



DIAMOND DRILL HOLE HEADER LOG

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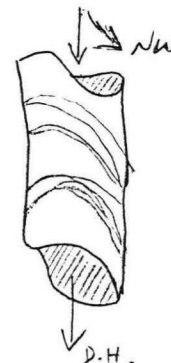
DATE OCT 196

LOGGED BY: J.T. KELLNER

HOLE ID: 96 GRM-06

REFERENCE FABRIC ORIENTATION DIAGRAM

PROJECT: GRUM



CLAIM:

UTM CO-ORDS:

MINE GRID CO-ORDS:

ALL SYMMETRY DETERMINATIONS LOOKING

N WITH S2 DIPPING

ELEVATION:

NW WITH DIP AZIMUTH

TOTAL DEPTH: 221.9 (m)

AZIMUTH: INCLINATION:

PURPOSE: GRUM OPEN PIT LIMITS; W/G DEEP TARGETS.

REASON HOLE TERMINATED: TD'd in non-CALC PHYLLITE BELOW MIN ZONE.

LOGGED BY: J.T. KELLNER

DATE(S) LOGGED: OCT 22 - 27, '96.

DRILLING CONTRACTOR: ADVANCE DRILLING

CORE SIZES

HOLE CEMENTED: No.

SIZE FROM TO

STEEL DOWN HOLE: 10' CASING LEFT.

N/A 3.0 221.9

COLLAR CASED AND CAPPED: YES / No.

Core size grid

Core size grid

STARTED: OCT 10/96

COMPLETED: OCT 12/96

LITHOLOGIC LOG

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Core Size: NA

Date: \_\_\_\_\_

Logged By: J.T. KELLNER

FROM (m)	TO (m)	REC.	NO.	UNIT	DESCRIPTION
00	30	10	1	82	CASING IN O/B.
30	328	8	2	410 <sub>g</sub> P (410) 95:5	LT GREY TO LT GREEN - GREY CALCAREOUS PHYLLITE; 2 TO 3% QTZ/CARB UNLETS UP TO 6cm, BARREN. TRACE TO 1% PYRITE SEEN AS SMALL XTALS W/IN UNIT. - GOOD GREENISH TINGE ON FRACTURES.
328	410	9	3	441 (30A)(30m) 45:35:15:5	INTERVAL OF METABASITE W GRAPHITIC PHYLLITE & GRAPHITIC GONGE W MINOR BULL WHITE QTZ UNING. VERY NARROW SUB-UNITS ( $\leq 0.9m$ EACH); TRACES OF PYRITE OVERALL, NO SIGNIFICANT FAULTS OR BRECCIAS; METABASITE IS PALL GREEN, GRAPHITE PHYLL. IS DRK GREY TO BLACK; ALL UNITS ARE CALCAREOUS.
410	514	9	14	410 <sub>g</sub> P	CONTINUATION OF CALC. PHYLLITE; LT GREY TO GREEN, TRACE TO 1% PYRITE; 1% QTZ/CARB UNING UP TO 3cm; SMALL LOCAL SHEARS UP TO 4cm.
514	559	9	5	30P	GRAPHITIC PHYLLITE; BLACK W 1 TO 2% BULL WHITE QTZ/CARB UNLETS; SOME GOOD FOLD STRUCTURES LEADING TO CLOSURE. MODERATELY BROKEN.
559	616	9	6	410 <sub>g</sub> P (44P) 60:40	PALL GREEN / GREY CALC. PHYLLITE W PALL BLEACHED GREEN METABASITE. TR TO 1% PYRITE AS FREE XTALS UP TO 2mm; VERY COMPETANT INTERVAL

