ECOWASTE INDUSTRIES LTD.

1993 SAMPLING AND DIAMOND DRILLING ON THE PAT CLAIMS

GISCOME, BRITISH COLUMBIA

CLAIMS PAT 1 TO 5

Geographic Coordinates

54° 03' N
122° 17' W

NTS Sheet 93 J/1

Owner of Claims PAT 1 to 5: Ecowaste Industries Ltd.

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

Consultant: Halferdahl & Associates Ltd.
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Date Submitted: 1994 08 05

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1. INTRODUCTION

Ecowaste Industries Ltd. holds five claims totalling 27 units in the Giscome area of central British Columbia near Prince George. The claims were staked to cover limestone which outcrops along logging roads and skidder trails within cut block 59/12 of Rustad Bros. & Co. Ltd.; this cut block is about 1.3 km southeast of the Kode-Jarrat limestone quarry. This report includes information on more than 200 limestone samples; 15 samples chipped from outcrops and 198 samples split from diamond-drill core.

1.1 GEOGRAPHIC SETTING

1.1.1 Location

The Pat claims are in the Cariboo Mountains of the Interior Plateau of central British Columbia. The claims are east of Bateman Creek and south of Eaglet Lake, about 5 km southeast of the Giscome townsite (Fig. 1.1). Giscome is a small village with a school, a church, a few houses and farms, and is the site of a Canadian National Railway ballast terminal. It has no motel nor restaurant. Giscome is about 510 km northeasterly from Vancouver and about 40 km east of Prince George. Prince George is 786 km from Vancouver via Highways 1 and 97 and about 620 km from North Vancouver via the British Columbia Railway. Prince George has a population of about 70,000; it is economically based on forestry, pulp and paper, rail and road transportation, The University of Northern British Columbia, and supplies and services for surrounding areas.

1.1.2 Access

From Prince George, the Pat claims may be reached by driving east on Highway 16 for about 18 km, north 15 km on a secondary highway to Willow River, east 7 km to Giscome, and thence about 6 km southeast on the Bateman Creek forestry service road to the 5900 logging road. About 1½ km up the 5900 road a secondary logging road branches to the north which leads to cut block 59/12 , the part of the Pat claims drilled and sampled in 1993. The 5900 road is a winter logging road and requires a 4x4 vehicle during the summer, particularly when wet. Alternate access to the Pat claims is by turning east on the Beaver forestry service road about 8 km south of Willow Creek. About 15 km east along the Beaver Road is a Y junction; 2 km north from this junction is the 5900 logging road.

1.1.3 Topography, Vegetation, and Climate

Topography in the area is subdued and characterized by rolling hills separated by swamps and sloughs in low areas. Elevations range from 640 m along Bateman Creek to a high of 855 m in

the hills to the northeast. Glacial drift covers most of the area.

Vegetation consists of moderate to thick forests consisting of spruce, fir, poplar, and birch with light to moderate undergrowth of alder. Low shrubs and grasses grow in open expanses harvested for timber. A few years after cutting such areas may become a tangle of thick undergrowth.

The climate is temperate with summer temperatures of 20° C to 30° C or more and winter temperatures of -15° C to -30° C or less.

1.2 PROPERTY

The Pat claims consist of five contiguous claims totalling 27 units covering 6.75 km^2 within the Cariboo Mining Division, NTS Map Sheet 93 J/1 (Fig. 1.2). Pat 1-4 are four-post claims and Pat 5 is a two-post claim. These claims are registered in the name of Ecowaste Industries Ltd.

TABLE 1.1 LIST OF PAT MINERAL CLAIMS

Claim Name	Tenure Number	Units / Claims	Record Date	Expected Expiry Date
Pat 1	319247	6	1993 07 11	1999 07 11
Pat 2	319248	8	1993 07 11	1999 07 11
Pat 3	319249	8	1993 07 11	1999 07 11
Pat 4	319250	4	1993 07 13	1999 07 13
Pat 5	321875	1	1993 10 11	1999 10 11
		27		

1.3 HISTORY AND PREVIOUS INVESTIGATIONS

1.3.1 Base-Metal Exploration

Interest in base metals in or near the Pat claims started in 1942 with the discovery of lead-zinc mineralization in float by J.H. Gerlitzki. Subsequent prospecting and hand trenching delineated a west-striking zone containing lead-zinc-silver mineralization traceable for 600 feet along strike before being terminated by glacial overburden at both ends.

Totem Resources (Wilson, 1960) conducted an airborne EM survey and follow-up ground EM

surveys in 1959. Anomalous highs were diamond drilled which intersected graphitic argillite containing minor lead-zinc mineralization.

In 1965 Vanco Explorations (Hall, 1965) conducted geological mapping, trenching, and geochemical soil sampling which delineated areas of skarn mineralization.

From 1966 to 1967, Samson Mines drilled 14 holes which identified scattered zones of lead-zinc-silver mineralization with several EM anomalies resulting from serpentinized peridotite.

Between 1968 and 1969, Central B.C. Exploration Ltd. conducted electromagnetic and geochemical surveys, trenching, and diamond drilling. Several holes intersected sphalerite and galena with minor chalcopyrite and pyrite in veins, fracture fillings, irregular masses, and disseminations in skarn, limestone, and argillite (Allen, 1973). The best intersection reported was 5½ feet grading 2.5 oz/ton silver and 20 per cent combined lead and zinc.

With the prospect of skarn lead-zinc-silver mineralization and the possible presence of stratabound or volcanogenic massive sulfide deposits, Shell Canada Resources Ltd. re-examined the property in 1979. Geophysical and geochemical surveys, and geologic mapping identified favorable targets and drilling was recommended (Bloomer, 1979), but apparently was dissappointing as Shell did not keep its claims.

In 1984, Link Resources Inc. carried out electromagnetic surveys followed by trenching to more accurately define anomalies outlined by previous work. No positive results were reported (Allen and MacQuarrie, 1984).

In 1988, Castello Resources Ltd. conducted a short diamond-drill program to delineate skarn mineralization. Conclusions were that sulfide minerals are concentrated within zones of skarn alteration which is sporadic and discontinuous along strike and at depth (Payne and Sisson, 1988).

1.3.2 Limestone Exploration

The Kode-Jerrat limestone quarry is partly or wholly within claims BUG 1 to 6 and COM 4 and 5, which adjoin north and east of the Pat claims. It is situated about 2 km south of the base-metal showings described in the previous section. The limestone quarried strikes ~110° and dips approximately 60° to the south (Erickson, 1991). During the period 1989 to 1991, some 193 percussion holes were drilled: holes 25 to 193 from May 2 to 29, 1991 under the supervision of Carl Erickson, P. Eng., a civil engineer based in Prince George. Most of these holes were drilled vertically to a depth of 9 m from the bedrock surface. A backhoe was used to excavate through the overburden to bedrock to avoid contamination of cuttings with overburden. None of these 9-m percussion drillholes penetrated the complete stratigraphic thickness of the limestone.

Erickson (1991) reported volume summaries from the drilling with a quality cutoff of 54.5 per cent CaO. Near surface reserves in two parts of the property were estimated to total 3.7 million tonnes with lower grade material separating them.

1.4 PURPOSE OF SURVEY

The work described in this report was undertaken to provide information on the limestone in the Pat claims.

1.5 SUMMARY OF WORK DONE

Field work was conducted by two-man geological crews and a two-man drilling crew. Accommodation was in a motel in Prince George with transportation by four-wheel-drive vehicles. Supplies were obtained in Prince George.

1.5.1 Surface Sampling

In June 1993, one two-man geological crew collected 15 samples of limestone along a logging road in cut block 59/12. Samples were chipped for lengths ranging from 2 to 18 m from both exposed surfaces and rubble. These samples (Fig. 2.1) were analyzed chemically by inductively coupled plasma (ICP) techniques (Appendix 2).

1.5.2 Diamond Drilling

Reclamation permit MX-11-102 was obtained on September 29, 1993 and four NQ holes totalling 347 m were diamond drilled between October 12 and 24, 1993. The drillholes are within cut block 59/12 with holes 93-2 to 93-4 spotted near limestone outcrops to avoid excessive overburden. Drillhole collars were surveyed by topofilling relative to logging roads and claim posts. Elevations of the drillholes were surveyed with a level and related to a selected topographic point as a datum.

The diamond drilling was contracted to Tex Drilling Ltd. of Kamloops, B.C. The diamond drill was track mounted and equipment included a water truck and 4x4 pickups. Relic landing and skidder trails were used for access to the drill sites. Water for drilling was obtained from a creek about 1½ km southeast of the drill holes and trucked to them.

After the core was logged (Appendix 1), it was split with half of the core replaced in the core box and the remaining half split into quarters. The quarters were bagged and numbered and one-quarter sent for analyses by ICP techniques (Appendix 2) and the remaining quarter retained for future use. The remaining portions of split core and the retained samples were transported to Prince George and later to the plant of Continental Lime Ltd. at Pavilion, B.C. for storage.

2. GEOLOGY

2.1 REGIONAL GEOLOGY

Regional mapping by the Geological Survey of Canada at a scale of 1 inch to 4 miles covers the area north and east of Prince George (Muller and Tipper, 1969). More recently some features of the regional geology have been investigated by Struik and Fuller (1988), Struik (1989), Fuller and Lynch (1990), and Deville and Struik (1989). The Pat claims are in the southeast corner of the McLeod Lake map sheet (GSC Map 1204A), where glacial deposits are widespread and bedrock exposures sparse. Glacial deposits may reach depths of 300 to 400 feet in major valleys but thin at higher elevations. On GSC Map 1204A, the Pat claims are shown to be within volcanic and sedimentary rocks of the Mississippian Slide Mountain Group. This sequence of rocks is bounded on the northeast and the southwest by subsidiary faults sub-parallel to the McLeod Lake fault, a major regional feature which separates the Rocky Mountains geologic sequence from the Cariboo Mountains sequence. The Pat claims lie west of this fault within the Cariboo Mountains sequence.

Recent work by Struik (1989) and Struik, Fuller, and Lynch (1990) show that the Slide Mountain Group of Early Devonian to Early Mississippian ages, has been thrust over strata of the Black Stuart Group. On GSC Map 1204A (McLeod Lake Sheet 93J) south of Eaglet Lake at least, strata of the Black Stuart Group are not separated from those of the Slide Mountain Group. The most prominent unit of the Slide Mountain Group is the Antler Formation which consists of pillow basalts, volcanic breccias, pyroclastics and intercalated ribbon chert, argillite, and fine lithic sandstone (Campbell *et al*, 1973). GSC Map 1204A shows the Slide Mountain Group, presumably the Antler Formation to be faulted against Mesozoic volcanic and sedimentary rocks of the Takla Group to the southwest.

According to Struik (1988, p. 10) the formations in the upper part of the Black Stuart Group in descending order are in Table 2.1. These strata were observed by Struik near Barkerville some 120 km south of the Pat claims, but the stratigraphic sequence there is likely to be similar. Although paleontological data have not been obtained, it seems reasonable to relate the limestone on the Pat claims to one or more of the three units with limestone at the top of the Black Stuart Group.

Below these limestones is the Guyet Formation, a dominantly sedimentary unit of greywacke-suite rocks. A massive polymictic pebble and granule conglomerate is the main unit. Lesser chert and cherty argillite are included.

TABLE 2.1 FORMATIONS IN UPPER PART OF THE BLACK STUART GROUP

System	Formation	Lithology
Pennsylvanian	unnamed	grey crinoidal, fusulinid limestone
	Disconformity	
Middle Pennsylvanian	Alex Alan Formation	dark-grey micritic limestone, minor slate
	Disconformity	
Lower Mississippian	Greenberry Formation	grey crinoidal limestone
	Conformity	
Lower Mississippian and Upper Devonian	Guyet Formation	conglomerate, orthoquartzite, greywacke
	Disconformity (?)	
Upper or Middle Devonian	Waverly Formation	agglomerate, pyroclastics, pillow basalt, minor chloritic siltstone

The Waverly Formation consists of schistose calcareous basaltic agglomerate and flows, pyroclastics, pillow basalts and minor breccia, and chorite-rich quartz siltite (Struik, 1988, p. 26). Some of the basalts are not easily distinguished from those of the Antler Formation (Struik, 1988).

Following from the foregoing discussion, on GSC Map 1204A it is probable that northeast of the Pat claims parts of the Waverly Formation are in fault contact with the rocks of the Wolverine Complex, which consists of Precambrian to Cambrian metasedimentary rocks intruded by Precambrian and later igneous rocks, some as young as Tertiary. Much of the previous exploration for base metals was in rocks of the Wolverine Complex.

2.2 PROPERTY GEOLOGY

2.2.1 Surface Geology

Outcrops on the Pat claims are limited due to extensive glacial overburden. Along one logging road are outcrops of medium- to dark-grey cryptocrystalline limestone, cut by white calcite veinlets and mottles. This limestone is massive with no visible bedding features.

2.2.2 Diamond Drilling

The dominant rock units in diamond drillholes 93-2 to 93-4 consist of cryptocrystalline limestones which range in color from medium- to dark-grey and black. Drillhole 93-1 did not intersect limestone; it bottomed in peridotite. Intersections of fossil coral colonies and dense populations of brachiopod shells replaced by calcite are common in drillholes 93-2 to 93-4. Other lithological variations include flaky, black, dense carbonaceous material, small intersections of pink-tan dolomitic limestone, and conglomerate at the bottom of drillhole 93-4.

In the limestone, white calcite veins and mottles are common throughout. Fracture surfaces are covered by calcite veins; sparse slickensides are stained with hematite. The limestone is competent resulting in good core recovery. One small shear zone of limestone rubble and rusty-orange clay was present in drillhole 93-3. No distinct bedding was observed in the limestones but thin black stylolitic features are present throughout the core at about 60° to the core axis (CA). Lithological breaks tend to be sharp and contacts range from 55° to 65° to the core axis.

No stratigraphic or compositional correlation has been determined between drillholes 93-2 and 93-3 which are about 535 m apart and are interpreted to have penetrated stratigraphic thicknesses of limestone of 112 m and 86 m, respectively. These stratigraphic thicknesses were calculated from structural features noted in the drill core. The interpreted dips vary from top to bottom in both drillholes. The strata in drillhole 93-2 are probably stratigraphically above those in drillhole 93-3. Layers of carbonaceous material interbedded with limestone near the bottom of drillholes 93-3 and 93-4 suggest a possible correlation.

2.2.2.1 Drillhole 93-1

Drillhole 93-1 (Fig. 2.1) was drilled vertically to a depth of 27.74 m to check for limestone near the northern boundary of claim Pat 2. The hole intersected 25.94 m of glacial overburden and 1.80 m of peridotite at its base. Due to the absence of limestone and the presence of peridotite, the hole was abandoned.

2.2.2.2 Drillhole 93-2

Drillhole 93-2 (Fig. 2.1) was drilled vertically to a depth of 163.07 m to attempt to determine the stratigraphic thickness of the limestone in a nearby outcrop. This hole intersected several types of limestone including fossiliferous and carbonaceous. Limestone with more than 54.5 per cent CaO*, less than 1.0 per cent SiO_2, and less than 0.5 per cent MgO was present in the following intervals:

* After adjustment of determined percentages as explained in Section 3.2

Interval (m)	Length of Intersection (m)	Stratigraphic Thickness (m)
3.05 - 50.90	47.85	28
66.90 - 145.09	78.19	60½
149.19 - 163.07	13.88	10¾

Intervals with elevated percentages of SiO_2 appear to be related to carbonaceous material. Elevated MgO is the result of local dolomitization, the filling of fractures with hematitic clay, and to a lesser extent associated with carbonaceous intervals.

2.2.2.3 Drillhole 93-3

Drillhole 93-3 (Figs. 2.1) was spotted 535 m west of hole 93-2 along a linear topographic expression which crosses cut block 59/12. It was drilled vertically to 127.71 m, and intersected limestone, some with fossils, and carbonaceous layers. Intervals with better quality as in drillhole 93-2 are as follows:

Interval (m)	Length of Intersection (m)	Stratigraphic Thickness (m)
3.67 - 18.16	14.49	12¼
20.42 - 25.74	5.32	4½
31.80 - 54.77	22.97	19½
65.40 - 83.97	18.57	9¾
85.91 - 98.35	12.44	8¾

2.2.2.4 Drillhole 93-4

Drillhole 93-4 (Fig. 2.1) was drilled vertically to a depth of 28.35 m before it was terminated. It intersected carbonaceous limestone, shale, and a conglomerate layer at its base; none of these reach the better quality limits above for limestone in drillhole 93-2. MgO values range from 0.96 to 3.61 per cent and SiO_2 from 3.68 to 18.80 per cent.

3. QUALITY OF LIMESTONE

3.1 ANALYTICAL PROCEDURES

The surface and drill core samples collected in 1993 were analyzed by Acme Analytical Laboratories Ltd. (Appendix 2) according to inductively coupled plasma techniques (ICP). For ICP analyses the samples were crushed, ground, and pulverized with 0.2 g fused with $LiBO_2$ and then dissolved in 100 ml 5% HNO_3.

3.2 ADJUSTMENTS TO REPORTED ANALYSES

Examination of the analytical reports in Appendix 2 indicate that some of the analytical determinations for CaO and LOI are not accurate. Of the 16 analyses of surface samples and 204 analyses of split drill core, 65 determinations of CaO equal or exceed 56 per cent, the maximum possible CaO content for pure $CaCO_3$. Further, LOI values are too low for some of the high quality limestone samples analyzed. These low LOI determinations probably arise from the fact that the decomposition temperature of $CaCO_3$ is about 894°C, not much below the usual ignition temperature of 1000°C which may not be reached by all the limestone samples in the furnace, if the temperature calibration of the furnace is not accurate, or if temperature gradients in the furnace are significant.

Chemical analyses of limestone can be checked by subtracting the carbon dioxide equivalent to CaO plus that equivalent to MgO (total carbon dioxide equivalents are indicated CO_2 EQ) from the determined LOI (Appendix 3). If P_2O_5 has been determined, the percentage of CaO to use in this calculation is the determined CaO minus 1.31693 P_2O_5. LOI should exceed CO_2 EQ by a small amount to allow for moisture, oxidation of any pyrite, and other factors. Of the 198 split core samples analyzed, LOI minus CO_2 EQ is positive in only 28. An additional 15 samples of split core contain sufficient MgO, SiO_2, or both so that the determined CaO values are less than 53.00 per cent: a quality too low for further consideration.

For all analyses, adjustments to determined values of CaO and LOI have been calculated by two methods: LOI-based and impurity-based (Appendix 3). The LOI-based method involves lowering the determined CaO in analyses with high CaO determinations and concomitantly raising the determined LOI so that with the adjusted values of CaO and LOI, LOI minus CO_2 EQ equals 0.2. The equations for LOI-based adjustments follow:

$$CaO_F = \frac{99.80 - 0.21522\ CaO - 2.09175\ MgO - SiO_2 - R_2O_3 - others + 0.983\ P_2O_5}{1.56956}$$

$$LOI_F = \tfrac{1}{2} (100.20 - 0.21522\ CaO + 0.09175\ MgO - SiO_2 - R_2O_5 - others - 0.983\ P_2O_5)$$

where the subscript $_F$ refers to the adjusted or calculated percentage (final) of CaO or LOI;
R_2O_3 is the sum of $Al_2O_3 + Fe_2O_3 + TiO_2 + P_2O_5 + MnO + Cr_2O_3$ as determined; and
others is the sum of the rest of the constituents as determined in the analytical reports (Appendix 2) not already appearing in the equations.

The impurity-based method involves subtracting the sum of all the determined impurities from 100.00 per cent, assigning the remainder to $CaCO_3$, and calculating adjusted values for CaO and LOI based on this remainder. The equations for impurity-based adjustments follow:

$$CaO_F = \frac{99.80 - 2.09175\ MgO - SiO_2 - R_2O_3 - others + 0.983\ P_2O_5}{1.78478}$$

$$LOI_F = \frac{100.2548 + 0.39115\ MgO - 1.2526\ P_2O_5 - SiO_2 - R_2O_3 - others}{2.2742}$$

where the subscript $_F$, R_2O_3, and *others* have the same meanings as for the previous two equations.

Review of the 176 analyses adjusted to obtain preferred values for CaO and LOI (Codes 4 and 5, Appendix 3) indicates that the CaO and LOI values adjusted by either method are very close, the CaO values adjusted by the LOI method being equal to or less than those adjusted by the impurity-based method. These small differences between the values adjusted by the two methods and the acceptable sums of the constituents provide confidence that the adjusted values are satisfactory.

3.3 DISCUSSION OF ANALYTICAL RESULTS

High-quality limestone with the greatest stratigraphic thickness was found in diamond drillhole 93-2. An estimated stratigraphic thickness of 108 m of limestone averaging more than 54.5 per cent CaO is present through the length of this drillhole with SiO_2 greater than 2 per cent from 50.90 to 66.90 m. To the west, stratigraphic thicknesses of high-quality limestone in drillhole 93-3 are much shorter, ranging from 4½ to 19½ m. Intervals with more than 1 per cent MgO separate these high-quality intervals. No high-quality limestone is present in drillhole 93-4. The specific intersections of

better limestone in drillholes 93-2 and 93-3 are in Sections 2.2.2.2 and 2.2.2.3, respectively. Further drilling is required for correlation of these limestones.

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Edmonton, Alberta
1994 08 05

4. REFERENCES

Allen, A.R. (1973) Report on the Giscome property, Cariboo Mining Division, British Columbia; B.C. Dept. Mines Petr. Res. assessment report 4938, 22 p.

Allen, D.G. and MacQuarrie, D.R. (1984) Assessment report describing geophysical surveys and trenching on the Giscome property (GIS claims), Cariboo Mining Division, British Columbia; B.C. Dept. Mines Petr. Res. assessment report 11,862, 34 p.

Bloomer, C.J. (1979). Eagle claims, Cariboo Mining Division, British Columbia; B.C. Dept. Mines Petr. Res. assessment report 7388, 21 p., 3 appendices, 5 tables, 19 figures.

Campbell, R.B., Mountjoy, E.W., and Young, F.G. (1973) Geology of McBride map-area, British Columbia; Geol. Surv. Can., Paper 72-35.

Deville, E. and Struik, L.C. (1990) Polyphase tectonic, metamorphic and magmatic events in the Wolverine Complex, Mount Mackinnon, central British Columbia; *in* Current Research, Part E, Geol. Surv. Can., Paper 90-1E, p.65-69.

Erickson, C.M. (1991) Site investigation of Giscome limestone quarry; unpublished company report for Kode-Jerrat Quarries Ltd. by CME Engineering, Prince George, B.C., 52 p., 2 appendices.

Gerlitzki, J.H. (1972) History of the Giscome property, 1942-1972.

Hall, A.O. (1965) Exploration of the Gerlitzki - Giscome property, Cariboo Mining Division, British Columbia; B.C. Dept. Mines Petr. Res. assessment report 636, 31 p.

Muller, J.E. and Tipper, H.W. (1969) Geology McLeod Lake; Geol. Surv. Can. Map 1204A.

Payne, J.G. and Sisson, W.G. (1975) Geological report MC3, MC5 claims, Cariboo Mining Division, British Columbia; B.C. Dept. Mines Petr. Res. assessment report 5515, 9 p.

_____ (1988) Geological report of diamond drilling on the Giscome property, COM 1, 2, 4, 4 fraction, 5, 6 claims, Cariboo Mining District; B.C. Dept. Mines Petr. Res. assessment report 17,561, 21 p. including 6 fig., 2 appendices.

