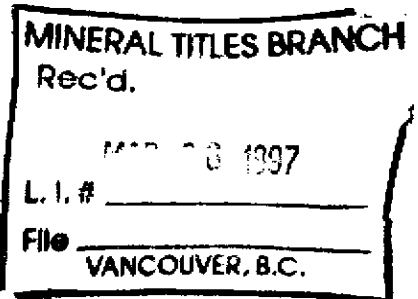


**ASSESSMENT REPORT ON THE
ALPO MINERAL CLAIMS
LOCATED ON PINAUS CREEK**



-for-

**OKANAGAN OPAL INC.
BOX 298,
VERNON, B.C.**

-location-

**N.T.S. MAP 82L/05E
VERNON MINING DIVISION
Province of British Columbia**

-prepared by-

**Y-H Technical Services Ltd.,
& Brian Callaghan, B.Sc.
Box 298
Vernon, B.C.
V1T 6M2**

February 17, 1997

MINERAL TITLES BRANCH
ASSESSMENT REPORT

24,904

TABLE OF CONTENTS

	Page No.
Introduction -----	1
Summary -----	1
Location and Access -----	2
Physiography and Vegetation -----	3
Property Description -----	4 - 5
Property History -----	5 - 6
Regional Geology -----	7
1996 Geological Mapping Program -----	8
Property Geology (1996) -----	8 - 11
Conclusions and Recommendations -----	12
Cost Statement -----	13
Bibliography -----	14
Certificates of Qualifications -----	15 - 16

APPENDICES

Appendix 1 : Opal Description Table -----	after page 16
---	---------------

LIST OF ILLUSTRATIONS:

Map No. 1 - Property Location Map -----	after Page 1
Map No. 2 - Alpo Mineral Claim Map -----	after Page 5
Map No. 3 - Regional Geology Map ---	after Page 7
Drawing No. 4 - Geology and Mineral Claims ---	in back pocket
Drawing No. 5 - Geological Mapping ---	in back pocket
Map No. 6 - Lowland Area (Possible Tertiary Lake Basin) ---	after Page 9

INTRODUCTION:

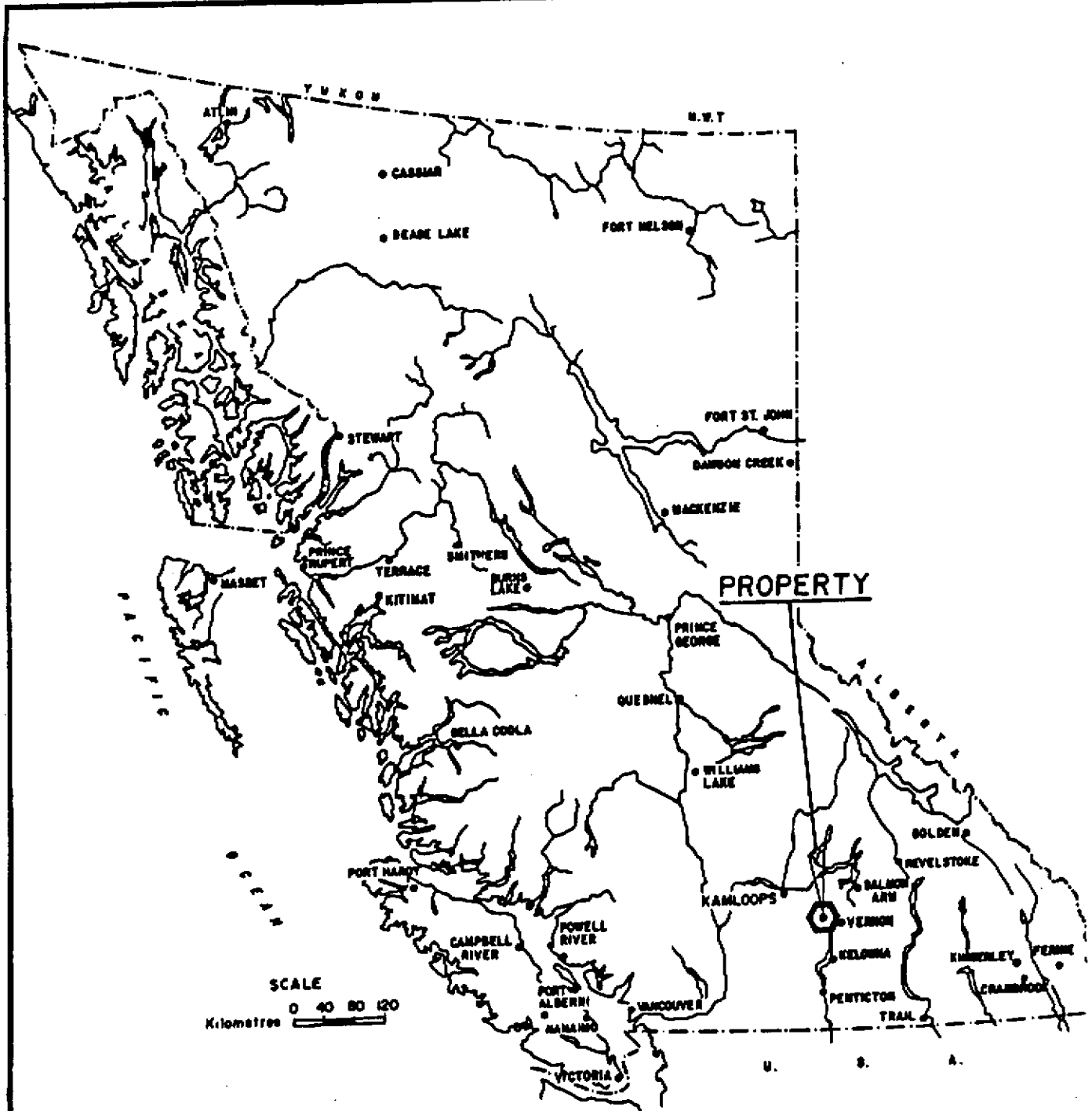
This report includes a preliminary geological mapping and prospecting programme on the Alpo claims that are centred on the main forestry access roads including McGregor and the 505 logging road that leads to Ingram Creek connecting Highway 97 to Westside Road. The Alpo claims were staked to cover accumulations of Eocene to mid-Miocene diatomaceous, opalized, ash/tuffaceous sediments that appear to be laterally restricted by a fault bounded northwesterly trending basin. It is thought by Okanagan Opal Inc. that both the geological setting and sediments are favourable host rocks for the formation of possible sediment hosted precious opal similar to precious opal hosted in Tertiary lake sediments as in Nevada.

A preliminary examination of ground to the east of these sediments was examined by the writer after initial prospecting in 1995 by the owners who determined that lahars similar to those exposed on the Klinker claims that are opal bearing, extend on ground to the east and north of these sediments exposed on McGregor Road. This report includes data obtained after the subsequent staking of additional Alpo claims on this ground to the east during the 1996 field season.

