

555

REPORT

on the

GEOCHEMICAL SURVEY

of the

AX & BX CLAIMS

NEW INDIAN MINES LTD.

ENDAKO, B.C.

August, 1964.

F.J. Hensworth, P.Eng.,  
Consulting Mining Engineer.

54° 125° SE.

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<p>Department of Mines and Petroleum Resources ASSESSMENT REPORT</p> <p>NO. <u>555</u> MAP.....</p>
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MINING ENGINEER

TELEPHONE MUTUAL 4-7734

616 CREDIT FONCIER BLDG.  
850 WEST HASTINGS STREET  
VANCOUVER 1, B.C.

REPORT  
on the  
GEOCHEMICAL SURVEY  
of the  
AX & BX CLAIMS  
NEW INDIAN MINES LTD.  
ENDAKO, B.C.

INTRODUCTION

A geochemical survey for molybdenum was carried out on the AX & BX group of mineral claims, Endako, B.C., for New Indian Mines Limited, during June and July of 1964. Geochemistry, or soil testing, was done as part of an exploration program aimed at finding bodies of molybdenite mineralization. Soil samples were tested at a laboratory at the University of British Columbia, and the results reported in parts per million of molybdenum.

This report on the soil testing survey and the accompanying map are submitted in compliance with the Mineral Act claiming geochemical work for assessment purposes on the group of claims outlined in the text of the report.

LOCATION AND PROPERTY

The AX & BX claims are situated in the Omineca Mining Division, adjacent to Highway No. 16, seven miles west of Endako, B.C. The geographical position is latitude N 54° 08', longitude W 125° 07'.

The AX 1-10 & BX 1-8 claims were staked in 1962 by Murray Swetz of Vancouver, B.C. Particulars of the claims are as follows:-

<u>Name</u>	<u>Tag No.</u>	<u>Record No.</u>	<u>Record Date</u>
AX #1	447493	16352	Sept. 27, 1962
AX #2	447494	16353	Sept. 27, 1962
AX #3	447495	16354	Sept. 27, 1962
AX #4	447496	16355	Sept. 27, 1962
AX #5	447497	16356	Sept. 27, 1962
AX #6	447498	16357	Sept. 27, 1962
AX #7	447499	16358	Sept. 27, 1962
AX #8	447500	16359	Sept. 27, 1962
AX #9	447641	16360	Sept. 27, 1962
AX #10	447642	16361	Sept. 27, 1962
BX #1	453982	16344	Sept. 26, 1962
BX #2	453983	16345	Sept. 26, 1962
BX #3	453984	16346	Sept. 26, 1962
BX #4	453985	16347	Sept. 26, 1962
BX #5	453986	16348	Sept. 26, 1962
BX #6	453987	16349	Sept. 26, 1962
BX #7	458304	16350	Sept. 26, 1962
BX #8	458305	16351	Sept. 26, 1962
AB Fraction	540924		July 13, 1964

The preliminary survey of the claims indicated a fraction between the two groups. The AB Fraction was staked by Douglas R. Foster on July 2, 1964, and recorded at Burns Lake on July 13, 1964.

### GENERAL

In the spring of 1962, interest in molybdenum in the Endako area was sparked by the favorable results of diamond drilling, carried out on the old Stella molybdenite property, by Endako Mines Ltd. The drilling showed that the surface values had been impoverished by weathering, and that better grades could be expected at depth. Canadian Exploration Company concluded a financing arrangement with Endako Mines, whereby the funds were provided for exploration and production. During the last two years Canex has been engaged in intensive development of the property. Diamond drilling, surface stripping, and underground work has proved a multi-million ton deposit of molybdenite of low but consistent grade. Production on a basis of 10,000 tons per day is scheduled for mid-summer of 1965.

The AX & BX group is three miles west of the Endako Mines property.

### TOPOGRAPHY

The most northerly claims, AX 1-4 & BX 1 & 2 are situated on the north side of the Endako River valley, and consist of flat-lying grazing land. In these sections there are several large gravel deposits. The depth of overburden is indeterminate. Soil sampling is assumed to be effective to a depth of 30 feet of overburden. In places the depth of overburden in the valley floor may be greater, making soil sampling ineffective in these areas. The remaining southerly claims are on the hillside, where the depth of overburden is shallow.

Watkins Creek flows in a north-eastern direction through the eastern portion of the BX claims, and joins the Endako River southwest of Savory station. The upper reaches of the creek flow through a steep-sided canyon.

Elevations on the claims vary from 2,500 feet at the road to 3,200 feet at the south end.

