

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM
MINISTRY OF ENERGY AND MINES
GEOLOGICAL SURVEY BRANCH

PROGRAM YEAR: 1998/99

REPORT #: PAP 98-5

NAME: RALPH KEEFE

27





A. SUMMARY OF PROSPECTING ACTIVITY (continued)

| Daily Reports Project area | Date | # of days | Work Performed |
|-------------------------------|---------|-----------|---|
| Day 1. Hagen | June 16 | 1 | Prospect with P. Wojack - visited showings on Hagen |
| Day 2. OGD | June 17 | 1 | Prospect with P. Wojack - new rds and log blocks west and south sides of Natowite Lake. |
| Day 3. OGD | June 18 | 1 | Paul returned to Smithers on early barge. Prospected new roads and log blcks north and east of Deeceius lookout |
| Day 4. Hagen | June 19 | 1 | Prospecting - trying to locate old grid on Kare M.C.'s. |
| Day 5. Hagen | June 22 | 1 | Running new grid on Hagen M.C.'s |
| Day 6. Cabin | June 23 | 1 | Prospected new roads and log blks, Cabin Lk area - north west of Morrison Lake. |
| Day 7. Cabin | June 24 | 1 | Prospected new roads and log blks, Cabin Lk |
| Day 8. Cabin | June 25 | 1 | Prospected new roads and log blks on 2200 road of Houston Forest Products |
| Day 9. Hagen | June 26 | .5 | Prospecting - taking soils on the Hagen MC's |
| Day 10. OGD | July 14 | 1 | Prospected roads north west of Decker Lake Conrad road plus 2 others |
| Day 11. OGD | July 15 | 1 | Prospected new roads and log blks west of Pinkut Lake |
| Day 12. OGD | July 16 | 1 | Prospected west of Endako (2 log blks) |
| Day 13. Hagen | July 20 | 1 | Taking soils on Hagen M.C's with S. Turford |
| Day 14. Hagen | July 21 | 2 | Taking soils on hagen M,C's with S. Turford |
| Day 15. Hagen | July 22 | 2 | Taking soils on Hagen M.C's with S. Turford |
| Day 16. Hagen | July 31 | .5 | Logging soil and samples from Hagen mc's. Travelled to Burns Lake and put on bus. |
| Day 17. OGD | Aug 3 | 1 | Prospecting SBEP log blocks and roads North of Colleymount |
| Day 18. OGD | Aug 4 | 1 | Prospecting Hammway road and Hannay road and log blocks South of Helene Lake |
| Day 19. Bar | Aug 7 | 1 | Establishing grid and prospecting on the Bar project |
| Day 20. Sib | Aug 15 | 1 | Prospecting new roads and log blocks South of Twinkle Lake, Thatsa reach area |
| Day 21. Sib | Aug 16 | 1 | Prospecting new roads and log blocks North of Thatsa reach |
| Day 22. OGD | Aug 18 | 2 | Prospecting new roads north of Unchu and Binta Lakes to Francois Lake with Shawn Turford |
| Day 23. OGD | Aug 19 | 2 | Prospecting new roads and log blocks south of Binta and Uncha Lakes to Cheslata Lake with Shawn Turford |
| Day 24. King | Aug 22 | 1 | Travelling with D. Delisle, Celista to Williams Lake 1/2 day. R. Keefe Francois Lake to Pr. Geo 1/2 day |
| Day 25. King | Aug 23 | 2 | Both travel from Pr. Geo to Bella Coola |

...2...

| | | | | |
|---------|------|---------|---|---|
| Day 26. | King | Aug 24 | 2 | Both travel from Bella Coola to Pr. Geo |
| Day 27. | King | Aug 25 | 1 | D. Delisle travels from Williams Lake to Celista 1/2 day. R. Keefe travels from Williams Lake to Francois Lake 1/2 day. |
| Day 28. | OGDP | Aug 26 | 1 | Prospecting new roads and log blocks South of Uncha Lake. |
| Day 29. | OGDP | Aug 27 | 1 | Prospecting new roads and log blocks east of Takysie Lake |
| Day 30. | King | Sept 13 | 2 | Travelling, Francois Lake to Tatla Lake with G. O'Meara |
| Day 31. | King | Sept 14 | 2 | Prospecting King project with G. O'Meara |
| Day 32. | King | Sept 15 | 2 | Travelling, Tatla Lake to Francois Lake with G. O'Meara |
| Day 33 | Bar | Sept 17 | 1 | Prospecting Bar project |
| Day 34 | Bar | Sept 20 | 1 | Prospecting Bar project |
| Day 35 | OGDP | Sept 22 | 1 | Travelling and prospecting new road construction north of Natowite Lake |
| Day 36 | OGDP | Sept 23 | 1 | Prospecting new roads north and south of Deeceius Lookout |
| Day 37 | OGDP | Sept 24 | 1 | Prospecting new roads north and east of east end of Tocha Lake |
| Day 38 | OGDP | Sept 25 | 1 | Prospect new roads and log blocks on Bab's mc's |
| Day 39 | OGDP | Oct 21 | 1 | Propsecting area south of Wright Bay road to Babine Lake |
| Day 40 | OGDP | Oct 23 | 1 | Prospecting area south of Wright Bay road to Babine Lake |
| Day 41 | OGDP | Oct 24 | 1 | Prospect new roads and log blocks south and east of east end of Tocha Lake |
| Day 42 | Bar | Oct 29 | 1 | Prospecting grid on Bar project |

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PROSPECTING REPORT FORM

B. TECHNICAL REPORT

Name: Ralph R. Keefe Ref #: P-7 1998/99

LOCATION/COMMODITIES-

Project Area: O.G.D.P. Minfile #: n/a
Location of Area NTS: 93E,K,L,M Lat: 53 58' Long: 122 - 130

Description of location & access: mainly road access to numerous logging and industrial operations through out.

Main Commodities Searched for: Cu, Ag, Au, Mo, Pb, Zn.

Known Mineral Occurrences in Project Area: Numerous porphyry and epithermal.

.....
WORK PERFORMED- nil

1. Conventional prosp. hardrock prosp, soil and silt sampling
2. Geological Mapping outcrops noted
3. Geochemical soils taken where deemed necessary
4. Geophysical nil
5. Physical Work nil
6. Drilling nil
7. Other

.....
SIGNIFICANT RESULTS- nil

Commodities Claim Name:
Location/Lat: Long: Elevation:

Best assay/sample type:

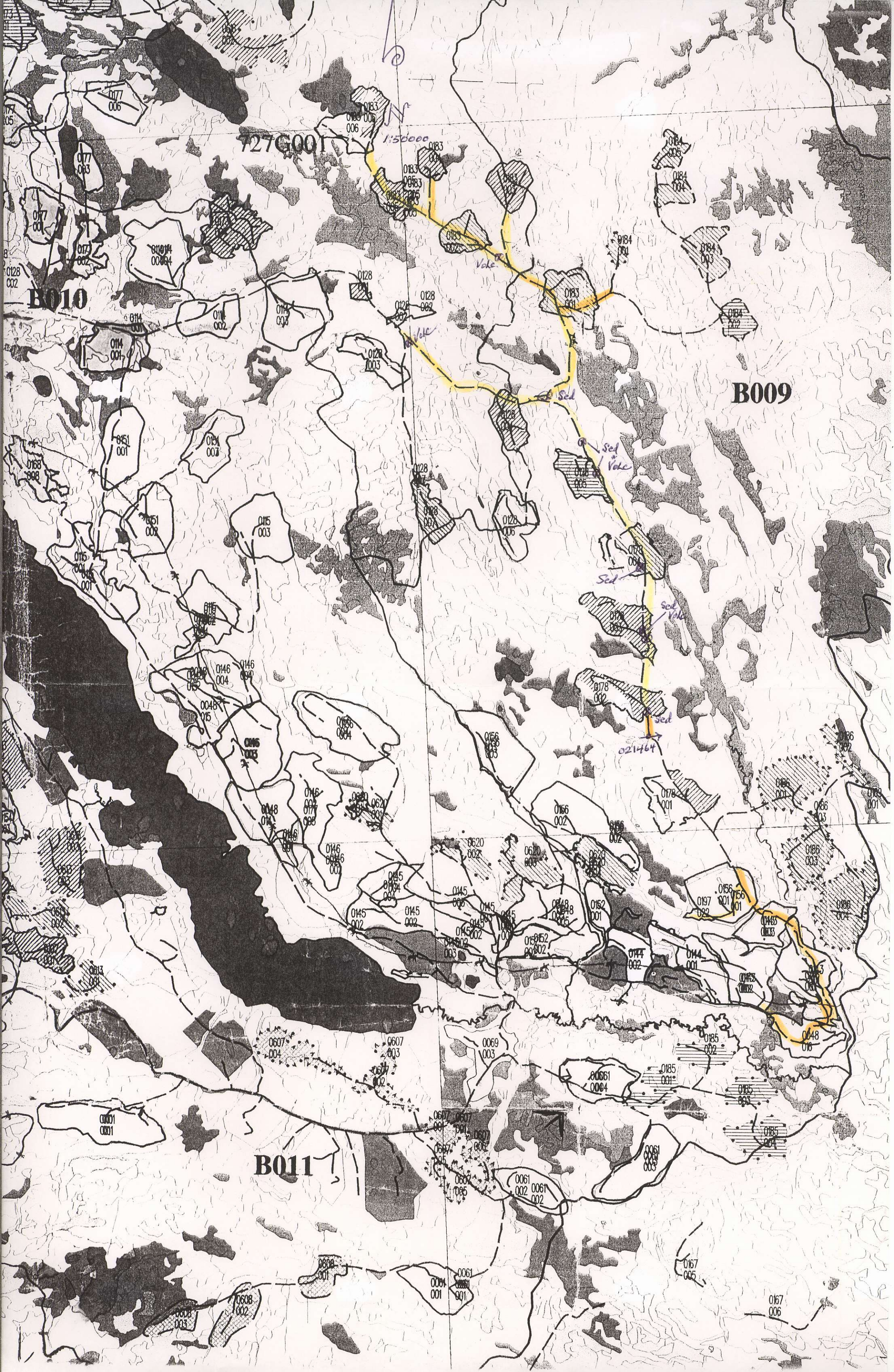
Description of mineralization, host rocks, anomalies:

Prospecting of new roads plus many extensios to existing roads were prospected along with current log blocks in the following areas.

1. North and south of Natowite lake
2. East of Deeceius lookout
3. Northwest of Decker lake and Pinkut lake
4. North of Colleymount
5. North and south of Uncha, Binta and Knapp Lakes
6. Sather road from Knapp lake to Cheslatta lake ~~plus~~ new roads and blocks to west of same.

nb. host rocks predominatly volcanic, with no new showings of sulphides.





727G001

1:50000

B010

B009

B011

Vale

Sed

Sed

Sed

Sed

021464

0167 005

0167 006



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Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: HUDSON BAY EXPLORATION & DEVELOPMENT CO. LTD.

405 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project : O.G.D.P.
Comments:

Page Number : 1-A
Total Pages : 1
Certificate Date: 04-AUG-98
Invoice No. : 19826364
P.O. Number :
Account : T

CERTIFICATE OF ANALYSIS

A9826364

| SAMPLE | PREP CODE | | Au ppb | Ag | Al | As | Ba | Be | Bi | Ca | Cd | Co | Cr | Cu | Fe | Ga | Hg | K | La | Mg | Mn |
|--------|-----------|-----|--------|-------|------|-----|-----|-------|-----|------|-------|-----|-----|-----|------|------|-----|------|-----|------|-----|
| | FA+AA | | ppm | ppm | % | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | % | ppm |
| 13186 | 205 | 226 | < 5 | < 0.2 | 0.85 | < 2 | 70 | < 0.5 | < 2 | 0.16 | < 0.5 | 6 | 144 | 20 | 1.58 | < 10 | < 1 | 0.12 | 10 | 0.56 | 300 |

CERTIFICATION: Hart Buchler



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V6C 1V5

Project : O.G.D.P.
Comments:

Page Number : 1-B
Total Pages : 1
Certificate Date: 04-AUG-98
Invoice No. : I9826364
P.O. Number :
Account : T

CERTIFICATE OF ANALYSIS

A9826364

| SAMPLE | PREP CODE | | Mo | Na | Ni | P | Pb | Sb | Sc | Sr | Ti | Tl | U | V | W | Zn |
|--------|-----------|-----|-----|------|-----|-----|-----|-----|-----|-----|------|------|------|-----|------|-----|
| | | | ppm | % | ppm | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm |
| 13186 | 205 | 226 | 3 | 0.09 | 6 | 80 | < 2 | < 2 | 3 | 11 | 0.07 | < 10 | < 10 | 26 | < 10 | 36 |

CERTIFICATION: H. B. Bichler

O.G.D.P.

HUDSON BAY EXPL LTD.

Attention: G.BIDWELL

Project: O.G.D.P.

