CONTINENTAL LIME LTD.

GEOLOGY AND SAMPLING OF THE KELLY LAKE LIMESTONE DEPOSITS, MARBLE RANGE, WEST OF CLINTON, BRITISH COLUMBIA

CLAIMS STAG 1 AND 2, MARY 1, WILLIAM 1,
MAR 1-75, 78-86, 88-95

Geographic Coordinates

51° 07' N
121° 51' W

NTS Sheet 92/P4 W

Owner of STAG 1 AND 2, MARY 1, WILLIAM 1: B.M.C. Lime Derivatives Ltd.
215, 10451 Shellbridge Way, Richmond, B.C.

Owner of MAR 1-75, 78-86, 88-95: Continental Lime Ltd.,
215, 10451 Shellbridge Way, Richmond, B.C.

Operator: Continental Lime Ltd.
215, 10451 Shellbridge Way
Richmond, B.C. V6X 2W8

Consultant: Halferdahl & Associates Ltd.
18, 10509 - 81 Avenue
Edmonton, Alberta T6E 1X7

Author: L.B. Halferdahl, Ph.D., P.Eng., P.Geol.

Date Submitted: 1992 12 28

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1. INTRODUCTION

The Kelly Lake limestone deposits were acquired in mid 1992 by Continental Lime Ltd., partly by staking and partly by purchase. In this report the Kelly Lake limestone deposits include the Columbia Lime deposit in District Lot 2203, the Jesmond Quarry in District Lot 1284, and other limestone in the southwestern part of the Marble Range. This report contains information on 557 samples from the Kelly Lake limestone deposits, collected during June, July, and August 1992, as well as geological observations during the sampling. It was authorized by Continental Lime Ltd.

Throughout this report attitudes of bedding and other planar features are given as A°/B°SW, where A° is the azimuth of the strike, and B° is amount of dip in the direction indicated.

1.1 GEOGRAPHIC SETTING

1.1.1 Location

The Kelly Lake limestone deposits are in the Intermontane Belt of southwestern British Columbia about 230 km northeasterly from Vancouver, and about 16 km west of the Town of Clinton (Fig. 1.1). Clinton is 381 km from Vancouver via Highways 1 and 97, and 124 km from Kamloops also via Highways 1 and 97. It is 327 km from North Vancouver via the British Columbia Railway. Clinton has a population of about 700; is facilities include motels, gas and service stations, and stores. It is based mostly on ranching, forestry, and highway traffic.

1.1.2 Access

From Clinton, the Kelly Lake limestone deposits may be reached by driving southwesterly on a two-lane paved road more or less beside the BCR track for about 17 km, and thence northeasterly on the gravel road to Jesmond (Fig. 1.2). This turnoff onto the Jesmond road is about ½ km northeasterly from Kelly Lake, which is 310 km from North Vancouver on the BCR. The Kelly Lake limestone deposits include the two southwestern ridges of the Marble Range, which trend about 19 km northwesterly with their southwestern boundary about two to three km northeast of the Jesmond road. The ridge closest to the Jesmond road is here termed the First Ridge, and the next one, the Second Ridge. The southeast end of the Kelly Lake limestone deposits are about 5 km northwest of the turnoff on the Jesmond road.

Between the Jesmond road and the ridges of the Marble Range are two corridors for powerlines of the British Columbia Hydro and Power Authority. Another powerline along these corridors is reported to be in the planning stage. BC Hydro operates a large transformer station about 3 km northeasterly from Kelly Lake on the paved road to Clinton.

Local access on the ground to the Kelly Lake Limestone deposits is by three four-wheel-drive (two-wheel-drive in good weather) roads, which turn northeasterly off the Jesmond road about 5½, 14, and 18 km from the Jesmond road turnoff near Kelly Lake (Fig. 1.2, 2.1, 2.2, 2.3, 2.4), and here termed the Porcupine Creek, the Lot-1284, and the Trail Creek roads respectively. From the Jesmond road, the Porcupine Creek road to the Columbia Lime deposit follows along the powerline corridors northwesterly for about 2.7 km, and thence turns northeasterly along the southeast valley side of Porcupine Creek, and crosses it about 4 km up from the Jesmond road (Fig. 2.2). It continues a short distance up Steady Creek and with switchbacks eventually reaches the site of drillhole 1-73, which is about 5½ km along the Porcupine Creek road from the Jesmond road. A fork in this road about 100 m before reaching drillhole 1-73 branches off southwesterly and continues about 200 m along the mountainside to a point about 45 to 50 m in elevation below drillhole 2-73. Steep slopes on the Porcupine Creek road near the drillholes require four-wheel-drive vehicles.

The Lot-1284 road winds its way from the Jesmond road across the First Ridge for about 3½ km to reach the Jesmond quarry at the base of extensive limestone outcrops near the base of the Second Ridge at an elevation of about 5820 feet (1775 m) (Fig. 2.3).

The Trail Creek road branches off the Jesmond road about 18 km from the turnoff near Kelly Lake and continues northwesterly along the powerlines for about 1 km to Trail Creek (Fig. 2.3), and beyond to Crossover Creek, which is the creek between Trail Mountain and Mount Bowman (Fig. 2.4). Many other access trails to the powerline corridors and the related logging along them provide access to other parts of the First Ridge and the northwestern part of the Second Ridge, but only parts of them can presently be travelled with four-wheel-drive vehicles.

Trails used by outfitters and perhaps ranchers cross the Second Ridge along Crossover and Trail Creeks, and Porcupine Creek beyond the Porcupine Creek road. A similar trail crosses the First Ridge along Koshead Creek and appears to join a trail on the southwest valley side of Steady Creek to reach the Porcupine Creek road. A bulldozed trail climbs southeasterly from the Porcupine Creek road in the valley between the First and Second Ridges (Fig 2.1).

1.1.3 Geographic Names

Both the southeasterly flowing creek in the Jesmond-road valley north of Kelly Lake and its southwesterly flowing tributary, which cuts through the ridges of the Marble Range, are shown as Porcupine Creek in Fig. 1.2. Although older maps show this southeasterly flowing creek as the upper part of Kelly Creek, the presently named Porcupine Creek apparently flows

in the Jesmond-road valley for about 7½ or 8 km from Kelly Lake, thence occupies the northeasterly trending valley which cuts through the First and Second Ridges of the Marble Range. The creek tributary to Porcupine Creek, and occupying the Jesmond-road valley northwest of this major bend in the Porcupine Creek valley is not named on current published maps, nor in this report. Several creeks, mountains, and other features, presently without names on published maps, have been given informal names in this report to facilitate references to geographic locations (see Fig. 2.1, 2.2, 2.3, and 2.4).

1.1.4 Topography, Vegetation, and Climate

The Kelly Lake limestone deposits include two roughly parallel northwesterly trending ridges of rugged mountains cut by deep valleys of southwesterly flowing creeks: the First Ridge and the Second Ridge. The highest elevation on the First Ridge is at the top of Dome Mountain, elevation about 1830 m. The First Ridge ends southeast of Trail Creek. The Second Ridge is wider than the First Ridge. Compared to the First Ridge, the Second Ridge is relatively flat on top, with elevations along the flat top about 2075 m to 2165 m. The highest elevation on the Second Ridge is about 2260 m. Mount Bowman, elevation 2243 m, forms the northwestern end of the Second Ridge. Locally precipitous cliffs rise to the tops of both the First and Second Ridges.

The Jesmond road in the valley southwest of the First Ridge crosses the divide between the unnamed creek flowing southeasterly to Porcupine Creek and northwesterly flowing Kostering Creek, at an elevation near 1465 m. Kelly Lake is at an elevation of 1065 m, just on the southwest side of the divide between Cutoff Valley Creek (Junction Creek on old maps), which flows northeasterly past Clinton to Bonaparte River drainage, and Kelly Creek, which drains to Fraser River.

Treeline on the First and Second Ridges is at an elevation of about 2070 m, with the first trees below it being stunted pines and spruce. At lower elevations, the widely spaced pines and spruce become larger, with fairly open undergrowth. They are joined by poplars. At the southeastern end of the deposit, the forests were destroyed by fires, many years ago. At still lower elevations, the forests become fairly dense.

The climate can be described as alpine with summer temperatures of 20°C to 25°C and winter temperatures of -15° to -20°, with extremes of 34°C and -41°C. Near Kelly Lake, precipitation averages about 32 cm per year with about 60 per cent as rain. The maximum rainfall in 24 hours is near 4 cm. An average of 31 cm to 36 cm of snow falls in each of December and January with lesser falls in the other winter months. The maximum snowfall in 24

hours is about 43 cm. These precipitation figures for near Kelly Lake can be expected to increase at the elevations of the limestone deposits. The climate appears favorable for operations throughout the year.

1.2 PROPERTY

The Kelly Lake limestone deposits currently consist of 156 claim units and two-post claims in the Marble Range west of Clinton, B.C. in the Clinton Mining Division as follows (Fig. 1.3):

Claim	Tenure Number	Units/ Claims	Record Date	Expected Expiry Date
Stag 1	208 888	20	1989 09 30	1996 09 30
Stag 2	208 889	20	1989 09 29	1996 09 30
William 1	208 932	12	1989 11 24	1996 11 24
Mary 1	208 933	12	1989 11 24	1996 11 24
Mar 1-6	309 869-74	1 each	1992 05 20	1997 05 20
Mar 7-18	309 875-86	1 each	1992 05 21	1997 05 21
Mar 19-23	309 887-91	1 each	1992 05 22	1997 05 22
Mar 24-31	310 952-59	1 each	1992 06 21	1997 06 21
Mar 32-35	310 960-63	1 each	1992 06 21	1993 06 21
Mar 36-43	309 892-99	1 each	1992 05 21	1997 05 21
Mar 44-47	309 900-03	1 each	1992 05 22	1997 05 22
Mar 48-49	310 964-65	1 each	1992 06 21	1997 06 21
Mar 50-55	309 904-09	1 each	1992 05 20	1997 05 20
Mar 56-63	309 910-17	1 each	1992 05 21	1997 05 21
Mar 64-69	310 966-71	1 each	1992 06 22	1997 06 22
Mar 70-75	312 058-63	1 each	1992 07 31	1997 07 31
Mar 78-81	312 066-69	1 each	1992 07 31	1995 07 31
Mar 82-83	312 070-71	1 each	1992 07 31	1997 07 31
Mar 84-86	312 072-74	1 each	1992 08 04	1997 08 04
Mar 88-90	312 075-77	1 each	1992 08 01	1997 08 01
Mar 91-95	312 087-91	1 each	1992 08 01	1997 08 01

At the time of the work, claims Stag 1 and 2, William I, and Mary I were held by B.M.C. Lime Derivatives Ltd.; the Mar claims are held by Continental Lime Ltd.

No special attempt was made to locate claim posts for claims Stag 1 and 2, William 1, nor Mary 1, but some of the boundary posts were observed during the work. All the Mar claim posts were erected by the writer or John Gorham, who worked with him, and many were later observed during the sampling.

Statements of Work for claims Stag 1-2, Mar 24-35, 50-63, 66-69 (Appendix 18) were received by the Gold Commissioner's Office in Vancouver on September 25, 1992, and for William 1, Mary 1, Mar 1-23, 36-49, 64-65, 70-75, 82-86, 88-95 (Appendix 18) on November 23, 1992. A statement of Work for Mar 78-81 is attached (Appendix 18).

1.3 HISTORY AND PREVIOUS INVESTIGATIONS

1.3.1 Investigations by Officers of Government Agencies

In a telephone conversation in November 1992, Mr. Ernest Taylor-Smith, formerly with Columbia Lime Products Limited, advised that he investigated limestones in the Marble Range west of Clinton because of a report of their high quality by G.M. Dawson of the Geological Survey of Canada. Although Dawson's report (Dawson, 1895, p. 95B) mentions vast amounts of limestone in the Marble Range, it contains no information on its quality, nor analyses of it. One of his maps (G.S.C. Map 557), however, does show the limestone deposit now designated the Sharan quarry as being suitable for the production of lime. Perhaps Dawson's (1895, p. 313B) remarks about the possibility of lode gold in the Marble Range sparked Taylor-Smith's interest.

The earliest reported analyses of limestone from the Marble Range that the writer has found are those of Goudge (1945), who reported the analyses of two samples (Appendix 13), but these did not come from the Kelly Lake limestone deposits. The first analysis for limestone from the Kelly Lake limestone deposits (Appendix 13) found by the writer is that of McCammon (1958).

The next investigation of an area that included the Kelly Lake limestone deposits was by Trettin (1961) who geologically mapped the Marble Range and some adjoining areas at a scale of 1:63 360 during the summers of 1957, 1958, and 1959.

From 1963 to 1965, Campbell and Tipper (Tipper, 1964; Tipper, 1965; Tipper, 1966; 1966) geologically mapped the Bonaparte Lake map area including the Marble Range in its southwest corner, at a scale of 1:250 000. Their final report on this area was published in 1971 (Campbell and Tipper, 1971).

Trettin (1965, 1966, 1968) continued his work in the Marble Range for 5 days in 1964, 8 days in 1965, and one week in 1967. His report (Trettin, 1980) on this work is the most detailed published information on the geology of the Marble Range.

In 1967, McCammon (1968) examined the then abandoned Sharan quarry and analyzed a sample of limestone from it (Appendix 13).

In 1970, McCammon (1971) examined and sampled (Appendix 14) the Jesmond Limestone Corporation quarry, which is now one of the Kelly Lake limestone deposits, part of claim William 1.

Fishl's (1992) compilation on limestone and dolomite in British Columbia includes a summary of the information available to him on the Kelly Lake limestone deposits.

1.3.2 Surveying of District Lots

A telephone enquiry in September 1992 to Heather West of the Crown Lands Department of the British Columbia Government revealed that District Lots 1284 and 1285 (Fig. 1.2) were surveyed in 1956, and District Lots 2203 and 4585 (Fig. 1.2) in 1957. Quarrying leases for Lots 1284 and 2203 were issued under the Land Act. The date of the lease on Lot 2203 is February 2, 1973; the date of the lease on Lot 1284 has not been learned.

District Lot	Year Surveyed	Lease	File No.
1284	1956	22867	0294888
2203	1957	331889	0294895

Heather West was unable to provide tenure records for District Lots 1285 and 4585; apparently none exist. Although asked David Bacon of the Kamloops Regional Land Office did not provide any information on District Lots 1284, 1285, 2203, nor 4585. As District Lots 1284, 1285, 2203, 4585 cover mostly limestone on the First and Second Ridges of the Marble Range it is reasonable to assume that all four were surveyed for their limestone potential, not ranching nor other purposes.

A survey plan of District Lot 2203, in Wahl's (1973) report is dated January 30, 1973. This plan also shows District Lots 1284 and 1285. Although much of the lettering on the copy of the plan of District Lot 2203 in Wahl's (1973) report is illegible, it is clear that District Lot 2203 comprises 640 acres, and has dimensions of exactly or approximately ½ mile by 2 miles. Hence, it appears to include District Lots 2203 and 4585, shown on topographic map 92 P/4 (Fig. 1.2). Any discrepancies between this plan and the information from Heather West remain unexplained.

If District Lots 1284 and 1285 were actually surveyed in 1956, no information on the history of investigations on them from 1956 to 1969 has been obtained by the writer.

1.3.3 Jesmond Quarry

According to Fishl (1992), limestone on District Lot 1284 was initially explored by the Jesmond Limestone Corporation and Ramshead Quarries Ltd. in 1970. Apparently the Lot-1284 road was constructed at that time and the quarry face 150 m long, that forms part of Section C-4 on the Second Ridge (Appendix 9), opened. The next year, 1971, according to Fishl (1992), Malibu Metals Ltd. conducted detailed mapping, sampling, and 305 m of diamond drilling (Rourke, 1971a, 1971b). From this work estimated reserves of high-calcium limestone are 4.14 million tonnes in three zones:

	Zone A	Zone B	Zone C
Tonnes x 10^6	3.6	0.27	0.27
Ridge	Second	First	First
CaO	55.17	55.44	53.17
MgO	0.27		0.97
SiO_2	0.35	0.10	0.96
Al_2O_3	0.23		0.54
Fe_2O_3	0.08	0.02	0.40
S			0.05
LOI		44.10	43.90
Section (this report)	C-4	C-1 (part)	C-1 (part)

Although Rourke's reports have not been consulted by the writer, Fishl's (1992) summary of them appears to explain the 1992 observations.

1.3.4 Columbia Lime Deposit

The first information on the Columbia Lime deposit is an analysis of excellent-quality limestone dated May 23, 1970 (Appendix 14), obtained from Mr. Ernest Taylor-Smith of Tamars Engineering Ltd.

Little is known of investigations of this deposit from 1970 to 1973, except that samples of it were burn tested with excellent results by the Kennedy Van Saun Corporation of Danville, Pennsylvania.

The Columbia Lime deposit is included in District Lot 2203, with its survey plan dated January 30, 1973. Based on tag numbers 434670M and 434679M on old claim posts, one or more mineral claims covering parts of the Columbia Lime deposit were staked on July 3, and June 31 (?), 1973 by P. Lacombe.

In 1973, Consolidated African Selection Trust Limited contracted W.G. Wahl Limited of Toronto to explore this deposit. During the period June 7 to July 20, 1973, seven diamond drillholes (Fig. 2.2) totalling 2361 feet or 719.6 m were drilled (Wahl, 1973). Analyses were provided for the core from five of these holes, with core from the sixth hole, a partial repeat of 2-73, being sent to England for burning tests. The seventh hole was a vertical hole drilled to 62 feet for bearing tests for a lime plant, and to learn whether the clay drilled would be suitable for use with the limestone in manufacturing cement. A sample from near drillhole 1-73 was collected for crushing tests. Other work included testing the limestone for use as aggregate and ballast, investigating plant sites along or near the valley of upper Porcupine Creek, and water supply from Porcupine Creek.

Wahl (1973) estimated drill-indicated reserves of 9.6 million tonnes in Zone A with the following average composition:

	Zone A	Zone A possible	Zone B
CaO	55.21 per cent	55.34 per cent	54.77 per cent
MgO	0.29	0.27	0.80
SiO_2	0.20	0.19	0.16
Al_2O_3	0.40	0.03	0.03
Fe_2O_3	0.04	0.03	0.02,

with an additional 24½ million tonnes of possible reserves extending farther to the northwest along the First Ridge. All these reserves are on or close to a dip slope. Zone B, which stratigraphically underlies Zone A, was estimated to contain probable reserves of 4.0 million tonnes with the average composition above.

During 1973 Kilborn Engineering (B.C.)Ltd. evaluated the Columbia Lime deposit for Selco Mining Corporation Limited. This work included data for a feasibility study for a lime plant.

During 1975 and 1976, Technicon Incorporated of Tucson, Arizona, provided information for a cement plant using limestone from the Columbia Lime deposit.

During the 1992 work, other old mineral claim posts covering parts of the Columbia Lime deposit and some surrounding ground were encountered.

Following the passage of the Mineral Tenure Act in 1988, the Columbia Lime deposit was staked as mineral claim Stag 2 on September 29, 1989 for B.M.C. Lime Derivatives Ltd.

In January 1992, two samples of limestone were tested by I.M.D. Laboratories Ltd. for brightness and whiteness by the tri-stimulus method (Appendix 15). Sample 1191-101 "was taken on the contact", and 1191-102 "was taken across the body of the limestone".

1.4 Purpose of Survey

The work described in this report was undertaken to provide information on the extent of the limestone in the Marble Range that is of high enough quality for the manufacture of lime.

1.5 Summary of Work Done

During the periods June 10 to 15, 22 to 23, and July 24 to August 21, 1992, geological crews collected 557 samples of limestone, each chipped across lengths from 2 m to 15 or 20 m or more but mostly 7 to 10 m on claims Stag 1-2, William 1, Mary 1, and Mar 1-5, 7-8, 12-13, 15, 22-23, 27, 31, 32, 34, 38, 40-41, 49, 52, 61, 68-69, 71, 79, 89, 91-93. Parts of all

these claims as well as parts of claims Mar 30, 50-52, and 60 were mapped geologically at a scale of 1:5000. The area mapped is estimated at about 20 km^2.

1.6 Field Operations

The field work was conducted by two- three- and four person crews during June, July, and August 1992. For 19 days in July and August, the crews were based in helicopter-supported alpine camps near the top of the Second Ridge of the Marble Range. For the rest of the time in August, and for the two periods in June, the crews were based in a motel in Clinton with transportation to the deposit almost entirely by four-wheel-drive vehicles; on one occasion a helicopter was used. Supplies were obtained in Kamloops.

2. GEOLOGY

2.1 COMMENTS ON THE STRATIGRAPHY AND STRUCTURE

2.1.1 Map Units

As previously indicated (Section 1.3.1), the most detailed published work on the stratigraphy and structure of the Marble Range is that of Trettin (1980). Trettin has placed the limestones of the Marble Range in the Marble Canyon Formation of the Upper Permian. His map units 1 and 2 are mostly beyond the mineral claims covering the Kelly Lake limestone deposits, so they are not considered further. In this report, the stratigraphic units are grouped into carbonate (C) units and non-carbonate (N) units, with a younger intrusive unit D (for dyke). Trettin's map units correspond to those of this report as follows:

Trettin (1980)	This Report
not described	D6
6	N5
5	N3
4	C4
	C2
3	N1

Trettin's map unit 4 has been split into C2 and C4 for carbonates (mostly limestones) in the Second and First Ridges, respectively. Trettin's map unit 6, unit N5 in this report, has been included in the Marble Canyon Formation for convenience, even if it is slightly younger. The ages of the intrusions of unit D6 are not known, but those near the southeast end of the Second Ridge may be Tertiary.

2.1.2 Distinctions Between Map Units C2 and C4

Trettin (1980) correlated the massive limestones on the First and Second Ridges in the same map unit on the basis of his interpretation of the structure, which he thought was basically an anticline on the First Ridge, an anticlinorium on the Second Ridge, with a syncline between the two. The writer does not agree with Trettin's interpretation of an anticline on the First Ridge, at least not at the Columbia Lime deposit (Section 3.1), nor near its north end between Indecision and Trail Creeks (Appendix 9, Section C-3, Fig. 2.3). The only possible suggestion of an anticline near the First Ridge, observed by the writer, is a slight decrease in the southwesterly dip as the northeast side of a shallow valley at sample 8529 is ascended (Fig. 2.3). Locally along the crest of the First Ridge, the strata are overturned to the northeast as at sampled Sections B-3 (Fig. 2.2) and C-3 (Fig. 2.3). Trettin also noted overturning at the northeast side of the Columbia Lime deposit. This overturning is evident from a helicopter.

Trettin's map shows faults part of the way along the valley separating the First and Second Ridges, but he does not discuss them. Another fault was postulated by McCammon (1971) on the southwest side of the Second Ridge at the west end of the Jesmond quarry. Such a fault may explain the difference in attitudes of the strata west of this postulated fault (Appendix 16) and that of the strata at sampled Section C-5 (Appendix 9, Fig. 2.3). If these faults are actually present and of sufficient displacement, then the massive carbonates of the First and Second Ridges could be fault repetitions of the same stratigraphic unit, but this correlation is considered only a remote possibility.

Further information on the stratigraphy and structure of map units C2 and C4 are in Section 3 of this report.

2.2 STRATIGRAPHY

2.2.1 Map Unit N1

During the 1992 field work, rocks of map unit N1 were observed in the northeastern part of claim Stag 2, north of Porcupine Creek (Fig. 2.2). There, they consist of medium-greenish-grey volcanics with grains less than ¼ mm in size. Some contain 1 to 2 per cent finely disseminated pyrite. These volcanics weather dark rusty brown. A pronounced foliation has the attitude 144°/65° SW, and a lesser foliation, 110°/18° SW. Trettin (1980, p. 5) has observed and described lithic arenite, siltstone, chert, and limestone in this unit elsewhere in the Marble Range, in addition to these volcanic flow rocks.

Trettin's map may show some of his map unit 3, corresponding to unit N1, near the southeast end of the Second Ridge (Fig. 2.1). The 1992 work indicates intrusive relations in some of the fine-grained igneous rocks in this area, so they are described as part of map unit D6.

2.2.2 Map Unit N3

In 1992, rocks of map unit N3 were observed along the upper part of the Lot-1284 road, where they consist of limestone, argillite, tuff, agglomerate, and schist with an estimated stratigraphic thickness of 311+ m (Appendix 16, Fig. 2.3), and along the location line of claim Mar 85 on the southwest side of Trail Mountain, where calcareous shale with foliation 145°/90° and massive greenstone were noted. Volcanic float was observed along the trail up Trail Creek, perhaps with a bedrock source on claim Mar 85. In the valley between the First and Second Ridges southeast of Porcupine Creek (Fig. 2.1) are several outcrops of greenstone, some foliated and schistose, agglomerate, scoriae and pumice. Some outcrops at the southeast end of the First Ridge on claims Mar 30 to 33 may belong to map unit N3, but they are discussed as part of map unit D6.

Trettin (1980, p. 7) observed and described lithic arenite, phyllite, and fractured dolomite north of Two Mile Creek, and mapped chert north of Koshead Creek and carbonate rocks south of Trail creek in 1958.

Wahl (1973, p. 6) noted siliceous schist at the top of map unit N3 in strata stratigraphically below and northeast of those forming the Columbia Lime deposit.

2.2.3 Map Unit N5

Cuts along about 100 m of the Porcupine Creek road southwest of the Columbia Lime deposit expose strata with variable lithologies and rapidly changing bedding attitudes: 145°/43° NE at the southwest end, several minor folds between, and 125°/40° SW at the northeast end, where the cleavage is 123°/90°. The exposures show fine-grained dark, hard siliceous bands, some rusty, some green with epidote, and brownish-grey argillite with partings 1 to 3 cm apart. The former contains blocks of dark-colored fine-grained limestone, one of which is 2 m long by 40 cm thick and more or less conformable to the bedding. These limestone blocks may support Trettin's (1980, p. 8) suggestion that these enclosing rocks are submarine slide deposits. Trettin also noted and described chert, petite, limestone, and volcanic rocks in this map unit. Wahl (1973, p. 6) noted that schistose slate overlies the limestone of map unit C4, so it presumably is the basal unit of map unit N5.

2.3 STRUCTURE

2.3.1 Early Thrust Fault

Trettin (1980 p. 8) described an early thrust fault which separates map unit C2 from map unit N1, which he suggested was similar to one on Mount Kerr described by Campbell and Tipper (1971, p. 80). The writer is uncertain whether such a fault is necessary to explain the relations between map units C2 and N1. A straightforward stratigraphic sequence may suffice. Nevertheless, observations of the volcanics underlying the limestones of map unit C2 on the southeast end of the Second Ridge southeast of Porcupine Creek may support this fault (Fig. 2.1). Other supporting evidence includes some suggestions of a thrust fault below the peak on claim Mar 1 (Fig. 2.3). If present, this part of the thrust extends northwest from that shown on Trettin's map. Possible additional evidence is the presence of coarse foliated white calcite with a gentle dip on the southwest side of Mount Bowman near its summit. Because of its uncertain existence, the early thrust fault shown on Trettin's map is not shown on Fig. 2.1, 2.2, 2.3, nor 2.4.

2.3.2 Folds

As explained in Sections 2.1.2 and 3, the writer disagrees with Trettin's (l980) interpretation of an anticline in the First Ridge. All the strata on the First Ridge observed in 1992 appear to strike northwesterly and to dip southwesterly, but with local overturning to the northeast. Stratigraphic tops are to the southwest.

The cross-section accompanying Trettin's map shows several folds in the Second Ridge. In general, the concept of these folds agrees with the 1992 observations, but many details remain to be worked out. The overall structure in the northwestern part of the Second Ridge appears to be synclinal, perhaps partly bounded by faults on its southwest side.

An anticline was observed in the Second Ridge just north of Porcupine Creek (Fig. 2.2).

2.3.3 Other Faults

The 1992 field work identified faults in the Kelly Lake limestone deposits based on the presence of coarse white calcite probably formed by shearing recrystallization, other shearing, extensive red-orange or orange-brown material along joint and fracture faces of the limestone, and a noticeable change in the attitudes of bedding during the sampling of some of the sections described in Appendix 9. Some breccia zones also indicate faults. Some but not all of the faults encountered as well as some of Trettin's are shown on Fig. 2.1, 2.2, 2.3, and 2.4.

The northwesterly trending fault shown on Trettin's map southwest of his Third Ridge Anticline appears to extend farther to the southeast (Fig. 2.3). Its turn to the east was not checked.

Trettin does not discuss his fault along Trail Creek. Although outcrops are not abundant along the thalweg of Trail Creek, no coarse white calcite nor extensive red-orange material was noted in outcrops along Trail Creek, so the existence of this fault is uncertain.

Some other faults shown on Trettin's map are discussed in Section 2.1.2.

The writer observed the cleft caused by the northeasterly trending fault about 60 m northwest of drillhole 3-73 in the Columbia Lime deposit. This fault appears to dip almost vertically, and Wahl (1973, p. 5) remarked that it had left-hand movement of more than 30 m.

The age relations of the several faults have not been worked out.

2.4 INTRUSIONS

2.4.1 Map Unit D6

On claims Mar 50, 51, 60, and 61, (Fig. 2.1), the limestone of map unit C2 appears to be intruded by fine-grained dark-colored rocks resembling volcanics. The dyke is at least 20 m wide and displays intrusive tonques and wedges. To the southeast, the dyke widens and gives the impression that it underlies the whitish limestones of map unit C2 in the cliffs above. It is possible that map unit D6 is younger than Permian.

On the First Ridge the location line for claims Mar 30 and 31 runs southeasterly over a cliff of limestone (map unit C4) onto more gently sloping ground underlain by very weathered generally dark-colored schist (Fig. 2.1), which may be related to the dykes opposite on the Second Ridge. Farther south along the First Ridge are several knobs of limestone which are interpreted as roof pendants in the intrusive rocks.

2.4.2 Granitic Rocks

On the northern part of the Second Ridge as shown on Fig. 2.3, sample 8065 in sampled Section C-20 on claim Mar 12, and samples 8145-46 in sampled Section C-21 on claim Mar 15 are noted to contain pinkish granitic material or narrow quartz-feldspar stringers (Appendix 9). Both sections were sampled across faults. These indications of granitic rocks are too small to show on Fig. 2.3.

3. STRATIGRAPHY AND STRUCTURE OF THE LIMESTONE UNITS

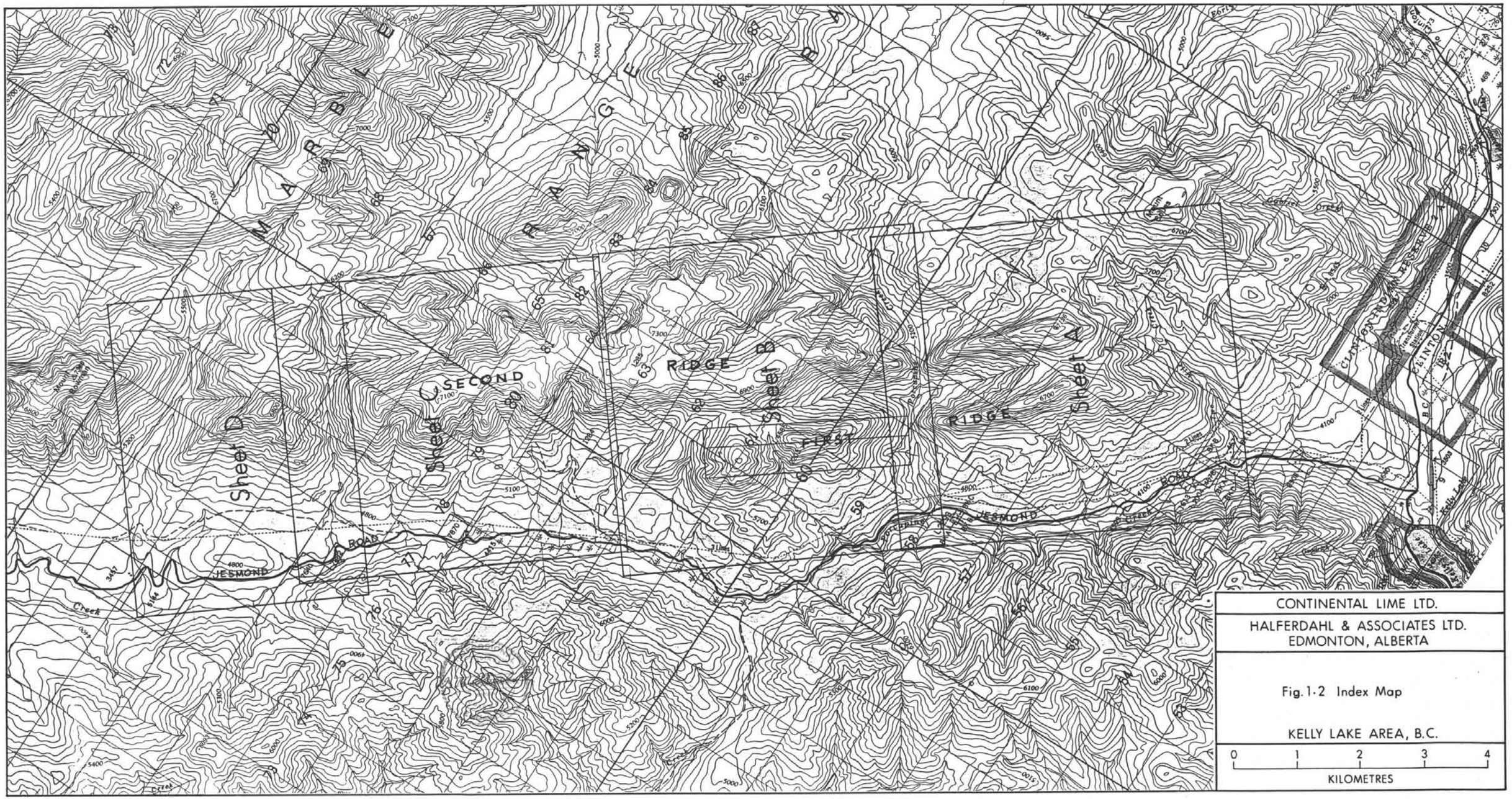
The folding, faulting, and related plastic deformation, followed by later periods of tectonism, and perhaps uniform depositional conditions, have rendered bedding difficult to find and recognize in many places in the limestones of the First and Second Ridges of the Marble Range. Joints are easily confused with bedding. The absence of readily recognized marker horizons also hinders stratigraphic and structural studies. Variations in the concentrations of some of the minor and trace constituents in the Acme analyses prompted further determination of trace constituents (Appendix 12) to aid in correlating strata, but their use for this purpose is not yet complete; these determinations are not discussed further in this report.

3.1 FIRST RIDGE, MAP UNIT C4

About 1057 m of stratigraphic section were examined in 14 sections plus other outcrops along the First Ridge. Section A-1 (Appendix 9) near the southeast end of the First Ridge (Fig. 2.1) was also examined, but its stratigraphic relation to the nearby volcanics and other rocks is uncertain.

As previously noted in Section 2.3.2, the structure of the First Ridge except at its southeast end appears fairly uniform: a northwesterly strike with southwesterly dips, and stratigraphic tops to the southwest.

The most detailed information on the stratigraphy of map unit C4 comprising the First Ridge is at the Columbia Lime deposit. As previously noted in Section 1.3.4, the Columbia Lime deposit was drilled by six diamond drillholes totalling 700.7 m (Wahl, 1973). Analyses were provided for the core from five of these holes. Wahl used these to designate zones A and B, based on the quality of the limestone. Another zone with appreciable MgO, and here designated zone C, lies stratigraphically below zone B. The total thickness of zone C was not penetrated in any of the drillholes. The stratigraphically upper part of zone A was not penetrated in any of the 1973 drillholes, but was partly sampled in 1973 (samples 38 to 41), and partly by 1992 samples 8535 to 8537. Wahl (1973) stated that the general attitude of the strata at the Columbia Lime deposit is 145°/65°SW. Attitudes measured by the writer at the base of the cliff near the stratigraphic top of Zone A are 133°/62°SW and 123°/65°SW, both in reasonable agreement with that of Wahl. Plotting of data from drillholes 1-73, 4-73, and 5-73 indicates that the contact between zones A and B strikes 143° and dips 85°SW. This dip, however, is suspect because of possible errors in the elevations of the drillholes, the lack of surveys along the drillholes, themselves, and the near colinearity of the points used for its determination. Selected data from the 1973 drilling, and some calculations based on these data are in Table 1. Stratigraphic



CONTINENTAL LIME LTD.

HALFERDAHL & ASSOCIATES LTD.
EDMONTON, ALBERTA

Fig. 1·2 Index Map

KELLY LAKE AREA, B.C.

0 1 2 3 4
KILOMETRES

TABLE 1: SELECTED INFORMATION AND CALCULATIONS FROM THE 1973 DIAMOND DRILLING ON THE COLUMBIA LIME DEPOSIT
(Basic drill data from Wahl, 1973)

Feet Where Appropriate

Drillhole	1-73	2-73	3-73	4-73	5-73	6-73
Elevation	5200	5285.2	5343.2	5636.3	5683.4	528.52
Northing	12 040	12 200	12 300	12 720	12 740	12 200
Easting	23 600	23 110	22 620	22 890	23 390	23 110
Inclination	0°	0°	0°	0°	-45°	0°
Azimuth	32°	32°	32°	32°	32°	32°
Length	408	405	400	406	370	310
Stratigraphic Thickness						
145°/65°SW	342.3	339.8	335.6	340.6	329.7	260.1
133°/62°SW	357.0	354.4	350.0	355.3	350.0	271.3
123°/65°SW	372.9	370.2	365.6	371.1	350.0	283.3
Zone A	0-58	0-405	0-400	0-400	-	0-310
Zone B	58-208	-	-	400-406	0-150*	-
Zone C	208-405**	-	-	-	150-370	-
Stratigraphic Thickness						
Zone A						
145°/65°SW	48.7	339.8	335.6	335.6	-	260.1
133°/62°SW	50.8	354.4	350.0	350.0	-	271.3
123°/65°SW	53.0	370.2	356.6	356.6	-	283.3
Zone B						
145°/65°SW	125.9	-	-	4.2	133.7	-
133°/62°SW	131.3	-	-	4.4	141.9	-
123°/65°SW	137.1	-	-	4.6	141.9	-
Zone C						
145°/65°SW	165.3	-	-	-	196.0	-
133°/62°SW	172.4	-	-	-	208.1	-
123°/65°SW	180.1	-	-	-	208.1	-

* Wahl used 140 feet.

** No analyses for 405-408 feet.

thicknesses for zones A, B, and C based on the general attitude of 145°/65°SW and converted to metres follow:

Zone A		
Strata stratigraphically above (but topographically below) those in DDH 3-73	25.1 m	
Strata drilled by DDH 3-73	102.3	
Overlap of strata in DDH 3-73 and 4-73	(10.2)	
Strata drilled by DDH 4-73	102.3	
Total stratigraphic thickness	219.5 m	219.5 m
Zone B		
Strata drilled by DDH 1-73	43.8 m	
Strata drilled by DDH 5-73	46.5	
Average stratigraphic thickness		45.2
Zone C		
Strata drilled by 5-73 (bottom not reached)	59.7	
Total stratigraphic thickness		59.7 +
Total of zones A, B, and C		**324.4** + m

Calculated thicknesses based on the bedding attitudes measured by the writer are up to about 8 per cent higher.

Projections of the contact between zones A and B suggest that sampled Section A-4, just southeast of *Porcupine Creek* (Fig. 2.2, Appendix 9) includes parts of zones B and C. Sampled Sections A-2 with about 34 m of strata, and A-3 with an estimated 21 m of strata, both farther southeast along the First Ridge (Fig. 2.1) are probably partly in zones A and B. Additional sampling on the southwest slope of this part of the First Ridge is needed to learn the thickness of Zone A there.

Northwesterly along the First Ridge from the Columbia Lime deposit sampled Sections B-3 with about 19 m of strata, and B-4 with about 49 m of strata (Fig. 2.2, Appendix 9) appear to be in zone A. Additional sampling on the southwest slope of this part of the First Ridge will provide information on the total thickness of zone A there.

Sampled Section B-5 on Dome Mountain (Fig. 2.2, Appendix 9) suggests that samples were collected across the contact of Zones A and B.

Sampled Section B-6 along Koshead Creek (Fig 2.2, Appendix 9) with an estimated 210 m of strata, appears to be all in the variably dolomitic part of Zone C. It is uncertain whether zones A and B are present southwest of the sampled section or whether zone C has thickened

there at the expense of zones A and B. Sampled Sections B-7 and B-8 (Fig. 2.2, Appendix 9) are similar to sampled Section B-6.

Sampled Section C-1 along the Lot-1284 road (Fig. 2.3, Appendix 9) with about 78 m of strata fits zone B better than zones A or C, but this assignment is tenuous. The outcrops sampled by samples 8521, 8523, and 8529 appear similar to the limestone of zone A at the Columbia Lime deposit.

Sampled Section C-2 (Fig. 2.3, Appendix 9) with only 15 m of strata, cannot be assigned reliably to zone A, B, nor C, but the limestone appears similar to Zone A. Only part of the outcrop there along Indecision Creek was sampled.

Sampled Section C-3 (Fig. 2.3, Appendix 9) with about 332 m of strata, almost half covered, may fit zone C but this assignment is uncertain. It may support the concept of a facies change northwesterly along the First Ridge with zone A lensing out northwest of Dome Mountain.

3.2 SECOND RIDGE, MAP UNIT C2

About 3309 m of stratigraphic section were examined in 50 sections and isolated outcrops with an additional 111 m that could not be definitely related to stratigraphic directions. With the complex structures of the Second Ridge, it is unlikely that these stratigraphic descriptions will produce a clear picture of the stratigraphy. More chert than on the First Ridge was noted in parts of some of the sections. Specifically, near sampled Section C-13 on the southwest side of the Second Ridge (Fig. 2.3, Appendix 9), the presence of chert concentrated in layers perhaps 50 to 70 m apart is unlike any of the sections examined in the First Ridge.

Perhaps sampled Section B-13 can be correlated with part of sampled Section B-19 (Fig. 2.2, Appendix 9) on the basis of its higher content of P_2O_5. In these Sections higher P_2O_5 is not accompanied by higher MgO, as it is in the small number of samples with higher P_2O_5 from the First Ridge.

4. QUALITY OF LIMESTONE

4.1 SAMPLING

Some 557 samples (Appendix 9) were collected by chipping outcrops perpendicular to the bedding, if it could be identified. Where bedding could not be identified, the chips were taken in directions appropriate to the topography with the stratigraphic thickness deduced from other measurements where possible. These samples came from 14 sections on the First Ridge representing about 808 m of strata plus another 20 m or so from other outcrops, and from 50 sections on the Second Ridge representing about 3036 m of strata plus others in which the stratigraphic direction was not identified.

4.2 ANALYTICAL PROCEDURES

The 68 samples collected in June 1992 (Appendix 1) were analyzed according to ASTM C25 by Loring Laboratories Ltd., except that MgO was determined by standard atomic absorption techniques. For eight samples LOI was determined at 1050°C instead of 1000°C as specified by ASTM C25. The analyses of 14 samples collected in June 1992 were checked by Union Assay Office Inc. (Appendices 2 and 3) according to ASTM C25.

All the other 489 samples were analyzed by Acme Analytical Laboratories Ltd. according to inductively coupled plasma techniques (Appendices 4 and 5). For ICP analyses the samples were crushed, ground, and pulverized, with 0.2 g then fused with $LiBO_2$ and dissolved in 100 ml 5% HNO_3. These 489 samples were also analyzed for 30 major, minor, and trace constituents by ICP techniques following digestion with aqua regia (Appendix 12).

CaO and LOI were determined by Loring Laboratories Ltd. in 40 of the samples previously analyzed by ICP techniques (Appendix 1). CaO was determined by standard gravimetric procedures and LOI at 1050°C.

4.3 ADJUSTMENTS TO REPORTED ANALYSES

Perusal of the analytical results indicates that some of the analyses for CaO and LOI are not accurate (Appendices 7 and 8). Hence, some of the CaO and LOI determinations have been adjusted (Appendices 10 and 11).

4.4 SECTIONS WITH HIGH-QUALITY LIMESTONE

The stratigraphic thicknesses with high-quality limestone in the sampled sections are compiled in Table 2. Some along the First Ridge are readily correlatable. Correlations for those on the Second Ridge require more detailed stratigraphic and structural investigations.

TABLE 2: SAMPLED SECTIONS WITH HIGH-QUALITY LIMESTONE

Based on the stratigraphic thicknesses in Table 1 and Appendix 9; some are estimated.

Sampled Section	Stratigraphic Thickness (m)	CaO (%)	Comments
First Ridge			
A-2	33	>55	more strata up section not sampled
A-4	36	>55	more strata up section not sampled
Columbia Lime Deposit	220	>55	Zone A
B-3	19	>55	Zone A - more strata up section not sampled
B-4	49	>55	Zone A - more strata up section not sampled
B-5	50	>55	more strata up section not sampled
C-1	40½	>55	section covered at both ends
C-2	15	>55	more strata down section not sampeld
C-3	63	>55	includes 10 m covered
	47	>55	includes 16 m covered
Second Ridge			
A-5	19½	>55	
B-9	50	55½-55	
B-10	50	54½-55	
B-11	41	>55	
B-13	91	>55	more strata below not sampeld
B-14	39	>55	
	99	>55	includes 65 m covered
B-15	38	>55	includes 9 m covered
B-16	48	>55	includes 8 m with 53.08% CaO, 1.96% MgO
B-17	112	>55	
B-18	27	>55	
B-19	49	>55	
	56	54½-55	
B-20	27	>55	
B-21	63	>55	includes 19 m covered
B-22	40½	>55	without 3 m dolomite and 3 m covered
B-23	112	>55 }	7 m with 2.68% MgO between
	27	>55 }	
C-4	24	54½-55	
	5	54½-55	
	10½	>55	
	6	54½-55	
C-5	15	>55	not sampled above and below
C-6	215	>55	more strata below not sampled
C-8	125½	>55	includes 7½ m covered and 8 m with 54.23% CaO
	83	>55	includes 4 m covered
C-9	56	>55	more strata down section not sampled
C-11	26	>55	

TABLE 2: CONTINUED

Sampled Section	Stratigraphic Thickness (m)	CaO (%)	*Comments*
C-12	33	>55	
C-14	45	>55	*includes 13 m covered*
	69	>55	more strata down section not sampled
C-15	17½	>55	
C-16	11	>55	
C-17	45½	>55	includes 5 m covered
C-18	12	>55	1 m with chert between
	22½	>55	
C-19	78	>55	includes 15 m not sampled
C-20	26	54½-55	
	10	>55	
C-21	17	54½-55	
C-22	82	55	
D-1	85	55	
D-2	81	>55	more strata up section not sampled
D-3	62½	>55	
D-4	192	>55	includes 8 m of 54.59% CaO; section crosses a fault
D-5	16	>55	more strata down section not sampled

L.B. Halferdahl, Ph.D., P.Eng.

Edmonton, Alberta
1992 12 23

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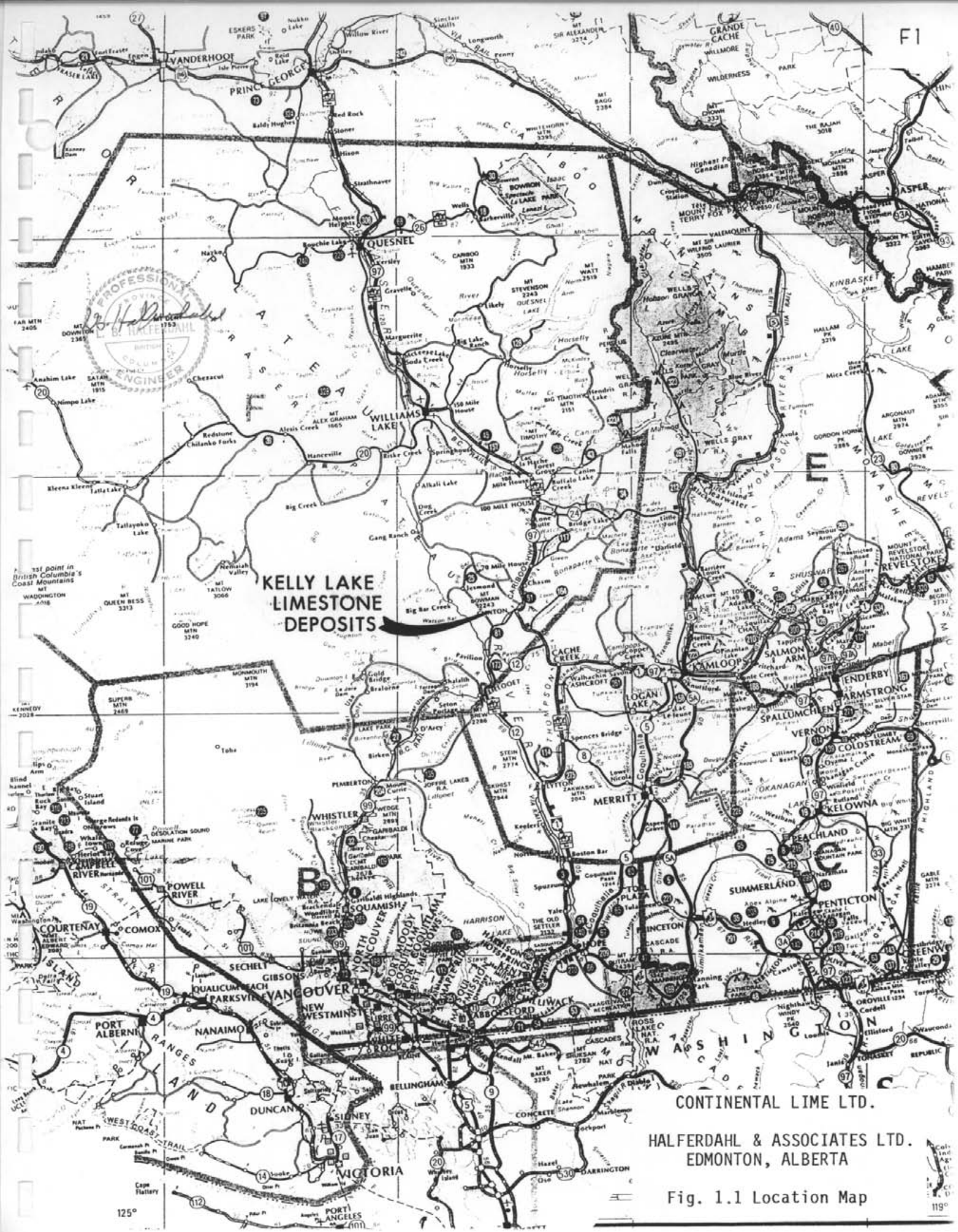
F1
KELLY LAKE
LIMESTONE
DEPOSITS
PRINCE GEORGE
QUESNEL
WILLIAMS LAKE
100 MILE HOUSE
CACHE CREEK
KAMLOOPS
MERRITT
VANCOUVER
VICTORIA
NANAIMO
PORT ALBERNI
CAMPBELL RIVER
COURTENAY
COMOX
DUNCAN
SIDNEY
BELLINGHAM
PENTICTON
KELOWNA
REVELSTOKE
JASPER
CONTINENTAL LIME LTD.
HALFERDAHL & ASSOCIATES LTD.
EDMONTON, ALBERTA
Fig. 1.1 Location Map

Creek

Fifty nine Ck.

PROFESSIONAL ENGINEER
PROVINCE OF
L. B. HALFERDAHL

MT. BOWMAN

MAR 70-84; 88-90
312058-312077

MT. KERR

MAR 91-95
312089-312091

MAR 48-49
310964-310965

Fifty seven

MAR 64-65
310966-310967

Creek

MARBLE RANGE

WILLIAM 1
3171 (11)
ZONE 6B

MARY 1
3172 (11)
ZONE 6B

STAG 1
3127 (9)
4N 5E

STAG 2
3128 (9)
4N 5E

MAR 66-69
310969-310971

MINERAL RESERVE
O/C 294; 85-02-22
SUBJECT TO CONDITIONS

MAR 24-35
310952-
310963

Porcupine

Two Mile Cr.

Lebasque Cr.

EDGE

Barney Creek

HILLS

Butcher Cr.

Fraser

CONTINENTAL LIME LTD.

HALFERDAHL & ASSOCIATES LTD.
EDMONTON, ALBERTA

Fig. 1.3 Property Map

Part of Claim Map
92P4W

Scale: 1:50000

F3

APPENDIX 1: ANALYTICAL REPORTS FROM LORING LABORATORIES LTD.

To: CONTINENTAL LIME,
190, 3025 - 12th Street N.E.,
Calgary, Alberta T2E 7J2

ATTN: John Schindler
cc: L.B. Halferdahl - Edmonton

A1

File No. 35185
Date June 19, 1992
Samples Limestone

Certificate of Assay
LORING LABORATORIES LTD.

SAMPLE NO.	% CaO	MgO	L.O.I.	Insol	R2O3
"ASSAY ANALYSIS"					
7928	54.79	0.38	43.14	0.44	0.12
7929	55.15	0.36	43.10	0.28	0.10
7930	53.73	0.50	42.24	2.21	0.13
7931	53.75	0.50	42.10	2.08	0.17
7932	54.71	0.50	42.85	0.89	0.12
7933	54.33	0.43	42.58	1.51	0.15
7934	54.51	0.43	42.76	0.82	0.15
7935	54.69	0.36	42.55	0.48	0.09
7936	55.51	0.36	42.68	0.12	0.07
7937	55.49	0.36	42.65	0.15	0.05
7938	54.89	0.36	42.36	0.28	0.08
7939	55.65	0.36	42.43	0.12	0.05
7940	55.03	0.33	42.31	0.27	0.05
7941	55.09	0.33	42.71	0.23	0.08
7942	55.15	0.30	41.93	0.73	0.05
7943	54.33	0.35	41.41	2.10	0.08
7944	54.89	0.33	42.01	0.33	0.08
7945	54.43	0.32	41.51	1.16	0.06
7946	50.36	3.76	42.22	1.54	0.18
7947	54.71	0.46	42.12	0.44	0.06

I Hereby Certify that the above results are those assays made by me upon the herein described samples....

ojects retained one month.
Pulps retained one month
unless specific arrangements
are made in advance.

Assayer

APPENDIX 1: CONTINUED

To: CONTINENTAL LIME,
190, 3025 - 12th Street N.E.,
Calgary, Alberta T2E 7J2

ATTN: John Schindler
cc: L.B. Halferdahl - Edmonton

A2

File No. 35185
Date June 19, 1992
Samples Limestone

Certificate of Assay
LORING LABORATORIES LTD.

SAMPLE NO.	% CaO	MgO	L.O.I.	Insol	R2O3
"ASSAY ANALYSIS"					
7948	54.73	0.36	43.15	0.53	0.11
7949	54.69	0.43	43.18	0.73	0.08
7950	54.71	0.48	43.22	0.61	0.09
8501	55.49	0.28	42.75	0.23	0.05
8502	55.13	0.32	42.87	0.16	0.05
8503	55.60	0.28	42.74	0.08	0.03
8504	55.45	0.28	43.02	0.07	0.03
8505	55.11	0.28	43.19	0.12	0.09
8506	54.07	0.28	42.66	1.32	0.22
8507	55.48	0.27	42.74	0.11	0.05
8508	55.71	0.25	42.68	0.07	0.03
8509	55.73	0.25	42.56	0.04	0.05
8510	55.53	0.25	42.79	0.09	0.05
8511	55.75	0.22	42.66	0.15	0.05
8512	55.73	0.25	42.62	0.07	0.03
8513	55.89	0.25	42.63	0.08	0.03
8514	55.79	0.27	42.64	0.12	0.05
8515	54.89	0.45	42.85	0.40	0.08
8516	54.91	0.45	42.47	0.41	0.08
8517	55.01	0.38	42.52	0.37	0.05

I Hereby Certify that the above results are those assays made by me upon the herein described samples....

Rejects retained one month.
Pulps retained one month unless specific arrangements are made in advance.

Assayer

APPENDIX 1: CONTINUED

A3

To: CONTINENTAL LIME,
190, 3025 - 12th Street N.E.,
Calgary, Alberta T2E 7J2

ATTN: John Schindler

cc: L.B. Halferdahl - Edmonton

File No. 35185
Date June 19, 1992
Samples Limestone

Certificate of Assay
LORING LABORATORIES LTD.

SAMPLE NO.	% CaO	MgO	L.O.I.	Insol	R2O3
"ASSAY ANALYSIS"					
8518	54.61	0.43	42.73	1.09	0.14
8519	53.81	0.53	42.51	1.09	0.27
8520	55.61	0.36	43.42	0.18	0.12
8521	55.71	0.18	42.54	0.15	0.05
8522	55.81	0.18	42.31	0.16	0.05
8523	55.81	0.18	42.15	0.21	0.06
8524	55.01	0.33	43.45	0.49	0.40
8525	55.61	0.36	42.92	0.14	0.10
8526	55.21	0.43	42.17	0.32	0.08
8527	55.11	0.50	42.39	0.32	0.05
8528	55.51	0.36	42.02	0.16	0.05
8529	55.31	0.43	42.00	0.43	0.08
8530	53.31	1.99	42.43	0.61	0.08
8531	43.99	8.27	43.80	1.56	0.46
8532	53.69	1.89	41.74	0.11	0.06
8533	55.39	0.40	42.16	0.07	0.05
8534	54.53	0.50	42.71	0.65	0.19
8535	55.85	0.08	41.56	0.16	0.06
8536	55.75	0.15	41.95	0.17	0.05
8537	55.65	0.13	41.82	0.12	0.05

I Hereby Certify that the above results are those assays made by me upon the herein described samples....

jects retained one month.
Pulps retained one month
unless specific arrangements
are made in advance.

Assayer

APPENDIX 1: CONTINUED

A4

To: HALFERDAHL & ASSOCIATES LTD.,
18, 10509 - 81st Avenue,
Edmonton, Alberta T6E 1X7

ATTN: L.B. Halferdahl

File No. 35214
Date July 13, 1992
Samples Limestone

Certificate of Assay
LORING LABORATORIES LTD.

SAMPLE NO.	% CaO	% MgO	% LOI	% Acid Insol	% R2O3
"Assay Analysis"					
8551	54.42	0.40	43.37	1.16	0.88
8552	55.30	0.28	43.81	0.20	0.72
8553	55.24	0.32	43.26	0.10	0.80
8554	55.54	0.27	43.25	0.20	0.54
8555	55.52	0.32	43.76	0.18	0.66
8556	55.44	0.28	43.24	0.22	0.80
8557	55.76	0.30	43.27	0.10	1.21
8558	55.81	0.17	43.05	0.10	0.64

L.O.I. performed @ 1050° C.

I Hereby Certify that the above results are those assays made by me upon the herein described samples....

Rejects retained one month.
Pulps retained one month
unless specific arrangements
are made in advance.

Assayer

APPENDIX 1: CONTINUED

To: HALFERDAHL & ASSOCIATES LTD.,
18, 10509 - 81st Avenue,
Edmonton, Alberta T6E 1X7

ATTN: L.B. Halferdahl

A5

File No. 35476
Date October 30, 1992
Samples Pulp

Certificate of Assay
LORING LABORATORIES LTD.

SAMPLE NO.	% CaO	% LOI @ 1050 C
"Assay Analysis"		
8006	53.16	44.11
8030	55.05	44.16
8059	55.36	43.69
8150	55.42	43.80
8178	55.50	43.77
8184	55.19	43.55
8217	55.48	43.66
8238	55.46	43.63
8242	55.48	43.70
8257	55.26	43.58
8261	55.19	43.70
8266	55.13	43.76
8295	55.66	43.56
8296	55.52	43.74
8299	53.58	43.61
8313	54.85	43.69
8316	55.46	43.49
8321	55.17	43.77
8330	55.28	43.58
8332	55.26	43.43

I Hereby Certify that the above results are those assays made by me upon the herein described samples....

.ejects retained one month.
Pulps retained one month
unless specific arrangements
are made in advance.

Assayer

APPENDIX 1: CONTINUED

To: HALFERDAHL & ASSOCIATES LTD.,
18, 10509 - 81st Avenue,
Edmonton, Alberta T6E 1X7

ATTN: L.B. Halferdahl

A6

File No. 35476
Date October 30, 1992
Samples Pulp

Certificate of Assay
LORING LABORATORIES LTD.

SAMPLE NO.	% CaO	% LOI @ 1050 C
8334	52.80	41.88
8346	54.36	43.53
8369	53.94	43.46
8372	55.50	43.77
8377	54.96	43.59
8381	54.96	43.52
8384	54.92	43.20
8387	55.40	43.48
8396	44.50	44.85
8408	52.84	43.95
8433	51.80	43.88
8546	55.20	43.72
8574	55.00	43.53
8577	55.10	43.77
8580	49.00	44.17
8591	55.30	43.69
8598	55.46	43.83
8705	54.41	43.63
8713	54.80	43.61
8760	54.36	43.25

I Hereby Certify that the above results are those assays made by me upon the herein described samples....

Rejects retained one month.
Pulps retained one month
unless specific arrangements
are made in advance.

Assayer

4X4 pick-up truck, rental, insurance, gasoline June 10-15, 23, July 24-August 21, 1992			2,298.89	
Freight	Camp gear	$410.45		
	Samples	330.11		
			740.56	
				20,190.97

d) not applicable

e) not applicable

f) Analyses

67 samples prepared and analyzed for CaO, MgO, acid insol., R_2O_3, and LOI @ $45.475	$3,046.83	
14 samples analyzed for CaO, MgO, acid insol., R_2O_3, and LOI @ $75.00	1,050.00	
489 samples prepared and analyzed for major and minor constituents by ICP @ $14.213	6,950.16	
489 samples prepared adn analyzed for 30 constituents by ICP @ $4.828	2,360.97	
40 samples rehomogenized and analyzed for CaO and LOI @ $17.923	716.90	
Transferring analytical data to computer disks	17.12	
		14,141.98

g) Report - typing, reproduction, assembly 1,284.00

h) Other

Base maps : enlargements and prints	1663.16	
Aerial photographs	148.73	
Rental of 2-way radios	406.80	
Long distance telephone	155.55	
Camp supplies	102.53	
		2,476.77
		$107,964.06

APPENDIX 2: ANALYTICAL REPORT FROM UNION ASSAY OFFICE INC.

Telephone 363-3302

Hand Sample Serial 530-543

ASSAY REPORT

UNION ASSAY OFFICE, Inc.
BRYANT L. LARSEN, President
JAMES G. STRATTON, Vice President
A.S. JOLLIFFE, Treasurer
JAMES W. GARRETT, Secretary
P.O. BOX 1528
Salt Lake City, Utah 84110
(801) 363-3302

Mine Continental Lime Ltd
190, 3025 - 12 Street N.E.
Calgary, Alberta, Canada Attn: J.N. Schindler

RESULTS PER TON OF 2000 POUNDS

June 22, 1992

NUMBER	GOLD Ozs. per Ton	SILVER Ozs. per Ton	Per Cent CaO	Per Cent MgO	Per Cent R203	Per Cent LOI	Per Cent Insol *	IRON Per Cent	LIME Per Cent	Per Cent	Per Cent
7928			54.76	0.38	0.44	42.55	0.45				
7931			53.37	0.46	0.40	42.66	2.35				
7936			54.94	0.07	0.08	43.27	0.13				
7941			54.76	0.14	0.12	43.48	0.25				
8501			54.94	0.26	0.12	42.40	0.19				
8502			54.94	0.23	0.20	44.14	0.08				
8503			54.94	0.20	0.08	44.44	0.08				
8507			55.11	0.14	0.12	42.97	0.11				
8509			54.76	0.20	0.16	44.37	0.11				
8512			54.94	0.23	0.08	44.06	0.08				
8514			55.11	0.25	0.12	43.67	0.05				
8522			54.94	0.14	0.12	43.14	0.16				
8535			55.28	none	0.08	42.55	0.16				
8537			55.28	0.07	0.08	43.20	0.08				

* *Remarks* (Hydrochloric & Nitric Acid used in assaying Insol Analysis)

ges $ 882.00

APPENDIX 3: COMPARISON OF LIMESTONE ANALYSES FROM THE KELLY LAKE LIMESTONE DEPOSITS, MARBLE RANGE, B. C.

	WEIGHT PER CENT													
	LORING ANALYSES							UNION ANALYSES						
SAMPLE	CaO	MgO	ACID INSOL	R2O3	LO I	TOTAL	LO I-CO2 EQ	CaO	MgO	ACID INSOL	R2O3	LO I	TOTAL	LO I-CO2 EQ
7928	54.79	0.38	0.44	0.12	43.14	98.87	-0.27	54.76	0.38	0.45	0.44	42.55	98.58	-0.84
7931	53.75	0.50	2.08	0.17	42.10	98.60	-0.63	53.37	0.46	2.35	0.40	42.66	99.24	0.27
7936	55.51	0.36	0.12	0.07	42.68	98.74	-1.28	54.94	0.07	0.13	0.08	43.27	98.49	0.08
7941	55.09	0.33	0.23	0.08	42.71	98.44	-0.88	54.76	0.14	0.25	0.12	43.48	98.75	0.35
8501	55.49	0.28	0.23	0.05	42.75	98.80	-1.10	54.94	0.26	0.19	0.12	42.40	97.91	-1.00
8502	55.13	0.32	0.16	0.05	42.87	98.53	-0.75	54.94	0.23	0.08	0.20	44.14	99.59	0.77
8503	55.60	0.28	0.08	0.03	42.74	98.73	-1.20	54.94	0.20	0.08	0.08	44.44	99.74	1.10
8507	55.48	0.27	0.11	0.05	42.74	98.65	-1.10	55.11	0.14	0.11	0.12	42.97	98.45	-0.43
8509	55.73	0.25	0.04	0.05	42.56	98.63	-1.45	54.76	0.20	0.11	0.16	44.37	99.60	1.18
8512	55.73	0.25	0.07	0.03	42.62	98.70	-1.39	54.94	0.23	0.08	0.08	44.06	99.39	0.69
8514	55.79	0.27	0.12	0.05	42.64	98.87	-1.44	55.11	0.25	0.05	0.12	43.67	99.20	0.15
8522	55.81	0.18	0.16	0.05	42.31	98.51	-1.69	54.94	0.14	0.16	0.12	43.14	98.50	-0.13
8535	55.85	0.08	0.16	0.06	41.56	97.71	-2.36	55.28	0.00	0.16	0.08	42.55	98.07	-0.83
8537	55.65	0.13	0.12	0.05	41.82	97.77	-2.00	55.28	0.07	0.08	0.08	43.20	98.71	-0.26

	CaO	MgO	ACID INSOL	R2O3	LO I	TOTAL	LO I-CO2 EQ
	TESTS OF DIFFERENCES (LORING - UNION)						
MEAN	0.523571	0.079285	-0.01142	-0.09214	-0.83285	-0.33357	-1.33029
STD DEV	0.253337	0.075825	0.080698	0.083936	0.684203	0.573804	0.814566
TEST	**7.732853**	**3.912409**	**-0.52989**	**-4.10745**	**-4.55458**	**-2.17514**	**-6.11062**
HIGH	0.97	0.29	0.08	-0.01	0.59	0.89	0.566456
LOW	0.03	0	-0.27	-0.32	-1.81	-1.06	-2.62583
N	14	14	14	14	14	14	14
	REGRESSION ANALYSES						
Constant	14.64675	-0.04897	-0.02934	-0.01500	23.89752	53.70500	0.249105
Std Err of Y Est	0.221481	0.081024	0.043649	0.063749	0.698485	0.585215	0.731544
R Squared	**0.787201**	**0.590622**	**0.995067**	**0.725225**	**0.078308**	**0.080121**	**0.011029**
No. of Observations	14	14	14	14	14	14	14
Degrees of Freedom	12	12	12	12	12	12	12
X Coefficient(s)	0.726096	0.890628	1.138551	2.648501	0.457520	0.458374	0.136475
Std Err of Coef.	0.108979	0.214048	0.023139	0.470610	0.453114	0.448353	0.373055

NOTES:
All determinations are believed to be according to
ASTM C25 except as follows:
- Union used hydrochloric and nitric acid for Acid Insol determinations.
- Loring used atomic absorption for MgO determinations.