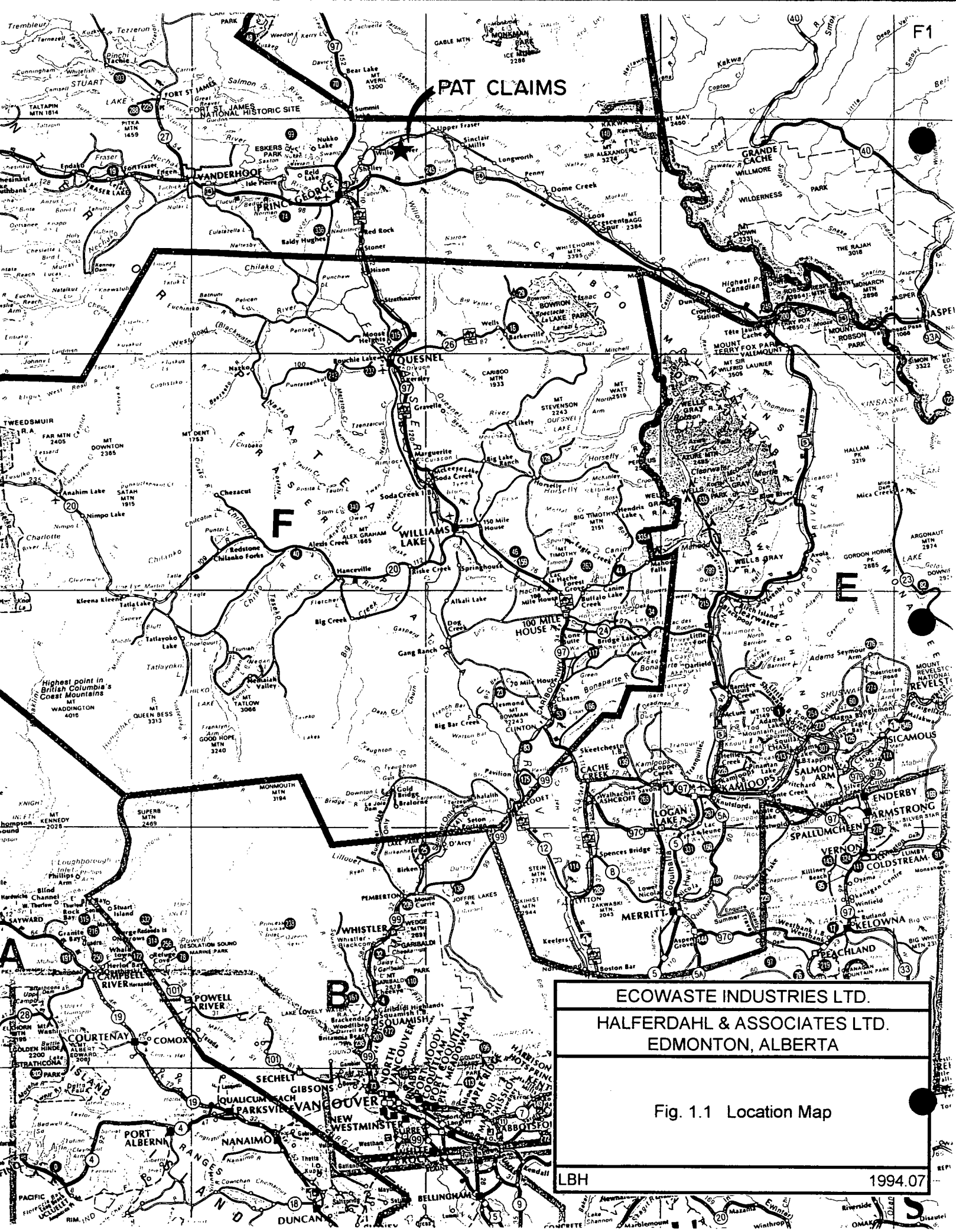
Struik, L.C. (1988) Structural geology of the Cariboo gold mining district, east-central British Columbia; Geol. Surv. Can., Mem. 421.

_____ (1989) Regional geology of the McLeod Lake map area, British Columbia; *in* Current Research, Part E, Geol. Surv. Can., Paper 89-1E, p. 109-114.

_____ and Fuller, E.A. (1988) Preliminary report on the geology of McLeod Lake area, British Columbia; *in* Current Research, Part E, Geol. Surv. Can., Paper 88-1E, p. 39-42.

_____ and Lynch, T.E. (1990) Geology of Prince George (east half) map area (93G/E), descriptive notes and fossil list; Geol. Surv. Can., Open file 2172.

Wilson, B.T. (1960) Report on the ground EM survey, Ace claims, Cariboo Mining Division, British Columbia; B.C. Dept. Mines Petr. Res. assessment report 322, 7 p.


PAT CLAIMS
F1
ECOWASTE INDUSTRIES LTD.
HALFERDAHL & ASSOCIATES LTD.
EDMONTON, ALBERTA
Fig. 1.1 Location Map
LBH
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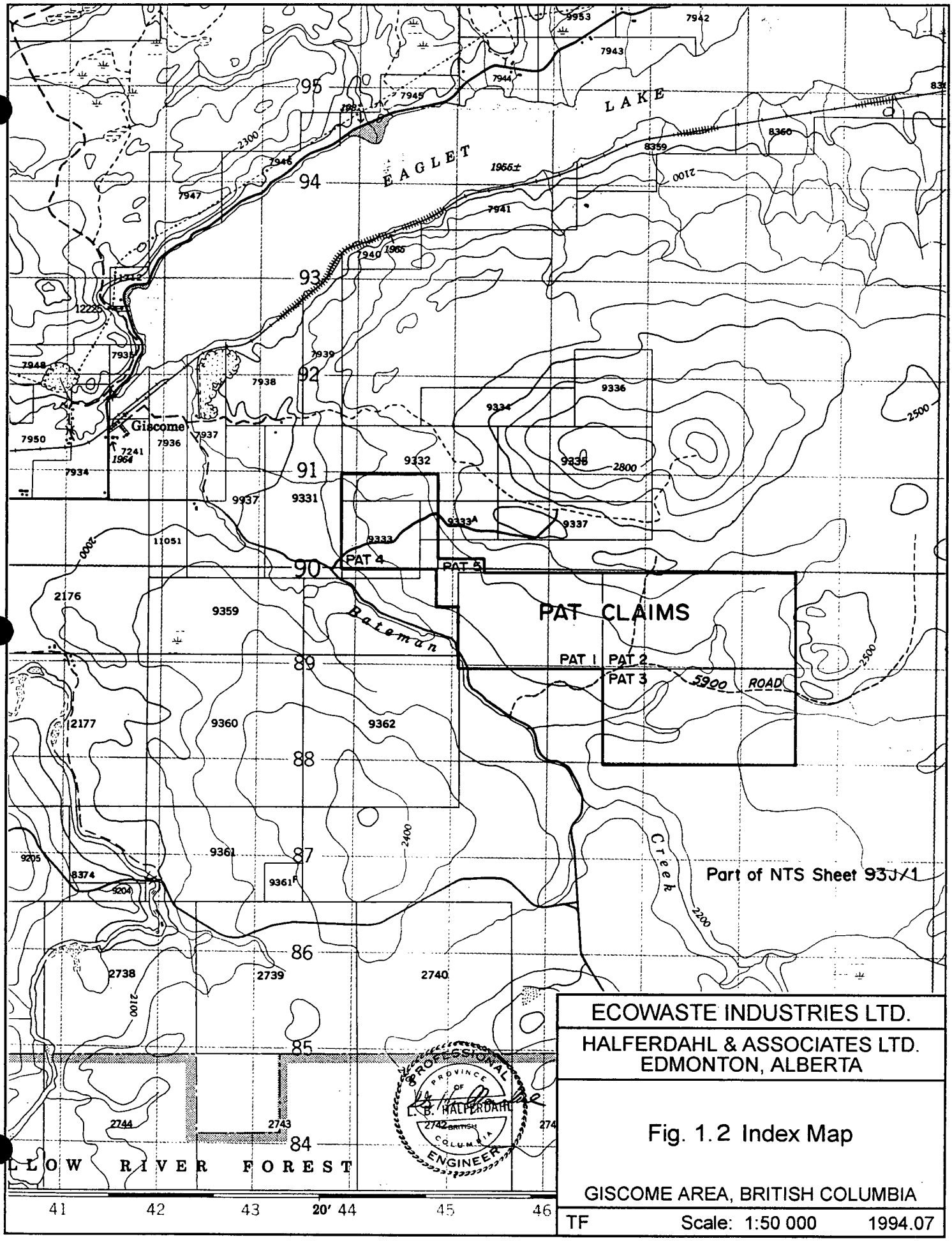

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HALFERDAHL & ASSOCIATES LTD.
EDMONTON, ALBERTA

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
L. B. HALFERDAHL

Fig. 1.2 Index Map

GISCOME AREA, BRITISH COLUMBIA

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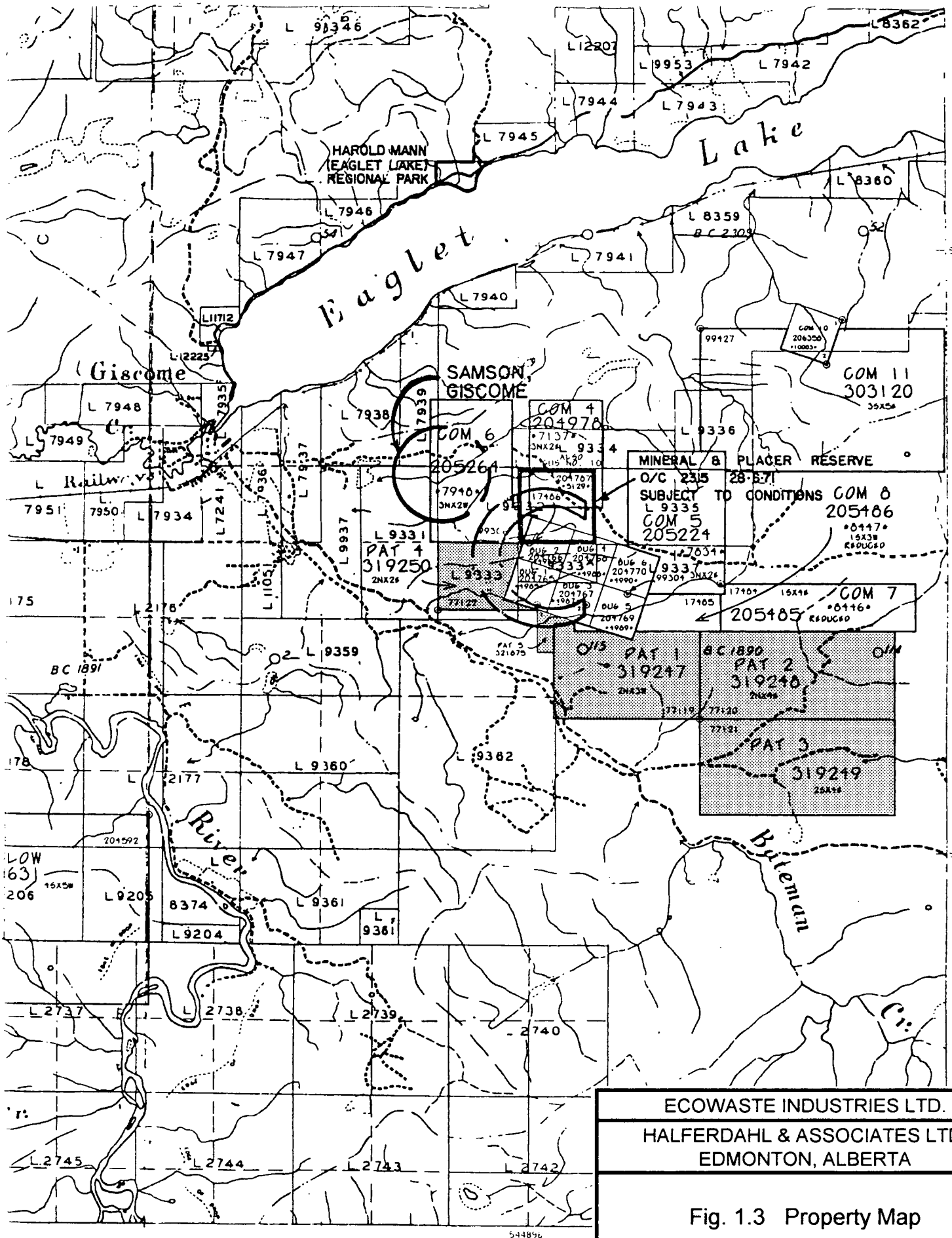

PART OF1:50 000 SCALE MINERAL TITLES REFERENCE MAP 93J/1W

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Fig. 1.3 Property Map
GISCOME AREA, BRITISH COLUMBIA
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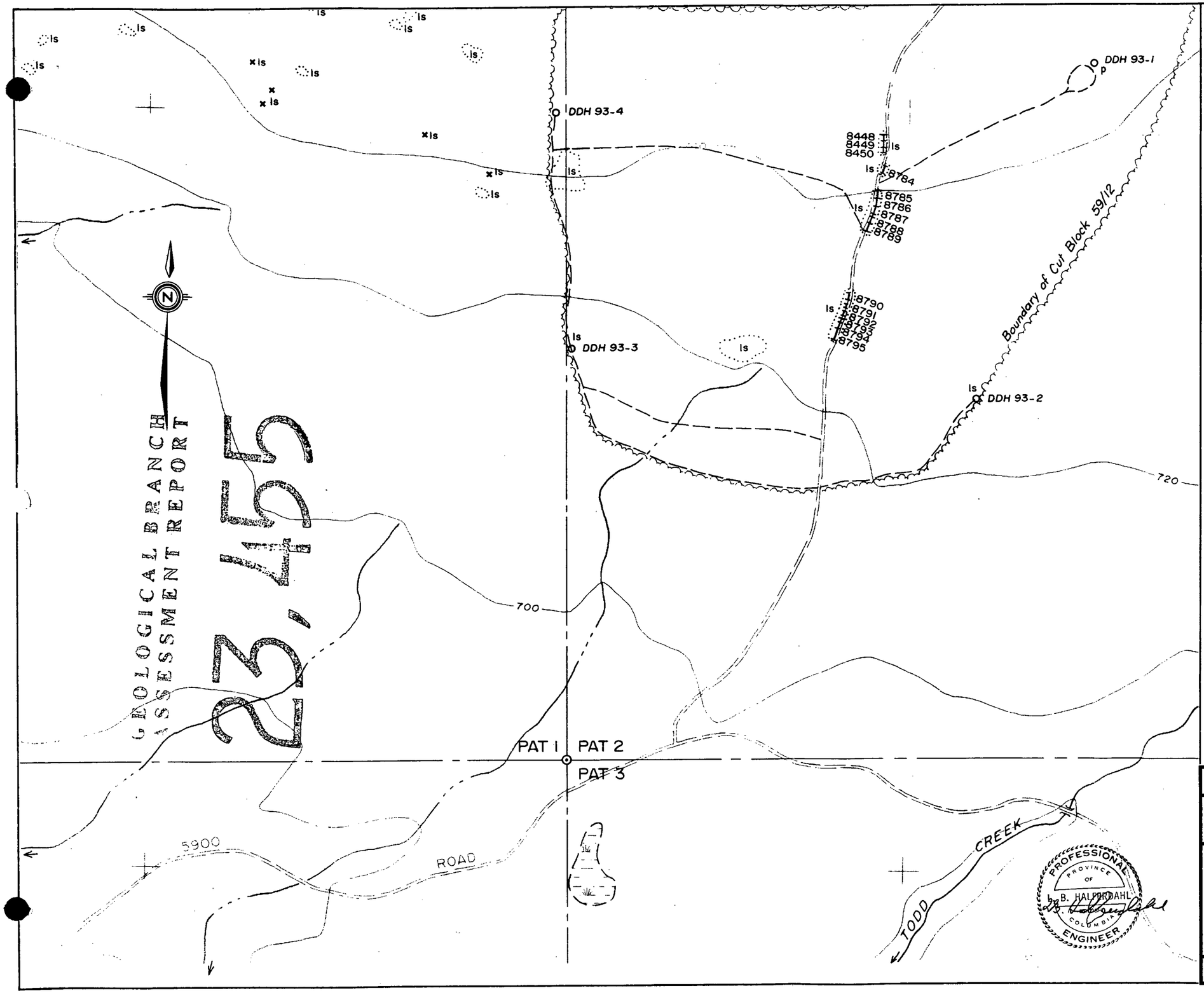

SYMBOLS

- ls — Limestone
- p — Peridotite
- Boundary between rock units .....
- Fault, interpreted ..... ~ ~ ~ ~
- Strike and dip of bedding 50
- Area of outcrop .....
- Isolated outcrop ..... × × ×
- Four-wheel-drive trail .....
- Legal corner post ..... ⊙
- Claim boundary with name ..... PAT 2
- Diamond drillhole with number ..... o 93-2
- Sample with number ..... I 8784

0 40 80 120 m
Scale

Contour interval: 20m

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Fig. 2.1 Geology, Surface Samples, and Drillholes.

GISCOME AREA, BRITISH COLUMBIA

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PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
L. B. HALFERDAHL

APPENDIX 1: LITHOLOGICAL LOGS FOR DRILLHOLES 93-1 TO 93-4

Owner: Ecowaste Industries Ltd.
Drillhole 93-1
Inclination: -90°
Depth: 27.74 m
Core Recovered: bedrock 1.62m; 90%
Core Size: NQ
Downhole Logs: none run

Property: Pat Claims, near Giscome, B.C.
Location: Claim Pat 2
UTM 547244 m E 5990036 m N
Elevation: 742 m
Date Drilled: 1993 10 13
Drilled by Tex Drilling Ltd., Kamloops, B.C.
Logged by L.B. Halferdahl

Purpose: To test for the presence, structure, and quality of limestone.

Note: This hole did not penetrate any limestone so no samples were collected nor analyzed.

Metrage	Interval (m)		Description
0.00-25.94	25.94	Overburden	unconsolidated surficial material
		0.00-10.36	casing (not cored)
		10.36-16.66	medium-greenish-grey coherent till with numerous fragments of quartzite, limestone, volcanics and others to 3-4 cm in size
		16.64-17.07	0.43 m lost core
		17.07-17.16	greyish till, coherent
		17.16-17.25	rounded and angular pebbles, mostly quartzite, some granite
		17.25-22.36	5.11 m lost core (probably soupy grey clay)
		22.36-23.16	soupy grey clay and boulders of light-greenish-grey volcanics with aphanitic groundmass with 10-15% each of quartz and feldspar in grains 2-3 mm with some rounded, other boulders of coarse granitic rocks with 65% pink and white feldspar grains to 2 cm in size, 30% glassy quartz grains to 1 cm in size, and 5% black hornblende in grains to ½ cm all with irregular interlocking textures
		23.16-23.32	soupy grey clay with a few boulders of granitic and volcanic rocks as from 22.36-23.16 m; granite with an irregular pale-greenish mineral somewhat resembling epidote but different from typical green color of epidote
		23.32-24.38	1.06 m lost core
		24.38-24.46	boulder and fragments of volcanics and granite as previous
		24.46-25.07	peridotite, black, serpentinized, magnetic, some with net texture, local pockets with finely disseminated chalcopyrite and pyrrhotite
		25.07-25.54	soupy grey clay, silt, and sand with granule size fragments of various lithologies

Owner: Ecowaste Industries Ltd. Property: Pat Claims, near Giscome, B.C.
Drillhole 93-1 Page 2

Metrage	Interval (m)		Description
		25.54-25.60	some coarse black volcanics
		25.60-25.69	soupy grey clay with creamy-white, very fine grained quartzite pebbles to 4-5 cm in size
		25.69-25.94	0.25 m lost core
25.94-27.74	1.80	Peridotite	greenish-black, serpentinized, magnetic, some with irregular whitish veins, few clumps of whitish mica (phlogopite ?) to 5 mm in size
		26.21-26.39	0.18 m lost core
27.74		End of hole	

Owner: Ecowaste Industries Ltd.
Drillhole 93-2
Inclination: -90°
Depth: 163.07 m
Core Recoverd: 154.74 m; 97%
Core Size: NQ
Downhole Logs: none run

Property: Pat Claims, near Giscome, B.C.
Location: Claim Pat 2
UTM 547092 m E 5989596 m N
Elevation: 728 m
Dates Drilled: 1993 10 14 to 1993 10 18
Drilled by Tex Drilling Ltd., Kamloops, B.C.
Logged by L.B. Halferdahl and T. Faragher

Purpose: To test for the presence, structure, and quality of limestone.

Metrage	Interval (m)		Description
0.00-3.05	3.05	Overburden	unconsolidated surficial material
		0.00-3.05	casing (not cored)
3.05-10.50	7.45	Limestone	dark-grey, cryptocrystalline with odd calcite crystals to 2-3 mm, medium-grey on diamond-cut surfaces, few whitish calcite stringers to 1-2 mm wide at ~5°-10° CA SAMPLES 9271-9275
		3.05-4.75	irregular patches of reddish hematite-colored material along irregular fractures some at 45° CA
		3.05-4.05	few brachiopod shells, odd grain of pyrite to 1 mm, few irregular blobs and masses of white calcite to 3 cm in size, odd rusty spot to 1 cm, few buff-orange masses to 2-3 mm
		4.75-4.88	0.13 m lost core
		5.93-6.06	0.13 m lost core
		6.54	irregular fracture (stylolite ?) at 32° CA with red hematite to 1 mm thick
		7.61	hematite-coated stylolite at 35° CA
		8.17	hematite-coated stylolite at 35° CA
		8.32	hematite-coated stylolite at 40° CA
		8.57-8.59	0.02 m lost core
		8.64	hematite-coated stylolite at 35° CA
		8.64-9.12	few irregular white calcite stringers, masses, and veinlets
		8.89-8.98	few irregular hematite masses
		9.12-9.35	irregular masses of white calcite to 2 cm in size
		9.12-10.50	few per cent irregular dark spots to 2 mm in size
		10.05	red hematite along stylolite at 35° CA
		10.10-10.22	0.12 m lost core

Owner: Ecowaste Industries Ltd. Property: Pat Claims, near Giscome, B.C.
Drillhole 93-2 Page 2

Metrage	Interval (m)		Description
10.50-14.29	3.79	Limestone	medium-grey, cryptocrystalline with odd calcite crystals to 2-3 mm SAMPLES 9401-9403
		11.73-11.81	0.08 m lost core
		12.80-13.11	up to 5% spots of orange-brown material 2-4 mm in size
		13.17	hematite-coated stylolite at 35° CA
		13.81	hematite-coated stylolite at 32° CA, some orange-brown spots as 12.80-13.11 m
		13.99	white calcite veinlet ½ cm thick at 52° CA
		14.04	hematite-coated stylolite at 35° CA
		14.04-14.14	orange-brown spots decreasing downhole to very minor amounts or none
14.29-14.94	0.65	Limestone	dark-grey, cryptocrystalline SAMPLE 9404
		14.29-16.82	whitish calcite masses (mottles) 2-3 cm in size to 20%-25% of rock
		14.37	hematite-coated stylolite at 30° CA
		14.74-14.94	slightly lighter-grey
		14.78-14.84	0.06 m lost core
14.94-19.44	4.50	Limestone	medium-grey, cryptocrystalline SAMPLES 9405, 9406
		15.54	smooth joint with hematite at 35° CA
		15.87	few orange-brown spots
		16.66-16.76	0.10 m lost core
		16.82-18.36	whitish calcite masses (mottles) as 14.29-16.82 m, locally to 30%-40% of rock, decreasing downhole to very minor amounts
19.44-25.15	5.71	Limestone	medium-grey, micritic, irregular whitish mottles to 2-3 cm, white calcite stringers SAMPLES 9407-9409
		21.04	very fine hematite-coated stylolite at 40° CA
		21.10-21.23	0.13 m lost core
		22.34	dark-grey layer 3 cm thick at 40° CA
		22.34-25.15	whitish calcite mottles, locally to 5 cm of coarse white calcite, few very faint pinkish stylolites, no orange-brown spots

Owner: Ecowaste Industries Ltd. Property: Pat Claims, near Giscome, B.C.
Drillhole 93-2 Page 3

Metrage	Interval (m)		Description
		22.68-22.72	0.04 m lost core
		24.85-25.03	0.18 m lost core
25.15-30.31	5.16	Limestone	medium-grey, cryptocrystalline, irregular fine-grained white calcite crystals and lenses scattered throughout, homogeneous SAMPLES 9410-9413
		26.48	concentration of crinoid stems (?) 1-2 cm in diameter replaced by white calcite
		27.16	white calcite veinlets at 30° CA, calcite blebs and shell replacements
		27.50-27.53	0.03 m lost core
		28.88	hematite-coated stylolite at 45° CA
		29.24	calcite vein broken and offset 5 mm along fracture at 20° CA
		29.41	numerous round white calcite replacement features 1-2 cm in size, crinoid stems (?)
		29.52-30.05	0.53 m lost core
30.31-34.06	3.75	Limestone	medium- to dark-grey, cryptocrystalline SAMPLES 9414-9416
		30.68	white calcite masses (mottles)
		30.99	hematite-coated stylolite at 40° CA
		32.26-32.34	0.08 m lost core
		32.38	few orange-brown spots
		33.41	hematite-coated stylolite at 20° CA
		33.78	hematite-coated stylolite at 35° CA
34.06-36.25	2.19	Limestone	dark-grey to black, cryptocrystalline, common white calcite veinlets, orange-brown spots throughout SAMPLES 9417, 9418
		34.24	hematite-coated stylolite at 45° CA
		34.72	thin black stylolite at 22° CA
		35.08	thin black stylolite at 45° CA
		35.30-35.36	0.06 m lost core
36.25-37.81	1.56	Limestone	medium- to dark-grey, cryptocrystalline SAMPLE 9419
		35.74-35.83	0.09 m lost core
		36.65	randomly oriented fossil shell fragments 1-2 mm in size, black outlines, replaced by white calcite
		36.88	hematite-coated stylolite at 45° CA

Owner: Ecowaste Industries Ltd. Property: Pat Claims, near Giscome, B.C.
Drillhole 93-2 Page 4

