87-SEE-16230

6/88

ASSESSMENT REPORT

ON THE

KAMAD 6, 7, 8 CLAIMS

Kamloops Mining Division, British Columbia

NTS: 82M/4W

Lat: 51° 8'N, 24" Long: 119° [redacted]'W, 48'12"

FILMED

~~Owner:~~

Kamad Silver Co. Ltd.
2095 West Trans Canada Highway
Kamloops, British Columbia
V1S 1A7

Operator: owner

Esso Minerals Canada
A Division of Esso Resources Canada Limited
1600 - 409 Granville Street
Vancouver, British Columbia
V6C 1T2

Report By:
J.M. Marr

September 11, 1987

Distribution:
Ministry - 2
Kamad Silver - 1
EMC Files - 1
Field - 1

582.B

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LIST OF MAPS

1.0 INTRODUCTION

The Kamad 6, 7 and 8 Claims (34 units total) lie in the vicinity of Adams Lake some 60 km northeast of Kamloops (see Map 1).

They are located in rolling plateau country near the headwaters of Homestake Creek immediately south of Samatosum Mountain. There are now a variety of logging roads across the area which connect eastwards onto the main haulage road along the west side of Adams Lake.

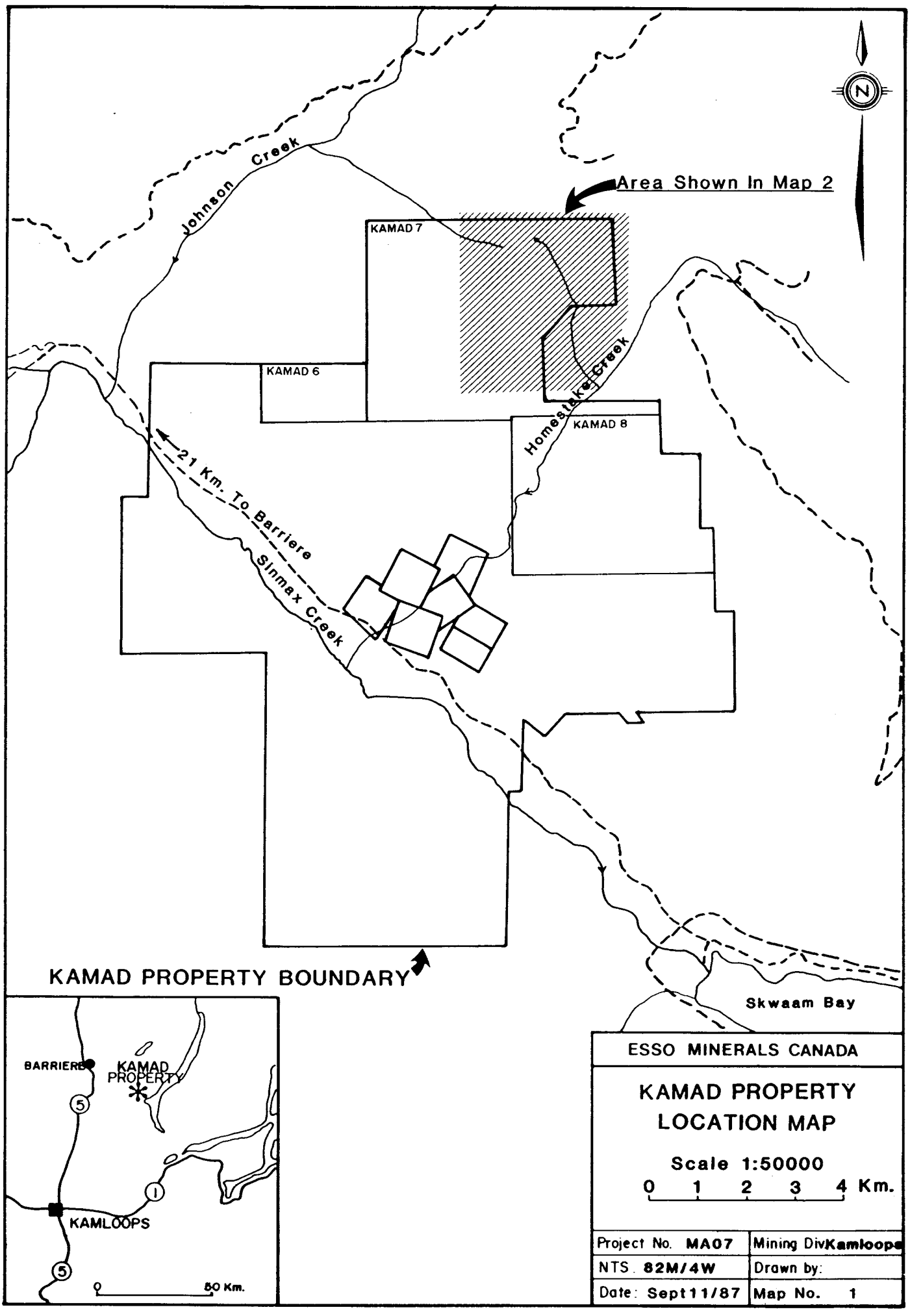
There is accommodation both at Skwaam Bay to the south and at Johnson Lake to the north of the claims.

2.0 OWNERSHIP AND CLAIMS

The Kamad 6, 7 and 8 claims are part of a larger land package which is presently under option by Esso Minerals Canada from Kamad Silver Company Ltd. This agreement is dated December 23, 1985.

Assuming acceptance of this assessment work, the claim situation will be as follows:

Claim	Record No.	Units	Expiry Date
Kamad 6	2690	2	1992-06-27
Kamad 7	2691	20	1992-06-27
Kamad 8	2692	12	1992-06-27


Johnson Creek
Area Shown In Map 2
KAMAD 7
KAMAD 6
KAMAD 8
Homestake Creek
21 Km. To Barriere
Sinmax Creek
KAMAD PROPERTY BOUNDARY
Skwaam Bay
BARRIERE
KAMAD PROPERTY
5
1
KAMLOOPS
5
0
50 Km.
ESSO MINERALS CANADA
KAMAD PROPERTY
LOCATION MAP
Scale 1:50000
0 1 2 3 4 Km.
Project No. MA07
Mining Div Kamloops
NTS 82M/4W
Drawn by:
Date: Sept 11/87
Map No. 1

3.0 HISTORY AND PREVIOUS WORK

There is no record of work in this area before the discovery of the Rea Gold Zone to the north of Kamad 7 by prospector Al Hilton in 1983. This caused geophysics and minor diamond drilling to be carried out in 1983 on the Kamad 7 claims. Further geophysics followed in 1984. Five holes (369.7 m) were drilled on this same claim in 1985 for a company described as 259146 B.C. Limited.

Esso Minerals carried out basic linecutting and geochemical sampling on the claim in advance of the diamond drilling described below.

4.0 SUMMARY OF WORK

This report presents, for assessment purposes, five diamond drill holes which were completed on the Kamad 7 claim between September 11 and 23, 1986. Location of these holes is shown on Map 2.

5.0 DRILLING

5.1 Logistics

The five diamond drill holes reported here were completed by G and D Diamond Drilling Ltd. of Kamloops, B.C. using a skid-mounted Longyear 38. Most drill sites were located near existing skid roads or were located in clearcuts. All holes were drilled in NQ diameter.

Tabulated data for the holes are as follows:

HOLE	LOCATION	ELEV'N (m)	INCL'N (°)	AZ. (°)	LENGTH (m)	DIP TESTS
KAM-1	86+00E 2+00N	1457	-45	222	161.1	59.7m - 44.5° 123.8m - 44.5° 161.5m - 44.5°
KAM-2	86+00E 2+00N	1457	-85	222	166.7	75.3m - 78.5° 166.7m - 71°
KAM-3	87+50E 2+25N	1455	-45	222	169.2	77.7m - 42° 169.2m - 44.5°
KAM-4	89+00E 3+25N	1440	-45	222	134.4	62.2m - 45.5° 131.4m - 44.5°
KAM-5	89+00E 3+25N	1440	-87	222	168.2	74.4m - 83° 167.6m - 81°

The drill holes were completed in the period September 11 - 23, 1986. All core was logged by J. Oliver on site. He had worked in the area previously for other companies and had extensive experience with the lithologies drilled.

Core boxes were labelled and shipped to Kamloops for storage in an indoor warehouse. Core storage is currently at 2664 Tranquille Road, Kamloops, B.C.

Drill hole locations are shown on Map 2 and drill logs are filed in Appendix 1.

5.2 Interpretation of Results

The purpose of this drilling was to test a contact zone between mafic volcanics and sediments which runs northwesterly across the Kamad 7 claim.

Minor pyrite had been located in cherts and argillites along this contact which flanks a thick mafic volcanic assemblage to the northeast. Trenching in the area had indicated an impenetrable ferricrete crust in local areas. The contact zone had a weak electromagnetic expression and a diffuse soil geochemical expression.

Results and interpretation of the drilling are as follows:

- KAM-1 and KAM-2

  These holes were drilled from the same set-up to test the downdip potential of a strong ferricrete zone exposed by trenching. These holes intersected a zone of chert, sericitic chert and sericitic phyllite at depths of 114.3 m (KAM-1) and 140.2 m (KAM-2). At this horizon, the zone is mineralized with disseminated foliation-parallel pyrite, averaging 4-5%. A dip of 45^{o} northeast is indicated. Massive sulphides were not intersected.

- KAM-3

  Drill hole KAM-3 again intersects a similar zone at a depth of 109.65 m. The mineralized horizon is approximately 26.0 m thick and is heavily faulted, both internally and at its lower contact. Within the sericitic chert member of this complex horizon, pyrite is uniformly distributed, averaging 8-10%. Stratigraphic hanging wall volcanics (structural footwall) are poorly developed within this section. Hanging wall sediments are encountered at the bottom of DDH KAM-3.

- KAM-4 and KAM-5

  These two holes were again drilled off the same set-up, intersecting the target chert-sericitic chert-sericitic phyllite horizon. Disseminated pyrite is present throughout and locally occurs in veinlets, in amounts up to 15%. Mafic volcanics are again intersected in the upper part of the hole with sediments appearing at the bottom.

6.0 STATEMENT OF COSTS

Direct drilling costs, i.e. invoices paid directly to the drilling company, totalled $47.05/metre. This figure includes the cost of mobilization, site preparation, coring, water line maintenance, drill moves and casing. It does not include any associated costs for core logging, core splitting, analyses or other associated costs.

