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GEOLOGICAL REPORT OF  
THE STAR OF THE WEST C.G. (L.1311)

ASSESSMENT REPORT FOR  
TEE, MAS, COT, ROADSIDE FRACTIONS  
COT CLAIMS

*Nelson M.D.; 82F/6W; 49° 26'; 117° 17'*

R.J. Johnston

LACANA MINING CORPORATION  
NOVEMBER 1985  
**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**14,064**

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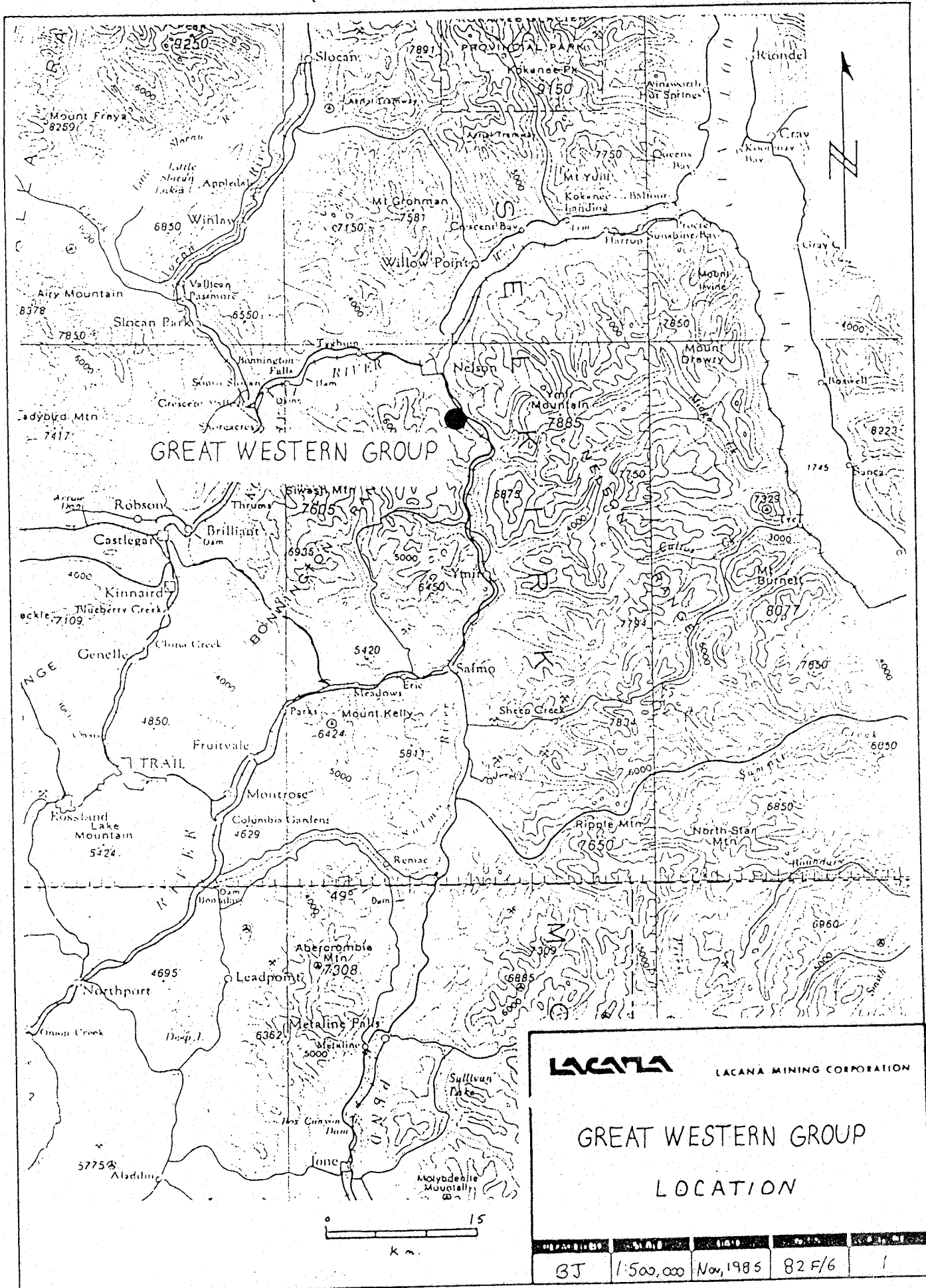
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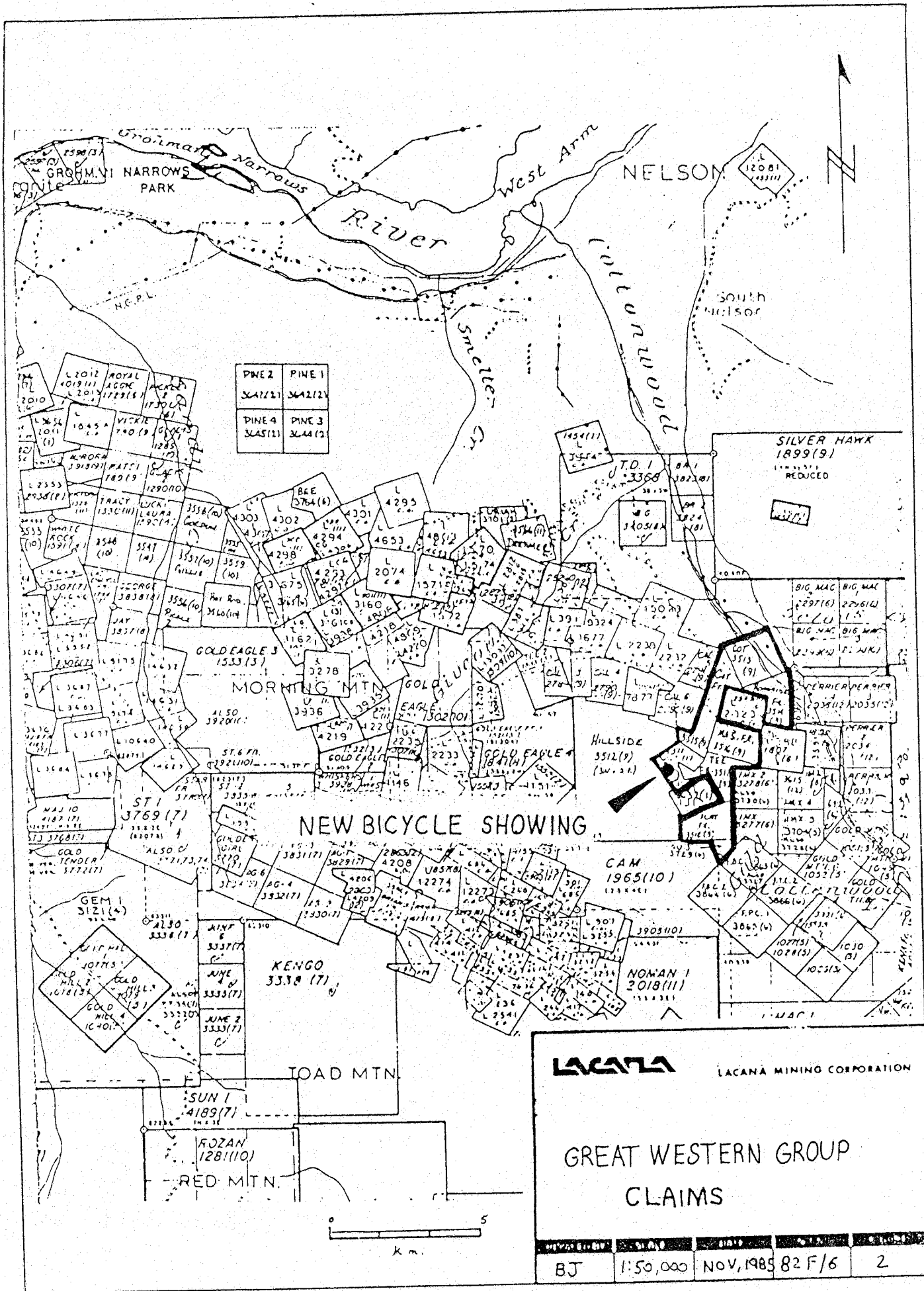
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SUMMARY

In September of 1985 Lacana Mining Corporation carried out a 2 day property examination on the STAR OF THE WEST C.G. (L.1311) which is part of the Great Western claim group owned by R. J. Bourdon and C. Pittman of Nelson, B.C. The examination set out to map and sample a series of galena-sphalerite veins known as the NEW BICYCLE zone which was rediscovered in 1985 in and around some old workings on the claim. The work done during the examination is being applied to part of the Great Western group.

