

CANADA

DEPARTMENT OF ENERGY, MINES AND RESOURCES

Geological Survey of Canada



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RESULTS OF ANALYSES OF ROCK SPECIMENS
FROM DEVONIAN FORMATIONS, WEST-CENTRAL ELLESMERE ISLAND

H.P. Trettin

OPEN FILE 524

OTTAWA

October 1978



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INTRODUCTION

This report tabulates the results of analyses made on a total of 936 rock specimens from Devonian formations between Cañon Fiord and Vandom Fiord, west-central Ellesmere Island. The specimens are from Cape Phillips, Imina, Eids, Red Canyon River, Vandom Fiord, Blue Fiord, Strathcona Fiord, and Hecla Bay formations and from the undifferentiated Allen Bay and Read Bay formations. The location of the sections and sample localities is shown in Figs. 1 to 3. The present report supplements a stratigraphic report (Trettin, in press) in which the observations are summarized statistically and interpreted geologically. The rock specimens can be inspected at the Geological Survey of Canada, Institute of Sedimentary and Petroleum Geology, 3303, 33rd Street NW, Calgary, Alberta, where they are curated.

Analytical methods

X-ray diffraction analysis

Whole-rock diffractograms (for values of 2θ in the range 0 to about 42°) were prepared for most specimens, using copper radiation. The values listed for individual minerals represent the relative height of one principal peak of that mineral as percentage of the sum of the principal peaks of all minerals identified. This value is approximately, but not precisely proportional to the abundance of the mineral. Where the peaks were truncated by the margin of the recording paper, they were projected graphically onto an additional sheet. Analyses containing extrapolated values have been incorporated in the present report (the extrapolated mineral is marked by an asteric) but have not been used in the statistical summaries in Trettin, in press, except for ratios of mineral pairs not involved in the extrapolation. The mineral ratios listed are based on the original peak height measurements and not on the rounded-off values listed.

As different principal peaks have been used by different authors, the peaks used here are listed below along with some additional comments.

Quartz. Percentages are based on the 101 reflection at 26.6° . The peak represents quartz in individual grains and metamorphic rock fragments as well as chert.

Feldspar. Peaks near 28.0° are interpreted as the principal reflection of plagioclase, and peaks near 27.5° as that of K-feldspar. Detailed analysis of sixteen selected specimens (in Trettin, in press, Appendix 2) indicates that the plagioclase is mainly (or entirely) low-temperature albite, and the K-feldspar low-temperature microcline.

Mica, illite. Peaks between 8.75° and 8.85° are considered as 002 reflections of mica and illite. No attempt was made to distinguish the minerals in this group by X-ray methods, but the thin section studies suggest that most of this material is mica, occurring both as individual flakes and in metamorphic rock fragments.

Chlorite, kaolinite. The lattice spacings causing the principal reflections of chlorite (002; $d=7.05-7.13 \text{ \AA}$) and kaolinites (001; $d=7.15-7.18 \text{ \AA}$) are so close to each other that these peaks cannot readily be distinguished in the whole-rock diffractograms; peaks in the 12.3° to 12.5° range, therefore, are listed as undifferentiated chlorite and kaolinite. The two minerals, however, were distinguished in detailed diffractograms of 61 selected specimens (Trettin, in press, Appendix 2). The chlorite occurs as individual flakes or microcrystalline aggregates and in metamorphic and volcanic rock fragments. Kaolinite is present as authigenic cement, alteration within feldspar grains, and as granular aggregates.

Calcite, dolomite. The relative abundances of these two minerals, as usual, are inferred from the height of the 104 reflection at 29.4° and $30.9-31.0^{\circ}$.

Gypsum, anhydrite. Percentages of gypsum are based on the 020 reflection at 11.7° , and percentages of anhydrite on the 002 and 020 reflections at 25.5° . The minerals occur both as primary laminae and secondary replacements and veinlets.

Carbon analysis

The content of organic and mineralic carbon of 243 specimens was determined by means of the Leco induction furnace. The content of calcite and dolomite was then recalculated assuming (1) that all mineralic carbon is contained in these two minerals, and (2) that the ratio between them is given by the X-ray peak height ratio (dolomite/dolomite+calcite) with a correction of 2.3 per cent added; this correction was established by Roysse et al. (1972).

The recalculated values, unquestionably, are more reliable than the uncorrected values from the diffractograms. Regression analysis of 154 pairs of data gave the following linear equation:

$$Y = 0.9044 + 3.341X$$

where X equals the percentage of calcite+dolomite as obtained by diffraction alone

and Y equals the percentage obtained by the combined method

(For further discussion, see Trettin, in press)

Point count analysis

In the point count analyses, 300 to 755 identifications per section were made. The theoretical confidence limits, given by the standard deviation of the binomial distribution, are as follows

$$S = \sqrt{\frac{p(100-p)}{n}}$$

where p is the percentage of the mineral in the rock
and n the number of points (van der Plas and Iobi, 1955)

With 300 points correctly identified, the confidence limits at the 95 per cent confidence level (2 standard deviations) range from ± 1.6 per cent at an abundance of 2 per cent to ± 5.8 per cent at an abundance of 50 per cent.

These theoretical limits are applicable only to analyses of sandstones that are not finer than fine grained, relatively unaltered, and have a small

carbonate content (about 15 per cent or less); such rocks occur in the Hecla Bay Formation and in parts of Strathcona Fiord and Vendom Fiord formations. In the remaining rocks the point counting was restricted to clearly identifiable grains, and, as a consequence, quartz and chert probably have been overestimated at the expense of altered feldspar and rock fragments. The carbonate content also frequently is overestimated because the ubiquitous and strongly birefringent calcite and dolomite tend to mask weakly birefringent minerals such as chlorite.

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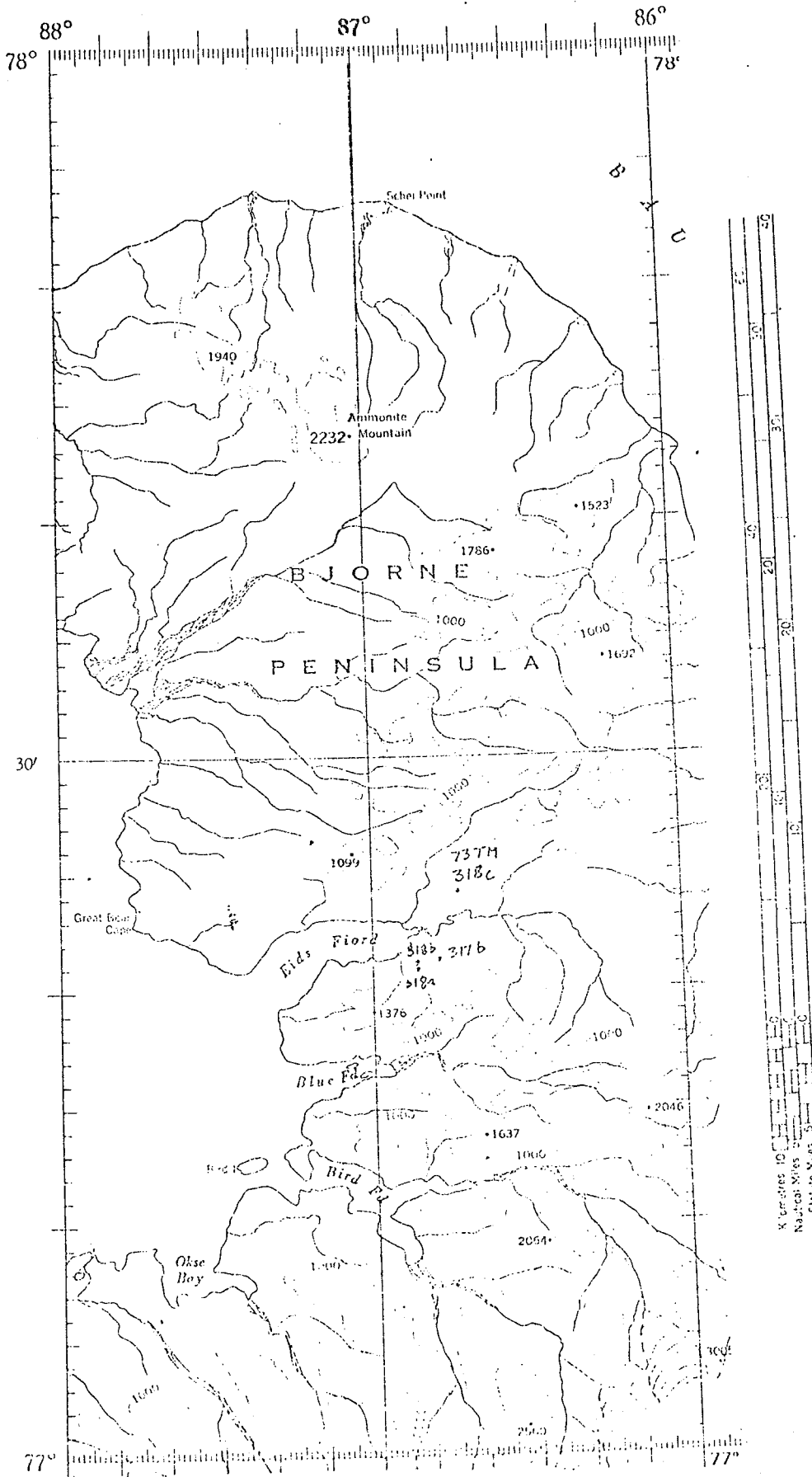


Fig. 3 Sample localities, type area of Eids Formation

KEY TO TABLES AND ABBREVIATIONS

1 GEN=general information

1-1 section, formation, interval

1-1-1 SECTION=section number

1-1-2 ROCK UN.=rock unit

BLUE FD.=Blue Fiord Fm.

C.PHIL.=Cape Phillips Fm.

EIDS=Eids Fm.

EIDS B= lower limestone mbr.

EIDS C= upper siltstone mbr.

EIDS D=upper limestone mbr.

HECLA=Hecla Bay Fm.

IMINA=Imina Fm.

RD.C.=Red Canyon River Fm.

RD.C.1= mbr. A

RD.C.2= mbr. B

STRATHC=Strathcona Fiord Fm.

VENDOM=Vendom Fiord Fm

1-1-3 FROM= sample height or base of sampled interval in ft.

1-1-4 TO= top of ^{am}sampled interval (height in ft)

1-2 FIELD NUMBER

1-3 GSC NUMBER

2 X-RAY, CARBON= X-ray diffraction and carbon analysis

2-1 X-ray diffraction peak heights (in %)

2-1-1 QUARTZ

2-1-2 K-FSP= K-feldspar

2-1-3 PLAGIOCL.=plagioclase

2-1-4 MICA, IL=mica and/or illite

2-1-5 CHL., KA.=chlorite and/or kaolinite

2-1-6 CALCITE

2-1-7 DOLomite

2-1-8 GYPSUM

2-1-9, 2-1-10 OTHER

AH=anhydrite

SD=siderite

- 2-2 X-ray diffraction peak height ratios (in %)
 - 2-2-1 F/F+Q= total feldspar/total feldspar+quartz
 - 2-2-2 PL/PL+KF= plagioclase/plagioclase+ K-feldspar
 - 2-2-3 D/D+C= dolomite/dolomite+calcite
- 2-3 Combined X-ray diffraction and carbon analysis (in %)
 - 2-3-1 ORG.C= organic carbon
 - 2-3-2 MIN.C.=mineralic carbon
 - 2-3-3 CALCITE=recalculated calcite
 - 2-3-4 DOLOMITE=recalculated dolomite

3 MICROSCOPIC=microscopic analysis

- 3-1 ANALYS.= type of analysis
 - 343 PTS= point count analysis, 343 points identified
 - EST=estimate
 - TR= less than 1%
 - X= 1-5 %
 - XX=6-20 %
 - XXX=21-50 %
 - XXXX=51-100 %
 - NO TS= no thin section

- 3-2 Mineral abundances (in %)
 - 3-2-1 QUARTZ
 - 3-2-2 CHERT
 - 3-2-3 FELDSPAR
 - 3-2-4 MUSCOV.=muscovite
 - 3-2-5 BIOTITE
 - 3-2-6 CHLORITE
 - 3-2-7 METAM.=metamorphic rock fragments
 - 3-2-8 VOLC.=volcanic rock fragments
 - 3-2-9= CARB.=carbonates
 - 3-2-10 GYPSUM
 - 3-2-11 to 3-2-14 OTHER

- AH=anhydrite
- GL=glaucinite
- KA=kaolinite
- PY=pyrite
- SD=siderite
- TL=tourmaline
- ZC=zircon

3-3 CB. TYPE=occurrence of carbonates

G=grains

M=matrix

(this has been recorded only for some units)

3-4 GRAIN TYPES=types of carbonate grains and of carbonate and silicate
intraclasts

X=present

A=abundant

3-4-1 INTRACL.=intraclasts

DOLST=dolostone

LMDST=lime mudstone

LS=limestone

SLT=siltstone

STY=silty

3-4-2 OOIDS

3-4-3 PELLETS

3-4-3 CTD, GRN.=coated grains

3-5 fossils and trace fossils

3-5-1 to 3-5-8

ARTH. TRAIL=crawling tracks of arthropods (cf. Cruziana)

ALG=algae

ALGMT= texture suggests former algal mat

BRACH=brachiopods

BRYO=bryozoans

BRW, H=burrows, horizontal

BRW, V=burrows, vertical

CHAR=charophyte oogonia

CONST=Conostichus

CRIC=crinocunaris

ECH=echinoderms

FISH

GASTR=gastropods

GIRV=Girvanella

GRAPT=graptolites

MOLL=molluscs

ORCON=orthoconitic cephalopods

OSTR=ostracodes

PARTH=parathuraminid Foraminifera

PEL=pelecypods
 RAD=radiolarians
 SPONG=sponges
 STRTP=stromatoporoids
 STYLN=styliolinid cricoconarids
 UNID.=unidentified fossils

3-6 limestone texture

3-6-1 SUPPORT

M=matrix

G=grain

3-6-2 GR.GRADE=grade of grains

CG=conglomerate (generally granule to pebble grade)

SD=sand

3-6-3 GR/GR+M= grains/grains+matrix

H=high

L=low

(this has been recorded for a few specimens only)

3-6-4 MA. GRADE=grade of matrix

CR=cryptocrystalline (less than 4 microns)

MIC=microcrystalline (4-63 microns)

FMIC=finely microcrystalline (4-30 microns)

3-7 dolostone texture etc.

3-7-1 D/D+C=dolomite/dolomite+calcite

(this has rarely been recorded on the basis of microscopic analysis; but see 2-3-4)

3-7-2 D. GRADE=grade of dolomite crystals

CR=cryptocrystalline (less than 4 microns)

MIC=microcrystalline (4-63 microns)

FMIC=finely microcrystalline (4-30 microns)

VF=very finely crystalline (63-125 microns)

F=finely crystalline (125-250 microns)

M=medium crystalline (250-500 microns)

3-8 sandstone grade and texture

3-8-1 SD. GRADE= grade of sand fraction

VF=very fine

F=fine

M=medium

C=coarse

VC=very coarse

3-8-2 MAX. GRN.=grade of largest grain
(for legend, see 3-8-1; this has been recorded only for some units)

3-8-3 SD. STG.=sorting of sand grains

P=poor

M=moderate

G=good

VG=very good

BIM=bimodal

3-8-4 SD. RDG.=rounding of sand grains

P=poor (angular, subangular)

M=moderate (subangular to subrounded; subrounded)

G=good (rounded, well rounded)

3-8-5 SD. CEMENT= cement of sand grains

C=carbonate

Q=quartz

3-9 Phenoclasts and conglomerate

3-9-1 to 3-9-4 PHENOCL.=phenoclasts

X=present

A=abundant

(for lithological abbreviations see 4-3)

3-9-5 CG. MATR.= matrix or cement of conglomerate

CAL=calcite cement

DOL=dolomite cement

SD= sandy matrix

SI=silty matrix,

4 MACROSCOPIC=macroscopic characteristics and classification

4-1 Structure, bioturbation, veins, crystals, etc.