Costs being applied in this report are simply a multiple of the meterage drilled in the five holes times the above figure. Breakdown is as follows:

KAM-1 - 161.1 m x $47.05/m	=	$ 7,579.75
KAM-2 - 166.7 m x $47.05/m	=	$ 7,843.23
KAM-3 - 169.2 m x $47.05/m	=	$ 7,960.86
KAM-4 - 134.4 m x $47.05/m	=	$ 6,323.52
KAM-5 - 168.2 m x $47.05/m	=	$ 7,913.81
Applicable Costs		$37,621.17

STATEMENT OF QUALIFICATIONS

1. I, John M. Marr, of 2630 Haywood Avenue, West Vancouver, B.C., graduated with a B.Sc.(Hons) from the University of St. Andrews, Scotland in 1968.

2. I completed an M.Sc. in Geology at the University of Manitoba in 1970.

3. I have been continuously employed in exploration geology since that time, all but the first two years with Esso Minerals Canada.

J. M. Marr

STATEMENT OF QUALIFICATIONS

I, JIM L. OLIVER, of the City of Kamloops, Province of British Columbia, DO HEREBY CERTIFY THAT:

1. I am a Project Geologist with Esso Resources Canada, with a business office at 4377 Karindale Road, Kamloops, B.C. V2C 1Z3.

2. I hold a combined degree, Bachelor of Science, Honors Geology and Geophysics, granted by the University of British Columbia, 1982; with a Master of Science in Geology by Queen's University, 1985.

3. I have actively practised my profession as a geologist for the past seven years.

   Pregraduate experience includes exploration for gold and base metals in Ontario, the Southwestern United States and in British Columbia (1982-1986). Terms of employment have been held with:

The Ontario Geological Survey	Summer 1983
Roxmark Mines	Winter 1983
Falconbridge Copper	Summer 1984
Spirex Geoservices	Winter 1984
Esso Minerals Canada	Summer 1985
Labyrinth Exploration	Winter 1985

4. I supervised all aspects of a comprehensive geological exploration program carried out on the Kamad property between March 17 and October 10, 1986.

5. I own no direct, indirect or contingent interest in any of the subject claims, nor shares in, or securities of Kamad Silver Corporation.

Jim L. Oliver

Jim L. Oliver, M.Sc.
October 1986.

APPENDIX 1

a) DIAMOND DRILL LOGS - KAM 1-5

b) LITHOGEOCHEMICAL RESULTS - KAM 1-5

ML 85-6A

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. KAM - 1
PAGE 1 OF 15
PROJECT MA - 07
LOGGED BY: J. OLIVER

COLLAR COORDINATES L 86+00 E
2+00 N
COLLAR ELEVATION 1457 m
AZIMUTH 222° DIP -45°
TOTAL LENGTH 161.1
HORIZONTAL PROJECTION 113
VERTICAL PROJECTION 113

CONTRACTOR G. Shaw
CORE SIZE NQ
DATE STARTED Sept 11/86 DATE COMPLETED Sept 14/86
AVERAGE CORE RECOVERY 95%

PURPOSE

COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH
59.7m	-44.5°				
123.8m	-44.5°				
161.5m	-44.5°				

LEGEND

SUMMARY LOG

0 - 8.8 Casing.
8.8 - 29.5 Carbonitized Mafic Flows
29.5 - 36.5 Medium grained Mafic Lapilli Pyroclastic.
36.5 - 51.4 Silicified Mafic Lapilli Pyroclastic.
51.4 - 82.2 Mafic Lapilli Pyroclastic
82.2 - 86.8 Mafic Flow
86.8 - 93.8 Medium Grained Mafic Lapilli Pyroclastic
93.8 - 109.2 Sericitic Mafic Lapilli Pyroclastic
109.2 - 114.3 Pyritic Tuffs
114.3 - 135.2 Chert, Sericitic Chert Sericitic Phyllite.
135.2 - 161.1 Intermediate Pyroclastic Fine Grained.
161.1 EOH.

ML 85-6B

PAGE 2 OF 15 | PROJECT: MA-07

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
				0	8.8	CASING
10				8.8	29.5	Carbonitized Mafic Flows and Lesser Lapilli Fragmentals This unit is characterized by the strong development of quartz carbonate veins and concomitant alteration. The general absence of fragmental material and the locally fine grained nature of the matrix, suggests the dominant primary lithology to be a mafic flow. Compositionally the matrix lacks free primary silica and on the cored surface is yellow greens in color, and fine grained, < 2.0 mm. No phenos visible. Alteration is dominated by a strong carbonitization, 30-40 % and potent quartz vein development. 30 % Quartz veins are typically accompanied by sericitic selvedges, 15 percent rock volume. Two stages of veining are noted and all are associated with disseminated sulphides: Py - 5 % Gl - Tr. Green micas, Fuchsite occasionally noted, < 0.5 %. 9.0 Foliation to CA : 085° 14.2 - 18.2 Quartz Vein Breccia and Stockwork. Silica content increases to 50 %, Pyrite may locally exceed 30 percent eg. 14.2-14.4 22.3 - 23.0 Broken Core. 23.5 - 23.9 Partially ground core, Fault not expected. 24.6 - 24.7 Gouge. 27.1 Foliation to CA : 83°. 29.5
				29.5	38.45	Medium Grained Mafic Lapilli Pyroclastic. Fragment density lean, matrix supported Significant flow component.

ML 85-6B

PAGE 4 OF 15 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
		100%				This lithology may be distinguished from the preceding one by the substantial decrease in quartz carbonate alteration, the lower sulphide content and by the presence distinctive 2.0 x 4.0 cm mafic pyroclastic Fragments.
						Alteration: Calcium carbonate is the dominant alteration form, and occurs as pervasive carbonitization 40% Porphyroblasts of calcite average 1.0 mm Delicate
						Finely reticular sericite may be noted and forms the primary foliation surface. Carbonate amygdales to 0.5 cm common.
						Color: medium grey green
						Sulphides: Diss. Py, < 2%
						31.7 Foliation to CA: 073°
						36.45
	75			36.45	51.4	Silicified Mafic Lapilli Pyroclastic
						Strong silica addition, usually as discordant 2.0 - 4.0 cm veins characterize this unit. Well defined lapilli sized fragments alter yellow
						green and are set off against a medium green mafic matrix.
						Sulphide content remains low, Py < 2%. Carbonatization has significantly weakened.
						42.6 - 46.2 Quartz veining decreased in this section. Primary fragmental, lapilli textures frequently noted. Fragments appear to be elongate ovals and may have chloritic reaction rims.
						47.4 - 48.0 Broken Core.
						49.0 Foliation to CA: 090°
						51.4
	90			51.4	82.2	MAFIC LAPILLI PYROCLASTIC
				Correlates	well	This lithologic sequence is defined
				with	Kam-2	by a highly homogeneous medium to dark green mafic fragmental.
						Fragments range to 2.0 x 5.0 cm,

ML 85-6C

PAGE 3 OF 15 | PROJECT: | HOLE NO. Kom 1

ALTERATION: Silica	Ser	CaC	GrMic			TOTAL SULPHIDE	SAMPLES: FROM	TO	WIDTH	SAMPLE NUMBER	ASSAYS				
							10.5	12.0	1.5	12720		LI	THO		
							14.2	15.2	1.0	12721		LIT	HO		

ML 85-6C

PAGE 5 OF 15	PROJECT:	HOLE NO. Kam 1

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Seric.	Carb						FROM	TO	WIDTH						
								34.1	35.6	1.5	12722		LITHO			

ML 85-6B

PAGE 6 OF 15 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
						chlorite remains intact. Relative to sections up hole, Fragment density has increased, to 35% rx volume. Calcite is present throughout the matrix with vein calcite being an exception.
						70.6 Foliation to CA: 068°
						73.7 - 82.2 A yellow greenish tinge has been imparted to the rxs, by the onset of weak sericite. Yellow green sericite Forms the principle foliation surface. Sericite is extremely Fine grained and noted as slightly contorted hair like lamella. This
						increase is accompanied by a decrease in calcium carbonate.
						82.2
				82.2	86.8	MAFIC FLOW
						A Fine grained grey green Flow series. Fine reticular crackle and Flow "top" breccias are noted at the upper contact. Alteration remains light Fragments are
						less 5% rx volume and usually small < 2.0 cm.
						85.1 Two planar Fabrics developed.
						1.) Foliation to CA: 047°
						2.) Ax. Pl. Cleav to CA: 045° - ⊥ to F_1.
						86.8
				86.8	93.8	Medium GRAINED MAFIC LAPILLI PYROCLASTIC
						We have returned to a pyroclastic series. Fragments appear to be medium to coarse grained and distinctively yellow green elongate 3x5 cm ovals.
						Chloritic reactions rims appear to be Fairly common and it possible that they represent micro pillows, "buds".

ML 85-6C

PAGE 7 OF 15	PROJECT:	HOLE NO. Kam 1

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Seric.	Carb.						FROM	TO	WIDTH						
							Py TRACE									
								69.0	71.5	1.5	12723	L	ITHO			

ML 85-6B

PAGE 4 OF 15 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
						At this section of the logs, alteration is consistently light. With weak disseminated carbonate, light sericite and silica present only as late stage discordant quartz veins, 5-8% ex volume. Sulphides are absent.
						92.6 Foliation to CA 085°
					93.8	
	72%	100%		93.8	109.2	SERICITIC MAFIC LAPILLI PYROCLASTIC The upper contact of this unit is gradational over 1.5 - 2.0 meters. A moderate increase in sericite is the principle distinguishing feature of this lithology. Sericite occurs both as the principle foliation surface and as a preferential alteration of well defined lapilli sized fragments. The intensity of sericitization and silicification increases towards the lower contact. In terms of footwall alteration within a volcanic series this zone is light. Papery or even platy sericitic cleavages are not developed. Fragments occupy 30-40% ex volume, are matrix supported and within the middle ranges of the lapilli scale.
						103.8 - 109.2 Density of foliation parallel quartz veins and veinlets increases, 35% ex volume. Even within this zone of silicification net sulphide content has remained very low. Disseminated Py < 2%.
						107.5 Foliation to CoA.: 087°
					109.2	
		100%		109.2	114.3	PYRITIC TUFFS AND TUFFACEOUS CHERTS This distinctive lithology is characterized by: 1) It's fine grained, ash to fg lapilli, grey blue texture. 2) By the presence of finely disseminated ubiquitous Py, 20% 3) Distinctive Ca carbonate ovoids < 3.0 mm. 4) Silica rich sections are noted within