The examination consisted of mapping the immediate area of the showings, as well as cleaning out old trenches and sampling. Gold values were disappointing and the silver-lead-zinc values were also low.





PINE 2 3421(1)	PINE 1 3421(2)
PINE 4 3451(1)	PINE 3 3441(1)

**LACANA** LACANA MINING CORPORATION

**GREAT WESTERN GROUP CLAIMS**

BJ	1:50,000	NOV, 1985	82 F/6	2
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### LOCATION AND ACCESS

The Great Western claim group, of which the property examined belongs, is located in the Selkirk Mountains of southeastern B.C., 4 km south of the City of Nelson. The properties are situated on the N.E. flank of Toad Mountain, between Giveout and Gold Creeks.

The terrain is generally rugged, and is thickly forested with hemlock and cedar.

Road access is good, consisting of seven km of logging roads which depart from Highway 6 south of Nelson.

### CLAIMS

The claims for which this work is being recorded are part of the Great Western group which is owned by R.J. Bourdon and C. Pittman of Nelson, B.C. This group is a combination of reverted Crown Grants, 2 post, modified grid and fractional claims, which are located entirely within the Nelson Mining District. The following table lists only the claims for which assessment is applied in this report.

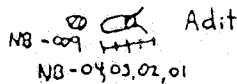
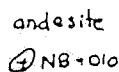
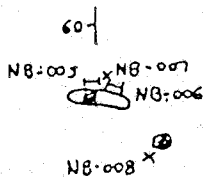
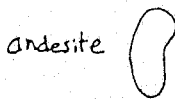
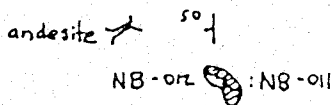
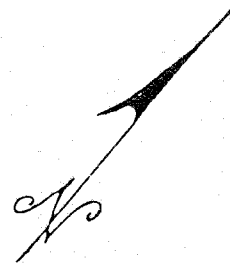
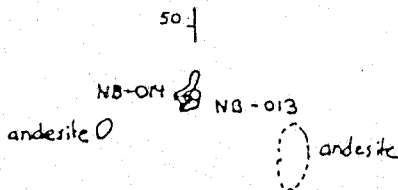
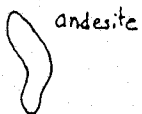
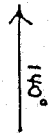
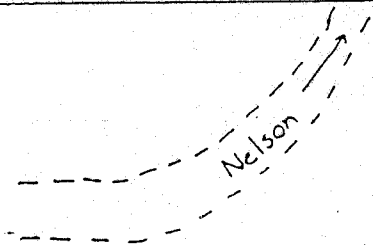
<u>Claim Name</u>	<u>Record No.</u>	<u>Record Date</u>
TEE Fraction	3517	Sept 13
COT Fraction	3515	"
COT Claim (1 Unit)	3513	"
MAS Fraction	3516	"
ROADSIDE Fraction	3514	"

### HISTORY

The claim group lies within the Nelson Mining Camp, which has produced significant silver and some gold from a number of mines which date from the turn of the century. Though no record of work was found, a number of the hand trenches and adits were noted on the STAR OF THE WEST, C.G. (L.1311)

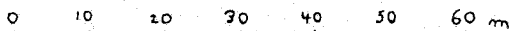
### REGIONAL GEOLOGY

A fair representation of the regional geology is given by G.S.C. Map 1517A Bonnington Map Area by H.W. Little, 1982. It shows the area to be made up of northwest trending Triassic-



LEGEND

- pit, trench
- limonitic zone, with ga-sp veins
- strike & dip of bedding
- NB-001 grab, chip sample
- road



<b>LACANA</b>		LACANA MINING CORPORATION	
<p>NEW BICYCLE ZONE          GEOLOGY &amp; SAMPLE LOCATIONS          STAR OF THE WEST C.G. (L1311)</p>			
PREPARED BY	SCALE	DATE	DRAWN BY
BJ	1:1000	Nov, 1985	82 F/6
			3

Jurassic intermediate volcanics and lesser sediments intruded by the Nelson Batholith, a diorite-granodiorite body of a late Jurassic age.

