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## THE CUSP PROPERTY

## Slocan Mining Division

 82K-4EKusp 1, Nat 1-8, Naku 1 Claims
I GEOLOGICAL BRANCH ASSESSMENTREPORT

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for
ADASTRAL RESOURCES LTD. $\square$

## SUB-RECORDER RECEIVED

AUG 261988
MR. \# $\qquad$ \$
by
J. R. Woodcock VANCOUVER, BC. August 19, 1988

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## THE KUSP PROPERTY

## SUMMARY

The Kusp property lies in the Slocan Mining Division about 17 kilometers southeast of Nakusp. Although the claim block extends from the highway on the north to logging roads on the south (at the top of the ridge), access to the Discovery area at present is by helicopter.

In 1977 J. R. Woodcock discovered the Kusp mineralized zone and in 1978 he mapped the zone, did geophysical and geochemical work, and a limited amount of drilling (308 meters). In 1987 Adastral Resources acquired the property and extended the geochemical and VLF-EM survey.

The mountain block which hosts the mineralized zone is composed largely of pyroclastic rocks, mainly tuffs, which have in the past been assigned to the Slocan Group with age Jurassic to Triassic. The overall structure is an overturned anticline with both limbs dipping to the southwest. Along the northeast limb is a horizon of white weathering volcanic tuffs which is highly pyritic in places. Stratigraphically underlying, but structurally overiying this white pyrite tuff is a bed at least 30 meters thick which containa disseminated sulphides and small bands of massive sulphides including pyrite, galena, and sphalerite. This complete zone of over 30 meters is highly anomalous in $\mathrm{Cu}, \mathrm{Pb}, \mathrm{Zn}$, and Ag .

The 1978 work showed highly anomalous geochemical values, both in the soil and especially in the silts in the Discovery area. Such values have been enhanced by the disseminated nature of the mineralization and by the subsequent rock siide which has permitted weathering agents to accelerate the release of the metals.

The VLF-EM work of 1988 shows an anomaly that extends for more than 1200 meters and includes the rock alide and minerailzed zone studied in 1978. Lying along this VLF-EM anomaly are some zones of white bleached rock ("kill zones") and also intermittent anomalous values in $\mathrm{Cu}, \mathrm{Pb}, \mathrm{Zn}, \mathrm{Ag}$, and Mn .

The writer has recommended aome field investigation of these anomalies before planning further exploration work.

## INTRODUCTION

In the summer of 1977, J. R. Woodcock observed a large gossan zone and associated bleached areas during an aerial reconnaissance. Silt samples taken along the foot of the step mountain slope from the creeks draining this gossan area yielded some highly anomalous values in copper, lead, and zinc. The Kusp claims were staked to cover the anomalous drainages and their source area.

In 1978, Dome Exploration (Canada) Ltd. and Ranworth Explorations Ltd. optioned the property. The 1978 work inciuded a detailed examination of the main zone of interest including geological, geophysical, and geochemical work. This was followed by a limited drill program in which the main anomalous target was tested with 1012 feet ( 308 meters) of diamond drilling.

In 1979 work consisted primarily of geological mapping along and adjacent to the Kusp claim block. The geological mapping permitted a classification of rock types and units and the mapping of the main geological atructures.

In 1987 the property was sold to Adastral Resources Ltd. and in July of 1988 a two-man crew completed a more extensive program of soil geochemistry and VLF-EM work. This nev grid covered and extended beyond the amall original grid of 1978 . This present report discusses the results of the latest geochemical-geophysical surveys.

## LOCATION AND ACCESS

The Kusp property is at latitude $50^{\circ} 08.5^{\circ} \mathrm{N}$, longitude $117^{\circ}$ 36.5' W, on Map Sheet 82K-4E. Summit Lake, which lies along the valley of Bonanza Creek, is just north of the property. Nakusp is 17 kilometers northwest of Summit Lake and a helicopter is based at Nakusp.

The claims extend from the bottom of the valley of Bonanza Creek southmard up the steep slopes to the top of some very rugged mountains (Rugged Peak, Big Sister Mountain). Over a horizontal distance of 2.8 kilometers, elevations rise from 830 meters at Bonanza Creek to 2670 meters at the highest peaks. Slopes on the south side of the rugged mountains are less steep and are drained by McDonald Creek.



The very steep north-facing slopes have been subjected to a severe forest fire and almost complete burn. Subsequently a dense growth of brush and young evergreen trees has returned. making access up the steep slopes very difficult. The tops of the peaks, however, are above timber inne.

Outcrops are abundant at the tops of the rugged peaks and in the heads of all of the cirquea which drain northward through various small streams into Bonanza Creek. On the forest covered slopes, however, outcrops are mainly restricted to the creek beds and also in places on the steep interfluvial areas.

Logging roads have been placed in the area west of the Kusp claim group and these, along with fire access roads, extend to the ridge top which lies just south of the property. Although these logging roads are accessible with a twowheeled vehicle throughout the summer months, the intervening area between the logging roads and the old drill sites and showings is quite steep and would entail some work for a road connection. In addition to the logging access roads, major highways and a railway lie along Bonanza Creek just north of the property.

## CLAIMS AND OWNERSHIP

The Kusp property includes two 20 -unit grid claims and eight 2-post claims. These claims, belonging to Adastral Resources Ltd., are held in the name of John R. Woodcock. The claim data is presented in Table I.

## TABLE I

CLAIM DATA

| Name |  | Tag No. | Record No. | No. of Units | Record Date |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kusp | 1 | 12052 | 450 | 20 | August | 9, 1977 |
| Nak | 1 | 499023M | 5418 | 1 | July | 31. 1987 |
|  | 2 | 499024M | 5419 | 1 | July | 31, 1987 |
|  | 3 | 499025M | 5420 | 1 | July | 31. 1987 |
|  | 4 | 499026M | 5421 | 1 | July | 31, 1987 |
|  | 5 | 499027M | 5422 | 1 | July | 31, 1987 |
|  | 6 | 499028M | 5423 | 1 | July | 31, 1987 |
|  | 7 | 499029M | 5424 | 1 | July | 31. 1987 |
|  | 8 | 499030M | 5425 | 1 | July | 31, 1987 |
| Naku | 1 | 64989 | 5786 | 20 | July | 29, 1988 |

## GENERAL GEOLOGY

The mountains south of Summit Lake owe their high and rugged topography to the resiatant volcanic rocks which underile this part of the Lardeau Map Sheet. Geological Survey maps (Hyndman, 1968 and Rexd, 1976) show an area eight miles (13 km ) long and up to two miles ( 3.2 km ) wide underlain by the volcanic rocks that form the backbone of these rugged mountains. These geologists have assigned the volcanic rocks to the Slocan Group (Triassic to Lower Jurasaic), which generally includes augite metabasalt and andesite flows and tuffs. Surrounding this volcanic group are some sedimentary rocke also included in the Slocan Group and presumably underlying the volcanic rocks. These include the grey to black phyllite, argiliite, quartzite and minor tuffaceous sediments near the top. In order to get an elliptical outilne to the volcanic area (terminating at both ends) the geologiste have suggested a possible synclinal structure.