Sample: SILT

Mineral Environments Laboratories

8282 Sherbrooke St., Vancouver, B.C., V5X 4E8

Tel (604) 327-3436 Fax (604) 327-3423

Report No : 8V0761 LJ

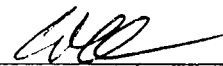
Date : Nov-19-98

MULTI-ELEMENT ICP ANALYSIS

Aqua Regia Digestion

| Sample Number | Ag ppm | Al % | As ppm | Ba ppm | Be ppm | Bi ppm | Ca % | Cd ppm | Co ppm | Cr ppm | Cu ppm | Fe % | K % | Mg % | Mn ppm | Mo ppm | Na % | Ni ppm | P ppm | Pb ppm | Sb ppm | Sc ppm | Sn ppm | Sr ppm | Ti % | V ppm | W ppm | Y ppm | Zn ppm | Zr ppm | Au-fire ppb |
|---------------|--------|------|--------|--------|--------|--------|------|--------|--------|--------|--------|------|------|------|--------|--------|------|--------|-------|--------|--------|--------|--------|--------|------|-------|-------|-------|--------|--------|-------------|
| 021462 | <0.2 | 1.30 | <5 | 140 | <0.5 | <5 | 0.83 | <1 | 10 | 77 | 46 | 3.00 | 0.08 | 0.85 | 540 | <2 | 0.02 | 31 | 710 | 4 | <5 | 4 | <10 | 58 | 0.08 | 66 | <10 | 7 | 60 | 3 | 6 |
| 021463 | <0.2 | 1.39 | <5 | 120 | <0.5 | <5 | 0.76 | <1 | 14 | 112 | 54 | 3.46 | 0.11 | 1.29 | 750 | <2 | 0.02 | 45 | 990 | 6 | 5 | 5 | <10 | 56 | 0.10 | 78 | <10 | 6 | 65 | 3 | 16 |
| 021464 | <0.2 | 1.50 | 5 | 130 | <0.5 | <5 | 0.79 | 2 | 12 | 41 | 29 | 3.67 | 0.07 | 0.79 | 1025 | 6 | 0.02 | 43 | 880 | 6 | <5 | 5 | <10 | 66 | 0.06 | 82 | <10 | 11 | 248 | 4 | 6 |

A .5 gm sample is digested with 10 ml 3:1 HCl/HNO3 at 95c for 2 hours and diluted to 25ml with D.I.H2O.

Signed: 

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B. TECHNICAL REPORT

Name: Ralph R. Keefe Ref #: P-7 1998/99

LOCATION/COMMODITIES-

Project Area: Bar Minfile #: n/a
Location of Area NTS: 93L/8w & 93L/9w
Lat: 54 30' Long: 126 28'

Description of location & access: Approx 3 km S. of Perow.
(Hwy 16) Accessed by old logging roads (12 km S.W. of Topley

Main Commodities Searched for: Barite

Known Mineral Occurrences in Project Area: Cu. & Ag.
Barite within the volcanics.

.....
WORK PERFORMED-

1. Conventional prosp. gridding & prospecting
2. Geological Mapping all outcrops visited were volcanic
3. Geochemical nil
4. Geophysical nil
5. Physical Work nil
6. Drilling nil
7. Other _____

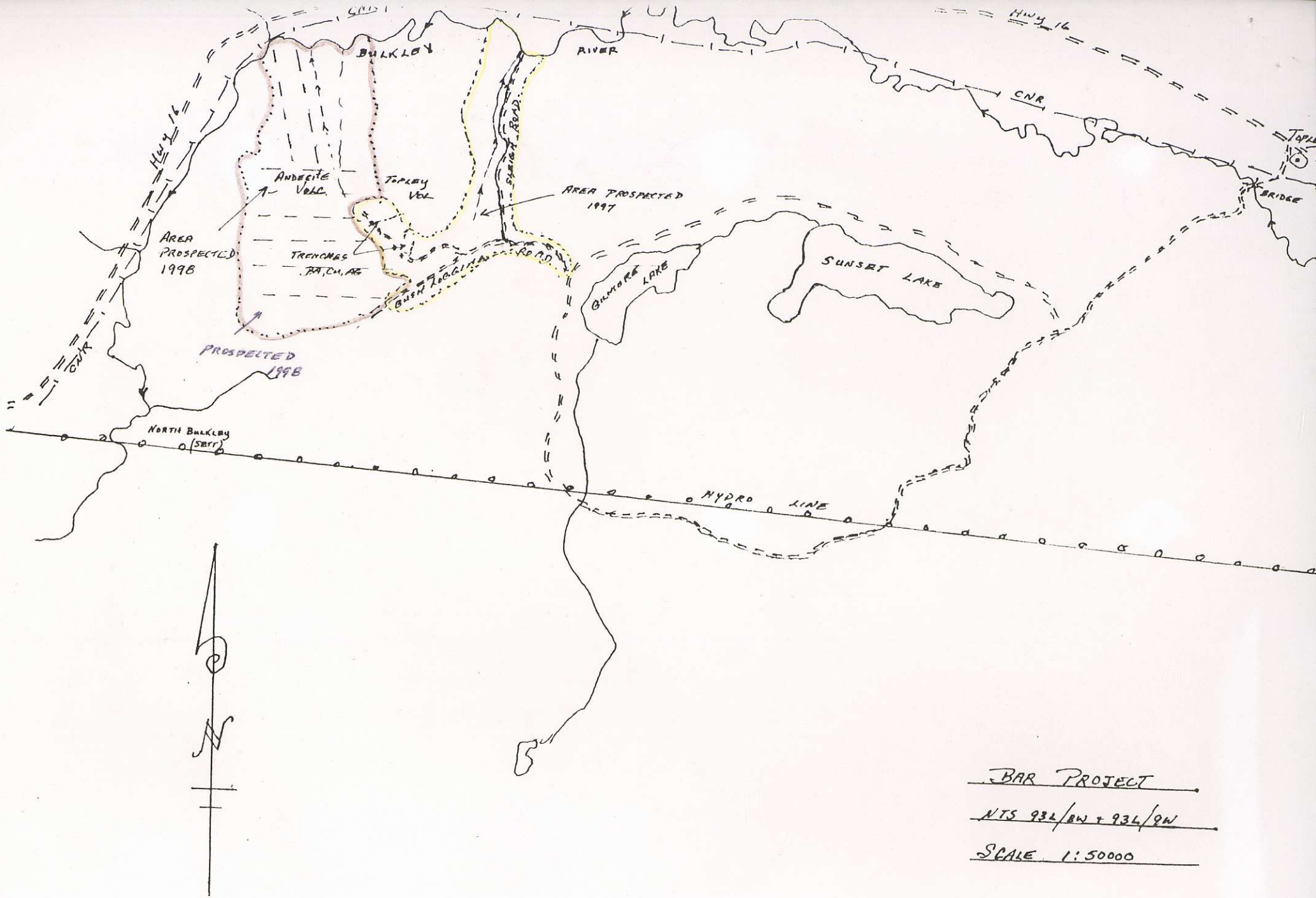
.....
SIGNIFICANT RESULTS- none at this time

Commodities _____ Claim Name: _____
Location/Lat: _____ Long: _____ Elevation: _____

Best assay/sample type: _____

Description of mineralization, host rocks, anomalies:

Search for commercial Barite was conducted during the 98 season.
Traces of Cu. Ag, and barite has been found in small fractures, but
no further discovery of large veins believed in area. Further
prospecting will be carried out in 99.



BAR PROJECT
NTS 932/8W + 934/8W
SCALE 1:50000

BRITISH COLUMBIA
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PROSPECTING REPORT FORM

B. TECHNICAL REPORT

Name: Ralph R. Keefe Ref #: P 7 1998/99

LOCATION/COMMODITIES-

Project Area: Cabin Minfile #: n/a
Location of Area NTS: 93M 8/W Lat: 55 25 Long: 125 15

Description of location & access: new road construction on
3300 main -houston forest products - plus current logging
northwest of Morrison lake plus geo-chem on creeks to S.W.

Main Commodities Searched for: porphyry Cu. Au.

Known Mineral Occurrences in Project Area: Noranda
Morrison ore body to the southeast.

.....
WORK PERFORMED-

1. Conventional prosp. new road const. and logging to date
2. Geological Mapping as above on outcrops
3. Geochemical creek silts to southwest
4. Geophysical nil
5. Physical Work nil
6. Drilling nil
7. Other nil

.....
SIGNIFICANT RESULTS- nil

Commodities _____ Claim Name: _____
Location/Lat: _____ Long: _____ Elevation: _____

Best assay/sample type: _____

Description of mineralization, host rocks, anomalies:

No new porphyry outcrops exposed in recent road construction
and current logging. Further follow up in 1999 contemplated.



CABIN

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V6C 1V5

Project : CABIN
Comments:

Page Number : 1-A
Total Pages : 1
Certificate Date: 04-AUG-98
Invoice No. : 19826366
P.O. Number :
Account : T

CERTIFICATE OF ANALYSIS A9826366

| SAMPLE | PREP CODE | | Au ppb | Ag ppm | Al % | As ppm | Ba ppm | Be ppm | Bi ppm | Ca % | Cd ppm | Co ppm | Cr ppm | Cu ppm | Fe % | Ga ppm | Hg ppm | K % | La ppm | Mg % | Mn ppm |
|--------|-----------|-----|--------|--------|------|--------|--------|--------|--------|------|--------|--------|--------|--------|------|--------|--------|------|--------|------|--------|
| | FA+AA | | | | | | | | | | | | | | | | | | | | |
| 13181 | 201 | 202 | < 5 | < 0.2 | 1.25 | 6 | 210 | < 0.5 | < 2 | 0.29 | < 0.5 | 10 | 13 | 7 | 1.89 | < 10 | < 1 | 0.05 | < 10 | 0.29 | 1295 |
| 13182 | 201 | 202 | < 5 | < 0.2 | 1.04 | 8 | 210 | < 0.5 | < 2 | 0.33 | < 0.5 | 10 | 14 | 19 | 2.59 | < 10 | < 1 | 0.09 | < 10 | 0.25 | 1385 |
| 13183 | 201 | 202 | < 5 | < 0.2 | 1.48 | 12 | 360 | < 0.5 | < 2 | 0.95 | < 0.5 | 11 | 13 | 16 | 2.82 | < 10 | < 1 | 0.07 | < 10 | 0.40 | 2030 |
| 13184 | 201 | 202 | < 5 | < 0.2 | 0.90 | 20 | 1250 | < 0.5 | < 2 | 1.60 | < 0.5 | 10 | 6 | 13 | 3.71 | < 10 | < 1 | 0.09 | < 10 | 0.36 | >10000 |
| 13185 | 201 | 202 | < 5 | < 0.2 | 1.73 | 34 | 410 | < 0.5 | < 2 | 0.57 | < 0.5 | 23 | 16 | 11 | 5.66 | < 10 | < 1 | 0.06 | < 10 | 0.34 | 6210 |

CERTIFICATION: Hunter Bush



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To: HUDSON BAY EXPLORATION & DEVELOPMENT CO. LTD.

405 - 470 GRANVILLE ST.
 VANCOUVER, BC
 V6C 1V5

Project: CABIN
 Comments:

Page Number : 1-B
 Total Pages : 1
 Certificate Date: 04-AUG-98
 Invoice No. : I9826366
 P.O. Number :
 Account : T

CERTIFICATE OF ANALYSIS

A9826366

| SAMPLE | PREP CODE | | Mo | Na | Ni | P | Pb | Sb | Sc | Sr | Ti | Tl | U | V | W | Zn |
|--------|-----------|-----|-----|------|-----|-----|-----|-----|-----|-----|--------|------|------|-----|------|-----|
| | | | ppm | % | ppm | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm |
| 13181 | 201 | 202 | < 1 | 0.01 | 16 | 360 | 2 | < 2 | 4 | 44 | 0.01 | < 10 | < 10 | 31 | < 10 | 58 |
| 13182 | 201 | 202 | < 1 | 0.01 | 21 | 630 | 2 | < 2 | 4 | 46 | < 0.01 | < 10 | < 10 | 32 | < 10 | 74 |
| 13183 | 201 | 202 | < 1 | 0.01 | 18 | 640 | 10 | < 2 | 6 | 97 | 0.01 | < 10 | < 10 | 39 | < 10 | 84 |
| 13184 | 201 | 202 | < 1 | 0.02 | 16 | 920 | 8 | 2 | 4 | 273 | 0.01 | < 10 | < 10 | 20 | < 10 | 70 |
| 13185 | 201 | 202 | 1 | 0.01 | 25 | 750 | 8 | < 2 | 5 | 65 | < 0.01 | < 10 | < 10 | 47 | < 10 | 132 |

CERTIFICATION: Paul Bickler

BRITISH COLUMBIA
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PROSPECTING REPORT FORM

B. TECHNICAL REPORT

Name: Ralph R. Keefe Ref #: P 7 1998/99

LOCATION/COMMODITIES-

Project Area: Hagen
Minfile #: Kare group, assay reports numbers 1256, 2939, 4249, 4250, 4426.
Location of Area NTS: 93L 10/E Lat: 54 55 Long: 126 06

Description of location & access: Located off the Jinx rd at 10 km from the east shore of babine - michell bay.

Main Commodities Searched for: porphyry Cu. Au.

Known Mineral Occurrences in Project Area: Granisle pit approximately 4.5 km away to the northwest.

WORK PERFORMED-

1. Conventional prosp. of grid lines and areas to northwest within the expired Kare claims.
2. Geological Mapping as related above
3. Geochemical grid and soils
4. Geophysical nil
5. Physical Work nil
6. Drilling nil
7. Other nil

SIGNIFICANT RESULTS- nil

Commodities _____ Claim Name: _____
Location/Lat: _____ Long: _____ Elevation: _____

Best assay/sample type: _____

Description of mineralization, host rocks, anomalies:

A grid was established plus soils taken between the Hagen showing and the soil grid on the Kare claims. Results from same did not warrant further fill in soils. -see attached map- New logging and road construction may expose further outcrops.

HAGEN PROJECT

INSERT

NO SCALE

SEE MEAS

APPROX LOC
B-BASE LINE
KARE GRID

This Point 600M-E. of HAGEN Rd.
ALD 1876M E on 48N of KARE GRID -S. BOUNDARY
FROM BABINE LAKE.

APPROX LOC OF 48N-KARE GRID

206M ↑

1400N

1300N

206 CR.

Jinx Rd (444M)

500M

850N

HAGEN #7

HAGEN #8

HALL Rd

500M

600N

Jinx Rd

500M

500M

I.P. of KARE #93 M.C.