ML 85-6C

PAGE 9 OF 15	PROJECT:	HOLE NO. Kam 1

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silicg	Sericite	Carbon.						FROM	TO	WIDTH						
							TRACE	94.7	96.3	1.5	12724		LI	TH	O	
								106.0	107.5	1.5	12725		LI	TH	O	
								116.7	118.3	1.5	12726		LIT	HO		

ML 85-6B

PAGE 10 OF 15 PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
						this series, these Frequently dislay well developed highly angular clasts or Fragments and may have a weak sericitic Foliation surFace. These are tentatively identiFied as tuFFaceous cherts, eg. between 111.7 and 112.2 110.3 - 110.7 Distinctive black chert interbed. Bedding to CA well defined at: 090° Bedding parallels Folintion.
		95%		114.3	135.2	114.3 Chert, Sericitic Chert, Argillaceous Chert This package of lithologies dominanted by Fine grained clastic sedand chemical sediments are lateral equivalents of the Silver Zone. Within this section three varieties of the mineralized horizon are present: 1) Cream - Clean Cherts. - Generally massive light grey classical cherts. Weak ribbon banding and tectonic brecciation. - 20% of section. 2.) Black Cherts with interbedded Argillites, 50 % of the section. A distinctive lamella appearance is produced by compositionally layer of dark clastics and grey cherts. Spectacular tectonic Features, microcrenulations, Folds, depositional breccias Frequently noted. 3) Sericitic cherts Banded yellow cream and grey cherts. Strong sericite and sulphide accumulations produce a Finely lamellar appearance. These occupy 30% of the section. 114.3 - 117.3 Black Chert - Argillaceous Chert. Fault contact From 114.3 - 116.4 . Major Failure. 117.1 - 117.3 Minor sericitic chert band, 10 - 12° Py as Folintion parallel laminations.

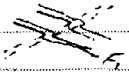
ML 85-6C

PAGE 11 OF 15	PROJECT:	HOLE NO. Kam 1

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Seric	Carb						FROM	TO	WIDTH						

ML 85-68

PAGE 12 OF 15 PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
						117.2 Bedding to CA: 055°
						117.3 - 118.6 Massive cream chert
						118.6 - 122.2 Sericitic Chert. Py well bedded within thin < 1.0 cm sericite rich layers.
						120.7 - 121.9 QUARTZ Vein.
						122.2 - 135.2 Black Chert - Argillaceous Chert
						124.5 - 126.1 QUART - Carbonate Vein and healed breccia and fault zone. Minimum of two vein stages.
						129.0 - 129.5 Broken and partially ground core. Two planar Fabrics: F_1 Comp. Lay. 069°
						F_2 Crenul. Cl 065  F_2 F_1
						133.7 - 135.2 Slightly more sericitic variety of argillaceous chert.
						NOTE Throughout the preceeding section, 114.3 - 135.2 Py pyrite and arsenopyrite commonly occur as small discontinuous lenses averaging 0.5 cm in width.
						Occassional sulphide clasts and disseminated sulphides are also noted Net sulphide content averages 10%.
						135.2
				135.2	161.1	FINE GRAINED Intermediate Lapilli Pyroclastic Flow
						This somewhat "unexpected" unit shares a sharp contact with the structurally overlying cherts. The rock is a pale blue grey in color with touches of medium green locally. The matrix
						is Fine grained and consists almost exclusively of slightly blurred quartz-feldspar fragments (angular) weakly surrounded by cream colored calcium carbonates. Most of the fragments are < 3.0 mm, and
						the matrix appears to be fragment supported. Contorted quartz veins are common, and occupy about 15% of the section. On the cored surface individuals fragments are best distinguished
	92	100%				

ML 85-6C

PAGE 13 OF 15	PROJECT:	HOLE NO. Kum 1

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
								FROM	TO	WIDTH						
								118.6	119.5	1.5	12727		LITH	O		
								132.0	133.5	1.5	12728		LITH	O		

ML 85-6B

PAGE 14 OF 15 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
						on a dry surface where delicate shadows and shading effects are best noted. Approximately 5% of the matrix consists of a delicate irregular sericitic lamination, with weakly disseminated Pyrite. This unit shows several features which suggests that it is conformable with the overlying chert sequence.
						136.6' Foliation to CA 080°
						151.3 - 151.5 Minor Fault
						151.5 - 154.3 Slightly stronger sericite and quartz vein development. Py locally increased near vein margins.
						157.9 - 159.0 Elevated sericite and distinctive siliceous clasts or nodules.
						161.1 Foliation to CA: 083°
					161.1	
				161.1		EOH

ML 85-6C

PAGE 15 OF 15	PROJECT:	HOLE NO. Kam 1

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
								FROM	TO	WIDTH						
								143.6	145.1	1.5	12729		LI	TH	O	

ML 85-6A

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. KAM - 2
PAGE 1 OF 13
PROJECT MA - 07
LOGGED BY: J. OLIVER.

COLLAR COORDINATES L 86+00 E
2+00 N
COLLAR ELEVATION 1457 m
AZIMUTH 222° DIP -85°
TOTAL LENGTH 166.7 m
HORIZONTAL PROJECTION 23 m
VERTICAL PROJECTION 165 m

CONTRACTOR Glen Shaw
CORE SIZE NQ
DATE STARTED Sept 14-86 DATE COMPLETED Sept 15-86.
AVERAGE CORE RECOVERY

PURPOSE

COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH
75.3 m.	-78.5°				
166.7 m	-71°				

LEGEND

SUMMARY LOG

6.4 - 31.7 CARBONATIZED MAFIC FLOWS & LESSER FRAGMENTS
31.7 - 49.6 AMYGDALOIDAL MAFIC FLOWS & MINOR FRAGMENTALS
49.6 - 74.2 MAFIC FLOWS & PILLOWED SEQUENCES
74.2 - 101.8 MEDIUM GRAINED MAFIC LAPILLI PYROCLASTICS
101.8 - 109.5 MEDIUM GRAINED WEAKLY AMYGDALOIDAL MAFIC FLOWS
109.5 - 133.0 CALCAREOUS MAFIC LAPILLI PYROCLASTICS & LESSER FLOWS
133.0 - 140.2 SERICITIC MAFIC LAPILLI PYROCLASTIC
140.2 - 151.9 SERICITIC CHERT, CHERT
151.9 - 164.4 INTERMEDIATE ASH & FINE GRAINED LAPILLI TUFF
164.4 - 166.7 INTERMEDIATE FLOW

ML 85-6B

PAGE 2 OF 13 | PROJECT: MA 07 Kamad 7 Drilling.

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
				0	6.4	Casing
	55%	90%		6.4	31.7	Carbonatized Mafic Flows and Lesser Fragments. As in Kam-1, this highly unit forms the collar for Kam-2. The rock has a strongly bleached appearance due to the addition of significant calcium carbonate and silica. Both assemblages are about equal and occupy 70-75% of rock volume. A weakly banded appearance may be produced by a moderate sericitic foliation surface. Net sulphide content averages between 5-8% and is dominantly pyrite. Trace galena is noted. Sulphides typically occur as small foliation parallel microveinlets and as irregular disseminations. The rx has a weakly developed spaced cleavage on 2.0-3.0 cm intervals.
						8.0 Foliation to CA: 045°
						8.8 - 10.8 Mismatch - Lost Core
						12.8 - 13.9 Broken core, 30 cm lost core
						15.7 - 16.2 Quartz Veining - broken core
						20.15 - 31.7 Stronger silicification and sericitization. Good development of Py microveinlets to 10%. Occassional fuchsite.
						30.5 Foliation to CA: 070°.
				31.7	49.6	31.7 Amygdaloidal Mafic Flows and minor Fragmentals. The principle distinguishing feature of this unit are ar series of quartz carbonate amygdales and foliation parallel veinlets. The unit has lightly disseminated sericite and a weak sericitic foliation surface. Quartz carbonate amygdales and veinlets comprise 50-60% rx volume. Texturally this unit has discontinuous compositional layering, related to quartz carbonate veinlets. Disseminated pyrite is the only sulphide and it averages less than 1%.

ML 85-6C

PAGE 3 OF 13	PROJECT:	HOLE NO. Kam 2

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Seric.	Ca Carb	Grn Mica					FROM	TO	WIDTH						
								6.4	7.9	1.5	12730		LI	THO		
								27.6	29.1	1.5	12731		LI	TH	O	

ML 85-6B

PAGE 4 OF 13 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
						35.8 - 36.6 Minor fault, disrupted fabrics and quartz veining.
						45.2 Crenulation cleavage, two fabrics: Foliation to CA: 070° Crenulation plane: 045°
5						47.4 - 49.6 Slight color change from medium green to yellow cream green, a slight increase in sericite and silica is noted. Calcite is greater than silica by a 4:1 ratio. Disseminated Py is also noted in this section, to 3%.
		70%				49.6
RS				49.6	74.2	MAFIC FLOWS AND PILLOWED SEQUENCES. This section is defined by a homogeneous and relatively unaltered flow series. Texturally, the rock is fine grained, regional chlorite after amphibole is
20	40 - 45	95%				intact and definitive chloritic pillow rinds may be identified. Very fine < 2.0 mm carbonate vesicles, filling lines?, may accassionally be noted. Alteration within this interval is very
1 SCALE						light. Late quartz carbonate tension gashes and veins are the predominant late stage alteration features. Trace Py is the only sulphide noted.
						52.2 Foliation to CA: 050°
2						59.5 Well defined pillow margin. The pillow is slightly more yellow green than the matrix and is approx. 15 cm across.
2						63.2 - 74.2 The rx in this interval is more heterogeneous with frequent quartz vein, patchy sericite development and accassional flow top breccias eg 64.6 - 65.6 71.5 - 72.1 Fault breccia, containing 5% Py.
						74.2

ML 85-6C

PAGE 5 OF 13	PROJECT:	HOLE NO. Kam 2

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Sericite	Ca. Carb						FROM	TO	WIDTH						
								44.7	46.2	1.5	12732		LI	TH	O	