X=present

4-1-1 HOR. LAM.=horizontal lamination

4-1-2 X-LAM.=cross-lamination

4-1-3 BIOTURB.=bioturbation

4-1-4 to 4-1-6 OTHER

AUTH QU=authigenic quartz

BDSEYE=birdseye

BITUMEN

BRC or BREC=brecciation (small-scale)

CARB VEINS=carbonate veins

CHANNEL=channelling
 CONVOL=convolute lamination
 FISS= fissility
 GRAD=graded bedding
 GRV+RDG=grooves and ridges
 GYPS XS=gypsum crystals
 HVY MIN LAM=heavy mineral lamination
 MDCR=mudcracks
 SOLZN=solution zones
 UNDUL=undulating lamination

4-2 COLOUR

BN=brownish
 DKGY=dark grey
 GY=grey
 GN=greenish
 LGY=light grey
 MGY=medium grey
 OL=olive
 OR=orange
 RD=reddish

4-3 LITHOLOGY (GENERALIZED)

ARG=argillaceous
 BRCA=breccia
 CAC VEINS=calcite veins
 CARBON=carbonaceous
 CLST=claystone
 CONCRET=concretion
 DESTR=destroyed
 DOLAR=dolarenite
 DOLITIC=dolomitic
 DOLST=dolostone
 FLTPBCG=flat-pebble conglomerate
 FOSS=fossils
 FRAGS=fragments
 GPSF=gypsiferous
 GRN=granules
 GRNCG=granule conglomerate
 GYPS=gypsum
 HSP=hand specimen

ITLAM=interlaminated

LGST=lime grainstone

LGST PW=lime grainstone, poorly washed

LMDST=lime mudstone

LPST=lime packstone

LS=limestone

LWST=lime wackestone

PB CG=pebble conglomerate

PBLY=pebbly

SDY=sandy

SID VEINS=siderite veins

SLT=siltstone

SPEC=specimen

SS=sandstone

STY=silty

W=with

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FIELD NUMBERS	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
QUARTZ K-FSP PLAGIOCL. NICAIIL CHL. CALCITE DOLOMITE GYPSUM OTHER OTHER	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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PHENOCCL.	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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HOR. LAI	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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	4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

SECTION	ROCK UN.	1					2					3					4				
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FIELD NUMBER		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Q.C. NUMBER		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
CARBON	QUARTZ																				
	K-FSP.																				
	PLAGIOCL.																				
	MICA, IL.																				
	CHL. KA.																				
	CALCITE																				
	DOLONITE																				
	GYPSUM																				
	OTHER																				
	OTHER																				
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	PL/PL+KF																				
	D/D+C																				
	CRG. C																				
ANALYS.	NIN. C																				
	CALCITE																				
	DOLONITE																				
	OTHER																				
FACIES	QUARTZ																				
	CHERT																				
	FELDSPAR																				
	MUSCOV.																				
	BIOTITE																				
	CHLORITE																				
	METAM.																				
	YOLC.																				
	CARB.																				
	GYPSUM																				
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COLOUR	BIOTURB.																				
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SECTION FROM TO	ROCK UN.	1		6		a		6		6			
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QUARTZ	1	[Grid with numbers]											
K-FSP.	1	[Grid with numbers]											
PLAGIOCL.	3	[Grid with numbers]											
MICA, IL.	4	[Grid with numbers]											
CHL., KA.	5	[Grid with numbers]											
CALCITE	6	[Grid with numbers]											
DOLONITE	7	[Grid with numbers]											
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F/F+G	2	[Grid with numbers]											
PL/PL+KF	2	[Grid with numbers]											
D/D+C	3	[Grid with numbers]											
ORG. C	3	[Grid with numbers]											
MIN. C	2	[Grid with numbers]											
CALCITE	3	[Grid with numbers]											
DOLONITE	4	[Grid with numbers]											
ANALYS.	1	[Grid with numbers]											
QUARTZ	2	[Grid with numbers]											
CHELT	3	[Grid with numbers]											
FELDSPAR	4	[Grid with numbers]											
MUSCOV.	5	[Grid with numbers]											
BIOTITE	6	[Grid with numbers]											
CHLORITE	7	[Grid with numbers]											
METAM.	8	[Grid with numbers]											
YOLC.	9	[Grid with numbers]											
CARB.	10	[Grid with numbers]											
GYP SUM	11	[Grid with numbers]											
OTHER	12	[Grid with numbers]											
OTHER	13	[Grid with numbers]											
OTHER	14	[Grid with numbers]											
OTHER	15	[Grid with numbers]											
OTHER	16	[Grid with numbers]											
OTHER	17	[Grid with numbers]											
OTHER	18	[Grid with numbers]											
OTHER	19	[Grid with numbers]											
OTHER	20	[Grid with numbers]											
OTHER	21	[Grid with numbers]											
OTHER	22	[Grid with numbers]											
OTHER	23	[Grid with numbers]											
OTHER	24	[Grid with numbers]											
OTHER	25	[Grid with numbers]											
OTHER	26	[Grid with numbers]											
OTHER	27	[Grid with numbers]											
OTHER	28	[Grid with numbers]											
OTHER	29	[Grid with numbers]											
OTHER	30	[Grid with numbers]											
OTHER	31	[Grid with numbers]											
OTHER	32	[Grid with numbers]											
OTHER	33	[Grid with numbers]											
OTHER	34	[Grid with numbers]											
OTHER	35	[Grid with numbers]											
OTHER	36	[Grid with numbers]											
OTHER	37	[Grid with numbers]											
OTHER	38	[Grid with numbers]											
OTHER	39	[Grid with numbers]											
OTHER	40	[Grid with numbers]											
OTHER	41	[Grid with numbers]											
OTHER	42	[Grid with numbers]											
OTHER	43	[Grid with numbers]											
OTHER	44	[Grid with numbers]											
OTHER	45	[Grid with numbers]											
OTHER	46	[Grid with numbers]											
OTHER	47	[Grid with numbers]											
OTHER	48	[Grid with numbers]											
OTHER	49	[Grid with numbers]											
OTHER	50	[Grid with numbers]											
OTHER	51	[Grid with numbers]											
OTHER	52	[Grid with numbers]											
OTHER	53	[Grid with numbers]											
OTHER	54	[Grid with numbers]											
OTHER	55	[Grid with numbers]											
OTHER	56	[Grid with numbers]											
OTHER	57	[Grid with numbers]											
OTHER	58	[Grid with numbers]											
OTHER	59	[Grid with numbers]											
OTHER	60	[Grid with numbers]											
OTHER	61	[Grid with numbers]											
OTHER	62	[Grid with numbers]											
OTHER	63	[Grid with numbers]											
OTHER	64	[Grid with numbers]											
OTHER	65	[Grid with numbers]											
OTHER	66	[Grid with numbers]											
OTHER	67	[Grid with numbers]											
OTHER	68	[Grid with numbers]											
OTHER	69	[Grid with numbers]											
OTHER	70	[Grid with numbers]											
OTHER	71	[Grid with numbers]											
OTHER	72	[Grid with numbers]											
OTHER	73	[Grid with numbers]											
OTHER	74	[Grid with numbers]											
OTHER	75	[Grid with numbers]											
OTHER	76	[Grid with numbers]											
OTHER	77	[Grid with numbers]											
OTHER	78	[Grid with numbers]											
OTHER	79	[Grid with numbers]											
OTHER	80	[Grid with numbers]											
OTHER	81	[Grid with numbers]											
OTHER	82	[Grid with numbers]											
OTHER	83	[Grid with numbers]											
OTHER	84	[Grid with numbers]											
OTHER	85	[Grid with numbers]											
OTHER	86	[Grid with numbers]											
OTHER	87	[Grid with numbers]											
OTHER	88	[Grid with numbers]											
OTHER	89	[Grid with numbers]											
OTHER	90	[Grid with numbers]											
OTHER	91	[Grid with numbers]											
OTHER	92	[Grid with numbers]											
OTHER	93	[Grid with numbers]											
OTHER	94	[Grid with numbers]											
OTHER	95	[Grid with numbers]											
OTHER	96	[Grid with numbers]											
OTHER	97	[Grid with numbers]											
OTHER	98	[Grid with numbers]											
OTHER	99	[Grid with numbers]											
OTHER	100	[Grid with numbers]											

SECTION ROCK UN. FROM	16-3-1			2-3-1			6-3-1			6-3-1			6-3-1		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
FIELD NUMBER	174	712	114	114	712	114	174	712	114	174	712	114	174	712	114
W.C. NUMBER	103	712	114	103	712	114	103	712	114	103	712	114	103	712	114
QUARTZ	1														
X-FSP.	2														
PLAGIOCL.	3														
MICA, IL.	4														
CHL., KA.	5														
CALCITE	6														
DOLOMITE	7														
GYP SUM	8														
OTHER	9														
OTHER	10														
F/F+Q	1														
PL/PL+KF	2														
D/D+C	3														
OK G.C	1														
NIN.C	2														
CALCITE	3														
DOLOMITE	4														
ANALYS.	1														
QUARTZ	1														
CHERT	2														
FELDSPAR	3														
MUSCOV.	4														
BIOTITE	5														
(CHLORITE)	6														
METAM.	7														
YOLC.	8														
CARB.	9														
GYP SUM	10														
OTHER	11														
OTHER	12														
OTHER	13														
OTHER	14														
INTRACL.	1														
VOIDS	2														
PELLETS	3														
STD. GRN.	4														
FOSSIL	1														
FOSSIL	2														
FOSSIL	3														
FOSSIL	4														
FOSSIL	5														
FOSSIL	6														
FOSSIL	7														
FOSSIL	8														
D/D+C	7														
D. CCARD	1														
SUPPORT	1														
GR. GRADE	2														
GR/GR+MA	5														
MA. GRADE	4														
PHE NOCL.	1														
PHE NOCL.	2														
PHE NOCL.	3														
PHE NOCL.	4														
CS. MATS.	5														
SD. GRADE	1														
MAX. GRV.	2														
SD. STG.	3														
SD. RDG.	4														
CD. CENT	5														
HOR. LAM.	1														
X-LAN.	2														
BIOTUX B.	3														
OTHER	4														
OTHER	5														
OTHER	6														
OTHER	7														
COLOUR	1														
COLOUR	2														
LITHOLO.	1														
Gy	2														
(GENERAL)	3														
LIPED)	4														
	5														

SECTION ROCK UN. FROM TO	1		2		3		4		5		6		7		8		9		10	
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
FIELD NUMBER	1		2		3		4		5		6		7		8		9		10	
INDIC. NUMBER	1		2		3		4		5		6		7		8		9		10	
QUARTZ	1		1	6.0	1		1	5.2	1		1	5.8	1		1	5.5	1		1	5.7
K-FSP.	2		2	1	2		2	2	3		3	3	5		2	2		2	2	2
PLAGIOCL.	3		3	4	4		4	6	2		2	2	5		2	2		2	2	2
MICA, IL.	4		4	4	2		2	3	2		2	2	7		1	1		1	1	1
CHL. KA.	5		5	2	1		1	1	1		1	1	1		1	1		1	1	1
CALCITE	6		6	1.9	2.2		2.2	1.9	1.5		1.5	1.9	1.9		1.9	1.9		1.9	1.9	1.9
DOLOMITE	7		7	1.0	1.2		1.2	1.5	1.5		1.5	1.9	1.9		1.9	1.9		1.9	1.9	1.9
GYPSSUM	8		8																	
OTHER	9		9																	
OTHER	10		10																	
F/F+R	2	1		3		1	7.2		1.0		1	3.6		1	5.0		1	3.2		1
PL/PL+KF	2	2		7.3		2	3.5		4.0		2	3.5		2	3.2		2	3.2		2
D/DIC	2	3		3.5		3	3.5		4.0		3	3.5		3	3.2		3	3.2		3
ORG. C	3	1				1			7.5		1			1			1		1	
MIN. C	3	2		3.6		2	2.2		2.2		2	2.2		2	2.2		2	2.2		2
CALCITE	3	3		1.9		3	1.9		1.9		3	1.9		3	1.9		3	1.9		3
DOLOMITE	3	4		1.1		4	1.1		1.1		4	1.1		4	1.1		4	1.1		4
ANALYS.	1	1				1					1				1					1
QUARTZ	2	1		X		1	X		X		1	X		1	X		1	X		1
CHERT	2	2				2					2			2			2			2
FELDSPAR	3	3		X		3	X		X		3	X		3	X		3	X		3
MUSCOV.	4	4		X		4	X		X		4	X		4	X		4	X		4
BIOTITE	5	5		X		5	X		X		5	X		5	X		5	X		5
CHLORITE	6	6		X		6	X		X		6	X		6	X		6	X		6
METAN.	7	7				7					7			7			7			7
YOLC.	8	8				8					8			8			8			8
CARB.	9	9		X	X	9	X	X	X		9	X	X	9	X	X	9	X	X	9
GYPSSUM	10	10				10					10			10			10			10
OTHER	11	11				11					11			11			11			11
OTHER	12	12				12					12			12			12			12
OTHER	13	13				13					13			13			13			13
OTHER	14	14				14					14			14			14			14
INTRACL.	1	1				1					1			1			1			1
OSIDS	2	2				2					2			2			2			2
PELLETS	3	3				3					3			3			3			3
CTD. SEM.	4	4				4					4			4			4			4
FOSSIL	5	1				1					1			1			1			1
FOSSIL	5	2				2					2			2			2			2
FOSSIL	5	3				3					3			3			3			3
FOSSIL	5	4				4					4			4			4			4
FOSSIL	5	5				5					5			5			5			5
FOSSIL	5	6				6					6			6			6			6
FOSSIL	5	7				7					7			7			7			7
FOSSIL	5	8				8					8			8			8			8
D/DIC	7	1				1					1			1			1			1
D. GRAPE	7	2				2					2			2			2			2
SUPPORT	8	1				1					1			1			1			1
SR. GRADE	8	2				2					2			2			2			2
GR/GR+MA	8	3				3					3			3			3			3
MA. GRADE	8	4				4					4			4			4			4
PHEMOCL.	9	1				1					1			1			1			1
PHEMOCL.	9	2				2					2			2			2			2
PHEMOCL.	9	3				3					3			3			3			3
PHEMOCL.	9	4				4					4			4			4			4
CG. MATS.	9	5				5					5			5			5			5
SD. GRADE	10	1				1					1			1			1			1
MAX. GRN.	10	2				2					2			2			2			2
SD. STG.	10	3				3					3			3			3			3
SD. RDG.	10	4				4					4			4			4			4
SD. CEMT.	10	5				5					5			5			5			5
HOR. LAM.	1	1				1			X		1			1			1		X	1
X-LAM.	1	2				2			X		2			2			2		X	2
BIOTURB.	1	3				3			X		3			3			3		X	3
OTHER	1	4				4					4			4			4			4
OTHER	1	5				5					5			5			5			5
OTHER	1	6				6					6			6			6			6
COLOUR	1	7				7					7			7			7			7
LITHOLO.	3	1				1					1			1			1			1
GY	3	2				2					2			2			2			2
(GENERAL)	3	3				3					3			3			3			3
LIPED)	3	4				4					4			4			4			4
	3	5				5					5			5			5			5
	3	6				6					6			6			6			6
	3	7				7					7			7			7			7
	3	8				8					8			8			8			8
	3	9				9					9			9			9			9
	3	10				10					10			10			10			10