## GEOLOGY

The government geological survey map 631A shows the AX & BX claims to be underlain by Topley granite. The Topley intrusives are acidic granitic rocks of probable Jurassic age. These are the host rocks for molybdenite in the Endako area.

Rock outcrops constitute about 3% of the area of the claims. The rock exposed is a granitic rock, grey to pink in color, and made up of pink and white feldspar, quartz, biotite, and hornblende.

## GEOCHEMICAL SURVEY

### Survey of Grid

The location lines of the claims, which run in a southerly direction, were surveyed by Brunton compass and chain, and used as baselines. Stations were marked at 400-foot intervals along the baselines. From these stations, lines were run east and west to the claim boundaries. Soil samples were taken at 200-foot intervals along these east-west sidelines. The grid thus formed was at 400-200 foot intervals as shown on the attached plan.

### Soil Sampling Method

The field crew consisted of two men. At the sample intervals, (200 feet), a shallow hole was dug with a garden trowel. The hole was deep enough to get below the surface humus. The soil samples were taken at a depth of about six inches, from the (A<sub>2</sub> horizon). About 200 grams of soil were placed in a small plastic bag, labelled, rolled up, and secured with an elastic band. Samples were carried back to camp in a small pack sack.

### Analyses

The samples were shipped to the University of British Columbia where they were analysed for parts per million of molybdenum. The procedure used was the thiocyanate, stannous chloride method. The results of the analyses of the 443 samples are shown on the plan and are listed in the appendix.

INTERPRETATION OF RESULTS


The normal background varies from 0.8 to 9 parts per million. Samples running 10-19 parts per million are marked in orange on the plan. Samples containing 20 or greater parts per million of molybdenum are marked red on the plan and are considered anomalous.

A large anomaly is indicated on BX 1-4 claims. This is on the low-lying area, where gravel deposits indicate that Watkins Creek has overflowed its banks and changed its course many times. It is believed that the molybdenum has been carried down the creek from the higher elevations, and accumulated in the valley. In any case it is very difficult to investigate this area as the bedrock may be covered by several hundred feet of overburden. The same situation applies to the flat-lying AX 1-4 claims.

An anomalous area is indicated on the hillside, and stripping and trenching is recommended east from station M and station N, and some work near station G and east of station H. The results of this stripping will determine whether diamond drilling is merited.

Respectfully submitted,

August, 1964.

  
F.J. Hemsworth, P.Eng.,  
Consulting Mining Engineer.

Appendix

University of British Columbia - Hut M-12

Soil Samples Received from New Indian Mines Ltd.

Analysis for Mo in parts per million

Hot H<sub>2</sub>SO<sub>4</sub> Attack

<u>Sample No.</u>	<u>Mo (ppm)</u>	<u>Sample No.</u>	<u>Mo (ppm)</u>	<u>Sample No.</u>	<u>Mo (ppm)</u>
N1235	4.0	N1274	10.0	N1313	20.0
N1236	2.0	N1275	12.0	N1314	10.0
N1237	f 0.8	N1276	4.0	N1315	8.0
N1238	f 0.8	N1277	20.0	N1316	20.0
N1239	2.0	N1278	2.0	N1317	4.0
N1240	0.8	N1279	18.0	N1318	26.0
N1241	0.8	N1280	8.0	N1319	22.0
N1242	0.8	N1281	24.0	N1320	20.0
N1243	18.0	N1282	24.0	N1321	12.0
N1244	16.0	N1283	28.0	N1322	16.0
N1245	10.0	N1284	28.0	N1323	16.0
N1246	28.0	N1285	20.0	N1324	20.0
N1247	4.0	N1286	20.0	N1325	8.0
N1248	28.0	N1287	28.0	N1326	10.0
N1249	40.0	N1288	8.0	N1327	16.0
N1250	22.0	N1289	26.0	N1328	20.0
N1251	24.0	N1290	26.0	N1329	68.0
N1252	8.0	N1291	18.0	N1330	12.0
N1253	10.0	N1292	24.0	N1331	16.0
N1254	10.0	N1293	50.0	N1332	16.0
N1255	0.8	N1294	12.0	N1333	4.0
N1256	f 0.8	N1295	22.0	N1334	20.0
N1257	f 0.8	N1296	6.0	N1335	4.0
N1258	24.0	N1297	0.8	N1336	10.0
N1259	20.0	N1298	8.0	N1337	4.0
N1260	28.0	N1299	10.0	N1338	6.0
N1261	f 0.8	N1300	10.0	N1339	4.0
N1262	0.8	N1301	0.8	N1340	10.0
N1263	20.0	N1302	4.0	N1341	6.0
N1264	0.8	N1303	28.0	N1342	12.0
N1265	6.0	N1304	22.0	N1343	8.0
N1266	8.0	N1305	16.0	N1344	4.0
N1267	14.0	N1306	22.0	N1345	2.0
N1268	0.8	N1307	60.0	N1346	2.0
N1269	0.8	N1308	26.0	N1346	12.0
N1270	0.8	N1309	26.0	N1347	4.0
N1271	12.0	N1310	24.0	N1348	12.0
N1272	0.8	N1311	4.0	N1349	2.0
N1273	12.0	N1312	6.0	N1350	20.0

