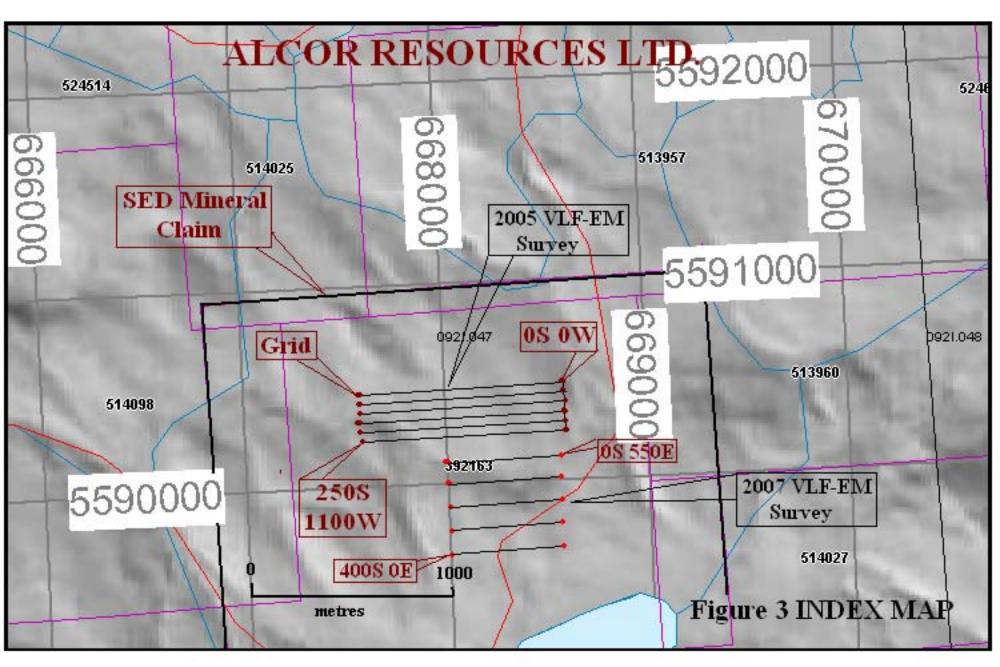
Percussion drill holes are indicated on the Texada maps; however, there is no information as to their results. The drill holes appear to have tested the correlative "B" and "A" anomalous zones. One drill hole designated as P-72-6 is located on the "B" anomaly at the boundary of the SED mineral claim. The "B" correlative anomaly is indicated to extend for 250 metres into the SED mineral claim.

1982 – Visa Resources Ltd. completed a reconnaissance program of geological mapping, geochemical soil sampling and initial ground magnetic survey over an area that included all the ground of the SED mineral claim. On the accompanying maps to his report, Cukor outlines some trenches, which are indicated to be located on the Texada correlative anomaly "B". These trenches are also indicated to be located in part on the SED mineral claim. Cukor (1982) concludes that the broad, airborne magnetic low could be easily interpreted as being caused by a small granitic intrusion underlying the Nicola Volcanic rather close to the surface and he states that additional work is warranted.

1983 – Visa Resources Ltd. completed a localized magnetometer survey adjacent to the south of Desmond Lake (AR 11,296). Cukor (1983) reports that the results of the survey were inconclusive.

1985-1988 – Western Resources Technologies Inc. completed geological, geochemical and geophysical surveys on the WRT group of mineral claims located adjacent to the north of the SED mineral claim and on ground now covered by the SED mineral claim. Work was carried out over two localized areas designated as the Rhyolite grid, and the Meadow Creek grid which the SED mineral claim covers a southern portion thereof.

The Meadow Creek grid also includes the West Central and the South Central Plug showings which are the renamed Texada "B" correlative anomaly (West Central Plug showing) and the Texada "A" anomaly (South Central Plug showing).



#### HISTORY (cont'd)

1992 – G.F. Crooker completed a geophysical survey on the JB 1 to 12 Claims, which were staked to cover the former Texada correlative anomalous zones "A" and "B" and which were also recently designated as the South Central Plug showing and the South Central Plug showing within the Meadow Creek zone. The surveys were localized on the two zones of the Meadow Creek grid. Crooker reports (AR 22,346) that the results of the magnetometer survey indicated a potential expression of a buried intrusive body. The VLF-EM survey results were inconclusive.

2005 – Localized geophysical surveys were completed on the SED claim by Alcor Resources Ltd.

2006 – Localized geophysical surveys were completed on the SED claim by Alcor Resources Ltd.

#### **GEOLOGY: SED Mineral Claim**

The SED claim is entirely underlain by two subdivisions of the Nicola volcanic rocks, the boundary bisecting the property from the southeast to the northwest. In the northeast is unit UTN5 which is comprised of an augite porphyry, augite-plagioclase porphyry volcaniclastic breccia and tuff with interbedded argillite. In the southwest is unit UTN4 which is comprised of a pillowed basic flow.