Locally intense N.W. trending shearing and a pervasive chloritization resulting from a regional greenschist facies metamorphism have turned many of the volcanics in the area to chlorite schists.

#### 1985 WORK

This consisted of two days spent on the STAR OF THE WEST C.G. (L.1311) on an area around the old workings referred to as the "NEW BICYCLE" zone. A number of the old workings were mucked out and sampled and an area 150 x 40 m was mapped at 1:1000 scale.

The "NEW BICYCLE" zone consists of slightly crosscutting galena-sphalerite veins which are set in dark green sheared chloritized andesitic tuffs. The tuffs strike 140° and dip 50-60° to the northwest.

The individual veins are up to 1 cm in width and locally contain massive fine grained quartz or massive fine grained pyrite and are accompanied by limonitic alteration. The veins appear to be stratabound locally, but exceptionally high mercury values indicate an epithermal vein environment.

A total of 14 rock samples; chips and grab samples from the old trenches and adits were taken. The analyses showed that the veins carry insignificant gold and low amounts of silver.



REFERENCES

Little, H.W.

1960: Nelson Map Area, West Half, British Columbia  
Geological Survey of Canada, Memoir 308

Little, H.W.

1982: Geology, Bonnington Map Area, British Columbia  
Geological Survey of Canada, Map 1571A

APPENDIX I

BREAKDOWN OF COSTS

R. J. Johnston - Sept. 18, 19 @ \$125/day	\$ 270.00
L. Meredith - " " " @ \$100/day	200.00
Truck - Sept 18, 19 @ \$40/day	80.00
Assaying - 14 rock samples (Au, Hg, ICP + Preparation @ \$15.75	220.00
Shipping	<u>15.00</u>
Total Costs	<u>\$ 785.00</u>

## APPENDIX II

### METHODS OF GEOCHEMICAL ANALYSIS

The samples were boxed in the field and shipped via bus to Acme Analytical Laboratories Ltd. of Vancouver, B.C. The rocks were pulverized to -100 mesh. From this, a 0.500 gram sample is digested with 3ml of 3-1-2 HCl-HNO<sub>3</sub>-H<sub>2</sub>O at 95°C for one hour and is diluted to 10 ml with demineralized water. From this Ag is determined by Atomic Absorption and multi-element analysis is done by Inductively Coupled Argon Plasma.

Elements obtained in the ICP analyses are: Mo, Cu, Pb, Zn, Ag, Ni, Co, Mn, Fe, As, U, Th, Sr, Cd, Au, Sb, Bi, V, Ca, P, Ca, Cr, Mg, Ba, Ti, B, Al, Na, K, and W.

For gold analysis, a 10.0 gram sample is ignited overnight at 600°C and is then digested in with 30 mls of hot dilute aqua regia, and 75 ml of clear solution obtained is extracted with 5 ml of Methyl Isobutyl Ketone (MIBK). Gold is determined in MIBK extract by Atomic Absorption (AA).

Mercury is determined in the following method: 0.5 g sample is digested in aqua regia and diluted with 20% HCl. Hg in this solution is determined by cold vapour AA using a F.T Scientific Hg assembly. An aliquot of the extract is added to a stannous chloride/HCl solution. The reduced Hg is swept out of the solution and passed into the Hg cell where it is measured by AA.

## GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN, FE, CA, P, CR, MG, BA, TI, B, AL, NA, K, W, SI, ZK, CE, SM, Y, NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: ROCK CHIPS PULV ANALYSIS BY AA FROM 10 GRAM SAMPLE. Hg ANALYSIS BY FLAMELESS AA.