SUMMARY:

Minor common opal with a variety of base colours in identical rocks that host precious opal on the nearby Klinker claims and common opal on the Flash claims has been found in subcrop during a preliminary exploration programme on the Alpo claims. The opal bearing lahars are exposed along ridge tops on the east side of the main forestry access road that runs north westerly through the claim block. The opal is restricted to open space fillings that include mostly vesicle fillings. More detailed mapping and prospecting is recommended in those areas that have the highest concentrations of agate and opal in those horizons above and below the northeastly trending ash/lapilli tuff sediments areas of subcrop with vesicle fillings of common opal that are in close proximity to exposures of rhyolitic-dacite flows and breccia.

Volcanic ash sediments exposed along the west side of McGregor Road that can be traced for 2 kilometres may represent the edges or bottom of a mid-Miocene aged lake basin environment in which sediment hosted precious opal may occur below exposures of opalized shales and diatomaceous earths. Removal of overburden and trenching is recommended along the west side of McGregor Road to further expose the loosely consolidated volcanic ash sediments exposed in roadcuts. A programme of drilling is also recommended to determine if precious opal occurs in these sediment sequences at lower horizons within this mid-Miocene basin. A petrographic analysis of several samples taken during the field season is also recommended.



ALPO PROPERTY

Ewer Creek Area, B. C.
Vernon Mining Division

Property Location Map

Y-H Technical Services Ltd.
 DATE SCALE MAP No.
 Nov. 1996 1: 8,000,000 1

Location and Access:

The Alpo claims are located approximately 30 kilometres west-north-west of the City of Vernon, British Columbia. The property is accessible from the south via the McGregor Creek forestry access road that branches off the main Six Mile Creek Road. The turn off to the Six Mile Creek Road is approximately 13 kilometres to the south from where the northend of the Westside Road branches off Highway 97N approximately 12 kilometres by road from the city of Vernon. Access to the Alpo claims from the north via Westwold is a turn off onto the main logging roads that include the Ingram Creek and 505 forestry access logging roads that lead onto McGregor Creek Road. The claims extend in a northwesterly direction from the 18.5 km mark on McGregor to the 22 km mark that extends past the junction of McGregor and the 505 logging road. The claims are located in the Vernon Mining Division - on map N.T.S. 82L/05E.

The property is presently accessible via two wheel drive during the period from early June to mid October. Snow cover commences in mid October and lasts until May.

Physiography and Vegetation:

The Alpo claims are centred within a possible fault bounded north westerly trending basin that is drained by Pinaus Creek to the northwest. The claims are bounded to the south by Ewer Creek Canyon whose headwaters drain to the southwest. To the northeast, the edges of this basin slope steeply to Pinaus Lake approximately 2 kilometres from the northern boundary of the claims. The claims are flanked to the east by a gentle sloping , northwest trending ridge top with elevations ranging from approximately 1400 to 1500 metres that runs sub-parallel to the claim block. Elevations of approximately 1500 metres are reached on the western boundary of the claim block in the vicinity of the headwaters of Ingram Creek that drains into Cain Creek and eventually west into the Salmon River approximately 10 kilometres from Falkland.

An area of lowland swamp that drains into Pinaus Creek is centred on the Alpo 32 and 57 mineral claims and crosses the McGregor Road access at the 21.5 km marker.

A powerline crosses the north west portion of the property just north of the Alpo 34 mineral claim and passes on through the Flash and Red Rock mineral claims. It originates at the Mica Dam and comes cross-country from the north-east past Enderby, passing south of Pinaus Lake enroute to the upper Salmon River Valley and Douglas Lake area between Westwold and Merritt B.C. then on to the B.C. lower mainland. The powerline right-of-way is clear cut for widths ranging from 80 to 120 metres. Outcrop exposures are mostly found in roadcuts along the west side of McGregor Creek Road, ridgetops and skid trails to old log landings. Numerous outcrops also occur along this powerline right-of -way.

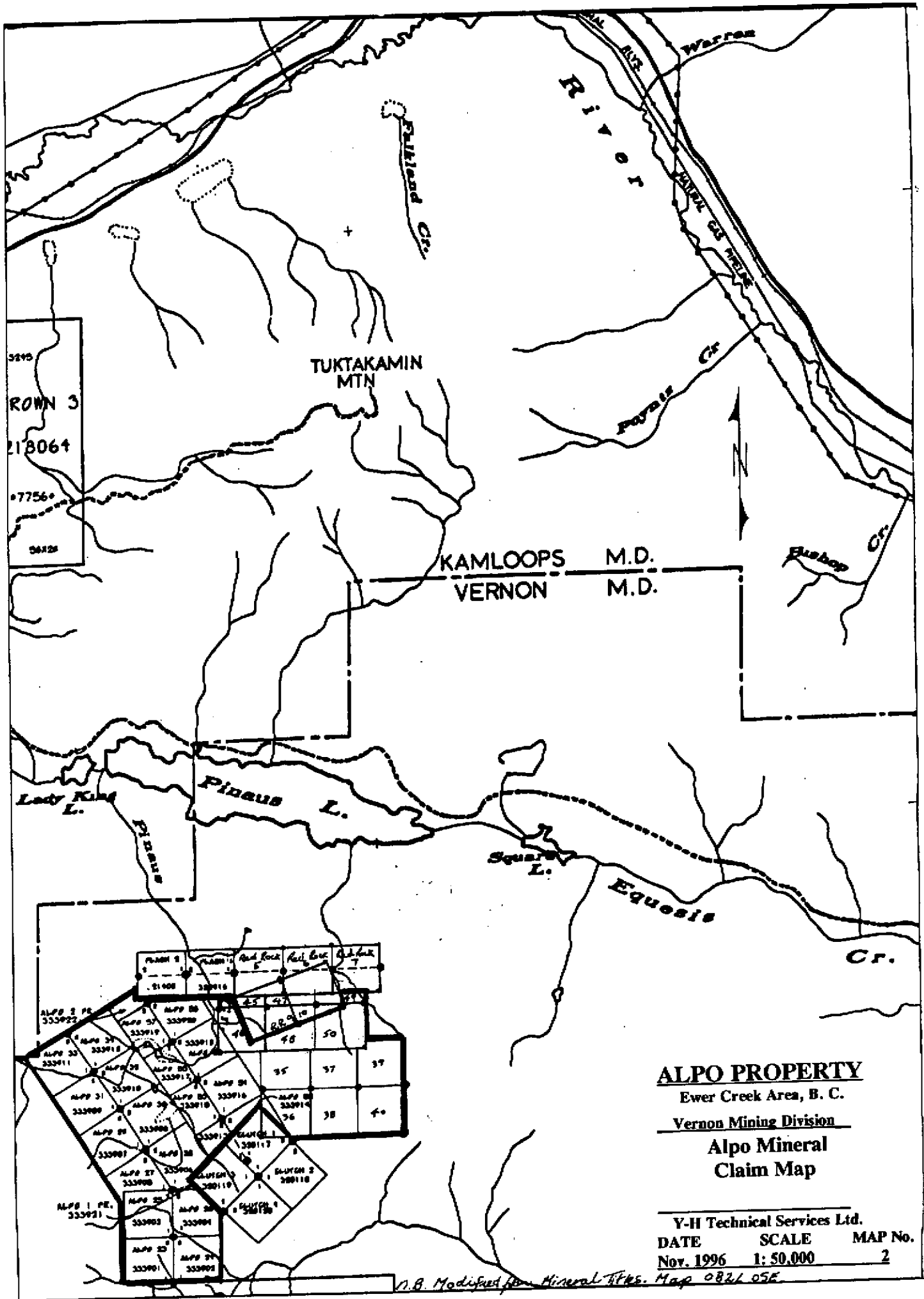
Large portions of the property have been clear-cut logged and additional logging has taken place recently to the east of the property. Merchantable timber includes mainly Douglas Fir and Lodgepole Pine that occurs higher up and away from the valley bottoms. Merchantable timber also occurs in portions of the valley bottom in the central portion of the claim block and to the north and east towards the Redrock claims. All logging in the area is very recent and little if any secondary growth timber has developed.

