

VANGUARD GRAM
DIAMOND DRILL LOGS RECORDS
UNDERGROUND
U56 to _____ TYPE

018543

U56 to 88
TYPE

DIAMOND DRILL RECORD

LOGGED BY

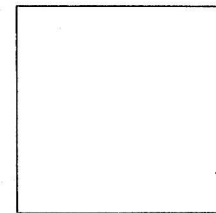
ALEXANDER YOUNG PO

D.D.H. No 76 U56

PAGE 1 of 4

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10 825.996 6N STARTED April 3 1976
 DEPARTURE 7643 .189 74W COMPLETED April 3 1976
 ELEVATION 1146.126M PROPOSED DEPTH 61 m
 ULTIMATE DEPTH

HOLE SURVEY:		
DEPTH	BEARING	DIP
Collar	223° 41' 55"	+28°



CLAIM No _____



DIRECTION AND DISTANCE FROM N.E. CLAIM POST

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	21.3	QTZ - SULPHIDE Very siliceous. Foliation 10 - 15° with bands of sulphides (most probably F ₂) S-shaped foliations with axial plane parallel to F ₂ also with accompanying sulphides (f ₁₀) some of the sulphide bands have vuggy characteristics and local concentration of sph...Details <p style="text-align: center;">Py Zn</p>														
		0-1.8 Broken core - pebble size sulphides showing	0.1/1.8	-	0	1.8										
		1.8 - 3.0 Shear @ 2.5 - 3.0 - friable 8 3 sericitic clay with pebbly qtz. 10 5	0.5/1.2	2139	1.8	3.0	1.2	1.38	1.73	21.26			1.656	2.076	25.512	
		3.0 - 4.5 Very siliceous Local concentration 10 6 of sulphides in widely spaced bands 10 6 1 - 2 cm in thickness	1.0/1.5	2140	3.0	4.5	1.5	0.90	1.85	19.20			1.35	2.775	28.8	
		4.5 - 6.1 Same as preceding run 20 8	1.5/1.6	2141	4.5	6.1	1.6	0.40	1.90	10.77			0.64	3.04	17.232	
		6.1 - 7.6 Same as preceding run 20 8	1.2/1.5	2142	6.1	7.6	1.5	0.75	2.98	15.09			1.125	4.47	22.635	
		7.6 - 9.1 Relatively more sulphides than previous run 20 8	1.3/1.5	2143	7.6	9.1	1.5	1.75	4.55	31.20						
		9.1 - 10.6 Same as preceding run 20 8	1.3/1.5	2144	9.1	10.6	1.5	1.33	3.30	30.17			1.995	4.95	45.255	
		10.6 - 12.1 Same as preceding run 20 8	1.3/1.5	2145	10.6	12.1	1.5	1.35	3.53	26.40			2.025	5.295	39.60	
		12.1 - 13.7 Same as preceding run Broken core 20 8	1.3/1.6	2146	12.1	13.7	1.6	1.38	4.20	30.17			2.208	6.72	48.272	
			1.5/1.5	2147	13.7	15.2	1.5	1.48	3.73	29.14			2.22	5.595	43.71	
			1.3/1.5	2148	15.2	16.7	1.5	1.15	2.68	25.37						

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
82.3	86.9	GREENISH WHITE BLEACHED PHYLLITE. Competent. Chloritic-			4.5/4.6		82.3	86.9									
		calcitic. Foliation-10° (F ? because of regular laminae).															
		F not distinct. Sericite has talcy feel. Tuffaceous look-															
		ing groundmass. 82.5: Fold nose.															
		83.8-85.4: Very calcitic. Calcite intervals with bull qtz.				W.Av.	86.8	93.0	6.2	2.71	1.49	38.8					
		86.4-86.5: Shear. Phyllite, calcite, qtz frags/w ser. clay.															
		86.9: Sharp contact with massive sulfides-20°.															
86.9	100.5	MASSIVE SULFIDE ZONE. Competent. Some sph enriched	70	20	1.5/1.5	2194	86.8	88.3	1.5	5.05	2.44	57.60			7.57	3.66	86.4
		intervals. Faint foliation-10° marked by minute dark	60	25	1.6/1.6	2195	88.3	89.9	1.6	5.00	3.05	60.34			8.0	4.88	96.5
		minerals, qtz and sometimes calcite. Occassional	70	15	1.5/1.5	2196	89.9	91.4	1.5	0.33	0.13	20.23			0.495	0.195	30.34
		vuggy sarts lined with calcite prism. Some Cpy blebs	80	15	1.0/1.6	2197	91.4	93.0	1.6	0.48	0.33	17.14			0.768	0.528	27.12
		distinct. Po and Mgtt in clots.	70	20	1.3/1.5	2198	93.0	94.5	1.5	5.15	5.05	80.57			7.725	7.575	120.86
		98.0: Gradual change to bleached quartz sericite	70	20	1.4/1.5	2199	94.5	96.0	1.5	2.03	0.85	49.37			3.045	1.275	74.055
		phyllite intervals until 100.5.	60	15	1.5/1.5	2200	96.0	97.5	1.5	5.00	1.83	88.80			7.50	2.745	133.20
100.5	106.6	BLEACHED SERICITE PHYLLITE. W/yellow greenish tint.	50	15	1.5/1.5	2201	97.5	99.0	1.5	2.53	2.75	41.49			3.795	4.125	62.235
		Talcy feel. Foliation 0-5° occassionally with trains	50	15	1.5/1.5	2202	99.0	100.5	1.5	3.50	4.10	47.31			5.25	6.15	70.965
		of sulfides-calcitic.															
	106.6	END OF HOLE. IN WASTE.				W.Av.	86.8	89.9	3.1								
						W.Av.	89.9	92.9	3.1								
						W.Av.	93.0	100.5	7.5	3.64	2.92	61.51			27.315	21.870	461.31
						W.Av.	86.8	100.5	13.7	3.22	2.27	51.2					

