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

PROGRAM YEAR:1997/1998REPORT #:PAP 97-15NAME:LLOYD NILSEN

### DRITISH COLUMBIA PROSPECTORS ASSISTANCE PROGRAM PROSPECTING REPORT FORM (continued)

#### B. TECHNICAL REPORT

- One technical report to be completed for each project area.
- Refer to Program Requirements/Regulations, section 15, 16 and 17.
- If work was performed on claims a copy of the applicable assessment report may be submitted in lieu of the supporting data (see section 16) required with this TECHNICAL REPORT.

Name LLOYD R. NILSEN Reference Number 97/98 P37
LOCATION/COMMODITIES Project Area (as listed in Part A) AREA ONE MINFILE No. if applicable Location of Project Area NTS <u>BZL/4 BZL/5</u> Lat <u>50° 10'</u> Long <u>119°45'</u> (CENTER) Description of Location and Access <u>APPROX. 40 K W/SW OF VERNOH. INCLUDES</u> <u>A PORTION OF THHAFTKUN MTN ON THE NOTETH</u> , AND INCLUDES <u>ROWOTOP MTN TO THE SOUTH. ACCESS BY WHITEMANS CREEK FSR.</u> Main Commodities Searched For <u>PRECIOUS OPAL - GOLD - SILVER.</u>
Known Mineral Occurrences in Project Area BRETT GOLD PROPERTY & WHITE ELEPHANT GOLD & SILVER PROPERTY NEAR THE EASTERN BOUNDARY OF AREA 1.
WORK PERFORMED    1. Conventional Prospecting (area)  52  DAVS IN THE FIELD.    2. Geological Mapping (hectares/scale)  PRELIMINARY ONLY    3. Geochemical (type and no. of samples)
SIGNIFICANT RESULTS Commodities <u>PRECIOUS OPPL</u> Claim Name TAHR 1 & 2, & JORN 3 Location (show on map) Lat <u>50°15</u> Long <u>119°43</u> Elevation <u>6100</u> Best assay/sample type <u>PRECIOUS OPAL - GOOD BRIGHTNESS &amp; PLAY OF COLORS</u> . [18 02/T AG. & 1.53 % CU - OUTSIDE OF PROJECT AREA. SEE <u>ATTACHED REPORT</u> ] Description of mineralization, host rocks, anomalies THE <u>PRECIOUS</u> OPAL [3 SEPERATE LOCATIONS, EN SOTTH FLANK OF TAHAETRUM MITH OVER A DISTANCE OF OF A K] IS FOUND IN VEDICULES & FRACTURES IN BASALT FLOUS & LANAR DEDS. ALL 3 SHOWINGG ARE LOCATED IN CLOSE PROXIMITY TO FLAT LYING FINE GRANJED DARK COLORED FORMATIONS OF VOLCAHIG TUFF. THIS CONTACT ZONE MAY PROVIDE A CONDUCT FOR SUBJECT AREA DETAIL.

Supporting data must be submitted with this TECHNICAL REPORT

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

## BRITISH COLUMBIA PROSPECTORS ASSISTANCE PROGRAM PROSPECTING REPORT FORM (continued)

#### **B. TECHNICAL REPORT**

- · One technical report to be completed for each project area.
- Refer to Program Requirements/Regulations, section 15, 16 and 17.
- It work was performed on claims a copy of the applicable assessment report may be submitted in lieu of the supporting data (see section 16) required with this TECHNICAL REPORT.

Name LLOYD R. NILS	ENReferen	ace Number 97/9	18 P.37	
LOCATION/COMMODITIES				
Project Area (as listed in Part A)	REA TWO	MINFILE No. if a	pplicable	
Location of Project Area NTS 82	L/SW	Lat 50°05'	Long 119"	05' (CENTIER)
Description of Location and Access	ENTERED	APPROXIMATEL'	1 15 K	EAST
OF KALAMALKA LA		E VERNON AR	•	CESS
15 VIA LOGGING ROA	DS BRANCI	HING OFF HW	Y 6 EAS	F OF VEFNO
Main Commontatics Searched For6	OLO / SILV	ER		
Known Mineral Occurrences in Project Area NEAR NORTH EAST BO	SMALL G	POLD/SILVER 1 P 1930'S VI	NTAGE.	
WORK PERFORMED	2 DAVE		ົ	
J. Conventional Prospecting (area)				
2 Geological Mapping (hectares/scale)				1
3. Geochemical (type and no. of sample				. (
4. Geophysical (type and line km)				1
5. Physical Work (type and amount)				
<ul><li>6. Drilling (no., holes, size, depth in m,</li><li>7. Other (specify)</li></ul>				
SIGNIFICANT RESULTS				
Commodifies				
Location (show on map) Lat			1000	
Best assay/sample type			·	
Description of mineralization, host rocks, an	omalics	0 - 0		
BECAUSE OF				
AREA ONE TIME OH			CURSORY	
INSPECTION OF AR	EA TWO.		LES TAK	
RETURNED INSIGH	IFICANT VA		•	ROSPECTING
PROGRAM WILL BE	REQUIRE	> FOR THIS I	PREA	