The SED claim is located at the intersection of two topographically indicated structures; the structures; the northeasterly trending structure of the Meadow Creek valley and the northwesterly trending Melba Creek valley structures.

In 1982 Visa Resources Ltd. completed a reconnaissance exploration program of geological mapping, geochemical soil sampling and initial ground magnetic survey over an area that included all the ground of the SED mineral claim. On the accompanying maps to his report, Cukor outlines some trenches, which are indicated to be located on the Texada correlative anomaly "B". These trenches are also indicated to be located in part on the SED mineral claim. Cukor (1982) concludes that the broad, airborne magnetic low could be easily interpreted as being caused by a small granitic intrusion underlying the Nicola Volcanic rather close to the surface. He concludes that additional work on the ground is warranted.

The SED claim covers a broad magnetic low with sharply increasing magnetometer values on three of the claim boundaries.

#### MINERALIZATION: SED Mineral Claim

There is no known mineralization on the SED mineral claim, however, the mineral zones of the west central Plug zone, as indicated by the trenches on Cukor's (1982) map accompanying his report, may extend into the SED claim. Crooker (1992) reports that the mineralization of the west central Plug zone is of weak to moderate to carbonate-quartz-mariposite alteration over several hundred metres, with a grab sample yielding gold values of 7,500 ppb (0.282 oz/t) and 67.5 ppm silver respectively. Several soil samples taken from the same trench as the anomalous rock sample gave 70 and 150 ppb gold. Two grab samples of carbonate-quartz-mariposite schist with galena and sphalerite from the south central zone yielded 605 and 482 ppb gold and 165.1 and 258.4 ppm silver.

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#### ALCOR RESOURCES LTD. Sed Mineral Claim

VLF-EM RESULTS - RAW DATA

September 2007 Survey



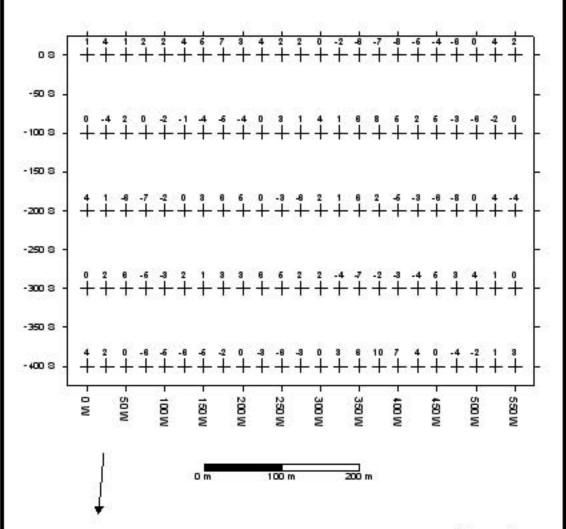


Figure 4

#### 2007 VLF-EM SURVEY

On September 1, and September 2, 2007, Alcor Resources Ltd. caused a completion of an exploration program of a localized VLF-EM survey on the SED mineral claim. The purpose of the survey was to delineate any anomalous responses that may occur originating on the Property or from the copper/gold showing on the adjacent property to the north. Particulars are as follows:

#### (a) Instrumentation

The VLF-EM survey was carried out with a VLF-EM receiver, Model 27, manufactured by Sabre Electronics Ltd. of Burnaby, British Columbia. This instrument is designed to measure the electromagnetic component of the very low frequency field (VLF-EM), which for this survey is transmitted at 24.8 kHz from Seattle (Jim Creek), Washington.

#### b) Theory

In all electromagnetic prospecting, a transmitter induces an alternating magnetic field (called the primary field) by having a strong alternating current move through a coil of wire. This primary field travels through any medium and if a conductive mass such as a sulphide body is present, the primary field induces a secondary alternating current in the conductor, and this current in turn induces a secondary magnetic field. The receiver picks up the primary field and, if a conductor is present, the secondary field distorts the primary field. The fields are expressed as a vector, which has two components, the "in-phase" (or real) component and the "out-of-phase" (or quadrature) component. For the VLF-EM receiver, the tilt angle in degrees of the distorted electromagnetic field with a conductor is measured from that which it would have been if the field was not distorted with a conductor.

Since the fields lose strength proportionally with the distance they travel, a distant conductor has less of an effect than a close conductor. Also, the lower the frequency of the primary field, the further the field can travel and therefore the greater the depth penetration.