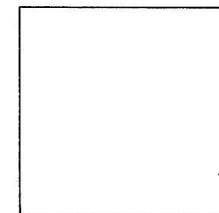
DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG PO

D.D.H. No 76-U-59 PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10798.160N 2^N+19^mN STARTED APRIL 7, 1976
 DEPARTURE 7534.893 E 76W COMPLETED APRIL 9, 1976
 ELEVATION 1135.444 M PROPOSED DEPTH _____
 ULTIMATE DEPTH 127.2

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	227°06'22"	-45°22'
100'	228	-47°
200'	229	-47°
300'	238	-57°
400'	241	-62°



CLAIM No _____

TOTAL CORE RECOVERY: 92.2%

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	9.1	QUARTZ-SULFIDE. Competent. Foliation=10° (F ₂)																
		Often time marked by sulfide bands. F ₁ highly crenulated and off-setted by F ₂ . Axial plane 0-5°	30	7	0.6/1.5	2203	0	1.5	1.5	3.80	8.22	55.54			5.70	12.33	83.31	
		Notable local sph rich intervals.	35	8	1.4/1.5	2304	1.5	3.0	1.5	4.43	10.12	66.51			6.645	15.18	99.765	
		1.2-1.4: Pebbly broken core. Trace of Graphite.	40	10	1.6/1.6	2206	4.5	6.1	1.6	4.98	9.08	69.60			7.968	14.528	11.36	
			40	15	1.5/1.5	2207	6.1	7.6	1.5	4.25	8.60	60.34			6.375	12.90	90.51	
			45	15	1.5/1.5	2208	7.6	9.1	1.5	5.70	10.65	76.80			8.55	15.975	115.20	
9.1	10.6	TRANSITION ZONE from QUARTZ-SULFIDE to MASSIVE SULF	60	18	1.4/1.5	2209	9.1	10.6	1.5	8.73	17.15	137.14			13.095	25.725	205.71	
		Increasing wider bands of sulfides following general foliation and sometimes cutting across.	70	20	1.5/1.5	2210	10.6	12.1	1.5	11.26	19.08	163.54			16.89	28.62	245.31	
			70	18	1.4/1.5	2211	12.1	13.6	1.5	9.63	15.98	149.14			14.445	23.97	223.71	
			70	18	1.5/1.5	2212	13.6	15.1	1.5	10.33	18.33	153.26			15.495	27.495	229.89	
10.6	54.7	MASSIVE SULFIDES. Competent. Locally sph parts have pinkish or flesh colour. No form of foliation visible although some sph rich bands appear to have 10-15° dip. Groundmass is very fine grain except for ubiquitous x'lline Py. Opalline silica in spotty distribution as cavity filling (amygdules)	80	10	1.4/1.4	2213	15.1	16.5	1.4	13.29	18.52	197.83			18.606	25.928	276.962	
			80	10	1.5/1.5	2214	16.5	18.0	1.5	5.49	6.90	76.80			8.235	10.35	115.2	
			75	10	1.5/1.5	2215	18.0	19.5	1.5	13.20	15.37	163.54			19.8	23.055	245.31	
			75	15	1.5/1.5	2216	19.5	21.0	1.5	11.09	18.22	153.26			16.635	27.33	229.89	
			70	15	1.5/1.5	2217	21.0	22.5	1.5	7.20	9.48	121.03			10.8	14.76	181.545	
			70	15	1.5/1.5	2218	22.5	24.0	1.5	7.25	10.55	113.14			10.875	15.825	169.71	