HAGEN #6

HAGEN #5

HAGEN #9

PIT

106 Rd.

500M

Rd SIGN
KM 10
Jinx

400N

Rd to
1500

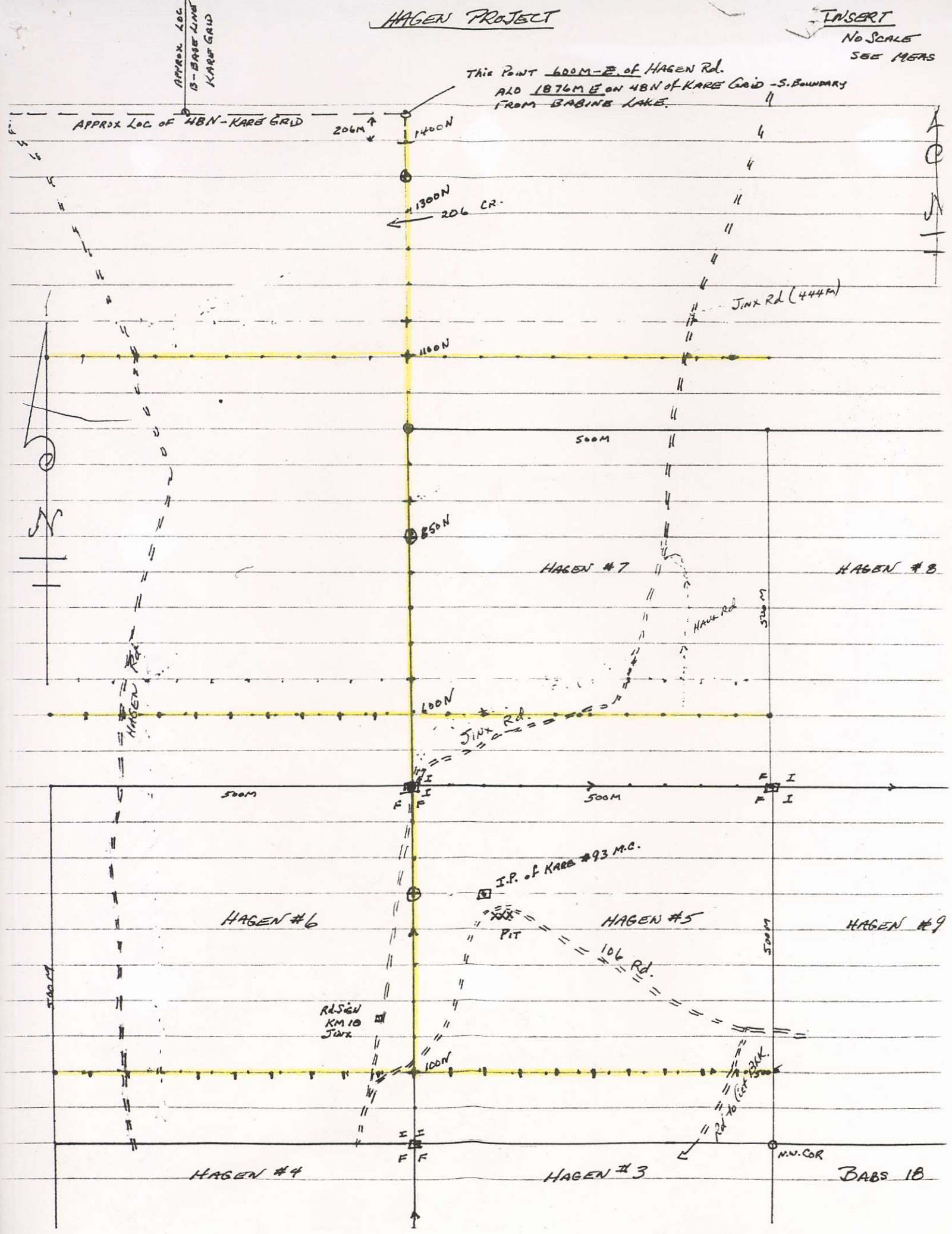
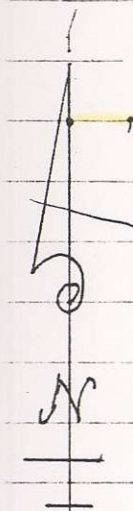
HAGEN #4

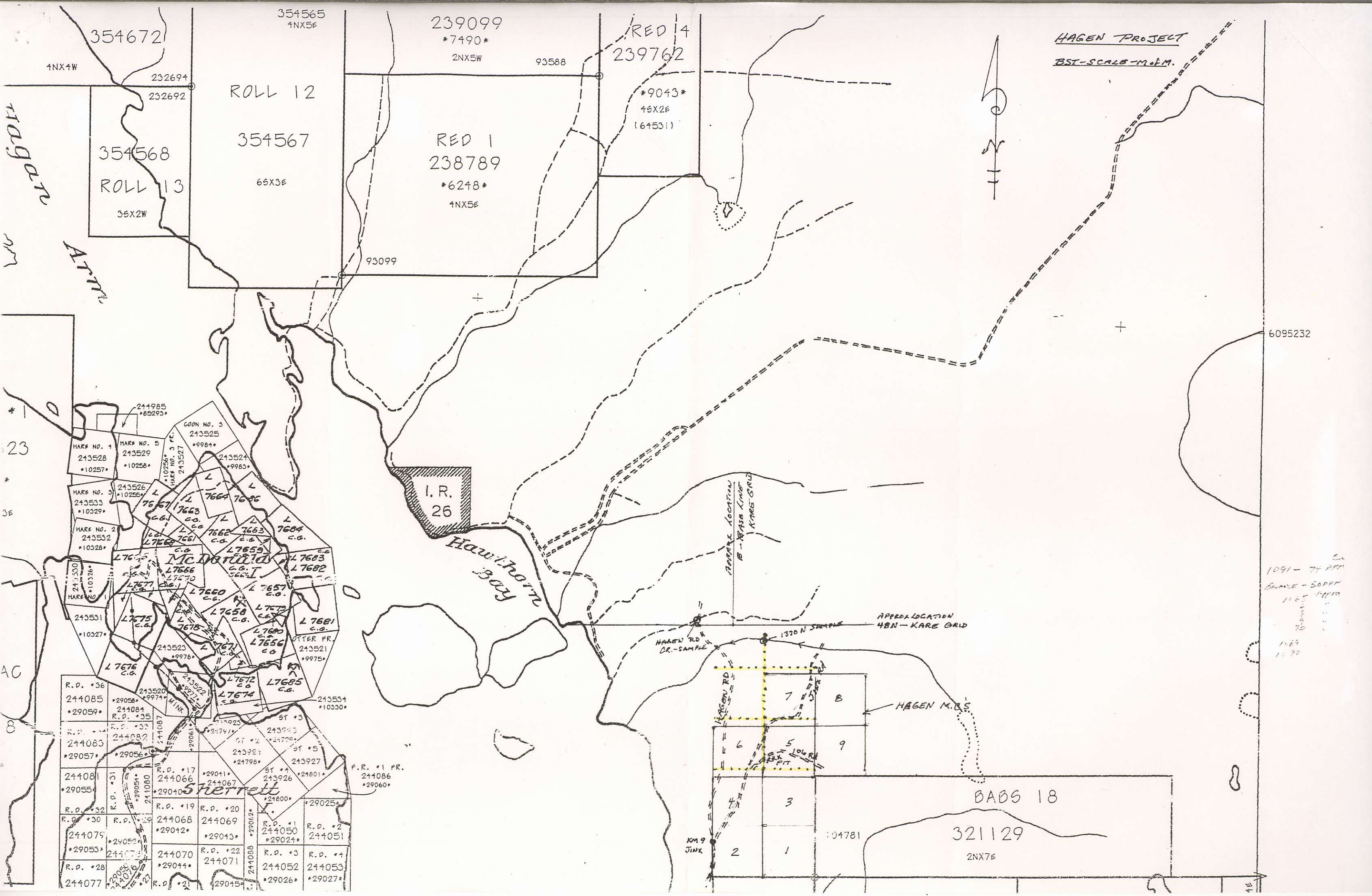
HAGEN #3

M.V. COR

BABS 18

A
C
N
I





HAGEN PROJECT
 BST-SCALE-M.O.M.



ROLL 12

354568

ROLL 13

354567

RED 1

238789

RED 4

239762

239099

7490

2NX5W

93588

9043

45X2E

(64531)

65X3E

6248

4NX5E

93099

6095232

I.R. 26

Hawthorn
 Boy

APPRAI LOCATION
 B - BASE LINE
 KARE GRID

APPRAI LOCATION
 48N - KARE GRID

HAGEN RD
 CR. - SAMPLE

1370 N SAMPLE

HAGEN M.O.S.

BABS 18

321129

2NX7E

| | | |
|---------------------------------|---------------------------------|----------------------|
| 244985 *85293* | COON NO. 3 243525 *9984* | 243524 *9983* |
| HARE NO. 4 243528 *10257* | HARE NO. 5 243529 *10258* | HARE NO. 3 243527 |
| HARE NO. 3 243533 *10329* | 243526 *10255* | 243524 *9983* |
| HARE NO. 2 243532 *10328* | 243526 *10255* | 243524 *9983* |
| 243530 *10326* | 243526 *10255* | 243524 *9983* |
| HARE NO. 1 243531 *10327* | 243526 *10255* | 243524 *9983* |
| R.D. *36 244085 *29058* | 244084 *29059* | 243534 *10330* |
| R.D. *33 244083 *29057* | 244082 *29056* | 243534 *10330* |
| R.D. *31 244081 *29055* | 244080 *29054* | 243534 *10330* |
| R.D. *32 244079 *29053* | 244078 *29052* | 243534 *10330* |
| R.D. *30 244077 *29051* | 244076 *29050* | 243534 *10330* |
| R.D. *28 244075 *29049* | 244074 *29048* | 243534 *10330* |
| R.D. *29 244073 *29047* | 244072 *29046* | 243534 *10330* |
| R.D. *27 244071 *29045* | 244070 *29044* | 243534 *10330* |
| R.D. *26 244069 *29043* | 244068 *29042* | 243534 *10330* |
| R.D. *25 244067 *29041* | 244066 *29040* | 243534 *10330* |
| R.D. *24 244065 *29039* | 244064 *29038* | 243534 *10330* |
| R.D. *23 244063 *29037* | 244062 *29036* | 243534 *10330* |
| R.D. *22 244061 *29035* | 244060 *29034* | 243534 *10330* |
| R.D. *21 244059 *29033* | 244058 *29032* | 243534 *10330* |
| R.D. *20 244057 *29031* | 244056 *29030* | 243534 *10330* |
| R.D. *19 244055 *29029* | 244054 *29028* | 243534 *10330* |
| R.D. *18 244053 *29027* | 244052 *29026* | 243534 *10330* |
| R.D. *17 244051 *29025* | 244050 *29024* | 243534 *10330* |
| R.D. *16 244049 *29023* | 244048 *29022* | 243534 *10330* |
| R.D. *15 244047 *29021* | 244046 *29020* | 243534 *10330* |
| R.D. *14 244045 *29019* | 244044 *29018* | 243534 *10330* |
| R.D. *13 244043 *29017* | 244042 *29016* | 243534 *10330* |
| R.D. *12 244041 *29015* | 244040 *29014* | 243534 *10330* |
| R.D. *11 244039 *29013* | 244038 *29012* | 243534 *10330* |
| R.D. *10 244037 *29011* | 244036 *29010* | 243534 *10330* |
| R.D. *9 244035 *29009* | 244034 *29008* | 243534 *10330* |
| R.D. *8 244033 *29007* | 244032 *29006* | 243534 *10330* |
| R.D. *7 244031 *29005* | 244030 *29004* | 243534 *10330* |
| R.D. *6 244029 *29003* | 244028 *29002* | 243534 *10330* |
| R.D. *5 244027 *29001* | 244026 *29000* | 243534 *10330* |
| R.D. *4 244025 *28999* | 244024 *28998* | 243534 *10330* |
| R.D. *3 244023 *28997* | 244022 *28996* | 243534 *10330* |
| R.D. *2 244021 *28995* | 244020 *28994* | 243534 *10330* |
| R.D. *1 244019 *28993* | 244018 *28992* | 243534 *10330* |
| R.D. *0 244017 *28991* | 244016 *28990* | 243534 *10330* |

1091 - 74 PPM
 SQUARE - 50 PPM
 1005 1000
 70
 1000
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Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

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To: HUDSON BAY EXPLORATION & DEVELOPMENT CO. LTD.