Woodcock, as a result of his mapping, has suggested that this is a basin of volcanic deposition and this volcanic pile has subsequently been thrust into a southerly dipping overturned anticine. Attitudes in the mapped area show a strike averaging about $100^{\circ}$ azimuth and moderate to steep dips southwest.

Drastic lateral facies changes occur in the coarse clastic and the pyroclastic units of this belt and some of the coarse clastic units disappear to the west where finer-grained equivalent units are exposed. The distribution of the rock units of the central belt including their interfingering and their drastic lateral facies changes suggest that these volcanic and sedimentary rocks were deposited in a basin or along the edge of a basin and that the basin extends westerly from the source area.

With his mapping, Woodcock has divided the sequence into seven units, moat of which are a variety of pyroclastics but also include some coarse clastic sediments such as grits, greywacke and conglomerates. Most of the boulders and cobbles within the conglomerate are angular to sub angular.

One of the units within this group is a bleached white tuff which occurs adjacent to the mineralized tuffs along the main geochemical-geophysical anomaly. In the main part of the anomaly where the original drililing has been done this white tuff has abundant disseminated pyrite. It meathers to a white sticky clay in which most of the limonite has bean leached out, leaving in places some yellow jarosite. This tuff stratigraphically overlies the carbonate-rich grey clastic which contains pyrite and traces of base metals and silver. Because it is on the overturned limb of the anticline the white tuff structurally underlies the carbonaterich pyritic tuff.

Interpretation of graded bedding and of cross bedding found in various places shows that the structure is anticlinal and overturned and that the exposures of white tuff along the geophysical anomalies are actually on the overturned limb of the anticline.

Rock slides occur in a number of places. At the Discovery a hummocky topography, including a little closed basin has resulted from a rock slide. Similar features also occur along the white tuff horizon in several other places.

## GEOPHYSICAL WORK

The VLF-EM results for the 1988 work have been adjusted with a Fraser-filter technique and the contoured results are plotted on Figure 7. The field data is given in Appendix I. These show an anomaly that extends across the map area for about 1200 meters, is open at both ends, with increasing strength to the west. The four short cross lines of VLF-EM work done in 1987 would be between $2+00 \mathrm{E}$ and $0+60 \mathrm{~W}$ on the present grid, in an area of somewhat reduced response.

The strata in the area strike parallel to the base line and dip $60^{\circ}$ to $80^{\circ}$ southerly. In 1978 the geophysical anomaly was interpreted to reflect the highly pyritiferous white tuff or the contact thereof. Superimposed on and covering this contact is a gravity slide which has moved the white tuff to its present exposed position (the so-called "kill zone") and also the stratified tuffs lying in a continuous outcrop immediately south of this "kill zone". The full extent of this gravity slide was not recognized early in the 1978 drill program and so the No. 1 drill hole passed through strata lying structurally below the mineralized strata. The No. 3 and No. 4 holes, however, passed through about 100 feet of the rock debris before intersecting about 100 feet of highly anomalous mineralized carbonate-rich tuff which is structurally underlain by the pyritic white tuff.

The locations of these drill holes are shown on the sample location map (Figure 3). A comparison of the location of these drill holes with the new VLF-EM survey indicates that the zone investigated in 1978 lies adjacent to a subdued portion of the VLF-EM anomaly. Two peaks occur along this anomaly, one on $L 3+00 \mathrm{~W}$ and one on $\mathrm{L} 7+00 \mathrm{~W}$.

Additional smaller VLF-EM anomalies occur in the southeast part of the grid. The reason for these is not clear; however some of it may be related to the black slaty rocks that occur in this part of the property.

## GEOCHEMISTRY

## General

A base line 120 meters long with 7200 meters of cross lines at 100 -meter intervals has been flagged on the property. The base line is cleared and picketed; however the cross lines have only been flagged. 340 soil samples were taken from the B-horizon at 15 cm along the cross lines at 20 -meter intervals. These samples were submitted to Min-En Laboratories Ltd. for analyses of $C u, M n, A g, A s, ~ P b, ~ Z n$ and the results are plotted on Figures 4,5 , and 6 with two metals per map.

The magnitude of geochemical results may not necessarily be directly proportional to the grade of any mineralization. The rock slide at the Discovery area has exposed the widespread disseminated mineralization to the weathering elements and has thus enhanced the geochemical responses in the soils and especially in the silts draining the rock slide. Another factor which must be considered is the greater response from disseminated and mineralized pyritic zones than generally found from massive sulphide zones.

## Lead in Soil

The highest lead responses are found along lines $1+00 E$ to $3+00 E$ adjacent to the base line. This is in the area of the rock slide and in the target drilled in 1978. Other high values are found on $L 2+00 \mathrm{~W}$ and this correlates with a stronger $E M$ anomaly in this area. Other high values are scattered along the extent of the main EM anomaly.

Silver in Soil.
Silver values shown on Figure 5 indicate a very high background in the pyroclastic sequence. Values over 3 ppm appear to be significant and these are scattered along the EM anomaly with values as high as 24.4 ppm in the rock slide area of the Discovery target.

## Zinc in Soil

Zinc geochemistry also follows the lead geochemistry in parts of the property, especially in the slide area of the Discovery. High values are also found in places along the remainder of the main EM anomaly although they do not form a continuous pattern. Another zone of somewhat high zinc values ( $>200$ ppm) occurs in the southeast part of the grid and corresponds to some extent with one of the EM anomalies in this part of the grid. It could be due to the black slaty rocks.

## Manganese in Soil

Manganese is plotted along with copper on Figure 6. There are two anomalous zones on the manganese map. The northern zone with the highest values corresponds to the lead anomalies of the slide area but extends further westward to include some very high EM response along $L 00$ at the base line. Other scattered highs occur further west along the EM anomaly.

Another zone of high manganese values occurs in the southeast part of the grid area. It corresponds to, but is larger than, the zinc anomaly. The two southern EM anomalies on Innes 400 E and 500 E correlate with the northern and southern boundaries of the manganese anomaly. Thus the high manganese values, the high zinc values and the EM reaponse in this area may be due to some graphitic material in the black slates.

## Copper in Soil

The highest copper values correspond to the Discovery area, especially in the slide but also extend somewhat south of the slide area and the mineralized zone. Other scattered highs do occur along the northern geophysical anomaly.

Scattered somewhat high values (s 100 ppm) are scattered through the grid. These also indicate an unusually high background for this pyroclastic pile.

## Argenic in Soil

A number of somewhat high arsenic values ( 25 to 50 ppm ) are scattered throughout the grid area and probably do not indicate too much of significance except that the pyroclastic pile has somewhat high background in arsenic. However, concentrations of these higher values do occur along and adjacent to the northern EM anomaly.

## CONCLUSIONS AND RECOMMENDATIONS

1. The geophysical work has been very successful in tracing a mineral potential horizon along the whole of the grid area and indicates that it continues westward. In a few places along this zone, the response is much stronger than that obtained over the the Discovery area.
2. Scattered along the EM anomaly are discontinuous but anomalous geochemical values which may show up on one or more adjacent lines. All of the metals tested are higher or anomalous along this zone; however the highest values do correspond to the slide debris in the Discovery area.
3. Some field investigation is now needed to determine the cause of the EM anomaly west from the Discovery area, especially in those places where anomalous geochemical valuea correlate.