Property Description:

A list of the claims forming the Alpo property is provided below. See also the claim map (Map # 2) for further information.

<u>Claim Name</u>	<u>Units</u>	<u>Record #</u>	<u>Current Expiry Date</u>
Alpo # 23	1	333901	January 26, 1999
Alpo # 24	1	333902	January 26, 1999
Alpo # 25	1	333903	January 26, 1999
Alpo # 26	1	333904	January 26, 1999
Alpo # 27	1	333905	January 26, 1999
Alpo # 28	1	333906	January 26, 1999
Alpo # 29	1	333907	January 26, 1999
Alpo # 30	1	333908	January 26, 1999
Alpo # 31	1	333909	January 27, 1999
Alpo # 32	1	333910	January 27, 1999
Alpo # 33	1	333911	January 27, 1999
Alpo # 34	1	333912	January 27, 1999
Alpo # 35	1	352316	October 16, 1999
Alpo # 36	1	352317	October 16, 1999
Alpo # 37	1	352318	October 16, 1999
Alpo # 38	1	352319	October 16, 1999
Alpo # 39	1	352320	October 16, 1999
Alpo # 40	1	352321	October 16, 1999
Alpo # 43	1	352312	October 26, 1999
Alpo # 44	1	352313	October 26, 1999
Alpo # 45	1	352322	October 15, 1999
Alpo # 46	1	352323	October 15, 1999
Alpo # 47	1	352324	October 15, 1999
Alpo # 50	1	352327	October 15, 1999
Alpo # 51	1	333913	January 28, 1999
Alpo # 52	1	333914	January 28, 1999
Alpo # 53	1	333915	January 28, 1999
Alpo # 54	1	333916	January 28, 1999
Alpo # 55	1	333917	January 27, 1999
Alpo # 56	1	333918	January 27, 1999
Alpo # 57	1	333919	January 27, 1999
Alpo # 58	1	333920	January 27, 1999
Alpo # 1 Fr	1	333921	January 26, 1999
Alpo # 2 Fr	1	333922	January 27, 1999
Alpo # 3 Fr.	1	352314	October 26, 1999
Alpo # 4 Fr.	1	352315	October 26, 1999
Alpo 48	1	352325	Oct. 15, 1999
Alpo 49	1	352326	Oct 15, 1999

The "owner of record" for the above listed Alpo claims is Okanagan Opal Inc.. The expiry date shown herein reflects the recent application of work supported by the filing of this report describing the preliminary geological fieldwork conducted during the 1996 season. The claims are all recorded in the Vernon Mineral Division of British Columbia. All claims have been located in accordance with the requirements of the Mineral Act of the province of British Columbia.



ALPO PROPERTY
 Ewer Creek Area, B. C.
 Vernon Mining Division
Alpo Mineral Claim Map

Y-H Technical Services Ltd.
 DATE Nov. 1996 SCALE 1: 50,000 MAP No. 2

N.B. Modified from Mineral Titles Map 0826.05E

Alpo Property History:

The Alpo claims were located in 1995 as a result of prospecting work conducted by R. W. Yorke-Hardy who noted numerous outcroppings of fossiliferous waterlain rhyolitic ash/ tuff sediments along the McGregor forestry road access. It was thought that the geological setting and the exposure of these sediments might be a favourable environment for the formation of sediment hosted precious opal similar to precious opal hosted in Tertiary lake sediments in Nevada. The general proximity of these claims to the recently discovered precious opal deposit located on the Klinker/Ewer property approximately 2.5 kilometres to the south-east and to reported occurrences of jelly opal on the adjacent Flash and Red Rock claims along the powerline to the north and east combined with generally similar geology and the discovery of common opal were also additional reasons for staking these claims.

Common opal (amber jelly to brown opaque) was noted by P. Read in 1994 during his mapping of rock outcrops under powerlines that traverse the area approximately 4.5 kilometres to the east of the Alpo claims. Read was at that time conducting work for the GSC which included fieldwork to investigate occurrences of industrial minerals within the Tertiary stratigraphy which included diatomaceous earths, swelling clays, zeolites, perlite, kaolinite, precious opal, gypsum and dimension stone. This preliminary work was released to the public at the Cordilleran Round-up in January 1995.

Interest in this geological setting has also been directed towards the occurrence of palagonite which is recorded on the west flank of Tuktakamin Mtn. north of Pinaus Lake. Pinaus Lake is approximately 2.5 kms from the claim block. This entire region was heavily staked during a "staking rush" in 1988 which occurred as a result of gold discovered by Huntington Resources on the Brett property located to the south on Whiteman Creek. No other mineral exploration has been noted in the area except on the Way 1 mineral claim located to the south and adjacent to the Alpo 23 and 24 mineral claims. It saw grassroots exploration for gold in 1988-89 and has been retained by Big I Development, a Vancouver based junior mining company, for its potential to host epithermal type gold mineralization in the underlying Eocene to mid-Miocene volcanics.

Initial work on the Alpo claims has included general prospecting and a physical work programme on the Alpo 28 and Alpo31 mineral claims between August and November of 1995. Work consisted of excavator trenching along the inside edge of the west side of McGregor Creek Road to further expose the shallow dipping waterlain sediments. Samples were taken for mineralogical (SEM and X-ray) and geochemical studies by G. Simandl of the Industrial Minerals Branch of the B.C. Geological Survey from a location at the 20 Km marker on McGregor Creek road. Results from this analysis of these samples has determined that the waterlain sediments are diatomaceous, part opalized and are of younger mid-Miocene age.