W.AV. 0 24.0 24 7.67 12.53 111.83

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
		Barite prism sometime lining cavity walls.	70	15	1.5/1.5	2219	24.0	25.5	1.5	8.00	10.96	129.26			12.00	16.44	193.89
		Calcite occassionally as discontinuous stringers.	70	15	1.4/1.5	2220	25.5	27.0	1.5	7.15	10.20	114.86			10.725	15.30	172.29
			65	15	1.5/1.5	2221	27.0	28.5	1.5	7.20	10.30	123.09			10.80	15.45	184.635
		48.5-48.7: BROKEN GROUND. Pebbles of massive sulfides coated with dark, sooty, earthy looking material.	70	15	1.3/1.5	2222	28.5	30.0	1.5	7.00	9.90	123.09			10.5	14.85	184.635
			70	15	1.5/1.5	2223	30.0	31.5	1.5	9.20	12.28	139.20			13.80	18.42	208.8
			70	15	1.2/1.5	2224	31.5	33.0	1.5	7.60	10.15	111.09			11.40	15.225	166.635
		54.7: Contact marked by 5cm. thick bull quartz.	65	18	1.4/1.5	2225	33.0	34.5	1.5	10.95	13.95	151.20			16.425	20.925	226.8
54.7	56.0	BLEACHED PHYLLITE. Yellowish white with deep green mottled colouring (chlorite?). Calcitic groundmass and stringers. Barite prism lining cavity walls. Faint foliation-30°.	65	18	1.4/1.5	2226	34.5	36.0	1.5	9.50	13.39	143.32			14.25	20.085	214.98
			65	18	1.5/1.5	2227	36.0	37.5	1.5	7.20	10.00	104.92			10.80	15.00	157.38
			65	18	1.4/1.5	2228	37.5	39.0	1.5	7.10	10.45	100.80			10.65	15.675	151.20
			65	18	1.4/1.5	2229	39.0	40.5	1.5	7.70	10.96	96.69			11.55	16.44	145.035
		56.0: Sharp contact with dark sericite phyllite	65	18	2.0/2.1	2230	40.5	42.6	2.1	6.80	9.79	109.03			14.28	20.559	228.963
		1.3/1.3	65	18	1.5/1.6	2231	42.6	44.2	1.6	6.90	10.60	104.92			11.04	16.96	167.872
56.0	61.1	DARK SERICITE PHYLLITE. Competent. Foliation F ₂ 30°	65	15	1.2/1.5	2232	44.2	45.7	1.5	6.92	12.53	127.20			10.38	18.795	190.8
		F ₁ as minute crenulations inbetween F ₂ . Ax. plane	65	15	1.2/1.5	2233	45.7	47.2	1.5	8.85	12.29	163.54			13.275	18.435	245.31
		(F ₁)-30°-see illustration. Some short sulfide intervals widely spaced and small clots asso. w/qtz.	60	15	0.9/1.5	2234	47.2	48.7	1.5	9.08	17.70	139.20			13.62	26.55	208.8
			60	15	0.9/1.6	2235	48.7	50.3	1.6	8.53	13.55	121.03			13.648	21.68	193.648
		veinlets (av. thickness-0.5cm). Traces of graphite.	60	10	1.0/1.5	2236	50.3	51.8	1.5	1.28	0.43	25.37			1.92	0.645	38.055
		56.2: Sph rich span (10cm). First contact marked by 10cm Bx zone-quartz pebbles healed by silica	60	10	1.1/1.5	2237	51.8	53.3	1.5	0.28	0.53	12.00			0.42	0.795	18.00
			65	15	1.4/1.5	2238	53.3	54.8	1.5	5.82	8.73	98.74			8.73	13.095	148.11
		and sulfides. Second contact abrupt				W.Av.	0	50.3	50.3	7.82	12.08	117.81			393.30	607.66	5925.75
						W.Av.	0	7.6	7.6								
						W.Av.	0	54.8	54.8	7.38	11.35	111.86			404.37	622.19	56129.91
						W.Av.	50.3	53.3	3.0	1.26	PbZn						

DIAMOND DRILL RECORD

LOGGED BY ALEXANDER Y. PO

D.D.H. No 76-U-60

PAGE 1

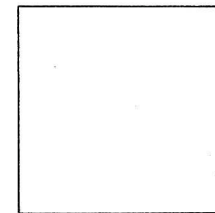
PROPERTY GRUM JOINT VENTURE

LATITUDE 10 799.368N 2ⁿ+ 20.6^m STARTED APRIL 10/76

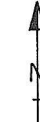
DEPARTURE 7535.886 E 76W COMPLETED APRIL 11/76

ELEVATION 1134.969m PROPOSED DEPTH _____
ULTIMATE DEPTH 122m

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR		



CLAIM No _____



DIRECTION AND DISTANCE
FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 90.2%