JRY:me

## KUSP PROPERTY COSTS

## Fees

J. R. Woodcock:

June 4 - July 7
Compile data, organize crew - $1 / 4$ days
June 29
Visit property 1 day
Aug. 7, 16, 17, 18
Work on report
1.1/2 days
$33 / 4$ days $\$ 400 \$ 1,500.00$
Mark Kiiby:
July 4-25 21 days : 130
R. Hamilton:

July 4-25
$201 / 2$ days @ $\$ 120$
5.190 .00

Fringe benefits \& overhead (kilby \& Hamilton) 1.297.50
M. Earnshaw (typing and report) $23 / 4$ hrs. © $\$ 18$
49.50 Sub Total Fees
$\approx 8.037 .09$

Miscellaneous
Equipment rentals - (EM, camp equip.)
Travel. Transportation
Supplies, Food, Accommodation
1.136 .00
1.068 .85
1.251.42
493.88
690.00
2.052 .00
$\$ 14.729 .15$
$\approx \because \approx=ะ= \pm===$

## APPENDIX I

## FIELD DATA FOR VLF-EM SURVEY

## Field Data for VLF-EM Survey

The VLF-EM survey was done with a Phoenix VLF-2 instrument, using the transmitter at Culter, Maine with readings taken at 20-meter intervals and operator facing west.
Fraser-filter readings are obtained for sites between
stations by:
(a) add values on both adjacent stations to get
intermediate values
(b) subtract intermediate value to south from intermediate value to north.
Station

Topo
Slope

Field
Strength
Horiz.
Dip
Fraser Filter

LINE 5H

| 100 N | -19 | .20 |
| :---: | :---: | :---: |
| 80 N | -15 | .20 |
| 60 N | -14 | .35 |
| 40 N | +4 | .30 |
| 20 N | +14 | .32 |
| 0 | +10 | .34 |
| 20 S | +25 | .30 |
| 40 S | +15 | .30 |
| $60 S$ | +29 | .31 |
| $80 S$ | +15 | .3 |
| 100 S | +2 | .48 |
| 120 S | +5 | .42 |
| $140 S$ | -25 | .43 |
| $160 S$ | -23 | .43 |
| $180 S$ | -18 | .3 |
| $200 S$ | -19 | .35 |
| $220 S$ | -18 | .3 |
| $240 S$ | -25 | .35 |
| $260 S$ | -30 | .4 |
| $280 S$ | -21 | .3 |
| $300 S$ | -12 | .3 |
| $320 S$ | -8 | .25 |
| $340 S$ | -10 | .3 |
| $360 S$ | -14 | .5 |
| $380 S$ | -21 | .32 |
| $400 S$ | -8 | .3 |
| $420 S$ | -3 | .20 |
| $440 S$ | 0 | .35 |
| $460 S$ | 0 | .35 |
| $480 S$ | 0 | .4 |

1.7
1.6
1.43
2.05
2.1
2.2
2.2
2.5
3.4
4.1
3.6
3.2
3.8
4.3
4.1
3.6
3.6
3.5
3.6
3.5
3.8
3.4
3.8
3.8
3.7
3.9
3.8
3.8
3.8
2.9
22
31
16
31
26
17
28
25
15
7
8
15
17
8
5
10
8
11
16
17
15
11
8
13
12
13

53
$47 \quad 6$
47-10
574
$43 \quad 12$
$45-10$
535
$40 \quad 31$
$22 \quad 25$
15-1
$\begin{array}{ll}23 & -17\end{array}$
32-2
$\begin{array}{ll}25 & +19\end{array}$
$13 \quad 10$
$15-5$
$18-4$
19-9
27
6
130
$17-13$
26
8
$19 \quad 5$
$21-6$
$25-4$
25-1
$\begin{array}{ll}26 & 1 \\ 24 & 7\end{array}$
$19 \quad 9$
15
lake at 485
LINE 4W

| 100 N | cliff at 78 N |  |  |
| ---: | :---: | :---: | :---: |
| 80 N | -19 | .13 |  |
| 60 N | -23 | .2 | 1.5 |
| 40 N | -22 | .30 | 1.7 |
| 20 N | -30 | .6 | 1.9 |
| 0 | -33 | .15 | 4.8 |
| $20 S$ | -26 | .08 | 4.3 |
| 40 S | -34 | .2 | 4.9 |
| 60 S | 0 | .3 | 2.5 |
| $80 S$ | 0 | .25 | 3.1 |
| $100 S$ | 0 | .05 | 2.9 |
| $120 S$ | +3 | .36 | 1.3 |
| $140 S$ | -10 | .33 | 2.5 |
| $160 S$ | +2 | .31 | 3.2 |
|  |  |  |  |


| 65 |  |
| ---: | ---: |
| 62 | -6 |
| 71 | 1 |
| 61 | 30 |
| 41 | 25 |
| 36 | 15 |
| 26 | 21 |
| 15 | 12 |
| 14 | 1 |
| 14 | -1 |
| 15 | -3 |
| 17 | -3 |
| 18 | 0 |



LINE 3W

| 100 N | cliff |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 80 N | 49 | . 08 | . 9 | 40 |  |  |
| 60N | 51 | . 08 | . 7 | 55 | 95 |  |
| 40N | 37 | . 2 | . 9 | 52 | 107 | 5 |
| 20N | 33 | . 11 | 1.2 | 38 | 90 | 53 |
| BL OOS | 33 | . 17 | 1.5 | 16 | 54 | 69 |
| 205 | 48 | . 2 | 1.4 | 5 | 21 | 43 |
| 405 | 41 | . 21 | 1.4 | 6 | 11 | 9 |
| 605 | 50 | . 2 | 1.3 | 6 | 12 | - 1 |
| 805 | 45 | . 18 | 1.3 | 6 | 12 | 2 |
| 1005 | 28 | .11 | 1. 2 | 4 | 10 | - 6 |
| 1205 | 32 | .1 | 1.1 | 14 | 18 | -13 |
| 1405 | 25 | . 07 | 1.1 | 9 | 23 | 1 |
| 160 S | 17 | . 05 | 1.2 | 8 | 17 | - 9 |
| 1805 | 10 | . 1 | 1.2 | 6 | 14 | 7 |
| 200S | - 5 | . 1 | 1.1 | 4 | 10 | 7 |
| 2205 | 4 | . 1 | 1.1 | 3 | 7 | - 1 |
| 2405 | 0 | . 1 | 1.1 | 8 | 11 | - 6 |
| 2605 | 10 | . 1 | 1.1 | 5 | 13 | 0 |
| 2805 | 7 | . 1 | 1.0 | 6 | 11 | 1 |
| 300S | 10 | . 12 | 1.05 | 6 | 12 | - 2 |
| 3205 | 8 | . 12 | 1.3 | 7 | 13 | 1 |
| 3405 | 17 | . 15 | 1.0 | 6 | 13 | -8 |
| 3605 | +6 | . 41 | 4.2 | 15 | 21 | -13 |
| 3805 | 27 | . 42 | 4.1 | 11 | 26 | - 4 |
| 4005 | 4 | . 4 | 3.8 | 14 | 25 | - 1 |
| 4205 | 13 | . 5 | 5.9 | 13 | 27 | - 1 |
| 4405 | -14 | . 6 | 6.0 | 13 | 26 | 5 |
| 4605 | - 9 | . 65 | 6.1 | 9 | 22 | 9 |
| 4805 | - 9 | . 08 | 1.05 | 8 | 17 | 2 |
| 5005 |  | . 1 | 1.0 | 12 | 20 |  |