In May 1996 a letter report was prepared by Mollard and Associates Ltd. of Regina, Saskatchewan which described regional photolineaments mapped from 1:50,000 scale black-and-white airphotos. This study shows the outline of a large low-lying area located west and north of the Klinker property in the area covered by the Alpo claims. This possibly represent the remnants of a large tertiary lake basin.

The Alpo claim block includes 38 units after additional staking of the Alpo 35 to 40 and 45 to 50 mineral claims during the fall of 1996. Any fractions that were determined from the 1996 programme were subsequently staked and include the Alpo 1 to 4 fractions.

REGIONAL GEOLOGY:

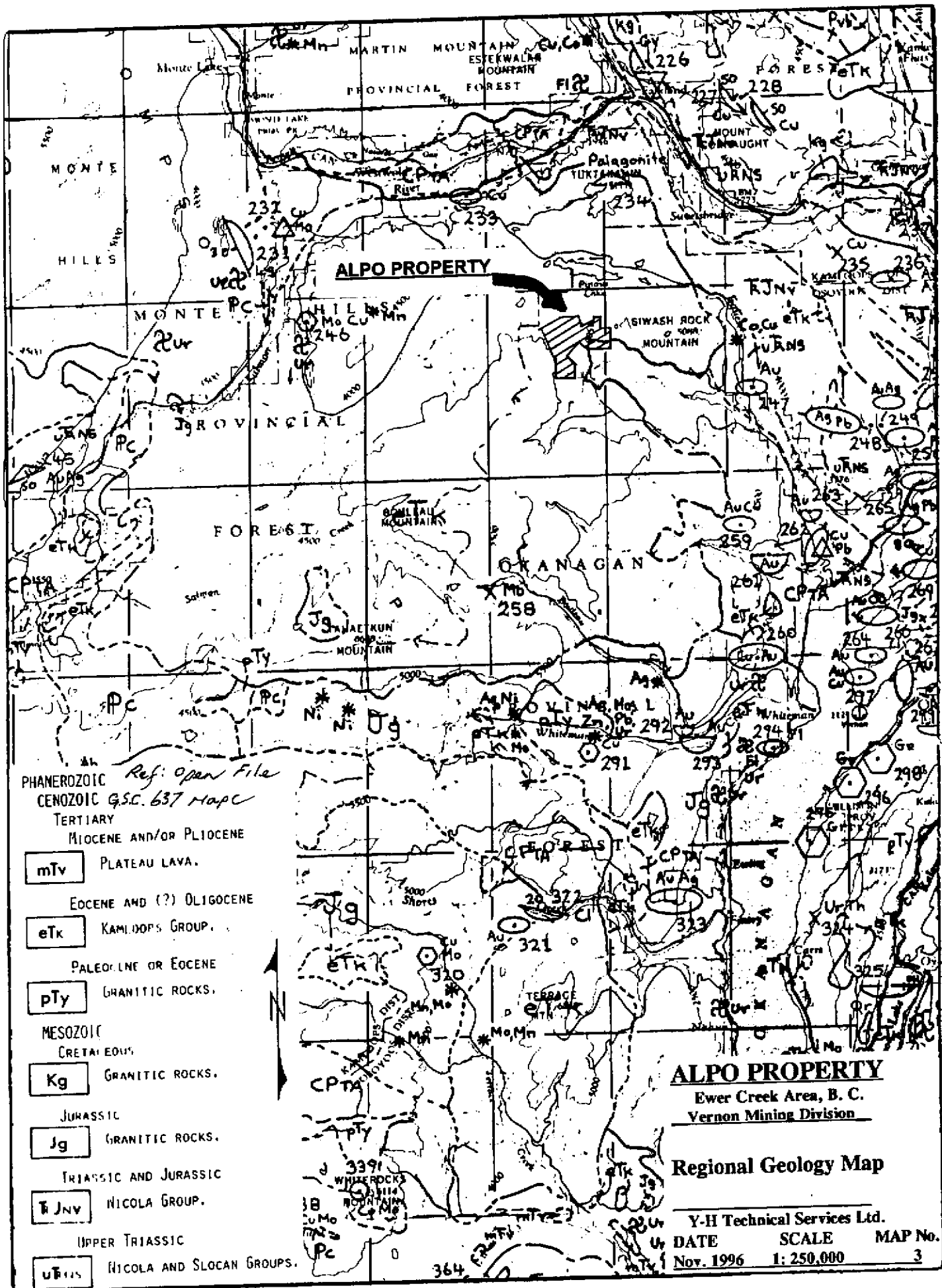
The Alpo claims are underlain by Tertiary rocks that extend 150 kilometres from Trepanier on the west side of Okanagan Lake to the east of Kamloops. Eocene or mid-Miocene bedded, unconsolidated sediments consist of diatomaceous white rhyolitic ash, tuff and minor shale with plant debris that overly ash/lapilli tuffaceous sediments and clast and matrix supported, vesicular andesitic/basaltic lahars of similar age that host precious opal on the Klinker claims to the south of Ewer Creek.

These basal sediments, that form in topographic lows, appear to be laterally restricted by a fault bounded, northwest trending, basin and have been assigned to the Tranquille Formation by Read 1996. It is believed most recently by Paradis (1997), that the ash to lapilli tuff sequences overlying opal bearing lahars in close proximity to the Alpo claims are mid-Miocene in age, as opposed to Eocene aged. According to Paradis, a major unconformity would have to exist between the opal bearing lahars and these overlying mid-miocene sediments if the opal bearing lahars do in fact belong to the Tranquille formation. Further fieldwork is recommended to determine if such an unconformity does exist on the Alpo Claims and to confirm or disprove the existence of these two ages of rock.

Massive to scoriaceous mafic dykes or sills of similar age occur within these sedimentary sequences of the Kamloops Group. Infillings of agate and common opal most often occur in amygdaloidal structures. Amygdules and vesicles are also infilled or lined with a range of low temperature zeolites, manganese oxides, and minor calcite. Precious opal occurrences are rare.

Subvolcanic intrusions of the Kamloops group consist of porphyritic rhyolite stocks that have intruded the basal layer of the Eocene or mid-miocene sediments and are thought possibly to be a major source of silica for the formation of opal.

The oldest rocks in the vicinity of the Alpo claims are exposed in Ewer Creek to the south and east of the Alpo Claim block. They consist of gently west dipping grey green brecciated andesitic/basaltic flows of the Harper Ranch Group of late Paleozoic age.



