ARIS SUMMARY SHEET

District Geologist, Kamloops — Off Confidential: 94.12.14

ASSESSMENT REPORT 23223 — MINING DIVISION: Osoyoos

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PROPERTY:       Puma
LOCATION:       LAT    49 21 00      LONG    119 50 00
                UTM    11  5470007  294224
                NTS    082E05W

CAMP:           011    Hedley Camp

CLAIM(S):       Puma 3
OPERATOR(S):    Grand National Res. Topper Gold
AUTHOR(S):      Borovic, I.
REPORT YEAR:    1993, 28 Pages
COMMODITIES
SEARCHED FOR:   Copper,Silver,Gold,Lead,Zinc
KEYWORDS:       Triassic,Old Tom Formation,Limestones,Andesites,Tuffs
WORK
DONE:       Geophysical,Geochemical
            EMGR      12.3 km;VLF
                Map(s) - 1; Scale(s) - 1:5000
            SOIL   260 sample(s) ;ME
                Map(s) - 4; Scale(s) - 1:5000
RELATED
REPORTS:        18237,19643,20747,22107
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R E P O R T O N T H E G E O C H E M I C A L

and

G E O P H Y S I C A L S U R V E Y

of

T H E L A R E D O P R O J E C T

Puma Claims

Lat. 49 21'N; Long. 119 50'W

N.T.S. 82 E/5W

OSOYOOS M. D.

British Columbia

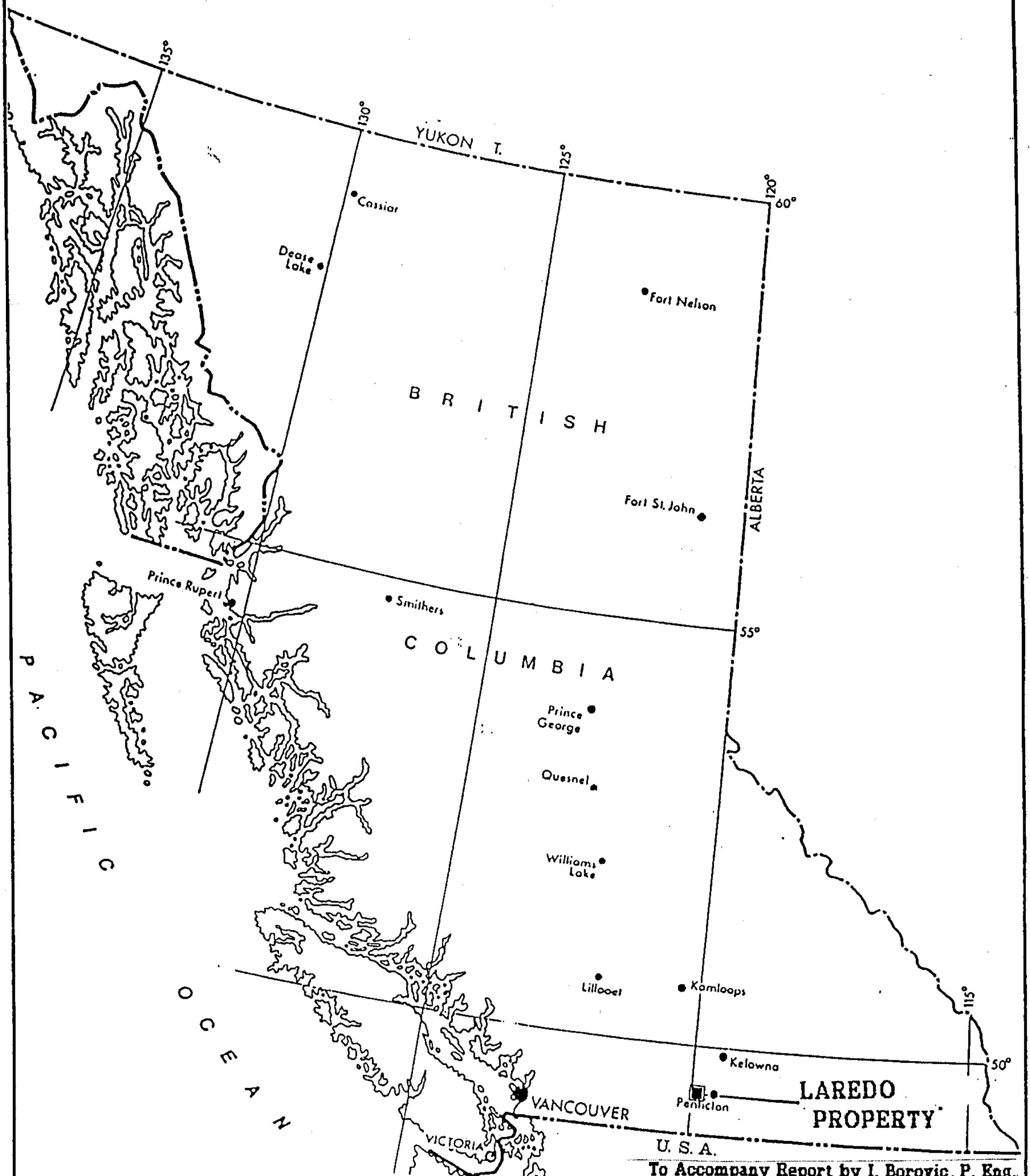
Owner-Operator:

GRAND NATIONAL RESOURCES Inc

by

I. BOROVIC, P. Eng.
geologist

VANCOUVER, B. C.
Jan 04, 1994



To Accompany Report by I. Borovic, P. Eng.

IGNA engineering & consulting ltd.	GRAND NATIONAL RESOURCES Inc. LAREDO PROPERTY Location Map	Scale: 0 — 100 km NTS 82 E / 5W Date: Dec 30 1993 Figure: 1

TABLE OF CONTENTS

List of illustrations following page

INTRODUCTION

Geochemical soil and geophysical VLF-EM surveys of the PUMA 3 claim has been done from Dec 3 to Dec 14 1993. Three men field crew comprising field supervisor, VLF operator and a soil sampler-field assistant was employed in the field. The results of the surveys were examined by the writer and findings are described in this Report.

PROPERTY

Location: Lat. 49o21' Long. 119o50' (N.T.S. 82E/5)
(Fig.s 1&2)

Puma Group of claims is located north of Keremeos Creek and on the road to Apex Ski Area, from about 12 to 19 km north of Keremeos.

Claims		No. of Units	Tenure No.	Expiry Date
PUMA	#1	14	246482	Nov 25/2001
PUMA	#2	18	246483	Nov 25/2001
PUMA	#3	18	246484	Dec 15/95
PUMA	#4	12	246490	Feb 10/96
PUMA	#5	12	246526	Oct 5/95
PUMA	$6	15	247149	Mar 2/96

Access

Via Hwy 3A about 6 km to the north from Olalla, a Green Mtn. road turns west through the Indian Reserve and crosses the Kero-Laredo-Puma property 3 km from the intersection. The road crosscuts the Puma group in the north south direction.

OWNER-OPERATOR

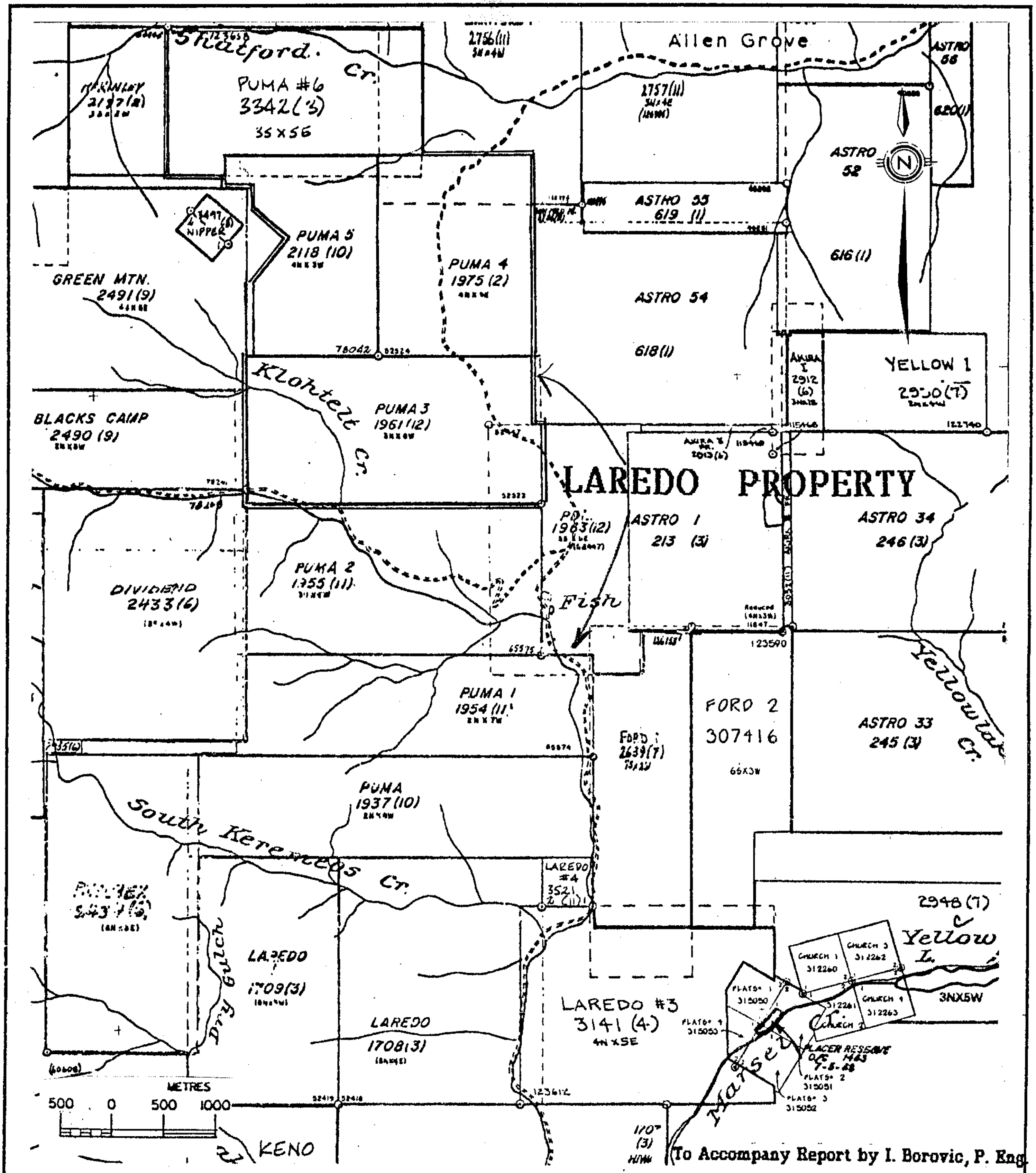
GRAND NATIONAL RESOURCES Inc. of #905-626 Pender St., Vancouver, B.C. V6B 1V9

Facilities and Services

The nearby settlement of Keremeos and Okanagan Falls have excellent room and board facilities for accommodating the exploration crew. Major socioeconomic centres with schools, hospitals and heavy-duty equipment are in Penticton about 25 km to the east; Princeton--some 80 km to the west, and Osoyoos, about 80 km to the southeast on Hwy 3.

Property Resources

There is ample timber available on the property, water for drilling is available from the Keremeos Creek.



IGNA
engineering & consulting ltd.

GRAND NATIONAL RESOURCES Inc.
LAREDO PROPERTY
Claim Map

Scale: 0 m

N.T.S. 82 E / 5W

Date: Dec 30 1993

Figure: 2

GEOLOGY, STRUCTURE AND MINERALIZATION

General Geology
(Fig. 3)

The property is underlain by cherts, tuffs, and greenstones of the Shoemaker and Old Tom formations of the Triassic or earlier age. Jurassic limestones also outcrop on the property. All these rocks were intruded by the Cretaceous granites and granodiorites of the Nelson Plutonic complex.
Bedding strikes NE-SW with moderate to steep dips to SE, Paleocene sediments and Eocene volcanics are unconformably capping the older units.
Mineralized rocks carry copper, gold, silver, lead and zinc mineralization.

HISTORY OF EXPLORATION AND WORK DONE

The mineral exploration of the area of Kero property was described and results of the past exploration recorded in the Annual Reports of the Ministry of Mines (B.C.) for 1899-1904, 1906, 1908 and 1928. Most of the existing underground workings and surface development was done before 1908. Complex mineralization composed mainly of pyrite and chalcopyrite, gold, silver, lead and zinc occurs in scarns and what appears epithermal quartz veins.

1964

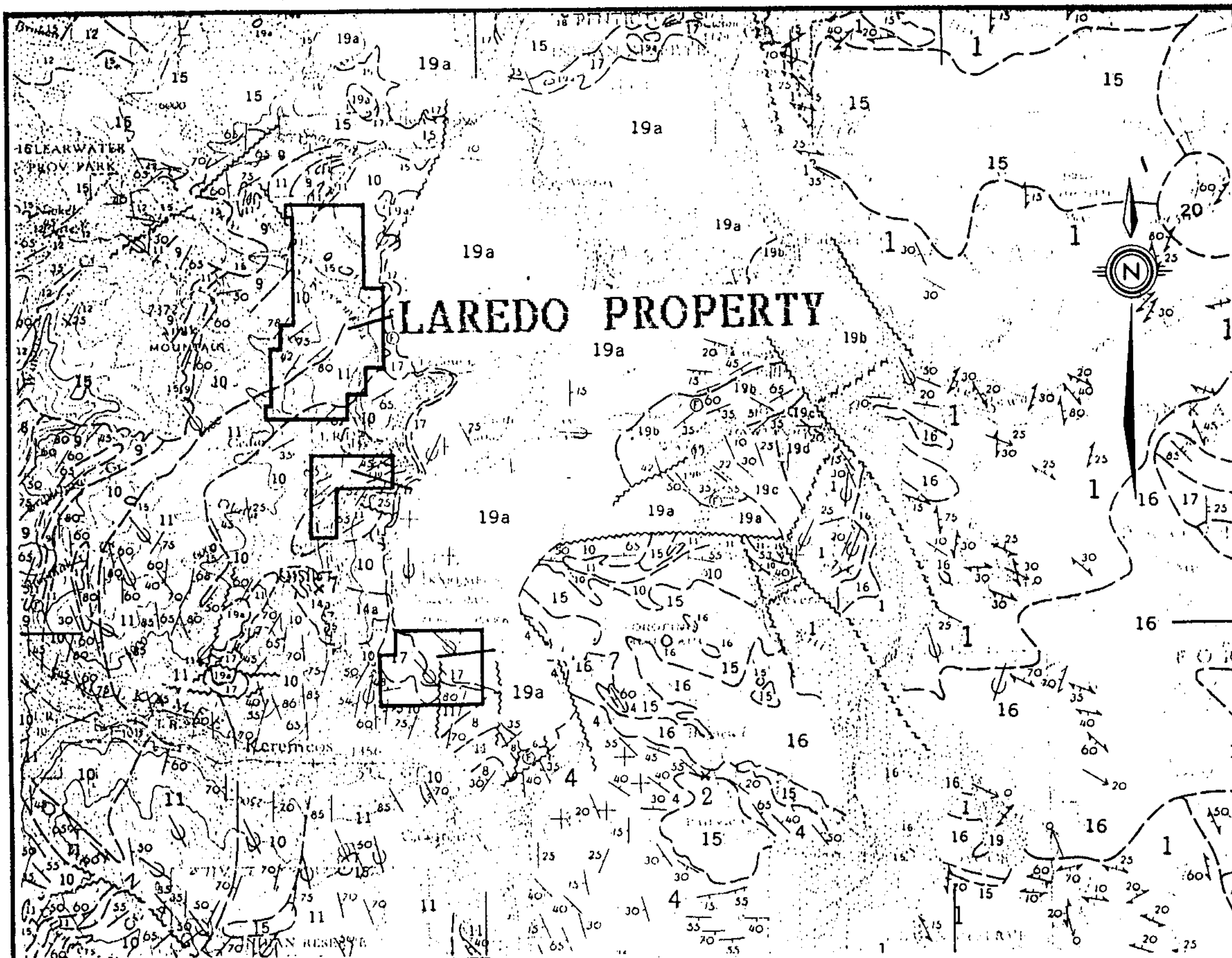
The Kero claims were staked in 1964 by M. Schram of Olalla some trenching on the vein structure was done.