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	27.4	QUARTZ-SULPHIDE: Fairly competent. F ₂ foliation	15	6	0.3/1.5	2247	0	1.5	1.5	3.20	3.75	37.37			4.8	5.625	56.055
		85-95° W/F ₂ axial plane almost parallel to it. F ₁	15	6	1.0/1.5	8	1.5	3.0	1.5	3.90	4.95	34.29			5.85	7.425	51.435
		crest to crest plane 0°. Some short intervals of	20	7	1.4/1.5	9	3.0	4.5	1.5	2.73	4.70	29.14			4.095	7.05	43.71
		graphitic phyllite. Sulphides are usually in bands	15	6	1.4/1.5	2250	4.5	6.1	1.6	3.03	2.85	31.20			4.848	4.56	49.92
		following or parallel both foliations. Local sulf.	10	6	1.5/1.5	1	6.1	7.6	1.5	4.08	3.70	44.23			6.12	5.55	66.345
		concentration in places w/frequency increasing to-	15	6	1.4/1.5	2	7.6	9.1	1.5	2.05	3.75	27.43			3.075	5.625	41.145
		wards end of run. Barite prism lining cavity walls	10	5	1.0/1.5	3	9.1	10.6	1.5	0.43	1.58	7.20			0.645	2.37	10.8
		12.2-13.7: Broken grd.															
		DETAILS: 21.2-21.5: Graphitic phy. w/fine sulf. laminae.	10	5	0.9/1.5	2254	10.6	12.2	1.6	3.40	4.05	40.46			5.44	6.48	64.736
		22.2-23: Small bx'ted body cemented by silica	10	4	0.8/1.5	5	12.2	13.7	1.5	1.75	1.75	23.31			2.625	2.625	34.965
		and some sulphides. Barite prisms in cavity walls	15	4	1.5/1.5	6	13.7	15.2	1.5	1.10	0.88	17.14			1.65	1.32	25.71
27.4	34.0	Graphitic Phy. gradually changing to closely spaced	15	4	1.5/1.5	7	15.2	16.7	1.5	1.50	1.48	23.31			2.25	2.22	34.965
		intervals of massive sulphs. Short intervals of	15	6	1.5/1.5	2258	16.7	18.2	1.5	1.63	2.13	28.46			2.445	3.195	42.69
		porous sulphides. Barite prisms in cavity walls.	10	6	1.5/1.5	9	18.2	19.8	1.6	0.88	1.25	20.23			1.408	2.00	32.368
		30.1-30.2-BX: Sulf fragments w/some qtz. cemented	15	4	1.5/1.5	2260	19.8	21.3	1.5	1.25	1.50	24.34			1.875	2.25	36.51
		mainly by amorphous or crypto-x'lline sulphides.	20	6	1.5/1.5	1	21.3	22.8	1.5	1.05	1.35	20.23			1.575	2.025	30.345
		34: Sharp contact w/graphitic phyllite marked by	20	7	1.5/1.6	2	22.8	24.4	1.6	2.05	3.75	35.31			3.28	6.00	56.496
		bull quartz and small shear.	15	6	1.5/1.6	2263	24.4	26.0	1.6	2.08	2.05	32.23			3.328	3.28	51.568

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
88.4	96.0	GREENISH ASH GRAY PHYLLITE. Very calcitic ground mass and stringers. Foliation F_2 -85°; F_1 (c to c plane) - 0-3°. Small clots of sulphides. Rock has tuffaceous appearance.	7.6/7.6		88.4	96.0	7.6									
96.0	105.1	DARK SERICITE PHYLLITE. Competent. Foliation 80° (F_2) F_1 (c to c plane)-0°-3°. Not as calcitic as preceding run. Small clots of sulphides sporadically distributed. 102-102.1: FAULT. Sticky gouge with quartz pebbles. 104-104.1: Short interval of bleached phyllite. Yellowish white in colour.	8.5/9.1		96.0	105.1	9.1									
105.1	112.5	MASSIVE SULPHIDE ZONE. Enriched bands of sph $\begin{matrix} \text{Py} & \text{Zn} \\ 60 & 10 \end{matrix}$ 50-60°. Some po mgtt. in spotty distribution $\begin{matrix} 70 & 6 \end{matrix}$ Some cavities lined with barite prisms w/asso calc $\begin{matrix} 70 & 8 \end{matrix}$ First contact is sharp-30°. Second contact broken $\begin{matrix} 65 & 6 \end{matrix}$ ground. Cpy blebs very distinct in 110-110.2 $\begin{matrix} 50 & 6 \end{matrix}$ 112.3-112.4: Broken ground contact with dark ser. phyllite.	1.5/1.5	2275	105.1	106.6	1.5	5.80	8.90	90.86			8.70	13.35	136.29	
			1.5/1.6	6	106.6	108.2	1.6	3.05	5.00	51.43			4.88	8.00	82.288	
			1.5/1.5	7	108.2	109.7	1.5	4.53	6.85	76.80			6.795	10.275	115.20	
			1.4/1.5	8	109.7	111.2	1.5	1.13	2.78	26.40						
			1.5/1.5	2279	111.2	112.7	1.5	2.80	4.20	48.34						
				Wt.Av	105.1	109.7	4.6	4.43	6.87	72.56			20.375	31.625	333.78	
112.5	115.8	DARK SERICITE PHYLLITE. Dark gray colour with very fine laminae of black material. Foliation F_2 -80°. F_1 is s-shaped (c to co plane)-20°. Fissile. 115.8: FAULT. Black sticky gouge with quartz fragments.	2.8/3.3		112.5	115.8	3.3									
					109.7	112.7	1.965	3.49	37.37							