SECTION	UN.	1		2		3		4		5		6		7	
		R.D.	C.	R.D.	C.	R.D.	C.	R.D.	C.	R.D.	C.	R.D.	C.	R.D.	C.
FROM		2113		2114		2115		2116		2117		2118		2119	
TO															
FIELD NUMBER		712	712	712	712	712	712	712	712	712	712	712	712	712	712
INSC. NUMBER		1	2	3	4	5	6	7	8	9	10	11	12	13	14
QUARTZ			4			4							4		5
K-FSP.			2			2						2			1
PLAGIOCL.			5			5						5			8
MICA, IL.			3			3						3			2
CHL. KA.			2			2						2			1
CALCITE			2	2		2	2					1	7		5
DOLOMITE			1	2		1	2					1	1		4
GYPSUM										9	3				
OTHER															
OTHER															
F/F+G				1	2					1	0				
PL/PL+KF				7	6					6	5			7	4
D/D+C				3	6					3	1			4	7
OK G. C															
MIN. C			5	0	3										
CALCITE				2	5										
DOLOMITE				1	0										
ANALYS.															
QUARTZ				X	X	X									
CHERT															
FELDSPAR					X										
MUSCOV.					X										
BIOTITE					X										
CHLORITE					X										
METAM.															
YOLC.															
CARB.				X	X	X									
GYPSUM															
OTHER															
OTHER															
OTHER															
OTHER															
INTRACL.															
OOIDS															
PELLETS															
STD. GRV.															
FOSSIL															
FOSSIL															
FOSSIL															
FOSSIL															
FOSSIL															
FOSSIL															
FOSSIL															
D/D+C															
D. GRADE															
SUPPORT															
GR. GRADE															
GR/GR+MA															
MA. GRADE															
PHENOCL.															
PHENOCL.															
PHENOCL.															
CG. MAT.															
SD. GRADE															
MAX. GRV.															
SD. STG.															
SD. RDG.															
SD. CEMT															
HOR. LAM.					X				X					X	
X-LAM.															
BIOTURB.															X
OTHER															
OTHER															
OTHER															
COLOUR															
LITHOLO.															
GY															
(GENERALIZED)															

11

SECTION FROM		1	6-3-2	5-2-2	4-2-2	3-2-2	2-3-2	1-3-2	7M-
ROCK UN. TO		1	2D-C-2	2D-C-2	2D-C-2	2D-C-2	2D-C-2	2D-C-2	2D-C-2
FIELD NUMBERS		1	114-112-113	114-112-113	114-112-113	114-112-113	114-112-113	114-112-113	114-112-113
FIELD NUMBER		1	114-112-113	114-112-113	114-112-113	114-112-113	114-112-113	114-112-113	114-112-113
QUARTZ K-FSP. PLAGIOCL. MICALYL. CHL. KA. CALCITE DOLOMITE GYPSUM OTHER OTHER	1	1	50		55		75		112
	2	2	4		4		4		55
	3	3	5		5		5		55
	4	4	5		6		22		2
	5	5	3		3		1		1
	6	6	3		3				
	7	7	24		23		12		31
	8	8					3		
	9	9							
	10	10							
F/F+Q PL/PL+KF D/D+C OR G.C NIN.C CALCITE DOLOMITE	2	1	114		15				112
	2	2	53		54		39		55
	3	3	310		37		100		170
	4	4	3		69				74
ANALYS. QUARTZ CHERT FELDSPAR MUSCOV. BIOTITE CHLORITE METAL. VOLC. CARB. GYPSUM OTHER OTHER OTHER OTHER	2	1	X	X	X				X
	2	2							X
	3	3		X	X				X
	4	4		X					X
	5	5			X				F
	6	6			X				R
	7	7							
	8	8							X
	9	9		X	X				X
	10	10							
CH. TYPE INTRACL. OOIDS PELLETS CTD. GRN. FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL	2	1							
	2	2							
	3	3							
	4	4							
	5	5							
	6	6							
	7	7							
	8	8							
D/D+C D. GRADE SUPPORT GR. GRADE GR/GR+MA MA. GRADE	7	1							
	7	2							
	8	1							
	8	3							
PHENOCL. PHENOCL. PHENOCL. PHENOCL. CA. MAT.	9	1							
	9	2							
	9	3							
	9	4							
	9	5							
SD. GRADE MAX. GRV. SD. STG. SD. RDG. CD. CEMT	10	1	F		VF		VF		VF
	10	2							
	10	3							
	10	4							
HOR. LAM. X-LAM. BIOTURB. OTHER OTHER COLOUR	11	1							X
	11	2							
	11	3				X			
	11	4							
	11	5							
LITHOLO. Gy (GENERALIZED)	12	1							
	12	2							
	12	3							
	12	4							
	12	5							

SECTION ROCK UN. FROM TO	FIELD NUMBER	1-7-4-1				2-4-1				7-4-1				2-4-1			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
QUARTZ	1																
X-FSP.	2																
PLAGIOCL.	3																
MICA, IL.	4																
CHL.	5																
CALCITE	6																
DOLOMITE	7																
GYP SUM	8																
OTHER	9																
OTHER	10																
F/F+Q	1																
PL/PL+KF	2																
D/D+C	3																
OR.G.C	1																
MIN.C	2																
CALCITE	3																
DOLOMITE	4																
ANALYS.	1																
QUARTZ	2																
CHERT	1																
FELDSPAR	2																
MUSCOV.	3																
BIOTITE	4																
CHLORITE	5																
METAN.	6																
YOLC.	7																
CARB.	8																
GYP SUM	9																
OTHER	10																
OTHER	11																
OTHER	12																
OTHER	13																
OTHER	14																
INTRACL.	1																
DOIDS	2																
PELLETS	3																
CTD. GRN.	4																
FOSSIL	5																
FOSSIL	6																
FOSSIL	7																
FOSSIL	8																
FOSSIL	9																
FOSSIL	10																
FOSSIL	11																
FOSSIL	12																
D/D+C	7																
D. GRADE	1																
SUPPORT	2																
GR. GRADE	3																
GR/GR+MA	4																
MA. GRADE	5																
PHENOCL.	6																
PHENOCL.	7																
PHENOCL.	8																
CA. MAT.	9																
SD. GRADE	1																
MAX. GRN.	2																
SD. STG.	3																
SD. RDG.	4																
CD. CENT	5																
HOR. LAM.	1																
X-LAM.	2																
BIOTURB.	3																
OTHER	4																
OTHER	5																
OTHER	6																
COLOUR	7																
LITHOLO.	1																
GY	2																
(GENERALIZED)	3																
LITHOLO.	4																
GY	5																
(GENERALIZED)	6																

SELECTION		FROM		TO		FIELD		NUMBER		ANALYS.		CHARACTER		GRADE		SUBSTR.		CORRECTION		REMARKS	
QUARTZ	1																				
K-FSP.	2																				
PLAGIOCL.	3																				
MICA, IL.	4																				
CHL., KA.	5																				
CALCITE	6																				
DOLOMITE	7																				
GYP SUM	8																				
OTHER	9																				
OTHER	10																				
F/F+Q	1																				
PL/PL+KF	2																				
D/DIC	3																				
ORG. C	1																				
NIN. C	2																				
CALCITE	3																				
DOLOMITE	4																				
QUARTZ	1																				
CHERT	2																				
FELDSPAR	3																				
MUSCOV.	4																				
BIOTITE	5																				
CHLORITE	6																				
METAL.	7																				
VOLC.	8																				
CARB.	9																				
GYP SUM	10																				
OTHER	11																				
OTHER	12																				
OTHER	13																				
OTHER	14																				
INTRACL.	1																				
FOSSIL	2																				
FOSSIL	3																				
FOSSIL	4																				
FOSSIL	5																				
FOSSIL	6																				
FOSSIL	7																				
FOSSIL	8																				
D/D+C	1																				
P. GRADE	2																				
SUPPORT	1																				
GR. GRADE	2																				
GR/GR+MA	3																				
MA. GRADE	4																				
PHEOCL.	1																				
PHEOCL.	2																				
PHEOCL.	3																				
PHEOCL.	4																				
CG MAT.	5																				
SD. GRADE	1																				
MAX. GRV.	2																				
SD. STG.	3																				
SD. RDG.	4																				
CD. CEMT.	5																				
HOR. LAN.	1																				
X-LAN.	2																				
BIOTURB.	3																				
OTHER	4																				
OTHER	5																				
OTHER	6																				
COLON	1																				
COLON	2																				
LITHOLO.	1																				
Gy	2																				
(GENERA.)	3																				
LIPED)	4																				

41

SECTION ROCK UN. FROM TO	1	1	7	11-12	21	21-22				
	2	2	10	10-11	21	21-22				
	3	3	10	10-11	21	21-22				
	4	4	10	10-11	21	21-22				
FIELD NUMBERS	1	1	11	11-12	21	21-22				
	2	2	11	11-12	21	21-22				
QUARTZ K-FSP. PLAGIOCL. NICAS, IL. CHL., KA. CALCITE DOLOMITE GYPSUM OTHER OTHER	1	1								
	2	2								
	3	3								
	4	4								
	5	5								
	6	6								
	7	7								
	8	8								
	9	9								
	10	10								
F/F+G PL/PL+XF D/D+C ORG. C MIN. C CALCITE DOLOMITE	1	1								
	2	2								
	3	3								
	4	4								
ANALYSIS QUARTZ CHERT FELDSPAR MUSCOV. BIOTITE CHLORITE METAH. YOLC. CARB. GYPSUM OTHER OTHER OTHER OTHER	1	1								
	2	2								
	3	3								
	4	4								
	5	5								
	6	6								
	7	7								
	8	8								
	9	9								
	10	10								
	11	11								
	12	12								
	13	13								
	14	14								
INTRACL. COIDS PELLETS STD. GRN	1	1								
	2	2								
	3	3								
	4	4								
FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL	5	1								
	2	2								
	3	3								
	4	4								
	5	5								
	6	6								
	7	7								
	8	8								
D/D+C D. GRADE SUPPORT GR. GRADE GR/GR+NA NA. GRADE	7	1								
	2	2								
	3	3								
	4	4								
PHENOCL. PHENOCL. PHENOCL. PHENOCL. CG. MATR.	7	1								
	2	2								
	3	3								
	4	4								
	5	5								
SD. GRADE MAX. GRN. SD. STG. SD. RDG. SD. CFMT	6	1								
	2	2								
	3	3								
	4	4								
	5	5								
HOR. LAM. X-LAM. BIOTURB. OTHER OTHER OTHER	1	1								
	2	2								
	3	3								
	4	4								
	5	5								
	6	6								
LITHOLO- GY (GENKAA- LIBED)	1	1								
	2	2								
	3	3								
	4	4								
	5	5								
	6	6								

SECTION FROM TO	UN.	1	7		P	R	L	L															
			2	3					C	R	E	L	K										
FIELD NUMBER											1	7	3										
TAG NUMBER											1	10561	1										
VARIABLES	QUARTZ	1	1	5	8																		
	K-FSP.	2	1	3																			
	PLAGIOCL.	3	1	2																			
	MICA, IL.	4	1	6																			
	CHL. KA.	5	1	4																			
	CALCITE	6	1	3																			
	DOLomite	7	1	2																			
	GYP SUM	8	1	1																			
	OTHER	9	1	1																			
	OTHER	10	1	1																			
CORRECTIONS	F/F+G	2	1	17																			
	PL/PL+KF	2	2	77																			
	D/D+C	3	2	39																			
	ORG. C	3	1	1																			
ANALYS.	MIN. C	2	1	1																			
	CALCITE	2	2	1																			
	DOLomite	3	2	1																			
	DOLomite	4	2	1																			
ANALYS.	QUARTZ	1	1	X	X	X	X																
	CHERT	2	1	1																			
	FELDSPAR	3	1	X	X																		
	MUSCOV.	4	1	X																			
	BIOTITE	5	1	X																			
	CHLORITE	6	1	X																			
	METAN.	7	1	1																			
	YOLC.	8	1	1																			
	CARB.	9	1	X	X																		
	GYP SUM	10	1	1																			
	OTHER	11	1	1																			
	OTHER	12	1	1																			
	OTHER	13	1	1																			
	OTHER	14	1	1																			
EXTRACCS	INTRACCS	1	1																				
	VOIDS	2	1																				
	PELLETS	3	1																				
	ST. GRN	4	1																				
	FOSSIL	5	1																				
	FOSSIL	6	1																				
	FOSSIL	7	1																				
D/DIC	D. GRADE	7	1																				
	SUPPORT	8	1																				
	GR. GRADE	9	1																				
	GR/GR+NA	10	1																				
PHENOCL.	PHENOCL.	1	1																				
	PHENOCL.	2	1																				
	PHENOCL.	3	1																				
	PHENOCL.	4	1																				
SD. GRADE	SD. GRADE	1	1																				
	MAX. GRN.	2	1																				
	SD. STG.	3	1																				
	SD. RDG.	4	1																				
	CD. CNT.	5	1																				
HOR. LAM.	HOR. LAM.	1	1	X																			
	X-LAM.	2	1																				
	BIOTURB.	3	1																				
	OTHER	4	1																				
	OTHER	5	1																				
COLOUR	OTHER	6	1																				
	COLOUR	7	1																				
LITHOLOG	LITHOLOG	1	1																				
	GY	2	1																				
	(GENERAL LIPED)	3	1																				

SECTION FROM TO	ROCK UN.	1					2					3					4					5				
		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
FIELD NUMBER		1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
QUARTZ				47						12						61										
K-FSP.				3						1						2										
PLAGIOCL.				6						2						1										
MICA, IL.				1						2						2										
CHL. JKA.																										
CALCITE				36						45						16										
DOLOMITE				6						37						7										
GYP SUM																										
OTHER																										
OTHER																										
F/F+Q				15						16						14										16
PL/PL+KF				70						53						2										63
D/D+C				17						15						2										47
OR G. C										0.9						3										
MIN. C										50						0.2										
CALCITE										40						16										
DOLOMITE										36						8										
ANALYS				616						XX						XXXIX										XXXIX
QUARTZ				TR												TR										TR
CHERT				8.						X						XX										XX
FELDSPAR										X						X										X
MUSCOV.										TR						TR										TR
BIOTITE										X						X										X
CHLORITE																										
METAN.																										
YOLC.																										
CARB.				23						XXXX						XXX										XX
GYP SUM																										
OTHER																										
OTHER																										
OTHER																										
OTHER																										
CONTRACT																										
BOIDS																										
PELLETS																										
STD. SYN.																										
FOSSIL																										
FOSSIL																										
FOSSIL																										
FOSSIL																										
FOSSIL																										
FOSSIL																										
D/D+C																										
D. GRADE																										
SUPPORT																										
GR. GRADE																										
GR/GR+NA																										
MA. GRADE																										
PHENOCL.																										
PHENOCL.																										
PHENOCL.																										
CA. MET.																										
SD. GRADE																										
MAX. GRAN.																										
SD. STG.																										
SD. RDB.																										
CD. CNT																										
HOR. LAN.																										
X-LAN.																										
BIOTURB.																										
OTHER																										
OTHER																										
OTHER																										
COLOUR																										
LINDLO -																										
GY																										
(GENERAL																										
LIPED)																										



SECTION	ROCK UN.	FROM	TO	1				2				3				4				5			
				C	O	S	G	C	O	S	G	C	O	S	G	C	O	S	G	C	O	S	G
QUARTZ	1	1	1																				
K-FSP.	2	2	2																				
PLAGIOCL.	3	3	3																				
MICA, IL.	4	4	4																				
CHLORITE	5	5	5																				
CALCITE	6	6	6																				
DOLOMITE	7	7	7																				
GYP SUM	8	8	8																				
OTHER	9	9	9																				
OTHER	10	10	10																				
F/F+R	1	1	1																				
PL/PL+KF	2	2	2																				
D/D+C	3	3	3																				
OKG.C	3	3	3																				
NIN.C	2	2	2																				
CALCITE	3	3	3																				
DOLOMITE	4	4	4																				
ANALYS.	1	1	1																				
QUARTZ	2	2	2																				
CHELT	3	3	3																				
FELDSPAR	4	4	4																				
MUSCOV.	5	5	5																				
BIOTITE	6	6	6																				
CHLORITE	7	7	7																				
METAN.	8	8	8																				
YOLC.	9	9	9																				
CARB.	10	10	10																				
GYP SUM	11	11	11																				
OTHER	12	12	12																				
OTHER	13	13	13																				
OTHER	14	14	14																				
INTRACL.	1	1	1																				
POIDS	2	2	2																				
PELLETS	3	3	3																				
STD. SPY	4	4	4																				
FOSSIL	5	5	5																				
FOSSIL	6	6	6																				
FOSSIL	7	7	7																				
FOSSIL	8	8	8																				
FOSSIL	9	9	9																				
FOSSIL	10	10	10																				
FOSSIL	11	11	11																				
FOSSIL	12	12	12																				
D/D+C	7	7	7																				
D. GRADE	2	2	2																				
SUPPORT	1	1	1																				
GR. GRADE	2	2	2																				
GR/GR+HA	3	3	3																				
HA. GRADE	4	4	4																				
PHE NOCL.	1	1	1																				
PHE NOCL.	2	2	2																				
PHE NOCL.	3	3	3																				
PHE NOCL.	4	4	4																				
SG MATS.	5	5	5																				
SD. GRADE	1	1	1																				
MAX. GRN.	2	2	2																				
SD. STG.	3	3	3																				
SD. RDG.	4	4	4																				
SD. CHT.	5	5	5																				
HOR. LAN.	1	1	1																				
X-LAN.	2	2	2																				
BIOTURB.	3	3	3																				
OTHER	4	4	4																				
OTHER	5	5	5																				
OTHER	6	6	6																				
COLOUR	1	1	1																				
LITHOLO	1	1	1																				
gy.	2	2	2																				
(GENERAL)	3	3	3																				
LIPED)	4	4	4																				