ML 85-6B

PAGE 6 OF 13 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
	65%	95%		74.2	101.8	Medium Grained Mafic Lapilli Pyroclastic This distinctive pyroclastic may be correlated with the same unit noted in DDH KAM-1 between 51.4 and 82.2. Fragments in this unit average 3.0 - 4.0 cm and occupy 30% rx vol. These pyroclasts are subangular ovals and occassional appear to be broken. They generally only a slightly paler green than the supporting matrix and are Flecked with chlorite porphyroblasts. Alteration within this section is light, with a moderate HCl response related to finely disseminated calcium carbonate. Trace disseminated pyrite is the only sulphide noted. 80.2 Foliation to CA: 060° 100.3 - 101.2 Potential Flow series or pillow breccia embayed on either side by a Fragmental series General note: This section has cored extremely well and is devoid of faults or significant tectonic Features.
		100%		101.8	109.5	101.8 Medium Grained Weakly Amygdaloidal Mafic Flows. This Flow sequence is quite similar to the mafic Flows noted at 49.6 to 74.2. Pillow margins are occassionally noted eg at 103.3. Sericite and carbonate are beginning to become slightly more prominent, but the overall level of alteration remains light. 104.5 Foliation to CA: 054° Foliation surFace parallels pillow selvedges. 109.5
				109.5	133.0	Calcareous Mafic Lapilli Pyroclastics and Lesser Flows This single most important identifying characteristic of the rx in this sectiony is the abundance of Foliation parallel

ML 85-6C

PAGE 7 OF 13	PROJECT:	HOLE NO. Kam 2

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Sericite	Carbon.						FROM	TO	WIDTH						
							Trace Py									
								90.0	91.5	1.5	12733		LI	TH	O	
								103	105.5		12734		LI	TH	O	
							Trace Py									

ML 85-68

PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
	90%	100%				quartz carbonate stringers. This veins are 2.0 to 3.0 cm wide, are discordant to Foliation about 20% of the time. Quartz carbonate veinlets total approximately 30% rx volume. It may be significant, that no sulphides are associated with these veinlets.
						111.8 Two planar Fabrics: Foliation to CA: 055° Crenulation plane to CA: 047° ∠ to Foliation.
						109.5 - 116.4 Flow sequences predominate.
						122.0 - 122.8 Yellow cream, silicified and weakly sericitized lapilli pyroclastic Trace disseminated Py.
						132.0 Foliation to CA: 059°
						133.0
				133.0	140.2	SERICITIC MAFIC LAPILLI Pyroclastic. This distintive yellow green medium grained pyroclastic unit occupies the stratigraphic Footwall to the Silver Zone. Madium to coarse grained lapilli sized fragments are characteristic yellow green and stand out against a darks to medium green chloritic matrix.
	< 40	95				The principle alteration consists of calcium carbonate, sericite and lesser silica. Sulphides are only rarely developed in this section and most common toward the lower contact.
						Pyrite occurs, 3%, as Foliation parallel disseminations and usually in areas of stronger sericite and silica.
						137.6 - 138.4' Very early partially healed Fault. Pyroclastics broken without gouge development.
						139.0 Foliation to CA: 055°
						140.2
	85 - 90			140.2	151.9	SERICITIC Chert, Chert. This mineralized horizon contains both sericitic cherts and pale grey pyritic cherts. The distinctive black cherts and argillaceous cherts noted in PDH KAM-1 are conspicuously absent from this section. Major Faults are present throughout this zone

ML 85-6C

PAGE 4 OF 13	PROJECT:	HOLE NO. Kam 2

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silicg	Sericite	Ca Carb.		Si	Si	Carb		FROM	TO	WIDTH						
								117.4	118.9	1.5	12735		LIT	HO		
								137.5	139.0	1.5	12736		LI	THO		
								141.6	143.1	1.5	12737		LIT	HO		

ML 85-6B

PAGE 10 OF 13 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
						and it is suspected that the black chert and argillaceous members of this horizon have been faulted out. The entire is significantly than noted in DDH KAM-1.
						140.2 - 144.7 Yellow cream sericitic chert. It is possible that this unit is a silica flooded mafic pyroclastic. The general absence of mafic by products From this process eg Fuchsite, Fe carbonates, argues against this.
						144.7 - 151.0 Medium grey pyritic chert. Extensively Faulted and in fault contact with sericitic cherts on both upper and lower contacts.
						144.7 - 146.2 Major Fault. Strong gouge development, but good core recovery. Py to 10%, disseminated and as Foliation parallel microveinlets.
						146.2 - 146.6 Relatively intact grey chert, disseminated Py and coarse Py associated with late veins to 8%.
						146.2 - 146.8 Minor Fault.
						147.5 - 148.3 Major Fault, well developed gouge.
						150.6 - 151.0 Major Fault, - 1.1 meter last core.
						151.0 - 151.9 Sericitic Chert., moderately talcose.
						151.2 Foliation to CA 053°
				151.9	164.4	151.9 ~~Pyritic~~ Intermediate Ash and Fine Grained Lapilli Tuffs. This unit may be identified as an intermediate ash fall based on:
						1.) Fragment size, 2.0 - 3.0 mm Feldspar and lithic fragments comprise 70% of rx volume.
						2.) Free quartz is absent, but the color index is significantly above a mafic field. Color is dominated by grey blues.
						3.) The unit lacks reworking or other detrital features, although most fragments have slightly blurred indistinct edges.

ML 85-6C

PAGE 11 OF 13	PROJECT:	HOLE NO. Kam 2

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
								FROM	TO	WIDTH						
								147.5	149.0	1.5	12738		LI	TH	O	

ML 85-6B

PAGE 12 OF 13 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
	85-90	100				Pyrite is disseminated throughout this relatively homogeneous section, as is sericite. The form of the sericite is somewhat unusual as it forms a delicate anastomosing to reticular network with a weaker alignment to the primary foliation surface. This fabric appears to be produced by the ubiquitous presence of competant feldspar fragments which deflect the foliation. Ptygmatic quartz veins may occassionally be noted.
						155.0 - 158.2 Minor Fault 157.3 Foliation to CA 061° 158.1 - 158.5 Minor Fault. 164.4
	90	100		164.4	166.7	Intermediate Flow This unit is a massive homogeneous intermediate flow series. Well defined feldspar phenocrysts are intact and unaltered. Mafics comprise about 30% of the column, chlorite after amphibole. No free quartz is noted and it is suspected that the rx is in a low intermediate field. This flow series appears to be unaltered and carries no sulphides.
						166.4 Contact Fault 167.4 Foliation to CA 061°
				166.7	EOH	

ML 85-6C

PAGE 13 OF 13 | PROJECT: MA 07 | HOLE NO. KAM 2

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Sericite	Ca Carb.						FROM	TO	WIDTH						
								156.1	157.6	1.5	12739		LITH	O		
								164.7	166.2	1.5	12740		LITH	O		

ML 85-04

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. KAM - 3
PAGE 1 OF 15
PROJECT MA - 07
LOGGED BY: J. OLIVER

COLLAR COORDINATES L 81 + 50 E
2+25 N
COLLAR ELEVATION 1455 m
AZIMUTH 222° DIP -45
TOTAL LENGTH 169.2 M
HORIZONTAL PROJECTION 130 m
VERTICAL PROJECTION 117 m

CONTRACTOR G. D. Shaw
CORE SIZE NQ
DATE STARTED Sept 15/86 DATE COMPLETED Sept 18/86
AVERAGE CORE RECOVERY
PURPOSE
COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH
77.7m	-42°				
169.2m	-44.5°				

LEGEND

SUMMARY LOG

9.8 - 45.8	MAFIC PYROCLASTICS & TECTONIC BRECCIAS
45.8 - 59.7	WEAKLY SERICITIC MAFIC FLOWS
59.7 - 69.9	SILICIFIED MAFIC LAPILLI PYROCLASTIC
69.9 - 74.9	MAFIC LAPILLI PYROCLASTIC
74.9 - 92.7	MAFIC FLOWS - AMYGDALOIDAL FLOWS
92.7 - 109.65	INTERBEDDED SILTITES, ARGILLITES; TURBIDITES
109.65 - 123.65	TALCOSE CLAY + MUDSTONE MINOR CHERT
123.65 - 140	ARGILLACEOUS CHERT - SERICITIC PHYLLITES
140 - 148.3	MAJOR FAULT
148.3 - 153.3	INTERMEDIATE VOLCANIC
153.3 - 169.2	FINE GRAINED QUARTZ RICH EPICLASTICS, MINOR BLACK CHERT + ARGILLITE

ML 85-6B

PAGE 2 OF 15 | PROJECT: MA 07

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
				0	9.8	CASING
10	0	100		9.8	45.8	MAFIC LAPILLI PYROCLASTICS AND TECTONIC BRECCIAS. The rock within this section is characterized by medium grained lapilli pyroclastics slightly yellow green in color due to weak sericite and carbonitization. Fragments are matrix supported, subrounded and occupy 20-25 % rx volume. Weak sericite forms the predominant foliation surface, and carbonate is dissemenated at low levels uniformly across the matrix. Sulphides exist only in association with late quartz veins.
15			LC	12.3	14.0	
			LC	16.3	17.1	
20	0		LC	18.8	20.1	
25	10-15			22.8	23.0	10.5 Well defined lapilli fragments. 14.1 - 14.3 Tectonic Breccia
						18.3 - 21.3 Major Fault, lithic and quartz fragments rounded and milled. 22.4 Well defined lapilli fragments. 24.2 - 29.3 Slight increase in sericite and silica.
30	60-65	100				29.3 - 30.2 Fault and Fault bx., good fragment rotation. 30.6 - 30.8 Healed tectonic breccia 31.4 - 31.7 QUARTZ Vein 32.6 - 34.8 Slightly less broken core
35						fragments well defined, weakly vesicular, possible Flow compent to pyroclastic. 33.5 Foliation to CA: 080°.
40						37.3 - 38.2 Major fault, orientation of fragments within fault: 055°. 38.8 - 39.5 Fault, strong Q.V. + 20% Py.
	70	100				39.5 - 45.8 Well defined fragmental, weak flow components near lower contact. Core slightly less blocky.