DIAMOND DRILL RECORD

LOGGED BY ALEXANDER Y. PO

D.D.H. No 76-U-61 PAGE 1

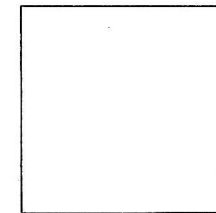
PROPERTY GRUM JOINT VENTURE

LATITUDE 10,799.082 2N+20.3^mN STARTED April 11, 1976

DEPARTURE 7535.677 76W COMPLETED April 13, 1976

ELEVATION 1135.001m PROPOSED DEPTH _____
 ULTIMATE DEPTH 1203m

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR*	224°	-70°
150'=4572	231°	-73°
300'=91.4	262°	-79°
394.6=120.3	262°	-81°



CLAIM No _____
 * Collar V not surveyed. Use layout Brg. + Dip.
 May be due to magnetic interference
 DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 95.13%

Interval		DESCRIPTION	Py	Zn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	18.2	QUARTZ-SULPHIDE: Plenty of broken grd. intervals.	30	8	0.05/1.5	2280	0	1.5	1.5	4.88	8.08	80.57			7.32	12.12	120.855
		Foliation 80° (F ₂). F ₁ is S-shaped (cto-c plane 0°25	8		1.2/1.5	2281	1.5	1.5	1.5	3.78	5.55	38.40			5.67	8.325	57.6
		Sulfides in bands and locally enriched w/sph and	30	8	1.4/1.5	2282	3.0	4.5	1.5	2.83	4.10	30.17			4.245	6.15	45.255
		gal. Barite prism lining cavity walls. Short in-	35	8	1.2/1.6	2283	4.5	6.1	1.6	3.40	4.45	38.40			5.44	7.12	61.44
		tervals of porous sulphides. 0-1.5: Broken core.	35	10	1.5/1.5	2284	6.1	7.6	1.5	4.13	5.25	53.49			6.195	7.875	80.235
		12.1-13: Massive sulphide material Extremely low core recovery. Galena rich.	30	8	1.4/1.5	2285	7.6	9.1	1.5	4.08	5.35	70.63			6.12	8.025	105.945
18.2	32.6	MASSIVE SULFIDE ZONE: Competent. Short intervals	35	6	1.3/1.5	2286	9.1	10.6	1.5	0.83	1.10	26.40			1.245	1.65	39.6
		of qtz. sulfides. Foliation in m. sulfides compl-	30	6	1.0/1.5	2287	10.6	12.1	1.5	0.10	0.45	12.00			0.15	0.675	18.0
		etely obliterated except for one short interval	60	8	1.5/1.6	2288	12.1	13.7	1.6	0.90	0.95	38.40			1.44	1.52	61.44
		showing posi rich band 45°. (32.1m) PoMg ₂ in	35	6	1.2/1.5	2289	13.7	15.2	1.5	0.75	1.23	22.29			1.125	1.845	33.435
		clots sporadically and widely distributed in bands	40	8	1.4/1.5	2290	15.2	16.7	1.5	2.04	3.55	43.54			3.06	5.325	65.31
		and isolated clots. Foliation in included qtz.-	45	6	1.4/1.5	2291	16.7	18.2	1.5	0.58	0.63	26.40			0.87	0.945	39.6
		32.6: Sharp contact with graphitic phyllite. sulfide runs 60° marked by sulfide trains.	60	6	1.4/1.6	2292	18.2	19.8	1.6	0.10	0.33	12.00			0.16	0.528	19.2
		NOTE: Footage wood block for 28.9 misplaced by drill crew.	25	6	1.5/1.5	2293	19.8	21.3	1.5	0.20	0.58	16.11			0.30	0.87	24.165
32.6	68.6	GRAPHITIC PHYLLITE: Very fissile. Fine laminatio	60	5	1.4/1.5	2294	21.3	22.8	1.5	0.08	0.19	8.91			0.12	0.285	13.365
		of black (carbonaceous) and white (qtz and oc-	70	6	1.4/1.5	2295	22.8	24.3	1.5	0.12	0.17	9.94			0.18	0.255	14.91
		cassional calcite) materials. F ₂ 85°; F ₁ (c to c plane) 0°	75	10	1.5/1.6	2296	24.3	25.9	1.6	7.17	7.16	109.03			11.472	11.456	174.448