LITHOLOGIC LOG

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Date: \_\_\_\_\_

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FROM (m)	TO (m)	REC.	NO.	UNIT	DESCRIPTION
661	700	7	7	40g (40~) 55:45	FAULT GONGE OF BOTH GRAPHITIC AND NON-GRAPHITIC CALC PHYLLITE. COLOUR RANGES FROM DRK GREY TO PALE GREEN, VERY TALCOSE. SOME COMPETANT PIECES UP TO 4cm. TRACES OF PYRITE BUT NOTHING SIGNIFICANT... DARN...
700	757	9	8	40	PALE GREEN CALC. PHYLLITE w 1 TO 2% QTZ/CARB VNLETS UP TO 3cm; NO SX SEEN; VERY HOMOGENOUS AND DRY; HIGH [CHLORITE]
757	769	9	9	4019	PALE MED TO DRK GREY CALC. PHYLLITE (HIGH GRAPHITE); WELL FOLIATED, NO SX, <1% VNLETS T/O.
769	1228	9	10	4725 (40s)(40~) 60:37:13	BLEACHED LT GREEN CALC. CHLORITIC PHYLLITE w PALE GREY/GREEN CALC. PHYLLITE; TRACE TO 1% PYRITE PRIMARILY IN THE CHLORITIC PHYLLITE, AS XTALS UP TO 2mm. - LOCAL AREAS OF MUD SHEARING IN THE CALC. PHYLLITE (SEE FAULT LOG). - CHLORITIC PHYLL. FROM 76.9 - 82.2, 87.1 - 89.7, 90.7 - 93.2, 98.9 - 101.5, 103.7 - 109.5, 112.8 - 122.8m. - CALC. PHYLLITE FROM 82.2 - 87.1, 89.7 - 90.7, 93.2 - 98.9, 101.5 - 103.7, 109.5 - 112.8m
1228	1238	8	11	305P (30~) 80:20	GRAPHITIC PHYLLITE w SMALL FAULT GONGES; BLACK TO DRK GREY, w 4 TO 5% BULL WHITE QTZ/CARB VNS UP TO 4cm; WK SERICITE DEVELOP; TRACE AMOUNTS OF PYRITE, OCCURING AROUND VEIN CONTACTS.

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FROM (m)	TO (m)	REC.	NO.	UNIT	DESCRIPTION	
1123.8	1141.7	9	12	48 Pivisl (30P)(47) 65:30:5	MINERALIZED METABASITE w GRAPHITIC & CHLORITIC PHYLLITE; COLOUR FROM PALE GREEN/YELLOW TO DRK GREY. - METABASITE FROM 123.8 - 125.3; 2 to 3% Py, mod SIL, STR SER. 126.2 - 131.1; 5% Py to 127.3; 1% D/H, 2% QV 4cm; WK SER, mod CHL. 132.1 - 133.7; TR Py; STR SER; 1% QV 5.3cm. 137.4 - 141.7; TR Py; STR SER, mod SIL, 2% QV 4cm.	1.5 4.9 1.6 4.3
					- GRAPHITIC PHYLLITE FROM 125.3 - 126.2, 131.1 - 132.1, 133.7 - 137.4m; TRACE TO 1% PYRITE T/O; WK CARBONATE; WELL FOL.	12 17
					- SEMI MASSIVE PYRITE IN 48 FROM 124.3 - 124.4m, 126.2 - 126.8m; PYRITE CONTENT DECREASES TO ≤ 1% D/H; SAMPLES SHOULD BE D/H IN RELATIVELY DRY 47/48.	
141.7	156.9	8	13	30P (2PZG) (4H)(30M) 60:30:5	GRAPHITIC PHYLLITE w RIBBON BANDED QTZITE & FAULT GOUGE MATERIAL. GRAPH. PHYLLITE IS DRK GRAY TO BLACK w TR TO 1% PYRITE; RIBBON QTZITE IS WHITE w PURPLE & BLACK, w 3 TO 5% PYRITE, ~ 4% SPHAL & ≤ 1% GALENA IN F.G. BANDS UP TO 9mm WIDE. - RIBBON QTZITE FROM 142.6 - 146.1 (30% REC'Y), 149.0 - 149.9 (85% REC'Y) 153.1 - 154.2m (70% REC'Y) - FAULT GOUGE OR BRX FROM 141.7 - 141.9m, 142.0 - 142.1m, 142.5 - 142.6m, (RUBBLE FROM 142.6 - 145.7m), 146.0 - 146.2m, 149.7m, 151.1 - 151.7m, 152.1 - 152.5m, 156.5 - 156.9m. - METABASITE FROM 154.6 - 156.0m;	
	185.7			2PZGR 2~ 2x 85:10:5		