| 100 N | 51 | .1 | .5 |
| ---: | ---: | :--- | ---: |
| 80 N | 50 | .05 | .7 |
| 60 N | 41 | .07 | .8 |
| 40 N | 42 | .45 | 2.5 |
| 20 N | 35 | .45 | 4.8 |
| 0 | 36 | .21 | 1.7 |
| $20 S$ | 35 | .5 | 9.0 |
| $40 S$ | 42 | .4 | 1.5 |
| 60 S | 43 | .1 | 1.4 |
| $80 S$ | 46 | .1 | 1.4 |
| $100 S$ | 46 | .7 | 8.1 |
| $120 S$ | 48 | .8 | 7.1 |
| $140 S$ | 45 | .52 | 7.1 |
| $160 S$ | 36 | .32 | 7.0 |
| $180 S$ | 35 | .20 | 7.2 |
| $200 S$ | 15 | .20 | 7.1 |
| $220 S$ | 12 | .20 | 6.4 |
| 240 S | 19 | .25 | 6.5 |
| $260 S$ | 5 | .1 | 6.6 |
| $280 S$ | 2 | .1 | 7.1 |
| $300 S$ | 1 | .1 | 6.8 |
| $320 S$ | 13 | .2 | 6.4 |
| $340 S$ | -5 | .15 | 6.6 |
| $360 S$ | 20 | .13 | 6.4 |
| $380 S$ | 20 | .2 | 6.6 |
| $400 S$ | 6 | .2 | 6.5 |
| $420 S$ | 3 | .25 | 6.4 |
| $440 S$ | 6 | .20 | 6.3 |
| $460 S$ | 26 | .32 | 5.8 |
| $480 S$ | 40 | .15 | 5.6 |
| $500 S$ |  | .1 | 5.5 |

LINE 1H

| 100N | 40 | . 1 | . 7 | 51 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 80 N | 36 | . 3 | 1.0 | 38 | 89 |  |
| 60N | 31 | . 4 | 7.2 | 38 | 76 | +32 |
| 40N | 39 | . 4 | 9.4 | 19 | 57 | 39 |
| 20N | 46 | . 3 | 9.8 | 18 | 37 | 21 |
| BL 00 | 32 | . 1 | 1.4 | 18 | 36 | 11 |
| 205 | 36 | . 1 | 1.4 | 12 | 26 | 16 |
| 405 | 30 | . 02 | 1.3 | 8 | 20 | 8 |
| 605 | 18 | . 03 | 1.2 | 10 | 18 | 1 |
| 805 | 18 | . 03 | 1.2 | 9 | 19 | 4 |
| 1005 | 21 | . 05 | 1.2 | 5 | 14 | 6 |
| 1205 | 25 | . 04 | 1.2 | 8 | 13 | - 6 |
| 1405 | 48 | . 02 | 1.1 | 12 | 20 | -13 |
| 1605 | 13 | . 03 | 1.1 | 14 | 26 | - 4 |
| 1805 | - 2 | . 02 | . 1 | 10 | 24 | 6 |
| 2005 | 8 | . 1 | 6.8 | 10 | 20 | 8 |
| 2205 | 9 | . 03 | 1.0 | 6 | 16 | 0 |
| 2405 | 10 | . 03 | 1.0 | 14 | 20 | - 8 |


| $260 S$ | 21 | .02 |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| $280 S$ | -5 | .04 | .9 | 10 | 20 | 3 |
| $300 S$ | -3 | .04 | 1.1 | 10 | 21 | -5 |
| $320 S$ | 7 | .05 | .9 | 14 | 25 | -7 |
| $340 S$ | 24 | .03 | .9 | 14 | 28 | 2 |
| $360 S$ | 26 | .04 | .9 | 9 | 23 | 0 |
| $380 S$ | 34 | .03 | .9 | 19 | 28 | -12 |
| $400 S$ | 28 | .02 | .9 | 16 | 35 | -4 |
| $420 S$ | 26 | .03 | .9 | 16 | 32 | 5 |
| $440 S$ | 34 | .02 | .9 | 14 | 30 | 0 |
| $460 S$ | 27 | .05 | 1.0 | 18 | 32 | -10 |
| $480 S$ | 41 | .05 | 1.0 | 22 | 40 | -9 |
| SOOS |  | .05 | .8 | 19 | 41 |  |

## LINE OW

| BL 00 | -11 | . 15 | 1.5 | 11 | 21 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 205 | 5 | . 15 | 1.4 | 2 | 13 | 14 |
| 40 S | 17 | . 10 | 1.2 | 5 | 7 | 10 |
| 605 | 0 | . 03 | 1.1 | - 2 | 3 | 8 |
| 805 | 24 | . 01 | 1.1 | 1 |  | 0 |
| 1005 | 8 | . 05 | 1.0 | 2 | 3 | - 7 |
| 1205 | 41 | . 02 | 1.0 | 4 | 6 | -10 |
| 1405 | 18 | . 08 | 1.0 | 9 | 13 | -15 |
| 160 S | 24 | . 1 | 1.0 | 12 | 21 | -13 |
| 1805 | 23 | . 01 | 1.0 | 14 | 26 | - 8 |
| 2005 | -10 | . 05 | . 9 | 15 | 29 | -10 |
| 2205 | 5 | . 08 | 1.0 | 21 | 36 | -10 |
| 240S | 15 | . 05 | 1.0 | 18 | 39 | 9 |
| 2605 | 18 | . 03 | 1.0 | 9 | 27 | 22 |
| 2805 | 14 | . 02 | 1.0 | 8 | 17 | 9 |
| 3005 | 20 | . 03 | 1.0 | 10 | 18 | - 7 |
| 3205 | 47 | . 08 | 1.0 | 14 | 24 | -19 |
| 3405 | 31 | . 1 | 1.0 | 23 | 37 | -13 |
| 3605 | 31 | . 08 | 1.0 | 14 | 37 | 6 |
| 3805 | 40 | . 1 | 1.0 | 17 | 31 | 4 |
| 4005 | 41 | . 05 | 1.0 | 16 | 33 |  |
| 4205 | 43 | . 08 | 1.0 | 16 | 32 | 4 |
| 4405 | 40 | . 1 | 1.0 | 13 | 29 | 7 |
| 4605 | 41 | . 1 | 1.1 | 12 | 25 |  |
| 4805 | 29 | . 1 | 1.0 | 18 | 30 |  |
| 5005 | 39 | . 05 | . 9 | 15 | 33 |  |
| 5205 | 37 | . 05 | 1.2 | 22 | 37 | - 6 |
| 5405 | 27 | . 01 | 1.0 | 17 | 39 | -4 |
| 5605 | -8 | . 1 | 1.0 | 24 | 41 |  |
| 5805 | - 4 | . 1 | 1.1 | 22 | 46 | 1 |
| 6005 |  | . 1 | . 9 | 18 | 40 |  |
| 120N | 33 | . 08 | 1.3 | 24 |  |  |
| 100N | 30 | . 06 | 1.3 | 25 | 49 |  |
| 80N | 0 | . 08 | 1.2 | 22 | 47 | 5 |
| 60N | 0 | . 15 | 1.3 | 22 | 44 | 8 |
| 40N | - 5 | . 2 | 1.6 | 17 | 39 | 19 |
| 20N | - 8 | . 25 | 1.8 | 8 | 25 | 21 |
| 00 | $-11$ | . 3 | 2.1 | 10 | 18 | 12 |