Metrage	Interval (m)		Description
37.81-43.13	5.32	Limestone	black, cryptocrystalline with odd calcite crystals to 2-3 mm, carbonaceous, small vugs to 2 mm in size with orange-red clayey material, white calcite veinlets to 6 mm wide parallel CA, thin black stylolite at sharp upper contact at 45° CA SAMPLES 9420-9422
		38.07	thin black stylolite at 45° CA
		38.87	thin black stylolite at 25° CA
		39.48-39.67	stockwork of 4-5 mm wide white calcite veinlets
		39.86	thin black stylolite at 45° CA
		40.31	thin black stylolite at 25° CA
		41.30-41.35	0.05 m lost core
43.13-46.88	3.75	Limestone	medium- to dark-grey, cryptocrystalline, homogeneous, calcite veins throughout, trace orange-red clay along fractures and filling small vugs, few shell fragments replaced by white calcite, upper contact with 3-4 mm of black carbonaceous accumulation at 40° CA SAMPLES 9423-9425
		43.37	hematite-coated stylolite at 40° CA
		44.46-44.50	0.04 m lost core
		44.83	5-cm milky-white calcite vein at 30° CA with irregular hematite stains along edges
		45.70-45.72	0.02 m lost core
		45.95-46.53	stockwork of white calcite veins
46.88-54.53	7.65	Limestone	medium- to dark-grey, cryptocrystalline, dense and massive, few white calcite stringers to 1-2 mm SAMPLES 9426-9429
		46.77-46.80	0.03 m lost core
		47.54	black stylolite at 45° CA, cut and partly replaced by calcite veinlet
		47.98	thin black stylolite at 25° CA
		48.48-48.98	thin calcite-coated fractures at 0° CA offset calcite veinlets from 4-10 mm
		49.44	thin black stylolite at 15° CA
		50.02	thin black stylolite at 30° CA
		50.10	thin black stylolite at 30° CA
		50.54-50.72	0.18 m lost core
		53.05	core broken by series of parallel fractures at 10° CA

Owner: Ecowaste Industries Ltd. Property: Pat Claims, near Giscome, B.C.
Drillhole 93-2 Page 5

Metrage	Interval (m)		Description
		53.88-54.14	calcite veins to 1½ cm wide at 5° CA
		54.23	wavy black stylolite at 90° CA
54.53-64.69	10.16	Limestone	dark-grey to black, cryptocrystalline, carbonaceous, scarce fossil fragments and brachiopod shells replaced by calcite, minor calcite along fractures, 1-5 mm accumulations (stylolites ?) of flaky black carbonaceous material throughout interval SAMPLES 9430-9436
		54.63	wavy black stylolite at 45° CA
		55.07	wavy black stylolite (?) 4 mm thick at 50° CA
		55.14	thin black stylolite at 22° CA
		56.03	thin black stylolite at 35° CA
		56.25	stylolite 3 mm thick at 25° CA
		56.48	thin black stylolite at 20° CA
		56.63	thin black stylolite at 40° CA
		57.09	accumulation of carbonaceous material 2 mm thick at 15° CA
		57.91-58.17	stockwork of white calcite veins 2-5 mm thick at ~5° CA, cut and partly replace stylolites
		59.26	accumulation (stylolite ?) of carbonaceous material 3 mm thick at 55° CA
		59.56	accumulation (stylolite ?) of carbonaceous material 4 mm thick at 45° CA
		59.83	stylolite (?) 5 mm thick at 45° CA
		60.08	black stylolite (?) 4 mm thick at 38° CA
		60.40	accumulation of carbonaceous material 3 mm thick at 45° CA
		60.63	carbonaceous material 3 mm thick at 45° CA
		62.43	black stylolite (?) 2 mm thick at 30° CA
		63.85	black stylolite (?) 2 mm thick at 15° CA
		64.13-64.69	small fossil fragments and brachiopod shells replaced by white calcite

Owner: Ecowaste Industries Ltd. Property: Pat Claims, near Giscome, B.C.
Drillhole 93-2 Page 6

Metrage	Interval (m)		Description
64.69-68.44	3.75	Limestone	dark-grey to black, cryptocrystalline, infrequent thin black stylolites and odd calcite veinlets, few fossil shell fragments replaced by white calcite SAMPLES 9437, 9438
		64.81-65.06	round to elliptical salt-and-pepper-colored coral colonies (?) 3-6 mm in diameter replaced by calcite; top and base of interval marked by thin black stylolites at ~45° CA
		66.79-68.44	abundant randomly oriented fragments and brachiopod shells replaced by white calcite
		66.98-67.10	0.12 m lost core
68.44-69.22	0.78	Limestone	light-grey, cryptocrystalline to fine-grained, masses, patches and veinlets of white calcite, orange-red clay up to 1 mm thick with red-hematite stains along fractures, slickenslides present where calcite fills fractures, tabular black crystals (?) 1-2 mm in size common throughout, upper contact at 46° CA with accumulation of orange-brown clay 1-2 mm thick at contact SAMPLE 9439
69.22-69.34	0.12	Limestone	medium- to dark-grey, cryptocrystalline, dense and massive, spotted with 1-2 mm tabular black crystals (?), core scratched with metal filings stuck to core SAMPLE 9440
69.34-77.81	8.47	Limestone	medium-grey, cryptocrystalline, dense and massive, white calcite masses and veinlets, no carbonaceous material nor stylolites, many varieties of fossils replaced by coarse white calcite, upper contact brecciated at 37°-42° CA with angular fragments 2-3 mm in size of limestone from unit above SAMPLES 9441-9445
		72.13-72.31	0.18 m lost core
77.81-79.38	1.57	Limestone	dark-grey, cryptocrystalline, odd calcite crystals to 2-3 mm, few fossil fragments, gradational lower contact SAMPLE 9446

Owner: Ecowaste Industries Ltd. Property: Pat Claims, near Giscome, B.C.
Drillhole 93-2 Page 7

Metrage	Interval (m)		Description
79.38-83.44	4.06	Limestone	as 69.34-77.81 m SAMPLES 9447, 9448
		81.34-81.38 82.39-82.47	0.04 m lost core 0.08 m lost core
83.44-85.00	1.56	Limestone	medium-grey, 60-65% of core coarse-grained milky-white to greyish calcite, basal contact abrupt at 80° CA SAMPLE 9449
85.00-87.50	2.50	Limestone	dark-grey to black, cryptocrystalline, hard and dense, 60-80% of core composed of spherical to elliptical fossil coral colonies (?) 1-1½ cm in size with speckled salt-and-pepper appearance, cut and replaced by odd calcite veinlet SAMPLES 9450, 9451
		85.54-85.60	0.06 m lost core
87.50-93.75	6.25	Limestone	black, cryptocrystalline, odd fossil shell replaced by white calcite, odd white calcite masses and veinlets SAMPLES 9452-9454
		90.48-90.70	0.22 m lost core
93.75-96.56	2.81	Limestone	medium-grey, cryptocrystalline, 70% of core flooded by calcite, trace hematite stains, vugs 2-3 mm in size within calcite SAMPLE 9455
		96.52-96.56	0.04 m lost core
96.56-108.43	11.87	Limestone	dark-grey, cryptocrystalline, few white calcite masses, fossils of diverse variety replaced by white calcite and stacked upon each other with random orientation SAMPLES 9456-9464
		96.56-96.62 98.39-98.42 106.12-106.36	0.06 m lost core 0.03 m lost core 0.24 m lost core

Owner: Ecowaste Industries Ltd. Property: Pat Claims, near Giscome, B.C.
Drillhole 93-2 Page 8

Metrage	Interval (m)		Description
108.43-140.47	32.04	Limestone	light- to medium-grey, cryptocrystalline, odd thin calcite veinlet, odd calcite masses to 8 cm in size, fewer fossils, bunches of round-to-oval salt-and-pepper-colored fossil coral colonies (?) 1-2 cm in diameter SAMPLES 9465-9484
		108.78	calcite vein 3 cm thick, vuggy with vugs filled by rusty-orange clay, core broken into small pieces
		111.83-112.03	0.20 m lost core
		113.65-113.84	80-85% of core replaced with coarse white calcite
		115.31-115.40	randomly oriented brachiopod shells and fragments replaced by white calcite
		117.56-117.64	calcite-flooded, as 113.65-113.84 m
		118.05	fossil rich, brachiopod shells and fragments replaced by white calcite
		118.47	hematite-stained stylolite at 90° CA
		118.66	hematite-stained stylolite at 30° CA
		119.61-120.73	round-to-oval salt-and-pepper-colored fossil coral colonies (?) 1-1½ cm in diameter
		123.07-123.20	0.13 m lost core
		124.25	thin black stylolite at 45° CA
		124.93-125.01	0.08 m lost core
		127.19-127.28	rusty-orange coating on fractures
		129.43-129.68	0.25 m lost core
		134.65	black stylolite at 60° CA cutting fossil fragments below
		135.54-135.59	0.05 m lost core
		135.94-140.47	sparse fossils and calcite veinlets, homogeneous
140.47-142.50	2.03	Limestone	dark-grey to black, cryptocrystalline, odd calcite crystal 2-3 mm in size, fossil shells and fragments replaced by white calcite, black stylolites common, sharp upper contact marked by black stylolite at 35° CA SAMPLE 9485
		140.55-140.61	accumulation of black, finely laminated, flaky greasy carbonaceous material 6 cm thick, no reaction with HCl, top contact sharp at 45° CA, lower at 85° CA

Owner: Ecowaste Industries Ltd. Property: Pat Claims, near Giscome, B.C.
Drillhole 93-2 Page 9

Metrage	Interval (m)		Description
142.50-150.31	7.81	Limestone	medium- to light-grey, cryptocrystalline to fine-grained, odd fossil shell replaced by white calcite, calcite masses and veinlets SAMPLES 9486-9491
		146.46-146.56	buff-colored zone of thin whispy bands at 45° CA, hematite-stained; bands surround and bend around calcite-filled brachiopod shells, dolomitic (?)
		147.43-147.58	fossil shells and fragments replaced by white calcite
		149.59	thin black stylolite at 30° CA
150.31-152.81	2.50	Limestone	dark-grey to black, fine-grained, 80% fossil fragments replaced by calcite, 18% limy matrix, 1% carbonaceous material and stylolites, and 1% black to buff-colored angular limestone fragments ½-1 cm in size, black stylolite at upper contact at 45° CA, black stylolite at lower contact at 35° CA, fractures coated with thin calcite, hematite, or carbonaceous material - "dirty" interval SAMPLE 9492
		151.18-151.28	0.10 m lost core
		151.88	odd pyrite crystal to 1 mm in size
152.81-163.07	10.26	Limestone	dark-grey to black, cryptocrystalline, fossil shells and fragments replaced by calcite, odd calcite masses and veinlets SAMPLES 9493-9499
		153.31	thin black stylolite at 85° CA
		153.69	accumulation of black flaky carbonaceous material 3 mm thick at 30° CA
		154.13-154.31	0.18 m lost core
		154.52-154.60	black flaky carbonaceous material: top at 40° CA, base at 78° CA
		159.53	thin black stylolite at 50° CA
		159.89-160.26	round-to-oval salt-and-pepper-colored fossil coral colonies (?) 1-1½ cm in diameter, top and base marked by black stylolites at 45° CA
		162.29-162.86	0.56 m lost core
		162.86-163.07	as 159.89-160.26 m, gradational contacts
163.07		End of hole	

Owner: Ecowaste Industries Ltd.
Drillhole 93-3
Inclination: -90°
Depth: 127.71 m
Core Recovered: 124.12 m; 96%
Core Size: NQ
Downhole Logs: none run

Property: Pat Claims, near Giscome, B.C.
Location: Claim Pat 1
UTM 546557 m E 5989664 m N
Elevation: 718 m
Dates Drilled: 1993 10 19 to 1993 10 22
Drilled by Tex Drilling Ltd., Kamloops, B.C.
Logged by T. Faragher

Purpose: To test for the presence, structure, and quality of limestone.

Metrage	Interval (m)		Description
0.00-3.66	3.66	Overburden	unconsolidated surficial material
		0.00-3.66	casing (not cored)
3.66-7.81	4.14	Limestone	light- to medium-grey, cryptocrystalline, masses of white calcite to 4 cm in size, fractures and edges of calcite masses coated with rusty-orange clay, odd white calcite veinlets SAMPLES 9500-9502
		4.76-4.89 7.29-7.41	0.13 m lost core 0.12 m lost core
7.81-8.44	0.63	Limestone	white to buff, calcite-flooded, clear calcite veinlets, minor hematite stains SAMPLE 9503
8.44-13.13	4.69	Limestone	light- to medium-grey, cryptocrystalline, many masses, blotches, and veinlets of white calcite, odd hematite- stained stylolite at ~45° CA SAMPLES 9504, 9505
		11.74-11.90	0.16 m lost core
13.13-14.38	1.25	Limestone	white to buff, calcite-flooded, relic light-grey limestone,cryptocrystalline, odd clear calcite veinlet at ~85° CA, hematite-stained, rusty-orange clay on fractures, gradational contacts SAMPLE 9506
		13.94-14.16	0.22 m lost core
14.38-20.00	5.62	Limestone	light- to medium-grey, cryptocrystalline, broken core, rusty-orange clay 5-6 mm thick on fractures, odd thin hematite-stained calcite veinlets SAMPLES 9507-9509
		18.57-18.65 19.90-19.94	0.08 m lost core 0.04 m lost core

Owner: Ecowaste Industries Ltd. Property: Pat Claims, near Giscome, B.C.
Drillhole 93-3 Page 2

Metrage	Interval (m)		Description
20.00-20.94	0.94	Limestone	medium-grey, cryptocrystalline, massive and dense, speckled with many black oval crystals (?) 2-3 mm in size elongated at 45° CA that react with HCl, odd calcite veinlet SAMPLE 9510
20.94-28.75	7.81	Limestone	light-grey to buff-pink, thin whispy bands <1 mm thick and 4-6 mm long alternating light-grey, buff-pink and clear calcite interwoven and oriented ~25° CA, dolomitic interval (?), odd clear calcite veinlet at ~85° CA, minor rusty-orange clay coating fractures SAMPLES 9511-9515
		22.69-22.89 28.14-28.18	0.20 m lost core 0.04 m lost core
28.75-33.59	4.84	Limestone	medium- to dark-grey, cryptocrystalline, odd 2-3 mm black oval crystals (?), calcite veinlets 1-8 mm thick, upper contact sharp at 63° CA SAMPLES 9516-9518
		32.44-32.51	0.07 m lost core
33.59-34.69	1.10	Limestone	light-grey, cryptocrystalline, homogeneous with odd clear calcite veinlet and black oval crystals (?); upper contact marked by sharp color change at 82° CA SAMPLE 9519
		34.09-34.15	0.06 m lost core
34.69-36.56	1.87	Limestone	black, cryptocrystalline to fine-grained, dense, featureless, upper contact gradational with round black grains 1-2 mm in size fining downward for 6 cm SAMPLE 9520
		35.66-35.75	0.09 m lost core
36.56-42.81	6.25	Limestone	pale-grey, cryptocrystalline, common round to oval blackcrystals (?) 1-2 mm in size roughly oriented at ~85° CA giving core a layered appearance, odd white calcite veinlet, upper contact gradational with colored interfingering at ~70° CA for 12 cm SAMPLES 9521-9524

Owner: Ecowaste Industries Ltd. Property: Pat Claims, near Giscome, B.C.
Drillhole 93-3 Page 3

Metrage	Interval (m)		Description
		38.54-38.84	stockwork of milky-white calcite veins
		41.29-41.77	milky-white calcite vein 1 cm wide at 90° CA fractured at ~3 cm intervals and offset by ½ cm to form a step pattern
		42.19-42.81	black, dense, carbonaceous, odd white calcite veinlets, upper contact at black hematite-stained stylolite at 60° CA
42.81-49.69	6.88	Limestone	light- to pale-grey, cryptocrystalline, odd black oval crystals (?), many white calcite veinlets with minor hematite stains, fracture surfaces coated with white calcite or green-brown clay, odd vug <1 mm filled with rusty clay, upper contact at black stylolite at 45° CA SAMPLES 9525-9529
		43.11	thin black stylolite at 42° CA
		43.86	hematite-coated black stylolite at 48° CA
		44.12-44.24	calcite-flooded, minor hematite stains
		44.38-44.61	0.23 m lost core
		45.31-45.36	0.05 m lost core
		46.30	wavy dark band 5 cm thick at ~88° CA
		47.53-47.82	dark-grey "ghosty" blotches, mottled appearance, outline marked by thin brown and rusty-orange lines, elongated at 60° CA
49.69-53.13	3.44	Limestone	black, cryptocrystalline, many white calcite veinlets trending ~45° CA SAMPLES 9530, 9531
		50.90-51.07	0.17 m lost core
		52.49	hematite-stained black stylolite at 38° CA
53.13-57.19	4.06	Limestone	medium-grey, cryptocrystalline, many randomly oriented black round-to-oval crystals (?) 1-2 mm in size, odd white and hematite-stained calcite veinlets, upper contact marked by a zone of white calcite 1 mm thick SAMPLES 9532, 9533
		55.31-57.19	round cavities 1-2 mm in size filled with rusty-orange clay
		55.93-55.96	0.03 m lost core

Owner: Ecowaste Industries Ltd. Property: Pat Claims, near Giscome, B.C.
Drillhole 93-3 Page 4

Metrage	Interval (m)		Description
57.19-62.50	5.31	Limestone	light-grey to buff, cryptocrystalline, white-calcite stockwork, hematite-stained, rusty-orange clay on fractures SAMPLES 9534-9537
		57.98-58.00	0.02 m lost core
		60.58-60.74	0.16 m lost core
62.50-68.13	5.63	Limestone	dark-grey, cryptocrystalline, odd white calcite veinlets and masses, pink-tan angular fragments (dolomitic ?) ½-4 cm in size replaced by material with slow reaction to HCl, fragments roughly oriented at 45° CA and cut and replaced by calcite veinlets, first appearance of fossil shells and fragments replaced by white calcite SAMPLES 9538-9541
		62.58-62.80	spherical to elliptical fossil coral colonies (?) ½-1 cm in size with speckled salt-and-pepper appearance comprise 60-80% of core; calcite veinlets cut and replace features
		65.36-65.43	buff-pink (dolomitic ?) web pattern with gradational contacts replaces limestone
		65.56	angular pink-tan fragment (dolomitic ?) 1½ x 4 cm in size
		65.95-66.03	0.08 m lost core
		66.61-66.83	calcite-flooded
		66.95-67.34	concentration of pink-tan angular fragments and webs (dolomitic ?) ½-3 cm in size roughly aligned at 28° CA
		67.81-68.13	as 62.58-62.80 m
68.13-81.56	13.43	Limestone	medium-grey, cryptocrystalline, few irregular masses of white calcite, odd pink-tan angular fragments (dolomitic ?) to 1½ cm in size, odd fossil shells and fragments replaced by white calcite SAMPLES 9542-9548
		68.35-68.44	0.09 m lost core
		71.85-72.12	spherical to elliptical salt-and-pepper-colored fossil coral colonies (?) 1-1½ cm in diameter
		72.82-73.15	0.33 m lost core
		73.15	vug 1 cm wide filled with clear calcite crystals
		73.65-74.09	pink-tan web pattern (dolomitic ?) replacement of limestone

Owner: Ecowaste Industries Ltd.
Drillhole 93-3

Property: Pat Claims, near Giscome, B.C.
Page 5

Metrage	Interval (m)		Description
		73.98-74.12	0.14 m lost core
		77.53-77.68	0.14 m lost core
		78.35-78.54	black flaky carbonaceous layer with sharp contacts at 85° CA
		78.55-81.56	stockwork of milky-white calcite veins
		78.82-79.15	angular pink-tan fragments (dolomitic ?) ½-3 cm in size
		81.17-81.37	stockwork of white calcite veins
		81.37-81.45	0.08 m lost core
81.56-82.19	0.63	Limestone	light-black, cryptocrystalline, fossil shells and fragments replaced by white calcite, odd calcite veinlets, hematite-stained calcite vein 4 cm thick at upper contact at 88° CA SAMPLE 9549
		81.86	hematite-stained black stylolite at 38° CA
82.19-85.94	3.75	Limestone	medium-grey, cryptocrystalline, homogeneous with odd fossil shells replaced by white calcite, few clear calcite veinlets and white masses SAMPLE 9550
		84.05	thin black stylolite at 55° CA
		84.05-84.72	spherical to elliptical fossil coral colonies (?) 1-1½ cm in diameter with salt-and-pepper appearance
85.94-88.13	2.19	Carbonaceous Material	black, finely laminated at 32° CA, soft and friable, greasy, no reaction to HCl, trace hematite staining, odd white calcite veinlets, sharp upper contact at 28° CA SAMPLE 9551
		86.31-86.38	limestone as 82.19-85.94 m with sharp contacts at 45° CA
		86.56-87.05	limestone as 86.31-86.38 m with sharp upper contact at 32° CA and basal contact undulating
		87.43-87.55	0.12 m lost core

Owner: Ecowaste Industries Ltd. Property: Pat Claims, near Giscome, B.C.
Drillhole 93-3 Page 6

Metrage	Interval (m)		Description
88.13-101.25	13.12	Limestone	medium-grey, cryptocrystalline with odd calcite crystals to 2-3 mm, homogeneous with few distinct features, odd shell fragments replaced by white calcite, veinlets and masses of white calcite, gradational upper contact with interfingering of limestone and carbonaceous material at 45° CA SAMPLES 9552-9560
		89.66-89.91	0.25 m lost core
		91.24-91.28	0.04 m lost core
		93.51-93.57	0.06 m lost core
		94.36-94.50	0.14 m lost core
		98.07	accumulation of rusty clay 2 mm thick along fracture at 22° CA
		98.11	angular pink-tan fragment (dolomitic ?) ½ x ½ cm in size
		98.22-98.32	0.10 m lost core
		99.29-99.33	0.04 m lost core
101.25-111.41	10.16	Limestone	black, cryptocrystalline with odd calcite crystals to 2-3 mm, fossil shells and fragments replaced by white calcite, carbonaceous layers, odd white calcite veinlets SAMPLES 9561-9568
		101.50-101.64	0.14 m lost core
		101.69	thin black stylolite at 44° CA
		102.18	1½ cm hematitic clay seam along fracture at 46° CA
		102.88	black stylolite at 25° CA replaces fossil fragments below
		103.05-103.33	finely laminated layer of flaky carbonaceous material 28 cm thick with sharp contacts at 45° CA
		103.64	thin black stylolite (?) at 85° CA erodes fossil fragments below
		103.79	black oval crystals (?) 3-5 mm in size
		104.06-106.25	flooded with white calcite as a stockwork of veins with minor hematite stains
		104.16	thin black stylolite at 25° CA
		105.02-105.46	fine silver-grey web structure (dolomitic ?)
		106.25-107.50	concentration of randomly oriented fossil shells and fragments replaced by white calcite, 15% limy matrix
		106.33-106.48	0.15 m lost core
		107.50	thin black stylolite at 65° CA
		107.87	thin black stylolite at 88° CA

Metrage	Interval (m)		Description
		108.10-108.19	flaky black carbonaceous layer, friable, greasy, hematite- stained, sharp contacts at 52° CA
		108.86-108.99	as 108.10-108.19 m, sharp contacts at 45° CA
		110.60-111.41	interfingered with hard and siliceous carbonaceous material with undulating contacts at roughly 60° CA
111.41-116.25	4.84	Carbonaceous Material	black to dark-grey, finely laminated in bands ½-2 cm thick, flaky to hard and siliceous, color changes with sharp contacts oriented at 60° CA, odd layer of dark-grey, fossiliferous limestone SAMPLES 9569-9572
		112.57-112.66	0.09 m lost core
		113.44-114.06	limestone, black and "dirty", fossil shells and fragments replaced by white calcite
		114.06-116.25	layers 2-5 cm thick of alternating carbonaceous material, fossiliferous limestone, and clast-filled layers, the latter fining upwards and consisting of angular to subrounded black limestone fragments 2-8 mm in size roughly aligned at 48° CA within medium-grey limy matrix
116.25-122.81	6.56	Limestone	medium- to light-grey, cryptocrystalline with odd calcite crystals to 2-3 mm, fossil shells and fragments replaced by white calcite, irregular calcite masses to 4 cm in size, odd thin carbonaceous and siliceous layers, sharp upper contact at 46° CA at layer of carbonaceous material 1½ cm thick SAMPLES 9573-9575
		119.28	layer of finely laminated carbonaceous and siliceous material 3 cm thick with contacts at 45° CA
		119.32-119.60	0.28 m lost core
		120.34-120.46	as 119.28 m, minor hematite stains on fractures
		121.16-121.26	as 119.28 m
		121.95-122.21	0.27 m lost core
122.81-127.71	4.90	Carbonaceous Material	black to dark-grey, finely laminated, flaky to hard and siliceous in layers ½-2 cm thick, white calcite veinlets and masses, odd medium-grey limestone layers oriented at 50° CA, fossil shells and fragments replaced by white calcite SAMPLES 9576-9579

Owner: Ecowaste Industries Ltd.
Drillhole 93-3

Property: Pat Claims, near Giscome, B.C.

Metrage	Interval (m)		Description
		122.21-122.30	0.09 m lost core
		125.27-125.55	0.28 m lost core
127.71		End of hole	

Owner: Ecowaste Industries Ltd.
Drillhole 93-4
Inclination: -90°
Depth: 28.35 m
Core Recovered: 22.36 m; 89%
Core Size: NQ
Downhole Logs: none run

Property: Pat Claims, near Giscome, B.C.
Location: Claim Pat 1
UTM 546535 m E 5989975 m N
Elevation: 746 m
Dates Drilled: 1993 10 23 to 1993 10 24
Drilled by Tex Drilling Ltd., Kamloops, B.C.
Logged by T. Faragher

Purpose: To test for the presence, structure, and quality of limestone.