1996 GEOLOGICAL MAPPING PROGRAM OUTLINE:

Mapping of portions of the Alpo claims using a Silva Ranger Compass and Topolite belt chain for control was carried out at a metric scale of 1:5000 over exposures of sediments on the west side of McGregor Road. Any rock exposures along roadcuts were plotted including the location of claim posts on a 1:15000 Forestry Cover Map Sheet enlarged to a metric scale of 1:5000 for the geological interpretation.

The geological mapping and prospecting on the Alpo claims was conducted by the writer. The preliminary exploration work during the 11 days of field work also included surveying of skid trails and major access routes to the claim block. In addition, Legal Corner Posts were located in the field to determine the position of Alpo claims relative to the Clutch, Flash and Red Rock claims. Geological mapping at a scale 1:5000 was also carried out during reconnaissance prospecting in an area to the east of McGregor Creek over exposed matrix and clast supported lahars that underly the shallow west dipping sediments exposed along McGregor Road on the Alpo 28 & 30 mineral claims.

Several additional areas of common opal occurrences were discovered and subsequently staked. A classification of the different forms of opal are provided. See Appendix 1.

The broken dashed line on Map No. 4 depicts a 2.5 kilometre radius from the Ewer Claim boundary in which the portion of land inside this 2.5 kilometre radius is subject to option terms with others.

PROPERTY GEOLOGY (1996):

The Alpo claims are underlain on the west side of the McGregor logging road by a thin sequence of westerly shallow dipping possible lake edge sediments with an approximate thickness of 30 metres that extends in a northwesterly direction for approximately 4 kilometres. They are loosely consolidated and characterized by their creamy to white montmorillonite or bentonite clay content. They occur in roadcuts at the 17.5 km marker and from the 20 km to 21 km on McGregor road. The thinly bedded sediment layers are exposed up to 2.50 metres in thickness and consist of light brown ash/tuff lenses that are 75 cms in thickness that overly a thin 25 cms bed of white silty clays. The clays below this sequence are loosely consolidated and contain approximately 5 to 10% dark purple to black glassy (opalized?) subangular-subrounded fragments up to 2 mm that overly a 60 cms sequence of plant fossil bearing grey/brown shale.

An examination of these sediments in 1995 by G. Simandl of the Industrial Minerals Geological Survey Branch included a mineralogical (SEM and X-ray) analysis to identify rock types and to confirm the existence of diatoms. Results from this sampling programme are not available at the time of writing this report.

It is interesting to note that these volcanic ash sediments may be a possible source of silica for the formation of precious opal and that the deposition of opal may be sedimentary hosted. This suggests that precious opal seams or lenses may occur in the loosely consolidated weathered volcanic ash sediments at lower horizons. The sediments possibly represent the edges or bottom of a mid-Miocene aged lake basin

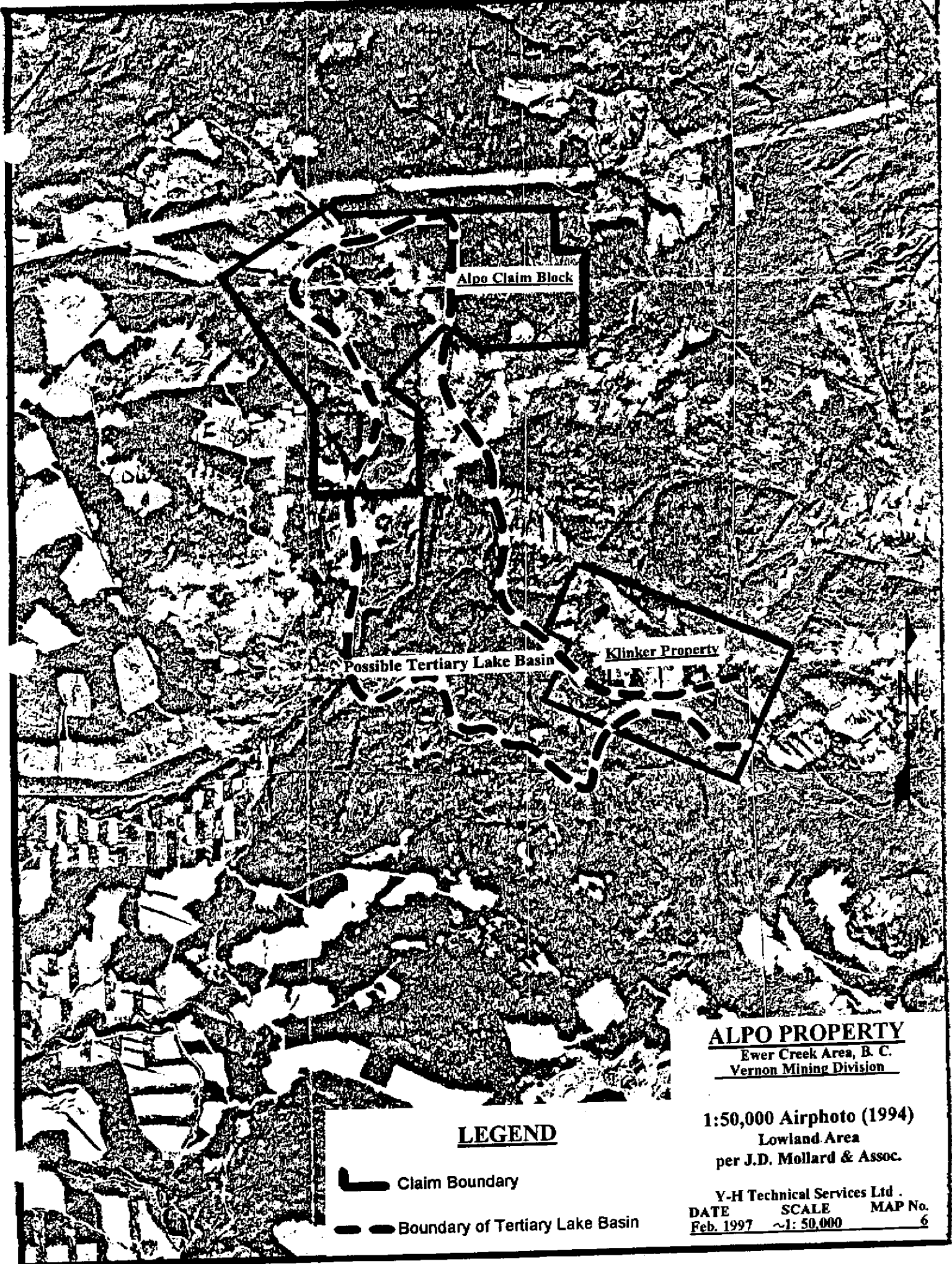
Mollard's study shows the outline of a large low-lying area located west and north of the Klinker property in the area covered by the Alpo claims. This possibly represent the remnants of a large tertiary lake basin. Deposition of opal in this basin as well as opal on claims to the north and south of the Alpo property may have formed as a result of sudden decreases in pressure caused by fracturing and possible brecciation during draining of glacial lake waters in this basin which could possibly have caused a local reduction in hydrostatic pressure.

