PROSPECTING and SAMPLING REPORT

on part of the

POZ GROUP

consisting of the

SKOOKUM 1 - 12, SWC 1, 3, 5 - 8, SNO 5 - 8 and RIV 2, 3

Mineral Claims

Clinton Mining Division

British Columbia

by

Michael Dickens,
Owner and Operator,
P.O. Box 116,
Savona, British Columbia
V0K 2J0

WORK DONE ON: Skookum 1 - 12 Claims

RECORD NO.s: 209262 - 209273

WORK DATES: 17 - 20 October, 1992
13 - 16 November, 1992

LOCATION: 39.5 km. North 03° West of Savona, B.C.
N.T.S. Map 92 P 2 W
Longitude 120° 52' North
Latitude 51° 06.5' West

SUBMITTED: 22 March, 1993

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PROPERTY LOCATION MAP

Skookum 1 - 12 Claims

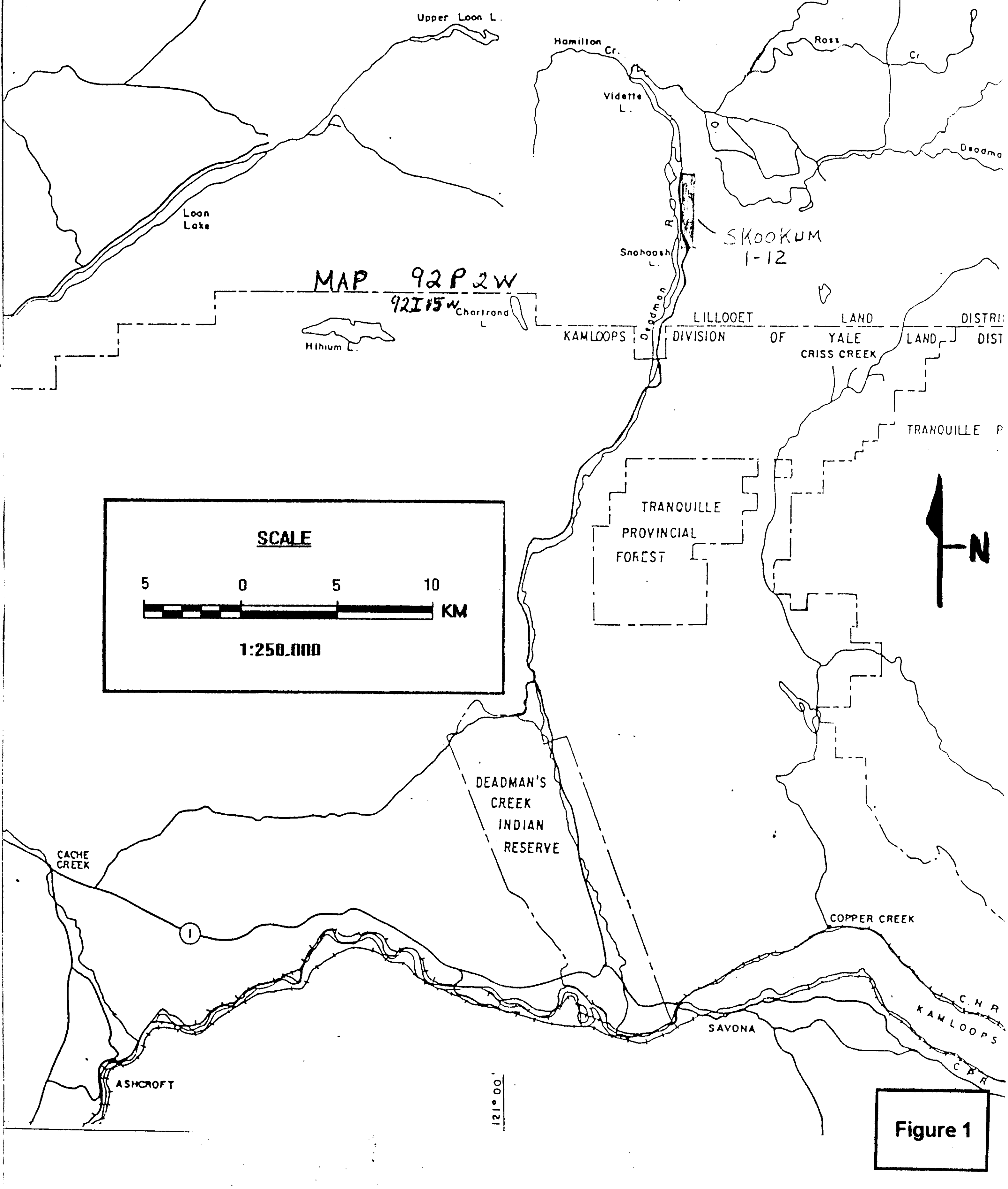

Figure 1

INTRODUCTION

The Skookum 1-12 2 post claims were staked to cover an area underlain in part by silicic volcanic ash of Miocene age. This report outlines observations made by the author while prospecting on the claims during the fall of 1992 as well as the results of sampling of volcanic ash from the property. A brief description of some of the potential uses of the material is also included.

PROPERTY AND OWNERSHIP