Metrage	Interval (m)		Description
0.00-3.05	3.05	Overburden	unconsolidated surficial material
		0.00-3.05	casing (not cored)
3.05-21.50	18.45	Limestone	dark-grey to black, cryptocrystalline, "dirty", many whitecalcite veinlets and masses, odd fossil shells and fragments replaced by white calcite, carbonaceous black, finely laminated, flaky, hard and siliceous layers throughout, sharp contacts between units ~60° CA SAMPLES 9580-9589
		3.38-3.67	carbonaceous black, finely laminated, flaky, hard and siliceous layers, sharp contacts: top at 66° CA, basal at 60° CA
		3.69-3.82	calcite-flooded with stockwork of white calcite veinlets
		3.84-4.45	0.61 m lost core
		6.63-6.78	0.15 m lost core
		6.71	thin black stylolite at 60° CA
		6.71-8.44	interbedded black limestone and carbonaceous layers 4-8 cm thick, sharp contacts ~60° CA
		8.44-10.31	limestone, black, cryptocrystalline, "dirty", calcite flooded with stockwork of white calcite veinlets with hematite stains on boundaries
		9.00-9.18	0.18 m lost core
		10.31-13.75	carbonaceous zone, black to dark-grey siliceous layers 2-6 mm thick, finely laminated ~60° CA, odd white calcite veinlets
		11.81-11.95	0.14 m lost core
		12.69-13.11	0.42 m lost core
		13.75	fossil shells and fragments within limestone layers replaced by white calcite
		15.46-15.69	0.23 m lost core
		15.63-16.25	as 10.31-13.75 m, fine laminations at 72° CA, sharp upper contact at 56° CA

Owner: Ecowaste Industries Ltd. Property: Pat Claims, near Giscome, B.C.
Drillhole 93-4 Page 2

Metrage	Interval (m)		Description
		16.25-22.81 20.94-21.50	as 13.75 m, white calcite veinlets and masses carbonaceous layers, pyrite disseminated in 1-2 mm crystals
21.50-25.94	4.44	Limestone	interbedded limestone and carbonaceous layers with sharp contacts, white calcite veinlets and masses SAMPLES 9590, 9591
		21.50-21.85	calcite-flooded as stockwork of white calcite veins and masses, odd thin carbonaceous layers
		21.85-22.11	black siliceous carbonaceous zone finely laminated at 62° CA, sharp upper contact at 65° CA
		22.11-22.50	as 21.50-21.85 m, fossil shells and fragments replaced by white calcite
		22.50-22.77	as 21.85-22.11 m
		22.77-24.41	as 21.50-21.85 m
		23.00-23.12	0.12 m lost core
		24.41-25.30	0.89 m lost core
25.94-26.23	0.29	Shale	black, compact, hard and siliceous, pyrite as fine disseminations, sharp upper contact at 66° CA SAMPLE 9592
26.23-26.63	0.40	Conglomerate	grey, clast-supported, subrounded clasts of limestone 55%, shale 30%, quartzite 4%, pyrite nodules 1%, within limy matrix 10%; limestone clasts ½-3 cm in size, medium-grey, cryptocrystalline; shale clasts ¾-2 cm in size, black, very fine grained, siliceous, pyritic; metaquartzite, blue-grey, ½-¾ cm in size; pyrite as nodules ½ cm in size and fine disseminations; clasts flattened roughly at 85° CA, fining upward, sharp upper contact at 82° CA, basal contact undulating SAMPLE 9592 (continued)
26.63-26.89	0.26	Shale	as 25.94-26.23 m, sharp basal contact at 88° CA SAMPLE 9592 (continued)
26.89-27.36	0.47	Limestone	medium- to dark-grey, cryptocrystalline, fossil shells and fragments replaced by white calcite, thin carbonaceous layers, odd white calcite veinlets SAMPLE 9593
		27.36	shale layer 4 cm thick, as 25.94-26.23 m, sharp contacts at 60° CA

Owner: Ecowaste Industries Ltd. Property: Pat Claims, near Giscome, B.C.
Drillhole 93-4 Page 3

Metrage	Interval (m)		Description
27.36-27.74	0.38	Conglomerate	grey, clast-supported, subrounded clasts of limestone 60%, shale 25%, pyrite nodules 2%, within a limy matrix 13%; descriptions as 26.23-26.63 m, clasts flattened roughly at 90° CA, odd white calcite veinlets cut and corrode clasts, undulating lower contact at ~70° CA SAMPLE 9593 (continued)
27.74-28.35	0.61	Limestone	as 26.89-27.36 m SAMPLE 9593 (continued)
28.35		End of hole	

APPENDIX 2: ANALYTICAL REPORTS FROM ACME ANALYTICAL LABORATORIES LTD.

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 # 93-1178

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	Sc ppm	LOI %	SUM %
8446	5.98	.21	.05	.37	52.62	<.05	.06	.02	.06	<.01	<.002	62	802	17	<10	<10	<1	39.9	99.41
8447	2.56	.04	<.01	.54	54.57	<.05	<.05	.03	.05	<.01	.004	37	247	25	<10	<10	<1	41.5	99.35
8448	1.45	.34	.24	.48	55.09	<.05	.16	.02	.08	.01	.006	91	202	<10	<10	<10	1	40.4	98.32
8449	1.58	.36	.26	.53	55.17	<.05	.24	.02	.08	.01	.006	90	199	10	<10	<10	1	40.5	98.80
8450	1.32	.30	.20	.72	55.42	<.05	.33	.03	.09	.01	.005	130	202	<10	<10	<10	1	41.0	99.47
8784	.02	.04	<.01	.79	57.03	<.05	.06	<.01	.12	<.01	.002	37	154	10	<10	<10	<1	41.0	99.09
8785	2.74	.74	.38	1.24	53.79	.15	<.05	.04	.09	.01	.004	72	186	77	<10	<10	1	40.3	99.58
8786	.25	.06	.03	.44	56.62	<.05	<.05	.01	.06	<.01	.005	46	187	<10	<10	<10	<1	41.7	99.26
RE 8786	.28	.06	.05	.45	56.48	<.05	<.05	<.01	.03	<.01	.003	50	188	<10	<10	<10	<1	41.9	99.29
8787	1.59	.42	.17	.62	55.44	.06	.14	.02	.06	.01	.004	57	196	11	<10	<10	1	41.0	99.57
8788	.04	.04	<.01	.40	56.63	<.05	<.05	.02	.04	<.01	.004	44	186	11	<10	<10	<1	42.1	99.36
8789	.03	.02	<.01	.70	56.23	<.05	<.05	<.01	.05	<.01	.003	45	178	29	<10	<10	<1	42.2	99.28
8790	.01	.04	.01	.30	56.72	<.05	.07	.02	.04	<.01	.006	66	237	25	<10	<10	<1	42.5	99.76
8791	.18	.06	<.01	.35	56.37	<.05	<.05	<.01	.07	<.01	.005	60	233	<10	<10	<10	<1	42.3	99.41
8792	.19	.09	<.01	.36	56.35	<.05	<.05	.01	.10	<.01	.005	61	240	<10	<10	<10	<1	42.7	99.85
8793	.11	.06	.02	.41	56.36	<.05	<.05	.01	.12	<.01	.004	60	230	10	<10	<10	<1	42.6	99.78
8794	.01	.02	<.01	.34	55.92	<.05	.09	.01	.13	<.01	.003	54	228	10	<10	<10	<1	42.6	99.17
8795	.03	.06	<.01	.34	55.45	<.05	<.05	<.01	.13	<.01	.004	66	236	17	<10	<10	<1	43.4	99.46
8796	.33	.13	.24	.16	54.73	<.05	.11	.01	.05	<.01	<.002	<5	2097	<10	<10	<10	<1	43.4	99.41
8797	.78	.17	.16	.37	54.48	<.05	<.05	.01	.04	<.01	.003	13	1690	<10	<10	<10	<1	43.2	99.46
8798	1.13	.23	.20	.40	54.37	<.05	<.05	.02	.03	.01	.009	23	1472	<10	<10	<10	<1	43.1	99.71
8799	.28	.11	.15	.44	55.08	<.05	.06	<.01	.03	.01	<.002	7	1382	<10	<10	<10	<1	42.9	99.23
STANDARD LIMESTONE	6.92	1.25	.61	.38	50.35	<.05	.24	.08	.03	.02	.010	73	225	30	<10	<10	1	39.7	99.64

.200 GRAM SAMPLES ARE FUSED WITH 1.2 GRAM OF LIBO2 AND ARE DISSOLVED IN 100 MLS 5% HNO3. Ba IS SUM AS BaSO4 AND OTHER METALS ARE SUM AS OXIDES.
- SAMPLE TYPE: LIMESTONE Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: JUN 21 1993 **DATE REPORT MAILED:** July 2/93 **SIGNED BY.....** D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

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 # 93-3099 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	Sc ppm	LOI %	SUM %
9271	.35	.17	.12	.38	55.50	<.01	<.05	.01	.09	<.01	.003	61	191	<10	<10	<10	<2	42.9	99.62
9272	.17	.12	.07	.36	55.70	<.01	.07	<.01	.09	<.01	.002	60	173	<10	<10	<10	<2	42.9	99.52
9273	.15	.12	.08	.27	55.94	.01	<.05	<.01	.09	<.01	.005	42	168	<10	<10	<10	<2	43.0	99.74
9274	.22	.16	.12	.26	55.67	.01	.07	<.01	.12	<.01	.007	41	173	<10	<10	<10	<2	43.1	99.77
9275	.13	.11	.08	.25	55.98	.01	.13	<.01	.11	<.01	.002	42	150	<10	<10	<10	<2	42.9	99.73
9401	.07	.09	.06	.23	56.35	<.01	.07	.01	.04	<.01	.011	34	126	<10	<10	<10	<2	42.7	99.66
9402	.09	.11	<.05	.27	56.03	.01	<.05	.01	.02	<.01	.003	34	143	<10	<10	<10	<2	42.9	99.52
9403	.52	.34	.13	.30	55.28	<.01	.12	.03	.09	<.01	.008	63	166	<10	<10	<10	<2	42.8	99.66
9404	.23	.17	.06	.26	55.76	<.01	.11	.01	.05	<.01	.003	49	158	<10	<10	<10	<2	42.9	99.59
9405	.06	.08	<.05	.21	56.15	<.01	<.05	<.01	.06	<.01	.003	40	150	<10	<10	<10	<2	42.9	99.57
9406	.08	.09	<.05	.23	56.16	<.01	<.05	.01	.07	<.01	.002	47	154	<10	<10	<10	<2	42.8	99.57
9407	.08	.09	<.05	.22	56.15	.01	<.05	<.01	.04	<.01	.004	40	141	<10	<10	<10	<2	42.9	99.60
9408	.08	.10	<.05	.25	56.06	<.01	<.05	<.01	.05	<.01	.002	44	154	<10	<10	<10	<2	43.0	99.62
9409	.07	.08	<.05	.21	56.30	<.01	<.05	<.01	.07	<.01	.003	38	147	<10	<10	<10	<2	42.8	99.65
9410	.07	.09	<.05	.21	56.10	<.01	<.05	<.01	.05	<.01	.003	36	147	<10	<10	<10	<2	42.8	99.39
9411	.10	.10	<.05	.21	56.20	<.01	<.05	.01	.06	<.01	.003	42	145	<10	<10	<10	<2	42.9	99.66
9412	.09	.11	.08	.21	56.15	<.01	<.05	.01	.07	<.01	.013	39	145	<10	<10	<10	<2	42.8	99.56
9413	.15	.13	<.05	.22	56.14	<.01	.07	.01	.10	<.01	.003	42	145	<10	<10	<10	<2	42.6	99.49
9414	.13	.11	.06	.26	56.47	<.01	.08	<.01	.05	<.01	.004	46	174	<10	<10	<10	<2	42.5	99.70
9415	.11	.11	.06	.25	56.55	.01	<.05	.01	.03	<.01	.003	52	178	<10	<10	<10	<2	42.5	99.67
9416	.16	.11	.08	.28	55.99	<.01	.09	<.01	.05	<.01	.003	55	188	<10	<10	<10	<2	42.8	99.59
9417	.10	.09	<.05	.40	56.05	<.01	<.05	<.01	.05	<.01	.003	49	176	<10	<10	<10	<2	42.8	99.57
9418	.14	.13	.07	.26	56.28	.01	<.05	.01	.07	<.01	.004	51	176	<10	<10	<10	<2	42.6	99.61
RE 9418	.14	.13	.08	.26	56.20	<.01	<.05	.01	.08	<.01	.003	52	176	<10	<10	<10	<2	42.7	99.64
9419	.50	.28	.14	.34	55.09	.01	<.05	.02	.11	<.01	.005	68	190	<10	<10	<10	<2	43.1	99.64
9420	.48	.23	.14	.82	54.37	<.01	<.05	.01	.06	<.01	.005	87	229	<10	<10	<10	<2	43.2	99.40
9421	.19	.15	.09	.84	54.63	.01	.10	.01	.04	<.01	.005	65	230	<10	<10	<10	<2	43.5	99.60
9422	.21	.17	.09	.44	55.68	.01	<.05	.01	.03	<.01	.003	58	223	<10	<10	<10	<2	43.0	99.69
9423	.16	.14	.08	.30	55.70	<.01	<.05	<.01	.03	<.01	.003	43	242	<10	<10	<10	<2	43.0	99.51
9424	.16	.13	.07	.27	55.79	<.01	<.05	.01	.04	<.01	.003	48	212	<10	<10	<10	<2	42.9	99.45
9425	.21	.16	.08	.46	55.54	.01	<.05	.01	.04	<.01	.006	58	234	<10	<10	<10	<2	43.1	99.70
9426	.28	.20	.12	.58	54.89	.01	<.05	.01	.05	<.01	.003	61	258	<10	<10	<10	<2	43.4	99.59
9427	.20	.15	.08	.59	55.21	<.01	.06	<.01	.03	<.01	.004	66	262	<10	<10	<10	<2	43.4	99.77
9428	.34	.23	.14	.80	54.67	<.01	<.05	.01	.06	<.01	.004	64	259	<10	<10	<10	<2	43.2	99.52
9429	.92	.48	.25	.51	54.27	<.01	.13	.03	.08	.01	.007	72	241	<10	<10	<10	<2	42.5	99.23
STANDARD LIMESTONE	6.57	1.21	.52	.40	50.30	.01	.21	.05	.03	.02	.006	66	197	16	<10	<10	<2	39.9	99.26

.200 GRAM SAMPLES ARE FUSED WITH 1.2 GRAM OF LIBO2 AND ARE DISSOLVED IN 100 MLS 5% HNO3. Ba IS SUM AS BaSO4 AND OTHER METALS ARE SUM AS OXIDES.
- SAMPLE TYPE: LIMESTONE Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: OCT 28 1993 **DATE REPORT MAILED:** Nov 8/93 **SIGNED BY.** C. Leong ..D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

APPENDIX 2: CONTINUED

ACME ANALYTICAL

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ACME ANALYTICAL

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	Sc ppm	LOI %	SUM %
9430	2.29	.75	.43	.74	53.09	<.01	.29	.06	.08	.01	.011	96	280	<10	<10	<10	2	41.9	99.70
9431	1.50	.78	.44	.86	53.37	<.01	.20	.07	.08	.01	.011	70	292	<10	<10	<10	2	42.3	99.67
9432	2.63	1.40	.81	.94	52.35	<.01	.29	.10	.13	.01	.016	94	275	27	<10	<10	3	40.9	99.63
9433	2.97	1.31	.76	.84	51.78	<.01	.35	.11	.11	.01	.020	101	266	<10	<10	<10	3	40.8	99.11
9434	2.16	.83	.44	.72	53.09	<.01	.35	.06	.06	.01	.011	76	275	<10	<10	<10	2	41.9	99.68
RE 9434	2.14	.83	.44	.72	53.17	<.01	.26	.07	.07	.01	.011	76	275	<10	<10	<10	2	41.9	99.67
9435	.67	.36	.19	.63	54.53	.01	.21	.02	.07	<.01	.003	67	245	<10	<10	<10	<2	43.2	99.94
9436	.81	.42	.23	2.60	51.57	.02	.14	.03	.20	<.01	.007	73	224	<10	<10	<10	<2	43.3	99.37
9437	1.02	.41	.25	.87	53.71	.01	.19	.03	.16	<.01	.005	73	243	<10	<10	<10	<2	43.1	99.80
9438	.22	.18	.19	.34	55.53	<.01	.06	.01	.09	<.01	.006	53	186	<10	<10	<10	<2	43.5	100.16
9439	.10	.12	.08	.34	55.84	.01	<.05	<.01	.15	<.01	.010	66	229	<10	<10	<10	<2	43.5	100.22
9440	<.05	.07	.09	.37	56.17	.02	.07	.01	.07	.01	.012	61	213	<10	<10	<10	<2	43.5	100.45
9441	<.05	.08	.06	.39	56.25	.01	<.05	.01	.06	<.01	.005	58	220	<10	<10	<10	<2	43.4	100.36
9442	<.05	.07	<.05	.36	56.19	.01	<.05	.01	.16	<.01	.003	75	244	<10	<10	<10	<2	43.4	100.34
9443	<.05	.07	<.05	.44	55.60	.01	<.05	.01	.13	<.01	.005	70	234	<10	<10	<10	<2	43.6	100.02
9444	<.05	.08	<.05	.48	56.01	.01	<.05	.01	.09	<.01	.004	65	232	<10	<10	<10	<2	43.7	100.54
9445	<.05	.11	.08	.44	55.87	.01	<.05	.02	.31	<.01	.008	75	253	<10	<10	<10	<2	43.5	100.46
9446	.13	.13	.07	.37	56.09	.01	.07	<.01	.29	<.01	.005	69	242	<10	<10	<10	<2	43.4	100.61
9447	.06	.10	.08	.40	56.19	.01	<.05	.01	.25	.01	.007	75	254	<10	<10	<10	<2	43.4	100.61
9448	<.05	.09	<.05	.48	56.28	.01	.10	.01	.17	<.01	.004	83	256	<10	<10	<10	<2	43.3	100.57
9449	<.05	.07	<.05	.42	56.27	<.01	<.05	.01	.11	<.01	.003	72	255	<10	<10	<10	<2	43.5	100.49
9450	<.05	.07	.07	.40	55.99	<.01	<.05	<.01	.04	<.01	.004	79	255	<10	<10	<10	<2	43.6	100.23
9451	<.05	.07	<.05	.43	56.11	<.01	<.05	.01	.11	<.01	.004	71	255	<10	<10	<10	<2	43.7	100.58
9452	<.05	.09	<.05	.43	56.03	<.01	.07	.01	.17	<.01	.004	78	265	<10	<10	<10	<2	43.6	100.53
9453	<.05	.10	<.05	.40	56.13	<.01	<.05	.01	.17	.01	.003	82	273	<10	<10	<10	<2	43.5	100.48
9454	<.05	.08	<.05	.30	56.46	.01	<.05	<.01	.55	<.01	.005	71	262	38	<10	<10	<2	43.0	100.54
9455	.06	.10	<.05	.26	56.33	<.01	<.05	<.01	1.68	<.01	.005	87	282	<10	<10	<10	<2	41.8	100.34
9456	.18	.16	.06	.51	55.79	<.01	.09	.02	.20	<.01	.002	93	268	<10	<10	<10	<2	43.4	100.46
9457	.09	.10	<.05	.49	55.91	<.01	<.05	.01	.07	<.01	.003	107	285	<10	<10	<10	<2	43.5	100.31
9458	.24	.14	.07	.48	55.70	<.01	.09	<.01	.16	.01	.008	96	265	<10	<10	<10	<2	43.4	100.35
9459	.24	.13	.07	.54	55.88	<.01	<.05	<.01	.61	<.01	.005	126	283	<10	<10	<10	<2	43.0	100.55
9460	.15	.11	.07	.50	55.98	<.01	<.05	<.01	.45	<.01	.005	96	271	<10	<10	<10	<2	43.3	100.62
9461	.14	.11	<.05	.50	56.08	<.01	<.05	<.01	.66	<.01	.006	92	271	<10	<10	<10	<2	43.0	100.64
9462	.08	.11	<.05	.34	56.37	<.01	.06	<.01	.49	<.01	.005	75	253	<10	<10	<10	<2	43.0	100.55
9463	<.05	.08	<.05	.33	56.43	<.01	.08	<.01	.14	<.01	.006	70	249	<10	<10	<10	<2	43.3	100.48
STANDARD LIMESTONE*	6.60	1.28	.54	.47	50.58	.02	.29	.06	.05	.02	.010	80	230	10	<10	<10	<2	39.9	99.86

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

ACME ANALYTICAL

Halferdahl & Associates Ltd. FILE # 93-3099

ACME ANALYTICAL

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	Sc ppm	LOI %	SUM %
9464	<.05	.08	<.05	.35	55.94	<.01	<.05	<.01	.11	<.01	.004	68	258	<10	<10	<10	<2	43.3	99.93
9465	<.05	.08	.07	.32	55.77	<.01	<.05	.01	.10	<.01	.006	71	263	<10	<10	<10	<2	43.3	99.77
9466	.06	.09	<.05	.32	55.84	<.01	<.05	.01	.09	<.01	.004	74	254	<10	<10	<10	<2	43.4	99.92
9467	<.05	.08	<.05	.36	55.91	<.01	<.05	.01	.08	.01	.011	98	266	<10	<10	<10	<2	43.4	100.02
9468	<.05	.08	<.05	.38	55.83	<.01	.07	.01	.06	<.01	.003	70	264	<10	<10	<10	<2	43.5	100.07
9469	<.05	.07	<.05	.35	56.05	.01	<.05	<.01	.03	<.01	.002	69	269	<10	<10	<10	<2	43.4	100.02
9470	<.05	.07	<.05	.34	56.25	.01	<.05	.02	.14	<.01	.004	85	273	<10	<10	<10	<2	43.1	100.05
9471	<.05	.08	<.05	.31	55.99	<.01	<.05	<.01	.34	<.01	.007	77	264	<10	<10	<10	<2	43.0	99.88
9472	.24	.14	.07	.31	55.91	.02	<.05	.02	.09	<.01	.003	68	254	<10	<10	<10	<2	43.1	100.00
9473	<.05	.09	.06	.27	56.47	.01	<.05	<.01	.53	<.01	.005	86	261	<10	<10	<10	<2	42.5	100.05
9474	<.05	.07	<.05	.28	56.64	.01	<.05	<.01	.16	<.01	.005	66	248	<10	<10	<10	<2	43.0	100.29
9475	<.05	.07	<.05	.27	56.15	<.01	.08	.01	.06	<.01	.003	60	244	86	<10	<10	<2	43.1	99.85
9476	<.05	.10	<.05	.29	56.04	.01	.08	.01	.17	<.01	.002	74	256	<10	<10	<10	<2	43.1	99.93
9477	<.05	.09	<.05	.29	56.20	.01	.07	.01	.07	<.01	.003	54	248	<10	<10	<10	<2	43.1	99.95
9478	<.05	.10	<.05	.34	56.21	.02	.07	.01	.07	<.01	.002	64	266	<10	<10	<10	<2	43.1	100.05
9479	.06	.11	.06	.34	56.07	.01	.08	<.01	.05	<.01	.003	71	257	<10	<10	<10	<2	43.3	100.13
9480	<.05	.09	<.05	.31	56.38	.02	.08	.01	.07	<.01	.005	63	254	43	<10	<10	<2	43.2	100.29
9481	.06	.11	.08	.31	55.97	.02	<.05	<.01	.09	<.01	.006	75	250	94	<10	<10	<2	43.3	100.02
9482	.08	.12	.07	.43	55.65	.01	.15	.01	.05	.01	.006	82	259	<10	<10	<10	<2	43.4	100.03
9483	.32	.22	.12	.70	54.80	.01	.14	<.01	.09	<.01	.003	89	262	<10	<10	<10	<2	43.7	100.15
9484	.10	.14	.06	.37	55.80	.01	<.05	.01	.04	<.01	.003	79	252	<10	<10	<10	<2	43.5	100.11
RE 9484	.10	.13	<.05	.36	55.73	.01	.08	.01	.03	.01	.004	76	251	<10	<10	<10	<2	43.5	100.06
9485	.09	.13	.06	.34	56.05	.02	.08	.01	.03	<.01	.002	72	245	<10	<10	<10	<2	43.4	100.26
9486	.10	.14	.06	.64	55.57	.01	.16	.01	.03	<.01	.004	89	255	<10	<10	<10	<2	43.4	100.17
9487	<.05	.11	.06	.36	56.01	.02	.06	.01	.02	<.01	.006	73	281	<10	<10	<10	<2	43.3	100.04
9488	.33	.26	.12	.92	54.64	.02	.09	<.01	.39	<.01	.005	92	248	<10	<10	<10	<2	43.3	100.12
9489	1.26	.54	.27	3.78	49.64	.02	.21	.03	.17	<.01	.004	138	241	<10	<10	<10	<2	43.5	99.48
9490	1.42	.79	.35	2.57	50.61	.02	.27	.03	.24	<.01	.004	153	235	<10	<10	<10	<2	43.2	99.56
9491	.07	.11	.07	.49	55.88	.01	.06	<.01	.07	.01	.005	80	262	<10	<10	<10	<2	43.3	100.12
9492	<.05	.10	.06	.39	55.84	.01	.19	<.01	.06	<.01	.003	77	261	<10	<10	<10	<2	43.3	100.04
9493	<.05	.09	.08	.39	56.00	.02	.14	.01	.08	<.01	.004	66	254	200	<10	<10	<2	43.3	100.20
9494	<.05	.10	.06	.43	55.82	.01	.15	<.01	.06	<.01	.003	77	260	82	<10	<10	<2	43.4	100.14
9495	.47	.23	.12	.55	54.75	<.01	.08	.01	.08	<.01	.006	106	263	<10	<10	<10	<2	43.5	99.85
9496	.31	.14	.07	.44	55.35	.01	.13	.01	.04	<.01	.002	93	259	<10	<10	<10	<2	43.5	100.05
9497	.24	.18	.07	.60	55.23	.01	.13	.01	.08	<.01	.005	112	266	<10	<10	<10	<2	43.6	100.21
STANDARD LIMESTONE	6.64	1.32	.55	.41	50.61	.03	.26	.06	.03	.02	.009	75	234	13	<10	<10	<2	39.9	99.88