45.8

ML 85-6C

PAGE 3 OF 15 | PROJECT: | HOLE NO. Kam -3

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Ser	Carb						FROM	TO	WIDTH						
								38.8	39.8	1.0	12741	Pb, Zn, Ag, Au, Cu, As				

0
5
10
15
20
25
30
35
40
45

ML 85-6B

PAGE 4 OF

PROJECT: MA 07

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
45				45.8	59.7	WEAKLY SERICITIC MAFIC FLOWS. The unit may be distinguished by its fine grained light yellow green matrix and by the presence of finely reticular sericite and quartz microveinlets. The fine grained matrix may be moderately vesicular with 1.0 - 2.0 mm vesicles infilled with quartz and calcite. Pyrite is disseminted throughout the section in low < 2% quantities.
50						46.6 - 47.1 QUART Veining. 47.2 - 48.1 Elevated sulphide content, dissemin. and as quartz vein selvedges. 48.7 Foliation to CA 060°
55						50.6 - 50.1 Minor Fault, Foliation parallel. 54.3 - 55.0 Partially ground core and silicified, moderately fault structure.
						55.7 - 56.0 Broken core
60						58.2 - 59.7 MAJOR Fault - Contact Fault. Well rounded weakly sericitic mafic fragments are embayed within a heavily ground matrix. 59.7
				59.7	69.9	SILICIFICIED MAFIC LAPILLI PEROCLASTIC This unit is characterized by a moderately to strongly bleached lapilli pyroclastic. Silica typically occurs as foliation parallel veins and veinlets, is associated with sericitic selvedges and may have knots and disseminations of pyrite to 8%. As in the preceding section this rock experiences frequent brittle failure. 60.1 - 62.1 Fault 60.1 Distinctive lapilli fragments.
65						64.1 - 65.3 QUARTZ vein, carries strong pyrite within a brecciated matrix. 65.3 - 67.4 Good silicification and moderate diss. pyrite, analogous to footwall alteration.

NOTE SCALE CHANGE 75-80

20

100%

ML 85-6C

PAGE 5 OF 15 | PROJECT: MA 07 | HOLE NO. Kam 3

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Seri	Carb	Grn Mc					FROM	TO	WIDTH						
								45.9	46.9		12742		LI	THO		
								47.2	48.7		12743		LI	TH	O	
								64.1	65.3		12744	Pb	Zn, Ag	Au,	As,	Cu

ML 85-6B

PAGE 6 OF 15 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
65						68.2 - 68.6 Minor Fault, partially ground core. 69.1 Foliation to CA 082°
70		100		69.9	74.9	69.9 MAFIC LAPILLI PYROCLASTIC. This change in rock "type" is one of alteration not lithology. The well developed sericite, moderate silicification and disseminated pyrite is significantly reduced. The rock has far weaker fault developments, suspected relation to late alteration, ie strain facies?
75		100		74.9	92.7	74.9 MAFIC Flows - Amygdaloidal Flows and Carbonatized Flows. This interval is distinguished by a well demarcated flow sequence. Alteration is initially very low in this series but markedly increases near the halfway point where moderate silicification, sericite and significant dolomitization occur. Sulphides are disseminated in low, 1 2 % amounts. 78.1 - 78.4 Minor Fault
80						79.6 Well preserved Flow, Fine grained medium gray green, occasional late quartz carbonate vein. 81.1 - 89.7 Sericite content, carbarnate and disseminated pyrite increased.
85	75-80	100				No evidence of Fragments, primary Flow origin assumed. 85.7 - 85.9 Minor Fault 86.3 - Potential Flow banding poorly developed at: 055° to CA. 87.4 Foliation to CA: 070°
90						89.7 - 92.5 Medium gray, moderately carbonitized, lightly sericitized mafic Flow? Primary origin very enigmatic, probably due to alteration effects near lower contact.

ML 85-6C

PAGE 7 OF 15	PROJECT:	HOLE NO. Kam 3

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Seri	caCarb						FROM	TO	WIDTH						
								65.2	66.65		12755		LITHO			
								86.9	89.4		12745		LITHO			

75

80

85

90

ML 85-6B

PAGE 8 OF 15 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
90						92.0 - 92.4 Minor Fault, broken core and minor quartz. 92.4 - 92.7 Gradational contact with Fine grained epiclastics. 92.7
				92.7	109.65	Interbedded Siltites - Argillites ; Turbidites This very unique rock type has not previously been noted. The hallmark of this unit is the development of well defined bedding and compositionally layering 4-15 cm's in width.
95						Definitive load and scour structures generally indicate down hole younging, with occasional reversals. Compositional layers are composed of light grey quartz rich siltites interbedded with black clastics and argillites. General
	45-50					Facies relations and textures suggest deep water turbidity flows. Foliation frequently at high angles to bedding. Alteration and sulphide development is virtually nonexistant. 95.85 Bedding to CA: 050°
100						Foliation to CA: 045 Downhole younging. 98.4 Scour structure, younging downhole.
						100.3 - 101.2 Broken Core. Note Core recovery and general absence of Fault structures are noteworthy throughout this series of laminated sediments.
105						107.2 Bedding reversal, younging uphole. 107.6 Minor Fault. 107.6 - 109.3 Very delicate, 1.0 to 2.0 compositional layer. Ubiquitous crenulation cleavage: Compositional layering to CA: 085 Crenulation, m.f.ax.pl: 047°
110						109.65.
				109.65	123.65	Talcose Clay and Mudstones, Minor Chert. Within this section are a series of extremely Fine grained, lightly to moderately sericitic and talcose Fine grained clastic

ML 85-6C

PAGE 9 OF 15	PROJECT:	HOLE NO. Kam 3

ALTERATION							SAMPLES				ASSAYS				
Silica	Seri.	CaCarb				TOTAL SULPHIDE	FROM	TO	WIDTH	SAMPLE NUMBER					
							102.5	104.0		12746	LITH		O		

ML 85-6B

PAGE 10 OF 15 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
	45-50					and chemical sediments. The Form and alteration of these sediments suggest that they have replaced volcanic lithologies in the immediate Footwall zone.
						109.8 - 111.1 Partial Failure within a greenish buFF claystone.
						111.1 Foliation and compositional layering to CA: 045°
			LC	113.8	114.2	111.5 - 111.9 QUARTz Vein.
115						112.2 - 113.8 Disseminated pyrite and semi-massive pyrite, Semi.-massive From 113.7 - 113.8.
	40					113.8 - 116.6 Major Fault, Freqeunt quartz veining and gouge development.
						117.6 - 118.6 Talcose, moderately sericitic claystones and minor chert. Dissem. Foliation parallel pyrite to 5%.
	25					118.6 - 123.65 Major Fault, complete quartz vein replacement. Weak dark black stylolitic cleavages,
120			LC	120 -	120.9	limited potential For some primary quartz. Sulphides very low.
			LC	122.7	123.3	
				123.65	140.0	123.65 Argillaceous Chert - SERecitic Phyllite This heavily faulted zone consists of
125						two lithologic types separated by a large boundary Fault. The structurally upper unit is composed of a well laminated black and cream lightly sericitized argillaceous chert. The lower unit is a
						cream, yellow and black band sericitic phyllite, occasionally charty. This unit carries 7-8% disseminated pyrite.
130						125.8 Foliation to CA: 062, parallels compositional layering.
						124.2 - 124.9 Minor Fault.
						123.65 - 129.5 Argillaceous Chert
						129.5 - 135.7 MAJOR FAULT, excellent recovery has been maintained through this extremely incompetant zone.

ML 85-6C

PAGE 11 OF 15	PROJECT:	HOLE NO.

ALTERATION						TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Sericite	Ca Carb	Grn Mc				FROM	TO	WIDTH						
							112.2	113.3		12747		LI	TH	O	
							117.3	118.8		12748		LI	TH	O	
							127.1	128.6		12749	LI	TH	O		

ML 85-6B

PAGE 12 OF 15 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
						Significant to geophysical interpretations in this area is the development of graphite within this Fault zone. Sulphide content appears to remain at consistently low levels across this zone.
135	0	100				Fault rock host, probable argillaceous chert.
						135.7 - 140.0 Sericitic phyllite, minor chert. Sulphide development in two phases, late cubic pyrite, usually disseminated and very fine grained disseminated pyrite parallel to compositional layering.
						136.9 - 137.8 1-2% Green mica.
						137.8 - 138.4 Pyrite to 20%, but vein association also noted.
140						139.0 Foliation to CA: 070°
				140.0	148.6	140.0 MAJOR FAULT - Complete Fabric disruption and 90 per cent silica replacement. Primary lithology, sericitic phyllite noted only in the sections of the zone.
						140 - 140.8 Highly sheared sericitic phyllite, strong Fabric rotation.
145						140.8 - 144.3 QUARTZ veining occasional strong pyrite development to 15%.
						144.3 - 145.2 Potential primary silica, banded chert with weak pyrite development.
						145.2 - 148.6 QUART veins with remanant chaotic wall rock selvedges.
	75-80					Sulphide content low, < 3%
				148.6	169.2	148.6 Fine Grained QUARTZ Rich Epiclastics, Minor Black Chert and Argillite.
150						This Fine grained clastic lithology, Forms the immediate stratigraphic hangingwall to this silver zone at this location.
						QUARTZ rich sediments are very Fine grained and pale blue grey in color.
						Grain size 0.5 - 1.0 mm, grain supported. Grain edges are Frequently blurred and slightly an effect caused by a sparry calcite cement. Thin laminated argillite
155						beds may be interdigitated with quartz

ML 85-6C

PAGE 13 OF 15	PROJECT:	HOLE NO. Kam 3

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Sericite	CaCb	Grn MX					FROM	TO	WIDTH						
								131.4	132.9		12750		LI	TH	O	
								137.	139.5		12751		LITHO			
								~~138.5~~	~~140.0~~				~~LITHO~~			
								141.4	142.9		12754		LITHO			

ML 85-6B

PAGE 14 OF 15 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
						wackes. Disseminated pyrite occurs frequently within the section and rare sericitic zones occupy 5 % rock volume.
160						160.0 Foliation to CA 075°
	85-90	100				161.4 - 161.5 Minor Fault.
165						
				169.2	EOH	
170						
				148.3	153.3	ADDENDUM: A small, generally poorly defined Intermediate volcanic unit has been located between the clastic chemical sediment contact.
						148.3 - 149.2 Intermediate Flow dominated by the development of dark black-green primary chlorite.
						149.2 - 151.0 Fine grained ash to lapilli intermediate pyroclastic.
						151.0 - 153.3 Intermediate Flows and minor chert, the most clearcut flow series in this section occurs between 151.6 and 151.9.