405 - 470 GRANVILLE ST.
 VANCOUVER, BC
 V6C 1V5

Project: HAGEN
 Comments:

Page Number :1-A
 Total Pages :3
 Certificate Date: 04-AUG-98
 Invoice No. :I9826368
 P.O. Number :
 Account :T

CERTIFICATE OF ANALYSIS A9826368

| SAMPLE | PREP | | Au ppb | Ag | Al | As | Ba | Be | Bi | Ca | Cd | Co | Cr | Cu | Fe | Ga | Hg | K | La | Mg | Mn |
|-----------|------|-----|--------|-------|------|-----|-----|-------|-----|------|-------|-----|-----|-----|------|------|-----|------|------|------|------|
| | CODE | | FA+AA | ppm | % | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | % | ppm |
| 100N | 201 | 202 | < 5 | < 0.2 | 1.44 | 8 | 140 | < 0.5 | < 2 | 0.35 | < 0.5 | 8 | 16 | 17 | 2.65 | < 10 | < 1 | 0.06 | < 10 | 0.37 | 355 |
| 150N | 201 | 202 | < 5 | < 0.2 | 1.70 | 10 | 130 | < 0.5 | < 2 | 0.30 | < 0.5 | 9 | 17 | 20 | 2.75 | < 10 | < 1 | 0.05 | < 10 | 0.37 | 530 |
| 200N | 201 | 202 | < 5 | < 0.2 | 1.84 | 4 | 190 | < 0.5 | < 2 | 0.44 | < 0.5 | 12 | 18 | 26 | 2.92 | < 10 | < 1 | 0.15 | 10 | 0.41 | 1050 |
| 250N | 201 | 202 | < 5 | < 0.2 | 1.53 | 6 | 160 | < 0.5 | < 2 | 0.33 | < 0.5 | 12 | 16 | 21 | 2.70 | < 10 | < 1 | 0.05 | < 10 | 0.37 | 1040 |
| 300N | 201 | 202 | < 5 | < 0.2 | 1.32 | 10 | 130 | < 0.5 | < 2 | 0.27 | < 0.5 | 8 | 14 | 15 | 2.32 | < 10 | < 1 | 0.04 | < 10 | 0.29 | 595 |
| 350N | 201 | 202 | < 5 | < 0.2 | 1.40 | 8 | 120 | < 0.5 | < 2 | 0.26 | < 0.5 | 8 | 17 | 21 | 2.83 | < 10 | < 1 | 0.05 | < 10 | 0.39 | 480 |
| 400N | 201 | 202 | < 5 | < 0.2 | 1.09 | 2 | 90 | < 0.5 | < 2 | 0.25 | < 0.5 | 6 | 14 | 13 | 2.16 | < 10 | < 1 | 0.04 | < 10 | 0.33 | 330 |
| 450N | 201 | 202 | < 5 | < 0.2 | 1.22 | 2 | 100 | < 0.5 | < 2 | 0.23 | < 0.5 | 6 | 14 | 11 | 2.07 | < 10 | < 1 | 0.04 | < 10 | 0.32 | 265 |
| 500N | 201 | 202 | < 5 | < 0.2 | 1.32 | 10 | 110 | < 0.5 | < 2 | 0.29 | < 0.5 | 7 | 17 | 17 | 2.49 | < 10 | < 1 | 0.06 | < 10 | 0.38 | 425 |
| 550N | 201 | 202 | < 5 | < 0.2 | 1.25 | < 2 | 150 | < 0.5 | < 2 | 0.26 | < 0.5 | 6 | 14 | 13 | 2.01 | < 10 | < 1 | 0.05 | < 10 | 0.27 | 335 |
| 600N | 201 | 202 | < 5 | < 0.2 | 1.39 | 6 | 130 | < 0.5 | < 2 | 0.27 | < 0.5 | 7 | 16 | 15 | 2.38 | < 10 | < 1 | 0.05 | < 10 | 0.35 | 450 |
| 650N | 201 | 202 | < 5 | < 0.2 | 1.33 | 4 | 120 | < 0.5 | < 2 | 0.26 | < 0.5 | 6 | 15 | 14 | 2.16 | < 10 | < 1 | 0.05 | < 10 | 0.33 | 420 |
| 700N | 201 | 202 | < 5 | < 0.2 | 1.34 | 2 | 110 | < 0.5 | < 2 | 0.22 | < 0.5 | 6 | 15 | 12 | 2.09 | < 10 | < 1 | 0.04 | < 10 | 0.31 | 305 |
| 750N | 201 | 202 | < 5 | < 0.2 | 1.36 | 2 | 130 | < 0.5 | < 2 | 0.36 | < 0.5 | 7 | 16 | 12 | 2.12 | < 10 | < 1 | 0.05 | < 10 | 0.38 | 390 |
| 800N | 201 | 202 | < 5 | < 0.2 | 1.61 | 6 | 150 | < 0.5 | < 2 | 0.50 | < 0.5 | 10 | 19 | 23 | 2.79 | < 10 | < 1 | 0.07 | < 10 | 0.44 | 620 |
| 850N | 201 | 202 | < 5 | < 0.2 | 2.15 | 10 | 220 | < 0.5 | < 2 | 0.56 | < 0.5 | 12 | 25 | 39 | 3.64 | < 10 | < 1 | 0.12 | 10 | 0.58 | 705 |
| 900N | 201 | 202 | < 5 | < 0.2 | 1.40 | 6 | 130 | < 0.5 | < 2 | 0.42 | < 0.5 | 8 | 16 | 13 | 2.46 | < 10 | < 1 | 0.05 | < 10 | 0.32 | 245 |
| 950N | 201 | 202 | < 5 | < 0.2 | 1.90 | 10 | 180 | < 0.5 | < 2 | 0.57 | < 0.5 | 13 | 22 | 29 | 3.10 | < 10 | < 1 | 0.08 | 10 | 0.52 | 835 |
| 1000N | 201 | 202 | < 5 | < 0.2 | 1.64 | 10 | 150 | < 0.5 | < 2 | 0.51 | < 0.5 | 11 | 21 | 28 | 3.04 | < 10 | < 1 | 0.07 | < 10 | 0.48 | 580 |
| 1050N | 201 | 202 | < 5 | < 0.2 | 1.92 | 8 | 180 | < 0.5 | < 2 | 0.76 | < 0.5 | 8 | 18 | 26 | 2.68 | < 10 | < 1 | 0.06 | < 10 | 0.44 | 510 |
| 1100N | 201 | 202 | < 5 | < 0.2 | 1.23 | < 2 | 130 | < 0.5 | < 2 | 0.48 | < 0.5 | 4 | 13 | 14 | 1.46 | < 10 | < 1 | 0.05 | < 10 | 0.24 | 295 |
| 1150N | 201 | 202 | < 5 | < 0.2 | 1.19 | 4 | 100 | < 0.5 | < 2 | 0.37 | < 0.5 | 7 | 15 | 11 | 2.02 | < 10 | < 1 | 0.04 | < 10 | 0.38 | 310 |
| 1200N | 201 | 202 | < 5 | < 0.2 | 1.28 | 2 | 100 | < 0.5 | < 2 | 0.37 | < 0.5 | 8 | 15 | 14 | 2.10 | < 10 | < 1 | 0.04 | < 10 | 0.42 | 305 |
| 1250N | 201 | 202 | < 5 | < 0.2 | 1.51 | 6 | 150 | < 0.5 | < 2 | 0.47 | < 0.5 | 8 | 19 | 23 | 2.60 | < 10 | < 1 | 0.06 | < 10 | 0.47 | 340 |
| 1300N | 201 | 202 | < 5 | < 0.2 | 1.33 | 4 | 100 | < 0.5 | < 2 | 0.26 | < 0.5 | 6 | 15 | 12 | 2.16 | < 10 | < 1 | 0.05 | < 10 | 0.34 | 270 |
| 1350N | 201 | 202 | < 5 | < 0.2 | 1.52 | < 2 | 120 | < 0.5 | < 2 | 0.24 | < 0.5 | 9 | 15 | 9 | 2.52 | < 10 | < 1 | 0.05 | < 10 | 0.23 | 305 |
| 1400N | 201 | 202 | < 5 | < 0.2 | 1.41 | 10 | 140 | < 0.5 | < 2 | 0.27 | < 0.5 | 10 | 16 | 15 | 2.74 | < 10 | < 1 | 0.05 | < 10 | 0.28 | 525 |
| 100N+50E | 201 | 202 | < 5 | < 0.2 | 1.62 | 6 | 140 | < 0.5 | < 2 | 0.36 | < 0.5 | 12 | 17 | 16 | 2.64 | < 10 | < 1 | 0.07 | < 10 | 0.25 | 640 |
| 100N+100E | 201 | 202 | < 5 | < 0.2 | 1.60 | 6 | 150 | < 0.5 | < 2 | 0.29 | < 0.5 | 11 | 16 | 13 | 2.27 | < 10 | < 1 | 0.06 | < 10 | 0.34 | 640 |
| 100N+150E | 201 | 202 | < 5 | < 0.2 | 1.39 | 6 | 120 | < 0.5 | < 2 | 0.28 | < 0.5 | 8 | 15 | 12 | 2.20 | < 10 | < 1 | 0.05 | < 10 | 0.31 | 400 |
| 100N+200E | 201 | 202 | < 5 | < 0.2 | 1.89 | 6 | 180 | < 0.5 | < 2 | 0.49 | < 0.5 | 10 | 21 | 19 | 2.60 | < 10 | < 1 | 0.06 | 10 | 0.42 | 820 |
| 100N+250E | 201 | 202 | < 5 | < 0.2 | 0.96 | < 2 | 70 | < 0.5 | < 2 | 0.24 | < 0.5 | 4 | 12 | 6 | 1.74 | < 10 | < 1 | 0.04 | < 10 | 0.18 | 125 |
| 100N+300E | 201 | 202 | < 5 | < 0.2 | 1.84 | < 2 | 100 | < 0.5 | < 2 | 0.19 | < 0.5 | 11 | 19 | 13 | 2.66 | < 10 | 1 | 0.05 | < 10 | 0.29 | 785 |
| 100N+350E | 201 | 202 | < 5 | < 0.2 | 2.34 | 10 | 140 | < 0.5 | < 2 | 0.16 | < 0.5 | 7 | 19 | 13 | 2.89 | < 10 | < 1 | 0.04 | < 10 | 0.27 | 200 |
| 100N+400E | 201 | 202 | < 5 | < 0.2 | 1.23 | 6 | 80 | < 0.5 | < 2 | 0.19 | < 0.5 | 5 | 13 | 9 | 1.60 | < 10 | < 1 | 0.04 | < 10 | 0.31 | 165 |
| 100N+450E | 201 | 202 | < 5 | < 0.2 | 1.53 | 6 | 90 | < 0.5 | < 2 | 0.21 | < 0.5 | 6 | 15 | 11 | 2.49 | < 10 | < 1 | 0.03 | < 10 | 0.32 | 235 |
| 100N+500E | 201 | 202 | < 5 | < 0.2 | 1.28 | < 2 | 150 | < 0.5 | < 2 | 0.29 | < 0.5 | 6 | 13 | 11 | 1.87 | < 10 | < 1 | 0.03 | < 10 | 0.29 | 180 |
| 100N+50W | 201 | 202 | < 5 | < 0.2 | 1.50 | 8 | 160 | < 0.5 | < 2 | 0.47 | < 0.5 | 9 | 16 | 23 | 2.59 | < 10 | < 1 | 0.10 | < 10 | 0.42 | 675 |
| 100N+100W | 201 | 202 | < 5 | < 0.2 | 1.86 | 10 | 210 | < 0.5 | < 2 | 0.52 | < 0.5 | 11 | 19 | 30 | 2.87 | < 10 | < 1 | 0.14 | 10 | 0.44 | 820 |
| 100N+150W | 201 | 202 | < 5 | < 0.2 | 1.19 | 8 | 120 | < 0.5 | < 2 | 0.26 | < 0.5 | 7 | 15 | 12 | 2.39 | < 10 | < 1 | 0.04 | < 10 | 0.31 | 235 |

CERTIFICATION:

Paul Buchler



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Page Number : 1-B
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 Account : T