Supporting data must be submitted with this TECHNICAL REPORT Information on this form is confidential for one year from the date of receipt subject to the provisions of the Freedom of Information Act. Home Phone 250 545 0579 Fax 250 545 6536

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#### **SUPPLEMENT TO SUMMARY OF PROSPECTING ACTIVITY - 1997**

1. The 1997 season was very successful in that the presence of precious opal on the Taha claims was confirmed, and 2 additional deposits were discovered on the south flank of Tahaetkun mountain. Deposits two and three were staked (Joan claims), and appear to be very small in extent although more work will be required to confirm that opinion. These deposits are located approximately 2 kilometers east of the original Taha discovery.

The Taha deposit is contained in an area approximately 150 meters long by 70 meters wide, and is exposed over a vertical distance of some 55 meters on a talus slope. Individual specimens of precious opal range in size from less that 1mm to the largest specimen found to date which measures some 3cm by 1.5 cm in area. The majority of the precious opal found to date is too small for jewelry purposes, but much work remains to be carried out before the economic potential of the deposit can be determined. Brightness, play of colors, and variety of base color is excellent. Base colors of the precious opal include clear, white, lemon, brown, and blue with varying shades of each. Fire includes various shades of red, green, and blue.

One of the problems in exposing more outcrop on the Taha property relates to the fact that the discovery is on a talus slope that has an average slope of about 40 degrees which would make the use of mechanical excavation difficult and expensive. Exactly how further exploration of the deposit will be carried out is yet to be determined.

The two deposits found 2 kilometers to the east have not been fully explored, but initial impressions are that the opal is too small to be of commercial interest. The south face of Tahaetkun mountain is difficult to explore because of the steep nature of much of the area, portions are heavily wooded, and portions are covered with overburden. The potential for further deposits on the mountain is quite high, and further prospecting is required.

Exploration to the southwest of Tahaetkun has also been encouraging with some jelly (transparent) opal discovered. This is always present where precious opal is found so is an encouraging indicator, and again more prospecting is warranted.

The precious opal on Tahaetkun may also be of considerable scientific interest as some of it would appear to be of very recent origin. This observation is based on the fact that several samples have been observed with tiny grains of precious opal (sugar grain in size) forming along hair size root fibers that have grown through vesicles in fractured basalt. It seems obvious that silica solutions migrating down these organic threads have precipitated precious opal granules and, if this is the case, would seem to indicate that the fire opal has formed in a relatively short period of time which would be in serious conflict with conventional theories that propose that precious opal takes millions of years to form.

The Okanagan region experienced an unusual amount of rain and cloudy weather this summer that seriously hampered prospecting for precious opal. Jelly opal is almost impossible to see when it is wet, and in most cases precious opal in this region loses its 'fire' when it is wet. In retrospect many of the days spent in Area One prospecting for opal may have been more productively used in Area Two prospecting for more conventional minerals.

The high copper/silver assay reported under Area One - significant results - is actually from an area NW of Falkland which was prospected in response to commentary within a paper - 'Industrial Mineral Potential of the Tertiary Rocks, Vernon (82L) and Adjacent Map Areas'. This paper by Peter B. Read, Geotex Consultants Limited suggests Page 214 (attached) that Estekwalan Mountain may be another prospective area for precious opal. While some common opal was noted during a one day investigation, a mineralized outcrop that yielded the above noted assay was of greater interest. Unfortunately by the time the assay data was available it was too late in the season to return for a more thorough investigation.