## LINE IE

| BL 00 | 8 | . 2 | 1.1 | 19 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 205 | -15 | . 2 | 1.3 | 9 | 28 |  |
| 405 | -13 | . 2 | 1.0 | 8 | 17 | 20 |
| 605 | 8 | . 15 | 1.0 | 0 | 8 | 11 |
| 805 | 16 | . 05 | . 8 | 6 | 6 | - 3 |
| 1005 | 43 | . 05 | . 9 | 5 | 11 | -6 |
| 1205 | 42 | . 05 | 1.0 | 7 | 12 | - 8 |
| 1405 | 25 | . 08 | . 9 | 12 | 19 | -12 |
| 1605 | 4 | . 08 | . 7 | 12 | 24 | -10 |
| 1805 | 14 | . 2 | 1.0 | 17 | 29 | -11 |
| 2005 | 32 | . 18 | . 45 | 18 | 35 | -14 |
| 2205 | 30 | . 15 | . 45 | 25 | 43 | -10 |
| 2405 | 43 | . 1 | 1.0 | 20 | 45 | 8 |
| 2605 | 39 | . 25 | 1.1 | 15 | 35 | 8 |
| 2805 | 42 | . 05 | 1.4 | 22 | 37 |  |
| 3005 | 38 | . 1 | 1.0 | 20 | 42 |  |
| 3205 | 40 | . 1 | 1.0 | 24 | 44 |  |
| 3405 | 37 | . 1 | 1.1 | 20 | 44 | 0 |
| 3605 | 41 | . 5 | 1.5 | 24 | 44 |  |
| 3805 | 35 | . 08 | 1.7 | 26 | 50 |  |
| 4005 | 38 | . 3 | 1.4 | 23 | 49 | 7 |
| 420 S | 31 | . 08 | 1.4 | 20 | 43 | 1 |
| 4405 | 35 | . 2 | 1.4 | 28 | 48 | 1 |
| 4605 | 28 | . 03 | 1.3 | 14 | 42 | 17 |
| 480.5 | 10 | . 1 | 1.2 | 17 | 31 | 11 |
| 5005 | 5 | . 1 | 1.2 | 11 | 28 | 0 |
| 5205 | - 8 | . 12 | 1.1 | 20 | 31 |  |
| 5405 | -22 | . 17 | 6.4 | 14 | 34 |  |
| 560 S | -29 | 1.3 | 5.6 | 22 | 36 | 2 |
| 5805 | - 5 | 1.2 | 6.3 | 20 | 32 |  |
| 6005 |  | 1.0 | 5.6 | 18 | 38 |  |

## LINE_2E

BL 00
$20 S$
$40 S$
$60 S$
$80 S$
$100 S$
1205
$140 S$
$160 S$
$180 S$
$200 S$
$220 S$
$240 S$
$260 S$
2805
$300 S$
$320 S$
$340 S$
$360 S$

| -10 | .2 |
| ---: | :--- |
| 28 | .12 |
| 19 | .1 |
| 0 | .2 |
| 0 | .1 |
| 15 | .08 |
| 22 | .2 |
| 30 | .05 |
| 41 | .1 |
| 41 | .05 |
| 39 | .08 |
| 38 | .08 |
| 38 | .1 |
| 39 | .2 |
| 45 | .1 |
| 35 | .1 |
| 33 | .12 |
| 25 | .1 |
| 24 | .1 |


| .9 | 10 |
| ---: | ---: |
| .9 | 22 |
| .9 | 20 |
| 1.0 | 12 |
| 0.9 | 12 |
| .9 | 18 |
| .9 | 10 |
| .9 | 16 |
| .8 | 10 |
| .9 | 16 |
| .9 | 16 |
| .9 | 9 |
| 1.5 | 22 |
| 1.4 | 23 |
| 1.6 | 28 |
| 1.6 | 18 |
| 1.6 | 21 |
| 1.7 | 16 |
| 1.8 | 16 |


| 22 | -12 |
| ---: | ---: |
| 32 | -10 |
| 42 | 0 |
| 32 | 18 |
| 24 | 2 |
| 30 | -4 |
| 28 | 4 |
| 26 | 2 |
| 26 | 0 |
| 26 | -6 |
| 32 | 1 |
| 25 | 1 |
| 31 | -20 |
| 45 | -30 |
| 51 | -1 |
| 46 | 12 |
| 39 | 9 |
| 37 | 7 |
| 32 | 8 |
| 29 | 7 |


| 3805 | 30 | . 1 | 1.9 | 13 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4005 | 38 | . 12 | 1.8 | 12 | 25 | 11 |
| 4205 | 19 | . 1 | 1.7 | 6 | 18 | 14 |
| 4405 | - 5 | . 15 | 1.8 | 5 | 11 | 1 |
| 4605 | + 8 | . 3 | 1.7 | 12 | 17 | - 7 |
| 4805 | - 9 | . 2 | 1.6 | 6 | 18 | 4 |
| 5005 | - 6 | . 2 | 1.6 | 7 | 13 | 2 |
| 520 S | - 9 | . 2 | 1.5 | 9 | 16 | 4 |
| 5405 | 0 | . 2 | 1.4 | 5 | 14 | 2 |
| 5605 | 5 | . 2 | 1.5 | 8 | 13 | -11 |
| 5805 | 5 | . 2 | 1.5 | 16 | 24 | 5 |
| 6005 |  | . 3 | 1.4 | 13 | 29 |  |
| 100N |  |  |  |  |  |  |
| 80 N |  |  |  |  |  |  |
| 60N |  |  |  |  |  |  |
| 40 N | -18 | . 2 | 1.3 | 10 |  |  |
| 20N | - 7 | . 2 | 1.3 | 12 |  |  |

LINE 6W
200N
180N
160 N
140 N
120 N
100 N
80N
60N
40 N
20N
OON
205
405
605
805
100S
1205
140 S
160 S
180 S
200S
220 S
$240 S$
260 S
2805
3005

| -38 | .1 |
| ---: | :--- |
| -16 | .12 |
| -11 | 1.0 |
| -8 | 1.0 |
| -11 | .8 |
| 0 | .9 |
| -11 | .2 |
| 27 | .2 |
| 35 | .18 |
| 39 | .1 |
| 33 | .1 |
| 43 | .05 |
| 48 | . .2 |
| 37 | .1 |
| 28 | .1 |
| 28 | .1 |
| 17 | .08 |
| 15 | .08 |
| 0 | .03 |
| 11 | .03 |
|  | .1 |