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

ACME ANALYTICAL

Halferdahl & Associates Ltd. FILE # 93-3099

ACME ANALYTICAL

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	Sc ppm	LOI %	SUM %
9498	.09	.10	<.05	.30	55.49	.01	<.05	<.01	.02	<.01	.002	68	215	<10	<10	<10	<2	43.9	100.00
9499	.10	.10	.06	.26	55.51	.01	.08	<.01	.02	<.01	<.002	72	211	<10	<10	<10	<2	43.8	99.99
9500	<.05	.07	<.05	.21	55.97	.01	<.05	<.01	.05	<.01	<.002	28	165	<10	<10	<10	<2	43.6	100.06
9501	.08	.10	<.05	.21	55.98	.01	<.05	<.01	.08	<.01	.002	32	134	<10	<10	<10	<2	43.5	100.08
9502	<.05	.08	<.05	.20	56.26	.01	<.05	<.01	.07	<.01	.002	35	136	42	<10	<10	<2	43.5	100.23
9503	.12	.12	.06	.29	55.92	.02	<.05	<.01	.05	<.01	.004	47	135	<10	<10	<10	<2	43.5	100.11
9504	.11	.13	.06	.23	55.72	.02	<.05	<.01	.06	<.01	.004	43	139	<10	<10	<10	<2	43.6	99.99
9505	.80	.15	<.05	.23	55.38	.12	.10	<.01	.08	<.01	.003	34	138	<10	<10	<10	<2	43.2	100.14
9506	.12	.10	.06	.22	55.61	.01	.12	<.01	.03	<.01	.004	38	124	<10	<10	<10	<2	43.6	99.90
9507	.90	.15	.06	.22	55.38	.13	.12	<.01	.03	<.01	.004	37	141	<10	<10	<10	<2	43.0	100.02
RE 9507	.95	.14	<.05	.23	56.41	.14	.09	<.01	.03	<.01	<.002	38	142	<10	<10	<10	<2	42.2	100.27
9508	.10	.08	<.05	.20	56.22	.02	<.05	<.01	.05	<.01	.002	21	119	<10	<10	<10	<2	43.5	100.23
9509	<.05	.08	<.05	1.22	54.80	.01	<.05	<.01	.05	<.01	.003	24	125	<10	<10	<10	<2	43.8	100.11
9510	.09	.09	<.05	1.30	54.72	.01	<.05	<.01	.07	<.01	.002	24	111	<10	<10	<10	<2	43.8	100.14
9511	.56	.35	.15	.33	55.12	.01	<.05	<.01	.09	<.01	.003	49	142	<10	<10	<10	<2	43.3	99.97
9512	.09	.10	<.05	.36	55.87	.01	<.05	<.01	.07	<.01	.003	32	135	<10	<10	<10	<2	43.5	100.11
9513	<.05	.09	<.05	.26	56.37	.01	<.05	<.01	.08	<.01	.003	21	113	<10	<10	<10	<2	43.3	100.26
9514	<.05	.09	<.05	1.38	54.74	.01	<.05	<.01	.04	.01	.004	36	148	<10	<10	<10	<2	43.6	100.00
9515	.06	.10	<.05	1.85	54.96	.01	<.05	.01	.05	<.01	.004	33	166	<10	<10	<10	<2	42.9	100.03
9516	.08	.09	<.05	1.19	55.56	.01	<.05	<.01	.08	<.01	.004	51	204	<10	<10	<10	<2	42.9	100.01
9517	<.05	.07	<.05	1.59	54.52	.01	<.05	<.01	.05	<.01	.002	31	143	<10	<10	<10	<2	43.7	100.09
9518	<.05	.07	<.05	.40	55.76	.01	.07	<.01	.02	<.01	.002	28	133	<10	<10	<10	<2	43.7	100.12
9519	.10	.09	<.05	.62	55.51	.01	<.05	<.01	.07	<.01	.003	45	168	<10	<10	<10	<2	43.7	100.18
9520	.13	.10	<.05	.64	55.29	.01	<.05	<.01	.04	<.01	.002	57	222	<10	<10	<10	<2	43.7	100.00
9521	.13	.11	<.05	.46	55.71	.01	<.05	<.01	.07	<.01	.002	70	336	<10	<10	<10	<2	43.6	100.18
9522	<.05	.08	<.05	.62	55.61	.01	<.05	<.01	.02	<.01	<.002	52	228	<10	<10	<10	<2	43.6	100.07
9523	.25	.16	.09	.27	55.71	.01	<.05	.01	.04	<.01	.002	77	222	<10	<10	<10	<2	43.7	100.32
9524	.39	.16	.11	.29	55.58	.01	<.05	.01	.03	<.01	<.002	91	265	<10	<10	<10	<2	43.5	100.18
9525	<.05	.06	.06	.21	56.37	.01	<.05	<.01	.04	<.01	.002	36	168	<10	<10	<10	<2	43.5	100.30
9526	.06	.09	<.05	.20	56.08	<.01	<.05	.01	.03	<.01	.003	33	161	<10	<10	<10	<2	43.5	100.06
9527	.18	.14	.12	.23	55.53	.01	<.05	.01	.04	<.01	.002	45	182	<10	<10	<10	<2	43.7	100.02
9528	.08	.09	<.05	.20	56.05	.01	<.05	<.01	.03	<.01	<.002	33	162	<10	<10	<10	<2	43.5	100.05
9529	.33	.18	.10	.31	55.53	<.01	<.05	<.01	.04	<.01	.003	61	250	<10	<10	<10	<2	43.5	100.09
9530	.44	.20	.12	.38	55.44	.01	.10	<.01	.04	<.01	.003	62	288	<10	<10	<10	<2	43.4	100.18
9531	.33	.23	.15	.29	55.61	.02	.09	<.01	.06	<.01	.003	68	269	36	<10	<10	<2	43.4	100.24
STANDARD LIMESTONE	6.80	1.28	.51	.40	50.05	.03	.27	.04	.01	.01	.004	64	196	11	<10	<10	<2	39.9	99.34

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

ACME ANALYTICAL

Halferdahl & Associates Ltd. FILE # 93-3099

ACME ANALYTICAL

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	Sc ppm	LOI %	SUM %
9532	.53	.35	.15	.35	55.31	<.01	<.05	.03	.09	<.01	.006	83	324	<10	<10	<10	<2	43.5	100.39
9533	.38	.27	.13	1.08	54.33	<.01	<.05	.02	.10	<.01	.004	75	295	63	<10	<10	<2	43.9	100.27
9534	.27	.22	.08	3.09	51.67	<.01	<.05	<.01	.08	<.01	.003	78	260	<10	<10	<10	<2	44.5	99.99
9535	.31	.24	.08	.63	55.08	<.01	<.05	.01	.10	<.01	.004	81	225	<10	<10	<10	<2	43.8	100.30
9536	.25	.21	<.05	.48	55.55	<.01	.09	.01	.16	<.01	.005	69	221	30	<10	<10	<2	43.5	100.33
9537	<.05	.12	<.05	.56	55.67	<.01	<.05	.01	.07	<.01	.008	62	238	<10	<10	<10	<2	43.7	100.27
9538	.07	.13	<.05	.85	55.31	<.01	.10	<.01	.10	<.01	.005	55	215	<10	<10	<10	<2	43.8	100.42
9539	<.05	.11	<.05	1.03	55.33	<.01	<.05	.01	.05	<.01	.002	56	229	<10	<10	<10	<2	43.9	100.55
9540	<.05	.11	<.05	.36	55.95	<.01	<.05	.01	.03	<.01	.005	54	226	<10	<10	<10	<2	43.8	100.37
9541	<.05	.11	<.05	.27	55.97	<.01	.12	<.01	.06	<.01	.005	48	218	<10	<10	<10	<2	43.7	100.33
9542	<.05	.11	<.05	.60	55.56	<.01	<.05	.01	.03	<.01	.006	50	218	<10	<10	<10	<2	43.9	100.33
9543	<.05	.12	<.05	.62	55.72	<.01	.07	.01	.05	<.01	.006	51	216	<10	<10	<10	<2	43.9	100.59
9544	<.05	.11	<.05	.25	55.97	<.01	.07	.01	.04	<.01	.004	45	213	<10	<10	<10	<2	43.9	100.42
9545	<.05	.12	<.05	.37	55.95	<.01	.06	.01	.05	<.01	.005	51	225	<10	<10	<10	<2	43.7	100.35
9546	.15	.16	<.05	.52	55.65	<.01	.10	.02	.07	<.01	.005	54	237	<10	<10	<10	<2	43.7	100.45
9547	<.05	.11	<.05	.27	56.10	<.01	<.05	.01	.03	<.01	.005	40	220	<10	<10	<10	<2	43.8	100.44
9548	<.05	.11	<.05	.36	55.93	<.01	<.05	.01	.08	<.01	.003	47	220	<10	<10	<10	<2	43.9	100.47
9549	.11	.15	<.05	.37	55.79	<.01	.13	.01	.13	<.01	.005	44	226	<10	<10	<10	<2	43.7	100.45
9550	.16	.15	<.05	.45	55.70	<.01	<.05	.01	.05	<.01	.003	53	238	<10	<10	<10	<2	43.8	100.46
9551	1.14	.54	.22	4.15	49.72	.01	.14	.03	.25	<.01	.007	68	193	<10	<10	<10	<2	44.2	100.45
9552	.13	.15	<.05	.44	55.84	<.01	<.05	.01	.12	<.01	.003	39	207	<10	<10	<10	<2	43.8	100.57
9553	<.05	.11	<.05	.24	55.87	<.01	.10	.01	.08	<.01	.007	33	203	<10	<10	<10	<2	43.8	100.31
9554	.07	.12	<.05	.31	56.00	<.01	<.05	.01	.12	<.01	.005	47	207	<10	<10	<10	<2	43.8	100.54
9555	<.05	.11	<.05	.26	56.04	<.01	.20	.01	.09	<.01	.003	39	206	<10	<10	<10	<2	43.7	100.50
9556	.13	.16	<.05	.25	55.70	<.01	.13	.01	.11	<.01	.005	42	209	<10	<10	<10	<2	43.8	100.37
9557	.09	.13	<.05	.29	56.00	.01	<.05	.02	.07	<.01	.005	43	195	<10	<10	<10	<2	43.8	100.50
9558	.14	.14	<.05	.39	55.52	<.01	.13	.01	.07	<.01	.006	45	191	<10	<10	<10	<2	43.8	100.29
9559	<.05	.11	<.05	.26	55.88	<.01	.09	.01	.04	<.01	.002	44	205	<10	<10	<10	<2	43.8	100.31
RE 9559	<.05	.12	<.05	.27	55.87	.01	.16	.02	.05	<.01	.002	44	205	<10	<10	<10	<2	43.8	100.43
9560	.24	.22	.09	1.39	54.21	<.01	.11	.01	.12	<.01	.007	53	197	15	<10	<10	<2	44.0	100.44
9561	.09	.13	<.05	1.20	54.95	<.01	<.05	.02	.11	<.01	.005	43	209	<10	<10	<10	<2	43.9	100.50
9562	.37	.23	.09	2.42	52.93	<.01	.17	.02	.11	<.01	.007	56	212	<10	<10	<10	<2	44.0	100.39
9563	.21	.14	.06	.47	55.70	<.01	.10	.02	.15	<.01	.006	55	203	<10	<10	<10	<2	43.6	100.49
9564	1.86	.51	.19	4.54	48.56	.01	.20	.04	.15	<.01	.007	95	203	<10	<10	<10	<2	43.7	99.81
9565	2.85	.95	.38	5.64	46.16	.02	.33	.07	.09	<.01	.005	112	189	<10	<10	<10	<2	43.3	99.84
STANDARD LIMESTONE	6.88	1.23	.48	.41	50.75	.02	.29	.06	.02	.02	.005	77	238	14	<10	<10	<2	39.9	100.11

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

APPENDIX 2: CONTINUED

ACME ANALYTICAL

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ACME ANALYTICAL

SAMPLE#	SiO2 %	Al2O3 %	Fe2O3 %	MgO %	CaO %	Na2O %	K2O %	TiO2 %	P2O5 %	MnO %	Cr2O3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	Sc ppm	LOI %	SUM %
9566	1.74	.50	.21	3.15	50.44	<.01	.21	.04	.08	<.01	.008	69	207	<10	<10	<10	<2	43.1	99.52
9567	10.46	3.49	1.72	13.78	31.00	.02	.72	.24	.20	.01	.020	321	161	34	13	22	6	37.6	99.34
9568	.52	.22	.09	2.36	52.76	<.01	.08	.01	.25	<.01	.008	51	239	<10	<10	<10	<2	43.6	99.94
9569	.49	.29	.10	2.61	51.99	<.01	<.05	.01	.34	<.01	.009	55	236	<10	<10	<10	<2	43.6	99.52
9570	.68	.27	.11	2.56	51.95	<.01	<.05	.01	.26	<.01	.005	57	257	<10	<10	<10	<2	43.6	99.51
9571	.13	.10	<.05	1.35	54.36	<.01	<.05	.01	.07	<.01	.005	33	193	<10	<10	<10	<2	43.6	99.68
RE 9571	.12	.11	<.05	1.35	54.29	<.01	<.05	.01	.05	<.01	.003	34	190	<10	<10	<10	<2	43.6	99.57
9572	.20	.16	.07	3.76	50.99	<.01	<.05	<.01	.17	.01	.007	41	197	<10	<10	<10	<2	44.2	99.60
9573	1.60	.55	.22	7.49	45.43	<.01	.21	.03	.12	<.01	.006	70	210	14	<10	<10	<2	43.8	99.50
9574	1.08	.28	.13	2.49	52.12	<.01	<.05	.01	.15	<.01	.007	56	259	<10	<10	<10	<2	43.4	99.74
9575	4.94	1.03	.48	4.44	46.62	<.01	.23	.06	.47	.01	.012	118	307	12	11	16	2	41.1	99.46
9576	13.55	1.56	.72	2.67	43.22	.01	.33	.10	.51	.01	.024	162	425	16	13	16	3	36.6	99.39
9577	7.50	1.27	.53	4.20	44.97	<.01	.30	.08	.80	.01	.018	153	391	41	15	16	3	39.6	99.36
9578	2.43	.50	.22	3.59	49.66	<.01	<.05	.03	.26	<.01	.007	99	297	<10	<10	<10	<2	42.8	99.56
9579	3.24	.71	.28	3.22	49.53	<.01	<.05	.03	.23	.01	.007	103	268	<10	<10	<10	<2	42.2	99.51
9580	6.66	.74	.31	1.66	49.20	<.01	.13	.06	.51	.01	.017	139	368	<10	<10	<10	<2	40.2	99.57
9581	3.68	.85	.30	2.59	49.80	<.01	.24	.04	.68	.01	.009	137	304	11	<10	<10	<2	41.3	99.56
9582	8.27	1.25	.49	3.20	45.84	<.01	.28	.07	.57	.01	.013	206	339	15	<10	<10	2	39.5	99.57
9583	6.75	.72	.34	2.46	48.30	<.01	<.05	.03	.17	.01	.010	143	249	<10	<10	10	<2	40.8	99.67
9584	9.63	1.44	.62	3.61	44.41	<.01	.23	.08	.21	.02	.013	271	258	56	13	25	3	39.1	99.45
9585	6.56	1.02	.46	2.54	48.08	<.01	.20	.07	.19	.01	.008	228	264	13	12	18	2	40.3	99.51
9586	5.56	.69	.31	.96	51.02	<.01	<.05	.04	.12	.01	.008	196	262	<10	<10	<10	<2	40.8	99.64
9587	5.63	.78	.35	1.61	50.10	<.01	.15	.05	.14	.01	.007	239	264	13	<10	<10	2	40.7	99.60
9588	10.09	2.00	.93	1.69	46.71	.01	.34	.13	.16	.02	.013	545	284	24	<10	<10	5	37.3	99.53
9589	11.00	1.83	1.02	1.38	46.56	<.01	.27	.13	.10	.02	.011	557	271	14	<10	12	4	37.1	99.55
9590	8.94	1.44	.61	1.76	47.44	.07	.12	.09	.26	.02	.011	429	336	18	<10	12	3	38.7	99.58
9591	18.80	2.79	1.13	2.46	39.83	.24	.46	.21	.25	.02	.016	682	362	44	12	26	4	33.1	99.48
9592	17.39	3.22	1.47	3.24	38.65	.53	.44	.19	1.37	.03	.017	1009	407	29	12	15	6	32.1	98.87
9593	6.91	1.48	.77	2.63	47.60	.20	.28	.10	1.11	.02	.011	446	290	12	<10	<10	3	38.2	99.42
STANDARD LIMESTONE	6.85	1.23	.51	.41	50.51	<.01	.27	.06	.02	.02	.005	80	235	22	<10	<10	<2	39.9	99.84

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

APPENDIX 3: DETERMINED, ADJUSTED, AND PREFERRED VALUES FOR CaO AND LOI

Det'd - determined; adjustments: LOI - LOI based, Imp - impurity based; Pref - preferred

Code			
1	LOI - CO_2 EQ ≥ 0.00	CaO(Pref) = CaO(Det'd)	LOI(Pref) = LOI(Det'd)
2	LOI - CO_2EQ < 0.00 and CaO(Det'd) < 53.00	CaO(Pref) = CaO(Det'd)	LOI(Pref) = LOI(Det'd)
3	LOI - CO_2EQ < 0.00 and CaO(Det'd) < CaO(LOI)	CaO(Pref) = CaO(Det'd)	LOI(Pref) = LOI(Det'd)
4	For repeat analyses (RE) the preferred values for that sample are the means of the CaO(Pref) and the LOI(Pref) values.		
5	LOI - CO_2EQ < 0.00 and CaO(LOI) ≤ CaO(Imp)	CaO(Pref) = CaO(LOI)	LOI(Pref) = LOI(LOI)

Sample	LOI-	Code	CaO %				LOI %				SUM %
Number	CO_2 EQ		Det'd	LOI	Imp	Pref	Det'd	LOI	Imp	Pref	Det'd
8448	-3.27	5	55.09	53.92	54.06	53.92	40.40	42.96	43.07	42.96	98.32
8449	-3.29	5	55.17	53.68	53.86	53.68	40.50	42.83	42.97	42.83	98.80
8450	-3.19	5	55.42	53.57	53.79	53.57	41.00	42.94	43.12	42.94	99.47
8784	-4.49	5	57.03	54.57	54.86	54.57	41.00	43.77	44.00	43.77	99.09
8785	-3.17	5	53.79	51.91	52.14	51.91	40.30	42.20	42.38	42.20	99.58
8786	-3.02	4	56.55	54.92	55.12	54.91	41.80	43.74	43.90	43.74	99.27
RE 8786	-2.88	4	56.48	54.90	55.09	-	41.90	43.74	43.89	-	99.29
8787	-3.12	5	55.44	53.60	53.82	53.60	41.00	42.88	43.06	42.88	99.57
8788	-2.74	5	56.63	55.13	55.31	55.13	42.10	43.86	44.00	43.86	99.36
8789	-2.64	5	56.23	54.81	54.98	54.81	42.20	43.93	44.06	43.93	99.28
8790	-2.30	5	56.72	55.25	55.42	55.25	42.50	43.85	43.99	43.85	99.76
8791	-2.25	5	56.37	55.13	55.28	55.13	42.30	43.78	43.90	43.78	99.41
8792	-1.81	5	56.35	55.09	55.24	55.09	42.70	43.73	43.85	43.73	99.85
8793	-1.95	5	56.36	55.09	55.24	55.09	42.60	43.76	43.88	43.76	99.78
8794	-1.52	5	55.92	55.31	55.39	55.31	42.60	43.85	43.91	43.85	99.17
8795	-0.35	5	55.45	55.36	55.37	55.36	43.40	43.89	43.90	43.89	99.46
9271	-0.98	5	55.50	54.99	55.05	54.99	42.90	43.68	43.73	43.68	99.62
9272	-1.11	5	55.70	55.16	55.22	55.16	42.90	43.79	43.84	43.79	99.52
9273	-1.10	5	55.94	55.26	55.34	55.26	43.00	43.77	43.84	43.77	99.74
9274	-0.75	5	55.67	55.20	55.26	55.20	43.10	43.69	43.73	43.69	99.77
9275	-1.19	5	55.98	55.25	55.34	55.25	42.90	43.73	43.80	43.73	99.73
9401	-1.73	5	56.35	55.33	55.45	55.33	42.70	43.83	43.93	43.83	99.66
9402	-1.35	5	56.03	55.32	55.40	55.32	42.90	43.89	43.95	43.89	99.52
9403	-0.82	5	55.28	54.84	54.90	54.84	42.80	43.48	43.52	43.48	99.66
9404	-1.09	5	55.76	55.19	55.26	55.19	42.90	43.75	43.80	43.75	99.59
9405	-1.33	5	56.15	55.42	55.51	55.42	42.90	43.86	43.93	43.86	99.57
9406	-1.45	5	56.16	55.37	55.46	55.37	42.80	43.84	43.91	43.84	99.57
9407	-1.36	5	56.15	55.38	55.48	55.38	42.90	43.87	43.94	43.87	99.60
9408	-1.22	5	56.06	55.35	55.44	55.35	43.00	43.86	43.93	43.86	99.62
9409	-1.54	5	56.30	55.39	55.50	55.39	42.80	43.83	43.92	43.83	99.65
9410	-1.40	5	56.10	55.41	55.49	55.41	42.80	43.87	43.93	43.87	99.39
9411	-1.37	5	56.20	55.37	55.47	55.37	42.90	43.83	43.90	43.83	99.66
9412	-1.42	5	56.15	55.35	55.45	55.35	42.80	43.80	43.88	43.80	99.56
9413	-1.59	5	56.14	55.30	55.40	55.30	42.60	43.74	43.82	43.74	99.49
9414	-2.05	5	56.47	55.21	55.37	55.21	42.50	43.77	43.89	43.77	99.70
9415	-2.12	5	56.55	55.25	55.41	55.25	42.50	43.80	43.93	43.80	99.67
9416	-1.39	5	55.99	55.21	55.31	55.21	42.80	43.79	43.86	43.79	99.59
9417	-1.57	5	56.05	55.14	55.25	55.14	42.80	43.86	43.95	43.86	99.57
9418	-1.74	4	56.24	55.23	55.35	55.24	42.60	43.75	43.85	43.76	99.63
RE 9418	-1.61	4	56.20	55.24	55.35	-	42.70	43.76	43.85	-	99.64
9419	-0.39	5	55.09	54.91	54.93	54.91	43.10	43.56	43.57	43.56	99.64
9420	-0.30	3	54.37	54.42	54.41	54.37	43.20	43.74	43.74	43.20	99.40
9421	-0.25	5	54.63	54.59	54.60	54.59	43.50	43.92	43.93	43.92	99.60
9422	-1.15	5	55.68	54.99	55.07	54.99	43.00	43.81	43.87	43.81	99.69
9423	-1.01	5	55.70	55.23	55.29	55.23	43.00	43.84	43.89	43.84	99.51
9424	-1.14	5	55.79	55.27	55.34	55.27	42.90	43.83	43.88	43.83	99.45
9425	-0.95	5	55.54	54.99	55.06	54.99	43.10	43.82	43.87	43.82	99.70