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604) 253-1716

WHOLE ROCK ICP ANALYSIS

Halferdahl & Associates Ltd. File # 92-2359 Page 1

18 - 10509 - 81st Ave, Edmonton AB T6E 1X7

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %
8001	.95	.27	.07	2.91	52.38	.06	.34	.01	.13	.01	.004	8	175	90	15	37	42.8	99.96
8002	.89	.33	.02	.24	55.71	.06	.49	.01	.01	.01	.002	8	226	20	6	33	42.2	99.98
8003	.33	.21	.04	1.80	54.60	.06	.26	.01	.03	.01	.003	24	213	12	7	5	42.6	99.97
8004	.18	.54	.03	.72	55.78	.05	.24	.01	.04	.01	.002	5	227	14	5	12	42.4	99.99
8005	.17	.36	.04	1.61	54.64	.05	.18	.01	.04	.01	.003	472	230	22	5	33	42.8	99.99
8006	.17	.39	.04	2.69	53.34	.05	.36	.01	.02	.01	.003	8	205	28	6	23	42.9	99.99
8007	.19	.45	.03	.22	56.67	.05	.13	.02	.01	.01	.002	5	151	29	5	19	42.2	99.97
8008	.26	.39	.05	2.83	52.96	.05	.31	.02	.07	.01	.002	5	215	33	6	37	43.0	99.97
8009	.19	.33	.03	.36	56.03	.05	.26	.01	.01	.01	.002	16	255	15	5	5	42.7	99.99
8010	.36	.34	.04	.62	55.44	.05	.27	.01	.01	.01	.003	16	275	10	5	8	42.8	99.96
8011	.25	.40	.04	.28	55.70	.05	.28	.01	.04	.01	.002	24	266	17	5	11	42.9	99.97
8012	.59	.57	.06	1.00	54.58	.05	.31	.01	.06	.01	.003	24	257	19	6	5	42.7	99.96
8013	.35	.37	.03	.32	55.90	.05	.28	.01	.01	.01	.003	25	232	17	15	21	42.6	99.95
8014	.26	.44	.03	.19	55.97	.05	.18	.01	.02	.01	.003	24	207	16	11	14	42.8	99.98
8015	.39	.34	.05	.12	55.79	.05	.15	.01	.01	.01	.012	16	585	8	5	7	43.0	99.99
8016	.19	.35	.02	.25	55.85	.05	.25	.01	.01	.01	.004	23	222	12	5	11	43.0	100.00
8017	1.54	.35	.04	.42	54.53	.05	.19	.01	.01	.01	.002	45	384	13	5	8	42.8	99.98
RE 8014	.26	.44	.03	.19	55.96	.05	.17	.01	.02	.01	.004	24	207	15	11	14	42.8	99.96
8018	.27	.35	.03	.29	55.82	.05	.41	.01	.01	.01	.003	23	230	11	15	16	42.7	99.95
8019	.08	.41	.01	.23	56.22	.05	.33	.01	.01	.01	.003	40	264	7	13	12	42.6	99.96
8020	.16	.25	.02	.22	56.25	.05	.11	.01	.01	.01	.002	23	198	11	11	5	42.9	100.00
8021	.18	.42	.01	.20	55.95	.05	.05	.01	.01	.01	.002	24	212	16	10	5	43.1	99.98
8022	.18	.39	.02	.22	55.67	.05	.32	.01	.01	.01	.002	24	238	14	9	5	43.1	99.97
8023	.11	.35	.02	.24	55.94	.05	.14	.01	.01	.01	.002	25	235	9	10	5	43.1	99.98
8024	.15	.41	.02	.22	55.82	.05	.22	.01	.01	.01	.002	25	228	5	8	5	43.1	100.01
8025	.21	.48	.03	.27	55.63	.05	.32	.01	.10	.01	.002	41	291	35	5	8	42.8	99.93
8026	.19	.25	.02	.03	56.15	.05	.31	.01	.04	.01	.002	5	164	62	6	6	42.9	99.95
8027	.14	.25	.03	.19	55.88	.05	.21	.01	.02	.01	.002	16	185	8	5	5	43.2	99.98
8028	.31	.31	.05	.19	55.22	.05	.30	.01	.08	.01	.002	16	257	116	6	5	43.4	99.97
8029	.30	.53	.05	.17	53.81	.05	.32	.01	.01	.01	.004	8419	241	6	5	5	43.3	100.00
8030	.31	.38	.03	.18	55.65	.05	.13	.01	.09	.01	.002	14	510	19	5	5	43.1	99.98
8031	.19	.30	.03	.23	55.69	.05	.26	.01	.01	.01	.002	25	303	5	5	5	43.2	99.97
8032	.18	.47	.02	.21	56.00	.05	.14	.01	.01	.01	.002	25	391	7	5	5	42.9	100.01
8033	.15	.42	.02	.21	56.17	.05	.31	.01	.01	.01	.002	24	310	19	5	6	42.6	99.98
8034	.16	.42	.02	.22	56.14	.05	.16	.01	.01	.01	.002	31	289	7	5	5	42.8	100.00
8035	.26	.32	.03	.27	55.69	.05	.29	.01	.01	.01	.004	31	386	12	6	5	43.0	99.95
8036	.22	.51	.04	.31	55.52	.05	.20	.01	.01	.01	.002	24	208	6	5	5	43.1	99.97
STANDARD LIMESTONE	6.56	1.38	.55	.41	50.45	.05	.31	.06	.03	.02	.003	72	298	37	7	5	40.0	99.86
STANDARD SO-4	69.24	10.18	3.34	.90	1.51	1.26	2.04	.55	.21	.07	.008	808	192	317	22	14	10.4	99.92

.200 GRAM SAMPLES ARE FUSED WITH 1.2 GRAM OF LIBO2 AND ARE DISSOLVED IN 100 MLS 5% HNO3.
- SAMPLE TYPE: LIMESTONE Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 5 1992 **DATE REPORT MAILED:** Aug 17/92 **SIGNED BY** .....D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

APPENDIX 4: ANALYTICAL REPORTS FOR WHOLE ROCK ANALYSES FROM ACME ANALYTICAL LABORATORIES LTD. AS OBTAINED

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %
8037	.25	.23	.02	.20	56.00	.05	.22	.01	.06	.01	.002	31	252	20	5	5	42.9	99.96
8038	.14	.18	.01	.26	56.19	.05	.12	.01	.01	.01	.002	16	256	14	5	5	43.0	99.98
8039	.28	.23	.03	.32	55.70	.05	.28	.01	.03	.01	.002	8	265	23	5	8	43.0	99.95
8040	.21	.18	.03	.26	56.41	.05	.17	.01	.01	.01	.002	23	242	21	5	5	42.6	99.93
8041	.15	.30	.02	.25	56.13	.05	.15	.01	.01	.01	.002	16	270	19	5	6	42.9	99.97
8042	.25	.33	.02	.25	55.83	.05	.20	.01	.01	.01	.002	24	401	19	5	5	43.0	99.97
8043	.20	.28	.03	.26	55.73	.05	.15	.01	.02	.01	.002	23	417	13	5	6	43.2	99.97
8044	.30	.25	.04	.46	55.57	.05	.06	.01	.01	.01	.004	16	318	20	5	5	43.2	99.96
8045	.30	.20	.04	.27	55.81	.05	.36	.01	.01	.01	.002	23	292	19	5	5	42.9	99.97
8046	.46	.36	.04	.27	55.78	.05	.29	.01	.01	.01	.002	15	333	25	5	8	42.6	99.91
8047	.19	.32	.03	.24	56.09	.05	.10	.01	.01	.01	.002	5	268	16	5	6	42.9	99.96
8048	.21	.27	.03	.29	55.65	.05	.23	.01	.01	.01	.002	16	218	16	5	5	43.2	99.96
8049	.82	.59	.08	1.14	53.01	.06	.27	.01	.13	.01	.002	155	218	16	5	5	43.8	99.97
8050	.25	.15	.02	.36	55.59	.05	.35	.01	.01	.01	.002	23	257	21	5	5	43.2	99.99
8126	.26	.22	.02	.22	56.11	.05	.15	.01	.01	.01	.002	24	281	12	6	6	42.9	99.97
8127	.10	.20	.01	.23	56.18	.05	.16	.01	.02	.01	.002	24	265	11	5	5	43.0	99.98
8128	.15	.21	.02	.23	55.99	.06	.25	.01	.01	.01	.006	24	261	22	8	5	43.0	99.96
8129	.48	.23	.02	.24	55.84	.05	.20	.01	.01	.01	.002	24	322	11	13	5	42.9	100.00
8130	.35	.27	.03	.37	55.56	.05	.21	.01	.02	.01	.004	40	275	16	7	5	43.1	99.99
8131	.30	.22	.03	.60	55.33	.05	.31	.01	.11	.01	.002	24	227	13	5	5	43.0	99.98
8133	.12	.18	.02	.23	56.19	.05	.18	.01	.01	.01	.002	24	175	14	5	5	43.0	99.98
8134	.15	.30	.03	.22	56.06	.05	.13	.01	.03	.01	.002	24	158	18	5	5	43.0	100.00
8135	.10	.29	.02	.18	56.56	.05	.16	.01	.01	.01	.002	20	203	16	5	6	42.6	99.99
8136	.15	.36	.03	.18	56.20	.05	.23	.01	.02	.01	.002	24	206	19	5	6	42.7	99.95
8137	.15	.23	.01	.13	56.31	.05	.22	.01	.04	.01	.002	24	170	12	5	5	42.8	99.97
8138	.12	.12	.01	.14	56.30	.05	.52	.01	.08	.01	.002	24	176	16	5	6	42.6	99.96
8139	.05	.26	.02	.15	56.38	.05	.24	.01	.02	.01	.002	49	185	16	5	6	42.8	99.97
8140	.01	.21	.01	.16	56.40	.05	.32	.01	.02	.01	.002	24	168	12	5	5	42.8	99.98
RE 8136	.16	.38	.02	.19	56.08	.05	.31	.01	.01	.01	.002	24	205	12	5	5	42.8	100.01
8141	.76	.39	.03	.04	56.05	.05	.31	.01	.03	.01	.002	24	187	14	5	5	42.3	99.97
8142	.18	.33	.03	.17	56.20	.05	.50	.01	.01	.01	.002	48	226	16	5	6	42.5	99.97
8143	.13	.39	.03	.20	56.41	.05	.08	.01	.05	.01	.002	16	186	115	5	5	42.6	99.96
8151	.31	.34	.03	.39	55.96	.05	.34	.02	.02	.01	.002	24	239	17	5	5	42.5	99.98
8152	.36	.52	.05	.38	55.58	.05	.25	.01	.05	.01	.002	106	223	14	5	5	42.7	99.96
8153	.20	.21	.02	.31	56.25	.05	.27	.01	.01	.01	.002	8	238	11	5	5	42.6	99.93
8154	.28	.22	.04	.26	56.22	.05	.27	.01	.01	.01	.002	25	299	17	5	5	42.6	99.97
8155	.16	.31	.03	.30	56.31	.05	.30	.01	.01	.01	.002	24	245	16	5	7	42.5	99.97
STANDARD LIMESTONE	6.54	1.32	.56	.48	50.92	.05	.32	.05	.03	.02	.003	80	288	42	7	5	40.0	100.34
STANDARD SO-4	69.01	10.31	3.26	.91	1.53	1.27	2.18	.55	.21	.08	.006	816	193	316	22	13	10.4	99.92

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

APPENDIX 4: CONTINUED

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %
8156	.27	.19	.05	.14	55.59	.05	.28	.02	.01	.01	.002	5	232	10	5	7	43.3	99.89
8157	.26	.24	.04	.11	55.37	.05	.10	.01	.01	.01	.002	627	201	7	5	5	43.6	99.88
8158	.37	.29	.05	.14	55.63	.05	.16	.01	.01	.01	.002	5	257	9	5	5	43.2	99.90
8159	.19	.09	.03	.11	56.33	.05	.28	.01	.01	.01	.002	5	236	8	5	5	42.8	99.89
8160	.31	.21	.01	.05	56.44	.05	.05	.01	.01	.01	.002	5	528	5	5	5	42.8	99.91
8161	.18	.08	.02	.07	56.17	.05	.13	.01	.01	.01	.002	5	848	7	5	5	43.1	99.87
8162	.70	.18	.03	.68	55.00	.05	.07	.02	.03	.01	.002	5	367	134	5	5	43.1	99.89
8163	1.07	.18	.05	.08	55.41	.05	.25	.01	.01	.01	.002	5	854	9	5	5	42.7	99.88
8164	.20	.13	.02	.02	56.30	.05	.07	.01	.01	.01	.002	5	676	5	5	5	43.1	99.93
8165	.21	.16	.03	.06	56.16	.05	.14	.02	.01	.01	.002	5	415	6	5	5	43.0	99.87
8166	.20	.17	.03	.08	56.37	.05	.08	.01	.01	.01	.002	5	469	5	5	5	42.9	99.91
8167	.46	.17	.02	.40	55.83	.05	.26	.01	.01	.01	.002	5	298	8	5	5	42.7	99.89
8168	.27	.12	.01	.05	56.34	.05	.12	.01	.01	.01	.002	5	369	8	5	5	42.9	99.88
8169	.23	.19	.01	.05	56.27	.05	.06	.01	.01	.01	.002	5	406	6	5	5	43.0	99.90
8170	.11	.14	.01	.09	56.21	.05	.20	.01	.01	.01	.002	5	364	10	5	5	43.1	99.93
RE 8174	.09	.16	.02	.04	56.47	.05	.05	.02	.01	.01	.002	5	219	6	10	5	43.1	99.95
8171	.27	.12	.02	.09	56.19	.05	.05	.01	.01	.01	.002	5	245	6	6	5	43.1	99.90
8172	.18	.17	.02	.08	56.42	.05	.05	.01	.01	.01	.002	5	291	7	5	5	43.0	99.93
8173	.21	.11	.04	.38	55.93	.05	.16	.01	.01	.01	.004	5	226	5	9	5	43.0	99.90
8174	.13	.12	.01	.04	56.62	.05	.05	.01	.01	.01	.002	5	221	5	10	5	43.0	99.96
8175	.17	.21	.01	.06	56.39	.05	.08	.01	.01	.01	.002	5	288	5	11	5	42.9	99.88
8176	.09	.15	.02	.03	56.78	.05	.05	.01	.01	.01	.002	21	199	8	5	5	42.7	99.85
8177	.10	.09	.03	.01	56.70	.05	.09	.01	.01	.01	.002	21	180	5	5	5	42.8	99.87
8178	.08	.04	.02	.04	56.83	.05	.05	.01	.05	.01	.002	11	186	8	6	5	42.8	99.91
8288	.07	.06	.02	.10	56.50	.05	.08	.01	.02	.01	.002	5	171	6	6	5	43.0	99.89
8289	.08	.11	.01	.12	56.50	.05	.12	.01	.01	.01	.002	5	160	7	5	5	42.9	99.88
8290	.10	.06	.03	.01	56.72	.05	.05	.01	.01	.01	.002	5	157	8	5	5	42.9	99.90
8291	.28	.11	.06	.09	56.20	.05	.06	.01	.02	.01	.004	5	178	8	5	5	43.0	99.89
8292	.30	.16	.04	.06	56.27	.05	.10	.01	.01	.01	.002	11	257	7	7	5	42.9	99.90
8293	.10	.11	.03	.05	56.44	.05	.10	.01	.01	.01	.002	5	191	5	5	5	43.0	99.88
8294	.11	.10	.02	.02	56.43	.05	.05	.01	.01	.01	.003	5	213	5	5	5	43.1	99.86
8295	.08	.10	.01	.02	56.80	.05	.05	.01	.01	.01	.002	5	229	5	5	5	42.8	99.90
8296	.11	.15	.02	.10	56.49	.05	.05	.01	.01	.01	.002	5	201	5	5	5	43.0	99.93
8297	.16	.13	.01	.14	56.50	.05	.05	.01	.01	.01	.002	5	376	6	8	5	42.9	99.93
8298	.20	.13	.02	.30	56.19	.05	.05	.01	.01	.01	.002	5	247	7	7	5	42.9	99.86
8299	.67	.14	.02	1.77	54.47	.05	.05	.01	.01	.01	.002	11	287	6	6	5	42.8	99.91
8300	.32	.15	.03	.36	56.21	.05	.05	.01	.01	.01	.002	5	173	5	6	5	42.7	99.88
STANDARD LIMESTONE	6.78	1.40	.56	.42	50.89	.05	.31	.06	.04	.02	.003	65	266	28	6	5	40.0	100.57
STANDARD SO-4	69.21	10.02	3.46	.94	1.46	1.27	2.14	.54	.21	.08	.006	832	208	310	22	14	10.4	99.95

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

APPENDIX 4: CONTINUED

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %
8538	.06	.34	.01	.10	56.03	.05	.05	.01	.05	.01	.003	6	197	5	16	5	43.4	99.99
8539	.04	.24	.03	.18	56.19	.05	.05	.01	.10	.01	.005	7	189	10	7	5	43.0	99.90
8540	.05	.16	.03	.21	56.58	.05	.05	.01	.03	.01	.003	6	131	5	10	5	42.8	99.93
8541	.23	.20	.05	4.71	50.72	.05	.05	.02	.04	.01	.002	32	196	5	7	5	44.0	99.99
8542	.46	.54	.08	8.88	44.72	.05	.05	.01	.05	.01	.002	44	168	34	7	5	45.1	99.94
8543	.01	.26	.01	.89	55.36	.05	.05	.01	.05	.01	.002	31	287	5	5	5	43.4	99.99
8544	.41	.26	.08	6.33	47.89	.05	.05	.01	.32	.01	.002	6	212	5	12	5	44.6	99.93
8545	.58	.27	.07	14.26	38.74	.05	.09	.01	.08	.01	.002	6	165	74	7	5	45.7	99.88
8547	.23	.37	.02	.33	55.35	.05	.05	.01	.01	.01	.002	41	476	5	16	5	43.6	99.97
8548	.27	.41	.03	2.52	52.73	.05	.05	.02	.19	.01	.002	16	298	5	6	5	43.8	99.99
RE 8561	.17	.26	.02	.26	56.11	.05	.05	.01	.13	.01	.002	53	294	5	9	5	42.9	99.96
8549	.68	.41	.09	3.24	51.58	.05	.05	.02	.29	.01	.005	6	226	38	15	5	43.6	99.95
8550	.46	.26	.06	1.61	54.02	.05	.05	.01	.06	.01	.003	6	236	5	9	5	43.5	99.99
8559	.07	.31	.01	.30	56.06	.05	.05	.01	.10	.01	.002	42	342	30	6	5	43.0	99.98
8560	.06	.24	.03	.36	55.76	.05	.05	.02	.09	.01	.002	67	290	5	10	5	43.4	99.98
8561	.21	.23	.07	.26	55.82	.05	.05	.01	.17	.01	.002	39	296	5	10	5	43.0	99.87
8562	.15	.23	.05	.25	56.14	.05	.05	.01	.07	.01	.005	75	354	5	12	5	42.9	99.93
8563	.07	.28	.02	.30	56.17	.05	.05	.01	.04	.01	.002	52	283	5	7	5	43.0	99.99
8564	.28	.40	.04	.38	55.56	.05	.05	.01	.06	.01	.002	62	318	65	11	16	43.0	99.87
8565	.01	.14	.03	.21	56.50	.05	.05	.01	.07	.01	.002	38	196	21	7	5	42.9	99.96
8566	.39	.35	.04	.27	55.68	.05	.05	.01	.05	.01	.002	37	219	20	11	5	43.0	99.89
8567	.28	.23	.04	.16	56.26	.05	.05	.01	.05	.01	.002	37	196	5	10	5	42.8	99.94
8568	.21	.33	.04	.15	56.09	.05	.05	.01	.05	.01	.002	25	195	5	7	5	43.0	99.98
8569	.16	.20	.07	.18	55.98	.05	.05	.01	.07	.01	.004	36	209	5	17	5	43.2	99.87
8570	.43	.29	.03	.12	56.51	.05	.05	.01	.05	.01	.003	36	166	15	6	5	42.4	99.94
8571	.49	.25	.04	.08	56.31	.05	.05	.02	.09	.01	.002	37	213	478	5	5	42.5	99.96
8572	.32	.25	.05	.15	56.15	.05	.05	.01	.07	.01	.002	24	235	62	10	19	42.7	99.87
8573	.27	.25	.06	.26	55.67	.05	.05	.02	.06	.01	.003	47	222	5	13	5	43.3	99.90
8574	.14	.31	.03	.27	55.99	.05	.05	.01	.04	.01	.002	47	207	53	8	18	42.9	99.86
8575	1.43	.32	.05	.23	54.31	.06	.50	.01	.09	.01	.002	34	210	126	12	82	42.6	99.71
STANDARD SO-4	68.77	10.43	3.32	.93	1.47	1.31	1.99	.57	.21	.08	.005	811	197	316	22	15	10.6	99.90

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

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604) 253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Halferdahl & Associates Ltd. File # 92-2378 Page 1

18 - 10509 - 81st Ave, Edmonton AB T6E 1X7

APPENDIX 4: CONTINUED

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %
8051	.46	.34	.07	.29	55.06	.06	.19	.01	.04	.01	.003	44	299	16	5	12	43.3	99.90
8052	.22	.33	.04	.27	54.42	.08	.94	.01	.01	.01	.002	73	360	51	5	24	43.4	99.82
8053	.45	.21	.03	.29	54.71	.07	.61	.02	.02	.01	.002	28	284	42	5	15	43.4	99.89
8054	.25	.25	.02	.23	55.52	.05	.05	.01	.03	.01	.002	50	367	5	5	5	43.5	99.94
8055	.26	.26	.04	.46	55.22	.05	.20	.01	.04	.01	.002	18	578	12	5	5	43.3	99.93
8056	.91	.27	.05	.08	55.21	.09	.23	.01	.07	.01	.002	18	293	21	5	9	42.9	99.89
8057	.76	.48	.02	.16	54.59	.06	.54	.01	.06	.01	.002	5	314	43	5	18	43.1	99.85
8058	.17	.21	.02	.10	56.07	.05	.05	.01	.18	.01	.004	10	318	7	5	5	43.1	99.94
8059	.27	.22	.02	.04	55.99	.05	.05	.01	.12	.01	.002	11	883	8	5	5	43.1	99.94
8060	.65	.60	.09	.09	54.17	.05	.17	.04	.50	.01	.002	19	1033	18	12	5	43.4	99.91
8062	.41	.42	.05	2.88	52.26	.05	.05	.02	.15	.01	.002	31	352	14	7	5	43.6	99.93
8063	.23	.48	.02	.24	55.01	.06	.53	.01	.10	.01	.002	19	362	36	7	16	43.1	99.86
8064	.45	.35	.04	.12	55.32	.07	.56	.01	.08	.01	.002	5	334	33	6	14	42.8	99.88
8065	.15	.39	.04	.56	55.38	.05	.13	.01	.06	.01	.002	5	176	11	5	6	43.1	99.90
RE 8070	.17	.19	.04	.01	56.81	.05	.05	.01	.05	.01	.002	32	313	5	5	5	42.6	99.95
8066	.18	.36	.03	.68	55.03	.06	.33	.01	.05	.01	.002	5	191	28	5	9	43.1	99.88
8067	.35	.35	.05	2.59	52.45	.05	.22	.02	.08	.01	.002	5	202	10	5	5	43.7	99.91
8068	.14	.20	.03	.68	56.03	.05	.05	.02	.06	.01	.002	5	226	5	5	5	42.7	99.94
8069	.14	.16	.03	.06	56.41	.05	.05	.02	.05	.01	.002	5	254	5	5	5	43.0	99.95
8070	.14	.21	.03	.01	56.61	.05	.05	.03	.05	.01	.002	31	308	5	5	5	42.7	99.86
8132	.08	.15	.04	.29	56.54	.05	.05	.03	.08	.01	.002	5	218	70	5	5	42.6	99.88
8144	.06	.22	.01	.04	56.15	.05	.26	.02	.05	.01	.002	5	1051	26	5	9	42.9	99.89
8145	.61	.29	.06	.01	55.53	.05	.05	.02	.11	.01	.002	5	1340	12	6	5	43.0	99.88
8146	1.76	.16	.01	.01	55.26	.05	.05	.02	.12	.01	.002	5	529	5	5	5	42.5	99.95
8147	.81	.46	.03	.15	54.61	.05	.13	.01	.07	.01	.002	20	334	45	5	7	43.5	99.89
8148	.72	.47	.10	1.70	52.87	.05	.05	.05	.10	.01	.002	20	328	9	5	5	43.8	99.93
8149	.57	.23	.06	.11	55.12	.05	.05	.04	.08	.01	.003	5	500	5	6	5	43.6	99.93
8150	.49	.63	.03	.24	54.93	.05	.05	.03	.05	.01	.002	31	331	9	5	5	43.4	99.93
8179	.01	.24	.01	.10	56.71	.05	.05	.02	.08	.02	.002	11	205	5	5	5	42.7	99.95
8180	.07	.30	.02	.16	56.09	.05	.05	.02	.10	.01	.002	20	238	5	7	5	43.1	99.94
8181	.05	.18	.02	.20	56.55	.05	.05	.02	.06	.01	.002	33	262	5	8	5	42.8	99.95
8182	.02	.17	.04	.19	56.31	.05	.05	.02	.06	.01	.002	31	255	5	9	5	43.0	99.92
8183	.01	.37	.01	.13	56.41	.05	.05	.01	.10	.01	.004	75	263	5	6	5	42.8	99.93
8184	.22	.33	.03	.07	56.50	.05	.05	.03	.06	.01	.002	95	254	5	7	5	42.6	99.95
8185	.30	.35	.04	.03	56.58	.05	.05	.02	.12	.01	.002	32	205	13	5	6	42.3	99.85
8186	.23	.12	.07	.05	56.29	.05	.05	.02	.09	.01	.002	55	201	5	5	5	43.0	99.94
8187	1.03	.17	.03	.01	55.91	.05	.05	.02	.19	.01	.003	32	190	5	13	5	42.5	99.94
STANDARD LIMESTONE	6.73	1.38	.50	.39	50.41	.05	.32	.08	.03	.02	.002	88	308	46	7	5	40.4	100.35
STANDARD SO-4	68.55	10.65	3.43	.89	1.50	1.30	2.03	.54	.21	.08	.008	813	193	297	23	13	10.5	99.90

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. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: LIMESTONE Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 6 1992 **DATE REPORT MAILED:** Aug 17/92 **SIGNED BY** ..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %
8188	.57	.26	.04	.19	56.41	.05	.21	.01	.07	.01	.002	73	226	27	26	19	42.1	99.94
8189	.01	.33	.04	.19	56.60	.05	.17	.01	.14	.01	.003	50	173	364	6	5	42.4	100.02
8190	.18	.32	.05	.20	56.22	.05	.19	.01	.07	.01	.004	48	178	6	10	5	42.6	99.93
8191	.98	.33	.03	.14	55.89	.05	.19	.01	.07	.01	.003	80	222	16	10	7	42.2	99.94
8192	.98	.33	.06	.19	55.35	.05	.20	.02	.26	.01	.003	82	374	24	7	8	42.4	99.92
8193	.10	.50	.04	.12	55.95	.05	.28	.01	.07	.01	.004	41	154	5	7	7	42.8	99.97
8194	.36	.44	.06	.01	56.14	.05	.21	.01	.09	.01	.002	64	226	27	8	10	42.5	99.92
8195	1.60	.48	.15	.12	54.68	.05	.16	.01	.26	.01	.002	189	335	16	19	9	42.3	99.90
8196	.39	.02	.02	.47	56.26	.05	.19	.01	.03	.01	.002	42	305	10	5	5	42.5	99.98
8197	.53	.37	.05	.27	55.43	.05	.20	.01	.05	.01	.003	47	303	30	6	6	42.9	99.92
8198	.42	.37	.05	.27	55.65	.05	.26	.02	.05	.01	.002	21	302	16	6	6	42.7	99.89
8199	.18	.45	.05	.32	55.85	.05	.15	.01	.11	.01	.002	23	319	15	5	5	42.7	99.94
8200	.24	.51	.02	.32	55.88	.05	.07	.01	.04	.01	.002	22	297	13	5	5	42.8	99.98
8201	.24	.36	.03	.32	56.02	.05	.17	.02	.05	.01	.003	22	270	13	5	6	42.6	99.91
8202	.47	.31	.02	.25	56.04	.05	.13	.01	.05	.01	.002	22	219	5	5	5	42.6	99.97
8203	.40	.44	.02	.23	56.20	.05	.06	.01	.01	.01	.003	29	218	6	5	5	42.5	99.96
RE 8199	.14	.49	.03	.31	56.30	.05	.13	.01	.06	.01	.002	38	313	13	5	5	42.4	99.96
8204	.26	.31	.03	.24	56.21	.05	.17	.01	.04	.01	.003	44	231	13	6	7	42.6	99.95
8205	.31	.31	.03	.21	56.57	.05	.08	.01	.01	.01	.002	30	217	6	6	7	42.3	99.90
8206	.47	.41	.05	.18	55.31	.05	.16	.01	.02	.01	.002	21	249	9	7	6	43.2	99.92
8207	.38	.25	.03	.20	55.48	.05	.05	.01	.02	.01	.002	21	217	9	7	7	43.4	99.91
8208	.27	.37	.03	.22	55.72	.05	.06	.01	.07	.01	.003	29	248	9	6	5	43.1	99.94
8209	.27	.48	.03	.22	55.53	.05	.10	.01	.02	.01	.002	22	206	8	6	6	43.2	99.95
8210	.42	.36	.04	.20	55.68	.05	.12	.01	.01	.01	.002	21	307	10	5	6	43.0	99.94
8211	.47	.36	.04	.22	55.71	.05	.05	.01	.03	.01	.002	22	305	5	5	5	43.0	99.97
8212	.24	.42	.03	.20	55.64	.05	.13	.01	.07	.01	.002	22	233	6	5	6	43.1	99.94
8213	.63	.45	.03	.23	55.36	.05	.13	.01	.07	.01	.002	21	259	16	6	8	42.9	99.92
8214	.25	.39	.03	.19	55.51	.05	.12	.02	.03	.01	.002	22	251	5	5	5	43.3	99.94
8215	.25	.40	.02	.23	55.69	.05	.05	.01	.01	.01	.002	21	206	10	5	5	43.2	99.94
8546	.58	.29	.03	.25	55.46	.05	.12	.01	.01	.01	.002	22	292	16	9	8	43.1	99.94
STANDARD LIMESTONE	6.87	1.41	.50	.41	50.18	.05	.31	.08	.03	.02	.002	85	314	49	8	5	40.4	100.30
STANDARD SO-4	68.38	10.77	3.40	.95	1.58	1.28	2.01	.54	.20	.08	.008	823	193	325	22	15	10.5	99.91

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

APPENDIX 4: CONTINUED

WHOLE ROCK ICP ANALYSIS

Halferdahl & Associates Ltd. File # 92-2534 Page 1

18 - 10509 - 81st Ave, Edmonton AB T6E 1X7

APPENDIX 4: CONTINUED

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SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %
8061	.36	.24	.04	.17	55.83	.05	.05	.01	.26	.01	.002	46	825	9	20	16	43.1	100.11
8071	.61	.59	.05	.08	55.53	.05	.05	.04	.01	.01	.002	15	302	5	5	5	43.1	100.07
8072	.27	.58	.03	.08	55.79	.05	.05	.04	.01	.01	.002	5	259	19	5	5	43.1	99.98
8073	.44	.45	.04	.15	55.87	.05	.05	.02	.01	.01	.002	5	221	5	5	5	43.1	100.15
8074	.28	.36	.03	.07	56.14	.05	.05	.02	.01	.01	.002	5	675	11	5	5	43.0	100.03
8075	.06	.22	.01	.15	56.62	.05	.05	.04	.02	.01	.002	5	461	15	5	5	42.9	100.08
8216	.01	.30	.01	.11	56.76	.05	.05	.01	.01	.01	.002	5	206	10	5	5	42.8	100.05
8217	.13	.30	.01	.18	56.95	.05	.05	.01	.04	.01	.002	5	214	5	5	5	42.5	100.14
8226	.08	.24	.02	.03	56.61	.05	.05	.02	.24	.01	.002	30	176	11	10	5	42.7	99.99
8227	.04	.13	.02	.01	56.65	.05	.05	.01	.16	.01	.002	5	168	6	10	5	42.6	99.63
8228	.01	.37	.01	.02	56.94	.05	.05	.02	.24	.01	.002	16	157	5	7	5	42.6	100.23
8229	.01	.61	.01	.02	56.04	.05	.05	.02	.40	.01	.002	5	182	10	12	5	43.0	100.13
8230	.03	.37	.01	.02	56.82	.05	.05	.01	.02	.01	.003	5	330	5	5	5	42.8	100.11
8231	.63	.74	.07	.48	54.99	.05	.05	.02	.08	.01	.003	5	302	5	5	5	43.1	100.17
8232	.47	.50	.04	.84	55.05	.05	.15	.04	.01	.01	.002	5	275	5	5	5	42.9	100.04
8233	.60	.37	.05	.80	55.15	.05	.05	.01	.02	.01	.002	5	286	5	5	5	43.0	100.05
8234	.14	.25	.01	.01	56.71	.05	.05	.03	.01	.01	.002	49	998	5	5	5	42.8	100.07
8235	.18	.30	.01	.01	56.30	.05	.05	.03	.01	.01	.002	5	796	12	5	5	43.1	100.06
8236	.86	.25	.03	.01	56.34	.05	.05	.03	.01	.01	.002	5	275	10	5	5	42.5	100.06
8237	.31	.38	.01	.12	56.49	.05	.05	.03	.01	.01	.002	5	320	13	5	5	42.6	100.02
8238	.24	.13	.02	.08	56.93	.05	.05	.01	.01	.01	.002	5	345	5	5	5	42.6	100.04
8239	.25	.38	.01	.04	56.48	.05	.05	.01	.01	.01	.002	5	305	5	5	5	42.8	100.04
8240	.36	.50	.03	.19	55.81	.05	.05	.04	.01	.01	.002	5	311	5	5	5	43.0	100.00
8241	.13	.26	.04	.17	56.57	.05	.07	.03	.01	.01	.002	5	337	5	5	5	42.7	100.03
8242	.20	.39	.01	.16	56.50	.05	.05	.01	.01	.01	.002	5	308	5	5	5	42.7	100.03
8243	.23	.52	.02	.14	56.46	.05	.05	.01	.01	.01	.003	5	280	5	5	5	42.7	100.13
8244	.05	.32	.01	.12	56.44	.05	.08	.01	.04	.01	.004	5	277	95	5	5	42.9	100.01
RE 8240	.41	.43	.03	.18	55.74	.05	.12	.01	.01	.01	.003	5	311	6	5	5	43.0	99.97
8245	.24	.63	.04	.20	56.21	.05	.05	.01	.01	.01	.002	5	349	6	5	5	42.7	100.08
8246	.60	.47	.05	.40	55.26	.05	.05	.01	.01	.01	.002	5	558	7	5	5	43.1	99.98
8247	.21	.38	.01	.12	56.58	.05	.09	.03	.01	.01	.002	5	501	6	5	5	42.5	99.99
8248	.25	.39	.04	.29	55.92	.05	.11	.01	.01	.01	.002	5	528	8	5	5	42.9	99.98
8251	.01	.26	.01	.01	56.87	.05	.13	.03	.03	.01	.002	5	212	21	5	8	42.6	99.97
8252	.04	.48	.01	.01	56.72	.05	.08	.03	.01	.01	.003	5	206	7	5	5	42.6	99.99
8253	.41	.26	.01	.12	56.37	.05	.14	.01	.10	.01	.002	5	263	5	5	5	42.5	99.97
8254	.39	.32	.01	.09	56.06	.05	.07	.02	.07	.01	.002	5	427	16	5	5	42.9	99.99
8255	.59	.32	.01	.13	56.29	.05	.11	.03	.05	.01	.002	5	426	5	5	5	42.4	100.01
STANDARD LIMESTONE	6.91	1.42	.52	.45	50.03	.05	.25	.08	.03	.03	.003	64	325	25	6	5	40.0	99.81
STANDARD SO-4	69.20	10.20	3.39	.88	1.57	1.27	2.02	.55	.20	.07	.006	797	203	317	23	15	10.4	99.96

.200 GRAM SAMPLES ARE FUSED WITH 1.2 GRAM OF LIBO2 AND ARE DISSOLVED IN 100 MLS 5% HNO3.
- SAMPLE TYPE: LIMESTONE Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 14 1992 **DATE REPORT MAILED:** Aug 20/92 **SIGNED BY**.....D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

APPENDIX 4: CONTINUED

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %
8256	.56	.32	.02	.13	55.62	.05	.05	.01	.24	.01	.002	14	369	25	12	13	43.1	100.14
8257	.45	.32	.01	.11	55.93	.05	.05	.01	.10	.01	.002	29	297	5	5	5	43.0	100.04
8258	.16	.01	.01	.09	56.65	.05	.12	.01	.10	.01	.002	44	271	5	5	5	43.0	100.22
8259	.05	.32	.01	.09	56.55	.05	.05	.02	.05	.01	.002	44	266	5	5	5	43.0	100.17
8260	.01	.09	.01	.06	56.91	.05	.05	.01	.08	.01	.002	29	277	5	5	5	43.0	100.22
8261	.24	.08	.01	.14	56.41	.05	.05	.01	.08	.01	.002	44	295	5	5	5	43.1	100.16
8262	.35	.19	.02	.08	56.38	.05	.05	.01	.05	.01	.002	5	271	5	5	5	43.0	100.16
8263	.07	.07	.01	.01	56.57	.05	.07	.01	.05	.01	.002	45	207	5	5	5	43.1	100.03
8264	.13	.06	.01	.01	56.36	.05	.05	.01	.12	.01	.002	5	182	5	5	5	43.3	100.07
8265	.06	.06	.01	.04	56.80	.05	.05	.01	.06	.01	.002	15	191	5	5	5	42.9	100.02
8266	.28	.26	.07	.02	56.38	.05	.05	.01	.07	.01	.003	14	172	5	6	5	42.8	100.01
8267	.21	.09	.02	.01	56.63	.05	.05	.01	.05	.01	.002	5	193	5	5	5	42.9	100.01
8268	.06	.20	.02	.01	56.44	.05	.05	.01	.14	.01	.002	15	230	5	8	5	43.1	100.06
8269	.13	.03	.01	.01	56.63	.05	.05	.01	.08	.01	.002	15	208	5	5	5	43.1	100.06
8270	.06	.01	.01	.01	56.87	.05	.05	.01	.09	.01	.002	15	200	5	6	5	43.1	100.24
8271	.01	.01	.01	.01	56.64	.05	.05	.01	.10	.01	.002	213	163	5	5	5	43.5	100.27
8272	.06	.25	.01	.04	56.60	.05	.05	.02	.05	.01	.002	15	207	5	5	5	43.1	100.20
8273	.04	.01	.01	.01	56.79	.05	.08	.01	.08	.01	.002	5	162	5	5	5	43.0	100.07
8274	.18	.12	.02	.01	56.63	.05	.05	.01	.05	.01	.002	5	158	5	5	5	43.1	100.18
RE 8270	.06	.01	.01	.01	56.76	.05	.05	.01	.08	.01	.002	5	198	5	6	5	43.1	100.08
8275	.24	.11	.02	.01	56.58	.05	.05	.01	.10	.01	.002	5	196	5	5	5	42.9	100.07
8301	.48	.33	.01	.06	55.27	.05	.07	.02	.42	.01	.002	59	220	5	9	5	43.3	100.05
8302	.34	.04	.02	.06	56.13	.05	.05	.02	.21	.01	.002	43	217	5	5	5	43.2	100.10
8303	.09	.15	.02	.01	56.20	.05	.05	.01	.26	.01	.002	44	208	55	5	5	43.2	100.03
8304	.26	.10	.03	.08	56.23	.05	.05	.01	.05	.01	.002	5	595	5	5	5	43.2	100.07
8305	.09	.20	.03	.01	55.70	.05	.05	.02	.05	.01	.002	5	1100	5	5	5	43.9	100.08
8306	.25	.19	.04	.07	55.64	.05	.05	.01	.07	.01	.002	5	574	5	5	5	43.7	100.01
8307	.58	.06	.04	.06	55.42	.05	.05	.01	.03	.01	.002	5	919	5	5	5	43.7	99.98
8308	.49	.18	.05	1.96	53.38	.05	.05	.02	.05	.01	.002	5	573	5	5	5	43.9	100.07
8309	.05	.01	.01	.01	56.76	.05	.05	.01	.02	.01	.002	5	970	5	5	5	43.1	100.10
8310	.14	.01	.01	.01	56.32	.05	.05	.01	.01	.01	.002	5	1476	5	5	5	43.6	100.20
8311	.50	.21	.05	1.67	53.21	.05	.09	.03	.07	.01	.002	5	369	5	5	5	44.2	100.04
8312	.37	.01	.03	.02	56.18	.05	.11	.03	.04	.01	.002	5	658	5	5	5	43.1	100.01
8313	.49	.16	.04	.22	55.49	.05	.10	.01	.03	.01	.002	5	370	5	5	5	43.5	100.03
8314	.01	.01	.01	.01	56.98	.05	.08	.01	.04	.01	.002	5	201	5	5	5	42.9	100.09
8315	.17	.01	.01	.01	56.88	.05	.05	.01	.01	.01	.002	5	161	5	5	5	43.0	100.13
8316	.05	.01	.02	.01	57.05	.05	.05	.01	.02	.01	.002	5	197	5	5	5	43.0	100.21
STANDARD LIMESTONE	6.91	1.29	.48	.42	50.18	.05	.30	.06	.03	.02	.004	60	273	13	5	5	40.8	100.56
STANDARD SO-4	68.47	10.53	3.28	.90	1.56	1.36	2.16	.56	.21	.08	.006	831	192	315	22	13	10.6	99.94

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

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %
8317	.97	.24	.05	.01	55.05	.05	.05	.01	.04	.01	.002	29	328	13	5	5	43.7	100.07
8318	1.50	.35	.08	.13	54.89	.05	.05	.01	.19	.01	.002	29	284	19	7	5	42.8	100.05
8319	.76	.23	.07	.30	55.37	.05	.05	.01	.03	.01	.002	5	340	5	5	5	43.3	100.06
8320	.65	.34	.12	.09	54.83	.05	.13	.02	.06	.01	.002	5	365	14	5	5	43.7	99.97
8321	.36	.23	.04	.01	55.99	.05	.05	.01	.10	.01	.002	5	449	6	5	5	43.3	100.03
8322	.21	.34	.02	1.07	55.18	.05	.09	.01	.05	.01	.002	5	217	6	5	5	43.0	100.04
8323	.17	.09	.02	.04	56.86	.05	.05	.01	.03	.01	.005	5	230	25	5	5	42.9	100.19
8324	.21	.05	.02	.01	56.68	.05	.05	.01	.04	.01	.003	5	226	7	5	5	43.0	100.08
8325	.25	.04	.01	.08	56.53	.05	.05	.01	.04	.01	.002	5	341	9	5	5	42.9	100.01
8326	.47	.22	.01	.13	56.88	.05	.05	.01	.01	.01	.002	5	330	5	5	5	42.3	100.10
8327	.30	.22	.02	.11	56.61	.05	.05	.01	.01	.01	.002	5	239	5	5	5	42.7	100.06
8328	.09	.09	.01	.01	56.61	.05	.05	.01	.01	.01	.002	5	1550	9	5	5	43.0	100.06
8701	.49	.29	.09	.01	54.21	.05	.07	.02	.08	.05	.008	44	1805	5	5	5	44.5	100.02
8702	.40	.16	.06	.01	54.74	.05	.05	.01	.08	.01	.002	5	1828	5	5	5	44.5	100.15
8703	.05	.09	.03	.07	56.73	.05	.05	.01	.07	.01	.008	5	304	5	5	5	42.9	100.05
8704	.08	.09	.01	.05	56.58	.05	.05	.01	.04	.01	.002	5	310	5	5	5	43.2	100.06
8705	.49	.20	.03	.14	56.00	.05	.05	.01	.04	.01	.004	5	308	10	5	5	43.0	100.00
8706	.23	.25	.01	.08	56.11	.05	.05	.01	.03	.01	.002	5	307	18	6	5	43.3	100.02
RE 8702	.41	.13	.08	.01	54.83	.05	.05	.01	.09	.02	.002	5	1790	5	5	5	44.3	100.06
8707	1.49	.31	.01	.16	54.96	.05	.16	.01	.04	.01	.004	5	357	5	5	5	42.8	100.02
8708	.28	.31	.01	.11	56.19	.05	.05	.01	.01	.01	.009	5	257	5	7	5	43.0	100.03
8709	.08	.19	.01	.08	56.20	.05	.09	.01	.01	.01	.003	5	327	5	5	5	43.4	100.05
8710	.42	.06	.04	.01	55.97	.05	.05	.01	.20	.01	.002	46	285	5	5	5	43.3	100.02
8711	.87	.07	.02	.04	56.05	.05	.05	.01	.33	.01	.004	47	292	5	5	5	42.7	100.17
8712	.24	.30	.02	.01	56.23	.05	.05	.01	.26	.01	.002	60	276	5	5	5	43.0	100.15
8713	.45	.18	.03	.01	55.98	.05	.05	.01	.25	.01	.002	62	266	5	5	5	43.0	100.01
8714	.38	.18	.03	.01	55.96	.05	.05	.01	.45	.01	.002	48	203	5	5	5	42.9	100.02
8715	.81	.11	.02	.01	55.90	.05	.05	.01	.28	.01	.002	46	239	7	5	5	42.8	100.03
8716	1.12	.34	.01	.01	55.43	.05	.05	.01	.21	.01	.002	31	231	5	5	5	42.8	100.02
8717	2.09	.30	.05	.01	54.90	.05	.05	.03	.18	.01	.002	79	316	7	5	5	42.4	100.07
8718	1.29	.05	.04	.01	55.43	.05	.05	.01	.18	.01	.002	97	278	5	5	5	42.9	100.01
8719	1.11	.05	.06	.02	55.55	.05	.05	.03	.31	.01	.009	43	212	5	5	5	42.8	100.04
8720	.85	.16	.03	.01	55.45	.05	.06	.01	.54	.01	.002	46	177	7	8	5	42.8	99.99
8721	.87	.28	.02	.01	55.16	.05	.05	.01	.76	.01	.004	48	162	5	16	5	42.8	100.03
8722	1.65	.16	.02	.01	55.16	.05	.06	.01	.37	.01	.002	16	168	5	8	5	42.5	100.00
8723	.42	.03	.06	.24	55.12	.05	.05	.02	.72	.01	.004	32	175	5	13	5	43.4	100.01
8724	.65	.15	.02	.01	55.67	.05	.05	.01	.46	.01	.002	48	205	5	10	5	43.0	100.05
STANDARD LIMESTONE	6.50	1.35	.48	.39	50.26	.05	.22	.08	.03	.02	.010	49	297	36	5	5	40.8	100.21
STANDARD SO-4	68.77	10.33	3.30	.91	1.53	1.32	2.09	.57	.21	.08	.008	825	196	303	22	16	10.6	99.94

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

APPENDIX 4: CONTINUED

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %
8726	.43	.22	.03	.06	55.89	.05	.05	.01	.18	.01	.002	22	233	5	10	5	43.3	100.14
8727	.11	.21	.01	.02	56.15	.05	.05	.01	.13	.01	.002	35	257	5	6	5	43.4	100.03
8728	.03	.15	.01	.01	56.71	.05	.05	.01	.06	.01	.002	5	199	5	5	5	43.1	100.04
8729	.08	.24	.01	.01	56.68	.05	.05	.01	.03	.01	.002	12	214	5	5	5	43.1	100.13
8730	.76	.17	.01	.01	55.70	.05	.05	.01	.07	.01	.002	12	282	5	6	5	43.3	100.02
RE 8734	.11	.08	.01	.02	56.51	.05	.05	.01	.09	.01	.002	5	274	5	5	5	43.2	100.02
8731	.29	.14	.01	2.68	52.97	.05	.05	.01	.05	.01	.002	12	448	5	5	5	43.9	100.09
8732	.46	.13	.01	.01	56.11	.05	.05	.02	.03	.01	.002	5	451	5	5	5	43.3	100.09
8733	.23	.06	.02	.06	55.93	.05	.05	.01	.11	.01	.002	23	263	5	8	5	43.6	100.04
8734	.10	.05	.01	.04	56.62	.05	.05	.01	.08	.01	.002	5	275	5	5	5	43.2	100.10
8735	.05	.19	.01	.18	56.29	.05	.05	.01	.05	.01	.002	5	291	5	5	5	43.3	100.08
8736	.29	.11	.03	.10	56.10	.05	.05	.01	.03	.01	.002	5	300	5	5	5	43.4	100.08
8737	.21	.14	.07	.09	55.70	.05	.05	.01	.36	.01	.003	35	201	5	6	5	43.5	100.10
8738	.10	.27	.03	.04	55.79	.05	.05	.01	.35	.01	.002	36	191	5	7	5	43.5	100.11
8739	.15	.24	.03	.03	55.64	.05	.05	.01	.43	.01	.002	36	217	5	7	5	43.5	100.04
8740	.18	.17	.02	.08	55.91	.05	.05	.01	.28	.01	.002	35	205	5	6	5	43.4	100.08
8741	.07	.10	.01	.02	55.98	.05	.05	.01	.35	.01	.002	12	196	5	6	5	43.6	100.16
8742	.08	.03	.01	.08	56.31	.05	.05	.02	.27	.01	.002	5	180	5	6	5	43.4	100.20
8743	.05	.16	.02	.11	56.26	.05	.05	.02	.13	.01	.003	5	210	5	5	5	43.4	100.16
8744	.01	.09	.02	.07	56.36	.05	.05	.01	.06	.01	.003	5	173	5	5	5	43.5	100.12
8745	.01	.15	.01	.08	56.56	.05	.05	.01	.09	.01	.002	5	141	5	6	5	43.3	100.18
8746	.05	.09	.01	.10	56.35	.05	.05	.02	.24	.01	.004	5	149	89	7	5	43.3	100.18
8747	.12	.02	.02	.07	56.25	.05	.05	.01	.07	.01	.004	5	253	5	8	5	43.6	100.19
STANDARD LIMESTONE	6.78	1.35	.52	.46	50.80	.05	.30	.06	.03	.02	.006	65	281	25	6	5	39.8	100.21
STANDARD SO-4	68.58	10.28	3.54	.95	1.49	1.31	2.02	.56	.21	.07	.006	821	210	317	22	15	10.7	99.94

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

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

WHOLE ROCK ICP ANALYSIS

Halferdahl & Associates Ltd. File # 92-2719 Page 1

18 - 10509 - 81st Ave, Edmonton AB T6E 1X7

APPENDIX 4: CONTINUED

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %
8249	.22	.19	.02	.24	55.75	.05	.05	.01	.01	.01	.002	9	232	17	5	5	43.7	100.14
8250	.41	.29	.04	1.37	53.73	.05	.05	.01	.08	.01	.002	18	268	5	5	5	44.0	100.01
8329	.17	.22	.04	.20	55.47	.05	.19	.01	.07	.01	.003	28	300	5	5	5	43.6	99.98
8330	.37	.19	.03	.11	55.75	.05	.05	.01	.07	.01	.002	5	490	27	5	5	43.5	100.06
8331	2.57	.64	.19	.91	51.97	.05	.33	.02	.13	.01	.002	25	391	10	5	5	43.2	100.01
8332	.08	.16	.03	.01	56.46	.05	.05	.01	.08	.01	.002	25	223	5	5	5	43.5	100.33
8333	.13	.24	.03	.01	56.08	.05	.05	.01	.12	.01	.002	31	337	5	5	5	43.6	100.24
RE 8338	.07	.18	.02	.03	56.19	.05	.05	.01	.03	.01	.002	25	200	5	5	5	43.5	100.04
8334	3.89	.39	.08	.24	53.22	.05	.05	.01	.12	.01	.002	58	278	9	5	5	42.0	100.05
8335	.06	.23	.02	.02	56.11	.05	.05	.02	.05	.01	.002	28	172	5	5	5	43.5	100.02
8336	.10	.18	.01	.01	55.70	.05	.05	.01	.04	.01	.002	36	197	5	5	5	43.9	100.00
8337	.19	.18	.03	.01	56.07	.05	.05	.01	.07	.01	.002	34	213	5	5	5	43.5	100.07
8338	.10	.18	.04	.37	55.84	.05	.05	.01	.10	.01	.002	31	212	5	5	5	43.5	100.16
8339	.48	.23	.04	.15	55.64	.05	.05	.01	.07	.01	.002	50	241	5	5	5	43.3	99.99
8340	.72	.43	.07	1.27	53.33	.05	.05	.01	.09	.01	.002	9	363	5	5	5	44.0	99.98
8341	.29	.26	.04	2.66	52.15	.05	.10	.01	.11	.01	.002	5	523	9	5	5	44.3	99.99
8342	.33	.25	.03	.59	54.38	.05	.06	.01	.04	.01	.002	5	940	5	5	5	44.2	100.00
8343	.11	.22	.02	.26	54.83	.05	.07	.01	.06	.01	.002	5	942	5	5	5	44.3	100.00
8344	.05	.18	.02	.24	56.06	.05	.05	.01	.05	.01	.002	5	965	5	5	5	43.4	100.09
8345	.63	.49	.08	2.43	51.87	.05	.16	.01	.33	.01	.002	5	690	7	5	5	43.9	99.99
8346	.16	.22	.02	.75	55.48	.05	.05	.01	.08	.01	.002	5	319	5	5	5	43.5	100.24
8347	.17	.17	.04	2.38	53.11	.05	.14	.01	.07	.01	.006	5	286	5	5	5	43.9	100.04
8348	.07	.17	.11	.87	55.03	.05	.05	.01	.05	.01	.002	5	1967	5	5	5	43.6	100.12
8349	.71	.34	.09	2.93	51.86	.05	.05	.01	.10	.01	.002	10	319	5	5	5	44.0	100.07
8350	.32	.22	.08	7.21	46.99	.05	.06	.01	.07	.01	.002	5	286	5	5	5	45.0	100.05
8351	.85	.09	.02	.25	55.46	.05	.05	.01	.08	.01	.002	30	217	5	5	5	43.4	100.16
8352	.71	.08	.02	.19	55.36	.05	.05	.01	.10	.01	.002	20	171	5	5	5	43.5	100.01
8353	.44	.22	.04	.27	55.52	.05	.05	.01	.01	.01	.002	60	349	5	5	5	43.8	100.34
8353 DUP.	.51	.21	.03	.15	55.34	.05	.05	.01	.08	.01	.002	30	280	5	5	5	43.7	100.07
8354	.26	.22	.05	.22	55.38	.05	.05	.01	.08	.01	.002	30	664	19	5	5	43.7	100.01
8355	.47	.16	.03	.07	56.01	.05	.05	.01	.07	.01	.002	30	299	6	5	5	43.4	100.25
8356	.74	.20	.02	.16	55.50	.05	.05	.01	.08	.01	.002	20	299	11	5	5	43.3	100.02
8357	.40	.11	.02	.22	56.05	.05	.05	.01	.07	.01	.002	30	389	5	6	5	43.5	100.39
8358	.56	.22	.03	.22	55.21	.05	.05	.01	.09	.01	.002	30	350	11	5	5	43.7	100.06
8359	.70	.31	.03	.28	54.81	.05	.05	.01	.07	.01	.002	30	342	35	5	5	43.8	100.07
8360	.42	.30	.02	.27	55.16	.05	.05	.01	.03	.01	.002	29	366	30	5	5	43.9	100.14
8361	.68	.21	.04	.96	54.04	.05	.05	.01	.03	.01	.002	30	311	13	5	5	44.0	100.01
STANDARD LIMESTONE	6.75	1.38	.50	.44	49.99	.05	.24	.07	.03	.02	.004	65	303	14	6	5	41.2	100.72
STANDARD SO-4	68.88	10.35	3.29	.90	1.52	1.26	2.01	.55	.21	.07	.006	797	192	310	22	13	10.7	99.96

.200 GRAM SAMPLES ARE FUSED WITH 1.2 GRAM OF LIBO2 AND ARE DISSOLVED IN 100 MLS 5% HNO3.
- SAMPLE TYPE: LIMESTONE Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 22 1992 **DATE REPORT MAILED:** Aug 31/92 **SIGNED BY** ..D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

APPENDIX 4: CONTINUED

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %
8362	.72	.34	.04	.30	54.40	.05	.05	.01	.04	.01	.002	25	340	21	11	9	44.2	100.13
8363	.69	.44	.05	.33	53.48	.05	.05	.01	.05	.01	.002	26	328	15	5	5	44.9	100.08
8364	.53	.32	.03	.28	55.16	.05	.05	.01	.02	.01	.002	9	348	5	5	5	43.8	100.21
8365	.15	.32	.01	1.48	54.05	.05	.05	.01	.01	.01	.005	18	503	14	9	5	43.9	99.99
8366	1.13	.64	.12	13.52	38.20	.05	.15	.01	.23	.01	.002	23	248	19	5	5	46.0	100.04
8367	.94	.61	.15	18.62	32.28	.05	.07	.03	.26	.01	.004	22	228	33	5	5	47.0	100.02
8368	1.23	.77	.14	6.91	44.54	.05	.26	.02	.10	.01	.002	51	293	5	5	5	46.0	100.02
8369	.96	.42	.07	.50	54.48	.05	.05	.01	.01	.01	.003	27	384	10	5	5	43.6	100.09
8370	.72	.61	.07	.68	54.14	.05	.05	.01	.03	.01	.003	27	350	5	6	5	43.7	100.03
8371	.46	.31	.02	.15	55.56	.05	.08	.01	.01	.01	.006	53	232	5	5	5	43.4	100.03
8372	.12	.32	.01	.08	56.21	.05	.05	.01	.01	.01	.002	53	194	5	5	5	43.3	100.07
8373	.30	.35	.03	.16	55.21	.05	.17	.01	.01	.01	.002	105	222	5	5	5	43.7	99.97
8374	.25	.41	.05	.47	54.56	.05	.05	.01	.02	.01	.002	88	182	6	5	5	44.1	99.99
8375	1.27	.43	.03	.18	55.60	.05	.05	.01	.01	.01	.002	36	269	5	5	5	42.5	100.11
8376	.39	.44	.05	1.16	54.17	.05	.13	.01	.01	.01	.002	5	248	5	5	5	43.6	100.00
8377	.28	.41	.03	.34	55.86	.05	.05	.01	.01	.01	.006	9	223	5	5	5	43.1	100.04
RE 8382	.10	.27	.01	.17	57.14	.05	.05	.01	.01	.01	.002	5	274	5	5	5	42.2	99.99
8378	.27	.53	.02	.28	56.11	.05	.05	.01	.01	.01	.003	9	250	5	5	5	42.8	100.13
8379	.49	.65	.05	.27	55.07	.05	.10	.01	.01	.01	.003	18	319	5	5	5	43.3	99.98
8380	.29	.42	.03	.33	55.84	.05	.34	.01	.01	.01	.002	5	320	18	5	5	42.6	99.97
8381	.29	.45	.03	.25	55.41	.05	.17	.01	.11	.01	.002	27	385	18	8	5	43.2	99.94
8382	.11	.32	.02	.16	56.71	.05	.05	.01	.01	.01	.002	5	271	5	5	5	42.1	99.54
8383	.19	.46	.02	.23	56.32	.05	.19	.01	.01	.01	.003	5	553	5	5	7	42.4	99.93
8384	.19	.44	.02	.19	56.45	.05	.28	.01	.01	.01	.003	9	498	5	5	5	42.3	99.99
8385	.95	.59	.08	.56	54.27	.05	.11	.01	.04	.01	.006	27	502	5	5	5	43.3	99.97
8386	.84	.63	.05	.37	54.92	.05	.28	.01	.01	.01	.007	27	427	5	5	7	42.7	99.94
8387	.33	.46	.05	.27	56.43	.05	.13	.01	.01	.01	.004	9	367	5	5	5	42.2	99.98
8388	.13	.47	.03	.28	56.23	.05	.27	.01	.01	.01	.003	9	301	51	5	5	42.4	99.94
8389	.28	.58	.02	.27	56.04	.05	.32	.01	.01	.01	.006	27	338	14	5	7	42.3	99.92
8390	.33	.57	.03	.27	56.30	.05	.05	.01	.01	.01	.002	26	347	12	5	7	42.3	99.94
8391	.48	.66	.06	.20	55.87	.05	.05	.01	.01	.01	.006	27	174	5	7	6	42.5	99.94
8392	.54	.72	.06	.21	55.34	.05	.06	.01	.06	.01	.005	36	212	12	8	6	42.8	99.93
8393	.50	.73	.07	.23	55.04	.05	.24	.01	.30	.01	.004	27	178	9	7	5	42.7	99.93
8394	.55	.76	.08	.18	55.61	.05	.05	.01	.01	.01	.009	27	179	5	5	5	42.6	99.93
8395	.34	.67	.07	.15	55.32	.05	.11	.01	.21	.01	.006	36	226	5	7	7	43.0	99.92
8396	.94	.54	.09	9.62	41.85	.05	.31	.01	.42	.01	.008	28	277	5	9	6	46.1	99.93
8397	.44	.50	.06	1.65	53.57	.05	.37	.01	.04	.01	.009	20	363	5	5	9	43.3	99.98
STANDARD LIMESTONE	6.79	1.28	.50	.41	50.10	.05	.26	.06	.03	.03	.003	52	310	45	7	5	41.6	101.15
STANDARD SO-4	68.42	10.37	3.39	.89	1.50	1.33	2.16	.54	.20	.09	.007	764	193	317	22	13	10.8	99.91

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

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %
8398	.37	.14	.06	3.22	51.33	.05	.05	.01	.17	.01	.007	29	247	5	7	5	44.7	100.10
8399	.26	.19	.04	3.62	51.14	.05	.05	.02	.19	.01	.002	29	220	5	7	5	44.5	100.03
8400	.05	.09	.01	2.80	52.67	.05	.05	.01	.06	.01	.002	31	159	32	7	5	44.4	100.12
8401	.26	.20	.04	3.09	51.79	.05	.05	.02	.10	.01	.002	30	244	5	9	5	44.5	100.05
8402	.96	.43	.13	12.79	39.91	.05	.05	.02	.33	.01	.002	46	235	5	6	5	45.6	100.18
8403	.79	.40	.10	14.24	38.23	.05	.08	.02	.17	.01	.002	9	189	39	5	5	46.0	100.03
8404	.49	.23	.04	2.50	52.34	.05	.05	.01	.08	.01	.002	20	306	19	5	5	44.4	100.15
8405	.31	.25	.08	4.71	49.09	.05	.05	.02	.07	.01	.002	5	274	5	5	5	45.4	100.01
8406	.29	.25	.06	.92	53.55	.05	.05	.02	.06	.01	.002	30	298	5	5	5	44.7	99.97
8407	.21	.30	.04	3.90	50.55	.05	.05	.02	.07	.01	.002	5	417	5	5	5	44.8	99.99
8408	.04	.14	.02	2.18	52.92	.05	.05	.01	.04	.01	.005	40	217	5	5	5	44.7	100.13
8409	.66	.09	.04	7.49	46.18	.05	.05	.02	.09	.01	.002	29	260	80	8	5	45.3	100.01
8426	.18	.15	.03	.57	53.82	.05	.09	.01	.08	.01	.002	5	1706	5	5	5	44.8	99.98
8427	.25	.25	.03	.78	53.42	.05	.08	.02	.08	.01	.002	5	1284	5	6	5	44.9	100.00
8428	.46	.31	.06	1.51	52.58	.05	.05	.01	.13	.01	.002	5	733	5	7	5	44.8	100.00
8429	.77	.38	.10	11.96	40.85	.05	.07	.02	.34	.01	.002	19	442	5	9	5	45.4	100.01
8430	.62	.33	.07	2.92	50.83	.05	.07	.01	.12	.01	.002	10	673	5	6	5	44.9	100.00
8431	1.29	.58	.16	19.86	31.32	.05	.12	.02	.34	.01	.006	26	202	32	11	5	46.3	100.03
8432	1.26	.48	.15	15.07	37.00	.05	.12	.04	.51	.01	.003	131	241	5	9	5	45.3	100.04
RE 8429	.89	.39	.11	12.04	41.05	.05	.09	.01	.34	.01	.002	21	446	5	8	5	45.0	100.03
8433	.91	.46	.09	2.73	50.52	.05	.05	.02	.18	.01	.002	30	756	5	5	5	45.0	100.05
8434	.40	.31	.06	1.93	52.40	.05	.09	.02	.12	.01	.003	5	509	5	5	5	44.6	100.02
8435	.08	.09	.02	.40	54.83	.05	.05	.03	.07	.01	.002	5	1691	5	5	5	44.3	100.03
8436	.58	.30	.08	3.96	49.45	.05	.05	.02	.11	.01	.002	10	445	5	5	5	45.4	100.01
8437	.29	.20	.04	1.06	53.71	.05	.05	.01	.09	.01	.003	5	924	5	5	5	44.5	100.02
8438	1.12	.50	.13	3.89	48.61	.05	.05	.04	.26	.01	.003	10	405	5	7	5	45.3	100.02
8439	.48	.21	.06	.79	54.17	.05	.05	.01	.08	.01	.003	5	479	5	5	5	44.2	100.08
8440	.44	.32	.06	.75	53.92	.05	.09	.01	.11	.01	.002	5	387	5	5	5	44.3	100.05
8441	.46	.32	.05	1.31	53.17	.05	.05	.01	.09	.01	.002	5	428	5	5	5	44.5	100.01
8442	.05	.10	.02	.22	55.19	.05	.10	.01	.05	.01	.002	5	1485	5	5	5	44.1	100.02
8443	.13	.21	.03	.26	55.40	.05	.05	.01	.02	.01	.002	5	261	5	5	5	43.9	100.03
8444	.77	.30	.11	4.28	49.71	.05	.05	.01	.14	.01	.002	5	242	5	5	5	44.6	100.00
8445	1.01	.43	.10	.97	53.21	.05	.26	.01	.06	.01	.003	31	256	25	5	5	43.9	99.98
8576	.18	.15	.05	3.07	52.29	.05	.05	.02	.04	.01	.002	5	259	5	5	5	44.2	100.05
8577	.01	.10	.02	.19	56.45	.05	.05	.02	.03	.01	.002	5	136	6	5	5	43.4	100.20
8578	.05	.07	.03	.13	56.38	.05	.09	.01	.01	.01	.002	5	125	5	5	5	43.3	100.05
8579	.10	.18	.03	1.78	54.52	.05	.05	.02	.04	.01	.002	11	203	5	8	5	43.5	100.17
STANDARD LIMESTONE	6.91	1.30	.49	.41	50.20	.05	.31	.07	.04	.02	.002	62	302	5	7	5	41.6	101.43
STANDARD SO-4	68.82	10.32	3.22	.90	1.51	1.24	2.08	.55	.21	.07	.008	809	192	314	22	15	10.8	99.95

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

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %
8580	.53	.29	.07	5.47	47.95	.05	.05	.02	.25	.01	.002	23	415	32	11	5	45.4	100.02
8581	.84	.42	.10	3.48	49.60	.05	.08	.01	.17	.01	.002	32	312	5	11	5	45.3	100.02
8582	.38	.33	.04	.50	54.59	.05	.15	.01	.04	.01	.002	8	265	5	5	5	43.9	99.97
8583	.38	.36	.05	.87	54.11	.05	.06	.01	.05	.01	.002	25	211	5	5	5	44.1	100.03
8584	2.22	.30	.05	.39	53.40	.05	.05	.01	.29	.01	.002	76	479	16	11	5	43.3	100.01
8585	.15	.16	.02	.16	56.11	.05	.05	.01	.07	.01	.002	8	313	5	5	5	43.3	100.00
8586	.19	.15	.03	.40	55.36	.05	.05	.01	.08	.01	.002	5	584	15	5	5	43.7	99.98
8587	.39	.21	.03	.29	55.18	.05	.05	.01	.27	.01	.002	42	348	12	7	5	43.7	100.12
8588	2.24	.25	.08	.26	53.35	.05	.05	.01	.46	.01	.002	50	363	6	9	5	43.6	100.28
8589	.25	.20	.02	.29	54.61	.05	.05	.01	.35	.01	.002	24	299	10	10	5	44.2	99.98
8590	.34	.16	.02	.27	54.67	.05	.12	.01	.13	.01	.002	25	274	10	7	5	44.2	99.98
8591	.08	.19	.02	.28	56.36	.05	.05	.01	.08	.01	.002	5	390	6	5	5	43.0	100.11
8592	.29	.24	.03	.50	54.83	.05	.05	.01	.05	.01	.002	25	237	5	5	5	44.0	100.04
8593	.20	.26	.03	.42	55.48	.05	.05	.01	.05	.01	.002	5	237	5	5	5	43.6	100.05
8594	.24	.31	.03	.43	54.99	.05	.05	.01	.02	.01	.002	5	249	8	5	5	43.9	100.00
8595	.25	.26	.03	1.43	54.40	.05	.10	.01	.02	.01	.002	5	229	6	5	5	43.5	100.01
8596	.21	.21	.02	.33	55.27	.05	.22	.01	.04	.01	.002	5	199	7	5	5	43.7	100.01
8597	.76	.26	.08	5.85	47.97	.05	.24	.01	.10	.01	.002	25	385	5	5	5	44.7	100.05
8598	.23	.17	.03	.36	55.37	.05	.11	.01	.02	.01	.002	5	260	5	5	5	43.7	100.00
8599	.32	.42	.04	.44	54.88	.05	.05	.01	.05	.01	.002	5	241	15	5	5	43.9	100.08
8725	.01	.16	.01	.20	55.77	.05	.06	.01	.09	.01	.002	5	229	28	5	5	43.7	100.01
8748	.57	.22	.02	.24	55.36	.05	.13	.01	.12	.01	.002	35	402	26	5	5	43.3	99.98
8749	.81	.12	.02	.20	55.84	.05	.11	.01	.08	.01	.002	26	405	5	5	5	42.7	99.98
8750	1.22	.28	.01	.23	55.59	.05	.05	.01	.04	.01	.002	26	406	5	5	5	42.5	99.99
8751	.14	.13	.01	.28	55.87	.05	.15	.01	.09	.01	.002	35	366	8	5	5	43.3	99.99
8752	.04	.05	.01	.30	56.09	.05	.05	.01	.07	.01	.002	27	360	5	5	5	43.4	100.01
8753	.44	.20	.01	.29	55.78	.05	.05	.01	.07	.01	.002	26	320	5	5	5	43.3	100.10
8754	.42	.28	.04	.29	55.36	.05	.05	.01	.11	.01	.002	34	344	5	5	5	43.4	99.97
8755	.40	.23	.01	.26	56.21	.05	.05	.01	.07	.01	.002	27	324	5	5	5	43.0	100.28
8756	.11	.13	.01	.20	56.24	.05	.08	.01	.11	.01	.002	27	260	5	5	5	43.0	99.97
8757	.05	.08	.01	.25	56.78	.05	.05	.01	.07	.01	.002	21	310	5	5	5	42.8	100.13
8758	.06	.13	.01	.23	55.74	.05	.05	.01	.11	.01	.002	26	248	5	5	5	43.9	100.21
8759	1.20	.23	.03	.29	54.53	.05	.18	.01	.12	.01	.002	52	292	23	7	5	43.4	100.00
8760	.69	.23	.04	.22	54.76	.05	.11	.01	.20	.01	.002	54	319	5	8	5	43.7	99.98
8761	.46	.28	.05	.29	54.26	.05	.05	.01	.23	.01	.002	60	298	5	14	5	44.4	100.05
RE 8757	.04	.09	.01	.24	56.89	.05	.05	.01	.07	.01	.002	18	311	5	5	5	42.8	100.23
8762	.04	.17	.01	.29	56.19	.05	.05	.01	.04	.01	.002	54	253	5	5	5	43.3	100.04
STANDARD LIMESTONE	6.72	1.35	.50	.41	50.30	.05	.30	.07	.05	.02	.003	65	334	34	6	5	42.0	101.80
STANDARD SO-4	68.59	10.37	3.30	.92	1.49	1.31	2.03	.54	.20	.08	.006	772	195	311	24	15	10.9	99.96

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

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %
8763	.07	.12	.03	.17	56.12	.05	.05	.01	.04	.01	.002	55	244	7	9	12	43.4	99.99
8764	.12	.03	.10	.17	55.63	.05	.05	.01	.07	.01	.002	35	237	5	7	5	43.8	99.97
8765	.32	.06	.03	.03	55.49	.05	.19	.01	.06	.01	.002	34	262	5	5	5	43.8	100.00
8766	.38	.15	.03	.09	55.06	.05	.15	.01	.10	.01	.002	68	282	5	8	5	44.0	99.99
8767	.52	.05	.06	.14	55.19	.05	.05	.01	.42	.01	.002	80	289	7	19	5	43.6	100.04
8768	1.05	.26	.08	.17	54.11	.05	.16	.01	.60	.01	.003	101	273	5	22	5	43.5	99.98
RE 8765	.27	.05	.03	.03	56.18	.05	.05	.01	.08	.01	.002	46	267	5	5	5	43.5	100.16
8769	1.35	.26	.08	.15	54.24	.05	.05	.01	.70	.01	.002	100	309	6	19	5	43.3	100.11
8770	1.15	.21	.07	.12	54.64	.05	.05	.03	.77	.01	.002	101	270	6	23	5	43.0	100.01
8771	.89	.32	.15	.18	54.76	.05	.05	.03	.48	.03	.002	112	450	5	9	5	43.3	100.18
8772	.78	.28	.17	.13	54.81	.05	.05	.03	.09	.05	.002	189	193	5	14	5	43.8	100.18
8773	1.73	.31	.25	.56	53.75	.05	.05	.04	.13	.04	.002	134	163	5	10	5	43.3	100.12
8774	.71	.15	.12	.14	54.70	.05	.12	.03	.15	.01	.005	176	247	5	5	5	43.8	99.99
8775	2.49	.25	.14	.07	53.89	.05	.05	.01	.13	.02	.007	189	287	5	5	5	43.2	100.25
STANDARD LIMESTONE	6.79	1.36	.50	.41	50.04	.05	.24	.06	.03	.02	.004	60	280	19	6	5	41.1	100.63
STANDARD SO-4	68.80	10.33	3.31	.91	1.49	1.29	2.05	.56	.21	.07	.006	828	201	308	22	15	10.7	99.95

APPENDIX 4: CONTINUED

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

APPENDIX 5: ANALYTICAL REPORTS FOR WHOLE ROCK ANALYSES FROM ACME ANALYTICAL LABORATORIES LTD. WITH SAMPLES IN NUMERICAL ORDER

From ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716 @
Acme files 92-2359, 92-2378, 92-2534, 92-2719....samples in this disk file.