1983

Grand National Resources Inc. became the owner of the Kero-Laredo-Puma claims.

1984

Work done in May and June 1984 (Kregosky, R., July 10, 1984) on the portion of Puma 3 and 4 claims consisted of geophysical VLF-EM and geochem soil survey and geological regional mapping.
VLF-EM survey mapped strong NE-SW trending conductors coincident with lower positioned (slope effect) geochem, soil anomaly.
Both anomalies are about 500 to 600 m , strong linear features open on both ends and very strong in the northern exploration area showing possibility of a close proximity of the mineralization to the surface.



LEGEND

CENOZOIC

PALEOCENE OR EOCENE

18	Porphyritic granite and rhyolite
17	Conglomerate, sandstone, shale, tuff

MESOZOIC

CRETACEOUS (?)

16	VALHALLA PLUTONIC ROCKS: granite, granodiorite
15	NELSON PLUTONIC ROCKS: granodiorite, quartz diorite, diorite; granite, quartz monzonite, syenite, monzonite

JURASSIC (?)

14	14a, pyroxenite; 14b, hornblendite; 14c, serpentinite

TRIASSIC OR JURASSIC

13	Limestone

TRIASSIC
UPPER TRIASSIC
NICOLA GROUP

12	Greenstone, tuff, quartzite, limestone, argillite, and schist

TRIASSIC OR EARLIER

8–11	8. BARSLOW FORMATION: argillite 9. INDEPENDENCE FORMATION: chert, greenstone 10. SHOEMAKER FORMATION: chert, some tuff and greenstone 11. OLD TOM FORMATION: greenstone, minor diorite

PALAEOZOIC

PERMIAN AND/OR TRIASSIC
ANARCHIST GROUP

7	Greenstone, quartzite, greywacke, limestone; locally paragneiss

PERMIAN AND (?) PENNSYLVANIAN

5,6	5. CACHE CREEK GROUP: greenstone, quartzite, argillite, limestone 6. BLIND CREEK FORMATION: limestone; limy argillite

CARBONIFEROUS (?)
KOBAU GROUP

4	Quartzite, schist, greenstone

PRECAMBRIAN OR LATER

PRE-PERMIAN

3	OLD DAVE INTRUSIONS: serpentinized ultrabasic rocks

CHAPPERON GROUP

2	Chlorite schist, quartzite

MONASHEE GROUP

1	Layered gneiss (paragneiss); minor schist, amphibolite, quartzite, marble, and pegmatite

Drift-covered area
Geological boundary (defined, approximate)
Bedding (horizontal, inclined)
Bedding, tops unknown (inclined, vertical)
Gneissosity (inclined, vertical)
Schistosity (inclined, vertical)
Fault (defined, approximate, assumed)
Lineation
Glacial striae
Fossil locality
Mineral property

Geology by H.W. Little, 1958 and 1959

IGNA
engineering & consulting ltd.

GRAND NATIONAL RESOURCES Inc.
LAREDO PROPERTY
Regional Geology

Scale: 1 0 1 2 Miles
NTS 82 E .5W
Date **Dec 30 1993**
Fig. 3

To Accompany Report by I. Borovic, P. Eng.

1985

Geological and Geochemical Investigations

The exploration on the Puma claims extended the existing geophysical and geochemical anomalies as outlined during the 1984 surveys.Additional information to aid in the interpretation of those anomalies was also obtained.
A comparison of the geochemical and the geological map indicates the close interrelationship between the diorite intrusion and gold trace elements in the soils. The gold geochemical values effectively trace out the observed outcropping of the diorite. This is, in part, substantiated by the lithogeochemical samples which indicate anomalous values are usually associated with the diorite. One anomalous sample was obtained from the quartzites which were in contact with the diorite. Another sample was obtained from the amygdaloidal basalts.
Soil survey delineated bifurcating geochemical anomaly with an apparent, discontinuous length of 1050 meters with a maximum width of 250 meters.

VLF-EM Survey

The VLF-EM survey has indicated a continuation to the anomaly outlined during the 1984 survey. This northerly trending westerly dipping anomaly has decreased considerably in magnitude except at L9+00N 1+25W which exhibits the strongest inflections. The prescence of a stuctural off-set of fault located at L5+00N 1+75W is supported by the VLF-EM data as well as the geological data which indicate a change in the bedding attitudes across this zone.
This extended VLF-EM anomaly has a length of 1400 meters. In addition, another secondary sub-parallel conductor has been located which extends from L7+00N 0+25E to L10+00N 1+25E for a length of 350 meters. These anomalies are open to the north with the main Puma anomaly also being open in a southerly direction.

Geochemical Soil Survey

A number of correlative anomalous zones were mapped by 1989 soil survey.

A large zone of anomalous coincidental copper, gold, arsenic, silver, zinc and lead values in the north and south grids was located and should be further explored by additional soil sampling to the north and east.
The reason for high spotty coincidental anomalies should be also found. In writer's opinion they are reflection of mineralized showings in the area.
The anomalies should be further investigated for possible disseminated sulfides by IP methods. Very high spotty anomalies should be examined for mineral showings.

1989

VLF-EM Survey

The survey succesfully mapped possible expressions of the vein type mineralization and trenching is recommended for further examination of these areas.
The continuation of the geochemical survey supplemented by appropriate geophysical and physical methods of mineral exploration was strongly recommended.

1990

Geochemical Soil Survey

The soil survey was done in the northern and southern parts of the Puma 5 and 6 claims.

Two grids, composed of a total of 13.0 km/lines are extended from the old grid in the westerly direction for 500 to 1000 m. Lines are spaced at 100 m intervals and stations were marked at 25 m on the line.

Results

A number of significant copper, silver and zinc anomalies was mapped. Zinc anomalies located in the southern part show northerly trend.

VLF-EM Survey

The survey indicated three weak northeast trending crossovers. The anomalies are of the similar strength and probably reflection of either : mineralized veins or water filled open fractures and should be examined for possible mineralization.

1991

An exploration grid of just over 10.0 km/lines was established in continuo to the south end of the Puma Grid. Geochemical soil and geophysical VLF-EM surveys were done.

Results:

Geochemical soil survey

Significant copper, zinc (with some gold) anomalies were mapped. A northwest trending anomalous copper-zinc values should be further explored by additional soil sampling to the south.

VLF-EM Survey

The survey mapped two conductors. They could not be correlated with soil anomalies. The conductors should be trenched for possible mineralization.

W O R K D O N E 1993

Survey control

An exploration grid of over 12 km (12 275 m/lines) was flagged in continuo of the 1990/91 Puma grid. It is located over the southeastern part of the Puma 3 claim (as shown on all survey maps).

Geochemical soil survey
(Fig.s 4 to 8)

Sampling method

Samples were taken from the "B" horizon which is about 10 to 18 cm below surface. The soil material was collected with a spoon; cleaned of larger size particles and put in the standard soil sample envelope which was marked with coordinate location. Total of 260 samples was collected and assayed.

Analytical methods

Soil samples were dried, pulverized, screened to -80 mesh and subsequent analyses were done by Acme Analytical Laboratories Ltd. of Vancouver,B.C. ICP for 30 element were done on .500 g samples. (for details see Appendix: Geochem Analyses Certificate)

Discussion of Results

The results of the geochemical survey are presented in Figures No.4 to 7 of this report. These are contour maps, scale 1:5 000 showing copper, lead, zinc and silver content in parts per million (ppm).

Copper
(Fig. 4)

Copper dispersion with background of less than 100 ppm is very high for the area. Anomalous values start at 100 ppm and values of 200 ppm and up are considered significantly anomalous.
One significant anomaly is located on L12S St 750E and runs to L9S St 750E. The general trend appears to be north.

Lead
(Fig. 5)

Assayed values of lead are very low. Values above 20 ppm are considered anomalous. One anomalous area is located on L1S to L3S Sts 800E to 1000E.

Zinc
(Fig. 6)

Anomalous values start at 100 ppm and values of 200 ppm and over are considered significantly anomalous.
Significant anomaly is located from L11S St 700E to L3S St 900E and in its southern part is coincidental with copper anomalous area.

Silver
(Fig. 7)

Silver values are generally low in this area of the survey
Anomalous values better than 1.00 ppm are located on lines 2S and 3S Sts 800 to 1000E.

Geophysical VLF-EM survey
(Fig. 8)

The instrument used was a SABRE VLF-EM model 27 receiver. It was tuned to the Seattle, Washington transmitter station which operates at a frequency of 24.8 kHz.

Results

The VLF-EM survey has mapped a number of strong crossovers located on Lines 8S, 9S, 10S, 11S, 12S, 13S, 14S and 15S.
The crossovers are runing north northwest.

CONCLUSIONS AND RECOMMENDATIONS

Soil Survey

The continuation of the geochemical survey supplemented by appropriate geophysical and physical methods of mineral exploration is recommended.

Estimated Budget

An estimated budget of $ 60 000.00 is necessery to carry out small exploration program composed of geophysical IP survey, trenching, sampling and assaying and related geological work.

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STATEMENT OF EXPENSES

The following is a breakdown of expenses incurred in carrying out the exploration work in the area of the PUMA claims during the month of December (Dec 3 to 14) 1993.
Work was done on Puma 3 claim and is applied on Puma 3, 4, 5 and 6 mineral claims with tenure numbers: 246484, 246490, 246526 and 247149.

Personnel:

I. Borovic, P. Eng. consultant and manager
L. M. Schram Field Supervisor
Dennis Wager VLF-EM operator
Gerard Gaalissant Field Assistant

Field and Office Work

Field Supervisor 6 days @ $ 200/day...............	$ 1 200.00
VLF-EM operator 11 days @ $ 150/day..............	$ 1 650.00
Assistant, 11 days @ $ 100/day...................	$ 1 100.00
Truck 4/4 rental and expenes (two 4x4)17 days.....	$ 1 700.00
Room and Board 28 man/days @ $ 70/day.............	$ 1 960.00
VLF rental......................................	$ 825.00
Freight and supplies............................	$ 200.00
Assaying (Acme Analytical Labs Ltd)...............	$ 2 675 00
Cosultant-manager 6 days @ $ 450/day (supervision, report, draughting and repro)......	$ 2 700.00
TOTAL FIELD AND OFFICE WORK	$14 010.00
PAC Withdrawal	990.00
	$15 000.00

C E R T I F I C A T E

I, I. Borovic, of the city of Vancouver, B. C., do hereby certify that:

1. I have supervised the exploration program carried out in the area of PUMA claims Laredo (KERO) project of Grand National Resources Inc. located 23 km northwest of Ollala, B.C.

2 The expenditures claimed for the performance of the work are correct.

Respectfully submitted

I.Borovic P.Eng.

Vancouver, Jan 04, 1994.

APPENDIX

ACME AN[illegible]TICAL LABORATORIES LTD. 852 E. HASTINGS ST. [illegible]COUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX([illegible])253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Grand National Resources Inc. PROJECT PUMA File # 93-3598 Page 1

905 - 626 W. Pender St., Vancouver BC V6B 1V9 Submitted by: L.M. Schram

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 %	W ppm
L1+00S 300E	2	99	7	114	.3	52	22	831	3.90	19	<5	<2	3	37	.6	4	<2	64	.68	.078	14	51	.77	412	.16	5	1.92	.04	.56	1
L1+00S 350E	2	89	8	122	.3	53	18	911	3.61	16	<5	<2	3	43	1.4	5	<2	64	.75	.077	14	53	.76	585	.16	5	1.85	.05	.62	<1
L1+00S 400E	2	106	8	214	.2	52	23	903	4.24	20	<5	<2	2	54	2.7	<2	<2	66	.85	.151	15	55	.83	560	.15	7	1.91	.05	.70	<1
L1+00S 450E	2	96	7	194	.5	56	21	715	3.78	21	<5	<2	4	110	.8	<2	<2	66	2.37	.154	16	61	1.08	480	.16	13	2.23	.12	.88	<1
L1+00S 500E	4	299	20	226	1.4	104	47	2750	7.35	229	<5	<2	4	28	1.0	<2	<2	97	.54	.110	39	72	1.23	849	.14	6	3.01	.03	1.00	<1
L1+00S 550E	3	230	16	177	1.1	77	27	1362	6.05	143	<5	<2	3	28	.3	<2	<2	91	.43	.079	28	69	1.22	799	.15	3	2.76	.02	.87	<1
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L2+00S 700E	1	156	19	291	.7	70	36	4470	4.62	61	<5	<2	<2	107	1.4	2	<2	50	2.85	.242	24	53	1.03	1318	.09	17	1.79	.03	.82	<1
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L2+00S 900E	2	233	12	251	1.3	66	28	1791	6.15	157	<5	<2	4	66	2.5	2	<2	103	.61	.061	26	69	1.47	820	.22	2	3.15	.04	.85	<1
L2+00S 950E	2	206	16	154	.6	58	22	1465	5.70	92	<5	<2	3	61	1.2	<2	<2	100	.62	.057	27	53	1.34	651	.21	3	3.00	.04	1.06	<1
L2+00S 1000E	1	232	24	266	1.5	68	47	2910	6.44	955	<5	<2	2	115	2.7	<2	<2	127	1.09	.064	15	43	1.92	655	.21	2	3.70	.05	.70	<1
L3+00S 800E	1	178	13	333	1.0	80	35	3332	5.13	630	<5	<2	3	113	2.4	<2	<2	66	1.99	.240	34	52	1.12	1148	.11	11	2.54	.03	.78	<1
L3+00S 850E	5	365	22	225	2.0	88	50	2663	6.10	177	<5	<2	4	57	1.6	<2	<2	82	1.70	.186	70	57	1.29	577	.11	13	2.84	.02	1.06	<1
L3+00S 900E	7	244	22	221	1.0	85	47	3081	5.92	233	<5	<2	4	44	3.0	<2	<2	112	.64	.100	47	89	1.66	792	.17	<2	3.49	.03	1.13	<1
L3+00S 950E	4	281	54	181	1.3	120	50	2112	6.34	347	<5	<2	4	54	1.5	6	<2	96	.68	.088	56	67	1.29	745	.15	4	3.12	.03	1.09	<1
STANDARD C	17	64	38	122	6.9	69	29	1038	3.91	42	15	7	34	55	17.9	13	21	56	.49	.077	38	57	.89	197	.09	33	1.89	.09	.17	11