Sample Number	LOI-CO_2 EQ	Code	CaO %				LOI %				SUM %
			Det'd	LOI	Imp	Pref	Det'd	LOI	Imp	Pref	Det'd
9426	-0.26	5	54.89	54.83	54.83	54.83	43.40	43.81	43.82	43.81	99.59
9427	-0.54	5	55.21	54.87	54.91	54.87	43.40	43.88	43.91	43.88	99.77
9428	-0.52	5	54.67	54.49	54.51	54.49	43.20	43.78	43.80	43.78	99.52
9429	-0.56	5	54.27	54.27	54.27	54.27	42.50	43.27	43.27	43.27	99.23
9430	-0.49	5	53.09	52.84	52.87	52.84	41.90	42.40	42.42	42.40	99.70
9431	-0.44	5	53.37	53.17	53.19	53.17	42.30	42.79	42.81	42.79	99.67
9432	-1.08	2	52.35	51.77	51.84	52.35	40.90	41.73	41.78	40.90	99.63
9433	-0.64	2	51.78	51.81	51.81	51.78	40.80	41.67	41.67	40.80	99.11
9434	-0.52	4	53.13	52.88	52.91	52.90	41.90	42.43	42.45	42.44	99.68
RE 9434	-0.54	4	53.17	52.91	52.94	-	41.90	42.44	42.46	-	99.67
9435	-0.21	5	54.53	54.31	54.33	54.31	43.20	43.44	43.46	43.44	99.94
9436	0.20	1	51.57	51.96	51.92	51.57	43.30	43.62	43.59	43.30	99.37
9437	0.16	1	53.71	53.81	53.80	53.71	43.10	43.22	43.21	43.10	99.80
9438	-0.36	5	55.53	55.06	55.12	55.06	43.50	43.69	43.74	43.69	100.16
9439	-0.54	5	55.84	55.20	55.28	55.20	43.50	43.75	43.81	43.75	100.22
9440	-0.91	5	56.17	55.16	55.28	55.16	43.50	43.82	43.92	43.82	100.45
9441	-1.11	5	56.25	55.16	55.29	55.16	43.40	43.85	43.96	43.85	100.36
9442	-0.92	5	56.19	55.21	55.33	55.21	43.40	43.77	43.86	43.77	100.34
9443	-0.38	5	55.60	55.19	55.24	55.19	43.60	43.86	43.90	43.86	100.02
9444	-0.69	5	56.01	55.07	55.19	55.07	43.70	43.86	43.95	43.86	100.54
9445	-0.51	5	55.87	55.10	55.19	55.10	43.50	43.61	43.69	43.61	100.46
9446	-0.72	5	56.09	55.10	55.22	55.10	43.40	43.56	43.65	43.56	100.61
9447	-0.88	5	56.19	55.11	55.24	55.11	43.40	43.64	43.75	43.64	100.61
9448	-1.22	5	56.28	55.00	55.15	55.00	43.30	43.72	43.84	43.72	100.57
9449	-1.00	5	56.27	55.12	55.26	55.12	43.50	43.81	43.92	43.81	100.49
9450	-0.74	5	55.99	55.18	55.27	55.18	43.60	43.90	43.98	43.90	100.23
9451	-0.69	5	56.11	55.13	55.25	55.13	43.70	43.83	43.92	43.83	100.58
9452	-0.66	5	56.03	55.12	55.23	55.12	43.60	43.76	43.84	43.76	100.53
9453	-0.81	5	56.13	55.15	55.27	55.15	43.50	43.75	43.84	43.75	100.48
9454	-1.07	5	56.46	55.24	55.39	55.24	43.00	43.34	43.46	43.34	100.54
9455	-0.95	5	56.33	55.28	55.41	55.28	41.80	42.22	42.32	42.22	100.34
9456	-0.73	5	55.79	54.89	55.00	54.89	43.40	43.64	43.72	43.64	100.46
9457	-0.84	5	55.91	55.03	55.14	55.03	43.50	43.85	43.94	43.85	100.31
9458	-0.67	5	55.70	54.91	55.01	54.91	43.40	43.66	43.74	43.66	100.35
9459	-0.81	5	55.88	54.83	54.96	54.83	43.00	43.22	43.32	43.22	100.55
9460	-0.71	5	55.98	54.95	55.07	54.95	43.30	43.43	43.52	43.43	100.62
9461	-0.87	5	56.08	54.95	55.09	54.95	43.00	43.22	43.33	43.22	100.64
9462	-1.10	5	56.37	55.16	55.31	55.16	43.00	43.38	43.49	43.38	100.55
9463	-1.20	5	56.43	55.19	55.34	55.19	43.30	43.74	43.86	43.74	100.48
9464	-0.87	5	55.94	55.26	55.34	55.26	43.30	43.84	43.90	43.84	99.93
9465	-0.71	5	55.77	55.30	55.36	55.30	43.30	43.85	43.90	43.85	99.77
9466	-0.68	5	55.84	55.30	55.36	55.30	43.40	43.86	43.91	43.86	99.92
9467	-0.79	5	55.91	55.24	55.32	55.24	43.40	43.87	43.93	43.87	100.02
9468	-0.67	5	55.83	55.22	55.29	55.22	43.50	43.89	43.95	43.89	100.07
9469	-0.94	5	56.05	55.25	55.34	55.25	43.40	43.91	43.99	43.91	100.02
9470	-1.27	5	56.25	55.22	55.35	55.22	43.10	43.77	43.87	43.77	100.05
9471	-0.93	5	55.99	55.30	55.38	55.30	43.00	43.60	43.67	43.60	99.88
9472	-1.02	5	55.91	55.13	55.22	55.13	43.10	43.71	43.79	43.71	100.00
9473	-1.56	5	56.47	55.27	55.41	55.27	42.50	43.35	43.46	43.35	100.05
9474	-1.59	5	56.64	55.26	55.43	55.26	43.00	43.71	43.85	43.71	100.29
9475	-1.20	5	56.15	55.32	55.42	55.32	43.10	43.85	43.93	43.85	99.85
9476	-1.02	5	56.04	55.29	55.38	55.29	43.10	43.74	43.81	43.74	99.93
9477	-1.25	5	56.20	55.28	55.39	55.28	43.10	43.83	43.92	43.83	99.95
9478	-1.31	5	56.21	55.20	55.32	55.20	43.10	43.82	43.92	43.82	100.05
9479	-1.02	5	56.07	55.20	55.31	55.20	43.30	43.84	43.93	43.84	100.13
9480	-1.31	5	56.38	55.21	55.36	55.21	43.20	43.80	43.91	43.80	100.29

Sample Number	LOI- CO_2 EQ	Code	CaO %				LOI %				SUM %
			Det'd	LOI	Imp	Pref	Det'd	LOI	Imp	Pref	Det'd
9481	-0.87	5	55.97	55.25	55.33	55.25	43.30	43.81	43.88	43.81	100.02
9482	-0.69	5	55.65	55.07	55.14	55.07	43.40	43.84	43.89	43.84	100.03
9483	0.02	1	54.80	54.58	54.61	54.80	43.70	43.71	43.73	43.70	100.15
9484	-0.62	4	55.76	55.17	55.24	55.18	43.50	43.86	43.91	43.87	100.09
RE 9484	-0.60	4	55.73	55.19	55.25	-	43.50	43.87	43.93	-	100.06
9485	-0.93	5	56.05	55.17	55.27	55.17	43.40	43.84	43.92	43.84	100.26
9486	-0.88	5	55.57	54.77	54.87	54.77	43.40	43.85	43.93	43.85	100.17
9487	-1.03	5	56.01	55.19	55.29	55.19	43.30	43.89	43.97	43.89	100.04
9488	-0.18	5	54.64	54.30	54.34	54.30	43.30	43.43	43.47	43.43	100.12
9489	0.59	1	49.64	50.22	50.15	49.64	43.50	43.57	43.52	43.50	99.48
9490	0.92	1	50.61	51.35	51.26	50.61	43.20	43.07	43.00	43.20	99.56
9491	-1.02	5	55.88	55.02	55.13	55.02	43.30	43.85	43.93	43.85	100.12
9492	-0.89	5	55.84	55.11	55.20	55.11	43.30	43.81	43.88	43.81	100.04
9493	-0.99	5	56.00	55.09	55.20	55.09	43.30	43.78	43.87	43.78	100.20
9494	-0.81	5	55.82	55.08	55.17	55.08	43.40	43.83	43.91	43.83	100.14
9495	0.02	1	54.75	54.72	54.72	54.75	43.50	43.67	43.67	43.50	99.85
9496	-0.38	5	55.35	54.95	55.00	54.95	43.50	43.76	43.80	43.76	100.05
9497	-0.32	5	55.23	54.77	54.82	54.77	43.60	43.76	43.80	43.76	100.21
9498	0.05	1	55.49	55.35	55.37	55.49	43.90	43.95	43.96	43.90	100.00
9499	-0.03	5	55.51	55.37	55.39	55.37	43.80	43.92	43.93	43.92	99.99
9500	-0.50	5	55.97	55.45	55.52	55.45	43.60	43.90	43.95	43.90	100.06
9501	-0.58	5	55.98	55.42	55.48	55.42	43.50	43.84	43.89	43.84	100.08
9502	-0.80	5	56.26	55.42	55.52	55.42	43.50	43.84	43.92	43.84	100.23
9503	-0.65	5	55.92	55.27	55.34	55.27	43.50	43.84	43.90	43.84	100.11
9504	-0.32	5	55.72	55.37	55.41	55.37	43.60	43.85	43.88	43.85	99.99
9505	-0.43	5	55.38	54.88	54.94	54.88	43.20	43.44	43.49	43.44	100.14
9506	-0.25	5	55.61	55.38	55.41	55.38	43.60	43.87	43.89	43.87	99.90
9507	-1.08	4	55.39	54.79	54.86	54.72	42.60	43.41	43.47	43.36	100.15
RE 9507	-2.29	4	56.41	54.64	54.86	-	42.20	43.30	43.47	-	100.27
9508	-0.79	5	56.22	55.39	55.49	55.39	43.50	43.84	43.92	43.84	100.23
9509	-0.49	5	54.80	54.26	54.33	54.26	43.80	44.07	44.12	44.07	100.11
9510	-0.49	5	54.72	54.14	54.21	54.14	43.80	44.04	44.09	44.04	100.14
9511	-0.22	5	55.12	54.84	54.88	54.84	43.30	43.51	43.54	43.51	99.97
9512	-0.67	5	55.87	55.22	55.30	55.22	43.50	43.86	43.93	43.86	100.11
9513	-1.14	5	56.37	55.32	55.45	55.32	43.30	43.82	43.92	43.82	100.26
9514	-0.82	5	54.74	54.05	54.13	54.05	43.60	44.09	44.15	44.09	100.00
9515	-2.20	5	54.96	53.38	53.57	53.38	42.90	44.06	44.21	44.06	100.03
9516	-1.92	5	55.56	54.17	54.34	54.17	42.90	43.93	44.06	43.93	100.01
9517	-0.77	5	54.52	53.82	53.90	53.82	43.70	44.12	44.19	44.12	100.09
9518	-0.48	5	55.76	55.22	55.29	55.22	43.70	43.95	44.00	43.95	100.12
9519	-0.47	5	55.51	54.92	55.00	54.92	43.70	43.91	43.97	43.91	100.18
9520	-0.35	5	55.29	54.90	54.95	54.90	43.70	43.94	43.98	43.94	100.00
9521	-0.55	5	55.71	55.07	55.14	55.07	43.60	43.85	43.91	43.85	100.18
9522	-0.70	5	55.61	54.95	55.03	54.95	43.60	43.98	44.04	43.98	100.07
9523	-0.27	5	55.71	55.19	55.26	55.19	43.70	43.77	43.82	43.77	100.32
9524	-0.40	5	55.58	55.08	55.14	55.08	43.50	43.71	43.76	43.71	100.18
9525	-0.93	5	56.37	55.40	55.52	55.40	43.50	43.87	43.96	43.87	100.30
9526	-0.70	5	56.08	55.43	55.51	55.43	43.50	43.89	43.95	43.89	100.06
9527	-0.09	5	55.53	55.31	55.34	55.31	43.70	43.82	43.84	43.82	100.02
9528	-0.67	5	56.05	55.43	55.50	55.43	43.50	43.89	43.95	43.89	100.05
9529	-0.38	5	55.53	55.09	55.15	55.09	43.50	43.74	43.78	43.74	100.09
9530	-0.48	5	55.44	54.88	54.95	54.88	43.40	43.65	43.70	43.65	100.18
9531	-0.50	5	55.61	55.01	55.08	55.01	43.40	43.63	43.69	43.63	100.24
9532	-0.20	5	55.31	54.78	54.85	54.78	43.50	43.48	43.54	43.48	100.39
9533	0.19	1	54.33	54.11	54.14	54.33	43.90	43.74	43.77	43.90	100.27
9534	0.66	1	51.67	51.94	51.91	51.67	44.50	44.26	44.23	44.50	99.99
9535	-0.01	5	55.08	54.71	54.76	54.71	43.80	43.73	43.76	43.73	100.30

Sample Number	LOI- CO_2 EQ	Code	CaO %				LOI %				SUM %
			Det'd	LOI	Imp	Pref	Det'd	LOI	Imp	Pref	Det'd
9536	-0.45	5	55.55	54.90	54.98	54.90	43.50	43.65	43.71	43.65	100.33
9537	-0.53	5	55.67	54.99	55.07	54.99	43.70	43.90	43.96	43.90	100.27
9538	-0.43	5	55.31	54.60	54.69	54.60	43.80	43.88	43.95	43.88	100.42
9539	-0.59	5	55.33	54.42	54.53	54.42	43.90	43.98	44.07	43.98	100.55
9540	-0.47	5	55.95	55.22	55.31	55.22	43.80	43.90	43.97	43.90	100.37
9541	-0.46	5	55.97	55.30	55.38	55.30	43.70	43.83	43.90	43.83	100.33
9542	-0.33	5	55.56	54.96	55.03	54.96	43.90	43.96	44.01	43.96	100.33
9543	-0.45	5	55.72	54.89	54.99	54.89	43.90	43.90	43.98	43.90	100.59
9544	-0.26	5	55.97	55.36	55.43	55.36	43.90	43.88	43.94	43.88	100.42
9545	-0.56	5	55.95	55.20	55.29	55.20	43.70	43.87	43.95	43.87	100.35
9546	-0.47	5	55.65	54.92	55.01	54.92	43.70	43.80	43.87	43.80	100.45
9547	-0.49	5	56.10	55.33	55.42	55.33	43.80	43.88	43.96	43.88	100.44
9548	-0.30	5	55.93	55.23	55.31	55.23	43.90	43.86	43.92	43.86	100.47
9549	-0.35	5	55.79	55.12	55.20	55.12	43.70	43.73	43.80	43.73	100.45
9550	-0.35	5	55.70	55.04	55.12	55.04	43.80	43.84	43.90	43.84	100.46
9551	0.91	1	49.72	49.88	49.86	49.72	44.20	43.63	43.61	44.20	100.45
9552	-0.38	5	55.84	55.06	55.15	55.06	43.80	43.77	43.85	43.77	100.57
9553	-0.23	5	55.87	55.36	55.43	55.36	43.80	43.83	43.88	43.83	100.31
9554	-0.36	5	56.00	55.27	55.35	55.27	43.80	43.79	43.86	43.79	100.54
9555	-0.47	5	56.04	55.25	55.35	55.25	43.70	43.76	43.83	43.76	100.50
9556	-0.07	5	55.70	55.27	55.32	55.27	43.80	43.74	43.78	43.74	100.37
9557	-0.39	5	56.00	55.27	55.36	55.27	43.80	43.82	43.89	43.82	100.50
9558	-0.12	5	55.52	55.12	55.17	55.12	43.80	43.81	43.85	43.81	100.29
9559	-0.30	4	55.88	55.32	55.39	55.30	43.80	43.86	43.91	43.85	100.37
RE 9559	-0.29	4	55.87	55.28	55.35	-	43.80	43.83	43.88	-	100.43
9560	0.06	1	54.21	53.84	53.88	54.21	44.00	43.85	43.88	44.00	100.44
9561	-0.42	5	54.95	54.20	54.29	54.20	43.90	43.94	44.01	43.94	100.50
9562	-0.07	2	52.93	52.50	52.55	52.93	44.00	43.94	43.98	44.00	100.39
9563	-0.47	5	55.70	54.95	55.04	54.95	43.60	43.69	43.76	43.69	100.49
9564	0.79	1	48.56	49.05	48.99	48.56	43.70	43.50	43.46	43.70	99.81
9565	1.01	1	46.16	46.78	46.70	46.16	43.30	42.98	42.92	43.30	99.84
9566	0.16	1	50.44	50.71	50.68	50.44	43.10	43.36	43.33	43.10	99.52
9567	-1.57	2	31.00	30.30	30.39	31.00	37.60	38.83	38.90	37.60	99.34
9568	-0.12	2	52.76	52.58	52.60	52.76	43.60	43.79	43.81	43.60	99.94
9569	0.30	1	51.99	52.34	52.29	51.99	43.60	43.79	43.76	43.60	99.52
9570	0.30	1	51.95	52.30	52.25	51.95	43.60	43.78	43.75	43.60	99.51
9571	-0.44	4	54.32	54.09	54.12	54.09	43.60	44.06	44.08	44.06	99.62
RE 9571	-0.46	4	54.29	54.08	54.12	-	43.60	44.05	44.07	-	99.68
9572	0.25	1	50.99	51.23	51.20	50.99	44.20	44.34	44.32	44.20	99.60
9573	0.09	1	45.43	45.67	45.64	45.43	43.80	44.10	44.08	43.80	99.50
9574	-0.07	2	52.12	52.09	52.09	52.12	43.40	43.65	43.65	43.40	99.74
9575	0.15	1	46.62	46.93	46.89	46.62	41.10	41.41	41.38	41.10	99.46
9576	0.29	1	43.22	43.67	43.61	43.22	36.60	36.88	36.84	36.60	99.39
9577	0.55	1	44.97	45.58	45.51	44.97	39.60	39.77	39.71	39.60	99.36
9578	0.18	1	49.66	49.89	49.86	49.66	42.80	43.01	42.99	42.80	99.56
9579	0.05	1	49.53	49.71	49.69	49.53	42.20	42.50	42.48	42.20	99.51
9580	0.30	1	49.20	49.53	49.49	49.20	40.20	40.38	40.35	40.20	99.57
9581	0.09	1	49.80	49.99	49.97	49.80	41.30	41.59	41.57	41.30	99.56
9582	0.62	1	45.84	46.37	46.31	45.84	39.50	39.52	39.47	39.50	99.57
9583	0.39	1	48.30	48.61	48.57	48.30	40.80	40.87	40.84	40.80	99.67
9584	0.52	1	44.41	44.97	44.90	44.41	39.10	39.23	39.17	39.10	99.45
9585	-0.01	2	48.08	48.26	48.24	48.08	40.30	40.66	40.64	40.30	99.51
9586	-0.16	2	51.02	51.02	51.02	51.02	40.80	41.17	41.17	40.80	99.64
9587	-0.23	2	50.10	50.08	50.08	50.10	40.70	41.12	41.13	40.70	99.60
9588	-1.04	2	46.71	46.25	46.30	46.71	37.30	38.18	38.23	37.30	99.53
9589	-0.84	2	46.56	46.20	46.24	46.56	37.10	37.86	37.90	37.10	99.55
9590	-0.18	2	47.44	47.48	47.47	47.44	38.70	39.13	39.12	38.70	99.58

Sample Number	LOI-CO_2 EQ	Code	CaO %				LOI %				SUM %
			Det'd	LOI	Imp	Pref	Det'd	LOI	Imp	Pref	Det'd
9591	-0.59	2	39.83	39.69	39.71	39.83	33.10	33.79	33.80	33.10	99.48
9592	-0.35	2	38.65	39.02	38.98	38.65	32.10	33.01	32.98	32.10	98.87
9593	-0.88	2	47.60	47.27	47.31	47.60	38.20	39.07	39.11	38.20	99.42

APPENDIX 4: SAMPLED LIMESTONE INTERVALS IN DRILLHOLES WITH PREFERRED ANALYSES

Sample Number	Metrage	Sample Interval (m)	*Sample Length (m)	Dip	Strat. Thick. (m)	CaO %	MgO %	SiO_2 %	Al_2O_3 %	Fe_2O_3 %	Na_2O %	K_2O %	TiO_2 %	P_2O_5 %	MnO %	Cr_2O_3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	Sc ppm	LOI %	SUM %
Drillhole 93-2																								
9271	3.05 - 3.85	0.80	0.80	53.9º	0.47	54.99	0.38	0.35	0.17	0.12	< 0.01	< 0.05	0.01	0.09	< 0.01	0.003	61	191	< 10	< 10	< 10	< 2	43.68	99.89
9272	3.85 - 4.75	0.90	0.90	53.9º	0.53	55.16	0.36	0.17	0.12	0.07	< 0.01	0.07	< 0.01	0.09	< 0.01	0.002	60	173	< 10	< 10	< 10	< 2	43.79	99.88
9273	4.75 - 6.48	1.47	1.21	53.9º	0.87	55.26	0.27	0.15	0.12	0.08	0.01	< 0.05	< 0.01	0.09	< 0.01	0.005	42	168	< 10	< 10	< 10	< 2	43.77	99.85
9274	6.48 - 8.31	1.83	1.83	53.9º	1.08	55.20	0.26	0.22	0.16	0.12	0.01	0.07	< 0.01	0.12	< 0.01	0.007	41	173	< 10	< 10	< 10	< 2	43.69	99.90
9275	8.31 - 9.96	1.65	1.63	53.9º	0.97	55.25	0.25	0.13	0.11	0.08	0.01	0.13	< 0.01	0.11	< 0.01	0.002	42	150	< 10	< 10	< 10	< 2	43.73	99.84
9401	9.96 - 11.08	1.00	0.88	53.9º	0.59	55.33	0.23	0.07	0.09	0.06	< 0.01	0.07	0.01	0.04	< 0.01	0.011	34	126	< 10	< 10	< 10	< 2	43.83	99.78
9402	11.08 - 12.26	1.10	1.02	53.9º	0.65	55.32	0.27	0.09	0.11	< 0.05	0.01	< 0.05	0.01	0.02	< 0.01	0.003	34	143	< 10	< 10	< 10	< 2	43.89	99.85
9403	12.26 - 13.50	1.24	1.24	53.9º	0.73	54.84	0.30	0.52	0.34	0.13	< 0.01	0.12	0.03	0.09	< 0.01	0.008	63	166	< 10	< 10	< 10	< 2	43.48	99.91
9404	13.50 - 14.40	0.90	0.90	53.9º	0.53	55.19	0.26	0.23	0.17	0.06	< 0.01	0.11	0.01	0.05	< 0.01	0.003	49	158	< 10	< 10	< 10	< 2	43.75	99.88
9405	14.40 - 16.12	1.72	1.66	53.9º	1.01	55.42	0.21	0.06	0.08	< 0.05	< 0.01	< 0.05	< 0.01	0.06	< 0.01	0.003	40	150	< 10	< 10	< 10	< 2	43.86	99.84
9406	16.12 - 18.74	2.52	2.42	53.9º	1.48	55.37	0.23	0.08	0.09	< 0.05	< 0.01	< 0.05	0.01	0.07	< 0.01	0.002	47	154	< 10	< 10	< 10	< 2	43.84	99.83
9407	18.74 - 20.56	1.82	1.82	53.9º	1.07	55.38	0.22	0.08	0.09	< 0.05	0.01	< 0.05	< 0.01	0.04	< 0.01	0.004	40	141	< 10	< 10	< 10	< 2	43.87	99.84
9408	20.56 - 22.34	1.65	1.52	53.9º	0.97	55.35	0.25	0.08	0.10	< 0.05	< 0.01	< 0.05	< 0.01	0.05	< 0.01	0.002	44	154	< 10	< 10	< 10	< 2	43.86	99.85
9409	22.34 - 24.06	1.72	1.68	53.9º	1.01	55.39	0.21	0.07	0.08	< 0.05	< 0.01	< 0.05	< 0.01	0.07	< 0.01	0.003	38	147	< 10	< 10	< 10	< 2	43.83	99.80
9410	24.06 - 25.68	1.44	1.26	53.9º	0.85	55.41	0.21	0.07	0.09	< 0.05	< 0.01	< 0.05	< 0.01	0.05	< 0.01	0.003	36	147	< 10	< 10	< 10	< 2	43.87	99.85
9411	25.68 - 26.66	0.98	0.98	53.9º	0.58	55.37	0.21	0.10	0.10	< 0.05	< 0.01	< 0.05	0.01	0.06	< 0.01	0.003	42	145	< 10	< 10	< 10	< 2	43.83	99.82
9412	26.66 - 28.44	1.70	1.67	53.9º	1.00	55.35	0.21	0.09	0.11	0.08	< 0.01	< 0.05	0.01	0.07	< 0.01	0.013	39	145	< 10	< 10	< 10	< 2	43.80	99.83
9413	28.44 - 29.78	1.19	0.93	53.9º	0.70	55.30	0.22	0.15	0.13	< 0.05	< 0.01	0.07	0.01	0.10	< 0.01	0.003	42	145	< 10	< 10	< 10	< 2	43.74	99.82
9414	29.78 - 30.65	0.54	0.27	53.9º	0.32	55.21	0.26	0.13	0.11	0.06	< 0.01	0.08	< 0.01	0.05	< 0.01	0.004	46	174	< 10	< 10	< 10	< 2	43.77	99.73
9415	30.65 - 31.52	0.87	0.87	53.9º	0.51	55.25	0.25	0.11	0.11	0.06	0.01	< 0.05	0.01	0.03	< 0.01	0.003	52	178	< 10	< 10	< 10	< 2	43.80	99.72
9416	31.52 - 32.64	1.12	1.04	53.9º	0.66	55.21	0.28	0.16	0.11	0.08	< 0.01	0.09	< 0.01	0.05	< 0.01	0.003	55	188	< 10	< 10	< 10	< 2	43.79	99.83
9417	32.64 - 33.60	0.96	0.96	53.9º	0.57	55.14	0.40	0.10	0.09	< 0.05	< 0.01	< 0.05	< 0.01	0.05	< 0.01	0.003	49	176	< 10	< 10	< 10	< 2	43.86	99.80
9418	33.60 - 35.18	1.58	1.58	53.9º	0.93	55.24	0.26	0.14	0.13	0.08	0.01	< 0.05	0.01	0.08	< 0.01	0.004	51	176	< 10	< 10	< 10	< 2	43.76	99.80
9419	35.18 - 36.56	1.38	1.23	53.9º	0.81	54.91	0.34	0.50	0.28	0.14	0.01	< 0.05	0.02	0.11	< 0.01	0.005	68	190	< 10	< 10	< 10	< 2	43.56	99.96
9420	36.56 - 38.56	2.00	2.00	53.9º	1.18	54.37	0.82	0.48	0.23	0.14	< 0.01	< 0.05	0.01	0.06	< 0.01	0.005	87	229	< 10	< 10	< 10	< 2	43.20	99.42
9421	38.56 - 40.06	1.50	1.50	53.9º	0.88	54.59	0.84	0.19	0.15	0.09	0.01	0.10	0.01	0.04	< 0.01	0.005	65	230	< 10	< 10	< 10	< 2	43.92	99.99
9422	40.06 - 41.76	1.70	1.65	53.9º	1.00	54.99	0.44	0.21	0.17	0.09	0.01	< 0.05	0.01	0.03	< 0.01	0.003	58	223	< 10	< 10	< 10	< 2	43.81	99.85
9423	41.76 - 42.82	1.06	1.06	53.9º	0.62	55.23	0.30	0.16	0.14	0.08	< 0.01	< 0.05	< 0.01	0.03	< 0.01	0.003	43	242	< 10	< 10	< 10	< 2	43.84	99.90
9424	42.82 - 43.77	0.95	0.95	53.9º	0.56	55.27	0.27	0.16	0.13	0.07	< 0.01	< 0.05	0.01	0.04	< 0.01	0.003	48	212	< 10	< 10	< 10	< 2	43.83	99.89
9425	43.77 - 45.27	1.50	1.46	53.9º	0.88	54.99	0.46	0.21	0.16	0.08	0.01	< 0.05	0.01	0.04	< 0.01	0.006	58	234	< 10	< 10	< 10	< 2	43.82	99.88
9426	45.27 - 46.92	1.65	1.60	53.9º	0.97	54.83	0.58	0.28	0.20	0.12	0.01	< 0.05	0.01	0.05	< 0.01	0.003	61	258	< 10	< 10	< 10	< 2	43.81	99.99
9427	46.92 - 48.74	1.82	1.82	53.9º	1.07	54.87	0.59	0.20	0.15	0.08	< 0.01	0.06	< 0.01	0.03	< 0.01	0.004	66	262	< 10	< 10	< 10	< 2	43.88	99.93
9428	48.74 - 50.44	1.70	1.70	53.9º	1.00	54.49	0.80	0.34	0.23	0.14	< 0.01	< 0.05	0.01	0.06	< 0.01	0.004	64	259	< 10	< 10	< 10	< 2	43.78	99.96
9429	50.44 - 51.78	1.16	0.98	53.9º	0.68	54.27	0.51	0.92	0.48	0.25	< 0.01	0.13	0.03	0.08	0.01	0.007	72	241	< 10	< 10	< 10	< 2	43.27	100.00
9430	51.78 - 53.48	1.70	1.70	53.9º	1.00	52.84	0.74	2.29	0.75	0.43	< 0.01	0.29	0.06	0.08	0.01	0.011	96	280	< 10	< 10	< 10	< 2	42.40	99.95

*Sample length may be less than sample interval because of lost core.