DIAMOND DRILL RECORD

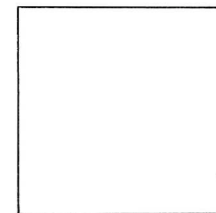
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D.D.H. No 76-U-62

PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10798.093 N 2^N+19.5^MN STARTED APRIL 14, 1976
 DEPARTURE 7534.797 E COMPLETED APRIL 15, 1976
 ELEVATION 1135.596 M PROPOSED DEPTH _____
 ULTIMATE DEPTH 109.7

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	222°17'48"	-21°
100' (30.48)	223°	-24°
200' (60.96)	233°	-31°
330' (100.58)	222°	-35°



CLAIM No _____

DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 92.8%

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	13.6	MASSIVE SULFIDE ZONE. Competent. Compositional band of sph rich laminae-40°. Intervening broken ground composed of bleached sericite-quartz pebbles. Crypto-x'lline quartz as amygdaloidal fills prominent. Small fractures-20-30°. 4.5-6: Broken ground. Could be a FAULT. Sub-rounded quartz pebble mixed with bleached sericite flakes (greenish white colour) and sometime cemented by white clay (kaolinite?). Py Zn 75 10	0.7/1.5	2313	0	1.5	1.5	7.27	9.25	106.97			10.905	13.875	160.455
		13.6: Sharp contact with bleached phyllite-20°. 75 8	0.8/1.5	2314	1.5	3.0	1.5	6.40	5.60	96.69			9.60	8.40	145.035
13.6	14.0	BLEACHED PHYLLITE. Grayish white with greenish spots due to Fuchsite. Foliation-10°. Groundmass slightly calcitic-chloritic. 80 10	1.0/1.5	2315	3.0	4.5	1.5	4.50	4.35	65.49			6.75	6.525	98.235
		80 6	0.6/1.6	2316	4.5	6.0	1.5	3.70	4.00	63.43			5.55	6.00	95.145
		80 6	0.9/1.1	2317	6.0	7.1	1.1	6.72	9.23	130.97			7.392	10.153	144.067
		14.0: Gradual transition to graphitic phyllite. 85 10	1.5/2.0	2318	7.1	9.1	2.0	6.00	8.90	137.14			12.00	17.8	274.28
		Transition zone has no marked change in foliation 85 15	1.2/1.5	2319	9.1	10.6	1.5	4.63	7.26	101.83			6.945	10.89	152.745
		trend although sulfides in clots and discontinuous 85 15	1.4/1.5	2320	10.6	12.1	1.5	6.90	12.57	116.92			10.35	18.855	175.38
		train is notably visible cutting across the said 65 8	1.1/1.6	2321	12.1	13.7	1.6	5.25	9.58	76.80			8.40	15.328	122.88
		foliation. 0.4/0.4		W.Av. 0	13.7	13.7	5.69	7.87	93.30			77.892	107.826	1278.22	
				W.Av. 3.0	6.0	4.10	4.10	4.18	64.46			12.30	12.525	193.380	

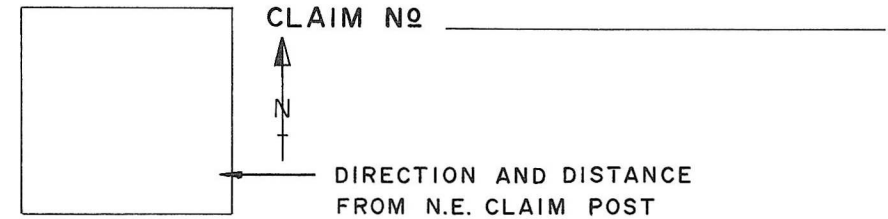
DIAMOND DRILL RECORD

LOGGED BY ALEXANDER Y. PO

D.D.H. No 76-U-64 PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10799.507 N 2N+21.7mN STARTED APRIL 17, 1976
 DEPARTURE 7537.073 E 76W COMPLETED APRIL 18, 1976
 ELEVATION 1138.802 M PROPOSED DEPTH _____
 ULTIMATE DEPTH 57.9M

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	221° 23'	+63° 50'