ICP - .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 SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL.
- SAMPLE TYPE: SOIL <u>Samples beginning 'RE' are duplicate samples.</u>

DATE RECEIVED: DEC 16 1993 **DATE REPORT MAILED:** Dec 20/93 **SIGNED BY.** D. Toye ..D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

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 %	W ppm
L3+00S 1000E	2	171	20	164	.2	69	26	2409	6.14	146	<5	<2	2	57	.6	4	<2	86	.39	.062	28	53	1.11	846	.15	5	2.48	.02	.96	1
L4+00S 800E	3	157	11	192	.4	115	36	1617	5.90	138	<5	<2	5	65	1.3	4	<2	97	1.06	.120	30	90	1.33	791	.12	6	2.34	.01	.94	<1
L4+00S 850E	3	153	10	192	.4	120	36	1536	6.19	118	<5	<2	5	55	1.4	4	<2	99	.86	.124	30	94	1.48	734	.12	4	2.44	.01	.89	<1
L4+00S 900E	3	252	14	314	.6	80	38	5774	5.34	93	<5	<2	3	78	2.5	<2	<2	74	1.00	.116	37	50	.89	1098	.11	4	2.78	.02	.64	<1
L4+00S 950E	3	133	14	175	.6	69	23	1706	5.74	195	<5	<2	4	53	.9	5	<2	85	.45	.077	27	68	1.41	633	.14	7	2.80	.02	1.25	<1
L4+00S 1000E	3	156	15	223	.3	123	36	1373	6.74	132	<5	<2	3	44	.8	3	<2	107	.71	.107	30	104	1.83	639	.16	<2	2.77	.02	1.00	<1
L5+00S 800E	3	145	17	274	.2	107	37	2401	6.42	85	<5	<2	<2	59	1.2	4	<2	96	.95	.137	28	90	1.49	858	.12	7	2.58	.01	.98	<1
L5+00S 850E	4	154	18	241	.2	113	39	1963	6.15	84	<5	<2	<2	51	1.3	4	<2	99	.99	.112	29	91	1.55	762	.12	6	2.42	.01	.90	<1
L5+00S 900E	3	170	19	233	.5	118	45	2308	6.81	132	<5	<2	<2	62	1.1	4	<2	100	1.20	.164	30	85	1.65	751	.12	6	2.57	.01	1.00	<1
L5+00S 950E	3	155	19	259	.2	116	44	2635	6.62	94	<5	<2	<2	63	1.3	5	<2	102	1.31	.148	29	91	1.67	891	.11	6	2.56	.01	.90	<1
L5+00S 1000E	7	148	12	328	.3	155	43	2037	6.48	67	<5	<2	2	85	1.8	3	<2	137	1.60	.135	29	123	1.84	1111	.11	7	2.63	.01	.99	<1
L6+00S 800E	6	135	14	401	.3	136	34	1655	6.03	61	<5	<2	<2	79	2.1	5	<2	146	1.02	.133	25	127	1.59	1354	.10	4	2.58	.02	.92	<1
L6+00S 850E	6	141	14	422	.3	143	36	1798	5.84	68	<5	<2	2	89	2.2	5	2	136	1.23	.167	24	121	1.60	1256	.09	8	2.42	.01	.98	<1
L6+00S 900E	7	168	32	383	.4	159	37	1642	6.18	78	<5	<2	2	87	1.8	3	<2	148	1.06	.161	25	127	1.62	1246	.09	7	2.64	.02	1.01	<1
L6+00S 950E	7	172	13	374	.3	165	40	1682	6.20	87	<5	<2	<2	86	1.8	4	<2	156	1.22	.146	25	139	1.74	1320	.10	5	2.68	.02	1.01	<1
L6+00S 1000E	7	196	15	372	.9	169	39	1575	6.30	87	<5	<2	3	93	2.2	7	<2	166	1.18	.158	27	148	1.87	1327	.11	5	2.87	.02	1.12	1
L7+00S 800E	5	120	12	385	.5	125	28	1599	5.18	51	<5	<2	2	78	2.4	3	<2	138	1.14	.107	21	126	1.65	1363	.11	6	2.73	.02	.87	<1
L7+00S 850E	6	175	13	394	.5	165	40	1659	6.01	55	<5	<2	2	95	2.3	5	<2	156	1.55	.157	25	135	1.83	1385	.10	5	2.82	.02	1.05	<1
L7+00S 900E	7	187	13	376	.7	160	39	1810	6.22	80	<5	<2	3	93	2.2	5	<2	155	1.21	.162	27	135	1.74	1486	.11	7	2.86	.02	1.10	<1
L7+00S 950E	6	184	11	356	.5	168	38	1730	6.15	81	<5	<2	3	80	2.2	3	<2	181	1.12	.132	24	164	2.18	1663	.14	3	3.32	.02	1.40	<1
L7+00S 1000E	10	203	10	325	.6	174	39	1665	6.47	92	<5	<2	2	77	1.9	3	<2	171	1.20	.165	31	141	1.88	1279	.10	6	2.88	.01	1.30	<1
L8+00S 350W	1	158	4	151	.1	53	21	807	4.41	13	<5	<2	<2	39	.8	2	<2	82	.54	.049	9	61	1.15	563	.19	5	2.69	.02	.96	<1
L8+00S 300W	1	29	7	107	.1	36	12	608	2.75	5	<5	<2	3	32	.7	2	<2	50	.47	.068	8	39	.41	595	.14	5	1.62	.03	.51	<1
L8+00S 250W	1	38	10	78	.1	37	12	702	2.76	10	<5	<2	<2	47	.8	2	<2	55	.84	.048	8	41	.48	690	.13	4	1.53	.02	.52	<1
RE L8+00S 250W	1	37	7	74	.1	37	12	676	2.63	7	<5	<2	<2	45	.8	2	<2	53	.82	.046	8	39	.42	673	.13	5	1.47	.02	.51	<1
L8+00S 200W	2	68	2	106	.1	51	18	509	3.46	13	<5	<2	2	31	.7	<2	<2	54	.44	.075	8	31	.37	246	.15	5	2.59	.03	.27	<1
L8+00S 150W	3	85	6	98	<.1	54	22	991	4.53	8	<5	<2	<2	51	.8	2	<2	62	.48	.043	11	31	.35	745	.11	3	2.66	.02	.17	<1
L8+00S 100W	1	60	4	77	.1	38	13	298	3.51	32	<5	<2	<2	38	.4	2	<2	58	.38	.025	6	27	.40	195	.11	3	2.31	.02	.24	<1
L8+00S 50W	1	54	8	104	.1	46	19	681	3.53	17	<5	<2	<2	56	.8	4	<2	55	.60	.047	6	30	.40	248	.13	3	2.67	.02	.26	<1
L8+00S 00	5	99	5	95	.1	141	55	933	5.38	14	<5	<2	2	41	.6	<2	<2	75	.48	.062	5	64	1.20	237	.26	2	3.57	.03	.28	1
L8+00S 50E	1	85	9	203	<.1	47	30	3499	4.47	37	<5	<2	<2	68	2.6	<2	2	54	1.10	.060	6	30	.41	423	.12	3	2.31	.02	.17	<1
L8+00S 100E	1	77	12	144	.2	40	18	1844	3.82	22	<5	<2	<2	70	.9	<2	<2	52	.81	.072	7	32	.42	832	.13	5	2.55	.03	.24	1
L8+00S 150E	1	45	5	134	.1	53	20	795	3.60	9	<5	<2	<2	42	.6	2	<2	62	.50	.032	7	70	.86	368	.18	4	2.71	.04	.62	<1
L8+00S 200E	2	57	10	111	<.1	44	17	2454	3.60	20	<5	<2	<2	43	.8	2	<2	62	.44	.056	10	42	.73	645	.13	4	2.63	.02	.43	<1
L8+00S 250E	1	41	7	85	.1	42	14	1290	2.80	17	<5	<2	<2	50	.5	3	<2	46	.70	.053	8	33	.37	536	.11	4	1.81	.02	.37	<1
STANDARD C	18	59	38	124	6.8	65	32	1067	3.96	41	15	8	37	57	16.5	14	20	56	.51	.078	40	57	.87	198	.08	34	1.89	.06	.14	11

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

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 %	W ppm
L8+00S 300E	1	72	10	80	<.1	46	17	1285	4.38	26	<5	<2	3	51	.4	3	4	71	.47	.071	12	51	.95	987	.18	2	2.59	.02	.87	2
L8+00S 350E	1	72	7	71	<.1	24	13	1237	4.59	88	<5	<2	2	82	.3	3	5	72	.70	.060	9	35	.91	779	.17	<2	2.43	.03	.83	2
L8+00S 400E	2	90	9	104	<.1	51	28	1595	4.47	22	<5	<2	3	60	.3	2	2	63	.51	.068	14	46	.84	635	.16	2	2.56	.02	.71	1
RE L8+00S 400E	2	91	7	104	<.1	54	28	1610	4.54	26	<5	<2	3	60	.8	3	2	64	.51	.068	14	46	.85	651	.16	5	2.58	.02	.71	1
L8+00S 450E	2	102	8	116	.2	46	24	1625	5.04	37	<5	<2	3	60	.7	3	<2	68	.59	.109	15	47	.83	778	.15	7	2.54	.02	.80	2
L8+00S 500E	2	103	10	94	.1	35	14	1302	5.13	22	<5	<2	2	64	.6	2	2	78	.52	.074	13	48	1.04	565	.17	2	2.71	.03	.96	1
L8+00S 550E	2	114	2	136	<.1	35	22	1962	5.88	58	<5	<2	2	76	1.3	<2	4	99	.56	.053	13	34	1.10	399	.16	<2	2.92	.02	.87	1
L8+00S 600E	3	77	11	114	<.1	29	15	1283	4.31	40	<5	<2	3	62	.7	2	4	60	.35	.049	14	34	.68	426	.13	<2	2.15	.02	.51	1
L8+00S 650E	3	74	6	74	.1	23	11	1027	4.26	22	<5	<2	2	49	.3	2	3	60	.33	.031	10	31	.72	261	.13	4	1.87	.03	.58	1
L8+00S 700E	3	92	9	90	.2	34	12	1264	3.98	16	<5	<2	3	51	.8	2	2	60	.44	.057	20	45	.93	321	.10	3	2.01	.01	.79	1
L8+00S 750E	2	170	6	370	.3	94	32	3725	4.61	25	<5	<2	2	97	3.9	2	<2	47	1.42	.447	16	36	.72	845	.10	7	2.32	.02	.42	1
L8+00S 800E	4	93	11	324	.3	101	22	1400	4.82	44	<5	<2	2	69	2.1	4	<2	120	.97	.114	17	102	1.30	1171	.10	5	2.29	.01	.80	<1
L8+00S 850E	5	121	8	314	.3	118	27	1499	5.40	65	<5	<2	3	71	1.9	4	<2	124	1.07	.123	22	107	1.41	1194	.11	7	2.52	.01	.95	<1
L8+00S 900E	4	144	14	363	.4	132	28	1631	5.34	66	<5	<2	2	84	2.7	5	<2	134	1.10	.130	20	106	1.29	1264	.09	7	2.55	.01	.83	<1
L8+00S 950E	5	163	12	356	.5	137	28	1634	5.45	65	<5	<2	2	85	2.5	6	3	132	1.14	.135	21	106	1.32	1280	.10	3	2.52	.01	.92	<1
L8+00S 1000E	6	192	14	341	.6	155	31	1533	5.79	81	<5	<2	2	85	2.3	5	<2	149	1.05	.147	22	120	1.44	1300	.10	6	2.57	.01	1.01	<1
L9+00S 350W	1	77	7	124	.1	45	15	785	3.91	15	<5	<2	2	50	.3	4	<2	72	.58	.072	13	50	.72	541	.15	3	2.09	.02	.61	2
L9+00S 300W	1	55	13	98	.1	39	13	736	3.15	17	<5	<2	2	32	.3	2	5	56	.40	.055	11	39	.60	549	.15	4	1.85	.02	.50	1
L9+00S 250W	1	66	7	134	.1	40	15	989	3.67	13	<5	<2	2	36	1.3	3	2	58	.42	.050	12	39	.67	498	.15	5	2.42	.02	.50	1
L9+00S 200W	2	65	6	152	<.1	46	14	534	3.92	163	<5	<2	2	31	.5	2	3	58	.45	.062	9	27	.49	214	.12	<2	2.19	.02	.20	1
L9+00S 150W	5	99	8	77	.2	40	14	522	4.94	15	<5	<2	2	48	.8	2	<2	61	.29	.048	10	30	.42	668	.10	3	2.16	.01	.11	1
L9+00S 100W	1	33	8	104	<.1	53	14	352	2.82	17	<5	<2	2	27	.4	3	<2	47	.38	.035	6	25	.44	246	.13	2	1.85	.02	.19	1
L9+00S 50W	1	39	13	90	<.1	32	12	345	2.88	45	<5	<2	<2	34	.3	2	3	44	.36	.039	5	19	.41	181	.13	3	2.29	.03	.16	1
L9+00S 00	2	84	5	128	.1	74	35	1472	4.27	15	<5	<2	<2	67	.3	2	<2	54	.84	.116	9	41	.67	331	.17	2	2.37	.03	.19	2
L9+00S 50E	2	52	13	75	<.1	45	14	499	3.46	18	<5	<2	3	25	.2	4	<2	66	.19	.024	9	42	.65	322	.19	2	2.54	.02	.18	1
L9+00S 100E	1	59	8	111	<.1	63	23	885	3.56	12	<5	<2	<2	45	.2	3	6	46	.45	.057	4	22	.44	277	.14	5	1.97	.03	.17	1
L9+00S 150E	1	37	9	193	<.1	56	22	2540	2.82	20	<5	<2	<2	56	2.1	<2	2	40	.75	.059	6	44	.61	574	.12	2	2.53	.06	.28	1
L9+00S 200E	1	43	6	106	.1	34	10	862	3.38	13	<5	<2	2	41	.5	2	<2	53	.40	.034	9	39	.62	484	.15	4	2.48	.03	.44	<1
L9+00S 250E	2	98	10	179	.1	52	26	2715	4.64	26	<5	<2	<2	71	.8	<2	4	63	.82	.103	14	41	.89	902	.15	3	2.61	.02	.69	<1
L9+00S 300E	3	143	11	109	.2	73	36	2962	6.59	24	<5	<2	2	47	.6	<2	3	86	.69	.100	18	55	1.06	2207	.20	3	2.84	.02	.53	<1
L9+00S 350E	2	108	9	200	.1	80	31	1959	5.46	33	<5	<2	3	86	1.8	<2	5	77	.56	.063	20	63	1.08	718	.21	<2	3.08	.02	.85	2
L9+00S 400E	3	118	4	124	.1	92	31	2141	5.29	35	<5	<2	3	70	.5	<2	2	68	.73	.081	22	77	1.24	724	.17	<2	2.99	.01	1.03	<1
L9+00S 450E	3	109	5	146	.1	70	27	2505	4.43	31	<5	<2	3	87	.8	2	4	63	.68	.069	23	49	1.02	703	.14	5	2.92	.02	.90	<1
L9+00S 500E	3	105	6	145	.1	32	11	1576	4.67	48	<5	<2	3	66	1.2	<2	3	65	.52	.064	17	32	.87	392	.13	<2	2.53	.02	.82	1
L9+00S 550E	2	78	9	178	.2	52	24	2891	4.55	78	<5	<2	3	77	1.8	<2	2	66	.86	.078	14	47	1.10	543	.14	5	2.87	.02	1.02	<1
STANDARD C	17	62	43	128	6.7	65	30	1074	3.94	41	19	7	37	54	18.0	14	23	54	.50	.077	38	50	.90	194	.09	33	1.88	.06	.14	11