SAMPLES	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %	CO2 EQ %	R2O3 %	OTHER %	LOI-CO2 EQ %
8001	0.95	0.27	0.07	2.91	52.38	0.06	0.34	0.01	0.13	0.01	0.004	8	175	90	15	37	42.8	99.96	44.28	0.49	0.43	-1.48
8002	0.89	0.33	0.02	0.24	55.71	0.06	0.49	0.01	0.01	0.01	0.002	8	226	20	6	33	42.2	99.98	43.98	0.38	0.58	-1.78
8003	0.33	0.21	0.04	1.80	54.60	0.06	0.26	0.01	0.03	0.01	0.003	24	213	12	7	5	42.6	99.97	44.81	0.30	0.35	-2.21
8004	0.18	0.54	0.03	0.72	55.78	0.05	0.24	0.01	0.04	0.01	0.002	5	227	14	5	12	42.4	99.99	44.56	0.63	0.32	-2.16
8005	0.17	0.36	0.04	1.61	54.64	0.05	0.18	0.01	0.04	0.01	0.003	472	230	22	5	33	42.8	99.99	44.64	0.46	0.31	-1.84
8006	0.17	0.39	0.04	2.69	53.34	0.05	0.36	0.01	0.02	0.01	0.003	8	205	28	6	23	42.9	99.99	44.80	0.47	0.44	-1.90
8007	0.19	0.45	0.03	0.22	56.67	0.05	0.13	0.02	0.01	0.01	0.002	5	151	29	5	19	42.2	99.97	44.71	0.52	0.20	-2.51
8008	0.26	0.39	0.05	2.83	52.96	0.05	0.31	0.02	0.07	0.01	0.002	5	215	33	6	37	43.0	99.97	44.65	0.54	0.39	-1.65
8009	0.19	0.33	0.03	0.36	56.03	0.05	0.26	0.01	0.01	0.01	0.002	16	255	15	5	5	42.7	99.99	44.37	0.39	0.34	-1.67
8010	0.36	0.34	0.04	0.62	55.44	0.05	0.27	0.01	0.01	0.01	0.003	16	275	10	5	8	42.8	99.96	44.19	0.41	0.35	-1.39
8011	0.25	0.40	0.04	0.28	55.70	0.05	0.28	0.01	0.04	0.01	0.002	24	266	17	5	11	42.9	99.97	44.02	0.50	0.36	-1.12
8012	0.59	0.57	0.06	1.00	54.58	0.05	0.31	0.01	0.06	0.01	0.003	24	257	19	6	5	42.7	99.96	43.93	0.71	0.39	-1.23
8013	0.35	0.37	0.03	0.32	55.90	0.05	0.28	0.01	0.01	0.01	0.003	25	232	17	15	21	42.6	99.95	44.22	0.43	0.36	-1.62
8014	0.26	0.44	0.03	0.19	55.97	0.05	0.18	0.01	0.02	0.01	0.003	24	207	16	11	14	42.8	99.98	44.13	0.51	0.26	-1.33
8014 RE	0.26	0.44	0.03	0.19	55.96	0.05	0.17	0.01	0.02	0.01	0.004	24	207	15	11	14	42.8	99.96	44.12	0.51	0.25	-1.32
8015	0.39	0.34	0.05	0.12	55.79	0.05	0.15	0.01	0.01	0.01	0.012	16	585	8	5	7	43.0	99.99	43.91	0.43	0.26	-0.91
8016	0.19	0.35	0.02	0.25	55.85	0.05	0.25	0.01	0.01	0.01	0.004	23	222	12	5	11	43.0	100.00	44.10	0.40	0.33	-1.10
8017	1.54	0.35	0.04	0.42	54.53	0.05	0.19	0.01	0.01	0.01	0.002	45	384	13	5	8	42.8	99.98	43.25	0.42	0.29	-0.45
8018	0.27	0.35	0.03	0.29	55.82	0.05	0.41	0.01	0.01	0.01	0.003	23	230	11	15	16	42.7	99.95	44.12	0.41	0.49	-1.42
8019	0.08	0.41	0.01	0.23	56.22	0.05	0.33	0.01	0.01	0.01	0.003	40	264	7	13	12	42.6	99.96	44.37	0.45	0.41	-1.77
8020	0.16	0.25	0.02	0.22	56.25	0.05	0.11	0.01	0.01	0.01	0.002	23	198	11	11	5	42.9	100.00	44.39	0.30	0.18	-1.49
8021	0.18	0.42	0.01	0.20	55.95	0.05	0.05	0.01	0.01	0.01	0.002	24	212	16	10	5	43.1	99.98	44.13	0.46	0.13	-1.03
8022	0.18	0.39	0.02	0.22	55.67	0.05	0.32	0.01	0.01	0.01	0.002	24	238	14	9	5	43.1	99.97	43.93	0.44	0.40	-0.83
8023	0.11	0.35	0.02	0.24	55.94	0.05	0.14	0.01	0.01	0.01	0.002	25	235	9	10	5	43.1	99.98	44.16	0.40	0.22	-1.06
8024	0.15	0.41	0.02	0.22	55.82	0.05	0.22	0.01	0.01	0.01	0.002	25	228	5	8	5	43.1	100.01	44.05	0.46	0.30	-0.95
8025	0.21	0.48	0.03	0.27	55.63	0.05	0.32	0.01	0.10	0.01	0.002	41	291	35	5	8	42.8	99.93	43.95	0.63	0.41	-1.15
8026	0.19	0.25	0.02	0.03	56.15	0.05	0.31	0.01	0.04	0.01	0.002	5	164	62	6	6	42.9	99.95	44.10	0.33	0.38	-1.20
8027	0.14	0.25	0.03	0.19	55.88	0.05	0.21	0.01	0.02	0.01	0.002	16	185	8	5	5	43.2	99.98	44.06	0.32	0.28	-0.86
8028	0.31	0.31	0.05	0.19	55.22	0.05	0.30	0.01	0.08	0.01	0.002	16	257	116	6	5	43.4	99.97	43.54	0.46	0.39	-0.14
8029	0.30	0.53	0.05	0.17	53.81	0.05	0.32	0.01	0.01	0.01	0.004	8,419	241	6	5	5	43.3	100.00	42.42	0.61	1.24	0.88
8030	0.31	0.38	0.03	0.18	55.65	0.05	0.13	0.01	0.09	0.01	0.002	14	510	19	5	5	43.1	99.98	43.87	0.52	0.24	-0.77
8031	0.19	0.30	0.03	0.23	55.69	0.05	0.26	0.01	0.01	0.01	0.002	25	303	5	5	5	43.2	99.97	43.96	0.36	0.34	-0.76
8032	0.18	0.47	0.02	0.21	56.00	0.05	0.14	0.01	0.01	0.01	0.002	25	391	7	5	5	42.9	100.01	44.18	0.52	0.23	-1.28
8033	0.15	0.42	0.02	0.21	56.17	0.05	0.31	0.01	0.01	0.01	0.002	24	310	19	5	6	42.6	99.98	44.31	0.47	0.40	-1.71
8034	0.16	0.42	0.02	0.22	56.14	0.05	0.16	0.01	0.01	0.01	0.002	31	289	7	5	5	42.8	100.00	44.30	0.47	0.24	-1.50
8035	0.26	0.32	0.03	0.27	55.69	0.05	0.29	0.01	0.01	0.01	0.004	31	386	12	6	5	43.0	99.95	44.00	0.38	0.38	-1.00
8036	0.22	0.51	0.04	0.31	55.52	0.05	0.20	0.01	0.01	0.01	0.002	24	208	6	5	5	43.1	99.97	43.91	0.58	0.27	-0.81
8037	0.25	0.23	0.02	0.20	56.00	0.05	0.22	0.01	0.06	0.01	0.002	31	252	20	5	5	42.9	99.96	44.17	0.33	0.30	-1.27
8038	0.14	0.18	0.01	0.26	56.19	0.05	0.12	0.01	0.01	0.01	0.002	16	256	14	5	5	43.0	99.98	44.38	0.22	0.20	-1.38
8039	0.28	0.23	0.03	0.32	55.70	0.05	0.28	0.01	0.03	0.01	0.002	8	265	23	5	8	43.0	99.95	44.06	0.31	0.36	-1.06
8040	0.21	0.18	0.03	0.26	56.41	0.05	0.17	0.01	0.01	0.01	0.002	23	242	21	5	5	42.6	99.93	44.55	0.24	0.25	-1.95
8041	0.15	0.30	0.02	0.25	56.13	0.05	0.15	0.01	0.01	0.01	0.002	16	270	19	5	6	42.9	99.97	44.32	0.35	0.23	-1.42
8042	0.25	0.33	0.02	0.25	55.83	0.05	0.20	0.01	0.01	0.01	0.002	24	401	19	5	5	43.0	99.97	44.09	0.38	0.30	-1.09
8043	0.20	0.28	0.03	0.26	55.73	0.05	0.15	0.01	0.02	0.01	0.002	23	417	13	5	6	43.2	99.97	44.02	0.35	0.25	-0.82
8044	0.30	0.25	0.04	0.46	55.57	0.05	0.06	0.01	0.01	0.01	0.004	16	318	20	5	5	43.2	99.96	44.11	0.32	0.15	-0.91
8045	0.30	0.20	0.04	0.27	55.81	0.05	0.36	0.01	0.01	0.01	0.002	23	292	19	5	5	42.9	99.97	44.09	0.27	0.44	-1.19
8046	0.46	0.36	0.04	0.27	55.78	0.05	0.29	0.01	0.01	0.01	0.002	15	333	25	5	8	42.6	99.91	44.07	0.43	0.38	-1.47
8047	0.19	0.32	0.03	0.24	56.09	0.05	0.10	0.01	0.01	0.01	0.002	5	268	16	5	6	42.9	99.96	44.28	0.38	0.18	-1.38
8048	0.21	0.27	0.03	0.29	55.65	0.05	0.23	0.01	0.01	0.01	0.002	16	218	16	5	5	43.2	99.96	43.99	0.33	0.31	-0.79
8049	0.82	0.59	0.08	1.14	53.01	0.06	0.27	0.01	0.13	0.01	0.002	155	218	16	5	5	43.8	99.97	42.85	0.82	0.37	0.95
8050	0.25	0.15	0.02	0.36	55.59	0.05	0.35	0.01	0.01	0.01	0.002	23	257	21	5	5	43.2	99.99	44.02	0.20	0.43	-0.82
8051	0.46	0.34	0.07	0.29	55.06	0.06	0.19	0.01	0.04	0.01	0.003	44	299	16	5	12	43.3	99.90	43.53	0.47	0.29	-0.23
8052	0.22	0.33	0.04	0.27	54.42	0.08	0.94	0.01	0.01	0.01	0.002	73	360	51	5	24	43.4	99.82	43.00	0.40	1.07	0.40
8053	0.45	0.21	0.03	0.29	54.71	0.07	0.61	0.02	0.02	0.01	0.002	28	284	42	5	15	43.4	99.89	43.25	0.29	0.72	0.15
8054	0.25	0.25	0.02	0.23	55.52	0.05	0.05	0.01	0.03	0.01	0.002	50	367	5	5	5	43.5	99.94	43.82	0.32	0.14	-0.32

From ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716 @
Acme files 92-2359, 92-2378, 92-2534, 92-2719....samples in this disk file.

SAMPLES	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %	CO2 EQ %	R2O3 %	OTHER %	LOI-CO2 EQ %
8055	0.26	0.26	0.04	0.46	55.22	0.05	0.20	0.01	0.04	0.01	0.002	18	578	12	5	5	43.3	99.93	43.84	0.36	0.31	-0.54
8056	0.91	0.27	0.05	0.08	55.21	0.09	0.23	0.01	0.07	0.01	0.002	18	293	21	5	9	42.9	99.89	43.42	0.41	0.35	-0.52
8057	0.76	0.48	0.02	0.16	54.59	0.06	0.54	0.01	0.06	0.01	0.002	5	314	43	5	18	43.1	99.85	43.02	0.58	0.64	0.08
8058	0.17	0.21	0.02	0.10	56.07	0.05	0.05	0.01	0.18	0.01	0.004	10	318	7	5	5	43.1	99.94	44.11	0.43	0.13	-1.01
8059	0.27	0.22	0.02	0.04	55.99	0.05	0.05	0.01	0.12	0.01	0.002	11	883	8	5	5	43.1	99.94	43.98	0.38	0.19	-0.88
8060	0.65	0.60	0.09	0.09	54.17	0.05	0.17	0.04	0.50	0.01	0.002	19	1033	18	12	5	43.4	99.91	42.61	1.24	0.33	0.79
8061	0.36	0.24	0.04	0.17	55.83	0.05	0.05	0.01	0.26	0.01	0.002	46	825	9	20	16	43.1	100.11	44.00	0.56	0.19	-0.90
8062	0.41	0.42	0.05	2.88	52.26	0.05	0.05	0.02	0.15	0.01	0.002	31	352	14	7	5	43.6	99.93	44.16	0.65	0.14	-0.56
8063	0.23	0.48	0.02	0.24	55.01	0.06	0.53	0.01	0.10	0.01	0.002	19	362	36	7	16	43.1	99.86	43.43	0.62	0.63	-0.33
8064	0.45	0.35	0.04	0.12	55.32	0.07	0.56	0.01	0.08	0.01	0.002	5	334	33	6	14	42.8	99.88	43.55	0.49	0.67	-0.75
8065	0.15	0.39	0.04	0.56	55.38	0.05	0.13	0.01	0.06	0.01	0.002	5	176	11	5	6	43.1	99.90	44.07	0.51	0.20	-0.97
8066	0.18	0.36	0.03	0.68	55.03	0.06	0.33	0.01	0.05	0.01	0.002	5	191	28	5	9	43.1	99.88	43.93	0.46	0.41	-0.83
8067	0.35	0.35	0.05	2.59	52.45	0.05	0.22	0.02	0.08	0.01	0.002	5	202	10	5	5	43.7	99.91	43.99	0.51	0.29	-0.29
8068	0.14	0.20	0.03	0.68	56.03	0.05	0.05	0.02	0.06	0.01	0.002	5	226	5	5	5	42.7	99.94	44.71	0.32	0.12	-2.01
8069	0.14	0.16	0.03	0.06	56.41	0.05	0.05	0.02	0.05	0.01	0.002	5	254	5	5	5	43.0	99.95	44.34	0.27	0.13	-1.34
8070	0.14	0.21	0.03	0.01	56.61	0.05	0.05	0.03	0.05	0.01	0.002	31	308	5	5	5	42.7	99.86	44.44	0.33	0.14	-1.74
8070 RE	0.17	0.19	0.04	0.01	56.81	0.05	0.05	0.01	0.05	0.01	0.002	32	313	5	5	5	42.6	99.95	44.60	0.30	0.14	-2.00
8071	0.61	0.59	0.05	0.08	55.53	0.05	0.05	0.04	0.01	0.01	0.002	15	302	5	5	5	43.1	100.07	43.67	0.70	0.13	-0.57
8072	0.27	0.58	0.03	0.08	55.79	0.05	0.05	0.04	0.01	0.01	0.002	5	259	19	5	5	43.1	99.98	43.87	0.67	0.13	-0.77
8073	0.44	0.45	0.04	0.15	55.87	0.05	0.05	0.02	0.01	0.01	0.002	5	221	5	5	5	43.1	100.15	44.01	0.53	0.12	-0.91
8074	0.28	0.36	0.03	0.07	56.14	0.05	0.05	0.02	0.01	0.01	0.002	5	675	11	5	5	43.0	100.03	44.14	0.43	0.17	-1.14
8075	0.06	0.22	0.01	0.15	56.62	0.05	0.05	0.04	0.02	0.01	0.002	5	461	15	5	5	42.9	100.08	44.60	0.30	0.15	-1.70
8126	0.26	0.22	0.02	0.22	56.11	0.05	0.15	0.01	0.01	0.01	0.002	24	281	12	6	6	42.9	99.97	44.28	0.27	0.23	-1.38
8127	0.10	0.20	0.01	0.23	56.18	0.05	0.16	0.01	0.02	0.01	0.002	24	265	11	5	5	43.0	99.98	44.34	0.25	0.24	-1.34
8128	0.15	0.21	0.02	0.23	55.99	0.06	0.25	0.01	0.01	0.01	0.006	24	261	22	8	5	43.0	99.96	44.19	0.27	0.34	-1.19
8129	0.48	0.23	0.02	0.24	55.84	0.05	0.20	0.01	0.01	0.01	0.002	24	322	11	13	5	42.9	100.00	44.09	0.28	0.29	-1.19
8130	0.35	0.27	0.03	0.37	55.56	0.05	0.21	0.01	0.02	0.01	0.004	40	275	16	7	5	43.1	99.99	44.01	0.34	0.29	-0.91
8131	0.30	0.22	0.03	0.60	55.33	0.05	0.31	0.01	0.11	0.01	0.002	24	227	13	5	5	43.0	99.98	44.08	0.38	0.39	-1.08
8132	0.08	0.15	0.04	0.29	56.54	0.05	0.05	0.03	0.08	0.01	0.002	5	218	70	5	5	42.6	99.88	44.69	0.31	0.13	-2.09
8133	0.12	0.18	0.02	0.23	56.19	0.05	0.18	0.01	0.01	0.01	0.002	24	175	14	5	5	43.0	99.98	44.35	0.23	0.25	-1.35
8134	0.15	0.30	0.03	0.22	56.06	0.05	0.13	0.01	0.03	0.01	0.002	24	158	18	5	5	43.0	100.00	44.24	0.38	0.20	-1.24
8135	0.10	0.29	0.02	0.18	56.56	0.05	0.16	0.01	0.01	0.01	0.002	20	203	16	5	6	42.6	99.99	44.58	0.34	0.24	-1.98
8136	0.15	0.36	0.03	0.18	56.20	0.05	0.23	0.01	0.02	0.01	0.002	24	206	19	5	6	42.7	99.95	44.30	0.43	0.31	-1.60
8136 RE	0.16	0.38	0.02	0.19	56.08	0.05	0.31	0.01	0.01	0.01	0.002	24	205	12	5	5	42.8	100.01	44.22	0.43	0.39	-1.42
8137	0.15	0.23	0.01	0.13	56.31	0.05	0.22	0.01	0.04	0.01	0.002	24	170	12	5	5	42.8	99.97	44.33	0.30	0.29	-1.53
8138	0.12	0.12	0.01	0.14	56.30	0.05	0.52	0.01	0.08	0.01	0.002	24	176	16	5	6	42.6	99.96	44.34	0.23	0.59	-1.74
8139	0.05	0.26	0.02	0.15	56.38	0.05	0.24	0.01	0.02	0.01	0.002	49	185	16	5	6	42.8	99.97	44.41	0.32	0.32	-1.61
8140	0.01	0.21	0.01	0.16	56.40	0.05	0.32	0.01	0.02	0.01	0.002	24	168	12	5	5	42.8	99.98	44.44	0.26	0.39	-1.64
8141	0.76	0.39	0.03	0.04	56.05	0.05	0.31	0.01	0.03	0.01	0.002	24	187	14	5	5	42.3	99.97	44.03	0.47	0.38	-1.73
8142	0.18	0.33	0.03	0.17	56.20	0.05	0.50	0.01	0.01	0.01	0.002	48	226	16	5	6	42.5	99.97	44.29	0.39	0.58	-1.79
8143	0.13	0.39	0.03	0.20	56.41	0.05	0.08	0.01	0.05	0.01	0.002	16	186	115	5	5	42.6	99.96	44.49	0.49	0.16	-1.89
8144	0.06	0.22	0.01	0.04	56.15	0.05	0.26	0.02	0.05	0.01	0.002	5	1051	26	5	9	42.9	99.89	44.11	0.31	0.42	-1.21
8145	0.61	0.29	0.06	0.01	55.53	0.05	0.05	0.02	0.11	0.01	0.002	5	1340	12	6	5	43.0	99.88	43.59	0.49	0.24	-0.59
8146	1.76	0.16	0.01	0.01	55.26	0.05	0.05	0.02	0.12	0.01	0.002	5	529	5	5	5	42.5	99.95	43.38	0.32	0.15	-0.88
8147	0.81	0.46	0.03	0.15	54.61	0.05	0.13	0.01	0.07	0.01	0.002	20	334	45	5	7	43.5	99.89	43.02	0.58	0.22	0.48
8148	0.72	0.47	0.10	1.70	52.87	0.05	0.05	0.05	0.10	0.01	0.002	20	328	9	5	5	43.8	99.93	43.35	0.73	0.14	0.45
8149	0.57	0.23	0.06	0.11	55.12	0.05	0.05	0.04	0.08	0.01	0.003	5	500	5	6	5	43.6	99.93	43.38	0.42	0.15	0.22
8150	0.49	0.63	0.03	0.24	54.93	0.05	0.05	0.03	0.05	0.01	0.002	31	331	9	5	5	43.4	99.93	43.37	0.75	0.14	0.03
8151	0.31	0.34	0.03	0.39	55.96	0.05	0.34	0.02	0.02	0.01	0.002	24	239	17	5	5	42.5	99.98	44.34	0.42	0.42	-1.84
8152	0.36	0.52	0.05	0.38	55.58	0.05	0.25	0.01	0.05	0.01	0.002	106	223	14	5	5	42.7	99.96	44.03	0.64	0.34	-1.33
8153	0.20	0.21	0.02	0.31	56.25	0.05	0.27	0.01	0.01	0.01	0.002	8	238	11	5	5	42.6	99.93	44.48	0.26	0.35	-1.88
8154	0.28	0.22	0.04	0.26	56.22	0.05	0.27	0.01	0.01	0.01	0.002	25	299	17	5	5	42.6	99.97	44.41	0.29	0.36	-1.81
8155	0.16	0.31	0.03	0.30	56.31	0.05	0.30	0.01	0.01	0.01	0.002	24	245	16	5	7	42.5	99.97	44.52	0.37	0.38	-2.02
8156	0.27	0.19	0.05	0.14	55.59	0.05	0.28	0.02	0.01	0.01	0.002	5	232	10	5	7	43.3	99.89	43.78	0.28	0.36	-0.48
8157	0.26	0.24	0.04	0.11	55.37	0.05	0.10	0.01	0.01	0.01	0.002	627	201	7	5	5	43.6	99.88	43.57	0.31	0.23	0.03

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SAMPLES	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %	CO2 EQ %	R2O3 %	OTHER %	LOI-CO2 EQ %
8158	0.37	0.29	0.05	0.14	55.63	0.05	0.16	0.01	0.01	0.01	0.002	5	257	9	5	5	43.2	99.90	43.81	0.37	0.24	-0.61
8159	0.19	0.09	0.03	0.11	56.33	0.05	0.28	0.01	0.01	0.01	0.002	5	236	8	5	5	42.8	99.89	44.33	0.15	0.36	-1.53
8160	0.31	0.21	0.01	0.05	56.44	0.05	0.05	0.01	0.01	0.01	0.002	5	528	5	5	5	42.8	99.91	44.35	0.25	0.15	-1.55
8161	0.18	0.08	0.02	0.07	56.17	0.05	0.13	0.01	0.01	0.01	0.002	5	848	7	5	5	43.1	99.87	44.16	0.13	0.27	-1.06
8162	0.70	0.18	0.03	0.68	55.00	0.05	0.07	0.02	0.03	0.01	0.002	5	367	134	5	5	43.1	99.89	43.91	0.27	0.17	-0.81
8163	1.07	0.18	0.05	0.08	55.41	0.05	0.25	0.01	0.01	0.01	0.002	5	854	9	5	5	42.7	99.88	43.57	0.26	0.39	-0.87
8164	0.20	0.13	0.02	0.02	56.30	0.05	0.07	0.01	0.01	0.01	0.002	5	676	5	5	5	43.1	99.93	44.21	0.18	0.19	-1.11
8165	0.21	0.16	0.03	0.06	56.16	0.05	0.14	0.02	0.01	0.01	0.002	5	415	6	5	5	43.0	99.87	44.14	0.23	0.23	-1.14
8166	0.20	0.17	0.03	0.08	56.37	0.05	0.08	0.01	0.01	0.01	0.002	5	469	5	5	5	42.9	99.91	44.33	0.23	0.18	-1.43
8167	0.46	0.17	0.02	0.40	55.83	0.05	0.26	0.01	0.01	0.01	0.002	5	298	8	5	5	42.7	99.89	44.25	0.22	0.34	-1.55
8168	0.27	0.12	0.01	0.05	56.34	0.05	0.12	0.01	0.01	0.01	0.002	5	369	8	5	5	42.9	99.88	44.27	0.16	0.21	-1.37
8169	0.23	0.19	0.01	0.05	56.27	0.05	0.06	0.01	0.01	0.01	0.002	5	406	6	5	5	43.0	99.90	44.22	0.23	0.15	-1.22
8170	0.11	0.14	0.01	0.09	56.21	0.05	0.20	0.01	0.01	0.01	0.002	5	364	10	5	5	43.1	99.93	44.21	0.18	0.29	-1.11
8171	0.27	0.12	0.02	0.09	56.19	0.05	0.05	0.01	0.01	0.01	0.002	5	245	6	6	5	43.1	99.90	44.20	0.17	0.13	-1.10
8172	0.18	0.17	0.02	0.08	56.42	0.05	0.05	0.01	0.01	0.01	0.002	5	291	7	5	5	43.0	99.93	44.37	0.22	0.13	-1.37
8173	0.21	0.11	0.04	0.38	55.93	0.05	0.16	0.01	0.01	0.01	0.004	5	226	5	9	5	43.0	99.90	44.31	0.18	0.24	-1.31
8174	0.13	0.12	0.01	0.04	56.62	0.05	0.05	0.01	0.01	0.01	0.002	5	221	5	10	5	43.0	99.96	44.48	0.16	0.12	-1.48
8174 RE	0.09	0.16	0.02	0.04	56.47	0.05	0.05	0.02	0.01	0.01	0.002	5	219	6	10	5	43.1	99.95	44.36	0.22	0.12	-1.26
8175	0.17	0.21	0.01	0.06	56.39	0.05	0.08	0.01	0.01	0.01	0.002	5	288	5	11	5	42.9	99.88	44.32	0.25	0.16	-1.42
8176	0.09	0.15	0.02	0.03	56.78	0.05	0.05	0.01	0.01	0.01	0.002	21	199	8	5	5	42.7	99.85	44.59	0.20	0.12	-1.89
8177	0.10	0.09	0.03	0.01	56.70	0.05	0.09	0.01	0.01	0.01	0.002	21	180	5	5	5	42.8	99.87	44.51	0.15	0.16	-1.71
8178	0.08	0.04	0.02	0.04	56.83	0.05	0.05	0.01	0.05	0.01	0.002	11	186	8	6	5	42.8	99.91	44.64	0.13	0.12	-1.84
8179	0.01	0.24	0.01	0.10	56.71	0.05	0.05	0.02	0.08	0.02	0.002	11	205	5	5	5	42.7	99.95	44.62	0.37	0.12	-1.92
8180	0.07	0.30	0.02	0.16	56.09	0.05	0.05	0.02	0.10	0.01	0.002	20	238	5	7	5	43.1	99.94	44.19	0.45	0.13	-1.09
8181	0.05	0.18	0.02	0.20	56.55	0.05	0.05	0.02	0.06	0.01	0.002	33	262	5	8	5	42.8	99.95	44.60	0.29	0.13	-1.80
8182	0.02	0.17	0.04	0.19	56.31	0.05	0.05	0.02	0.06	0.01	0.002	31	255	5	9	5	43.0	99.92	44.40	0.30	0.13	-1.40
8183	0.01	0.37	0.01	0.13	56.41	0.05	0.05	0.01	0.10	0.01	0.004	75	263	5	6	5	42.8	99.93	44.41	0.50	0.14	-1.61
8184	0.22	0.33	0.03	0.07	56.50	0.05	0.05	0.03	0.06	0.01	0.002	95	254	5	7	5	42.6	99.95	44.42	0.46	0.14	-1.82
8185	0.30	0.35	0.04	0.03	56.58	0.05	0.05	0.02	0.12	0.01	0.002	32	205	13	5	6	42.3	99.85	44.44	0.54	0.13	-2.14
8186	0.23	0.12	0.07	0.05	56.29	0.05	0.05	0.02	0.09	0.01	0.002	55	201	5	5	5	43.0	99.94	44.23	0.31	0.13	-1.23
8187	1.03	0.17	0.03	0.01	55.91	0.05	0.05	0.02	0.19	0.01	0.003	32	190	5	13	5	42.5	99.94	43.89	0.42	0.12	-1.39
8188	0.57	0.26	0.04	0.19	56.41	0.05	0.21	0.01	0.07	0.01	0.002	73	226	27	26	19	42.1	99.94	44.48	0.39	0.30	-2.38
8189	0.01	0.33	0.04	0.19	56.60	0.05	0.17	0.01	0.14	0.01	0.003	50	173	364	6	5	42.4	100.02	44.63	0.53	0.28	-2.23
8190	0.18	0.32	0.05	0.20	56.22	0.05	0.19	0.01	0.07	0.01	0.004	48	178	6	10	5	42.6	99.93	44.34	0.46	0.26	-1.74
8191	0.98	0.33	0.03	0.14	55.89	0.05	0.19	0.01	0.07	0.01	0.003	80	222	16	10	7	42.2	99.94	44.02	0.45	0.27	-1.82
8192	0.98	0.33	0.06	0.19	55.35	0.05	0.20	0.02	0.26	0.01	0.003	82	374	24	7	8	42.4	99.92	43.65	0.68	0.30	-1.25
8193	0.10	0.50	0.04	0.12	55.95	0.05	0.28	0.01	0.07	0.01	0.004	41	154	5	7	7	42.8	99.97	44.04	0.63	0.35	-1.24
8194	0.36	0.44	0.06	0.01	56.14	0.05	0.21	0.01	0.09	0.01	0.002	64	226	27	8	10	42.5	99.92	44.07	0.61	0.29	-1.57
8195	1.60	0.48	0.15	0.12	54.68	0.05	0.16	0.01	0.26	0.01	0.002	189	335	16	19	9	42.3	99.90	43.04	0.91	0.27	-0.74
8196	0.39	0.02	0.02	0.47	56.26	0.05	0.19	0.01	0.03	0.01	0.002	42	305	10	5	5	42.5	99.98	44.67	0.09	0.28	-2.17
8197	0.53	0.37	0.05	0.27	55.43	0.05	0.20	0.01	0.05	0.01	0.003	47	303	30	6	6	42.9	99.92	43.80	0.49	0.29	-0.90
8198	0.42	0.37	0.05	0.27	55.65	0.05	0.26	0.02	0.05	0.01	0.002	21	302	16	6	6	42.7	99.89	43.97	0.50	0.35	-1.27
8199	0.18	0.45	0.05	0.32	55.85	0.05	0.15	0.01	0.11	0.01	0.002	23	319	15	5	5	42.7	99.94	44.18	0.63	0.24	-1.48
8199 RE	0.14	0.49	0.03	0.31	56.30	0.05	0.13	0.01	0.06	0.01	0.002	38	313	13	5	5	42.4	99.96	44.52	0.60	0.22	-2.12
8200	0.24	0.51	0.02	0.32	55.88	0.05	0.07	0.01	0.04	0.01	0.002	22	297	13	5	5	42.8	99.98	44.20	0.59	0.15	-1.40
8201	0.24	0.36	0.03	0.32	56.02	0.05	0.17	0.02	0.05	0.01	0.003	22	270	13	5	6	42.6	99.91	44.31	0.47	0.25	-1.71
8202	0.47	0.31	0.02	0.25	56.04	0.05	0.13	0.01	0.05	0.01	0.002	22	219	5	5	5	42.6	99.97	44.25	0.40	0.21	-1.65
8203	0.40	0.44	0.02	0.23	56.20	0.05	0.06	0.01	0.01	0.01	0.003	29	218	6	5	5	42.5	99.96	44.36	0.49	0.14	-1.86
8204	0.26	0.31	0.03	0.24	56.21	0.05	0.17	0.01	0.04	0.01	0.003	44	291	13	6	7	42.6	99.95	44.38	0.40	0.25	-1.78
8205	0.31	0.31	0.03	0.21	56.57	0.05	0.08	0.01	0.01	0.01	0.002	30	217	6	6	7	42.3	99.90	44.63	0.37	0.16	-2.33
8206	0.47	0.41	0.05	0.18	55.31	0.05	0.16	0.01	0.02	0.01	0.002	21	249	9	7	6	43.2	99.92	43.60	0.50	0.24	-0.40
8207	0.38	0.25	0.03	0.20	55.48	0.05	0.05	0.01	0.02	0.01	0.002	21	217	9	7	7	43.4	99.91	43.76	0.32	0.13	-0.36
8208	0.27	0.37	0.03	0.22	55.72	0.05	0.06	0.01	0.07	0.01	0.003	29	248	9	6	5	43.1	99.94	43.97	0.49	0.14	-0.87
8209	0.27	0.48	0.03	0.22	55.53	0.05	0.10	0.01	0.02	0.01	0.002	22	206	8	6	6	43.2	99.95	43.82	0.55	0.17	-0.62
8210	0.42	0.36	0.04	0.20	55.68	0.05	0.12	0.01	0.01	0.01	0.002	21	307	10	5	6	43.0	99.94	43.92	0.43	0.20	-0.92

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Acme files 92-2359, 92-2378, 92-2534, 92-2719....samples in this disk file.

SAMPLES	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %	CO2 EQ %	R2O3 %	OTHER %	LOI - CO2 EQ %
8211	0.47	0.36	0.04	0.22	55.71	0.05	0.05	0.01	0.03	0.01	0.002	22	305	5	5	5	43.0	99.97	43.96	0.45	0.13	-0.96
8212	0.24	0.42	0.03	0.20	55.64	0.05	0.13	0.01	0.07	0.01	0.002	22	233	6	5	6	43.1	99.94	43.88	0.54	0.21	-0.78
8213	0.63	0.45	0.03	0.23	55.36	0.05	0.13	0.01	0.07	0.01	0.002	21	259	16	6	8	42.9	99.92	43.70	0.57	0.21	-0.80
8214	0.25	0.39	0.03	0.19	55.51	0.05	0.12	0.02	0.03	0.01	0.002	22	251	5	5	5	43.3	99.94	43.77	0.48	0.20	-0.47
8215	0.25	0.40	0.02	0.23	55.69	0.05	0.05	0.01	0.01	0.01	0.002	21	206	10	5	5	43.2	99.94	43.96	0.45	0.12	-0.76
8216	0.01	0.30	0.01	0.11	56.76	0.05	0.05	0.01	0.01	0.01	0.002	5	206	10	5	5	42.8	100.05	44.67	0.34	0.12	-1.87
8217	0.13	0.30	0.01	0.18	56.95	0.05	0.05	0.01	0.04	0.01	0.002	5	214	5	5	5	42.5	100.14	44.89	0.37	0.12	-2.39
8226	0.08	0.24	0.02	0.03	56.61	0.05	0.05	0.02	0.24	0.01	0.002	30	176	11	10	5	42.7	99.99	44.46	0.53	0.12	-1.76
8227	0.04	0.13	0.02	0.01	56.65	0.05	0.05	0.01	0.16	0.01	0.002	5	168	6	10	5	42.6	99.63	44.47	0.33	0.12	-1.87
8228	0.01	0.37	0.01	0.02	56.94	0.05	0.05	0.02	0.24	0.01	0.002	16	157	5	7	5	42.6	100.23	44.71	0.65	0.12	-2.11
8229	0.01	0.61	0.01	0.02	56.04	0.05	0.05	0.02	0.40	0.01	0.002	5	182	10	12	5	43.0	100.13	44.00	1.05	0.12	-1.00
8230	0.03	0.37	0.01	0.02	56.82	0.05	0.05	0.01	0.02	0.01	0.003	5	330	5	5	5	42.8	100.11	44.61	0.42	0.14	-1.81
8231	0.63	0.74	0.07	0.48	54.99	0.05	0.05	0.02	0.08	0.01	0.003	5	302	5	5	5	43.1	100.17	43.68	0.92	0.13	-0.58
8232	0.47	0.50	0.04	0.84	55.05	0.05	0.15	0.04	0.01	0.01	0.002	5	275	5	5	5	42.9	100.04	44.12	0.60	0.23	-1.22
8233	0.60	0.37	0.05	0.80	55.15	0.05	0.05	0.01	0.02	0.01	0.002	5	286	5	5	5	43.0	100.05	44.15	0.46	0.13	-1.15
8234	0.14	0.25	0.01	0.01	56.71	0.05	0.05	0.03	0.01	0.01	0.002	49	998	5	5	5	42.8	100.07	44.52	0.31	0.21	-1.72
8235	0.18	0.30	0.01	0.01	56.30	0.05	0.05	0.03	0.01	0.01	0.002	5	796	12	5	5	43.1	100.06	44.20	0.36	0.18	-1.10
8236	0.86	0.25	0.03	0.01	56.34	0.05	0.05	0.03	0.01	0.01	0.002	5	275	10	5	5	42.5	100.06	44.23	0.33	0.13	-1.73
8237	0.31	0.38	0.01	0.12	56.49	0.05	0.05	0.03	0.01	0.01	0.002	5	320	13	5	5	42.6	100.02	44.46	0.44	0.13	-1.86
8238	0.24	0.13	0.02	0.08	56.93	0.05	0.05	0.01	0.01	0.01	0.002	5	345	5	5	5	42.6	100.04	44.77	0.18	0.14	-2.17
8239	0.25	0.38	0.01	0.04	56.48	0.05	0.05	0.01	0.01	0.01	0.002	5	305	5	5	5	42.8	100.04	44.37	0.42	0.13	-1.57
8240	0.36	0.50	0.03	0.19	55.81	0.05	0.05	0.04	0.01	0.01	0.002	5	311	5	5	5	43.0	100.00	44.01	0.59	0.13	-1.01
8240 RE	0.41	0.43	0.03	0.18	55.74	0.05	0.12	0.01	0.01	0.01	0.003	5	311	6	5	5	43.0	99.97	43.94	0.49	0.20	-0.94
8241	0.13	0.26	0.04	0.17	56.57	0.05	0.07	0.03	0.01	0.01	0.002	5	337	5	5	5	42.7	100.03	44.58	0.35	0.16	-1.88
8242	0.20	0.39	0.01	0.16	56.50	0.05	0.05	0.01	0.01	0.01	0.002	5	308	5	5	5	42.7	100.03	44.52	0.43	0.13	-1.82
8243	0.23	0.52	0.02	0.14	56.46	0.05	0.05	0.01	0.01	0.01	0.003	5	280	5	5	5	42.7	100.13	44.46	0.57	0.13	-1.76
8244	0.05	0.32	0.01	0.12	56.44	0.05	0.08	0.01	0.04	0.01	0.004	5	277	95	5	5	42.9	100.01	44.43	0.39	0.17	-1.53
8245	0.24	0.63	0.04	0.20	56.21	0.05	0.05	0.01	0.01	0.01	0.002	5	349	6	5	5	42.7	100.08	44.33	0.70	0.14	-1.63
8246	0.60	0.47	0.05	0.40	55.26	0.05	0.05	0.01	0.01	0.01	0.002	5	558	7	5	5	43.1	99.98	43.80	0.55	0.16	-0.70
8247	0.21	0.38	0.01	0.12	56.58	0.05	0.09	0.03	0.01	0.01	0.002	5	501	6	5	5	42.5	99.99	44.53	0.44	0.19	-2.03
8248	0.25	0.39	0.04	0.29	55.92	0.05	0.11	0.01	0.01	0.01	0.002	5	528	8	5	5	42.9	99.98	44.20	0.46	0.22	-1.30
8249	0.22	0.19	0.02	0.24	55.75	0.05	0.05	0.01	0.01	0.01	0.002	9	232	17	5	5	43.7	100.14	44.01	0.24	0.13	-0.31
8250	0.41	0.29	0.04	1.37	53.73	0.05	0.05	0.01	0.08	0.01	0.002	18	268	5	5	5	44.0	100.01	43.66	0.43	0.13	0.34
8251	0.01	0.26	0.01	0.01	56.87	0.05	0.13	0.03	0.03	0.01	0.002	5	212	21	5	8	42.6	99.97	44.64	0.34	0.21	-2.04
8252	0.04	0.48	0.01	0.01	56.72	0.05	0.08	0.03	0.01	0.01	0.003	5	206	7	5	5	42.6	99.99	44.52	0.54	0.15	-1.92
8253	0.41	0.26	0.01	0.12	56.37	0.05	0.14	0.01	0.10	0.01	0.002	5	263	5	5	5	42.5	99.97	44.37	0.39	0.22	-1.87
8254	0.39	0.32	0.01	0.09	56.06	0.05	0.07	0.02	0.07	0.01	0.002	5	427	16	5	5	42.9	99.99	44.09	0.43	0.17	-1.19
8255	0.59	0.32	0.01	0.13	56.29	0.05	0.11	0.03	0.05	0.01	0.002	5	426	5	5	5	42.4	100.01	44.32	0.42	0.20	-1.92
8256	0.56	0.32	0.02	0.13	55.62	0.05	0.05	0.01	0.24	0.01	0.002	14	369	25	12	13	43.1	100.14	43.79	0.60	0.14	-0.69
8257	0.45	0.32	0.01	0.11	55.93	0.05	0.05	0.01	0.10	0.01	0.002	29	297	5	5	5	43.0	100.04	44.01	0.45	0.13	-1.01
8258	0.16	0.01	0.01	0.09	56.65	0.05	0.12	0.01	0.10	0.01	0.002	44	271	5	5	5	43.0	100.22	44.56	0.14	0.20	-1.56
8259	0.05	0.32	0.01	0.09	56.55	0.05	0.05	0.02	0.05	0.01	0.002	44	266	5	5	5	43.0	100.17	44.48	0.41	0.13	-1.48
8260	0.01	0.09	0.01	0.06	56.91	0.05	0.05	0.01	0.08	0.01	0.002	29	277	5	5	5	43.0	100.22	44.73	0.20	0.13	-1.73
8261	0.24	0.08	0.01	0.14	56.41	0.05	0.05	0.01	0.08	0.01	0.002	44	295	5	5	5	43.1	100.16	44.42	0.19	0.14	-1.32
8262	0.35	0.19	0.02	0.08	56.38	0.05	0.05	0.01	0.05	0.01	0.002	5	271	5	5	5	43.0	100.16	44.33	0.28	0.13	-1.33
8263	0.07	0.07	0.01	0.01	56.57	0.05	0.07	0.01	0.05	0.01	0.002	45	207	5	5	5	43.1	100.03	44.41	0.15	0.15	-1.31
8264	0.13	0.06	0.01	0.01	56.36	0.05	0.05	0.01	0.12	0.01	0.002	5	182	5	5	5	43.3	100.07	44.24	0.21	0.12	-0.94
8265	0.06	0.06	0.01	0.04	56.80	0.05	0.05	0.01	0.06	0.01	0.002	15	191	5	5	5	42.9	100.02	44.62	0.15	0.12	-1.72
8266	0.28	0.26	0.07	0.02	56.38	0.05	0.05	0.01	0.07	0.01	0.003	14	172	5	6	5	42.8	100.01	44.27	0.42	0.12	-1.47
8267	0.21	0.09	0.02	0.01	56.63	0.05	0.05	0.01	0.05	0.01	0.002	5	193	5	5	5	42.9	100.01	44.45	0.18	0.12	-1.55
8268	0.06	0.20	0.02	0.01	56.44	0.05	0.05	0.01	0.14	0.01	0.002	15	230	5	8	5	43.1	100.06	44.31	0.38	0.13	-1.21
8269	0.13	0.03	0.01	0.01	56.63	0.05	0.05	0.01	0.08	0.01	0.002	15	208	5	5	5	43.1	100.06	44.45	0.14	0.12	-1.35
8270	0.06	0.01	0.01	0.01	56.87	0.05	0.05	0.01	0.09	0.01	0.002	15	200	5	6	5	43.1	100.24	44.64	0.13	0.12	-1.54
8270 RE	0.06	0.01	0.01	0.01	56.76	0.05	0.05	0.01	0.08	0.01	0.002	5	198	5	6	5	43.1	100.08	44.56	0.12	0.12	-1.46
8271	0.01	0.01	0.01	0.01	56.64	0.05	0.05	0.01	0.10	0.01	0.002	213	163	5	5	5	43.5	100.27	44.46	0.14	0.14	-0.96

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SAMPLES	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %	CO2 EQ %	R2O3 %	OTHER %	LOI - CO2 EQ %
8272	0.06	0.25	0.01	0.04	56.60	0.05	0.05	0.02	0.05	0.01	0.002	15	207	5	5	5	43.1	100.20	44.46	0.34	0.12	-1.36
8273	0.04	0.01	0.01	0.01	56.79	0.05	0.08	0.01	0.08	0.01	0.002	5	162	5	5	5	43.0	100.07	44.58	0.12	0.15	-1.58
8274	0.18	0.12	0.02	0.01	56.63	0.05	0.05	0.01	0.05	0.01	0.002	5	158	5	5	5	43.1	100.18	44.45	0.21	0.12	-1.35
8275	0.24	0.11	0.02	0.01	56.58	0.05	0.05	0.01	0.10	0.01	0.002	5	196	5	5	5	42.9	100.07	44.41	0.25	0.12	-1.51
8288	0.07	0.06	0.02	0.10	56.50	0.05	0.08	0.01	0.02	0.01	0.002	5	171	6	6	5	43.0	99.89	44.45	0.12	0.15	-1.45
8289	0.08	0.11	0.01	0.12	56.50	0.05	0.12	0.01	0.01	0.01	0.002	5	160	7	5	5	42.9	99.88	44.47	0.15	0.19	-1.57
8290	0.10	0.06	0.03	0.01	56.72	0.05	0.05	0.01	0.01	0.01	0.002	5	157	8	5	5	42.9	99.90	44.52	0.12	0.12	-1.62
8291	0.28	0.11	0.06	0.09	56.20	0.05	0.06	0.01	0.02	0.01	0.004	5	178	8	5	5	43.0	99.89	44.20	0.21	0.13	-1.20
8292	0.30	0.16	0.04	0.06	56.27	0.05	0.10	0.01	0.01	0.01	0.002	11	257	7	7	5	42.9	99.90	44.23	0.23	0.18	-1.33
8293	0.10	0.11	0.03	0.05	56.44	0.05	0.10	0.01	0.01	0.01	0.002	5	191	5	5	5	43.0	99.88	44.35	0.17	0.17	-1.35
8294	0.11	0.10	0.02	0.02	56.43	0.05	0.05	0.01	0.01	0.01	0.003	5	213	5	5	5	43.1	99.86	44.31	0.15	0.12	-1.21
8295	0.08	0.10	0.01	0.02	56.80	0.05	0.05	0.01	0.01	0.01	0.002	5	229	5	5	5	42.8	99.90	44.60	0.14	0.12	-1.80
8296	0.11	0.15	0.02	0.10	56.49	0.05	0.05	0.01	0.01	0.01	0.002	5	201	5	5	5	43.0	99.93	44.44	0.20	0.12	-1.44
8297	0.16	0.13	0.01	0.14	56.50	0.05	0.05	0.01	0.01	0.01	0.002	5	376	6	8	5	42.9	99.93	44.49	0.17	0.14	-1.59
8298	0.20	0.13	0.02	0.30	56.19	0.05	0.05	0.01	0.01	0.01	0.002	5	247	7	7	5	42.9	99.86	44.43	0.18	0.13	-1.53
8299	0.67	0.14	0.02	1.77	54.47	0.05	0.05	0.01	0.01	0.01	0.002	11	287	6	6	5	42.8	99.91	44.68	0.19	0.13	-1.88
8300	0.32	0.15	0.03	0.36	56.21	0.05	0.05	0.01	0.01	0.01	0.002	5	173	5	6	5	42.7	99.88	44.51	0.21	0.12	-1.81
8301	0.48	0.33	0.01	0.06	55.27	0.05	0.07	0.02	0.42	0.01	0.002	59	220	5	9	5	43.3	100.05	43.44	0.79	0.15	-0.14
8302	0.34	0.04	0.02	0.06	56.13	0.05	0.05	0.02	0.21	0.01	0.002	43	217	5	5	5	43.2	100.10	44.12	0.30	0.13	-0.92
8303	0.09	0.15	0.02	0.01	56.20	0.05	0.05	0.01	0.26	0.01	0.002	44	208	55	5	5	43.2	100.03	44.12	0.45	0.13	-0.92
8304	0.26	0.10	0.03	0.08	56.23	0.05	0.05	0.01	0.05	0.01	0.002	5	595	5	5	5	43.2	100.07	44.22	0.20	0.16	-1.02
8305	0.09	0.20	0.03	0.01	55.70	0.05	0.05	0.02	0.05	0.01	0.002	5	1100	5	5	5	43.9	100.08	43.72	0.31	0.21	0.18
8306	0.25	0.19	0.04	0.07	55.64	0.05	0.05	0.01	0.07	0.01	0.002	5	574	5	5	5	43.7	100.01	43.74	0.32	0.16	-0.04
8307	0.58	0.06	0.04	0.06	55.42	0.05	0.05	0.01	0.03	0.01	0.002	5	919	5	5	5	43.7	99.98	43.56	0.15	0.19	0.14
8308	0.49	0.18	0.05	1.96	53.38	0.05	0.05	0.02	0.05	0.01	0.002	5	573	5	5	5	43.9	100.07	44.03	0.31	0.16	-0.13
8309	0.05	0.01	0.01	0.01	56.76	0.05	0.05	0.01	0.02	0.01	0.002	5	970	5	5	5	43.1	100.10	44.56	0.06	0.20	-1.46
8310	0.14	0.01	0.01	0.01	56.32	0.05	0.05	0.01	0.01	0.01	0.002	5	1476	5	5	5	43.6	100.20	44.21	0.05	0.25	-0.61
8311	0.50	0.21	0.05	1.67	53.21	0.05	0.09	0.03	0.07	0.01	0.002	5	369	5	5	5	44.2	100.04	43.58	0.37	0.18	0.62
8312	0.37	0.01	0.03	0.02	56.18	0.05	0.11	0.03	0.04	0.01	0.002	5	658	5	5	5	43.1	100.01	44.11	0.12	0.23	-1.01
8313	0.49	0.16	0.04	0.22	55.49	0.05	0.10	0.01	0.03	0.01	0.002	5	370	5	5	5	43.5	100.03	43.79	0.25	0.19	-0.29
8314	0.01	0.01	0.01	0.01	56.98	0.05	0.08	0.01	0.04	0.01	0.002	5	201	5	5	5	42.9	100.09	44.73	0.08	0.15	-1.83
8315	0.17	0.01	0.01	0.01	56.88	0.05	0.05	0.01	0.01	0.01	0.002	5	161	5	5	5	43.0	100.13	44.65	0.05	0.12	-1.65
8316	0.05	0.01	0.02	0.01	57.05	0.05	0.05	0.01	0.02	0.01	0.002	5	197	5	5	5	43.0	100.21	44.78	0.07	0.12	-1.78
8317	0.97	0.24	0.05	0.01	55.05	0.05	0.05	0.01	0.04	0.01	0.002	29	328	13	5	5	43.7	100.07	43.21	0.35	0.14	0.49
8318	1.50	0.35	0.08	0.13	54.89	0.05	0.05	0.01	0.19	0.01	0.002	29	284	19	7	5	42.8	100.05	43.22	0.64	0.13	-0.42
8319	0.76	0.23	0.07	0.30	55.37	0.05	0.05	0.01	0.03	0.01	0.002	5	340	5	5	5	43.3	100.06	43.78	0.35	0.14	-0.48
8320	0.65	0.34	0.12	0.09	54.83	0.05	0.13	0.02	0.06	0.01	0.002	5	365	14	5	5	43.7	99.97	43.13	0.55	0.22	0.57
8321	0.36	0.23	0.04	0.01	55.99	0.05	0.05	0.01	0.10	0.01	0.002	5	449	6	5	5	43.3	100.03	43.95	0.39	0.15	-0.65
8322	0.21	0.34	0.02	1.07	55.18	0.05	0.09	0.01	0.05	0.01	0.002	5	217	6	5	5	43.0	100.04	44.47	0.43	0.16	-1.47
8323	0.17	0.09	0.02	0.04	56.86	0.05	0.05	0.01	0.03	0.01	0.005	5	230	25	5	5	42.9	100.19	44.67	0.17	0.13	-1.77
8324	0.21	0.05	0.02	0.01	56.68	0.05	0.05	0.01	0.04	0.01	0.003	5	226	7	5	5	43.0	100.08	44.49	0.13	0.12	-1.49
8325	0.25	0.04	0.01	0.08	56.53	0.05	0.05	0.01	0.04	0.01	0.002	5	341	9	5	5	42.9	100.01	44.45	0.11	0.14	-1.55
8326	0.47	0.22	0.01	0.13	56.88	0.05	0.05	0.01	0.01	0.01	0.002	5	330	5	5	5	42.3	100.10	44.78	0.26	0.14	-2.48
8327	0.30	0.22	0.02	0.11	56.61	0.05	0.05	0.01	0.01	0.01	0.002	5	239	5	5	5	42.7	100.06	44.55	0.27	0.13	-1.85
8328	0.09	0.09	0.01	0.01	56.61	0.05	0.05	0.01	0.01	0.01	0.002	5	1550	9	5	5	43.0	100.06	44.44	0.13	0.26	-1.44
8329	0.17	0.22	0.04	0.20	55.47	0.05	0.19	0.01	0.07	0.01	0.003	28	300	5	5	5	43.6	99.98	43.75	0.35	0.27	-0.15
8330	0.37	0.19	0.03	0.11	55.75	0.05	0.05	0.01	0.07	0.01	0.002	5	490	27	5	5	43.5	100.06	43.87	0.31	0.15	-0.37
8331	2.57	0.64	0.19	0.91	51.97	0.05	0.33	0.02	0.13	0.01	0.002	25	391	10	5	5	43.2	100.01	41.78	0.99	0.42	1.42
8332	0.08	0.16	0.03	0.01	56.46	0.05	0.05	0.01	0.08	0.01	0.002	25	223	5	5	5	43.5	100.33	44.32	0.29	0.13	-0.82
8333	0.13	0.24	0.03	0.01	56.08	0.05	0.05	0.01	0.12	0.01	0.002	31	337	5	5	5	43.6	100.24	44.02	0.41	0.14	-0.42
8334	3.89	0.39	0.08	0.24	53.22	0.05	0.05	0.01	0.12	0.01	0.002	58	278	9	5	5	42.0	100.05	42.03	0.61	0.14	-0.03
8335	0.06	0.23	0.02	0.02	56.11	0.05	0.05	0.02	0.05	0.01	0.002	28	172	5	5	5	43.5	100.02	44.06	0.33	0.12	-0.56
8336	0.10	0.18	0.01	0.01	55.70	0.05	0.05	0.01	0.04	0.01	0.002	36	197	5	5	5	43.9	100.00	43.72	0.25	0.12	0.18
8337	0.19	0.18	0.03	0.01	56.07	0.05	0.05	0.01	0.07	0.01	0.002	34	213	5	5	5	43.5	100.07	44.01	0.30	0.13	-0.51
8338	0.10	0.18	0.04	0.37	55.84	0.05	0.05	0.01	0.10	0.01	0.002	31	212	5	5	5	43.5	100.16	44.23	0.34	0.13	-0.73

From ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716 @
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SAMPLES	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %	CO2 EQ %	R2O3 %	OTHER %	LOI - CO2 EQ %
8338 RE	0.07	0.18	0.02	0.03	56.19	0.05	0.05	0.01	0.03	0.01	0.002	25	200	5	5	5	43.5	100.04	44.13	0.25	0.12	-0.63
8339	0.48	0.23	0.04	0.15	55.64	0.05	0.05	0.01	0.07	0.01	0.002	50	241	5	5	5	43.3	99.99	43.83	0.36	0.13	-0.53
8340	0.72	0.43	0.07	1.27	53.33	0.05	0.05	0.01	0.09	0.01	0.002	9	363	5	5	5	44.0	99.98	43.24	0.61	0.14	0.76
8341	0.29	0.26	0.04	2.66	52.15	0.05	0.10	0.01	0.11	0.01	0.002	5	523	9	5	5	44.3	99.99	43.83	0.43	0.20	0.47
8342	0.39	0.25	0.03	0.59	54.38	0.05	0.06	0.01	0.04	0.01	0.002	5	940	5	5	5	44.2	100.00	43.32	0.34	0.21	0.88
8343	0.11	0.22	0.02	0.26	54.83	0.05	0.07	0.01	0.06	0.01	0.002	5	942	5	5	5	44.3	100.00	43.31	0.32	0.22	0.99
8344	0.05	0.18	0.02	0.24	56.06	0.05	0.05	0.01	0.05	0.01	0.002	5	965	5	5	5	43.4	100.09	44.26	0.27	0.20	-0.86
8345	0.63	0.49	0.08	2.43	51.87	0.05	0.16	0.01	0.33	0.01	0.002	5	690	7	5	5	43.9	99.99	43.36	0.92	0.28	0.54
8346	0.16	0.22	0.02	0.75	55.48	0.05	0.05	0.01	0.08	0.01	0.002	5	319	5	5	5	43.5	100.24	44.36	0.34	0.13	-0.86
8347	0.17	0.17	0.04	2.38	53.11	0.05	0.14	0.01	0.07	0.01	0.006	5	286	5	5	5	43.9	100.04	44.28	0.31	0.22	-0.38
8348	0.07	0.17	0.11	0.87	55.03	0.05	0.05	0.01	0.05	0.01	0.002	5	1967	5	5	5	43.6	100.12	44.14	0.35	0.30	-0.54
8349	0.71	0.34	0.09	2.93	51.86	0.05	0.05	0.01	0.10	0.01	0.002	10	319	5	5	5	44.0	100.07	43.90	0.55	0.13	0.10
8350	0.32	0.22	0.08	7.21	46.99	0.05	0.06	0.01	0.07	0.01	0.002	5	286	5	5	5	45.0	100.05	44.75	0.39	0.14	0.25
8351	0.85	0.09	0.02	0.25	55.46	0.05	0.05	0.01	0.08	0.01	0.002	30	217	5	5	5	43.4	100.16	43.80	0.21	0.13	-0.40
8352	0.71	0.08	0.02	0.19	55.36	0.05	0.05	0.01	0.10	0.01	0.002	20	171	5	5	5	43.5	100.01	43.65	0.22	0.12	-0.15
8353	0.44	0.22	0.04	0.27	55.52	0.05	0.05	0.01	0.01	0.01	0.002	60	349	5	5	5	43.8	100.34	43.87	0.29	0.14	-0.07
8353 DUP.	0.51	0.21	0.03	0.15	55.34	0.05	0.05	0.01	0.08	0.01	0.002	30	280	5	5	5	43.7	100.07	43.59	0.34	0.13	0.11
8354	0.26	0.22	0.05	0.22	55.38	0.05	0.05	0.01	0.08	0.01	0.002	30	664	19	5	5	43.7	100.01	43.70	0.37	0.17	0.00
8355	0.47	0.16	0.03	0.07	56.01	0.05	0.05	0.01	0.07	0.01	0.002	30	299	6	5	5	43.4	100.25	44.03	0.28	0.13	-0.63
8356	0.74	0.20	0.02	0.16	55.50	0.05	0.05	0.01	0.08	0.01	0.002	20	299	11	5	5	43.3	100.02	43.73	0.32	0.13	-0.43
8357	0.40	0.11	0.02	0.22	56.05	0.05	0.05	0.01	0.07	0.01	0.002	30	389	5	6	5	43.5	100.39	44.23	0.22	0.14	-0.73
8358	0.56	0.22	0.03	0.22	55.21	0.05	0.05	0.01	0.09	0.01	0.002	30	350	11	5	5	43.7	100.06	43.57	0.36	0.14	0.13
8359	0.70	0.31	0.03	0.28	54.81	0.05	0.05	0.01	0.07	0.01	0.002	30	342	35	5	5	43.8	100.07	43.32	0.43	0.14	0.48
8360	0.42	0.30	0.02	0.27	55.16	0.05	0.05	0.01	0.03	0.01	0.002	29	366	30	5	5	43.9	100.14	43.58	0.37	0.14	0.32
8361	0.68	0.21	0.04	0.96	54.04	0.05	0.05	0.01	0.03	0.01	0.002	30	311	13	5	5	44.0	100.01	43.46	0.30	0.14	0.54
8362	0.72	0.34	0.04	0.30	54.40	0.05	0.05	0.01	0.04	0.01	0.002	25	340	21	11	9	44.2	100.13	43.02	0.44	0.14	1.18
8363	0.69	0.44	0.05	0.33	53.48	0.05	0.05	0.01	0.05	0.01	0.002	26	328	15	5	5	44.9	100.08	42.33	0.56	0.14	2.57
8364	0.53	0.32	0.03	0.28	55.16	0.05	0.05	0.01	0.02	0.01	0.002	9	348	5	5	5	43.8	100.21	43.60	0.39	0.14	0.20
8365	0.15	0.32	0.01	1.48	54.05	0.05	0.05	0.01	0.01	0.01	0.005	18	503	14	9	5	43.9	99.99	44.03	0.37	0.15	-0.13
8366	1.13	0.64	0.12	13.52	38.20	0.05	0.15	0.01	0.23	0.01	0.002	23	248	19	5	5	46.0	100.04	44.74	1.01	0.23	1.26
8367	0.94	0.61	0.15	18.62	32.28	0.05	0.07	0.03	0.26	0.01	0.004	22	228	33	5	5	47.0	100.02	45.66	1.06	0.15	1.34
8368	1.23	0.77	0.14	6.91	44.54	0.05	0.26	0.02	0.10	0.01	0.002	51	293	5	5	5	46.0	100.02	42.50	1.04	0.35	3.50
8369	0.96	0.42	0.07	0.50	54.48	0.05	0.05	0.01	0.01	0.01	0.003	27	384	10	5	5	43.6	100.09	43.30	0.52	0.14	0.30
8370	0.72	0.61	0.07	0.68	54.14	0.05	0.05	0.01	0.03	0.01	0.003	27	350	5	6	5	43.7	100.03	43.23	0.73	0.14	0.47
8371	0.46	0.31	0.02	0.15	55.56	0.05	0.08	0.01	0.01	0.01	0.006	53	232	5	5	5	43.4	100.03	43.77	0.37	0.16	-0.37
8372	0.12	0.32	0.01	0.08	56.21	0.05	0.05	0.01	0.01	0.01	0.002	53	194	5	5	5	43.3	100.07	44.20	0.36	0.13	-0.90
8373	0.30	0.35	0.03	0.16	55.21	0.05	0.17	0.01	0.01	0.01	0.002	105	222	5	5	5	43.7	99.97	43.50	0.41	0.25	0.20
8374	0.25	0.41	0.05	0.47	54.56	0.05	0.05	0.01	0.02	0.01	0.002	88	182	6	5	5	44.1	99.99	43.33	0.50	0.13	0.77
8375	1.27	0.43	0.03	0.18	55.60	0.05	0.05	0.01	0.01	0.01	0.002	36	269	5	5	5	42.5	100.11	43.83	0.49	0.13	-1.33
8376	0.39	0.44	0.05	1.16	54.17	0.05	0.13	0.01	0.01	0.01	0.002	5	248	5	5	5	43.6	100.00	43.78	0.52	0.21	-0.18
8377	0.28	0.41	0.03	0.34	55.86	0.05	0.05	0.01	0.01	0.01	0.006	9	223	5	5	5	43.1	100.04	44.21	0.48	0.12	-1.11
8378	0.27	0.53	0.02	0.28	56.11	0.05	0.05	0.01	0.01	0.01	0.003	9	250	5	5	5	42.8	100.13	44.34	0.58	0.13	-1.54
8379	0.49	0.65	0.05	0.27	55.07	0.05	0.10	0.01	0.01	0.01	0.003	18	319	5	5	5	43.3	99.98	43.51	0.73	0.19	-0.21
8380	0.29	0.42	0.03	0.33	55.84	0.05	0.34	0.01	0.01	0.01	0.002	5	320	18	5	5	42.6	99.97	44.18	0.48	0.43	-1.58
8381	0.29	0.45	0.03	0.25	55.41	0.05	0.17	0.01	0.11	0.01	0.002	27	385	18	8	5	43.2	99.94	43.76	0.61	0.26	-0.56
8382	0.11	0.32	0.02	0.16	56.71	0.05	0.05	0.01	0.01	0.01	0.002	5	271	5	5	5	42.1	99.54	44.68	0.37	0.13	-2.58
8382 RE	0.10	0.27	0.01	0.17	57.14	0.05	0.05	0.01	0.01	0.01	0.002	5	274	5	5	5	42.2	99.99	45.03	0.31	0.13	-2.83
8383	0.19	0.46	0.02	0.23	56.32	0.05	0.19	0.01	0.01	0.01	0.003	5	553	5	5	7	42.4	99.93	44.45	0.51	0.30	-2.05
8384	0.19	0.44	0.02	0.19	56.45	0.05	0.28	0.01	0.01	0.01	0.003	9	498	5	5	5	42.3	99.99	44.51	0.49	0.38	-2.21
8385	0.95	0.59	0.08	0.56	54.27	0.05	0.11	0.01	0.04	0.01	0.006	27	502	5	5	5	43.3	99.97	43.20	0.74	0.21	0.10
8386	0.84	0.63	0.05	0.37	54.92	0.05	0.28	0.01	0.01	0.01	0.007	27	427	5	5	7	42.7	99.94	43.51	0.72	0.38	-0.81
8387	0.33	0.46	0.05	0.27	56.43	0.05	0.13	0.01	0.01	0.01	0.004	9	367	5	5	5	42.2	99.98	44.58	0.54	0.22	-2.38
8388	0.13	0.47	0.03	0.28	56.23	0.05	0.27	0.01	0.01	0.01	0.003	9	301	51	5	5	42.4	99.94	44.43	0.53	0.36	-2.03
8389	0.28	0.58	0.02	0.27	56.04	0.05	0.32	0.01	0.01	0.01	0.006	27	338	14	5	7	42.3	99.92	44.27	0.64	0.41	-1.97
8390	0.33	0.57	0.03	0.27	56.30	0.05	0.05	0.01	0.01	0.01	0.002	26	347	12	5	7	42.3	99.94	44.48	0.63	0.14	-2.18

From ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716 @
Acme files 92-2359, 92-2378, 92-2534, 92-2719....samples in this disk file.