The POZ Group was located and is owned and operated by the author and consists of the mineral claims listed in Table 1, on which work was performed as well as the claims listed in Table 2, on which part of the work was applied.

Table 1

CLAIM NAME	RECORD NO.	UNITS	CLAIM TYPE	EXPIRY DATE
Skookum 1	209262	1	2 Post	22 Dec./1993
Skookum 2	209263	1	2 Post	22 Dec./1993
Skookum 3	209264	1	2 Post	22 Dec./1993
Skookum 4	209265	1	2 Post	22 Dec./1993
Skookum 5	209266	1	2 Post	22 Dec./1993
Skookum 6	209267	1	2 Post	22 Dec./1993
Skookum 7	209268	1	2 Post	22 Dec./1993
Skookum 8	209269	1	2 Post	22 Dec./1993
Skookum 9	209270	1	2 Post	22 Dec./1993
Skookum10	209271	1	2 Post	22 Dec./1993
Skookum 11	209272	1	2 Post	22 Dec./1993
Skookum 12	209273	1	2 Post	22 Dec./1993

Table 2

CLAIM NAME	RECORD NO.	UNITS	CLAIM TYPE	EXPIRY DATE
Riv 2	209340	1	2 Post	25 Feb./1994
Riv 3	209341	1	2 Post	25 Feb./1994
SWC 1	209273	1	2 Post	23 Dec./1993
SWC 3	209275	1	2 Post	23 Dec./1993
SWC 5	302754	1	2 Post	21 July,1994
SWC 6	302755	1	2 Post	21 July,1994
SWC 7	302756	1	2 Post	21 July,1994
SWC 8	302757	1	2 Post	21 July,1994
SNO 5	208982	1	2 Post	16 Mar./1994
SNO 6	208983	1	2 Post	16 Mar./1994
SNO 7	308194	1	2 Post	17 Mar./1994
SNO 8	308195	1	2 Post	17 Mar./1994