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

Grand National Resources Inc. PROJECT PUMA FILE # 93-3598

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 %	W ppm
L9+00S 600E	5	107	3	117	.3	41	17	1359	5.61	141	<5	<2	4	81	.6	2	<2	74	.43	.044	17	44	1.00	403	.15	3	3.36	.04	.66	<1
L9+00S 650E	2	85	7	278	.1	54	10	1375	4.71	18	<5	<2	3	41	2.7	<2	<2	60	.51	.061	19	41	.70	435	.12	8	2.97	.03	.80	<1
L9+00S 700E	6	432	<2	487	.3	171	77	7492	7.20	25	<5	<2	2	112	2.7	<2	<2	57	1.50	.364	34	49	.81	1276	.10	3	2.60	.04	.48	<1
L9+00S 750E	2	217	13	507	.4	92	42	4295	4.89	29	<5	<2	2	112	2.9	<2	<2	44	1.47	.259	16	40	.71	648	.10	7	2.15	.04	.46	<1
L9+00S 800E	2	63	<2	222	.2	52	21	2728	3.70	8	<5	<2	<2	73	.7	3	<2	43	.59	.102	9	43	.74	525	.11	4	1.96	.04	.45	<1
L9+00S 850E	3	69	5	174	.1	37	9	1998	4.15	10	<5	<2	2	83	1.2	<2	<2	47	.50	.073	9	41	.85	402	.11	5	1.91	.05	.71	<1
L9+00S 900E	3	86	<2	173	.1	32	11	2496	4.42	12	<5	<2	2	89	1.3	2	<2	49	.50	.070	11	43	.88	532	.11	4	1.86	.04	.80	<1
L9+00S 950E	6	161	7	388	.7	128	28	1617	5.36	63	<5	<2	2	89	3.1	3	<2	133	1.08	.141	20	121	1.28	1408	.09	7	2.72	.03	.96	<1
L9+00S 1000E	5	171	8	360	.5	115	26	1605	5.29	50	<5	<2	2	87	2.4	<2	<2	130	1.12	.121	20	120	1.31	1308	.10	8	2.70	.03	1.11	<1
L10+00S 350W	3	183	3	119	.2	39	11	715	7.31	6	<5	<2	2	40	.6	<2	<2	120	.55	.068	12	52	.65	772	.17	<2	2.16	.03	.57	<1
L10+00S 300W	1	74	<2	42	<.1	19	7	311	3.06	6	<5	<2	<2	17	<.2	2	<2	66	.31	.024	6	29	.53	221	.10	3	1.55	.02	.33	1
L10+00S 250W	16	166	3	90	.6	30	5	192	11.01	7	<5	<2	3	31	.2	<2	4	128	.11	.127	12	54	.47	465	.12	<2	2.00	.02	.18	<1
L10+00S 200W	1	42	<2	34	.2	33	8	634	2.48	4	<5	<2	2	34	<.2	<2	<2	30	.60	.021	6	20	.32	304	.09	3	1.44	.03	.19	<1
L10+00S 150W	3	86	7	89	.1	47	15	577	4.19	<2	<5	<2	2	66	.4	<2	<2	65	.45	.048	9	39	.71	301	.17	2	2.99	.03	.33	<1
L10+00S 100W	1	33	2	114	.1	48	13	777	2.93	5	<5	<2	<2	40	.3	<2	<2	40	.36	.041	4	20	.34	200	.13	3	2.15	.05	.16	<1
L10+00S 50W	2	46	5	68	.1	30	10	316	3.55	9	<5	<2	2	35	<.2	<2	<2	61	.28	.016	5	38	.62	182	.18	2	2.67	.02	.23	<1
L10+00S 00	4	139	<2	84	.3	45	24	1203	5.48	14	<5	<2	2	46	<.2	3	<2	64	.43	.098	7	42	.60	287	.17	3	2.74	.03	.20	1
RE L10+00S 00	4	145	6	88	.1	46	24	1241	5.59	11	<5	<2	2	46	<.2	<2	<2	64	.44	.101	6	43	.62	298	.18	<2	2.83	.03	.22	1
L10+00S 50E	2	78	<2	210	.2	75	26	2459	3.89	9	<5	<2	2	44	.6	<2	<2	51	.48	.104	8	40	.61	648	.16	4	2.55	.04	.30	<1
L10+00S 100E	2	67	3	143	.3	53	20	1600	4.12	14	<5	<2	2	45	.4	<2	<2	65	.57	.062	10	59	.84	598	.20	3	2.79	.03	.66	<1
L10+00S 150E	1	59	6	142	.2	54	18	2147	3.88	9	<5	<2	2	53	.5	<2	<2	58	.50	.075	10	51	.84	713	.17	3	3.00	.04	.58	<1
L10+00S 200E	3	170	11	149	.5	68	30	4071	5.88	19	<5	<2	2	43	.9	<2	<2	64	.61	.146	12	61	.65	1703	.13	3	2.10	.03	.38	1
L10+00S 250E	1	49	5	136	.2	37	11	1856	3.06	7	<5	<2	2	50	.8	<2	<2	45	.68	.063	10	33	.49	646	.13	4	2.04	.03	.44	<1
L10+00S 300E	2	50	7	107	.3	48	12	978	3.11	8	<5	<2	2	33	.4	<2	<2	45	.35	.052	9	32	.49	448	.14	4	2.18	.04	.38	<1
L10+00S 350E	2	71	6	323	.2	61	18	2955	3.39	10	<5	<2	2	80	1.7	<2	<2	36	1.01	.211	11	32	.48	1108	.10	5	1.91	.04	.28	<1
L10+00S 400E	2	109	5	100	.2	52	19	1927	5.15	5	<5	<2	3	57	.5	<2	<2	71	.57	.062	16	87	1.22	716	.19	2	3.05	.03	1.00	<1
L10+00S 450E	4	299	6	233	.9	91	36	7357	4.53	15	<5	<2	<2	135	2.4	<2	<2	44	2.79	.154	18	34	.69	1345	.08	8	1.55	.03	.55	<1
L10+00S 500E	7	142	2	105	.4	60	20	1594	5.06	17	<5	<2	4	93	.6	<2	<2	66	.49	.058	21	66	1.09	589	.15	3	2.67	.03	.77	<1
L10+00S 550E	3	132	3	636	.5	109	23	2402	4.86	7	<5	<2	4	76	5.5	<2	<2	59	.97	.109	25	46	.80	430	.12	10	2.39	.04	.87	<1
L10+00S 600E	6	118	3	110	.4	59	18	2111	5.79	12	<5	<2	4	96	.6	2	<2	72	.62	.047	22	68	1.25	455	.17	4	3.22	.04	1.24	<1
L10+00S 650E	4	130	7	110	.5	57	19	1749	5.66	9	<5	<2	4	90	.5	<2	<2	72	.54	.083	21	68	1.24	512	.16	3	3.21	.04	1.22	<1
L10+00S 700E	3	123	14	311	.3	53	19	3292	4.57	14	<5	<2	3	109	1.9	<2	<2	50	1.09	.172	16	50	.80	718	.11	7	1.97	.03	.78	<1
L10+00S 750E	3	176	4	189	.3	54	22	2180	6.47	15	<5	<2	3	117	.8	<2	<2	56	.87	.138	11	30	.93	325	.11	3	2.32	.07	.71	<1
L10+00S 800E	3	200	7	334	.2	124	67	3789	5.54	11	<5	<2	2	123	2.3	<2	<2	38	1.28	.394	11	33	.71	397	.07	5	2.18	.04	.44	<1
L10+00S 850E	3	130	3	167	.2	39	14	2889	4.45	12	<5	<2	3	108	1.1	<2	<2	43	1.20	.133	10	31	.80	346	.09	5	1.72	.04	.61	<1
STANDARD C	17	61	37	123	6.7	69	28	1039	3.91	39	18	7	37	54	17.2	13	18	54	.49	.076	36	56	.88	193	.09	33	1.89	.09	.16	11

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

ACME ANALYTICAL

Grand National Resources Inc. PROJECT PUMA FILE # 93-3598

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 %	W ppm
L10+00S 900E	4	105	7	108	.4	27	9	1705	4.48	12	<5	<2	3	110	.9	<2	<2	48	.76	.085	10	36	.85	372	.10	7	1.83	.05	.78	<1
L10+00S 950E	4	101	10	117	.5	33	10	1818	4.05	25	<5	<2	3	97	.6	3	<2	49	.78	.068	12	38	.77	464	.10	7	1.83	.03	.81	<1
L10+00S 1000E	5	121	10	219	.7	65	17	1285	4.92	32	<5	<2	3	82	1.6	<2	<2	93	.61	.085	16	79	1.06	979	.10	5	2.16	.03	.91	1
L11+00S 200W	5	36	10	68	.2	22	9	383	3.32	3	<5	<2	2	33	.2	<2	<2	63	.25	.033	5	22	.42	287	.10	4	1.59	.02	.10	<1
L11+00S 150W	10	111	8	82	.2	59	14	393	4.22	5	<5	<2	2	45	.3	<2	<2	61	.34	.053	6	31	.41	536	.09	3	1.61	.02	.10	<1
L11+00S 100W	2	60	8	38	.2	24	9	253	2.64	6	<5	<2	3	33	.2	<2	2	48	.30	.013	8	32	.52	156	.16	3	1.60	.02	.26	1
L11+00S 50W	3	103	11	101	.4	53	21	1137	5.58	<2	<5	<2	2	84	.2	<2	<2	79	.48	.045	8	42	.71	266	.21	4	3.21	.03	.30	1
L11+00S 00	3	162	11	158	.2	56	27	2186	5.30	5	<5	<2	<2	126	1.3	<2	2	45	1.32	.152	9	31	.47	537	.11	5	1.75	.03	.31	5
L11+00S 50E	2	105	11	187	.4	70	16	1470	4.14	5	<5	<2	2	69	.5	<2	<2	45	.62	.137	10	32	.40	776	.12	5	2.09	.04	.25	3
RE L11+00S 50E	2	102	11	185	.2	68	16	1450	4.09	4	<5	<2	2	68	.4	<2	<2	44	.61	.135	9	31	.39	769	.12	5	2.09	.04	.24	3
L11+00S 100E	2	70	12	102	.4	53	16	936	3.75	8	<5	<2	3	43	.2	<2	<2	70	.36	.037	11	51	.72	502	.19	3	2.97	.03	.30	<1
L11+00S 150E	2	53	8	69	.4	34	16	1027	3.48	12	<5	<2	2	48	.2	2	<2	59	.47	.052	10	46	.73	498	.18	4	2.14	.03	.71	1
L11+00S 200E	3	158	9	101	.3	44	23	1389	4.37	41	<5	<2	2	26	.2	<2	<2	62	.20	.131	11	48	.62	415	.14	3	2.85	.03	.46	<1
L11+00S 250E	2	73	8	101	.3	37	14	1461	4.05	5	<5	<2	3	68	.7	<2	<2	61	.51	.058	12	51	.71	783	.18	4	2.68	.03	.72	<1
L11+00S 300E	2	72	12	91	.3	38	16	1035	3.77	11	<5	<2	3	52	.3	<2	<2	61	.32	.055	13	44	.64	548	.17	3	2.44	.03	.62	<1
L11+00S 350E	2	62	6	94	.3	30	10	1185	3.93	8	<5	<2	2	57	.2	<2	<2	55	.48	.057	10	40	.68	857	.15	5	2.37	.04	.64	<1
L11+00S 400E	4	170	2	96	.6	56	24	1188	4.25	11	<5	<2	3	124	.4	<2	<2	72	.39	.045	20	67	1.05	711	.15	2	2.57	.02	.56	<1
L11+00S 450E	5	126	4	78	.4	51	19	1321	5.67	5	<5	<2	5	87	<.2	<2	<2	87	.31	.069	28	95	1.55	530	.19	2	3.06	.03	1.23	<1
L11+00S 500E	4	137	5	87	.5	67	23	1545	5.66	4	<5	<2	5	106	.3	<2	<2	81	.58	.087	24	85	1.57	571	.19	4	3.21	.02	1.33	<1
L11+00S 550E	2	96	11	169	.2	50	18	3716	3.35	6	<5	<2	<2	64	1.6	<2	<2	40	.98	.124	13	42	.67	702	.08	5	1.34	.05	.61	<1
L11+00S 600E	3	145	4	149	.2	41	18	2145	5.76	9	<5	<2	2	137	.6	<2	<2	53	.84	.150	11	38	.93	345	.11	5	2.15	.07	.69	1
L11+00S 650E	19	214	3	259	.5	38	16	1149	8.09	<2	<5	<2	4	54	.6	2	<2	85	.36	.092	14	63	1.30	299	.17	7	2.43	.06	.84	9
L11+00S 700E	5	343	10	382	.9	142	56	4278	6.22	16	9	<2	7	56	3.1	5	<2	63	.77	.094	54	56	.66	606	.07	10	2.73	.02	.34	<1
L11+00S 750E	5	207	5	321	.7	109	27	3545	5.66	22	<5	<2	4	74	2.4	<2	<2	71	1.18	.205	39	45	.63	803	.07	12	1.95	.03	.37	<1
L11+00S 800E	5	183	13	284	.5	70	24	3313	5.56	29	<5	<2	4	81	2.9	<2	2	79	1.10	.173	39	53	.89	663	.08	9	2.20	.03	.68	<1
L11+00S 850E	2	133	7	275	.5	73	18	2496	3.90	11	<5	<2	3	73	2.0	<2	<2	48	1.20	.213	23	34	.58	601	.09	16	2.20	.04	.69	<1
L11+00S 900E	3	159	9	114	.7	49	22	2904	3.75	31	<5	<2	2	56	1.4	<2	<2	51	1.12	.102	16	28	.58	775	.06	5	1.29	.02	.46	<1
L11+00S 950E	2	206	4	169	.6	47	28	3212	4.14	21	<5	<2	2	67	2.5	2	<2	52	1.08	.209	14	25	.63	668	.06	6	1.47	.04	.53	2
L11+00S 1000E	3	103	8	182	.4	38	11	1259	4.51	28	<5	<2	3	102	.8	<2	<2	54	.61	.141	13	42	.78	527	.09	8	1.90	.04	.77	<1
L12+00S 00	2	88	4	100	.4	31	9	1204	4.61	10	<5	<2	2	62	.4	<2	<2	81	.60	.050	9	42	.56	971	.14	5	2.02	.05	.49	2
L12+00S 50E	2	86	10	75	.2	30	14	1277	4.25	5	<5	<2	2	69	.4	<2	4	69	.55	.062	11	44	.64	601	.17	4	2.46	.03	.58	<1
L12+00S 100E	2	94	5	80	.3	36	17	1067	4.49	10	<5	<2	3	67	.6	<2	<2	74	.50	.070	13	48	.79	504	.21	3	2.88	.03	.74	1
L12+00S 150E	2	88	3	89	.3	43	19	1052	4.38	6	<5	<2	3	57	.5	<2	<2	75	.54	.085	13	58	.94	542	.22	3	3.07	.03	.90	<1
L12+00S 200E	2	99	7	112	.3	51	18	1404	4.69	7	<5	<2	2	69	.5	<2	<2	73	.67	.112	11	70	.90	705	.19	5	2.82	.03	.93	<1
L12+00S 250E	2	96	4	80	.4	41	15	1051	4.32	8	<5	<2	3	69	.4	2	<2	74	.54	.073	13	64	.88	651	.21	5	2.74	.04	.89	1
STANDARD C	18	63	38	126	6.8	67	31	1021	3.94	42	22	8	35	56	19.1	15	21	59	.51	.079	39	59	.90	197	.09	34	1.89	.09	.16	10