SCALE CHANGE
NOTE

ML 85-6C

PAGE 15 OF 15	PROJECT:	HOLE NO. Kam 3

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
								FROM	TO	WIDTH						
								165.1	166.7		12752		LITHO.			
								149.7	151.2		12753		LITHO			

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. KAM - 4 -
PAGE 1 OF 9
PROJECT MA 07
LOGGED BY: J. Oliver

COLLAR COORDINATES L 89 E
3+25N
COLLAR ELEVATION 1440 m
AZIMUTH 222° DIP -45
TOTAL LENGTH 134.4
HORIZONTAL PROJECTION 92 m
VERTICAL PROJECTION 95 m

CONTRACTOR G.D. Shaw
CORE SIZE NQ
DATE STARTED SEPT 18-86 DATE COMPLETED SEPT 21-86
AVERAGE CORE RECOVERY
PURPOSE
COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH
62.2m	-45.5°				
131.4m	-44.5°				

LEGEND

SUMMARY LOG

0 - 6.9 Casing.
6.9 - 37.7 Sericitic Mafic Lapilli Pyroclastic
37.7 - 41.6 Contact Fault
41.6 - 103.6 Sericitic Chert
103.6 - 108.3 Major Fault.
108.3 - 114.6 Intermediate Flows
116.0 - 134.4 Interbedded Black Cherts Fine Grained Quartz Wackes and Minor Argillites.
134.4 EOH

ML 85-6B

PAGE 2 OF 9 | PROJECT: MA 07

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
				0	6.7	CASING
				6.7	6.9	Boulders, till casing appears not to have penetrated to bedrock.
				6.9	37.7	SEDIMENTARY MAFIC LAPILLI
10	10-15% (or less)	100	LC	7.7	7.9	PYROCLASTIC. This unit appears to be a good representation of the lightly to moderately sericitized lapilli pyroclastics located in the immediate Footwall of the Silver Zone. Pale yellow green 2x4.0 cm Fragments occupy 30% rock volume, and are supported by a slightly more chloritic matrix. The predominant alteration assemblage is carbonate ± sericite > silica. Pyrite is disseminated at low levels across the matrix, < 2%.
15						
20			LC	17.8	18.0	Core throughout this interval is quite blocky.
						8.4 - 8.8 Well preserved Fragmental.
						11.4 - 11.8 Slightly washed and broken core, minor Fault
25						12.6 Foliation to CA: 080°
						14.6 - 15.0 QUARTZ veining bounded by minor Fault.
						20.0 - 25.7 Fragments frequently identified.
						27.4 Foliation to CA 077°
30						
35						36.6 - 37.0 Badly broken core but no core lose noted.
						37.7
				37.7	41.6	CONTACT FAULT. Both hanging wall and Footwall lithologies show extensive strain effects. Most significantly a pyritic siltite or claystone is locally preserved within this structure. This lithology formed the immediate Footwall (stratigraphic) in DDH KAM-3, and sericitic volcanics were noticeably absent.
40						37.7 - 38.3 Faulted pyritic siltite
						38.3 - 41.6 QUARTZ breccias.

ML 85-6C

PAGE 3 OF 9	PROJECT:	HOLE NO. Kam 4

ALTERATION							SAMPLES				ASSAYS				
Silica	Sericite	Cacarb				TOTAL SULPHIDE	FROM	TO	WIDTH	SAMPLE NUMBER					
							8.4	9.9		12756		LITHO			
							17.3	29.8		12757		LITHO			

ML 85-6B

PAGE 4 OF 9 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
40	65-75	100% - excellent		41.6	103.6	41.6 Sericitic Phyllite Chert - Sericitic Chert ± Argillaceous Chert Within this DDH, the three main Forms of the principle horizon are extremely well represented over this thick sequence.
45						41.6 - 58.7 Sericitic Phyllite. A extremely fine grained talcose, yellow cream to light grey member of the horizon. Generally silica deficient, with a well developed parting, and typically low sulphide contents. Pyrite occurs in trace to 2 per
50						cent levels, associated with small anastomosing cream colored microveinlets which penetrate the yellow Foliation surface. Well developed compositional layering and spectacular structural effects are noted throughout. "S" tectonites predominate.
55						47.7 Foliation to CA 085 52.5 Axpl to S tect. 045 Comp. layering: 075° -S downhole.
60						58.7 - 68.35 Dark to medium grey distinctly compositional banded argillaceous chert. 60.2 - 61.9 Depositional chert breccia. Py to 15% 65.6 - 66.0 Small sericitic phyllite zone 66.0 - 68.35 Strongly compositionally
65						layered argillaceous chert, lamella average 2.0 cm in width Pyrite to 15%
68.35				68.35	72.40	Sericictic Chert. Well defined silaceous lamella (primary?) are separated by bright yellow
70						sericite layers. Disseminated pyrite remains strong throughout.
				72.4	88.9	A complex series of laminated sericitic cherts and argillaceous cherts frequently
75						showing complex deformational features eg @ 82.0. Some Fine grained epiclastic quartz rich input may be occuring, note the granular grading textures
80						between 79.2 and 79.4. Sulphide Py 8-10% and trace AsPy is consistently present throughout this interval.

ML 85-6C

PAGE 5 OF 9	PROJECT:	HOLE NO. Kam 4

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Serie	CaCarb						FROM	TO	WIDTH						
								45.5	47.0		12758		LIT	HO		
								68.85	70.0		12759		LI	TH	O	

ML 85-6B

PAGE 6 OF 9 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
						88.25 Compositional layering to CA: 090°.
						88.9 - 103.6 Sericitic Cherts. Sericite development generally slightly weaker than average. Note the development of consistent S tectonites throughout this section and throughout DDH - KAM 4. Some secondary silica addition appears to occur in the form of 2.0 - 4.0 cm quartz veins. Traces of galena and chalcopyrite are noted in this section. A distinct vein relation is not conclusive.
						94.5 - 94.95 Trace galena
						97.9 - 98.0 Trace galena, chalcopyrite.
						99.6 Compositional layering to CA: 086°
						Foliation parallels compositional layering.
						103.6
				103.6	108.3	MAJOR FAULT - QUARTZ Replacement. Portions of the Ag Zone, are periodically embayed within this Fault structure, eg at 106.1 - 106.4, and 107.05 - 107.35. Very distinctive green micas, or potentially malachite stained silica near the lower contact of this zone, in addition distinctive sideritic - sericite at 108.0 - 108.3
				108.3	114.6 116.0	Intermediate Flows and Lesser Fine Grained Intermediate Fragmentals. This felsic volcanic unit has been consistently identified in the bottom of DDH's Kam 1-3. The lithology ranges from a weakly sericitic intermediate flow from 108.3 to 113.1, and a fine grained lapilli and crystal pyroclastic from 113.1 - 114.6, 116.0 The fragmental series coarsens from 115.2 to 116.0 and may contain a limited tectonic component.
						116.0 Volcanic sediment contact at: 035° to CA.
						116.0
				116.0	134.4	Interbedded Black Cherts, Fine Grained Quartz Wackes and minor Argillites. This lithologic package is characterized by an abundance of strongly compositionally layed argillites and cherts, with very limited alteration and low levels of disseminated pyrite. The contact with the overlying volcanics appears conformable.

85-90 100

ML 85-6C

PAGE 7 OF 9	PROJECT:	HOLE NO. Kam 4

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Ser	Ca C						FROM	TO	WIDTH						
								93.6	95.1		12760		LI	TH	O	
								96.7	98.2		12761		LI	TH	O	
								106.7	108.2		12762	Pb, Zn, Ag, Au, Cu, As				
								108.2	109.7		12763		LI	TH	O	
								113.6	115.1		12764		LI	TH	O	
								116.5	118'		12766		LITHO			

ML 85-68

PAGE 8 OF 9 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
						116.0 - 123.8 This section composed primarily of laminated Fine grained black clastics and cherts.
125						123.8 - 126.6 Silt size quartz and chert grains becoming more predominant.
						126.6 - 134.4 Interdigitated silt and argillite layers. No evidence of any Fault activity, some weak diagenetic pyrite.
130						
						134.0 Foliation to CA: 085°. Parallels compositional layering.
135				134.4	EOH.	

ML 85-6C

PAGE 9 OF 9	PROJECT:	HOLE NO. Kam 4

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
								FROM	TO	WIDTH						
								132.5	133.9		12765		LITH		O	

ESSO MINERALS CANADA
DRILL LOG

HOLE NO. KAM - 5
PAGE 1 OF
PROJECT MA- 07
LOGGED BY: J. Oliver

COLLAR COORDINATES L 99 + 00 E
3+25 N
COLLAR ELEVATION 1440 m
AZIMUTH 232° DIP -87°
TOTAL LENGTH 168.2 m
HORIZONTAL PROJECTION 12 m
VERTICAL PROJECTION 169 m

CONTRACTOR G. Shaw
CORE SIZE NQ
DATE STARTED Sept 21/86 DATE COMPLETED SEPT 23/86
AVERAGE CORE RECOVERY 95

PURPOSE

COMMENTS:

ALTERATION SCALE

absent
slight
moderate
intense

TOTAL SULPHIDE SCALE

traces only
< 1%
1% - 3%
3% - 10%
> 10%

DIP TESTS

DEPTH	DIP	AZIMUTH	DEPTH	DIP	AZIMUTH
74.4m	-83°				
167.6m	-81°				

LEGEND

SUMMARY LOG

6.4-12.3	SERICITIC MAFIC LAPILLI PYROCLASTIC
12.3-17.8	SERICITIC MAFIC FLOWS
17.8-45.4	SERICITIC MAFIC LAPILLI PYROCLASTIC
45.4-47.05	PYRITIC ARGILLITES, SILTITES, DEPOSITIONAL CHERT BRECCIAS
47.05-157.2	CHERT, SERICITIC CHERT, SERICITIC PHYLLITE, ARGILLACEOUS CHERT
157.2-164.7	INTERMEDIATE FLOWS
164.7-168.2	SERICITIC INTERMEDIATE LAPILLI (?) + MINOR FLOWS

ML 85-68

PAGE 2 OF 13 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
0				0	6.4	CASING
5				6.4	12.3	SERICITIC MAFIC LAPILLI PYROCLASTIC
			LC	8.0	8.2	This yellow green, distinctive pyroclastic, carries moderate levels of silica and sericite and shows only a weak HCl response. This unit carries good disseminated pyrite in association with foliation parallel quartz veinlets and a second series of late discordant veinlets. Py to 10-12%.
	50-60%					8.3 Compositional layering to CA: 053°
10						9.9 Good example of two phases of quartz and sulphide alteration. Pyrite-silica reaction rims across fragment (tectonic effects?) and and late quartz-pyrite veinlets.
						10.7 - 12.3 Healed fault zone well developed quartz-lithic breccias with occassional horst development.
						12.3
15	70	100		12.3	17.8	SERICITIC MAFIC Flow
						This small flow series has been intercalated between two pyroclastic events. The unit has experienced an identical alteration history to the surrounding pyroclastics, and is generally a light yellow green with disseminated pyrite and pyrite vein 8-10%, microveinlets.
						14.25 - 14.75 Late brittle failure, minor fault.
						17.8 Contact attitude to CA 070°
20	55-60	100		17.8	45.4	17.8 SERICITIC MAFIC LAPILLI PYROCLASTIC
						This series appears very similar to the pyroclastic noted at the collar. Chlorite has entered into the alteration sequence. Chlorite is present with small foliation parallel veinlets and occassionally rimming sub angular medium grained lapilli fragments. As previously noted these fragments are a soft yellow cream green color and stand out against a medium green