CERTIFICATE OF ANALYSIS A9826368

| SAMPLE | PREP CODE | | Mo | Na | Ni | P | Pb | Sb | Sc | Sr | Ti | Tl | U | V | W | Zn |
|-----------|-----------|-----|-----|--------|-----|-----|-----|-----|-----|-----|------|------|------|-----|------|-----|
| | | | ppm | % | ppm | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm |
| 100N | 201 | 202 | < 1 | < 0.01 | 15 | 430 | 8 | < 2 | 5 | 29 | 0.07 | < 10 | < 10 | 56 | < 10 | 56 |
| 150N | 201 | 202 | 1 | < 0.01 | 15 | 430 | 14 | < 2 | 5 | 23 | 0.06 | < 10 | < 10 | 59 | < 10 | 76 |
| 200N | 201 | 202 | < 1 | < 0.01 | 18 | 830 | 6 | < 2 | 6 | 38 | 0.05 | < 10 | < 10 | 59 | < 10 | 82 |
| 250N | 201 | 202 | < 1 | < 0.01 | 15 | 520 | 6 | < 2 | 5 | 28 | 0.05 | < 10 | < 10 | 58 | < 10 | 66 |
| 300N | 201 | 202 | 2 | < 0.01 | 12 | 650 | 6 | < 2 | 4 | 22 | 0.05 | < 10 | < 10 | 46 | < 10 | 62 |
| 350N | 201 | 202 | < 1 | < 0.01 | 16 | 420 | 6 | < 2 | 5 | 24 | 0.06 | < 10 | < 10 | 57 | < 10 | 58 |
| 400N | 201 | 202 | < 1 | < 0.01 | 13 | 310 | 8 | < 2 | 4 | 20 | 0.05 | < 10 | < 10 | 46 | < 10 | 44 |
| 450N | 201 | 202 | < 1 | < 0.01 | 13 | 360 | 2 | < 2 | 3 | 18 | 0.06 | < 10 | < 10 | 47 | < 10 | 58 |
| 500N | 201 | 202 | < 1 | < 0.01 | 16 | 440 | 4 | < 2 | 4 | 25 | 0.06 | < 10 | < 10 | 51 | < 10 | 50 |
| 550N | 201 | 202 | < 1 | < 0.01 | 11 | 470 | 4 | < 2 | 4 | 20 | 0.05 | < 10 | < 10 | 45 | < 10 | 72 |
| 600N | 201 | 202 | < 1 | < 0.01 | 15 | 510 | 2 | < 2 | 4 | 20 | 0.06 | < 10 | < 10 | 52 | < 10 | 76 |
| 650N | 201 | 202 | < 1 | < 0.01 | 13 | 430 | 4 | < 2 | 4 | 22 | 0.05 | < 10 | < 10 | 49 | < 10 | 62 |
| 700N | 201 | 202 | < 1 | 0.01 | 12 | 400 | 2 | < 2 | 4 | 20 | 0.06 | < 10 | < 10 | 48 | < 10 | 62 |
| 750N | 201 | 202 | < 1 | 0.01 | 14 | 260 | 2 | < 2 | 4 | 32 | 0.07 | < 10 | < 10 | 49 | < 10 | 48 |
| 800N | 201 | 202 | < 1 | 0.01 | 18 | 460 | 20 | < 2 | 6 | 36 | 0.06 | < 10 | < 10 | 58 | < 10 | 72 |
| 850N | 201 | 202 | < 1 | 0.02 | 27 | 600 | 10 | < 2 | 9 | 51 | 0.04 | < 10 | < 10 | 67 | < 10 | 84 |
| 900N | 201 | 202 | < 1 | 0.01 | 12 | 220 | 2 | < 2 | 4 | 35 | 0.06 | < 10 | < 10 | 56 | < 10 | 66 |
| 950N | 201 | 202 | 1 | 0.01 | 21 | 500 | 6 | < 2 | 9 | 47 | 0.07 | < 10 | < 10 | 64 | < 10 | 66 |
| 1000N | 201 | 202 | < 1 | 0.01 | 21 | 450 | 6 | < 2 | 8 | 46 | 0.07 | < 10 | < 10 | 61 | < 10 | 60 |
| 1050N | 201 | 202 | < 1 | 0.01 | 19 | 450 | 2 | < 2 | 7 | 60 | 0.05 | < 10 | < 10 | 57 | < 10 | 72 |
| 1100N | 201 | 202 | < 1 | 0.01 | 9 | 290 | 2 | < 2 | 3 | 38 | 0.04 | < 10 | < 10 | 38 | < 10 | 58 |
| 1150N | 201 | 202 | < 1 | 0.01 | 13 | 310 | 6 | < 2 | 4 | 30 | 0.08 | < 10 | < 10 | 47 | < 10 | 54 |
| 1200N | 201 | 202 | < 1 | 0.01 | 14 | 270 | 6 | < 2 | 4 | 29 | 0.08 | < 10 | < 10 | 47 | < 10 | 46 |
| 1250N | 201 | 202 | < 1 | 0.01 | 18 | 220 | 4 | < 2 | 6 | 47 | 0.07 | < 10 | < 10 | 54 | < 10 | 52 |
| 1300N | 201 | 202 | < 1 | 0.01 | 13 | 360 | 2 | < 2 | 3 | 21 | 0.06 | < 10 | < 10 | 48 | < 10 | 60 |
| 1350N | 201 | 202 | < 1 | < 0.01 | 10 | 590 | 2 | < 2 | 4 | 18 | 0.07 | < 10 | < 10 | 58 | < 10 | 124 |
| 1400N | 201 | 202 | < 1 | < 0.01 | 13 | 630 | 10 | < 2 | 4 | 20 | 0.07 | < 10 | < 10 | 63 | < 10 | 80 |
| 100N+50E | 201 | 202 | < 1 | < 0.01 | 13 | 700 | 4 | < 2 | 4 | 27 | 0.04 | < 10 | < 10 | 54 | < 10 | 80 |
| 100N+100E | 201 | 202 | < 1 | 0.01 | 14 | 480 | 2 | < 2 | 4 | 26 | 0.06 | < 10 | < 10 | 51 | < 10 | 106 |
| 100N+150E | 201 | 202 | < 1 | 0.01 | 12 | 350 | 6 | < 2 | 4 | 25 | 0.06 | < 10 | < 10 | 52 | < 10 | 54 |
| 100N+200E | 201 | 202 | 3 | 0.01 | 19 | 260 | 6 | < 2 | 7 | 39 | 0.07 | < 10 | < 10 | 56 | < 10 | 66 |
| 100N+250E | 201 | 202 | 1 | < 0.01 | 7 | 210 | 6 | < 2 | 2 | 18 | 0.07 | < 10 | < 10 | 47 | < 10 | 44 |
| 100N+300E | 201 | 202 | < 1 | 0.01 | 13 | 760 | 4 | < 2 | 4 | 18 | 0.06 | < 10 | < 10 | 60 | < 10 | 90 |
| 100N+350E | 201 | 202 | < 1 | 0.01 | 14 | 610 | 6 | < 2 | 4 | 17 | 0.05 | < 10 | < 10 | 57 | < 10 | 96 |
| 100N+400E | 201 | 202 | < 1 | 0.01 | 11 | 270 | 2 | < 2 | 3 | 16 | 0.06 | < 10 | < 10 | 38 | < 10 | 44 |
| 100N+450E | 201 | 202 | < 1 | < 0.01 | 13 | 480 | 4 | < 2 | 3 | 17 | 0.05 | < 10 | < 10 | 52 | < 10 | 60 |
| 100N+500E | 201 | 202 | < 1 | < 0.01 | 11 | 200 | 2 | < 2 | 3 | 26 | 0.04 | < 10 | < 10 | 42 | < 10 | 70 |
| 100N+50W | 201 | 202 | < 1 | < 0.01 | 16 | 550 | 8 | < 2 | 5 | 35 | 0.05 | < 10 | < 10 | 50 | < 10 | 70 |
| 100N+100W | 201 | 202 | < 1 | < 0.01 | 21 | 750 | 6 | < 2 | 7 | 41 | 0.04 | < 10 | < 10 | 54 | < 10 | 84 |
| 100N+150W | 201 | 202 | < 1 | < 0.01 | 14 | 290 | 2 | < 2 | 4 | 23 | 0.07 | < 10 | < 10 | 52 | < 10 | 48 |

CERTIFICATION:

Paul Bickler



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CERTIFICATE OF ANALYSIS A9826368

| SAMPLE | PREP CODE | | Au ppb | Ag | Al | As | Ba | Be | Bi | Ca | Cd | Co | Cr | Cu | Fe | Ga | Hg | K | La | Mg | Mn |
|------------|-----------|-----|--------|-------|------|-----|------|-------|-----|------|-------|-----|-----|-----|------|------|-----|------|------|------|--------|
| | FA+AA | | ppm | ppm | % | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | % | ppm | ppm | % | ppm | % | ppm |
| 100N+200W | 201 | 202 | < 5 | < 0.2 | 1.35 | 8 | 120 | < 0.5 | < 2 | 0.27 | < 0.5 | 9 | 15 | 10 | 2.42 | < 10 | < 1 | 0.05 | < 10 | 0.34 | 295 |
| 100N+250W | 201 | 202 | < 5 | 0.2 | 3.62 | 8 | 330 | 0.5 | < 2 | 0.95 | < 0.5 | 11 | 29 | 56 | 4.02 | < 10 | < 1 | 0.13 | 10 | 0.63 | 905 |
| 100N+300W | 201 | 202 | < 5 | < 0.2 | 1.93 | 4 | 200 | 0.5 | < 2 | 0.76 | < 0.5 | 10 | 18 | 29 | 2.70 | < 10 | < 1 | 0.08 | 10 | 0.41 | 535 |
| 100N+350W | 201 | 202 | < 5 | < 0.2 | 1.59 | < 2 | 170 | < 0.5 | < 2 | 0.44 | 0.5 | 10 | 18 | 23 | 2.58 | < 10 | < 1 | 0.05 | 10 | 0.37 | 860 |
| 100N+400W | 201 | 202 | < 5 | < 0.2 | 1.60 | 8 | 230 | < 0.5 | < 2 | 0.53 | 0.5 | 11 | 18 | 26 | 2.91 | < 10 | < 1 | 0.09 | 10 | 0.37 | 1015 |
| 100N+450W | 201 | 202 | < 5 | < 0.2 | 1.57 | < 2 | 160 | < 0.5 | < 2 | 0.56 | 0.5 | 10 | 18 | 22 | 2.80 | < 10 | < 1 | 0.08 | < 10 | 0.38 | 475 |
| 100N+500W | 201 | 202 | < 5 | < 0.2 | 1.35 | 6 | 140 | < 0.5 | < 2 | 0.48 | 0.5 | 10 | 17 | 21 | 2.85 | < 10 | < 1 | 0.08 | < 10 | 0.35 | 525 |
| 600N+50E | 201 | 202 | < 5 | < 0.2 | 1.50 | 6 | 130 | < 0.5 | < 2 | 0.28 | < 0.5 | 8 | 18 | 19 | 2.74 | < 10 | < 1 | 0.07 | < 10 | 0.38 | 580 |
| 600N+100E | 201 | 202 | < 5 | < 0.2 | 1.40 | 6 | 140 | < 0.5 | < 2 | 0.37 | < 0.5 | 9 | 17 | 24 | 2.86 | < 10 | < 1 | 0.07 | < 10 | 0.42 | 570 |
| 600N+150E | 201 | 202 | < 5 | < 0.2 | 2.02 | 12 | 210 | < 0.5 | < 2 | 0.66 | < 0.5 | 13 | 25 | 43 | 3.84 | < 10 | < 1 | 0.08 | < 10 | 0.63 | 905 |
| 600N+200E | 201 | 202 | < 5 | < 0.2 | 0.83 | < 2 | 100 | < 0.5 | < 2 | 0.20 | < 0.5 | 5 | 11 | 8 | 1.88 | < 10 | < 1 | 0.04 | < 10 | 0.16 | 185 |
| 600N+250E | 201 | 202 | < 5 | < 0.2 | 1.96 | 8 | 180 | < 0.5 | < 2 | 0.46 | < 0.5 | 9 | 21 | 32 | 3.05 | < 10 | < 1 | 0.06 | 10 | 0.46 | 535 |
| 600N+300E | 201 | 202 | < 5 | < 0.2 | 1.44 | 10 | 120 | < 0.5 | < 2 | 0.23 | < 0.5 | 7 | 18 | 20 | 3.25 | < 10 | < 1 | 0.04 | < 10 | 0.31 | 260 |
| 600N+350E | 201 | 202 | < 5 | < 0.2 | 2.43 | 8 | 210 | < 0.5 | < 2 | 0.81 | < 0.5 | 11 | 26 | 41 | 3.75 | < 10 | < 1 | 0.11 | 10 | 0.55 | 670 |
| 600N+400E | 201 | 202 | < 5 | 0.2 | 5.62 | 8 | 500 | 0.5 | < 2 | 1.11 | 1.5 | 18 | 47 | 103 | 5.88 | 10 | < 1 | 0.26 | 10 | 0.90 | 3830 |
| 600N+450E | 201 | 202 | < 5 | < 0.2 | 1.37 | 6 | 120 | < 0.5 | < 2 | 0.28 | < 0.5 | 10 | 17 | 14 | 2.29 | < 10 | < 1 | 0.05 | < 10 | 0.35 | 765 |
| 600N+500E | 201 | 202 | < 5 | < 0.2 | 1.60 | 8 | 100 | < 0.5 | < 2 | 0.22 | < 0.5 | 7 | 17 | 14 | 2.77 | < 10 | < 1 | 0.04 | < 10 | 0.34 | 285 |
| 600N+50W | 201 | 202 | < 5 | < 0.2 | 1.33 | 10 | 110 | < 0.5 | < 2 | 0.30 | < 0.5 | 7 | 17 | 20 | 2.55 | < 10 | < 1 | 0.05 | < 10 | 0.38 | 385 |
| 600N+100W | 201 | 202 | < 5 | < 0.2 | 1.05 | 8 | 80 | < 0.5 | < 2 | 0.23 | < 0.5 | 6 | 13 | 12 | 2.04 | < 10 | < 1 | 0.04 | < 10 | 0.31 | 265 |
| 600N+150W | 201 | 202 | < 5 | < 0.2 | 1.86 | 10 | 160 | < 0.5 | < 2 | 0.36 | < 0.5 | 7 | 19 | 22 | 2.72 | < 10 | < 1 | 0.07 | < 10 | 0.40 | 530 |
| 600N+200W | 201 | 202 | < 5 | < 0.2 | 1.54 | < 2 | 300 | < 0.5 | < 2 | 0.45 | 1.0 | 11 | 18 | 15 | 3.32 | < 10 | < 1 | 0.07 | < 10 | 0.39 | 955 |
| 600N+250W | 201 | 202 | < 5 | 0.2 | 4.13 | 30 | 1330 | 0.5 | < 2 | 1.48 | 1.5 | 15 | 34 | 83 | 5.16 | < 10 | < 1 | 0.14 | 30 | 0.64 | >10000 |
| 600N+300W | 201 | 202 | < 5 | < 0.2 | 1.80 | 8 | 170 | < 0.5 | < 2 | 0.76 | 0.5 | 7 | 19 | 22 | 2.83 | < 10 | < 1 | 0.05 | < 10 | 0.43 | 625 |
| 600N+350W | 201 | 202 | < 5 | 0.2 | 2.86 | 20 | 260 | < 0.5 | < 2 | 1.65 | 1.5 | 15 | 36 | 52 | 5.76 | < 10 | < 1 | 0.07 | 10 | 0.95 | 1610 |
| 600N+400W | 201 | 202 | < 5 | < 0.2 | 1.74 | 8 | 230 | < 0.5 | < 2 | 1.50 | 2.0 | 10 | 18 | 43 | 2.91 | < 10 | < 1 | 0.06 | < 10 | 0.48 | 725 |
| 600N+450W | 201 | 202 | < 5 | 0.2 | 2.09 | 8 | 280 | < 0.5 | < 2 | 1.76 | 2.0 | 10 | 20 | 82 | 2.97 | < 10 | < 1 | 0.08 | 10 | 0.60 | 995 |
| 600N+500W | 201 | 202 | < 5 | < 0.2 | 1.68 | 12 | 160 | < 0.5 | < 2 | 0.71 | < 0.5 | 10 | 22 | 22 | 3.11 | < 10 | < 1 | 0.11 | < 10 | 0.55 | 610 |
| 1100N+50E | 201 | 202 | < 5 | < 0.2 | 1.73 | 2 | 160 | < 0.5 | < 2 | 0.59 | < 0.5 | 9 | 19 | 23 | 2.66 | < 10 | < 1 | 0.07 | < 10 | 0.48 | 460 |
| 1100N+100E | 201 | 202 | < 5 | < 0.2 | 1.38 | 10 | 90 | < 0.5 | < 2 | 0.37 | < 0.5 | 9 | 17 | 15 | 2.76 | < 10 | < 1 | 0.05 | < 10 | 0.41 | 380 |
| 1100N+150E | 201 | 202 | < 5 | < 0.2 | 1.93 | 4 | 160 | < 0.5 | < 2 | 0.53 | < 0.5 | 8 | 21 | 28 | 2.83 | < 10 | < 1 | 0.08 | < 10 | 0.45 | 450 |
| 1100N+200E | 201 | 202 | < 5 | 0.8 | 4.44 | 12 | 520 | 0.5 | < 2 | 1.16 | 2.0 | 15 | 36 | 118 | 5.09 | < 10 | < 1 | 0.16 | 10 | 0.69 | 1860 |
| 1100N+250E | 201 | 202 | < 5 | < 0.2 | 2.91 | < 2 | 270 | < 0.5 | < 2 | 0.68 | 0.5 | 12 | 27 | 46 | 3.80 | < 10 | < 1 | 0.13 | 10 | 0.54 | 1125 |
| 1100N+300E | 201 | 202 | < 5 | < 0.2 | 1.48 | 8 | 140 | < 0.5 | < 2 | 0.29 | < 0.5 | 9 | 17 | 12 | 2.82 | < 10 | < 1 | 0.05 | < 10 | 0.33 | 250 |
| 1100N+350E | 201 | 202 | < 5 | 0.2 | 4.20 | 12 | 430 | 0.5 | < 2 | 1.28 | 1.0 | 12 | 39 | 67 | 4.98 | 10 | < 1 | 0.18 | 10 | 0.72 | 965 |
| 1100N+400E | 201 | 202 | < 5 | < 0.2 | 2.21 | 12 | 230 | < 0.5 | < 2 | 0.89 | 0.5 | 10 | 23 | 34 | 3.09 | < 10 | < 1 | 0.05 | 10 | 0.45 | 680 |
| 1100N+450E | 201 | 202 | < 5 | < 0.2 | 1.29 | 10 | 220 | < 0.5 | < 2 | 0.26 | 0.5 | 9 | 16 | 12 | 2.51 | < 10 | < 1 | 0.05 | < 10 | 0.28 | 1095 |
| 1100N+500E | 201 | 202 | < 5 | < 0.2 | 1.93 | 8 | 150 | < 0.5 | < 2 | 0.47 | < 0.5 | 10 | 18 | 18 | 2.98 | < 10 | < 1 | 0.04 | < 10 | 0.36 | 270 |
| 1100N+50W | 201 | 202 | < 5 | < 0.2 | 1.39 | 6 | 120 | < 0.5 | < 2 | 0.42 | < 0.5 | 10 | 16 | 12 | 2.28 | < 10 | < 1 | 0.05 | < 10 | 0.43 | 510 |
| 1100N+100W | 201 | 202 | < 5 | < 0.2 | 1.33 | 2 | 100 | < 0.5 | < 2 | 0.26 | < 0.5 | 7 | 15 | 9 | 2.44 | < 10 | < 1 | 0.06 | < 10 | 0.22 | 300 |
| 1100N+150W | 201 | 202 | < 5 | < 0.2 | 1.75 | < 2 | 110 | < 0.5 | < 2 | 0.26 | < 0.5 | 9 | 19 | 14 | 2.97 | < 10 | < 1 | 0.05 | < 10 | 0.31 | 295 |