The waterlain sediments appear to be overlain by a light grey cream coloured clayey material(montmorillonite?), glassy, rhyolitic breccia that outcrops to the west of the 20.5 km marker on McGregor Road and extends in limited exposures to the south as far as the common line for the Alpo 23 and 24 on the McGregor Road at approximately 18.5 kilometre. See Map No.4. This presumably younger mid-Miocene flow breccia consists of 90% subangular clasts and fragments supported in a coarse matrix. The blocks, up to 70 cms in size, consist of 20% scoriaceous basalt; 20% bleached, red oxidized andesite/basalt clasts; 30% black glassy(opalized?) subangular fragments, with sub-conchoidal fracture and up to 7cms with transparent infillings of grey to white zeolite?; and 10% to 15% grey angular fragments up to 1 cm supported in a yellow silty clay matrix. Bedding structures were not seen within these breccias. No precious opal or agate was seen in fragments or matrix material. However, honey to dark brown opalized rhyolite ash breccia fragments are exposed in limited outcrop at approximately 18.5 km on McGregor road. Based on X-ray diffraction according to Read (1996) this material is common opal-CT.

The flow breccias are possibly overlain by a light tan, brown volcanoclastic ash-tuff sediment that outcrops in one exposure further to the west and higher in elevation along a roadcut that branches off the main haul road on the Alpo 29 mineral claim. All these sequences of sediments and flow breccia exposed on the west side of McGregor Road are intruded by columnar jointed basaltic sills or dykes that outcrop west of the 20.5 kilometre mark on McGregor Road.

Outcrop exposures on the recently staked claims that include the Alpo 45 to 50 mineral claims east of the initial Alpo claim block are underlain by sub horizontal ash/lapilli tuffaceous sediments and matrix or clast supported lahars that trend in a north to northeasterly direction that have been mapped over a distance of 2 kilometres north/south and 2 kilometres to the east of McGregor Road.

The lahar and sediment sequences appear thin in well exposed outcrops on the ridge tops and west facing slopes with shallow dips of 5 degrees to 18 degree to both the west and east. A thin laminated ash/lapilli tuffaceous bed up to one





Alpo Claim Block

Possible Tertiary Lake Basin

Klinker Property

ALPO PROPERTY
Ewer Creek Area, B. C.
Vernon Mining Division

LEGEND

-  Claim Boundary
-  Boundary of Tertiary Lake Basin

1:50,000 Airphoto (1994)
Lowland Area
per J.D. Mollard & Assoc.

Y-H Technical Services Ltd.
DATE Feb. 1997 SCALE 1:50,000 MAP No. 6

metre in thickness can be traced along its strike direction of between 015 and 020 degrees for a length of approximately 1 kilometre. These yellow tuffaceous fine grained sediments are thinly bedded with laminae up to 1 cm and exhibit minor crossbedding. They are overlain by flat lying matrix supported scoriaceous lahars that drape over the underlying sediments that closely follow topography.

Similar sequences of tuffaceous sediments and lahars occur at lower levels on the west facing slopes. They may represent the down dip continuation of these shallow dipping beds or may reflect repeated successive layers of lahars and tuffaceous sediments. It has not been established if there are substantial thicknesses to these sediments and flows that are opal bearing or if they possibly represent a continuation of the same lahars on the Klinker claims to the south and to the north on the adjacent Flash claims. The ash/lapilli tuff sediments and lahars of probable similar age appear to underly the loosely consolidated volcanic ash sediments west of the McGregor road.

Low to high energy matrix supported lahars characteristically exhibit a sandy tuffaceous matrix having identical compositions to the ash/lapilli tuff sediments. The matrix may be coarse grained and represents up to 25% of the rock. The remaining 75% of the rock consists of dark grey, purple to brown, massive to scoriaceous mostly basaltic clasts that are subrounded to angular and range in size from 2 cms. to 1.25 metres.

Those low to high energy lahars that are clast supported can contain coarse matrix material up to approximately 5 to 10%. Clasts are more weathered and altered with rusty red-brown oxidation of clasts and coarse matrix material. These lahars outcrop to the east of and overly the matrix supported lahars that drape over the tuffaceous sandy units. The clast supported lahars are characterized by abundant vesicle fillings of white zeolite within the scoriaceous clasts and an absence of agate. Clasts with vesicular cavities in the matrix supported lahars are commonly infilled with a yellow zeolite with a white botryoidal coating.

Dark green/grey black basalts on the east of the original Alpo claim block are massive. Tops of the flows are vesicular with stretched cavities. Exposures of fine grained aphanitic basalt located north and west of the Alpo 47 mineral claim consist of sub-vertical 335 degree striking flows that appear to overly and cut through the lahars. More field work is required to determine if the basalts are sills or dykes. These basalts are noticeably void of any silica emplacement.

The basalts are situated in close proximity to a white to light buff brown dome shaped outcrop that is tentatively identified as a latite breccia and is situated in the centre of the Alpo 47 mineral claim. This exposure may represent a younger flow breccia that overlies the clast supported lahars or may represent a local intruded rhyolitic stock that is bounded to the southeast by a southwest

dry gully. The northern extent of this exposure is possibly on the adjoining Red Rock claims. It is recommended that a sample of this rock be taken for *petrographic analysis*.

Common opal was found in sub crop at surface in matrix supported lahar exposures, just to the south of the Red Rock 5 mineral claim . See Map 4. The opal occurs as an open space filling within the vesicles of basaltic clasts and consists of white common opal, opaque pink base coloured and minor transparent clear to amber varieties of opal (see classification of opal in Appendix 1). Common opaque white opal was also discovered to the east of an old log landing in basalt with stretched cavities on the Alpo 38 mineral claim with abundant amygdules infilled with agate and lined with white botryoidal zeolites.

Other minerals that infill fractures, amygdules and vesicles include most commonly agate which may exhibit banding, low temperature zeolites , manganese oxides and minor calcite .

CONCLUSIONS:

The results of the preliminary programme on portions of the Alpo claims has been encouraging with the discovery of common opal with a variety of base colours in two separate locations that are hosted in identical ash/lapilli tuff sediments and lahar sequences that host common opal to the north and south of the claim block on adjacent claims and precious to the south on the Klinker claims. The opal is restricted to open space fillings that include vesicle fillings. Volcanic ash sediments can be traced on the the Alpo claims for 2 kilometres and may represent the edges or bottom of a mid-Miocene aged lake basin and possibly associated with an unconformity.