ML 85-6C

PAGE 3 OF 13	PROJECT:	HOLE NO. Kam 5

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Sericite	CaCarb	Gen Mica	Chlor				FROM	TO	WIDTH						
								8.1	9.6		12767		LITHO			

ML 85-68

PAGE 4 OF 13 PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
						matrix. When contrasted to the initial pyroclastic series the amount of both silica and disseminated pyrite are reduced, decreased by 50 per cent, 3 - 5 percent disseminated Pyrite.
30	10-15	100				22.3 - 23.2 Broken core and occasional quartz vein, Fault not anticipated.
	30-40					28.0 - 31.1 Fragments occupy 30 percent rock volume and may locally display plastic deformational features.
35						29.1 Foliation to CA: 051°
						35.4 - 38.0 Blocky broken core, but recovery is near 100%.
40						38.0 - 40.2 Major fault, healed with repeated reactivation, rounded quartz grains and slightly elevated sulfides.
						This fault appear to be Foliation parallel.
						41.3 - 45.4 Late quartz carbonate tensional features are generally discordant to Foliation.
						45.0 Foliation to CA 044°.
45						45.4 Knife edge contact at: 042° CA
				4		45.4
				45.4	47.05	Pyritic Argillites - Siltites - Depositional Chert Breccias
						This unit represents a short transition zone between sericitic mafic volcanics and the Fine grained clastic / chemical sediments of the Ag Zone.
						45.4 - 45.8 Very limited shear development near the contact, semi-massive pyrite fragments occupy 5% rock volume.
						46.0 - Well developed depositional chert breccia.
						47.05
				47.05	157.2	Chert - Sericitic Chert - Sericitic Phyllite Argillaceous Chert.
						This thick section, 75 - 80 meter true width, is the strongest development of the Silver Zone see to date. Disseminated pyrite
50						with occassional arsenopyrite, combined equal 4-6 percent. These sulphides along with trace chalcopyrite and galena are contained within small Foliation parallel veinlets and as disseminations.
						47.05 - 48.0 Highly strained rock, partial failure, 2% chalcopyrite at 47.5 to 47.7.
						48.0 - 52.9 Dark grey weakly laminated chert, weak development of depositional breccias and spotty chalcopyrite, arsenopyrite
55						

ML 85-6C

PAGE 5 OF 13	PROJECT:	HOLE NO. Kam 5

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Seric.	Ca Carb	Fe Min.	Chlor.				FROM	TO	WIDTH						
								30.4	31.9	1.5	12768		L I	T H	O	
								43.4	44.9	1.5	12769		L I	T H	O	
								46.9	47.9	1.0	12770	Pb, Zn, Ag, Au, Cu, As				

ML 85-6B

PAGE 6 OF 13 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
						development, eg at 51.5 - 51.7, 1.5 % chalcopyrite.
						48.8 - 49.2 Minor Fault.
						52.9 - 64.2 Argillaceous Chert. Distinctive compositional banding, and well developed fine grained ^black clastic lamella and chert laminations characterize this zone.
						55.4 - 56.1 Fabric disruption, partial Failure.
						60.0 - 60.35 Minor Fault.
60						61.4 : Foliation, composition layering to CA: 053°.
						62.6 Two Fabrics consistently developed: Comp. Layering to CA: 050° Crenulation plane' to CA: 00° S tectonites predominant.
						64.2 - 72.0 Sericitic Chert. Within this zone yellow, talcose sericitic laminations, 1.5-2.5 cm occupy 60% rock volume, silica rich laminations the remainder, moderate disseminated and Foliation parallel pyrite, to 8-10%, occurs within this section.
65						
						68.7 - 69.0 Small argillaceous chert band.
						69.8 - 70.9 Elevated Foliation parallel pyrite to 15%, development of very early tectonic breccias.
70						
						72.0 - 79.8 Argilleceous chert - Disseminated pyrite and discordant sulphide stockworks decreased relative to preceeding section (sericitic chert), outstanding Fabric development and deFormational Features.
75						
	75-80	100				73.4 Complex isoclinal deformational effects, probable hinge region.
						74.2 "M" tectonite.
80						74.8 Fold axis, 10 cm's across the limbs.
						75.7 "S" tectonite.
						79.9 - 86.9 Sericitic Chert. Contact with overly argillaceous chert 022° to CA, weak shearing at this contact zone. Black argillite occupies less than 15 per cent of this section.
85						
						86.9 - 94.9 Sericite Phyllite: A very soft silica deficient pale creamy yellow phyllitic unit. Small anastomosing pyrite

ML 85-6C

PAGE 7 OF 13	PROJECT:	HOLE NO. Kam 5

ALTERATION	TOTAL SULPHIDE	SAMPLES FROM	SAMPLES TO	SAMPLES WIDTH	SAMPLE NUMBER	ASSAYS				
		51.3	52.8	1.5	12771		LITHO			
		69.6	71.5		12772	LITHO				

ML 85-6B

PAGE 8 OF 13 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
						silica veinlets carry the only sulphides in this zone:
						86.9 - 89.0 Fault, partial Failure zone.
						94.9 - 97.9 Argillaceous Chert, lesser component 30% of sericitic phyllite.
95						97.7 Compositional layering to CA 085°, gentle M warp.
						97.9 - 104.7 Sericitic phyllite.
						100.8 - 101.0 Quartz vein, minor Fault.
100						103.5 - 104.7 Very homogeneous, yellow cream phyllite, well developed Foliation to CA at: 074°.
						104.7 - 114.9 Argillaceous Chert.
						108.3 - 109.0 Brecciated quartz veins late Fault.
105						108.2 and 109.7 "S" tectonites. Elevated pyrite appears to be stratabound to slightly more siliceous layers within the argillite.
						Compositional layering to CA: 045°
110						S tectonite Ax. Pl: 049°
						
115						114.9 - 134.05 Sericitic Phyllite. A slightly higher silica content is noted over portions of this zone eg From 115.2 - 116.5.
						118.2 - 118.6 Minor Fault, well defined quartz clasts to 1.0 cm, localized to a small argillite band.
120						118.9 - 121.2 Zone of extremely delicate sulphide - silica, sericite laminations. Each lamella averages less than 0.5 cm. Sulphide content, pyrite, increases to 20% Lamella to CA 045°
125						127.3 - 127.85 Hair like compositional banding Formed by pyritic microveinlets
						129.6 - 132.2 Major Fault. Strong fabric disruption, with local horst preserves, milled and gouged rock, moderate (less than 25 per cent) quartz vein material. Excellent (100%) recovery through this zone.
130						
						134.05 - 138.2 MAJOR FAULT A extensively quartz breccia, black chert and gouge developed
135						

ML 85-6C

PAGE 9 OF 13	PROJECT:	HOLE NO. Kam 5

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Sericite	Ca Carb						FROM	TO	WIDTH						
								115.2	116.7	1.5	12773	LITHO				
								123.85	125.35		12778	LITHO				
								126.5	128.0	1.5	12777	LITHO				

ML 85-6B

PAGE 10 OF 13 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
						zone. Strong fabric rotation of planar surfaces within the sericitic phyllite appears occur at the upper contact : 010 - 012° to CA. Net sulphide content within this Fault appears to have decreased, to less than 3%
140						138.2 - 146.0 Sericitic "Chert" This sericitic unit contains approx. 40 per cent silica by volume. The overall color is a slightly greenish yellow cream. Although most of the quartz is foliation parallel
145						veinlets, a proportion of it 40 percent(?) may be secondary. Net sulphide content appears slightly quieter, 3-4% disseminated Py.
150	50-60					146.0 - 157.2 Black Chert. Massive dark grey and black chert. Very limited argillite component. 4-5 percent disseminated pyrite Frequently discordant.
						147.7 Compositional layering to CA: 072°
						149.9 Open Z tectonites.
155						154.8 - 155.3 Slightly elevated pyrite in discordant and conformable microveinlets
						157.2
				157.2	164.7	INTERMEDIATE Flow This lithology is a fine grained pale cream green Flow unit in its unaltered state. Extensive alteration, sericite pyrite and
160						secondary quartz are recorded at the chert volcanic contact.
			LC	158.1	155.4	157.2 - 161.0 Principle contact alteration zone. Strong development of banded silica
160						to 1.5 x 2.5 cm seperated by well defined sericite pyrite compositional layering. Pyrite to 35 per cent. Trace fuchsite development.
						161.0 - 163.8 Well defined intermediate Flow. Very fine grained matrix is composed of phenocrysts of plagioclase, muscovite and limited secondary sericite.
						162.35 Fleck of chalcopyrite with quartz vein association.
						164.7
165				164.7	168.24	SERICITIC Intermediate Lapilli (?) and Minor Flows. An altered equivalent of the preceeding Flow series. Alteration effects may produce pseudo Fragmental appearance, ie sericite silica envelopes. Pyrite content is slightly elevated from the unaltered flow series, but is present

ML 85-6C

PAGE 11 OF 13	PROJECT:	HOLE NO. Kam 5

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
Silica	Ser	Calc						FROM	TO	WIDTH						
								139.3	140.8		12774		LI	TH	O	
								159.4	156.9		12775		LI	TH	O	
								157.4	158.6		12776		LI	TH	O	

ML 85-68

PAGE 12 OF 13 | PROJECT:

DEPTH (m)	RQD	% CORE REC	GRAPHIC LOG	FROM	TO	GEOLOGICAL DESCRIPTION
						principally as small dissemination. Late quartz veins to 5 cm average 1/3 linear metres. Sericite produces distinct yellow ovals and ellipses eg at 161.6, 167.7 Foliation to CA: 060°
				168.2	EOH	168.2

ML 85-6C

PAGE 13 OF 13	PROJECT:	HOLE NO. Kam 5

ALTERATION							TOTAL SULPHIDE	SAMPLES			SAMPLE NUMBER	ASSAYS				
								FROM	TO	WIDTH						

ACME ANALYTICAL LABORATORIES LTD. 852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6 PHONE 253-3158 DATA LINE 251-1011

GEOCHEMICAL ICP ANALYSIS

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

DATE RECEIVED: OCT 1 1986 DATE REPORT MAILED: Oct 7/86 ASSAYER A. Toye ..DEAN TOYE. CERTIFIED B.C. ASSAYER.