CERTIFICATION:

Janet Buckle



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
 212 Brooksbank Ave., North Vancouver
 British Columbia, Canada V7J 2C1
 PHONE: 604-984-0221 FAX: 604-984-0218

To: HUDSON BAY EXPLORATION & DEVELOPMENT CO. LTD.

405 - 470 GRANVILLE ST.
 VANCOUVER, BC
 V6C 1V5

Page Number :2-B
 Total Pages :3
 Certificate Date: 04-AUG-91
 Invoice No. :19826368
 P.O. Number :
 Account :T

Project : HAGEN
 Comments:

CERTIFICATE OF ANALYSIS

A9826368

| SAMPLE | PREP CODE | | Mo | Na | Ni | P | Pb | Sb | Sc | Sr | Ti | Tl | U | V | W | Zn |
|------------|-----------|-----|-----|--------|-----|------|-----|-----|-----|-----|--------|------|------|-----|------|-----|
| | | | ppm | % | ppm | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm |
| 100N+200W | 201 | 202 | < 1 | < 0.01 | 13 | 460 | 2 | < 2 | 4 | 22 | 0.09 | < 10 | < 10 | 54 | < 10 | 84 |
| 100N+250W | 201 | 202 | 1 | 0.01 | 33 | 670 | 10 | < 2 | 12 | 90 | 0.02 | < 10 | < 10 | 69 | < 10 | 98 |
| 100N+300W | 201 | 202 | 3 | 0.01 | 18 | 550 | 8 | < 2 | 6 | 71 | 0.03 | < 10 | < 10 | 51 | < 10 | 72 |
| 100N+350W | 201 | 202 | 3 | 0.01 | 18 | 300 | 6 | < 2 | 5 | 40 | 0.05 | < 10 | < 10 | 52 | < 10 | 84 |
| 100N+400W | 201 | 202 | < 1 | 0.01 | 22 | 1090 | 6 | < 2 | 6 | 41 | 0.04 | < 10 | < 10 | 53 | < 10 | 132 |
| 100N+450W | 201 | 202 | < 1 | 0.01 | 19 | 520 | 2 | < 2 | 6 | 40 | 0.06 | < 10 | < 10 | 54 | < 10 | 114 |
| 100N+500W | 201 | 202 | < 1 | < 0.01 | 15 | 460 | 6 | < 2 | 5 | 35 | 0.05 | < 10 | < 10 | 54 | < 10 | 140 |
| 600N+50E | 201 | 202 | < 1 | 0.01 | 15 | 470 | 4 | < 2 | 5 | 26 | 0.06 | < 10 | < 10 | 55 | < 10 | 60 |
| 600N+100E | 201 | 202 | 1 | 0.01 | 16 | 560 | 14 | < 2 | 5 | 30 | 0.04 | < 10 | < 10 | 51 | < 10 | 88 |
| 600N+150E | 201 | 202 | 1 | 0.01 | 25 | 630 | 8 | < 2 | 9 | 52 | 0.04 | < 10 | < 10 | 67 | < 10 | 94 |
| 600N+200E | 201 | 202 | < 1 | < 0.01 | 6 | 500 | 4 | < 2 | 2 | 15 | 0.05 | < 10 | < 10 | 43 | < 10 | 78 |
| 600N+250E | 201 | 202 | 1 | 0.01 | 19 | 400 | 4 | < 2 | 7 | 41 | 0.05 | < 10 | < 10 | 60 | < 10 | 80 |
| 600N+300E | 201 | 202 | 1 | < 0.01 | 12 | 370 | < 2 | < 2 | 4 | 25 | 0.06 | < 10 | < 10 | 71 | < 10 | 78 |
| 600N+350E | 201 | 202 | < 1 | 0.01 | 25 | 500 | 8 | < 2 | 10 | 102 | 0.04 | < 10 | 10 | 71 | < 10 | 114 |
| 600N+400E | 201 | 202 | 6 | 0.03 | 55 | 580 | 12 | < 2 | 19 | 206 | < 0.01 | < 10 | 30 | 94 | < 10 | 206 |
| 600N+450E | 201 | 202 | < 1 | 0.01 | 12 | 270 | 2 | < 2 | 4 | 26 | 0.08 | < 10 | < 10 | 52 | < 10 | 72 |
| 600N+500E | 201 | 202 | < 1 | 0.01 | 13 | 330 | 6 | < 2 | 4 | 20 | 0.07 | < 10 | < 10 | 58 | < 10 | 72 |
| 600N+50W | 201 | 202 | < 1 | 0.01 | 15 | 370 | 2 | < 2 | 5 | 25 | 0.06 | < 10 | < 10 | 50 | < 10 | 52 |
| 600N+100W | 201 | 202 | < 1 | < 0.01 | 12 | 370 | < 2 | < 2 | 3 | 17 | 0.05 | < 10 | < 10 | 42 | < 10 | 46 |
| 600N+150W | 201 | 202 | < 1 | 0.01 | 17 | 580 | 2 | < 2 | 5 | 30 | 0.05 | < 10 | < 10 | 51 | < 10 | 96 |
| 600N+200W | 201 | 202 | < 1 | < 0.01 | 14 | 1800 | 8 | < 2 | 5 | 34 | 0.06 | < 10 | < 10 | 63 | < 10 | 162 |
| 600N+250W | 201 | 202 | 35 | 0.03 | 63 | 760 | 6 | < 2 | 22 | 172 | 0.01 | < 10 | 10 | 73 | < 10 | 108 |
| 600N+300W | 201 | 202 | < 1 | 0.01 | 16 | 430 | 6 | < 2 | 8 | 60 | 0.05 | < 10 | 10 | 51 | < 10 | 114 |
| 600N+350W | 201 | 202 | 4 | 0.06 | 27 | 1270 | 10 | < 2 | 10 | 119 | 0.05 | < 10 | 20 | 75 | < 10 | 124 |
| 600N+400W | 201 | 202 | < 1 | 0.01 | 19 | 570 | 4 | < 2 | 6 | 86 | 0.04 | < 10 | < 10 | 50 | < 10 | 182 |
| 600N+450W | 201 | 202 | < 1 | 0.02 | 24 | 1020 | 4 | < 2 | 7 | 106 | 0.03 | < 10 | 10 | 51 | < 10 | 184 |
| 600N+500W | 201 | 202 | < 1 | 0.01 | 19 | 700 | 2 | < 2 | 8 | 50 | 0.06 | < 10 | < 10 | 63 | < 10 | 76 |
| 1100N+50E | 201 | 202 | 1 | 0.01 | 16 | 460 | 2 | < 2 | 6 | 46 | 0.06 | < 20 | < 10 | 58 | < 10 | 88 |
| 1100N+100E | 201 | 202 | < 1 | 0.01 | 13 | 240 | 8 | < 2 | 4 | 30 | 0.08 | < 10 | < 10 | 64 | < 10 | 56 |
| 1100N+150E | 201 | 202 | < 1 | 0.01 | 19 | 350 | 4 | < 2 | 7 | 43 | 0.05 | < 10 | < 10 | 58 | < 10 | 64 |
| 1100N+200E | 201 | 202 | 2 | 0.01 | 45 | 920 | 8 | < 2 | 13 | 113 | 0.01 | < 10 | < 10 | 82 | < 10 | 192 |
| 1100N+250E | 201 | 202 | 1 | 0.01 | 25 | 490 | 8 | < 2 | 9 | 59 | 0.03 | < 10 | < 10 | 68 | < 10 | 132 |
| 1100N+300E | 201 | 202 | < 1 | 0.01 | 14 | 410 | 2 | < 2 | 4 | 25 | 0.08 | < 10 | < 10 | 66 | < 10 | 102 |
| 1100N+350E | 201 | 202 | < 1 | 0.03 | 41 | 760 | 6 | < 2 | 14 | 169 | 0.02 | < 10 | < 10 | 77 | < 10 | 144 |
| 1100N+400E | 201 | 202 | < 1 | 0.01 | 20 | 390 | 6 | < 2 | 7 | 57 | 0.04 | < 10 | < 10 | 64 | < 10 | 134 |
| 1100N+450E | 201 | 202 | < 1 | < 0.01 | 11 | 820 | 6 | < 2 | 4 | 21 | 0.07 | < 10 | < 10 | 56 | < 10 | 152 |
| 1100N+500E | 201 | 202 | < 1 | 0.01 | 15 | 300 | 2 | < 2 | 5 | 56 | 0.07 | < 10 | < 10 | 61 | < 10 | 82 |
| 1100N+50W | 201 | 202 | < 1 | 0.01 | 14 | 400 | 4 | < 2 | 5 | 38 | 0.08 | < 10 | < 10 | 51 | < 10 | 46 |
| 1100N+100W | 201 | 202 | < 1 | 0.01 | 10 | 510 | 8 | < 2 | 3 | 19 | 0.07 | < 10 | < 10 | 59 | < 10 | 90 |
| 1100N+150W | 201 | 202 | < 1 | 0.01 | 14 | 570 | 2 | < 2 | 5 | 26 | 0.07 | < 10 | < 10 | 60 | < 10 | 94 |

CERTIFICATION:

Hart Buchler



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

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British Columbia, Canada V7J 2C1
PHONE: 604-984-0221 FAX: 604-984-0218

To: HUDSON BAY EXPLORATION & DEVELOPMENT CO. LTD.