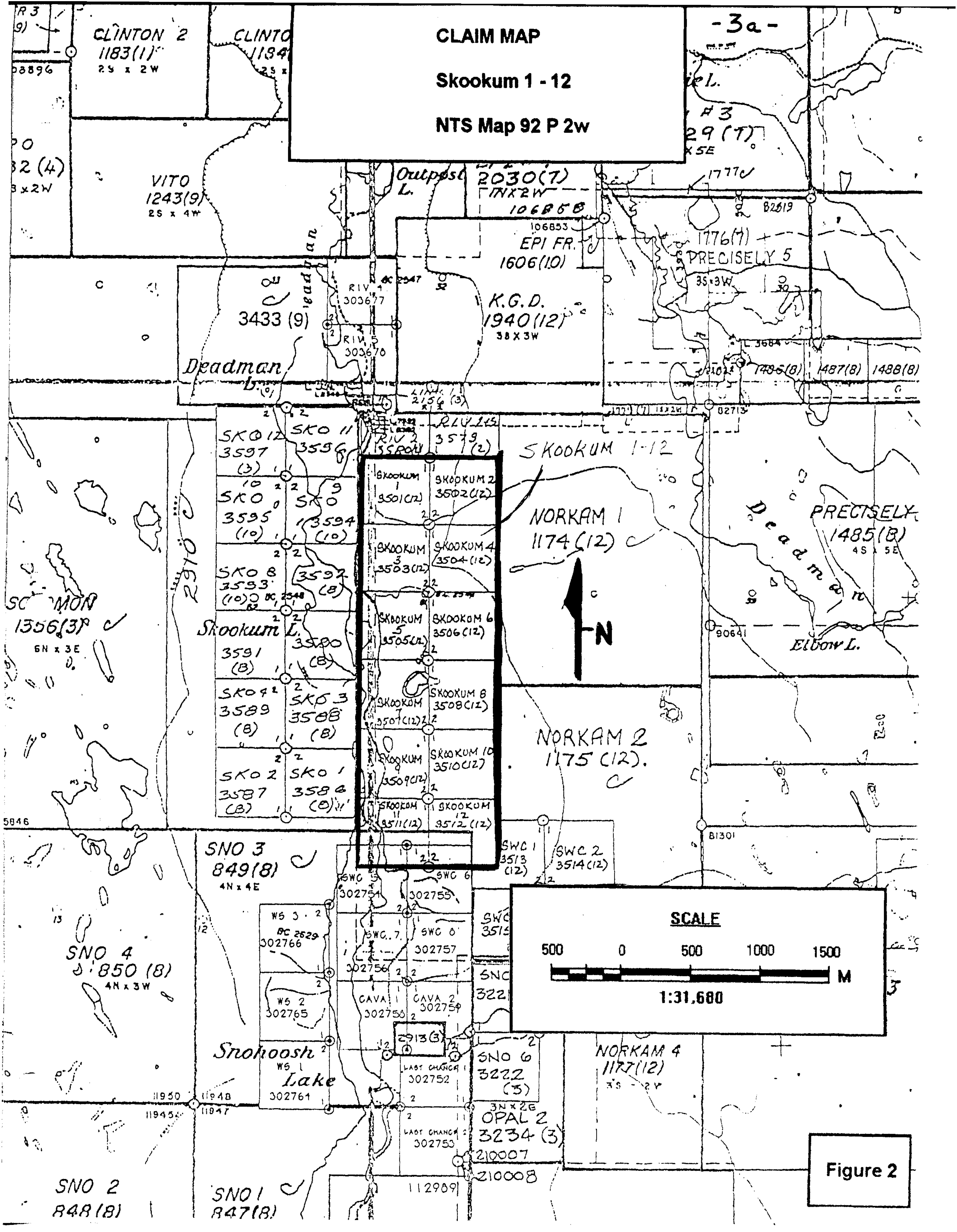
CLAIM MAP
Skookum 1 - 12
NTS Map 92 P 2w
SKOOKUM 1-12
SKOOKUM 1 3501(12)
SKOOKUM 2 3502(12)
SKOOKUM 3 3503(12)
SKOOKUM 4 3504(12)
SKOOKUM 5 3505(12)
SKOOKOM 6 3506(12)
SKOOKUM 8 3508(12)
SKOOKUM 10 3510(12)
SKOOKUM 11 3511(12)
SKOOKUM 12 3512(12)
NORKAM 1 1174 (12)
NORKAM 2 1175 (12)
NORKAM 4 1177(12)
K.G.D. 1940(12)
EPI FR. 1606(10)
PRECISELY 5
PRECISELY 1485(8)
VITO 1243(9)
CLINTON 2 1183(1)
3433 (9)
Deadman L.
Skookum L.
Snohoosh Lake
Outpost L.
Elbow L.
SNO 1 847(8)
SNO 2 848(8)
SNO 3 849(8)
SNO 4 850 (8)
SNO 6 3222 (3)
OPAL 2 3234 (3)
N
SCALE
500 0 500 1000 1500
M
1:31,680