The VLF-EM uses a frequency range from 13 to 30 kHz, whereas most EM instruments use frequencies ranging from a few hundred to a few thousand Hz. Because of its relatively high frequency, the VLF-EM can pick up bodies of a much lower conductivity and therefore is more susceptible to clay beds, electrolyte-filled fault or shear zones and porous horizons, graphite, carbonaceous sediments, lithological contacts as well as sulphide bodies of too Iowa conductivity for other EM methods to pick up. Consequently, the VLF-EM has additional uses in mapping structure and in picking up sulphide bodies of too Iowa conductivity for conventional EM methods and too small for induced polarization. (In places it can be used instead of IP). However, its susceptibility to lower conductive bodies results in a number of anomalies, many of them difficult to explain and, thus, VLF-EM preferably should not be interpreted without a good geological knowledge of the property and/or other geophysical and geochemical surveys.

Sookochoff Consultants Inc.

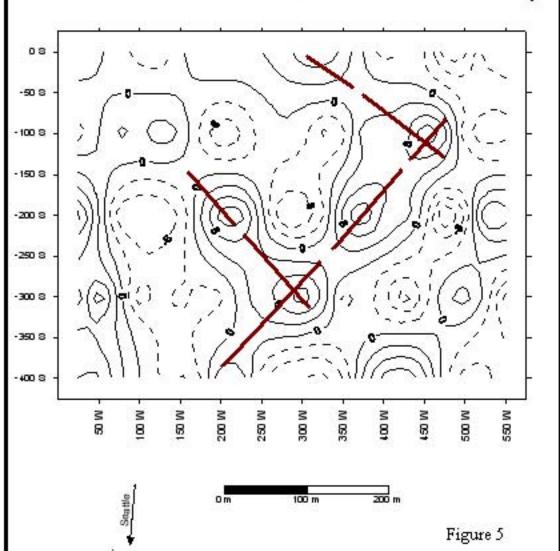
#### ALCOR RESOURCES LTD. Sed Mineral Claim

VLF-EM FRASER FILT ERED - CONTOURED

September 2007 Survey



VLF-EM Anomaly



#### 2007 VLF-EM Survey (cont'd)

#### (c) Survey Procedure

The VLF-EM readings were taken at 25 metre intervals along five 550 metre long east-west grid lines spaced at 100 metre intervals as shown on Figure 3 (Index Map). The survey totaled 2.75 line kilometres.

#### (d) Compilation of Data

The data was transferred to an Exel spreadsheet, thence to a Surfer 32 program which was utilized to plot maps from the VLF-EM data. Two maps were created; a VLF-EM Raw Data (Figure 4) and a contoured fraser filtered data (Figure 5).

#### e) Results

The contoured fraser filtered data indicates one northeasterly 350 metre anomaly (Anomaly A) that is closed to the northeast and open to the southwest. Two parallel northwesterly trending anomalies, (Anomalies B and C) both closed to the southeast and one open to the northwest, intersect anomaly A near the centre of the Property. These Anomalies are cross referenced to the VLF-EM fraser filtered-contoured Map (Figure 5).

#### f) Interpretation

The northwesterly trending, limited anomalies may be attributed to en-echelon structures to the dominant northwesterly regional structural trend. The trend is also indicated by the "structure" boundary bisecting the two subdivisions of the Nicola volcanic rocks indicated on the SED claim. The northeasterly trending indicated structure A appears as the major structure indicated by the results of the VLF-EM survey and may be attributed to associated, however, subservient structures.

#### **Conclusions**

As only one structural trend is indicated as a dominant or major structure, with the second directional trend as a minor structure, the areas of structural intersection may not be considered as prime exploration targets, however, should be field examined for mineralization and/or mineral indicators.

Respectfully submitted

Sookochoff Consultants Inc.



Laurence Sookochoff, P.Eng.

Vancouver, BC

### STATEMENT OF COSTS

The fieldwork on the SED Claim was carried out between September 1-2, 2007 to the value as follows:

Laurence Sookochoff: 2 days @ \$800	\$ 1,600.00
VLF Rental: 2 days @ \$ 50.00	100.00
Room & board: 2 days @ \$150.00	300.00
Results, maps, compilation & drafting	450.00
Report, xerox, & printing	<u>750.00</u>