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

Grand National Resources Inc. PROJECT PUMA FILE # 93-3598

ACME ANALYTICAL

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 %	W ppm
L12+00S 300E	2	63	4	102	.1	41	16	1273	3.70	24	<5	<2	2	57	<.2	<2	<2	54	.44	.057	11	41	.67	590	.16	2	2.17	.02	.45	<1
L12+00S 350E	2	52	9	75	.1	42	14	648	3.86	14	<5	<2	2	49	<.2	<2	<2	52	.34	.042	12	38	.67	492	.16	3	2.32	.02	.46	<1
L12+00S 400E	2	121	2	80	<.1	49	24	2200	2.75	14	<5	<2	<2	107	.5	<2	<2	40	.47	.041	9	33	.75	866	.10	<2	1.40	.01	.55	<1
L12+00S 450E	2	144	8	56	.3	20	8	782	8.18	10	<5	<2	<2	173	<.2	<2	<2	74	.71	.097	5	13	1.12	212	.15	<2	3.06	.16	.49	<1
L12+00S 500E	4	151	4	91	.2	60	28	2423	5.22	11	<5	<2	2	83	.5	<2	<2	42	.78	.100	16	35	.86	287	.10	5	1.72	.02	.53	<1
L12+00S 550E	5	73	8	37	.2	20	4	400	4.11	7	<5	<2	3	44	<.2	<2	<2	66	.28	.046	14	37	.81	326	.11	<2	1.81	.02	.59	<1
L12+00S 600E	1	106	5	108	.1	23	7	891	4.61	145	<5	<2	<2	45	.4	<2	4	67	.35	.057	8	21	1.06	671	.13	<2	2.33	.02	.77	<1
L12+00S 650E	4	149	3	105	.2	40	15	1041	5.95	49	<5	<2	3	60	<.2	<2	2	70	.28	.066	26	35	.98	278	.11	5	2.31	.03	.84	<1
L12+00S 700E	4	104	7	136	.2	43	12	1460	5.13	18	<5	<2	4	54	.8	<2	<2	68	.40	.040	20	37	.83	543	.11	3	2.25	.02	.65	<1
L12+00S 750E	6	206	11	184	.5	87	28	2631	6.29	24	<5	<2	5	50	.8	<2	<2	88	.49	.080	38	50	.92	573	.10	4	2.82	.02	.60	<1
L12+00S 800E	3	287	7	165	.4	70	32	3139	6.52	19	<5	<2	3	37	.8	<2	<2	76	.71	.122	25	37	.90	756	.10	<2	2.57	.02	.50	<1
L12+00S 850E	2	131	4	109	.3	42	10	1699	4.94	18	<5	<2	3	44	<.2	<2	<2	81	.48	.045	16	41	.91	477	.13	4	2.85	.03	.57	<1
L12+00S 900E	2	157	6	168	.4	34	19	2817	3.65	17	<5	<2	<2	88	2.6	<2	<2	45	1.44	.075	18	25	.61	678	.07	4	1.45	.01	.35	<1
L12+00S 950E	2	264	5	310	.4	92	45	6334	5.64	19	<5	<2	2	50	2.8	<2	2	73	.92	.117	19	38	.96	822	.11	6	2.53	.01	.75	<1
L12+00S 1000E	2	182	4	66	.3	15	11	1152	4.38	10	<5	<2	<2	23	.5	<2	<2	48	.49	.138	11	25	.66	417	.06	4	1.20	.02	.54	1
L12+50S 400E	2	50	7	105	.1	33	13	1282	3.50	20	<5	<2	<2	54	.7	<2	<2	45	.46	.138	9	31	.58	531	.12	2	2.09	.03	.50	<1
L12+50S 450E	2	62	13	78	<.1	33	12	1093	3.96	19	<5	<2	3	83	<.2	2	<2	54	.38	.050	13	37	.73	503	.15	<2	2.10	.03	.56	<1
RE L12+50S 450E	2	60	10	76	<.1	31	14	1062	3.87	16	<5	<2	3	82	.8	<2	2	53	.38	.047	13	36	.72	507	.15	<2	2.04	.03	.55	<1
L12+50S 500E	2	98	8	61	.1	30	13	878	5.00	24	<5	<2	3	90	.4	<2	3	65	.30	.052	15	40	.86	474	.16	<2	2.35	.03	.78	<1
L12+50S 550E	3	86	8	65	.1	26	12	961	4.88	20	<5	<2	3	79	<.2	<2	<2	60	.33	.051	15	37	.80	505	.14	<2	2.07	.03	.81	<1
L12+50S 600E	4	90	3	72	.1	24	9	951	4.76	20	<5	<2	3	63	.6	2	2	61	.24	.044	14	32	.80	520	.13	2	1.97	.02	.75	<1
L12+50S 650E	3	103	6	108	.1	35	14	1449	4.97	58	<5	<2	3	65	1.0	<2	<2	68	.36	.071	18	35	.79	592	.13	4	2.25	.02	.75	<1
L12+50S 700E	3	112	8	148	.2	49	16	2245	5.25	33	<5	<2	3	70	.7	<2	<2	70	.52	.098	21	38	.83	678	.12	8	2.51	.02	.83	<1
L12+50S 750E	3	104	11	118	.2	36	11	1855	4.60	19	<5	<2	3	52	.8	<2	3	70	.44	.045	19	39	.86	690	.13	<2	2.42	.02	.53	<1
L12+50S 800E	2	133	12	117	.2	56	16	2314	4.49	19	<5	<2	3	57	.9	<2	<2	65	.59	.049	23	36	.78	644	.11	3	2.24	.02	.58	<1
L12+50S 850E	2	116	13	149	.2	48	14	2337	4.43	22	<5	<2	3	52	.6	<2	<2	58	.48	.053	18	33	.68	584	.11	4	2.02	.02	.54	1
L12+50S 900E	4	148	11	121	.1	49	15	1314	5.09	23	<5	<2	3	54	.7	<2	5	73	.24	.059	21	40	.74	468	.12	3	2.11	.02	.56	<1
L12+50S 950E	3	170	3	104	.3	28	13	2085	5.63	10	<5	<2	3	35	.7	<2	<2	66	.41	.060	17	35	.96	638	.10	2	2.01	.01	.64	<1
L13+00S 00	2	100	10	98	.2	37	19	1445	4.30	19	<5	<2	2	93	.7	<2	5	64	.81	.084	9	49	.88	424	.19	4	2.50	.02	.73	1
L13+00S 50E	1	134	11	108	.1	79	32	1703	5.63	16	<5	<2	2	95	.6	<2	<2	72	.94	.081	8	62	1.02	400	.24	<2	2.89	.03	.68	1
L13+00S 100E	1	100	8	92	.1	53	26	1368	4.66	13	<5	<2	2	93	.5	<2	<2	64	.77	.069	9	47	.84	396	.21	5	2.71	.03	.54	2
L13+00S 150E	1	68	13	84	.1	42	15	1366	3.83	19	<5	<2	2	67	.7	<2	3	55	.70	.068	10	39	.69	487	.17	5	2.29	.02	.58	2
L13+00S 200E	3	99	13	79	<.1	55	17	1236	5.31	22	<5	<2	2	74	.5	<2	2	76	.58	.070	10	76	1.05	654	.24	4	2.94	.03	.89	1
L13+00S 250E	2	84	7	95	.1	38	12	1459	3.81	9	<5	<2	<2	70	.8	<2	<2	48	.66	.103	9	41	.65	593	.14	2	2.04	.03	.45	<1
L13+00S 300E	2	59	8	76	<.1	39	12	1005	3.50	19	<5	<2	2	54	.7	<2	<2	50	.45	.078	10	37	.63	537	.15	5	2.03	.02	.48	<1
STANDARD C	17	64	36	129	6.7	65	30	1078	3.96	43	18	7	34	54	18.6	14	20	54	.51	.078	37	50	.91	193	.09	34	1.88	.06	.14	11