SAMPLES	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %	CO2 EQ %	R2O3 %	OTHER %	LOI - CO2 EQ %
8391	0.48	0.66	0.06	0.20	55.87	0.05	0.05	0.01	0.01	0.01	0.006	27	174	5	7	6	42.5	99.94	44.07	0.76	0.12	-1.57
8392	0.54	0.72	0.06	0.21	55.34	0.05	0.06	0.01	0.06	0.01	0.005	36	212	12	8	6	42.8	99.93	43.66	0.87	0.14	-0.86
8393	0.50	0.73	0.07	0.23	55.04	0.05	0.24	0.01	0.30	0.01	0.004	27	178	9	7	5	42.7	99.93	43.45	1.12	0.31	-0.75
8394	0.55	0.76	0.08	0.18	55.61	0.05	0.05	0.01	0.01	0.01	0.009	27	179	5	5	5	42.6	99.93	43.84	0.88	0.12	-1.24
8395	0.34	0.67	0.07	0.15	55.32	0.05	0.11	0.01	0.21	0.01	0.006	36	226	5	7	7	43.0	99.92	43.58	0.98	0.19	-0.58
8396	0.94	0.54	0.09	9.62	41.85	0.05	0.31	0.01	0.42	0.01	0.008	28	277	5	9	6	46.1	99.93	43.34	1.08	0.39	2.76
8397	0.44	0.50	0.06	1.65	53.57	0.05	0.37	0.01	0.04	0.01	0.009	20	363	5	5	9	43.3	99.98	43.84	0.63	0.46	-0.54
8398	0.37	0.14	0.06	3.22	51.33	0.05	0.05	0.01	0.17	0.01	0.007	29	247	5	7	5	44.7	100.10	43.80	0.40	0.13	0.90
8399	0.26	0.19	0.04	3.62	51.14	0.05	0.05	0.02	0.19	0.01	0.002	29	220	5	7	5	44.5	100.03	44.09	0.45	0.13	0.41
8400	0.05	0.09	0.01	2.80	52.67	0.05	0.05	0.01	0.06	0.01	0.002	31	159	32	7	5	44.4	100.12	44.39	0.18	0.12	0.01
8401	0.26	0.20	0.04	3.09	51.79	0.05	0.05	0.02	0.10	0.01	0.002	30	244	5	9	5	44.5	100.05	44.02	0.37	0.13	0.48
8402	0.96	0.43	0.13	12.79	39.91	0.05	0.05	0.02	0.33	0.01	0.002	46	235	5	6	5	45.6	100.18	45.28	0.92	0.13	0.32
8403	0.79	0.40	0.10	14.24	38.23	0.05	0.08	0.02	0.17	0.01	0.002	9	189	39	5	5	46.0	100.03	45.55	0.70	0.15	0.45
8404	0.49	0.23	0.04	2.50	52.34	0.05	0.05	0.01	0.08	0.01	0.002	20	306	19	5	5	44.4	100.15	43.81	0.37	0.14	0.59
8405	0.31	0.25	0.08	4.71	49.09	0.05	0.05	0.02	0.07	0.01	0.002	5	274	5	5	5	45.4	100.01	43.67	0.43	0.13	1.73
8406	0.29	0.25	0.06	0.92	53.55	0.05	0.05	0.02	0.06	0.01	0.002	30	298	5	5	5	44.7	99.97	43.03	0.40	0.13	1.67
8407	0.21	0.30	0.04	3.90	50.55	0.05	0.05	0.02	0.07	0.01	0.002	5	417	5	5	5	44.8	99.99	43.93	0.44	0.14	0.87
8408	0.04	0.14	0.02	2.18	52.92	0.05	0.05	0.01	0.04	0.01	0.005	40	217	5	5	5	44.7	100.13	43.91	0.23	0.13	0.79
8409	0.66	0.09	0.04	7.49	46.18	0.05	0.05	0.02	0.09	0.01	0.002	29	260	80	8	5	45.3	100.01	44.42	0.25	0.14	0.88
8426	0.18	0.15	0.03	0.57	53.82	0.05	0.09	0.01	0.08	0.01	0.002	5	1706	5	5	5	44.8	99.98	42.86	0.28	0.31	1.94
8427	0.25	0.25	0.03	0.78	53.42	0.05	0.08	0.02	0.08	0.01	0.002	5	1284	5	6	5	44.9	100.00	42.78	0.39	0.26	2.12
8428	0.46	0.31	0.06	1.51	52.58	0.05	0.05	0.01	0.13	0.01	0.002	5	733	5	7	5	44.8	100.00	42.91	0.52	0.18	1.89
8429	0.77	0.38	0.10	11.96	40.85	0.05	0.07	0.02	0.34	0.01	0.002	19	442	5	9	5	45.4	100.01	45.11	0.85	0.17	0.29
8429 RE	0.89	0.39	0.11	12.04	41.05	0.05	0.09	0.01	0.34	0.01	0.002	21	446	5	8	5	45.0	100.03	45.36	0.86	0.19	-0.36
8430	0.62	0.33	0.07	2.92	50.83	0.05	0.07	0.01	0.12	0.01	0.002	10	673	5	6	5	44.9	100.00	43.08	0.54	0.19	1.82
8431	1.29	0.58	0.16	19.86	31.32	0.05	0.12	0.02	0.34	0.01	0.006	26	202	32	11	5	46.3	100.03	46.26	1.12	0.20	0.04
8432	1.26	0.48	0.15	15.07	37.00	0.05	0.12	0.04	0.51	0.01	0.003	131	241	5	9	5	45.3	100.04	45.49	1.19	0.21	-0.19
8433	0.91	0.46	0.09	2.73	50.52	0.05	0.05	0.02	0.18	0.01	0.002	30	756	5	5	5	45.0	100.05	42.63	0.76	0.18	2.37
8434	0.40	0.31	0.06	1.93	52.40	0.05	0.09	0.02	0.12	0.01	0.003	5	509	5	5	5	44.6	100.02	43.23	0.52	0.19	1.37
8435	0.08	0.09	0.02	0.40	54.83	0.05	0.05	0.03	0.07	0.01	0.002	5	1691	5	5	5	44.3	100.03	43.47	0.22	0.27	0.83
8436	0.58	0.30	0.08	3.96	49.45	0.05	0.05	0.02	0.11	0.01	0.002	10	445	5	5	5	45.4	100.01	43.13	0.52	0.15	2.27
8437	0.29	0.20	0.04	1.06	53.71	0.05	0.05	0.01	0.09	0.01	0.003	5	924	5	5	5	44.5	100.02	43.31	0.35	0.19	1.19
8438	1.12	0.50	0.13	3.89	48.61	0.05	0.05	0.04	0.26	0.01	0.003	10	405	5	7	5	45.3	100.02	42.40	0.94	0.14	2.90
8439	0.48	0.21	0.06	0.79	54.17	0.05	0.05	0.01	0.08	0.01	0.003	5	479	5	5	5	44.2	100.08	43.37	0.37	0.15	0.83
8440	0.44	0.32	0.06	0.75	53.92	0.05	0.09	0.01	0.11	0.01	0.002	5	387	5	5	5	44.3	100.05	43.14	0.51	0.18	1.16
8441	0.46	0.32	0.05	1.31	53.17	0.05	0.05	0.01	0.09	0.01	0.002	5	428	5	5	5	44.5	100.01	43.16	0.48	0.14	1.34
8442	0.05	0.10	0.02	0.22	55.19	0.05	0.10	0.01	0.05	0.01	0.002	5	1485	5	5	5	44.1	100.02	43.55	0.19	0.30	0.55
8443	0.13	0.21	0.03	0.26	55.40	0.05	0.05	0.01	0.02	0.01	0.002	5	261	5	5	5	43.9	100.03	43.76	0.28	0.13	0.14
8444	0.77	0.30	0.11	4.28	49.71	0.05	0.05	0.01	0.14	0.01	0.002	5	242	5	5	5	44.6	100.00	43.68	0.57	0.13	0.92
8445	1.01	0.43	0.10	0.97	53.21	0.05	0.26	0.01	0.06	0.01	0.003	31	256	25	5	5	43.9	99.98	42.82	0.61	0.34	1.08
8538	0.06	0.34	0.01	0.10	56.03	0.05	0.05	0.01	0.05	0.01	0.003	6	197	5	16	5	43.4	99.99	44.08	0.42	0.12	-0.68
8539	0.04	0.24	0.03	0.18	56.19	0.05	0.05	0.01	0.10	0.01	0.005	7	189	10	7	5	43.0	99.90	44.29	0.40	0.12	-1.29
8540	0.05	0.16	0.03	0.21	56.58	0.05	0.05	0.01	0.03	0.01	0.003	6	131	5	10	5	42.8	99.93	44.63	0.24	0.12	-1.83
8541	0.23	0.20	0.05	4.71	50.72	0.05	0.05	0.02	0.04	0.01	0.002	32	196	5	7	5	44.0	99.99	44.95	0.32	0.12	-0.95
8542	0.46	0.54	0.08	8.88	44.72	0.05	0.05	0.01	0.05	0.01	0.002	44	168	34	7	5	45.1	99.94	44.79	0.69	0.13	0.31
8543	0.01	0.26	0.01	0.89	55.36	0.05	0.05	0.01	0.05	0.01	0.002	31	287	5	5	5	43.4	99.99	44.42	0.34	0.13	-1.02
8544	0.41	0.26	0.08	6.33	47.89	0.05	0.05	0.01	0.32	0.01	0.002	6	212	5	12	5	44.6	99.93	44.49	0.68	0.12	0.11
8545	0.58	0.27	0.07	14.26	38.74	0.05	0.09	0.01	0.08	0.01	0.002	6	165	74	7	5	45.7	99.88	45.97	0.44	0.17	-0.27
8546	0.58	0.29	0.03	0.25	55.46	0.05	0.12	0.01	0.01	0.01	0.002	22	292	16	9	8	43.1	99.94	43.80	0.35	0.20	-0.70
8547	0.23	0.37	0.02	0.33	55.35	0.05	0.05	0.01	0.01	0.01	0.002	41	476	5	16	5	43.6	99.97	43.80	0.42	0.15	-0.20
8548	0.27	0.41	0.03	2.52	52.73	0.05	0.05	0.02	0.19	0.01	0.002	16	298	5	6	5	43.8	99.99	44.13	0.66	0.13	-0.33
8549	0.68	0.41	0.09	3.24	51.58	0.05	0.05	0.02	0.29	0.01	0.005	6	226	38	15	5	43.6	99.95	44.02	0.83	0.13	-0.42
8550	0.46	0.26	0.06	1.61	54.02	0.05	0.05	0.01	0.06	0.01	0.003	6	236	5	9	5	43.5	99.99	44.15	0.40	0.13	-0.65
8559	0.07	0.31	0.01	0.30	56.06	0.05	0.05	0.01	0.10	0.01	0.002	42	342	30	6	5	43.0	99.98	44.32	0.44	0.14	-1.32
8560	0.06	0.24	0.03	0.36	55.76	0.05	0.05	0.02	0.09	0.01	0.002	67	290	5	10	5	43.4	99.98	44.15	0.39	0.14	-0.75

APPENDIX . CONTINUED

From ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716 @
Acme files 92-2359, 92-2378, 92-2534, 92-2719....samples in this disk file.

SAMPLES	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %	CO2 EQ %	R2O3 %	OTHER %	LOI - CO2 EQ %
8561	0.21	0.23	0.07	0.26	55.82	0.05	0.05	0.01	0.17	0.01	0.002	39	296	5	10	5	43.0	99.87	44.09	0.49	0.14	-1.09
8561 RE	0.17	0.26	0.02	0.26	56.11	0.05	0.05	0.01	0.13	0.01	0.002	53	294	5	9	5	42.9	99.96	44.32	0.43	0.14	-1.42
8562	0.15	0.23	0.05	0.25	56.14	0.05	0.05	0.01	0.07	0.01	0.005	75	354	5	12	5	42.9	99.93	44.33	0.38	0.15	-1.43
8563	0.07	0.28	0.02	0.30	56.17	0.05	0.05	0.01	0.04	0.01	0.002	52	283	5	7	5	43.0	99.99	44.41	0.36	0.14	-1.41
8564	0.28	0.40	0.04	0.38	55.56	0.05	0.05	0.01	0.06	0.01	0.002	62	318	65	11	16	43.0	99.87	44.02	0.52	0.15	-1.02
8565	0.01	0.14	0.03	0.21	56.50	0.05	0.05	0.01	0.07	0.01	0.002	38	196	21	7	5	42.9	99.96	44.57	0.26	0.13	-1.67
8566	0.39	0.35	0.04	0.27	55.68	0.05	0.05	0.01	0.05	0.01	0.002	37	219	20	11	5	43.0	99.89	43.99	0.46	0.13	-0.99
8567	0.28	0.23	0.04	0.16	56.26	0.05	0.05	0.01	0.05	0.01	0.002	37	196	5	10	5	42.8	99.94	44.33	0.34	0.13	-1.53
8568	0.21	0.33	0.04	0.15	56.09	0.05	0.05	0.01	0.05	0.01	0.002	25	195	5	7	5	43.0	99.98	44.18	0.44	0.12	-1.18
8569	0.16	0.20	0.07	0.18	55.98	0.05	0.05	0.01	0.07	0.01	0.004	36	209	5	17	5	43.2	99.87	44.13	0.36	0.13	-0.93
8570	0.43	0.29	0.03	0.12	56.51	0.05	0.05	0.01	0.05	0.01	0.003	36	166	15	6	5	42.4	99.94	44.48	0.39	0.12	-2.08
8571	0.49	0.25	0.04	0.08	56.31	0.05	0.05	0.02	0.09	0.01	0.002	37	213	478	5	5	42.5	99.96	44.28	0.41	0.17	-1.78
8572	0.32	0.25	0.05	0.15	56.15	0.05	0.05	0.01	0.07	0.01	0.002	24	235	62	10	19	42.7	99.87	44.23	0.39	0.14	-1.53
8573	0.27	0.25	0.06	0.26	55.67	0.05	0.05	0.02	0.06	0.01	0.003	47	222	5	13	5	43.3	99.90	43.97	0.40	0.13	-0.67
8574	0.14	0.31	0.03	0.27	55.99	0.05	0.05	0.01	0.04	0.01	0.002	47	207	53	8	18	42.9	99.86	44.24	0.40	0.13	-1.34
8575	1.43	0.32	0.05	0.23	54.31	0.06	0.50	0.01	0.09	0.01	0.002	34	210	126	12	82	42.6	99.71	42.87	0.48	0.61	-0.27
8576	0.18	0.15	0.05	3.07	52.29	0.05	0.05	0.02	0.04	0.01	0.002	5	259	5	5	5	44.2	100.05	44.39	0.27	0.13	-0.19
8577	0.01	0.10	0.02	0.19	56.45	0.05	0.05	0.02	0.03	0.01	0.002	5	136	6	5	5	43.4	100.20	44.51	0.18	0.12	-1.11
8578	0.05	0.07	0.03	0.13	56.38	0.05	0.09	0.01	0.01	0.01	0.002	5	125	5	5	5	43.3	100.05	44.39	0.13	0.15	-1.09
8579	0.10	0.18	0.03	1.78	54.52	0.05	0.05	0.02	0.04	0.01	0.002	11	203	5	8	5	43.5	100.17	44.73	0.28	0.12	-1.23
8580	0.53	0.29	0.07	5.47	47.95	0.05	0.05	0.02	0.25	0.01	0.002	23	415	32	11	5	45.4	100.02	43.60	0.64	0.15	1.80
8581	0.84	0.42	0.10	3.48	49.60	0.05	0.08	0.01	0.17	0.01	0.002	32	312	5	11	5	45.3	100.02	42.72	0.71	0.17	2.58
8582	0.38	0.33	0.04	0.50	54.59	0.05	0.15	0.01	0.04	0.01	0.002	8	265	5	5	5	43.9	99.97	43.39	0.43	0.23	0.51
8583	0.38	0.36	0.05	0.87	54.11	0.05	0.06	0.01	0.05	0.01	0.002	25	211	5	5	5	44.1	100.03	43.42	0.48	0.14	0.68
8584	2.22	0.30	0.05	0.39	53.40	0.05	0.05	0.01	0.29	0.01	0.002	76	479	16	11	5	43.3	100.01	42.33	0.66	0.16	0.97
8585	0.15	0.16	0.02	0.16	56.11	0.05	0.05	0.01	0.07	0.01	0.002	8	313	5	5	5	43.3	100.00	44.21	0.27	0.13	-0.91
8586	0.19	0.15	0.03	0.40	55.36	0.05	0.05	0.01	0.08	0.01	0.002	5	584	15	5	5	43.7	99.98	43.88	0.28	0.16	-0.18
8587	0.39	0.21	0.03	0.29	55.18	0.05	0.05	0.01	0.27	0.01	0.002	42	348	12	7	5	43.7	100.12	43.62	0.53	0.14	0.08
8588	2.24	0.25	0.08	0.26	53.35	0.05	0.05	0.01	0.46	0.01	0.002	50	363	6	9	5	43.6	100.28	42.15	0.81	0.14	1.45
8589	0.25	0.20	0.02	0.29	54.61	0.05	0.05	0.01	0.35	0.01	0.002	24	299	10	10	5	44.2	99.98	43.17	0.59	0.13	1.03
8590	0.34	0.16	0.02	0.27	54.67	0.05	0.12	0.01	0.13	0.01	0.002	25	274	10	7	5	44.2	99.98	43.20	0.33	0.20	1.00
8591	0.08	0.19	0.02	0.28	56.36	0.05	0.05	0.01	0.08	0.01	0.002	5	390	6	5	5	43.0	100.11	44.54	0.31	0.14	-1.54
8592	0.29	0.24	0.03	0.50	54.83	0.05	0.05	0.01	0.05	0.01	0.002	25	237	5	5	5	44.0	100.04	43.58	0.34	0.13	0.42
8593	0.20	0.26	0.03	0.42	55.48	0.05	0.05	0.01	0.05	0.01	0.002	5	237	5	5	5	43.6	100.05	44.00	0.36	0.13	-0.40
8594	0.24	0.31	0.03	0.43	54.99	0.05	0.05	0.01	0.02	0.01	0.002	5	249	8	5	5	43.9	100.00	43.63	0.38	0.13	0.27
8595	0.25	0.26	0.03	1.43	54.40	0.05	0.10	0.01	0.02	0.01	0.002	5	229	6	5	5	43.5	100.01	44.25	0.33	0.18	-0.75
8596	0.21	0.21	0.02	0.33	55.27	0.05	0.22	0.01	0.04	0.01	0.002	5	199	7	5	5	43.7	100.01	43.74	0.29	0.29	-0.04
8597	0.76	0.26	0.08	5.85	47.97	0.05	0.24	0.01	0.10	0.01	0.002	25	385	5	5	5	44.7	100.05	44.03	0.46	0.33	0.67
8598	0.23	0.17	0.03	0.36	55.37	0.05	0.11	0.01	0.02	0.01	0.002	5	260	5	5	5	43.7	100.00	43.85	0.24	0.19	-0.15
8599	0.32	0.42	0.04	0.44	54.88	0.05	0.05	0.01	0.05	0.01	0.002	5	241	15	5	5	43.9	100.08	43.55	0.53	0.13	0.35
8701	0.49	0.29	0.09	0.01	54.21	0.05	0.07	0.02	0.08	0.05	0.008	44	1805	5	5	5	44.5	100.02	42.55	0.54	0.31	1.95
8702	0.40	0.16	0.06	0.01	54.74	0.05	0.05	0.01	0.08	0.01	0.002	5	1828	5	5	5	44.5	100.15	42.97	0.32	0.28	1.53
8702 RE	0.41	0.13	0.08	0.01	54.83	0.05	0.05	0.01	0.09	0.02	0.002	5	1790	5	5	5	44.3	100.06	43.04	0.33	0.28	1.26
8703	0.05	0.09	0.03	0.07	56.73	0.05	0.05	0.01	0.07	0.01	0.008	5	304	5	5	5	42.9	100.05	44.60	0.22	0.13	-1.70
8704	0.08	0.09	0.01	0.05	56.58	0.05	0.05	0.01	0.04	0.01	0.002	5	310	5	5	5	43.2	100.06	44.46	0.16	0.13	-1.26
8705	0.49	0.20	0.03	0.14	56.00	0.05	0.05	0.01	0.04	0.01	0.004	5	308	10	5	5	43.0	100.00	44.10	0.29	0.13	-1.10
8706	0.23	0.25	0.01	0.08	56.11	0.05	0.05	0.01	0.03	0.01	0.002	5	307	18	6	5	43.3	100.02	44.12	0.31	0.13	-0.82
8707	1.49	0.31	0.01	0.16	54.96	0.05	0.16	0.01	0.04	0.01	0.004	5	357	5	5	5	42.8	100.02	43.31	0.38	0.25	-0.51
8708	0.28	0.31	0.01	0.11	56.19	0.05	0.05	0.01	0.01	0.01	0.009	5	257	5	7	5	43.0	100.03	44.22	0.36	0.13	-1.22
8709	0.08	0.19	0.01	0.08	56.20	0.05	0.09	0.01	0.01	0.01	0.003	5	327	5	5	5	43.4	100.05	44.19	0.23	0.17	-0.79
8710	0.42	0.06	0.04	0.01	55.97	0.05	0.05	0.01	0.20	0.01	0.002	46	285	5	5	5	43.3	100.02	43.94	0.32	0.13	-0.64
8711	0.87	0.07	0.02	0.04	56.05	0.05	0.05	0.01	0.33	0.01	0.004	47	292	5	5	5	42.7	100.17	44.03	0.44	0.14	-1.33
8712	0.24	0.30	0.02	0.01	56.23	0.05	0.05	0.01	0.26	0.01	0.002	60	276	5	5	5	43.0	100.15	44.14	0.60	0.14	-1.14
8713	0.45	0.18	0.03	0.01	55.98	0.05	0.05	0.01	0.25	0.01	0.002	62	266	5	5	5	43.0	100.01	43.94	0.48	0.13	-0.94
8714	0.38	0.18	0.03	0.01	55.96	0.05	0.05	0.01	0.45	0.01	0.002	48	203	5	5	5	42.9	100.02	43.93	0.68	0.13	-1.03

From ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716 @
Acme files 92-2359, 92-2378, 92-2534, 92-2719....samples in this disk file.

SAMPLES	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %	CO2 EQ %	R2O3 %	OTHER %	LOI - CO2 EQ %
8715	0.81	0.11	0.02	0.01	55.90	0.05	0.05	0.01	0.28	0.01	0.002	46	239	7	5	5	42.8	100.03	43.88	0.43	0.13	-1.08
8716	1.12	0.34	0.01	0.01	55.43	0.05	0.05	0.01	0.21	0.01	0.002	31	231	5	5	5	42.8	100.02	43.51	0.58	0.13	-0.71
8717	2.09	0.30	0.05	0.01	54.90	0.05	0.05	0.03	0.18	0.01	0.002	79	316	7	5	5	42.4	100.07	43.10	0.57	0.14	-0.70
8718	1.29	0.05	0.04	0.01	55.43	0.05	0.05	0.01	0.18	0.01	0.002	97	278	5	5	5	42.9	100.01	43.51	0.29	0.14	-0.61
8719	1.11	0.05	0.06	0.02	55.55	0.05	0.05	0.03	0.31	0.01	0.009	43	212	5	5	5	42.8	100.04	43.62	0.47	0.13	-0.82
8720	0.85	0.16	0.03	0.01	55.45	0.05	0.06	0.01	0.54	0.01	0.002	46	177	7	8	5	42.8	99.99	43.53	0.75	0.13	-0.73
8721	0.87	0.28	0.02	0.01	55.16	0.05	0.05	0.01	0.76	0.01	0.004	48	162	5	16	5	42.8	100.03	43.30	1.08	0.12	-0.50
8722	1.65	0.16	0.02	0.01	55.16	0.05	0.06	0.01	0.37	0.01	0.002	16	168	5	8	5	42.5	100.00	43.30	0.57	0.13	-0.80
8723	0.42	0.03	0.06	0.24	55.12	0.05	0.05	0.02	0.72	0.01	0.004	32	175	5	13	5	43.4	100.01	43.52	0.84	0.12	-0.12
8724	0.65	0.15	0.02	0.01	55.67	0.05	0.05	0.01	0.46	0.01	0.002	48	205	5	10	5	43.0	100.05	43.70	0.65	0.13	-0.70
8725	0.01	0.16	0.01	0.20	55.77	0.05	0.06	0.01	0.09	0.01	0.002	5	229	28	5	5	43.7	100.01	43.99	0.28	0.14	-0.29
8726	0.43	0.22	0.03	0.06	55.89	0.05	0.05	0.01	0.18	0.01	0.002	22	233	5	10	5	43.3	100.14	43.93	0.45	0.13	-0.63
8727	0.11	0.21	0.01	0.02	56.15	0.05	0.05	0.01	0.13	0.01	0.002	35	257	5	6	5	43.4	100.03	44.09	0.37	0.13	-0.69
8728	0.03	0.15	0.01	0.01	56.71	0.05	0.05	0.01	0.06	0.01	0.002	5	199	5	5	5	43.1	100.04	44.52	0.24	0.12	-1.42
8729	0.08	0.24	0.01	0.01	56.68	0.05	0.05	0.01	0.03	0.01	0.002	12	214	5	5	5	43.1	100.13	44.49	0.30	0.12	-1.39
8730	0.76	0.17	0.01	0.01	55.70	0.05	0.05	0.01	0.07	0.01	0.002	12	282	5	6	5	43.3	100.02	43.72	0.27	0.13	-0.42
8731	0.29	0.14	0.01	2.68	52.97	0.05	0.05	0.01	0.05	0.01	0.002	12	448	5	5	5	43.9	100.09	44.50	0.22	0.15	-0.60
8732	0.46	0.13	0.01	0.01	56.11	0.05	0.05	0.02	0.03	0.01	0.002	5	451	5	5	5	43.3	100.09	44.05	0.20	0.15	-0.75
8733	0.23	0.06	0.02	0.06	55.93	0.05	0.05	0.01	0.11	0.01	0.002	23	263	5	8	5	43.6	100.04	43.96	0.21	0.13	-0.36
8734	0.10	0.05	0.01	0.04	56.62	0.05	0.05	0.01	0.08	0.01	0.002	5	275	5	5	5	43.2	100.10	44.48	0.16	0.13	-1.28
8734 RE	0.11	0.08	0.01	0.02	56.51	0.05	0.05	0.01	0.09	0.01	0.002	5	274	5	5	5	43.2	100.02	44.37	0.20	0.13	-1.17
8735	0.05	0.19	0.01	0.18	56.29	0.05	0.05	0.01	0.05	0.01	0.002	5	291	5	5	5	43.3	100.08	44.37	0.27	0.13	-1.07
8736	0.29	0.11	0.03	0.10	56.10	0.05	0.05	0.01	0.03	0.01	0.002	5	300	5	5	5	43.4	100.08	44.14	0.19	0.13	-0.74
8737	0.21	0.14	0.07	0.09	55.70	0.05	0.05	0.01	0.36	0.01	0.003	35	201	5	6	5	43.5	100.10	43.81	0.59	0.13	-0.31
8738	0.10	0.27	0.03	0.04	55.79	0.05	0.05	0.01	0.35	0.01	0.002	36	191	5	7	5	43.5	100.11	43.83	0.67	0.12	-0.33
8739	0.15	0.24	0.03	0.03	55.64	0.05	0.05	0.01	0.43	0.01	0.002	36	217	5	7	5	43.5	100.04	43.70	0.72	0.13	-0.20
8740	0.18	0.17	0.02	0.08	55.91	0.05	0.05	0.01	0.28	0.01	0.002	35	205	5	6	5	43.4	100.08	43.97	0.49	0.13	-0.57
8741	0.07	0.10	0.01	0.02	55.98	0.05	0.05	0.01	0.35	0.01	0.002	12	196	5	6	5	43.6	100.16	43.95	0.48	0.12	-0.35
8742	0.08	0.03	0.01	0.08	56.31	0.05	0.05	0.02	0.27	0.01	0.002	5	180	5	6	5	43.4	100.20	44.28	0.34	0.12	-0.88
8743	0.05	0.16	0.02	0.11	56.26	0.05	0.05	0.02	0.13	0.01	0.003	5	210	5	5	5	43.4	100.16	44.27	0.34	0.12	-0.87
8744	0.01	0.09	0.02	0.07	56.36	0.05	0.05	0.01	0.06	0.01	0.003	5	173	5	5	5	43.5	100.12	44.31	0.19	0.12	-0.81
8745	0.01	0.15	0.01	0.08	56.56	0.05	0.05	0.01	0.09	0.01	0.002	5	141	5	6	5	43.3	100.18	44.48	0.27	0.12	-1.18
8746	0.05	0.09	0.01	0.10	56.35	0.05	0.05	0.02	0.24	0.01	0.004	5	149	89	7	5	43.3	100.18	44.33	0.37	0.13	-1.03
8747	0.12	0.02	0.02	0.07	56.25	0.05	0.05	0.01	0.07	0.01	0.004	5	253	5	8	5	43.6	100.19	44.22	0.13	0.13	-0.62
8748	0.57	0.22	0.02	0.24	55.36	0.05	0.13	0.01	0.12	0.01	0.002	35	402	26	5	5	43.3	99.98	43.71	0.38	0.23	-0.41
8749	0.81	0.12	0.02	0.20	55.84	0.05	0.11	0.01	0.08	0.01	0.002	26	405	5	5	5	42.7	99.98	44.04	0.24	0.20	-1.34
8750	1.22	0.28	0.01	0.23	55.59	0.05	0.05	0.01	0.04	0.01	0.002	26	406	5	5	5	42.5	99.99	43.88	0.35	0.14	-1.38
8751	0.14	0.13	0.01	0.28	55.87	0.05	0.15	0.01	0.09	0.01	0.002	35	366	8	5	5	43.3	99.99	44.15	0.25	0.24	-0.85
8752	0.04	0.05	0.01	0.30	56.09	0.05	0.05	0.01	0.07	0.01	0.002	27	360	5	5	5	43.4	100.01	44.35	0.15	0.14	-0.95
8753	0.44	0.20	0.01	0.29	55.78	0.05	0.05	0.01	0.07	0.01	0.002	26	320	5	5	5	43.3	100.10	44.09	0.30	0.14	-0.79
8754	0.42	0.28	0.04	0.29	55.36	0.05	0.05	0.01	0.11	0.01	0.002	34	344	5	5	5	43.4	99.97	43.76	0.45	0.14	-0.36
8755	0.40	0.23	0.01	0.26	56.21	0.05	0.05	0.01	0.07	0.01	0.002	27	324	5	5	5	43.0	100.28	44.40	0.33	0.14	-1.40
8756	0.11	0.13	0.01	0.20	56.24	0.05	0.09	0.01	0.11	0.01	0.002	27	260	5	5	5	43.0	99.97	44.36	0.27	0.16	-1.36
8757	0.05	0.08	0.01	0.25	56.78	0.05	0.05	0.01	0.07	0.01	0.002	21	310	5	5	5	42.8	100.13	44.83	0.18	0.13	-2.03
8757 RE	0.04	0.09	0.01	0.24	56.89	0.05	0.05	0.01	0.07	0.01	0.002	18	311	5	5	5	42.8	100.23	44.91	0.19	0.13	-2.11
8758	0.06	0.13	0.01	0.23	55.74	0.05	0.05	0.01	0.11	0.01	0.002	26	248	5	5	5	43.9	100.21	44.00	0.27	0.13	-0.10
8759	1.20	0.23	0.03	0.29	54.53	0.05	0.18	0.01	0.12	0.01	0.002	52	292	23	7	5	43.4	100.00	43.11	0.40	0.27	0.29
8760	0.69	0.23	0.04	0.22	54.76	0.05	0.11	0.01	0.20	0.01	0.002	54	319	5	8	5	43.7	99.98	43.22	0.49	0.20	0.48
8761	0.46	0.28	0.05	0.29	54.26	0.05	0.05	0.01	0.23	0.01	0.002	60	298	5	14	5	44.4	100.05	42.90	0.58	0.14	1.50
8762	0.04	0.17	0.01	0.29	56.19	0.05	0.05	0.01	0.04	0.01	0.002	54	253	5	5	5	43.3	100.04	44.41	0.24	0.13	-1.11
8763	0.07	0.12	0.03	0.17	56.12	0.05	0.05	0.01	0.04	0.01	0.002	55	244	7	9	12	43.4	99.99	44.23	0.21	0.13	-0.83
8764	0.12	0.03	0.10	0.17	55.63	0.05	0.05	0.01	0.07	0.01	0.002	35	237	5	7	5	43.8	99.97	43.84	0.22	0.13	-0.04
8765	0.32	0.06	0.03	0.03	55.49	0.05	0.19	0.01	0.06	0.01	0.002	34	262	5	5	5	43.8	100.00	43.58	0.17	0.27	0.22
8765 RE	0.27	0.05	0.03	0.03	56.18	0.05	0.05	0.01	0.08	0.01	0.002	46	267	5	5	5	43.5	100.16	44.12	0.18	0.13	-0.62
8766	0.38	0.15	0.03	0.09	55.06	0.05	0.15	0.01	0.10	0.01	0.002	68	282	5	8	5	44.0	99.99	43.31	0.30	0.24	0.69

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Acme files 92-2359, 92-2378, 92-2534, 92-2719....samples in this disk file.

SAMPLES	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	LOI %	SUM %	CO2 EQ %	R2O3 %	OTHER %	LOI - CO2 EQ %
8767	0.52	0.05	0.06	0.14	55.19	0.05	0.05	0.01	0.42	0.01	0.002	80	289	7	19	5	43.6	100.04	43.47	0.55	0.14	0.13
8768	1.05	0.26	0.08	0.17	54.11	0.05	0.16	0.01	0.60	0.01	0.003	101	273	5	22	5	43.5	99.98	42.65	0.96	0.25	0.85
8769	1.35	0.26	0.08	0.15	54.24	0.05	0.05	0.01	0.70	0.01	0.002	100	309	6	19	5	43.3	100.11	42.73	1.06	0.14	0.57
8770	1.15	0.21	0.07	0.12	54.64	0.05	0.05	0.03	0.77	0.01	0.002	101	270	6	23	5	43.0	100.01	43.01	1.09	0.14	-0.01
8771	0.89	0.32	0.15	0.18	54.76	0.05	0.05	0.03	0.48	0.03	0.002	112	450	5	9	5	43.3	100.18	43.17	1.01	0.16	0.13
8772	0.78	0.28	0.17	0.13	54.81	0.05	0.05	0.03	0.09	0.05	0.002	189	193	5	14	5	43.8	100.18	43.16	0.62	0.14	0.64
8773	1.73	0.31	0.25	0.56	53.75	0.05	0.05	0.04	0.13	0.04	0.002	134	163	5	10	5	43.3	100.12	42.79	0.77	0.13	0.51
8774	0.71	0.15	0.12	0.14	54.70	0.05	0.12	0.03	0.15	0.01	0.005	176	247	5	5	5	43.8	99.99	43.08	0.47	0.21	0.72
8775	2.49	0.25	0.14	0.07	53.89	0.05	0.05	0.01	0.13	0.02	0.007	189	287	5	5	5	43.2	100.25	42.37	0.56	0.15	0.83

U.S. Department of Commerce
Juanita M. Kreps
Secretary

National Bureau of Standards
Ernest Ambler, Director

APPENDIX 6: CERTIFICATE OF ANALYSIS FOR STANDARD ARGILLACEOUS LIMESTONE

National Bureau of Standards Certificate of Analysis

Standard Reference Material 1c

Argillaceous Limestone

(In Cooperation with the American Society for Testing and Materials)

(All analyses are based on samples dried 2 hours at 110°C)

Constituent	SiO_2	Fe_2O_3	Al_2O_3	TiO_2	P_2O_5	MnO	CaO	SrO	MgO	Na_2O	K_2O	Loss on Ignition
Certified[1] Value, % by wt.	6.84	0.55	1.30	0.07	0.04	0.025	50.3	0.030	0.42	0.02	0.28	39.9
Estimated[2] Uncertainty	0.08	0.03	0.03	0.01	0.01	0.005	0.3	0.005	0.04	0.01	0.01	0.1
Method[3] / Labs	Atomic Absorption	Atomic Absorption	Atomic Absorption	Atomic Absorption	Photometric	Atomic Absorption		Atomic Absorption	Atomic Absorption	Atomic Absorption	Atomic Absorption	
A	[a] 6.82	[b] 0.53	[b] 1.33	[c] 0.07	[d] 0.04	[e] 0.03	[f] 50.40	---	[f] 0.45	[g] 0.03	[g] 0.28	39.93
B	[h] 6.77	[i] .61	[j] 1.31	[c] .07	[d] .03	[e] .02	[k] 50.19	---	[l] .54	---	[g] .29	39.80
C	6.82 [m] 6.77 [h] 6.80	.55	1.27	[c] .06	[d] .05	.02 [m] .03	[n] 50.18 [m] 50.56 [f] 50.20	0.03	.38 [m] .43	.02	[m] .28 [m] .29	39.82 39.85
D	[h] 6.92	[i] .55	[j] 1.30	[o] .066	[d] .038	.022	50.18	.030	.45	[g] .02	[g] .30	39.90
E	6.92	.57	1.29	[m] .066	[d] .039	.021	[k] 50.57	.031	.41	.028	.27	39.87
F	6.76	.57	---	.08	.04	.027	50.52	.03	.42	.02	---	39.97
G	[p] 6.91	.54	1.35	.07	[d] .04	.027	[k] 50.20	.03	.42	.02	.28	39.89
H	---	---	---	---	---	.022	[g] 50.58 [n] 49.96	.034	.38	[g] .025	[g] .30	---

1. The certified value listed for a constituent is the present best estimate of the "true" value based on results of the cooperative analytical program for certification.
2. The estimated uncertainty of the "true" value is based on judgment and represents an evaluation of the combined effects of method imprecision, possible systematic errors among methods, and material variability for samples of 0.5 g or more. (No attempt was made to derive exact statistical measures of imprecision because several methods were involved in the determination.)
3. Detailed descriptions of many of the methods of analysis employed in the certification program for this SRM may be found in Part 13, Annual Book of ASTM Standards. They are also available as separate reprints, C25 and C114, from ASTM headquarters. ASTM Standard Technical Publication No. 395 also describes methods of analysis used in this certification work.

[a] Silicomolybdate photometric method.
[b] Ferron (8 hydroxy7-iodo-5-quinolinesulfonic acid) photometric method.
[c] Tiron (disodium-1, 2 dihydroxybenzene-3, 5-disulfonate) photometric method.
[d] Molybdenum blue photometric method.
[e] Peroxydisulfate photometric method.
[f] EDTA titration.
[g] Flame emission spectrometry.
[h] Dehydration with HCl.
[i] $SnCl_2$ reduction-$K_2Cr_2O_7$ titration.
[j] By difference between total NH_4OH group and oxides of iron, phosphorus, and titanium.
[k] Calcium precipitated as oxalate and titrated with standard $KMnO_4$.
[l] Magnesium determined gravimetrically as $Mg_2P_2O_7$.
[m] X-ray fluorescence spectrometry.
[n] Atomic absorption spectrometry.
[o] H_2O_2 photometric.
[p] Dehydration with $HClO_4$.

Washington, D.C. 20234
December 14, 1978

J. Paul Cali, Chief
Office of Standard Reference Materials

(over)

APPENDIX 7: LOI-BASED METHOD OF CALCULATING ADJUSTMENTS TO LIMESTONE ANALYSES FROM LORING LABORATORIES LTD. AND UNION ASSAY OFFICE INC.

In the analysis of a limestone sample by wet chemical procedures, at least five constituents are generally determined: CaO, MgO, acid insolubles, R_2O_3, and LOI, or their equivalents. In a limestone sample of reasonably high quality, the total of these five constituents should be close to 100.00 per cent. In Loring file 35185 (Appendix 1) and Union Assay serial 530-543 (Appendix 2), in which LOI was determined at 1000°C, the totals of these five constituents in the 60 original analyses by Loring and the 14 check analyses by Union Assay, range from 97.48 to 99.69 per cent. In Loring file 35214 (Appendix 1), in which LOI was determined at 1050°C, the totals of these five constituents in 8 analyses range from 99.72 to 100.64 per cent. These differences suggest that one of the factors contributing to low totals are low determinations of LOI. LOI is normally determined at 1000°C according to ASTM C25. However, with the dissociation temperature of $CaCO_3$ being about 894°C, if all the samples in a furnace with an appreciable temperature gradient are not at a temperature corresponding to the 1000°C measured for a reasonable time, the LOI reported for that sample could easily be lower than the correct value. Determining the LOI at 1050°C or 1100°C should reduce this problem without affecting the other constituents. Hence, if the determined percentage of LOI appears low, these considerations provide a basis for raising it to bring the total closer to but less than 100.00 per cent, minus the sum of the undetermined constituents, such as Na_2O, K_2O, BaO, SrO, and others.

Another requirement for analyses of limestone in which at least CaO, MgO, acid insolubles, R_2O_3, and LOI, or their equivalents have been determined is the relation among CaO, MgO, and LOI. In high-quality limestones all the CaO is reasonably assumed to be present in $CaCO_3$, and all the MgO present in dolomite ($CaCO_3.MgCO_3$). Then the determined LOI should equal or exceed the sum of the CO_2 equivalents to CaO plus MgO. Further, the difference between the LOI minus the CO_2 equivalents represents any chemically combined water plus about one-third of any pyrite, minus about 11 per cent of any ferrous oxide in the sample. As water, sulfur, and ferrous oxide are seldom determined in wet chemical analyses of limestone, their total can only be estimated. A value of 0.20 per cent is arbitrarily chosen for this difference; it is probably a conservatively low estimate, but appears satisfactory for the better limestones of the Kelly Lake deposits. As raising the determined LOI as previously explained is not enough for some of the 82 analyses to satisfy the foregoing relation among CaO, MgO, and LOI, it is necessary to reduce the determined CaO percentage to permit further raising of the LOI percentages by the equivalent of the reduction in CaO. Another reason for reducing the determined CaO percentages and raising the LOI percentages is that for some of the very high CaO determinations (maximum 56.00 per cent possible), the corresponding LOI percentages are obviously too low.

Based on these considerations the Loring analyses for CaO and LOI (Appendix 1) have been adjusted to those in Appendix 10.

APPENDIX 8: ADJUSTMENTS TO CaO AND LOI DETERMINATIONS IN WHOLE ROCK LIMESTONE ANALYSES FROM ACME ANALYTICAL LABORATORIES LTD.

Perusal of the analytical reports from Acme Analytical Laboratories Ltd. (Appendices 4 and 5) shows that for 207 analyses out of 504 from the Kelly Lake limestone deposits, the determined CaO is more than 56.00 per cent, the maximum possible for limestone composed exclusively of $CaCO_3$. Further, for many of the high quality limestone samples the determined LOI percentages are too low, probably the result of faulty LOI determinations as explained in Appendix 7. However, with the sums of the constituents reported by Acme all reasonably close to 100.00 per cent (mean 100.0064, per cent, standard deviation 0.093837, range 99.54 to 100.39 per cent), arbitrarily raising the LOI percentages determined by Acme enough will result in sums of constituents exceeding 100.00 per cent, or make those already more than 100.00 per cent even higher. The determined CaO percentages must be reduced concomitantly with raising the determined LOI percentages in order for the sums of the constituents to be acceptable. Three methods of adjusting the CaO and LOI determinations reported by Acme have been derived: regression, LOI-based, and impurity-based. The results of the three methods for 40 representative samples from the Kelly Lake limestone deposits are compared in Table A1, and for the 489 samples analyzed by Acme in Appendix 11. Detailed evaluation of the three methods shows that the adjusted results for the LOI-based and the impurity-based methods are very close to each other. They are preferred to the regression method and have been used in compiling Table 2.

TABLE A1: COMPARISON OF CALCULATED ADJUSTMENTS TO CaO DETERMINATIONS BY ACME ANALYTICAL LABORATORIES LTD. FOR 40 SAMPLES FROM THE KELLY LAKE LIMESTONE DEPOSITS

	WEIGHT PER CENT								
	ANALYSES				FORMULA ADJUSTED VALUES				
SAMPLE	LORING CaO	LO I	ACME CaO	LO I	REGRESSION CaO	REGRESSION TOTAL	LO I BASED CaO	LO I BASED TOTAL	IMPURITY CaO
8006	53.16	44.11	53.34	42.9	53.15	101.75	52.01	99.71	52.16
8030	55.05	44.16	55.65	43.1	54.82	99.48	55.04	99.87	55.10
8059	55.36	43.69	55.99	43.1	55.07	99.38	55.34	99.86	55.39
8150	55.42	43.80	54.93	43.4	54.30	98.98	54.87	99.99	54.86
8178	55.50	43.77	56.83	42.8	55.68	99.90	55.59	99.73	55.68
8184	55.19	43.55	56.50	42.6	55.44	100.08	55.25	99.73	55.37
8217	55.48	43.66	56.95	42.5	55.77	100.62	55.21	99.63	55.35
8238	55.46	43.63	56.93	42.6	55.75	100.30	55.40	99.67	55.51
8242	55.48	43.70	56.50	42.7	55.44	100.16	55.20	99.72	55.30
8257	55.26	43.58	55.93	43.0	55.03	99.64	55.13	99.83	55.20
8261	55.19	43.70	56.41	43.1	55.38	99.84	55.34	99.77	55.43
8266	55.13	43.76	56.38	42.8	55.35	99.85	55.31	99.77	55.43
8295	55.66	43.56	56.80	42.8	55.66	99.86	55.59	99.74	55.70
8296	55.52	43.74	56.49	43.0	55.43	99.69	55.49	99.78	55.55
8299	53.58	43.61	54.47	42.8	53.97	101.10	53.20	99.73	53.28
8313	54.85	43.69	55.49	43.5	54.71	99.12	55.16	99.93	55.13
8316	55.46	43.49	57.05	43.0	55.84	100.03	55.65	99.70	55.77
8321	55.17	43.77	55.99	43.3	55.07	99.24	55.43	99.88	55.40
8330	55.28	43.58	55.75	43.5	54.90	99.11	55.35	99.91	55.31
8332	55.26	43.43	56.46	43.5	55.41	99.48	55.60	99.81	55.62
8334	52.80	41.88	53.22	42.0	53.06	100.00	53.04	99.96	53.03
8346	54.36	43.53	55.48	43.5	54.70	99.91	54.65	99.82	54.68
8369	53.94	43.46	54.48	43.6	53.98	99.09	54.49	100.00	54.42
8372	55.50	43.77	56.21	43.3	55.23	99.42	55.46	99.84	55.48
8377	54.96	43.59	55.86	43.1	54.98	99.77	55.00	99.81	55.02
8381	54.96	43.52	55.41	43.2	54.65	99.34	54.96	99.90	54.97
8384	54.92	43.20	56.45	42.3	55.40	100.53	54.92	99.67	55.09
8387	55.40	43.48	56.43	42.2	55.39	100.71	54.80	99.65	54.98
8396	44.50	44.85	41.85	46.1	44.83	102.68	43.52	100.36	43.29
8408	52.84	43.95	52.92	44.7	52.85	99.41	53.21	100.06	53.14
8433	51.80	43.88	50.52	45.0	51.11	98.93	51.87	100.29	51.67
8546	55.20	43.72	55.46	43.1	54.69	99.46	54.93	99.89	54.98
8574	55.00	43.53	55.99	42.9	55.07	99.76	55.10	99.81	55.22
8577	55.10	43.77	56.45	43.4	55.40	99.64	55.49	99.79	55.52
8580	49.00	44.17	47.95	45.4	49.25	100.73	48.96	100.22	48.76
8591	55.30	43.69	56.36	43.0	55.34	100.03	55.18	99.75	55.29
8598	55.46	43.83	55.37	43.7	54.62	99.01	55.15	99.95	55.12
8705	54.41	43.63	56.00	43.0	55.08	99.66	55.17	99.82	55.24
8713	54.80	43.61	55.98	43.0	55.06	99.52	55.24	99.84	55.30
8760	54.36	43.25	54.76	43.7	54.17	98.65	54.95	100.04	54.88

SIGNIFICANT DIFFERENCES	MEAN	STANDARD DEVIATION	TEST RESULT
LORING - ACME	-0.67300	1.08808	-3.91186
LORING - REGRESSION	0.00074	0.36303	0.01286
LORING - LO I BASED	-0.00443	0.38293	-0.07310
LORING - IMPURITY	-0.03879	0.38740	-0.63324
REGRESSION - LO I BASED	-0.00516	0.45312	-0.07208
REGRESSION - IMPURITY	-0.03953	0.43394	-0.57608
LO I BASED - IMPURITY	-0.03436	0.10258	-2.11867

APPENDIX 9: DESCRIPTIONS OF ANALYZED CHIP SAMPLES

The samples described consist of chips of approximately equal size (about 7-10 cc) at intervals of about 35 cm in each sample unless noted differently. Sections start at the stratigraphic top of the section sampled and end at the stratigraphically lowest part, even if this reverses the topographic order. In a few sections, structural complexities or no identified bedding make the stratigraphic order uncertain. Bedding was recognized with certainty in only a limited number of places, so stratigraphic thicknesses are based on bedding attitudes, extrapolated or assumed, and are approximate only. Elevations reported are altimeter readings without corrections: altimeters were set at known elevations of the beginning of each day and closed at the same place at the end of each day.

Sampled sections are arranged in order from southeast to northwest on the First Ridge, then on the Second Ridge for each of Sheets A, B, C, and D (Fig. 2.1 to 2.4). Isolated samples are generally in the same order, before or after a nearby sampled section.

SECTION A-1 ON FIRST RIDGE ON CLAIM MAR 34 SOUTH OF PORCUPINE CREEK, SHEET A (FIG. 2.1)

Stratigraphic thicknesses uncertain because bedding was not measured in knob of limestone interpreted as a roof pendant in intrusion.

Sample	Stratigraphic Thickness(m)	Description
8701	?	grey limestone, elevation 6480'-6450', length 10 m vertical
8702	?	grey limestone, elevation 6450'-6420', length 10 m vertical

SECTION A-2 ON FIRST RIDGE ON CLAIM MAR 31 SOUTH OF PORCUPINE CREEK, SHEET A (FIG. 2.1)

Stratigraphic thicknesses based on two measured attitudes of bedding: 150°/45°SW and 157°/25°SW.

Sample	Stratigraphic Thickness(m)	Description
8314	7	very uniform light-grey limestone, cryptocrystalline, massive, attitude of bedding 150°/45°SW, length 10 m vertical starting at initial post of MAR 31
8315	4½	light-brown limestone, cryptocrystalline, attitude of bedding 157°/25°SW, length 5 m on vertical cliff
8316	6½	light-brown limestone, cryptocrystalline, length 7 m vertical obliquely down ridge
8317	9	medium- to dark-grey limestone, cryptocrystalline, abundant white calcite veins in upper 5½ m, length 10 m vertical
8318	6¾	medium- to dark-grey limestone, with numerous white calcite veins in upper 2 m, length 7½ m vertical

SECTION A-3 ON FIRST RIDGE ON CLAIM MAR 27
SOUTH OF PORCUPINE CREEK, SHEET A (FIG. 2.1)

Stratigraphic thicknesses are based on assumed southeasterly strikes and moderate southwesterly dips.

Sample	Stratigraphic Thickness(m)	Description
8329	~7(?)	light-grey limestone at top grading to medium-grey at bottom, cryptocrystalline, elevation at top 6600', length 10 m vertical
8330	~7(?)	mostly medium-grey limestone, cryptocrystalline, length 10 m vertical
8331	~7(?)	medium-dark-grey limestone, with thin band of pinkish limestone at top, cryptocrystalline, length 10 m vertical

SECTION A-4 ON FIRST RIDGE NEAR ACCESS ROAD JUST SOUTH
OF PORCUPINE CREEK, SHEETS A AND B (FIG. 2.1 and 2.2)

Samples 8371 to 8374 collected at 1-m intervals through 10 m vertically along base of vertical cliff bearing 350° to 0° to 10°. Bedding was not identified, so stratigraphic thicknesses are based on the prevailing attitudes northwesterly and southeasterly along the First Ridge.

Sample	Stratigraphic Thickness(m)	Description
8371	~9(?)	whitish-grey to whitish-buff limestone, cryptocrystalline, generally massive but locally foliated, attitude of foliation 0°/~90°, attitude of planar feature 50°/36°NW, elevation 5020'-4990'
8372	~9(?)	whitish-grey to whitish-buff limestone, cryptocrystalline, massive to cleaved, elevation 4990'-4960'
8373	~9(?)	whitish-grey to whitish-buff limestone, similar to previous interval, attitude of planar feature 55°/48°NW, elevation 4960'-4930'
8374	~9(?)	whitish-grey to whitish-buff limestone, similar to previous intervals, attitude of planar feature 60°/60°NW, elevation 4930'-4900'
-	~5(?)	covered
8366	~1½(?)	whitish- to light-grey dolomite, cryptocrystalline to fine sucrosic (1 mm), massive, elevation 4850'-4840', length for 3 m vertical down a very steep slope
8367	~1(?)	greyish dolomite with brownish tinge, in part very fine grained, sucrosic (<½ mm), elevation 4840'-4833', length 2 m vertical

Sample	Stratigraphic Thickness(m)	Description
8368	~1½(?)	light-grey, dolomitic limestone with very fine dark-grey mottles, finely crystalline to sucrosic (1 mm), in part medium-grained (1-2 mm); minor calcite veins toward base, elevation 4833'-4823', length 3 m vertical
8369	~4(?)	light-grey limestone, very fine to finely crystalline/sucrosic (½-1 mm), in part medium sucrosic (1-2 mm); abundant calcite veins 2-3 mm, elevation 4823'-4790', length 10 m vertical
8370	~2½(?)	medium-grey limestone, very fine sucrosic (1/10 mm), dense, massive, abundant calcite veins 2-3 mm, elevation 4790'-4770', length 6 m vertical

SECTION A-5 ON SECOND RIDGE JUST NORTH OF INITIAL POST FOR CLAIMS MAR 50 AND 51, SOUTH OF PORCUPINE CREEK, SHEET A (FIG. 2.1)

Samples were collected through a vertical length of ~10 m, but with no bedding identified, stratigraphic tops and thicknesses are uncertain.

Sample	Stratigraphic Thickness(m)	Description
8352	~6½(?)	whitish-grey limestone, cryptocrystalline, massive, no bedding visible, elevation 7070'-7100'
8351	~6½(?)	whitish-grey limestone, similar to previous, elevation ~7100'-7070'
8725	~6½(?)	whitish-grey limestone, cryptocrystalline, massive, similar to previous, elevation 7070'-7040'

ISOLATED SAMPLE ON SHEET A (FIG. 2.1)

Sample	Stratigraphic Thickness(m)	Description
8375	~½	whitish-grey to whitish-buff limestone, cryptocrystalline, massive; beds dip ~45°SW, elevation 6190', grab sample at contact between whitish limestone above and rubbly yellow-brownish-stained greyish limestone below, on Second Ridge on claim MAR 52 above last switchback on bulldozed trail, south of Porcupine Creek

SECTION B-1 ON FIRST RIDGE ABOUT ½KM NORTH OF PORCUPINE CREEK FROM NEAR DOWNHOLE 2-73 TO NEAR DOWNHOLE 5-73, SHEET B (FIG. 2.2)

Stratigraphic thicknesses are based on the attitudes of bedding measured near the bottom of the cleft marking the fault west of drillhole 3-73 : 123°/65°SW, 133°/62°SW. A covered interval of about 9½ m stratigraphic thickness separates the stratigraphic top of this section from the collar of drillhole 2-73.

Sample	Stratigraphic Thickness(m)	Description
8512	~7	light-grey limestone, fine-grained to cryptocrystalline, almost lithographic, with few calcite grains to 2 mm, chips at 1-m intervals on 26° slope
8511	~9	light-grey limestone similar to previous, chips at 1-m intervals on 32° slope
8510	small	concentration of small irregular brownish wisp-like and knob-like erosional projections from limestone surface in lower part of interval covered by sample 8509
8509	~6½	light-grey limestone similar to previous, chips at 1-m intervals on 34° slope
8508	~10½	light-grey limestone similar to previous, chips at 1-m intervals on 38° slope, offset 5 m southeasterly
8507	~10½	light-grey limestone similar to previous, with small irregular brownish wisp-like and knob-like projections which react well with HCl , chips at 1-m intervals on 28° slope
8506	~6½	light-grey limestone similar to previous with some slightly darker-grey, some chips with few dark-grey masses, one with rusty spots from pyrite(?), chips at 1-m intervals on 31° slope
8505	~8½	light-grey limestone similar to previous, chips at 1-m intervals on 32° slope
8504	~9	light-grey limestone similar to previous but with a few brownish blobs, chips at 1-m intervals on 33° slope
8503	~8	light-grey limestone similar to previous, chips at 1-m intervals on 33° slope

SAMPLES NEAR 1973 DIAMOND DRILLHOLES ABOUT ½ KM NORTH OF PORCUPINE CREEK ON FIRST RIDGE, SHEET B (FIG. 2.2)

Sample	Stratigraphic Thickness(m)	Description
8501	3+	very light grey limestone, very fine grained to cryptocrystalline, almost lithographic, in angular fragments, attitudes of prominent joints 32°/72°NW and 42°/65°NW, elevation 5305'; sample consists of random chips from small pit blasted after 1980
8502	2-3	light-grey limestone, almost lithographic, attitude of prominent joints 47°/71°NW, attitude of planar surface 48°/36°SE, random chips in area of 20 m^2 surrounding collar of drillhole 5-73
8513	2-3	light-grey limestone similar to previous, random chips in area of about 20 m^2 surrounding collar of drillhole 2-73
8514	2-3	light-grey limestone similar to previous, random chips in area of about 20 m^2 surrounding collar of drillhole 3-73

SECTION B-2 ON FIRST RIDGE IN LOWER PART OF CLEFT MARKING THE FAULT JUST WEST OF DRILLHOLES 3-73 AND 4-73 ABOUT 600 M NORTHWEST OF PORCUPINE CREEK, SHEET B (FIG. 2.2)

Stratigraphic thicknesses are based on the attitude of bedding measured near the bottom of the cleft noted above: 123°/65°SW, 133°/62°SW.

Sample	Stratigraphic Thickness(m)	Description
8537	~12	very light grey almost white limestone, fine-grained to cryptocrystalline, top at elevation about 5430'; coincides approximately with samples 38 and 39 (Wahl, 1973)
8536	~15	very light grey almost white limestone similar to previous, bottom at elevation 5360'; coincides approximately with samples 40 and 41 (Wahl, 1973)
-	~15(?)	inaccessible
8535	~7	very light grey almost white limestone, fine-grained to cryptocrystalline, some brown material along fractures, attitude of bedding 133°/62°SW, attitude of bedding about 60 m east 123°/65°SW, attitude of joints 150°/60°NE, elevation 5300'

SECTION B-3 ON FIRST RIDGE BETWEEN PORCUPINE AND CLOSE CREEKS, SHEET B (FIG. 2.2)

Stratigraphic thicknesses are based on three measurements of bedding: 158°/80°NE, 155°/86°SE, 150°/90°

Sample	Stratigraphic Thickness(m)	Description
8289	11	light-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2 or 3 mm
8288	8	light-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 1 mm or more, beds 6 to 20 cm thick with attitudes 158°/80°NE, 150°/90°, attitude of prominent joints 58°/74°NW, elevation 6750'

SECTION B-4 ON FIRST RIDGE BETWEEN PORCUPINE AND CLOSE CREEKS, SHEET B (FIG. 2.2)

Stratigraphic thicknesses are based on measurements of bedding, and those interpreted as bedding as follows: 160°/60°SW, 107°/57°SW, and 90°/52°S.

Sample	Stratigraphic Thickness(m)	Description
8296	6	light-grey limestone, fine-grained to cryptocrystalline with calcite grains to 2-3 mm, some chips with coarse white calcite, elevation at base of interval 6600', at top of high cliff
8295	5	light-grey limestone, fine-grained to cryptocrystalline with calcite grains to 2-3 mm, attitude of bedding 160°/60°SW, elevation 6660'; offset 20 m NW from 8296
8294	4	light-grey limestone, fine-grained to cryptocrystalline with calcite grains to 2-3 mm, attitude of bedding(?) 107°/57°SW, elevation 6680'
8293	8	light-grey limestone, fine-grained to cryptocrystalline with calcite grains to 2-3 mm, attitude of bedding(?) 90°/52°S, elevation 6690'
8292	~8	light-grey limestone, fine-grained to cryptocrystalline with calcite grains to 2-3 mm, few chips of coarse-grained limestone, offset 10 m SE from 8293
8291	~8	light-grey limestone, fine-grained to cryptocrystalline with calcite grains to 2-3 mm, some orange-brown material along fractures in some chips, some chips coarser-grained
8290	10	light-grey limestone, fine-grained to cryptocrystalline with calcite grains to 2-3 mm, one chip with 10-20% white spots 3 mm in size, elevation 6730'

SECTION B-5 ON FIRST RIDGE NEAR TOP OF DOME MOUNTAIN, SHEET B (FIG. 2.2)

Attitudes of bedding seem to vary considerably, so stratigraphic thicknesses are uncertain.

Sample	Stratigraphic Thickness(m)	Description
-	-	limestones with various shades of grey, fine-grained, elevation 6700' (A on Fig. 2.2)(not sampled)
-	-	grey limestone, fine-grained to cryptocrystalline, attitude of bedding 163°/84°SW, elevation 6730' (B on Fig. 2.2)(not sampled)
-	-	mostly covered between C (elevation 6770') and D (elevation 6930') (Fig. 2.2), fair amount of white marble with grains 1-2 mm in rubble, weak reaction with HCl (dolomitic?)(not sampled)
-	-	light- to medium-grey limestone, fine-grained to cryptocrystalline, attitude of bedding (?) 147°/75°SW, elevation 6930', (D on Fig. 2.2) (not sampled)
8552	~6(?)	medium- and darker-grey limestone, lighter-grey near topographic bottom, fine-grained to cryptocrystalline, elevation 6950'
8030	~10	whitish-grey limestone, cryptocrystalline, massive, attitude of bedding(?)155°/~90°
8029	~10	whitish-grey limestone, cryptocrystalline, massive, attitude of bedding(?) 132°/~76°SW, offset ~40 m SW
8028	~10	whitish-grey limestone, cryptocrystalline, massive,
8027	~10	whitish-grey limestone similar to previous interval, attitude of bedding 130°/80°SW
8026	~10	whitish-grey limestone, cryptocrystalline, massive, attitude of bedding 125°/75°SW, elevation 7000', ground surface ~horizontal
8551	~11	light-grey limestone, fine-grained to cryptocrystalline, irregular orange mottling in some beds, beds 25-50 cm thick with attitude 155°/45°NE, elevation 7000'
-	-	light-buff-grey limestone, fine-grained to cryptocrystalline, elevation 6620' (E on Fig. 2.2) (not sampled)

SECTION B-6 ON FIRST RIDGE ALONG KOSHEAD CREEK, SHEET B (FIG. 2.2)

Stratigraphic thicknesses are based on the attitudes of bedding or those interpreted as bedding as follows:

for samples 8407 to 8402 155°/65°SW, 145°/72°SW, 155°/70°SW, 155°/68°SW;

for samples 8579 to 8576 and 8350 to 8340 140°/71°SW, 142°/72°SW, 135°/77°SW, 132°/80°SW, 140°/86°SW;

for samples 8442 to 8426 135°/75°SW, 138°/78°SW, 135°/78°SW, 133°/78°SW, 145°/62°SW, 148°/70°SW, 133°/60°SW

Some samples were apparently collected along strike rather than across because prominent planar features were misinterpreted as bedding.

Sample	Stratigraphic Thickness(m)	Description
8579	7-8	medium-grey limestone, cryptocrystalline to fine-grained, white calcite veins, elevation 5450'
-	22	covered with dry stream bed; samples 8407 to 8402 north of Koshead Creek projected to be within this covered interval south of Koshead Creek
8407	~2(?)	limestone, cryptocrystalline, tough; grey with very few veinlets of white calcite in upper 9 m sampled; light-grey with veinlets of white calcite in lower 2 m sampled, attitude of bedding 155°/65°SW, slope distance 11 m
8406	~2(?)	grey limestone, cryptocrystalline, tough, elevation 5500', slope distance 12 m
8405	~4(?)	grey limestone, cryptocrystalline, tough, attitude of bedding 145°/72°SW, slope distance 34 m
-	~10	not sampled
8404	~2(?)	grey limestone, cryptocrystalline, very few veinlets of white calcite; cracked with yellow material in upper 6 m, tough in lower 5 m, slope distance 12 m
8403	~21(?)	grey dolomite, cryptocrystalline, tough, very few veinlets of white calcite, cracked, attitude of bedding 155°/70°SW, elevation 5520', slope distance 12 m

Sample	Stratigraphic Thickness(m)	Description
8402	~2(?)	dolomitic limestone, tough with few veinlets of white calcite, grey, cryptocrystalline in upper 6 m and lowest 3 m, dark-grey, cryptocrystalline to fine-grained in 2 m between, attitude of bedding 155°/68°SW, elevation 5550', slope distance 12 m
8578	~5	light-grey and white limestone, cryptocrystalline to fine-grained
8577	~8	very light grey and white limestone, cryptocrystalline to fine-grained
-	3	covered
8576	~7	light- and medium-grey limestone with a few darker bands, few black partings ½ mm thick, cryptocrystalline to fine-grained, attitude of bedding 140°/71°SW
8350	~8	mostly light- and medium-grey limestone but with a few layers of dark-grey 1-3 cm thick, cryptocrystalline fine-grained, attitude of bedding 142°/72°SW, elevation 5510'
8349	~8	mostly light- and medium-grey limestone, with ½ m or so of dark-grey, cryptocrystalline to fine-grained, elevation at topographic base 5510'
8348	~8	light-grey and medium-grey limestone, cryptocrystalline to fine-grained, attitude of bedding 135°/77°SW, attitude of planar feature 157°/3°NE
8347	~5-6	very light grey limestone, cryptocrystalline to fine-grained, small amount of orange material in fractures near surface, attitudes of bedding(?) 132°/80°SW, 140°/86°SW, attitude of planar feature 98°/12°S, elevation at topographic top 5530'
8346	~8	mostly light-grey and white limestone, cryptocrystalline to fine-grained with the odd chip coarser-grained, minor white calcite veinlets, elevation at topographic base 5620'
8345	~8	mostly light-grey limestone, cryptocrystalline, fine-grained but a few chips with grains to 2 mm, attitude of planar feature 140°/17°NE, few chips from spalls from very smooth surfaces
8344	~8	mostly light-grey limestone with a few medium-grey chips, mostly cryptocrystalline to fine-grained with a few coarser-grained chips
8343	~8	mostly light-grey limestone, cryptocrystalline to fine-grained
-	~8	covered
8342	~2	mostly light-grey limestone, cryptocrystalline to fine-grained

Sample	Stratigraphic Thickness(m)	Description
8341	~9	mostly medium- and light-grey limestone, with one or two chips almost white, cryptocrystalline to fine-grained
8340	~8	limestone, cryptocrystalline to fine-grained; light-grey at top, dark-grey for 2 m, medium-grey at stratigraphic bottom, attitudes of joints 07°/04°W, 112°/72°NE, elevation 5620'
-	~17	not sampled
8442	½ (grab)	light- to medium-grey limestone, cryptocrystalline to fine sucrosic (1 mm) with very fine variegated dark-grey mottling in part, attitude of bedding 135°/75°SW
-	~17	not sampled
8441	~5	light-grey limestone, roughly cleaved, cryptocrystalline to microsucrosic, attitude of bedding 138°/78°SW
8440	~9	light-grey limestone, cryptocrystalline to very fine sucrosic, massively bedded, two roughly cleaved zones, attitude of bedding 135°/~78°SW
8439	~2	light-grey limestone, with minor light-buff-grey, cryptocrystalline to microsucrosic, attitude of bedding 133°/~78°SW, elevation 5760', sampled horizontally along base of cliff at 80°
8438	~3½	medium- to light-grey limestone, cryptocrystalline to very fine sucrosic (½ mm), roughly cleaved, attitude of bedding 145°/62°SW, sampled along base of cliff at 80° on 27° slope
8437	~4½	light- to medium-grey limestone, cryptocrystalline to fine sucrosic (½-1 mm)
8436	~2½	grey limestone, roughly cleaved, sampled horizontally along base of cliff at 80°
8435	~4	medium- to light-grey limestone, becoming light-grey, fine crystalline/sucrosic toward stratigraphic top, fine granular/sucrosic (1 mm), attitude of bedding 145°/62°SW, sampled on 45° slope
8434	~2	medium- to light-grey limestone with minor light-greyish-buff and fine variegated dark-grey mottling, cryptocrystalline, becoming fine sucrosic (1 mm) granular at top, bedding 148°/70°SW
8433	~2½	medium-grey limestone, cryptocrystalline to very fine sucrosic (½ mm), attitude of joints 35°/60°SE, elevation 5790'-5770'

Sample	Stratigraphic Thickness(m)	Description
8432	~4½	light- to medium-grey dolomite , cryptocrystalline, massive, elevation 5815'
8431	~4½	light- to medium-grey dolomite, cryptocrystalline, massive, elevation 5840'
8430	~2½	light-grey limestone with dark-grey variegated mottling (1 mm), increasing light-grey toward top, elevation 5850'
8429	~5	light-grey dolomitic limestone with minor fine variegated dark-grey mottling, cryptocrystalline with minor fine sucrosic (1 mm), massive, attitude of fine planar feature 55°/90°, elevation 5860'
8428	~5	light-grey limestone, cryptocrystalline, massive, elevation 5870', sampled more or less horizontally along base of cliff
-	~8½	covered
8427	?	light-grey limestone with greenish tinge, very fine to fine (½-l mm) sucrosic; attitude of bedding 133°/60°SW, attitudes of planar features 55°/70°SE, 60°/65°SE, elevation 5900; sampled normal to planar features at 325°
8426	?	light-grey limestone with greenish tinge similar to sample 8427, sampled normal to planar features at 325°

SECTION B-7 ON FIRST RIDGE NEAR KOSHEAD CREEK, SHEET B (FIG. 2.2)

Samples were collected at only a small angle to bedding because bedding was not easily identified. Hence, stratigraphic thicknesses are rough estimates based on undulating bedding with attitude 305°-315°/65°-70°SW.

Sample	Stratigraphic Thickness(m)	Description
8396	~2-3	dolomitic limestone, cryptocrystalline; grey and tough in upper 2 m sampled, almost black with few veinlets of white calcite in middle 4 m sampled, dark-grey and much cracked in bottom 5 m sampled, attitude of bedding 130°/65°-70°SW with undulating surface, elevation 5370', slope distance 13 m
8397	~2-3	limestone, cryptocrystalline, tough; dark-grey with veinlets of white calcite in upper 9 m sampled; grey with few veinlets of white calcite in lowest 2 m sampled, attitude of bedding 140°/68°SW, slope distance 12 m
8398	~2-3	limestone, with small veinlets of white calcite; grey, cryptocrystalline, tough in upper 10 m sampled, dark-grey in lowest 1 m sampled, attitude of bedding 130°/72°NW, slope distance 12 m
8399	~2-3	limestone, cryptocrystalline, tough, few veinlets of white calcite to 3 mm thick; dark-grey in upper 9 m sampled, grey in lowest 2 m sampled, slope distance 12 m
8400	~2-3	grey limestone, cryptocrystalline, tough, vein of coarse white calcite 8-10 mm thick with attitude 60°/58°NW 3 m from bottom of interval sampled, elevation 5350', slope distance 12 m
8401	~3-4	limestone, cryptocrystalline, tough, dark-grey in upper 12 m sampled, grey with few veinlets of white calcite in lowest 4 m sampled, attitude of bedding 150°/60° SW, slope distance 17 m

SECTION B-8 ON FIRST RIDGE ALONG SOUTH BOUNDARY OF CLAIM MARY 1, SHEET B (FIG. 2.2)

Stratigraphic thicknesses are based on one attitude of bedding: 112°/63°SW.