\$ 3,100.00

#### SELECTED REFERENCES

- **Cochrane, D.R**. et al Geophysical Report on an Induced Polarization Survey of the Plug Claims on behalf of Texada Mines Ltd. October 24, 1972. AR 4,041.
- **Crooker, G.F.** Geological, Geochemical and Geophysical Report on the WRT 1 to 6 and 9 to 15 Claims for Western Resource Technologies Inc. November, 1988. AR 18,048.
- **Crooker, G.F.** Geological, Geochemical and Geophysical Report on the WRT 1 to 15 Claims for Western Resource Technologies Inc. March, 1998. AR 17,337
- **Cukor, V.** Report on Geochemical, Geophysical and Geological Reconnaissance for Visa Resources Ltd. May, 1982. AR 10,551.
  - Report on Ground Magnetic Survey for Visa Resources Ltd. June, 1983. AR 11,296.
- **DeLeen, J.** et al Magnetometer and Geochemical Report on the Plug Claims on behalf of Texada Mines Ltd. December 8, 1972. AR 4,041.
- Hollister, V.F. Geology of the Porphyry Copper Deposits of the Western Hemisphere. Society of Mining Engineers of The American Institute of Mining, Metallurgical, and Petroleum Engineers, Inc. New York, New York. 1978.
- **La Rue, J.P.** Assessment Report on Geophysical Survey on the DES Claims for C. Boitard. November 15, 1987. AR 17,070.
- **Sookochoff, L.** Geophysical Assessment Report on the SED Mineral Claim for Alcor Resources Ltd. May 18, 2006
- **Sookochoff, L.** Geophysical Assessment Report on the SED Mineral Claim for Alcor Resources Ltd. June 13, 2007.
- **The Discoverers** Monica R. Hanula–Editor, Pitt Publishing Company Limited, Toronto, Ontario, Canada. 1982.
- Geology, Exploration and Mining in British Columbia 1972 pgs 165, 183, 209-220.

#### **CERTIFICATE**

I, Laurence Sookochoff, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geologist and principal of Sookochoff Consultants Inc. and state that:

- 1) I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.
- 2) I have been practicing my profession for the past forty-one years.
- 3) I am registered and in good standing with the Association of Professional Engineers and Geoscientists of British Columbia.
- 4) The information for this report is based on information as itemized in the Selected Reference section of this report and from the geophysical data obtained from the field work completed by the writer.

Laurence Sookochoff, P. Eng.



Vancouver, BC

May 15, 2008

## Appendix I

## VLF-EM RESULTS RAW DATA

#### ALCOR RESOURCES LTD.

2007 VLF-EM Survey Data									
EAST	SOUTH	RAW	FF	EAST	SOUTH	RAW	FF		
	0 0	1		0	-100	0			
2	5 0	4	2	25	-100	-4	-6		
5	0 0	1	1	50	-100	2	0		
7	5 0	2	-3	75	-100	0	5		
10	0 0	2	-5	100	-100	-2	3		
12			-7	125	-100	-1	6		
15	0 0	5	-1	150	-100	-4	4		
17	5 0	7	4	175	-100	-5	-5		
20	0 0	3	4	200	-100	-4	-12		
22	5 0	4	3	225	-100	0	-8		
25	0 0	2	4	250	-100	3	-2		
27	5 0	2	6	275	-100	1	0		
30	0 0	0	10	300	-100	4	-2		
32	5 0	-2	11	325	-100	1	-9		
35	0 0	-6	7	350	-100	6	-6		
37	5 0	-7	0	375	-100	8	7		
40	0 0	-8	-6	400	-100	5	5		
42	5 0	-5	-3	425	-100	2	5		
45	0 0	-4	-3	450	-100	5	16		
47	5 0	-6	-14	475	-100	-3	10		
50	0 0	0	-14	500	-100	-6	-7		
52	5 0	4		525	-100	-2			
55	0 0	2		550	-100	0			
	0 -200	4		0	-300	0			
2	5 -200	1	18	25	-300	2	1		
5	0 -200	-6	4	50	-300	6	16		
7	5 -200	-7	-11	75	-300	-5	2		
10	0 -200	-2	-12	100	-300	-3	-11		
12	5 -200	0	-11	125	-300	2	-5		
15	0 -200	3	-8	150	-300	1	-3		
17	5 -200	6	4	175	-300	3	-5		
20	0 -200	5	14	200	-300	3	-5		
22	5 -200	0	14	225	-300	6	2		
25		-3	1	250	-300	5	7		
27	5 -200	-6	-12	275	-300	2	9		
30		2	-11	300	-300	2	15		
32		1	-5	325	-300	-4	7		
35		6	10	350	-300	-7	-6		
37		2	16	375	-300	-2	-2		
40		-5	6	400	-300	-3	-6		
42		-3	6	425	-300	-4	-15		
45		-6	-1	450	-300	5	-6		
47		-8	-18	475	-300	3	3		
50		0	-8	500	-300	4	6		
52		4		525	-300	1			
55		-4		550	-300	0			
	0 -400	4	40						
2			12						
5		0	13						
7		-6	5						
10			0						
12			-4						
15			-9						
17		-2	-4						
20		0	7						
22		-3	6						
25		-6	-6						
27 30		-3 0	-12 -12						
30		3	-12						
32 35		6	-13						
37 40		10 7	5 13						
40 42		4	15						
42 45		0	10						
45		-4	-3						
50		- <del>4</del> -2	-3 -10						
52		- <u>-</u> 2	-10						
52		,							