Figure 2

LOCATION, ACCESS AND TERRAIN

The Skookum claims are centered about 500 metres east of the south end of Skookum Lake on N.T.S. Map 92 P 2W (see Figure 1, Page 3). The area is accessed by travelling north for about 45 kilometres on Deadman River Road from its junction with Highway 1, about 7 kilometres west of the town of Savona. There are no secondary roads within the property but the showings are easily reached on foot from Deadman River Road which transects the property from south to north near the western boundary of the claims.

The claims lie within the southern part of the Fraser Plateau between 823 and 1067 metres in elevation. Most of the area is covered with fir and pine that has never been logged. There are steep slopes leading to shear basalt cliffs at about 1000 metres in elevation on the eastern part of the property whereas terrain at lower elevations consists of rolling hills more typical of the Interior Dry Belt..

WORK PROGRAM

Eight days were spent working on the Skookum 1-12 mineral claims on the dates specified on the Title Page. The purpose of the work program was to outline the extent of the known deposit of volcanic ash on the Skookum 5 claim and to search for additional ash showings. West to east traverses were run every 150 metres from the southwest corner of the property. Areas underlain by volcanic ash were measured by topofil and compass from the nearest claim post.

A large part of the program consisted of collecting samples of volcanic ash and crushing, drying and testing the material at home.

In addition, a sample of volcanic ash from the Skookum 5 claim was sent to the University of British Columbia and to Eco-Tech Laboratories Ltd., Kamloops, B.C. for analysis.

PROPERTY GEOLOGY

Glacial till (unit 1) is fairly prevalent over much of the lower elevations but is unlikely to exceed a depth of more than a metre or two in most areas.

Flat-lying Miocene plateau lava (unit 2), primarily olivine basalt and vesicular basalt, are extensive over most of the property and form a prominent scarp on the Skookum 2 and Skookum 4 claims. These basalts are rather fine-grained, dark grey rocks and often weather to a rusty and occasionally brilliant orange -red colour. Basalt is prominent at higher elevations and forms thick talus on the steepest slopes but is also well-exposed in places along Deadman River and along the shores of Skookum Lake. No effort was made to subdivide or map the basalt as it is of no commercial importance and merely masks all older formations.

Miocene volcanic ash (Unit 3) occurs in nearly flat-lying beds beneath the basalts within a group of undeformed lacustrine sediments, mapped as the Deadman River Formation, by Campbell and Tipper, 1971.

The largest exposures of volcanic ash outcrop on the Deadman River Road and form prominent cliffs and hoodoos, known locally as Castle Bluffs. The ash beds are exposed over a vertical distance of about 125 metres and can be followed for 414 metres easterly from the road where they are covered by basalt talus on the Skookum 6 claim. From the southern base of the hoodoos, the ash can be traced for about 250 metres to the south in gently rolling terrain. To the north, sporadic ash outcrop and subcrop indicate that it underlies a steep northeasterly-trending, drift-covered hillside for about 400 metres on the Skookum 3 claim. The Castle Bluffs showing , though not precisely defined , obviously underlies a considerable area, and several million tonnes of volcanic ash can be inferred.

Most of the ash beds are soft, poorly consolidated and primarily composed of sandy to pebbly, light grey-brown to buff-colored, medium to coarse-grained lapilli tuffs containing abundant fragments of quartz and feldspar up to 6mm in diameter in a soft and very fine-grained groundmass. Open cavities of various sizes are common. Well-exposed beds along the hoodoos reveal considerable variation in grain size and composition from one bed to the next but this may be due in part to sorting caused by erosion and/or wave action when the ash beds were submerged. Locally, the finer material has been washed away leaving thin beds consisting primarily of quartz and feldspar fragments. Other beds are composed entirely of very fine-grained silty material which may be partly diatomaceous.