Sample	Stratigraphic Thickness(m)	Description
8534	~4	dark- amd medium-grey limestone, fine-grained, elevation 5690'
8533	2	very light grey limestone, fine-grained, elevation 5720'
8532	2½	light-grey limestone, very fine grained, elevation 5740', on SE side of draw, chips at 1-m intervals down slope
8531	4	medium-grey dolomitic limestone, fine-grained, few white veins, chips at 1-m intervals down slope
8530	4	medium-grey limestone, fine-grained, few white veinlets, beds up to ½ or ¾ m thick with bedding attitude 112°/63°SW, flattening slightly at top of outcrop, on SE side of draw, elevation 5750', chips at 1-m intervals down slope

SECTION B-9 ON SECOND RIDGE JUST NORTH OF PORCUPINE CREEK, SHEETS A AND B (FIG. 2.1 and 2.2)

Stratigraphic thicknesses are based on an attitude of bedding measured at one place on the easterly limb of the anticline here: 80°/44°S.

Sample	Stratigraphic Thickness(m)	Description
8391	10	grey limestone, crumbly with cracks 1-5 mm thick filled with white calcite and red material, fine-grained in upper 6 m, cryptocrystalline in lower 4 m, attitude of joints(?) 160°/16°SW, elevation 9300'
8392	10	orange limestone, cryptocrystalline, crumbly, cracks 1-5 mm thick filled with white calcite and red material, elevation 5280'
8393	10	grey limestone, cryptocrystalline, crumbly, cracks 1-8 mm thick filled with coarse white calcite and red material that reacts well with 8% HCl, attitude of joints(?) 160°/18°SW
8394	10	limestone, cryptocrystalline, grey, crumbly with red material in cracks in upper 2 m; light-grey, fewer cracks and less red material in lower 8 m, attitude of joints(?) 180°/16°W, elevation 5240'
8395	10	grey limestone, cryptocrystalline, tough, fewer cracks, few veinlets with red material, elevation 5210'

SECTION B-10 ON SECOND RIDGE JUST NORTH OF PORCUPINE CREEK, SHEETS A AND B (FIG. 2.1 and 2.2)

Stratigraphic thicknesses are based on the attitudes of bedding or those interpreted as bedding: 160°/19°SW, 160°/22°SW, 160°/24°SW.

Sample	Stratigraphic Thickness(m)	Description
8385	10	grey limestone, cryptocrystalline, broken into small blocks by cracks, cracks filled with yellow material in upper 8 m, and red material in lowest 2 m, attitude of bedding(?) 160°/19°SW, elevation 5200'-5170'
8386	10	grey limestone, with veinlets of fine-grained white calcite, cryptocrystalline and tough in upper 6 m, fine-grained in lower 4 m, elevation 5140'
8387	10	grey limestone, tough, fine-grained in upper 2 m, cryptocrystalline with a few veinlets of calcite in lower 8 m, attitude of bedding(?) 160°/22°SW, elevation 5110'
8388	10	limestone, cryptocrystalline, tough, grey in upper 8 m, light-grey in lowest 2 m, elevation 5080'
8389	10	grey limestone, cryptocrystalline, tough, few veinlets with yellow material, elevation 5050'
8390	10	grey limestone, locally light-grey, cryptocrystalline, tough, attitude of bedding(?) 160°/24°SW, elevation 5020'

SECTION B-11 NORTHEAST SIDE OF SECOND RIDGE ABOUT 250 M NORTH OF PORCUPINE CREEK, SHEETS A AND B (FIG. 2.1 and 2.2)

Stratigraphic thicknesses are based on the attitudes of two planar features near top of section, which are interpreted as bedding 156°/21°NE, and 157°/21°NE.

Sample	Stratigraphic Thickness(m)	Description
8333	~8	light-grey or buff to whitish limestone, fine-grained to cryptocrystalline with a few calcite grains to 2-3 mm, some joint surfaces covered with very fine grained flesh-colored carbonate, attitude of bedding 156°/21°NE, elevation at top 5670'; similar limestone extends at least 10 m stratigraphically higher but smooth cliff is difficult to sample
8332	~10	almost white to greyish- white to buffish- white limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, very similar to that on southwest side of First Ridge northwest of Porcupine Creek, attitude of bedding 157°/21°NE, elevation near top 5630', bearing of major near vertical cliff face above 8332 147°
8775	~8	variable limestone, light-grey, less grey, and dark-grey, grain size mostly 1 - 2 - 3 mm, red-brown material along fractures, elevation at top 5630'
8774	~8	variable limestone, light-grey, dark-grey, grain size mostly 1 - 2 - 3 mm, elevation at top 5590'
8334	~8	medium- to dark-grey limestone, grain size mostly 1-3 mm, light-grey in lowest ½ m, some white calcite veins, chips at 35 cm in upper 4 m, then where possible on very smooth massive face
8335	~7-8	some light- to medium-grey limestone, some dark-grey, sample of weathering spalls and chips as available on very smooth massive face
8336	~8	mostly medium-grey limestone, some light-medium-grey, grain size to 1-2 mm, white calcite veinlets, sample of chips and weathered spalls as available on very smooth massive face, elevation at base 5550'
8337	~10	mostly light- to medium-grey limestone, grain size to 1 - 2 - 3 mm, creamy-white vein in lowest m with attitude 135°/53°SW perhaps a shear, elevation at base 5540'
8338	~8	sugary white marble in upper part, greyer and finer-grained below, perhaps partly along a shear or vein, elevation at base 5530'
8339	~8	sugary white marble near top, white and fine-grained in middle, light-grey and fine-grained near base, elevation at base 5520'

SECTION B-12 NORTHEAST SIDE OF SECOND RIDGE ABOUT 300 M NORTH OF PORCUPINE CREEK, SHEETS A and B (FIG. 2.1 and 2.2)

Samples were collected more or less along contour. Bedding was not identified.

Sample	Stratigraphic Thickness(m)	Description
8771	?	variable limestone; chips collected at 3-m intervals for 21 m more or less horizontally along base of cliff as follows: 0 light-grey limestone with white and brown calcite in coarse grains 3 light-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm 6 dark-grey limestone with calcite veinlets 9 dark-grey limestone with calcite veinlets 12 light-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm 15 light-grey limestone, fine-grained with minor orange-brown material on fractures, some as fragments to 6-8 cm in size (breccia?) 18 light-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm 21 coarse white and brown calcite, and other brown material, elevation 5600'
8772	?	light-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, some red-brown material; chips collected at 3-m intervals for 12 m more or less horizontally along base of cliff with fairly smooth surface
-	?	covered for 8 m horizontally
8773	?	light-grey limestone, fine-grained with much whitish calcite and red-brown material which decreases to SE, white calcite veins; chips collected at 3-m intervals for 16 m more or less horizontally; this limestone may be a large block slumped from cliffs above
-	?	covered for 7 m horizontally

SECTION B-13 ON SECOND RIDGE ABOUT 1½ KM NORTHWEST OF PORCUPINE CREEK NEAR INITIAL POST OF CLAIMS MAR 68 AND 69, SHEET B (FIG. 2.2)

Stratigraphic thicknesses are based on the attitudes of bedding or those interpreted as bedding: 96°/43°S, 60°/22°SE, 68°/30°SE, 72°/16°SE.

Sample	Stratigraphic Thickness(m)	Description
8737	~11	mostly light-grey limestone, cryptocrystalline to fine-grained, some with reddish material along fracture surfaces, stringers of black chert noted in this interval on southeast side of peak but not in sampled section on northwest side, attitude of bedding 96°/43°S, attitude of planar feature 38°/23°NW, attitude of prominent joints 13°/63°SE, crossbedded, elevation 6980'
8738	~8	light-grey limestone, cryptocrystalline to fine-grained, some shearing and joints with orange-red material, attitude of closely spaced joints and shearing 108°/90°, elevation 6960'
8739	~8	light-grey to light-medium-grey limestone, cryptocrystalline to fine-grained
8740	~8	very light grey to light-grey limestone, cryptocrystalline to fine-grained, attitude of bedding 60°/22°SE, elevation 6940', offset to NW from 8739 because base of cliff is along bedding
8741	~8	light- to medium-light-grey limestone, cryptocrystalline to fine-grained
8742	~8	very light grey limestone with some light-grey chips, cryptocrystalline, almost lithographic, attitude of bedding 68°/30°SE, elevation 6910'
8743	~8	light-grey limestone, cryptocrystalline to fine-grained, elevation at base 6900'; line of samples angles northwesterly towards draw starting with 8743
8744	~8	light-grey limestone, cryptocrystalline to fine-grained, some reddish material along fractures, massive beds, elevation 6890'
8745	~8	light-grey limestone, cryptocrystalline to fine-grained, elevation 6870'
8746	~8	light-grey limestone, cryptocrystalline to fine-grained, small amount of orange brown on some fracture surfaces, attitude of bedding 72°/16°SE, elevation at base 6860'
8747	~8	mostly light-grey limestone, cryptocrystalline to fine-grained, few white calcite veins, minor chert visible on weathered surface near top and above but none lower

SECTION B-14 ON SECOND RIDGE BETWEEN UPPER PARTS OF STEADY AND MARY CREEKS, SHEET B (FIG. 2.2)

Stratigraphic thicknesses are based on the attitudes of bedding as follows: 0°/45°W, ~0°/40°-50°W, ~0°/45°W, 157°/36°W.

Sample	Stratigraphic Thickness(m)	Description
8311	~9	highly variable from grey to dark-grey limestone interbeds 1-80 cm thick, attitude of bedding 0°/45°W, length 15 m on 30° slope
-	~3	covered
8312	~7	interbedded light-grey to dark-grey limestone, beds few cm to 1 m thick, length 10 m on 10° slope
8313	~7	interbedded medium-grey to light-grey limestone, attitude of bedding at base ~0°/40°-50°W, length 10 m horizontally
8319	~9	medium-grey limestone with white calcite veins, cryptocrystalline, massive, dipping W, length 13 m on 10° slope
8320	~12	medium-grey limestone with abundant white calcite veins, limonitic yellow-weathering brownish-yellow material along joints and fractures, similar material along strike on far high cliff at 325°, length 17 m on 10° slope
8321	~4	medium-grey limestone, cryptocrystalline to medium-grained, brownish staining on joints, faint bedding visible, length 30 m horizontally
8322	~6½	mostly light-to medium-grey limestone, cryptocrystalline, brownish-weathering in scree, length 9 m vertically and 90 m horizontally
8703	~6½	medium- to light-grey limestone, cryptocrystalline, schistose becoming massive, offset ~25 m S, length 10 m vertically
8704	~6½	light-grey to whitish-grey limestone, cryptocrystalline, massive, attitude of bedding ~0°/45°W, length 10 m vertically
8705	~6½	light-grey limestone, cryptocrystalline to fine-grained (1 mm), elevation 6920', length 10 m vertically
-	~40	covered
8706	~6½	grey limestone, locally brownish, massive, abundant calcite veins 2-3 mm thick, elevation 6680'-6850', offset ~160 m N, length 10 m vertically

Sample	Stratigraphic Thickness(m)	Description
8323	~5½	medium-grey limestone, cryptocrystalline, with calcite veins to 1 cm thick, offset ~245 m S, length 8 m vertically and 15 m horizontally
-	~25(?)	covered
8736	2-3(?)	limestone, variably colored: light-, medium-, and dark-grey, cryptocrystalline to fine-grained, some breccia: dark-grey blocks to 40-50 cm in size mostly with white calcite veinlets in more massive very light grey to medium-grey, variable attitudes of bedding 65°/18°SE, 10°/26°E, attitude of foliation 160°/79°NE, sample of random chips surrounding final post of claims MAR 68 and 69
8707	~2½	grey limestone, cryptocrystalline, massive, calcite veins, attitude of bedding 157°/36°W, elevation 6820'-6810'; offset ~180 m N, length 3 m vertically
8708	~7½	whitish to light-grey limestone, cryptocrystalline, massive beds, elevation 6810'-6780', offset 5 m S, length 10 m vertically
-	~20(?)	covered
8709	~7½	grey limestone, cryptocrystalline, massive, attitude of bedding 157°/36°W, elevation 6810'-6780', length 10 m vertically

ISOLATED SAMPLE ABOUT 600 M SOUTH OF MARY CREEK, SHEET B (FIG. 2.2)

Sample	Stratigraphic Thickness(m)	Description
8324	7	mostly light-grey limestone with medium-grey at base, cryptocrystalline; weathers whitish to light-grey; attitude of bedding 158°/38°NE, almost a dip slope at top but greater dips at base; fault with attitude 116°/55°SW 15 m S, medium-grey limestone NE of fault, uniform light-brown on SW side, sample 8324 on NE side of fault

SECTION B-15 NEAR TOP OF NORTHEAST SIDE OF SECOND RIDGE ABOUT 600 M SOUTHWEST OF MARY CREEK, SHEET B (FIG. 2.2)

Stratigraphic thicknesses are based on an interpreted attitude of bedding : 03°/16°W, on limb of gentle anticline.

Sample	Stratigraphic Thickness(m)	Description
8246	10	grey limestone, cryptocrystalline, tough, with calcite veins to 5 mm thick, attitude of bedding (?) 03°/16°W, elevation 7380', slope distance 25 m
8247	10	grey limestone, cryptocrystalline, many cracks filled with yellow material in lower 4 m, slope distance 26 m
-	9	covered
8248	9	grey limestone, cryptocrystalline, tough, in upper 1 m and lowest 2 m, dark-grey in middle 6 m, small cracks for 1 m below dark-grey, very tough with a calcite veinlet ½ mm thick in lowest 1 m, elevation 7340', slope distance 40 m

SECTION B-16 ON SECOND RIDGE NORTHEAST OF UPPER END OF STEADY CREEK, SHEET B (FIG. 2.2)

Stratigraphic thicknesses are based on attitudes of bedding or those interpreted as bedding as follows:

At Sample	Attitude
8305	15°/17°E
8310	90°15°N
	128°/27°SW

Sample	Stratigraphic Thickness(m)	Description
8305	~9	grey to light-grey limestone with local dark-grey mottles about 1 mm in size, generally cryptocrystalline, massive, attitude of bedding(?) 15°/17°E, elevation 7380'-7350', length 10 m vertically
8306	~9	light-grey limestone generally cryptocrystalline with increasing mottles to 1 mm in size downslope, elevation 7350'-7320', length 10 m vertically
8307	~9	light-grey limestone with fine dark-grey mottles, massive, elevation 7320'-7290', offset ~40 m northerly, length ~10 m vertically
8308	~9	light-grey and dark-grey limestone with mottles as previous interval; becoming dolomitic towards base, elevation 7290'-7260', length 10 m vertically
8309	~9	light-grey limestone, cryptocrystalline, massive, elevation at top 7260', length ~10 m vertically
8310	~3(?)	light-grey limestone, attitude of bedding 90°/15°N, attitude of bedding at lowest part in saddle 128°/27°SW, in nose of anticline

SECTION B-17 EAST SIDE OF SECOND RIDGE SOUTHWEST OF UPPER PART OF MARY CREEK, SHEET B (FIG. 2.2)

Stratigraphic thicknesses are based on the attitudes of bedding or those interpreted as bedding 53°/45°NW, 53°/42° NW, and 50°/45° NW.

Sample	Stratigraphic Thickness(m)	Description
8231	9	grey limestone, cryptocrystalline and tough, with a few veinlets of calcite, attitude of bedding(?) 53°/45° NW, elevation 7170', slope distance 10 m
8232	9	medium-grey limestone with a faint brownish hue, cryptocrystalline, slope distance 10 m
8233	9	grey limestone, cryptocrystalline, with a few veinlets of calcite to 1 mm thick in upper 5 m, broken by small cracks in lower 4 m, cracks filled with yellow material, attitude of bedding(?) 53°/42° NW, slope distance 10 m
8234	9	light- to medium-grey limestone, cryptocrystalline, intermittent chips where possible, slope distance 10 m
8235	9	light-grey limestone, cryptocrystalline and tough, with a few yellow veinlets in upper 7 m, almost white in lowest 2 m, slope distance 10m
8236	9	very light grey limestone, cryptocrystalline, slope distance 10 m
8237	9	light-grey locally buff limestone, cryptocrystalline and tough, elevation 7140', slope distance 10 m
8238	9	medium-grey limestone, cryptocrystalline, slope distance 10 m
8239	9	light-grey limestone, cryptocrystalline and tough, buff for 2 m in middle, and with few calcite veinlets in lowest 4 m, attitude of bedding(?) 50°/45°NW, slope distance 10 m
8240	9	brownish-grey limestone, crystalline, offset uphill ~15 m to SW, horizontal distance 10 m
8241	8	grey limestone, cryptocrystalline and tough, veinlets of white calcite with yellow material, offset uphill 20 m, slope distance 10 m
8242	~9	medium-dark-grey limestone, horizontal distance 15 m
8243	12	grey limestone, cryptocrystalline and tough, veinlets of white calcite with yellow material in upper 8 m and lowest 2 m, cracked with cracks filled with calcite and yellow material for 2 m between, slope distance 15 m

Sample	Stratigraphic Thickness(m)	Description
8244	~12	medium-dark-grey limestone, cryptocrystalline, horizontal distance 15 m
8245	8	grey limestone, cryptocrystalline and tough with a few calcite veinlets in upper 4 m, yellow material and calcite veinlets in lower 4 m, horizontal distance 15 m

IDGE

SECTION B-18 ON SECOND RIDGE ABOUT 300 METRES SOUTHWESTERLY FROM THE UPPER PART OF MARY CREEK, SHEET B (FIG. 2.2)

Stratigraphic thicknesses are based on observed attitudes of bedding.

Sample	Stratigraphic Thickness(m)	Description
8325	7	light-grey limestone, cryptocrystalline, attitude of bedding 135°/~25°SW, sampled for 25 m down 23° slope at azimuth 107°
8326	~10	light-grey limestone, cryptocrystalline, sampled for 34 m down 23° slope at azimuth 107°
-	~2	limestone with chert 2 cm thick along fractures, along 21 m downslope (not sampled)
8327	~8	grey limestone, cryptocrystalline, sampled for 25 cm downslope to covered flat area at base of upper ridge

ISOLATED SAMPLE ABOUT 230 M SOUTHWEST OF UPPER PART OF MARY CREEK, SHEET B (FIG. 2.2)

Sample	Stratigraphic Thickness(m)	Description
8328	12	variably colored limestone: very light grey white to light-brown to medium-grey, cryptocrystalline, attitude of bedding(?) 35°/13°NE, length 20 m

SECTION B-19 ON SECOND RIDGE NORTH OF HEADWATERS OF MARY CREEK, SHEET B (FIG. 2.2)

Stratigraphic thicknesses are based on a bedding attitude of 135°/45°NE, as observed from a distance. Bedding was not identified during close observation. Each sample was collected from a vertical interval of 10 m.

Sample	Stratigraphic Thickness(m)	Description
8710	~7	light-grey to whitish-grey limestone, cryptocrystalline, massive, elevation ~7290'-7260'
8711	~7	light-grey to whitish-grey limestone, similar to previous interval, elevation ~7290'-7260'
8712	~7	light-grey to whitish limestone, similar to previous intervals, elevation ~7260'-7230'
8713	~7	light-grey to whitish limestone, similar to previous intervals, elevation ~7230'-7200'
8714	~7	light-whitish-grey limestone, similar to previous intervals, elevation 7200'-7170'
8715	~7	light-greyish-white limestone, similar to previous intervals, elevation ~7170'-7140'
8716	~7	light-greyish-white limestone, similar to previous intervals, elevation 7140'-7110'
8717	~7	light-greyish-white limestone, similar to previous intervals, elevation 7110'-7080'
8718	~7	whitish-grey limestone, cryptocrystalline, massive, elevation 7080'-7050'
8719	~7	light-grey to whitish-grey limestone, cryptocrystalline, massive, elevation ~7050'-7020'
8720	~7	whitish-grey to light-grey limestone, cryptocrystalline, massive, elevation ~7020'-6990'
8721	~7	whitish-grey to light-grey limestone, similar to previous interval, elevation 6990'-6960'
8722	~7	whitish-grey to light-grey limestone, similar to previous intervals, elevation ~6960'-6930'

Sample	Stratigraphic Thickness(m)	Description
8723	~7	light-greyish-brown limestone, cryptocrystalline, massive, elevation ~6930'-6900'
8724	~7	light-greyish-brown limestone, cryptocrystalline, massive, elevation ~6900'-6870', base of interval at base of cliff, schistose shale or volcanics below at elevation ~6820'

SECTION B-20 ON SECOND RIDGE NORTH OF HEADWATERS OF MARY CREEK, SHEET B (FIG. 2.2)

Stratigraphic thicknesses are based on one measured attitude of bedding: 145°/15°NE.

Sample	Stratigraphic Thickness(m)	Description
8301	~9	*whitish- to light-grey limestone, cryptocrystalline to fine* crystalline/sucrosic (1 mm), massive, attitude of bedding 145°/15°NE, attitudes of joints 190°/10°W, 60°/15°SE, elevation 7430', sampled down scarp slope, length 10 m vertical
8302	~9	light-grey limestone, cryptocrystalline to fine crystalline/sucrosic (1 mm), in part minor dark-grey mottling, elevation 7400', sampled from scattered outcrops down ~10° slope, length 10 m vertical
8303	~9	light-grey limestone, similar to interval above, length 10 m vertical

SECTION B-21 ON SECOND RIDGE NORTHWESTERLY FROM HEADWATERS OF MARY CREEK, SHEET B (FIG. 2.2)

Stratigraphic thicknesses are based on attitudes of bedding on those interpreted as bedding: 150°/22°NE, 150°/23°NE, 155°/20°NE.

Sample	Stratigraphic Thickness(m)	Description
8226	8	light-grey limestone, cryptocrystalline and tough in upper 3 m and lower 4 m, fine-grained for 1 m near middle of interval, attitude of bedding)(?) 150°/23°NE, slope distance 10 m
8227	10	light-grey limestone, cryptocrystalline and tough, attitude of bedding(?) 150°/23°NE, slope distance 15 m
-	19	covered
8228	10	light-grey limestone, cryptocrystalline and tough, slope distance 15 m
8229	8	light-grey limestone, cryptocrystalline and tough in upper 6 m, grey and tough in lowest 2 m, brown chert veinlet 1 mm thick and 1 m long at 6 m level, attitude of bedding 155°/20°NE, slope distance 12 m
8230	8	light-grey limestone, cryptocrystalline and tough, with few veinlets of white calcite in upper 5 m, greyer in lowest 3 m, slope distance 13 m, elevation 7250'

SECTION B-22 ON SECOND RIDGE NORTHWESTERLY FROM HEADWATERS OF MARY CREEK, SHEET B (FIG. 2.2)

Section is complicated by faulting. Stratigraphic thicknesses are based on measurements of bedding(?) as follows: sample 8071 60°/30°NW, sample 8074 141°/20°NE, sample 8304 125°/23°NE.

Sample	Stratigraphic Thickness(m)	Description
8071	~9	medium-grey limestone in top 1 m, brownish-grey in next 1 m, remaining 7 m light-grey, attitude of bedding(?) 60°/30°NW, elevation 7320', length 10 m vertically
8072	~9	medium- to dark-grey limestone, fine- to medium-grained (1-2mm); strata in samples 8071 and 8072 not structurally conformable with strata below; numerous fault surfaces with attitudes 140°-160°/~30°NE near base, breccia ~½ m thick with attitude 65°/56°NE at base, length 10 m vertically
-	(?)	dolomitic (not sampled)
8073	~2-3(?)	grey limestone
-	?	covered
8074	~3-4(?)	light-grey limestone, cryptocrystalline, massive, dolomitic(?) in lowest 1 m, attitude of bedding 141°/20°NE at top, length 10 m
8075	~7½	medium-grey limestone, cryptocrystalline to medium-grained/sucrosic (1-2 mm), length 8 m
8304	~8	medium-grey limestone similar to previous interval, attitude of bedding 125°/23°NE just above top, offset 30 m at 163°, elevation at top 7320', length 9 m

SECTION B-23 ON SECOND RIDGE SOUTHWEST OF THE SADDLE AT THE HEAD OF LINE CREEK, MOSTLY ON LOT 1285, SHEETS B AND C (FIG. 2.2 and 2.3)

Stratigraphic thicknesses are based on two measured attitudes of bedding near the west end of the section: 167°/22°NE and 170°/17°NE, and a third that may be bedding at the east end of the section: 135°/40°NE. Samples 8263-70, 8273-75, 8726-32 consisted of chips collected at ½-m intervals each along 15 m measured horizontally. Chips for other samples were collected as noted or at 35-cm intervals.

Sample	Stratigraphic Thickness(m)	Description
8271	~19	light-grey limestone, cryptocrystalline to fine-grained, buff-orange alteration associated with prominent joints with attitude 100°/87°S, attitude of planar feature (bedding?) 135°/40°NE, elevation at top 6970', horizontal distance ~30 m with chips at 1-m intervals
8272	>100	light-grey limestone, cryptocrystalline to fine-grained, chert at one place, random chips from scattered outcrops along horizontal distance of ~300 m, near S end of interval up to 5% orange-brown stringers and masses
8270	~7(?)	light-grey limestone mottled with white calcite, mostly cryptocrystalline to fine-grained, but few chips of coarse-grained white calcite, elevation at bottom 7070', considerable coarse white calcite N of E end of interval
8269	~7(?)	mostly light-grey to whitish limestone, cryptocrystalline to fine-grained, few chips coarse-grained, minor chert near mid-point of interval, coarse white calcite in layer striking ~56° at W end of interval
8268	~7(?)	light-grey limestone, cryptocrystalline to fine-grained, orange-red material on same fracture faces
8267	~7(?)	light-grey to very light grey limestone, cryptocrystalline to fine-grained, more orange-red material on fracture faces than in sample 8268
8266	~7(?)	mostly light-grey limestone, cryptocrystalline to fine-grained, orange-brown stringers with general strike ~108°
8265	~7(?)	light-grey to whitish limestone, cryptocrystalline to fine-grained, calcite veins, orange-brown stringers with general strike ~65°, less orange-brown than previous two or three samples
8264	~7(?)	light-grey to whitish limestone, cryptocrystalline to fine-grained, more orange-brown material along joints, attitude of joints 100°/86°S, attitude of planar feature 173°/66°E, attitude of foliation 112°/87°SW

Sample	Stratigraphic Thickness(m)	Description
8263	~7(?)	light-grey to whitish limestone, cryptocrystalline to fine-grained, orange-brown material along joints and fractures, elevation 7170'
8273	~7(?)	mostly coarse white calcite from shear zone, elevation at stratigraphic top 7190'
8274	~7(?)	light-grey limestone, cryptocrystalline to fine-grained, minor red-orange material on fractures
8275	~7(?)	mostly light-grey limestone, cryptocrystalline to fine-grained, some coarse white calcite with foliation 96°/83°N
8726	~7(?)	light-grey limestone, cryptocrystalline to fine-grained, some with darker-grey streaks 1-2 mm thick, some coarsely crystalline white calcite with orange-red on fractures, attitude of joints 177°/86°E, attitude of foliation 98°/83°N, elevation 7070', partly offset 20 m and 50 m NW at lower elevations; includes 2-m covered gap
8727	~7(?)	light-grey limestone in upper part with medium-grey in lower part, all cryptocrystalline to fine-grained except some coarse white calcite in upper part, attitudes of joints 178°/83°W, 130°/90°, elevation at base 7030', continuing 50 m NW offset
8728	~7(?)	mostly light-grey limestone, cryptocrystalline to fine-grained in upper part, partly the same but some foliated with coarse white calcite in lower part, attitudes of foliation 112°/62°NE and 118°/84°NE (lower end), attitude of joints 04°/76°E, elevation 7070', offset 50 m SE from sample 8727
8729	~7(?)	mostly light-grey limestone, cryptocrystalline to fine-grained in upper part, whiter in lower part, coarse white calcite throughout, attitude of foliation in lower part 103°/90°; about 10 m NW of W end: zone about 1½ m wide with considerable buff-weathering rubble in the overburden with strike 112° parallel to foliation, reacts well with HCl
8730	~7(?)	light-grey limestone, cryptocrystalline to fine-grained with some coarse white calcite in upper part, covered linear depression 3-4 m wide at 10 m from E end striking ~152°, W of depression medium-grey limestone, cryptocrystalline to fine-grained with minor chert on some joint surfaces, elevation 7040'
8731	~7(?)	medium- to light-grey limestone, cryptocrystalline to fine-grained, lower part from spur 10-15 m NW with closely spaced joints with attitude 92°/90°, attitude of other joints 168°/90°,attitude of bedding 167°/22°NE, elevation 7050'

Sample	Stratigraphic Thickness(m)	Description
8732	~7(?)	medium-grey limestone, cryptocrystalline to fine-grained, buff chert on one joint surface, attitude of bedding 5 m below W end of interval 170°/17°NE, attitudes of prominent joints 140°/79°NE, 118°/79° NE, elevation at W end 7080'
8733	8	medium- to medium-dark-grey limestone, cryptocrystalline to fine-grained, few white calcite veinlets to 4 mm thick
8734	~8	medium-grey limestone, cryptocrystalline to fine-grained in upper ~5 m, then ~1 m of dark-grey fine-grained limestone, with whitish-grey sugary limestone of grain size 1-2 mm below
8735	4	medium-grey limestone, cryptocrystalline to fine-grained, elevation 7010'
-	2	covered
-	~20	grey limestone with irregular masses and stringers of black chert to 6-8 cm thick locally comprising up to 10% of the rock (not sampled)
-	~30(?)	covered

SECTION C-1 IN FIRST RIDGE AT CUTS ALONG ACCESS TRAIL ON DISTRICT LOT 1284, SHEET C (FIG. 2.3)

Stratigraphic thicknesses are based on the attitudes of bedding or those interpreted as bedding as appropriate : 117°/67°SW and 102°/62°SW.

Sample	Stratigraphic Thickness(m)	Description
8515	~4	medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to ½ mm, few white calcite veins to 5 mm thick, attitude of bedding (?) 117°/67°SW, elevation 5200', horizontal sample length 4 m
8516	~4½	medium-grey limestone, fine-grained to cryptocrystalline, some buff material along fractures, horizontal sample length 5 m
8517	0.2	limestone with hard protruding globules in lower part of sample 8518
8518	~4	medium- to dark-grey limestone, fine-grained to cryptocrystalline, 10-15% white calcite veinlets, horizontal sample length 6 m
8519	~2½	dark-grey limestone, fine-grained to cryptocrystalline, few whitish patches to 2-3 mm, horizontal sample length 5 m
-	~22½	covered (measured 52 m at 82°)
8524	~10	medium- to light-grey limestone, fine-grained to cryptocrystalline, horizontal sample length 11 m
8525	~8	light-grey limestone, fine-grained to cryptocrystalline, attitude of prominent planar feature 80°/38°S, horizontal ample length 9 m
7928	~6	medium- to light-grey limestone, fine-grained to cryptocrystalline similar to previous, horizontal sample length 7 m
7929	~7	medium-grey limestone, fine-grained to cryptocrystalline, similar to previous, horizontal sample length 8 m
8520	~4½	medium-grey limestone, fine-grained to cryptocrystalline, attitude of bedding(?) 102°/62°SW, horizontal sample length 5 m
8522	~5	light-grey limestone, fine-grained to cryptocrystalline almost lithographic, horizontal sample length 6 m

OUTCROP IN FIRST RIDGE ABOUT 50 M SOUTHEAST OF CUTS ALONG ACCESS TRAIL ON DISTRICT LOT 1284, SHEET C (FIG. 2.3)

Stratigraphic thicknesses are based on the attitudes of planar features which may be bedding : 118°/78°SW and 123°/59°SW.

Sample	Stratigraphic Thickness(m)	Description
8523	~8½	light-grey limestone, fine-grained to cryptocrystalline almost lithographic, attitudes of prominent planar features 118°/78°SW and 123°/59°SW, horizontal sample length 9 m
8521	~1	light-grey limestone, fine-grained to cryptocrystalline almost lithographic horizontal sample length 5 m

ISOLATED SAMPLE ON NORTHEAST SIDE OF FIRST RIDGE NEAR TRAIL BRANCHING OFF ROAD ON LOT 1284, SHEET C (FIG. 2.3)

Sample	Stratigraphic Thickness(m)	Description
8529	~1½	light-grey limestone, fine-grained, flaggy, attitude of bedding 155°/48°SW, limited stratigraphic thickness in 20 m deep creek valley because of almost dip slope with dip decreasing near top of NE valley slope, chips at 15-cm intervals

SECTION C-2 ON FIRST RIDGE FROM LOWER PART OF CLIFF JUST NORTHWEST OF INDECISION CREEK ON CLAIM MAR 38, SHEET C (FIG. 2.3)

Stratigraphic thicknesses are measured normal to the attitudes of bedding or those interpreted as a bedding: 132°/83°SW, 132°/75°SW.

Sample	Stratigraphic Thickness(m)	Description
8598	~7	light- to medium-grey limestone, cryptocrystalline to fine-grained except one chip with grains 2-3 mm, attitudes of bedding 132°/83°SW, 132°/75°SW
8599	~8	light- to medium-light-grey limestone, cryptocrystalline to fine-grained

SECTION C-3 ON FIRST RIDGE NORTHWEST OF INDECISION CREEK
ON CLAIMS MAR 40 AND 41, SHEET C (FIG. 2.3)

Stratigraphic thicknesses are based on the attitudes of bedding or those interpreted as bedding: 105°/80°S, 106°/82°S, 102°/75°S, 100°/90°, 115°/78°NE, 130°/90°, 147°/78°SW, 115°/87°SW, 122°/81°SW, 140°/90°, 128°/85°NE.

Sample	Stratigraphic Thickness(m)	Description
8443	~6½	whitish-grey to whitish-buff limestone, cryptocrystalline, very fine to fine sucrosic in part (<1 mm), attitude of foliation 98°/90°, elevation 5220'
-	~13	covered
8444	~7	light-grey to whitish-grey limestone, cryptocrystalline to crystalline, minor very fine sucrosic (<½ mm), attitude of minor planar feature (bedding?), 100°/90°
-	~20	covered
8445	~10	light-grey limestone, cryptocrystalline, massive, minor calcite veins 2-3 mm, attitudes of bedding 105°/80°S, 106°/82°S, 102°/75°N; attitudes of joints 28°/72°NW, 41°/78°NW, 147°/72°N, elevation 5340'-5300'
-	~34	covered
8597	~8	light-grey limestone, cryptocrystalline to fine-grained, few white calcite veins, elevation at topographic top 5350'
-	~15	covered
8596	~8	light-grey and light-medium-grey limestone, cryptocrystalline to fine-grained, few white calcite veins, attitude of planar features 15 to 30 cm apart 130°/22°NE, elevation of topographic base 5360'
8595	~8	light-grey limestone, cryptocrystalline to fine-grained
8594	~7	mostly light-grey limestone with a few medium-grey chips, cryptocrystalline to fine-grained, attitude of bedding 115°/78°NE, attitude of prominent joints 12°/85°W, attitude of rough planar feature 144°/14°SW, elevation of topographic base 5370'
8593	~8	light-grey limestone, cryptocrystalline to fine-grained, elevation at topographic base 5380', elevation at topographic top 5390', including 1 m covered
-	~4	covered

Sample	Stratigraphic Thickness(m)	Description
8592	~11	limestone, light-grey in stratigraphic lower part, slightly darker in stratigraphic upper part, cryptocrystalline to fine-grained, few white calcite veinlets; some blocks sampled may not be in place
-	~5-6	covered
8591	~12	light-grey or light-medium-grey limestone, cryptocrystalline to fine-grained, white calcite veins in one or two chips, attitude of bedding 130°/90°, elevation at topographic base 5420'
8590	~8	light-medium-grey limestone, grain size between fine and sucrosic to 1 mm in separate beds some to 2 m thick, elevation at topographic base 5440'
8589	~8	mostly light-grey limestone, sucrosic with grains ½-2 mm, some chips medium-grey, few chips cryptocrystalline to fine-grained, attitude of bedding 147°/78°SW, elevation at topographic base 5460'
8588	~8	mostly medium- to light-grey limestone, sucrosic with grain size ½-2 mm, very few darker-grey chips, some chips cryptocrystalline to fine-grained, few masses of black chert to 10-15 cm, attitude of bedding(?) 115°/87°SW
8587	~9	mostly medium- to light-grey limestone, some chips dark-grey, sucrosic with grain size 1 to 2 mm, elevation at topographic base 5490'
-	~16	covered
8586	~7	light- to medium-grey limestone, cryptocrystalline to fine-grained, elevation at topographic base 5510'
8585	~5-6	mostly white or light-grey limestone, sucrosic with grain size to 2 mm, some recrystallation to coarse white calcite from shearing, attitude of shearing 77°/90°; offset away from shearing - medium-grey limestone, cryptocrystalline to fine-grained
8584	~6	variably colored limestone but mostly dark-grey and cryptocrystalline to fine-grained with white calcite veinlets, some chips medium-grey with coarse white calcite in top metre
-	24	covered
8583	~5	light-grey limestone, cryptocrystalline to fine-grained, attitude of bedding 122°/81°SW, elevation 5590'

Sample	Stratigraphic Thickness(m)	Description
8582	~1½	medium-grey limestone with fragments of white sucrosic dolomite
-	~6	covered
8581	~3½	mostly light-grey limestone, cryptocrystalline to fine-grained, some chips white sucrosic dolomite with grains to ½ mm, dolomite as angular fragments (breccia?) to 8 cm long in light- to medium-grey fine-grained limestone
-	~15	covered
8580	~9-10	variably colored limestone: medium-grey, light-grey, some white sucrosic dolomite as in sample 8581, elevation 5630'
8408	10	dark-grey limestone, fine-grained, very tough, very few veinlets of white calcite, attitude of bedding 140°/90°, elevation 5620', offset 90 m NW from sample 8580
8409	12	dolomitic limestone: light-grey, fine-grained, tough in upper 6 m; darker-grey, cryptocrystalline, very tough in lower 6 m, attitude of bedding 128°/85°NE, offset 53 m NW from sample 8580

SECTION C-4 ON SECOND RIDGE AT END OF ROAD ON LOT 1284, SHEET C (FIG. 2.3)

For samples 7947 to 7950, 8526, chips were collected at ~50-cm intervals. Origin is at the beginning of the main limestone outcrop along the road: 0-55 m E holes at least 2 m drilled horizontally along road at 328°-345°, 64-84 m E blasted, 135-155 m E blasted, 184-330 m E covered. Stratigraphic thicknesses are based on a bedding attitude of 97°/30°NE measured higher up the mountainside. This attitude differs from that at the contact between buff limestone and grey argillite 19½ m west of origin across a covered interval: 137°/87°NE.

Sample	Stratigraphic Thickness(m)	Description
-	~38(?)	medium-grey limestone, cryptocrystalline to fine-grained, whitish chert as films or stringers up to 1 mm thick along fractures, some with attitude 35°/49°SE, attitude of planar feature 110°-120°/78°-85°NE, limestone face examined to elevation 6075' (not sampled)
7947	~4½	medium-grey limestone, cryptocrystalline to fine-grained with few calcite crystals to 2-3 mm, few white calcite veinlets to 2 mm, elevation 5930', length 5 m horizontally at 210°, starts above road at ~65 m E of origin
7948	~5	light- to medium-grey limestone, cryptocrystalline to fine-grained with few calcite crystals to 1-2 mm, length 6 m horizontally at 205°
7949	~5	medium-grey limestone, cryptocrystalline to fine-grained with few calcite crystals to 1-2 mm, length 6 m horizontally at 205°
7950	~5	medium-grey limestone, cryptocrystalline to fine-grained with calcite crystals to 1-2 mm, length 5½ m horizontally at 205°
8526	~4½	light- to medium-grey limestone, cryptocrystalline to fine-grained, few white calcite masses, length 5 m horizontally at 190°; base of sample 8526 is 1 m above road ~65 m E of origin
7946	~¾	very light grey limestone mottled with white, fine-grained, length ~4-5 m from 160-165 m E of origin with ~1 m covered; some chips from rubble(?)
-	1	covered from 153-160 m E of origin
7945	~½	light-grey limestone extensively mottled and layered with white, cryptocrystalline to fine-grained, length 3 m from 150-153 m E of origin
7944	~1½	light-grey limestone irregularly mottled with white, cryptocrystalline to fine-grained, irregularly layered and veined with white up to 2 cm thick with attitude 120°/82°SW, length 10 m from 140-150 m E of origin

Sample	Stratigraphic Thickness(m)	Description
7943	~1½	medium-grey limestone mottled and layered with white, cryptocrystalline to fine-grained, length 10 m from 130-140 m E of origin
7942	~1½	light-grey limestone mottled with white, cryptocrystalline to fine-grained, length 10 m from 120-130 m E of origin
7941	~1½	medium-grey limestone mottled with light-grey and white, cryptocrystalline to fine-grained, length 10 m from 110-120 m E of origin
7940	~1½	medium-grey limestone with white mottles, cryptocrystalline to fine-grained, length 10 m from 100-110 m E of origin
7939	~1½	medium- to light-grey limestone with irregular whitish mottles, cryptocrystalline to fine-grained, length 10 m from 90-100 m E of origin
7938	~1½	medium- to light-grey limestone with up to 50% irregular whitish veins and mottles, cryptocrystalline to fine-grained, length 10 m from 80-90 m E of origin
7937	~1½	medium- to light-grey limestone, cryptocrystalline to fine-grained with odd calcite crystals 1-2 mm, length 10 m from 70-80 m E of origin
7936	~1½	medium- to light-grey limestone, cryptocrystalline to fine-grained, length 10 m from 60-70 m E of origin
7935	~1½	dark- to medium- to lighter-grey limestone, cryptocrystalline to fine-grained, length 10 m from 50-60 m E of origin
7934	~1½	dark-grey limestone, minor brown along fractures, mostly fine-grained, beds 1-2 cm thick, length 10 m from 40-50 m E of origin
7933	~1½	dark- and medium-grey limestone, few whitish veins and mottles, mostly cryptocrystalline to fine-grained with minor to 2 mm grain size, length 10 m from 30-40 m E of origin
7932	~1½	dark-grey limestone with white calcite in mottles and fine veinlets, cryptocrystalline to fine-grained, some fissile, length 10 m from 20-30 m E of origin
7931	~1½	dark-grey limestone with few whitish calcite veinlets, fine- and coarser-grained to 2 mm, length 10 m from 10-20 m E of origin

Sample	Stratigraphic Thickness(m)	Description
7930	~1½	dark-grey limestone with some medium-grey chips, cryptocrystallineto fine-grained, length 10 m from 0-10 m E of origin

SECTION C-5 ON SECOND RIDGE ALONG LOCATION LINE BETWEEN CLAIMS MAR 22 AND 23, SHEET C (FIG. 2.3)

Stratigraphic thicknesses based on measured attitude of bedding: 97°/30°N.

Sample	Stratigraphic Thickness(m)	Description
8527	~7	dark-grey to black limestone, fine-grained; attitude of bedding at top 97°/30°N, starts just below similar limestone in beds ~12 cm thick separated by argillaceous partings ½ to 3 cm thick, H_2S odor when broken, elevation at top 6560'
8528	~8	medium-grey limestone with 10% whitish mottles, fine-grained

SECTION C-6 ON SOUTHWEST SIDE OF SECOND RIDGE ON CLAIM MAR 22, SHEET C (FIG. 2.3)

Stratigraphic thicknesses are based on the following attitudes of bedding or those interpreted as bedding:

At Sample	Attitude	At Sample	Attitude
8564	111°/10°NE	8210	155°/15°NE
	123°/18°NE	8211	168°/25°NE
8198	144°/20°-25°NE	8215	172°/24°NE

Sample	Stratigraphic Thickness(m)	Description
8025	8	light-grey limestone, cryptocrystalline to fine-grained
8559	8	mostly light-grey limestone, cryptocrystalline to fine-grained
8560	8	light-grey limestone, cryptocrystalline to fine-grained with few calcite crystals to 3 mm, attitude of prominent joints 30°/88°SE, elevation at base 7090'
8561	8	mostly light-grey limestone, cryptocrystalline to fine-grained, lowest chip almost white with grain size ~½ mm
8562	5	light-grey limestone, cryptocrystalline to fine-grained
8563	~8	mostly light-grey limestone, cryptocrystalline to fine-grained at top, somewhat coarser to 1 mm or so at bottom, offset ~15 m NW from sample 8562
8564	8-9	mostly light-grey limestone, cryptocrystalline to fine-grained but some chips with ¼-½ mm grains, attitude of prominent planar feature perhaps bedding 123°/18°NE, attitude of bedding(?) at base 111°/10°NE, elevation 7040'
8196	~8	medium-grey limestone, cryptocrystalline to fine-grained, odd veinlets of white calcite, elevation at top 6980', sample line in first gully NW of claim line
8197	~8	some light-grey limestone, cryptocrystalline to fine-grained; some medium-grey limestone with grain size fine to 1 mm
8198	~8	medium-grey limestone, cryptocrystalline to fine-grained, some darker-grey chips, general attitude of undulating bedding 144°/20°-25°NE, elevation at bottom 6920'
8199	~8	medium-grey limestone, some cryptocrystalline to fine-grained, some chips with grains to ~1 mm

Sample	Stratigraphic Thickness(m)	Description
8200	~8	medium-grey limestone, grain size to ~1 mm, elevation at base 6890'
8201	~8	medium-grey limestone, cryptocrystalline to fine-grained
8202	~8	medium-grey limestone, cryptocrystalline to fine-grained
8203	~8	medium-grey limestone, cryptocrystalline to fine-grained
8204	~8	medium-grey limestone, cryptocrystalline to fine-grained
8205	~8	medium-grey limestone, cryptocrystalline to fine-grained, elevation at base on August 2 6830', on August 3 6800'
8206	~8	medium-grey limestone becoming light-medium-grey at base, cryptocrystalline to fine-grained at top with grain size increasing to 1-2 mm in bottom m, elevation at base 6785'
8207	~8	light- and medium-grey limestone, mostly cryptocrystalline to fine-grained, but some chips with grains 1-2 mm
8208	~8	mostly darker-grey limestone, cryptocrystalline to fine-grained, few chips medium- and light-grey from different colored layers in upper 4-5 m, elevation at base 6730'
8209	~5	mostly medium-grey limestone, cryptocrystalline to fine-grained, elevation at base 8710'
8210	~8	mostly medium-grey limestone, cryptocrystalline to fine-grained, lighter-grey with white calcite veins in lowest m, attitude of bedding 155°/15°NE, offset 10 m NW from sample 8209, elevation at base 6695'
8211	~12	mostly medium-grey limestone, cryptocrystalline to fine-grained, some chips with grains 1-2 mm, attitude of bedding 168°/25°NE, elevation at base 6660'
8212	~8	medium- to light-grey limestone, mostly cryptocrystalline to fine-grained, few chips with grains to 1-2 mm, elevation at base 6650'
8213	~9	mostly medium-grey limestone, mostly cryptocrystalline to fine-grained but some chips with grains 1-2 mm, elevation at base 6640'
8214	~7	medium-grey limestone, cryptocrystalline to fine-grained

Sample	Stratigraphic Thickness(m)	Description
8215	~8	medium- to light-medium-grey limestone, cryptocrystalline to fine-grained with few calcite crystals to 3-4 mm, attitude of bedding 172°/24°E, elevation at base 6610'

SECTION C-7 ON SECOND RIDGE NORTH EAST OF PEAK ON CLAIM MAR 7, SHEET C (FIG. 2.3)

Stratigraphic thicknesses are those observed or estimated.

Sample	Stratigraphic Thickness(m)	Description
-	6-7(?)	light to medium-grey limestone, grain size variable but mostly fine-grained, locally veined with white calcite, <1%(?) whitish chert in very irregular masses (not sampled)
-	1-2	light-grey limestone, fine-grained, up to 20% light-colored chert in very irregular masses, elevation 7170' (not sampled)
-	~10(?)	light-grey limestone, cryptocrystalline to fine-grained, small amount of chert in irregular masses throughout, attitude of bedding(?) near base 33°/31°SE (not sampled)
8015	~6½	light-grey limestone, cryptocrystalline to fine-grained, numerous veinlets to 2-3 mm wide of white calcite

SECTION C-8 ON NORTHEAST SIDE OF SECOND RIDGE ON CLAIM MAR 8, SHEET C (FIG. 2.3)

Stratigraphic thicknesses are based on the following attitudes of bedding or those interpreted as bedding:

At Sample	Attitude	At Sample	Attitude
8566	150°/18°NE	8182-8183	150°/15°SW
8176	150°/40°NE	8190	138°/26°SW
8177	125°/33°NE	8190	165°/13°SW
8181	108°/30°-35°NE		120°/30°SW
		NE of fault	160°/46°SW

Sample	Stratigraphic Thickness(m)	Description
8566	~5-6(?)	very light grey to white limestone, mostly cryptocrystalline to fine-grained, small amount of chert as stringers and masses, attitude of prominent planar feature perhaps bedding 150°/18°NE, elevation 7130', horizontal length ~15 m
-	~2(?)	covered (6 m horizontal)
8567	~5-6(?)	mostly very light grey to white limestone in top 4 m, cryptocrystalline to fine-grained, few irregular masses of chert, brownish marble in bottom 4 m, 6 m between covered, offset 25 m NW, horizontal length 14 m
8568	~5-6(?)	mostly very light grey limestone, cryptocrystalline to fine-grained with some chips coarser-grained, few masses and stringers of chert, horizontal length 14 m
8569	~5-6(?)	mostly very light grey limestone, cryptocrystalline to fine-grained, brownish material on few surfaces, few chert masses, horizontal length 15 m
8570	8	nearly white limestone, mostly cryptocrystalline to fine-grained, odd bits of chert near base
8571	~8	almost white limestone, cryptocrystalline to fine-grained, odd bits of chert here and there, elevation at base 7140'
8572	~6	light-grey limestone, cryptocrystalline to fine-grained, few masses of chert perhaps not represented in sample, elevation at base 7120'
8573	~8	very light grey limestone, cryptocrystalline to fine-grained, offset 20 m SE, elevation at top 7120'
8574	~8	very light grey to almost white limestone, cryptocrystalline to fine-grained

Sample	Stratigraphic Thickness(m)	Description
8575	~8	very light grey to almost white limestone, cryptocrystalline to fine-grained, fault or shear with reddish material on slickensides, one mass of chert to 15 cm perhaps above shear, elevation at base 7070'
8176	~8	very light grey almost white limestone, cryptocrystalline to fine-grained, odd masses of chert, attitude of planar feature possibly bedding 150°/40°NE, elevation at base 7060'
8177	~5	almost white limestone, cryptocrystalline to fine-grained, average attitude of undulating feature probably bedding 125°/33°NE, elevation at base 7050'
-	~2	covered
8178	~9	mostly light-grey limestone, cryptocrystalline to fine-grained, few coarser white calcite grains probably in a vein, attitude at top 95°/29°S, elevation 7040'
8179	~9	very light grey limestone, cryptocrystalline to fine-grained, odd masses or irregular veinlets of white calcite, offset 20 m SE in zig-zag pattern for outcrops, elevation at top 7000'
-	~3½	covered (6 m horizontally)
8180	~13	light-grey limestone, cryptocrystalline to fine-grained, intermittent outcrop in zig-zag pattern, elevation at base 6950'
8181	~8	mostly light-grey limestone, cryptocrystalline to fine-grained, few veinlets of coarse white calcite, odd masses of chert to 4-5 cm, attitude of planar feature 108°/30°-35°NE, elevation at base 6900'
8182	~4	light-grey limestone, cryptocrystalline to fine-grained, few corals to 2 cm across, elevation at base 6980'
-	3-4	covered (horizontal distance ~8 m) trend 150°, apparently a stratigraphic unit dipping ~15°SW
8183	~9	light-grey limestone, cryptocrystalline to fine-grained, few white calcite veinlets to 4 mm wide, bits of chert
8184	~8	about half light-grey limestone, cryptocrystalline to fine-grained, rest coarser white calcite
8185	~8	mostly light-grey limestone, cryptocrystalline to fine-grained, minor coarser white calcite

Sample	Stratigraphic Thickness(m)	Description
8186	~8	in upper part light-grey limestone, cryptocrystalline to fine-grained; in lower part mostly coarse white calcite with brown material along joints, some chert
8187	~8	mostly light-grey limestone, cryptocrystalline to fine-grained, some coarser calcite, chert masses in two layers, offset ~30 m NW in upper part
8188	~8	mostly light-grey limestone, cryptocrystalline to fine-grained, some coarser white calcite
8189	~8	mostly light-grey limestone, cryptocrystalline to fine-grained, minor coarse white calcite in veinlets; includes 1 m covered
8190	~5	light-grey limestone, cryptocrystalline to fine-grained, two intervals with chert, some in lenses, attitude of planar feature probably bedding 138°/26°SW, elevation at base 6770'
8193	~8	light-grey limestone, cryptocrystalline to fine-grained in upper part, becoming coarser and whiter in lower part, attitudes of bedding 30 cm apart 165°/13°SW, 120°/30°SW, elevation at top 6760', offset 30 m SE
8194	~5	mostly light-grey limestone, cryptocrystalline to fine-grained, one or two chips of medium-grey, some coarse medium-grey calcite, some brown material, chert masses, attitude of foliation 135°/52°SW, elevation 6700'
8195	~2	mostly medium-grey limestone, variable grain sizes, some brown material, chert masses
		outcrop 15 m NW (along strike): similar to sample 8195, some chert in upper part with 4 m (stratigraphic) of mostly coarse white calcite below (not sampled)
-	?	covered for 30 m horizontally to NE, trend of covered interval 142° with coarse white calcite on SW side - major fault probably dipping SW, trend of gully on NE side of 30-m covered interval 147°
-	15?	coarsely crystalline whitish calcite for 15 m horizontally, large masses of chert, attitude of irregular surface on NE side of gully 160°/46°SW, elevation 6690' (not sampled)
-	?	almost white limestone, cryptocrystalline to fine-grained, minor amounts of disseminated chert in masses up to 3 cm (not sampled)

ISOLATED SAMPLES ON SECOND RIDGE NEAR SECTION C-7,
SHEET C (FIG. 2.3)

Stratigraphic thicknesses are those observed or interpreted.

Sample	Stratigraphic Thickness(m)	Description
8565	8	light-grey limestone, some mottled with white, cryptocrystalline to fine-grained, attitude of undulating bedding(?) 175°/20°W, attitudes of prominent joints 5°/86°E, 45°/52°NW, 75°/8°NW, elevation at top 7090', white to buff stringers, masses, and thin patches on flat surfaces in strata above, on flat at mountaintop on claim MAR 8
8191	~8	light-grey limestone, cryptocrystalline to fine-grained, one or two chips of coarse calcite, elevation 6560'; stratigraphic thickness based on gently dipping beds, at top of cliff on location line of claims MAR 64 and 65
8192	8-9	light-grey limestone, cryptocrystalline to fine-grained, brown material on some fractures, elevation 6600'; stratigraphic thickness based on gently dipping beds, on NE spur near location line of claims MAR 64 and 65

SECTION C-9 ON SOUTHWEST SIDE OF SECOND RIDGE ON CLAIM MAR 5, SHEET C (FIG. 2.3)

Stratigraphic thicknesses are based on one measured attitude of bedding: 122°/40°NE.

Sample	Stratigraphic Thickness(m)	Description
-	~5	light-grey limestone with light-colored chert (not sampled)
8018	~8	light-grey limestone at top, darker- to medium-grey below, *cryptocrystalline to fine-grained, elevation* ~7135'
8019	~8	medium- to light-grey limestone, cryptocrystalline to fine-grained, few white calcite veinlets
8020	8-9	part medium- to light-grey limestone, cryptocrystalline to fine-grained, part with blocks (breccia) to 40 cm of cryptocrystalline to fine-grained light-grey and darker-grey limestone
8021	~8	mostly light- to light-medium-grey limestone, cryptocrystalline to fine-grained, attitude of prominent foliation 128°/43°SW, elevation 7080'
8022	8	light-grey limestone, cryptocrystalline to fine-grained
8023	8	lighter-grey limestone near top with medium-grey in lower part, cryptocrystalline to fine-grained, average attitude of undulating bedding 122°/40°NE
8024	8	light-grey limestone, cryptocrystalline to fine-grained, elevation at bottom 7050'

SECTION C-10 ON NORTHEAST SIDE OF SECOND RIDGE ON CLAIM MAR 5, SHEET C (FIG. 2.3)

Stratigraphic thicknesses are those observed or interpreted, some from outcrops to 100 m away.

Sample	Stratigraphic Thickness(m)	Description
-	~3	light-grey limestone, some chert, attitude of planar feature 10°/20°E, (not sampled)
	0.15-0.20	chert in irregular bed with attitude 148°/40°SW(?) (not sampled)
8013	~9	mostly light- to medium-grey limestone, cryptocrystalline to fine-grained, elevation 7150'
8014	~6	light-grey limestone, cryptocrystalline to fine-grained, coarser-grained angular masses of whitish limestone at base - breccia, attitude of bedding ~100 m SE 137°/31°SW at elevation 7110', no chert noticed in outcrops but is present in some pieces of rubble
-	?	attitude of planar feature (bedding) 120°/29°NE about half way between this section and initial post of MAR 7 at elevation 7100' at NE edge of flat plain of rubble
-	?	numerous buff stringers to ~10 cm or more long in larger orange-brown masses in last outcrop before water hole on NE side of ridge, elevation 7090'

ISOLATED SAMPLES ON SECOND RIDGE ON CLAIM MAR 3, SHEET C (FIG. 2.3)

Stratigraphic thicknesses are based on observed or interpreted attitudes of bedding.

Sample	Stratigraphic Thickness(m)	Description
8017	~4	dark- and medium-dark-grey limestone, fine-grained, whitish calcite veinlets at various orientations, chert on some joint surfaces, attitude of bedding(?) 116°/48°NE
-	-	20 m SW - medium-grey limestone, fine-grained, whitish chert stringers 1 mm thick and some larger masses of chert, attitude of bedding 120°/51°NE (not sampled)
8016	~6	very light grey limestone, cryptocrystalline to fine-grained, very minor chert, fairly flat dip, attitude of prominent joints 0°/86°W, elevation 7040'

SECTION C-11 ON NORTHEAST SIDE OF SECOND RIDGE ON CLAIMS MAR 3 AND 4 SHEET C (FIG. 2.3)

Stratigraphic thicknesses are based on observed attitudes of bedding from almost horizontal to 75°/20°N.

Sample	Stratigraphic Thickness(m)	Description
8132	9	light- to whitish-grey limestone, cryptocrystalline, massive, bedding almost horizontal, on 20° slope, length 10 m vertical
8133	8½	whitish- to light-grey limestone, cryptocrystalline, in part sucrosic with grains >1-2 mm, massive, attitude of bedding 75°/20°N, on 35° slope, length 10 m vertical
8134	~8½	light-grey to whitish-grey limestone, cryptocrystalline, massive, on 35° slope, length 10 m vertical

ISOLATED SAMPLES ON SECOND RIDGE ON CLAIM MAR 1, SHEET C (FIG. 2.3)

Stratigraphic thicknesses are not estimated because no bedding was visible, but other nearby outcrops indicate gently dipping strata, so stratigraphic thicknesses may be 1 to 2 m.

Sample	Stratigraphic Thickness(m)	Description
8546	?	dark-grey limestone, fine-grained, few white calcite veinlets to 3-4 mm wide, chips at 20 cm for 3½ m horizontally
8547	?	dark-grey limestone, fine-grained, irregular network of white calcite veinlets to 3 mm wide, length 10 m horizontal

SECTION C-12 ON SOUTHWEST SIDE OF SECOND RIDGE ON CLAIM MAR 1, SHEET C (FIG. 2.3)

Stratigraphic thicknesses are based on attitudes of bedding or those interpreted as bedding as follows:

At Sample	Attitude	At Sample	Attitude
8545	158°/58°SW	8297	163°/81°SW
8300	160°/73°SW		
	152°/82°SW		

Sample	Stratigraphic Thickness(m)	Description
8545	7	light-grey dolomite with white mottles, cryptocrystalline to fine-grained in upper part, grains to 1 mm in lower part, attitude of bedding at topographic base 158°/58°SW, elevation 7010'
8544	8	light-grey limestone, grains to 1 mm in top 3 m, cryptocrystalline to fine-grained in bottom 5 m
8543	8	light-grey limestone, with minor white mottles, cryptocrystalline to fine-grained
8542	2	light-grey limestone, fine-grained, altered and crumbly, yellow-buff material, small vugs
8541	7	light-grey limestone, mostly fine-grained but some chips with grains ½-1 mm
8540	8	light-grey limestone, cryptocrystalline to fine-grained
8539	8	light-grey limestone, cryptocrystalline to fine-grained
8538	~9	light-grey limestone, cryptocrystalline to fine-grained, elevation 7030'
8300	~8	light-grey limestone, cryptocrystalline to fine-grained, attitudes of bedding 160°/73°SW and 152°/82°SW
8299	~8	light- to to mostly medium-grey limestone, fine-grained, mottled with white carbonate, chert along some joints, attitude of 20-cm-wide shearing at base 80°/73°S
8298	~10	medium-grey limestone but with two layers of light-grey totalling about 2 m in darker-grey limestone, fine-grained, variably mottled and veined with white carbonate
8297	4	medium-grey limestone, fine-grained, variably mottled and veined with up to 10-15% white carbonate

Sample	Stratigraphic Thickness(m)	Description
-	32(?)	medium-grey limestone, fine-grained, up to 20% irregular masses of chert to 20 cm in size: some weathers buff to light, some apparently along bedding planes, some as elongated black to dark-grey masses, attitude of bedding(?) 163°/81°SW, attitude of planar feature 144°/85°NE, elevation 7090'

SECTION C-13 ON SOUTHWEST SIDE OF SECOND RIDGE ON CLAIM MAR 1, TOPOGRAPHICALLY BELOW SECTION C-12, SHEET C (FIG. 2.3)

Although section C-13 continues down the mountainside topographically below section C-12, a structural change occurs topographically below sample 8545, probably within sample 4848. Between elevations 6950' and 6930' at bottom of orange-brown cliff are several faults and joints. One fault shows as a narrow zone 3-5 cm wide with attitude 172°/57°SW.

Stratigraphic thicknesses are based on measurements of bedding attitudes as follows:

In Sample	Attitude
8001	20°/35°E
8002	135°/35°NE
8003	148°/36°NE
8007	130°/28°NE

Sample	Stratigraphic Thickness(m)	Description
8548	8-9	light-grey limestone, mostly cryptocrystalline to fine-grained but lower part coarser with grains to 1 mm, white calcite veinlets, attitudes of planar features (joints or bedding?) 115°/75°SW, 155°/84°SW, 140°/73°SW, 112°-120°/82°SW at 6910', attitudes of other planar features 84°/17°N, 43°/81°SE, attitude of joint with 5-10% irregular chert 2-4 mm thick near base 15°/55°SE, elevation at top 6950', elevation at base 6880'; face bears 96°; sample collected for 25-30 m along base of face bearing generally 165° with chips at intervals from 30 cm-4 m. If bedding attitude is similar to that SE across draw, stratigraphic thickness may be ~20 m.
8549	~8	light-grey to almost white limestone, cryptocrystalline to fine-grained with few calcite crystals to 1 mm
8550	1-2 probably	very light grey limestone, mostly cryptocrystalline to fine-grained with few calcite crystals to 1 mm, few chips with grain size ~1 mm collected at base of cliff along fairly level bench at elevation 6860'
8001	1-2	very light grey limestone, cryptocrystalline to fine-grained, then ½ m with irregular stringers, patches and masses of black chert, with light-grey marble of grain size 1 mm below, attitude of bedding 20°/35°E, beds ½ m or more thick; about 20 m across talus-covered draw to SE at elevation 6880' are bands of discontinuous black chert about 20 cm thick, with strike 123° and gentle dip to NE; for a few metres above the 20-cm layer with black chert are numerous irregular stringers to 3 mm and other masses to 3 or 4 cm of buffish chert in dark-grey fine-grained limestone; for 5 m below the 20-cm layer with black chert is light-grey fine-grained limestone with considerable chert as mostly black irregular masses and pods to 20-30 cm in size.
-	~6	limestone with chert (not sampled)

Sample	Stratigraphic Thickness(m)	Description
8002	6	light-grey limestone, fine-grained with few chert stringers, attitude of bedding near bottom 135°/35°NE, elevation 6840'
8003	~6	very light grey limestone, cryptocrystalline to fine-grained, attitude of bedding at bottom 148°/36°NE
8004	~6	light-grey limestone with a few dark-grey wisps, masses, or mottles, mostly fine-grained
8005	6	light-grey limestone, cryptocrystalline to fine-grained
8006	~6	light-grey limestone, cryptocrystalline to fine-grained with a few crystals to ½ mm or so
8007	~6	light-grey limestone, cryptocrystalline to fine-grained with a few crystals to 1 mm or so, attitude of bedding 130°/28°NE, elevation 6770'
8008	~6	very light grey limestone, mostly cryptocrystalline to fine-grained but a few chips coarser-grained, few orange-brown alteration masses
8009	~6	light-grey limestone, cryptocrystalline to fine-grained, few orange-brown alteration masses
8010	~6	light-grey and grey-buff limestone, cryptocrystalline to fine-grained, few orange-brown alteration masses
-	~7	cherty limestone, not sampled
-	?	orange-brown limestone with orange calcite grains to 1 mm, for an interval of 2 m but probably related to structure, not a stratigraphic interval; not visible in outcrop to SE across talus slope in draw, where discontinuous and stepped layers of black chert 30-50 cm thick are present through about 70 m of gently dipping section for about 20 m above and 50 m below elevation 6750'; these chert layers not visible in this sampled section so possibly a fault in the draw
8011	~6	mostly light-grey limestone, cryptocrystalline to fine-grained, minor orange-brown patches, top below orange-brown alteration at elevation 6740'
8012	7	light- to medium-grey limestone, cryptocrystalline to fine-grained, few dark wisps, some orange-brown material

ISOLATED SAMPLE ON SECOND RIDGE ON CLAIM MAR, 1
SHEET C (FIG. 2.3)

Sample	Stratigraphic Thickness(m)	Description
8171	6½	light-grey limestone, massive, attitudes of bedding(?) 140°/47°SW, 142°/40°SW, attitude of planar feature 138°/22°NE

SECTION C-14 ON SECOND RIDGE WITH TOP AT TOP OF SMALL CLIFF JUST NORTH OF SAMPLE 8040 ON CLAIM MAR 1, SHEET C (FIG. 2.3)

Stratigraphic thicknesses are based on generally flat-lying strata dipping slightly north at top and others measured or interpreted down section as follows:

At Sample	Attitude	At Sample	Attitude
8153	45°/20°NW	8161	29°/35°NW
8156	33°/21°NW	8162	29°/34°NW
nearby	0°/20°W	8160	170°/18°W
	55°/20°NW	8166	90°/6°N
	97°/22°N	8167	90°/6°N
8159	0°/22°W		

Sample	Stratigraphic Thickness(m)	Description
8048	~2	light-medium-grey limestone, cryptocrystalline, massive
8049	0.4	light-grey limestone, thinly bedded, brecciated, sampled by continuous chips
8050	0.8	light-grey limestone, massive
8151	1½	medium-grey limestone,, massive
8152	~4½	dark-greyish-brown bedded limestone at top, light-greyish and massive near base
8153	4	light-grey limestone for 3 m at top, darker-grey limestone for 1 m below, cryptocrystalline, massive, attitude of bedding 45°/20°NW, opposite sample 8041
8154	7	light-grey to blotchy-white, limestone, massive

Samples 8156 to 8158 were collected farther west along cliff; they are stratigraphically equivalent to the upper part of sample 8154.

Sample	Stratigraphic Thickness(m)	Description
8156	2	light-grey limestone, massive, attitude of bedding 33°/21°NW, other nearby attitudes of bedding 0°/20°W, 55°/20°NW, 97°/22°N, elevation 7130', chips at 20/25 cm, top of cliff opposite sample 8047
8157	0.8	brownish limestone with elongated sausage-like inclusions to 15 cm
8158	1	light-greyish-brown limestone, massive, fossiliferous
-	~13	covered
8155	3	medium-grey limestone, massive, ends at base of low cliff
8159	6	light-grey limestone, massive, attitude of bedding, 0°/22°W, offset 39 m S
8161	8	light-greyish limestone, attitude of bedding(?) 29°/35°NW, offset ~50 m SE
8162	8	light-grey limestone, cryptocrystalline, massive, attitude of bedding near base 29°/34°NW, offset from sample 8161
8163	7	light-grey limestone, cryptocrystalline, offset back to line with sample 8161
8160	8	light-grey limestone, cryptocrystalline, massive, attitude of bedding 170°/17°W, elevation 6860', offset ~40 m W
8164	7	light-grey to whitish-grey limestone, sucrosic grains 1-2 mm, massive, offset ~12 m S
8165	10	light-grey limestone, cryptocrystalline to grains <1 mm, in part sucrosic with grains 1 mm, on 30° slope
8166	10	light-grey limestone similar to previous interval, attitude of bedding 90°/6°N, attitude of planar feature 156°/11°NE, length 20 m on 30° slope, offset 29 m W
8167	8	whitish-grey to light-grey limestone, partly crystalline/sucrosic, partly cryptocrystalline to grains 1 mm, attitude of bedding 90°/6°N, offset 26 m W
8168	10	light-grey to whitish-grey limestone, cryptocrystalline to sucrosic (1 mm), massive, offset ~15 m W

Sample	Stratigraphic Thickness(m)	Description
8169	10	medium- to light-grey limestone, cryptocrystalline, massive, offset about 25 m W
8170	6	medium- to light-grey limestone, similar to previous interval, base at bottom of cliff

SECTION C-15 ON SOUTHWEST SIDE OF SECOND RIDGE ON CLAIM MAR 13, SHEET C (FIG. 2.3)

Stratigraphic thicknesses are based on one measured attitude of bedding: 97°/20°N.