1.0
1.4
7.4
6.5
6.4
6.2
1.0
1.1
1.0
1.2
2.1
1.9
1.6
1.6
1.6
1.6
1.6
1.7
1.6
1.6
1.4

23
15
18
25
26
24
24
25
38
50
24
9
16
16
14
14
16
17
19
21
38
33-5
$43-18$
51-7
50
$48 \quad 1$
$49-15$
63-39
$88-11$
7450
3349
$\begin{array}{rr}25 & 4 \\ 29 & -4\end{array}$
$29-4$
$29-1$
$30 \quad 1$
$28 \quad 0$
30-5
$33-6$
$36-7$
36

LINE 4E
BL 00
20
40
60
80
100

| 32 | .06 |
| :--- | :--- |
| 20 | .15 |
| 25 | .45 |
| 25 | .15 |
| 25 | .1 |
| 20 | .1 |


| 1.6 | 20 |
| :--- | :--- |
| 5.0 | 21 |
| 1.6 | 25 |
| 1.4 | 18 |
| 1.3 | 26 |
| 1.5 | 26 |

41
46
43

- 2

44
$-11$
52
16


100N
60N

| 20N |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 00 | 35 | . 1 | 1.2 | 5 |  |  |
| 205 | 20 | . 1 | 1.1 | 10 | 15 |  |
| 40 S | 18 | . 15 | 1.1 | 18 | 28 | -37 |
| 605 | 30 | . 1 | . 9 | 34 | 52 | -37 |
| 805 | 38 | . 1 | 1.1 | 31 | 65 | - 2 |
| 1005 | 22 | . 1 | 1.4 | 23 | 5 | 23 |
| 1205 | 25 | . 05 | 1.2 | 19 | 42 | 15 |
| 1405 | 30 | . 08 | 1.3 | 20 | 39 | 4 |
| 1605 | 42 | . 05 | 1.1 | 18 | 38 | 5 |
| 1805 | 35 | . 05 | 1.3 | 16 | 34 | 9 |
| 2005 | 13 | . 05 | 1.3 | 13 | 29 | 5 |
| 2205 | 8 | . 08 | 1.2 | 16 | 29 | $-10$ |
| 2405 | 9 | . 05 | 1.1 | 23 | 39 | -19 |
| 2605 | 16 | . 08 | 1.1 | 25 | 48 | -11 |
| 2805 | 24 | . 08 | 1.0 | 25 | 50 | - 5 |
| 3005 | 43 | . 08 | 1.1 | 28 | 5 | - 6 |
| 3205 | 42 | . 2 | 8.1 | 28 | 56 | 6 |
| 3405 | 25 | . 06 | 1.5 | 19 | 47 | 19 |
| 3605 | 33 | . 03 | 1.5 | 18 | 37 | 13 |
| 3805 | 11 | . 08 | 1.5 | 16 | 34 | 6 |
| 4005 | 0 | . 08 | 1.5 | 15 | 31 | 4 |
| 4205 | 5 | . 08 | 1.5 | 15 | 30 | 11 |
| 4405 | 7 | . 08 | 1.5 | 4 | 19 | 21 |
| 4605 | - 6 | . 04 | 1.5 | 5 |  | 7 |
| 4805 | 26 | . 03 | 1.4 | 7 | 12 | -7 |
| 5005 | 6 | . 05 | 1.3 | 9 | 16 | - 5 |
| 5205 | 12 | . 04 | . 9 | 8 | 17 |  |
| 5405 | 25 | . 05 | 1.0 | 9 | 17 | - 5 |
| 5605 | 20 | . 05 | 1.1 | 13 | 2 | -12 |
| 5805 | -10 | . 08 | 1.0 | 16 | 29 | -8 |

6005

## LINE 5E

## BL 00

205
405
605
805
1005
120 S
1405
$160 S$
180 S
2005
2205
2405
2605
2805
300 S
320 S
340S
360 S
3805
400 S
420 S
4405
4605
4805
500 S
520 S
$540 S$
560 S
580 S
6005

## APPENDIX II

## ANALYTICAL CERTIFICATES

## Arraxンtx<ax Peport



Attention: J. R. WOODEECK
Fileme-10 0
Dates AUGUST 4/83
Type: SOIL GEOCHEM



Femartk


COMPARY: J. R. WOADCACK CONSGLTANTS
PROJECT NO:
ATYENTON: J.R. 1000 COCK

| Walles TMm | A6 | AS | Cis | M | P8 | IN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| K67096 | . 9 | 30 | 68 | 794 | 48 | 304 |
| 887095 | .1 | 5 | 40 | 1987 | 33 | 248 |
| K87092 | . 9 | 34 | 198 | 589 | 44 | 683 |
| 887091 | 2.6 | 14 | 129 | 253 | 24 | 264 |
| <87090 | 2.7 | 36 | 27 | 153 | 20 | 106 |
| K87689 | 2.0 | 7 | 91 | 278 | 24 | 266 |
| K87088 | 2.1 | 12 | 16 | 130 | 22 | 100 |
| K87087 | 2.6 | 35 | 37 | 177 | 17 | 68 |
| K87086 | 1.8 | 27 | 110 | 408 | 30 | 282 |

187085 N/S

| $K 87083$ | 3.7 | 55 | 27 | 112 | 19 | 40 |
| :--- | :--- | :--- | :--- | :--- | :--- | ---: |
| $\mathbf{K 8 7 0 8 2}$ | 2.3 | 18 | 24 | 240 | 21 | 140 |


| $k 87081$ | 1.9 | 1 | 26 | 52 | 24 | 213 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $k 67080$ | 1.8 | 2 | 60 | 470 | 19 | 182 |


| -187079 | 1.4 | 17 | 42 | 655 | 24 | 211 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| k.87078 | 1.2 | 24 | 43 | 1061 | 26 | 214 |  |
| k87077 | 2.2 | 13 | 32 | 378 | 25 | 158 |  |
| K 87076 | 2.0 | 11 | 25 | 312 | 17 | 124 |  |
| 187075 | 1.7 | 12 | 54 | 386 | 22 | 139 |  |
| 187074 | 1.9 | 13 | 24 | 230 | 13 | 107 |  |
| K67073 | 1.6 | 26 | 19 | 341 | 9 | 154 |  |
| 887072 | 3.0 | 38 | 19 | 128 | 16 | 65 |  |
| K97071 | 1.6 | 9 | 25 | 616 | 19 | 150 |  |
| < 87070 | 2.5 | 24 | 26 | 179 | 16 | 117 | , |
| k67069 | . 5 | 24 | 647 | 3711 | 28 | 332 |  |


| K 87068 | 2.2 | 20 | 32 | 618 | 17 | 126 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| k67067 | 2.5 | 25 | 20 | 187 | 18 | 118 |
| K07066 | 2.0 | 12 | 49 | 649 | 19 | 159 |
| K6706 | . 9 | 34 | 92 | 1086 | 36 | 309 |
| K6706i | 2.2 | 24 | 44 | 346 | 25 | 246 |
| 187060 | 3.3 | 36 | 40 | 223 | 27 | 126 |