SECTION ROCK UN. FROM TO	1		2		3		4		5		6		7		8		9		10				
	E	D	S	D	E	D	S	D	E	D	S	D	E	D	S	D	E	D	S	D			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
FIELD NUMBER	1 1																						
	2 2																						
ANALYSIS	1 1																						
	2 2																						
QUARTZ	1																						
X-FSP.	2																						
PLAGIOCL.	3																						
MICA / IL.	4																						
CHL. / KA.	5																						
CALCITE	6																						
DOLOMITE	7																						
GYPSSUM	8																						
OTHER	9																						
OTHER	10																						
F/F+G	1								0							1	7			1	6		
PL/PL+KF	2															6	0			6	0		
D/D+C	3															1	9			5	7		
OK G. C	1																			0	1	7	
MIN. C	2																			5	5	1	
CALCITE	3																			7	2	5	
DOLOMITE	4																			1	7	0	
ANALYSIS		1	EIST.		EIST.		EIST.		EIST.		EIST.		EIST.		EIST.		EIST.		EIST.		EIST.		
QUARTZ	1				X	X	X				X	X				X	X	X			X	X	X
CHERT	2																						
FELDSPAR	3																						X
MUSCOV.	4					X	X																X
BIOTITE	5					X	X																X
CHLORITE	6					X	X																X
METAH.	7																						
YOLC.	8																						
CARB.	9				X	X	X					X	X	X			X	X	X			X	X
GYPSSUM	10																						
OTHER	11																						
OTHER	12																						
OTHER	13																						
OTHER	14																						
CONTRACT		1																					
BOIDS.		2																					
PELLETS		3																					
CTD. SPN.		4																					
FOSSIL		5																					
FOSSIL		6																					
FOSSIL		7																					
FOSSIL		8																					
FOSSIL		9																					
FOSSIL		10																					
FOSSIL		11																					
FOSSIL		12																					
FOSSIL		13																					
FOSSIL		14																					
D/D+C		1																					
D. GRADE		2																					
SUPPORT		1																					
GR. GRADE		2																					
GR/GR+MA		3																					
MA. GRADE		4																					
PHENOCCL.		1																					
PHENOCCL.		2																					
PHENOCCL.		3																					
PHENOCCL.		4																					
PHENOCCL.		5																					
SD. GRADE		1																					
MAX. GRV.		2																					
SD. STG.		3																					
SD. RDG.		4																					
SD. CENT		5																					
HOR. LAN.		1																					
X-LAN.		2																					
BIOTURB.		3																					
OTHER		4																					
OTHER		5																					
OTHER		6																					
OTHER		7																					
COLOUR		1																					
LITHOLOG		1																					
(GENERALIZED)		2																					
LITHOLOG		3																					
LITHOLOG		4																					

SECTION	UN.	19-3				9-3				9-3			
		D	D	D	D	D	D	D	D	D	D	D	D
ROCK UN.	1	1	2	3	4	5	6	7	8	9	10	11	12
FROM	2	1	2	3	4	5	6	7	8	9	10	11	12
FIELD NUMBER	3	1	2	3	4	5	6	7	8	9	10	11	12
QUARTZ	1	1	2	3	4	5	6	7	8	9	10	11	12
K-FSP.	2	1	2	3	4	5	6	7	8	9	10	11	12
PLAGIOCL.	3	1	2	3	4	5	6	7	8	9	10	11	12
MICA IKA.	4	1	2	3	4	5	6	7	8	9	10	11	12
CHLORITE	5	1	2	3	4	5	6	7	8	9	10	11	12
DOLOMITE	6	1	2	3	4	5	6	7	8	9	10	11	12
GYPSUM	7	1	2	3	4	5	6	7	8	9	10	11	12
OTHER	8	1	2	3	4	5	6	7	8	9	10	11	12
OTHER	9	1	2	3	4	5	6	7	8	9	10	11	12
F/F+R	10	1	2	3	4	5	6	7	8	9	10	11	12
PL/PL+KF	11	1	2	3	4	5	6	7	8	9	10	11	12
D/D+C	12	1	2	3	4	5	6	7	8	9	10	11	12
ORG. C	13	1	2	3	4	5	6	7	8	9	10	11	12
MIN. C	14	1	2	3	4	5	6	7	8	9	10	11	12
CALCITE	15	1	2	3	4	5	6	7	8	9	10	11	12
DOLOMITE	16	1	2	3	4	5	6	7	8	9	10	11	12
ANALYS.	17	1	2	3	4	5	6	7	8	9	10	11	12
QUARTZ	18	1	2	3	4	5	6	7	8	9	10	11	12
CHERT	19	1	2	3	4	5	6	7	8	9	10	11	12
FELDSPAR	20	1	2	3	4	5	6	7	8	9	10	11	12
MUSCOV.	21	1	2	3	4	5	6	7	8	9	10	11	12
BIOTITE	22	1	2	3	4	5	6	7	8	9	10	11	12
CHLORITE	23	1	2	3	4	5	6	7	8	9	10	11	12
METAH.	24	1	2	3	4	5	6	7	8	9	10	11	12
YOLC.	25	1	2	3	4	5	6	7	8	9	10	11	12
CARB.	26	1	2	3	4	5	6	7	8	9	10	11	12
GYPSUM	27	1	2	3	4	5	6	7	8	9	10	11	12
OTHER	28	1	2	3	4	5	6	7	8	9	10	11	12
OTHER	29	1	2	3	4	5	6	7	8	9	10	11	12
OTHER	30	1	2	3	4	5	6	7	8	9	10	11	12
OTHER	31	1	2	3	4	5	6	7	8	9	10	11	12
INTRACL.	32	1	2	3	4	5	6	7	8	9	10	11	12
ODIDS	33	1	2	3	4	5	6	7	8	9	10	11	12
PELLETS	34	1	2	3	4	5	6	7	8	9	10	11	12
CTD GRV	35	1	2	3	4	5	6	7	8	9	10	11	12
FOSSIL	36	1	2	3	4	5	6	7	8	9	10	11	12
FOSSIL	37	1	2	3	4	5	6	7	8	9	10	11	12
FOSSIL	38	1	2	3	4	5	6	7	8	9	10	11	12
FOSSIL	39	1	2	3	4	5	6	7	8	9	10	11	12
FOSSIL	40	1	2	3	4	5	6	7	8	9	10	11	12
FOSSIL	41	1	2	3	4	5	6	7	8	9	10	11	12
FOSSIL	42	1	2	3	4	5	6	7	8	9	10	11	12
D/D+C	43	1	2	3	4	5	6	7	8	9	10	11	12
D. SPADE	44	1	2	3	4	5	6	7	8	9	10	11	12
SUPPORT	45	1	2	3	4	5	6	7	8	9	10	11	12
SR. GRADE	46	1	2	3	4	5	6	7	8	9	10	11	12
GR/GR+MA	47	1	2	3	4	5	6	7	8	9	10	11	12
MA. GRADE	48	1	2	3	4	5	6	7	8	9	10	11	12
PHENOCL.	49	1	2	3	4	5	6	7	8	9	10	11	12
PHENOCL.	50	1	2	3	4	5	6	7	8	9	10	11	12
PHENOCL.	51	1	2	3	4	5	6	7	8	9	10	11	12
PHENOCL.	52	1	2	3	4	5	6	7	8	9	10	11	12
SS. MAN.	53	1	2	3	4	5	6	7	8	9	10	11	12
SD. GRADE	54	1	2	3	4	5	6	7	8	9	10	11	12
MAX. GRV.	55	1	2	3	4	5	6	7	8	9	10	11	12
SD. STG.	56	1	2	3	4	5	6	7	8	9	10	11	12
SD. RDG.	57	1	2	3	4	5	6	7	8	9	10	11	12
SD. CEMT	58	1	2	3	4	5	6	7	8	9	10	11	12
HOR. LAM.	59	1	2	3	4	5	6	7	8	9	10	11	12
X-LAN.	60	1	2	3	4	5	6	7	8	9	10	11	12
BIOTURB.	61	1	2	3	4	5	6	7	8	9	10	11	12
OTHER	62	1	2	3	4	5	6	7	8	9	10	11	12
OTHER	63	1	2	3	4	5	6	7	8	9	10	11	12
OTHER	64	1	2	3	4	5	6	7	8	9	10	11	12
COLOUR	65	1	2	3	4	5	6	7	8	9	10	11	12
LITHOLO	66	1	2	3	4	5	6	7	8	9	10	11	12
GY	67	1	2	3	4	5	6	7	8	9	10	11	12
(GENEFA	68	1	2	3	4	5	6	7	8	9	10	11	12
LIZED)	69	1	2	3	4	5	6	7	8	9	10	11	12

SECTION	UN.	1						2						3						4						5						6						7						8						9						10					
		1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6												
SECTION	UN.	1						2						3						4						5						6						7						8						9						10					
ROCK UN.	FROM	1						2						3						4						5						6						7						8						9						10					
TO	FIELD	1						2						3						4						5						6						7						8						9						10					
	NUMBER	1						2						3						4						5						6						7						8						9						10					
	UNIT NUMBER	1						2						3						4						5						6						7						8						9						10					
QUARTZ	K-FSP.	1						2						3						4						5						6						7						8						9						10					
	PLAGIOCL.	1						2						3						4						5						6						7						8						9						10					
	MICA, IL.	1						2						3						4						5						6						7						8						9						10					
	CHL., KA.	1						2						3						4						5						6						7						8						9						10					
	CALCITE	1						2						3						4						5						6						7						8						9						10					
	DOLOMITE	1						2						3						4						5						6						7						8						9						10					
	GYP SUM	1						2						3						4						5						6						7						8						9						10					
	OTHER	1						2						3						4						5						6						7						8						9						10					
	OTHER	1						2						3						4						5						6						7						8						9						10					
	OTHER	1						2						3						4						5						6						7						8						9						10					
F/F+Q	PL/PL+KF	1						2						3						4						5						6						7						8						9						10					
	D/D+C	1						2						3						4						5						6						7						8						9						10					
	ORG. C	1						2						3						4						5						6						7						8						9						10					
MIN. C	CALCITE	1						2						3						4						5						6						7						8						9						10					
	DOLOMITE	1						2						3						4						5						6						7						8						9						10					
		1						2						3						4						5						6						7						8						9						10					
ANALYS.	QUARTZ	1						2						3						4						5						6						7						8						9						10					
	CHERT	1						2						3						4						5						6						7						8						9						10					
	FELDSPAR	1						2						3						4						5						6						7						8						9						10					
	MUSCOV.	1						2						3						4						5						6						7						8						9						10					
	BIOTITE	1						2						3						4						5						6						7						8						9						10					
	CHLORITE	1						2						3						4						5						6						7						8						9						10					
	METAM.	1						2						3						4						5						6						7						8						9						10					
	YOLC.	1						2						3						4						5						6						7						8						9						10					
	CARB.	1						2						3						4						5						6						7						8						9						10					
	GYP SUM	1						2						3						4						5						6						7						8						9						10					
	OTHER	1						2						3						4						5						6						7						8						9						10					
	OTHER	1						2						3						4						5						6						7						8						9						10					
	OTHER	1						2						3						4						5						6						7						8						9						10					
	OTHER	1						2						3						4						5						6						7						8						9						10					
INTRAGL	ODIDS	1						2						3						4						5						6						7						8						9						10					
	PELLETS	1						2						3						4						5						6						7						8						9						10					
	CTD. SAND	1						2						3						4						5						6						7						8						9						10					
		1						2						3						4						5						6						7						8						9						10					
FOSSIL	FOSSIL	1						2						3						4						5						6						7						8						9						10					
	FOSSIL	1						2						3						4						5						6						7						8						9						10					
	FOSSIL	1						2						3						4						5						6						7						8						9						10					
	FOSSIL	1						2						3						4						5						6						7						8						9						10					
	FOSSIL	1						2						3						4						5						6						7						8						9						10					
	FOSSIL	1						2						3						4						5						6						7						8						9						10					
D/D+C	D. GRADE	1						2						3						4						5						6						7						8						9						10					
		1						2						3						4						5						6						7						8						9						10					
SUPPORT	SR. GRADE	1						2						3						4						5						6						7						8						9						10					
	GR/GR+MA	1						2						3						4						5						6						7						8						9						10					
	MS. GRADE	1						2						3						4						5						6						7						8						9						10					
		1						2						3						4						5						6						7						8						9						10					
PHENOCL.	PHENOCL.	1						2						3						4						5						6						7						8						9						10					
	PHENOCL.	1						2						3						4						5						6						7						8						9						10					
	PHENOCL.	1						2						3						4						5						6						7						8						9						10					
	SG. MAT.	1						2						3						4						5						6						7						8						9						10					
SD. GRADE	MAX. GRN.	1						2						3						4						5						6						7						8						9						10					
	SD. STG.	1						2						3						4						5						6						7						8						9						10					
	SD. RDG.	1						2						3						4						5						6						7						8						9						10					
	SD. CHY.	1						2						3						4						5						6						7						8						9						10					
		1						2						3						4						5						6						7						8						9						10					
HOR. LAM.	X-LAM.	1						2						3						4						5						6						7						8						9						10					
	BIOTURB.	1						2						3						4						5						6						7						8						9						10					
	OTHER	1						2						3						4						5						6						7						8						9						10					
	OTHER	1						2						3						4						5						6						7						8						9						10					
	OTHER	1						2						3						4						5						6						7						8						9						10					
COLOUR		1						2						3						4						5						6						7						8						9						10					
		1						2						3						4						5						6						7						8						9						10					
LITHOLO	GY	1						2						3						4						5						6						7						8						9						10					
	(GENERAL LIPED)	1						2						3						4						5						6						7						8						9						10					
		1						2						3						4						5						6						7						8						9						10					
		1						2						3						4						5						6						7						8						9						10					
		1						2						3						4						5						6						7						8						9						10					
		1						2						3						4						5						6						7						8						9						10					

SECTION ROCK UNIT FROM	1	1-4		7-4		10-4		13-4		16-4		
		VCAADN		VCAADN		VCAADN		VCAADN		VCAADN		
		16		20		61		67		152		
FIELD NUMBERS	2	141-73-5		141-73-5		141-73-5		141-73-5		141-73-5		
		1664		1664		1664		1664		1664		
LITH. NUMBER	3	1036178712032153		1036178712032153		1036178712032153		1036178712032153		1036178712032153		
QUARTZ K-FSP. PLAGIOCL. MICA, IL. CHL., KA. CALCITE DOLOMITE GYPSUM OTHER	1	1										
		2										
		3										
		4										
		5										
		6		70								
		7		21		57		79		74		43
		8										
		9										
		10										
F/F+Q PL/PL+KF D/D+C	2	1										
		2										
		3										
ORG. C MIN. C CALCITE DOLOMITE	3	1										
		2										
		3										
		4										
ANALYS. QUARTZ CHERT FELDSPAR MUSCOV. BIOTITE CHLORITE METAM. VOLC. CARB. GYPSUM OTHER OTHER OTHER	2	1										
		2										
		3										
		4										
		5										
		6										
		7										
		8										
		9										
		10										
INTRACL. OOIDS PELLETS STD. GRN.	3	1										
		2										
		3										
		4										
		5										
FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL	3	1										
		2										
		3										
		4										
		5										
		6										
		7										
D/D+C D. GRADE	7	1										
		2										
SUPPORT SR. GRADE GR/GR+HA HA. GRADE	3	1										
		2										
		3										
		4										
PHENOCCL. PHENOCCL. PHENOCCL. CG. MATR.	3	1										
		2										
		3										
		4										
SD. GRADE MAX. GRV. SD. STG. SD. RDG. SD. CEMT.	3	1										
		2										
		3										
		4										
		5										
POR. LAM. X-LAM. BIOTURB. OTHER OTHER	3	1										
		2										
		3										
		4										
		5										
		6										
COLOUR	2	1										
		2										
LITHOLO- GY (GENERAL- LIZED)	3	1										
		2										
		3										
		4										
		5										