A second area which could have commercial interest was located on the Skookum 9 claim. These ash outcrops can be traced from the road for 340 metres to the east and about 130 metres to the south. Drift cover to the north and south preclude a proper assessment of the size of the zone but sporadic ash subcrop and ash mixed with glacial till imply that the zone could be considerably larger.

Other showings were located on both sides of a small pond which straddles the border between the Skookum 7 and Skookum 8 claims. Basalt talus and glacial till are plentiful in this area and the size of the zone could not be determined.

ANALYTICAL RESULTS

A representative sample of volcanic ash from the Skookum 5 claim and a sample of Nonscents clinoptilolite zeolite from Arizona were analyzed by Eco-Tech Laboratories Ltd. of Kamloops, B.C., in order to determine and compare their chemical compositions and cation exchange capacities. The results of this analysis are outlined in Table 3 below as well as the published results for a high quality "pure" montmorillonite clay from Wyoming for comparison.

Table 3

Element Wt.%	Symbol	Clay	SKOOKUM ASH	Zeolite
Silica	SiO_2	55.60	67.77	66.75
Alumina	Al_2O_3	20.10	13.76	12.86
Calcium	CaO	.51	1.27	3.45
Potassium	K_2O	.62	3.16	1.75
Sodium	Na_2O2	.81	2.78	.62
Magnesium	MgO	2.5	1.26	1.45
Iron	Fe_2O_3	3.72	1.70	2.17
Manganese	MnO		.06	.10
Barium	BaO		.15	.02
Phosphorous	P_2O_5		.07	.03
Titanium	TiO_2		.23	.30
L.O.I.			7.43	12.12
CEC		120	110	180

L.O.I. - loss on ignition.
CEC - Cation Exchange Capacity measured in mille equivalents per 100 grams (meq/100 grams).

A preliminary x-ray diffraction analysis (XRD) of altered volcanic ash (sample # 1) from the Skookum 5 claim which was conducted at the University of British Columbia indicates that the ash is primarily composed of the following minerals:

montmorillonite clay	35% ± 10%
feldspar	35% ± 10%
cristobalite	5% ± 5%
quartz	15% ± 5%

Further XRD analysis is required to more precisely define the constituents of the ash as the purpose of the initial analysis was to test the samples for the presence of clay or zeolite mineralization.

Thirty-two samples of volcanic ash were collected from outcrop and crushed and screened to - 100 mesh using a Spincraft chainsaw impact crusher. The samples were representative of the various types of ash which occur on the claims. The following simple experiments were conducted to test the capacity of the samples to absorb and sink oil on water and to eliminate a variety of odors:

(1) **Experiment 1**

The effectiveness of the ash in eliminating a particular odor can be tested by saturating a sample of the ash with an odiferous substance, patting it dry with a tissue and placing it inside a small glass screwtop jar. Screw down the lid and let sit for ten minutes.

Remove the lid, set aside the contaminated sample and smell the jar. The odor will be very strong. Quickly add a tablespoon of powdered ash, screw the lid back on and shake up and down for 30 seconds or just let it sit for a minute. Then remove the lid and smell again to determine if the odor has been eliminated by the ash.

All of the samples were tested and found to be effective in eliminating odors caused by ammonia, onions and garlic.

(2) **Experiment 2**

Fill a straight-sided glass or beaker to within an inch of the top with either sea water or tap water and then add crude oil to the water until a thin layer of oil covers the surface. Add powdered ash in sufficient quantity to completely cover the entire surface bearing in mind that the oil and ash combined must be dense enough to have a specific gravity greater than the water so that it will sink.

The mass of oil and ash will **unite without mechanical mixing** and gradually sink in gobs to the bottom of the container. Enough water should now be extracted with an eyedropper so that the rim of oil that has adhered to the sides of the container can be wiped clean. The remaining water will be somewhat cloudy for a few hours and then gradually clear up. The ash and oil mixture will not seperate even after prolonged and vigorous shaking and stirring.

All of the samples were shown to be efficient in absorbing and sinking the crude oil.

CONCLUSIONS

The volcanic ash deposits located on the Skookum claims probably contain several million tonnes of ash and could be readily mined by open pit methods if a market for the material can be found.

Home tests by the author have shown the ash to be as effective as clinoptilolite zeolite in eliminating virtually any odor from common sources including ammonia, fish, food, feet, cooking, human and animal wastes, onions, garlic, formaldehyde, new cars, decomposing meat, vomit, sewage, fireplaces, smoke, mildew, restaurants, carpets etc. by merely placing dehydrated ash near or on the source of odor. It will also eliminate odors from a host of other sources including pulp mill waste, battery acid, lacquer thinners, anti-freeze, and most petroleum products such as motor oil, crude oil, transmission fluid, brake fluid, etc. that the zeolites contain poorly if at all.

The ash has remarkable and easily demonstrated oleophilic qualities and readily absorbs any kind of oil, even from the surface of water. Hypothetically, the oil affinity of the volcanic ash could be used to advantage in combination with recently tested bioremediation techniques (Oilweek, 25 February, 1991) for cleaning oil spills at sea and on the foreshore.

Simple experiments show that powdered ash will unite with oil on fresh water or sea water and the mixture will sink and will not separate, even in turbulent water. In time, indigenous microbes will break down the hydrocarbons.

In theory, the use of volcanic ash could be combined with bioremediation techniques. Cultures of oil-digesting micro-organisms and their nutrient fertilizers such as nitrogen and phosphorous could be mixed with volcanic ash and then broadcast onto an oceanic oil slick in either powder or slurry form. The hydrocarbons and ash will unite without any mechanical mixing required and sink in large gobs to the sea floor. The added microbes will soon break down the mixture of oil and ash to form non-toxic sediments capable of supporting new aquatic life.

Similarly, an ash-microbe slurry could be applied to an oil-contaminated shore at low tide. Surface oil will be absorbed by the mixture and will be flushed by the next high tide and sink to the sea floor to biodegrade.

Research could focus on developing a technique to modify the ash by physical or chemical means to prevent oil-ash mixtures from sinking. Such a product could prove to be invaluable in preventing the spread of oil over a larger area and containing the oil before it reaches the shoreline. The oil and ash mixture could then be easily recovered by skimmers or other methods and eventually separated by heat treatment.

Ants seem to be the only insects that thrive after contact with volcanic ash. Limited testing indicates that garden pests such as aphids, slugs and various bugs and caterpillars die within a day or two after exposure to the ash. It seems likely that the fine silica clogs the breathing pores in the exoskeleton or has a lethal effect on the digestive systems of the insects that ingest it. This suggests that the ash may have potential as a natural pesticide.

The ash is also being investigated for use as a specialty absorbent, cat litter and as pozzolan for the cement industry.

ITEMIZED COST STATEMENT

Prospecting and sampling claims	8 days at $250.00 per day	$2000.00
4x4 Truck	8 days at $40.00 per day	320.00
Gasoline		90.00
Supplies	Topofil, flagging etc.	50.00
Analytical Fees		125.00
Report preparation		200.00
	TOTAL COSTS	$2785.00

STATEMENT OF QUALIFICATIONS

I have been prospecting in the province of British Columbia since 1972 and have been self-employed as a full-time prospector for the past 14 years. During this time, I have studied several geological textbooks as well as government reports and publications describing regional and local geology throughout the province. In addition, I subscribe to *Economic Geology* for information regarding mineral deposits worldwide and *Clays and Clay Minerals* for current research in clay mineralogy and the utilization of clay minerals.