$\mathrm{k} 87059 \mathrm{~N} /$


| $k 87055$ | 2.2 | 28 | 59 | 190 | 20 | 18 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| $k 87054$ | 3.1 | 66 | 31 | 77 | 15 | 62 |


| 1887053 | 1.9 | 12 | 61 | 571 | 23 | 170 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 187052 | 2.1 | 27 | 27 | 207 | 22 | 112 |


| ${ }^{6} 670{ }^{\text {a }}$ | 2.4 | 35 | 26 | 237 | 21 | 103 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| K87050 | 2.0 | 23 | 20 | 949 | 26 | 99 |
| 187049 | 2.0 | 13 | 10 | 677 | 22 | 134 |
| K.87049 | 2.2 | 22 | 25 | 367 | 24 | 135 |
| K87047 | 1.4 | 35 | 48 | 724 | 16 | 223 |
| 1887046 | 1.0 | 20 | 42 | 663 | 12 | 223 |
| 187045 | 1.2 | 1 | 55 | 1338 | 45 | 226 |
| 887044 | . 7 | 8 | 34 | 1242 | 19 | 241 |
| K87043 | 1.9 | 19 | 47 | 652 | 27 | 201 |
| -87042 | 1.8 | 4 | 22 | 868 | 30 | 215 |
| 687041 | 2.4 | 30 | 2 | 197 | 15 | 151 |
| k97040 | 2.0 | 15 | 15 | 314 | 15 | 135 |
| 887039 | 1.2 | 1 | 31 | 814 | 16 | 191 |
| 287038 | 3.5 | 17 | 157 | 738 | 65 | 372 |
| K87037 | 1.5 | 14 | 20 | 108 | 25 | 239 |
| 18870.6 | 1.0 | 21 | 69 | 1491 | 25 | 392 |
| k87035 | 4.9 | 22 | 28 | 786 | 24 | 192 |
| 167634 | 1.6 | 2 | 22 | 776 | $2 t$ | 304 |
| 187033 | 1.8 | 32 | 4 | 36. | 29 | 194 |
| 887004 | 2.9 | 42 | 16 | 56 | 19 | 41 |

COMPANY: J.R.WCDOCOCK CONSLLTANTS PROJECT ND: ATTENTION: J.R.WOODCOCK

| ATTENTION: J. R, WOODCOCK |  |  |  | (604)980-5614 OR (6) 44 ) 988 -4524 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (VALUES | IN PAM AB | AS | Cij | MN | PB | 2N |  |
| k67002 | 1.6 | B | 26 | 276 | 20 | 104 |  |
| K97003 | 3.1 | 41 | 16 | 50 | 20 | 48 |  |
| < 87904 | 2.9 | 38 | 24 | 72 | 16 | 152 |  |
| k87005 | 2.4 | 20 | 51 | 277 | 17 | 178 |  |
| 887006 | 1.9 | 18 | 24 | 857 | 21 | 124 |  |
| k87007 | 2.1 | 13 | 95 | 565 | 26 | 381 |  |
| K87008 | 1.5 | 1 | 72 | 1502 | 16 | 287 |  |
| K87009 | . 2 | 1 | 145 | 5696 | 27 | 927 |  |
| K87010 | . 1 | 5 | 6.3 | 2597 | 21 | 262 |  |
| K87011 | . 4 | 33 | 83 | 3068 | 27 | 293 |  |
| K87012 | . 9 | 17 | 143 | 1532 | 16 | 376 |  |
| K87013 | 2.2 | 23 | 83 | 856 | 18 | 215 |  |
| K.87014 | 2.1 | 28 | 38 | 590 | 14 | 132 |  |
| $k 87015$ | 2.1 | 34 | 42 | 367 | 17 | 133 |  |
| K87016 | 2.0 | 27 | 25 | 892 | 15 | 93 |  |
| K87017 | 2.6 | 40 | 35 | 342 | 14 | 106 |  |
| K87018 | 2.6 | 40 | 25 | 436 | 18 | 74 |  |
| K87019 | 2.6 | 38 | 29 | 721 | 21 | 91 |  |
| k87020 | 3.0 | 40 | 25 | 215 | 16 | 67 |  |
| K87021 | 3.1 | 49 | 20 | 146 | 15 | 30 |  |
| K87022 | 2.1 | 27 | 28 | 598 | 20 | 95 |  |
| K87023 | 2.0 | 28 | 25 | 384 | 17 | 90 |  |
| K.87024 | 2.8 | 42 | 27 | 248 | 19 | 80 |  |
| K87025 | 1.5 | 11 | 28 | 1801 | 24 | 149 |  |
| K87026 | 2.4 | 34 | 29 | 644 | 12 | 86 |  |
| <87027 | 2.2 | 26 | 36 | 281 | 12 | 128 |  |
| K97028 | 2.6 | 42 | 29 | 742 | 31 | 82 |  |
| K87029 | N/S |  |  |  |  |  |  |
| K97030 | 1.7 | 16 | 41 | 257 | 13 | 127 |  |
| k87282 | 3.0 | 18 | 77 | 372 | 34 | 177 |  |
| K67283 | 2.4 | 1 | 40 | 752 | 23 | 305 |  |
| KB7284 | 2.3 | $!$ | 62 | 1184 | $3{ }^{\text {3 }}$ | 200 |  |
| K87285 | . 8 | 22 | 75 | 1852 | 26 | 394 |  |
| K97286 | . 8 | 24 | 68 | 1599 | 28 | 242 |  |
| K87287 | 2.6 | 12 | 55 | 671 | 55 | 156 |  |
| K87286 | 1,9 | 7 | 226 | 812 | 25 | 168 |  |
| K87289 | 2.5 | 12 | 55 | 801 | 29 | 125 |  |
| K87290 | 2.5 | 25 | 96 | 490 | 13 | 62 |  |
| K87291 | 2.3 | 9 | 110 | 512 | 18 | 73 |  |
| K87292 | 2.1 | 29 | 94 | 1166 | 21 | 69 |  |
| K67293 | . 7 | 12 | 124 | 1866 | 20 | 109 |  |
| K.87294 | . 8 | 18 | 126 | 1207 | 14 | 76 |  |
| K87295 | . 1 | 36 | 86 | 21480 | 69 | 338 |  |
| K87296 | 1.5 | 26 | 94 | 979 | 23 | 70 |  |
| K67297 | 2.3 | 7 | 84 | 802 | 31 | 52 |  |
| k87298 | 1.5 | 6 | 153 | 1257 | $4!$ | 93 |  |
| K87299 | . 8 | 31 | 156 | 1748 | 31 | 102 |  |
| K87304 | N/S |  |  |  |  |  |  |
| k87301 | 1.9 | 20 | 93 | 618 | 22 | 66 |  |
| K87302 | -4 | 32 | 58 | 2681 | 21 | 85 |  |
| K87303 | . 4 | 15 | 108 | 5727 | 41 | 305 |  |
| K87304 | 4.0 | 77 | 22 | 52 | 7 | 8 |  |
| K37220 | 3.1 | 16 | 94 | 470 | 126 | 189 |  |
| 1887221 | 1.8 | 39 | 795 | 4021 | 444 | 504 |  |
| k87222 | 3.3 | 41 | 423 | 5286 | 238 | 229 |  |
| k87223 | 24.4 | 30 | 282 | 4071 | 1976 | 454 |  |
| K.87224 | 1.7 | 10 | 103 | 865 | 39 | 172 |  |
| 1.87225 | 1.5 | 42 | $25:$ | 2158 | 75 | 240 |  |
| K87226 | 2.4 | 3 | 42 | 299 | 36 | 55 |  |
| K87227 | 2.15 | $\dot{6}$ | 60 | 586 | 20 | 59 |  |