LITHOLOGIC LOG

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Date: \_\_\_\_\_

Logged By: J.T. KELLNER

FROM (m)	TO (m)	REC.	NO.	UNIT	DESCRIPTION
115.69	118.57	8	14	2PZGR (2~)(2x) 85:10:5	RIBBON BANDED QTZITE w BRECCIA & FAULT GOUGE ZONES; 3 TO 5% PYRITE, 3 TO 4% SPHAL AND UP TO 1% GALENA IN F.G. BANDS < 11mm WIDE. FOLIATIONS ARE VERY CONTORTED, ROCK IS EXTREMELY FRIABLE AND BROKEN.
118.57	118.68	9	15	44SPZW (2PZGR) 60:40	PALE YELLOW/GREEN METABASITE w TR TO 1% PYRITE & SPHAL IN F.G. BANDS. TRACES OF "TALC", NOT ENOUGH TO WORRY ABOUT. RIBBON QTZITE IS SIMILAR TO ABOVE (PREVIOUS) UNIT BUT IS NOT FAULTED.
118.68	118.99	8	16	5ZGH (2PZGR) 95:5	MASSIVE PYRITE w F.G. SPHAL & GALENA; SOME REMNANT RIBBON QTZITE AS BEFORE; UNIT IS SLIGHTLY VUGGY. GOOD BRONZE & PURPLE COLOUR.
118.99	119.24	9	17	2PZGR (44SP) (5ZGH) 60:35:5	INTERVAL OF RIBBON QTZITE w METABASITE FINGERS. QTZITE FROM 189.9 TO 191.3m, MASS PYRITE & SPHAL FROM 191.3-191.4, AND METABASITE FROM 191.4-192.6m. QTZITE HAS 2 TO 3% PYRITE, ~3% SPHAL & TRACES OF GALENA IN F.G. BANDS // TO FOL. MOD HIGH [GRAPHITE]. - MASSIVE SX SAME AS PREVIOUS UNIT - METABASITE IS A BLEACHED YELLOW ± GREEN, w MOD SERICITE & WK TALC DEVELOPMENT; TRACES OF PYRITE BUT NO SPHAL.

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Date: \_\_\_\_\_

Logged By: J.T. KELLNER

FROM (m)	TO (m)	REC.	NO.	UNIT	DESCRIPTION
1924	2088	9	18	2PZGR (44S) (2PZGLX) 95:3:2	REGULAR GRADE RIBBON QZITE; DRK BLACK W BRNTE & PURPLE BANDS PLUS BLEACHED YELLOW INTENSIVE. 3 TO 6% PYRITE, 3 TO 4% SPHAL & 1% CALCIA IN F.C. BANDS // FOL, UP TO 13mm WIDE. MULTIPLE THIN (< 6cm) METABASITE FINGERS; ONE AREA OF BRECCIA; 205.1 - 205.5m: 1 TO 2% PYRITE, TR OF SPHAL.
2088	2106	8	19	30P (30PM)	GRAPHITIC PHYLLITE W FAULT GONGE MATERIAL; DRK BLACK, VERY FRIABLE & BROKEN. 1 TO 2% PYRITE; ≤ 1% QZ UNLETS UP TO 3cm WIDE, NO SX.
2106	2219	9	20	20P (44S+) 95:5	NON-CALC PHYLLITE W SMALL METABASITE FINGERS; SILVERY GREY TO GREEN W MINOR PALE YELLOW SEGMENTS; TR TO 1% PYRITE AS FREE BLESS ELONGATE // TO FOL. ≤ 1% QZ UNLETS UP TO 4cm WIDE (NO SX).
	E.O.H.				