Sample Number	Metrage	Sample Interval (m)	*Sample Length (m)	Dip	Strat. Thick. (m)	CaO %	MgO %	SiO_2 %	Al_2O_3 %	Fe_2O_3 %	Na_2O %	K_2O %	TiO_2 %	P_2O_5 %	MnO %	Cr_2O_3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	Sc ppm	LOI %	SUM %
9431	53.48 - 54.78	1.30	1.30	53.9º	0.77	53.17	0.86	1.50	0.78	0.44	< 0.01	0.20	0.07	0.08	0.01	0.011	70	292	< 10	< 10	< 10	< 2	42.79	99.96
9432	54.78 - 56.40	1.62	1.62	53.9º	0.95	52.35	0.94	2.63	1.40	0.81	< 0.01	0.29	0.10	0.13	0.01	0.016	94	275	27	< 10	< 10	3	40.90	99.63
9433	56.40 - 57.74	1.34	1.34	53.9º	0.79	51.78	0.84	2.97	1.31	0.76	< 0.01	0.35	0.11	0.11	0.01	0.020	101	266	< 10	< 10	< 10	3	40.80	99.11
9434	57.74 - 59.31	1.57	1.57	53.9º	0.93	52.90	0.72	2.15	0.83	0.44	< 0.01	0.31	0.06	0.06	0.01	0.011	76	275	< 10	< 10	< 10	< 2	42.44	99.98
9435	59.31 - 60.69	1.28	1.28	53.9º	0.75	54.31	0.63	0.67	0.36	0.19	0.01	0.21	0.02	0.07	< 0.01	0.003	67	245	< 10	< 10	< 10	< 2	43.44	99.95
9436	60.69 - 62.59	1.90	1.90	53.9º	1.12	51.57	2.60	0.81	0.42	0.23	0.02	0.14	0.03	0.20	< 0.01	0.007	73	224	< 10	< 10	< 10	< 2	43.30	99.37
9437	62.59 - 64.46	1.87	1.87	53.9º	1.10	53.71	0.87	1.02	0.41	0.25	0.01	0.19	0.03	0.16	< 0.01	0.005	73	243	< 10	< 10	< 10	< 2	43.10	99.80
9438	64.46 - 65.18	0.72	0.72	39.5º	0.56	55.06	0.34	0.22	0.18	0.19	< 0.01	0.06	0.01	0.09	< 0.01	0.006	53	186	< 10	< 10	< 10	< 2	43.69	99.90
9439	65.18 - 66.63	1.45	1.45	39.5º	1.12	55.20	0.34	0.10	0.12	0.08	0.01	< 0.05	< 0.01	0.15	< 0.01	0.010	66	229	< 10	< 10	< 10	< 2	43.75	99.86
9440	66.63 - 68.23	1.48	1.36	39.5º	1.14	55.16	0.37	< 0.05	0.07	0.09	0.02	0.07	0.01	0.07	0.01	0.012	61	213	< 10	< 10	< 10	< 2	43.82	99.78
9441	68.23 - 69.57	1.23	1.23	39.5º	0.95	55.16	0.39	< 0.05	0.08	0.06	0.01	< 0.05	0.01	0.06	< 0.01	0.005	58	220	< 10	< 10	< 10	< 2	43.85	99.76
9442	69.57 - 71.12	1.55	1.55	39.5º	1.20	55.21	0.36	< 0.05	0.07	< 0.05	0.01	< 0.05	0.01	0.16	< 0.01	0.003	75	244	< 10	< 10	< 10	< 2	43.77	99.79
9443	71.12 - 72.54	1.42	1.24	39.5º	1.10	55.19	0.44	< 0.05	0.07	< 0.05	0.01	< 0.05	0.01	0.13	< 0.01	0.005	70	234	< 10	< 10	< 10	< 2	43.86	99.91
9444	72.54 - 74.04	1.50	1.50	39.5º	1.16	55.07	0.48	< 0.05	0.08	< 0.05	0.01	< 0.05	0.01	0.09	< 0.01	0.004	65	232	< 10	< 10	< 10	< 2	43.86	99.80
9445	74.04 - 75.59	1.55	1.55	39.5º	1.20	55.10	0.44	< 0.05	0.11	0.08	0.01	< 0.05	0.02	0.31	< 0.01	0.008	75	253	< 10	< 10	< 10	< 2	43.61	99.83
9446	75.59 - 77.09	1.50	1.50	39.5º	1.16	55.10	0.37	0.13	0.13	0.07	0.01	0.07	0.01	0.29	< 0.01	0.005	69	242	< 10	< 10	< 10	< 2	43.56	99.79
9447	77.09 - 78.60	1.51	1.51	39.5º	1.17	55.11	0.40	0.06	0.10	0.08	0.01	< 0.05	0.01	0.25	0.01	0.007	75	254	< 10	< 10	< 10	< 2	43.64	99.77
9448	78.60 - 80.10	1.50	1.50	39.5º	1.16	55.00	0.48	< 0.05	0.09	< 0.05	0.01	0.10	0.01	0.17	< 0.01	0.004	83	256	< 10	< 10	< 10	< 2	43.72	99.72
9449	80.10 - 81.57	1.47	1.43	39.5º	1.13	55.12	0.42	< 0.05	0.07	< 0.05	< 0.01	< 0.05	0.01	0.11	< 0.01	0.003	72	255	< 10	< 10	< 10	< 2	43.81	99.75
9450	81.57 - 82.73	1.16	1.08	39.5º	0.90	55.18	0.40	< 0.05	0.07	0.07	< 0.01	< 0.05	< 0.01	0.04	< 0.01	0.004	79	255	< 10	< 10	< 10	< 2	43.90	99.82
9451	82.73 - 84.33	1.60	1.60	39.5º	1.23	55.13	0.43	< 0.05	0.07	< 0.05	< 0.01	< 0.05	0.01	0.11	< 0.01	0.004	71	255	< 10	< 10	< 10	< 2	43.83	99.79
9452	84.33 - 85.78	1.45	1.39	39.5º	1.12	55.12	0.43	< 0.05	0.09	< 0.05	< 0.01	0.07	0.01	0.17	< 0.01	0.004	78	265	< 10	< 10	< 10	< 2	43.76	99.80
9453	85.78 - 87.56	1.78	1.78	39.5º	1.37	55.15	0.40	< 0.05	0.10	< 0.05	< 0.01	< 0.05	0.01	0.17	0.01	0.003	82	273	< 10	< 10	< 10	< 2	43.75	99.79
9454	87.56 - 89.34	1.78	1.78	39.5º	1.37	55.24	0.30	< 0.05	0.08	< 0.05	0.01	< 0.05	< 0.01	0.55	< 0.01	0.005	71	262	38	< 10	< 10	< 2	43.34	99.74
9455	89.34 - 91.04	1.70	1.48	39.5º	1.31	55.28	0.26	0.06	0.10	< 0.05	< 0.01	< 0.05	< 0.01	1.68	< 0.01	0.005	87	282	< 10	< 10	< 10	< 2	42.22	99.77
9456	91.04 - 92.84	1.63	1.63	39.5º	1.26	54.89	0.51	0.18	0.16	0.06	< 0.01	0.09	0.02	0.20	< 0.01	0.002	93	268	< 10	< 10	< 10	< 2	43.64	99.81
9457	92.84 - 94.64	1.70	1.70	39.5º	1.31	55.03	0.49	0.09	0.10	< 0.05	< 0.01	< 0.05	0.01	0.07	< 0.01	0.003	107	285	< 10	< 10	< 10	< 2	43.85	99.81
9458	94.64 - 96.41	1.77	1.77	39.5º	1.37	54.91	0.48	0.24	0.14	0.07	< 0.01	0.09	< 0.01	0.16	0.01	0.008	96	265	< 10	< 10	< 10	< 2	43.66	99.83
9459	96.41 - 97.91	1.50	1.40	39.5º	1.16	54.83	0.54	0.24	0.13	0.07	< 0.01	< 0.05	< 0.01	0.61	< 0.01	0.005	126	283	< 10	< 10	< 10	< 2	43.22	99.77
9460	97.91 - 99.46	1.55	1.52	39.5º	1.20	54.95	0.50	0.15	0.11	0.07	< 0.01	< 0.05	< 0.01	0.45	< 0.01	0.005	96	271	< 10	< 10	< 10	< 2	43.43	99.78
9461	99.46 - 100.96	1.50	1.50	39.5º	1.16	54.95	0.50	0.14	0.11	< 0.05	< 0.01	< 0.05	< 0.01	0.66	< 0.01	0.006	92	271	< 10	< 10	< 10	< 2	43.22	99.76
9462	100.96 - 102.43	1.47	1.47	39.5º	1.13	55.16	0.34	0.08	0.11	< 0.05	< 0.01	0.06	< 0.01	0.49	< 0.01	0.005	75	253	< 10	< 10	< 10	< 2	43.38	99.74
9463	102.43 - 104.13	1.70	1.70	39.5º	1.31	55.19	0.33	< 0.05	0.08	< 0.05	< 0.01	0.08	< 0.01	0.14	< 0.01	0.006	70	249	< 10	< 10	< 10	< 2	43.74	99.73
9464	104.13 - 105.84	1.71	1.71	39.5º	1.32	55.26	0.35	< 0.05	0.08	< 0.05	< 0.01	< 0.05	< 0.01	0.11	< 0.01	0.004	68	258	< 10	< 10	< 10	< 2	43.84	99.85
9465	105.84 - 107.53	1.44	1.20	39.5º	1.11	55.30	0.32	< 0.05	0.08	0.07	< 0.01	< 0.05	0.01	0.10	< 0.01	0.006	71	263	< 10	< 10	< 10	< 2	43.85	99.90
9466	107.53 - 109.15	1.62	1.62	39.5º	1.25	55.30	0.32	0.06	0.09	< 0.05	< 0.01	< 0.05	0.01	0.09	< 0.01	0.004	74	254	< 10	< 10	< 10	< 2	43.86	99.88
9467	109.15 - 110.82	1.67	1.67	39.5º	1.29	55.24	0.36	< 0.05	0.08	< 0.05	< 0.01	< 0.05	0.01	0.08	0.01	0.011	98	266	< 10	< 10	< 10	< 2	43.87	99.86
9468	110.82 - 112.52	1.53	1.33	39.5º	1.18	55.22	0.38	< 0.05	0.08	< 0.05	< 0.01	0.07	0.01	0.06	< 0.01	0.003	70	264	< 10	< 10	< 10	< 2	43.89	99.87
9469	112.52 - 114.14	1.62	1.62	39.5º	1.25	55.25	0.35	< 0.05	0.07	< 0.05	0.01	< 0.05	< 0.01	0.03	< 0.01	0.002	69	269	< 10	< 10	< 10	< 2	43.91	99.83
9470	114.14 - 115.84	1.70	1.70	39.5º	1.31	55.22	0.34	< 0.05	0.07	< 0.05	0.01	< 0.05	0.02	0.14	< 0.01	0.004	85	273	< 10	< 10	< 10	< 2	43.77	99.78

Sample Number	Metrage	Sample Interval (m)	*Sample Length (m)	Dip	Strat. Thick. (m)	CaO %	MgO %	SiO_2 %	Al_2O_3 %	Fe_2O_3 %	Na_2O %	K_2O %	TiO_2 %	P_2O_5 %	MnO %	Cr_2O_3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	Sc ppm	LOI %	SUM %
9471	115.84 - 117.23	1.39	1.39	39.5º	1.07	55.30	0.31	< 0.05	0.08	< 0.05	< 0.01	< 0.05	< 0.01	0.34	< 0.01	0.007	77	264	< 10	< 10	< 10	< 2	43.60	99.85
9472	117.23 - 118.94	1.71	1.71	39.5º	1.32	55.13	0.31	0.24	0.14	0.07	0.02	< 0.05	0.02	0.09	< 0.01	0.003	68	254	< 10	< 10	< 10	< 2	43.71	99.83
9473	118.94 - 120.10	1.16	1.16	39.5º	0.90	55.27	0.27	< 0.05	0.09	0.06	0.01	< 0.05	< 0.01	0.53	< 0.01	0.005	86	261	< 10	< 10	< 10	< 2	43.35	99.74
9474	120.10 - 121.32	1.22	1.22	39.5º	0.94	55.26	0.28	< 0.05	0.07	< 0.05	0.01	< 0.05	< 0.01	0.16	< 0.01	0.005	66	248	< 10	< 10	< 10	< 2	43.71	99.70
9475	121.32 - 122.46	1.14	1.14	39.5º	0.88	55.32	0.27	< 0.05	0.07	< 0.05	< 0.01	0.08	0.01	0.06	< 0.01	0.003	60	244	86	< 10	< 10	< 2	43.85	99.82
9476	122.46 - 124.02	1.49	1.36	39.5º	1.15	55.29	0.29	< 0.05	0.10	< 0.05	0.01	0.08	0.01	0.17	< 0.01	0.002	74	256	< 10	< 10	< 10	< 2	43.74	99.84
9477	124.02 - 125.40	1.38	1.30	39.5º	1.06	55.28	0.29	< 0.05	0.09	< 0.05	0.01	0.07	0.01	0.07	< 0.01	0.003	54	248	< 10	< 10	< 10	< 2	43.83	99.80
9478	125.40 - 126.80	1.32	1.32	39.5º	1.02	55.20	0.34	< 0.05	0.10	< 0.05	0.02	0.07	0.01	0.07	< 0.01	0.002	64	266	< 10	< 10	< 10	< 2	43.82	99.78
9479	126.80 - 128.15	1.35	1.35	39.5º	1.04	55.20	0.34	0.06	0.11	0.06	0.01	0.08	< 0.01	0.05	< 0.01	0.003	71	257	< 10	< 10	< 10	< 2	43.84	99.81
9480	128.15 - 129.71	1.31	1.06	39.5º	1.01	55.21	0.31	< 0.05	0.09	< 0.05	0.02	0.08	0.01	0.07	< 0.01	0.005	63	254	43	< 10	< 10	< 2	43.80	99.75
9481	129.71 - 131.27	1.56	1.56	39.5º	1.20	55.25	0.31	0.06	0.11	0.08	0.02	< 0.05	< 0.01	0.09	< 0.01	0.006	75	250	94	< 10	< 10	< 2	43.81	99.84
9482	131.27 - 132.67	1.40	1.40	39.5º	1.08	55.07	0.43	0.08	0.12	0.07	0.01	0.15	0.01	0.05	0.01	0.006	82	259	< 10	< 10	< 10	< 2	43.84	99.87
9483	132.67 - 134.31	1.55	1.55	39.5º	1.20	54.80	0.70	0.32	0.22	0.12	0.01	0.14	< 0.01	0.09	< 0.01	0.003	89	262	< 10	< 10	< 10	< 2	43.70	100.16
9484	134.31 - 135.82	1.51	1.46	39.5º	1.17	55.18	0.37	0.10	0.14	0.06	0.01	0.07	0.01	0.04	0.01	0.003	78	252	< 10	< 10	< 10	< 2	43.87	99.90
9485	135.82 - 137.47	1.65	1.65	39.5º	1.27	55.17	0.34	0.09	0.13	0.06	0.02	0.08	0.01	0.03	< 0.01	0.002	72	245	< 10	< 10	< 10	< 2	43.84	99.81
9486	137.47 - 139.12	1.65	1.65	39.5º	1.27	54.77	0.64	0.10	0.14	0.06	0.01	0.16	0.01	0.03	< 0.01	0.004	89	255	< 10	< 10	< 10	< 2	43.85	99.83
9487	139.12 - 140.63	1.51	1.51	39.5º	1.17	55.19	0.36	< 0.05	0.11	0.06	0.02	0.06	0.01	0.02	< 0.01	0.006	73	281	< 10	< 10	< 10	< 2	43.89	99.82
9488	140.63 - 142.12	1.49	1.49	39.5º	1.15	54.30	0.92	0.33	0.26	0.12	0.02	0.09	< 0.01	0.39	< 0.01	0.005	92	248	< 10	< 10	< 10	< 2	43.43	99.93
9489	142.12 - 143.64	1.52	1.52	39.5º	1.17	49.64	3.78	1.26	0.54	0.27	0.02	0.21	0.03	0.17	< 0.01	0.004	138	241	< 10	< 10	< 10	< 2	43.50	99.48
9490	143.64 - 144.70	1.06	1.06	39.5º	0.82	50.61	2.57	1.42	0.79	0.35	0.02	0.27	0.03	0.24	< 0.01	0.004	153	235	< 10	< 10	< 10	< 2	43.20	99.56
9491	144.70 - 146.40	1.70	1.70	39.5º	1.31	55.02	0.49	0.07	0.11	0.07	0.01	0.06	< 0.01	0.07	0.01	0.005	80	262	< 10	< 10	< 10	< 2	43.85	99.82
9492	146.40 - 148.14	1.74	1.74	39.5º	1.34	55.11	0.39	< 0.05	0.10	0.06	0.01	0.19	< 0.01	0.06	< 0.01	0.003	77	261	< 10	< 10	< 10	< 2	43.81	99.84
9493	148.14 - 149.62	1.48	1.48	39.5º	1.14	55.09	0.39	< 0.05	0.09	0.08	0.02	0.14	0.01	0.08	< 0.01	0.004	66	254	200	< 10	< 10	< 2	43.78	99.80
9494	149.62 - 151.32	1.60	1.50	39.5º	1.23	55.08	0.43	< 0.05	0.10	0.06	0.01	0.15	< 0.01	0.06	< 0.01	0.003	77	260	82	< 10	< 10	< 2	43.83	99.84
9495	151.32 - 152.59	1.27	1.27	39.5º	0.98	54.75	0.55	0.47	0.23	0.12	< 0.01	0.08	0.01	0.08	< 0.01	0.006	106	263	< 10	< 10	< 10	< 2	43.50	99.86
9496	152.59 - 154.29	1.64	1.48	39.5º	1.27	54.95	0.44	0.31	0.14	0.07	0.01	0.13	0.01	0.04	< 0.01	0.002	93	259	< 10	< 10	< 10	< 2	43.76	99.91
9497	154.29 - 155.61	1.30	1.28	39.5º	1.00	54.77	0.60	0.24	0.18	0.07	0.01	0.13	0.01	0.08	< 0.01	0.005	112	266	< 10	< 10	< 10	< 2	43.76	99.90
9498	155.61 - 156.70	0.81	0.81	39.5º	0.63	55.49	0.30	0.09	0.10	< 0.05	0.01	< 0.05	< 0.01	0.02	< 0.01	0.002	68	215	< 10	< 10	< 10	< 2	43.90	100.06
9499	156.70 - 157.79	0.81	0.81	39.5º	0.63	55.37	0.26	0.10	0.10	0.06	0.01	0.08	< 0.01	0.02	< 0.01	< 0.002	72	211	< 10	< 10	< 10	< 2	43.92	99.97
Drillhole 93-3																								
9500	3.65 - 5.04	1.25	1.12	31.7º	1.06	55.45	0.21	< 0.05	0.07	< 0.05	0.01	< 0.05	< 0.01	0.05	< 0.01	< 0.002	28	165	< 10	< 10	< 10	< 2	43.90	99.89
9501	5.04 - 6.29	1.25	1.25	31.7º	1.06	55.42	0.21	0.08	0.10	< 0.05	0.01	< 0.05	< 0.01	0.08	< 0.01	0.002	32	134	< 10	< 10	< 10	< 2	43.84	99.88
9502	6.29 - 7.55	1.26	1.14	31.7º	1.07	55.42	0.20	< 0.05	0.08	< 0.05	0.01	< 0.05	< 0.01	0.07	< 0.01	0.002	35	136	42	< 10	< 10	< 2	43.84	99.82
9503	7.55 - 9.25	1.61	1.61	31.7º	1.37	55.27	0.29	0.12	0.12	0.06	0.02	< 0.05	< 0.01	0.05	< 0.01	0.004	47	135	< 10	< 10	< 10	< 2	43.84	99.86
9504	9.25 - 10.91	1.66	1.66	31.7º	1.41	55.37	0.23	0.11	0.13	0.06	0.02	< 0.05	< 0.01	0.06	< 0.01	0.004	43	139	< 10	< 10	< 10	< 2	43.85	99.93
9505	10.91 - 12.46	1.39	1.23	31.7º	1.18	54.88	0.23	0.80	0.15	< 0.05	0.12	0.10	< 0.01	0.08	< 0.01	0.003	34	138	< 10	< 10	< 10	< 2	43.44	99.89
9506	12.46 - 14.06	1.48	1.36	31.7º	1.26	55.38	0.22	0.12	0.10	0.06	0.01	0.12	< 0.01	0.03	< 0.01	0.004	38	124	< 10	< 10	< 10	< 2	43.87	99.95
9507	14.06 - 15.80	1.64	1.54	31.7º	1.40	54.72	0.22	0.93	0.15	0.06	0.13	0.11	< 0.01	0.03	< 0.01	0.003	37	141	< 10	< 10	< 10	< 2	43.36	99.75
9508	15.80 - 17.54	1.74	1.74	31.7º	1.48	55.39	0.20	0.10	0.08	< 0.05	0.02	< 0.05	< 0.01	0.05	< 0.01	0.002	21	119	< 10	< 10	< 10	< 2	43.84	99.82
9509	17.54 - 19.26	1.63	1.55	31.7º	1.39	54.26	1.22	< 0.05	0.08	< 0.05	0.01	< 0.05	< 0.01	0.05	< 0.01	0.003	24	125	< 10	< 10	< 10	< 2	44.07	99.88
9510	19.26 - 19.67	0.41	0.41	31.7º	0.35	54.14	1.30	0.09	0.09	< 0.05	0.01	< 0.05	< 0.01	0.07	< 0.01	0.002	24	111	< 10	< 10	< 10	< 2	44.04	99.87