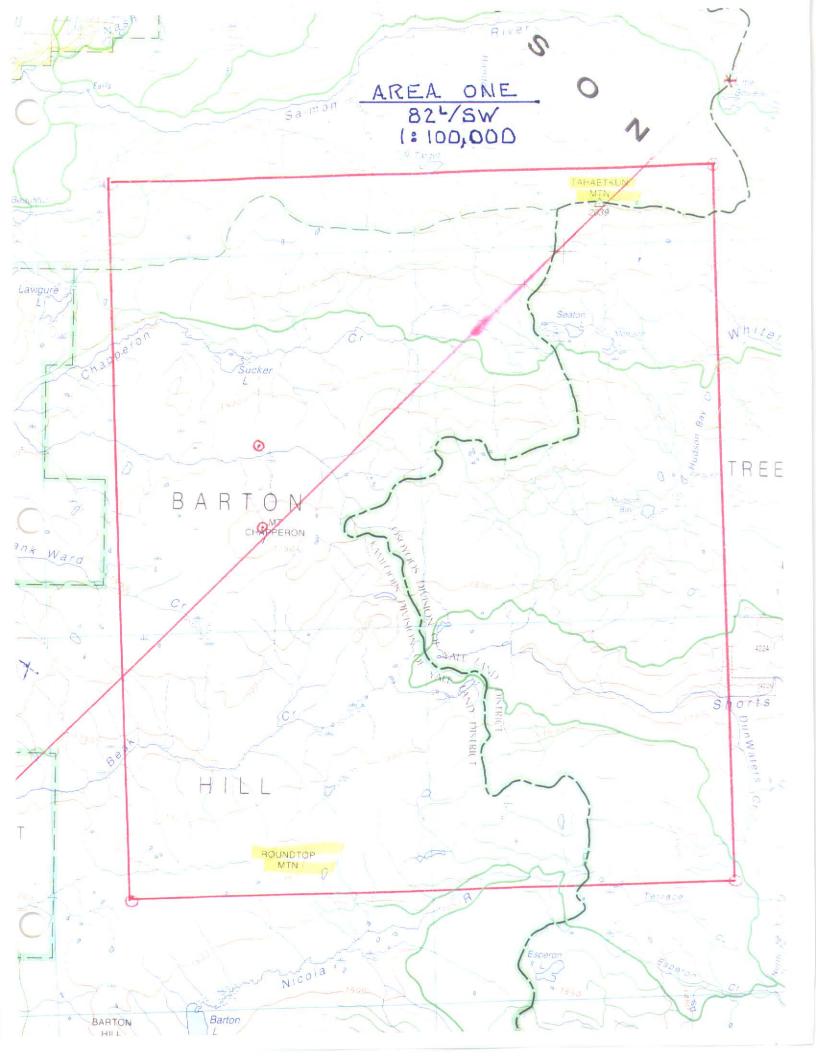
2. The assay/analyses costs include the cost of an Opal Brightness Kit for precious opal evaluation purposes. Obviously there is no other way of determining the potential value of precious opal short of offering the gemstone for sale to a knowledgeable opal dealer - of which none exist locally. This expenditure should, therefore, qualify as a legitimate cost of analyses. See attachment for details. Note - the purchase was carried out through a third party in a community remote from Vernon to avoid arousing curiosity re the possibility of another discovery of precious opal in the Vernon area. This was deemed necessary because the developer/producer of the Opal Brightness Kit is Paul B. Downing, a director of Okanagan Opal.