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

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 %	W ppm
L13+00S 350E	2	52	13	105	.3	34	12	1236	3.46	13	<5	<2	2	56	.9	<2	<2	48	.44	.065	10	39	.59	555	.14	3	1.97	.03	.43	1
L13+00S 400E	2	53	12	88	.3	29	10	913	3.13	9	<5	<2	2	54	.2	<2	<2	41	.40	.109	9	31	.52	492	.13	4	1.99	.04	.41	<1
L13+00S 450E	2	51	9	74	.3	35	13	1098	3.46	10	<5	<2	2	54	.4	<2	<2	50	.56	.049	11	39	.61	621	.15	5	2.00	.03	.60	<1
L13+00S 500E	2	71	7	86	.3	36	15	931	3.90	16	<5	<2	2	49	.4	<2	<2	62	.50	.054	12	46	.76	579	.17	3	1.85	.04	.74	<1
L13+00S 550E	2	59	14	115	.4	32	15	1209	3.17	17	<5	<2	2	66	.9	4	<2	49	1.04	.082	10	37	.69	500	.13	9	1.58	.04	.68	<1
L13+00S 600E	3	65	10	105	.3	24	11	1073	3.15	10	<5	<2	<2	56	.7	<2	2	45	.39	.064	11	34	.61	545	.11	3	1.74	.03	.58	<1
L13+00S 650E	2	117	10	119	.4	40	18	1483	4.51	60	<5	<2	3	70	.8	<2	<2	70	.77	.096	15	48	.90	593	.15	7	2.24	.03	.98	<1
RE L13+00S 650E	2	112	11	120	.5	43	18	1472	4.44	62	<5	<2	3	68	.8	<2	<2	69	.77	.095	15	48	.89	574	.15	9	2.19	.03	.90	<1
L13+00S 700E	3	140	11	220	.6	61	24	2827	5.17	19	<5	<2	3	73	2.2	<2	<2	94	.79	.111	22	78	1.23	724	.15	7	3.09	.02	1.15	<1
L13+00S 750E	3	171	15	176	.4	51	16	2866	4.85	14	<5	<2	3	79	.9	<2	<2	63	.93	.086	21	45	.84	725	.12	4	2.63	.03	.86	<1
L13+00S 800E	3	150	13	280	.4	76	37	2140	6.33	13	<5	<2	3	60	1.7	<2	<2	61	.65	.142	21	45	.79	543	.11	2	2.73	.03	.52	<1
L13+00S 850E	5	153	14	113	.5	56	21	948	5.38	17	<5	<2	4	45	.6	3	<2	75	.35	.058	20	57	.95	400	.14	3	2.78	.02	.47	<1
L13+00S 900E	4	142	13	124	.7	39	15	1156	5.47	17	<5	<2	4	45	.4	<2	<2	79	.29	.048	21	46	.93	498	.14	2	2.83	.03	.76	1
L13+00S 950E	5	168	12	118	.7	35	26	1995	6.28	5	<5	<2	4	27	.5	<2	2	82	.12	.077	31	78	1.45	438	.13	<2	3.01	.02	.87	<1
L13+00S 1000E	5	551	14	395	1.1	105	46	5387	9.12	12	5	<2	3	47	5.0	<2	3	72	.99	.181	36	78	1.29	469	.08	<2	2.65	.03	.64	2
L14+00S 00	3	100	10	94	.4	46	17	1500	3.97	5	<5	<2	<2	62	.8	<2	<2	58	.62	.042	8	46	.70	334	.17	4	2.60	.04	.49	<1
L14+00S 50E	2	109	7	111	.3	58	28	1781	4.06	4	<5	<2	<2	69	.5	<2	<2	55	.57	.070	9	57	.78	462	.17	3	2.44	.04	.50	<1
L14+00S 100E	2	107	11	149	.2	57	26	2312	4.16	5	<5	<2	<2	56	.6	<2	<2	53	.57	.070	8	51	.67	469	.17	5	2.85	.05	.43	4
L14+00S 150E	1	260	12	319	.4	120	57	5101	4.63	11	<5	<2	<2	162	1.4	<2	2	43	2.21	.342	12	38	.58	929	.10	5	2.03	.04	.33	3
L14+00S 200E	1	80	8	161	.3	88	30	2547	3.68	8	<5	<2	<2	96	.7	<2	<2	37	1.17	.337	9	37	.55	599	.11	8	1.82	.05	.37	7
L14+00S 250E	1	41	3	105	.1	43	15	1539	2.57	4	<5	<2	<2	63	.3	<2	<2	29	.77	.128	6	26	.42	457	.10	5	1.55	.04	.32	<1
L14+00S 300E	2	55	11	104	.1	41	12	991	3.01	7	<5	<2	<2	58	.2	<2	<2	38	.48	.131	8	32	.50	488	.13	5	1.95	.04	.42	<1
L14+00S 350E	2	53	9	130	.1	26	10	1535	3.21	8	<5	<2	<2	63	.4	<2	<2	42	.53	.080	8	35	.54	673	.13	4	1.99	.03	.47	<1
L14+00S 400E	3	60	7	65	.2	31	9	875	3.53	9	<5	<2	2	70	.3	<2	<2	53	.38	.049	13	42	.68	496	.15	3	2.38	.04	.63	<1
L14+00S 450E	2	46	3	89	.1	27	8	1059	2.68	9	<5	<2	<2	50	.7	<2	<2	38	.43	.072	9	29	.48	505	.12	4	1.88	.04	.39	<1
L14+00S 500E	2	53	7	73	.2	26	11	813	3.33	11	<5	<2	2	46	.3	<2	<2	51	.34	.047	10	38	.59	490	.16	4	2.15	.04	.51	1
L14+00S 550E	2	67	6	120	.3	43	17	1196	3.46	18	<5	<2	2	52	.7	<2	<2	57	.38	.066	12	38	.60	435	.14	4	2.13	.03	.58	<1
L14+00S 600E	2	59	10	89	.3	27	12	1126	3.14	15	<5	<2	2	43	.6	<2	<2	55	.45	.037	12	41	.66	464	.15	5	1.60	.03	.72	<1
L14+00S 650E	2	85	12	174	.3	48	20	1253	4.62	18	<5	<2	<2	55	1.1	<2	<2	73	.49	.071	14	60	1.14	504	.18	4	3.03	.04	1.06	<1
L14+00S 700E	4	190	14	408	.5	121	23	1452	6.02	10	<5	<2	3	58	2.9	<2	4	82	.52	.141	23	59	.96	485	.12	<2	3.03	.04	.39	<1
L14+00S 750E	3	133	6	180	.7	60	20	1529	4.85	20	<5	<2	2	54	1.2	<2	<2	75	.38	.046	18	44	.80	685	.15	<2	3.07	.03	.42	<1
L14+00S 800E	3	104	7	179	.3	38	16	2081	4.13	18	<5	<2	2	68	1.5	<2	<2	56	.54	.071	19	38	.66	622	.13	4	2.66	.03	.49	<1
L14+00S 850E	2	69	8	98	.2	26	12	1289	3.55	21	<5	<2	2	53	.7	<2	2	55	.37	.048	14	38	.59	494	.13	3	2.03	.03	.50	<1
L14+00S 900E	3	73	5	131	.3	31	11	1851	4.01	14	<5	<2	2	51	1.1	<2	<2	58	.28	.031	17	41	.67	463	.12	3	2.19	.03	.48	1
L14+00S 950E	3	109	6	103	.4	32	8	751	4.63	19	<5	<2	3	61	.4	<2	<2	64	.28	.045	20	44	.66	492	.13	3	2.05	.03	.62	<1
STANDARD C	18	65	39	125	6.7	69	30	1043	3.91	43	15	8	34	56	18.7	18	18	58	.49	.078	38	58	.88	198	.09	33	1.89	.08	.16	11

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

ACME ANALYTICAL

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
L14+00S 1000E	3	86	10	93	.1	35	11	1023	4.25	17	<5	<2	4	53	.2	3	<2	52	.32	.051	14	30	.45	373	.09	<2	1.43	.01	.37	1
L15+00S 00	2	186	8	102	.2	58	25	1445	4.97	9	<5	<2	<2	74	.3	2	<2	63	.67	.087	7	71	1.02	424	.17	<2	2.58	.03	.47	5
L15+00S 50E	5	115	6	65	.2	42	11	795	4.71	6	<5	<2	<2	61	.6	3	<2	58	.50	.055	5	42	.82	259	.21	3	2.49	.03	.49	2
L15+00S 100E	2	88	9	129	.1	46	24	1951	4.78	8	<5	<2	<2	64	.2	2	<2	53	.49	.093	7	44	.74	538	.18	2	2.41	.03	.24	1
L15+00S 150E	5	140	7	90	.1	45	12	836	6.79	6	<5	<2	2	44	<.2	<2	<2	81	.30	.121	10	64	.81	667	.18	<2	2.59	.02	.22	2
L15+00S 200E	2	80	15	79	.1	49	16	1267	3.88	6	<5	<2	<2	76	.3	<2	<2	55	.65	.057	8	40	.71	603	.17	<2	2.17	.03	.41	1
RE L15+00S 200E	2	77	12	76	.1	47	16	1235	3.81	7	<5	<2	<2	75	<.2	2	<2	54	.63	.056	8	39	.69	602	.17	3	2.11	.02	.41	1
L15+00S 250E	3	86	6	89	.1	37	13	1022	4.54	6	<5	<2	2	89	.3	<2	2	63	.56	.054	10	37	.76	402	.16	3	2.64	.02	.36	3
L15+00S 300E	1	66	5	104	.1	35	14	1813	3.50	12	<5	<2	<2	68	.6	<2	<2	45	.59	.111	7	27	.64	492	.12	2	2.23	.02	.45	1
L15+00S 350E	1	36	8	95	<.1	43	11	1045	2.33	9	<5	<2	<2	49	.5	<2	<2	31	.48	.082	6	25	.45	402	.11	3	1.80	.03	.19	<1
L15+00S 400E	5	75	4	109	.1	55	21	2136	3.89	6	<5	<2	2	80	.6	<2	<2	53	.63	.065	15	38	.71	498	.13	2	2.52	.02	.49	1
L15+00S 450E	2	42	7	71	<.1	24	10	1256	2.65	9	<5	<2	<2	54	.4	2	3	38	.47	.039	8	26	.48	466	.11	3	1.74	.02	.33	<1
L15+00S 500E	2	43	8	91	<.1	28	11	1200	2.53	9	<5	<2	<2	43	.4	<2	<2	36	.41	.046	7	23	.45	558	.11	3	1.77	.02	.25	1
L15+00S 550E	1	25	6	69	<.1	26	8	580	2.37	14	<5	<2	<2	29	.2	<2	<2	35	.29	.053	6	23	.43	371	.11	<2	1.51	.02	.24	1
L15+00S 600E	1	28	3	52	<.1	23	8	846	2.31	16	<5	<2	2	29	.4	<2	<2	38	.32	.026	8	26	.48	354	.11	<2	1.21	.02	.39	<1
L15+00S 650E	1	79	7	210	.1	39	16	2005	4.07	9	<5	<2	2	53	1.3	<2	2	65	.45	.051	13	38	.86	961	.14	3	2.45	.02	.74	<1
L15+00S 700E	2	49	3	126	<.1	31	14	1522	3.22	17	<5	<2	2	46	.9	<2	2	50	.50	.046	11	33	.60	543	.12	<2	1.91	.02	.42	<1
L15+00S 750E	1	52	10	105	<.1	31	12	1110	3.31	18	<5	<2	2	47	.5	2	<2	50	.38	.054	12	32	.57	446	.12	<2	1.89	.02	.50	<1
L15+00S 800E	1	115	7	173	.2	30	11	1750	4.41	15	<5	<2	2	51	1.2	<2	<2	67	.69	.127	16	33	.73	962	.09	5	1.86	.01	.72	<1
L15+00S 850E	1	39	6	94	<.1	24	9	837	2.96	16	<5	<2	3	36	.5	<2	3	42	.32	.045	10	26	.50	378	.11	2	1.82	.02	.37	<1
L15+00S 900E	2	67	7	170	.2	48	15	1920	3.78	24	<5	<2	3	58	1.4	2	<2	52	.50	.101	17	31	.58	631	.11	3	2.24	.02	.36	<1
L15+00S 950E	2	107	9	175	.2	44	17	2937	4.00	19	<5	<2	2	71	1.2	2	<2	61	.74	.082	22	34	.55	711	.09	4	2.02	.02	.36	1
L15+00S 1000E	2	65	8	138	<.1	38	10	1357	3.04	26	<5	<2	2	48	1.3	2	<2	44	.35	.044	15	26	.45	416	.09	4	1.64	.02	.40	<1
STANDARD C	17	63	38	130	6.9	66	30	1073	3.97	42	17	7	35	55	17.3	14	20	55	.50	.079	37	51	.90	194	.09	33	1.88	.06	.14	11

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

PUMA #3 SEATTLE
GAIN 06.5
LINE 1-S. DEC. 13/93

STA	∡	F.S.	Q
300 E	-4	52	
325 E.	0	52	
350 E.	0	55	
375	-2	52	
400	0	52	
425	-2	52	
450	0	57	ROAD
475	+4	50	
500	+4	58	
525	+2	60	
550	0	70	
575	0	62	
600	0	77	
625	-6	67	
650	-8	57	
675	-6	57	
700	-8	55	
725	-8	55	
750	-8	50	
775	-6	58	
800	-6	55	
825	-4	52	
850	-6	52	
875	-8	43	
900	-8	52	
925	-10	52	
950	-8	47	
975	-10	52	
1000 E.	-12	52	

PUMA #3 SEATTLE
GAIN 06.5
LINE 2-S. DEC. 13/93

STA	∡	F.S.	Q
300 E.	-2	42	
325 E	-2	38	
350 E	-6	47	
375	-4	50	
400	-2	50	
425	-2	45	
450	-2	52	
475	-2	55	
500	0	47	
525	0	47	
550	+2	55	ROAD
575	0	60	
600	+2	57	
625	0	57	
650	-2	50	
675	-2	45	
700	-6	52	
725	-6	52	
750	-8	45	
775	-8	47	
800	-8	42	
825	-4	42	
850	-4	40	
875	+2	45	
900	-8	47	
925	-6	43	
950	-8	45	
975	-4	45	
1000 E.	-4	40	

PUMA #3 SEATTLE DEC. 1[illegible]3
LINE 3-S. GAIN 06.5

STA	∡	F.S.	Q
800 E.	-2	52	
825 E.	+2	42	
850 E.	-2	33	
875	0	25	
900	-6	25	
925	-4	32	
950	0	33	
975	-6	32	
1000 E.	-6	30	

PUMA #3 SEATTLE DEC.12/93

L.4-S. GAIN 5.5

STA	∡	F.S.	Q
800 E.	+ 6	40	
825 E.	+ 6	43	
850 E.	+ 6	37	
875	+ 8	35	
900	0	40	
925	0	42	
950	- 2	55	
975	0	53	
1000	- 4	47	

PUMA #3 SEATTLE GAIN 5.5

L.6-S. DEC. 12/93

STA	∡	F.S.	Q
800 E.	0	42	
825 E.	- 2	38	
850 E.	0	33	
875	- 4	32	
900	- 2	32	
925	- 6	33	
950	- 2	37	
975	0	40	
1000	+ 2	42	

PUMA #3 SEATTLE GAIN 5.5

L.5-S. DEC. 12/93

STA	∡	F.S.	Q
800 E.	+ 2	52	
825 E.	+ 2	53	
850 E.	+ 2	47	
875	+ 6	50	
900	+ 6	55	
925	+ 8	52	
950	+ 6	47	
975	+ 4	45	
1000	+ 6	43	

PUMA #3 SEATTLE GAIN 5.5

L.7-S. DEC. 12/93

STA	∡	F.S	Q
800 E.	+ 2	53	
825 E.	+ 2	52	
850 E.	0	55	
875	+ 2	52	
900	0	50	
925	- 2	50	
950	- 4	50	
975	- 4	47	
1000	- 2	45	

PUMA #3 SEATTLE DEC. /93

LINE 8-S. GAIN 12

STA	∡	F.S.	Q
350 W.	- 2	54	
325 W.	- 6	45	
300 W.	- 2	48	
275	- 2	42	
250	+ 2	37	
225	+ 6	48	
200	+ 12	38	
175	+ 26	32	
150	+ 12	25	
125	+ 28	30	
100 ?	- 48	22	3
75	+ 28	30 (GAIN 9)	
50	+ 28	25	
25	+ 10	28	
0.0 W.	- 24	32	4
25 E.	+ 10	30	
50 E.	+ 6	53	
75 E.	+ 4	48	
100	- 2	44	
125	+ 6	40	2
150	0	44	5
		GAIN 5	
175	= 8	6	
200	- 32	25	
225	- 15	32	
250	- 18	28	
275	- 14	36	
300	- 22	38	
325	- 14	32	
350	- 24	42	3
375	- 20	33	
400	- 32	42	
425	- 18	27	
450	- 32	43	
475	- 18	36	
500	- 4	35	

STA	∡	F.S	Q
525 W.	- 2	34	
550 W.	- 5	28	
575	- 8	38	
600	- 6	18	
625	- 4	35	
650	- 12	33	
675	- 8	32	
700	- 16	25	
725	- 30	32	
750	- 8	32	
775	- 4	48	
800	- 12	45	
825	- 12	34	
850	- 10	32	
875	- 10	27	
900	0	36	
925	- 18	25	
950	- 18	30	5
975	- 10	25	
1000	- 8	40	