f less than

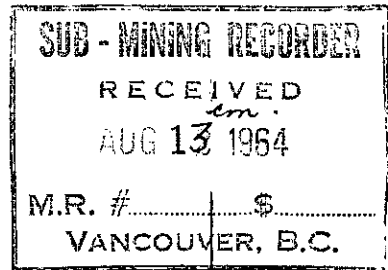


<u>Sample No.</u>	<u>Mo (ppm)</u>	<u>Sample No.</u>	<u>Mo (ppm)</u>	<u>Sample No.</u>	<u>Mo (ppm)</u>
N1351	6.0	N1399	2.0	N1447	0.8
N1352	6.0	N1400	0.9	N1448	2.0
N1353	4.0	N1401	0.8	N1449	0.8
N1354	4.0	N1402	6.0	N1450	2.0
N1355	5.0	N1403	4.0	N1451	10.0
N1356	5.0	N1404	6.0	N1452	8.0
N1357	7.0	N1405	20.0	N1453	0.8
N1358	4.0	N1406	20.0	N1454	4.0
N1359	0.9	N1407	6.0	N1455	2.0
N1360	0.8	N1408	6.0	N1456	8.0
N1361	2.0	N1409	9.0	N1457	18.0
N1362	2.0	N1410	12.0	N1458	14.0
N1363	10.0	N1411	4.0	N1459	14.0
N1364	0.8	N1412	4.0	N1460	12.0
N1365	8.0	N1413	4.0	N1461	0.8
N1366	7.0	N1414	4.0	N1462	0.8
N1367	7.0	N1415	4.0	N1463	0.8
N1368	6.0	N1416	4.0	N1464	2.0
N1369	5.0	N1417	4.0	N1465	6.0
N1370	7.0	N1418	4.0	N1466	8.0
N1371	4.0	N1419	4.0	N1467	4.0
N1372	4.0	N1420	2.0	N1468	22.0
N1373	4.0	N1421	2.0	N1469	2.0
N1374	6.0	N1422	0.8	N1470	4.0
N1375	8.0	N1423	2.0	N1471	4.0
N1376	6.0	N1424	4.0	N1472	12.0
N1377	10.0	N1425	0.8	N1473	2.0
N1378	6.0	N1426	2.0	N1474	12.0
N1379	5.0	N1427	5.0	N1475	140.0
N1380	5.0	N1428	2.0	N1476	32.0
N1381	1.0	N1429	5.0	N1477	14.0
N1382	2.0	N1430	2.0	N1478	20.0
N1383	7.0	N1431	2.0	N1479	10.0
N1384	7.0	N1432	3.0	N1480	12.0
N1385	6.0	N1433	5.0	N1481	0.8
N1386	5.0	N1434	7.0	N1482	0.8
N1387	2.0	N1435	5.0	N1483	10.0
N1388	0.9	N1436	11.0	N1484	30.0
N1389	0.9	N1437	7.0	N1485	4.0
N1390	2.0	N1438	2.0	N1486	0.8
N1391	2.0	N1439	4.0	N1487	2.0
N1392	0.9	N1440	2.0	N1488	0.8
N1393	9.0	N1441	0.8	N1489	4.0
N1394	23.0	N1442	4.0	N1490	6.0
N1395	20.0	N1443	0.8	N1491	6.0
N1396	12.0	N1444	4.0	N1492	0.8
N1397	2.0	N1445	6.0	N1493	8.0
N1398	5.0	N1446	2.0	N1494	6.0