TOTAL CORE RECOVERY: 78.9%

Interval		DESCRIPTION	Py	Zn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	16.7	MASSIVE SULFIDE ZONE. Broken ground. Porous in-	75	8	0.9/1.5	2342	0	1.5	1.5	4.23	8.23	54.51			6.345	12.345	81.765
		tervals. Compositional Sph rich band-50°. Cryto-	75	10	0.5/1.5	2343	1.5	3.0	1.5	9.00	13.85	109.03			13.50	20.775	163.545
		s'lline silica as amygdaloidal fill. No magnetic	75	10	0.6/1.5	2344	3.0	4.5	1.5	6.40	9.41	114.86			9.60	14.115	172.29
		minerals detected. Some run of extreme poor re-	75	15	1.0/1.5	2345	4.5	6.0	1.5	7.05	9.92	153.26			10.575	14.88	229.89
		covery (see recovery column) amounting only to peb-	75	10	0.4/1.6	2346	6.0	7.6	1.6	6.45	9.77	129.26			10.32	15.632	206.816
		ble size broken core but no clayey material.	80	15	0.8/1.5	2347	7.6	9.1	1.5	7.40	11.75	137.14			11.10	17.625	205.71
			80	+15	0.8/1.5	2348	9.1	10.6	1.5	9.56	15.49	147.09			14.34	23.235	220.635
		16.7: Contact with graphitic phyll. Broken grd.	80	+15	0.8/1.5	2349	10.6	12.1	1.5	5.30	4.60	86.74			7.95	6.90	130.11
16.7	21.3	GRAPHITIC PHYLLITE (G). Fissile. Foliation=55-	75	10	1.0/1.6	2350	12.1	13.7	1.6	6.07	8.33	90.86			9.712	13.328	145.328
		60°. Crenulated F (c to c plane-0°) very dis-	75	8	0.3/1.5	2351	13.7	15.2	1.5	2.68	5.40	41.49			4.02	8.10	62.235
		1 tinct. Minor and sporadic sulfide showing mostly	65	6	0.3/1.5	2352	15.2	16.7	1.5	5.65	10.10	118.97			8.475	15.15	178.455
		confined along 55-60° foliation.															
		21.3: Contact with bleached phyllite, broken ground.			4.0/4.6		16.7	21.3	4.6								
21.3	24.0	BLEACHED PHYLLITE (Sb). Light greenish gray colour. Folia-															
		tion-40°. Calcite as stringers cutting across foliation.			3.5/3.7		21.3	24.0	3.7								
		Spots of Fuchsite.															
		22.8-23: FAULT. Greenish, thick sticky gouge.				W.Av.	0	16.7	16.7	6.34	9.71	107.59			105.937	162.085	1796.83

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x				
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag		
		21.5: FAULT contact with graphitic phyllite. Dark sticky gouge with bull quartz fragments.															
21.5	24.2	GRAPHITIC PHYLLITE (Sg) Fissile. Foliation $F_2 = 75^\circ - 80^\circ$ S-shaped F_1 (c to c plane = $0-3^\circ$) very clearly indicated.	2.5/2.7		21.5	24.2	2.7										
		24.2: Shear contact with calcitic sericite phyllite.															
24.2	42.7	CALCITIC-SERICITE PHYLLITE (SK). Generally with ash gray colour but some intervals have greenish tint (chlorite?) Competent. Calcite in groundmass and as stringer. Foliation $= 75^\circ$. $F_1 = 3-5^\circ$ as stretched S-shaped foliation or laminae of chlorite-calcite. Calcite filled fracture pattern cutting across -75° foliation with 5° dip opposite direction.	18.0/18.5		24.2	42.7	18.5										
		42.7: Contact with bleached phyllite = 40° .															
42.7	43.3	BLEACHED PHYLLITE (Sb). White with intervening greenish laminae. White clay (kaolinite?). Foliation $= 75^\circ$. Talcy feel. Entire run fissile. Non-calcitic.	0.4/0.6		42.7	43.3	0.6										
		43.3: Sharp direct contact with Massive Sulfide Zone.															
43.3	50.2	MASSIVE SULFIDE ZONE (M). Dense and brittle. Competent. Compositional banding Py-mg/tt/po following F_1 S-shaped con-figuration (c to c plane $= 5^\circ$). Short intervals of "included" qtz-sulfide phyllite. Discontinuous short calcite stringers sporadically distributed.															
		qtz-sulfide phyllite. Discontinuous short calcite stringers sporadically distributed.	25 6	1.4/1.5	2369	42.6	44.1	1.5	3.45	2.95	45.26			5.175	4.425	67.89	
		50.2: Sudden change to Bleached phyllite-contact broken ground.	80 8	1./61.6	2370	44.1	45.7	1.6	14.33	11.98	179.66			22.928	19.168	287.45	
		50.2: Sudden change to Bleached phyllite-contact broken ground.	75 10	1.4/1.5	2371	45.7	47.2	1.5	15.28	8.98	188.57			22.92	13.47	282.85	