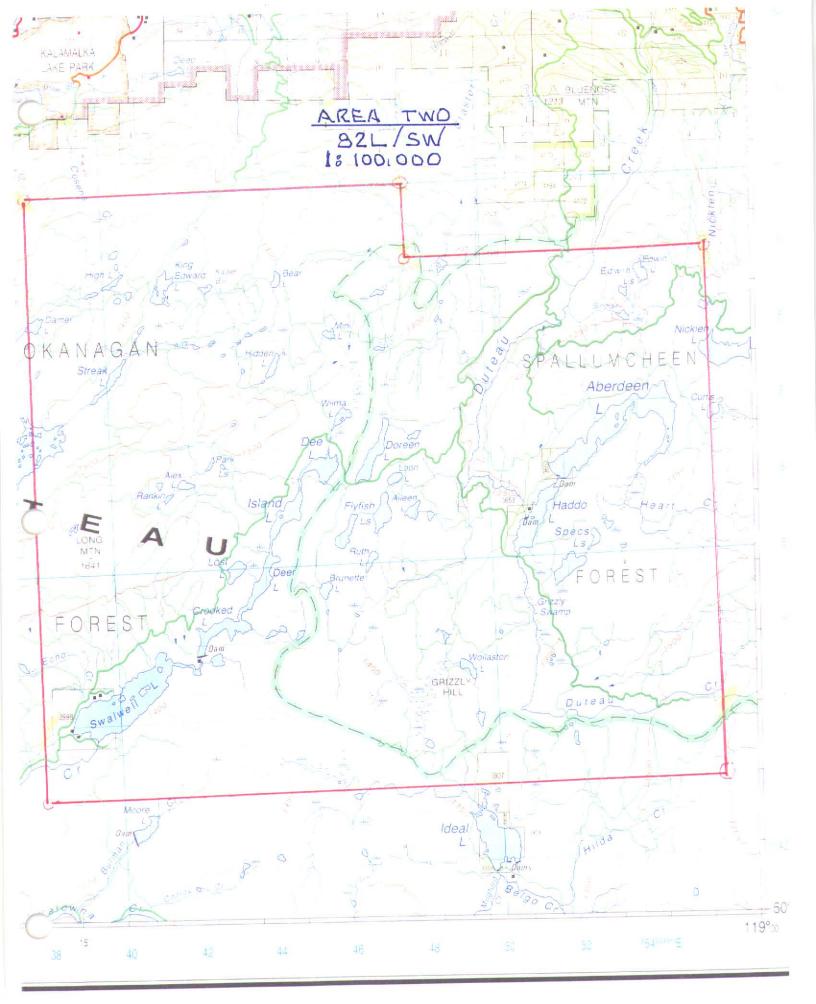
Sample # 15 (18 02 53.1

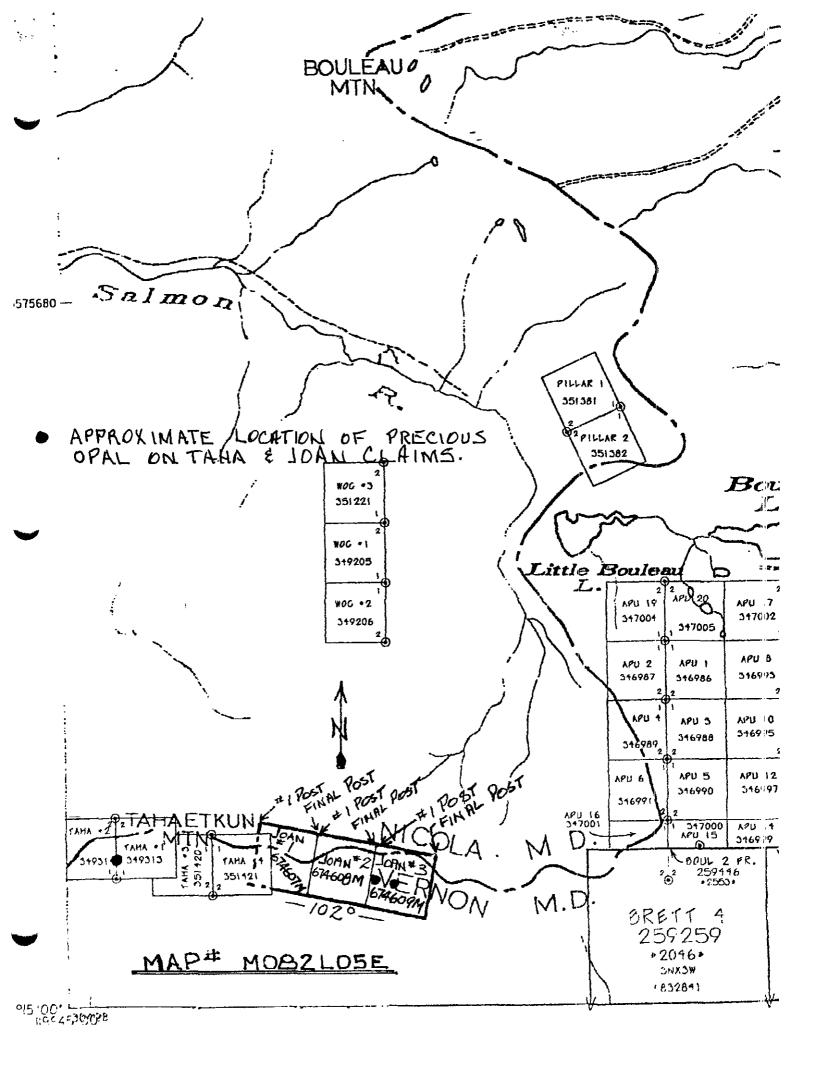
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3. If 30 cents per kilometer seems high for use of a personal vehicle consideration must be given to the fact that most of the travel was over local logging roads many of which have been decommissioned and are overpopulated with badly designed water bars which are too deep, too steep, and too numerous. This driving is not only hard on a vehicle in a physical sense, but results in excessive fuel consumption due to incessant shifting and speed variations.