Sediment hosted precious opal may occur in these lake sediments as seams or lenses at lower horizons. Removal of overburden and trenching is recommended along the west side of McGregor Road to further expose volcanic ash sediments exposed in these roadcuts. A programme of drilling is also recommended along the west side of McGregor road to determine if precious opal occurs in these sequences at lower horizons within these mid-Miocene sediments and underlying rock units. More detailed mapping and prospecting is recommended in order to determine the precise controls for the formation and distribution of opal. A petrographic analysis is also recommended on several samples taken during the field season.

More detailed mapping and sampling is recommended in order to more precisely delineate those rocks that host opal by prospecting along surveyed grid lines over those areas that have the greatest concentrations of common opal and agate. The target areas for precious opal on the east side of the McGregor forestry road may include undercutting the intersection of fracture sets above and below the northerly to northeasterly trending ash/lapilli tuff sediments and lahars.

COST STATEMENT

Management/Administration:

R. W. Yorke-Hardy
3 man days at \$300.00 per day(field) \$ 900.00

P. Downing
1 man day at \$300.00 per day \$ 300.00

Geological Work:

B. Callaghan
11.5 man days at \$250.00 per day \$ 2875.00

Geological Field Assistant:

J. Zackodnik
7 man days at \$175.00 per day \$ 1225.00

Consultant:

Airphoto Lineation work by Mollard \$ 1500.00

Support Costs:

Vehicle costs - 16 days at \$75.00/day \$ 1200.00

Field Supplies - flagging, thread \$ 100.00

Room & Board - 19 man days at \$50.00 per day \$ 950.00

Misc. Field Equipment - \$ 50.00

Report Preparation:

Management and administration

R. W. Yorke-Hardy
2 man day at \$300.00 per day \$ 600.00

Report writing and Drafting:

B. Callaghan
11.5 man days at \$250.00 per day \$ 2875.00

Typing and printing \$ 200.00

TOTAL ----- \$12,775.00

BIBLIOGRAPHY

- Read, Peter B. (1995) Industrial Mineral Potential of the Tertiary Rocks, Vernon(82L) and Adjacent Map Areas. Part of Geological Fieldwork 1995- A Summary of Field Activities and Current Research (Paper 1996-1).
- Penner, L. A. & Mollard J. D. Regional Airphoto Study Covering the Klinker Area and Surrounding Area (1996). Private Report.

Statement of Qualifications

I, Robert W. Yorke-Hardy, of Vernon British Columbia, do hereby certify that:

1. I am a Mining Technologist residing at 330 Stepping Stones Road, Vernon, British Columbia. I am the owner/operator of Y-H Technical Services Ltd. of P.O. Box 298, Vernon, B.C., an exploration services company. In total I have accumulated 29 years of experience in Mining/Mineral Exploration and related industries. Y-H Technical Services Ltd. provides management services to Okanagan Opal Inc. on the Alpo claims.
2. I am a graduate of the British Columbia Institute of Technology, Burnaby, British Columbia and a registered charter member of the Association of Applied Science Technologists and Technicians of British Columbia. I have practiced my profession for 25 years.
3. This report is based on work performed by myself, under my direction or other wise in my presence. The total value of the work performed has been outlined in the forgoing Cost Statement. This sum is to be considered as eligible expenses incurred on the Alpo claims during the period from July 23 to October 10, 1996 and on the preparation of this report.
4. This report is based on knowledge and experience gained over the period 1991 to the present. I am familiar with the geology of the Alpo claims area and surrounding district.

Y-H Technical Services Ltd.


R. W. Yorke-Hardy, A.Sc.T.

February 17, 1997

STATEMENT OF QUALIFICATIONS

I, Brian Callaghan reside at 989 Curtis Road, Kelowna, B.C..

I graduated from Brandon University, Manitoba in 1980 with a Bachelor of Science Degree in Geology.

I have worked continuously as a Geologist since 1980.

I am presently self employed as a Geological Consultant.

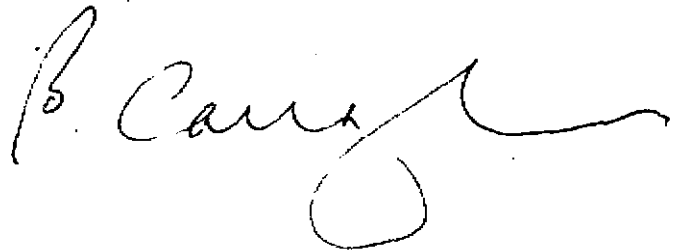
I am presently under contract with Y-H Technical Services Ltd., of Vernon, B. C. and mapped the geology on the Alpo mineral claims during the period September 3 to October 15, 1996. I am familiar with the geology in the vicinity of the Alpo claims and this report is based on knowledge and experience gained over the period 1993 to the present working with Y-H. Technical Services Ltd. as a consulting Geologist.

I have no interest, direct or indirect, in the Alpo property or Y-H. Technical Services Ltd.; nor do I expect to receive any.