PUMA #3 SEATTLE DEC. 4/93
LINE 9-S. GAIN 10

STA	∡	F.S.	Q	STA	∡	F.S.	Q
350 W.	- 14	35		525 E.	- 14	43	
325 W.	- 4	32		550 E.	- 16	58	
300 W.	+ 4	30		575	- 8	80	
275	- 2	27		600	- 4	78	
250	+ 6	25		625	- 6	80	
225	+ 2	22		650	- 6	65	
200	+ 10	47		675	- 6	58	
175	+ 12	55		700	- 4	57	
150	+ 26	60		725	- 2	67	
125	+ 26	52		750	- 8	62	
100	+ 30	43		775	- 6	65	
75	+ 22	52		800	- 10	63	
50	+ 18	58		825	- 14	57	
25	+ 12	52		850	- 14	47	2
0.0 W.	+ 8	38		875	- 12	60	
25 E.	+ 10	42		900	- 14	75	
50 E.	+ 10	58		925	- 18	70	
75 E.	+ 4	53		950	- 14	58	
100	- 8	65		975	- 14	100+	
125	- 2	60		1000 E.	+ 18	52	
150	- 6	65					
175	- 4	53					
200	- 18	57					
225	- 4	80					
250	- 10	52					
275	- 12	67					
300	- 36	55					
325	- 36	55					
350	- 22	55					
375	- 16	50					
400	- 12	37					
425	- 6	48					
450	- 12	22					
475	- 12	38					
500	- 10	45					

PUMA #3 SEATTLE DEC. 5/93
LINE 10-S. GAIN 09

STA.	∡	F.S.	Q	STA.	∡	F.S.	Q
350 W.	+ 12	20		525 E	- 36	55	
325 W.	+ 6	18		550 E	- 32	60	
300 W.	+ 20	22		575 E.	- 14	63	
275	+ 18	23		600	- 14	62	
250	+ 22	23		625	- 22	57	
225	+ 20	22		650	- 18	53	
200	+ 20	18		675	- 12	58	
175	+ 12	22		700	- 12	57	
150	+ 18	22		725	- 16	57	
125	+ 24	28		750	- 16	63	
100	+ 8	22		775	- 12	72	
75	+ 10	27		800	- 12	80	
50	+ 12	23		825	- 14	78	
25	+ 6	37		850	- 12	70	
0.0 W.	- 8	30		875	- 14	73	
25 E.	- 24	40		900	- 12	65	
50 E.	- 18	32		925	- 12	55	
75 E.	+ 4	28		950	- 12	57	
100	+ 6	27		975	- 8	62	
125	0	38		1000	- 6	50	
150	- 14	42					
175	- 10	52					
200	- 24	53					
225	- 22	48					
250	- 28	50					
275	- 16	58					
300	- 18	67					
325	- 16	65					
350	- 10	63					
375	- 10	82					
400	- 16	78					
425	- 20	90					
450	- 28	62					
475	- 22	62					
500	- 26	53					

PUMA #3 SEATTLE DEC. 6/93

LINE 11-S. GAIN 07

STA.	∡	F.S.	Q
350 W.	—	—	
325 W.	—	—	
300 W.	—	—	
275	—	—	
250			
225	+ 8	17	
200	+ 26	17	
175	+ 4	18	
150	0	20	
125	+ 11	18	
100	0	23	
75	0	26	
50	− 10	28	
25	− 12	38	
0.0 W.	− 16	32	
25 E.	− 18	35	
50 E.	− 18	38	
75 E.	− 18	32	
100	− 16	30	
125	− 20	28	
150	− 14	28	
175	− 12	35	
200	− 20	38	
225	− 16	35	
250	− 28	32	
275	− 20	30	
300	− 18	32	
325	− 24	37	←→ TOP OF BLUFFS
350 ?	− 60	22	
375	− 14	22	
400	− 14	13	
425	− 2	20	
450	− 20	15	
475	− 16	17	
500	− 8	17	

STA.	∡	F.S.	Q
525 E.	− 16	25	
550 E.	− 16	22	
575	− 20	32	
600	− 12	32	
625	− 18	25	
650	+ 32	22	BOTTOM OF BLUFFS.
675	− 12	35	
700	− 42	30	4
725	− 12	42	
750	− 28	43	
775	− 16	47	
800	− 16	43	
825	− 16	42	
850	− 14	38	
875	− 12	38	
900	− 16	50	
925	− 14	52	
950	− 32	47	
975	− 32	42	
1000	− 11	52	

PUMA #3 SEATTLE DEC. 7/93

LINE 12-S. GAIN 10

STA.	∡	F.S.	Q
0.0 E.	− 22	67	
25 E.	− 18	87	
50 E.	− 20	77	
75	− 18	82	
100	− 16	70	
125	− 14	85	
150	− 14	82	
175	− 18	67	
200	− 24	82	
225	− 24	72	
250	− 26	63	
275	− 16	58	
300	− 18	68	
325	− 12	62	
350	− 14	70	
375	− 6	68	
400	− 20	72	2
425	− 10	87	
450	− 10	87	
475	− 18	68	
500	− 8	70	2
525	− 24	72	2
550	− 12	82	2
575	− 10	83	2
600	− 10	87	3
625	− 14	90	3
650	− 4	73	
675	− 14	97	
700	− 18	98	

STA.	∡	F.S.	Q
725 E.	− 24	87	
750 E.	− 22	77	
775 E.	− 38	77	
800	− 26	85	
825	− 18	82	
850	− 16	82	
875	− 10	100+	
900	− 10	98	
925	− 8	97	
950	− 12	93	
975	− 8	93	
1000	− 6	53	

PUMA #3 SEATTLE DEC 10/93

LINE 12+50 S. GAIN 07

STA	∡	F.S.	Q
400 E.	- 6	45	
425 E.	- 2	53	
450 E.	- 4	47	
475	- 2	47	
500	- 2	52	
525	- 6	50	
550	- 4	53	
575	- 6	52	
600	- 2	58	
625	- 2	58	
650	- 6	58	
675	- 6	60	
700	- 4	57	
725	- 6	55	
750	- 4	60	
775	+ 2	52	
800	0	40	
825	- 2	37	
850	- 2	32	
875	0	32	
900	0	27	
925	- 2	22	
950	- 2	25	
975	0	25	
1000		N.S.	

PUNA #3 SEATTLE DEC. 10/93

LINE 13-S. GAIN 10

STA	∡	F.S.	Q
0.0 E.	- 26	73	
25 E.	- 34	57	
50 E.	- 32	58	
75	- 28	53	
100	- 46	57	
125	- 40	58	
150	- 38	47	
175	- 38	53	
200	- 34	57	
225	- 22	48	
250	- 18	55	
275	- 20	52	
300	- 24	47	
325	- 22	52	
350	- 16	47	
375	- 18	43	

DEC. 11/93 GAIN 5.5

STA	∡	F.S.	Q
400 E.	- 6	48	
425 E.	- 8	58	
450	- 6	58	
475	- 8	62	
500	- 8	57	2
525	- 4	67	
550	+ 4	58	
575	+ 4	45	
600	+ 6	45	
625	+ 2	42	
650	+ 4	37	
675	- 2	47	
700	+ 2	37	

STA	∡	F.S.	Q
725 E.	+ 4	42	
750 E.	+ 6	25	
775	0	42	
800	0	38	
825	+ 2	45	
850	- 4	43	
875	- 2	37	
900	0	42	
925	+ 2	42	
950	+ 4	37	
975	0	42	
1000	+ 2	50	

PUMA #3 SEATTLE DEC. 10/9[illegible]

LINE 14-S. GAIN 07

STA.	∡	F.S.	Q	STA.	∡	F.S.	Q
0.0 E.	- 16	50		725 E.	+ 2	30	
25 E.	- 18	48		750 E.	+ 4	32	
50 E.	- 14	47		775	- 2	33	
75 E.	- 14	47		800	+ 2	30	
100	- 10	47		825	0	37	
125	- 16	47		850	0	28	
150	- 14	43		875	+ 2	30	
175	- 12	38		900	0	32	
200	- 12	42		925	+ 4	33	
225	- 14	42		950	+ 2	32	
250	- 10	38		975	+ 2	32	
275	- 8	40		1000	+ 6	37	
300	- 6	42					
325	- 4	42					
350	- 6	45					
375	- 12	40					

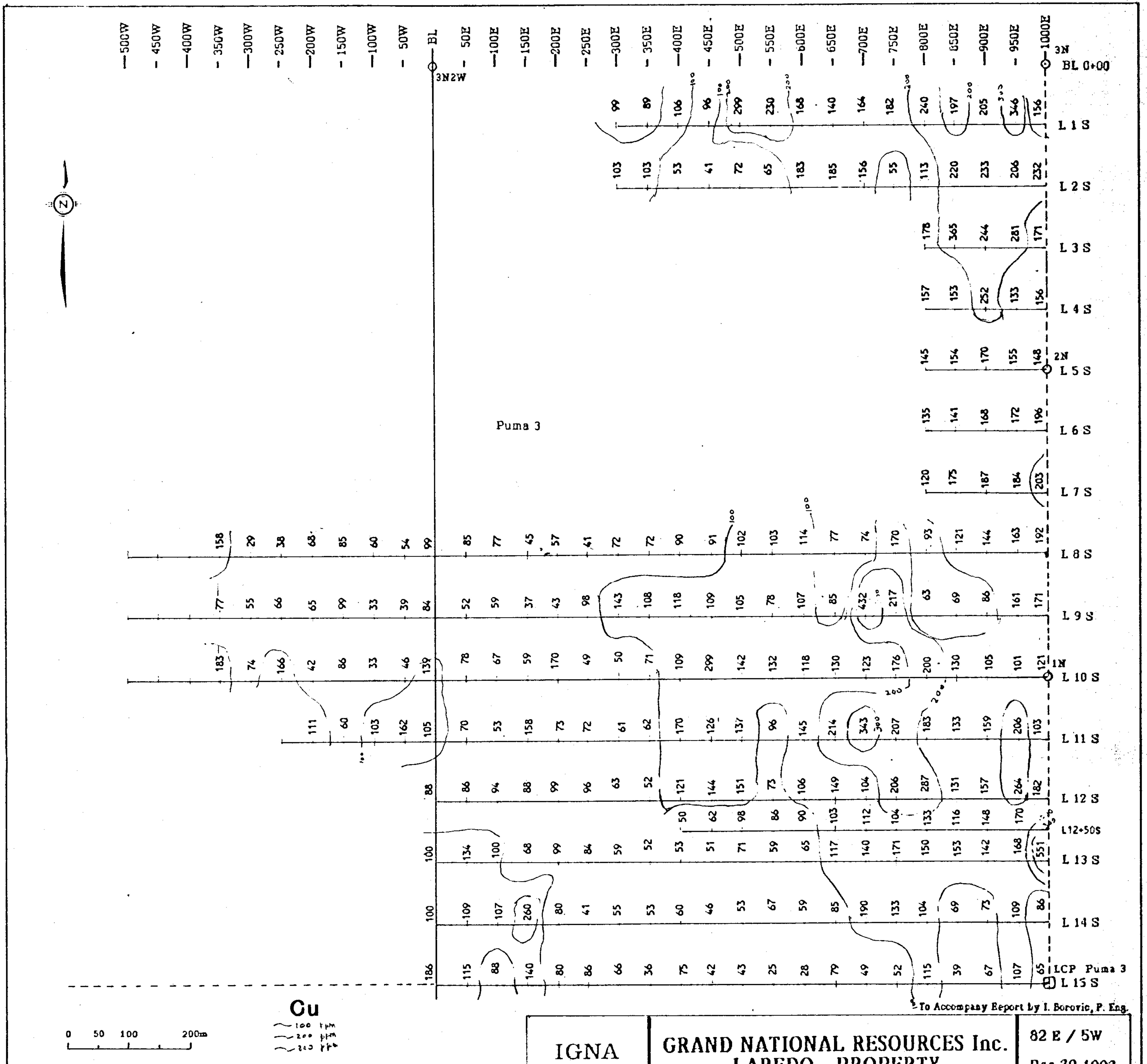
DEC. 11/93 GAIN 5.5

STA.	∡	F.S.
400 E.	- 6	28
425 E.	- 8	27
450	- 6	22
475	- 4	25
500	- 8	27
525	- 10	27
550	- 6	23
575	- 6	25
600	- 4	30
625	- 4	28
650	- 6	27
675	+ 2	27
700	0	27

PUMA #3 SEATTLE [illegible]C. 10/93

LINE 15-S.

STA.	∡	F.S.	Q	STA	∡	F.S.	Q
0.0 E.	- 10	45		725 E.	+ 6	82	
25 E.	- 10	42		750 E.	+ 12	73	
50 E.	- 16	53		775	+ 6	68	
75	- 14	43		800	+ 12	58	
100	- 10	50		825	+ 12	63	
125	- 8	48		850	+ 10	75	
150	- 6	58		875	+ 6	77	
175	- 6	52		900	+ 4	75	
200	- 8	63		925	+ 6	65	
225	- 8	55		950	+ 4	60	
250	- 8	57		975	+ 2	58	
275	- 4	62		1000	0	53	
300	- 2	60					
325	- 2	60					
350	- 8	67					
375	- 10	65					
400	- 10	75					
425	- 12	68					
450	- 6	65					
475	- 4	65					
500	- 2	63					
525	+ 4	58					
550	+ 2	63					
575	+ 2	48					
600	0	77					
625	0	80					
650	+ 2	78					
675	+ 2	82					
700	+ 4	83					



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IGNA engineering & consulting ltd.	GRAND NATIONAL RESOURCES Inc. LAREDO PROPERTY Geochemical Soil Survey	82 E / 5W Dec 30 1993 Fig. 4