Only field prospecting time was charged, and numerous other costs incurred to free up prospecting time are not included and, indeed, do not qualify under the terms of the agreement.









View of part of the south flank of Tahaetkun Mountain taken from a distance of approximately 3 kilometers



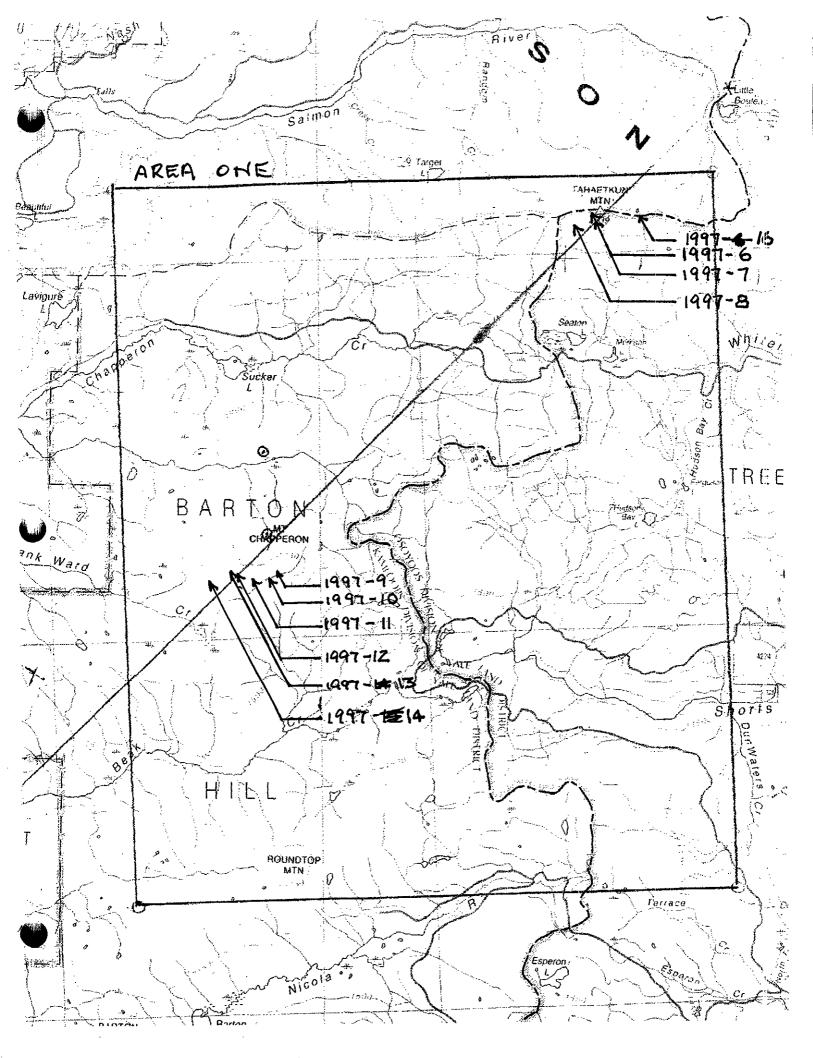
Talus slope on Tahaetkun Mountain. The outcrop visible at the top of the slope is a barren cap of volcanic formation. Precious opal is found in small outcrops scattered along the slope over a strike length of approximately 150 meters.