DATE RECEIVED: SEPT 23 1985 DATE REPORT MAILED:

 ASSAYER... *Sept 30/85* *AV. Toys* DEAN TOYE OR TOM SAUNDRY, CERTIFIED B.C. ASSAYER

LACANA MINING PROJECT -- 6101 FILE # 85-2483

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SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	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 %	N PPM	Au+ PPB	Hg PPB
NB-001	4	197	1693	1852	16.4	11	30	7252	6.58	28	5	ND	2	139	10	2	2	149	4.74	.17	5	10	2.30	161	.29	2	2.92	.06	1.67	1	65	1200
NB-002	9	152	2469	6795	25.5	19	32	3332	8.07	41	5	ND	2	41	29	3	2	144	1.83	.17	8	30	1.90	31	.17	2	1.98	.06	.95	1	55	2200
NB-003	3	198	84	856	2.2	14	32	4213	7.15	27	5	ND	3	158	4	2	2	147	4.78	.19	9	19	2.57	99	.15	2	2.78	.03	1.13	1	14	150
NB-004	4	205	365	1531	7.0	12	34	5963	7.38	211	5	ND	3	92	7	2	2	115	3.95	.18	7	10	2.25	86	.14	3	2.71	.03	.86	1	45	320
NB-005	32	225	26786	36269	96.8	6	26	32816	6.85	130	5	ND	6	158	295	63	20	50	7.23	.07	5	10	1.71	52	.10	2	1.18	.01	.35	1	125	700
NB-006	5	185	872	1783	11.6	23	36	6714	8.89	42	5	ND	2	38	14	2	15	96	1.20	.16	6	47	2.39	55	.11	4	2.53	.01	.42	1	55	100
NB-007	16	219	1857	11815	9.0	3	11	82173	3.22	16	5	ND	1	240	78	2	2	13	9.34	.03	4	2	.73	13	.03	2	.38	.01	.07	1	48	320
NB-008	39	119	7239	44816	38.2	1	8	69321	3.12	37	5	ND	1	198	231	11	2	10	9.25	.02	2	1	.64	28	.01	2	.22	.01	.04	1	130	12600
NB-009	22	207	9100	23394	43.4	4	15	28803	4.32	68	5	ND	4	359	136	28	5	38	11.10	.05	4	2	.78	63	.07	2	.76	.01	.38	1	225	16400
NB-010	5	129	176	884	1.1	17	29	1618	7.98	34	5	ND	1	26	3	2	2	142	.55	.18	4	14	2.55	27	.14	2	2.23	.04	.50	1	32	140
NB-011	2	67	139	348	1.8	12	15	732	6.53	16	5	ND	1	57	2	3	2	94	.53	.13	3	41	.96	25	.05	2	.89	.06	.50	1	38	80
NB-012	2	72	29	118	.8	22	23	596	7.07	10	5	ND	1	27	1	2	2	129	.28	.15	2	61	2.07	18	.10	3	1.69	.04	.61	1	28	10
NB-013	6	103	3157	3287	37.6	9	21	4057	6.60	82	5	ND	1	93	26	25	2	105	1.97	.15	2	14	1.28	77	.20	3	2.29	.11	1.02	1	145	60
NB-014	5	61	1430	837	24.2	8	15	3398	4.89	50	5	ND	2	34	2	3	2	54	.46	.14	4	8	1.17	49	.11	3	1.67	.02	.34	1	150	5400

APPENDIX IV

STATEMENT OF QUALIFICATIONS

I, ROBERT J. JOHNSTON of the City of Vancouver, B. C. do hereby certify that:

1. I am a graduate of the University of Saskatchewan with a B.Sc in Geological Sciences, 1982.
2. I am presently employed as a geologist with Lacana Mining Corporation of 312 - 409 Granville St., Vancouver, B.C.
3. I have practiced my profession with various mining companies in B.C., Yukon, Northwest Territories and Ontario during field seasons since 1976.
4. I personally oversaw the project on which this report is based.

DATED at Vancouver, B.C. this 27 day of November 1985