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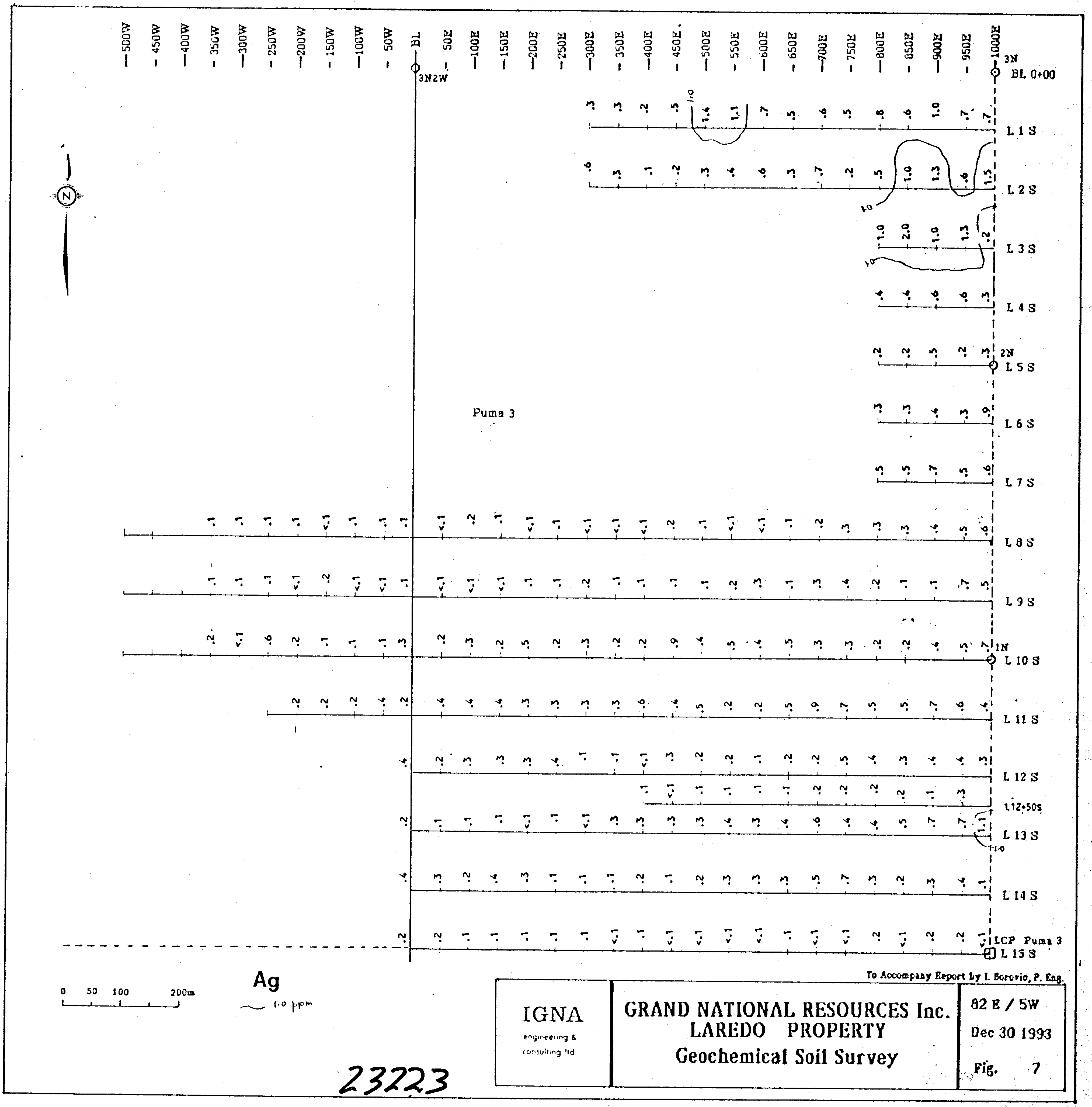

500W 450W 400W 350W 300W 250W 200W 150W 100W 50W BL 50E 100E 150E 200E 250E 300E 350E 400E 450E 500E 550E 600E 650E 700E 750E 800E 850E 900E 950E 1000E
3N2W
3N
BL 0+00
L 1 S
L 2 S
L 3 S
L 4 S
2N
L 5 S
L 6 S
L 7 S
L 8 S
L 9 S
1N
L 10 S
L 11 S
L 12 S
L12+50S
L 13 S
L 14 S
LCP Puma 3
L 15 S
Puma 3
N
0 50 100 200m
Ag
1.0 ppm
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LAREDO PROPERTY
Geochemical Soil Survey
82 E / 5W
Dec 30 1993
Fig. 7
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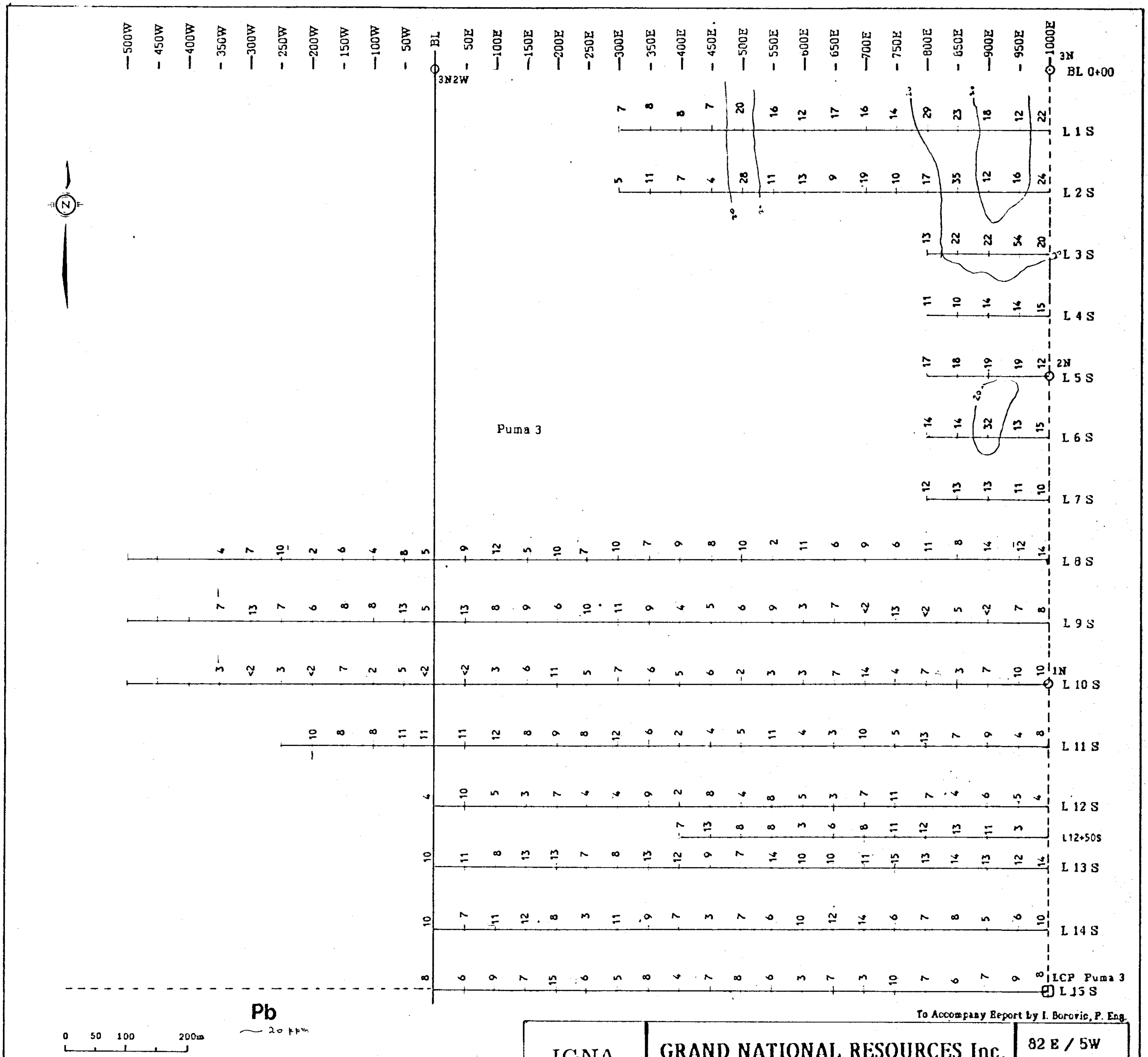

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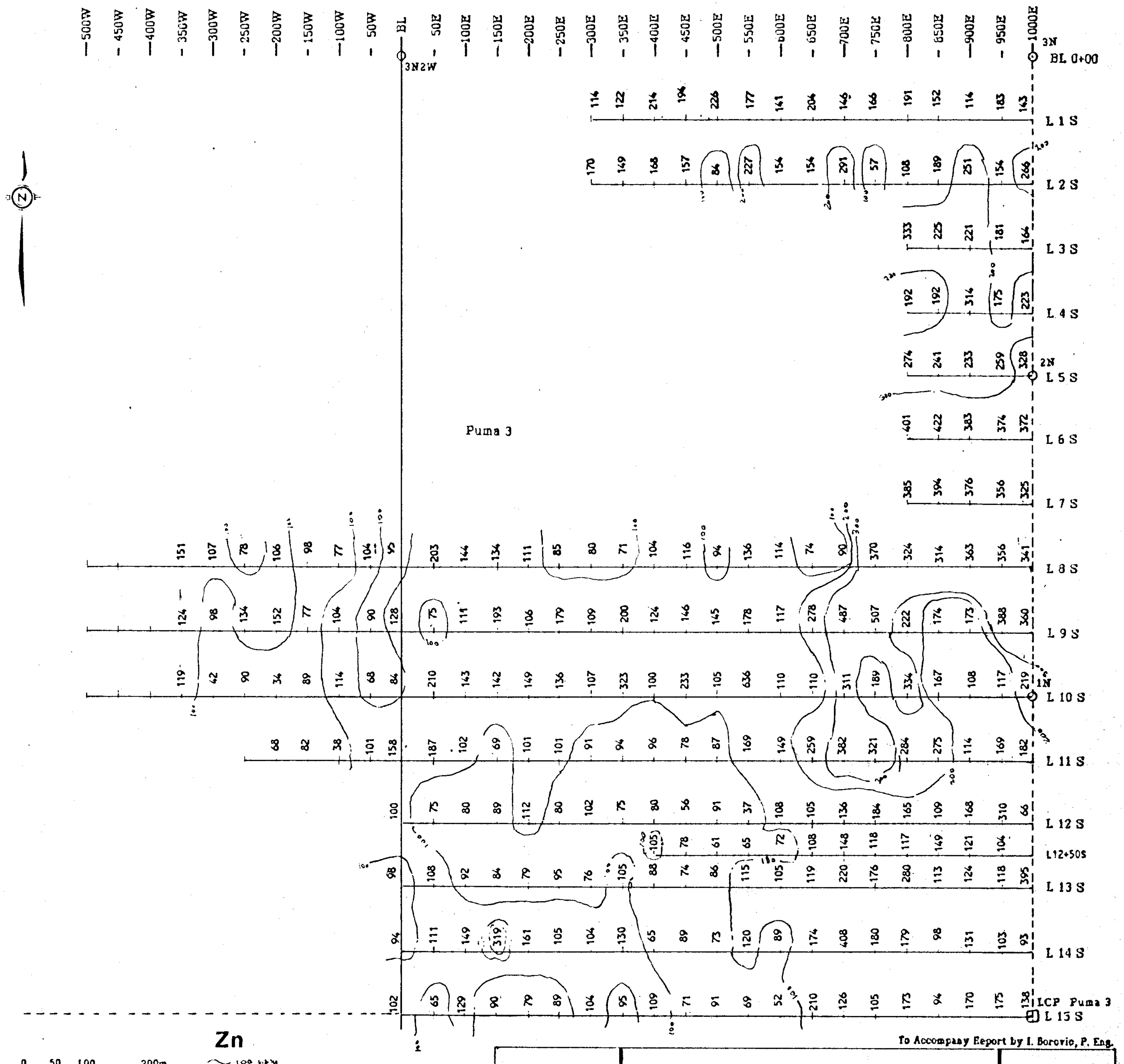

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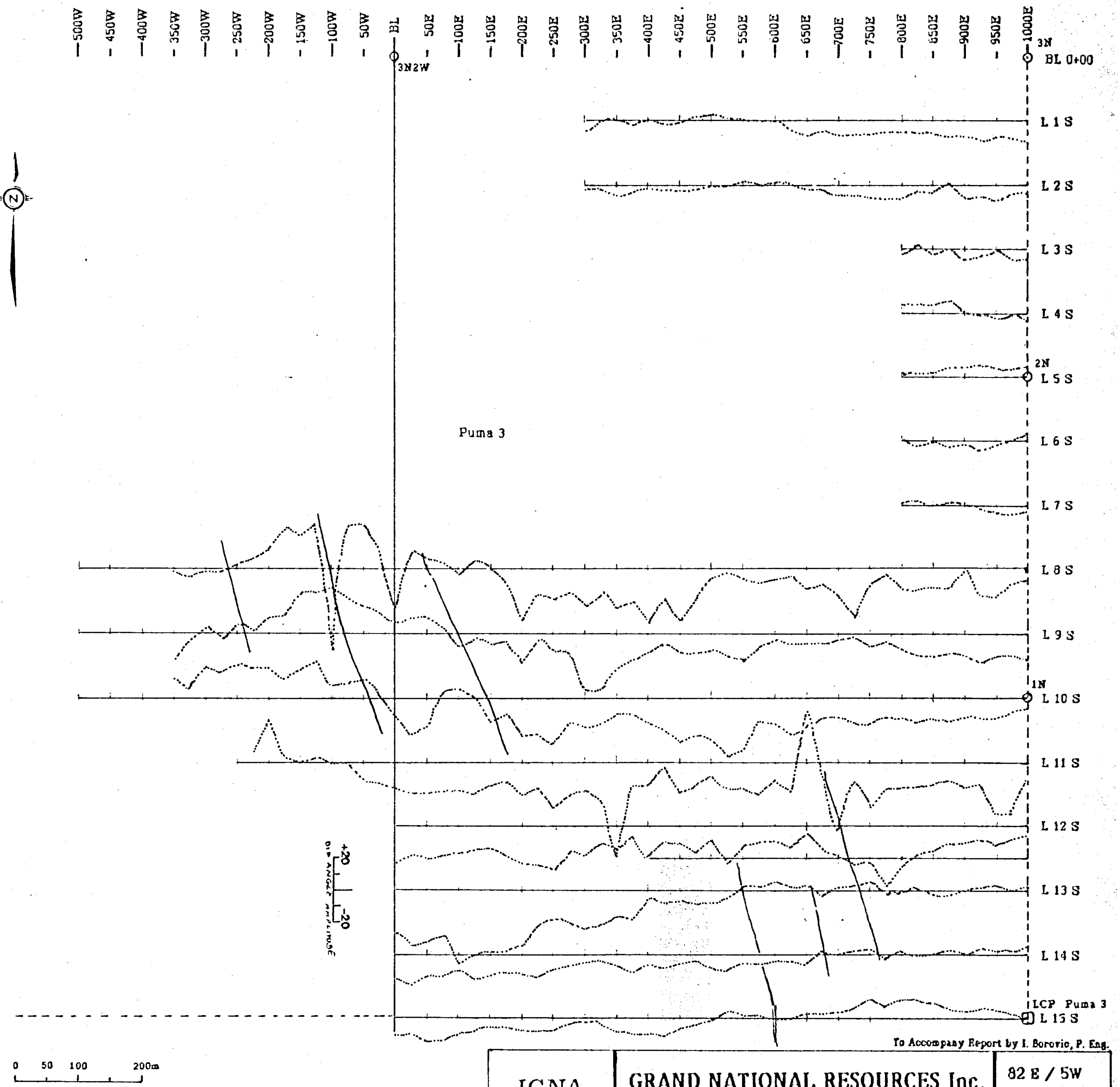

To Accompany Report by I. Borovic, P. Eng.

IGNA engineering & consulting ltd.	GRAND NATIONAL RESOURCES Inc. LAREDO PROPERTY VLF-EM Survey/ Dip Angle Profiles	82 E / 5W Dec 30 1993 Fig. 8

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