#### **1997 SAMPLING RESULTS**

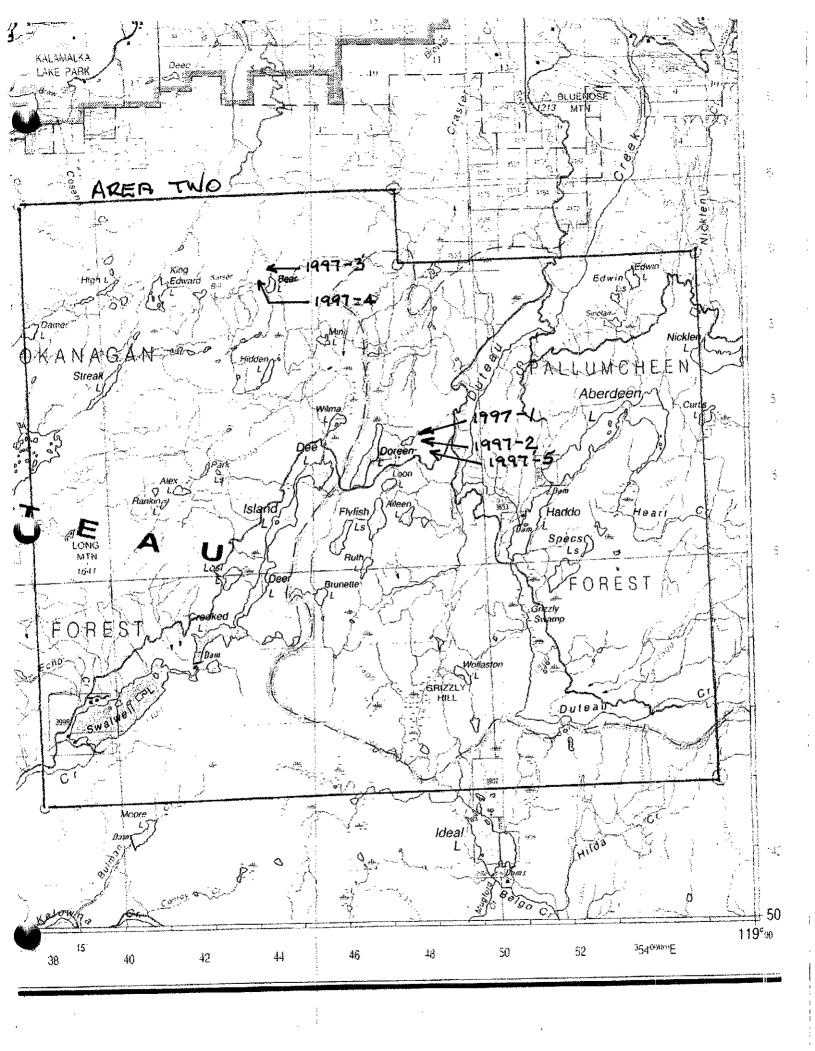
Sample Number	Location	Rock Type - Description
1997-6	Area One	Quartz Rhyolite dike within the precious opal zone Taha claims
1997-7	Area One	Same as above. Assayed re potential for gold values
1997-8	Area One	Rust colored fracture zone, basalt, west end Tahaetkun
1997-9	Area One	Sheared diorite, south of Chapperon mountain
1997-10	Area One	Sheared diorite with quartz inclusions, south of Chapperon
1997-11	Area One	Sheared tuff (?) horizon SW of Chapperon
1997-12	Area One	Shear zone with quartz inclusions, SW of Chapperon
1997-13	Area One	Sheared limestone, basalt contact, SW of Chapperon
1997-14	Area One	Quartz vein, SW of Chapperon
(1997-15	Falkland Area	Fractured fine grained volcanic - green stain of malachite
1997-16	Chloride gneiss	Eastern end of Tahaetkun mountain
1997-1	Area Two	Quartz biotite gneiss, pyrite, east of Doreen Lake
1997-2	Area Two	Same as above
1997-3	Area Two	Silicified fracture zone in biotite gneiss - north of Bear Lake
1997-4	Area Two	Shear in fine grained black basalt - west of Bear Lake
1997-5	Area Two	Rusty outcrop basalt (?), east of Doreen Lake

1997 Precious Opal samples: A large number (200 plus) of precious opal samples were taken from the 3 discoveries on Tahaetkun Mountain. Analyzing these samples using the Opal Brightness Kit and the text by Paul B. Downing, Ph.D. entitled 'Opal Identification and Value', it is my opinion that Tahaetkun Opal meets 'economic gem criteria' in every respect with the possible exception of stone size. Color is bright in all shades and hues, the range of base colors is unusually broad, and early indications are that the gems are stable. Further trenching, etc., will be required to determine if the deposit(s) contain sufficient gems of the size required for economic production.

If nothing else, the discoveries on Tahaetkun Mountain prove that Okanagan Opal's initial discovery of precious opal in this region (their property in now in production), was not a 'one of a kind' geological anomaly. Further discoveries of precious opal will be made within this region in the years to come.



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#### ECO-TECH LABORATORIES LTD. 10041 East Trans Canada Highway KAMLOOPS, B.C. V2C 6T4

Phone: 604-573-5700 Fax : 604-573-4557

#### ICP CERTIFICATE OF ANALYSIS AK 97-561

L.R. NILSEN 6465 CLOVER ROAD VERNON, BC V1B 3T7

#### ATTENTION: L. NILSEN

#### No. of samples received: 7 Sample type: ROCK PROJECT #: NONE GIVEN SHIPMENT #: NONE GIVEN Samples submitted by: L. NILSEN