Sample Number	Metrage	Sample Interval (m)	*Sample Length (m)	Dip	Strat. Thick. (m)	CaO %	MgO %	SiO_2 %	Al_2O_3 %	Fe_2O_3 %	Na_2O %	K_2O %	TiO_2 %	P_2O_5 %	MnO %	Cr_2O_3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	Sc ppm	LOI %	SUM %
9511	19.67 - 21.67	1.80	1.76	31.7º	1.53	54.84	0.33	0.56	0.35	0.15	0.01	< 0.05	< 0.01	0.09	< 0.01	0.003	49	142	< 10	< 10	< 10	< 2	43.51	99.94
9512	21.67 - 23.09	1.42	1.22	31.7º	1.21	55.22	0.36	0.09	0.10	< 0.05	0.01	< 0.05	< 0.01	0.07	< 0.01	0.003	32	135	< 10	< 10	< 10	< 2	43.86	99.86
9513	23.09 - 24.79	1.70	1.70	31.7º	1.45	55.32	0.26	< 0.05	0.09	< 0.05	0.01	< 0.05	< 0.01	0.08	< 0.01	0.003	21	113	< 10	< 10	< 10	< 2	43.82	99.77
9514	24.79 - 26.36	1.57	1.57	31.7º	1.34	54.05	1.38	< 0.05	0.09	< 0.05	0.01	< 0.05	< 0.01	0.04	0.01	0.004	36	148	< 10	< 10	< 10	< 2	44.09	99.85
9515	26.36 - 27.42	1.06	1.06	31.7º	0.90	53.38	1.85	0.06	0.10	< 0.05	0.01	< 0.05	0.01	0.05	< 0.01	0.004	33	166	< 10	< 10	< 10	< 2	44.06	99.66
9516	27.42 - 29.10	1.68	1.64	31.7º	1.43	54.17	1.19	0.08	0.09	< 0.05	0.01	< 0.05	< 0.01	0.08	< 0.01	0.004	51	204	< 10	< 10	< 10	< 2	43.93	99.70
9517	29.10 - 30.80	1.70	1.70	31.7º	1.45	53.82	1.59	< 0.05	0.07	< 0.05	0.01	< 0.05	< 0.01	0.05	< 0.01	0.002	31	143	< 10	< 10	< 10	< 2	44.12	99.85
9518	30.80 - 32.20	1.40	1.40	31.7º	1.19	55.22	0.40	< 0.05	0.07	< 0.05	0.01	0.07	< 0.01	0.02	< 0.01	0.002	28	133	< 10	< 10	< 10	< 2	43.95	99.88
9519	32.20 - 33.90	1.63	1.56	31.7º	1.39	54.92	0.62	0.10	0.09	< 0.05	0.01	< 0.05	< 0.01	0.07	< 0.01	0.003	45	168	< 10	< 10	< 10	< 2	43.91	99.87
9520	33.90 - 35.54	1.64	1.58	31.7º	1.40	54.90	0.64	0.13	0.10	< 0.05	0.01	< 0.05	< 0.01	0.04	< 0.01	0.002	57	222	< 10	< 10	< 10	< 2	43.94	99.92
9521	35.54 - 37.24	1.61	1.52	31.7º	1.37	55.07	0.46	0.13	0.11	< 0.05	0.01	< 0.05	< 0.01	0.07	< 0.01	0.002	70	336	< 10	< 10	< 10	< 2	43.85	99.86
9522	37.24 - 38.83	1.59	1.59	31.7º	1.35	54.95	0.62	< 0.05	0.08	< 0.05	0.01	< 0.05	< 0.01	0.02	< 0.01	< 0.002	52	228	< 10	< 10	< 10	< 2	43.98	99.86
9523	38.83 - 40.53	1.70	1.70	31.7º	1.45	55.19	0.27	0.25	0.16	0.09	0.01	< 0.05	0.01	0.04	< 0.01	0.002	77	222	< 10	< 10	< 10	< 2	43.77	99.89
9524	40.53 - 42.01	1.48	1.48	31.7º	1.26	55.08	0.29	0.39	0.16	0.11	0.01	< 0.05	0.01	0.03	< 0.01	< 0.002	91	265	< 10	< 10	< 10	< 2	43.71	99.89
9525	42.01 - 43.35	1.34	1.34	31.7º	1.14	55.40	0.21	< 0.05	0.06	0.06	0.01	< 0.05	< 0.01	0.04	< 0.01	0.002	36	168	< 10	< 10	< 10	< 2	43.87	99.79
9526	43.35 - 44.90	1.32	1.09	31.7º	1.12	55.43	0.20	0.06	0.09	< 0.05	< 0.01	< 0.05	0.01	0.03	< 0.01	0.003	33	161	< 10	< 10	< 10	< 2	43.89	99.86
9527	44.90 - 46.35	1.45	1.40	31.7º	1.23	55.31	0.23	0.18	0.14	0.12	0.01	< 0.05	0.01	0.04	< 0.01	0.002	45	182	< 10	< 10	< 10	< 2	43.82	99.95
9528	46.35 - 46.91	0.56	0.56	31.7º	0.48	55.43	0.20	0.08	0.09	< 0.05	0.01	< 0.05	< 0.01	0.03	< 0.01	< 0.002	33	162	< 10	< 10	< 10	< 2	43.89	99.87
9529	46.91 - 48.61	1.70	1.70	45.8º	1.19	55.09	0.31	0.33	0.18	0.10	< 0.01	< 0.05	< 0.01	0.04	< 0.01	0.003	61	250	< 10	< 10	< 10	< 2	43.74	99.91
9530	48.61 - 50.13	1.52	1.52	45.8º	1.06	54.88	0.38	0.44	0.20	0.12	0.01	0.10	< 0.01	0.04	< 0.01	0.003	62	288	< 10	< 10	< 10	< 2	43.65	99.88
9531	50.13 - 51.56	1.43	1.26	45.8º	1.00	55.01	0.29	0.33	0.23	0.15	0.02	0.09	< 0.01	0.06	< 0.01	0.003	68	269	36	< 10	< 10	< 2	43.63	99.87
9532	51.56 - 53.05	1.32	1.32	45.8º	0.92	54.78	0.35	0.53	0.35	0.15	< 0.01	< 0.05	0.03	0.09	< 0.01	0.006	83	324	< 10	< 10	< 10	< 2	43.48	99.89
9533	53.05 - 54.75	1.70	1.70	45.8º	1.19	54.33	1.08	0.38	0.27	0.13	< 0.01	< 0.05	0.02	0.10	< 0.01	0.004	75	295	63	< 10	< 10	< 2	43.90	100.33
9534	54.75 - 56.15	1.40	1.37	45.8º	0.98	51.67	3.09	0.27	0.22	0.08	< 0.01	< 0.05	< 0.01	0.08	< 0.01	0.003	78	260	< 10	< 10	< 10	< 2	44.50	100.03
9535	56.15 - 57.95	1.80	1.80	45.8º	1.25	54.71	0.63	0.31	0.24	0.08	< 0.01	< 0.05	0.01	0.10	< 0.01	0.004	81	225	< 10	< 10	< 10	< 2	43.73	99.92
9536	57.95 - 58.79	0.84	0.82	45.8º	0.59	54.90	0.48	0.25	0.21	< 0.05	< 0.01	0.09	0.01	0.16	< 0.01	0.005	69	221	30	< 10	< 10	< 2	43.65	99.86
9537	58.79 - 60.41	1.62	1.62	45.8º	1.13	54.99	0.56	< 0.05	0.12	< 0.05	< 0.01	< 0.05	0.01	0.07	< 0.01	0.008	62	238	< 10	< 10	< 10	< 2	43.90	99.85
9538	60.41 - 61.76	1.20	1.04	45.8º	0.84	54.60	0.85	0.07	0.13	< 0.05	< 0.01	0.10	< 0.01	0.10	< 0.01	0.005	55	215	< 10	< 10	< 10	< 2	43.88	99.85
9539	61.76 - 63.46	1.69	1.69	45.8º	1.18	54.42	1.03	< 0.05	0.11	< 0.05	< 0.01	< 0.05	0.01	0.05	< 0.01	0.002	56	229	< 10	< 10	< 10	< 2	43.98	99.80
9540	63.46 - 65.16	1.70	1.70	45.8º	1.19	55.22	0.36	< 0.05	0.11	< 0.05	< 0.01	< 0.05	0.01	0.03	< 0.01	0.005	54	226	< 10	< 10	< 10	< 2	43.90	99.84
9541	65.16 - 66.87	1.63	1.55	45.8º	1.14	55.30	0.27	< 0.05	0.11	< 0.05	< 0.01	0.12	0.01	0.06	< 0.01	0.005	48	218	< 10	< 10	< 10	< 2	43.83	99.86
9542	66.87 - 68.57	1.61	1.52	45.8º	1.12	54.96	0.60	< 0.05	0.11	< 0.05	< 0.01	< 0.05	0.01	0.03	< 0.01	0.006	50	218	< 10	< 10	< 10	< 2	43.96	99.87
9543	68.57 - 70.18	1.61	1.61	45.8º	1.12	54.89	0.62	< 0.05	0.12	< 0.05	< 0.01	0.07	0.01	0.05	< 0.01	0.006	51	216	< 10	< 10	< 10	< 2	43.90	99.82
9544	70.18 - 71.88	1.70	1.70	45.8º	1.19	55.36	0.25	< 0.05	0.11	< 0.05	< 0.01	0.07	0.01	0.04	< 0.01	0.004	45	213	< 10	< 10	< 10	< 2	43.88	99.87
9545	71.88 - 73.58	1.37	1.04	45.8º	0.96	55.20	0.37	< 0.05	0.12	< 0.05	< 0.01	0.06	0.01	0.05	< 0.01	0.005	51	225	< 10	< 10	< 10	< 2	43.87	99.84
9546	73.58 - 75.21	1.49	1.35	45.8º	1.04	54.92	0.52	0.15	0.16	< 0.05	< 0.01	0.10	0.02	0.07	< 0.01	0.005	54	237	< 10	< 10	< 10	< 2	43.80	99.84
9547	75.21 - 76.48	1.27	1.27	45.8º	0.89	55.33	0.27	< 0.05	0.11	< 0.05	< 0.01	< 0.05	0.01	0.03	< 0.01	0.005	40	220	< 10	< 10	< 10	< 2	43.88	99.83
9548	76.48 - 78.33	1.71	1.57	45.8º	1.19	55.23	0.36	< 0.05	0.11	< 0.05	< 0.01	< 0.05	0.01	0.08	< 0.01	0.003	47	220	< 10	< 10	< 10	< 2	43.86	99.85
9549	78.33 - 79.74	1.41	1.41	45.8º	0.98	55.12	0.37	0.11	0.15	< 0.05	< 0.01	0.13	0.01	0.13	< 0.01	0.005	44	226	< 10	< 10	< 10	< 2	43.73	99.86
9550	79.74 - 81.19	1.45	1.45	45.8º	1.01	55.04	0.45	0.16	0.15	< 0.05	< 0.01	< 0.05	0.01	0.05	< 0.01	0.003	53	238	< 10	< 10	< 10	< 2	43.84	99.86

Sample Number	Metrage	Sample Interval (m)	*Sample Length (m)	Dip	Strat. Thick. (m)	CaO %	MgO %	SiO_2 %	Al_2O_3 %	Fe_2O_3 %	Na_2O %	K_2O %	TiO_2 %	P_2O_5 %	MnO %	Cr_2O_3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	Sc ppm	LOI %	SUM %
9551	81.19 - 83.06	1.87	1.79	45.8º	1.30	49.72	4.15	1.14	0.54	0.22	0.01	0.14	0.03	0.25	< 0.01	0.007	68	193	< 10	< 10	< 10	< 2	44.20	100.45
9552	83.06 - 84.58	1.52	1.52	45.8º	1.06	55.06	0.44	0.13	0.15	< 0.05	< 0.01	< 0.05	0.01	0.12	< 0.01	0.003	39	207	< 10	< 10	< 10	< 2	43.77	99.83
9553	84.58 - 86.03	1.45	1.45	45.8º	1.01	55.36	0.24	< 0.05	0.11	< 0.05	< 0.01	0.10	0.01	0.08	< 0.01	0.007	33	203	< 10	< 10	< 10	< 2	43.83	99.89
9554	86.03 - 87.49	1.46	1.40	45.8º	1.02	55.27	0.31	0.07	0.12	< 0.05	< 0.01	< 0.05	0.01	0.12	< 0.01	0.005	47	207	< 10	< 10	< 10	< 2	43.79	99.84
9555	87.49 - 88.66	1.10	1.04	45.8º	0.77	55.25	0.26	< 0.05	0.11	< 0.05	< 0.01	0.20	0.01	0.09	< 0.01	0.003	39	206	< 10	< 10	< 10	< 2	43.76	99.83
9556	88.66 - 90.25	1.34	1.09	45.8º	0.93	55.27	0.25	0.13	0.16	< 0.05	< 0.01	0.13	0.01	0.11	< 0.01	0.005	42	209	< 10	< 10	< 10	< 2	43.74	99.91
9557	90.25 - 91.83	1.58	1.54	45.8º	1.10	55.27	0.29	0.09	0.13	< 0.05	0.01	< 0.05	0.02	0.07	< 0.01	0.005	43	195	< 10	< 10	< 10	< 2	43.82	99.84
9558	91.83 - 93.39	1.56	1.56	45.8º	1.09	55.12	0.39	0.14	0.14	< 0.05	< 0.01	0.13	0.01	0.07	< 0.01	0.006	45	191	< 10	< 10	< 10	< 2	43.81	99.91
9559	93.39 - 94.89	1.36	1.16	45.8º	0.95	55.30	0.26	< 0.05	0.11	< 0.05	< 0.01	0.13	0.01	0.04	< 0.01	0.002	44	205	< 10	< 10	< 10	< 2	43.85	99.85
9560	94.89 - 96.51	1.62	1.62	45.8º	1.13	54.21	1.39	0.24	0.22	0.09	< 0.01	0.11	0.01	0.12	< 0.01	0.007	53	197	15	< 10	< 10	< 2	44.00	100.45
9561	96.51 - 97.90	1.39	1.39	45.8º	0.97	54.20	1.20	0.09	0.13	< 0.05	< 0.01	< 0.05	0.02	0.11	< 0.01	0.005	43	209	< 10	< 10	< 10	< 2	43.94	99.84
9562	97.90 - 99.37	1.37	1.23	45.8º	0.96	52.93	2.42	0.37	0.23	0.09	< 0.01	0.17	0.02	0.11	< 0.01	0.007	56	212	< 10	< 10	< 10	< 2	44.00	100.40
9563	99.37 - 100.81	1.44	1.44	45.8º	1.00	54.95	0.47	0.21	0.14	0.06	< 0.01	0.10	0.02	0.15	< 0.01	0.006	55	203	< 10	< 10	< 10	< 2	43.69	99.84
9564	100.81 - 102.36	1.39	1.25	45.8º	0.97	48.56	4.54	1.86	0.51	0.19	0.01	0.20	0.04	0.15	< 0.01	0.007	95	203	< 10	< 10	< 10	< 2	43.70	99.81
9565	102.36 - 103.71	1.35	1.35	45.8º	0.94	46.16	5.64	2.85	0.95	0.38	0.02	0.33	0.07	0.09	< 0.01	0.005	112	189	< 10	< 10	< 10	< 2	43.30	99.84
9566	103.71 - 104.73	1.02	1.02	45.8º	0.71	50.44	3.15	1.74	0.50	0.21	< 0.01	0.21	0.04	0.08	< 0.01	0.008	69	207	< 10	< 10	< 10	< 2	43.10	99.53
9567	104.73 - 105.73	1.00	1.00	45.8º	0.70	31.00	13.78	10.46	3.49	1.72	0.02	0.72	0.24	0.20	0.01	0.020	321	161	34	13	22	6	37.60	99.32
9568	105.73 - 107.36	1.48	1.33	45.8º	1.03	52.76	2.36	0.52	0.22	0.09	< 0.01	0.08	0.01	0.25	< 0.01	0.008	51	239	< 10	< 10	< 10	< 2	43.60	99.95
9569	107.36 - 108.44	1.08	1.08	35.1º	0.88	51.99	2.61	0.49	0.29	0.10	< 0.01	< 0.05	0.01	0.34	< 0.01	0.009	55	236	< 10	< 10	< 10	< 2	43.60	99.54
9570	108.44 - 109.26	0.82	0.82	35.1º	0.67	51.95	2.56	0.68	0.27	0.11	< 0.01	< 0.05	0.01	0.26	< 0.01	0.005	57	257	< 10	< 10	< 10	< 2	43.60	99.55
9571	109.26 - 110.96	1.70	1.70	35.1º	1.39	54.09	1.35	0.13	0.10	0.05	< 0.01	< 0.05	0.01	0.06	< 0.01	0.004	33	192	< 10	< 10	< 10	< 2	44.06	99.95
9572	110.96 - 112.78	1.73	1.64	35.1º	1.42	50.99	3.76	0.20	0.16	0.07	< 0.01	< 0.05	< 0.01	0.17	0.01	0.007	41	197	< 10	< 10	< 10	< 2	44.20	99.66
9573	112.78 - 114.48	1.70	1.70	35.1º	1.39	45.43	7.49	1.60	0.55	0.22	< 0.01	0.21	0.03	0.12	< 0.01	0.006	70	210	14	< 10	< 10	< 2	43.80	99.51
9574	114.48 - 115.63	1.15	1.15	35.1º	0.94	52.12	2.49	1.08	0.28	0.13	< 0.01	< 0.05	0.01	0.15	< 0.01	0.007	56	259	< 10	< 10	< 10	< 2	43.40	99.77
9575	115.63 - 117.23	1.60	1.60	35.1º	1.31	46.62	4.44	4.94	1.03	0.48	< 0.01	0.23	0.06	0.47	0.01	0.012	118	307	12	11	16	< 2	41.10	99.45
9576	117.23 - 118.93	1.70	1.70	35.1º	1.39	43.22	2.67	13.55	1.56	0.72	0.01	0.33	0.10	0.51	0.01	0.024	162	425	16	13	16	3	36.60	99.37
9577	118.93 - 120.23	1.02	0.74	35.1º	0.83	44.97	4.20	7.50	1.27	0.53	< 0.01	0.30	0.08	0.80	0.01	0.018	153	391	41	15	16	3	39.60	99.35
9578	120.23 - 121.58	1.35	1.35	35.1º	1.10	49.66	3.59	2.43	0.50	0.22	< 0.01	< 0.05	0.03	0.26	< 0.01	0.007	99	297	< 10	< 10	< 10	< 2	42.80	99.61
9579	121.58 - 122.99	1.05	0.69	35.1º	0.86	49.53	3.22	3.24	0.71	0.28	< 0.01	< 0.05	0.03	0.23	0.01	0.007	103	268	< 10	< 10	< 10	< 2	42.20	99.56
Drillhole 93-4																								
9580	3.05 - 4.57	0.91	0.30	27.6º	0.81	49.20	1.66	6.66	0.74	0.31	< 0.01	0.13	0.06	0.51	0.01	0.017	139	368	< 10	< 10	< 10	< 2	40.20	99.56
9581	4.57 - 6.12	1.55	1.55	27.6º	1.37	49.80	2.59	3.68	0.85	0.30	< 0.01	0.24	0.04	0.68	0.01	0.009	137	304	11	< 10	< 10	< 2	41.30	99.56
9582	6.12 - 7.47	1.35	1.20	27.6º	1.20	45.84	3.20	8.27	1.25	0.49	< 0.01	0.28	0.07	0.57	0.01	0.013	206	339	15	< 10	< 10	< 2	39.50	99.56
9583	7.47 - 9.12	1.32	1.20	27.6º	1.17	48.30	2.46	6.75	0.72	0.34	< 0.01	< 0.05	0.03	0.17	0.01	0.010	143	249	< 10	< 10	< 10	< 2	40.80	99.69
9584	9.12 - 10.87	1.67	1.61	27.6º	1.48	44.41	3.61	9.63	1.44	0.62	< 0.01	0.23	0.08	0.21	0.02	0.013	271	258	56	13	25	3	39.10	99.44
9585	10.87 - 12.62	1.57	1.43	27.6º	1.39	48.08	2.54	6.56	1.02	0.46	< 0.01	0.20	0.07	0.19	0.01	0.008	228	264	13	12	18	< 2	40.30	99.50
9586	12.62 - 14.12	1.20	0.78	27.6º	1.06	51.02	0.96	5.56	0.69	0.31	< 0.01	< 0.05	0.04	0.12	0.01	0.008	196	262	< 10	< 10	< 10	< 2	40.80	99.63
9587	14.12 - 15.61	1.27	1.12	27.6º	1.13	50.10	1.61	5.63	0.78	0.35	< 0.01	0.15	0.05	0.14	0.01	0.007	239	264	13	< 10	< 10	< 2	40.70	99.59
9588	15.61 - 17.31	1.70	1.62	27.6º	1.51	46.71	1.69	10.09	2.00	0.93	0.01	0.34	0.13	0.16	0.02	0.013	545	284	24	< 10	< 10	5	37.30	99.48
9589	17.31 - 19.01	1.70	1.70	27.6º	1.51	46.56	1.38	11.00	1.83	1.02	< 0.01	0.27	0.13	0.10	0.02	0.011	557	271	14	< 10	12	4	37.10	99.52
9590	19.01 - 20.71	1.70	1.70	27.6º	1.51	47.44	1.76	8.94	1.44	0.61	0.07	0.12	0.09	0.26	0.02	0.011	429	336	18	< 10	12	3	38.70	99.54

Sample Number	Metrage	Sample Interval (m)	*Sample Length (m)	Dip	Strat. Thick. (m)	CaO %	MgO %	SiO_2 %	Al_2O_3 %	Fe_2O_3 %	Na_2O %	K_2O %	TiO_2 %	P_2O_5 %	MnO %	Cr_2O_3 %	Ba ppm	Sr ppm	Zr ppm	Y ppm	Nb ppm	Sc ppm	LOI %	SUM %
9591	20.71 - 22.40	1.54	1.54	27.6°	1.36	39.83	2.46	18.80	2.79	1.13	0.24	0.46	0.21	0.25	0.02	0.016	682	362	44	12	26	4	33.10	99.42
9592	22.40 - 23.90	0.89	0.77	27.6°	0.79	38.65	3.24	17.39	3.22	1.47	0.53	0.44	0.19	1.37	0.03	0.017	1009	407	29	12	15	6	32.10	98.79
9593	23.90 - 25.41	1.26	0.37	27.6°	1.12	47.60	2.63	6.91	1.48	0.77	0.20	0.28	0.10	1.11	0.02	0.011	446	290	12	< 10	< 10	3	38.20	99.39

APPENDIX 5: ITEMIZED COST STATEMENT

a)	Personnel			
	T.Faragher, geologist			
	1 day	organizing supplies for drillling		
	18 days	spotting drillholes, supervising drilling, logging and sampling core, travelling between October 11 and 28, 1993		
	21 days	compiling and preparing report, reclamation information		
	40 days @ $350.00		$14,000.00	
	L. B. Halferdahl, geological engineer			
	7 days	planning and organizing drilling, drilling approvals, bids on drilling, drilling contract, reclamation bond		
	5 days	supervising drilling, logging core, travelling between October 11 and 15, 1993		
	8 days	supervising and preparing report, reclamation aspects		
	20 days @ $550		11,000.00	
	W. McGuire, draftsman, computer operator			
		preparing maps, computing analytical data		
	71 h @ $30.00		2,130.00	
	J. Vezina, assistant			
	13½ days	splitting and assisting with core, travelling, between October 15 and 28, 1993		
	@ $200		2,700.00	
				$29,830.00
b)	Food and Accommodation			
	35 man-days in motel and restaurants @ $46.24			1,618.40
c)	Transportation			
	Airfares			
	Edmonton-Prince George-Edmonton			
	2½ x 665.54		1,663.85	
	Vehicle Rental			
	18 days between October 11 and 28, 1993			
	4 X 4 truck	1,577.61		
	gasoline, repairs	571.98		
			2,149.59	

	Freight			
	Field gear	74.14		
	Samples	300.71		
			374.85	
				4,188.29
d)	Instrument Rental			
	Level			37.50
e)	Drilling (all inclusive - mob, demob, moving, water, trucks, accommodation and meals, metrage)			
	First 120 m		11,280.00	
	Remaining 227 m @ $84.80		19,249.60	
				30,529.60
f)	Analyses			
	198 samples prepared and analyzed for major and minor constituents by ICP @ $14.9053			2,951.25
g)	Report - typing, reproduction, assembly			1,038.00
h)	Other			
	Reclamation Bond fee		100.00	
	Base maps and aerial photos	239.46		
	Field Supplies		214.47	
	Telephone and fax		52.96	
	Courier		10.69	
				617.50
				$70,810.62

APPENDIX 6
QUALIFICATIONS

T.A. Faragher obtained a degree in geology from the University of Alberta, Edmonton in 1988. He has had six years of experience in mining exploration.

The work described in the report was under the supervision of L.B. Halferdahl, who obtained degrees in geological engineering and geology from Queen's University, Kingston, Ontario, and The Johns Hopkins University, Baltimore, Maryland. He has more than 30 years experience as a practising engineer and geologist in research and mining exploration, including consulting since 1969. He is a member of the Canadian Institute of Mining and Metallurgy, and is registered as P. Eng. and P. Geol. in the Association of Professional Engineers, Geologists, and Geophysicists of Alberta, and registered as P. Eng. in the Association of Professional Engineers and Geoscientists of British Columbia.