SECTION	ROCK UN.	FROM	TO	1			2			3			4		
				1	2	3	1	2	3	1	2	3	1	2	3
FIELD NUMBER				1111	1711	1511	1111	1711	1511	1111	1711	1511	1111	1711	1511
				1111	1711	1511	1111	1711	1511	1111	1711	1511	1111	1711	1511
				1111	1711	1511	1111	1711	1511	1111	1711	1511	1111	1711	1511
				1111	1711	1511	1111	1711	1511	1111	1711	1511	1111	1711	1511
QUARTZ	K-FSP.														
	PLAGIOCL.														
	MICA, IL.														
	CHL., KA.														
	CALCITE														
	DOLOMITE														
	GYPSUM														
	OTHER														
	OTHER														
	OTHER														
F/F+G															
	PL/PL+KF														
	D/D+C														
ORF. C	NIN. C														
	CALCITE														
	DOLOMITE														
	OTHER														
ANALYS.	QUARTZ														
	CHERT														
	FELDSPAR														
	MUSCOV.														
	BIOOTITE														
	CHLORITE														
	METAL.														
	YOLC.														
	CARB.														
	GYPSUM														
OTHER															
OTHER															
OTHER															
OTHER															
INTRACL.	OOIDS														
	PELLETS														
	ST. GRADE														
	FOSSIL														
FOSSIL	FOSSIL														
	FOSSIL														
	FOSSIL														
	FOSSIL														
	FOSSIL														
	FOSSIL														
	FOSSIL														
D/D+C	D. GRADE														
	SUPPORT														
	HR. GRADE														
	GR/GR+NA														
PHENOCL.	PHENOCL.														
	PHENOCL.														
	PHENOCL.														
	PHENOCL.														
	SG. MATR.														
SD. GRADE	MAX. GRADE														
	SD. STG.														
	SD. RDS.														
	SD. CEMT.														
	OTHER														
HOR. LAM.	X-LAM.														
	BIO TURB.														
	OTHER														
	OTHER														
	OTHER														
COLOUR	COLOUR														
	COLOUR														
	COLOUR														
	COLOUR														
	COLOUR														
LITHOLO.	LITHOLO.														
	LITHOLO.														
	LITHOLO.														
	LITHOLO.														
	LITHOLO.														

SECTION UN.		1	10-1	10-1	10-1	10-1	10-1
FROM		1	2	3	4	5	6
FIELD		1	2	3	4	5	6
NUMBERS		1	2	3	4	5	6
QUARTZ		1	1	1	1	1	1
K-FSP		2					
PLAGIOCL.		3					
MICAZIL.		4					
CHLOR. KA.		5					
CALCITE		6	9	3	7	3	9
DOLOMITE		7	2		1		1
GYPSUM		8					
OTHER		9					
OTHER		10					
F/F+K		1	2				1
PL/PL+K		2	1				1
D/DI		3	2				2
OKG.		3					
MIN. C		1					
CALCITE		3					
DOLOMITE		4					
ANAL.			E.S.T.	E.S.T.	E.S.T.	E.S.T.	E.S.T.
QUARTZ		1		X		X	X
CHERT		2					
FELDSPAR		3					
MUSCOV.		4		TR			
BIOTITE		5					
CHLORITE		6					
METAN.		7					
VOLC.		8					
CARB.		9	X	X	X	X	X
GYPSUM		10					
OTHER		1					
OTHER		2					
OTHER		3					
OTHER		4					
INTRACL.		1					
ODIDS		2					
PELLETS		3					
STD. SPN.		4					
FOSSIL		5					
FOSSIL		6					
FOSSIL		7					
FOSSIL		8					
FOSSIL		9					
FOSSIL		10					
D/DFC		7					
D. GRADE		1					
SUPPORT		2					
GR. GRADE		3					
GR/GR+NA		4					
NA. GRADE		5					
PHENOCL.		6					
PHENOCL.		7					
PHENOCL.		8					
PHENOCL.		9					
CG. MATR.		10					
SD. GRADE		1					
MAX. GRN.		2					
SD. STG.		3					
SD. RDG.		4					
CD. CFMT		5					
HOR. LAM.		6					
X-LAM.		7					
BIOTURB.		8					
OTHER		9					
OTHER		10					
OTHER		1					
OTHER		2					
COLOUR		3					
LITHOLO.		4					
GY		5					
(GENERAL)		6					
LIBED)		7					

SECTION ROCK UN. FROM TO	1	10-2				10-2				10-2				10-2			
		VE	MD	H		VE	MD	H		VE	MD	H		VE	MD	H	
FILLD NUMBER	2	14-73-18				14-73-18				14-73-18				14-73-18			
GSC NUMBER	3	10-360-4				10-360-4				10-360-5				10-360-5			
QUARTZ	1	61				8				115				73			
K-FSP.	1	6				1				2				7			
PLAGIOCL.	3	9				1				2				3			
MICA, IL.	4	2								1				1			
CHL., KA.	5					1				4				5			
CALCITE	6									7.5				11			
BOLOHITE	7	27				88				7.5				11			
GYP SUM	8																
OTHER	9																
OTHER	10																
F/F+G	2	115				16				119				216			
PL/PL+HF	2	319				510				12				216			
D/DIC	3	100												67			
ORG C	3																
MIN. C	2																
CALCITE	3																
BOLOHITE	4																
ANALYS.	1	E:ST				E:ST				E:ST				3DIG IP:TS E:ST			
QUARTZ	1	XIXIX				XIX				IXX				616 XIXXX			
CHERT	2	TR												TR			
FELDSPAR	3	XIX				X				X				16 XX			
MUSCOV.	4	X												1 X			
BIOTITE	5	TR				X				TR				TR			
CHLORITE	6													1			
METAN.	7	TK												1			
YOLC.	8													216			
CARB.	9	XIXX				XIXIXX				YIXIXX				XXXX			
GYP SUM	10					FL				TR							
OTHER	11																
OTHER	12																
OTHER	13																
C-C	14																
GR. TYPE	1	G				H				A				G			
INTRACL.	5																
VOIDS	5																
PELLETS	5																
ST. ARR.	5																
FOSSIL	5																
FOSSIL	5																
FOSSIL	5																
FOSSIL	5																
FOSSIL	5																
FOSSIL	5																
D/D+C	7					CR-INTIC				CR-IF							
P. GRADE	1																
SUPPORT	5																
GR. GRADE	2																
GR/GR+NA	3																
NA. GRADE	4																
PHENOCL.	1					DILIST				XIDLIST				A			
PHENOCL.	3					SICST				XIDLIST				X			
PHENOCL.	4					STY				STY				S.D.V.			
CR. MAT.	5													S.S.			
SV. GRADE	5	V.F				V.F.F				V.F.F				V.F			
MAX. GR.	1																
SD. STG.	3													V.G			
SD. RDG.	4	P-H												P			
SD. CNT.	5	ST, TR				C.F.								C.F., R			
HOR. LAM.	1					X								X			
X-LAM.	2													X			
BIOTURB.	3																
OTHER	4																
OTHER	5																
OTHER	6																
COLOUR	1	L. G. Y.				L. G. Y.								V.F. W. B. M. L. G. Y.			
LITHOLO.	1	S.T.Y.				S.T.Y.				S.T.Y.				S.T.Y.			
(GENERAL LIT. C.)	1	S.T.Y.				S.T.Y.				S.T.Y.				S.T.Y.			

SECTION	FROM	TO	10-2			10-2			10-2			10-2		
			VEN	D	H	VEN	D	H	VEN	D	H	VEN	D	H
FIELD NUMBER	1	1	73	73	73	73	73	73	73	73	73	73	73	
GSC NUMBER	3	3	73	73	73	73	73	73	73	73	73	73	73	
QUARTZ	1	1												
K-FSP.	2	2												
PLAGIOCL.	3	3												
MICA, IL.	4	4												
CHL. KA.	5	5												
CALCITE	6	6												
DOLONITE	7	7												
GYP SUM	8	8												
OTHER	9	9												
OTHER	10	10												
F/PL+K	1	1												
PL/PL+K	2	2												
D/D+C	3	3												
OR G. C	3	3												
MIN. C	2	2												
CALCITE	3	3												
DOLONITE	4	4												
ANALYS.	1	1	EISIT			EISIT			EISIT			EISIT		
QUARTZ	2	2												
CHEFT	3	3												
FELDSPAR	4	4												
MUSCOV.	5	5												
BIOTITE	6	6												
CHLORITE	7	7												
METAN.	8	8												
YOLC.	9	9												
CARB.	10	10												
GYP SUM	11	11												
OTHER	12	12												
OTHER	13	13												
OTHER	14	14												
CB TYPE	3	3	N, G											
INTRACL.	4	4												
OOIDS	5	5												
PELLETS	6	6												
CTD. GRM.	7	7												
FOSSIL	8	8												
FOSSIL	9	9												
FOSSIL	10	10												
FOSSIL	11	11												
FOSSIL	12	12												
FOSSIL	13	13												
D/D+C	7	7	CR-FHIC			CR-FHIC			CR-VIF					
D. GRADE	1	1												
SUPPORT	2	2												
SR. GRADE	3	3												
GR/GR+MA	4	4												
VA. GRADE	5	5												
PHENOCCL.	9	9												
PHENOCCL.	2	2												
PHENOCCL.	3	3												
PHENOCCL.	4	4												
CE. MATR.	5	5												
SD. GRADE	1	1	VIF			VIF			VIF			VIF		
MAX. GRV.	2	2												
SD. STA.	3	3												
SD. PDB.	4	4												
CD. CEMT.	5	5												
HDR. LAM.	1	1												
X-LAM.	2	2												
BIOTURB.	3	3												
OTHER	4	4	FRZ											
OTHER	5	5												
OTHER	6	6												
COLOUR	2	2	C6Y			L6Y			L6Y			L6Y		
LITHOLO-	3	3	S1Y			S1Y			S1Y			S1Y		
GY	4	4	S1Y			S1Y			S1Y			S1Y		
(GENIAA	5	5	S1Y			S1Y			S1Y			S1Y		
LIZED)	6	6	S1Y			S1Y			S1Y			S1Y		

SECTION ROCK UN. FROM	1	1	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		2	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		3	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		4	10-2	1	10-2	1	10-2	1	10-2	1	10-2
GENERAL FIELD NUMBER GSC NUMBER	2	1	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		2	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		3	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		4	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		5	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		6	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		7	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		8	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		9	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		10	10-2	1	10-2	1	10-2	1	10-2	1	10-2
RAY-CARBON QUARTZ K-FSP. PLAGIOCL. MICA, IL. CHL., KA. CALCITE DOLOMITE GYPSUM OTHER OTHER	1	1	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		2	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		3	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		4	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		5	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		6	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		7	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		8	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		9	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		10	10-2	1	10-2	1	10-2	1	10-2	1	10-2
RAY-CARBON P/F+R PL/PL+KF D/D+C ORG. C MICA CALCITE DOLOMITE	2	1	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		2	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		3	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		4	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		5	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		6	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		7	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		8	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		9	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		10	10-2	1	10-2	1	10-2	1	10-2	1	10-2
ANALYS. QUARTZ CHERT FELDSPAR MUSCOV. BIOTITE CHLORITE METAK. VOLC. CARB. GYPSUM OTHER OTHER OTHER OTHER	2	1	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		2	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		3	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		4	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		5	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		6	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		7	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		8	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		9	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		10	10-2	1	10-2	1	10-2	1	10-2	1	10-2
CURVED CB. TYPE INTRACL. VOIDS PELLETS CTD. GRN. FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL	3	1	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		2	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		3	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		4	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		5	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		6	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		7	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		8	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		9	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		10	10-2	1	10-2	1	10-2	1	10-2	1	10-2
CURVED D/D+C D. GRADE SUPPORT HR. GRADE GR./GR+NA HA. GRADE PHENOCL. PHENOCL. PHENOCL. CG. MITR. SD. GRADE MAX. GRN. SD. STG. SD. RDG. CD. CENT	7	1	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		2	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		3	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		4	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		5	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		6	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		7	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		8	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		9	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		10	10-2	1	10-2	1	10-2	1	10-2	1	10-2
CURVED IFOR. LAM. X-LAM. BIOTURB. OTHER OTHER OTHER COLOUR LITHOLO- GY (GENERAL- IZED)	1	1	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		2	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		3	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		4	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		5	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		6	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		7	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		8	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		9	10-2	1	10-2	1	10-2	1	10-2	1	10-2
		10	10-2	1	10-2	1	10-2	1	10-2	1	10-2

SECTION ROCK UN. FROM TO	1	10										11										12										13										14									
		1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
FIELD NUMBER	2	11A-12-18 TH-75-8										11A-12-18 TH-75-8										11A-12-18 TH-75-8										11A-12-18 TH-75-8										11A-12-18 TH-75-8									
GSC NUMBER	3	C10-36-712										C10-36-712										C10-36-712										C10-36-712										C10-36-712									
QUARTZ	1	65										64										758										712										55									
K-FSP.	2	81										7										111										13										7									
PLAGIOCL.	3	1																																																	
MICA, IL.	4	2										6																				5										2									
(H.L.) KA.	5	1										3																				2										1									
CALCITE	6	1										5																				2										1									
DOLOMITE	7	24										15										12										5										26									
GYP SUM	8																																																		
OTHER	9																																																		
OTHER	10																																																		
F/F+Q	2	112										110																				116										22									
PL/PL+KF	2	114										7										0										8										54									
D/D+C	3	116										77										100										76										76									
ORG. C	3																					112																													
MIX. C	2																					113																													
CALCITE	3																					6																													
DOLOMITE	4																					11																													
ANALYS.	1	EIST										EIST										EIST										EIST										EIST									
QUARTZ	2	XIX										XIX										7A										XIX										XIX									
CHERT	2	TIR										TR										7A										XIX										TR									
FELDSPAR	3	XIX										X										9										XIX										XIX									
MUSCOV.	4	IX										X										TR										X										Y									
BIOTITE	5	TR										X																				X										TR									
(H.LORITE	6	TR										X																				X										TR									
METAN.	7																																																		
YOLC.	8																																																		
CARB.	9	XIX										XX										177										XIX										XX									
GYP SUM	10																																																		
OTHER	11																																																		
OTHER	12																																																		
OTHER	13																																																		
OTHER	14																																																		
CB TYPE	3	G										G										G										G										G									
INTRACL.	4																																																		
VOIDS																																																			
PELLETS																																																			
CTD. GRN.																																																			
FOSSIL	5																																																		
FOSSIL	2																																																		
FOSSIL	3																																																		
FOSSIL	4																																																		
FOSSIL	5																																																		
FOSSIL	6																																																		
FOSSIL	7																																																		
D/D+C	7																																																		
D. GRADE	2																																																		
SUPPORT	6																																																		
GR. GRADE	2																																																		
SR/GR+MA	3																																																		
MA. GRADE	4																																																		
PHENOCL.	4																																																		
PHENOCL.	2																																																		
PHENOCL.	3																																																		
PHENOCL.	4																																																		
CG. MAT. K.	5																																																		
SD. GRADE	5	VF										VF										VF										VF										VF									
MAX. GRN.	2																																																		
SD. STG.	3											V6										V6										V6										V6									
SD. RDG.	4	P										P										P										P										P									
CD. CENT.	5	P										P										P										P										P									
HOR. LAM.	1											X										X																													
X-LAM.	2																															X																			
BIOTURB.	3																																																		
OTHER	4																																																		
OTHER	5																																																		
OTHER	6																																																		
COLOUR	2	LIMY										LIMY										LIMY										LIMY										LIMY									
LITHOLO- GY (GENERAL- LIZED)	3	SCL, SHY										SCL, SHY										SCL, SHY										SCL, SHY										SCL, SHY									