Sample	Stratigraphic Thickness(m)	Description
8126	10	light- to medium-grey limestone, very fine grained/sucrosic (½ mm), attitude of bedding 97°/20°N, attitude of planar feature (bedding?) 92°/55°N, attitude of joints 15°/70°W, on north-facing cliff
8127	~7½	light- to medium-grey limestone, very fine grained/sucrosic (½ mm)

SECTION C-16 ON SECOND RIDGE SOUTHWESTERLY FROM HIGH PEAK ON CLAIM MAR 1, SHEET C (FIG. 2.3)

The limestone in this section shows little or no bedding or features indicative of bedding. Stratigraphic thicknesses are based on sampling down a 20° slope which may be almost a dip slope along the base of a cliff. It is separated from section C-14 because of the apparent difference in dips between the two sections. If the dips are actually steeper, the order of samples may be from stratigraphic bottom to top.

Sample	Stratigraphic Thickness(m)	Description
8036	~1(?)	light-grey to medium-grey limestone, cryptocrystalline, massive, sampled 10 m on slope, separated from sample 8034 by 26 m of scree and talus
8038	~1(?)	light-grey to medium-grey limestone, cryptocrystalline, massive, sampled 10 m on slope
8039	~1(?)	light-grey to medium-grey limestone, cryptocrystalline, massive, sampled 10 m on slope
8040	~1(?)	light-grey to medium-grey limestone, cryptocrystalline, massive, sampled 10 m on slope
8041	~1(?)	light-grey to medium-grey limestone, cryptocrystalline, massive, sampled 10 m on slope
8042	~1(?)	light-grey to medium-grey limestone, cryptocrystalline, massive, sampled 10 m on slope
8043	~1(?)	light-grey to medium-grey limestone, cryptocrystalline, massive, attitude of planar feature 30°/55°SE, sampled 10 m on slope
8044	~1(?)	light-grey to medium-grey limestone, cryptocrystalline, massive, sampled 10 m on slope
8045	~1(?)	light-greyish limestone, cryptocrystalline, massive, sampled 10 m on slope
8046	~1(?)	light-greyish limestone, cryptocrystalline, massive, sampled 10 m on slope
8047	~1(?)	light-greyish limestone, cryptocrystalline, massive, attitude of planar feature (bedding?) 0°/20°N, sampled 10 m on slope, end at base of cliff

SECTION C-17 ON SECOND RIDGE JUST WEST OF HIGH PEAK ON CLAIM MAR 1, SHEET C (FIG. 2.3)

Stratigraphic thicknesses are based on attitudes of planar features that may be bedding: 175°/90°, 175°/66°W, and 8°/65°W, but bedding in outcrops nearby dips much more gently. Initial observations near this peak indicated the axis of a syncline trending 310°/315° and plunging 15°NW. Alternatively, a low-angle thrust fault may underlie this peak.

Sample	Stratigraphic Thickness(m)	Description
8037	~4½	light-grey limestone, cryptocrystalline, massive, length 6 m horizontal
-	~5(?)	covered
8035	~3½(?)	light-grey limestone, cryptocrystalline, massive, length 5 m horizontal
8034	~8½(?)	light-grey limestone, cryptocrystalline, massive, attitude of planar feature (bedding?) 175°/90°, offset 38 m S, length 10 m on slope
8033	~6(?)	light-grey limestone, cryptocrystalline, massive, length 10 m on 30° slope
8032	~7½(?)	light-grey limestone, cryptocrystalline, massive, length 15 m on 30° slope
8031	~10½(?)	light-grey limestone, cryptocrystalline, massive, length 15 m partly horizontally and partly on slope

SECTION C-18 ON NORTHEAST SIDE OF SECOND RIDGE ON CLAIMS MAR 1 AND 2, CONTINUING NORTHEASTERLY FROM SECTION C-17, SHEET C (FIG. 2.3)

Although Section C-18 continues on the northeast side of the Second Ridge from Section C-17, its samples are in a separate section because of uncertainty about the attitude of bedding. Stratigraphic thicknesses are based on one measured attitude that may not be bedding: 140°/44°SW.

Sample	Stratigraphic Thickness(m)	Description
8172	6½(?)	light-grey limestone, cryptocrystalline, massive, attitude of bedding(?) 140°/44°SW, on cliff facing east, length 10 m vertical
8173	~5½(?)	medium- to light-grey limestone, cryptocrystalline to sucrosic (1 mm), attitude of joints 30°/75°NW, on 20° slope, length ~8½ m vertical, 25 m horizontal
-	~1(?)	grey limestone with chert nodules (not sampled)
8174	~5½(?)	light-grey to whitish-grey limestone, sucrosic with grains 1-2 mm, length ~8½ m vertical
-	~4½(?)	grey limestone with chert nodules, patches, and smears (not sampled)
8175	~3(?)	whitish-grey to light-grey limestone, cryptocrystalline, massive, blobs and patches of yellow-ochre/reddish alteration, length 5 m vertical, 15 m horizontal
8128	6½(?)	light-grey to whitish-grey limestone, cryptocrystalline, massive, on 20° slope, length 10 m vertical, 30 m horizontal
8129	6½(?)	light-grey to whitish-grey limestone, similar to previous intervals, length 10 m vertical, 30 m horizontal
8130	6½(?)	light-grey to whitish-grey limestone, similar to previous intervals, on 20° slope, length 10 m vertical, 30 m horizontal
8131	6½(?)	light-grey to whitish-grey limestone, similar to previous intervals, on 20° slope, length 10 m vertical, 30 m horizontal

SECTION C-19 ON NORTHEAST SIDE OF SECOND RIDGE ON CLAIM MAR 2, SHEET C (FIG. 2.3)

This is a structurally complex section, so some of the stratigraphy is uncertain. Stratigraphic thicknesses are based on observed attitudes of bedding.

Sample	Stratigraphic Thickness(m)	Description
8141	7	white translucent marble, thinly bedded with attitudes 95°/57°S, 90°/54°S, 81°/57°S, 70°/40°S, 96°/49°S, length 11 m horizontally across strike
8142	~9	light-greyish limestone, heavily sheared with attitude 140°/85°-90° S, brown and yellow-ochre alterations and gossan, attitudes of bedding 112°/20°N, length ~10 m horizontally across strike from fault at ~90°
-	~10-15(?)	not sampled
8143	~10	light-grey limestone, cryptocrystalline, massive, attitude of bedding 140°/20°NE, offset ~60 m SW
8140	10	light-grey limestone, cryptocrystalline, massive, attitude of planar feature (bedding?) 149°/15°NE
8139	10	whitish-grey to light-grey limestone, cryptocrystalline, massive, attitudes of bedding 105°/40°N, 123°/45°NE, length 10 m
8135	7	light-greyish to whitish-grey limestone, cryptocrystalline, massive, attitude of bedding 133°/45°NE, offset ~50 m SW, length 10 m vertical
8136	9	light-grey to whitish-grey limestone, cryptocrystalline, massive, attitude of fault plane about mid point 138°/80°E with healed breccia: west side down, length 13 m vertical
8137	3	light-greyish-white limestone, cryptocrystalline, massive, offset ~10 m N, length ~17 m down slope
8138	3	light-greyish to whitish-grey limestone, cryptocrystalline, massive, attitude of bedding 105°/40°N, strike of shear zone at base 20°, length 10 m

SECTION C-20 ON NORTHEAST SIDE OF SECOND RIDGE ON CLAIM MAR 12, SHEET C (FIG. 2.3)

Stratigraphic thickness are based on a bedding attitude of 100°/31°N.

Sample	Stratigraphic Thickness(m)	Description
8058	~6½	light-grey limestone, cryptocrystalline, massive, elevation 7050', down cliff
8059	~4½	medium-grey limestone, grains 1-2 mm, brown blotches/inclusions in ½ m layer, elevation 7020'
8060	~4½	darker-grey limestone, medium-grained, sucrosic, medium-whitish-grey at base, elevation 7000'
8061	~6½	medium-grey limestone at top, dark-grey at mid section, and dark-greyish-brown at base, then 2 m fault with attitude 148°/65°E, elevation 6975'
8062	~6½	light-grey limestone in top 2 m, rest dark-grey-brown, elevation 6945', length 10 m vertical
8063	~6½	medium- to light-grey limestone, cryptocrystalline, massive, elevation 6915', offset ~25 m SW, length 10 m vertical
8064	~6½	medium-grey limestone near top of interval, grading to light-grey at base, elevation 6885', length 10 m vertical
8065	~6½	light-greyish-pinkish-brown limestone on both fresh and weathered surfaces, granitic intrusions nearby(?) elevation 6855', offset 18 m SW, length 10 m vertical
8066	~6½	light-brownish-grey to greyish-brown limestone, cryptocrystalline, massive, elevation 6830', length 10 m vertical
8067	~5	light-grey to whitish-grey limestone, fine-grained/sucrosic (1 mm), attitude of bedding 100°/31°N, attitudes of joints 135°/18°NE and 10°/88°W, elevation 6780', length ~10 m on slope
8068	~5	whitish-grey to light-grey limestone, crystalline, sucrosic (1 mm), partly with grain size 2 mm, elevation ~6750', length ~10 m on slope
8069	~5	whitish-grey to creamy limestone, grain size 2 mm, massive, elevation ~6720', length ~10 m on slope
8070	~5	whitish-grey limestone, sucrosic with grain size 2 mm, massive, attitudes of joints 20°/75°W and 140°/20°NE, elevation ~6690' to 6660', length ~10 m on slope

ISOLATED SAMPLE ON SOUTHWEST SIDE OF SECOND RIDGE ALONG LOCATION LINE OF CLAIMS MAR 14 AND 15, SHEET C (FIG. 2.3)

Sample	Stratigraphic Thickness(m)	Description
8144	~8	whitish- to light-grey limestone, cryptocrystalline, massive, attitude of bedding 60°/2°SE

SECTION C-21 ON SOUTHWEST SIDE OF SECOND RIDGE ON CLAIM MAR 15, SHEET C (FIG. 2.3)

Stratigraphic thicknesses are based on nearby attitudes of bedding: 80°/8°S, 52°/4°SE, 110°/10°S.

Sample	Stratigraphic Thickness(m)	Description
8145	~9	light-grey limestone, cryptocrystalline, massive, attitudes of bedding ~20 m SE 80°/8°S, 52°/4°SE, 110°/10°S 70 m NW along location line of claims is a zone with pinkish veins and stringers of quartz-feldspar 3-4 mm thick
8146	~9	light-grey to whitish limestone, light-pinkish patches containing traces of quartz/feldspar
8147	~8	light-grey to whitish limestone, similar to previous interval but some sheared and brecciated, attitude of fault at base 135°/65°NE, elevation 6780'
8148	~9	light-grey-white limestone, similar to previous intervals

SECTION C-22 ON SOUTHWESTERLY SPUR FROM SECOND RIDGE ON CLAIM MAR 15, SHEET C (FIG. 2.3)

Stratigraphic thicknesses are based on attitudes of bedding: 120°/~10°NE, 110°/~9°NE, 110°/8°NE, 25°/12°SE, 15°/15°SE. The change in attitude is probably caused by faulting.

Sample	Stratigraphic Thickness(m)	Description
8149	~10	light-grey limestone, cryptocrystalline, attitude of bedding 120°/~10°NE, elevation 6830; length 10 m vertical
8150	~9	light-grey limestone, cryptocrystalline, massive, attitude of bedding 110°/~9°NE, length ~9 m vertical
8151	~9	light-grey limestone, cryptocrystalline, massive, attitude of bedding(?) 110°/8°NE, elevation 6770'-6740', length 10 m vertical
8052	~9	light-grey limestone, cryptocrystalline, massive, elevation 6740'-6710', length 10 m vertical
8053	~9	light-grey limestone, cryptocrystalline, massive, attitudes of bedding 73°/17°SE(?), 25°/12°SE, 15°/15°SE, elevation at top 6730', length 10 m vertical
8054	~9	medium-grey limestone, cryptocrystalline to sucrosic with grains ~½ mm, elevation 6680'-6650', length ~10 m vertical
8055	~9	medium-grey limestone, similar to previous interval, length ~10 m vertical
8056	~9	medium-grey limestone, similar to previous intervals, length ~10 m vertical
8057	~9	medium-grey to light-grey limestone, cryptocrystalline to sucrosic with grains ½ mm, elevation ~6580', length 10 m vertical, base on strike of fault with attitude 140°-145°/90°

MISCELLANEOUS SAMPLES ALONG TRAIL CREEK, SHEETS C AND D (FIG. 2.3 and 2.4)

Stratigraphic thicknesses are uncertain because the attitudes of bedding were not identified.

Sample	Stratigraphic Thickness(m)	Description
8554	?	light- to medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm; random chips along about 20 m block of outcrop
8555	?	mostly light-grey limestone with some medium-grey chips, mostly fine-grained to cryptocrystalline with a few calcite crystals to 3 mm in size (horizontal length ~14 m)
8558	?	light-grey and medium-grey chips of limestone, fine-grained to cryptocrystalline with a few calcite crystals to 2-3 mm, few chips with grains to 2 mm throughout, attitude of planar feature 137°/77°SW (across a thickness ~8 m, if the foregoing attitude is actually that of bedding)
8557	?	mostly light-grey limestone with a few medium-grey chips, fine-grained to cryptocrystalline with a few calcite crystals to 2-3 mm in size, odd rusty spot (length ~20 m approximately horizontal)
-	?	covered for ~5 m horizontally between samples 8557 and 8556
8556	?	light- to medium-grey limestone, fine-grained to cryptocrystalline with a few calcite crystals to 2-3 mm in size, some chips with irregular masses of brown material on fractures, attitude of planar feature 120°/75°SW (across a thickness ~12 m, if the foregoing attitude is actually that of the bedding)

SECTION D-1 SLOPE ON NORTHWEST SIDE OF TRAIL CREEK, SHEETS C AND D (FIG. 2.3 and 2.4)

Stratigraphic thicknesses are based on the following attitudes that are interpreted as bedding(?): 175°/29°W, 170°/25°W, 175°/22°W, 175°/19°W, and 175°/22°W.

Sample	Stratigraphic Thickness(m)	Description
8249	13	grey limestone, cryptocrystalline, tough, very few calcite veinlets in upper 10 m and lowest 1 m, with cracks filled with yellow material in the 2 m between, attitude of bedding(?) 175°/29°W, elevation 5390', slope distance 15 m; dark-green schistose volcanic rocks in talus
8250	10	grey limestone, cryptocrystalline, tough, with veinlets of calcite in upper 2 m and lowest 6 m, fine-grained in the 2 m between, slope distance 15 m
8376	10	grey limestone, cryptocrystalline, tough, veinlet of white calcite to 1 mm thick, attitude of bedding (?) 170°/25°W, slope distance 15 m
8377	10	grey limestone, cryptocrystalline, tough, with calcite veinlets
8378	10	grey limestone, cryptocrystalline, tough, with a few veins of white calcite to 4 mm thick
8379	10	grey limestone but light-grey in lowest 2 cm, cryptocrystalline, tough, attitude of bedding(?) 175°/22°W
8380	10	light-grey limestone but grey in lowest 7 m, cryptocrystalline, tough, attitude of bedding(?) 175°/19°W
8381	10	limestone but dark-grey in lowest 6 m, cryptocrystalline, tough, calcite veinlets in upper 4 m
8382	10	grey limestone, cryptocrystalline, tough, local lenses and spots of white calcite, attitude of bedding(?) 175°/22°W, elevation 5215'
8383	15	grey limestone, cryptocrystalline, tough, few veinlets of fine-grained white calcite, elevation 5160'
8384	10	grey limestone, cryptocrystalline, tough, with lenses and spots of white calcite in lowest 3 m

SECTION D-2 ON SOUTH-FACING SLOPE OF TRAIL MOUNTAIN ABOUT 400 METRES NORTH OF TRAIL CREEK ABOVE INITIAL POST FOR CLAIMS MAR 90 AND 91, SHEETS C AND D (FIG. 2.3 and 2.4)

Stratigraphic thicknesses are based on strata essentially flag-lying or dipping gently northeast, although no attitudes of bedding could be measured. These attitudes agree with the very faint differences in color of adjacent strata that were observed.

Sample	Stratigraphic Thickness(m)	Description
8353	~9	light-grey limestone with minor variegated dark-grey mottling, cryptocrystalline, massive, minor calcite veins 1-2 mm, elevation 6180'-6150'
8353 DUP	~9	light-grey limestone similar to sample 8353 elevation 6150'-6120'
8354	~9	whitish-grey limestone grading to light-grey, cryptocrystalline, generally massive, elevation 6120'-6090'
8355	~9	whitish-grey to light-grey limestone, cryptocrystalline, massive, elevation 6090'-6060'
8356	~9	light-grey limestone, cryptocrystalline, massive, elevation 6060'-6030'
8357	~9	grey limestone becoming light-grey towards bottom, cryptocrystalline, dense, massive, elevation 6090'-6000'
8358	~9	light-greyish limestone, cryptocrystalline, massive, elevation 6000'-5970'
8359	~9	light-grey to grey limestone similar to above, cryptocrystalline, massive, elevation 5970'-5940'
8360	~9	dark-grey to grey limestone in upper metre becoming grey to light-grey with fine mottling in next metre, thence light-grey, cryptocrystalline, massive, lowest ½ m foliated and sheared(?) with attitude 167°/~90°
8361	~9	light-grey to grey limestone with variegated mottling (2 mm) becoming in part sucrosic with grain size 1 mm, yellow-ochre-colored inclusions 2-3 cm in size, elevation 5910'-5880'
8362	~9	light-grey limestone, cryptocrystalline, massive, with some indications of horizontal stratification, variegated with dark-grey mottles 2 mm in size in upper metre, minor sucrosic (1 mm) - recrystallized(?), elevation 5880'-5850'

Sample	Stratigraphic Thickness(m)	Description
8363	~6	light-grey limestone, cryptocrystalline, massive, some with dark-grey mottling, minor sucrosic with grain size 1 mm, minor calcite veinlets 2 mm wide, elevation 5850'-5820'
-	~1	dark-grey limestone, cryptocrystalline, with cherty smears and inclusions 1-3 cm in size (not sampled)
8364	~8	whitish-grey limestone, cryptocrystalline, massive, dense, elevation 5820'-5795'
-	~15	covered
8365	~3	grey limestone, mostly cryptocrystalline but partly sucrosic with grains to 2 mm, minor calcite veinlets 2-3 mm thick, elevation 5795', offset 30 m east from 8364

SECTION D-3 NORTHWEST OF UPPER PART OF TRAIL CREEK, SHEETS C AND D (FIG. 2.3 and 2.4)

Stratigraphic thicknesses are based on the attitudes of two planar features which are interpreted as bedding: 120°/08°SW and 138°/10°SW.

Sample	Stratigraphic Thickness(m)	Description
8759	5?	highly variable limestone, fine-grained to sugary with grains about ½ mm to 1-2 mm, light-grey, odd chip of coarse calcite, some rusty or brown material on fracture surfaces, small amounts of chert in some intervals, chips at 1-m intervals for about 22 m down slope, attitude of planar feature 123°/44°NE
8760	~5	variable limestone, light-grey, cryptocrystalline to fine-grained with few calcite grains to 2-3 mm, some chips light-grey and sugary with grains 1-2 mm, brown material on fractures, some irregular and disseminated chert masses in upper part
8761	~8	mostly medium-light-grey limestone, but one chip of dark-grey sugary limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, some irregular chert masses near base
8762	~8	mostly light-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm in size, odd veinlet of white calcite

Sample	Stratigraphic Thickness(m)	Description
8763	~8	mostly light-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, odd chip with grains 1-2 mm in size
8764	~8	light- to medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, few white calcite veins, attitude of bedding(?) 120°/08°SW
8765	~8	limestone, some chips light- to medium-grey and fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, some chips light-grey and sugary with grains 1-2 mm, others with grains to 2-4 mm
8766	~8	limestone, some chips light-grey and fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, some with grains ¼-1 mm, some with coarser white calcite, white calcite veins to 4 mm thick, attitude of prominent joints 40°/87°, attitude of prominent planar feature 153°/63°SW, sample location offset about 40 m @ 220°
8767	~9½	limestone, some chips light-grey and fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, some sugary with grains ½ - 1 - 2 mm, white calcite veinlets, brown material along fractures
8768	~9	variable limestone, some chips light-grey and fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, other chips with grains 1-2 mm in size, few chips of coarse white calcite some in veins with attitude 112°/76°NE, some brown material along fractures
8769	~8	variable limestone, some chips of coarse white calcite, others light-grey and fine-grained to cryptocrystalline with few calcite grains to 1-2 mm, some buff-white chert, attitude of prominent planar feature 25°/82°SE
8770	~7	variable limestone, some chips of coarse white calcite and white calcite veinlets, others light- to medium-grey and fine-grained to cryptocrystalline or with grain size to 2 mm, large coral 30 cm in size, minor brown material on fractures, some chert(?), attitude of bedding 138°/10°SW

SECTION D-4 UPPER PART OF TRAIL MOUNTAIN, SHEET D (FIG. 2.4)

Stratigraphic thicknesses are based on the attitudes of two planar features which are interpreted as bedding : 160°/27°NE and 145°/10°NE.

Sample	Stratigraphic Thickness(m)	Description
8251	~10	light- to light-medium-grey limestone, mostly fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, few chips of coarser-grained calcite, attitude of foliation 142°/75°NE, elevation at top 6950'
8252	~8	medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, elevation at base 6880'
-	~3	covered
8253	~10	medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm
8254	~8	medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, some brownish material along fractures, attitude of bedding(?) 160°/27°NE, elevation at base 6820'
8255	~8	medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, some white calcite veins, chert in ½-1 m near middle of interval, elevation at base 6790'
8256	~8	medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, elevation at base 6780'
8257	~8	medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, attitude of planar feature 50°/22°SE, elevation 6770'
8258	~8	medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, some massive and hard to chip, attitude of planar feature 55°/43°SE, elevation 6740'
8259	~8	medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, elevation at base 6710'
8260	~8	medium- to light-grey limestone,fine-grained to cryptocrystalline with few calcite grains to 2-3 mm
8261	~8	medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm

Sample	Stratigraphic Thickness(m)	Description
8262	~8	medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, coarse white calcite in lowest 2 m, whitish limestone farther to SW, bearing from coarse white calcite to notch on horizon outline of mountain to SE 147° - probably a fault, elevation at base 6650'
8748	~8	light-grey limestone, some chips fine-grained, some with 50% coarse white calcite grains ½-2 mm, some greyer chips with grains 1-2-3 mm, some brown material on fractures, attitude of bedding(?) 145°/10°NE, at elevation 6670' grey-whitish irregular masses of chert extending 30-50 cm, attitude of prominent joints 10°/90°
8749	~8	limestone very similar to that in sample 8748, one chip medium-grey
8750	~8	medium- to light-grey limestone, fine-grained to cryptocrystalline with some calcite grains to 1-2 mm, some white calcite, some chert in lower part
8751	~9	light-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, some chips somewhat coarser-grained, white calcite veinlets
8752	~8	mostly light- to light-medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, few white calcite veinlets
8753	~8	light-medium- to medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, few white calcite veinlets
8754	~8	medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, few white calcite veinlets, whitish-grey-buff irregular masses of chert in lowest 2 m or so, elevation 6630', sampled in cleft bearing 129°
8755	~8	medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, from massive cliff
8756	~8	medium-light-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, from massive cliff, elevation at base 6590'
8757	~8	light-medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, coarse white calcite in cleft, elevation at base 6580'

Sample	Stratigraphic Thickness(m)	Description
8758	~8	light-medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, some white calcite veinlets, elevation at base 6550', base at base of cliff

SECTION D-5 NORTHWEST SPUR OF TRAIL MOUNTAIN, SHEET D (FIG. 2.4)

Stratigraphic thicknesses are based on the attitude of one planar feature which is interpreted as bedding: 145°/47°NE.

Sample	Stratigraphic Thickness(m)	Description
8216	~8	medium- to light-grey limestone, some chips fine-grained to cryptocrystalline with few calcite grains to 2-3 mm, others rubbly, attitude of bedding(?) 145°/47° NE, elevation at top 5870'
8717	~8	light- to medium-grey limestone, fine-grained to cryptocrystalline with few calcite grains to 2-3 mm

SINGLE SAMPLE FROM NEAR TOP OF MOUNT BOWMAN, NORTH OF SHEET D

Sample	Stratigraphic Thickness(m)	Description
8553	~8	light-grey limestone, cryptocrystalline to fine-grained, attitudes of planar features 133°/24°NE, 133°/84°SW, elevation 7260' at top of Mt. Bowman, near cairn at NW end of ridge at top of Mt. Bowman; down fairly gentle slope on SW side of Mt. Bowman at elevation 7120' - foliated coarse-grained white calcite with attitude of foliation 135°/65°SW (fault), foliation only local at elevation 7060' - fine-grained white calcitic limestone to edge of gentle grassy slope

APPENDIX 10: ADJUSTED ANALYSES FOR SAMPLES ANALYZED BY LORING LABORATORIES LTD. AND UNION ASSAY OFFICE INC.

	WEIGHT PER CENT									
	LORING									
SAMPLE	ADJUSTED CaO	MgO	ADJUSTED LO I	ACID INSOL	R2O3	ADJUSTED TOTAL	CaO	LO I	LO I- CO2 EQ	TOTAL
7928	54.79	0.38	43.61	0.44	0.12	99.34	54.79	43.14	-0.27	98.87
7929	55.15	0.36	43.87	0.28	0.10	99.76	55.15	43.10	-0.57	98.99
7930	53.73	0.50	42.91	2.21	0.13	99.48	53.73	42.24	-0.47	98.81
7931	53.75	0.50	42.93	2.08	0.17	99.43	53.75	42.10	-0.63	98.60
7932	54.66	0.50	43.64	0.89	0.12	99.82	54.71	42.85	-0.63	99.07
7933	54.33	0.43	43.31	1.51	0.15	99.73	54.33	42.58	-0.53	99.00
7934	54.51	0.43	43.45	0.82	0.15	99.36	54.51	42.76	-0.49	98.67
7935	54.69	0.36	43.51	0.48	0.09	99.13	54.69	42.55	-0.76	98.17
7936	55.29	0.36	43.98	0.12	0.07	99.82	55.51	42.68	-1.28	98.74
7937	55.29	0.36	43.99	0.15	0.05	99.84	55.49	42.65	-1.29	98.70
7938	54.89	0.36	43.67	0.28	0.08	99.28	54.89	42.36	-1.11	97.97
7939	55.29	0.36	43.98	0.12	0.05	99.81	55.65	42.43	-1.64	98.61
7940	55.03	0.33	43.75	0.27	0.05	99.43	55.03	42.31	-1.24	97.99
7941	55.09	0.33	43.79	0.23	0.08	99.52	55.09	42.71	-0.88	98.44
7942	55.05	0.30	43.73	0.73	0.05	99.86	55.15	41.93	-1.68	98.16
7943	54.19	0.35	43.11	2.10	0.08	99.83	54.33	41.41	-1.61	98.27
7944	54.89	0.33	43.64	0.33	0.08	99.27	54.89	42.01	-1.43	97.64
7945	54.43	0.32	43.27	1.16	0.06	99.24	54.43	41.51	-1.56	97.48
7946	50.36	3.76	43.83	1.54	0.18	99.67	50.36	42.22	-1.41	98.06
7947	54.71	0.46	43.64	0.44	0.06	99.31	54.71	42.12	-1.32	97.79
7948	54.73	0.36	43.55	0.53	0.11	99.28	54.73	43.15	-0.20	98.88
7949	54.69	0.43	43.59	0.73	0.08	99.52	54.69	43.18	-0.21	99.11
7950	54.71	0.48	43.66	0.61	0.09	99.55	54.71	43.22	-0.24	99.11
8501	55.35	0.28	43.94	0.23	0.05	99.85	55.49	42.75	-1.10	98.80
8502	55.13	0.32	43.82	0.16	0.05	99.48	55.13	42.87	-0.75	98.53
8503	55.45	0.28	44.02	0.08	0.03	99.87	55.60	42.74	-1.20	98.73
8504	55.45	0.28	44.02	0.07	0.03	99.85	55.45	43.02	-0.80	98.85
8505	55.11	0.28	43.76	0.12	0.09	99.36	55.11	43.19	-0.37	98.79
8506	54.07	0.28	42.94	1.32	0.22	98.83	54.07	42.66	-0.08	98.55

APPENDIX 10: ADJUSTED ANALYSES FOR SAMPLES ANALYZED BY LORING LABORATORIES LTD. AND UNION ASSAY OFFICE INC.

	WEIGHT PER CENT									
	LORING									
SAMPLE	ADJUSTED CaO	MgO	ADJUSTED LO I	ACID INSOL	R2O3	ADJUSTED TOTAL	CaO	LO I	LO I- CO2 EQ	TOTAL
8507	55.44	0.27	44.00	0.11	0.05	99.87	55.48	42.74	-1.10	98.65
8508	55.48	0.25	44.02	0.07	0.03	99.85	55.71	42.68	-1.31	98.74
8509	55.48	0.25	44.01	0.04	0.05	99.83	55.73	42.56	-1.45	98.63
8510	55.47	0.25	44.01	0.09	0.05	99.87	55.53	42.79	-1.06	98.71
8511	55.44	0.22	43.95	0.15	0.05	99.82	55.75	42.66	-1.33	98.83
8512	55.48	0.25	44.01	0.07	0.03	99.85	55.73	42.62	-1.39	98.70
8513	55.45	0.25	43.99	0.08	0.03	99.80	55.89	42.63	-1.51	98.88
8514	55.39	0.27	43.97	0.12	0.05	99.80	55.79	42.64	-1.44	98.87
8515	54.89	0.45	43.77	0.40	0.08	99.59	54.89	42.85	-0.72	98.67
8516	54.91	0.45	43.78	0.41	0.08	99.63	54.91	42.47	-1.11	98.32
8517	55.01	0.38	43.79	0.37	0.05	99.60	55.01	42.52	-1.07	98.33
8518	54.61	0.43	43.53	1.09	0.14	99.80	54.61	42.73	-0.60	99.00
8519	53.81	0.53	43.01	1.09	0.27	98.71	53.81	42.51	-0.30	98.21
8520	55.18	0.36	43.90	0.18	0.12	99.73	55.61	43.42	-0.62	99.69
8521	55.50	0.18	43.96	0.15	0.05	99.84	55.71	42.54	-1.38	98.63
8522	55.48	0.18	43.94	0.16	0.05	99.81	55.81	42.31	-1.69	98.51
8523	55.44	0.18	43.91	0.21	0.06	99.79	55.81	42.15	-1.85	98.41
8524	54.78	0.33	43.55	0.49	0.40	99.55	55.01	43.45	-0.08	99.68
8525	55.23	0.36	43.93	0.14	0.10	99.76	55.61	42.92	-1.12	99.13
8526	55.10	0.43	43.91	0.32	0.08	99.83	55.21	42.17	-1.63	98.21
8527	55.05	0.50	43.95	0.32	0.05	99.87	55.11	42.39	-1.41	98.37
8528	55.28	0.36	43.98	0.16	0.05	99.83	55.51	42.02	-1.94	98.10
8529	55.01	0.43	43.84	0.43	0.08	99.79	55.31	42.00	-1.88	98.25
8530	53.09	1.99	44.04	0.61	0.08	99.81	53.31	42.43	-1.58	98.42
8531	43.99	8.27	43.80	1.56	0.46	98.08	43.99	43.80	0.25	98.08
8532	53.52	1.89	44.26	0.11	0.06	99.84	53.69	41.74	-2.46	97.49
8533	55.30	0.40	44.04	0.07	0.05	99.86	55.39	42.16	-1.75	98.07
8534	54.53	0.50	43.54	0.65	0.19	99.41	54.53	42.71	-0.63	98.58
8535	55.60	0.08	43.92	0.16	0.06	99.82	55.85	41.56	-2.36	97.71

APPENDIX 10: ADJUSTED ANALYSES FOR SAMPLES ANALYZED BY LORING LABORATORIES LTD. AND UNION ASSAY OFFICE INC.

	WEIGHT PER CENT									
	LORING									
SAMPLE	ADJUSTED CaO	MgO	ADJUSTED LO I	ACID INSOL	R2O3	ADJUSTED TOTAL	CaO	LO I	LO I- CO2 EQ	TOTAL
8536	55.52	0.15	43.94	0.17	0.05	99.83	55.75	41.95	-1.97	98.07
8537	55	0.13	43.97	0.12	0.05	99.87	55.65	41.82	-2.00	97.77
8551	54.42	0.40	43.25	1.16	0.44	99.67	54.42	43.37	0.22	99.79
8552	55.30	0.28	43.70	0.20	0.36	99.84	55.30	43.81	0.10	99.95
8553	55.01	0.32	43.72	0.10	0.40	99.55	55.24	43.26	-0.44	99.32
8554	55.12	0.27	43.75	0.20	0.27	99.61	55.54	43.25	-0.63	99.53
8555	55.00	0.32	43.71	0.18	0.33	99.54	55.52	43.76	-0.16	100.11
8556	54.96	0.28	43.64	0.22	0.40	99.50	55.44	43.24	-0.57	99.58
8557	54.73	0.30	43.48	0.10	0.61	99.21	55.76	43.27	-0.82	100.04
8558	55.22	0.17	43.72	0.10	0.32	99.54	55.81	43.05	-0.94	99.45
	UNION ASSAY									
7928	54.73	0.38	43.56	0.45	0.44	99.56	54.76	42.55	-0.84	98.58
7931	53.37	0.46	42.66	2.35	0.40	99.24	53.37	42.66	0.27	99.24
7936	54.94	0.07	43.27	0.13	0.08	98.49	54.94	43.27	0.08	98.49
7941	54.76	0.14	43.48	0.25	0.12	98.75	54.76	43.48	0.35	98.75
8501	54.94	0.26	43.60	0.19	0.12	99.11	54.94	42.40	-1.00	97.91
8502	54.94	0.23	44.14	0.08	0.20	99.59	54.94	44.14	0.77	99.59
8503	54.94	0.20	44.44	0.08	0.08	99.74	54.94	44.44	1.10	99.74
8507	55.11	0.14	43.60	0.11	0.12	99.08	55.11	42.97	-0.43	98.45
8509	54.76	0.20	44.37	0.11	0.16	99.60	54.76	44.37	1.18	99.60
8512	54.94	0.23	44.06	0.08	0.08	99.39	54.94	44.06	0.69	99.39
8514	55.11	0.25	43.67	0.05	0.12	99.20	55.11	43.67	0.15	99.20
8522	54.94	0.14	43.47	0.16	0.12	98.83	54.94	43.14	-0.13	98.50
8535	55.28	0.00	43.58	0.16	0.08	99.10	55.28	42.55	-0.83	98.07
8537	55.28	0.07	43.66	0.08	0.08	99.17	55.28	43.20	-0.26	98.71

APPENDIX 11: ADJUSTED ANALYSES FOR SAMPLES ANALYZED BY ACME ANALYTICAL LABORATORIES LTD.

WEIGHT PER CENT

SAMPLE	MgO	CaO	R2O3	OTHER	LOI	SUM	LOI - CO2 EQ	RE-GRESSION CaO	LOI BASED CaO	IMPURITY BASED CaO
8001	2.91	52.38	0.49	1.39	42.8	99.96	-1.48	52.46	51.33	51.45
8002	0.24	55.71	0.38	1.48	42.2	99.98	-1.78	54.87	54.46	54.59
8003	1.80	54.60	0.30	0.68	42.6	99.97	-2.21	54.06	53.08	53.26
8004	0.72	55.78	0.63	0.50	42.4	99.99	-2.16	54.92	54.28	54.44
8005	1.61	54.64	0.46	0.49	42.8	99.99	-1.84	54.09	53.35	53.50
8006	2.69	53.34	0.47	0.61	42.9	99.99	-1.90	53.15	52.01	52.16
8007	0.22	56.67	0.52	0.40	42.2	99.97	-2.51	55.56	54.96	55.14
8008	2.83	52.96	0.54	0.66	43.0	99.97	-1.65	52.88	51.80	51.93
8009	0.36	56.03	0.39	0.54	42.7	99.99	-1.67	55.10	54.85	54.98
8010	0.62	55.44	0.41	0.72	42.8	99.96	-1.39	54.67	54.46	54.56
8011	0.28	55.70	0.50	0.62	42.9	99.97	-1.12	54.86	54.88	54.96
8012	1.00	54.58	0.71	0.99	42.7	99.96	-1.23	54.05	53.70	53.79
8013	0.32	55.90	0.43	0.72	42.6	99.95	-1.62	55.01	54.77	54.90
8014	0.19	55.97	0.51	0.52	42.8	99.98	-1.33	55.06	55.01	55.11
8014 RE	0.19	55.96	0.51	0.51	42.8	99.96	-1.32	55.05	55.01	55.12
8015	0.12	55.79	0.43	0.66	43.0	99.99	-0.91	54.93	55.09	55.16
8016	0.25	55.85	0.40	0.52	43.0	100.00	-1.10	54.97	55.02	55.10
8017	0.42	54.53	0.42	1.83	42.8	99.98	-0.45	54.01	54.13	54.16
8018	0.29	55.82	0.41	0.77	42.7	99.95	-1.42	54.95	54.82	54.92
8019	0.23	56.22	0.45	0.50	42.6	99.96	-1.77	55.24	54.99	55.11
8020	0.22	56.25	0.30	0.35	42.9	100.00	-1.49	55.26	55.18	55.29
8021	0.20	55.95	0.46	0.31	43.1	99.98	-1.03	55.04	55.18	55.25
8022	0.22	55.67	0.44	0.58	43.1	99.97	-0.83	54.84	55.03	55.08
8023	0.24	55.94	0.40	0.33	43.1	99.98	-1.06	55.04	55.15	55.22
8024	0.22	55.82	0.46	0.45	43.1	100.01	-0.95	54.95	55.08	55.15
8025	0.27	55.63	0.63	0.63	42.8	99.93	-1.15	54.81	54.81	54.90
8026	0.03	56.15	0.33	0.58	42.9	99.95	-1.20	55.19	55.29	55.37
8027	0.19	55.88	0.32	0.43	43.2	99.98	-0.86	54.99	55.22	55.27
8028	0.19	55.22	0.46	0.71	43.4	99.97	-0.14	54.51	55.02	55.04
8029	0.17	53.81	0.61	1.64	43.3	100.00	0.88	53.49	54.25	54.45
8030	0.18	55.65	0.52	0.56	43.1	99.98	-0.77	54.83	55.04	55.10
8031	0.23	55.69	0.36	0.54	43.2	99.97	-0.76	54.85	55.10	55.14
8032	0.21	56.00	0.52	0.42	42.9	100.01	-1.28	55.08	55.05	55.14
8033	0.21	56.17	0.47	0.55	42.6	99.98	-1.71	55.20	54.96	55.10
8034	0.22	56.14	0.47	0.41	42.8	100.00	-1.50	55.18	55.06	55.16
8035	0.27	55.69	0.38	0.65	43.0	99.95	-1.00	54.85	54.96	55.02
8036	0.31	55.52	0.58	0.50	43.1	99.97	-0.81	54.73	54.90	54.95
8037	0.20	56.00	0.33	0.56	42.9	99.96	-1.27	55.08	55.09	55.18
8038	0.26	56.19	0.22	0.35	43.0	99.98	-1.38	55.22	55.20	55.29
8039	0.32	55.70	0.31	0.65	43.0	99.95	-1.06	54.86	54.93	55.00
8040	0.26	56.41	0.24	0.47	42.6	99.93	-1.95	55.38	55.08	55.22
8041	0.25	56.13	0.35	0.39	42.9	99.97	-1.42	55.17	55.11	55.21
8042	0.25	55.83	0.38	0.55	43.0	99.97	-1.09	54.96	55.03	55.10
8043	0.26	55.73	0.35	0.46	43.2	99.97	-0.82	54.88	55.10	55.16
8044	0.46	55.57	0.32	0.45	43.2	99.96	-0.91	54.77	54.89	54.94
8045	0.27	55.81	0.27	0.75	42.9	99.97	-1.19	54.94	54.94	55.03
8046	0.27	55.78	0.43	0.85	42.6	99.91	-1.47	54.92	54.77	54.88
8047	0.24	56.09	0.38	0.38	42.9	99.96	-1.38	55.14	55.11	55.21
8048	0.29	55.65	0.33	0.52	43.2	99.96	-0.79	54.83	55.04	55.10
8049	1.14	53.01	0.82	1.20	43.8	99.97	0.95	52.91	53.51	53.45
8050	0.36	55.59	0.20	0.69	43.2	99.99	-0.82	54.78	54.95	55.00
8051	0.29	55.06	0.47	0.75	43.3	99.90	-0.23	54.40	54.85	54.89
8052	0.27	54.42	0.40	1.30	43.4	99.82	0.40	53.93	54.66	54.65
8053	0.29	54.71	0.29	1.18	43.4	99.89	0.15	54.14	54.75	54.75
8054	0.23	55.52	0.32	0.40	43.5	99.94	-0.32	54.73	55.22	55.24
8055	0.46	55.22	0.36	0.58	43.3	99.93	-0.54	54.51	54.79	54.85

APPENDIX 11: ADJUSTED ANALYSES FOR SAMPLES ANALYZED BY ACME ANALYTICAL LABORATORIES LTD.

WEIGHT PER CENT

SAMPLE	MgO	CaO	R2O3	OTHER	LOI	SUM	LOI - CO2 EQ	RE-GRESSION CaO	LOI BASED CaO	IMPURITY BASED CaO
8056	0.08	55.21	0.41	1.27	42.9	99.89	-0.52	54.51	54.82	54.88
8057	0.16	54.59	0.58	1.41	43.1	99.85	0.08	54.06	54.61	54.61
8058	0.10	56.07	0.43	0.31	43.1	99.94	-1.01	55.13	55.34	55.38
8059	0.04	55.99	0.38	0.48	43.1	99.94	-0.88	55.07	55.34	55.39
8060	0.09	54.17	1.24	1.00	43.4	99.91	0.79	53.75	54.60	54.56
8061	0.17	55.83	0.56	0.57	43.1	100.11	-0.90	54.96	55.06	55.08
8062	2.88	52.26	0.65	0.56	43.6	99.93	-0.56	52.37	51.82	51.86
8063	0.24	55.01	0.62	0.87	43.1	99.86	-0.33	54.36	54.76	54.80
8064	0.12	55.32	0.49	1.13	42.8	99.88	-0.75	54.59	54.79	54.87
8065	0.56	55.38	0.51	0.35	43.1	99.90	-0.97	54.63	54.70	54.77
8066	0.68	55.03	0.46	0.60	43.1	99.88	-0.83	54.38	54.45	54.53
8067	2.59	52.45	0.51	0.65	43.7	99.91	-0.29	52.51	52.20	52.23
8068	0.68	56.03	0.32	0.27	42.7	99.94	-2.01	55.10	54.66	54.79
8069	0.06	56.41	0.27	0.27	43.0	99.95	-1.34	55.38	55.46	55.54
8070	0.01	56.61	0.33	0.28	42.7	99.86	-1.74	55.52	55.46	55.56
8070 RE	0.01	56.81	0.30	0.31	42.6	99.95	-2.00	55.67	55.44	55.56
8071	0.08	55.53	0.70	0.75	43.1	100.07	-0.57	54.74	55.00	55.01
8072	0.08	55.79	0.67	0.41	43.1	99.98	-0.77	54.93	55.18	55.22
8073	0.15	55.87	0.53	0.57	43.1	100.15	-0.91	54.98	55.07	55.12
8074	0.07	56.14	0.43	0.46	43.0	100.03	-1.14	55.18	55.27	55.33
8075	0.15	56.62	0.30	0.22	42.9	100.08	-1.70	55.53	55.36	55.45
8126	0.22	56.11	0.27	0.50	42.9	99.97	-1.38	55.16	55.13	55.23
8127	0.23	56.18	0.25	0.35	43.0	99.98	-1.34	55.21	55.21	55.31
8128	0.23	55.99	0.27	0.50	43.0	99.96	-1.19	55.07	55.13	55.22
8129	0.24	55.84	0.28	0.77	42.9	100.00	-1.19	54.96	54.96	55.04
8130	0.37	55.56	0.34	0.65	43.1	99.99	-0.91	54.76	54.86	54.93
8131	0.60	55.33	0.38	0.69	43.0	99.98	-1.08	54.59	54.53	54.61
8132	0.29	56.54	0.31	0.22	42.6	99.88	-2.09	55.47	55.16	55.28
8133	0.23	56.19	0.23	0.38	43.0	99.98	-1.35	55.22	55.22	55.31
8134	0.22	56.06	0.38	0.36	43.0	100.00	-1.24	55.12	55.15	55.25
8135	0.18	56.56	0.34	0.34	42.6	99.99	-1.98	55.48	55.17	55.32
8136	0.18	56.20	0.43	0.46	42.7	99.95	-1.60	55.22	55.08	55.21
8136 RE	0.19	56.08	0.43	0.55	42.8	100.01	-1.42	55.14	55.04	55.14
8137	0.13	56.31	0.30	0.45	42.8	99.97	-1.53	55.30	55.22	55.35
8138	0.14	56.30	0.23	0.72	42.6	99.96	-1.74	55.30	55.09	55.22
8139	0.15	56.38	0.32	0.37	42.8	99.97	-1.61	55.35	55.25	55.35
8140	0.16	56.40	0.26	0.41	42.8	99.98	-1.64	55.37	55.24	55.36
8141	0.04	56.05	0.47	1.15	42.3	99.97	-1.73	55.12	54.84	54.96
8142	0.17	56.20	0.39	0.77	42.5	99.97	-1.79	55.22	54.95	55.07
8143	0.20	56.41	0.49	0.30	42.6	99.96	-1.89	55.38	55.10	55.24
8144	0.04	56.15	0.31	0.50	42.9	99.89	-1.21	55.19	55.32	55.41
8145	0.01	55.53	0.49	0.87	43.0	99.88	-0.59	54.74	55.10	55.14
8146	0.01	55.26	0.32	1.93	42.5	99.95	-0.88	54.54	54.60	54.65
8147	0.15	54.61	0.58	1.04	43.5	99.89	0.48	54.07	54.86	54.83
8148	1.70	52.87	0.73	0.86	43.8	99.93	0.45	52.81	53.08	53.03
8149	0.11	55.12	0.42	0.73	43.6	99.93	0.22	54.44	55.18	55.14
8150	0.24	54.93	0.75	0.64	43.4	99.93	0.03	54.30	54.87	54.86
8151	0.39	55.96	0.42	0.73	42.5	99.98	-1.84	55.05	54.67	54.81
8152	0.38	55.58	0.64	0.70	42.7	99.96	-1.33	54.77	54.63	54.72
8153	0.31	56.25	0.26	0.55	42.6	99.93	-1.88	55.26	54.97	55.10
8154	0.26	56.22	0.29	0.64	42.6	99.97	-1.81	55.24	54.96	55.09
8155	0.30	56.31	0.37	0.55	42.5	99.97	-2.02	55.30	54.92	55.05
8156	0.14	55.59	0.28	0.63	43.3	99.89	-0.48	54.78	55.23	55.24
8157	0.11	55.37	0.31	0.51	43.6	99.88	0.03	54.62	55.34	55.33
8158	0.14	55.63	0.37	0.61	43.2	99.90	-0.61	54.81	55.18	55.20
8159	0.11	56.33	0.15	0.55	42.8	99.89	-1.53	55.32	55.30	55.39

APPENDIX 11: ADJUSTED ANALYSES FOR SAMPLES ANALYZED BY ACME ANALYTICAL LABORATORIES LTD.

WEIGHT PER CENT

SAMPLE	MgO	CaO	R2O3	OTHER	LOI	SUM	LOI - CO2 EQ	RE-GRESSION CaO	LOI BASED CaO	IMPURITY BASED CaO
8160	0.05	56.44	0.25	0.48	42.8	99.91	-1.55	55.40	55.38	55.45
8161	0.07	56.17	0.13	0.46	43.1	99.87	-1.06	55.20	55.45	55.50
8162	0.68	55.00	0.27	0.88	43.1	99.89	-0.81	54.35	54.43	54.47
8163	0.08	55.41	0.26	1.47	42.7	99.88	-0.87	54.65	54.80	54.85
8164	0.02	56.30	0.18	0.40	43.1	99.93	-1.11	55.30	55.51	55.57
8165	0.06	56.16	0.23	0.45	43.0	99.87	-1.14	55.20	55.39	55.46
8166	0.08	56.37	0.23	0.39	42.9	99.91	-1.43	55.35	55.39	55.48
8167	0.40	55.83	0.22	0.81	42.7	99.89	-1.55	54.96	54.78	54.87
8168	0.05	56.34	0.16	0.49	42.9	99.88	-1.37	55.33	55.42	55.49
8169	0.05	56.27	0.23	0.39	43.0	99.90	-1.22	55.27	55.43	55.51
8170	0.09	56.21	0.18	0.41	43.1	99.93	-1.11	55.23	55.42	55.48
8171	0.09	56.19	0.17	0.40	43.1	99.90	-1.10	55.22	55.43	55.49
8172	0.08	56.42	0.22	0.32	43.0	99.93	-1.37	55.38	55.47	55.52
8173	0.38	55.93	0.18	0.45	43.0	99.90	-1.31	55.03	55.03	55.12
8174	0.04	56.62	0.16	0.26	43.0	99.96	-1.48	55.53	55.58	55.63
8174 RE	0.04	56.47	0.22	0.22	43.1	99.95	-1.26	55.42	55.57	55.62
8175	0.06	56.39	0.25	0.34	42.9	99.88	-1.42	55.36	55.43	55.52
8176	0.03	56.78	0.20	0.22	42.7	99.85	-1.89	55.64	55.54	55.65
8177	0.01	56.70	0.15	0.27	42.8	99.87	-1.71	55.59	55.57	55.67
8178	0.04	56.83	0.13	0.21	42.8	99.91	-1.84	55.68	55.59	55.68
8179	0.10	56.71	0.37	0.14	42.7	99.95	-1.92	55.59	55.39	55.51
8180	0.16	56.09	0.45	0.20	43.1	99.94	-1.09	55.14	55.30	55.36
8181	0.20	56.55	0.29	0.19	42.8	99.95	-1.80	55.48	55.31	55.41
8182	0.19	56.31	0.30	0.16	43.0	99.92	-1.40	55.30	55.34	55.44
8183	0.13	56.41	0.50	0.15	42.8	99.93	-1.61	55.38	55.30	55.40
8184	0.07	56.50	0.46	0.36	42.6	99.95	-1.82	55.44	55.25	55.37
8185	0.03	56.58	0.54	0.43	42.3	99.85	-2.14	55.50	55.19	55.34
8186	0.05	56.29	0.31	0.36	43.0	99.94	-1.23	55.29	55.42	55.48
8187	0.01	55.91	0.42	1.16	42.5	99.94	-1.39	55.01	54.94	55.02
8188	0.19	56.41	0.39	0.87	42.1	99.94	-2.38	55.38	54.81	54.98
8189	0.19	56.60	0.53	0.31	42.4	100.02	-2.23	55.51	55.04	55.22
8190	0.20	56.22	0.46	0.45	42.6	99.93	-1.74	55.24	55.03	55.17
8191	0.14	55.89	0.45	1.26	42.2	99.94	-1.82	55.00	54.64	54.79
8192	0.19	55.35	0.68	1.29	42.4	99.92	-1.25	54.61	54.48	54.59
8193	0.12	55.95	0.63	0.46	42.8	99.97	-1.24	55.04	55.05	55.17
8194	0.01	56.14	0.61	0.66	42.5	99.92	-1.57	55.18	55.06	55.19
8195	0.12	54.68	0.91	1.88	42.3	99.90	-0.74	54.12	54.14	54.21
8196	0.47	56.26	0.09	0.67	42.5	99.98	-2.17	55.27	54.77	54.94
8197	0.27	55.43	0.49	0.83	42.9	99.92	-0.90	54.67	54.78	54.86
8198	0.27	55.65	0.50	0.77	42.7	99.89	-1.27	54.83	54.78	54.89
8199	0.32	55.85	0.63	0.42	42.7	99.94	-1.48	54.97	54.82	54.95
8199 RE	0.31	56.30	0.60	0.36	42.4	99.96	-2.12	55.30	54.85	55.01
8200	0.32	55.88	0.59	0.40	42.8	99.98	-1.40	54.99	54.87	54.99
8201	0.32	56.02	0.47	0.50	42.6	99.91	-1.71	55.09	54.86	55.00
8202	0.25	56.04	0.40	0.68	42.6	99.97	-1.65	55.11	54.88	55.02
8203	0.23	56.20	0.49	0.54	42.5	99.96	-1.86	55.22	54.92	55.07
8204	0.24	56.21	0.40	0.52	42.6	99.95	-1.78	55.23	54.98	55.12
8205	0.21	56.57	0.37	0.47	42.3	99.90	-2.33	55.49	55.02	55.20
8206	0.18	55.31	0.50	0.71	43.2	99.92	-0.40	54.58	54.98	55.02
8207	0.20	55.48	0.32	0.51	43.4	99.91	-0.36	54.70	55.18	55.22
8208	0.22	55.72	0.49	0.42	43.1	99.94	-0.87	54.88	55.08	55.15
8209	0.22	55.53	0.55	0.45	43.2	99.95	-0.62	54.74	55.04	55.10
8210	0.20	55.68	0.43	0.63	43.0	99.94	-0.92	54.85	55.01	55.09
8211	0.22	55.71	0.45	0.61	43.0	99.97	-0.96	54.87	54.99	55.06
8212	0.20	55.64	0.54	0.45	43.1	99.94	-0.78	54.82	55.05	55.13
8213	0.23	55.36	0.57	0.85	42.9	99.92	-0.80	54.62	54.78	54.85

APPENDIX 11: ADJUSTED ANALYSES FOR SAMPLES ANALYZED BY ACME ANALYTICAL LABORATORIES LTD.

WEIGHT PER CENT

SAMPLE	MgO	CaO	R2O3	OTHER	LOI	SUM	LOI - CO2 EQ	RE-GRESSION CaO	LOI BASED CaO	IMPURITY BASED CaO
8214	0.19	55.51	0.48	0.45	43.3	99.94	-0.47	54.72	55.12	55.17
8215	0.23	55.69	0.45	0.38	43.2	99.94	-0.76	54.85	55.12	55.18
8216	0.11	56.76	0.34	0.14	42.8	100.05	-1.87	55.63	55.41	55.52
8217	0.18	56.95	0.37	0.26	42.5	100.14	-2.39	55.77	55.21	55.35
8226	0.03	56.61	0.53	0.21	42.7	99.99	-1.76	55.52	55.37	55.47
8227	0.01	56.65	0.33	0.16	42.6	99.63	-1.87	55.55	55.57	55.63
8228	0.02	56.94	0.65	0.13	42.6	100.23	-2.11	55.76	55.32	55.45
8229	0.02	56.04	1.05	0.14	43.0	100.13	-1.00	55.11	55.19	55.23
8230	0.02	56.82	0.42	0.17	42.8	100.11	-1.81	55.67	55.47	55.56
8231	0.48	54.99	0.92	0.77	43.1	100.17	-0.58	54.35	54.38	54.41
8232	0.84	55.05	0.60	0.71	42.9	100.04	-1.22	54.39	54.12	54.20
8233	0.80	55.15	0.46	0.74	43.0	100.05	-1.15	54.46	54.25	54.31
8234	0.01	56.71	0.31	0.37	42.8	100.07	-1.72	55.59	55.44	55.53
8235	0.01	56.30	0.36	0.38	43.1	100.06	-1.10	55.30	55.44	55.49
8236	0.01	56.34	0.33	1.00	42.5	100.06	-1.73	55.33	55.07	55.16
8237	0.12	56.49	0.44	0.45	42.6	100.02	-1.86	55.43	55.16	55.28
8238	0.08	56.93	0.18	0.38	42.6	100.04	-2.17	55.75	55.40	55.51
8239	0.04	56.48	0.42	0.39	42.8	100.04	-1.57	55.43	55.33	55.42
8240	0.19	55.81	0.59	0.50	43.0	100.00	-1.01	54.94	55.04	55.08
8240 RE	0.18	55.74	0.49	0.62	43.0	99.97	-0.94	54.89	55.03	55.08
8241	0.17	56.57	0.35	0.29	42.7	100.03	-1.88	55.49	55.22	55.36
8242	0.16	56.50	0.43	0.34	42.7	100.03	-1.82	55.44	55.20	55.30
8243	0.14	56.46	0.57	0.37	42.7	100.13	-1.76	55.41	55.13	55.23
8244	0.12	56.44	0.39	0.23	42.9	100.01	-1.53	55.40	55.33	55.43
8245	0.20	56.21	0.70	0.38	42.7	100.08	-1.63	55.23	54.99	55.07
8246	0.40	55.26	0.55	0.77	43.1	99.98	-0.70	54.54	54.70	54.71
8247	0.12	56.58	0.44	0.41	42.5	99.99	-2.03	55.50	55.16	55.30
8248	0.29	55.92	0.46	0.48	42.9	99.98	-1.30	55.02	54.98	55.05
8249	0.24	55.75	0.24	0.35	43.7	100.14	-0.31	54.90	55.33	55.30
8250	1.37	53.73	0.43	0.55	44.0	100.01	0.34	53.43	53.81	53.76
8251	0.01	56.87	0.34	0.22	42.6	99.97	-2.04	55.71	55.46	55.59
8252	0.01	56.72	0.54	0.20	42.6	99.99	-1.92	55.60	55.37	55.49
8253	0.12	56.37	0.39	0.63	42.5	99.97	-1.87	55.35	55.07	55.20
8254	0.09	56.06	0.43	0.56	42.9	99.99	-1.19	55.12	55.18	55.25
8255	0.13	56.29	0.42	0.80	42.4	100.01	-1.92	55.29	54.93	55.08
8256	0.13	55.62	0.60	0.71	43.1	100.14	-0.69	54.80	54.96	55.03
8257	0.11	55.93	0.45	0.59	43.0	100.04	-1.01	55.03	55.13	55.20
8258	0.09	56.65	0.14	0.37	43.0	100.22	-1.56	55.55	55.39	55.52
8259	0.09	56.55	0.41	0.19	43.0	100.17	-1.48	55.48	55.37	55.47
8260	0.06	56.91	0.20	0.15	43.0	100.22	-1.73	55.74	55.54	55.65
8261	0.14	56.41	0.19	0.38	43.1	100.16	-1.32	55.38	55.34	55.43
8262	0.08	56.38	0.28	0.48	43.0	100.16	-1.33	55.35	55.30	55.39
8263	0.01	56.57	0.15	0.22	43.1	100.03	-1.31	55.49	55.59	55.70
8264	0.01	56.36	0.21	0.25	43.3	100.07	-0.94	55.34	55.59	55.64
8265	0.04	56.80	0.15	0.19	42.9	100.02	-1.72	55.66	55.56	55.68
8266	0.02	56.38	0.42	0.40	42.8	100.01	-1.47	55.35	55.31	55.43
8267	0.01	56.63	0.18	0.34	42.9	100.01	-1.55	55.54	55.51	55.62
8268	0.01	56.44	0.38	0.19	43.1	100.06	-1.21	55.40	55.51	55.58
8269	0.01	56.63	0.14	0.26	43.1	100.06	-1.35	55.54	55.60	55.68
8270	0.01	56.87	0.13	0.19	43.1	100.24	-1.54	55.71	55.61	55.73
8270 RE	0.01	56.76	0.12	0.19	43.1	100.08	-1.46	55.63	55.65	55.73
8271	0.01	56.64	0.14	0.16	43.5	100.27	-0.96	55.54	55.73	55.74
8272	0.04	56.60	0.34	0.19	43.1	100.20	-1.36	55.51	55.48	55.57
8273	0.01	56.79	0.12	0.19	43.0	100.07	-1.58	55.65	55.61	55.73
8274	0.01	56.63	0.21	0.30	43.1	100.18	-1.35	55.54	55.53	55.62
8275	0.01	56.58	0.25	0.37	42.9	100.07	-1.51	55.50	55.44	55.56

APPENDIX 11: ADJUSTED ANALYSES FOR SAMPLES ANALYZED BY ACME ANALYTICAL LABORATORIES LTD.

WEIGHT PER CENT

SAMPLE	MgO	CaO	R2O3	OTHER	LOI	SUM	LOI - CO2 EQ	RE-GRESSION CaO	LOI BASED CaO	IMPURITY BASED CaO
8288	0.10	56.50	0.12	0.22	43.0	99.89	-1.45	55.44	55.52	55.61
8289	0.12	56.50	0.15	0.27	42.9	99.88	-1.57	55.44	55.45	55.54
8290	0.01	56.72	0.12	0.22	42.9	99.90	-1.62	55.60	55.62	55.71
8291	0.09	56.20	0.21	0.41	43.0	99.89	-1.20	55.22	55.38	55.46
8292	0.06	56.27	0.23	0.48	42.9	99.90	-1.33	55.27	55.36	55.45
8293	0.05	56.44	0.17	0.28	43.0	99.88	-1.35	55.40	55.53	55.61
8294	0.02	56.43	0.15	0.24	43.1	99.86	-1.21	55.39	55.62	55.67
8295	0.02	56.80	0.14	0.21	42.8	99.90	-1.80	55.66	55.59	55.70
8296	0.10	56.49	0.20	0.24	43.0	99.93	-1.44	55.43	55.49	55.55
8297	0.14	56.50	0.17	0.31	42.9	99.93	-1.59	55.44	55.40	55.48
8298	0.30	56.19	0.18	0.33	42.9	99.86	-1.53	55.22	55.18	55.28
8299	1.77	54.47	0.19	0.81	42.8	99.91	-1.88	53.97	53.20	53.28
8300	0.36	56.21	0.21	0.44	42.7	99.88	-1.81	55.23	55.01	55.13
8301	0.06	55.27	0.79	0.64	43.3	100.05	-0.14	54.55	55.02	55.05
8302	0.06	56.13	0.30	0.47	43.2	100.10	-0.92	55.17	55.36	55.41
8303	0.01	56.20	0.45	0.23	43.2	100.03	-0.92	55.22	55.47	55.52
8304	0.08	56.23	0.20	0.43	43.2	100.07	-1.02	55.25	55.41	55.47
8305	0.01	55.70	0.31	0.32	43.9	100.08	0.18	54.86	55.63	55.55
8306	0.07	55.64	0.32	0.42	43.7	100.01	-0.04	54.82	55.48	55.42
8307	0.06	55.42	0.15	0.79	43.7	99.98	0.14	54.66	55.40	55.32
8308	1.96	53.38	0.31	0.66	43.9	100.07	-0.13	53.18	53.12	53.08
8309	0.01	56.76	0.06	0.27	43.1	100.10	-1.46	55.63	55.64	55.72
8310	0.01	56.32	0.05	0.42	43.6	100.20	-0.61	55.31	55.68	55.64
8311	1.67	53.21	0.37	0.69	44.2	100.04	0.62	53.06	53.45	53.37
8312	0.02	56.18	0.12	0.61	43.1	100.01	-1.01	55.21	55.40	55.48
8313	0.22	55.49	0.25	0.69	43.5	100.03	-0.29	54.71	55.16	55.13
8314	0.01	56.98	0.08	0.17	42.9	100.09	-1.83	55.79	55.63	55.77
8315	0.01	56.88	0.05	0.29	43.0	100.13	-1.65	55.72	55.62	55.71
8316	0.01	57.05	0.07	0.18	43.0	100.21	-1.78	55.84	55.65	55.77
8317	0.01	55.05	0.35	1.12	43.7	100.07	0.49	54.39	55.19	55.08
8318	0.13	54.89	0.64	1.64	42.8	100.05	-0.42	54.27	54.46	54.49
8319	0.30	55.37	0.35	0.90	43.3	100.06	-0.48	54.62	54.90	54.86
8320	0.09	54.83	0.55	0.88	43.7	99.97	0.57	54.23	55.09	55.01
8321	0.01	55.99	0.39	0.52	43.3	100.03	-0.65	55.07	55.43	55.40
8322	1.07	55.18	0.43	0.38	43.0	100.04	-1.47	54.48	54.09	54.21
8323	0.04	56.86	0.17	0.30	42.9	100.19	-1.77	55.70	55.49	55.61
8324	0.01	56.68	0.13	0.34	43.0	100.08	-1.49	55.57	55.55	55.64
8325	0.08	56.53	0.11	0.39	42.9	100.01	-1.55	55.46	55.41	55.54
8326	0.13	56.88	0.26	0.61	42.3	100.10	-2.48	55.72	55.11	55.27
8327	0.11	56.61	0.27	0.43	42.7	100.06	-1.85	55.52	55.27	55.39
8328	0.01	56.61	0.13	0.38	43.0	100.06	-1.44	55.52	55.53	55.62
8329	0.20	55.47	0.35	0.45	43.6	99.98	-0.15	54.70	55.26	55.23
8330	0.11	55.75	0.31	0.53	43.5	100.06	-0.37	54.90	55.35	55.31
8331	0.91	51.97	0.99	3.00	43.2	100.01	1.42	52.16	52.74	52.61
8332	0.01	56.46	0.29	0.21	43.5	100.33	-0.82	55.41	55.60	55.62
8333	0.01	56.08	0.41	0.28	43.6	100.24	-0.42	55.14	55.53	55.52
8334	0.24	53.22	0.61	4.03	42.0	100.05	-0.03	53.06	53.04	53.03
8335	0.02	56.11	0.33	0.19	43.5	100.02	-0.56	55.16	55.61	55.60
8336	0.01	55.70	0.25	0.23	43.9	100.00	0.18	54.86	55.68	55.64
8337	0.01	56.07	0.30	0.32	43.5	100.07	-0.51	55.13	55.57	55.56
8338	0.37	55.84	0.34	0.23	43.5	100.16	-0.73	54.96	55.15	55.16
8338 RE	0.03	56.19	0.25	0.20	43.5	100.04	-0.63	55.22	55.64	55.63
8339	0.15	55.64	0.36	0.62	43.3	99.99	-0.53	54.82	55.18	55.19
8340	1.27	53.33	0.61	0.87	44.0	99.98	0.76	53.14	53.70	53.60
8341	2.66	52.15	0.43	0.50	44.3	99.99	0.47	52.29	52.33	52.27
8342	0.59	54.38	0.34	0.55	44.2	100.00	0.88	53.91	54.81	54.72

APPENDIX 11: ADJUSTED ANALYSES FOR SAMPLES ANALYZED BY ACME ANALYTICAL LABORATORIES LTD.

WEIGHT PER CENT

SAMPLE	MgO	CaO	R2O3	OTHER	LOI	SUM	LOI - CO2 EQ	RE-GRESSION CaO	LOI BASED CaO	IMPURITY BASED CaO
8343	0.26	54.83	0.32	0.34	44.3	100.00	0.99	54.23	55.33	55.24
8344	0.24	56.06	0.27	0.27	43.4	100.09	-0.86	55.12	55.33	55.33
8345	2.43	51.87	0.92	0.92	43.9	99.99	0.54	52.09	52.09	52.03
8346	0.75	55.48	0.34	0.30	43.5	100.24	-0.86	54.70	54.65	54.68
8347	2.38	53.11	0.31	0.40	43.9	100.04	-0.38	52.98	52.72	52.73
8348	0.87	55.03	0.35	0.41	43.6	100.12	-0.54	54.38	54.48	54.47
8349	2.93	51.86	0.55	0.85	44.0	100.07	0.10	52.08	51.75	51.70
8350	7.21	46.99	0.39	0.47	45.0	100.05	0.25	48.55	46.99	46.99
8351	0.25	55.46	0.21	0.98	43.4	100.16	-0.40	54.69	54.98	54.96
8352	0.19	55.36	0.22	0.83	43.5	100.01	-0.15	54.62	55.13	55.10
8353	0.27	55.52	0.29	0.59	43.8	100.34	-0.07	54.73	55.13	55.11
8353 DUP.	0.15	55.34	0.34	0.65	43.7	100.07	0.11	54.60	55.24	55.19
8354	0.22	55.38	0.37	0.45	43.7	100.01	0.00	54.63	55.24	55.20
8355	0.07	56.01	0.28	0.61	43.4	100.25	-0.63	55.09	55.32	55.33
8356	0.16	55.50	0.32	0.88	43.3	100.02	-0.43	54.72	55.09	55.06
8357	0.22	56.05	0.22	0.55	43.5	100.39	-0.73	55.12	55.21	55.23
8358	0.22	55.21	0.36	0.71	43.7	100.06	0.13	54.51	55.13	55.06
8359	0.28	54.81	0.43	0.85	43.8	100.07	0.48	54.22	54.94	54.87
8360	0.27	55.16	0.37	0.57	43.9	100.14	0.32	54.47	55.14	55.07
8361	0.96	54.04	0.30	0.82	44.0	100.01	0.54	53.66	54.25	54.16
8362	0.30	54.40	0.44	0.87	44.2	100.13	1.18	53.92	54.94	54.83
8363	0.33	53.48	0.56	0.84	44.9	100.08	2.57	53.25	54.94	54.75
8364	0.28	55.16	0.39	0.67	43.8	100.21	0.20	54.47	55.03	54.99
8365	1.48	54.05	0.37	0.32	43.9	99.99	-0.13	53.67	53.84	53.80
8366	13.52	38.20	1.01	1.37	46.0	100.04	1.26	42.18	38.85	38.74
8367	18.62	32.28	1.06	1.10	47.0	100.02	1.34	37.89	33.00	32.89
8368	6.91	44.54	1.04	1.58	46.0	100.02	3.50	46.77	46.63	46.35
8369	0.50	54.48	0.52	1.11	43.6	100.09	0.30	53.98	54.49	54.42
8370	0.68	54.14	0.73	0.87	43.7	100.03	0.47	53.73	54.29	54.22
8371	0.15	55.56	0.37	0.63	43.4	100.03	-0.37	54.76	55.18	55.19
8372	0.08	56.21	0.36	0.25	43.3	100.07	-0.90	55.23	55.46	55.48
8373	0.16	55.21	0.41	0.56	43.7	99.97	0.20	54.51	55.23	55.18
8374	0.47	54.56	0.50	0.38	44.1	99.99	0.77	54.04	54.93	54.87
8375	0.18	55.60	0.49	1.41	42.5	100.11	-1.33	54.79	54.55	54.64
8376	1.16	54.17	0.52	0.60	43.6	100.00	-0.18	53.75	53.93	53.93
8377	0.34	55.86	0.48	0.41	43.1	100.04	-1.11	54.98	55.00	55.02
8378	0.28	56.11	0.58	0.40	42.8	100.13	-1.54	55.16	54.92	55.04
8379	0.27	55.07	0.73	0.68	43.3	99.98	-0.21	54.41	54.82	54.81
8380	0.33	55.84	0.48	0.72	42.6	99.97	-1.58	54.96	54.72	54.86
8381	0.25	55.41	0.61	0.56	43.2	99.94	-0.56	54.65	54.96	54.97
8382	0.16	56.71	0.37	0.24	42.1	99.54	-2.58	55.59	55.23	55.38
8382 RE	0.17	57.14	0.31	0.23	42.2	99.99	-2.83	55.91	55.22	55.41
8383	0.23	56.32	0.51	0.50	42.4	99.93	-2.05	55.31	54.93	55.08
8384	0.19	56.45	0.49	0.58	42.3	99.99	-2.21	55.41	54.92	55.09
8385	0.56	54.27	0.74	1.17	43.3	99.97	0.10	53.83	54.22	54.19
8386	0.37	54.92	0.72	1.23	42.7	99.94	-0.81	54.30	54.32	54.39
8387	0.27	56.43	0.54	0.56	42.2	99.98	-2.38	55.39	54.80	54.98
8388	0.28	56.23	0.53	0.49	42.4	99.94	-2.03	55.25	54.84	55.01
8389	0.27	56.04	0.64	0.70	42.3	99.92	-1.97	55.11	54.71	54.85
8390	0.27	56.30	0.63	0.48	42.3	99.94	-2.18	55.30	54.82	54.98
8391	0.20	55.87	0.76	0.61	42.5	99.94	-1.57	54.98	54.78	54.92
8392	0.21	55.34	0.87	0.68	42.8	99.93	-0.86	54.60	54.71	54.80
8393	0.23	55.04	1.12	0.82	42.7	99.93	-0.75	54.38	54.48	54.56
8394	0.18	55.61	0.88	0.68	42.6	99.93	-1.24	54.80	54.74	54.83
8395	0.15	55.32	0.98	0.53	43.0	99.92	-0.58	54.59	54.87	54.90
8396	9.62	41.85	1.08	1.34	46.1	99.93	2.76	44.83	43.52	43.29

APPENDIX 11: ADJUSTED ANALYSES FOR SAMPLES ANALYZED BY ACME ANALYTICAL LABORATORIES LTD.

WEIGHT PER CENT

SAMPLE	MgO	CaO	R2O3	OTHER	LOI	SUM	LOI - CO2 EQ	RE-GRESSION CaO	LOI BASED CaO	IMPURITY BASED CaO
8397	1.65	53.57	0.63	0.91	43.3	99.98	-0.54	53.32	53.11	53.12
8398	3.22	51.33	0.40	0.50	44.7	100.10	0.90	51.70	51.71	51.64
8399	3.62	51.14	0.45	0.39	44.5	100.03	0.41	51.56	51.26	51.20
8400	2.80	52.67	0.18	0.18	44.4	100.12	0.01	52.67	52.47	52.43
8401	3.09	51.79	0.37	0.39	44.5	100.05	0.48	52.03	51.94	51.87
8402	12.79	39.91	0.92	1.10	45.6	100.18	0.32	43.42	39.87	39.80
8403	14.24	38.23	0.70	0.95	46.0	100.03	0.45	42.20	38.37	38.30
8404	2.50	52.34	0.37	0.63	44.4	100.15	0.59	52.43	52.50	52.42
8405	4.71	49.09	0.43	0.44	45.4	100.01	1.73	50.07	50.06	49.91
8406	0.92	53.55	0.40	0.43	44.7	99.97	1.67	53.30	54.51	54.37
8407	3.90	50.55	0.44	0.36	44.8	99.99	0.87	51.13	50.98	50.90
8408	2.18	52.92	0.23	0.17	44.7	100.13	0.79	52.85	53.21	53.14
8409	7.49	46.18	0.25	0.81	45.3	100.01	0.88	47.96	46.61	46.55
8426	0.57	53.82	0.28	0.52	44.8	99.98	1.94	53.50	54.94	54.80
8427	0.78	53.42	0.39	0.53	44.9	100.00	2.12	53.21	54.65	54.48
8428	1.51	52.58	0.52	0.65	44.8	100.00	1.89	52.60	53.65	53.49
8429	11.96	40.85	0.85	0.95	45.4	100.01	0.29	44.10	40.90	40.89
8429 RE	12.04	41.05	0.86	1.09	45.0	100.03	-0.36	44.25	40.68	40.72
8430	2.92	50.83	0.54	0.82	44.9	100.00	1.82	51.33	51.86	51.73
8431	19.86	31.32	1.12	1.49	46.3	100.03	0.04	37.19	31.20	31.18
8432	15.07	37.00	1.19	1.48	45.3	100.04	-0.19	41.31	36.73	36.76
8433	2.73	50.52	0.76	1.10	45.0	100.05	2.37	51.11	51.87	51.67
8434	1.93	52.40	0.52	0.60	44.6	100.02	1.37	52.47	53.13	53.02
8435	0.40	54.83	0.22	0.38	44.3	100.03	0.83	54.23	55.21	55.11
8436	3.96	49.45	0.52	0.74	45.4	100.01	2.27	50.33	50.76	50.57
8437	1.06	53.71	0.35	0.50	44.5	100.02	1.19	53.42	54.33	54.20
8438	3.89	48.61	0.94	1.27	45.3	100.02	2.90	49.72	50.32	50.12
8439	0.79	54.17	0.37	0.64	44.2	100.08	0.83	53.75	54.52	54.42
8440	0.75	53.92	0.51	0.63	44.3	100.05	1.16	53.57	54.50	54.40
8441	1.31	53.17	0.48	0.61	44.5	100.01	1.34	53.03	53.89	53.77
8442	0.22	55.19	0.19	0.38	44.1	100.02	0.55	54.49	55.40	55.34
8443	0.26	55.40	0.28	0.26	43.9	100.03	0.14	54.64	55.34	55.31
8444	4.28	49.71	0.57	0.90	44.6	100.00	0.92	50.52	50.17	50.08
8445	0.97	53.21	0.61	1.36	43.9	99.98	1.08	53.06	53.78	53.68
8538	0.10	56.03	0.42	0.19	43.4	99.99	-0.68	55.10	55.47	55.46
8539	0.18	56.19	0.40	0.17	43.0	99.90	-1.29	55.22	55.30	55.39
8540	0.21	56.58	0.24	0.17	42.8	99.93	-1.83	55.50	55.33	55.44
8541	4.71	50.72	0.32	0.36	44.0	99.99	-0.95	51.25	50.00	50.02
8542	8.88	44.72	0.69	0.59	45.1	99.94	0.31	46.91	44.83	44.79
8543	0.89	55.36	0.34	0.15	43.4	99.99	-1.02	54.62	54.59	54.60
8544	6.33	47.89	0.68	0.54	44.6	99.93	0.11	49.20	47.88	47.81
8545	14.26	38.74	0.44	0.75	45.7	99.88	-0.27	42.57	38.52	38.54
8546	0.25	55.46	0.35	0.79	43.1	99.94	-0.70	54.69	54.93	54.98
8547	0.33	55.35	0.42	0.39	43.6	99.97	-0.20	54.61	55.11	55.07
8548	2.52	52.73	0.66	0.41	43.8	99.99	-0.33	52.71	52.40	52.36
8549	3.24	51.58	0.83	0.82	43.6	99.95	-0.42	51.88	51.22	51.20
8550	1.61	54.02	0.40	0.59	43.5	99.99	-0.65	53.64	53.48	53.47
8559	0.30	56.06	0.44	0.22	43.0	99.98	-1.32	55.12	55.10	55.19
8560	0.36	55.76	0.39	0.20	43.4	99.98	-0.75	54.91	55.17	55.16
8561	0.26	55.82	0.49	0.35	43.0	99.87	-1.09	54.95	55.08	55.14
8561 RE	0.26	56.11	0.43	0.31	42.9	99.96	-1.42	55.16	55.10	55.19
8562	0.25	56.14	0.38	0.30	42.9	99.93	-1.43	55.18	55.15	55.24
8563	0.30	56.17	0.36	0.21	43.0	99.99	-1.41	55.20	55.15	55.24
8564	0.38	55.56	0.52	0.44	43.0	99.87	-1.02	54.76	54.87	54.93
8565	0.21	56.50	0.26	0.14	42.9	99.96	-1.67	55.44	55.33	55.44
8566	0.27	55.68	0.46	0.52	43.0	99.89	-0.99	54.85	54.99	55.05

APPENDIX 11: ADJUSTED ANALYSES FOR SAMPLES ANALYZED BY ACME ANALYTICAL LABORATORIES LTD.

WEIGHT PER CENT

SAMPLE	MgO	CaO	R2O3	OTHER	LOI	SUM	LOI - CO2 EQ	RE-GRESSION CaO	LOI BASED CaO	IMPURITY BASED CaO
8567	0.16	56.26	0.34	0.41	42.8	99.94	-1.53	55.27	55.20	55.31
8568	0.15	56.09	0.44	0.34	43.0	99.98	-1.18	55.14	55.22	55.30
8569	0.18	55.98	0.36	0.29	43.2	99.87	-0.93	55.06	55.34	55.34
8570	0.12	56.51	0.39	0.56	42.4	99.94	-2.08	55.45	55.10	55.24
8571	0.08	56.31	0.41	0.69	42.5	99.96	-1.78	55.30	55.07	55.21
8572	0.15	56.15	0.39	0.46	42.7	99.87	-1.53	55.19	55.13	55.26
8573	0.26	55.67	0.40	0.40	43.3	99.90	-0.67	54.84	55.18	55.16
8574	0.27	55.99	0.40	0.28	42.9	99.86	-1.34	55.07	55.10	55.22
8575	0.23	54.31	0.48	2.05	42.6	99.71	-0.27	53.85	54.19	54.23
8576	3.07	52.29	0.27	0.31	44.2	100.05	-0.19	52.39	52.01	51.99
8577	0.19	56.45	0.18	0.13	43.4	100.20	-1.11	55.41	55.49	55.52
8578	0.13	56.38	0.13	0.21	43.3	100.05	-1.09	55.35	55.53	55.57
8579	1.78	54.52	0.28	0.23	43.5	100.17	-1.23	54.01	53.50	53.55
8580	5.47	47.95	0.64	0.69	45.4	100.02	1.80	49.25	48.96	48.76
8581	3.48	49.60	0.71	1.01	45.3	100.02	2.58	50.44	51.10	50.87
8582	0.50	54.59	0.43	0.61	43.9	99.97	0.51	54.06	54.81	54.74
8583	0.87	54.11	0.48	0.52	44.1	100.03	0.68	53.71	54.40	54.34
8584	0.39	53.40	0.66	2.39	43.3	100.01	0.97	53.20	53.88	53.75
8585	0.16	56.11	0.27	0.29	43.3	100.00	-0.91	55.16	55.40	55.41
8586	0.40	55.36	0.28	0.36	43.7	99.98	-0.18	54.62	55.13	55.09
8587	0.29	55.18	0.53	0.54	43.7	100.12	0.08	54.48	55.03	54.98
8588	0.26	53.35	0.81	2.39	43.6	100.28	1.45	53.16	53.97	53.82
8589	0.29	54.61	0.59	0.39	44.2	99.98	1.03	54.07	55.15	55.03
8590	0.27	54.67	0.33	0.55	44.2	99.98	1.00	54.12	55.19	55.11
8591	0.28	56.36	0.31	0.23	43.0	100.11	-1.54	55.34	55.18	55.29
8592	0.50	54.83	0.34	0.42	44.0	100.04	0.42	54.23	54.95	54.90
8593	0.42	55.48	0.36	0.33	43.6	100.05	-0.40	54.70	55.07	55.04
8594	0.43	54.99	0.38	0.37	43.9	100.00	0.27	54.35	55.04	54.99
8595	1.43	54.40	0.33	0.43	43.5	100.01	-0.75	53.92	53.79	53.81
8596	0.33	55.27	0.29	0.51	43.7	100.01	-0.04	54.55	55.11	55.08
8597	5.85	47.97	0.46	1.10	44.7	100.05	0.67	49.26	48.24	48.19
8598	0.36	55.37	0.24	0.42	43.7	100.00	-0.15	54.62	55.15	55.12
8599	0.44	54.88	0.53	0.45	43.9	100.08	0.35	54.27	54.92	54.85
8701	0.01	54.21	0.54	0.83	44.5	100.02	1.95	53.78	55.31	55.14
8702	0.01	54.74	0.32	0.72	44.5	100.15	1.53	54.17	55.49	55.32
8702 RE	0.01	54.83	0.33	0.72	44.3	100.06	1.26	54.23	55.47	55.31
8703	0.07	56.73	0.22	0.19	42.9	100.05	-1.70	55.61	55.49	55.61
8704	0.05	56.58	0.16	0.22	43.2	100.06	-1.26	55.50	55.61	55.64
8705	0.14	56.00	0.29	0.63	43.0	100.00	-1.10	55.08	55.17	55.24
8706	0.08	56.11	0.31	0.37	43.3	100.02	-0.82	55.16	55.45	55.44
8707	0.16	54.96	0.38	1.74	42.8	100.02	-0.51	54.33	54.50	54.54
8708	0.11	56.19	0.36	0.41	43.0	100.03	-1.22	55.22	55.27	55.36
8709	0.08	56.20	0.23	0.26	43.4	100.05	-0.79	55.22	55.54	55.55
8710	0.01	55.97	0.32	0.56	43.3	100.02	-0.64	55.06	55.42	55.41
8711	0.04	56.05	0.44	1.01	42.7	100.17	-1.33	55.12	54.97	55.05
8712	0.01	56.23	0.60	0.38	43.0	100.15	-1.14	55.25	55.28	55.35
8713	0.01	55.98	0.48	0.59	43.0	100.01	-0.94	55.06	55.24	55.30
8714	0.01	55.96	0.68	0.51	42.9	100.02	-1.03	55.05	55.16	55.24
8715	0.01	55.90	0.43	0.95	42.8	100.03	-1.08	55.01	55.06	55.13
8716	0.01	55.43	0.58	1.25	42.8	100.02	-0.71	54.67	54.84	54.88
8717	0.01	54.90	0.57	2.24	42.4	100.07	-0.70	54.28	54.28	54.33
8718	0.01	55.43	0.29	1.44	42.9	100.01	-0.61	54.67	54.91	54.94
8719	0.02	55.55	0.47	1.24	42.8	100.04	-0.82	54.75	54.88	54.93
8720	0.01	55.45	0.75	0.99	42.8	99.99	-0.73	54.68	54.87	54.93
8721	0.01	55.16	1.08	1.00	42.8	100.03	-0.50	54.47	54.69	54.74
8722	0.01	55.16	0.57	1.78	42.5	100.00	-0.80	54.47	54.52	54.58

APPENDIX 11: ADJUSTED ANALYSES FOR SAMPLES ANALYZED BY ACME ANALYTICAL LABORATORIES LTD.

WEIGHT PER CENT

SAMPLE	MgO	CaO	R2O3	OTHER	LOI	SUM	LOI - CO2 EQ	RE-GRESSION CaO	LOI BASED CaO	IMPURITY BASED CaO
8723	0.24	55.12	0.84	0.55	43.4	100.01	-0.12	54.44	54.91	54.86
8724	0.01	55.67	0.65	0.78	43.0	100.05	-0.70	54.84	55.06	55.10
8725	0.20	55.77	0.28	0.15	43.7	100.01	-0.29	54.91	55.45	55.44
8726	0.06	55.89	0.45	0.56	43.3	100.14	-0.63	55.00	55.27	55.28
8727	0.02	56.15	0.37	0.25	43.4	100.03	-0.69	55.19	55.56	55.55
8728	0.01	56.71	0.24	0.16	43.1	100.04	-1.42	55.59	55.65	55.68
8729	0.01	56.68	0.30	0.21	43.1	100.13	-1.39	55.57	55.58	55.62
8730	0.01	55.70	0.27	0.90	43.3	100.02	-0.42	54.86	55.29	55.25
8731	2.68	52.97	0.22	0.45	43.9	100.09	-0.60	52.88	52.41	52.40
8732	0.01	56.11	0.20	0.62	43.3	100.09	-0.75	55.16	55.45	55.45
8733	0.06	55.93	0.21	0.37	43.6	100.04	-0.36	55.03	55.55	55.52
8734	0.04	56.62	0.16	0.24	43.2	100.10	-1.28	55.53	55.61	55.65
8734 RE	0.02	56.51	0.20	0.24	43.2	100.02	-1.17	55.45	55.62	55.64
8735	0.18	56.29	0.27	0.19	43.3	100.08	-1.07	55.29	55.43	55.45
8736	0.10	56.10	0.19	0.43	43.4	100.08	-0.74	55.15	55.45	55.45
8737	0.09	55.70	0.59	0.34	43.5	100.10	-0.31	54.86	55.31	55.29
8738	0.04	55.79	0.67	0.23	43.5	100.11	-0.33	54.93	55.38	55.37
8739	0.03	55.64	0.72	0.28	43.5	100.04	-0.20	54.82	55.36	55.32
8740	0.08	55.91	0.49	0.31	43.4	100.08	-0.57	55.01	55.37	55.37
8741	0.02	55.98	0.48	0.20	43.6	100.16	-0.35	55.06	55.52	55.51
8742	0.08	56.31	0.34	0.20	43.4	100.20	-0.88	55.30	55.49	55.52
8743	0.11	56.26	0.34	0.18	43.4	100.16	-0.87	55.27	55.47	55.50
8744	0.07	56.36	0.19	0.13	43.5	100.12	-0.81	55.34	55.64	55.65
8745	0.08	56.56	0.27	0.13	43.3	100.18	-1.18	55.48	55.57	55.60
8746	0.10	56.35	0.37	0.18	43.3	100.18	-1.03	55.33	55.45	55.49
8747	0.07	56.25	0.13	0.25	43.6	100.19	-0.62	55.26	55.61	55.62
8748	0.24	55.36	0.38	0.81	43.3	99.98	-0.41	54.62	54.99	54.97
8749	0.20	55.84	0.24	1.02	42.7	99.98	-1.34	54.96	54.87	54.97
8750	0.23	55.59	0.35	1.37	42.5	99.99	-1.38	54.78	54.59	54.68
8751	0.28	55.87	0.25	0.39	43.3	99.99	-0.85	54.98	55.21	55.23
8752	0.30	56.09	0.15	0.19	43.4	100.01	-0.95	55.14	55.35	55.37
8753	0.29	55.78	0.30	0.58	43.3	100.10	-0.79	54.92	55.08	55.08
8754	0.29	55.36	0.45	0.57	43.4	99.97	-0.36	54.62	55.02	55.01
8755	0.26	56.21	0.33	0.54	43.0	100.28	-1.40	55.23	55.01	55.12
8756	0.20	56.24	0.27	0.28	43.0	99.97	-1.36	55.25	55.27	55.38
8757	0.25	56.78	0.18	0.19	42.8	100.13	-2.03	55.64	55.27	55.41
8757 RE	0.24	56.89	0.19	0.18	42.8	100.23	-2.11	55.72	55.27	55.43
8758	0.23	55.74	0.27	0.19	43.9	100.21	-0.10	54.89	55.42	55.39
8759	0.29	54.53	0.40	1.48	43.4	100.00	0.29	54.01	54.59	54.53
8760	0.22	54.76	0.49	0.90	43.7	99.98	0.48	54.18	54.95	54.88
8761	0.29	54.26	0.58	0.61	44.4	100.05	1.50	53.82	55.06	54.91
8762	0.29	56.19	0.24	0.18	43.3	100.04	-1.11	55.22	55.33	55.34
8763	0.17	56.12	0.21	0.21	43.4	99.99	-0.83	55.17	55.47	55.48
8764	0.17	55.63	0.22	0.25	43.8	99.97	-0.04	54.81	55.49	55.45
8765	0.03	55.49	0.17	0.60	43.8	100.00	0.22	54.71	55.50	55.45
8765 RE	0.03	56.18	0.18	0.41	43.5	100.16	-0.62	55.21	55.55	55.55
8766	0.09	55.06	0.30	0.62	44.0	99.99	0.69	54.40	55.38	55.29
8767	0.14	55.19	0.55	0.67	43.6	100.04	0.13	54.49	55.12	55.07
8768	0.17	54.11	0.96	1.31	43.5	99.98	0.85	53.71	54.54	54.45
8769	0.15	54.24	1.06	1.50	43.3	100.11	0.57	53.80	54.40	54.30
8770	0.12	54.64	1.09	1.30	43.0	100.01	-0.01	54.09	54.50	54.44
8771	0.18	54.76	1.01	1.06	43.3	100.18	0.13	54.18	54.60	54.55
8772	0.13	54.81	0.62	0.93	43.8	100.18	0.64	54.22	54.98	54.90
8773	0.56	53.75	0.77	1.87	43.3	100.12	0.51	53.45	53.87	53.78
8774	0.14	54.70	0.47	0.93	43.8	99.99	0.72	54.14	55.04	54.97
8775	0.07	53.89	0.56	2.65	43.2	100.25	0.83	53.55	54.13	54.04

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Halferdahl & Associates Ltd. File # 92-2359R Page 1

18 - 10509 - 81st Ave, Edmonton AB T6E 1X7

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
8001	1	2	2	5	.1	1	1	20	.03	2	5	ND	1	137	.5	2	2	3	36.67	.029	5	6	1.42	12	.01	2	.01	.01	.01	2
8002	1	1	2	2	.2	1	1	11	.01	2	5	ND	1	174	.6	2	2	1	39.43	.005	2	4	.09	15	.01	2	.01	.01	.01	1
8003	1	2	2	3	.2	1	1	11	.02	2	5	ND	1	164	.4	2	2	1	36.73	.011	2	4	.81	14	.01	2	.01	.01	.01	2
8004	1	2	2	3	.1	1	1	11	.01	2	5	ND	1	175	.5	2	2	1	38.52	.013	2	5	.30	16	.01	2	.01	.01	.01	1
8005	1	1	2	2	.1	1	1	12	.01	2	5	ND	1	172	.5	2	2	1	34.45	.010	2	4	.70	14	.01	2	.01	.01	.01	1
8006	1	1	2	2	.1	1	1	19	.02	2	5	ND	2	159	.7	2	2	1	34.75	.010	3	6	1.27	13	.01	2	.01	.01	.01	1
8007	1	1	2	2	.1	1	1	9	.01	2	5	ND	1	119	.5	2	2	1	40.63	.004	2	5	.08	11	.01	2	.01	.01	.01	2
8008	1	1	2	5	.1	1	1	15	.02	2	5	ND	2	171	.5	2	2	1	35.82	.016	3	4	1.41	12	.01	2	.01	.01	.01	1
8009	1	5	2	3	.2	1	1	12	.01	2	5	ND	1	203	.5	2	2	1	39.33	.008	2	4	.12	15	.01	2	.01	.01	.01	1
8010	1	1	2	3	.1	1	1	13	.02	2	5	ND	1	221	.4	2	2	1	39.16	.008	2	3	.24	14	.01	2	.01	.01	.01	1
8011	1	2	2	3	.2	1	1	15	.02	2	5	ND	1	215	.4	2	2	1	39.94	.014	2	2	.10	16	.01	2	.01	.01	.01	2
8012	1	2	2	4	.1	1	1	15	.02	2	5	ND	1	203	.6	2	2	1	36.46	.016	2	3	.38	13	.01	2	.02	.01	.01	1
8013	1	2	2	6	.2	1	1	19	.01	2	5	ND	1	182	.7	2	2	3	37.52	.008	9	7	.10	22	.01	2	.02	.01	.01	1
8014	1	1	2	6	.1	1	1	40	.01	2	5	ND	1	169	.6	2	2	2	39.31	.010	6	5	.08	22	.01	2	.01	.01	.01	1
8015	1	1	2	2	.1	1	1	9	.01	2	5	ND	1	470	.3	2	2	1	38.31	.009	2	3	.06	16	.01	2	.01	.01	.01	2
8016	1	1	2	3	.1	1	1	9	.01	2	5	ND	1	183	.6	2	2	1	39.07	.004	2	5	.09	23	.01	2	.01	.01	.01	1
8017	1	2	2	6	.1	1	1	22	.02	2	5	ND	1	318	.6	2	2	2	37.75	.004	2	6	.14	35	.01	2	.01	.01	.01	2
RE 8014	1	2	2	6	.1	1	1	41	.01	2	5	ND	1	163	.6	2	2	2	36.26	.010	6	4	.08	21	.01	2	.01	.01	.01	1
8018	1	1	2	4	.2	1	1	14	.01	2	5	ND	1	184	.6	2	2	3	37.16	.005	10	9	.10	24	.01	2	.01	.01	.01	1
8019	1	2	2	4	.1	1	1	21	.01	2	5	ND	1	218	.5	2	2	2	39.05	.004	10	7	.09	32	.01	2	.01	.01	.01	1
8020	1	1	2	6	.1	1	1	22	.01	2	5	ND	1	156	.5	2	2	1	36.18	.007	5	3	.08	19	.01	2	.01	.01	.01	2
8021	1	1	2	4	.1	1	1	18	.01	2	5	ND	1	168	.5	2	2	1	36.02	.006	5	4	.08	21	.01	2	.01	.01	.01	2
8022	1	2	2	4	.1	1	1	19	.01	2	5	ND	1	190	.4	2	2	1	35.52	.007	4	5	.08	24	.01	2	.01	.01	.01	1
8023	1	2	2	3	.1	1	1	17	.01	2	5	ND	1	193	.6	2	2	2	37.03	.004	4	5	.09	22	.01	2	.01	.01	.01	1
8024	1	1	2	4	.1	1	1	13	.01	2	5	ND	1	192	.3	2	2	1	37.88	.005	5	4	.08	26	.01	2	.01	.01	.01	1
8025	1	3	2	10	.1	1	1	12	.01	2	5	ND	1	238	.6	2	2	1	36.98	.029	2	3	.10	35	.01	2	.01	.01	.01	2
8026	1	2	2	2	.1	1	1	7	.01	2	5	ND	1	137	.5	2	2	1	37.71	.014	2	2	.04	10	.01	2	.01	.01	.01	1
8027	1	2	2	2	.1	1	1	9	.01	2	5	ND	1	152	.5	2	2	1	36.65	.006	2	4	.08	13	.01	2	.01	.01	.01	1
8028	1	1	2	3	.1	1	1	10	.02	2	6	ND	1	213	.7	2	2	1	35.61	.013	2	3	.08	16	.01	2	.01	.01	.01	1
8029	1	2	2	2	.1	1	1	12	.02	2	5	ND	1	210	.2	2	2	1	37.14	.007	2	1	.08	17	.01	2	.01	.01	.01	1
8030	1	1	2	2	.1	1	1	18	.01	2	5	ND	2	414	.2	2	2	1	34.52	.026	2	2	.07	10	.01	2	.01	.01	.01	1
8031	1	1	2	4	.2	1	1	12	.01	2	5	ND	1	264	.3	2	2	1	37.43	.004	2	2	.09	27	.01	2	.01	.01	.01	1
8032	1	1	2	4	.1	1	1	8	.01	2	5	ND	2	327	.2	2	2	1	35.65	.005	2	1	.08	32	.01	2	.01	.01	.01	1
8033	1	1	2	4	.1	1	1	14	.01	2	5	ND	1	245	.2	2	2	1	33.61	.007	2	1	.08	27	.01	2	.01	.01	.01	1
8034	1	2	2	5	.1	1	1	13	.01	2	5	ND	1	233	.3	2	2	1	34.29	.005	2	1	.08	24	.01	2	.01	.01	.01	1
8035	1	2	2	4	.1	1	1	10	.01	2	5	ND	1	321	.2	2	2	1	34.71	.007	3	1	.09	30	.01	2	.01	.01	.01	1
8036	1	2	2	4	.1	1	1	9	.01	2	5	ND	1	181	.4	2	2	1	35.64	.005	2	1	.10	15	.01	2	.01	.01	.01	1
STANDARD C	21	62	38	136	7.4	73	32	1118	3.96	43	21	7	40	48	17.5	14	21	60	.47	.087	39	62	.94	187	.09	35	2.00	.07	.14	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. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: PULP Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: SEP 11 1992 **DATE REPORT MAILED:** Sept 16/92 **SIGNED BY**..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

APPENDIX 12: ANALYTICAL REPORTS FOR 30 CONSTITUENTS FROM ACME ANALYTICAL LABORATORIES LTD.

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
8037	1	1	2	6	.1	2	1	11	.01	2	15	ND	1	208	.4	2	2	1	39.58	.017	2	4	.09	33	.01	2	.01	.01	.01	2
8038	1	1	2	4	.1	2	1	5	.01	2	8	ND	1	204	.4	2	2	1	37.33	.004	2	2	.10	18	.01	2	.01	.01	.01	1
8039	1	1	2	5	.1	1	1	7	.01	2	12	ND	1	218	.2	2	2	1	37.83	.005	2	1	.11	20	.01	2	.01	.01	.01	2
8040	1	1	2	4	.1	1	1	5	.01	2	5	ND	1	190	.2	2	2	1	35.38	.003	2	1	.10	18	.01	2	.01	.01	.01	2
8041	1	1	2	4	.1	1	1	3	.01	2	5	ND	1	210	.3	2	2	1	34.82	.002	2	1	.09	17	.01	2	.01	.01	.01	2
8042	1	1	2	4	.1	1	1	6	.01	2	5	ND	1	315	.2	2	2	1	34.45	.003	2	1	.09	19	.01	2	.01	.01	.01	1
8043	1	1	2	5	.1	1	1	9	.02	2	9	ND	1	344	.2	2	2	1	37.63	.003	2	1	.10	21	.01	2	.01	.01	.01	2
8044	1	1	2	4	.1	1	1	16	.02	2	15	ND	1	271	.3	2	2	1	38.63	.004	2	1	.16	22	.01	2	.01	.01	.01	2
8045	1	1	2	4	.1	1	1	12	.02	2	11	ND	1	244	.2	2	2	1	37.39	.004	2	1	.10	18	.01	2	.01	.01	.01	2
8046	1	1	2	4	.1	1	1	11	.03	2	5	ND	1	265	.2	2	2	1	34.47	.004	2	1	.10	20	.01	2	.02	.01	.01	2
8047	1	1	2	6	.1	1	1	8	.01	2	5	ND	1	214	.2	2	2	1	34.90	.003	2	1	.09	17	.01	2	.01	.01	.01	2
8048	1	1	2	4	.1	1	1	4	.01	2	5	ND	1	179	.2	2	2	1	35.08	.002	2	1	.10	18	.01	2	.01	.01	.01	1
8049	1	1	2	7	.1	1	1	8	.04	2	5	ND	1	182	.2	2	2	1	33.31	.032	2	3	.54	20	.01	2	.04	.01	.01	2
8050	1	1	2	3	.1	1	1	4	.01	2	6	ND	1	215	.2	2	2	1	35.20	.003	2	1	.12	23	.01	2	.01	.01	.01	2
8126	1	1	2	5	.1	1	1	5	.01	2	5	ND	1	233	.5	2	2	1	35.96	.006	2	1	.09	21	.01	2	.01	.01	.01	2
8127	1	1	2	5	.1	1	1	3	.01	2	8	ND	1	222	.3	2	2	1	36.85	.006	2	1	.09	24	.01	2	.01	.01	.01	2
8128	1	1	2	4	.1	1	1	2	.01	2	7	ND	1	224	.3	2	2	3	37.25	.003	3	8	.09	22	.01	2	.01	.01	.01	2
8129	1	1	2	4	.1	1	1	7	.01	2	5	ND	1	260	.4	2	2	3	34.32	.003	8	9	.09	29	.01	2	.01	.01	.01	2
8130	1	2	2	4	.1	1	1	11	.01	2	5	ND	1	226	.3	2	2	1	34.45	.005	2	3	.12	32	.01	2	.01	.01	.02	1
8131	1	1	2	4	.1	1	1	10	.02	2	5	ND	1	189	.2	2	2	1	33.39	.024	2	1	.24	27	.01	2	.02	.01	.01	2
8133	1	2	2	3	.1	1	1	12	.01	2	5	ND	1	145	.2	2	2	1	34.65	.007	2	1	.09	23	.01	2	.01	.01	.01	1
8134	1	1	2	4	.1	1	1	32	.01	2	5	ND	1	133	.2	2	2	1	35.07	.007	2	1	.09	27	.01	2	.01	.01	.01	2
8135	1	1	3	2	.1	1	1	13	.01	2	14	ND	1	169	.2	2	2	1	36.39	.009	2	1	.08	22	.01	2	.01	.01	.01	2
8136	1	1	2	4	.2	1	1	15	.01	2	6	ND	1	169	.4	2	2	1	34.19	.008	2	1	.08	26	.01	2	.01	.01	.01	2
8137	1	1	2	3	.1	1	1	15	.01	2	5	ND	1	136	.2	2	2	1	32.86	.010	2	1	.07	26	.01	2	.01	.01	.01	2
8138	1	1	2	2	.1	1	1	16	.01	2	19	ND	1	152	.4	2	2	1	37.23	.019	2	1	.07	32	.01	2	.01	.01	.01	2
8139	1	2	2	2	.1	1	1	13	.01	2	11	ND	1	157	.5	2	2	1	35.38	.008	2	1	.07	36	.01	2	.01	.01	.01	2
8140	1	1	2	2	.1	1	1	10	.01	2	5	ND	1	134	.2	2	2	1	32.75	.005	2	1	.07	21	.01	2	.01	.01	.02	1
RE 8136	1	2	2	3	.3	1	1	13	.01	2	5	ND	1	160	.3	2	2	1	30.73	.007	2	1	.07	24	.01	2	.01	.01	.01	2
8141	1	1	2	2	.1	1	1	12	.01	2	9	ND	1	154	.3	2	2	1	33.77	.010	2	1	.05	32	.01	2	.01	.01	.01	2
8142	1	1	2	4	.2	1	1	16	.01	2	5	ND	1	185	.2	2	2	1	32.73	.004	2	1	.07	41	.01	2	.01	.01	.01	2
8143	1	2	2	2	.2	1	1	9	.01	2	6	ND	1	155	.2	2	2	1	34.42	.010	2	1	.08	24	.01	2	.01	.01	.01	2
8151	1	1	2	4	.2	1	1	5	.02	2	5	ND	1	200	.3	2	2	1	33.43	.004	2	1	.12	24	.01	2	.02	.01	.01	2
8152	1	1	2	5	.2	1	1	5	.02	2	5	ND	1	183	.3	3	2	1	33.35	.009	2	1	.12	18	.01	2	.01	.01	.01	2
8153	1	1	2	3	.1	1	1	7	.01	2	5	ND	1	200	.4	2	2	1	34.09	.003	2	1	.11	18	.01	2	.01	.01	.01	2
8154	1	2	2	4	.2	1	1	10	.01	2	5	ND	1	253	.4	2	2	1	33.97	.002	2	1	.10	18	.01	2	.01	.01	.01	2
8155	1	1	2	6	.2	1	1	3	.01	2	8	ND	2	200	.3	2	2	1	33.00	.002	2	1	.10	18	.01	2	.01	.01	.01	2
STANDARD C	20	64	42	134	7.5	72	32	1117	3.96	39	22	7	39	54	17.4	14	19	61	.46	.087	40	61	.90	185	.09	35	2.01	.07	.14	11

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

A124

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
8156	1	1	3	4	.2	1	1	8	.01	5	5	ND	2	204	.3	3	2	1	42.87	.003	2	1	.19	16	.01	2	.01	.01	.01	2
8157	1	2	2	4	.1	1	1	6	.01	4	5	ND	1	165	.3	2	2	1	38.30	.002	2	2	.17	12	.01	2	.01	.01	.01	1
8158	1	3	2	3	.2	1	1	8	.01	3	5	ND	1	201	.2	2	2	1	36.85	.003	2	1	.18	13	.01	2	.01	.01	.01	1
8159	1	2	2	4	.1	1	1	4	.01	2	5	ND	1	193	.2	2	2	1	37.46	.003	2	1	.17	18	.01	2	.01	.01	.01	1
8160	1	2	2	2	.1	1	1	6	.01	2	5	ND	1	435	.6	2	2	1	39.86	.007	2	1	.15	13	.01	2	.01	.01	.01	1
8161	1	1	2	1	.1	1	1	5	.01	2	5	ND	1	657	.3	2	2	1	34.19	.007	2	1	.15	15	.01	3	.01	.01	.01	1
8162	1	2	2	2	.3	1	1	15	.01	4	6	ND	1	326	.4	3	2	1	39.70	.006	2	1	.43	17	.01	2	.01	.01	.01	2
8163	1	2	2	5	.1	1	1	21	.02	2	5	ND	1	709	.4	2	2	1	37.98	.012	2	1	.17	23	.01	2	.01	.01	.01	1
8164	1	2	2	5	.2	1	1	14	.01	3	5	ND	1	583	.5	2	2	1	40.38	.007	2	1	.14	17	.01	2	.01	.01	.01	1
8165	1	2	2	3	.2	1	1	14	.03	5	6	ND	2	351	.6	3	2	1	38.38	.008	3	1	.16	13	.01	2	.02	.01	.01	2
8166	1	3	2	3	.3	1	1	7	.01	3	5	ND	1	410	.4	2	2	1	41.75	.005	2	1	.17	13	.01	2	.01	.01	.01	1
8167	1	2	2	2	.3	1	1	10	.01	2	5	ND	1	237	.3	2	2	1	33.58	.004	2	1	.28	12	.01	2	.01	.01	.01	1
8168	1	1	3	2	.1	1	1	3	.01	2	5	ND	1	304	.5	3	2	1	37.48	.004	2	1	.15	18	.01	2	.01	.01	.01	1
8169	1	1	2	3	.1	1	1	6	.01	2	5	ND	1	316	.5	2	2	1	33.82	.004	2	1	.14	13	.01	2	.01	.01	.01	1
8170	1	1	2	1	.1	1	1	6	.01	3	6	ND	1	316	.5	3	2	1	39.49	.004	2	1	.17	16	.01	2	.01	.01	.01	1
RE 8174	1	3	2	5	.2	1	1	11	.01	3	5	ND	1	183	.6	2	2	2	36.70	.003	9	6	.14	21	.01	2	.01	.01	.01	1
8171	1	1	2	6	.2	1	1	17	.01	2	5	ND	1	202	.5	3	2	2	36.43	.004	4	8	.17	29	.01	2	.01	.01	.01	1
8172	1	2	2	4	.1	1	1	8	.01	3	5	ND	1	243	.3	2	2	1	37.09	.005	2	1	.16	22	.01	2	.01	.01	.01	1
8173	1	2	2	4	.1	1	1	15	.01	2	5	ND	1	183	.5	2	2	2	35.17	.004	7	5	.28	21	.01	2	.01	.01	.01	1
8174	1	1	2	4	.1	1	1	10	.01	3	5	ND	1	181	.7	2	2	2	39.23	.003	7	6	.15	20	.01	2	.01	.01	.01	1
8175	1	1	2	2	.1	1	1	9	.01	2	5	ND	1	233	.4	2	2	2	36.58	.003	9	6	.15	27	.01	2	.01	.01	.01	1
8176	1	2	2	5	.1	1	1	28	.01	3	5	ND	1	169	.6	2	2	1	39.12	.012	2	1	.15	38	.01	2	.01	.01	.01	1
8177	1	3	2	6	.2	1	1	28	.01	4	9	ND	2	159	.6	2	2	1	41.77	.011	3	1	.13	36	.01	2	.01	.01	.01	2
8178	1	3	2	5	.1	1	1	17	.01	2	5	ND	1	158	.9	2	2	1	38.99	.020	2	11	.15	35	.01	2	.01	.01	.01	1
8288	1	1	2	4	.2	1	1	23	.01	4	5	ND	1	145	.9	4	2	1	38.37	.010	2	4	.17	14	.01	2	.01	.01	.01	1
8289	1	2	2	4	.1	1	1	18	.01	2	5	ND	1	133	.7	2	2	1	35.83	.010	2	4	.18	14	.01	2	.01	.01	.01	1
8290	1	1	2	2	.1	1	1	51	.01	2	5	ND	1	126	.3	2	2	1	35.53	.008	2	1	.13	21	.01	2	.01	.01	.01	1
8291	1	2	2	3	.2	1	1	66	.02	3	6	ND	1	150	.5	2	2	1	37.79	.011	3	1	.17	28	.01	2	.01	.01	.01	2
8292	1	1	2	3	.1	1	1	66	.01	2	5	ND	1	218	.6	2	2	1	37.53	.016	3	2	.16	33	.01	2	.03	.01	.01	1
8293	1	2	2	3	.1	1	1	43	.01	3	5	ND	1	158	.7	2	2	1	35.78	.007	2	5	.15	27	.01	2	.01	.01	.01	1
8294	1	2	2	4	.1	1	1	18	.01	2	5	ND	1	168	.5	2	2	1	34.46	.006	2	5	.14	29	.01	2	.01	.01	.01	1
8295	1	1	2	3	.1	1	1	17	.01	4	5	ND	1	195	.7	3	2	1	39.07	.006	2	4	.15	25	.01	2	.01	.01	.01	1
8296	1	1	2	2	.2	1	1	20	.01	3	9	ND	1	173	.7	3	2	1	36.92	.010	3	6	.18	26	.01	2	.01	.01	.01	1
8297	1	1	2	3	.2	1	1	5	.01	3	5	ND	1	318	.4	2	2	4	36.77	.002	7	8	.19	32	.01	2	.01	.01	.01	1
8298	1	1	2	5	.1	1	1	25	.01	3	6	ND	1	199	.3	2	2	3	33.93	.008	4	9	.25	27	.01	2	.01	.01	.01	1
8299	1	2	2	4	.3	1	1	17	.01	3	5	ND	1	242	.4	2	2	2	32.58	.005	4	6	.94	37	.01	2	.01	.01	.01	1
8300	1	2	2	4	.1	1	1	27	.01	2	5	ND	1	142	.6	2	2	1	33.64	.011	3	4	.28	16	.01	2	.01	.01	.01	1
STANDARD C	18	57	37	127	7.4	72	30	1013	3.96	42	18	7	38	52	17.4	16	20	53	.46	.087	38	57	.90	182	.08	34	1.93	.08	.16	10

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

A125

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
8538	1	3	2	2	.1	1	1	8	.01	3	5	ND	2	123	.4	2	2	1	37.84	.006	2	4	.11	10	.01	2	.01	.01	.01	2
8539	1	1	2	4	.2	1	1	10	.01	3	5	ND	3	119	.6	2	2	1	39.84	.029	4	4	.14	11	.01	2	.01	.01	.01	2
8540	1	1	2	3	.1	2	1	19	.01	2	5	ND	2	128	.5	2	2	1	35.57	.008	3	5	2.34	22	.01	2	.01	.01	.01	1
8541	1	2	2	1	.1	1	1	6	.01	2	5	ND	1	83	.5	2	2	1	38.74	.002	3	4	.17	11	.01	2	.01	.01	.01	2
8542	1	1	2	10	.1	2	1	39	.04	2	5	ND	1	111	.6	2	2	2	30.28	.010	4	5	3.75	22	.01	2	.02	.01	.01	1
8543	1	1	2	4	.1	1	1	12	.01	3	5	ND	1	165	.5	2	2	1	36.47	.012	2	3	.46	22	.01	2	.01	.01	.01	1
8544	1	2	2	5	.1	1	1	21	.02	2	5	ND	1	140	.3	2	2	2	32.99	.062	3	4	3.15	15	.01	2	.01	.01	.01	1
8545	1	1	2	3	.2	3	1	36	.03	2	5	ND	1	113	.4	2	2	2	27.10	.007	4	6	5.85	13	.01	2	.01	.01	.01	1
8547	1	2	2	7	.1	1	1	7	.01	4	5	ND	1	241	.9	2	2	2	39.54	.004	5	8	.22	30	.01	2	.01	.01	.01	2
8548	1	2	2	5	.2	1	1	14	.01	2	5	ND	1	199	.5	2	2	1	37.33	.051	2	3	1.30	19	.01	3	.01	.01	.02	1
RE 8561	1	1	2	14	.1	2	1	10	.01	2	5	ND	1	203	.9	2	2	1	36.90	.033	2	7	.17	34	.01	2	.01	.01	.01	1
8549	1	2	2	5	.1	2	1	35	.03	3	5	ND	1	144	.4	2	2	2	33.22	.061	4	4	1.57	17	.01	2	.01	.01	.01	1
8550	1	3	2	4	.1	1	1	11	.01	2	5	ND	1	149	.5	2	2	2	35.18	.013	3	5	.81	16	.01	2	.01	.01	.01	1
8559	1	1	2	13	.2	1	1	16	.01	2	5	ND	1	204	.8	2	2	1	35.64	.025	2	2	.19	33	.01	2	.01	.01	.01	2
8560	1	1	2	15	.1	1	1	10	.01	2	5	ND	1	188	.9	2	2	1	35.75	.015	2	3	.20	41	.01	2	.01	.01	.01	1
8561	1	3	2	16	.1	1	1	11	.01	2	5	ND	1	201	.9	2	2	1	35.38	.031	2	2	.15	31	.01	2	.01	.01	.01	1
8562	1	1	2	13	.1	1	1	10	.01	2	5	ND	1	237	1.0	2	2	1	34.99	.014	2	2	.15	36	.01	2	.01	.01	.01	1
8563	1	2	2	14	.1	1	1	7	.01	2	5	ND	1	178	1.0	2	2	1	33.92	.015	2	2	.17	33	.01	2	.01	.01	.01	1
8564	1	1	2	13	.1	1	1	11	.01	3	5	ND	1	215	1.0	2	2	1	37.87	.017	2	3	.21	37	.01	2	.01	.01	.01	1
8565	1	1	2	3	.1	1	1	22	.01	4	5	ND	1	133	.2	2	2	1	38.39	.012	2	1	.14	29	.01	2	.01	.01	.01	1
8566	1	1	2	3	.1	1	1	21	.01	2	5	ND	1	150	.4	2	2	1	38.50	.007	3	5	.18	26	.01	2	.01	.01	.01	1
8567	1	1	2	3	.1	1	1	18	.01	2	5	ND	1	157	.4	2	2	1	38.18	.008	2	3	.14	27	.01	2	.01	.01	.01	1
8568	1	3	2	5	.1	1	1	28	.01	3	5	ND	1	135	.3	2	2	1	37.64	.010	2	2	.11	21	.01	2	.01	.01	.01	1
8569	1	1	2	4	.2	1	1	23	.01	2	5	ND	1	147	.5	2	2	1	37.39	.009	2	4	.12	32	.01	2	.01	.01	.01	1
8570	1	2	2	7	.1	1	1	28	.01	3	5	ND	1	113	.2	2	2	1	36.74	.008	2	2	.10	25	.01	2	.01	.01	.01	1
8571	1	2	2	3	.1	1	1	23	.01	2	5	ND	1	133	.2	2	2	1	36.74	.007	2	1	.10	27	.01	2	.01	.01	.01	1
8572	1	1	2	3	.1	1	1	29	.01	4	5	ND	1	153	.3	2	2	1	35.36	.010	2	1	.11	30	.01	2	.01	.01	.01	1
8573	1	1	4	3	.1	1	1	22	.01	4	5	ND	1	144	.3	4	2	1	36.96	.009	2	3	.16	35	.01	2	.01	.01	.01	1
8574	1	1	4	2	.1	1	1	19	.01	3	5	ND	1	139	.2	2	2	1	36.94	.010	2	2	.17	30	.01	2	.01	.01	.01	1
8575	1	2	3	2	.1	1	1	21	.01	2	5	ND	1	147	.4	2	2	1	36.99	.017	2	2	.15	29	.01	2	.01	.01	.01	1
STANDARD C	18	56	38	130	7.1	71	32	1040	3.96	43	16	7	38	52	19.2	14	21	56	.47	.084	38	59	.91	182	.08	34	1.94	.08	.16	11

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

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Halferdahl & Associates Ltd. File # 92-2378R Page 1

18 - 10509 - 81st Ave, Edmonton AB T6E 1X7

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
8051	1	1	2	13	.2	1	1	6	.04	3	5	ND	2	219	.3	3	2	1	37.63	.004	2	3	.18	35	.01	2	.01	.01	.01	1
8052	1	2	2	7	.2	1	1	7	.03	3	5	ND	1	267	.2	2	2	1	38.22	.005	2	3	.19	52	.01	2	.01	.01	.01	1
8053	1	2	2	6	.2	1	1	37	.05	3	5	ND	1	198	.2	2	2	1	37.60	.005	2	3	.20	32	.01	5	.01	.01	.01	1
8054	1	1	2	4	.1	1	1	2	.03	2	5	ND	2	256	.3	2	2	1	38.89	.006	2	2	.19	39	.01	2	.01	.01	.01	1
8055	1	3	2	3	.1	1	1	9	.03	2	5	ND	2	426	.2	2	2	1	39.46	.008	2	1	.25	26	.01	2	.01	.01	.01	1
8056	1	3	2	7	.6	2	2	46	.11	4	5	ND	2	206	.8	2	2	2	38.93	.012	2	2	.15	28	.01	8	.04	.01	.01	1
8057	1	2	2	4	.2	1	1	29	.03	2	5	ND	1	210	.2	2	2	1	37.64	.009	2	3	.17	22	.01	3	.01	.01	.01	1
8058	1	3	2	4	.1	1	1	8	.03	2	5	ND	1	216	.9	2	2	1	39.14	.037	3	2	.15	21	.01	2	.01	.01	.01	1
8059	1	3	2	3	.2	1	1	2	.02	2	5	ND	3	529	.3	2	2	1	37.76	.023	3	1	.13	26	.01	2	.01	.01	.01	1
8060	1	3	2	4	.2	1	1	45	.06	2	5	ND	2	681	.5	2	2	1	37.62	.103	3	2	.14	24	.01	2	.03	.01	.01	1
8062	1	4	2	4	.1	1	1	20	.04	2	5	ND	1	249	.5	2	2	1	36.43	.031	3	3	1.22	26	.01	2	.01	.01	.01	1
8063	1	1	2	3	.5	1	1	22	.03	2	5	ND	1	243	.3	2	2	1	38.05	.023	4	2	.20	27	.01	7	.01	.01	.01	1
8064	1	3	4	2	.2	1	1	39	.03	2	5	ND	1	241	.4	2	2	1	39.38	.017	3	1	.14	23	.01	3	.01	.01	.01	1
8065	1	3	2	1	.1	1	1	30	.03	2	5	ND	1	124	.2	2	2	1	38.75	.007	2	2	.29	17	.01	2	.01	.01	.01	1
RE 8070	1	2	2	1	.1	1	1	2	.04	4	5	ND	1	203	.2	2	2	1	39.58	.006	2	2	.08	27	.01	2	.01	.01	.01	1
8066	1	1	2	2	.2	1	1	31	.04	2	5	ND	1	135	.2	2	2	1	39.47	.012	2	1	.33	16	.01	3	.01	.01	.01	1
8067	1	3	2	3	.1	3	1	18	.05	3	5	ND	1	139	.3	2	2	1	36.83	.011	2	3	1.09	17	.01	3	.01	.01	.01	1
8068	1	2	2	1	.4	1	1	6	.03	2	5	ND	1	146	.2	2	2	1	37.82	.007	2	2	.34	21	.01	7	.01	.01	.01	1
8069	1	1	2	1	.3	2	1	20	.03	2	5	ND	1	160	.2	2	2	1	36.65	.007	2	3	.13	24	.01	2	.01	.01	.01	1
8070	1	1	2	1	.3	1	1	4	.03	2	6	ND	1	193	.2	2	3	1	37.30	.006	2	1	.08	26	.01	4	.01	.01	.01	1
8132	1	3	2	2	.3	1	2	6	.02	2	8	ND	3	145	.2	3	2	1	38.22	.007	2	3	.20	21	.01	2	.01	.01	.01	1
8144	1	3	4	2	.3	1	1	29	.04	3	5	ND	2	689	.5	2	2	1	38.90	.015	2	1	.13	19	.01	5	.01	.01	.01	1
8145	1	1	2	2	.4	1	1	13	.03	2	5	ND	1	923	.3	2	3	1	37.57	.018	2	2	.09	13	.01	6	.01	.01	.01	1
8146	1	1	2	2	.5	1	1	29	.03	3	7	ND	1	355	.5	2	2	1	38.35	.028	2	1	.10	18	.01	6	.01	.01	.01	1
8147	1	2	2	3	.4	1	1	21	.04	2	5	ND	1	228	.2	2	2	1	37.58	.014	2	1	.15	28	.01	6	.01	.01	.01	1
8148	1	3	3	6	.1	1	1	15	.07	2	5	ND	1	224	.4	2	2	1	36.21	.017	2	2	.72	23	.01	3	.01	.01	.01	1
8149	1	3	2	4	.3	1	1	20	.04	3	6	ND	3	324	.4	2	2	1	37.11	.014	3	2	.15	17	.01	3	.01	.01	.01	1
8150	1	3	2	3	.4	1	1	5	.04	2	5	ND	2	219	.2	2	2	1	37.89	.006	2	1	.18	27	.01	8	.01	.01	.01	1
8179	1	2	4	3	.5	1	1	74	.04	3	6	ND	1	122	.5	3	2	1	37.75	.017	2	1	.16	27	.01	10	.01	.01	.01	1
8180	1	1	2	3	.3	1	1	9	.03	2	5	ND	1	141	.7	2	2	1	34.48	.016	3	7	.15	33	.01	6	.01	.01	.01	1
8181	1	1	2	3	.4	1	1	18	.03	2	7	ND	1	153	1.0	2	2	1	35.67	.009	3	11	.17	36	.01	5	.01	.01	.01	1
8182	1	3	2	3	.4	1	1	3	.03	3	7	ND	3	155	.9	2	2	1	36.12	.011	3	8	.16	34	.01	5	.01	.01	.01	1
8183	1	2	2	3	.3	1	1	41	.03	2	5	ND	1	165	1.1	2	2	1	37.21	.024	2	10	.15	62	.01	2	.01	.01	.01	1
8184	1	1	2	6	.3	1	2	27	.06	2	5	ND	1	158	1.2	2	3	1	37.69	.020	3	7	.13	69	.01	5	.02	.01	.01	1
8185	1	3	2	3	.5	1	1	35	.04	2	5	ND	1	130	.5	2	3	1	38.56	.020	2	2	.11	36	.01	10	.01	.01	.01	1
8186	1	3	2	6	.6	1	1	51	.05	3	9	ND	2	124	1.1	3	3	1	39.04	.027	2	4	.13	44	.01	12	.01	.01	.01	1
8187	1	2	2	4	.3	1	1	70	.04	3	6	ND	1	117	1.1	2	2	1	36.13	.037	4	3	.10	33	.01	6	.01	.01	.01	1
STANDARD C	19	61	40	132	7.6	73	32	1042	3.96	42	19	7	39	52	18.9	14	21	59	.45	.086	40	62	.92	183	.08	34	1.97	.07	.14	10

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. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: PULP Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: SEP 11 1992 **DATE REPORT MAILED:** Sept 17/92 **SIGNED BY** ..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

A127

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
8188	1	3	5	6	.1	2	1	28	.01	4	5	ND	2	170	1.2	2	2	1	34.79	.031	4	7	.15	55	.01	2	.01	.01	.01	2
8189	1	2	6	5	.2	2	1	51	.01	4	5	ND	1	130	.8	2	2	1	36.41	.032	2	5	.16	50	.01	2	.01	.01	.01	1
8190	1	1	2	6	.2	1	1	49	.01	4	5	ND	1	136	1.0	2	2	1	35.59	.030	4	6	.17	45	.01	2	.01	.01	.01	2
8191	1	1	6	4	.1	1	1	23	.01	4	5	ND	1	180	.9	2	2	1	36.57	.030	3	1	.14	65	.01	2	.01	.01	.01	1
8192	1	2	2	5	.3	2	1	11	.02	5	5	ND	1	310	.8	2	2	2	35.98	.094	3	2	.17	60	.01	2	.01	.01	.01	2
8193	1	1	4	5	.2	2	1	78	.01	6	5	ND	1	132	1.1	3	2	1	39.20	.035	2	9	.13	40	.01	2	.01	.01	.01	1
8194	1	1	6	5	.2	1	1	36	.02	5	5	ND	1	185	.8	2	2	1	38.12	.031	4	3	.07	49	.01	2	.01	.01	.01	2
8195	1	1	2	11	.2	2	1	42	.07	5	5	ND	1	282	.9	4	2	2	36.49	.090	8	1	.12	123	.01	2	.02	.01	.01	1
8196	1	2	4	14	.1	1	1	15	.01	5	5	ND	2	229	1.1	3	2	2	34.95	.021	4	2	.23	35	.01	2	.01	.01	.01	1
8197	1	1	7	19	.2	1	1	15	.01	5	5	ND	1	240	1.2	2	2	3	33.36	.024	2	2	.22	37	.01	2	.01	.01	.01	1
8198	1	3	2	26	.3	1	1	13	.01	4	5	ND	1	260	1.1	2	2	3	39.16	.021	2	2	.24	30	.01	2	.01	.01	.01	2
8199	1	1	3	26	.1	1	1	11	.01	4	5	ND	1	262	1.4	2	2	2	38.65	.024	2	3	.28	28	.01	2	.01	.01	.01	1
8200	1	1	2	21	.2	2	1	12	.01	3	5	ND	2	236	1.5	2	2	2	35.70	.019	2	2	.27	24	.01	2	.01	.01	.01	1
8201	1	1	2	16	.2	1	1	9	.01	5	5	ND	1	227	1.3	3	2	1	36.26	.022	2	2	.26	23	.01	2	.01	.01	.01	1
8202	1	1	2	12	.1	1	1	11	.01	5	5	ND	1	183	1.4	2	2	1	36.80	.030	2	2	.22	24	.01	2	.01	.01	.01	1
8203	1	4	4	13	.3	1	1	8	.01	5	5	ND	1	181	1.2	2	2	1	36.87	.013	3	4	.21	34	.01	2	.01	.01	.01	1
RE 8199	1	2	3	25	.1	1	1	13	.01	4	5	ND	1	258	1.4	3	2	2	37.30	.024	3	4	.27	27	.01	3	.01	.01	.01	2
8204	1	1	2	11	.2	1	1	11	.01	4	5	ND	1	190	1.0	2	2	1	35.20	.018	3	3	.21	29	.01	2	.01	.01	.01	1
8205	1	2	2	11	.2	1	1	8	.01	5	5	ND	1	169	1.0	3	2	1	32.58	.014	2	2	.18	24	.01	2	.01	.01	.01	1
8206	1	1	2	14	.2	2	1	20	.04	6	5	ND	2	207	1.1	2	2	1	35.05	.016	3	3	.18	30	.01	2	.03	.01	.01	1
8207	1	1	2	12	.1	1	1	7	.01	3	5	ND	1	178	.6	2	2	1	34.47	.016	2	4	.19	20	.01	2	.01	.01	.01	1
8208	1	4	2	14	.1	2	1	10	.01	5	5	ND	1	215	.7	2	2	3	35.80	.033	2	4	.21	23	.01	2	.01	.01	.01	1
8209	1	1	2	9	.1	1	1	6	.01	3	5	ND	1	173	.6	2	2	1	34.67	.013	2	4	.20	23	.01	2	.01	.01	.01	1
8210	1	1	2	9	.1	1	1	7	.01	5	5	ND	1	259	1.0	2	2	1	34.73	.014	2	2	.19	22	.01	2	.01	.01	.01	1
8211	1	3	2	10	.1	1	1	12	.01	5	5	ND	1	261	1.1	2	2	2	36.43	.020	2	2	.21	26	.01	2	.01	.01	.01	1
8212	1	3	2	10	.1	1	1	6	.01	3	5	ND	1	201	.8	2	2	1	35.65	.028	3	3	.20	25	.01	2	.01	.01	.01	1
8213	1	1	2	8	.1	1	1	13	.02	5	5	ND	1	223	.7	3	2	2	33.55	.031	2	2	.22	28	.01	2	.01	.01	.01	1
8214	1	3	2	6	.1	1	1	10	.01	5	5	ND	1	205	.9	2	3	1	31.10	.018	2	2	.17	25	.01	2	.01	.01	.01	1
8215	1	2	2	10	.1	1	1	8	.01	5	6	ND	1	175	1.2	2	2	1	32.68	.013	2	2	.21	29	.01	2	.01	.01	.01	2
8546	1	4	2	6	.2	1	1	4	.01	5	5	ND	1	240	.7	2	2	1	31.75	.004	2	8	.22	25	.01	2	.01	.01	.01	1
STANDARD C	20	58	39	132	7.4	77	31	1070	3.96	42	16	7	39	52	18.9	13	21	59	.46	.087	39	60	.90	184	.09	35	1.93	.08	.16	10

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

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ACME ANAL CAN LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Halferdahl & Associates Ltd. File # 92-2534R Page 1

18 - 10509 - 81st Ave, Edmonton AB T6E 1X7

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
8061	1	1	2	7	.1	1	1	8	.02	2	5	ND	1	575	.2	2	2	1	35.54	.055	2	1	.11	36	.01	2	.02	.01	.01	1
8071	1	1	4	10	.1	1	1	10	.02	2	5	ND	1	213	.2	2	2	1	36.01	.005	2	1	.09	27	.01	2	.02	.01	.01	1
8072	1	1	2	6	.1	1	1	6	.02	2	5	ND	1	185	.3	2	2	1	36.14	.003	2	1	.09	20	.01	2	.02	.01	.01	1
8073	1	1	2	6	.1	1	1	3	.02	2	5	ND	1	134	.4	2	2	1	29.53	.005	2	1	.09	16	.01	2	.02	.01	.01	1
8074	1	1	2	4	.1	1	1	11	.01	2	5	ND	1	480	.2	2	2	1	35.98	.007	2	1	.09	20	.01	2	.01	.01	.01	1
8075	1	1	2	5	.1	1	1	4	.01	2	5	ND	1	322	.3	2	2	1	35.02	.004	2	1	.11	14	.01	2	.01	.01	.01	1
8216	1	1	3	14	.1	1	1	7	.01	2	5	ND	1	154	.5	2	2	1	38.10	.008	2	2	.10	27	.01	2	.01	.01	.01	1
8217	1	1	2	9	.1	1	1	8	.01	2	5	ND	1	153	.2	2	2	1	35.87	.013	2	1	.11	26	.01	2	.01	.01	.01	1
8226	1	1	2	11	.1	1	1	24	.01	2	5	ND	1	128	1.3	2	2	1	36.50	.060	2	1	.08	29	.01	2	.01	.01	.01	1
8227	1	1	2	7	.1	1	1	34	.01	2	5	ND	1	114	.9	2	2	1	33.94	.040	2	1	.07	31	.01	2	.01	.01	.01	1
8228	1	1	2	8	.1	1	1	22	.01	2	5	ND	1	108	.9	2	2	1	33.97	.054	2	1	.08	29	.01	2	.01	.01	.01	1
8229	1	1	2	11	.1	1	1	53	.01	2	5	ND	1	127	.7	2	2	1	34.82	.088	2	3	.08	34	.01	2	.01	.01	.01	1
8230	1	1	2	5	.1	1	1	11	.01	2	5	ND	1	224	.5	2	2	1	33.79	.010	2	6	.08	31	.01	2	.01	.01	.01	1
8231	1	1	2	6	.1	1	1	11	.03	2	5	ND	1	207	.2	2	2	1	33.17	.014	2	1	.17	14	.01	2	.03	.01	.01	1
8232	1	1	2	6	.1	1	1	11	.03	2	5	ND	1	190	.3	2	2	1	33.35	.010	2	1	.33	16	.01	2	.03	.01	.01	1
8233	1	1	2	7	.1	1	1	12	.03	2	8	ND	1	200	.2	2	2	1	33.70	.012	2	1	.32	18	.01	2	.03	.01	.01	1
8234	1	5	2	7	.1	1	1	4	.01	2	5	ND	1	678	.2	3	2	1	33.39	.009	2	1	.07	15	.01	2	.01	.01	.01	1
8235	1	1	2	4	.1	1	1	7	.01	2	5	ND	1	559	.2	2	2	1	34.47	.008	2	1	.06	12	.01	2	.02	.01	.01	1
8236	1	1	2	5	.1	1	1	12	.02	2	5	ND	1	191	.3	2	2	1	33.88	.005	2	2	.08	17	.01	2	.02	.01	.01	1
8237	1	1	2	4	.1	1	1	6	.02	2	5	ND	1	226	.3	2	2	1	34.50	.004	2	1	.10	26	.01	2	.03	.01	.01	1
8238	1	1	2	5	.1	1	1	6	.01	2	5	ND	1	239	.3	2	2	1	34.36	.003	2	1	.09	22	.01	2	.01	.01	.01	1
8239	1	1	2	4	.1	1	1	5	.01	2	5	ND	1	208	.3	2	2	1	33.31	.004	2	1	.09	20	.01	2	.02	.01	.01	1
8240	1	1	2	6	.1	1	1	13	.02	2	5	ND	1	225	.2	2	2	1	34.47	.004	2	1	.11	22	.01	2	.02	.01	.01	1
8241	1	2	2	4	.1	1	1	6	.02	2	5	ND	1	234	.3	2	2	1	34.12	.003	2	1	.11	23	.01	3	.02	.01	.01	1
8242	1	1	2	4	.1	1	1	3	.01	2	5	ND	1	213	.2	2	2	1	33.63	.003	2	1	.11	21	.01	3	.02	.01	.01	1
8243	1	2	2	4	.1	1	1	2	.02	2	5	ND	1	197	.2	2	2	1	34.33	.003	2	1	.11	21	.01	2	.02	.01	.01	1
8244	1	1	2	6	.1	1	1	3	.01	2	5	ND	1	195	.3	2	2	1	34.37	.004	2	1	.10	23	.01	3	.02	.01	.01	1
RE 8240	1	1	2	5	.1	1	1	12	.02	2	5	ND	1	220	.2	2	2	1	33.65	.004	2	2	.11	22	.01	2	.02	.01	.01	1
8245	1	1	2	6	.1	1	1	9	.01	2	5	ND	1	236	.3	2	2	1	31.87	.004	2	1	.11	26	.01	3	.03	.01	.01	1
8246	1	1	2	5	.1	1	1	10	.02	2	5	ND	1	393	.2	2	2	1	33.47	.006	2	2	.16	16	.01	3	.02	.01	.01	1
8247	1	1	2	4	.1	1	1	8	.01	2	5	ND	1	344	.4	2	2	1	33.24	.009	2	1	.10	13	.01	6	.01	.01	.01	1
8248	1	1	2	3	.1	1	1	8	.02	2	5	ND	1	367	.5	2	2	1	33.61	.010	2	1	.14	13	.01	2	.02	.01	.01	1
8251	1	1	2	7	.1	1	1	9	.01	2	5	ND	1	149	.3	2	2	1	34.89	.018	2	3	.06	18	.01	2	.01	.01	.01	1
8252	1	1	2	6	.1	1	1	2	.01	2	5	ND	1	149	.6	2	2	1	34.23	.010	2	3	.08	16	.01	2	.01	.01	.01	1
8253	1	2	2	8	.1	1	1	9	.01	2	5	ND	1	184	.6	2	2	1	33.75	.033	2	2	.10	20	.01	2	.01	.01	.01	1
8254	1	2	2	8	.1	1	1	13	.01	2	5	ND	1	307	.3	2	2	3	33.88	.024	2	3	.10	32	.01	2	.02	.01	.01	1
8255	1	2	2	7	.1	1	1	12	.01	2	5	ND	1	295	.4	2	2	2	32.38	.019	2	2	.10	29	.01	2	.01	.01	.01	1
STANDARD C	18	59	39	130	7.2	71	31	1115	3.96	41	19	7	40	53	17.2	14	19	58	.51	.086	37	62	.93	183	.08	33	2.00	.06	.15	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.
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A129

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
8256	1	1	2	11	.1	1	1	10	.01	2	5	ND	1	295	.4	2	2	2	39.75	.058	2	3	.11	36	.01	2	.02	.01	.01	2
8257	1	1	3	10	.1	1	1	11	.01	2	5	ND	1	238	.4	2	2	1	39.68	.020	2	2	.11	41	.01	2	.01	.01	.01	1
8258	1	2	2	12	.2	1	1	13	.01	2	5	ND	1	209	.3	2	2	1	37.89	.017	2	3	.10	63	.01	2	.01	.01	.01	1
8259	1	2	2	11	.1	1	1	12	.01	2	5	ND	1	212	.5	2	2	1	39.34	.012	2	3	.10	49	.01	2	.01	.01	.01	1
8260	1	2	2	8	.1	1	1	12	.01	2	5	ND	1	220	.4	2	2	1	38.95	.017	2	2	.09	42	.01	2	.01	.01	.01	1
8261	1	2	2	12	.1	1	1	11	.01	2	5	ND	1	229	.5	2	2	2	37.23	.018	2	3	.11	42	.01	2	.01	.01	.01	1
8262	1	2	2	13	.1	1	1	12	.01	2	5	ND	1	216	.5	2	2	2	38.39	.014	2	3	.10	34	.01	2	.02	.01	.01	2
8263	1	2	2	4	.1	1	1	72	.01	2	5	ND	1	167	.2	2	2	1	39.08	.012	2	1	.08	45	.01	2	.01	.01	.01	1
8264	1	1	2	10	.1	1	1	59	.01	2	5	ND	1	147	.6	2	2	1	38.87	.018	2	3	.08	34	.01	2	.02	.01	.01	1
8265	1	1	2	6	.1	1	1	33	.01	2	5	ND	1	146	.4	2	2	1	36.33	.013	2	10	.09	31	.01	2	.01	.01	.01	1
8266	1	1	2	7	.1	1	1	36	.01	2	5	ND	1	135	.8	2	2	1	37.41	.012	2	7	.08	33	.01	2	.01	.01	.01	1
8267	1	1	2	6	.1	1	1	31	.01	2	5	ND	1	153	.7	2	2	1	37.59	.010	2	9	.08	34	.01	2	.01	.01	.01	1
8268	1	4	2	7	.1	1	1	36	.01	2	5	ND	1	186	.7	2	2	1	37.86	.029	2	8	.08	46	.01	2	.02	.01	.01	1
8269	1	1	2	5	.1	1	1	37	.01	2	5	ND	1	169	.5	2	2	1	39.03	.015	2	7	.07	40	.01	2	.01	.01	.01	1
8270	1	1	2	7	.1	1	1	31	.01	2	5	ND	2	161	.5	2	2	1	38.06	.017	2	8	.07	39	.01	2	.01	.01	.01	1
8271	1	1	2	6	.1	1	1	56	.01	2	5	ND	1	136	.3	2	2	1	39.02	.035	2	2	.08	38	.01	2	.01	.01	.01	1
8272	1	2	2	4	.1	1	1	35	.01	2	5	ND	1	170	.5	2	2	1	38.23	.014	2	8	.09	35	.01	2	.01	.01	.01	1
8273	1	1	2	5	.1	1	1	67	.01	2	5	ND	1	132	.2	2	2	1	38.10	.011	2	1	.08	37	.01	3	.01	.01	.01	1
8274	1	1	2	6	.2	1	1	63	.02	2	5	ND	1	125	.2	2	2	1	36.29	.012	2	1	.08	26	.01	2	.01	.01	.01	1
RE 8270	1	2	2	6	.1	1	1	29	.01	2	5	ND	1	159	.6	2	2	1	37.31	.017	2	9	.07	39	.01	2	.01	.01	.01	1
8275	1	1	2	4	.1	1	1	47	.01	2	5	ND	1	159	.2	2	2	1	37.13	.025	2	1	.08	31	.01	2	.01	.01	.01	1
8301	1	2	2	5	.1	1	1	20	.02	2	5	ND	1	182	.5	2	2	1	35.76	.092	2	1	.09	50	.01	2	.02	.01	.01	1
8302	1	1	2	3	.1	1	1	18	.01	2	5	ND	1	175	.6	2	2	1	35.99	.048	2	1	.09	50	.01	2	.01	.01	.01	1
8303	1	1	2	4	.1	1	1	43	.01	2	5	ND	1	168	.6	2	2	1	36.22	.062	2	1	.08	55	.01	2	.01	.01	.01	1
8304	1	1	2	2	.1	1	1	11	.01	2	5	ND	1	497	.2	2	2	1	38.04	.012	2	1	.10	22	.01	2	.01	.01	.01	1
8305	1	2	2	2	.1	1	1	13	.01	2	5	ND	1	925	.2	2	2	1	37.56	.012	2	1	.07	16	.01	2	.01	.01	.01	1
8306	1	1	2	3	.1	1	1	16	.01	2	5	ND	1	484	.2	2	2	1	37.21	.011	2	1	.10	16	.01	2	.01	.01	.01	1
8307	1	1	2	4	.1	1	1	12	.02	2	5	ND	1	765	.3	2	2	1	36.10	.008	2	1	.09	16	.01	2	.02	.01	.01	1
8308	1	1	2	4	.2	1	1	13	.03	2	5	ND	1	477	.2	2	2	1	32.66	.012	2	2	.95	14	.01	2	.03	.01	.01	1
8309	1	1	2	2	.1	1	1	6	.01	2	5	ND	1	782	.2	2	2	1	35.46	.005	2	1	.06	15	.01	2	.01	.01	.01	1
8310	1	1	5	18	.1	1	1	7	.01	2	5	ND	1	1207	.4	2	2	1	35.44	.005	2	1	.08	12	.01	2	.01	.01	.01	1
8311	1	3	4	24	.2	1	1	15	.04	2	5	ND	1	311	.2	2	2	1	32.52	.013	2	2	.77	23	.01	2	.03	.01	.02	1
8312	1	1	2	10	.1	1	1	9	.02	2	5	ND	1	541	.2	2	2	1	35.84	.014	2	1	.08	17	.01	2	.02	.01	.01	1
8313	1	1	2	8	.1	1	1	12	.04	2	5	ND	1	311	.2	2	2	1	35.27	.012	2	2	.13	23	.01	2	.03	.01	.01	1
8314	1	1	2	6	.1	1	1	30	.01	2	5	ND	1	169	.2	2	2	1	37.17	.013	2	1	.07	13	.01	2	.01	.01	.01	1
8315	1	1	2	4	.1	1	1	16	.01	2	5	ND	1	134	.2	2	2	1	36.11	.003	2	1	.06	13	.01	2	.01	.01	.01	1
8316	1	1	2	5	.1	1	1	14	.01	2	5	ND	1	167	.2	2	2	1	36.81	.006	2	1	.07	21	.01	2	.01	.01	.01	1
STANDARD C	18	58	39	126	6.8	66	31	1062	3.96	43	19	7	37	54	16.7	13	19	54	.49	.086	35	59	.88	187	.08	35	1.91	.06	.13	10

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

A130

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
8317	1	2	3	9	.1	1	1	15	.02	3	5	ND	2	249	.4	2	2	1	38.87	.013	2	1	.15	29	.01	2	.01	.01	.01	2
8318	1	3	2	10	.1	1	1	15	.03	2	5	ND	1	215	.3	2	2	1	36.31	.047	2	1	.18	43	.01	2	.02	.01	.01	1
8319	1	2	2	6	.1	1	1	24	.06	3	5	ND	1	261	.4	2	2	1	37.92	.011	2	1	.26	20	.01	2	.03	.01	.01	1
8320	1	2	2	7	.1	1	1	22	.06	4	5	ND	2	295	.3	3	2	1	39.95	.020	2	1	.18	23	.01	2	.02	.01	.01	2
8321	1	2	2	4	.1	1	1	11	.01	2	5	ND	1	350	.5	2	2	1	39.40	.022	2	1	.13	17	.01	2	.01	.01	.01	1
8322	1	2	3	6	.3	1	1	23	.01	2	9	ND	2	179	.7	4	2	2	39.17	.008	4	6	.57	17	.01	2	.01	.01	.01	2
8323	1	1	2	6	.1	1	1	16	.01	2	5	ND	1	177	.7	2	2	1	38.30	.005	2	12	.17	19	.01	2	.01	.01	.01	1
8324	1	1	2	6	.3	1	1	19	.01	2	6	ND	1	173	.5	2	2	1	36.78	.007	2	13	.14	27	.01	2	.01	.01	.01	2
8325	1	2	2	3	.1	1	1	6	.01	2	5	ND	1	260	.3	2	2	1	36.15	.006	2	1	.17	26	.01	2	.01	.01	.01	2
8326	1	1	2	4	.1	1	1	10	.01	2	5	ND	1	257	.3	2	2	1	37.64	.004	2	1	.19	23	.01	2	.01	.01	.01	2
8327	1	1	2	4	.1	1	1	5	.01	2	5	ND	1	186	.4	2	2	1	37.02	.003	2	1	.18	20	.01	2	.01	.01	.01	1
8328	1	1	2	2	.1	1	1	3	.01	2	5	ND	1	1175	.4	2	2	1	36.83	.006	2	1	.09	10	.01	2	.01	.01	.01	1
8701	1	3	2	4	.2	1	1	273	.04	3	6	ND	1	1451	.2	2	2	1	36.71	.018	2	1	.10	49	.01	2	.01	.01	.01	1
8702	1	3	2	2	.2	1	1	92	.04	2	5	ND	1	1471	.3	2	2	1	39.41	.024	2	1	.10	14	.01	3	.01	.01	.01	1
8703	1	2	2	3	.2	1	1	9	.01	2	7	ND	2	260	.7	2	2	2	39.81	.010	3	8	.18	20	.01	2	.01	.01	.01	2
8704	1	1	2	4	.1	1	1	12	.01	2	5	ND	1	246	.6	3	2	3	36.94	.007	3	8	.17	20	.01	2	.01	.01	.01	1
8705	1	2	3	4	.1	1	1	20	.01	2	5	ND	1	254	.7	2	2	2	37.21	.011	2	7	.20	24	.01	2	.01	.01	.01	1
8706	1	2	3	5	.2	1	1	14	.01	3	5	ND	1	252	.4	2	2	3	37.71	.004	3	18	.18	23	.01	2	.01	.01	.01	1
RE 8702	1	2	2	4	.2	1	1	89	.03	4	6	ND	1	1459	.3	2	2	1	36.29	.024	2	1	.10	14	.01	2	.01	.01	.01	1
8707	1	2	2	7	.2	1	1	16	.01	2	5	ND	1	292	.8	3	2	1	34.75	.009	3	17	.20	24	.01	2	.01	.01	.01	2
8708	1	1	2	4	.1	1	1	13	.01	2	6	ND	1	204	.6	3	2	2	34.99	.004	5	21	.19	29	.01	2	.01	.01	.01	1
8709	1	1	2	5	.2	1	1	19	.01	2	5	ND	1	264	.4	2	2	4	36.21	.003	2	21	.18	87	.01	2	.01	.01	.01	1
8710	1	3	2	6	.1	1	1	18	.01	2	5	ND	1	228	.6	2	2	1	35.01	.064	2	1	.14	59	.01	2	.01	.01	.01	1
8711	1	1	2	4	.1	1	1	16	.01	2	5	ND	1	230	.6	2	2	1	35.55	.080	2	1	.16	63	.01	2	.01	.01	.01	1
8712	1	2	2	5	.2	1	1	17	.01	2	5	ND	1	231	.8	2	2	1	37.11	.081	2	1	.15	62	.01	2	.01	.01	.01	1
8713	1	2	2	7	.2	1	1	18	.01	3	5	ND	1	223	.8	2	2	1	38.44	.077	2	1	.15	59	.01	2	.01	.01	.01	1
8714	1	2	2	7	.2	1	1	22	.01	3	7	ND	1	170	.7	2	2	1	37.82	.119	2	1	.14	53	.01	2	.01	.01	.01	2
8715	1	1	2	5	.1	1	1	16	.01	3	5	ND	1	196	.7	2	2	1	35.03	.074	2	1	.13	52	.01	3	.01	.01	.01	1
8716	1	1	2	5	.2	1	1	20	.01	3	6	ND	1	178	.5	2	2	1	33.26	.062	2	1	.13	44	.01	2	.01	.01	.01	2
8717	1	3	2	6	.1	1	1	13	.02	2	5	ND	2	247	.5	2	2	1	33.25	.045	3	1	.14	64	.01	2	.01	.01	.01	1
8718	1	1	2	4	.1	1	1	14	.01	2	5	ND	1	209	.4	2	2	1	31.83	.044	2	1	.13	63	.01	2	.01	.01	.01	1
8719	1	3	2	8	.2	1	1	25	.02	3	8	ND	2	176	.6	2	2	2	35.52	.084	3	1	.16	54	.01	2	.02	.01	.01	2
8720	1	3	2	9	.3	1	1	46	.01	4	6	ND	1	146	.9	2	2	1	35.37	.147	5	1	.12	52	.01	2	.01	.01	.01	1
8721	1	3	2	11	.2	1	1	47	.01	4	5	ND	1	129	1.3	2	2	1	34.47	.204	7	2	.12	48	.01	3	.01	.01	.01	1
8722	1	2	3	7	.2	1	1	32	.01	2	5	ND	1	129	1.0	2	2	1	32.25	.096	3	1	.13	41	.01	2	.01	.01	.01	1
8723	1	3	2	10	.1	1	1	48	.02	2	5	ND	1	139	1.4	2	2	2	33.59	.190	5	1	.23	41	.01	6	.02	.01	.01	1
8724	1	3	2	8	.2	1	1	35	.01	4	5	ND	1	164	1.2	2	2	1	34.10	.114	5	1	.15	55	.01	3	.05	.01	.01	1
STANDARD C	18	56	37	127	7.0	72	30	1014	3.96	40	18	7	37	52	18.3	15	19	54	.47	.083	37	57	.91	191	.08	34	1.94	.08	.17	11

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

A131

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
8726	1	1	2	8	.1	1	1	32	.01	2	5	ND	2	189	.4	2	2	1	30.52	.045	2	5	.16	34	.01	2	.02	.01	.01	1
8727	1	2	2	8	.1	1	1	20	.01	2	5	ND	1	212	.9	2	2	1	32.21	.033	2	8	.16	45	.01	2	.01	.01	.01	1
8728	1	1	3	6	.2	1	1	11	.01	3	12	ND	2	166	.6	2	2	1	34.03	.014	2	3	.12	35	.01	2	.01	.01	.01	2
8729	1	2	2	6	.3	1	1	20	.01	3	15	ND	3	173	.7	2	2	1	32.50	.014	3	4	.11	33	.01	2	.01	.01	.01	1
8730	1	1	2	7	.1	1	1	18	.01	3	5	ND	2	236	.5	2	2	2	32.50	.017	3	2	.14	37	.01	2	.02	.01	.01	1
RE 8734	1	1	2	8	.1	1	1	12	.01	2	5	ND	1	229	.9	3	2	1	32.95	.024	2	2	.16	29	.01	2	.01	.01	.01	1
8731	1	1	2	7	.1	1	1	12	.01	2	5	ND	1	371	.4	2	2	1	29.93	.012	3	1	1.37	37	.01	2	.03	.01	.01	1
8732	1	1	2	9	.1	1	1	22	.02	2	7	ND	1	387	.7	2	2	1	35.02	.016	2	1	.17	35	.01	2	.02	.01	.01	1
8733	1	1	2	12	.1	1	1	20	.01	2	5	ND	1	225	.8	2	2	1	34.37	.036	2	3	.18	35	.01	2	.02	.01	.01	1
8734	1	3	3	12	.1	1	1	13	.01	2	5	ND	1	216	.8	2	2	1	32.92	.023	2	1	.15	26	.01	2	.01	.01	.01	1
8735	1	1	4	11	.1	2	1	17	.01	3	10	ND	1	258	1.2	2	2	1	37.50	.015	2	1	.25	35	.01	2	.01	.01	.01	1
8736	1	1	2	8	.1	1	1	15	.01	3	9	ND	1	264	.6	2	2	2	36.57	.009	2	12	.21	35	.01	2	.02	.01	.01	1
8737	1	1	2	9	.1	1	1	33	.01	2	6	ND	1	185	1.4	2	2	2	38.18	.113	3	15	.20	64	.01	2	.02	.01	.01	1
8738	1	1	2	7	.1	1	1	49	.01	3	6	ND	1	172	1.3	2	2	2	37.64	.101	2	13	.18	62	.01	2	.02	.01	.01	1
8739	1	1	2	7	.2	1	1	40	.01	2	14	ND	1	191	1.2	2	2	2	36.57	.137	3	12	.18	60	.01	3	.03	.01	.02	1
8740	1	1	2	7	.2	1	1	48	.01	3	14	ND	2	177	1.2	2	2	3	35.64	.077	2	15	.19	43	.01	2	.01	.01	.01	1
8741	1	1	2	6	.1	1	1	58	.01	3	13	ND	1	174	1.2	2	2	3	36.76	.107	3	18	.17	36	.01	2	.01	.01	.01	1
8742	1	1	2	4	.1	2	1	45	.01	2	11	ND	1	158	1.0	2	2	2	36.37	.079	3	14	.20	28	.01	2	.01	.01	.01	1
8743	1	1	2	6	.1	1	1	34	.01	2	5	ND	1	186	1.1	2	2	2	37.83	.042	2	14	.21	30	.01	2	.01	.01	.01	1
8744	1	1	2	8	.1	1	1	35	.01	2	14	ND	1	158	1.2	2	2	2	39.96	.018	2	17	.20	25	.01	2	.01	.01	.01	1
8745	1	1	2	6	.3	1	1	38	.01	5	21	ND	2	125	.9	5	2	1	38.25	.029	4	17	.20	25	.01	2	.01	.01	.01	2
8746	1	1	3	8	.1	1	1	43	.01	2	10	ND	1	132	1.3	2	2	2	37.96	.072	2	16	.20	25	.01	2	.01	.01	.01	1
8747	1	1	3	6	.1	1	1	30	.01	3	19	ND	1	217	.7	2	2	3	35.25	.023	4	18	.18	35	.01	2	.01	.01	.01	1
STANDARD C	19	58	37	135	6.9	77	31	1079	3.96	42	17	7	40	53	18.9	14	21	59	.49	.087	39	61	.94	183	.09	35	2.01	.08	.16	11

A132

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

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Halferdahl & Associates Ltd. File # 92-2719R Page 1

18 - 10509 - 81st Ave, Edmonton AB T6E 1X7

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
8249	2	1	2	4	.3	2	2	26	.04	2	10	ND	3	187	1.3	3	2	2	38.72	.002	2	2	.18	17	.01	2	.01	.01	.01	3
8250	1	1	2	6	.4	1	1	28	.05	2	6	ND	1	219	.5	2	2	1	36.57	.019	2	3	.78	16	.01	5	.01	.01	.01	1
8329	1	2	5	11	.2	1	1	6	.04	2	5	ND	1	246	.5	2	2	1	38.97	.022	2	1	.17	21	.01	2	.01	.01	.01	1
8330	1	1	2	6	.1	1	1	23	.05	2	5	ND	1	395	.4	2	2	1	39.11	.022	2	1	.12	16	.01	2	.01	.01	.01	1
8331	1	1	3	12	.2	2	1	26	.17	3	11	ND	2	328	.4	2	2	2	35.47	.037	3	2	.49	23	.01	2	.05	.01	.02	1
8332	1	1	2	8	.2	1	1	33	.04	2	6	ND	1	181	1.3	2	2	1	38.87	.025	2	1	.06	77	.01	2	.01	.01	.01	1
8333	1	1	2	10	.2	1	1	61	.05	3	9	ND	1	279	1.4	2	2	1	40.18	.032	2	1	.05	99	.01	2	.01	.01	.01	2
RE 8338	1	3	2	7	.3	1	1	37	.03	2	11	ND	1	165	.7	2	2	1	39.21	.012	2	1	.06	65	.01	5	.01	.01	.01	1
8334	1	2	2	7	.3	1	1	51	.08	2	8	ND	1	226	.4	2	2	1	36.46	.034	2	1	.17	151	.01	2	.02	.01	.01	1
8335	1	1	6	4	.1	1	1	45	.05	2	5	ND	1	203	.2	2	2	1	38.87	.021	2	1	.13	132	.01	2	.01	.01	.01	1
8336	1	1	2	3	.1	1	1	36	.03	2	6	ND	3	227	.4	2	2	1	39.38	.028	2	1	.23	151	.01	2	.01	.01	.01	1
8337	1	1	2	5	.1	1	1	71	.04	2	5	ND	2	183	.4	2	2	1	40.80	.021	2	1	.08	98	.01	2	.01	.01	.01	1
8338	1	2	2	6	.2	1	1	53	.04	2	8	ND	1	167	.7	2	2	1	39.71	.012	2	1	.07	66	.01	2	.01	.01	.01	2
8339	1	1	3	7	.3	1	1	51	.03	3	5	ND	1	141	.9	2	2	1	39.02	.015	2	1	.08	72	.01	4	.01	.01	.01	2
8340	1	58	11	9	.3	1	1	2	.07	2	5	ND	1	298	.4	8	2	1	34.64	.022	2	2	.68	19	.01	2	.02	.01	.01	1
8341	1	1	3	4	.1	1	1	16	.05	2	5	ND	1	439	.4	2	2	1	35.12	.031	2	2	1.48	11	.01	2	.01	.01	.01	1
8342	1	2	3	3	.1	1	1	15	.03	2	9	ND	2	793	.3	2	2	1	38.08	.010	2	1	.36	13	.01	2	.01	.01	.01	1
8343	1	1	2	3	.2	1	1	11	.03	2	5	ND	1	804	.6	2	2	1	38.85	.016	2	1	.19	12	.01	2	.01	.01	.01	1
8344	1	1	2	3	.4	1	1	11	.03	2	5	ND	1	793	.5	2	2	1	38.38	.018	2	1	.18	11	.01	4	.01	.01	.01	1
8345	1	1	3	8	.3	3	2	15	.16	4	5	ND	1	572	1.1	2	2	2	34.31	.085	3	3	1.35	15	.01	2	.06	.01	.02	1
8346	1	2	2	3	.1	1	1	9	.03	2	5	ND	1	277	.5	2	2	1	37.91	.017	2	1	.43	12	.01	2	.01	.01	.01	1
8347	1	1	2	4	.1	1	1	15	.02	2	5	ND	1	237	.6	2	2	1	34.83	.013	2	2	1.28	9	.01	2	.01	.01	.01	1
8348	1	1	2	3	.1	1	1	2	.03	2	11	ND	2	1607	.4	2	2	1	37.60	.015	2	1	.50	10	.01	2	.01	.01	.01	1
8349	1	2	2	5	.3	1	1	30	.10	3	15	ND	2	297	.4	2	2	1	35.23	.026	2	2	1.63	20	.01	2	.02	.01	.01	1
8350	1	1	4	4	.2	1	1	30	.07	2	5	ND	1	236	.4	2	2	2	31.13	.011	2	1	3.77	8	.01	2	.01	.01	.01	1
8351	1	3	2	3	.1	1	1	17	.03	2	5	ND	1	181	.8	2	2	1	37.48	.020	2	1	.23	27	.01	2	.01	.01	.01	1
8352	1	1	2	3	.1	1	1	2	.03	2	6	ND	2	142	.5	2	2	1	37.31	.027	2	1	.15	26	.01	2	.01	.01	.01	1
8353	1	1	2	5	.1	1	1	7	.04	2	5	ND	1	283	.2	2	2	1	36.24	.008	2	1	.18	35	.01	2	.01	.01	.01	1
8353 DUP.	1	1	2	4	.2	1	1	22	.07	2	5	ND	1	234	.5	2	2	2	37.36	.027	2	1	.15	33	.01	4	.02	.01	.01	1
8354	1	2	4	7	.2	1	1	9	.04	2	5	ND	1	551	.4	2	2	1	37.83	.021	2	1	.16	29	.01	2	.01	.01	.01	1
8355	1	1	2	5	.1	1	1	3	.03	2	5	ND	1	260	.5	2	2	1	39.30	.015	2	2	.11	31	.01	2	.01	.01	.01	1
8356	1	1	2	6	.1	1	1	33	.02	2	5	ND	2	255	.4	2	2	1	39.44	.026	2	3	.15	35	.01	2	.01	.01	.01	1
8357	1	2	2	5	.1	1	1	26	.03	2	7	ND	2	327	.5	2	2	4	39.40	.025	3	4	.17	37	.01	2	.01	.01	.01	2
8358	1	1	2	6	.1	1	1	32	.04	2	5	ND	1	297	.6	2	2	1	38.84	.027	2	2	.17	33	.01	2	.01	.01	.01	1
8359	1	1	2	5	.3	1	1	7	.04	4	5	ND	1	282	.4	2	2	1	37.15	.013	2	1	.19	29	.01	3	.01	.01	.01	1
8360	1	3	4	5	.1	1	1	28	.03	2	5	ND	1	307	.3	2	2	1	38.13	.008	2	1	.19	27	.01	2	.01	.01	.01	1
8361	1	1	4	5	.1	1	1	4	.04	2	5	ND	1	262	.3	2	2	1	35.79	.008	2	1	.50	36	.01	2	.01	.01	.01	1
STANDARD C	19	57	39	131	7.3	72	31	1062	3.96	42	21	7	39	52	19.0	14	19	58	.45	.085	39	61	.92	183	.08	37	1.99	.06	.14	10

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. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: PULP Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: SEP 11 1992 **DATE REPORT MAILED:** Sept 17/92 **SIGNED BY** ..... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

A133

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
8362	1	2	2	4	.2	1	1	6	.02	4	5	ND	3	246	.4	2	2	1	39.74	.009	2	1	.17	27	.01	2	.01	.01	.01	3
8363	1	2	2	7	.1	1	1	8	.02	3	5	ND	1	229	.3	2	2	1	36.62	.016	2	1	.18	24	.01	2	.01	.01	.01	1
8364	1	1	2	3	.1	1	1	7	.01	2	5	ND	1	229	.2	2	2	1	35.12	.006	2	1	.16	21	.01	2	.01	.01	.01	1
8365	1	2	2	5	.1	1	1	2	.01	3	5	ND	1	340	.2	2	2	7	34.37	.003	7	11	.69	25	.01	2	.01	.01	.01	1
8366	1	4	2	8	.1	1	1	21	.09	3	5	ND	1	201	.2	2	2	2	26.33	.059	2	1	4.89	28	.01	2	.04	.02	.01	1
8367	1	4	2	9	.2	1	1	24	.12	4	9	ND	1	195	.2	2	2	2	23.11	.077	2	2	6.30	27	.01	3	.05	.02	.02	1
8368	1	3	2	10	.1	2	1	18	.09	3	7	ND	1	213	.2	2	2	2	28.55	.025	2	1	3.25	35	.01	3	.03	.01	.01	1
8369	1	1	2	6	.1	1	1	13	.03	2	5	ND	1	268	.2	2	2	1	35.92	.010	2	1	.27	28	.01	2	.01	.01	.01	1
8370	1	3	2	8	.2	1	1	17	.03	3	5	ND	1	245	.4	2	2	1	35.33	.017	2	1	.32	31	.01	2	.02	.01	.01	1
8371	1	1	2	4	.1	1	1	36	.01	2	5	ND	1	165	.2	2	2	1	36.82	.006	2	1	.13	53	.01	2	.01	.01	.01	1
8372	1	2	2	3	.1	1	1	23	.01	2	5	ND	1	139	.2	2	2	1	38.51	.006	2	1	.10	51	.01	2	.01	.01	.01	1
8373	1	2	2	3	.1	1	1	26	.01	3	5	ND	1	155	.2	2	2	1	34.66	.010	2	1	.12	93	.01	2	.01	.01	.01	1
8374	1	2	2	4	.1	1	1	74	.02	2	5	ND	1	128	.6	2	2	1	35.33	.015	2	1	.24	94	.01	2	.01	.01	.01	1
8375	1	1	2	5	.2	1	1	36	.01	2	5	ND	1	182	.2	2	2	1	33.61	.007	2	1	.14	41	.01	2	.01	.01	.01	1
8376	1	1	2	4	.1	1	1	6	.02	2	5	ND	1	176	.2	2	2	1	33.58	.005	2	1	.55	15	.01	2	.01	.01	.01	1
8377	1	2	2	3	.2	2	1	6	.01	3	5	ND	1	147	.3	2	2	1	31.78	.003	2	1	.18	15	.01	2	.01	.01	.01	1
RE 8382	1	3	2	3	.1	1	1	12	.01	3	5	ND	1	189	.3	2	2	1	34.97	.004	2	1	.13	17	.01	2	.01	.01	.01	1
8378	1	2	2	3	.1	1	1	5	.01	2	5	ND	1	175	.2	2	2	1	34.41	.004	2	1	.17	17	.01	2	.01	.01	.01	1
8379	1	2	2	4	.1	1	1	12	.02	4	5	ND	1	229	.4	2	2	1	35.26	.007	2	1	.17	21	.01	2	.01	.01	.01	1
8380	1	2	2	3	.1	1	1	4	.01	2	5	ND	1	222	.3	2	2	1	33.19	.002	2	1	.18	17	.01	2	.01	.01	.01	1
8381	1	2	2	6	.1	1	1	9	.01	2	5	ND	1	272	.3	2	2	2	34.49	.034	3	2	.16	24	.01	2	.01	.01	.01	1
8382	1	2	2	3	.1	1	1	11	.01	2	5	ND	1	194	.4	2	2	1	35.16	.005	2	1	.13	17	.01	2	.01	.01	.01	1
8383	1	1	2	3	.3	1	1	4	.01	4	5	ND	2	381	.4	2	2	1	34.80	.011	2	1	.16	20	.01	2	.01	.01	.01	1
8384	1	1	2	2	.1	1	1	4	.01	2	5	ND	1	353	.4	2	2	1	34.97	.005	2	1	.14	16	.01	2	.01	.01	.01	1
8385	1	3	2	5	.3	2	1	14	.03	3	5	ND	1	353	.2	2	2	1	32.20	.017	2	1	.26	28	.01	2	.02	.01	.01	1
8386	1	2	2	4	.2	1	1	10	.02	3	5	ND	1	309	.2	2	2	1	33.56	.012	2	1	.21	23	.01	2	.01	.01	.01	1
8387	1	2	2	5	.1	1	1	6	.01	2	5	ND	1	258	.3	2	2	1	32.92	.006	2	1	.17	21	.01	2	.01	.01	.01	1
8388	1	2	2	4	.3	2	1	5	.01	2	5	ND	1	214	.3	2	2	1	33.75	.012	2	1	.17	24	.01	2	.01	.01	.01	2
8389	1	1	2	3	.4	1	1	6	.01	4	5	ND	2	242	.3	2	2	1	35.16	.008	2	2	.17	22	.01	2	.01	.01	.01	2
8390	1	2	2	5	.3	1	1	15	.04	4	5	ND	1	243	.4	3	2	1	33.51	.006	2	1	.18	25	.01	2	.03	.01	.01	1
8391	1	1	2	16	.2	2	1	37	.02	5	5	ND	2	122	1.3	2	2	1	32.40	.013	2	9	.14	28	.01	2	.02	.01	.01	2
8392	1	2	2	15	.1	2	1	48	.03	2	5	ND	1	153	1.5	2	2	1	32.48	.036	3	5	.14	40	.01	2	.02	.01	.01	1
8393	1	2	2	11	.3	1	1	39	.03	3	5	ND	1	125	1.0	2	2	1	31.32	.087	2	3	.15	30	.01	2	.03	.01	.02	1
8394	1	1	2	12	.1	2	1	42	.05	3	5	ND	1	125	.8	2	2	1	30.46	.014	2	2	.14	27	.01	2	.03	.01	.01	2
8395	1	2	3	8	.3	3	1	61	.02	3	5	ND	2	159	1.2	4	2	1	32.12	.070	3	4	.13	38	.01	2	.02	.01	.02	2
8396	1	2	2	9	.1	1	1	54	.04	4	14	ND	2	168	.4	2	2	6	22.54	.099	4	14	4.23	33	.01	2	.02	.02	.01	1
8397	1	4	2	3	.2	1	1	26	.01	3	5	ND	1	206	.7	4	2	2	27.81	.012	2	9	.80	29	.01	2	.01	.01	.01	1
STANDARD C	18	58	37	126	7.0	72	30	1060	3.96	41	18	7	37	54	18.1	14	19	56	.46	.087	36	57	.89	188	.08	34	1.90	.08	.17	10

Sample type: PULP. 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
8398	1	2	2	5	.3	1	1	26	.01	3	5	ND	3	190	.7	2	2	4	38.33	.045	3	10	1.74	24	.01	2	.01	.01	.01	2
8399	1	1	2	6	.2	1	1	32	.04	4	5	ND	1	157	.8	2	2	4	32.70	.043	2	11	1.75	19	.01	3	.03	.01	.01	1
8400	1	2	2	5	.3	1	1	24	.01	3	5	ND	1	117	.8	2	2	2	35.93	.010	2	11	1.40	17	.01	2	.01	.01	.01	1
8401	1	1	2	4	.2	1	1	23	.01	3	5	ND	1	171	.7	2	2	3	32.01	.023	3	11	1.47	27	.01	2	.01	.01	.01	1
8402	1	5	2	8	.3	3	1	27	.08	3	6	ND	1	196	.3	2	2	2	29.27	.081	3	1	5.05	16	.01	3	.04	.02	.03	1
8403	1	3	2	7	.2	2	1	21	.05	3	9	ND	2	161	.4	2	2	3	27.81	.039	3	1	5.90	12	.01	4	.03	.01	.01	1
8404	1	2	2	3	.2	2	1	13	.02	3	5	ND	1	223	.3	2	2	1	33.27	.015	2	1	1.24	18	.01	2	.01	.01	.01	1
8405	1	3	2	3	.3	2	1	26	.04	4	5	ND	2	213	.2	2	2	2	35.17	.012	2	1	2.46	10	.01	2	.02	.01	.02	2
8406	1	2	2	1	.1	1	1	13	.02	4	5	ND	2	226	.2	3	2	1	36.45	.012	2	1	.47	17	.01	2	.02	.01	.02	1
8407	1	1	2	3	.1	2	1	14	.02	4	5	ND	2	331	.2	2	2	1	37.12	.013	2	1	2.06	11	.01	2	.01	.01	.01	1
8408	1	2	2	6	.3	1	1	20	.01	3	5	ND	1	165	.8	2	2	2	36.68	.013	2	12	1.12	29	.01	4	.01	.01	.01	1
8409	1	2	2	9	.1	1	1	10	.01	2	5	ND	1	197	.6	2	2	2	30.12	.012	2	8	3.65	18	.01	2	.01	.01	.01	1
8426	1	1	2	6	.3	2	1	4	.01	4	5	ND	2	1253	.4	2	2	1	37.56	.018	2	9	.29	10	.01	3	.01	.01	.01	1
8427	1	2	2	4	.5	2	1	7	.01	3	5	ND	2	951	.4	3	2	1	36.15	.021	2	1	.39	13	.01	2	.01	.01	.02	2
8428	1	1	2	5	.2	2	1	21	.02	3	5	ND	1	582	.5	2	2	1	38.16	.032	2	1	.79	14	.01	3	.02	.01	.01	1
8429	1	3	3	8	.1	2	1	18	.07	4	5	ND	1	386	.2	2	2	1	30.84	.092	3	2	4.62	22	.01	3	.04	.02	.02	1
8430	1	1	2	5	.1	1	1	12	.03	3	5	ND	1	515	.3	2	2	1	35.29	.034	2	1	1.51	22	.01	2	.02	.01	.02	1
8431	1	3	2	13	.2	4	1	28	.11	5	8	ND	1	189	.2	2	2	3	23.59	.084	6	4	8.08	18	.01	3	.07	.03	.04	1
8432	1	2	3	11	.2	3	1	25	.09	4	9	ND	1	204	.2	2	2	2	26.22	.138	5	3	6.37	13	.01	4	.06	.02	.03	1
RE 8429	1	2	2	10	.1	2	1	19	.07	2	5	ND	1	370	.3	2	2	1	29.47	.091	3	1	4.52	21	.01	3	.04	.02	.02	1
8433	1	2	2	5	.2	1	1	12	.05	4	5	ND	1	565	.2	2	2	1	33.07	.047	2	1	1.37	19	.01	3	.03	.01	.02	1
8434	1	2	2	5	.1	1	1	11	.02	3	5	ND	1	386	.4	2	2	1	34.94	.030	3	1	.98	15	.01	2	.02	.01	.01	1
8435	1	1	2	3	.2	1	1	3	.01	3	5	ND	1	1245	.3	2	2	1	37.82	.018	2	1	.23	13	.01	2	.01	.01	.01	1
8436	1	2	2	6	.2	1	1	13	.04	3	5	ND	1	362	.4	2	2	1	35.60	.028	2	1	2.09	16	.01	2	.02	.01	.02	1
8437	1	2	2	3	.2	1	1	7	.01	3	5	ND	1	696	.4	3	2	1	36.28	.024	2	1	.54	11	.01	2	.01	.01	.01	1
8438	1	3	2	7	.1	2	1	15	.07	2	5	ND	1	321	.2	2	2	1	32.85	.066	2	1	1.98	18	.01	3	.04	.01	.02	1
8439	1	1	2	4	.1	1	1	8	.02	2	5	ND	1	352	.3	2	2	1	35.18	.022	2	1	.39	12	.01	2	.01	.01	.01	1
8440	1	2	3	3	.1	1	1	8	.01	3	5	ND	1	277	.3	2	2	1	32.38	.020	2	1	.34	9	.01	2	.01	.01	.01	1
8441	1	2	2	5	.1	1	1	8	.01	2	5	ND	1	306	.4	2	2	1	32.99	.019	2	1	.62	8	.01	3	.01	.01	.01	1
8442	1	1	3	3	.2	1	1	4	.01	3	5	ND	1	993	.4	2	2	1	32.10	.016	2	1	.15	7	.01	2	.01	.01	.01	1
8443	1	2	2	3	.1	1	1	14	.01	4	5	ND	1	207	.3	2	2	1	39.81	.006	2	1	.17	13	.01	2	.01	.01	.01	1
8444	1	2	4	8	.1	2	1	21	.05	3	5	ND	1	190	.4	2	2	1	33.45	.035	2	1	2.17	13	.01	2	.02	.01	.01	1
8445	1	2	2	7	.1	1	1	16	.05	2	5	ND	1	199	.4	2	2	1	35.23	.018	2	1	.47	26	.01	2	.01	.01	.01	1
8576	1	1	2	3	.1	2	1	11	.02	3	5	ND	1	190	.4	2	2	1	32.28	.007	2	2	1.48	10	.01	2	.02	.01	.01	1
8577	1	1	2	1	.2	1	1	6	.01	4	5	ND	2	104	.5	2	2	1	39.12	.006	4	1	.15	10	.01	2	.01	.01	.01	1
8578	1	1	2	1	.1	1	1	4	.01	3	5	ND	1	95	.6	2	2	1	39.64	.004	2	2	.12	8	.01	2	.01	.01	.01	1
8579	1	1	2	2	.2	1	1	12	.01	3	5	ND	1	156	.5	2	2	1	35.85	.009	4	4	.88	22	.01	2	.01	.01	.01	1
STANDARD C	19	58	39	132	7.4	73	31	1057	3.96	42	18	7	40	52	18.8	15	21	57	.45	.086	39	60	.92	183	.09	34	1.96	.08	.16	10

A135

Sample type: PULP. 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
8580	1	2	3	9	.1	1	1	20	.04	5	9	ND	2	286	.2	2	2	1	33.41	.068	4	1	2.74	18	.01	2	.03	.02	.01	2
8581	1	2	2	6	.1	1	1	17	.05	2	5	ND	1	216	.2	2	2	1	34.75	.046	4	2	1.75	18	.01	3	.04	.01	.01	1
8582	1	2	2	4	.1	1	1	16	.02	2	5	ND	1	181	.2	3	2	1	39.06	.008	2	1	.27	21	.01	2	.02	.01	.01	1
8583	1	1	2	4	.1	1	1	12	.02	3	5	ND	1	141	.2	2	2	1	36.97	.008	2	1	.42	19	.01	2	.01	.01	.01	1
8584	1	5	2	13	.1	2	1	24	.03	3	5	ND	1	337	.3	2	2	7	38.91	.084	6	6	.22	66	.01	2	.03	.01	.01	1
8585	1	2	2	5	.1	1	1	13	.01	3	5	ND	1	214	.4	2	2	1	39.41	.019	2	1	.13	24	.01	3	.01	.01	.01	1
8586	1	1	2	3	.1	1	1	23	.01	3	5	ND	1	398	.2	2	2	1	38.56	.019	2	1	.22	15	.01	2	.01	.01	.01	1
8587	1	2	2	11	.1	1	1	26	.01	4	5	ND	1	239	.5	2	2	5	39.33	.078	3	3	.18	44	.01	2	.01	.01	.01	1
8588	1	1	2	10	.1	1	1	28	.03	4	5	ND	1	265	.5	2	2	4	39.38	.130	4	5	.18	32	.01	2	.03	.01	.01	1
8589	1	2	3	8	.1	1	1	24	.01	4	5	ND	1	213	.6	2	2	2	40.78	.101	5	3	.18	28	.01	2	.01	.01	.01	1
8590	1	3	2	7	.1	1	1	38	.01	3	5	ND	1	187	.7	2	2	1	37.47	.039	4	1	.17	19	.01	2	.01	.01	.01	1
8591	1	1	2	3	.1	1	1	18	.01	3	5	ND	1	265	.2	2	2	1	39.77	.011	2	1	.18	14	.01	2	.01	.01	.01	1
8592	1	1	2	4	.1	1	1	24	.01	3	5	ND	1	166	.2	2	2	1	37.08	.013	2	1	.25	26	.01	2	.01	.01	.01	1
8593	1	2	2	4	.1	1	1	18	.01	3	5	ND	1	167	.3	2	2	1	38.47	.006	2	1	.23	16	.01	2	.01	.01	.01	1
8594	1	3	2	4	.1	1	1	15	.01	3	5	ND	1	172	.2	2	2	1	38.85	.005	2	1	.24	12	.01	2	.01	.01	.01	2
8595	1	1	2	5	.1	1	1	16	.03	2	5	ND	1	159	.3	2	2	1	36.30	.006	2	1	.70	15	.01	2	.02	.01	.01	1
8596	1	2	2	3	.1	1	1	12	.01	2	5	ND	2	143	.4	3	2	1	39.65	.008	2	1	.20	18	.01	2	.01	.01	.01	1
8597	1	1	2	8	.1	1	1	17	.04	2	5	ND	1	280	.3	2	2	1	32.99	.019	2	1	2.88	25	.01	2	.02	.01	.01	1
8598	1	2	2	3	.1	1	1	7	.01	2	5	ND	1	182	.2	2	2	1	38.71	.005	2	1	.23	15	.01	2	.01	.01	.01	1
8599	1	2	2	5	.2	1	1	12	.02	4	5	ND	1	167	.2	2	2	1	38.37	.009	2	1	.24	14	.01	2	.02	.01	.02	2
8725	1	2	2	4	.1	1	1	13	.01	2	5	ND	1	163	.2	2	2	1	39.51	.020	2	1	.15	22	.01	2	.01	.01	.01	1
8748	1	2	2	11	.1	1	1	10	.01	3	5	ND	1	290	.4	4	2	3	38.59	.032	2	2	.16	38	.01	7	.01	.01	.01	1
8749	1	1	2	9	.1	1	1	9	.01	2	5	ND	1	288	.5	3	2	1	38.16	.023	2	2	.15	28	.01	2	.01	.01	.01	1
8750	1	2	2	7	.2	1	1	8	.01	3	5	ND	1	275	.5	4	2	2	36.93	.016	2	2	.15	28	.01	3	.01	.01	.01	1
8751	1	1	2	8	.1	1	1	9	.01	2	5	ND	1	258	.5	2	2	1	37.29	.018	2	2	.18	36	.01	2	.01	.01	.01	1
8752	1	2	2	9	.1	1	1	10	.01	3	5	ND	1	256	.4	3	2	1	38.11	.018	2	2	.19	35	.01	2	.01	.01	.01	1
8753	1	2	2	11	.1	1	1	8	.01	2	5	ND	1	232	.5	2	2	2	38.52	.019	2	2	.19	34	.01	2	.01	.01	.01	1
8754	1	2	2	12	.1	1	1	7	.01	2	5	ND	1	258	.7	2	2	2	39.84	.025	2	2	.19	37	.01	2	.01	.01	.01	1
8755	1	2	2	10	.2	1	1	8	.01	3	5	ND	1	224	.8	2	2	2	37.06	.016	2	1	.17	33	.01	2	.01	.01	.01	1
8756	1	2	4	8	.1	1	1	14	.01	3	5	ND	1	196	1.0	2	2	1	41.18	.026	2	2	.16	31	.01	2	.01	.01	.01	1
8757	1	1	2	5	.1	1	1	8	.01	3	5	ND	1	208	.6	2	2	1	35.10	.018	2	1	.16	27	.01	2	.01	.01	.01	1
8758	1	2	2	8	.1	1	1	8	.01	4	5	ND	1	175	.9	3	2	1	36.38	.028	2	1	.16	28	.01	2	.01	.01	.01	1
8759	1	1	2	7	.1	1	1	13	.01	2	5	ND	1	212	.2	2	2	1	34.84	.032	3	1	.17	49	.01	3	.01	.01	.01	1
8760	1	2	2	11	.2	1	1	21	.02	3	5	ND	1	229	.3	3	2	1	36.85	.054	3	1	.15	44	.01	2	.01	.01	.01	1
8761	1	3	2	7	.1	1	1	33	.03	2	5	ND	1	223	.4	2	2	2	37.85	.061	6	1	.18	57	.01	2	.01	.01	.01	1
RE 8757	1	2	2	6	.1	1	1	9	.01	3	5	ND	1	226	.8	2	2	1	38.66	.019	2	1	.17	30	.01	2	.01	.01	.01	1
8762	1	2	2	5	.2	1	1	8	.01	3	5	ND	1	179	.2	3	2	1	37.37	.010	2	1	.18	49	.01	2	.01	.01	.01	1
STANDARD C	19	58	39	130	7.1	72	32	1044	3.96	41	18	7	39	52	18.6	14	21	56	.45	.085	38	59	.93	183	.08	34	1.99	.08	.16	10

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

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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 %	W ppm
8763	2	2	2	5	.4	2	3	2	.04	4	14	ND	5	207	1.0	3	4	3	38.81	.007	4	4	.20	60	.01	4	.01	.01	.01	2
8764	1	1	2	3	.3	1	1	2	.03	2	5	ND	1	197	.2	2	2	1	37.91	.011	2	2	.20	52	.01	2	.01	.01	.01	1
8765	1	1	2	4	.4	1	1	2	.04	3	5	ND	1	220	.2	2	2	1	38.77	.013	3	2	.15	43	.01	4	.01	.01	.01	1
8766	1	2	2	7	.4	2	2	2	.12	4	7	ND	3	238	.7	3	2	3	38.35	.025	5	4	.19	64	.01	3	.05	.01	.01	1
8767	1	2	2	14	.3	1	1	2	.06	2	9	ND	2	238	1.5	6	2	2	38.13	.101	11	4	.19	72	.01	2	.01	.01	.01	1
8768	1	1	2	11	.4	1	1	2	.07	4	5	ND	1	231	.9	4	2	3	38.68	.161	11	4	.20	85	.01	4	.02	.01	.01	1
RE 8765	1	1	4	4	.5	1	1	2	.04	2	5	ND	1	216	.3	2	2	1	38.31	.015	3	2	.15	43	.01	4	.01	.01	.01	1
8769	1	2	2	8	.4	1	1	2	.07	2	5	ND	1	260	.8	2	2	4	37.90	.186	8	4	.18	82	.01	5	.03	.01	.02	1
8770	1	1	2	9	.2	1	1	2	.07	2	5	ND	2	227	.9	2	2	3	37.87	.194	9	5	.18	77	.01	2	.03	.01	.02	1
8771	1	1	2	16	.2	1	2	122	.12	2	5	ND	1	383	.8	2	2	1	39.09	.129	4	2	.20	100	.01	2	.03	.01	.01	1
8772	1	1	2	10	.3	3	2	287	.16	2	10	ND	2	170	2.2	2	2	8	39.73	.027	8	4	.18	149	.01	2	.03	.01	.01	1
8773	1	1	2	11	.3	2	1	186	.21	3	5	ND	1	136	1.2	2	2	3	36.54	.026	6	2	.34	117	.01	2	.02	.01	.01	1
8774	1	2	2	8	.5	2	1	12	.10	2	5	ND	1	208	.3	2	2	1	38.34	.035	2	1	.18	141	.01	5	.02	.01	.01	1
8775	1	2	2	13	.1	1	1	38	.15	2	5	ND	1	242	.7	2	2	2	37.16	.033	2	2	.16	154	.01	2	.04	.01	.01	1
STANDARD C	19	60	39	132	7.4	72	31	1051	3.96	42	21	7	39	52	18.9	13	21	58	.44	.085	39	60	.92	183	.08	37	1.97	.06	.14	10

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

A137

APPENDIX 13: SOME PREVIOUS ANALYSES OF LIMESTONE FROM THE MARBLE RANGE

Sample	105	106	1	2	SQ
CaO	55.63	54.39	55.16	55.24	55.24
MgO	0.19	1.06	0.55	0.30	0.16
Insol	nd	nd	0.18	0.46	0.30
SiO_2	0.48	0.82	nd	nd	nd
R_2O_3	nd	nd	0.10	0.30	0.42
Al_2O_3	0.14	0.10	nd	nd	nd
Fe_2O_3	0.07	0.07	0.05	0.04	0.08
P_2O_5	0.11	0.07	0.027	0.071	0.06
MnO	nd	nd	0.002	0.030	0.04
S	nil	nil	0.01	trace	0.003
LOI	nd	nd	43.87	43.57	43.83

105. 45-m band of fine-grained light-grey limestone north of the road about 8 km southwest of Clinton, near Sharan quarry (Goudge, 1945)

106. 76-m band of fine-grained dove-grey limestone about 250 m above the road about 5¼ km southwest of Clinton (Goudge, 1945)

1. Random chips of medium- to fine-grained light-grey limestone from base of steep bluff at end of a small ridge 90 m northeast of a point on the Jesmond road 25 km from the turnoff near Kelly Lake. This location is apparently on the very lowest slopes of Mount Bowman, Kelly Lake Limestone (McCammon, 1958).

2. Across face of light-colored limestone in the Sharan quarry, north of the road about 9 km southwest of Clinton (McCammon, 1958)

SQ Random chips of fine-grained blue-grey and white mottled limestone from muck-pile at the Sharan quarry, north of the road about 9 km southwest of Clinton (McCammon, 1968)

APPENDIX 14: SOME PREVIOUS ANALYSES OF LIMESTONE FROM THE JESMOND QUARRY (One of the Kelly Lake Limestone Deposits) (after McCammon, 1971)

Sample	1	2	3	4	5	6	7	8
CaO	55.26	55.46	55.11	54.91	53.21	55.37	55.34	55.26
MgO	0.32	0.35	0.37	0.65	0.58	0.42	0.39	0.37
Insol	0.50	0.20	0.12	0.84	2.73	0.40	0.25	0.61
R_2O_3	0.26	0.35	0.38	0.39	0.64	0.40	0.22	0.13
Fe_2O_3	0.13	0.06	0.04	0.13	0.21	0.10	0.09	0.07
P_2O_5	0.06	0.06	0.08	0.07	0.07	0.07	0.01	0.02
MnO	0.005	0.003	0.002	0.003	0.006	0.002	0.003	0.002
S	0.002	0.002	0.002	0.002	0.005	0.002	0.002	0.001
LOI	43.61	43.68	43.86	43.45	42.48	43.38	43.75	43.69

Approximately 30-m chip samples of massive fine-grained limestone changing gradually from light-grey through mottled white and grey to dark-grey from east to west, from same location as Section C-4 (this report) (Fig. 2.3). The same strata as Section C-4 correspond to the samples in order 8, 7, 6, 1, 2, 3, 4, 5, at the interpreted stratigraphic bottom.

APPENDIX 15: SOME ANALYSES OF LIMESTONE FROM THE COLUMBIA LIME DEPOSIT

CREST LABORATORIES (B.C.) LTD.

1068 HOMER STREET
VANCOUVER 3, B.C.
PHONE 688-8586

CREST LABORATORIES LTD.
7911 ARGYLL ROAD
EDMONTON 82, ALBERTA
PHONE 469-2391

CERTIFICATE OF ASSAY

TO ..... Tamars Engineering Ltd. .....

..... 402 - West Pender Street .....

..... VANCOUVER, B.C. .....

March 23, 1970

Lab No. 678

I hereby certify THAT THE FOLLOWING ARE THE RESULTS OF ASSAYS MADE BY US UPON THE HEREIN DESCRIBED SAMPLES.

MARKED	GOLD		SILVER	CaO	$CaCO_3$	MgO	Al_2O_3	Fe_2O_3	SiO_2	IGNITION LOSS	TOTAL VALUE PER TON (2000 LBS.)
	Ounces per Ton	Value per Ton	Ounces per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
8714 A T/				55.56	99.15	0.04	0.10	0.03	0.25	43.76	

A140

NOTE:
Rejects retained one month.
Pulps retained three months unless otherwise arranged.

Gold calculated at $..... per ounce

F. O. Burgess
Registered Assayer, Province of British Columbi

I.M.D. Laboratories Ltd.
Industrial Minerals Processing
630 Rivermede Road
Unit 10
Concord, Ontario
L4K 2H7
Tel: (416) 738-5080
Fax: (416) 738-5081

January 7, 1992

Terry Dodd
Tamars Engineering Ltd.
4 - 2265 West 41st. Avenue
Vancouver, B.C.

ATTENTION: TERRY DODD

FAX: (604) 261-8121

YOUR PROJECT # T90-1-PCC
YOUR REQ. NO. T91-1

BRIGHTNESS AND WHITENESS DETERMINATION BY THE TRI-STIMULUS METHOD

Sample Number	*Amber Filter*	*Blue Filter*	*Green Filter*	*Dry Brightness*	*Yellowness Index*	*Whiteness Index*
1191-101	*79.0*	*76.7*	*78.2*	*88.26*	*0.029*	*88.43*
1191-100	*92.7*	*91.2*	*91.4*	*95.00*	*0.016*	*95.60*

Please contact Jack Kriens if you should have any questions, or if you require further explanation.

Yours truly,

I.M.D. LABORATORIES LTD.

Peter Kriens

Industrial Mineral Marketing Research & Development

APPENDIX 16: PARTIAL SECTION OF STRATA BETWEEN LIMESTONES OF THE FIRST AND SECOND RIDGES (UNIT N3 OF FIG. 2.3)

Measured and estimated westerly along upper part of lot-1284 road.

Description	Approximate Stratigraphic Thickness (m)
Fault, assumed at kink in road at beginning of Second Ridge limestone outcrop	-
Overburden	18
Argillite, grey	1½
Contact 137°/87°NE	
Limestone, medium-grey, buff and brown-weathering, fine-grained irregularly veined and mottled with material that weathers brownish (dolomite?), brown veins and masses to 3-4 cm wide	6
Argillite, grey	1
Limestone, grey, fine-grained	7½±
Argillite, brownish-green-grey, undulating bedding(?) 110°-120°/69°NE	⅓
Limestone, grey	5±
Contact 147°/90°	
Tuff, brownish-green-grey	3+
Covered	8
Conglomerate(?), sheared, some rounded limestone clasts to 12 cm across, and sheared tuff	1-3+
Covered (based on bedding at 139°/29°NE	50
Marble, grey, grains 2-3 mm or more, top eroded	1+
Contact 139°/29°NE	
Agglomerate(?), sheared very weathered, angular clasts	½
Tuff, massive, angular clasts to 2 cm but mostly 1-3 mm, few irregular quartz veins ½-1 cm thick	5-6
Schist, greyish to buff, weathers brownish, local rusty patches, some like a coarse-grained sandstone with grains 1-2 mm, some with elongated detrital fragments 2 to 10 cm in size, some with clasts of grey or medium-grey limestone 6 to 8 or even 20 cm in size neither rounded nor sheared, few irregular quartz veins 1-2 cm thick, schistosity locally undulating and locally crenulated (based on scattered outcrops along road with attitudes of schistosity 110°-158°/36°-70°NE, similar to those of bedding near top of section)	~200
	~311 m+

APPENDIX 17: ITEMIZED COST STATEMENT

a) Personnel

L.B. Halferdahl, geological engineer		
planning and organizing field work		
7 days between June 9 and July 23, 1992		
conducting and supervising field work, travelling		
30½ days during all or parts of the following		
periods: June 10-15, 1992, June 22-23, 1992,		
July 24-August 5, 1992, and August 7-21, 1992		
18½ days compiling report		
56 days @ $500	$28,000.00	
B. Jovtoulia, junior geologist		
field work and travelling		
34 days during all or parts of the following		
periods: June 10-15, 1992, June 22-23, 1992, and		
July 24-August 21, 1992		
2 days compiling report		
36 days @ $250	9,000.00	
W. McGuire, field assistant, draftsman, computer operator		
field work and travelling		
18½ days between July 24 and August 13 @ $265	4,902.50	
preparing base and final maps, computing analytical		
data 206 h @ $28	5,768.00	
T. Yawnghwe, geologist		
field work and travelling		
29 days from July 24 to August 21, 1992		
15 days compiling data for report		
44 days @ $400	17,600.00	
		$65,270.50

b) Food and Accommodation

112 man-days partly in tent camp and partly in motels and restaurants @ $41.07/man-day	4,599.84

c) Transportation

Helicopter 17.9 h @ $706.20	$12,640.98		
1821 l @ $0.739	1,345.72		
		$13,986.70	
Airfares Edmonton-Kamloops-Edmonton			
7 X $445.76 (B.C. part only)		3,120.32	
Limousine, taxi, parking		44.50	

4X4 pick-up truck, rental, insurance, gasoline June 10-15, 23, July 24-August 21, 1992			2,298.89	
Freight	Camp gear	$410.45		
	Samples	330.11		
			740.56	
				20,190.97

d) not applicable

e) not applicable

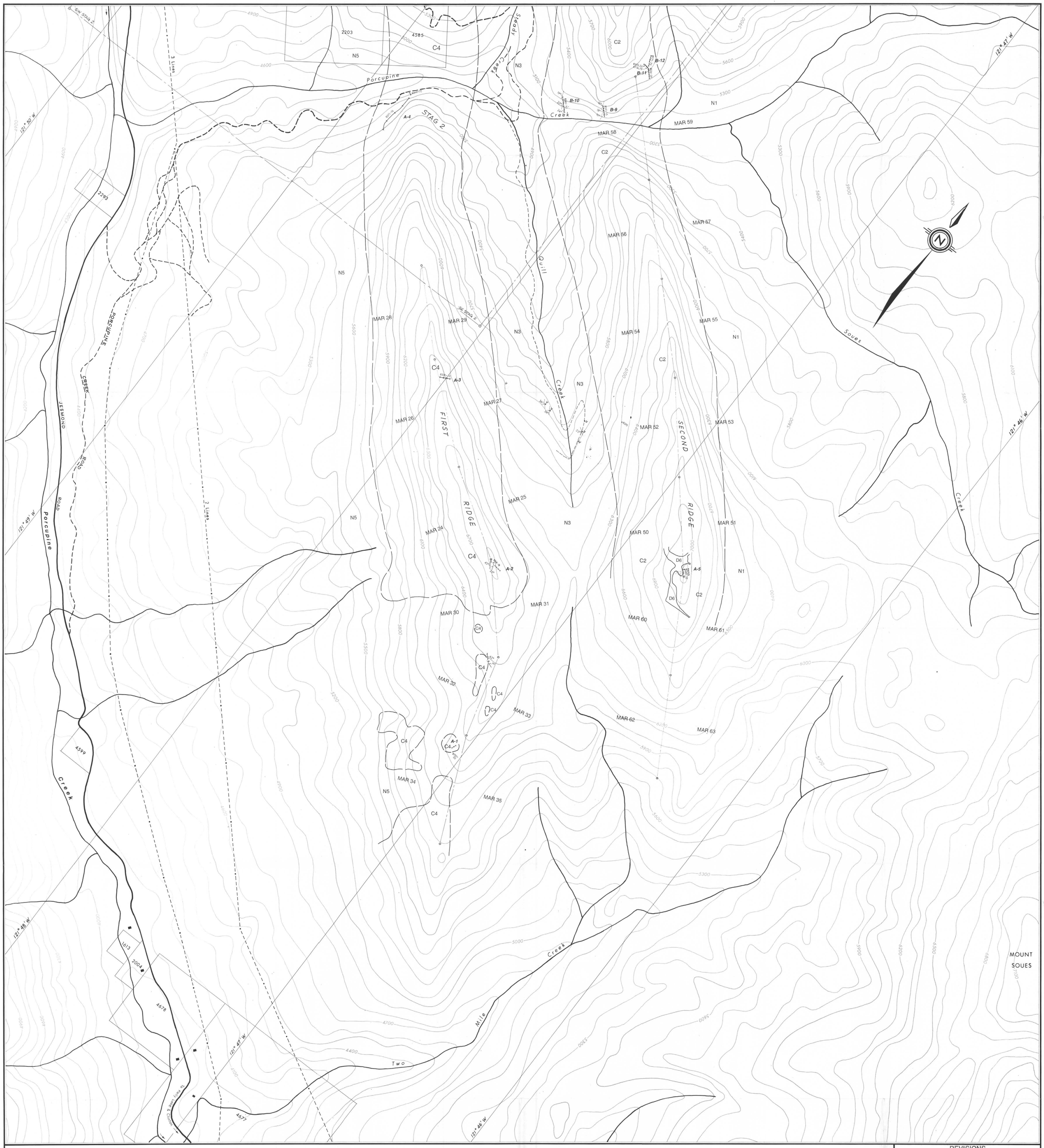
f) Analyses

67 samples prepared and analyzed for CaO, MgO, acid insol., R_2O_3, and LOI @ $45.475	$3,046.83	
14 samples analyzed for CaO, MgO, acid insol., R_2O_3, and LOI @ $75.00	1,050.00	
489 samples prepared and analyzed for major and minor constituents by ICP @ $14.213	6,950.16	
489 samples prepared adn analyzed for 30 constituents by ICP @ $4.828	2,360.97	
40 samples rehomogenized and analyzed for CaO and LOI @ $17.923	716.90	
Transferring analytical data to computer disks	17.12	
		14,141.98

g) Report - typing, reproduction, assembly 1,284.00

h) Other

Base maps : enlargements and prints	1663.16	
Aerial photographs	148.73	
Rental of 2-way radios	406.80	
Long distance telephone	155.55	
Camp supplies	102.53	
		2,476.77
		$107,964.06



LEGEND

Unknown

D6 Intrusions

Upper Permian
Cache Creek Group
Marble Canyon Formation

- N5 Argillite, siltstone, conglomerate
- C4 First Ridge Carbonate
- N3 Schist (sch), tuff and agglomerate (v), limestone and argillite (s), greenstone (g)
- C2 Second Ridge Carbonate
- N1 Volcanics

SYMBOLS

- Geological boundary (approximate, assumed)
- Fault (approximate, assumed)
- Bedding (horizontal, inclined, vertical) — 25°
- Schistosity, cleavage, foliation (inclined, vertical) — 70°
- Planar feature / joint (inclined, vertical) — 30°
- Synclinal axis (arrow indicates plunge)
- Anticlinal axis (arrow indicates plunge)
- Rock-chip sample with sample/section number — 8526 32 A-6
- Claim post (2 post, 4 post)
- Claim line
- Main road
- Access road, trail
- Diamond drillhole — 73-5
- Power line

NOTES:

1. Base map prepared from enlargement of part of 1 : 50 000 92P/4 topographic map.
2. Geology modified after Trettin (1980).
3. Contour interval is 100 ft.

GEOLOGICAL BRANCH
ASSESSMENT REPORT
22,715

REVISIONS					
BY	DATE	BY	DATE	BY	DATE

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EDMONTON, ALBERTA

Fig. 2.1 Geology and Samples, Sheet A

KELLY LAKE AREA, B. C.

0 100 200 300 400 500 m
SCALE: 1:5000

LBH 1992-08

LEGEND

Unknown

D6 Intrusions

Upper Permian

Cache Creek Group

Marble Canyon Formation

N5 Argillite, siltstone, conglomerate

C4 First Ridge Carbonate

N3 Schist (sch), tuff and agglomerate (v), limestone and argillite (s), greenstone (g)

C2 Second Ridge Carbonate

N1 Volcanics

SYMBOLS

Geological boundary (approximate, assumed)

Fault (approximate, assumed)

Bedding (horizontal, inclined, vertical)

Schistosity, cleavage, foliation (inclined, vertical)

Planar feature / joint (inclined, vertical)

Synclinal axis (arrow indicates plunge)

Anticlinal axis (arrow indicates plunge)

Rock-chip sample with sample/section number 8332-37 B-16

Claim post (2 post, 4 post)

Claim line

Main road

Access road, trail

Diamond drillhole 73-5

Power line

NOTES:

1. Base map prepared from enlargement of part of 1 : 50 000 92P/4 topographic map.
2. Geology modified after Trettin (1980).
3. Contour interval is 100 ft.

GEOLOGICAL BRANCH
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BY	DATE	BY	DATE	BY	DATE

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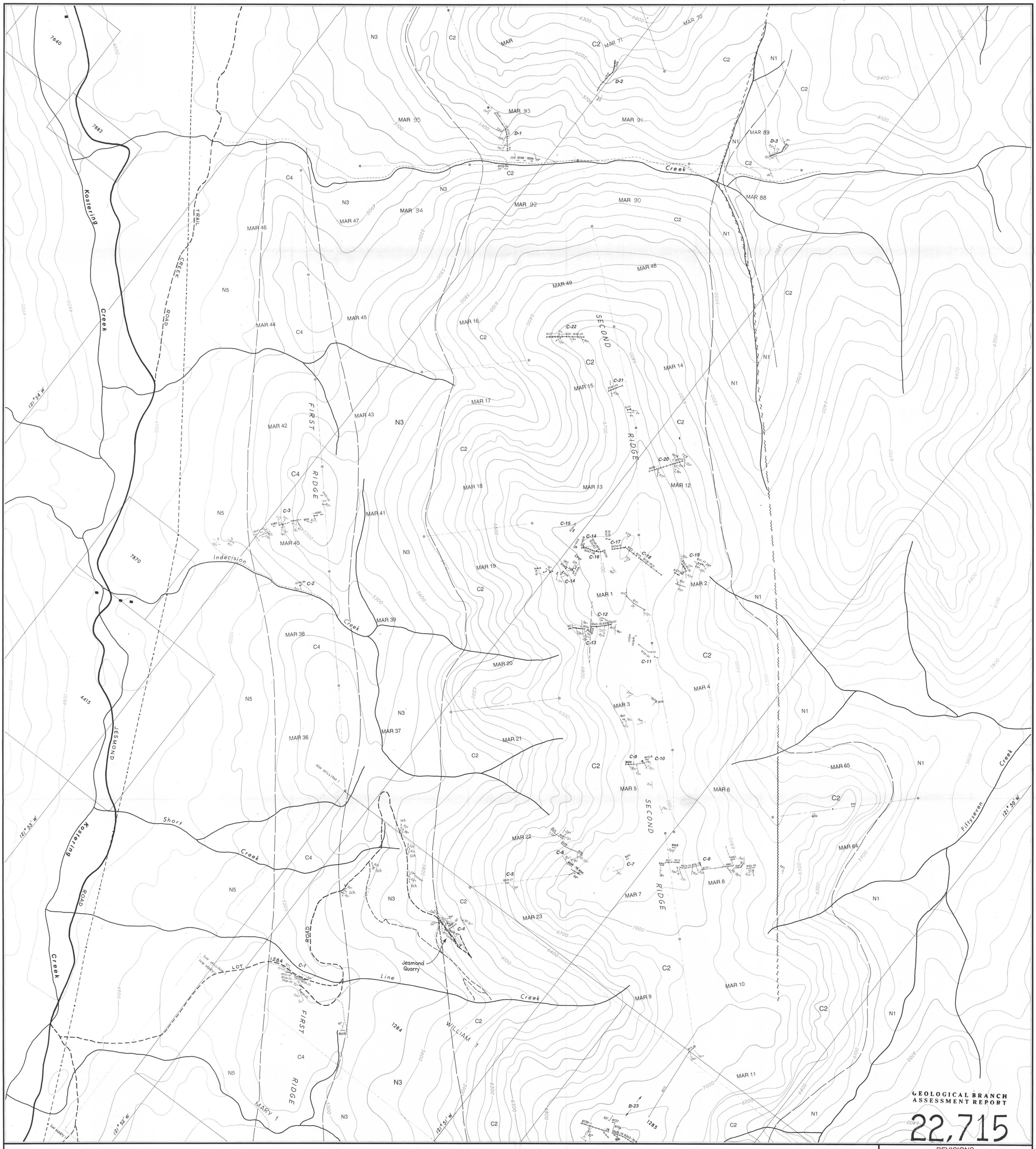
Fig 2.2 Geology and Samples, Sheet B

KELLY LAKE AREA, B. C.

0 100 200 300 400 500 m
SCALE : 1: 5000

LBH 1992-08



GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,715

LEGEND

Unknown
- D6 Intrusions

Upper Permian
Cache Creek Group
Marble Canyon Formation
- N5 Argillite, siltstone, conglomerate
- C4 First Ridge Carbonate
- N3 Schist (sch), tuff and agglomerate (v), limestone and argillite (s), greenstone (g)
- C2 Second Ridge Carbonate
- N1 Volcanics

SYMBOLS

- Geological boundary (approximate, assumed)
- Fault (approximate, assumed)
- Bedding (horizontal, inclined, vertical) 24°
- Schistosity, cleavage, foliation (inclined, vertical) 75°
- Planar feature / joint (inclined, vertical) 40°
- Synclinal axis (arrow indicates plunge)
- Anticlinal axis (arrow indicates plunge)
- Rock-chip sample with sample/section number 8037...44 C-12
- Claim post (2 post, 4 post)
- Claim line
- Main road
- Access road, trail
- Diamond drillhole 73-2
- Power line

NOTES:

1. Base map prepared from enlargement of part of 1 : 50 000 92P/4 topographic map.
2. Geology modified after Trettin (1980).
3. Contour interval is 100 ft.

REVISIONS					
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Fig 2.3 Geology and Samples, Sheet C

KELLY LAKE AREA, B. C.

0 100 200 300 400 500 m
SCALE: 1:5000

LBH 1992-08

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,715

LEGEND

Unknown
- D6 Intrusions

Upper Permian
Cache Creek Group
Marble Canyon Formation
- N5 Argillite, siltstone, conglomerate
- C4 First Ridge Carbonate
- N3 Schist (sch), tuff and agglomerate (v), limestone and argillite (s), greenstone (g)
- C2 Second Ridge Carbonate
- N1 Volcanics

SYMBOLS

- Geological boundary (approximate, assumed)
- Fault (approximate, assumed)
- Bedding (horizontal, inclined, vertical)
- Schistosity, cleavage, foliation (inclined, vertical)
- Planar feature / joint (inclined, vertical)
- Synclinal axis (arrow indicates plunge)
- Anticlinal axis (arrow indicates plunge)
- Rock-chip sample with sample/section number (B-12)
- Claim post (2 post, 4 post)
- Claim line
- Main road
- Access road, trail
- Diamond drillhole
- Power line

NOTES:

1. Base map prepared from enlargement of part of 1 : 50 000 92P/4 topographic map.
2. Geology modified after Trettin (1980).
3. Contour interval is 100 ft.

REVISIONS					
BY	DATE	BY	DATE	BY	DATE

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Fig 2.4 Geology and Samples, Sheet D

KELLY LAKE AREA, B. C.

0 100 200 300 400 500 m
SCALE: 1:5000

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