<u>Sample No.</u>	<u>Mo (ppm)</u>	<u>Sample No.</u>	<u>Mo (ppm)</u>	<u>Sample No.</u>	<u>Mo (ppm)</u>
N1495	0.8	N1543	2.0	N1591	8.0
N1496	6.0	N1544	6.0	N1592	8.0
N1497	6.0	N1545	4.0	N1593	6.0
N1498	2.0	N1546	0.8	N1594	6.0
N1499	2.0	N1547	6.0	N1595	10.0
N1500	2.0	N1548	6.0	N1596	8.0
N1501	2.0	N1549	0.8	N1597	8.0
N1502	6.0	N1550	2.0	N1598	12.0
N1503	4.0	N1551	6.0	N1599	2.0
N1504	6.0	N1552	4.0	N1600	4.0
N1505	10.0	N1553	2.0	N1601	4.0
N1506	8.0	N1554	6.0	N1602	2.0
N1507	4.0	N1555	2.0	N1603	20.0
N1508	6.0	N1556	4.0	N1604	4.0
N1509	2.0	N1557	6.0	N1605	2.0
N1510	4.0	N1558	6.0	N1606	2.0
N1511	0.8	N1559	28.0	N1607	10.0
N1512	8.0	N1560	6.0	N1608	12.0
N1513	10.0	N1561	4.0	N1609	12.0
N1514	4.0	N1562	4.0	N1610	12.0
N1515	8.0	N1563	2.0	N1649	8.0
N1516	6.0	N1564	2.0	N1650	8.0
N1517	4.0	N1565	0.8	N1651	10.0
N1518	0.8	N1566	4.0	N1652	8.0
N1519	0.8	N1567	6.0	N1653	10.0
N1520	8.0	N1568	6.0	N1654	8.0
N1521	8.0	N1569	8.0	N1655	8.0
N1522	4.0	N1570	2.0	N1656	10.0
N1523	4.0	N1571	2.0	N1657	10.0
N1524	1.0	N1572	8.0	N1658	6.0
N1525	6.0	N1573	16.0	N1659	10.0
N1526	4.0	N1574	2.0	N1660	8.0
N1527	6.0	N1575	4.0	N1661	8.0
N1528	4.0	N1576	16.0	N1662	6.0
N1529	6.0	N1577	4.0	N1663	6.0
N1530	8.0	N1578	8.0	N1664	8.0
N1531	4.0	N1579	8.0	N1665	10.0
N1532	6.0	N1580	4.0	N1666	8.0
N1533	0.8	N1581	6.0	N1667	12.0
N1534	0.8	N1582	8.0	N1668	12.0
N1535	4.0	N1583	0.8	N1669	10.0
N1536	6.0	N1584	4.0	N1670	8.0
N1537	8.0	N1585	2.0	N1671	6.0
N1538	8.0	N1586	8.0	N1672	10.0
N1539	2.0	N1587	8.0	N1673	16.0
N1540	2.0	N1588	4.0	N1674	6.0
N1541	2.0	N1589	2.0	N1675	8.0
N1542	2.0	N1590	6.0	N1676	8.0

DOMINION OF CANADA:  
PROVINCE OF BRITISH COLUMBIA.  
To Wit:

In the Matter of Geochemical Survey of the AX & BX  
Group of Mineral Claims



I, Fred J. Hemsworth,  
of 616-850 West Hastings St., VANCOUVER 1, B.C.

in the Province of British Columbia, do solemnly declare that the following is a true statement of expenditures on the above geochemical survey.

D.R. Foster-M.Sc.-June 12-July 15, 1964, @\$500.00/month-----	\$583.33
D.R. Franks-Geochemical Asst.-June 12-July 15/64 @\$350.00/month-----	408.33
F.J. Hemsworth-P.Eng.-Field Work-June 25-30/64-6days @\$50.00/day-----	300.00
-Office Work - 3 days @\$35.00/day-----	105.00
Analyses of Soil Samples - 443 samples @\$1.25/each-----	553.75
Total	<u>\$1,950.41</u>

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City  
of Vancouver, in the  
Province of British Columbia, this 13th  
day of August, 1964., A.D.