SECTION ROCK UN. FROM TO		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FIELD NUMBER		1	2	3	4	5	6	7	8	9	10	11	12	13	14
GSC NUMBER		1	2	3	4	5	6	7	8	9	10	11	12	13	14
QUARTZ		1	2	3	4	5	6	7	8	9	10	11	12	13	14
K-FSP.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
PLAGIOCL.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
MICA, IL.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
CHL. KA.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
CALCITE		1	2	3	4	5	6	7	8	9	10	11	12	13	14
DOLOMITE		1	2	3	4	5	6	7	8	9	10	11	12	13	14
GYPSUM		1	2	3	4	5	6	7	8	9	10	11	12	13	14
OTHER		1	2	3	4	5	6	7	8	9	10	11	12	13	14
OTHER		1	2	3	4	5	6	7	8	9	10	11	12	13	14
F/F+G		1	2	3	4	5	6	7	8	9	10	11	12	13	14
PL/PL+KF		1	2	3	4	5	6	7	8	9	10	11	12	13	14
D/D+C		1	2	3	4	5	6	7	8	9	10	11	12	13	14
ORG. C		1	2	3	4	5	6	7	8	9	10	11	12	13	14
MIN. C		1	2	3	4	5	6	7	8	9	10	11	12	13	14
CALCITE		1	2	3	4	5	6	7	8	9	10	11	12	13	14
DOLOMITE		1	2	3	4	5	6	7	8	9	10	11	12	13	14
ANALYS.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
QUARTZ		1	2	3	4	5	6	7	8	9	10	11	12	13	14
CHERT		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FELDSPAR		1	2	3	4	5	6	7	8	9	10	11	12	13	14
MUSCOV.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
BIOTITE		1	2	3	4	5	6	7	8	9	10	11	12	13	14
CHLORITE		1	2	3	4	5	6	7	8	9	10	11	12	13	14
METAN.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
YOLC.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
CARB.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
GYPSUM		1	2	3	4	5	6	7	8	9	10	11	12	13	14
OTHER		1	2	3	4	5	6	7	8	9	10	11	12	13	14
OTHER		1	2	3	4	5	6	7	8	9	10	11	12	13	14
OTHER		1	2	3	4	5	6	7	8	9	10	11	12	13	14
OTHER		1	2	3	4	5	6	7	8	9	10	11	12	13	14
OTHER		1	2	3	4	5	6	7	8	9	10	11	12	13	14
D. TYPE		1	2	3	4	5	6	7	8	9	10	11	12	13	14
INTRACL.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
OOLITE		1	2	3	4	5	6	7	8	9	10	11	12	13	14
PELLETS		1	2	3	4	5	6	7	8	9	10	11	12	13	14
CTD. GRN.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FOSSIL		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FOSSIL		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FOSSIL		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FOSSIL		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FOSSIL		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FOSSIL		1	2	3	4	5	6	7	8	9	10	11	12	13	14
D/D+C		1	2	3	4	5	6	7	8	9	10	11	12	13	14
D. GRADE		1	2	3	4	5	6	7	8	9	10	11	12	13	14
SUPPORT		1	2	3	4	5	6	7	8	9	10	11	12	13	14
BR. GRADE		1	2	3	4	5	6	7	8	9	10	11	12	13	14
GR/GR+NA		1	2	3	4	5	6	7	8	9	10	11	12	13	14
MA. GRADE		1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHENOCL.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHENOCL.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHENOCL.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
CG. MATR.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
SD. GRADE		1	2	3	4	5	6	7	8	9	10	11	12	13	14
MAX. GRN.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
SD. STG.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
SD. RDB.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
CD. CELL.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
HOR. LAM.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
X-LAM.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
BIOTURB.		1	2	3	4	5	6	7	8	9	10	11	12	13	14
OTHER		1	2	3	4	5	6	7	8	9	10	11	12	13	14
OTHER		1	2	3	4	5	6	7	8	9	10	11	12	13	14
OTHER		1	2	3	4	5	6	7	8	9	10	11	12	13	14
OTHER		1	2	3	4	5	6	7	8	9	10	11	12	13	14
COLOR		1	2	3	4	5	6	7	8	9	10	11	12	13	14
LITHOLO-		1	2	3	4	5	6	7	8	9	10	11	12	13	14
GY		1	2	3	4	5	6	7	8	9	10	11	12	13	14
(GENERALIZED)		1	2	3	4	5	6	7	8	9	10	11	12	13	14

SECTION	ROCK UN.	19-21				19-22				19-23				19-24			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
FROM		513				570				576				684			
TO																	
FIELD NUMBER		19-21-1				19-22-1				19-23-1				19-24-1			
G.S.C. NUMBER		C103K082				C0361084				C013K1185				C101316137			
QUARTZ	1	18				50				24				53			
K-FSP.	2					7				7				5			
PLAGIOCL.	3																
MICA, IL.	4																
CHL., KA.	5																
CALCITE	6																
DOLOMITE	7																
GYPSSUM	8																
OTHER	9																
OTHER	10																
F/F+Q	1																
PL/PL+KF	2																
O/DJL	3																
ORG. C	1																
MIN. C	2																
CALCITE	3																
DOLOMITE	4																
ANALYS.																	
QUARTZ	1																
CHERT	2																
FELDSPAR	3																
MUSCOV.	4																
BIOTITE	5																
(H)ORITE	6																
METAK.	7																
POLC.	8																
CARB.	9																
GYPSSUM	10																
OTHER	11																
OTHER	12																
OTHER	13																
OTHER	14																
CB. TYPE																	
INTRACL.	1																
VOIDS	2																
PELLETS	3																
CTD. BRN.	4																
FOSSIL	1																
FOSSIL	2																
FOSSIL	3																
FOSSIL	4																
FOSSIL	5																
FOSSIL	6																
FOSSIL	7																
D/D+C	1																
D. GRADE	2																
SUPPORT	1																
GR. GRADE	2																
GR/GR+NA	3																
NA. GRADE	4																
PHE. OCL.	1																
PHE. OCL.	2																
PHE. OCL.	3																
PHE. OCL.	4																
CG. MATR.	5																
SD. GRADE	1																
MAX. GRN.	2																
SD. STG.	3																
SD. RDB.	4																
CD. CENT	5																
HOR. LAM.	1																
X-LAM.	2																
BIOTURB.	3																
OTHER	4																
OTHER	5																
OTHER	6																
OTHER	7																
COLOUR	1																
LITHOLO.	1																
(GENERALIZED)	2																

SECTION FROM TO	1	110-2	110-2	110-2	110-2
	2	110-2	110-2	110-2	110-2
	3	110-2	110-2	110-2	110-2
	4	110-2	110-2	110-2	110-2
FIELD NUMBER GSC NUMBER	1	713-10	713-10	713-10	713-10
	2	713-10	713-10	713-10	713-10
	3	713-10	713-10	713-10	713-10
QUARTZ A-FSP. PLAGIOCL. MICA, IL. CHL., KA. CALCITE DOLOMITE GYPSUM OTHER	1	23	4	59	
	2	41		5	
	3	31		1	
	4	2		4	
	5	2		3	
	6			3	
	7	66	49	2	
	8		17		
	9				
	10				
F/F+G PL/PL+KF D/D+C	1	26	0	7	
	2	44		10	
	3	100	100	88	
	4				
ORG. C MIN. C CALCITE DOLOMITE	1				
	2				
	3				
	4				
ANALYS. QUARTZ CHERT FELDSPAR MUSCOV. BIOTITE CHLORITE METAN. VOLC. CARB. GYPSUM OTHER OTHER OTHER OTHER	1	EXIST	EXIST	EXIST	
	2	X	X	X	X
	3				
	4	X			X
	5	X			X
	6	X			X
	7				
	8				
	9	X	X	X	X
	10		X	X	
	11				
	12				
	13				
	14				
CB. TYPE INTRACL. VOIDS PELLETS CTD. GRN. FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL	1				
	2				
	3				
	4				
	5				
	6				
	7				
D/D+C D. GRADE SUPPORT GR. GRADE GR/GR+NA MA. GRADE	1				
	2				
	3				
	4				
PHENOCCL. PHENOCCL. PHENOCCL. CG MATR. SD. GRADE MAX. GRAV. SD. STG. SD. RDG. CD. CENT	1				
	2				
	3				
	4				
	5				
HOR. LAM. X-LAM. BIOTURB. OTHER OTHER OTHER	1				
	2				
	3				
	4				
	5				
	6				
COLOUR LITHOLO- GY (GENERAL- LIZED)	1	16Y	16Y	16Y	
	2				

SECTION FROM TO	1				2				3				4				5			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
FIELD NUMBER	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
QUARTZ				9				22				23				77				9
K-FSP.																				
PLAGIOCL.				1				5				6				1				1
MICA, IL.				2				7				5				2				1
CHL. KA.																				
CALCITE				86				64				40				83				85
DOLOMITE				3				5				13				1				3
GYP SUM																				
OTHER																				
OTHER																				
F/F+Q				14				21				22				6				8
PL/PL+KF				100				83				34								100
O/D+C				3				8				24				5				3
OK6.C				16								24								
NIN.C				87								51								
CALCITE				70								33								
DOLOMITE				4								1								
ANALYS.	ESIT				ESIT				ESIT				ESIT							
QUARTZ				X				X				X				X				X
CHEAT																				
FELDSPAR				TR				Y				XX								
MUSCOV.				X				X				X				X				TR
BIOTITE				X				TR				X				TR				TR
(CHLORITE)				X				TR				X				TR				TR
METAM.																				
YOLC.																				
CARB.				XXX				XXX				XXX				XXX				XXX
GYP SUM																				
OTHER																				
OTHER																				
OTHER																				
OTHER																				
INTRACL.																				
VOIDS																				
PELLETS								A				A				X				A
CTD. GRN.																				
FOSSIL				BRACH				XBRACH				XBRACH				XBRACH				XBRACH
FOSSIL				BRIOI				XBRIOI				XBRIOI				XBRIOI				XBRIOI
FOSSIL				ECH				XECH				XECH				XECH				XECH
FOSSIL								CSITR				XCSITR				XCSITR				XCSITR
FOSSIL								TRIL				XTRIL				XTRIL				XTRIL
FOSSIL																				
FOSSIL																				
FOSSIL																				
D/D+C																				
D. GRADE																				
SUPPORT																				
BR. GRADE																				
GR/GR+MA																				
MA. GRADE																				
PHENOCL.																				
PHENOCL.																				
PHENOCL.																				
CG. MATR.																				
CD. GRADE																				
MAX. GRN.																				
SD. STG.																				
SD. RDB.																				
CD. CENT																				
HOR. LAM.																				
X-LAM.																				
BIOTUKB.																				
OTHER																				
OTHER																				
OTHER																				
COLOUR																				
LITHOLO.																				
GY																				
(GENERAL LIBER)																				

SECTION FROM TO		1		2		3		4		5		6		7		8		9		10	
		E		I		S		S		S		S		S		S		S		S	
FIELD NUMBER		1		2		3		4		5		6		7		8		9		10	
QUARTZ		1		3		3		3		3		3		3		3		3		3	
K-FSP.		1		3		3		3		3		3		3		3		3		3	
PLAGIOCL.		1		2		2		2		2		2		2		2		2		2	
MICA, IL.		1		2		2		2		2		2		2		2		2		2	
CHL., KA.		1		2		2		2		2		2		2		2		2		2	
CALCITE		1		7		7		7		7		7		7		7		7		7	
DOLomite		1		7		7		7		7		7		7		7		7		7	
GYPSUM		1		7		7		7		7		7		7		7		7		7	
OTHER		1		9		9		9		9		9		9		9		9		9	
ATHER		1		10		10		10		10		10		10		10		10		10	
R/F+Q		1		17		17		17		17		17		17		17		17		17	
PL/PL+KF		1		6		8		3		10		2		5		8		7		8	
D/D+C		1		3		3		3		3		3		3		3		3		3	
ORG. C		1		2		2		2		2		2		2		2		2		2	
MIN. C		1		2		2		2		2		2		2		2		2		2	
CALCITE		1		3		3		3		3		3		3		3		3		3	
DOLomite		1		4		4		4		4		4		4		4		4		4	
ANALYS.		1		E		S		T		S		T		V		I		O		I	
QUARTZ		1				X		X		X		X									
CHERT		1																			
FELDSPAR		1				X		X		X		X									
MUSCOV.		1				X		X		X		X									
BIOTITE		1				T		R		T		R									
CHLORITE		1				X				T		R									
METAN.		1																			
YOLC.		1																			
CARB.		1				X		X		X		X		X		X		X		X	
GYPSUM		1																			
OTHER		1																			
OTHER		1																			
OTHER		1																			
OTHER		1																			
OTHER		1																			
OTHER		1																			
INTRACL.		1																			
ODIDS		1																			
PELLETS		1				X		A													
ACT. BRV.		1																			
FOSSIL		1		B		I		R		A		C		H		B		I		R	
FOSSIL		1		B		I		R		A		C		H		B		I		R	
FOSSIL		1		B		I		R		A		C		H		B		I		R	
FOSSIL		1		B		I		R		A		C		H		B		I		R	
FOSSIL		1		B		I		R		A		C		H		B		I		R	
FOSSIL		1		B		I		R		A		C		H		B		I		R	
FOSSIL		1		B		I		R		A		C		H		B		I		R	
FOSSIL		1		B		I		R		A		C		H		B		I		R	
FOSSIL		1		B		I		R		A		C		H		B		I		R	
D/D+C		1																			
D. GRADE		1						M		I		C									
SUPPORT		1																			
SR. GRADE		1																			
GR/GR+NA		1																			
NA. GRADE		1																			
PHENOCL.		1																			
PHENOCL.		1																			
PHENOCL.		1																			
G. MATR.		1																			
SD. GRADE		1						V		I		F		V		I		F		V	
MAX. GRV.		1																			
SD. STG.		1																			
SD. RDG.		1																			
CD. CEMT.		1																			
HOR. LAN.		1																			
X-LAN.		1																			
BIOTURB.		1																			
OTHER		1																			
OTHER		1																			
OTHER		1																			
OTHER		1																			
COLOUR		1		B		M		Y		B		M		Y		B		M		Y	
LITHOLOG		1		L		M		S		L		M		S		L		M		S	
GY		1		L		M		S		L		M		S		L		M		S	
(GENERALIZED)		1		L		M		S		L		M		S		L		M		S	
		1		L		M		S		L		M		S		L		M		S	
		1		L		M		S		L		M		S		L		M		S	
		1		L		M		S		L		M		S		L		M		S	

SECTION FROM TO		1	11-2	11-2	11-2	11-2	11-2	11-2	11-2
FIELD NUMBER		1	174-73-HIM-73-H	175-73-H	176-73-H	177-73-H	178-73-H	179-73-H	180-73-H
LITHOLOGY		1	CLAY	CLAY	CLAY	CLAY	CLAY	CLAY	CLAY
QUARTZ		1	1	1	1	1	1	1	1
K-FSP.		2	5	4	3	3	1	1	1
PLAGIOCL.		3	4	1	7	7	7	7	3
MICA, IL.		4	1	1	1	1	1	1	2
CHL. KA.		5	1	1	1	1	1	1	1
CALCITE		6	4	2	7	8	1	7	8
DOLOMITE		7	6	1	1	1	2	5	4
GYPSUM		8							
OTHER		9							
OTHER		10							7
F/F+G		1	1	1	1	1	1	1	1
D/D+C		2	1	1	1	1	1	1	1
ORG. C		3	1	1	1	1	1	1	1
MIN. C		4	5	1	1	1	1	1	1
CALCITE		5	3	8	7				
DOLOMITE		6							
ANALYSIS		1	EST	EST	EST	EST	EST	EST	EST
QUARTZ		1	X	X	X	X	X	X	X
CHERT		2							
FELDSPAR		3	X	X	X	X	X	X	X
MUSCOV.		4	X	X	X	X	X	X	X
BIOTITE		5	TR	TR	TR	TR	TR	TR	TR
CHLORITE		6	TR	TR	TR	TR	TR	TR	TR
METAN.		7							
VOLC.		8							
CARB.		9	X	X	X	X	X	X	X
GYPSUM		10							
OTHER		11							
OTHER		12	TL	TR					
OTHER		13							
OTHER		14							
INTRACL.		1							
COIDS		2							
PELLETS		3							
STD. GR.		4							
FOSSIL		5	BRACH	BRACH	BRACH	BRACH	BRACH	BRACH	BRACH
FOSSIL		6	ECH	ECH	ECH	ECH	ECH	ECH	ECH
FOSSIL		7	BRACH	BRACH	BRACH	BRACH	BRACH	BRACH	BRACH
FOSSIL		8	TRIL	TRIL	TRIL	TRIL	TRIL	TRIL	TRIL
FOSSIL		9	TRIL	TRIL	TRIL	TRIL	TRIL	TRIL	TRIL
FOSSIL		10	TRIL	TRIL	TRIL	TRIL	TRIL	TRIL	TRIL
FOSSIL		11	TRIL	TRIL	TRIL	TRIL	TRIL	TRIL	TRIL
FOSSIL		12	TRIL	TRIL	TRIL	TRIL	TRIL	TRIL	TRIL
FOSSIL		13	TRIL	TRIL	TRIL	TRIL	TRIL	TRIL	TRIL
FOSSIL		14	TRIL	TRIL	TRIL	TRIL	TRIL	TRIL	TRIL
D/D+C		1							
D. GRADE		2							
SUPPORT		3							
GR. GRADE		4							
GR/GR+MA		5							
MA. GRADE		6							
PHENOCL.		7							
PHENOCL.		8							
PHENOCL.		9							
PHENOCL.		10							
CA. MATR.		11							
SD. GRADE		12							
MAX. GRN.		13							
SD. STG.		14							
SD. RDG.		15							
SD. CEMT.		16							
HOR. LAM.		1							
X-LAM.		2							
BIOTURB.		3							
OTHER		4							
OTHER		5							
OTHER		6							
COLOUR		7							
LITHOLO-		8							
GY		9							
(GENERAL)		10							
LITEN)		11							