405 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project: HAGEN
Comments:

Page Number :3-A
Total Pages :3
Certificate Date: 04-AUG-98
Invoice No. :I9826368
P.O. Number :
Account :T

CERTIFICATE OF ANALYSIS

A9826368

| SAMPLE | PREP CODE | | Au ppb | Ag ppm | Al % | As ppm | Ba ppm | Be ppm | Bi ppm | Ca % | Cd ppm | Co ppm | Cr ppm | Cu ppm | Fe % | Ga ppm | Hg ppm | K % | La ppm | Mg % | Mn ppm |
|------------|-----------|-----|--------|--------|------|--------|--------|--------|--------|------|--------|--------|--------|--------|------|--------|--------|------|--------|------|--------|
| | FA+AA | | | | | | | | | | | | | | | | | | | | |
| 1100N+200W | 201 | 202 | < 5 | < 0.2 | 1.54 | 12 | 130 | < 0.5 | < 2 | 0.38 | < 0.5 | 10 | 19 | 22 | 2.93 | < 10 | < 1 | 0.07 | < 10 | 0.41 | 470 |
| 1100N+250W | 201 | 202 | < 5 | < 0.2 | 2.41 | 10 | 200 | < 0.5 | < 2 | 0.58 | 0.5 | 16 | 26 | 26 | 3.62 | < 10 | < 1 | 0.10 | < 10 | 0.62 | 1185 |
| 1100N+300W | 201 | 202 | < 5 | < 0.2 | 1.58 | 10 | 130 | < 0.5 | < 2 | 0.39 | < 0.5 | 8 | 19 | 20 | 2.61 | < 10 | < 1 | 0.07 | < 10 | 0.41 | 435 |
| 1100N+350W | 201 | 202 | < 5 | < 0.2 | 1.57 | 8 | 150 | < 0.5 | < 2 | 0.67 | 0.5 | 9 | 18 | 20 | 2.74 | < 10 | < 1 | 0.08 | < 10 | 0.40 | 365 |
| 1100N+400W | 201 | 202 | < 5 | < 0.2 | 2.69 | 10 | 230 | < 0.5 | < 2 | 0.68 | < 0.5 | 14 | 29 | 38 | 3.99 | < 10 | < 1 | 0.12 | 10 | 0.67 | 845 |
| 1100N+450W | 201 | 202 | < 5 | < 0.2 | 2.20 | 12 | 250 | < 0.5 | < 2 | 1.12 | 0.5 | 13 | 23 | 54 | 3.51 | < 10 | < 1 | 0.10 | 10 | 0.58 | 1000 |
| 1100N+500W | 201 | 202 | < 5 | < 0.2 | 2.12 | 8 | 240 | < 0.5 | < 2 | 0.84 | 0.5 | 9 | 21 | 28 | 3.06 | < 10 | < 1 | 0.10 | < 10 | 0.49 | 690 |
| CR-1370N | 201 | 202 | < 5 | < 0.2 | 3.02 | 10 | 280 | < 0.5 | < 2 | 0.88 | 0.5 | 12 | 25 | 32 | 3.96 | < 10 | < 1 | 0.09 | 10 | 0.58 | 2920 |
| HAGEN RD | 201 | 202 | < 5 | < 0.2 | 2.42 | 10 | 220 | < 0.5 | < 2 | 0.69 | 0.5 | 12 | 23 | 33 | 3.41 | < 10 | < 1 | 0.09 | < 10 | 0.55 | 815 |

CERTIFICATION:

Hart Bickler



Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

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British Columbia, Canada V7J 2C1
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To: HUDSON BAY EXPLORATION & DEVELOPMENT CO. LTD.

405 - 470 GRANVILLE ST.
VANCOUVER, BC
V6C 1V5

Project : HAGEN
Comments:

Page Number :3-B
Total Pages :3
Certificate Date: 04-AUG-98
Invoice No. :19826368
P.O. Number :
Account :T

CERTIFICATE OF ANALYSIS

A9826368

| SAMPLE | PREP | | Mo | Na | Ni | P | Pb | Sb | Sc | Sr | Tl | Tl | U | V | W | Zn |
|------------|------|-----|-----|------|-----|-----|-----|-----|-----|-----|------|------|------|-----|------|-----|
| | CODE | | ppm | % | ppm | ppm | ppm | ppm | ppm | ppm | % | ppm | ppm | ppm | ppm | ppm |
| 1100N+200W | 201 | 202 | < 1 | 0.01 | 17 | 320 | 8 | < 2 | 5 | 35 | 0.09 | < 10 | < 10 | 63 | < 10 | 56 |
| 1100N+250W | 201 | 202 | 1 | 0.01 | 24 | 590 | 8 | < 2 | 7 | 54 | 0.04 | < 10 | < 10 | 71 | < 10 | 96 |
| 1100N+300W | 201 | 202 | < 1 | 0.01 | 17 | 250 | 4 | < 2 | 6 | 37 | 0.06 | < 10 | < 10 | 51 | < 10 | 68 |
| 1100N+350W | 201 | 202 | < 1 | 0.01 | 17 | 270 | 2 | < 2 | 6 | 52 | 0.05 | < 10 | < 10 | 53 | < 10 | 66 |
| 1100N+400W | 201 | 202 | < 1 | 0.02 | 27 | 320 | 10 | < 2 | 11 | 58 | 0.04 | < 10 | < 10 | 74 | < 10 | 94 |
| 1100N+450W | 201 | 202 | < 1 | 0.01 | 26 | 420 | 8 | < 2 | 8 | 102 | 0.02 | < 10 | < 10 | 58 | < 10 | 104 |
| 1100N+500W | 201 | 202 | < 1 | 0.01 | 19 | 290 | 8 | < 2 | 7 | 67 | 0.05 | < 10 | < 10 | 57 | < 10 | 108 |
| CR-1370N | 201 | 202 | 1 | 0.01 | 25 | 720 | 10 | < 2 | 9 | 78 | 0.04 | < 10 | < 10 | 68 | < 10 | 164 |
| HAGEN RD | 201 | 202 | < 1 | 0.01 | 22 | 610 | 8 | < 2 | 9 | 57 | 0.05 | < 10 | < 10 | 65 | < 10 | 104 |

CERTIFICATION:

Hank Bickler

BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM
PROSPECTING REPORT FORM

B. TECHNICAL REPORT

Name: Ralph R. Keefe Ref #: P-7 1998/99

LOCATION/COMMODITIES-

Project Area: Sib Minfile #: n/a
Location of Area NTS: 93E11/E Lat: 53 42' Long: 127 04'

Description of location & access: Thatsa reach (6km NE. of Huckleberry Mine). Approx 100 km S of Houston by H.F.P. main haul road.

Main Commodities Searched for: Cu. & Au & Ag.

Known Mineral Occurrences in Project Area: nil
Huckleberry mines close by.

.....
WORK PERFORMED-

1. Conventional prosp. new rd const. & progressive logging
2. Geological Mapping all outcrops exposed in constuction
3. Geochemical 2 silts and 1 rock taken
4. Geophysical nil
5. Physical Work nil
6. Drilling nil
7. Other _____

.....
SIGNIFICANT RESULTS- nil

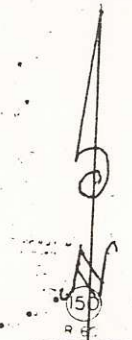
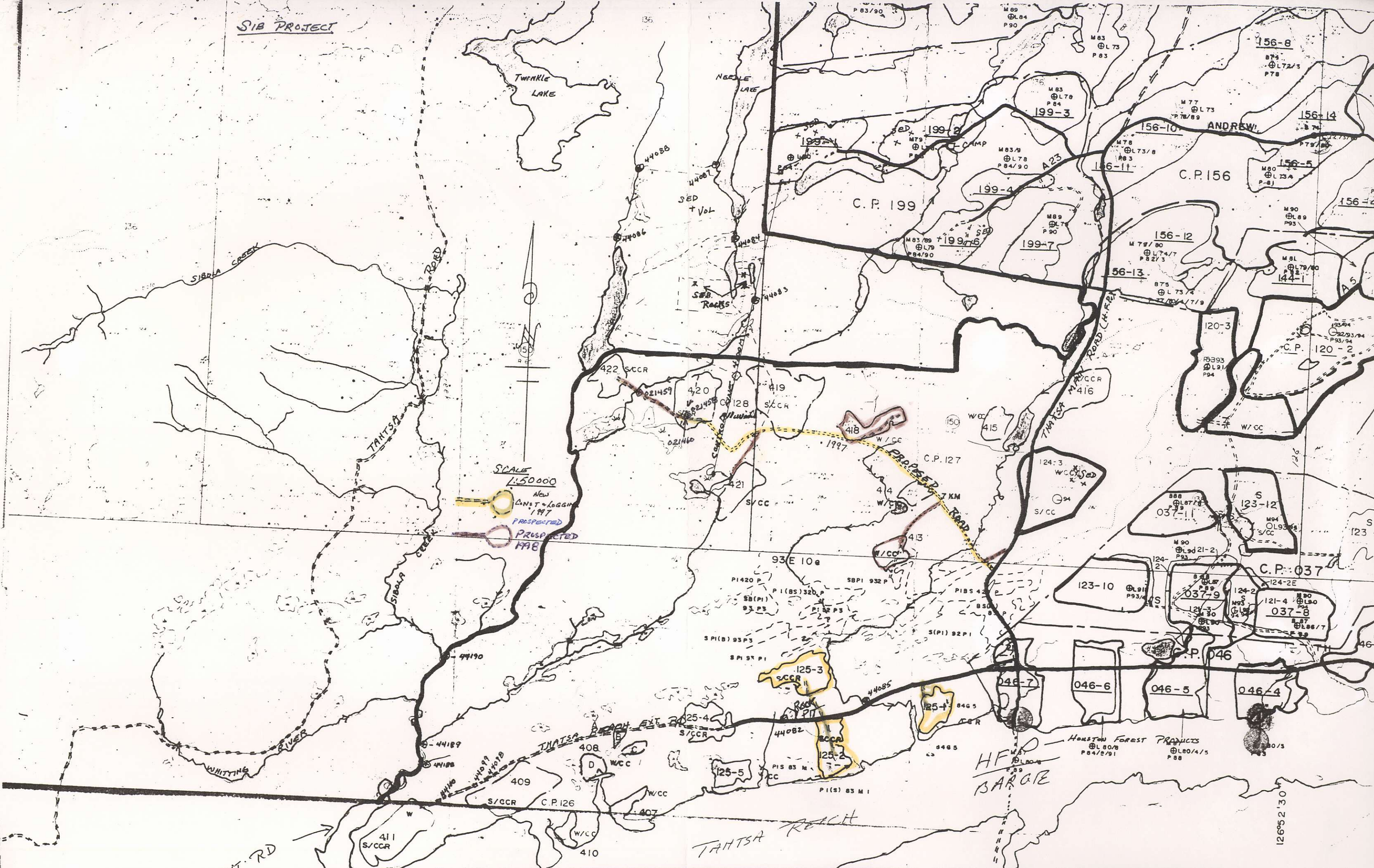
Commodities _____ Claim Name: _____
Location/Lat: _____ Long: _____ Elevation: _____

Best assay/sample type: _____

Description of mineralization, host rocks, anomalies:

All new roads & current logging blocks checked for any new exposures. Rocks predominatly volcanic.
Further follow up of new roads & logging will be required in the 99 season.

SIB PROJECT



SCALE
1:50000

New
CONST LOGGERS
1997
PROSPECTED
1998

HF BARGE
HONSTON FOREST PRODUCTS
L 80/8 P 84/2/91
L 80/4/5 P 88
L 80/3

126°52'30"



MINERAL ENVIRONMENTS LABORATORIES LTD.

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FAX (604) 327-3423

SMITHERS LAB:
3176 TATLOW ROAD
SMITHERS, BC, CANADA V0J 2N0
TELEPHONE (250) 847-3004
FAX (250) 847-3005

Quality Assaying for over 25 Years

Assay Certificate

8V-0620-RA1

Company: HUDSONS BAY MINING EXPLORATION
Project: SIB
Attn: RALPH KEEFE

Sep-22-98

We hereby certify the following Assay of 1 ROCK sample
submitted Sep-16-98 by RALPH KEEFE.

| Sample Name | Au-fire g/tonne |
|----------------|--------------------|
| 021460 | 0.01 |

Certified by _____

Min-En Laboratories

HUDSONS BAY MINING EXPLORATION

Attention: RALPH KEEFE

Project: SIB

Sample: ROCK

Mineral Environments Laboratories

8282 Sherbrooke St., Vancouver, B.C., V5X 4E8

Tel (604) 327-3436 Fax (604) 327-3423

Report No : 8V0620 RJ

Date : Sep-22-98

MULTI-ELEMENT ICP ANALYSIS

Aqua Regia Digestion

| Sample Number | Ag ppm | Al % | As ppm | Ba ppm | Be ppm | Bi ppm | Ca % | Cd ppm | Co ppm | Cr ppm | Cu ppm | Fe % | K % | Mg % | Mn ppm | Mo ppm | Na % | Ni ppm | P ppm | Pb ppm | Sb ppm | Sc ppm | Sn ppm | Sr ppm | Ti % | V ppm | W ppm | Y ppm | Zn ppm | Zr ppm |
|---------------|--------|------|--------|--------|--------|--------|------|--------|--------|--------|--------|------|------|------|--------|--------|-------|--------|-------|--------|--------|--------|--------|--------|-------|-------|-------|-------|--------|--------|
| 021460 | <0.2 | 0.32 | 20 | 70 | 0.5 | <5 | 2.47 | <1 | 8 | 19 | 12 | 4.23 | 0.03 | 0.81 | 955 | <2 | <0.01 | 10 | 480 | <2 | 5 | 6 | <10 | 50 | <0.01 | 54 | <10 | 10 | 109 | 4 |

A .5 gm sample is digested with 10 ml 3:1 HCl/HNO3 at 95c for 2 hours and diluted to 25ml with D.I.H2O.





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SMITHERS LAB:
3176 TATLOW ROAD
SMITHERS, BC, CANADA V0J 2N0
TELEPHONE (250) 847-3004
FAX (250) 847-3005

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Assay Certificate

8V-0620-LA1

Company: HUDSONS BAY MINING EXPLORATION
Project: SIB
Attn: RALPH KEEFE

Sep-22-98

We hereby certify the following Assay of 2 SILT samples
submitted Sep-16-98 by RALPH KEEFE.

| Sample Name | Au-fire g/tonne |
|-------------|-----------------|
| 021458 | 0.01 |
| 021459 | 0.01 |

Certified by

Min-En Laboratories

SIB

HUDSONS BAY MINING EXPLORATION

Attention: RALPH KEEFE

Project: SIB

Sample: SILT

Mineral Environments Laboratories

8282 Sherbrooke St., Vancouver, B.C., V5X 4E8

Tel (604) 327-3436 Fax (604) 327-3423

Report No : 8V0620 LJ

Date : Sep-22-98

MULTI-ELEMENT ICP ANALYSIS

Aqua Regia Digestion

| Sample Number | Ag ppm | Al % | As ppm | Ba ppm | Be ppm | Bi ppm | Ca % | Cd ppm | Co ppm | Cr ppm | Cu ppm | Fe % | K % | Mg % | Mn ppm | Mo ppm | Na % | Ni ppm | P ppm | Pb ppm | Sb ppm | Sc ppm | Sn ppm | Sr ppm | Ti % | V ppm | W ppm | Y ppm | Zn ppm | Zr ppm |
|---------------|--------|------|--------|--------|--------|--------|------|--------|--------|--------|--------|------|------|------|--------|--------|-------|--------|-------|--------|--------|--------|--------|--------|------|-------|-------|-------|--------|--------|
| 021458 | <0.2 | 1.46 | 5 | 130 | <0.5 | <5 | 0.55 | 1 | 5 | 19 | 22 | 2.36 | 0.04 | 0.46 | 860 | <2 | <0.01 | 11 | 760 | <2 | <5 | 2 | <10 | 35 | 0.02 | 39 | <10 | 11 | 84 | 2 |
| 021459 | <0.2 | 1.30 | 5 | 150 | <0.5 | <5 | 0.70 | 1 | 11 | 21 | 15 | 4.00 | 0.03 | 0.50 | 2320 | <2 | <0.01 | 12 | 990 | 6 | <5 | 2 | <10 | 35 | 0.02 | 56 | <10 | 13 | 92 | 3 |

A .5 gm sample is digested with 10 ml 3:1 HCl/HNO3 at 95c for 2 hours and diluted to 25ml with D.I.H2O.



BRITISH COLUMBIA
PROSPECTORS ASSISTANCE PROGRAM
PROSPECTING REPORT FORM

B. TECHNICAL REPORT

Name: Ralph R. Keefe Ref #: P 7 1998/99

LOCATION/COMMODITIES-

Project Area: King Minfile #: n/a-92M018
Location of Area NTS: 92M 08/W Lat: 51 48 Long: 126 17

Description of location & access: helicopter access from
Tatla lake

Main Commodities Searched for: epithermal or high level
hydrothermal Cu. Ag. Au.

Known Mineral Occurrences in Project Area: nil

.....
WORK PERFORMED-

1. Conventional prosp. rock sampling of volcanic cone -pipe-
and contact
2. Geological Mapping to surrounding host plus hostrock
3. Geochemical nil
4. Geophysical nil
5. Physical Work nil
6. Drilling nil
7. Other nil

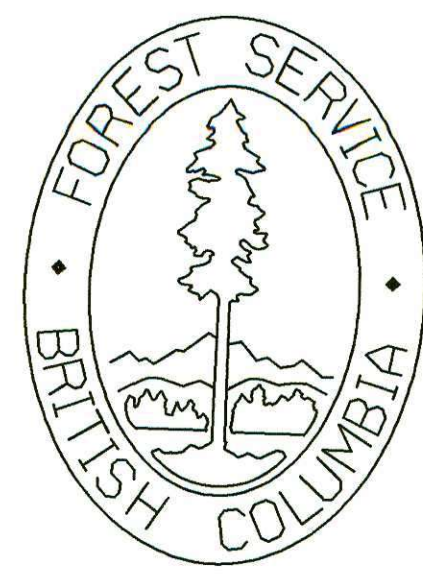
.....
SIGNIFICANT RESULTS- nil

Commodities _____ Claim Name: _____
Location/Lat: _____ Long: _____ Elevation: _____

Best assay/sample type: _____

Description of mineralization, host rocks, anomalies:

The southeast side of a dacite plug (cone or pipe) surrounded by an
extensive alteration (oxidized) clay and silica zone was sampled
for both precious and base metals. Considerable celadonite and
pyrolusite observed, but no malachite could be positively
identified. Entire effort and results were extremely
disappointing, however, the time spent on site was inadequate for
a complete primary valuation. See comments in covering letter.



LAKES FOREST DISTRICT

District Overview
Feb. 1998
NAD 83

FT ST JAMES
FOREST
DISTRICT

MORICE
FOREST
DISTRICT

MORICE
FOREST
DISTRICT

VANDERHOOF
FOREST
DISTRICT

VANDERHOOF
FOREST
DISTRICT

MORICE
FOREST
DISTRICT

VANDERHOOF
FOREST
DISTRICT

Jan 30/98

Text Levels:
Road Permit Labels on Level 4
Forest Service Road Labels on Level 51
Ministry of Highways Road Labels on Level 7



LAKES FOREST TWEEDSMUIR
ROAD SYSTEM PARK

Road Permits ———
Level 16 color maroon
Forest Service ———
Level 50 color green
Ministry of Highways ———
Level 7 color 15
Powerlines, Railways

Scale 1:150 000
1:250 000

KING COME



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Assay Certificate

8V-0619-RA1

Company: HUDSONS BAY MINING EXPLORATION
Project: KING COME
Attn: RALPH KEEFE

Sep-22-98

We hereby certify the following Assay of 11 ROCK samples
submitted Sep-16-98 by RALPH KEEFE.

| Sample Name | Au-fire g/tonne |
|-------------|-----------------|
| 13194 | 0.02 |
| 13195 | 0.01 |
| 13196 | 0.01 |
| 13197 | 0.02 |
| 13198 | 0.01 |
| 13199 | 0.01 |
| 13200 | 0.02 |
| 021454 | 0.01 |
| 021455 | 0.01 |
| 021456 | 0.01 |
| 021457 | 0.01 |

Certified by _____

Min-En Laboratories

HUDSONS BAY MINING EXPLORATION

Attention: RALPH KEEFE

Project: KING COME

Sample: ROCK

Mineral Environments Laboratories

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Report No : 8V0619 RJ


Date : Sep-22-98

MULTI-ELEMENT ICP ANALYSIS

Aqua Regia Digestion

| Sample Number | Ag ppm | Al % | As ppm | Ba ppm | Be ppm | Bi ppm | Ca % | Cd ppm | Co ppm | Cr ppm | Cu ppm | Fe % | K % | Mg % | Mn ppm | Mo ppm | Na % | Ni ppm | P ppm | Pb ppm | Sb ppm | Sc ppm | Sn ppm | Sr ppm | Ti % | V ppm | W ppm | Y ppm | Zn ppm | Zr ppm |
|---------------|--------|------|--------|--------|--------|--------|------|--------|--------|--------|--------|------|------|------|--------|--------|------|--------|-------|--------|--------|--------|--------|--------|-------|-------|-------|-------|--------|--------|
| 13194 | <0.2 | 1.25 | <5 | 80 | 0.5 | <5 | 0.23 | <1 | 1 | 6 | 6 | 0.43 | 1.25 | 0.14 | 350 | <2 | 1.14 | 1 | 40 | <2 | <5 | <1 | <10 | 13 | 0.01 | 3 | <10 | 10 | 38 | 10 |
| 13195 | <0.2 | 0.14 | 10 | 10 | 0.5 | <5 | 0.06 | <1 | <1 | 25 | 1 | 0.72 | 0.11 | 0.04 | 300 | <2 | 0.02 | 1 | 10 | 4 | <5 | <1 | <10 | 4 | 0.01 | 1 | <10 | 5 | 54 | 16 |
| 13196 | <0.2 | 2.08 | <5 | 100 | 1.5 | <5 | 0.30 | <1 | 1 | 9 | 3 | 0.79 | 1.87 | 0.17 | 350 | <2 | 1.12 | 1 | 80 | <2 | <5 | 1 | <10 | 12 | 0.02 | 6 | <10 | 19 | 58 | 20 |
| 13197 | <0.2 | 0.79 | <5 | 50 | 0.5 | <5 | 0.27 | <1 | 1 | 22 | 1 | 0.74 | 0.60 | 0.10 | 215 | <2 | 0.18 | 1 | 60 | <2 | <5 | 1 | <10 | 10 | 0.03 | 3 | <10 | 13 | 60 | 22 |
| 13198 | <0.2 | 0.81 | <5 | 40 | <0.5 | <5 | 0.75 | <1 | 21 | 31 | 17 | 4.05 | 0.13 | 1.26 | 590 | <2 | 0.18 | 22 | 810 | <2 | 5 | 3 | <10 | 59 | 0.30 | 74 | <10 | 12 | 83 | 21 |
| 13199 | <0.2 | 0.11 | <5 | 10 | <0.5 | <5 | 0.09 | <1 | <1 | 24 | 1 | 0.70 | 0.06 | 0.02 | 220 | <2 | 0.02 | 1 | 10 | 4 | <5 | <1 | <10 | 3 | 0.02 | 2 | <10 | 9 | 77 | 35 |
| 13200 | <0.2 | 0.10 | <5 | 10 | 0.5 | <5 | 0.02 | <1 | <1 | 49 | 4 | 0.67 | 0.09 | 0.01 | 275 | <2 | 0.03 | 2 | 10 | <2 | <5 | <1 | <10 | 1 | 0.01 | 1 | <10 | 7 | 61 | 36 |
| 021454 | <0.2 | 0.59 | <5 | 40 | <0.5 | <5 | 0.52 | <1 | 5 | 27 | 4 | 1.64 | 0.13 | 0.27 | 260 | <2 | 0.15 | 5 | 150 | 2 | <5 | 2 | <10 | 33 | 0.10 | 24 | <10 | 10 | 92 | 34 |
| 021455 | <0.2 | 0.11 | <5 | 10 | 0.5 | <5 | 0.05 | <1 | <1 | 13 | 3 | 0.10 | 0.15 | 0.02 | 25 | <2 | 0.10 | <1 | <10 | <2 | <5 | <1 | <10 | 1 | <0.01 | <1 | <10 | 6 | 5 | 11 |
| 021456 | <0.2 | 0.13 | <5 | 10 | 0.5 | <5 | 0.08 | <1 | <1 | 23 | 1 | 0.46 | 0.10 | 0.03 | 120 | <2 | 0.04 | 1 | <10 | <2 | <5 | <1 | <10 | 2 | 0.01 | 1 | <10 | 8 | 44 | 24 |
| 021457 | <0.2 | 0.90 | <5 | 80 | <0.5 | <5 | 1.10 | <1 | 28 | 30 | 22 | 4.86 | 0.15 | 2.29 | 740 | <2 | 0.25 | 32 | 980 | <2 | 5 | 6 | <10 | 88 | 0.24 | 93 | <10 | 13 | 65 | 14 |

A .5 gm sample is digested with 10 ml 3:1 HCl/HNO3 at 95c for 2 hours and diluted to 25ml with D.I.H2O.





MINFILE NUMBER: 092M 018

NATIONAL MINERAL INVENTORY:

NAME(S): KINGCOME GLACIER, TRUDEL GLACIER

STATUS: Showing
REGIONS: British Columbia
NTS MAP: 092M08E
LATITUDE: 51 25 06 N
LONGITUDE: 126 08 27 W
ELEVATION: 5050 Metres
LOCATION ACCURACY: Within 500M
COMMENTS: Mineralized breccia pipe (Personal Communication, Tark Hamilton).

MINING DIVISION: Vancouver

UTM ZONE: 09 (NAD 27)
NORTHING: 5700000
EASTING: 698800

COMMODITIES: Copper Gemstones

MINERALS

SIGNIFICANT: Malachite -? Opal
ASSOCIATED: Celadonite Pyrolusite
ALTERATION: Malachite -?
ALTERATION TYPE: Oxidation
MINERALIZATION AGE:

DEPOSIT

CHARACTER: Breccia
CLASSIFICATION: Hydrothermal

HOST ROCK

DOMINANT HOST ROCK: Volcanic

STRATIGRAPHIC AGE

| STRATIGRAPHIC AGE | GROUP | FORMATION | IGNEOUS/METAMORPHIC/OTHER |
|-------------------|-----------------------|--------------|---------------------------|
| Quaternary | Unnamed/Unknown Group | Silverthrone | |
| Unknown | | | Unnamed/Unknown Informal |

LITHOLOGY: Rhyolite
Dacite
Granodiorite

GEOLOGICAL SETTING

TECTONIC BELT: Coast Crystalline
TERRANE: Overlap Assemblage
PHYSIOGRAPHIC AREA: Pacific Ranges

CAPSULE GEOLOGY

? Multicoloured clay and silica minerals are observed in a mineralized dacite breccia pipe. Minerals tentatively identified include malachite, celadonite, pyrolusite and opal.
The receding headwall of the Kingcome Glacier, since the photos and topos of 1979, has newly exposed celadonite, opaline silica and intense blue green colours throughout. Enclaves of dacite pitchstone remain.

BIBLIOGRAPHY

GSC Report of activities pending.
PERS COMM Tark Hamilton, Sept.23, 1996.

DATE CODED: 960923
DATE REVISED: 961115

CODED BY: TSH
REVISED BY: DJ

FIELD CHECK: Y
FIELD CHECK: N

Report GSC - TARK