# FAULT LOG

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Date: \_\_\_\_\_

Logged By: J.T. KELLNER

FROM (m)	TO (m)	FEATURE	R E C	UPPER		INTERNAL		LOWER		DESCRIPTION
				DIP	DIRECT	DIP	DIRECT	DIP	DIRECT	
1,182	1,233	B, S, 2	8							
1,233	1,236	F, G, 2	8	?				8, 2		W/C DESTROYED.
1,236	1,362	B, 2	9							
1,362	1,417	B, 3	8							
1,417	1,420	S, 3	6							CHLORITIC / GRAPHITIC CONTACT
1,420	1,421	F, G, 3	8	?				8, 1		W/C BROKEN.
1,421	1,425	B, T, 2	9							
1,425	1,426	F, G, 3	7	7, 6				?		W/C DESTROYED.
1,426	1,457	G, R, 3	4							40% REC'y ; FAULT MATERIAL.
1,460	1,462	F, G, 3	8	?				4, 7		W/C DESTROYED
1,462	1,497	B, 3	8							2
1,497		F, G, 3	8	7, 2				7, 1		2 cm Gouge
1,497	1,511	S, B, 2	8							
1,511	1,517	F, G, 3	6	?				8, 2		W/C DESTROYED.
1,517	1,521	B, T, 3	9							
1,521	1,525	F, G, 3	8	8, 7				7, 9		GRAPHITIC.
1,525	1,565	B, 3	8							
1,565	1,569	F, G, 3	7	8, 1				8, 0		GRAPHITIC
1,569	1,595	B, T, 3	8							
1,595	1,597	F, G, 3	8	5, 7				?		W/C DESTROY'D.
1,597	1,619	G, R, 3	7							Gouge & RUBBLE.
1,621	1,622	F, G, 2	7	6, 1				?		W/C DESTROY'D.
1,622	1,625	F, X, 3	8							BRECCIA
1,625	1,630	F, G, 3	9	?				8, 1		W/C DESTROYED.
1,630	1,658	B, T, 3	8							
1,667	1,714	B, T, 2	9							
1,714		F, G, 3	9	7, 3				7, 7		2cm Gouge.
1,733	1,758	B, 2	9							
1,758	1,759	F, G, 3	9	7, 1				8, 7		
1,759	1,776	B, 2	9							
1,776	1,778	F, G, 3	9	?				5, 7		W/C DESTROYED
1,778	1,818	X, B, 3	8							BRITTLE BRECCIA.
1,818	1,869	B, 2	9							
1,869	1,899	B, 1	9							MASSIVE SX.
2,008	2,039	B, 2	9							
2,051	2,055	F, X, 2	9	4, 2				3, 7		





# STRUCTURE LOG

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Date: \_\_\_\_\_

Logged By: J.T. KELLNER

FROM (m)	TO (m)	FEATURE	SYM	S <sub>0</sub>		S <sub>1</sub>		S <sub>2</sub>		DESCRIPTION
				DIP	DIRECT	DIP	DIRECT	DIP	DIRECT	
41								81		RFE
210								68		RFE
300	311		S			39	0,8,2			S-FOLDS
377								76		RFE
401								87		RFE
438			S			21	?			S "KINK" BANDS.
520								77		RFE
571	574		M			72	0,2,2			CLOSURE.
623			Z			89	?			S.S. Z-FOLDS.
652								70		RFE
668								71		RFE
707								60		RFE
800								71		RFE
851	854		Z			76	0,5,1			Z-FOLDS
901	907		Z			86	0,2,1			Z-FOLDS.
927	931		Z			51	0,9,7			S.S. KINK BANDS
942								72		RFE
987								68		RFE
1055								59		RFE
1062	1064		Z			76	0,2,0			Z-FOLDS
1116								70		RFE
1159								42		RFE IN SHEAR ZONE
1184								79		RFE
1256			Z			72	3,4,4			Z-FOLD
1286	1291		M			89	0,2,5			CLOSURE
1309	1310		S			73	0,2,2			S-FOLDS.
1345								81		RFE
1475								69		RFE
1541								54		RFE
1586								78		RFE
1656	1664		M			79	?			CLOSURE; NO RFE FOR DIREC'N.
1687	1689		Z			66	0,5,7			S.S. Z-FOLDS
1712								64		RFE
1856								72		RFE
1927	1931		Z			82	3,5,8			Z-FOLDS
1963								74		RFE