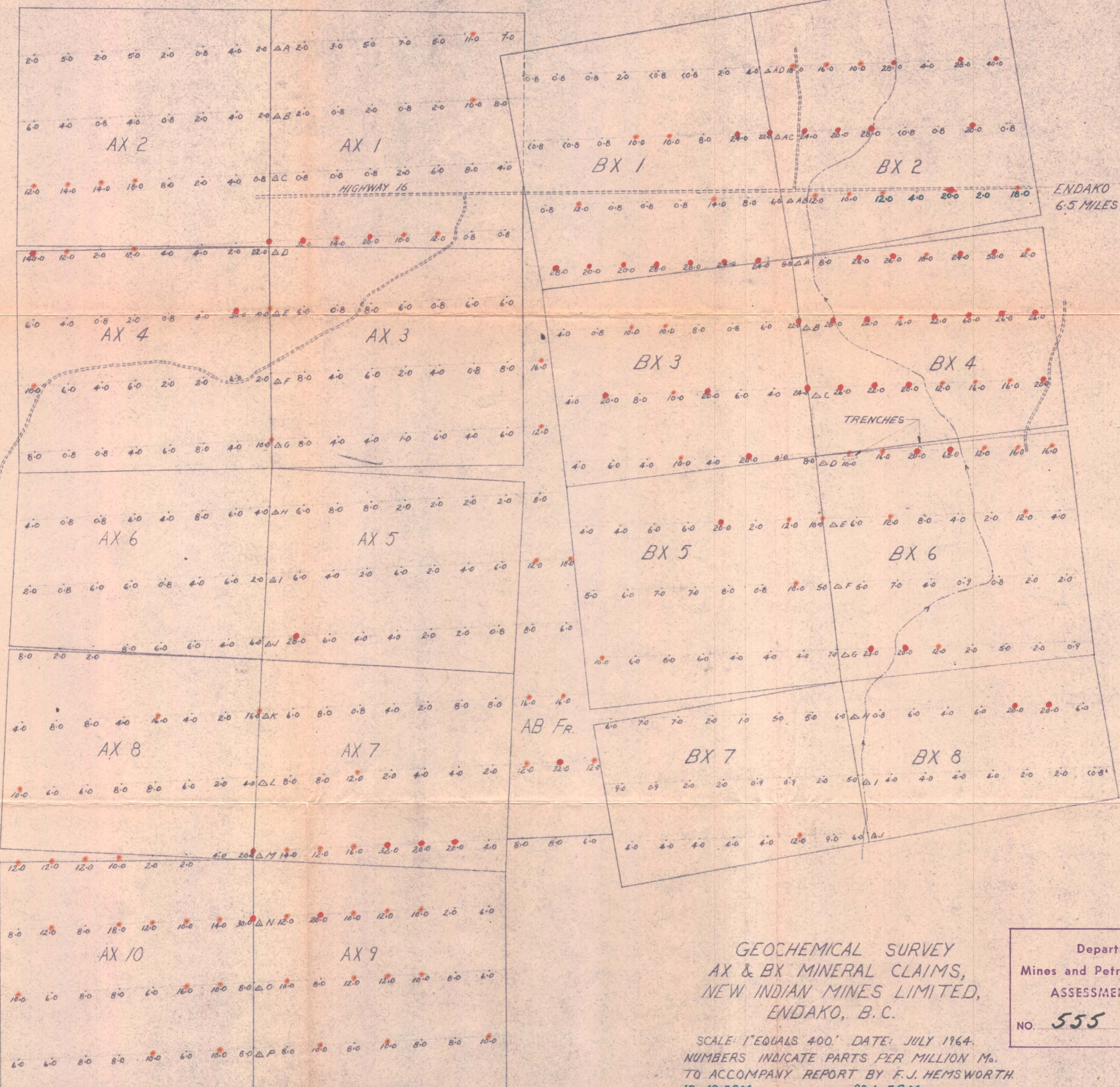
Sub-mining Recorder  
A Commissioner for taking Affidavits within British Columbia or  
A Notary Public in and for the Province of British Columbia.

<u>Sample No.</u>	<u>Mo (ppm)</u>	<u>Sample No.</u>	<u>Mo (ppm)</u>	<u>Sample No.</u>	<u>Mo (ppm)</u>
N1677	6.0	N1690	12.0	N1703	6.0
N1678	10.0	N1691	10.0	N1704	12.0
N1679	30.0	N1692	2.0	N1705	32.0
N1680	14.0	N1693	6.0	N1706	12.0
N1681	10.0	N1694	14.0	N1707	16.0
N1682	12.0	N1695	12.0	N1708	16.0
N1683	18.0	N1696	16.0	N1709	8.0
N1684	8.0	N1697	32.0	N1710	6.0
N1685	12.0	N1698	20.0	N1711	12.0
N1686	8.0	N1699	20.0	N1712	18.0
N1687	12.0	N1700	4.0	N1713	8.0
N1688	20.0	N1701	8.0	N1714	12.0
N1689	10.0	N1702	8.0	N1715	16.0

(M)

WATKINS CREEK

ENDAKO  
6.5 MILES



GEOCHEMICAL SURVEY  
AX & BX MINERAL CLAIMS,  
NEW INDIAN MINES LIMITED,  
ENDAKO, B.C.

SCALE: 1" EQUALS 400' DATE: JULY 1964.  
NUMBERS INDICATE PARTS PER MILLION PPM.  
TO ACCOMPANY REPORT BY F.J. HEMSWORTH  
10-19 PPM. 20+ PPM.

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 555 MAP 1

Report 555  
F.J. Hemsworth