compant: J.r.hococock consultants PROUECT NO: AITENTDA: J. HOODCOC


|  |  |  | Min-En Labs icf report |  |  |  | (ACTEPS) PAGE : OF 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Praject wo |  |  |  |  |  |  | FILE W0: $8-1054 / \mathrm{PG}+10$ |
| ATESILIM J.E.wodocek |  |  |  | (604) 9eg-5814 0f $6049888-4524 \ldots$ |  |  |  |
|  | 96 | AS | d | MN | P6 | 2 N |  |
| -67168 | T | \% | 56 | 625 | 18 | 152 |  |
| K87169 | 1.8 | 34 | 26 | 438 | 17 | 105 |  |
| 887170 | 2.1 | 42 | 35 | 300 | 19 | 104 |  |
| $\leqslant 87171$ | 2.1 | 38 | 31 | 399 | 22 | 112 |  |
| 1897172 | 2.4 | 38 | 29 | 186 | 18 | 81 |  |
| -87173 | 3.0 | 67 | 17 | 171 | 13 | 32 |  |
| K87174 | 2.0 | 20 | 68 | 944 | 20 | 79 |  |
| K67175 | 3.1 | 72 | 23 | 101 | 13 | 29 |  |
| K87176 | 1.3 | 日 | 33 | 945 | 25 | 122 |  |
| K87177 | 2.2 | 30 | 17 | 414 | 16 | 55 |  |
| k67179 | 2.0 | 44 | 23 | 494 | 20 | 90 |  |
| K87179 | 1.9 | 29 | 24 | 392 | 24 | 145 |  |
| k67180 | 1.6 | 19 | 14 | 807 | 22 | 77 |  |
| K87181 | 2.0 | 35 | 22 | 405 | 18 | 78 |  |
| k67182 | 2.0 | 30 | 27 | 201 | 18 | 108 |  |
| -68783 | 1.6 | 16 | 15 | 621 | 26 | 131 |  |
| K87194 | 1.9 | 30 | 27 | 415 | 27 | 138 |  |
| k87185 | 2.0 | 35 | 17 | 455 | 22 | 88 |  |
| K87186 | 1.7 | 40 | 48 | 341 | 23 | 193 |  |
| 167187 | . 5 | 1 | 65 | 1614 | 28 | 214 |  |
| K67188 | -1.1 | 1 | 41 | 1118 | 21 | 193 |  |
| k.87126 | 2.0 | 27 | 27 | 263 | 25 | 188 |  |
| 187127 | 1.9 | 22 | 33 | 604 | 28 | 277 |  |
| K87128 | 1.5 | 20 | 41 | 631 | 24 | 166 |  |
| K 87129 | 2.5 | 31 | 32 | 317 | 48 | 79 |  |
| $\times 87130$ | 1.9 | 8 | 171 | 722 | 41 | 140 |  |
| k87131 | 2.6 | 43 | 26 | 323 | 45 | 94 |  |
| K67132 | 1.8 | 35 | 23 | 219 | 21 | 175 |  |
| K87135 | 1.8 | 28 | 23 | 294 | 23 | 138 |  |
| k97134 | 1.8 | 7 | 27 | 362 | 14 | 172 |  |
| 667135 | 1.8 | 17 | 27 | 266 | 19 | 158 |  |
| 8.87136 | 2.0 | 27 | 45 | 289 | 20 | 141 |  |
| k67137 | 1.6 | B | 30 | 697 | 25 | 136 |  |
| 1867158 | 1.6 | 10 | 19 | 906 | 17 | 93 |  |
| K87139 | 1.5 | 1 | 27 | 371 | 19 | 188 |  |
| - k 7140 | 1.6 | 2 | 3 | 396 | 22 | 156 |  |
| K.8714i | 1.5 | 13 | 36 | 597 | 21 | 161 |  |
| 187142 | 1.7 | 6 | 15 | 556 | 23 | 152 |  |
| $\times 87143$ | 1.0 | 22 | $2 b$ | 967 | 25 | 225 |  |
| K87144 | 1.7 | 6 | 1 | 216 | 19 | 163 |  |
| -67145 | . 1.7 | 17 | 17 | 258 | 19 | 159 |  |
| 887146 | 1.8 | 16 | 21 | 294 | 22 | 176 |  |
| k67147 | ¢. 7 | 10 | 20 | 439 | 21 | 164 |  |
| K87148 | 1.8 | 2 | 17 | 520 | 24 | 139 |  |
| 161149 | 1.7 | 11. | 22 | 383 | 25 | 156 |  |
| k97150 | 2.7 | 50 | 19 | 151 | 12 | 41 |  |
| k67151 | 2.0 | 24 | 12 | 412 | 19 | 98 |  |
| 887152 | 1.5 | 5 | 20 | 612 | 18 | 108 |  |
| K67153 | 1.5 | 5 | 21 | 737 | 20 | 94 |  |
| 187154 | 1.3 | 25 | 35 | 855 | 15 | 112 |  |
| 88715 | 1.8 | 21 | 21 | 530 | 23 | 111 |  |
| K67156 | 2.2 | 9 | 24 | 458 | 24 | 100 |  |
| \%87251 | . | 1 | 322 | 5484 | 227 | 709 |  |
| K87252 | 3,5 | 44 | 110 | 396 | 57 | 93 |  |
| 197253 | . 3 | 26 | 186 | 12139 | 55 | 686 |  |
| -66754 | 3.1 | 44 | 113 | 228 | 65 | 79 |  |
| 18725 | 2.4 | 24 | 32 | 330 | 21 | 84 |  |
| ke7256 | 1.8 | $1!$ | $5_{5}^{5}$ | 77 | 3 | 177 |  |
| 687257 | 2.2 | 18 | $2 ?$ | 178 | 26 | 45 |  |
| 16125 | 1.9 | $\underline{1}$ | 54 | 385 | 32 | 66 |  |

company: j. R. hooncock consultants PROJECT NO: ATESTION: JR WMDDCOCK

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(ACT:F31) PAGE 1 OF 1 FILE NO: B-:056/Fil+12 705 WEST ISTH ST, , NORTH YANCOUVER, B.C. UTM IT2 (6041980-5814 OR 16041988-4524