#### Values in ppm unless otherwise reported

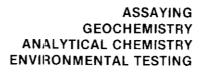
Et #.	Tag #	Au(ppb)	Ag	AI %	As	Ba	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Мо	Na %	Ni	Р	Pb	Sb	Sn	Sr	Ti %	U	V	W	Y	Zn
1	1997-1	5	<0.2	1.92	<5	75	10	1.06	<1	19	71	19	5.07	40	1.84	830	<1	0.04	11	2590	6	15	<20	94	0.24	<10	75	<10	20	111
2	1997-2	5	<0.2	1.67	<5	105	15	1.41	<1	19	78	11	5.30	40	1.72	890	<1	0.04	12	2450	6	10	<20	188	0.23	<10	119	<10	30	86
3	1997-3	5	<0.2	0.87	<5	40	<5	0.36	<1	6	110	6	1.84	<10	0.54	530	1	0.05	7	420	6	10	<20	27	0.11	<10	34	<10	9	41
4	1997-4	5	<0.2	1.90	<5	360	15	1.92	<1	26	278	11	4.19	<10	2.40	507	<1	0.14	42	1460	6	15	<20	125	0.30	<10	125	<10	22	44
5	1997-5	5	<0.2	1.49	<5	75	20	0.92	<1	16	67	11	5.08	40	1.64	667	<1	0.05	10	2520	12	5	<20	54	0.29	<10	75	<10	26	86
6	1997-6	5	<0.2	1.44	<5	300	<5	0.56	<1	9	45	33	3.79	30	0.68	143	<1	0.05	12	1110	8	10	<20	189	0.16	<10	107	<10	22	49
7	1997-7	5	<0.2	1.21	<5	220	<5	0.39	<1	8	50	31	3.94	20	0.30	99	<1	0.09	13	680	6	<5	<20	120	0.14	<10	93	<10	16	52
<u>QC DA</u> Resplit		5	<0.2	1.99	<5	65	10	1.05	<1	19	65	20	5.03	40	1.91	837	<1	0.04	12	2560	6	10	<20	93	0.24	<10	77	<10	22	109
I	1997-1	5	<b>NU.2</b>	1.33	-5	00	10	1.00		19	05	20	5.05	40	1.31	057		0.04	12	2000	0	10	~20	30	0.24	-10		~10	22	103
Repeat 1	: 1997-1	5	<0.2	2.00	<5	70	10	1.07	<1	19	66	21	5.16	40	1.91	845	<1	0.04	12	2620	8	10	<20	97	0.24	<10	77	<10	22	111
<i>Standa</i> GEO'97		140	1.4	1.99	65	170	<5	1.82	<1	19	66	83	4.15	<10	1.12	714	<1	0.03	24	640	16	10	<20	70	0.15	<10	88	<10	8	71

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Page 1

( 12-Aug-97									i	(										(	-								
ECO-TECH LABOI 10041 East Trans ( KAMLOOPS, B.C. V2C 6T4	Canada Hig								l	CP CEF	RTIFIC	ATE O	F ANAI	LYSIS /	AK 97-	805						6 V		LOVER ) <b>n, b.c</b> .					
Phone: 604-573-57 Fax : 604-573-45 Values in ppm uni	57	wise r	eported																			N S F S	lo. of s Sample PROJE SHIPM	amples type:R CT #: N ENT #:1	lot givei Not give	əd:1 n n	NILSEN	1	
Et #. Tag # 1 ROCK	Au(ppb) 5	Ag <0.2	Al % 1.54	<b>As</b> <5	<b>Ba</b> 115		<u>Ca %</u> 1.20	<b>Cd</b>	<b>Co</b> 13	<b>Cr</b> 31		<b>Fe %</b> 4.25		Mg % 0.27	<b>Mn</b> 662	<b>Mo</b> 1	<b>Na %</b> 0.15	<u>Ni</u> 3	<b>P</b> 1980	<b>Рь</b> 10	<b>Sb</b> <5	<b>Sn</b> <20	<b>Sr</b> 125	 0.10	U <10	<b>v</b> 123	<b>W</b> <10	<b>Y</b> 59	Zn 56
<u>QC DATA:</u> <i>Resplit:</i> 1 ROCK	5	<0.2	1.48	<5	105	5	1.16	<1	13	20	3	4.24	20	0.26	648	1	0.14	3	1980	12	<5	<20	117	0.09	<10	122	<10	59	57
<i>Repeat:</i> 1 ROCK	5	<0.2	1.56	<5	115	<5	1.2 <b>1</b>	<1	14	32	4	4.31	20	0.27	673	<1	0.15	1	2000	12	<5	<20	126	0.10	<10	125	<10	62	57
<i>Standard:</i> GEO'97	145	1.2	1.71	65	160	<5	1.86	<1	18	64	81	3.84	<10	0.96	686	<1	0.02	22	650	22	10	<20	61	0.12	<10	76	<10	10	66