GEOLOGY MAP

SKOOKUM 1-12 CLAIMS

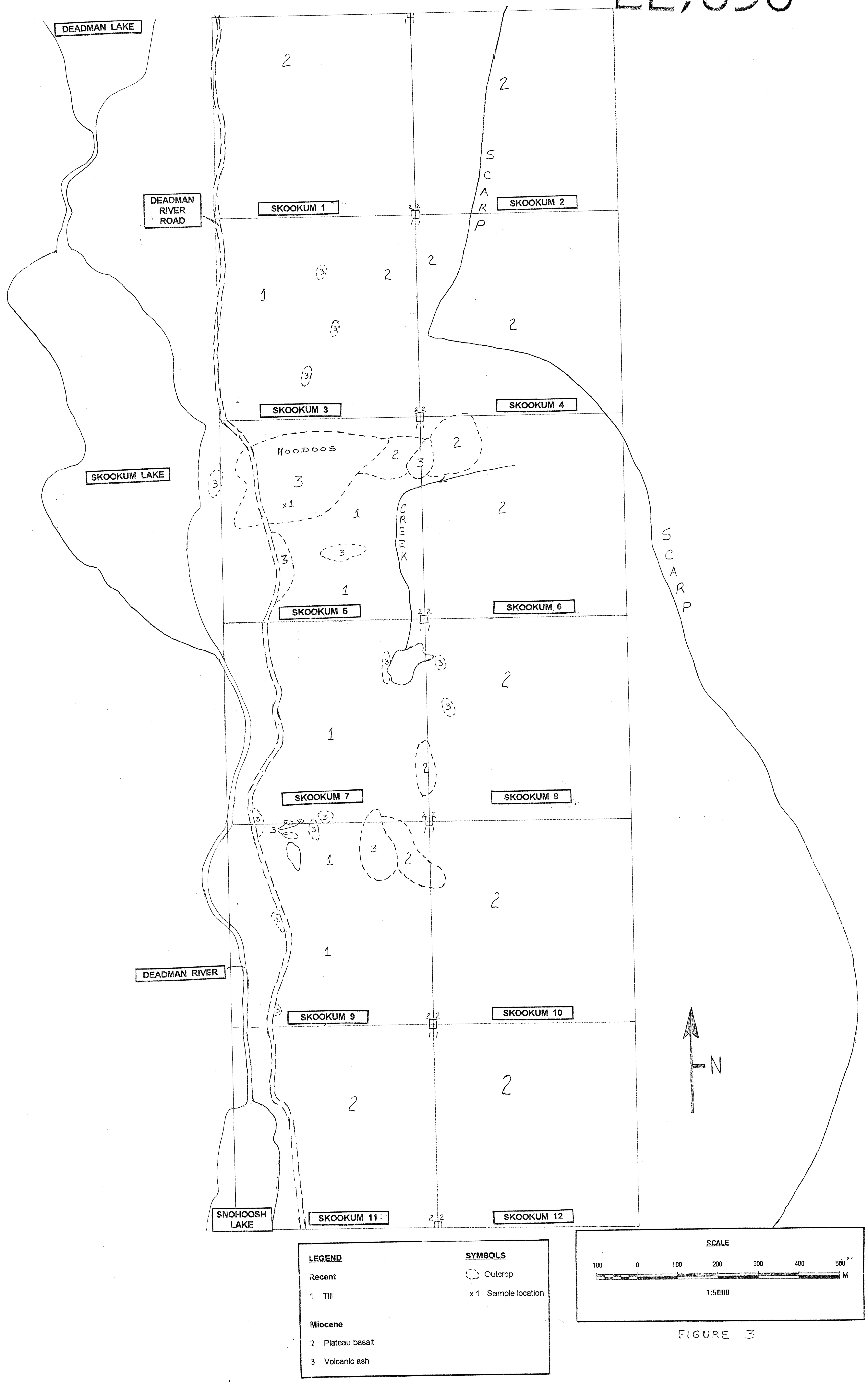

FIGURE 3