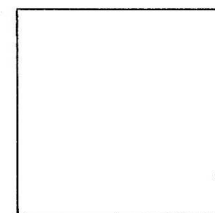
DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG PO

D.D.H. No 76-U-66 PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10797.703 N 2^N+19.8^m STARTED APRIL 19, 1976
 DEPARTURE 7536.365 E 76W COMPLETED APRIL 20, 1976
 ELEVATION 1136.900 M PROPOSED DEPTH _____
 ULTIMATE DEPTH 99.0m

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	176° 26'	+23°



CLAIM No _____

DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 70.6%

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	25.9	MASSIVE SULFIDE ZONE (M). Brittle, dense but with	75	+15	0.8/1.5	2374	0	1.5	1.5	10.12	13.52	143.32			15.18	20.28	214.98
		some short intervals of porous sulfide bands. Foli-	75	15	0.5/1.5	2375	1.5	3.0	1.5	8.17	15.09	108.00			12.255	22.635	162.00
		ation completely obliterated. Compositional band-	75	10	0.9/1.5	2376	3.0	4.5	1.5	5.51	10.89	84.69			8.265	16.335	127.035
		ing of Sph-Gal rich parts=50°. Intervening gaps of	80	8	0.9/1.5	2377	4.5	6.0	1.5	4.28	8.52	50.40			6.42	12.78	75.6
		graphitic and bleached sulfides. Crytoxlline silica	80	8	1.2/1.6	2378	6.0	7.6	1.6	7.00	10.20	77.83			11.2	16.32	124.528
		as amygdaloidal fill. 0-3: Broken ground. Core	80	10	1.0/1.5	2379	7.6	9.1	1.5	6.80	9.44	129.26			10.2	14.16	193.89
		composed of Pebble size fragments. 3.3: Porous Sulf.	75	15	1.0/1.5	2380	9.1	10.6	1.5	5.90	9.54	126.17			8.85	14.31	189.255
		15.9-16.7: Graphitic phyllite interval. Soft, fis	75	10	0.8/1.5	2381	10.6	12.1	1.5	5.20	8.95	94.63			7.80	13.425	141.945
		sile and a little clayey but not gougy. Foliations	75	10	1.0/1.6	2382	12.1	13.7	1.6	3.58	8.06	73.71			5.728	12.896	117.936
		are intricate. F ₂ =50° while F ₁ =10° and tends to be	75	10	0.8/1.5	2383	13.7	15.2	1.5	5.44	8.93	89.83			8.16	13.395	134.745
		congruent with each other. Contacts broken ground.	40	6	0.5/1.5	2384	15.2	16.7	1.5	3.55	6.17	64.46			5.325	9.255	96.69
		18.2-19.6: Bleached phyllite interval, buff with	40	8	0.5/1.5	2385	16.7	18.2	1.5	3.88	4.20	56.57			5.82	6.30	84.855
		green highlights due to Fuchsite. Foliation pre-	30	8	0.6/1.6	2386	18.2	19.8	1.6	2.75	1.40	34.29			4.40	2.24	54.864
		served=30°. Contacts broken ground.	75	+15	1.4/1.5	2387	19.8	21.3	1.5	8.77	13.21	101.83			13.155	19.815	152.745
		25.9: Contact with bleached phyllite (Sb) =30°	75	10	1.5/1.5	2388	21.3	22.8	1.5	7.59	14.69	111.09			11.385	22.035	166.635
25.9	26.2	BLEACHED PHYLLITE (Sb). Competent. Buff coloured.	75	8	1.4/1.5	2389	22.8	24.3	1.5	7.25	14.25	98.74			10.875	21.375	148.11
		Train of sulfides=5°. Minor spots of Fuchsite.	75	15	1.5/1.6	2390	24.3	25.9	1.6	5.59	21.24	69.60			8.944	33.984	111.36

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
		Light buff colour with greenish tint. Foliation 35-40° (F ₁).															
		Minor sulfide showing.															
		45.9: Fold nose.															
		47.2: Sharp contact with Massive sulfide-80°.															
45.7	48.5	MASSIVE SULFIDES. Dense and brittle. Compositional banding			1.5/1.5	2395	47.2	48.7	1.5	2.35	1.68	30.17					
		Py=Po/Mggtt-Py=30°. Calcite associated as included	75	6													
		gangue in groundmass.															
		48.5: Sudden change to bleached phyllite. Broken ground.															
48.5	71.6	BLEACHED SERICITE PHYLLITE (Sb). Competent. Buff with			21.0/23.1		48.5	71.6	23.1								
		greenish tint. Non-calcitic. Short intervals of unbleached															
		sericite phyllite 5cm. Sericite sometime has waxy resinous															
		look and sometime earthy but not clayey. