

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

PROGRAM YEAR: 2001/2002

REPORT #: PAP 01-8

NAME: RALPH KEEFE

D. TECHNICAL REPORT



**BRITISH
COLUMBIA**

Ministry of Energy and Mines
Energy and Minerals Division

- One technical report to be completed for each project area.
- Refer to Program Regulations 15 to 17, page 6.

SUMMARY OF RESULTS

- This summary section must be filled out by all grantees, one for each project area

Information on this form is confidential for one year and is subject to the provisions of the *Freedom of Information Act*.

Name RALPH R. KEEFE Reference Number P11

LOCATION/COMMODITIES

Project Area (as listed in Part A) CHIM PROJECT MINFILE No. if applicable -

Location of Project Area NTS 103 I 9/E Lat 54° 37' Long 128° 11'

Description of Location and Access Helicopter from Terrace Airport

Prospecting Assistants(s) - give name(s) and qualifications of assistant(s) (see Program Regulation 13, page 6)

ANSGAR LENSER - retired F.S. employee - experienced bushman - student prospector.

Main Commodities Searched For VMS potential

Known Mineral Occurrences in Project Area Numerous epithermal occurrences of minimal significance

WORK PERFORMED

1. Conventional Prospecting (area) General prospecting (Rock Sampling)
2. Geological Mapping (hectares/scale) Geological mapping
3. Geochemical (type and no. of samples) Sitting at creeks - where applicable
4. Geophysical (type and line km) Nil
5. Physical Work (type and amount) "
6. Drilling (no. holes, size, depth in m, total m) "
7. Other (specify) "

FEEDBACK: comments and suggestions for Prospector Assistance Program

Nil

D. TECHNICAL REPORT (continued)

REPORT ON RESULTS

- Those submitting a copy of an Assessment Report or a report of similar quality that covers all the key elements listed below are not required to fill out this section.
- Refer to Program Regulation 17D on page 6 for details before filling this section out (use extra pages if necessary)
- Supporting data must be submitted with the following **TECHNICAL REPORT** or any report accepted in lieu of.

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Name RALPH R. KEEFE Reference Number P11

1. LOCATION OF PROJECT AREA [Outline clearly on accompanying maps of appropriate scale.]

HEADWATERS OF CHIMDEMASH CREEK

2. PROGRAM OBJECTIVE [Include original exploration target.]

GENERAL PROSPECTING

3. PROSPECTING RESULTS [Describe areas prospected and significant outcrops/float encountered. Mineralization must be described in terms of specific minerals and how they occur. These details must be shown on accompanying map(s) of appropriate scale; prospecting traverses should be clearly marked.]

PREDOMINANTLY DIORITE WITH WINDOWS OF
SEDIMENTS.

WAS LOOKING FOR POSSIBLE STRUCTURE OF VMS.
FOLLOW-UP OF A SUPPOSED MASSIVE SULPHIDE
STRUCTURE (0' to 20') wide by a retired Mine MGR.
Unable to locate any mineralization of significance
other than small epithermal structure of 4cm.

Tried to access area with ATV over deactivated
road of 11 1/2 KM - unsuccessful. Alternate access by helicopter.
2 men on site 11 1/2 hours/ea.

CHAM PROBT.
10319/E-NFS
LAT 54° 37'
LONG 128° 11'
SCALE 1:100000

Mouat
O'Brien
7269

H A Z E L T O N

E N A P R O V I N C I A L

F O R E S T

B O R N E

R A A N G E

M O U N T A I N S

6249
Boraine
Mountain

192344

AREA PROSPECTED

CHEEK
SUN PARK

Kleant

ACME ANALYTICAL LABORATORIES LTD.
(ISO 9002 Accredited Co.)

852 E. HASTINGS ST. VANCOUVER BC V6A 1R6

PHONE (604) 253-3158 FAX (604) 253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE



Hudson Bay Expl. & Dev. Co. Ltd. PROJECT CHIM File # A103264 (a)
800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Hg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm
SI	.36	17.76	.60	1.6	96	.4	.1	12	.03	.5	<.1	<.2	<.1	2.5	<.01	.33	<.02	<2	.14	.001	<.5	4.8	.01	5.0	<.001	<1	.02	.484	<.01	<.2	.03	<5	<.1	.02	.1
192344	2.48	9591.55	243.32	470.0	99999	6.2	3.4	107	1.59	236.6	.2	21.2	.2	7.6	12.31	1120.68	1.17	89	.05	.010	2.1	80.9	.02	178.4	<.001	2	.16	.007	.11	3.8	.02	4434	26.0	.09	.6
RE 192344	2.55	9904.46	251.35	471.1	99999	6.7	3.6	130	1.61	236.9	.2	20.1	.2	7.3	11.66	1094.25	1.11	89	.05	.010	2.0	84.0	.02	191.9	<.001	2	.15	.006	.10	3.8	.02	4320	25.9	.09	.6
STANDARD DS3	9.70	130.38	35.91	156.4	282	38.6	12.8	809	3.18	29.8	5.4	22.1	3.6	26.8	5.44	5.03	5.66	77	.53	.103	16.0	190.4	.59	161.6	.084	1	1.69	.027	.14	4.1	.99	246	1.3	1.06	6.4

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.

UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.

- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 21 2001 DATE REPORT MAILED: Oct 3/01 SIGNED BY: C. L. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

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(ISO 9002 Accredited Co.)

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GEOCHEMICAL ANALYSIS CERTIFICATE

Hudson Bay Expl. & Dev. Co. Ltd. PROJECT CHIM File # A103264 (b)
800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Cs ppm	Ge ppm	Hf ppm	Nb ppm	Rb ppm	Sc ppm	Sn ppm	S %	Ta ppm	Zr ppm	Y ppm	Ce ppm	In ppm	Re ppb	Be ppm	Li ppm	Pd ppb	Pt ppb	Sample gm
SI	.07	<.1	.03	.03	.1	.1	<.1	<.01	<.05	.4	<.01	<.1	<.02	<1	<.1	.1	<10	<2	30
192344	.89	.1	.04	.03	4.1	.6	.3	.68	<.05	1.6	1.12	3.8	<.02	1	.1	.5	<10	<2	30
RE 192344	.86	.2	.03	.03	3.9	.6	.3	.70	<.05	1.6	1.16	3.5	<.02	2	.2	.5	<10	<2	30
STANDARD DS3	5.49	.1	.19	1.51	14.2	2.6	7.1	.04	<.05	2.9	8.42	29.5	2.14	<1	2.3	15.3	<10	<2	30

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.
UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 21 2001 DATE REPORT MAILED: Oct 3/01 SIGNED BY: C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

D. TECHNICAL REPORT



Ministry of Energy and Mines
Energy and Minerals Division

- One technical report to be completed for each project area.
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SUMMARY OF RESULTS

- This summary section must be filled out by all grantees, one for each project area

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Name RALPH R. KEEFE Reference Number P11

LOCATION/COMMODITIES

Project Area (as listed in Part A) TET MINFILE No. if applicable _____

Location of Project Area NTS 93F5/E Lat 53°24' Long 125°34'

Description of Location and Access EUCHA REACH - E. OF TWEEDS MUR PARK. MAIN ROAD & Logging road access from Bums LAKE to area = 160KM approx.

Prospecting Assistants(s) - give name(s) and qualifications of assistant(s) (see Program Regulation 13, page 6)

MICHAEL GUNDEL - prospecting (2) seasons

SHAWN TURFORD - " (8-10) "

Main Commodities Searched For CU, Pb, ZN, MO

Known Mineral Occurrences in Project Area "CHES" mineral claims recorded this date
Several (3) other known mineral occurrences & ass reports in locality.

WORK PERFORMED

1. Conventional Prospecting (area) Total of (20) man days prospecting, mapping
2. Geological Mapping (hectares/scale) & siting of Creeks.
3. Geochemical (type and no. of samples) 27 ROCK & SILTS taken. (18 SILTS)
4. Geophysical (type and line km) Nil
5. Physical Work (type and amount) "
6. Drilling (no. holes, size, depth in m, total m) "
7. Other (specify) "

FEEDBACK: comments and suggestions for Prospector Assistance Program _____

Swampy lowland area in which sulphides are located,
has made it very difficult to extend or zone in on target
area.
Several lines of I.P. is required to ascertain extent
of mineralization.

D. TECHNICAL REPORT (continued)

REPORT ON RESULTS

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Name RAUL R. KORTE Reference Number P11

1. LOCATION OF PROJECT AREA [Outline clearly on accompanying maps of appropriate scale.]

EUCHA REACH - N. of Tetachuck River (Lake) and E.
of Tweedsmuir Park

2. PROGRAM OBJECTIVE [Include original exploration target.]

PROSPECTING, GEOLOGICAL MAPPING & GEO-CHEM (SILTING)
of creeks

3. PROSPECTING RESULTS [Describe areas prospected and significant outcrops/float encountered. Mineralization must be described in terms of specific minerals and how they occur. These details must be shown on accompanying map(s) of appropriate scale; prospecting traverses should be clearly marked.]

REF - old assessment report #9580. WAS UNABLE TO
extend the known mineralization (Cu-Mo) predominant,
due to extremely wet swampy ground.

All old logging roads & blocks prospected in adjacent
area (4-6 KM) surrounding to S, W & EAST.

Follow-up silting & prospecting of (2000) sed. taken into
small lake confirmed porphyry of Mo-Cu - but low grades.
Ref Samples 61944 & 45 plus RK3, RK4 & 14714 & 14715 (2001)

I.P. is required to determine extent of mineralization to
W-N.W. of this lake.

BULL #
301438

0159

14718 504
14719
14720
to
14725 incl

GEOCHEMICAL ANALYSIS CERTIFICATE

Hudson Bay Expl. & Dev. Co. Ltd. PROJECT TET File # A102515

(a)

800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm
RR1	5.54	45.26	6.60	75.9	197	11.2	8.8	1824	2.80	9.8	1.0	3.8	.9	48.8	.35	.38	.74	56	.83	.088	10.8	15.6	.45	137.2	.074	1	1.54	.017	.08	1.8	.17	49	.2	.04	4.5
RR2	2.65	30.09	5.25	53.1	90	10.3	7.2	437	2.27	4.4	1.2	5.6	1.3	34.8	.10	.25	.83	64	.63	.064	8.0	18.8	.47	76.5	.110	1	1.14	.023	.07	1.3	.07	19	.2	<.02	3.9
RK1	3.83	10.15	1.90	17.6	67	2.4	3.7	5130	1.04	4.3	.4	6.1	<.1	99.2	.30	.17	.02	<2	3.96	.172	1.0	4.2	.20	105.6	.006	8	.13	.009	.14	<.2	.03	114	3.1	.02	.6
RK2	1.76	185.39	4.39	72.5	395	16.9	4.6	589	.93	8.1	6.1	11.2	.1	90.9	1.98	1.56	.08	25	3.16	.156	8.0	12.4	.27	51.3	.034	6	.60	.015	.14	<.2	.18	130	5.7	.02	2.2
RK3	4.49	382.79	2.82	36.3	124	7.8	4.4	344	1.24	1.6	4.4	2.3	.7	47.1	.25	.35	.04	32	1.11	.060	9.5	7.6	.30	92.7	.059	1	.66	.010	.04	.7	.09	37	1.0	.02	2.5
RK4	5.89	519.90	2.44	55.2	124	9.2	4.5	362	1.25	1.4	16.2	1.3	.9	49.2	.47	.38	.04	33	1.02	.068	19.1	7.3	.34	83.6	.074	<1	.74	.011	.04	.4	.13	36	1.0	<.02	2.8
RK7	14.80	1508.79	4.47	71.8	620	15.5	8.4	1078	1.85	4.8	85.4	5.3	.8	149.7	1.41	.77	.09	40	2.61	.167	65.7	14.5	.35	177.7	.025	1	1.34	.013	.05	<.2	.29	111	2.9	.06	3.2
RK8	4.75	164.41	4.76	40.3	493	9.7	6.3	800	1.58	4.4	39.5	5.3	.6	122.2	1.05	.99	.08	37	2.35	.147	30.3	12.9	.32	128.3	.028	2	1.15	.014	.07	<.2	.16	76	1.0	.03	3.1
RE ST2	1.40	37.00	9.33	80.8	104	10.9	8.3	1061	2.49	7.1	.4	2.7	1.5	31.1	.31	.36	.43	65	.52	.059	7.8	16.3	.49	93.4	.126	1	1.19	.018	.09	.8	.14	25	.1	.02	4.5
R1	4.31	87.76	9.24	101.1	1008	25.4	11.8	1845	3.58	11.2	1.6	4.2	.7	87.9	1.26	.40	.69	63	1.83	.110	24.5	26.8	.44	215.0	.056	1	3.37	.018	.09	.2	.22	93	.2	.06	7.8
R2	4.96	58.88	17.48	149.4	664	22.5	10.6	1291	2.92	18.5	1.5	3.6	1.4	40.5	.75	.54	.26	66	1.05	.059	17.7	24.8	.39	230.9	.065	1	2.17	.013	.09	<.2	.24	72	.4	.06	6.3
R3	9.02	129.74	6.51	122.7	819	19.8	9.0	844	2.94	26.0	1.9	8.2	.5	48.5	1.60	.79	.46	76	1.38	.105	19.9	18.1	.56	94.6	.067	<1	1.72	.036	.08	.4	.26	160	.7	.04	6.1
R4	3.01	73.12	13.11	176.4	1079	23.6	11.9	1750	3.31	28.5	1.4	5.2	1.0	33.1	1.28	.71	.38	64	1.09	.151	32.8	23.3	.42	164.6	.062	1	3.30	.018	.09	<.2	.25	101	<.1	.04	6.8
ST1	2.38	33.04	6.46	63.5	264	8.7	7.6	1495	1.95	5.0	.9	1.3	1.1	34.9	.45	.23	.30	54	.62	.038	8.5	15.5	.33	78.0	.091	<1	1.18	.014	.05	.5	.10	30	.1	.07	4.1
ST2	1.48	34.81	9.34	82.4	114	10.5	8.5	1118	2.51	7.6	.4	6.2	1.6	30.3	.29	.35	.44	66	.48	.057	7.8	15.5	.49	93.5	.122	<1	1.20	.017	.09	.8	.14	31	.1	.03	4.6
ST3	9.07	39.34	7.46	65.7	187	10.2	8.6	1368	2.39	8.9	7.2	1.4	.9	38.3	.38	.29	.59	61	.60	.050	8.3	15.5	.42	79.8	.112	1	1.17	.018	.05	1.2	.12	38	.3	.05	4.2
ST4	2.45	11.39	6.75	49.0	95	9.2	7.4	622	2.32	8.7	.4	1.7	1.2	19.8	.14	.31	.15	60	.39	.047	7.1	14.3	.35	83.9	.098	1	.96	.011	.04	<.2	.09	25	.2	.04	3.9
ST5	6.46	24.26	6.86	64.9	300	10.5	7.8	3202	2.47	14.2	.6	2.4	.7	34.7	.59	.38	.18	53	.82	.053	8.7	13.2	.34	142.4	.087	<1	1.19	.016	.05	.3	.16	59	.6	.04	4.0
ST6	12.10	23.11	9.21	70.5	275	11.8	10.5	7697	3.15	20.9	.8	5.3	1.0	37.2	.68	.38	.24	55	.65	.050	11.2	14.6	.36	234.0	.086	1	1.15	.015	.05	.3	.21	57	.4	.04	4.5
STANDARD DS3	9.40	122.29	35.31	152.5	293	35.1	12.5	857	3.14	30.7	5.7	22.2	4.1	26.5	5.46	5.38	5.64	76	.52	.095	17.3	190.7	.59	147.3	.081	2	1.69	.027	.17	3.9	1.02	230	1.2	1.18	6.5

GROUP 1F30 - 30.00 GM SAMPLE, 180 ML 2-2-2 HCL-HNO3-H2O2 AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 600 ML, ANALYSIS BY ICP/ES & MS.

UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.

- SAMPLE TYPE: SILT SS80 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 2 2001 DATE REPORT MAILED: Aug 16/01 SIGNED BY: C. Leong, D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

GEOCHEMICAL ANALYSIS CERTIFICATE

Hudson Bay Expl. & Dev. Co. Ltd. PROJECT TET File # A102515 (b)

800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Cs ppm	Ge ppm	Hf ppm	Nb ppm	Rb ppm	Sc ppm	Sn ppm	S %	Ta ppm	Zr ppm	Y ppm	Ce ppm	In ppm	Re ppb	Be ppm	Li ppm	Pd ppb	Pt ppb	Sample gm
RR1	2.49	.1	.02	.86	8.0	4.1	.4	.07	<.05	1.1	12.97	16.0	.03	<1	.4	17.1	<10	<2	30
RR2	1.42	.1	.03	.95	6.9	2.9	.4	.03	<.05	2.2	7.52	12.9	.02	<1	.3	12.7	<10	<2	30
RK1	.24	<.1	<.02	.24	1.9	.3	.2	.60	<.05	.2	1.11	1.8	<.02	7	.1	1.7	<10	<2	15
RK2	1.56	.2	.04	.85	5.2	1.3	.1	.34	<.05	2.0	20.69	5.5	<.02	6	.4	6.7	<10	<2	15
RK3	2.75	<.1	<.02	.71	7.2	1.9	.2	.07	<.05	1.1	12.07	8.4	<.02	7	.2	9.4	<10	<2	30
RK4	4.83	.1	.03	.87	9.0	2.4	<.1	.10	<.05	1.1	21.05	8.3	<.02	14	.3	12.1	<10	<2	30
RK7	3.75	.2	.04	1.24	8.1	3.4	.6	.16	<.05	2.3	83.60	17.5	<.02	10	1.2	13.1	<10	<2	15
RK8	1.58	.1	.04	1.01	5.6	2.5	.7	.18	<.05	1.9	37.36	14.8	<.02	3	.6	10.4	<10	<2	15
RE ST2	1.66	.1	.06	.88	7.6	3.8	.4	.04	<.05	3.7	6.63	14.7	.03	1	.3	12.5	<10	<2	30
R1	2.43	.1	.05	1.94	8.9	6.5	.8	.11	<.05	2.3	32.71	52.3	.06	3	1.0	29.0	<10	<2	30
R2	2.55	.1	.08	2.02	15.3	5.4	.9	.03	<.05	3.7	18.50	29.1	.04	3	.7	27.7	<10	<2	30
R3	3.09	.1	.02	1.21	7.2	8.0	.3	.09	<.05	1.3	46.45	14.6	.03	2	.6	29.1	<10	<2	30
R4	8.14	.1	.08	1.47	12.0	6.7	.9	.08	<.05	2.6	45.70	68.8	.05	<1	1.3	54.1	<10	<2	30
ST1	1.41	<.1	.03	1.20	8.0	2.9	.5	.06	<.05	1.8	7.01	15.1	.02	2	.3	10.1	<10	<2	30
ST2	1.73	.1	.08	.85	7.5	3.7	.4	.02	<.05	3.9	6.82	14.5	.03	<1	.3	11.7	<10	<2	30
ST3	1.44	.1	.04	1.20	6.9	2.9	.3	.06	<.05	2.3	8.79	15.3	.03	<1	.4	13.1	<10	<2	30
ST4	1.35	<.1	.05	.95	4.9	2.3	.4	.04	<.05	2.3	5.17	12.5	.02	<1	.2	12.0	<10	<2	30
ST5	2.10	.1	<.02	.79	5.2	3.3	.4	.07	<.05	1.0	10.46	12.7	.02	3	.2	17.0	<10	<2	30
ST6	1.84	.1	.02	.94	6.1	3.6	.4	.03	<.05	1.5	11.80	17.1	.02	2	.4	14.5	<10	<2	30
STANDARD DS3	5.56	.1	.15	1.56	13.4	2.8	7.3	.03	<.05	2.9	8.42	31.5	2.10	<1	2.4	16.1	<10	<2	30

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.

UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.

- SAMPLE TYPE: SILT SS80 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 2 2001 DATE REPORT MAILED: Aug 16/01 SIGNED BY: C. Leong D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD.
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852 E. HASTINGS ST. VANCOUVER BC V6A 1R6

PHONE (604) 253-3158 FAX (604) 253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Hudson Bay Expl. & Dev. Co. Ltd. PROJECT TET File # A102514 (a)
800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm
14714	1.47	129.09	2.47	30.5	173	6.8	4.2	290	2.85	1.1	.4	2.7	1.6	37.7	.03	.03	.04	69	.45	.108	5.0	16.7	.84	161.9	.206	1	1.17	.080	.77	1.9	.36	6	.5	.05	6.0
14715	1.62	57.58	1.57	30.5	123	4.4	3.8	300	3.06	.8	.4	1.5	1.6	43.9	.02	.03	.04	75	.45	.118	5.6	14.1	.86	187.3	.210	1	1.26	.094	.85	.6	.37	<5	.5	.06	6.6
14718	1.74	268.07	3.11	58.2	314	23.8	27.5	332	4.36	1.5	.2	1.6	.3	26.3	.11	.17	.36	117	.80	.092	2.6	46.3	.77	93.1	.222	1	1.22	.086	.38	1.0	.15	5	1.5	.27	5.1
14719	4.04	146.70	60.35	191.2	1096	22.4	18.8	392	2.71	2.2	.3	7.1	.3	28.2	1.90	.27	9.31	87	.98	.095	2.1	35.8	.50	48.2	.179	1	.97	.063	.19	.6	.09	<5	1.0	.23	4.4
14720	6.58	172.99	1.89	23.2	246	16.6	19.9	166	2.66	2.3	.2	2.0	.3	27.8	.07	.11	.39	54	.56	.073	2.5	26.7	.28	16.3	.167	1	.64	.085	.08	1.3	.04	<5	1.2	.26	2.6
RE 14720	6.15	170.33	1.80	21.0	236	16.3	19.2	163	2.62	2.3	.2	1.4	.3	26.6	.06	.11	.37	51	.54	.073	2.5	25.7	.27	16.1	.146	1	.62	.080	.07	1.2	.04	7	1.2	.24	2.4
14721	1.88	48.14	1.64	36.4	73	15.6	15.2	234	2.30	1.6	.2	13.0	.3	13.0	.04	.07	.50	107	.48	.084	3.1	48.7	.69	33.5	.227	<1	.92	.048	.34	.3	.17	<5	.4	.11	5.2
14722	1.29	77.56	.97	44.8	81	6.2	10.1	338	3.09	1.7	.1	2.5	.3	8.6	.03	.07	.13	153	.38	.073	2.8	13.9	.72	185.3	.299	<1	1.00	.060	.77	.8	.36	<5	.5	.09	6.0
14723	1.52	116.24	1.32	50.5	114	6.3	15.4	386	3.38	1.5	.1	4.1	.3	6.7	.04	.04	.29	177	.36	.066	2.4	9.6	.82	220.7	.337	<1	1.08	.060	.99	<2	.49	<5	1.1	.16	6.8
14724	1.83	143.97	1.65	51.7	130	9.5	19.4	344	3.27	1.8	.1	5.5	.2	8.8	.08	.14	.25	142	.50	.065	2.6	10.2	.66	109.3	.273	1	.88	.062	.51	.8	.25	<5	.7	.13	5.0
14725	2.46	14.22	1.54	27.4	31	3.7	3.4	337	1.49	2.6	.5	.5	3.4	5.3	.02	.13	.09	28	.13	.037	16.4	11.4	.48	24.4	.048	<1	.65	.073	.10	.5	.04	<5	<1	.02	4.3
STANDARD DS3	9.65	125.24	36.18	154.4	286	38.5	12.9	834	3.18	31.0	6.2	22.4	4.2	27.8	5.61	5.48	5.51	77	.52	.097	17.9	193.7	.60	145.5	.082	2	1.71	.027	.17	3.5	1.07	260	1.3	1.17	6.4

GROUP 1F30 - 30.00 GM SAMPLE, 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 600 ML, ANALYSIS BY ICP/ES & MS.

UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.

- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 2 2001 DATE REPORT MAILED: Aug 16/01 SIGNED BY: C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

GEOCHEMICAL ANALYSIS CERTIFICATE

Hudson Bay Expl. & Dev. Co. Ltd. PROJECT TET File # A102514

(b)

800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Cs ppm	Ge ppm	Hf ppm	Nb ppm	Rb ppm	Sc ppm	Sn ppm	S %	Ta ppm	Zr ppm	Y ppm	Ce ppm	In ppm	Re ppb	Be ppm	Li ppm	Pd ppb	Pt ppb	Sample gm
14714	3.56	.1	.06	.26	49.2	2.4	.3	.68	<.05	.7	3.14	9.9	<.02	2	<.1	14.8	<10	<2	30
14715	3.91	.1	.06	.20	54.1	2.5	.4	.57	<.05	.8	3.81	11.0	<.02	<1	.1	14.7	<10	<2	30
14718	1.13	.1	.15	.07	13.4	1.9	.4	1.70	<.05	2.7	6.16	5.7	<.02	2	<.1	29.7	<10	<2	30
14719	.46	.2	.19	.07	7.3	1.5	.4	.86	<.05	3.7	6.15	4.8	<.02	1	<.1	28.1	<10	<2	30
14720	.25	.1	.20	.09	3.4	1.8	.3	.87	<.05	3.5	6.16	5.6	<.02	2	.1	13.2	<10	<2	30
RE 14720	.24	.1	.18	.10	3.2	1.7	.4	.84	<.05	3.3	5.75	5.2	<.02	4	<.1	13.1	<10	<2	30
14721	1.45	.1	.07	.03	17.3	1.8	.2	.19	<.05	1.1	5.09	5.7	<.02	2	<.1	34.8	<10	<2	30
14722	3.45	.1	.06	.04	30.9	3.2	.3	.14	<.05	1.0	6.17	5.2	<.02	1	<.1	16.0	<10	<2	30
14723	4.84	.2	.06	<.02	36.3	4.2	.3	.30	<.05	1.0	5.66	4.5	.02	1	<.1	20.6	<10	<2	30
14724	2.44	.2	.08	<.02	20.3	4.2	.4	.45	<.05	1.8	7.15	5.0	<.02	1	<.1	14.7	<10	2	30
14725	.38	.1	.07	.16	4.9	2.7	.4	<.01	<.05	2.0	9.14	29.1	<.02	<1	.2	14.3	<10	<2	30
STANDARD DS3	5.25	.1	.22	1.43	14.0	2.8	6.8	.02	<.05	3.4	8.34	33.3	2.18	2	2.5	16.0	<10	<2	30

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.

UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.

- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: AUG 2 2001 DATE REPORT MAILED: Aug 16/01 SIGNED BY: C. Leong D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD.
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AA

GEOCHEMICAL ANALYSIS CERTIFICATE

AA

Hudson Bay Expl. & Dev. Co. Ltd. PROJECT EAST OOTSA File # A001924 (a)

800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm
61944	19.05	1588.50	9.47	55.5	1854	17.4	4.7	341	.89	3.1	77.6	11.8	.6	171.1	1.60	1.59	.14	19	3.07	.096	56.1	9.5	.24	173.0	.023	4	.84	.010	.03	<.2	.22	171	6.9	.04	1.8
61945	9.05	971.83	5.65	46.1	475	12.4	5.6	533	1.41	2.6	13.3	3.9	.5	109.2	.62	.81	.07	29	2.43	.094	18.9	9.6	.29	171.9	.044	2	.83	.011	.04	.8	.07	95	3.4	.03	2.6
RE 61945	9.36	962.82	6.04	45.6	465	11.7	5.4	528	1.41	2.5	13.2	4.1	.5	103.7	.61	.80	.07	30	2.40	.094	18.7	9.6	.29	171.3	.044	3	.84	.011	.04	.8	.08	102	3.3	.03	2.6

GROUP 1F30 - 30.00 GM SAMPLE, 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 600 ML, ANALYSIS BY ICP/ES & MS.

UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.

- SAMPLE TYPE: -140 SILT Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: JUN 20 2000

DATE REPORT MAILED: July 5/00

SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

⊗ Check amounts of Ba -

AA
LL

GEOCHEMICAL ANALYSIS CERTIFICATE

AA
LL

Hudson Bay Expl. & Dev. Co. Ltd. PROJECT EAST OOTSA File # A001924

(b)

800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Cs ppm	Ge ppm	Hf ppm	Nb ppm	Rb ppm	Sc ppm	Sn ppm	S %	Ta ppm	Zr ppm	Y ppm	Ce ppm	In ppm	Re ppb	Be ppm	Li ppm	Sample gm
61944	2.87	<.1	.06	.86	5.2	2.7	.8	.47	<.05	4.1	65.26	9.9	<.02	70	.9	6.9	15
61945	3.10	<.1	.04	.99	7.6	2.2	.3	.19	<.05	2.4	27.73	10.6	<.02	19	.5	9.1	30
RE 61945	3.19	<.1	.04	1.11	7.5	2.3	.4	.16	<.05	2.3	27.27	11.2	<.02	22	.5	9.2	30

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO₃-H₂O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.

UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.

- SAMPLE TYPE: -140 SILT Samples beginning 'RE' are Reruns and 'RRE' are Relect Reruns.

DATE RECEIVED: JUN 20 2000

DATE REPORT MAILED:

July 5/00

SIGNED BY:.....

C. Leong

P. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

D. TECHNICAL REPORT



Ministry of Energy and Mines
Energy and Minerals Division

- One technical report to be completed for each project area.
- Refer to Program Regulations 15 to 17, page 6.

SUMMARY OF RESULTS

- This summary section must be filled out by all grantees, one for each project area

Information on this form is confidential for one year and is subject to the provisions of the Freedom of Information Act.

Name RALPH R. KEEFE Reference Number T11

LOCATION/COMMODITIES

Project Area (as listed in Part A) "HELEN PROJECT" MINFILE No. if applicable #189

Location of Project Area NTS 103 T 9/W Lat 54° 36' Long 128° 26'

Description of Location and Access 32KM E. of TERRACE - Hwy 16 thence across SCI logging bridge, thence to km bush road to general locality.

Prospecting Assistants(s) - give name(s) and qualifications of assistant(s) (see Program Regulation 13, page 6)

GEORGE CHINN - TERRACE - prospector several years

ANSEAR LENSER - " - retired FS employee

Main Commodities Searched For Tetraded Sch. (SKARN)? Student prospector

Known Mineral Occurrences in Project Area Cu, Zn, Ag & Au

WORK PERFORMED

1. Conventional Prospecting (area) Total of 19 days (PROSPECTING)
2. Geological Mapping (hectares/scale) MAPPING, ROCK ^{SMALLING} & SILTING of
3. Geochemical (type and no. of samples) CREEKS of all new roads & log bks in & around vicinity
4. Geophysical (type and line km) NIL
5. Physical Work (type and amount) NIL
6. Drilling (no. holes, size, depth in m, total m) "
7. Other (specify) "

FEEDBACK: comments and suggestions for Prospector Assistance Program

Further prospecting is warranted as road & logging development continues

See prospecting results

D. TECHNICAL REPORT (continued)

REPORT ON RESULTS

- Those submitting a copy of an Assessment Report or a report of similar quality that covers all the key elements listed below are not required to fill out this section.
- Refer to Program Regulation 17D on page 6 for details before filling this section out (use extra pages if necessary)
- Supporting data must be submitted with the following TECHNICAL REPORT or any report accepted in lieu of.

Information on this form is confidential for one year from the date of receipt subject to the provisions of the *Freedom of Information Act*.

Name RAOUL R. KEEFE Reference Number P11

1. LOCATION OF PROJECT AREA [Outline clearly on accompanying maps of appropriate scale.]

32 KM. E. of TERRACE - Hwy 16 thence across Skeena Cellulose Bridge, thence on to general area by bush roads (6km).

2. PROGRAM OBJECTIVE [Include original exploration target.]

As per proposal. Geological mapping, rock sampling and siting of creeks in and around adjacent areas of mine showing.

3. PROSPECTING RESULTS [Describe areas prospected and significant outcrops/float encountered. Mineralization must be described in terms of specific minerals and how they occur. These details must be shown on accompanying map(s) of appropriate scale; prospecting traverses should be clearly marked.]

N.B. (A) Could not locate or duplicate M. of Mines reports of 1931 & 1932. I believe I was in the right area, as shown by minefile.

(B) Interesting to note, that there are (2) separate conflicting reports on the same location of minefile #189

Example - M. of Mines report 1931-32

- Memoirs of KINDEL

- copies of both attached. Only variance noted is approx 100' in elevation, of the two

- FURTHER PROSPECTING OF THE NEXT MAIN TRIBUTARY EASTWARD (NORTH) running into SANDS CREEK should be followed up, another season.

SPARE

N.T.S.: 103 I/9W

Deposit No: 138

U.T.M.: METALS: (Au, Ag)?

Lat - Long.: 54°44' 128°22' PROPERTY:

References: GSC Map 36 - 17 # 85 Helen

Helen. This group, discovered during the year by G. Alger and associates, of Usk, is situated on Sand creek, which flows into the Skeena river from the west a short distance north of Pitman flag-station. An extensive copper-zinc mineralization is reported, but available time did not permit of examination by the Resident Engineer. A sample of the mineral discovered assayed: Gold, 0.06 oz. per ton; silver, 4 oz. per ton; copper, 5 per cent.; zinc, 18 per cent.

Bermaline. This group, owned by August Johnson and associates, of Ritchie, is situated at the headwaters of the North fork of Lorne creek and is distant from Ritchie flag-station about 16 miles by trail. For description refer to Bulletin No. 1. 1932.

1932-P-84 Helen. This group was discovered in the fall of 1931 by the owners, G. Alger and associates, of Usk. It is situated on the North fork of Sand creek, which flows into the Skeena river from the west about 1 mile north of Pitman flag-station on the Canadian National Railway. A foot-trail about 3 1/2 miles in length leads from the railway-bridge across Sand creek to the showings.

The country-rock in the region of the showings consists of sedimentaries of the Hazelton series, mainly carbonaceous argillites and quartzites, intruded by granodiorite stocks. This belt of sedimentaries is quite possibly continuous with that which underlies the country for some miles north of Pacific, and extends eastwards across the Skeena river to Seven Sisters mountain.

The North fork of Sand creek cuts through these rocks in the near vicinity of an intrusion of granodiorite, and a mineralization of pyrite, chalcopyrite, and zinc-blende follows the bedding-planes of the sedimentaries. The greatest observed width of good mineralization at the chief point of exposure was 6 feet. It was noted that the mineralization appears to follow the carbonaceous argillites rather than the quartzites, and possibly the precipitation of sulphides may have been influenced by the carbon in the former; at any rate, this seems a point worth bearing in mind in development. The sedimentaries strike N. 80° W. (mag.) and dip at about 35° south-west. A sample across a width of 3 feet at one point assayed: Gold, trace; silver, 10.5 oz. per ton; copper, 3.5 per cent.; zinc, 4 per cent. The elevation of the exposures is about 2,470 feet. The mineralization on this property shows evidence of considerable strength.

Project 290

N.T.S.: 103 I/9W

Deposit No: 139

U.T.M.: METALS: Cu, Ag, Au, Pb

Lat - Long.: 54°36' 128°26' PROPERTY:

References: MMAR 1929, p 151 Triune

MMAR 1914, p 141 Poor Boy gp; (Triune, Ella, Gold Standard)

AVERAGE - Au = trace to 0.06 oz./ton (.03)
Ag = 4 oz. to 10.5 oz./ton (7 1/4)
Cu = 3% to 5% / ton (4%)
Zn = 4% to 18% / ton (11%)

Project 290

GEOLOGICAL SURVEY

MEMOIR 212

40

KINDLE

dyke of andesine diorite porphyry exposed 12 feet west of the portal, but the dyke does not come in contact with the vein. A typical 9-inch channel sample of vein quartz, well mineralized with pyrite and chalcopyrite, taken in the adit near the portal, assayed: gold, 0.70 ounce a ton; silver, 14.40 ounces a ton; platinum, none; copper, 3.76 per cent.

Several hundred feet upstream from the vein just described there is a series of small, parallel quartz veins in the andesite on the south side of the creek. The veins mostly range from 1 to 12 inches in width, with lengths seldom exceeding 50 feet. They strike a little north of east with a vertical dip and may be followed along the shore for 400 or 500 feet to where they cross to the north side at the bend in the stream. The quartz carries up to 10 per cent of chalcopyrite present in irregular masses. The andesite in the vicinity of the quartz veinlets is cut by occasional narrow dykes of quartz diorite porphyry which strike north and dip 65 degrees west. The quartz veins do not traverse these dykes. Two channel samples taken across a combined vein width of 19 inches at a place 100 feet west of the bend in the creek, or about 50 feet west of one of the quartz diorite porphyry dykes, gave on assay: gold, 0.30 ounce a ton; silver, 2.50 ounces a ton; copper, 3.08 per cent. The combined quartz samples contained about 10 per cent chalcopyrite by volume.

One hundred feet to the south an adit has been driven 30 feet through andesitic lavas to a sheared zone of chloritic schist containing quartz stringers. The shear zone strikes south 60 degrees east and dips 65 degrees south. A 24-inch channel sample taken across the shear zone in a nearby open-cut assayed: gold, 0.02 ounce a ton; silver, 1.58 ounces a ton; copper, 0.32 per cent.

At an elevation of 1,400 feet, or 750 feet above the adit just mentioned, some surface work has been done on an 8-inch pyritized quartz vein in andesite. A channel sample across the vein gave on assay only a trace of gold and 0.08 ounce a ton of silver. About 800 feet farther east, at an elevation of 1,000 feet, a trench has been blasted on a grey, fine-grained, andesitic rock containing a fine dissemination of chalcopyrite veinlets.

The occurrence of a milling grade of gold-quartz ore in the veins along the creek marks this property as one of sufficient merit to warrant further development and exploration.

Helen Group (30)

References: Ann. Repts., Minister of Mines, B.C.: 1931, p. 71; 1932, p. 84.

The Helen group, staked by George Alger of Usk in 1931, is about 3 miles northwest of Pitman station on the north side of Sand creek. A foot trail follows the south side of Sand creek for about 2 miles, then crosses and leads by a series of switchbacks to the workings.

A thick flow of fine-grained black basalt outcrops on the west side of a small mountain stream at elevation 2,600 feet, and on the east side are numerous outcrops of grey andesite. Along the bed of the stream a shear zone occurs near the contact between the two flows. The shear zone is conspicuously marked by a 2-foot dyke of fine-grained, altered quartz diorite that follows along it. Dyke and shear zone strike a little west of north and dip 35 degrees west. On the foot-wall side of the dyke the basalt

is sheared and altered of quartz stringers of sphalerite. There is along the upper side

The quartz diorite associated carbonate zone in a distance of light grey, porphyritic stream near the upper

Three channel samples showed very low assay

At elevation 2,650 exposes a brecciated carrying a little pyrite assay for both gold and

References: Ann. Repts. p. 105; 1924, p.

The Fiddler group of Fiddler creek, about quartz vein containing to this property as bonded the property the vein. In 1916 the drove a prospect adit the dip of the vein, adit has since completed property and continued 80 tons of ore were taken during the sack a ton; silver, 6 ounces 5.8 per cent. Further of 1925 and 1926. 1 tons of ore to the same as having returned: 6.1 per cent; zinc, 3. ten years. Mr. Pat

The claims are laminated argillites, site, which strike northeast. They are and by small, grey, occur in the argillite tance below a massive dyke of the pink quartz than the intrusive.

vest of the portal, but typical 9-inch channel and chalcopyrite, taken as a ton; silver, 14.40 t.

Just described there is site on the south side inches in width, with the north of east with for 400 or 500 feet to the stream. The quartz irregular masses. The by occasional narrow and dip 65 degrees

Two channel samples a place 100 feet west of the quartz diorite on; silver, 2.50 ounces t. samples contained

Driven 30 feet through containing quartz and dips 65 degrees near zone in a nearby 1.58 ounces a ton;

The adit just mentioned, quartz vein in an assay only a trace farther east, at an a grey, fine-grained, chalcopyrite veinlets. quartz ore in the veins merit to warrant

1932, p. 84.

in 1931, is about 3 of Sand creek. A foot 2 miles, then crosses

ups on the west side and on the east side bed of the stream a flows. The shear zone mined, altered quartz strike a little west of the dyke the basalt

is sheared and altered over a width of 4 feet, and is traversed by a network of quartz stringers carrying small amounts of pyrite, chalcopyrite, and sphalerite. There is a similar alteration and mineralization of the basalt along the upper side of the dyke over a width of 2 feet.

The quartz diorite dyke contains a sparse impregnation of pyrite with associated carbonate alteration. Five test pits have been sunk on the shear zone in a distance of about 300 feet along the creek bed. A large mass of light grey, porphyritic quartz diorite outcrops on the west side of the stream near the upper end of the shear zone.

Three channel samples taken across the sheared zone by the writer showed very low assays for copper, silver, and zinc, and no gold.

At elevation 2,650 feet a cut about 100 feet northeast of the creek exposes a brecciated zone in andesite with ramifying quartz veinlets carrying a little pyrite. A 3-foot chip sample across it gave a negative assay for both gold and silver.

Fiddler Group (31)

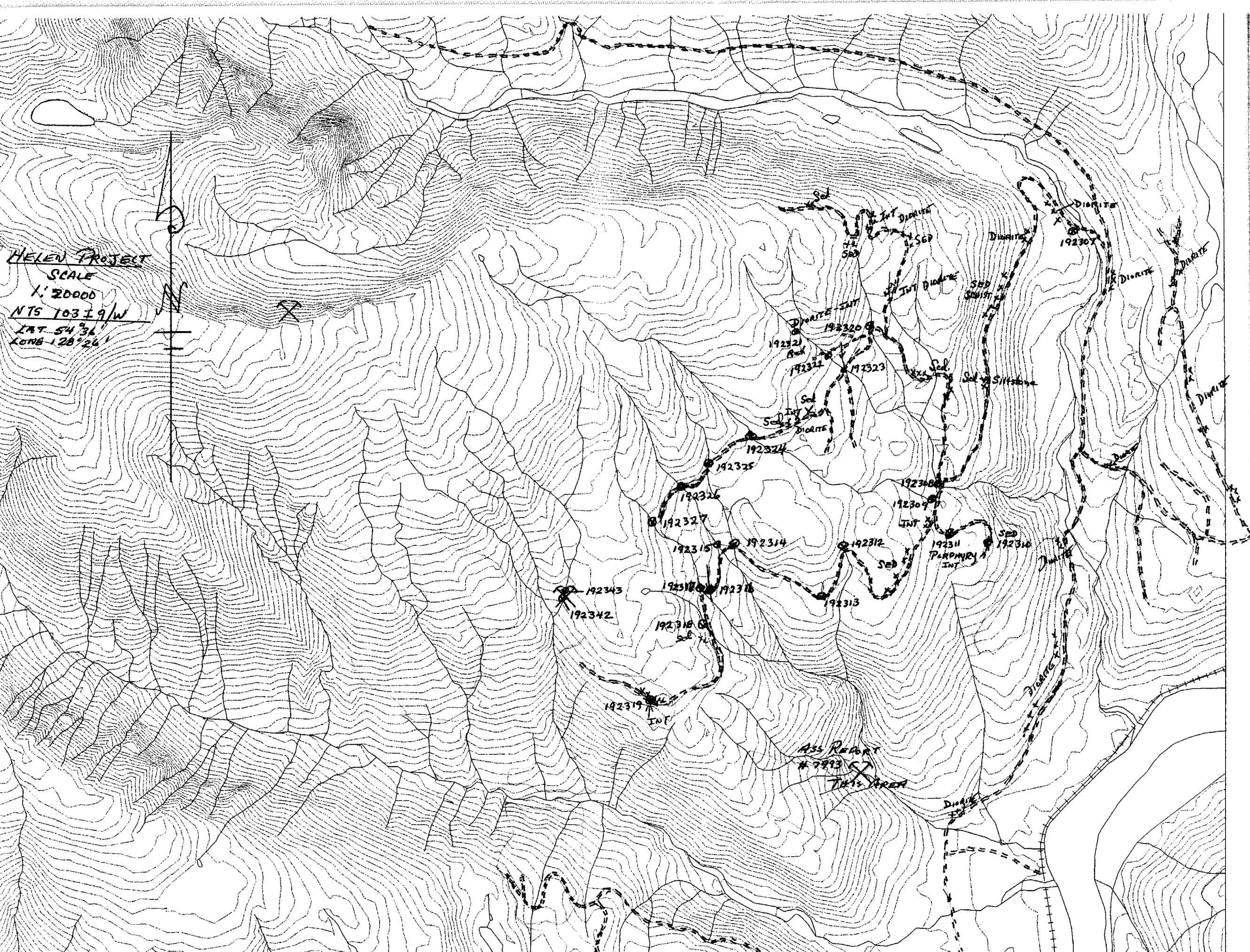
(See Figure 7)

References: Ann. Repts., Minister of Mines, B.C.: 1914, p. 139; 1916, p. 101; 1923, p. 105; 1924, p. 93; 1925, p. 131; 1926, p. 125.

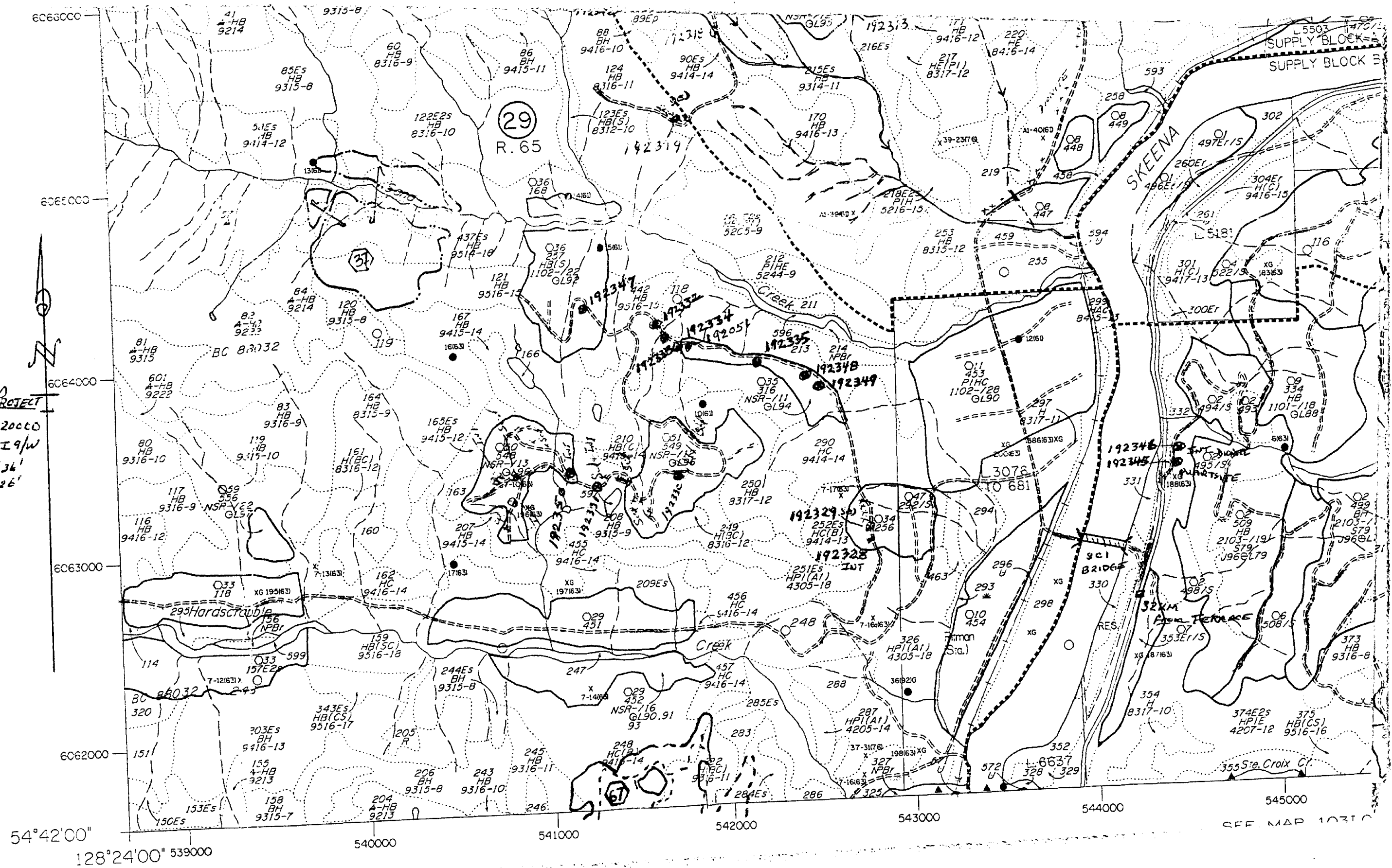
The Fiddler group is on Knauss creek, a short, north-flowing tributary of Fiddler creek, about 4 miles west by wagon road from Dorreen station. A quartz vein containing gold, silver, lead, zinc, and copper attracted attention to this property as early as 1914, when Martin Welsh of Spokane first bonded the property from L. C. Knauss and drove an adit 140 feet along the vein. In 1916 the Fiddler Creek Gold Mining Company of Edmonton drove a prospect adit 183 feet through gravel at a point 450 feet lower along the dip of the vein, but work stopped soon after striking bedrock. This adit has since completely caved in. In 1923 J. F. Duthie acquired the property and continued the main adit along the vein. The following year 80 tons of ore were taken out to the railway. An average of all samples taken during the sacking of the ore is said to have given: gold, 1.67 ounces a ton; silver, 6 ounces a ton; lead, 6.2 per cent; copper, 1.3 per cent; zinc, 5.8 per cent. Further development work was done during the summers of 1925 and 1926. In 1926 J. W. Treadway with three men shipped 100 tons of ore to the smelter. The first carload (35 tons dry weight) is recorded as having returned: gold, 1.28 ounces a ton; silver, 5.3 ounces a ton; lead, 6.1 per cent; zinc, 3.8 per cent. The claims have lain idle during the past ten years. Mr. Patmore of Prince Rupert is the owner.

The claims are underlain by rocks of the Hazelton group, comprised of laminated argillites, bedded tuffs, and massive interbedded flows of andesite, which strike north 60 degrees west and dip from 20 to 30 degrees northeast. They are intruded by dykes of pink, porphyritic quartz diorite and by small, grey, feldspar porphyry dykes. The Fiddler vein or veins occur in the argillite along slip planes parallel to the bedding a short distance below a massive andesite bed. Although the vein abuts against a dyke of the pink quartz diorite at the portal of the No. 1 adit, it is younger than the intrusive. The dyke is about 100 feet wide, strikes approximately

HELEN PROJECT
SCALE
1:20000
NTS 103 E 9/W
TWT 54 36
LONG 120 26



HELEN PROJECT
SCALE 1:20000
NTS 10319/W
LAT 54°36'
LONG 128°26'





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852 E. HASTINGS ST. VANCOUVER BC V6A 1R6

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GEOCHEMICAL ANALYSIS CERTIFICATE



Hudson Bay Expl. & Dev. Co. Ltd. PROJECT HELEN File # A103262 (a)

800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	M ppm	Tl ppb	Hg ppb	Se ppm	Te ppm	Ga ppm
192308	1.86	24.88	14.35	206.5	133	16.2	13.1	2026	3.54	29.5	.4	20.4	.5	32.4	1.00	.80	.15	48	.54	.091	7.9	13.6	.63	117.5	.841	1	1.68	.008	.09	<.2	.00	54	.6	.04	6.1
192309	2.83	31.06	19.04	160.0	158	17.5	13.3	1876	4.02	36.0	.9	3.7	1.2	39.5	.77	.90	.24	59	.59	.101	9.3	13.4	.74	143.8	.057	1	1.69	.023	.13	.5	14	41	1.0	.08	6.7
192312	5.11	19.54	6.66	93.8	159	22.9	19.0	4264	2.59	5.8	1.6	20.2	.2	68.3	.55	.45	.13	41	1.11	.153	7.4	26.3	.64	251.6	.031	1	2.48	.013	.09	2.0	.13	82	1.0	.06	6.4
192314	9.00	28.99	15.33	409.3	242	15.8	22.4	7146	5.28	25.7	.5	18.0	.3	66.2	3.18	.53	.92	47	1.24	.175	10.5	14.2	.36	296.0	.012	2	1.95	.011	.11	2.8	.17	176	2.0	.30	5.6
192315	3.63	37.04	13.23	131.7	171	17.7	13.0	1865	3.79	30.0	.6	25.3	.0	41.8	.88	1.11	.51	49	.53	.096	10.4	12.8	.58	147.5	.023	<1	1.74	.015	.09	.5	.11	64	.9	.13	6.5
STD S3	1.52	29.64	7.65	45.1	47	11.3	11.2	470	3.26	3.0	.4	1.2	1.9	44.8	.07	.10	.13	122	.54	.038	8.5	30.5	.46	66.8	.311	1	3.06	.110	.04	.2	.10	28	.3	.03	8.9
192317	7.47	33.60	17.90	250.2	214	21.8	14.4	2645	3.51	25.4	1.1	11.4	.4	50.7	2.24	.83	.46	48	.77	.126	9.8	14.4	.50	180.7	.015	1	1.79	.007	.08	1.1	.11	103	2.4	.12	5.7
192318	16.54	33.18	10.97	862.2	242	16.1	24.0	10192	3.31	9.6	.8	4.5	.1	97.8	7.98	.32	.47	31	1.69	.185	7.6	9.7	.21	290.0	.011	2	1.98	.004	.06	.8	.14	240	4.6	.12	4.7
192320	1.39	32.43	13.57	119.3	111	25.6	16.3	1478	4.13	38.2	.2	13.9	1.0	42.0	.70	1.85	.14	52	.61	.089	7.9	18.1	.78	119.6	.041	1	1.63	.019	.08	.4	.04	27	.6	.03	6.2
RE 192320	1.42	32.24	14.31	119.5	113	25.9	16.3	1484	4.15	38.8	.3	4.7	1.0	42.5	.66	1.81	.15	51	.62	.093	8.5	18.2	.79	119.4	.040	1	1.64	.006	.08	.3	.05	38	.5	.03	6.1
192322	2.00	32.50	19.90	311.6	104	21.4	14.0	3169	3.55	48.0	.3	9.1	.4	37.4	2.21	1.17	.34	61	.65	.094	7.5	13.8	.50	177.1	.042	1	2.19	.013	.08	<.2	.12	126	1.4	.07	6.7
192323	2.66	33.24	21.96	246.3	153	20.9	17.1	1935	3.80	42.6	.4	8.8	.7	29.0	1.19	1.32	.19	50	.46	.086	9.4	14.7	.60	129.2	.046	1	1.97	.006	.09	<.2	.11	67	.9	.07	5.7
192324	3.62	42.49	31.53	240.5	280	23.7	15.7	2189	4.68	74.0	1.3	9.0	1.1	54.7	1.44	1.38	.28	67	.69	.108	11.3	12.2	.76	132.5	.051	1	1.96	.019	.14	.3	.18	47	1.6	.10	7.9
192325	3.43	20.68	18.76	615.2	244	11.9	20.7	2863	2.77	22.0	.6	34.7	<.1	47.7	3.97	.67	.22	45	1.02	.158	10.3	11.6	.32	151.2	.012	1	1.90	.009	.05	<.2	.13	165	2.6	.04	5.9
192326	5.73	58.89	20.32	199.9	312	19.3	15.0	2282	4.25	50.0	1.1	9.7	1.0	52.8	1.71	1.23	.61	53	.67	.118	14.2	10.0	.57	167.0	.017	1	1.93	.011	.11	.4	.20	69	1.9	.19	6.8
192327	6.77	60.72	23.45	365.3	307	28.1	16.6	2856	4.03	36.1	1.3	22.2	.5	60.4	3.29	1.12	.54	48	.88	.131	10.8	13.7	.49	208.2	.015	1	1.85	.002	.09	1.2	.13	101	3.9	.13	5.3
STANDARD DSJ	9.47	122.73	35.85	164.9	263	35.1	12.5	844	3.21	30.7	5.9	20.2	4.2	30.0	5.56	4.99	5.46	04	.59	.094	17.2	193.4	.61	159.7	.103	2	1.72	.027	.20	3.7	1.06	239	1.3	1.04	6.6

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 100 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.
UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN - 100 PPM; NO, CO, CD, SB, BI, TH, U, B - 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR - 10,000 PPM.
- SAMPLE TYPE: SILT SS80 60C Samples beginning 'RE' are Returns and 'RRF' are Reject Returns.

DATE RECEIVED: SEP 21 2001 DATE REPORT MAILED: Oct 4/01 SIGNED BY: C. L. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Date: 10/11/01

P. 05

FAX NO. 6042531716

OCT-04-2001 THU 11:50 AM ACME ANALYTICAL LAB

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AA

GEOCHEMICAL ANALYSIS CERTIFICATE

AA

Hudson Bay Expl. & Dev. Co. Ltd. PROJECT HELEN File # A103262 (b)

800 - 700 W. Pender St. Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Cs	Ge	Hf	Nb	Rb	Sc	Sn	S	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt	Sample
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb	gm
192308	1.39	.1	<.02	.54	5.1	3.1	.4	.06	<.05	.3	8.41	17.5	.04	<1	.4	16.2	<10	<2	30
192309	2.15	.1	<.02	.38	6.5	4.8	.7	.07	<.05	.5	9.85	19.7	.05	1	.6	18.4	<10	<2	30
192312	2.44	<.1	<.02	.74	6.2	2.3	.5	.04	<.05	.4	9.10	15.2	.02	1	.8	17.4	<10	<2	30
192314	3.24	.1	<.02	.64	8.7	2.5	.6	.12	<.05	.2	9.61	24.3	.06	4	.8	10.0	11	<2	15
192315	2.23	.1	<.02	.46	6.0	3.8	.5	.04	<.05	.3	9.82	21.6	.05	2	.5	16.6	<10	<2	30
.STD S3	.77	.1	.57	.40	2.4	6.2	1.0	<.01	<.05	37.3	11.43	20.7	.05	2	.5	7.6	<10	<2	30
192317	1.98	.1	<.02	.54	6.6	2.7	.5	.08	<.05	.6	8.59	21.6	.05	6	.8	15.8	<10	<2	30
192318	1.43	.1	<.02	.89	4.9	1.2	.4	.24	<.05	.4	9.42	21.4	.06	15	.7	8.4	10	<2	30
192320	1.32	.1	.03	.26	3.9	4.4	.3	.04	<.05	.9	7.58	16.8	.05	<1	.3	16.3	<10	<2	30
RE 192320	1.40	.1	.03	.28	4.0	4.5	.4	.04	<.05	.9	7.52	17.8	.04	<1	.2	16.7	<10	<2	30
192322	1.44	.1	<.02	.81	5.9	3.3	.4	.05	<.05	.3	8.23	17.5	.08	2	.8	15.5	<10	<2	30
192323	1.50	.1	<.02	.59	5.5	3.7	.4	.03	<.05	.4	9.51	22.0	.04	1	.5	17.4	<10	<2	30
192324	2.35	.1	<.02	.40	7.2	5.6	.6	.08	<.05	.2	13.40	23.5	.07	7	.7	19.0	10	<2	30
192325	1.78	.1	<.02	.64	5.4	1.0	.4	.13	<.05	.2	10.32	21.2	.04	2	.7	12.5	<10	<2	30
192326	2.73	.1	<.02	.54	6.5	4.4	.5	.15	<.05	.3	14.22	30.1	.07	2	.7	15.6	<10	<2	30
192327	1.91	.1	<.02	.52	6.0	3.1	.5	.19	<.05	.4	11.15	23.2	.06	10	.7	14.5	<10	<2	30
STANDARD DS3	5.78	.1	.17	1.55	14.6	3.0	7.1	.02	<.05	3.0	8.25	31.3	2.14	<1	2.2	16.2	<10	<2	30

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.
 UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SM = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
 - SAMPLE TYPE: SILT SSBO 60C Samples beginning 'RE' are Returns and 'RNE' are Reject Returns.

DATE RECEIVED: SEP 21 2001 DATE REPORT MAILED: Oct 4/01 SIGNED BY: C. Leong TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data: C/TA

P. 02

FAX NO. 6042531716

OCT-04-2001 THU 11:46 AM ACME ANALYTICAL LAB

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GEOCHEMICAL ANALYSIS CERTIFICATE

AA

Hudson Bay Expl. & Dev. Co. Ltd. PROJECT HELEN File # A103261 (a)

800 - 790 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti ppm	B ppm	Al %	Na %	K %	W ppm	Li ppm	Hg ppb	Se ppm	Te ppm	Ga ppm
SI	.55	8.54	.68	1.0	68	.5	.1	2	.04	.4	<.1	.2	<.1	3.6	.01	.29	<.02	<.2	.15	<.001	<.5	6.1	.01	4.2	<.001	<.1	.01	.502	.01	<.2	<.02	<.5	<.1	<.02	<.1
192051	36.71	166.72	3.51	44.0	1460	23.4	45.8	447	5.60	2.4	1	1.6	.1	55.3	.10	1.08	1.24	56	84	.087	.8	54.9	53	12.2	250	<.1	95	.044	.04	198.7	.02	<.5	2.5	.32	4.5
192307	4.93	12.24	11.50	1.7	767	8.3	65.3	37	6.27	.7	.2	3.6	.2	6.3	.01	.13	2.99	<.2	.03	.004	<.5	89.1	.01	10.4	.003	<.1	.06	.000	.05	10.5	.02	<.5	6.1	.56	.3
192310	.25	2.35	.70	164.8	36	84.6	31.4	849	5.32	2.6	<.1	.6	.1	48.3	.01	.77	.06	250	.67	.059	5	236.5	3.71	492.5	.347	<.1	3.27	.087	2.84	.5	1.33	<.5	<.1	<.02	8.0
192311	2.06	5.89	4.18	68.1	46	2.1	5.3	388	2.03	.9	.9	1.3	3.5	45.4	.05	.16	.07	55	.70	.065	6.4	42.4	.72	183.1	.136	<.1	1.07	.001	.57	.9	.18	<.5	<.1	<.02	6.6
192313	2.48	3.80	14.73	3.6	496	11.7	72.2	280	5.68	3.4	<.1	3.3	.1	126.8	.04	1.43	236.80	40	1.07	.023	.5	45.1	.03	33.9	.077	<.1	.85	.013	.10	65.1	.04	<.5	2.2	29.33	3.1
192316	1.77	4.13	2.42	40.0	23	2.4	4.5	402	1.91	.6	.8	.4	2.4	59.0	.06	.11	1.33	40	.45	.080	5.4	33.7	.54	143.8	.117	<.1	.85	.074	.15	1.7	.03	<.5	<.1	.19	5.2
192319	1.93	4.10	3.73	21.2	32	3.0	2.4	300	1.10	.7	.8	.4	5.2	21.1	.01	.16	.45	21	.39	.037	6.8	37.7	.25	134.4	.062	<.1	.59	.058	.12	1.5	.02	<.5	<.1	.04	3.1
192321	2.50	10.37	5.67	87.6	58	1.8	2.6	303	1.42	1.1	2.4	.5	5.1	36.9	.67	.09	.21	25	.62	.046	14.1	51.1	.34	91.7	.018	<.1	.61	.053	.13	1.1	.02	<.5	.1	.04	4.8
RE 192321	2.55	9.98	5.94	86.4	60	2.0	2.8	297	1.41	.7	2.3	<.2	5.1	37.0	.66	.08	.21	26	.61	.048	13.6	48.1	.33	91.1	.017	<.1	.61	.053	.13	1.0	.02	<.5	<.1	.05	4.9
192328	.91	6.31	.90	21.2	28	3.1	3.6	255	1.60	.5	.4	.2	3.6	33.6	.01	.11	.10	33	.33	.056	7.5	32.9	.44	82.7	.117	<.1	.70	.004	.41	1.1	.10	<.5	<.1	<.02	4.0
192329	1.19	5.77	1.15	183.8	38	8.7	21.1	1213	4.15	1.7	.3	.3	.7	10.7	.01	.06	.05	126	.33	.108	3.8	33.0	2.05	410.2	.326	<.1	1.81	.066	1.67	.3	.16	<.5	<.1	.02	10.5
192330	.57	28.72	2.16	119.9	87	19.7	22.0	1252	4.42	2.2	.2	.4	.3	25.5	.01	.18	.05	154	.68	.094	1.8	41.3	2.05	282.3	.283	<.1	1.66	.051	.79	.6	.07	<.5	<.1	<.02	7.4
192331	4.22	301.33	13.58	5.5	12772	7.2	46.7	45	6.64	5.7	.1	328.7	<.1	1.7	.09	1.62	69.57	<.2	.01	.002	<.5	21.8	.02	12.5	.004	<.1	.07	.003	.02	5.2	.08	<.5	3.5	54.73	.6
192332	490.49	19.11	4.62	5.5	341	2.5	9.4	25	2.71	4.9	.6	12.3	2.9	4.0	<.01	.03	4.42	6	.03	.034	9.7	10.0	.03	75.1	.007	<.1	.36	.028	.32	1.1	.09	<.5	1.9	.65	1.6
192333	14.53	174.21	2.52	26.6	975	18.1	14.7	317	3.10	2.2	.2	7.1	.2	37.5	.15	.27	1.23	87	.94	.099	2.5	56.1	.53	17.4	.248	1	.90	.097	.07	73.3	.03	<.5	.8	.16	3.2
192334	40.75	221.82	2.76	40.3	1351	22.3	35.1	426	4.90	2.0	.2	2.4	.1	50.1	.08	.35	1.81	58	.96	.096	.9	49.3	.50	10.0	.252	<.1	.95	.050	.65	86.1	.02	<.5	1.6	.18	4.0
192335	15.86	62.42	3.40	33.0	417	2.8	14.6	313	4.69	1.0	.6	1.3	2.4	37.9	.08	.11	27.76	54	.42	.123	7.6	23.3	.78	63.5	.147	<.1	.93	.040	.12	212.7	.05	5	1.9	1.32	5.7
192336	1.34	16.96	1.96	50.3	38	6.1	5.2	480	1.93	.7	2.1	.9	4.2	28.3	.03	.07	26	46	.51	.084	5.5	47.7	.55	79.1	.120	1	.82	.065	.26	3.8	.12	<.5	<.1	.02	5.0
192342	1.74	31.35	2.16	32.8	179	1.2	20.8	831	2.34	1.0	1.8	3.1	4.6	30.3	.18	.07	7.41	9	.84	.037	4.6	34.3	.11	69.3	.001	<.1	.58	.017	.37	1.0	.06	<.5	.2	.19	2.1
192343	6.27	1675.67	4.85	54.9	2657	20.3	17.7	1693	3.39	1.8	.4	1.1	2.2	236.1	.14	.07	13.08	37	4.00	.148	10.3	28.7	.57	126.4	.008	<.1	1.41	.015	.34	.6	.10	<.5	1.6	.21	4.9
192345	2.76	16.41	14.64	15.0	23	.9	.3	279	.73	.6	2.9	.3	18.1	7.1	.22	<.02	.12	<.2	.19	.002	2.2	27.3	.01	15.7	.005	<.1	.17	.031	.20	.8	.04	<.5	<.1	<.02	.8
192346	155.38	186.84	12.06	8.4	802	5.3	4.7	88	3.12	1.8	.5	.7	4.2	2.0	<.01	.13	.21	12	.02	.001	.6	92.1	<.01	6.3	.002	<.1	.11	.013	.11	12.6	.02	<.5	1.4	.06	1.7
192347	7.03	20.20	9.30	54.3	1519	34.7	24.5	209	7.10	1.8	.3	1.2	.9	35.2	1.12	.13	17.72	42	.54	.067	2.6	32.4	.46	29.9	.115	<.1	.71	.062	.16	211.9	.06	<.5	3.2	3.65	2.8
STD S3	1.52	31.16	7.82	44.4	57	11.3	11.3	445	3.32	2.5	.4	1.4	2.1	45.2	.08	.07	.18	119	.62	.039	9.0	32.1	.45	66.9	.316	<.1	3.38	.121	.04	.2	.10	.27	.2	.02	9.0
192348	39.40	35.96	9.22	62.6	1037	1.6	.6	468	1.13	.7	.2	.6	1.7	40.0	1.80	.05	19.95	12	.92	.011	9.6	19.8	.03	208.4	.005	<.1	.16	.014	.18	20.5	.03	<.5	.2	.09	.8
192349	20.62	66.12	49.20	116.5	5847	1.5	1.4	361	1.78	.6	.4	1.0	2.0	7.6	4.17	.07	243.82	21	.09	.018	12.9	10.9	.01	151.5	.001	<.1	.23	.015	.26	40.5	.04	<.5	1.0	.69	1.6
192350	5.18	162.61	4.04	55.7	862	6.3	9.4	495	2.54	.8	1.1	3.1	2.8	41.0	.15	.09	1.59	58	.52	.133	7.2	14.9	.84	135.0	.142	<.1	1.15	.074	.56	1.6	.33	<.5	.3	.28	6.7
STANDARD	0.69	122.00	35.25	154.0	292	37.4	11.7	786	3.10	30.0	5.9	21.1	4.0	26.8	5.88	4.57	5.74	78	.53	.095	15.9	183.3	.59	155.3	.083	1	1.70	.027	.16	3.8	.97	233	1.2	1.06	6.4

Standard is STANDARD DSS.

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 NCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.

UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MM, AS, V, LA, CR = 10,000 PPM.

- SAMPLE TYPE: ROCK R150 60C

Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 21 2001 DATE REPORT MAILED: Oct 4/01 SIGNED BY: C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Data: PA

GEOCHEMICAL ANALYSIS CERTIFICATE

Hudson Bay Expl. & Dev. Co. Ltd. PROJECT HELEN File # A103261

(b)

800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Cs ppm	Ge ppm	Hf ppm	Nb ppm	Rb ppm	Sc ppm	Sn ppm	S %	Ta ppm	Zr ppm	Y ppm	Ce ppm	Th ppm	Re ppb	Be ppm	Li ppm	Pd ppb	Pt ppb	Sample gm
SI	<.02	<.1	<.02	<.02	.1	<.1	<.1	.02	<.05	.6	.04	.1	<.02	<1	<.1	.1	<10	<2	30
192051	.23	.8	.23	.47	3.1	2.0	1.1	2.98	<.05	4.5	3.91	2.1	.07	2	.2	4.2	<10	2	30
192307	.13	.1	<.02	.06	2.9	.1	.1	6.33	<.05	.6	.33	1.0	<.02	1	.1	.5	<10	<2	30
192310	37.93	.2	.04	.02	146.4	6.3	.2	.05	<.05	.7	5.72	1.3	<.02	1	.1	51.4	<10	<2	30
192311	1.62	.1	.15	.11	26.4	2.2	.7	.02	<.05	5.3	3.14	11.4	.02	<1	.2	16.3	<10	<2	30
192313	.32	.1	.05	.10	4.0	2.0	.6	5.25	<.05	1.3	3.44	1.0	.08	1	.1	.5	<10	2	30
192316	.30	.1	.25	.39	5.4	1.3	.5	.04	<.05	5.8	3.40	10.2	<.02	<1	.1	9.6	<10	<2	30
192319	.97	.1	.24	.25	4.4	1.0	.5	.03	<.05	6.5	3.78	12.5	<.02	1	.3	6.9	<10	<2	30
192521	.65	.1	.42	.05	3.0	.9	.3	.23	<.05	9.6	6.45	25.4	.03	1	.1	9.9	<10	<2	30
RE 192321	.62	.1	.45	.06	2.9	.9	.2	.27	<.05	9.9	6.50	24.0	.03	1	.2	9.4	<10	<2	30
192328	.58	.1	.14	.19	23.2	.9	.5	<.01	<.05	4.4	4.33	14.6	<.02	<1	.1	15.1	<10	<2	30
192329	1.80	.2	.09	.02	30.3	12.5	.7	<.01	<.05	2.3	10.59	7.3	.03	<1	.1	25.5	<10	<2	30
192330	1.16	.2	.12	.02	13.1	5.1	.3	.02	<.05	2.5	6.00	3.7	<.02	1	.1	19.8	<10	<2	30
192331	.05	<.1	.02	.06	.9	.1	.1	7.25	<.05	.8	.12	.3	<.02	<1	<.1	.7	<10	<2	30
192332	.23	.1	.04	<.02	12.8	.4	.3	2.51	<.05	1.3	1.19	16.7	<.02	14	.1	1.3	<10	<2	30
192333	.34	.3	.27	.27	4.7	4.1	.7	1.03	<.05	5.3	6.94	6.1	.03	1	.3	3.9	<10	<2	30
192334	.21	.5	.18	.39	3.9	2.5	1.0	2.64	<.05	4.0	4.74	2.4	.04	1	.2	3.7	<10	<2	30
192335	.42	.2	.16	1.11	8.4	1.3	.9	2.81	<.05	3.7	6.13	14.3	.04	1	.3	7.5	<10	<2	30
192336	1.34	.1	.07	.27	18.1	1.7	.4	.02	<.05	1.1	3.36	9.9	<.02	<1	.1	13.8	<10	<2	30
192342	.33	<.1	.19	<.02	12.5	.4	.3	1.62	<.05	4.8	3.78	8.2	.31	<1	.3	2.3	<10	<2	30
192343	.56	.1	.02	<.02	12.2	1.9	.2	1.56	<.05	1.3	15.04	18.9	.25	8	.3	11.7	<10	<2	30
192345	.07	<.1	.11	.08	7.5	.2	.2	.02	<.05	1.8	1.68	3.4	<.02	<1	.1	.4	<10	<2	30
192346	.09	.1	.06	.20	4.4	.1	.4	.67	<.05	1.4	.42	1.1	<.02	1	.1	.2	<10	<2	30
192347	1.67	.2	.19	.50	10.8	2.0	.7	6.68	<.05	4.5	3.73	5.3	.07	1	.3	4.7	<10	<2	30
.STD S3	.79	.1	.63	.53	2.6	6.4	1.0	.03	<.05	36.6	12.08	21.9	.05	1	.7	8.8	<10	<2	30
192348	.24	.1	.03	.02	6.0	1.2	.3	.64	<.05	1.8	6.71	18.2	.05	<1	.3	.4	<10	<2	30
192349	.36	<.1	.06	.03	8.6	1.4	.5	.94	<.05	2.2	7.58	23.2	.12	<1	.3	.5	<10	<2	30
192350	5.38	.1	.17	.25	34.1	3.0	.6	.75	<.05	4.3	5.97	12.3	<.02	3	.1	10.5	<10	<2	30
STANDARD DS3	5.60	.1	.19	1.60	13.2	2.9	6.5	.03	<.05	3.2	8.38	29.0	2.15	2	2.1	15.8	<10	<2	30

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO₃-H₂O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.
UPPER LIMITS - AG, AU, HG, U, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 21 2001 DATE REPORT MAILED: Oct 4/01 SIGNED BY: C. Leong, J. Wang; CERTIFIED B.C. ASSAYERS

D. TECHNICAL REPORT

- One technical report to be completed for each project area.
- Refer to Program Regulations 15 to 17, page 6.

SUMMARY OF RESULTS

- This summary section must be filled out by all grantees, one for each project area

Information on this form is confidential for one year and is subject to the provisions of the Freedom of Information Act.

Name RAUPH R. KEEFE Reference Number 2001/2002 P11

LOCATION/COMMODITIES

Project Area (as listed in Part A) O.G.D.P. PROJECT MINFILE No. if applicable _____

Location of Project Area NTS 43E, K, L, M + 103 I Lat _____ Long _____

Description of Location and Access HIGHWAY 16, 35, 37 plus main logging haul roads & bush roads

Prospecting Assistants(s) - give name(s) and qualifications of assistant(s) (see Program Regulation 13, page 6)

GEORGE CHINN - PROSPECTOR (GUIDE) SEVERAL YEARS

Main Commodities Searched For UAS

Known Mineral Occurrences in Project Area Visible sulphides in quartz schist

WORK PERFORMED

ALL AREAS (5)

1. Conventional Prospecting (area) GENERAL PROSPECTING + ROCK SAMPLING
2. Geological Mapping (hectares/scale) GEOLOGICAL MAPPING ALL O/CRAFS
3. Geochemical (type and no. of samples) ALL CREEKS IN IMMEDIATE AREAS
4. Geophysical (type and line km) NIL
5. Physical Work (type and amount) "
6. Drilling (no. holes, size, depth in m, total m) "
7. Other (specify) "

FEEDBACK: comments and suggestions for Prospector Assistance Program _____

- NONE -

D. TECHNICAL REPORT (continued)

REPORT ON RESULTS

- Those submitting a copy of an Assessment Report or a report of similar quality that covers all the key elements listed below are not required to fill out this section.
- Refer to Program Regulation 17D on page 6 for details before filling this section out (use extra pages if necessary)
- Supporting data must be submitted with the following TECHNICAL REPORT or any report accepted in lieu of.

Information on this form is confidential for one year from the date of receipt subject to the provisions of the Freedom of Information Act.

Name RALPH R. KEEFE Reference Number 2001/2002

1. LOCATION OF PROJECT AREA [Outline clearly on accompanying maps of appropriate scale.]

ALL PROSPECTED AREAS ARE MAP IDENTIFIED (NDS,
+ SCALE)

2. PROGRAM OBJECTIVE [Include original exploration target.]

ASS PER ORIGINAL PROPOSAL - Identify & classify
any signs or showings of sulphides.

3. PROSPECTING RESULTS [Describe areas prospected and significant outcrops/float encountered. Mineralization must be described in terms of specific minerals and how they occur. These details must be shown on accompanying map(s) of appropriate scale; prospecting traverses should be clearly marked.]

No sulphides of commercial value observed.

THIS PROJECT WAS DESIGNED TO FOLLOW UP

PRIMARYLY ON NEW ROAD & LOG BLK CONSTRUCTION

THROUGH OUT THE AREA WITH SPECIAL ATT

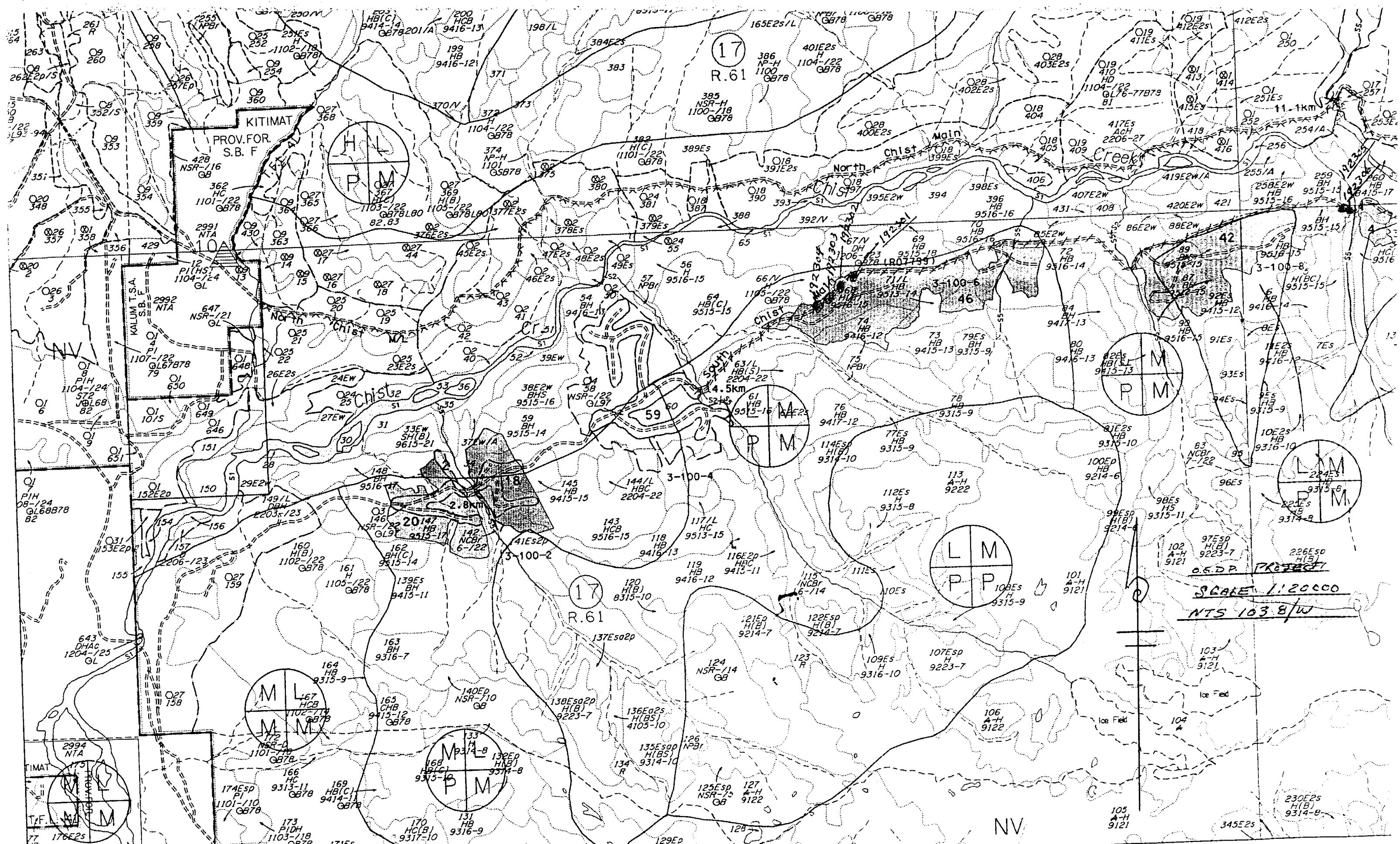
TO KNOWN OR PREVIOUS AREAS OF MINERALIZATION

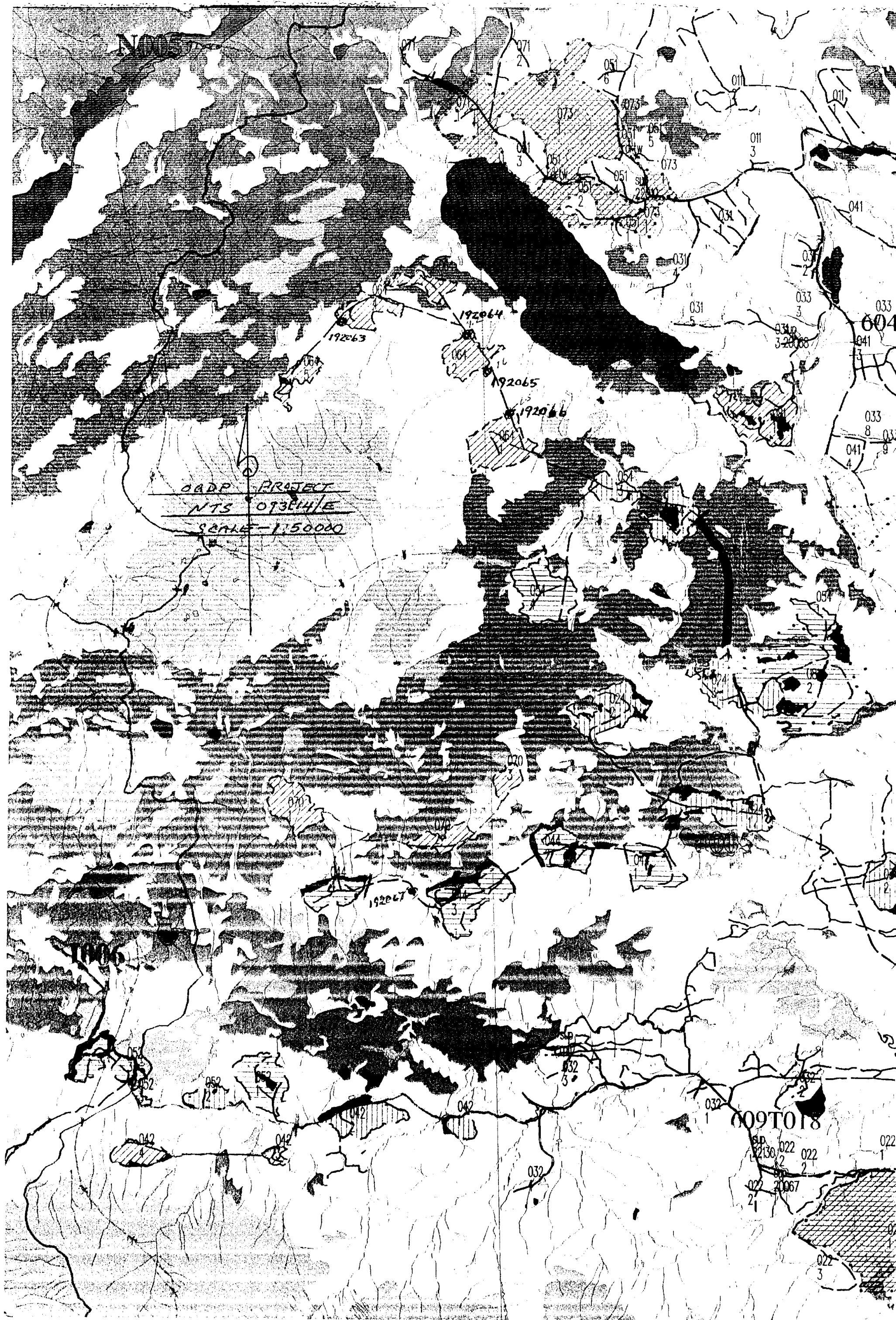
(REF TO - MINFILE, ASS REPORTS & TGS DATA). plus

GENERAL GEOLOGY.

BE39 BE4 mineral claims held by F. LUDIK have potential for

economic porphyry. Access & limited tenure(?) potential somewhat
restrict development at moment.

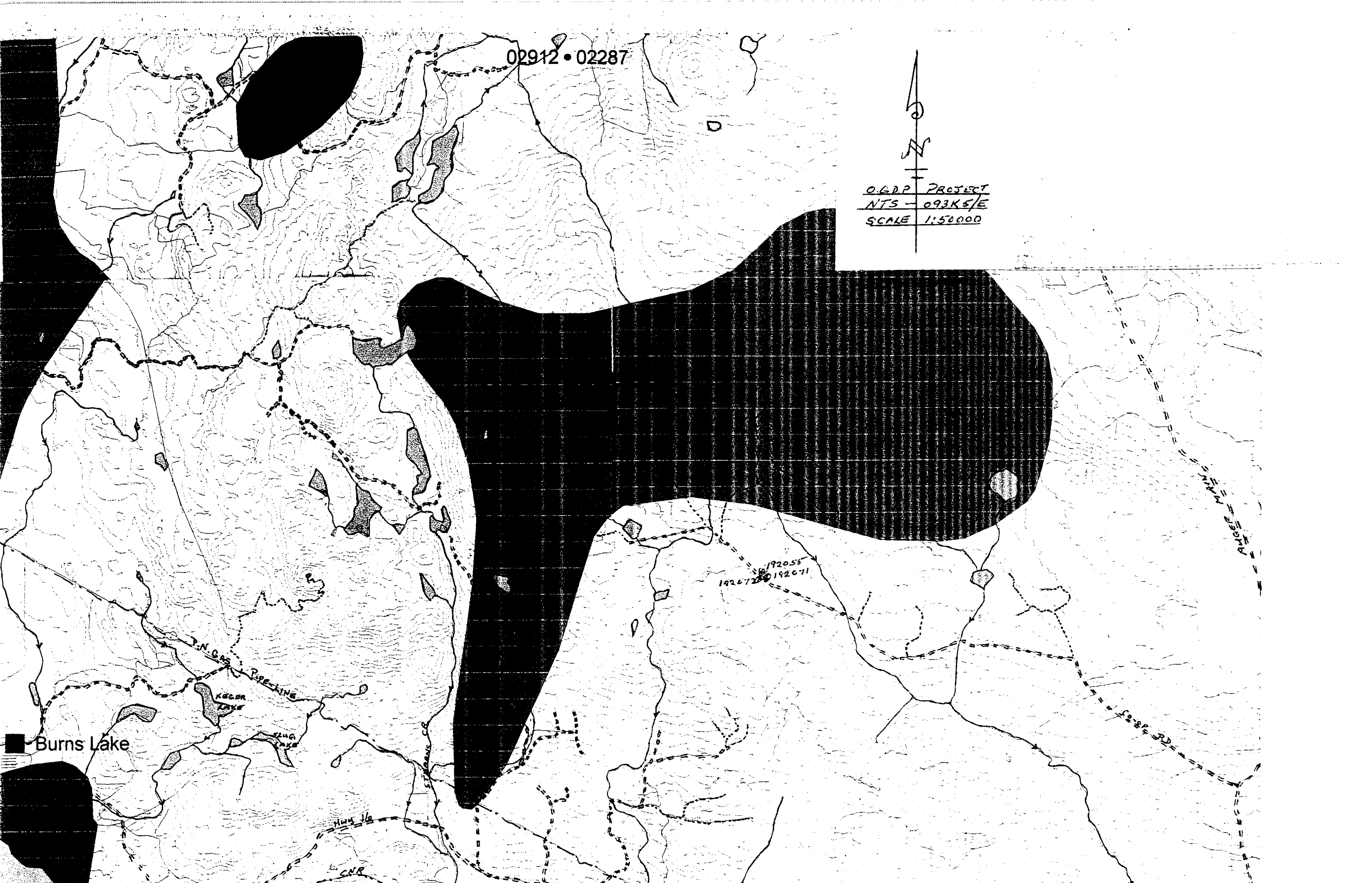


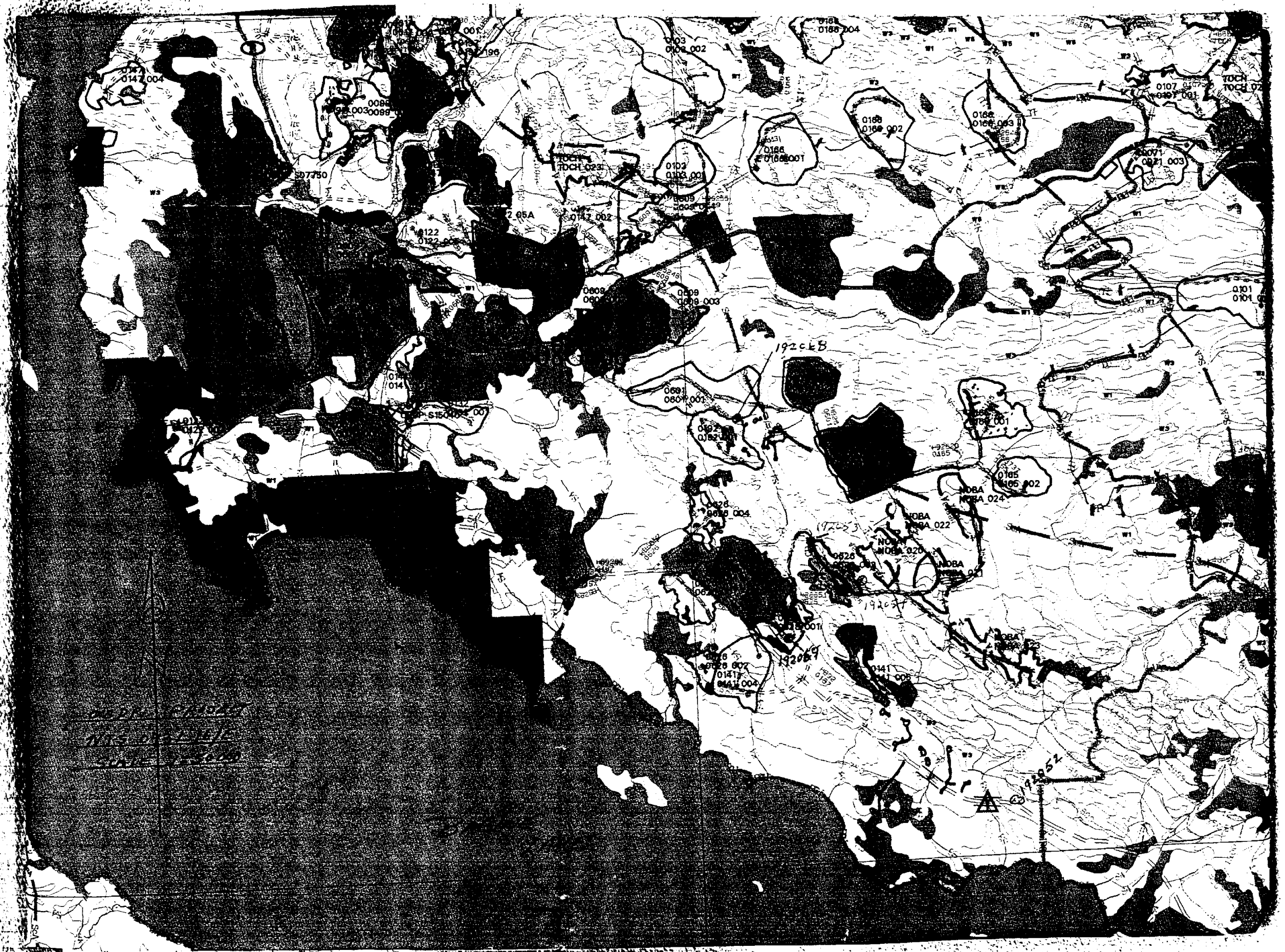


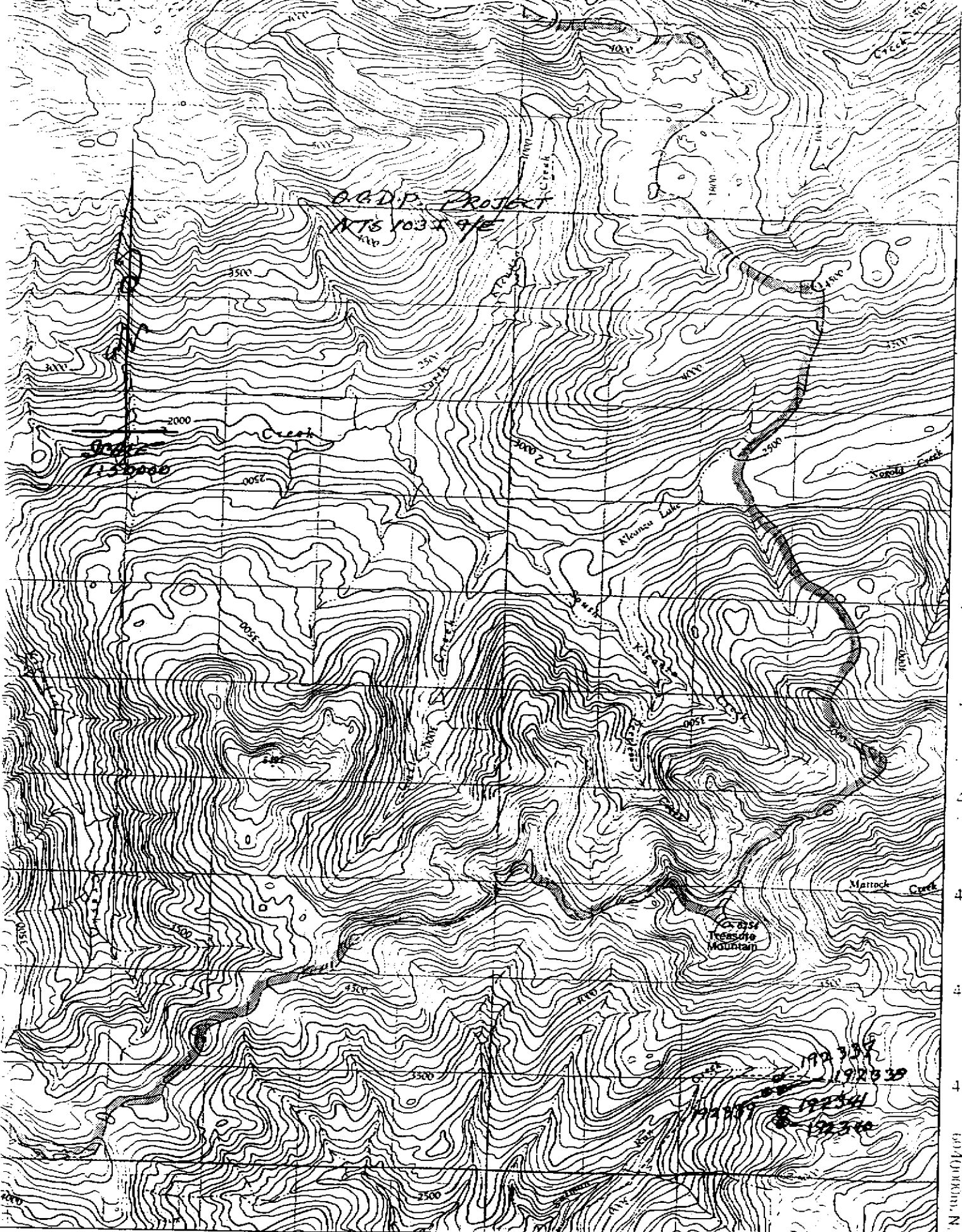
02912 • 02287

0.GDP PROJECT
NTS - 093K5/E
SCALE 1:50000

■ Burns Lake







O.G.D.P. PROJECT
XTS 1032 4/E

Grass Creek
1:25000

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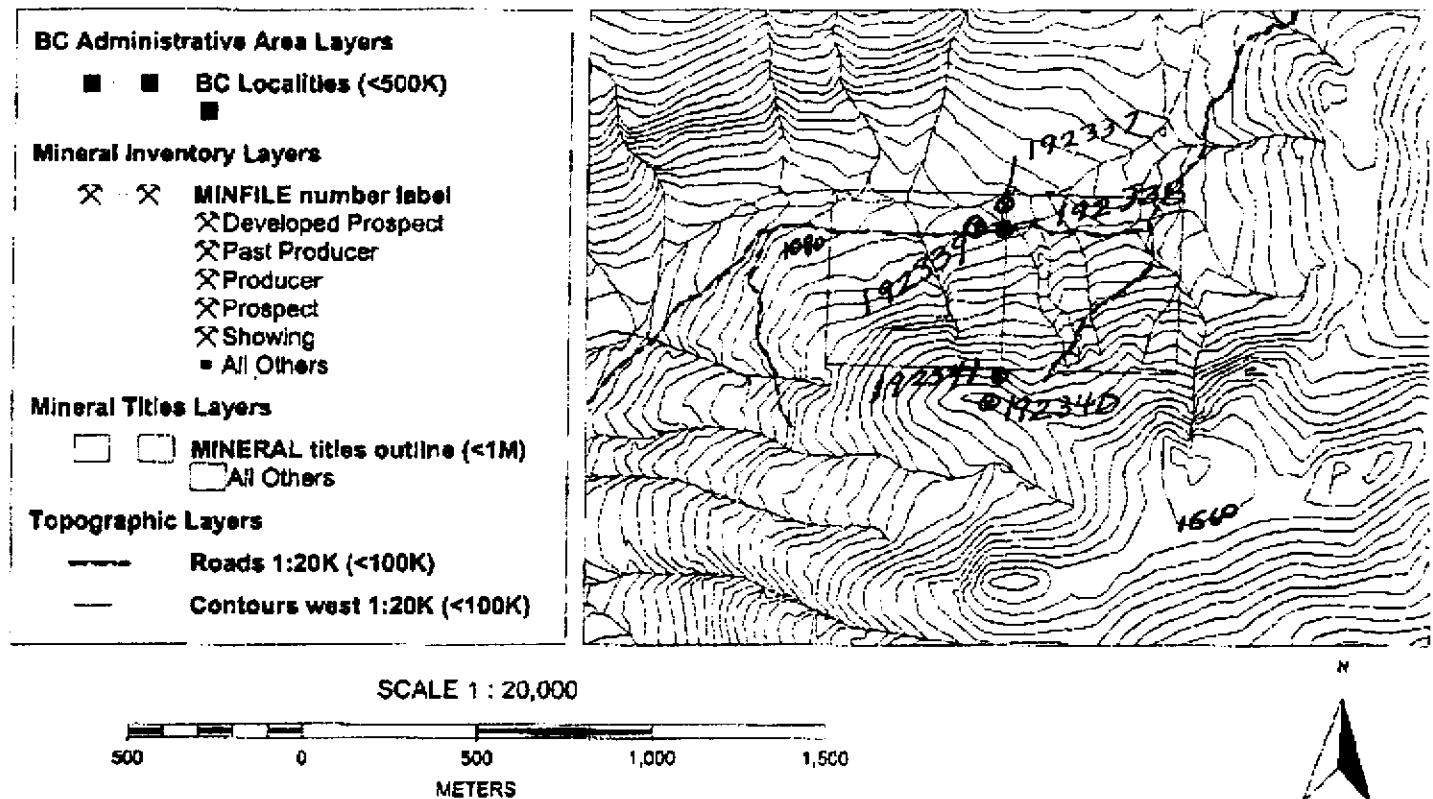
56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

Mineral Titles Map

O.G.D.P. PROJECT

BF3 + BF4 M.C.'s - FRED LUDIK
WILLIAM McRAE

NTS 103 E 9/E



O.G.D.P. PROJECT
NTS 093F5/W

UDOK MAIN

CN004
112.9

LAKE

LI

SAMPLE SITE

192062
192070

CN002
118.0

CN001
113.0

CHELASLIE

RIVER

1:50000

ACME ANALYTICAL LABORATORIES LTD.
(ISO 9002 Accredited Co.)

852 E. BASTINGS ST. VANCOUVER BC V6A 1R6

PHONE (604) 253-3158 FAX (604) 253-1716

11

GEOCHEMICAL ANALYSIS CERTIFICATE

Hudson Bay Expl. & Dev. Co. Ltd. PROJECT O.G.D.P. File # A103946 (a)

800 - 709 W. Pender St. Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

11

SAMPLE#	Submitted by: Ralph Keefe										Submitted by: Ralph Keefe																								
	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Li %	B ppm	Al %	Na %	K %	W ppm	Ti ppm	Hg ppb	Se ppm	Te ppm	Ga ppm
L-1	1.56	2.46	2.92	30.8	13	4.7	4.0	525	1.80	.9	1.7	.5	4.5	93.8	.03	.04	.10	.39	.55	.090	6.8	13.9	.52	225.7	.133	1	.99	.136	.51	1.3	27	<.5	.1	<.02	5.1
192063	2.06	20.70	8.58	78.6	254	8.7	14.2	4015	3.48	9.3	5.0	6.0	.4	90.8	.90	.40	.16	.42	.98	.123	16.0	14.2	.30	397.0	.020	3	1.86	.010	.13	<.2	11	120	.5	.04	3.2
192064	.69	20.53	9.89	61.0	174	9.8	7.6	799	2.14	7.3	.5	13.3	.4	39.8	.32	.44	.10	.47	.46	.074	10.4	16.5	.39	193.2	.021	2	1.46	.016	.08	<.2	.07	40	2	.06	4.1
192065	.76	16.33	6.45	35.4	68	9.6	5.3	390	2.24	8.4	.5	2.2	1.1	10.4	.09	.45	.12	.49	.72	.056	8.2	21.2	.37	70.1	.043	1	1.09	.009	.03	<.2	.04	20	.2	.05	3.9
STD S3	1.55	32.56	8.40	43.7	52	12.3	11.2	468	3.41	3.2	.4	1.0	1.9	47.2	.06	.12	.14	.125	.51	.040	9.3	35.2	.46	65.1	.348	1	3.60	.124	.05	.2	.12	24	.3	.63	9.5
192066	.68	16.72	7.51	54.3	134	9.7	7.0	914	2.02	5.4	.5	6.8	.4	39.4	.28	.35	.13	.45	.51	.072	8.9	15.5	.41	156.1	.030	1	1.26	.011	.06	<.2	.06	44	.2	.04	3.7
192068	3.33	31.16	9.13	67.4	268	12.5	11.6	3797	3.63	14.2	1.3	14.9	1.0	62.5	.40	.36	.18	.45	.85	.092	16.8	17.5	.36	360.8	.018	1	1.42	.009	.04	<.2	.08	126	.4	.04	4.7
RE 192065	.83	16.64	6.53	36.0	66	10.0	5.6	424	2.32	8.5	.5	2.2	1.2	18.1	.08	.43	.11	.51	.23	.056	7.9	21.3	.38	66.9	.046	<1	1.03	.009	.03	<.2	.03	20	.2	.05	3.1
STANDARD OS3	9.44	121.70	35.61	153.1	289	36.4	12.1	793	3.11	30.2	6.1	22.8	3.9	26.4	5.55	5.30	5.62	.76	.50	.096	16.2	188.6	.58	151.2	.083	2	1.66	.028	.16	3.9	99	248	1.3	1.06	6.1

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.
UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CU, CD, SB, BI, TH, U, B = 2,000 PPM; CO, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SILT SS80 60C Samples beginning 'RE' are Retests and 'RRE' are Reject Retests.

DATE RECEIVED: NOV 6 2001 DATE REPORT MAILED: Nov 12/01 SIGNED BY: C. L. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Date / FA

P. 08

FAX NO. 6042531716

NOV-19-2001 MON 04:30 PM ACME ANALYTICAL LAB

ACME ANALYTICAL LABORATORIES LTD.
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852 E. HASTINGS ST. VANCOUVER BC V6A 1E6

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GEOCHEMICAL ANALYSIS CERTIFICATE



Hudson Bay Expl. & Dev. Co. Ltd. PROJECT O.G.D.P. File # A103946 (b)

800 700 U. Pender St. Vancouver BC V6C 1G8 Submitted by: Ralph Koels

SAMPLE#	Cs	Ge	Hf	Nb	Rb	Sc	Sn	S	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt	Sample
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb	µm
G-1	2.56	.2	.11	1.03	37.7	2.9	.2	<.01	<.05	1.3	4.75	13.1	.02	<1	.2	33.7	<10	<2	30
192063	2.35	.1	.02	.50	6.1	2.5	.1	.10	<.05	.7	20.13	29.1	.03	<1	.5	11.4	<10	<2	30
192064	1.94	.1	<.02	.38	6.2	2.6	.4	.04	<.05	.4	11.19	18.9	.02	<1	.4	10.7	<10	<2	30
192065	.89	.1	.04	.33	2.6	2.9	.3	<.01	<.05	1.4	10.68	14.6	.02	1	.5	10.1	<10	<2	30
.STO S3	.78	.2	.61	.65	2.9	6.5	.6	.01	<.05	39.2	13.02	23.2	.05	1	.6	8.9	<10	<2	30
192066	1.34	<.1	<.02	.32	4.9	2.2	<.1	.03	<.05	.7	10.58	14.2	.02	1	.3	11.7	<10	<2	30
192060	.67	.1	.07	.61	4.6	4.5	<.1	.05	<.05	1.8	19.89	24.6	.04	5	.6	10.9	<10	<2	30
RE 192065	.90	.1	.05	.33	2.8	2.8	.3	<.01	<.05	1.5	10.69	14.3	<.02	<1	.4	10.3	<10	<2	30
STANDARD DS3	5.52	.1	.13	1.45	13.7	2.6	7.1	.03	<.05	2.6	8.40	30.3	2.06	1	1.8	16.2	<10	<2	30

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-MNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.
UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TM, U, B = 2,000 PPM; CU, PB, ZN, NI, NM, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: SILT SS80 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: NOV 6 2001 DATE REPORT MAILED: Nov 18/01 SIGNED BY: C. L. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

All results are considered the confidential property of the client. Acme assumes the liabilities for actual cost of the analysis only.

Date: 1/FA

P. 03

FAX NO. 6042531718

NOV-18-2001 MON 09:02 AM ACME ANALYTICAL LAB

AA

GEOCHEMICAL ANALYSIS CERTIFICATE

AA

Hudson Bay Expl. & Dev. Co. Ltd. PROJECT O.G.D.P. File # A103945 (a)

800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Ca ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm
SI	.33	1.40	.59	8.4	15	.8	.1	<1	.03	.2	<.1	.2	<.1	2.7	.04	.05	<.02	<2	.13	.001	<.5	3.7	<.01	3.2	<.001	1	.01	.493	.01	<.2	<.02	<5	.1	<.02	<.1
192052	1.21	18.29	49.17	23.5	474	4.9	114.8	246	8.04	96.7	.8	62.7	3.0	39.9	<.01	.15	3.51	54	.28	.045	4.8	57.8	.63	17.6	.029	1	1.03	.046	.04	.4	.03	<5	2.6	1.76	5.7
192053	3.26	16.68	5.71	33.6	85	4.4	3.6	363	1.72	.8	1.8	1.3	10.0	14.7	.09	.08	.09	28	.39	.037	21.7	61.8	.46	114.2	.002	<1	.66	.051	.13	.4	<.02	5	.1	.03	4.4
192054	6.27	7.91	7.91	32.4	22	2.4	1.2	344	1.58	1.7	.5	1.5	1.6	8.9	.05	.11	.27	13	.06	.031	25.4	20.2	.41	93.4	.001	<1	.73	.052	.12	1.1	<.02	<5	.1	<.02	5.2
STD S3	1.65	32.57	7.79	45.1	60	11.2	11.5	469	3.57	3.2	.5	.7	2.1	46.1	.05	.09	.14	125	.50	.036	10.5	36.0	.45	72.2	.330	1	3.65	.120	.04	.3	.11	28	.4	<.02	9.8
192062	1.41	38.44	13.07	29.2	568	12.6	16.0	677	4.10	7.2	.3	.3	1.2	445.1	.09	2.66	.13	41	1.57	.073	4.0	15.6	.81	57.9	.053	1	3.37	.192	.17	.7	.17	18	4.4	1.06	4.5
192067	2.01	26.77	3.11	18.1	53	6.3	13.2	372	4.16	7.3	.8	.4	3.7	35.1	.21	.21	.06	29	.63	.100	8.1	21.2	.14	24.4	.009	1	.79	.055	.09	<.2	.07	22	.4	.28	2.4
192069	3.29	36.12	3.28	28.6	21	3.7	23.4	524	4.99	1.4	.4	.3	2.0	97.1	.02	.19	.03	214	1.72	.180	13.6	15.5	1.20	109.5	.277	1	2.03	.125	.18	.2	.02	<5	.1	.03	7.7
192070	1.32	42.29	13.54	40.8	438	18.4	15.5	703	3.92	7.5	.4	1.0	1.3	300.9	.08	2.47	.25	46	1.12	.082	4.5	22.3	1.07	57.1	.083	2	3.02	.152	.19	.5	.16	15	5.7	.92	4.1
RE 192070	1.31	42.52	12.95	43.0	440	17.9	15.6	708	3.91	7.5	.3	.3	1.3	291.0	.08	2.34	.25	46	1.12	.082	4.4	21.7	1.07	60.5	.078	1	3.00	.152	.18	.5	.15	18	5.7	.92	4.1
STANDARD DS3	9.41	121.13	34.56	155.8	274	35.3	12.2	816	3.27	30.5	6.0	20.1	3.6	25.4	5.40	4.93	5.41	75	.49	.084	16.2	187.2	.57	145.0	.081	1	1.71	.027	.15	3.9	1.06	226	1.1	1.06	6.0

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.

UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.

- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: NOV 6 2001 DATE REPORT MAILED: Nov 18/01 SIGNED BY: C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

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GEOCHEMICAL ANALYSIS CERTIFICATE

Hudson Bay Expl. & Dev. Co. Ltd. PROJECT O.G.D.P. File # A103945

(b)

800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

AA
LL

SAMPLE#	Cs ppm	Ge ppm	Hf ppm	Nb ppm	Rb ppm	Sc ppm	Sn ppm	S %	Ta ppm	Zr ppm	Y ppm	Ce ppm	In ppm	Re ppb	Be ppm	Li ppm	Pd ppb	Pt ppb	Sample gm
S1	<.02	<.1	<.02	.02	.1	.1	.1	.01	<.05	.4	.03	.2	<.02	<1	<.1	.1	<10	<2	30
192052	.05	.2	.14	.17	1.2	2.6	.6	7.06	<.05	3.1	4.20	10.5	.02	8	.1	2.5	<10	<2	30
192053	.17	.1	.24	.02	3.3	1.2	.6	.06	<.05	5.8	13.06	38.0	<.02	1	.3	3.3	<10	<2	30
192054	.09	.1	.31	.02	2.4	.7	.8	.39	<.05	10.7	3.21	42.8	.03	<1	.1	3.3	<10	<2	30
.STD S3	.86	.2	.67	.58	2.7	6.9	1.2	<.01	<.05	39.4	13.64	25.2	.04	<1	.6	9.3	<10	<2	30
192062	6.20	.1	.17	.09	6.8	1.8	.2	3.54	<.05	4.9	5.14	7.7	<.02	<1	.6	126.7	<10	<2	30
192067	.32	.1	.16	.03	2.9	3.5	.3	3.93	<.05	4.1	5.59	14.5	.06	<1	.2	2.2	<10	<2	30
192069	.16	.1	.21	.13	4.4	4.1	.5	.11	<.05	4.7	8.92	25.5	.02	2	.3	6.4	<10	<2	30
192070	6.31	.1	.23	.10	7.2	2.3	.3	3.23	<.05	6.9	6.15	9.2	<.02	<1	.6	127.2	<10	<2	30
RE 192070	6.20	.1	.22	.09	6.7	2.3	.3	3.21	<.05	6.4	5.93	8.9	<.02	<1	.6	120.9	<10	<2	30
STANDARD DS3	5.53	.1	.14	1.53	13.0	2.9	6.8	.04	<.05	2.7	8.11	29.7	2.10	<1	1.9	16.1	<10	<2	30

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.

UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.

- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: NOV 6 2001

DATE REPORT MAILED: Nov 18/01

SIGNED BY: C. L. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD.
(ISO 9002 Accredited Co.)

852 E. HASTINGS ST. VANCOUVER BC V6A 1R6

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GEOCHEMICAL ANALYSIS CERTIFICATE



Hudson Bay Expl. & Dev. Co. Ltd. PROJECT O.G.D.P. File # A103986 (a)

800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm
SI	.44	7.23	.44	3.8	19	.7	1.6	13	.07	.5	<.1	.5	.1	5.4	.01	.09	<.02	<2	.19	.002	<.5	3.3	.01	13.3	.002	<.1	.04	.433	.01	<.2	.02	<5	<.1	<.02	.1
192055 L-CP	19.91	64.11	163.31	292.5	656	9.0	40.8	988	2.02	2.2	4.0	3.9	11.0	133.4	13.12	.26	.57	7	2.02	.041	7.9	17.7	.40	90.9	.003	1	.58	.035	.27	1.8	.06	7	.5	.54	1.3
STD S3	1.58	31.58	8.18	43.5	55	10.8	10.6	416	3.13	2.8	.4	1.3	2.0	48.2	.07	.12	.14	116	.48	.037	10.7	35.1	.43	67.4	.311	<1	3.21	.113	.04	.3	.11	26	.3	.02	9.0
192071 L-CP	5.41	11.53	95.50	69.3	945	6.3	9.9	867	2.72	2.8	4.1	6.1	11.8	99.3	4.00	.15	.82	4	1.44	.034	5.2	11.7	.39	78.4	.003	1	.40	.032	.26	.9	.06	<5	.6	.76	.9
192072 " "	1.25	19.75	5.10	73.6	234	5.6	32.7	1233	5.56	1.8	.6	1.6	4.5	138.1	.25	.33	.41	135	2.40	.153	21.4	7.0	2.24	192.7	.119	<1	2.35	.035	.26	2.3	.06	<5	.3	.13	8.6
RE 192072	1.19	17.98	4.80	72.9	218	5.3	31.4	1217	5.49	1.7	.6	1.2	4.1	128.3	.24	.31	.38	132	2.36	.142	19.1	6.6	2.21	170.1	.118	<1	2.32	.033	.24	2.1	.06	<5	.3	.12	8.2
STANDARD DS3	8.75	124.10	33.65	158.1	266	34.0	12.0	780	3.08	30.7	5.6	18.8	3.7	27.4	5.52	5.12	5.05	74	.52	.094	16.4	187.7	.57	145.1	.082	2	1.66	.027	.16	3.7	1.00	221	1.2	1.01	6.1

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.

UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.

- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: NOV 13 2001

DATE REPORT MAILED: Nov 20/01

SIGNED BY: *C. Leong* D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD.
(ISO 9002 Accredited Co.)

852 E. HASTINGS ST. VANCOUVER BC V6A 1R6

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GEOCHEMICAL ANALYSIS CERTIFICATE

Hudson Bay Expl. & Dev. Co. Ltd. PROJECT O.G.D.P. File # A103986 (b)
800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Cs	Ge	Hf	Nb	Rb	Sc	Sn	S	Ta	Zr	Y	Ce	In	Re	Be	Li	Pd	Pt	Sample
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppb	gm
SI	.04	<.1	<.02	.06	.5	.1	.1	.01	<.05	.2	.15	.4	<.02	<1	<.1	.7	<10	<2	30
192055	1.08	<.1	.21	.05	8.0	1.0	<.1	1.33	<.05	6.8	8.88	13.3	.12	3	.3	2.8	<10	<2	30
.STD S3	.85	.1	.66	.55	2.6	6.0	1.2	.02	<.05	39.9	12.62	25.4	.05	1	.5	7.7	<10	<2	30
192071	1.02	<.1	.22	.05	6.9	.8	<.1	2.29	<.05	6.5	6.86	8.6	.04	1	.2	.6	<10	<2	30
192072	1.76	.2	.11	.10	10.1	6.2	.5	.93	<.05	1.7	13.88	35.8	.04	1	.1	13.5	<10	<2	30
RE 192072	1.67	.1	.11	.10	9.1	5.7	.5	.86	<.05	1.4	12.57	33.1	.03	2	.2	12.3	<10	<2	30
STANDARD DS3	5.66	.1	.14	1.41	13.4	2.9	7.4	.03	<.05	2.8	8.05	30.9	2.21	2	2.2	15.8	<10	<2	30

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.
UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.
- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: NOV 13 2001 DATE REPORT MAILED: Nov 20/01 SIGNED BY: C. L. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS



GEOCHEMICAL ANALYSIS CERTIFICATE



Hudson Bay Expl. & Dev. Co. Ltd. PROJECT O.G.D.P. File # A103946 (a)

800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm
G-1	1.56	2.46	2.92	38.8	13	4.7	4.0	525	1.80	.9	1.7	.5	4.5	93.8	.03	.04	.10	39	.55	.090	6.8	13.9	.52	225.7	.133	1	.99	.136	.51	1.3	.27	<5	.1	<.02	5.1
192063	2.06	20.70	8.58	78.6	254	8.2	14.2	4015	3.48	9.3	5.0	6.0	.4	90.8	.90	.40	.16	42	.98	.123	16.0	14.2	.30	397.0	.020	3	1.86	.010	.13	<.2	.11	120	.5	.04	3.2
192064	.69	20.53	9.88	61.0	174	9.8	7.6	799	2.14	7.3	.5	13.3	.4	39.8	.32	.44	.18	47	.46	.074	10.4	16.5	.39	193.2	.021	2	1.46	.016	.08	<.2	.07	40	.2	.06	4.1
192065	.76	16.33	6.45	35.4	68	9.6	5.3	390	2.24	8.4	.5	2.2	1.1	18.4	.09	.45	.12	49	.22	.055	8.2	21.2	.37	70.1	.043	1	1.00	.009	.03	<.2	.04	20	.2	.05	3.0
STD S3	1.55	32.56	8.40	43.7	52	11.3	11.2	468	3.41	3.2	.4	1.0	1.9	47.2	.06	.12	.14	125	.51	.040	9.3	35.2	.46	65.1	.348	1	3.60	.124	.05	.2	.12	24	.3	.03	9.5
192066	.68	16.72	7.51	54.3	134	9.7	7.0	914	2.02	5.4	.5	6.8	.4	39.5	.28	.35	.13	45	.51	.072	8.9	15.5	.41	156.1	.030	1	1.26	.011	.06	<.2	.06	44	.2	.04	3.7
192068 - BORE	.33	33.16	9.13	67.4	268	19.5	11.6	3797	3.63	14.2	1.3	14.9	1.0	62.5	.40	.36	.18	45	.85	.092	16.8	17.5	.36	360.8	.018	1	1.42	.009	.04	<.2	.08	126	.4	.04	4.7
RE 192065	.83	16.59	6.53	36.0	66	10.0	5.6	424	2.32	8.5	.5	2.2	1.2	18.1	.08	.43	.11	51	.23	.056	7.9	21.3	.38	66.9	.046	<1	1.03	.009	.03	<.2	.03	20	.2	.05	3.1
STANDARD DS3	9.44	121.70	35.61	153.1	289	36.4	12.1	793	3.11	30.2	6.1	22.8	3.9	26.4	5.55	5.30	5.62	76	.50	.096	16.2	188.6	.58	151.2	.083	2	1.66	.028	.16	3.9	.99	248	1.3	1.06	6.1

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.

UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.

- SAMPLE TYPE: SILT SS80 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: NOV 6 2001 DATE REPORT MAILED: Nov 18/01 SIGNED BY: C. L. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD.
(ISO 9002 Accredited Co.)

852 E. HASTINGS ST. VANCOUVER BC V6A 1R6

PHONE (604) 253-3158 FAX (604) 253-1716

AA
LL

GEOCHEMICAL ANALYSIS CERTIFICATE

AA
LL

Hudson Bay Expl. & Dev. Co. Ltd. PROJECT O.G.D.P. File # A103946 (b)

800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Cs ppm	Ge ppm	Hf ppm	Nb ppm	Rb ppm	Sc ppm	Sn ppm	S %	Ta ppm	Zr ppm	Y ppm	Ce ppm	In ppm	Re ppb	Be ppm	Li ppm	Pd ppb	Pt ppb	Sample gm
G-1	2.56	.2	.11	1.03	37.7	2.9	.2	<.01	<.05	1.3	4.75	13.1	.02	<1	.2	33.7	<10	<2	30
192063	2.35	.1	.02	.50	6.1	2.5	.1	.10	<.05	.7	20.13	29.1	.03	<1	.5	11.4	<10	<2	30
192064	1.94	.1	<.02	.38	6.2	2.6	.4	.04	<.05	.4	11.19	18.9	.02	<1	.4	10.7	<10	<2	30
192065	.89	.1	.04	.33	2.6	2.9	.3	<.01	<.05	1.4	10.68	14.6	.02	1	.5	10.1	<10	<2	30
.STD S3	.78	.2	.61	.65	2.9	6.5	.6	.01	<.05	39.2	13.02	23.2	.05	1	.6	8.9	<10	<2	30
192066	1.34	<.1	<.02	.32	4.9	2.2	<.1	.03	<.05	.7	10.58	14.2	.02	1	.3	11.7	<10	<2	30
192068	.67	.1	.07	.61	4.6	4.5	<.1	.05	<.05	1.8	19.89	24.6	.04	5	.6	10.9	<10	<2	30
RE 192065	.90	.1	.05	.33	2.8	2.8	.3	<.01	<.05	1.5	10.69	14.3	<.02	<1	.4	10.3	<10	<2	30
STANDARD DS3	5.52	.1	.13	1.45	13.7	2.6	7.1	.03	<.05	2.6	8.40	30.3	2.06	1	1.8	16.2	<10	<2	30

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.

UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.

- SAMPLE TYPE: SILT SS80 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: NOV 6 2001 DATE REPORT MAILED: Nov 18/01 SIGNED BY: C. L. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

GEOCHEMICAL ANALYSIS CERTIFICATE

Hudson Bay Expl. & Dev. Co. Ltd. PROJECT O.G.D.P. File # A103263

(a)

800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm
SI	.24	4.91	.93	1.3	11	1.9	.1	<1	.03	.6	<.1	<.2	<.1	3.0	.01	.04	<.02	<.2	.14	<.001	<.5	4.1	.01	7.1	<.001	<.1	.02	.604	.01	<.2	<.02	<.5	<.1	<.02	<.1
192301	40.20	295.73	1.79	68.6	909	26.5	78.7	517	10.54	.4	.2	26.8	.1	17.8	.16	.02	1.70	57	.94	.014	<.5	29.2	.83	16.0	.037	<.1	2.00	.097	.13	.6	.02	6	14.1	3.25	4.1
192302	73.94	76.62	.92	157.7	378	16.7	52.8	998	11.18	.5	.2	21.2	.1	14.1	.03	.02	1.44	136	.16	.037	.5	55.0	2.57	17.2	.066	<.1	2.56	.056	.34	.7	.03	<.5	15.1	1.95	6.9
192303	18.88	16.53	1.49	92.9	92	5.8	20.1	1181	5.66	1.0	.3	13.3	<.1	7.5	.01	.03	1.38	80	.25	.048	<.5	24.2	1.98	28.7	.206	<.1	1.90	.040	.64	.4	.03	<.5	2.5	1.30	5.5
192304	2.00	77.51	.84	105.3	129	4.8	22.0	827	5.38	1.8	.1	4.0	.2	8.3	.03	.02	.55	141	.22	.034	.6	32.4	2.64	43.0	.100	<.1	2.06	.032	.14	.7	.03	<.5	5.5	.61	6.9
.STD S3	1.51	32.26	8.03	43.5	74	11.9	12.0	454	3.29	2.7	.4	1.0	1.9	42.0	.07	.09	.14	122	.51	.039	9.4	34.3	.46	72.3	.330	<.1	3.39	.117	.04	.2	.10	28	.3	.02	9.8
192305	11.83	147.62	1.96	147.9	360	11.0	42.9	1045	8.39	.9	.2	11.3	<.1	22.2	.10	<.02	1.49	173	.49	.035	<.5	32.7	3.14	28.7	.119	<.1	3.15	.114	.63	.4	.04	<.5	7.7	1.44	8.9
192306	5.04	227.79	1.18	61.4	206	15.8	37.1	486	9.65	1.3	.1	8.6	.1	16.3	.05	.02	.97	116	.32	.032	.5	48.9	1.83	19.9	.070	<.1	1.91	.059	.12	.9	.02	<.5	12.1	1.25	6.8
RE 192306	4.99	229.52	1.22	63.6	209	15.4	37.3	504	9.73	1.3	.1	8.7	.1	17.1	.06	.02	.97	118	.32	.033	.5	50.7	1.85	18.2	.071	<.1	1.95	.060	.10	.9	.02	<.5	11.9	1.24	6.7
192337	.94	63.23	14.68	96.4	69	18.2	24.2	1291	3.71	2.8	.2	2.1	.6	204.9	.20	.09	.02	129	7.88	.082	6.7	18.6	1.89	2050.4	.049	1	2.05	.037	.07	<.2	<.02	<.5	<.1	.04	7.7
192338	.56	44675.06	3.12	149.8	99999	41.6	22.7	1105	3.82	1.6	.1	116.1	.7	58.2	.10	<.02	.07	108	.62	.106	7.6	39.7	1.87	171.3	.080	<.1	2.05	.054	.07	<.2	<.02	65	2.9	.19	8.5
192339	1.08	492.64	4.25	69.2	11600	16.5	19.2	763	3.90	2.7	.3	1.0	.8	18.2	.11	.06	<.02	111	2.00	.098	5.7	26.5	1.47	136.2	.203	1	2.27	.045	.03	.4	<.02	<.5	.1	<.02	11.7
192340	.70	10988.17	.87	59.7	6000	7.7	7.9	920	1.29	.6	.2	162.8	.3	108.0	.07	.04	<.02	51	8.54	.027	6.3	30.1	.93	64.7	.043	1	1.90	.005	.06	.7	<.02	<.5	.5	.05	5.9
192341	.83	22157.17	.84	81.5	16889	11.7	11.7	731	1.71	2.2	.2	130.7	.3	107.4	.08	.02	.02	77	4.00	.035	3.0	29.6	1.32	139.0	.084	1	3.42	.005	.04	.4	<.02	<.5	.7	.07	9.0
STANDARD DS3	9.70	130.38	35.91	156.4	282	38.6	12.8	809	3.18	29.8	5.4	22.1	3.6	26.8	5.44	5.03	5.66	77	.53	.098	16.0	190.4	.59	161.6	.084	1	1.69	.027	.14	4.1	.99	246	1.3	1.06	6.4

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.

UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.

- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

DATE RECEIVED: SEP 21 2001 DATE REPORT MAILED: Oct 3/01 SIGNED BY: C. Leong, J. Wang; CERTIFIED B.C. ASSAYERS

GEOCHEMICAL ANALYSIS CERTIFICATE

Hudson Bay Expl. & Dev. Co. Ltd. PROJECT O.G.D.P. File # A103263

(b)

800 - 700 W. Pender St., Vancouver BC V6C 1G8 Submitted by: Ralph Keefe

SAMPLE#	Cs ppm	Ge ppm	Hf ppm	Nb ppm	Rb ppm	Sc ppm	Sn ppm	S %	Ta ppm	Zr ppm	Y ppm	Ce ppm	In ppm	Re ppb	Be ppm	Li ppm	Pd ppb	Pt ppb	Sample gm
SI	<.02	<.1	<.02	<.02	.1	.1	.1	<.01	<.05	.5	.06	.2	<.02	<1	<.1	.2	<10	<2	30
192301	.10	.2	<.02	.03	2.6	2.8	.1	8.87	<.05	.3	.90	.8	<.02	80	.2	3.6	<10	<2	30
192302	.19	.3	<.02	.05	5.5	9.7	.3	8.37	<.05	.3	.67	1.5	.02	86	.1	6.2	<10	<2	30
192303	.33	.1	<.02	.04	11.1	7.8	.4	4.27	<.05	.3	3.22	.7	<.02	13	<.1	18.0	<10	<2	30
192304	.44	.2	<.02	.03	3.8	11.3	.2	3.25	<.05	.2	3.37	1.5	.02	2	.1	10.5	<10	<2	30
.STD S3	.80	.1	.59	.50	2.6	6.5	1.1	.02	<.05	36.9	12.45	22.7	.04	1	.5	8.1	<10	<2	30
192305	.33	.2	<.02	.03	11.5	13.9	.3	5.95	<.05	.2	1.62	.9	.04	23	.1	19.5	<10	<2	30
192306	.20	.2	<.02	.05	2.2	8.3	.2	8.11	<.05	.3	1.60	1.4	.02	9	.1	3.6	<10	<2	30
RE 192306	.19	.2	<.02	.06	2.3	8.2	.2	7.84	<.05	.3	1.69	1.5	.02	6	.1	3.9	<10	<2	30
192337	.49	.1	.16	.04	2.0	7.1	.3	.15	<.05	3.7	7.53	13.3	.02	<1	.3	18.1	<10	<2	30
192338	.30	<.1	.25	.13	2.9	5.8	.4	.68	<.05	4.6	8.97	16.4	<.02	1	.3	15.3	<10	2	30
192339	.08	.2	.72	.10	1.1	5.2	.4	.56	<.05	21.3	7.07	12.2	.02	<1	.3	20.2	<10	<2	30
192340	.61	<.1	.16	.04	1.4	2.2	.2	.17	<.05	4.2	2.33	9.1	<.02	<1	.1	11.9	<10	<2	30
192341	.22	.1	.13	<.02	1.2	2.6	.2	.20	<.05	4.0	2.33	5.3	<.02	<1	.2	13.0	<10	3	30
STANDARD DS3	5.49	.1	.19	1.51	14.2	2.6	7.1	.04	<.05	2.9	8.42	29.5	2.14	<1	2.3	15.3	<10	<2	30

GROUP 1F30 - 30.00 GM SAMPLE LEACHED WITH 180 ML 2-2-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR, DILUTED TO 600 ML, ANALYSED BY ICP/ES & MS.

UPPER LIMITS - AG, AU, HG, W, SE, TE, TL, GA, SN = 100 PPM; MO, CO, CD, SB, BI, TH, U, B = 2,000 PPM; CU, PB, ZN, NI, MN, AS, V, LA, CR = 10,000 PPM.

- SAMPLE TYPE: ROCK R150 60C Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

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