Sincerely,

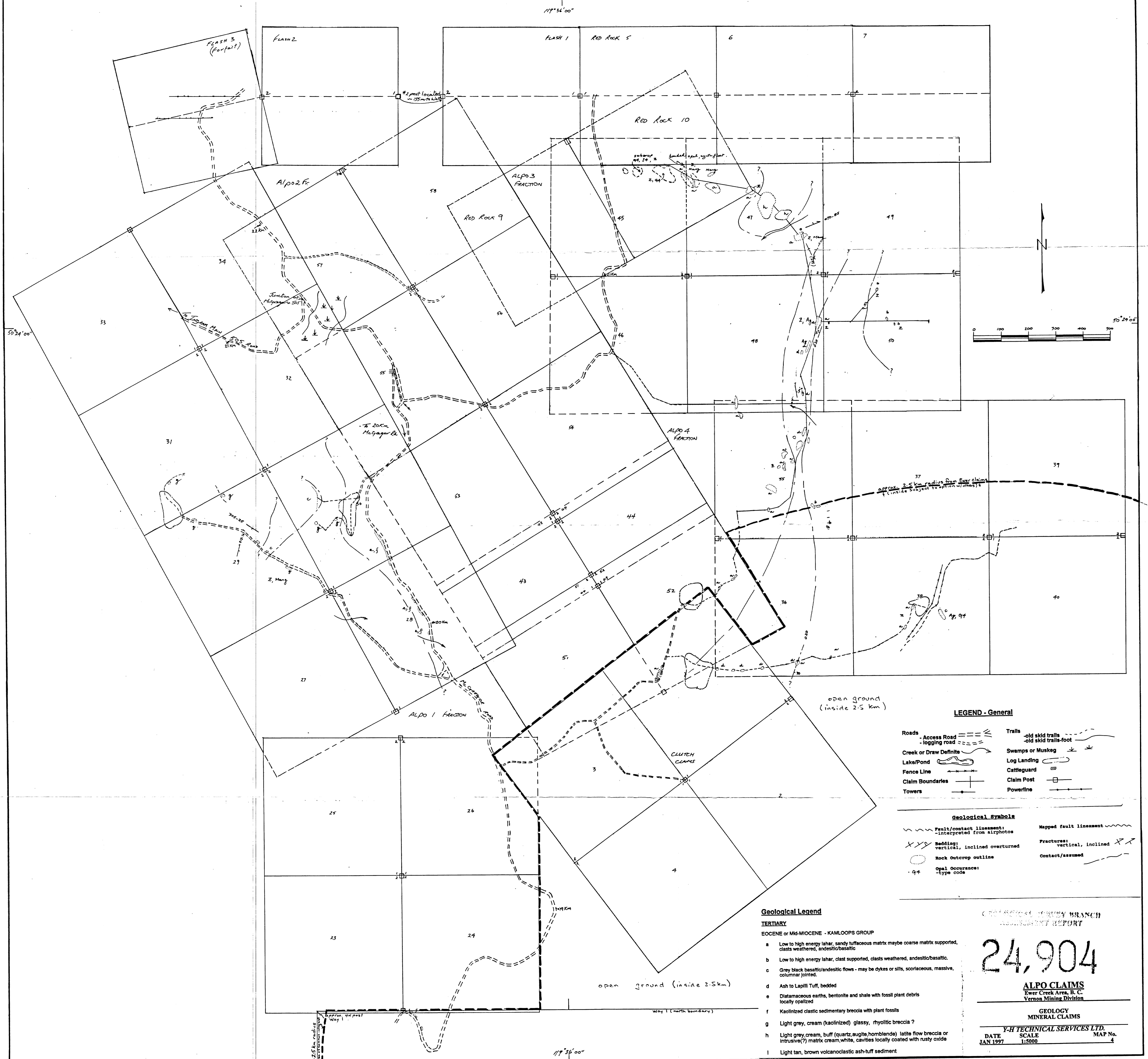
Brian Callaghan, B.Sc., Geology

February 17, 1997

A handwritten signature in black ink, appearing to read "B. Callaghan", with a large, stylized flourish at the end.

APPENDIX 1

COMMON OPAL (no play of color)					
DESCRIPTION			OPAQUE	TRANSLUCENT	TRANSPARENT
BASE COLOR		CODE	4	5	6
BLACK		A	black base color	black base color	faces up black
ORANGE		B	orange base color	orange base color	orange base color
RED		C	n/a	red base color	red base color
AMBER		D	n/a	amber	amber
YELLOW		E	n/a	yellow base color	yellow base color
CLEAR		F	n/a	semi-clear	clear
WHITE		G	white	semi-white	n/a
GREEN		H	green	n/a	n/a
SALMON/PINK		I	salmon/pink	n/a	n/a
CARAMEL		J	caramel	caramel	n/a
BROWN		K	brown	brown	n/a
BLUE		L	blue	n/a	n/a



LEGEND - General

- | | |
|--|---|
| Roads
- Access Road
- logging road | Trails
- old skid trails
- old skid trails-foot |
| Creek or Draw Definite | Swamps or Muskeg |
| Lake/Pond | Log Landing |
| Fence Line | Cattleguard |
| Claim Boundaries | Claim Post |
| Towers | Powerline |

Geological Symbols

- | | |
|--|----------------------------------|
| Fault/contact lineament:
- interpreted from airphotos | Mapped fault lineament |
| Bedding:
vertical, inclined overturned | Fractures:
vertical, inclined |
| Rock Outcrop outline | Contact/assumed |
| Opal Occurrence:
- type code | |

Geological Legend

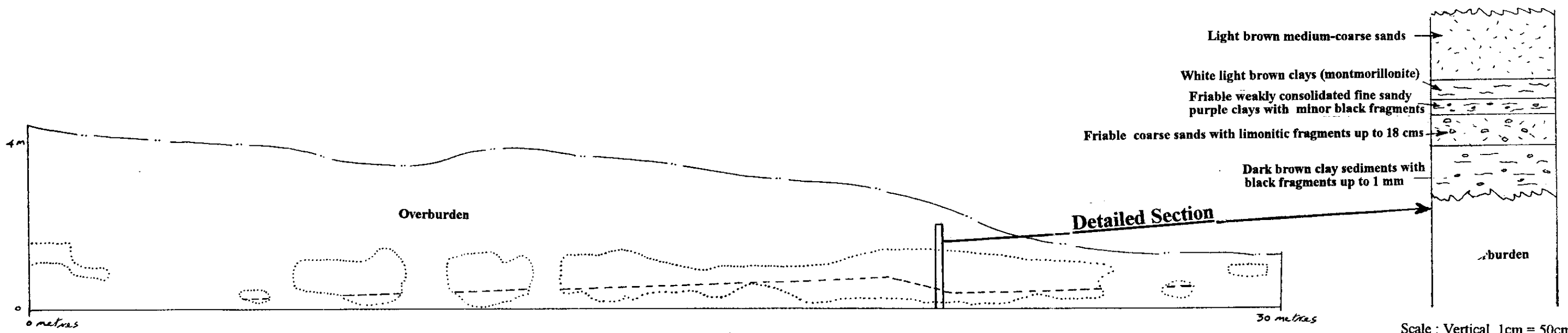
- TERTIARY**
EOCENE or MID-MIOCENE - KAMLOOPS GROUP
- a Low to high energy lahar, sandy tuffaceous matrix maybe coarse matrix supported, clasts weathered, andesitic/basaltic
 - b Low to high energy lahar, clast supported, clasts weathered, andesitic/basaltic
 - c Grey black basaltic/andesitic flows - may be dykes or sills, scoriaeous, massive, columnar jointed.
 - d Ash to Lapilli Tuff, bedded
 - e Diatomaceous earths, bentonite and shale with fossil plant debris locally opalized
 - f Kaolinized clastic sedimentary breccia with plant fossils
 - g Light grey, cream (kaolinized) glassy, rhyolitic breccia ?
 - h Light grey, cream, buff (quartz, augite, hornblende) latite flow breccia or intrusive(?) matrix cream, white, cavities locally coated with rusty oxide
 - i Light tan, brown volcanoclastic ash-tuff sediment

CENTROTEC MINING BRANCH
MINING REPORT

24,904

ALPO CLAIMS
Ewer Creek Area, B. C.
Vernon Mining Division

GEOLOGY
MINERAL CLAIMS
Y-H TECHNICAL SERVICES LTD.
DATE SCALE MAP No.
JAN 1997 1:5000 4



Scale : Vertical 1cm = 50cms

ALPO PROPERTY
 Ewer Creek Area, B. C.
 Vernon Mining Division

LONGITUDINAL SECTION
Looking West

20 Kilometre Roadcut Along
 McGregor Road

Y-H Technical Services Ltd .
 DATE Feb. 1997 SCALE 1: 100 MAP No. 5

24904