ESSO MINERALS PROJECT-MA07 FILE # 86-2971 PAGE 1

	From(m)	To(m)	SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Mn PPM	As PPM	Au PPM	Bi PPM	B PPM	Au* PPB
DDH KAM 1	10.5	12.5	12720	2	117	32	370	.1	1343	84	ND	2	2	23
	34.1	35.6	12722	2	66	23	131	.1	1555	59	ND	2	2	7
	69.0	71.5	12723	2	63	11	70	.1	853	10	ND	2	2	5
	94.7	96.3	12724	2	78	6	76	.1	1012	6	ND	2	4	5
	106.0	107.5	12725	2	42	14	80	.1	1110	64	ND	2	4	7
	111.7	113.3	12726	2	36	20	50	.2	1215	50	ND	2	4	14
	118.6	119.5	12727	1	35	17	55	.2	649	38	ND	3	5	1
	132.0	133.5	12728	3	25	23	68	.1	1202	97	ND	3	4	7
	143.6	145.1	12729	3	32	9	135	.1	1429	37	ND	2	2	4
DH KAM 2	6.4	7.9	12730	2	77	34	225	.1	2134	126	ND	2	2	16
	27.6	29.1	12731	3	39	107	84	.1	2230	124	ND	2	3	23
	44.7	46.2	12732	2	83	5	76	.1	1018	42	ND	2	4	2
	90.0	91.5	12733	2	65	6	68	.1	993	13	ND	2	2	3
	103.0	105.5	12734	2	81	10	113	.1	962	54	ND	2	2	3
	117.4	118.9	12735	2	61	6	70	.1	857	11	ND	2	2	8
	137.5	139.0	12736	2	114	6	75	.1	795	7	ND	2	2	2
	141.6	143.1	12737	2	53	13	41	.1	1138	164	ND	2	4	7
	147.5	149.0	12738	2	32	25	56	.6	1282	88	ND	2	4	13
	156.1	157.6	12739	2	90	16	69	.2	860	56	ND	2	6	12
	164.7	166.2	12740	2	88	9	144	.1	1004	25	ND	2	2	6
			STD C	21	57	41	129	6.8	962	38	7	21	36	-
DH KAM 3	45.9	46.9	12742	1	32	24	96	.1	1533	139	ND	2	3	33
			RE 12753	3	26	33	124	.2	1531	656	ND	2	2	36
	47.2	48.9	12743	2	34	16	85	.1	1839	112	ND	2	2	29
	86.9	88.4	12745	2	102	13	101	.2	1087	113	ND	2	2	21
	102.5	104.0	12746	1	49	6	127	.2	570	162	ND	2	2	4
	112.2	113.7	12747	12	556	263	139	3.2	425	178	ND	4	7	295
	117.3	118.8	12748	2	44	20	101	.4	2836	249	ND	4	2	8
	127.1	128.6	12749	3	105	44	113	.3	2056	102	ND	5	5	9
	131.4	132.9	12750	4	34	279	825	.3	2119	66	ND	2	4	5
	137.0	139.5	12751	3	64	66	276	.1	2958	210	ND	2	2	12
	165.1	166.7	12752	2	71	20	179	.1	1397	444	ND	2	3	26
	149.7	151.2	12753	3	25	32	123	.2	1491	659	ND	3	2	40
	141.4	142.9	12754	4	52	366	172	.5	2902	418	ND	2	13	850
	65.2	66.7	12755	3	48	16	39	.1	2010	170	ND	2	2	20
			STD C/AU-R	21	60	40	135	7.0	1023	39	8	22	38	485

ACME ANALYTICAL LABORATORIES LTD. 852 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6 PHONE 253-3158 DATA LINE 251-1011

GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: CORE FI - NAOH FUSION - SPECIFIC ION ELECTRODE ANALYSIS

DATE RECEIVED: OCT 7 1986 DATE REPORT MAILED: Oct 17/86 ASSAYER. D. Toye .DEAN TOYE. CERTIFIED B.C. ASSAYER.

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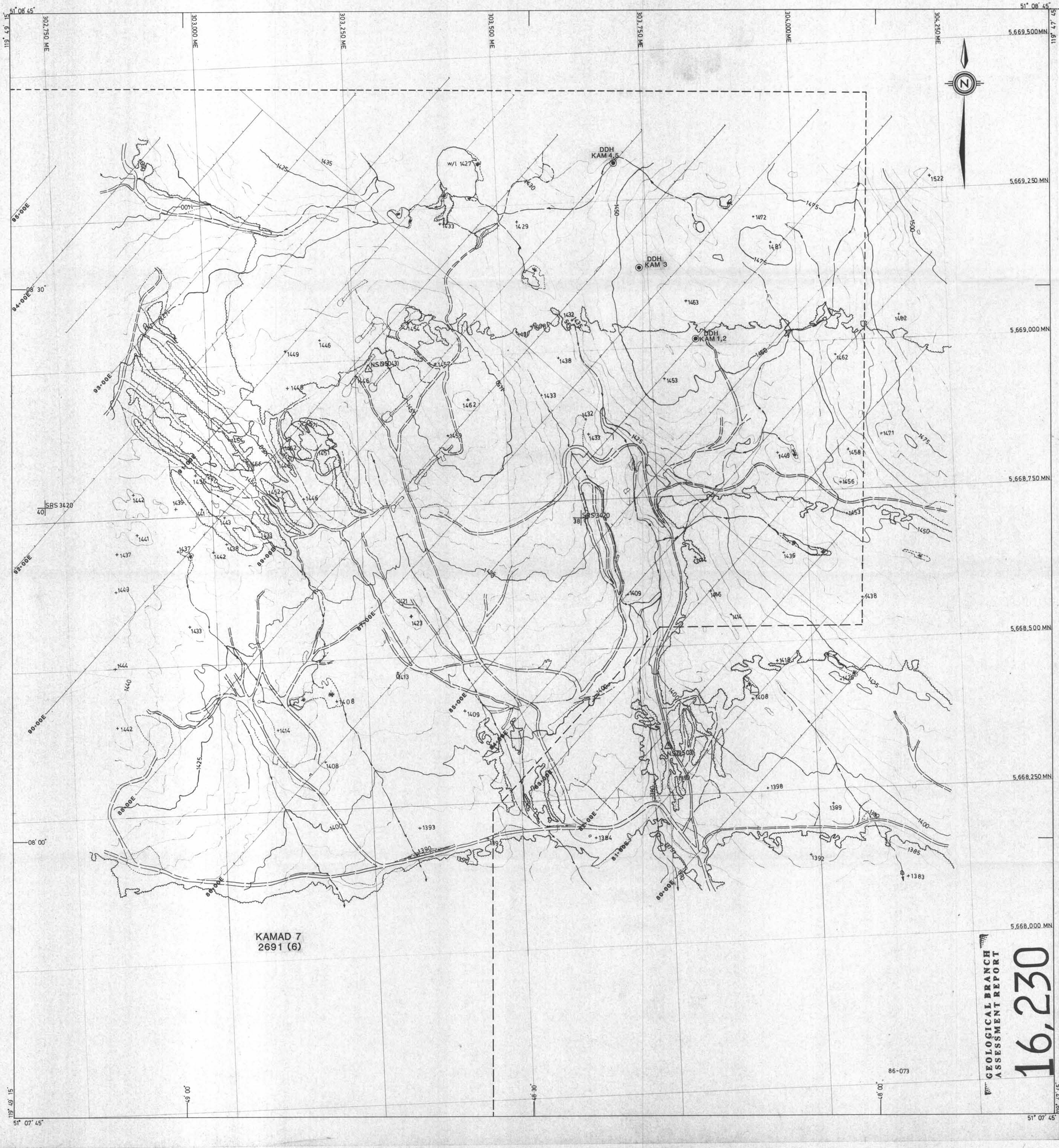
	From (m)	To (m)	SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Mn PPM	As PPM	Au PPM	Bi PPM	F PPM	F PPM
DH KAM 4	8.4	9.9	12756	3	68	10	80	.2	1092	59	ND	2	2	410
	27.3	29.8	12757	3	255	301	252	.4	970	105	ND	2	4	350
	45.5	47.0	12758	1	19	7	75	.1	1607	44	ND	2	2	480
	68.5	70.0	12759	1	95	51	132	.4	723	37	ND	2	2	650
			RE 12778	2	60	70	89	.1	1175	26	ND	2	2	500
	93.6	95.1	12760	1	24	275	125	.3	458	23	ND	2	2	590
	96.7	98.2	12761	1	121	667	535	.3	231	78	ND	2	2	640
	108.2	109.7	12763	3	75	10	119	.2	1890	687	ND	2	2	440
	113.6	115.1	12764	2	83	72	212	.2	759	82	ND	2	2	490
	132.5	133.9	12765	3	65	25	61	.4	1522	85	ND	2	3	760
	116.5	118.0	12766	2	24	52	128	.2	657	116	ND	2	4	710
DH KAM 5	8.1	9.6	12767	2	72	17	106	.2	1583	59	ND	2	2	650
	30.4	31.9	12768	2	93	13	70	.1	982	61	ND	3	2	280
	43.4	44.9	12769	3	62	17	91	.3	1116	5	ND	2	5	620
	51.3	52.8	12771	4	110	397	894	1.2	1736	90	ND	2	2	670
	69.6	71.5	12772	2	37	75	136	.4	1256	68	ND	2	2	590
			STD C	21	55	37	126	6.8	956	38	6	19	34	-
	115.2	116.7	12773	1	92	40	96	.1	952	39	ND	2	4	600
	139.3	140.8	12774	1	26	24	69	.1	1282	67	ND	2	2	590
	154.4	155.9	12775	1	68	63	81	.4	235	195	ND	2	5	860
	157.4	158.6	12776	2	140	162	146	1.1	593	348	ND	2	9	600
	126.5	128.0	12777	1	112	31	103	.2	1933	39	ND	2	2	430
	123.9	125.4	12778	3	60	65	88	.1	1173	27	ND	2	3	470



REVISIONS

By	Date	Approv. By

ESSO MINERALS CANADA

KAMAD 7 CLAIM
Diamond Drill Hole Locations

SCALE 1:2500

0 50 100 200 metres

To accompany a report by J.M.M. (Assessment)

Project No: 107	Report No:
Mining Div: Kamloops	NTS: 82M/4W
Survey By:	Drafted By:
Date: Sept. 11, 1987	Map No: 2

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,230