SECTION FROM	ROCK UN. NO.	1	11-2				11-3				11-4				11-5			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
FIELD	NUMBERS	1	11-73	11-74	11-75	11-76	11-77	11-78	11-79	11-80	11-81	11-82	11-83	11-84	11-85	11-86	11-87	11-88
QUARTZ	K-FSP.	1		15		25			17				15				32	
PLAGIOCL.		2		2		3			3				3				22	
MICA, IL-		3		4		2			2				1				7	
CHL., KA-		4		1		2											1	
CALCITE		5		2		2											6	
DOLOMITE		6		55					75				65				27	
GYPSUM		7		21		57			3				13					
OTHER		8																
F/F+Q	PL/PL+KF	9		27		17			21				20				50	
D/D+C		10		62		13			45				28				72	
ORG. C		11		28		100			4				17				83	
ANALYS.		12															17	
QUARTZ		13															5	
CHERT		14															3	
FELDSPAR		15															7	
MUSCOV.		16															3	
BIOTITE		17															7	
CHLORITE		18															6	
METAL.		19															3	
YOLC.		20															3	
CARB.		21															6	
GYPSUM		22															3	
OTHER		23															3	
OTHER		24															3	
OTHER		25															3	
INTRACL.		26																
FOSSIL		27																
FOSSIL		28																
FOSSIL		29																
FOSSIL		30																
FOSSIL		31																
FOSSIL		32																
FOSSIL		33																
FOSSIL		34																
D/D+C		35																
SUPPORT		36																
MAX. GRADE		37																
PHENOCCL.		38																
PHENOCCL.		39																
PHENOCCL.		40																
SD. GRADE		41																
MAX. GRADE		42																
SD. STG.		43																
SD. RDG.		44																
SD. CFMT		45																
HOR. LAM.		46																
X-LAM.		47																
BIOTURB.		48																
OTHER		49																
OTHER		50																
OTHER		51																
COLOUR		52																
LITHOLO-		53																
GY		54																
(GENERALIZED)		55																

SECTION ROCK UN. FROM TO	11-2				11-2				11-2				11-2			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
FIELD NUMBER	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
QUARTZ			3	3			1	1			1	1			1	1
K-FSP.			3	3			2	2			2	2			2	2
PLAGIOCL.			2	2			1	1			2	2			2	2
MICA, IL.			3	3			2	2			3	3			3	3
CHL., KA.			2	2			1	1			2	2			2	2
CALCITE			1	1			4	4			2	2			1	1
DOLOMITE			5	6			7	6			7	4			8	3
GYPSUM																
OTHER																
OTHER																
PL/PL+KF	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
D/D+C																
OR.G.C																
MIN.C																
CALCITE																
DOLOMITE																
ANALYS.																
QUARTZ							X	X			X	X			X	X
CHERT																
FELDSPAR							X				X				X	
MUSCOV.							X				X				X	
BIOTITE							X				X				X	
CHLORITE							X				X				X	
METAM.																
YOLC.																
CARB.							X	X			X	X			X	X
GYPSUM																
OTHER																
OTHER																
OTHER																
OTHER																
INTRACL.																
VOIDS																
PELLETS																
ST. SP. M.																
FOSSIL																
FOSSIL																
FOSSIL																
FOSSIL																
FOSSIL																
FOSSIL																
FOSSIL																
D/D+C																
D. GRADE																
SUPPORT																
GR. GRADE																
GR/GR+MA																
MA. GRADE																
PHENOCL.																
PHENOCL.																
PHENOCL.																
CG. MAT.																
SD. GRADE																
MAX. GRV.																
SD. STG.																
SD. RDG.																
CD. CHIT																
HOR. LAM.							X				X				X	
X-LAM.							X				X				X	
BIOTURB.																
OTHER																
OTHER																
OTHER																
COLOUR																
LITHOLO																
GY																
(GENERAL)																
LIPED)																

SECTION	UN.	1				2				3				4					
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
ROCK	UN.	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
FROM		105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105		
FIELD	NUMB	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
NUMB		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
QUARTZ				2	3			3	4			7				3	1		
K-FSP.				3				3				1				5			
PLAGIOCL.				2				3				1				3			
MICA, IL.				4				2				2				1			
CHL., KA.				3				1											
CALCITE												2							
DOLOMITE				6	0			5	7			8	7			5	7		
GYP SUM																			
OTHER																			
OTHER																			
F/F+Q				7	5			1	5			2	2			2	1		
PL/PL+KF				4	7			5	2			2	1			6	1		
O/D+C				1	0			1	0			9	7			1	0		
OR.G. C																			
MIN. C																			
CALCITE																			
DOLOMITE																			
ANALYS.																			
QUARTZ								X	X	X			X	X	X			X	X
CHERT												X	X	X				X	
FELDSPAR								X				X	X	X			X	X	
MUSCOV.								X				X	X	X			X	X	
BIOTITE								TR				TR					TR		
CHLORITE								TR											
METAH.																			
YOLC.																			
CARB.								X	X	X	X			X	X	X	X		
GYP SUM												X	X	X	X			X	X
OTHER																			
OTHER																			
OTHER																			
OTHER																			
INTRACL.																			
OOIDS																			
PELLETS																			
CTD. GEN.																			
FOSSIL																			
FOSSIL																			
FOSSIL																			
FOSSIL																			
FOSSIL																			
FOSSIL																			
FOSSIL																			
D/D+C																			
D. GRADE																			
SUPPORT																			
GR. GRADE																			
GR/GR+MA																			
MA. GRADE																			
PHE NOCL.																			
PHE NOCL.																			
PHE NOCL.																			
PHE NOCL.																			
SD. GRADE																			
MAX. GRV.																			
SD. STG.																			
SD. RDG.																			
CD. CENT																			
HOR. LAM.								X				X	X			X	X		
X-LAM																			
BIOTURB.																			
OTHER																			
OTHER																			
OTHER																			
COLOUR																			
LITHOLO.																			
GY																			
(GENEAL.																			
LIPED)																			

SECTION	UN.	1				2				3				4					
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
SECTION FROM TO	UN.	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
FIELD NUMBER		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
QUARTZ				2	1				2	5				1	6			3	1
K-FSP.																			
PLAGIOCL.				1					2	3				1					
MICA, IL.				2					3						5				
CHL.				1					2					1					9
CALCITE				1					2						1				5
DOLomite				7	2				6	5				1				5	9
GYPSUM																			
OTHER																			
OTHER																			
F/F+G				1	2				1	1				2	1			6	
PL/PL+KF				1	7				5	5				6	2			1	8
D/D+C				9	9				9	7				9	8				8
OKG.C																			
NIN.C																			
CALCITE																			
DOLomite																			
ANALYSIS																			
QUARTZ					XIX X				XIX X				XIX			XIX X		X	
CHELT																TR			
FELDSPAR					X				X				X			X		X	
MUSCOV.					X				X				X			X			
BIOtITE					TR				X				X			X			
CHIOBITE					TR				X				X			X			
HETAH.																			
YOLC.																			
CARB.					X X X X				X X X X				X X X X			X X X X		X X X X	
GYPSUM																			
OTHER																			
OTHER																			
OTHER																			
OTHER																			
INTRACL.					DLSIT				X				DLSIT			X		PILSIT	
OOIDS																			
PELLETS																			
CTD. GRN.																			
FOSSIL																			
FOSSIL																			
FOSSIL																			
FOSSIL																			
FOSSIL																			
FOSSIL																			
FOSSIL																			
D/D+C																			
D. GRADE					CR-VF				CR-VF				CR-VF					CR-VF	
SUPPORT																			
SR. GRADE																			
GR/GR+NA																			
MA. GRADE																			
PHENOCL.																			
PHENOCL.																			
PHENOCL.																			
CG. MATR.																			
SD. GRADE					VF				VF				VF					VF	
MAX. GRN.																			
SD. STG.																			
SD. RDG.																			
CD. CHIT																			
HDR. LAM.									X									X	
X-LAM.																			
BIOtUR.																			
OTHER																			
OTHER																			
OTHER																			
OTHER																			
COLOUR					CGY				CGY				CGY					CGY	
LITHOLO.					DLSIT				DLSIT				DLSIT					DLSIT	
GY					SDY				SDY				SDY					SDY	
(GENERAL LIBCD)					VF				VF				VF					VF	

SECTION FROM TO	ROCK UN. FROM	1				2				3				4			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
FIELD NUMBER		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MIN. NUMBER		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
QUARTZ				4	3			3	1			3	0			7	9
K-FSP.				5				2				1				3	
PLAGIOCL.								7				7				1	
MICA, IL.				2				3				2				2	
CHL. KA.				1				1									
CALCITE				7				5				1	2			7	
DOLOMITE				4	2			5	7			5	3			8	
GYPSUM																	
OTHER																	
OTHER																	
F/F+G								1	1			1	0			4	
PL/PL+KF								0				2	6			0	
D/D+C								8	6			9	3			5	
ORG. C																	
HIN. C																	
CALCITE																	
DOLOMITE																	
ANALYS.																	
QUARTZ						X	X	X	X			X	X	X	X	X	X
CHERT																	
FELDSPAR						X						X				X	
MUSCOV.						X						X				X	
BIOTITE												TR				TR	
CHLORITE																	
METAM.																	
YOLC.																	
CARB.						X	X	X				X	X	X		X	X
GYPSUM																	
OTHER												FC				TR	ZC
OTHER																TR	TL
OTHER																	
OTHER																	
INTRACL.																	
ODIDS																	
PELLETS																	
CTD GRN.																	
FOSSIL																	
FOSSIL																	
FOSSIL																	
FOSSIL																	
FOSSIL																	
FOSSIL																	
D/D+C																	
GRADE																	
SUPPORT																	
GR. GRADE																	
GR/GR+MA																	
MA. GRADE																	
PHENOCL.																	
PHENOCL.																	
PHENOCL.																	
CG MATS.																	
SD. GRADE																	
MAX. GRN.																	
SD. STG.																	
SD. RDG.																	
CD. CFHT																	
HOR. LAN.																	
X-LAN.																	
BIOTURB.																	
OTHER																	
OTHER																	
OTHER																	
COLOUR																	
LITHOLO.																	
GY																	
(GENERAL LIPED)																	

SECTION FROM TO	ROCK UN.	1			2			3			4			5		
		SL	VE	FD	SL	VE	FD	SL	VE	FD	SL	VE	FD	SL	VE	FD
FIELD NUMBER		111	113	116	114	117	120	115	118	121	116	119	122	117	120	123
UNIT NUMBER		100	103	107	101	104	108	102	105	109	103	106	110	104	107	111
QUARTZ			10			3			1			6			4	
K-FSP.			2			2										
PLAGIOCL.									TR							
MICA, IL.			2													
CHL., KA.			2			95			96			94			93	
CALCITE			8	2												3
DOLOMITE			2													
GYP SUM																
OTHER																
OTHER																
F/F+Q				15		31			18			0				0
PL/PL+KF				0		0			0			0				3
D/D+C				3		0			0			0				3
ORG. C																
M.H.C																
CALCITE																
DOLOMITE																
ANALYS.		ESIT			ESIT			ESIT			ESIT			ESIT		
QUARTZ				XIX		X			Y			XX				X
CHERT																
FELDSPAR				X		Y			TR							
MUSCOV.																
BIOTITE				TR												
CHLORITE				X												
METAN.																
YOLC.				X		X	X		X	X		X	X		X	X
CARB.				X		X	X		X	X		X	X		X	X
GYP SUM																
OTHER																
OTHER																
OTHER																
OTHER																
INTRACL.																
VOIDS																
PELLETS																
ST. GRN.																
FOSSIL				PARITH		APARITH			APARITH			APARITH			APARITH	
FOSSIL				OSTR		XOISTR			XOISTR			XOISTR			XOISTR	
FOSSIL																
FOSSIL																
FOSSIL																
FOSSIL																
FOSSIL																
FOSSIL																
D/D+C																
D. GRADE																
SUPPORT				M		M			M			M			M	
BR. GRADE				SD		SD			SD			SD			SD	
GR/GR+MA				H		H			H			H			H	
HA. GRADE				CR		CR			CR			CR			CR	
PHENOCL.																
PHENOCL.																
PHENOCL.																
PHENOCL.																
CG. MATR.																
SD. GRADE				VIF					VIF			VIF				
MAX. GRN.																
SD. STG.																
SD. PDB.																
CD. CEMENT																
HOR. LAM.																
X-LAM.																
BIOTURB.																
OTHER				BDS EYE					BDS EYE			SAS EYE				
OTHER																
OTHER																
OTHER																
COLOUR				LG.Y-BW		LG.Y-GN			BW			BW			BW	
LITHOLO.				LWST		LWST			LWST			LWST			LWST	
GY				STY, SDY		STY			STY, SDY			STY			STY, SDY	
(GRAPEA LIPED)																

SECTION		1		11-4-1	11-4-1	11-4-1	11-4-1	11-4-1	11-4-1
ROCK UN.		1		STRA	THC	STRA	THC	STRA	THC
FROM		2		78	88	91	104	130	136
TO		3							
FIELD NUMBER		2		11-73-1	11-73-1	11-73-1	11-73-1	11-73-1	11-73-1
GPS NUMBER		3		10.416.2	10.416.2	10.416.2	10.416.2	10.416.2	10.416.2
QUARTZ K-FSP. PLAGIOCL. MICA, IL. CHL., KA. CALCITE DOLONITE GYPSUM OTHER	1	1		8	2	6	7	6	7
	2	1		7		12		10	3
	3							2	2
	4			3		9		4	11
	5			3		5		4	5
	6			2				11	
	7			3		7		4	16
	8								
	9								
	10								
F/F+Q PL/PL+KF D/D+C	1	1		7		17		15	5
	2	2		0		0		18	34
	3			60		100		52	100
ORG. C MIN. C CALCITE DOLONITE	1	1							
	2	2							
	3	3							
	4	4							
ANALYS.	1	1							
	2	1		X	X	X	X	X	X
	3	2			X				
	4	3			X		X	X	X
	5	4			X		X	X	X
	6	5			X		X	X	X
	7	6			X		X	X	X
	8	7			X		X	X	X
	9	8			X		X	X	X
	10	9			X		X	X	X
	11	10			X		X	X	X
	12	11			X		X	X	X
	13	12			X		X	X	X
	14	13			X		X	X	X
INTRACL OOIDS PELLETS CTD. GRN.	1	1							
	2	2							
	3	3							
	4	4							
FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL	1	1							
	2	2							
	3	3							
	4	4							
	5	5							
	6	6							
	7	7							
	8	8							
D/D+C D. GRADE SUPPORT GR. GRADE GR/GR+MA MA. GRADE	1	1							
	2	2							
	3	3							
	4	4							
PHENOCL. PHENOCL. PHENOCL. CG. MATR. SD. GRADE	1	1							
	2	2							
	3	3							
	4	4							
	5	5							
MAX. GRN. SD. STG. SD. RDG. SD. CEHT HOR. LAM. X-LAM. BIOTURB. OTHER OTHER	1	1							
	2	2							
	3	3							
	4	4							
	5	5							
COLOUR LITHOLO GY (GENERAL LIPED)	1	1							
	2	2							
	3	3							