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10041 E. Trans Canada Hwy., R.R. #2. Kamloops, B.C. V2C 614 Phone (250) 573-5700 Fax (250) 573-4557

# CERTIFICATE OF ASSAY AK 97-1090

L.R. NILSEN 15-Oct-97 6465 CLOVER ROAD VERNON, BC V1B 3T7 ATTENTION: L.R. NILSEN No. of samples received: 8 Sample type: ROCK PROJECT #: NONE GIVEN SHIPMENT #: NONE GIVEN Samples submitted by: L.R. NILSEN Cu Ag Ag ET #. Tag # (oz/t) (%) (g/t) 7 1997-15 618.0 18.02 1.53 QC DATA: Standard: Mpla 69.7 2.03 1.44 CPb-1 0.25 ECO-TECH LABORATORIES LTD.

Frank J. Pezzotti, A.Sc.T. B.C. Certified Assayer

XLS/97



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Phone: 604-573-5700 Fax : 604-573-4557

df/1089

XLS/97

#### ICP CERTIFICATE OF ANALYSIS AK 97-1090

L.R. NILSEN 6465 CLOVER ROAD VERNON, BC V1B 3T7

#### ATTENTION: L.R. NILSEN

No. of samples received: 8 Sample type: ROCK PROJECT #: NONE GIVEN SHIPMENT #: NONE GIVEN Samples submitted by: L.R. NILSEN

Values in ppm unless otherwise reported

Et #	. Tag #	Au(ppb)	Ag	Al %	As	Ba_	Bi	Ca %	Cd	Co	Cr	Cu	Fe %	La	Mg %	Mn	Мо	Na %	Ni	Р	РЬ	Sb	Sn	Sr	Ti %	U	v	w	Y	Zn
1	1997-09	5	0.4	0.65	<5	75	<5	0.54	2	5	204	82	1.53	<10	0.39	81	15	0.02	48	2450	8	<5	<20	6	0.03	<10	186	<10	5	111
2	1997-10	5	<0.2	0.52	<5	345	<5	0.11	<1	6	203	26	1.60	<10	0.40	172	4	0.02	22	370	4	<5	<20	5	0.08	<10	60	<10	2	29
3	1997-11	5	0.6	0.44	125	70	<5	>10	<1	7	26	24	1.93	<10	0.34	3134	1	0.02	9	300	<2	10	<20	993	<0.01	<10	42	10	21	21
4	1997-12	5	<0.2		<5	325	<5	0.50	<1	17	357	23	3.47	<10	1.56	402	<1	0.02	113	450	10	<5	<20	16	0.10	<10	73	<10	4	53
5	1997-13	5	<0.2	0.62	<5	75	<5	2.52	<1	3	76	8	1.80	<10	0.30	743	3	0.06	<1	520	4	<5	<20	101	<0.01	<10	5	10	3	51
6	1997-14	5	<0.2	0.83	<5	25	<5	0.11	<1	28	698	10	2.44	<10	3.33	308	<1	<0.01	333	210	4	10	<20	10	<0.01	<10	30	<10	<1	8
7	1997-15	325	>30	2.34	95	70	<5	2.74	78	28	150 >	10000	4.80	<10	2.50	667	<1	0.04	39	280	10	<u>5690</u>	<20	124	0.11	<10	121	<10	6	294
8	1997-16	5	0.6	0.40	<5	330	5	0.46	<1	8	75 ~	47	2.19	40	0.36	226	<1	0.05	4	1470	6	10	<20	26	0.14	<10	5 <del>9</del>	<10	12	32
<u>QC D</u>	ATA:																													
Respi 1	i <b>t:</b> 1997-09	5	0.4	0.60	<5	65	<5	0.51	2	5	210	77	1.58	<10	0.36	89	15	0.02	47	2300	8	<5	<20	5	0.03	<10	180	<10	4	108
Repea 1	a <b>t:</b> 1997-09	5	0.6	0.62	<5	75	<5	0.54	3	5	203	81	1.53	<10	0.38	79	16	0.02	49	2370	8	<5	<20	5	0.03	<10	185	<10	5	111
<b>Stand</b> GEO'9		-	1.2	1.74	65	155	<5	1.84	<1	18	62	83	3.74	<10	0.98	649	<1	0.02	21	650	20	<5	<20	52	0.08	<10	76	<10	5	70

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