SECTION ROCK UN. FROM TO	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
		L	A	L	L	A	L	L	A	L	L	A	L	L	A	L
FIELD NUMBER	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
W.C. NUMBER	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CARBON RAY	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
ANALYS.	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
CARBON TYPE	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SUPPORT GR. GRADE	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PHENOCL. PHENOCL. PHENOCL. CG. MATR.	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
SD. GRADL MAX. GRN. SD. STG. SD. RDB. CD. CFMT	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
HOR. LAN. X-LAN. BIOT. RB. OTHER OTHER	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
LITHOLO. GY (GENERAL LIPED)	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

SECTION 1		1 111-5	
ROCK UN. FROM		2 HEGCLA	
TO		3 1/1	
		4	
FIELD NOTES		2 17M-73-J	
		3 13-11-01	
		4 12026415	
CARBON	QUARTZ	1	193R
	K-FSP.	2	
	PLAGIOCL.	3	
	MICA, IL.	4	
	CHL., KA.	5	2
	CALCITE	6	
	DOLONITE	7	
	GYPSUM	8	
	OTHER	9	
	OTHER	10	
FRAY	F/F+Q	2	10
	PL/PL+KF	2	
	D/D+C	3	
OXID.	ORG. C	3	
	MIN. C	2	
	CALCITE	3	
	DOLONITE	4	
INSTR.	QUARTZ	1	ASG
	CHERT	2	19R
	FELDSPAR	3	10
	MUSCOV.	4	TK
	BIOTITE	5	TK
	(CHLORITE)	6	
	METAL.	7	
	VOLC.	8	
	CARB.	9	
	GYPSUM	10	
	OTHER	11	TL
	OTHER	12	TR
	OTHER	13	
	OTHER	14	
CALC.	INTRACL.	4	
	ODIDS	2	
	PELLETS	3	
	ST. GRN	4	
FOS.	FOSIL	5	
	FOSIL	2	
	FOSIL	3	
	FOSIL	4	
	FOSIL	5	
	FOSIL	6	
D/D+C	D. GRADE	7	
		1	
	SUPPORT	4	
	GR. GRADE	2	
PHEN.	GR/GR+NA	3	
	NA. GRADE	4	
	PHENOCCL.	1	
	PHENOCCL.	2	
SD.	PHENOCCL.	3	
	CA. MATS.	4	
	SD. GRADE	5	
	MAX. GRN.	2	
	SD. STG.	3	IV
HER.	SD. RDB.	4	
	SD. CFMT	5	
	HER. LAM.	1	
	X-LAM.	2	
	BIOTURB.	3	
COLOUR	OTHER	4	
	OTHER	5	
LITHOLOGY (GENERAL LIBRARY)	COLOUR	7	LSH
		1	
		2	
		3	
		4	
		5	
		6	

SECTION		1	11-5	11-5	11-5	11-5	11-5
LIGNEN	ROCK UN.	1	HEG LA	HEG LA	HEG LA	HEG LA	HEG LA
	FROM	2	1227	1228	1229	1230	1231
	TO	3					
	FIELD	4	11-73-3	11-73-3	11-73-3	11-73-3	11-73-3
LIGNEN	UN. REF.	1	15-179A	15-175B	15-177B	15-177B	15-178
	NO.	2					
	DATE	3					
	TIME	4					
LIGNEN	QUARTZ	1	10			84	98
	K-FSP.	2					
	PLAGIOCL.	3					
	MICA, IL.	4			2	5	
	CHL. JKA.	5	2		7	11	2
	CALCITE	6					
	DOLOMITE	7					
	GYP SUM	8					
	OTHER	9					SD
	OTHER	10					TR
LIGNEN	F/F+G	1	10		10	10	10
	PL/PL+XF	2					
	D/D+C	3					
	ORG. C	4					
LIGNEN	MIM. C	1					
	CALCITE	2					
	DOLOMITE	3					
	OTHER	4					
LIGNEN	ANALYS.	1	ES	ES	ES	ES	3011 P.T.S
	QUARTZ	2		XIXIX	XIXIX	XIXIX	97
	CHERT	3		X	X		1
	FELDSPAR	4					1
	MUSCOV.	5		X	TR	X	1
	BIOTITE	6					
	CHLORITE	7		TR	TR	TR	1
	METAH.	8					
	YOLC.	9					
	CARB.	10					
	GYP SUM	11	SD	X			SD
	OTHER	12					TR
	OTHER	13					
	OTHER	14					
LIGNEN	INTRACEL.	1					
	VOIDS	2					
	PELLETS	3					
	STD. BRN.	4					
LIGNEN	FOSSIL	1					
	FOSSIL	2					
	FOSSIL	3					
	FOSSIL	4					
	FOSSIL	5					
	FOSSIL	6					
	FOSSIL	7					
	FOSSIL	8					
LIGNEN	D/D+C	1					
	D. GRADE	2					
	SUPPORT	3					
	SR. GRADE	4					
LIGNEN	SR. GRADE	1					
	SR. GRADE	2					
	SR. GRADE	3					
	SR. GRADE	4					
	SR. GRADE	5					
LIGNEN	PHENOCCL.	1					CHTY
	PHENOCCL.	2					X
	PHENOCCL.	3					
	PHENOCCL.	4					
	CG. MATR.	5					
LIGNEN	SD. GRADE	1					
	MAX. GRN.	2					
	SD. STG.	3					
	SD. RDG.	4					
	SD. CFMT	5					
LIGNEN	HOR. LAM.	1					
	X-LAM.	2					
	BIOTURB.	3					
	OTHER	4					
	OTHER	5					
LIGNEN	COLOUR	1					
	COLOUR	2					
LIGNEN	LITHOLO.	1					
	GY	2					
	(GENERAL)	3					
	LIT. (RED)	4					
	LIT. (RED)	5					

GENERAL	SECTION FROM TO	1		II - 5		II - 5	
		2		III - 6		III - 6	
		3		IV - 7		IV - 7	
		4		V - 8		V - 8	
QUARTZ K-FSP. PLAGIOCL. NICASIL. CHLORITE DOLOMITE GYPSUM OTHER OTHER	FIELD NUMBERS	1		197		198	
		2					
		3					
		4					
		5					
		6					
		7					
		8					
		9					
		10					
RAY-CARBON F/F+Q PL/PL+XF D/D+C URG.C MIR.C CALCITE DOLOMITE	ANALYSIS	1		308		309	
		2					
		3					
		4					
INTRACR. COIDS PELLETS CTD. ARN. FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL D/D+C GRADE SUPPORT GR. GRADE GR/GR+NA VA GRADE PHENOCL. PHENOCL. PHENOCL. CA. MATF. SD. GRADE MAX. GRN. SD. STG. SD. RDG. CD. CMT. HOR. LAM. X-LAM. BIOTURB. OTHER OTHER COLOUR LITHOLO- GY (GENERAL LIZED)	FIELD NUMBERS	1					
		2					
		3					
		4					
		5					
		6					
		7					
		8					
		9					
		10					
		11					
		12					
		13					
		14					

SECTION ROCK UN. FROM TO	1				2				3				4				5								
	V E M L G H				V E V D C M				V E R D O M				V E M D O M				V E M D O M								
	1 2 3 4				1 2 3 4				1 2 3 4				1 2 3 4				1 2 3 4								
	7 3 - H - 12 0 5				7 3 - H - 12 0 5				7 3 - M - 12 2 1				7 3 - M - 12 2 1				7 3 - M - 12 2 1								
FIELD NUMBER	1				2				3				4				5								
	10 5				10 5				10 5				10 5				10 5								
QUARTZ K-FSP. PLAGIOCL. MICA, IL. (HL., KA.) CALCITE DOLOMITE GYPSUM OTHER OTHER	1	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
		23							32					70								30			
		2							2					6								13			
		2							1					5								1			
		2																				1			
		2																							
		2																							
		2																							
		2																							
		2																							
		2																							
CORG. C MIN. C CALCITE DOLOMITE	3	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
		10												13								41			
ANALYS.	2	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
		17				10				13				23				15							
		57				28				46				26				100							
		100				100				90				100				100							
CORG. C MIN. C CALCITE DOLOMITE	3	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
		0								13				0				4				0			
QUARTZ CHERT FELDSPAR MUSCOV. BIOTITE (CHLORITE) METAH. VOLC. CARB. GYPSUM OTHER OTHER OTHER	2	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
		X X X X				X X X X				X X X X				X X X X				X X X X							
			TR																						
				X				X				X				X				X					
					X				X				X				X				X				
			TR																						
				X X X X		X X X X				X X				X X X X				X X X							
			ZC		TR ZC		TR						ZC	TR ZC				TR							
			TL		TR								TL	TR											
COR. TYPE	3	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4								
FOSSIL	5	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4								
D/D+C GRADE SUPPORT GR. GRADE GR/GR+MA MA. SPADE	7	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4								
PHENOCL. PHENOCL. PHENOCL. CG. MAT. S.	7	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4								
		NLS T																							
SD. GRADE MAX. GRN. SD. STG. SD. RDG. CD. CENT	7	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4								
		V F				V F				V F				V F											
HOR. LAM. X-LAM. BIOTURB. OTHER OTHER COLOURS	1	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4								
LITHOLO GY (GENERAL LIPED)	5	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4								
		L A A A				L A A A				S S				D I C L A B				S I S							

SECTION ROCK UN. FROM TO	1	1	LS						
	2	2	STRATHS						
	3	3	SLZ						
	4	4							
FIELD NUMBER	2	1	11N-12-L						
		2	11N-17						
QUARTZ K-FSP. PLAGIOCL. NICL, IL. CHL., KA. CALCITE DOLOMITE GYPSUM OTHER OTHER	1	1							
		2							
		3							
		4							
		5							
		6							
		7							
		8							
		9							
		10							
	F/F+Q PL/PL+KF D/D+C	2	1						
		2							
		3							
ORG. C MIN. C CALCITE DOLONITE	3	1							
		2							
		3							
		4							
QUARTZ CHERT FELDSPAR MUSCOV. BIOTITE CHLORITE METAM. VOLC. CARB. GYPSUM OTHER OTHER OTHER	2	1							
		2							
		3							
		4							
		5							
		6							
		7							
		8							
		9							
		10							
		11							
		12							
		13							
		14							
INTRACL. GODDS PELLETS STD. GRN.	4	1							
		2							
		3							
		4							
FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL FOSSIL	5	1							
		2							
		3							
		4							
		5							
		6							
		7							
D/D+C D. GRADE SUPP. PORT GR. GRADE GR/GR+NA VA. GRADE	7	1							
		2							
		3							
		4							
PHENOCL. PHENOCL. PHENOCL. C. MATR. SD. GRADE	9	1							
		2							
		3							
		4							
		5							
SD. GRADE MAX. GRN. SD. STG. SD. RDG. SD. CFMT	6	1							
		2							
		3							
		4							
		5							
HOR. LAN. X-LAN. BIOTURB. OTHER OTHER OTHER	1	1							
		2							
		3							
		4							
		5							
LITHOLO- GY (GENERAL LIT. CD)	3	1							
		2							

SECTION		179-319a		23-319a	
ROCK UNIT		R.D.C.		R.D.C.	
FROM TO					
FILL		721-		73-	
NUM		319a3-13		319a3	
NUM		C036560		C036563	
1 RAY-CARBON	QUARTZ		53*		105*
	K-FSP.		6		6
	PLAGIOCL.		0		0
	MICA, IL.		5		3
	CHLORITE		2		0
	CALCITE		10		22
	DOLONITE		24		
	GYPSUM				
	OTHER				
	OTHER				
2 X-FA	F/F+Q		0		0
	PL/PL+XF		71		100
	D/D+C				
	ORG. C				
3	NIN. C				
	CALCITE				
	DOLONITE				
	OTHER				
4 ANALYS.	QUARTZ		X	X	X
	CHERT				
	FELDSPAR		X	X	X
	MUSCOV.		X	X	X
	BIOTITE		X	X	X
	CHLORITE		X	X	X
	METAN.				
	YOLC.				
	CARB.		X	X	X
	GYPSUM				
	OTHER				
	OTHER				
	OTHER				
	OTHER				
5 A	INTRACL.				
	ODDS				
	PELLETS				
	STD. GRN.				
6 M	FOSSIL				
	FOSSIL				
	FOSSIL				
	FOSSIL				
	FOSSIL				
	FOSSIL				
	FOSSIL				
	FOSSIL				
7	D/D+C				
	GRADE				
	SUPPORT				
8	SR. GRADE				
	SR/GR+NA				
	MA. GRADE				
9	PHENOCCL.				
	PHENOCCL.				
	PHENOCCL.				
	PHENOCCL.				
10	SD. GRADE		VIF		VIF
	MAX. GRV.				
	SD. STG.				
	SD. RDG.				
	SD. CMT				
11 U	HOR. LAM.		X		X
	X-LAM.				
	BIOTURB.				
	OTHER				
	OTHER				
	OTHER				
12 N	COLOUR		VIF		VIF
	LITHOLO.		SILT. & SLY		SILT. & SLY
13 BY	(GENERAL)		SILT. & SLY		SILT. & SLY
	(L.R.C.)		SILT. & SLY		SILT. & SLY

SECTION		73-31911		VEN. D. 11	
ROCK UNIT FROM TO		31911-12			
1 1 2 3 4 5 6 7 8 9 10	QUARTZ	1			
	K-FSP.	2			
	PLAGIOCL.	3			
	MICAL. IL.	4			
	CHL. KA.	5			
	CALCITE	6			
	DOLOMITE	7			
	GYP SUM	8			
	OTHER	9			
	OTHER	10			
2 1 2 3	F/F+Q	1			
	PL/PL+XF	2			
	D/DIC	3			
	ORG. C				
3 1 2 3 4	MIM. C	1			
	CALCITE	2			
	DOLOMITE	3			
	OTHER	4			
4 1 2 3 4 5 6 7 8 9 10 11 12 13 14	QUARTZ	1			
	CHERT	2			
	FELDSPAR	3			
	MUSCOV.	4			
	BIOTITE	5			
	CHLORITE	6			
	METAM.	7			
	VOLC.	8			
	CARB.	9			
	GYP SUM	10			
	OTHER	11			
	OTHER	12			
	OTHER	13			
	OTHER	14			
5 1 2 3 4	INTRACL.	1			
	COIDS	2			
	PELLETS	3			
	CTD. GRN.	4			
6 1 2 3 4 5 6 7	FOSSIL	1	BARACH	X	
	FOSSIL	2	BIRYDI	X	
	FOSSIL	3	ECIP	X	
	FOSSIL	4	TIRILL	X	
	FOSSIL	5	MAISIR	X	
	FOSSIL	6	MISIR	X	
	FOSSIL	7	STRTP	X	
	FOSSIL	8			
7 1 2 3 4	D/DIC	1			
	D. GRADE	2			
	SUPPORT	3			
	SR. GRADE	4			
8 1 2 3 4 5	SR/GR+MA	1			
	MA. GRADE	2			
	PHENOCCL.	3			
	PHENOCCL.	4			
	PHENOCCL. CA MATR.	5			
9 1 2 3 4 5	SD. GRADE	1			
	MAX. GRV.	2			
	SD. STG.	3			
	SD. RDG.	4			
	SD. CEMT	5			
10 1 2 3 4 5 6	MOR. LAM.	1			
	X-LAM.	2			
	BIOTURB.	3			
	OTHER	4			
	OTHER	5			
	OTHER	6			
11 1 2	COLOUR	1			
	LITHOLO- GY (GENERAL LITER.)	2			

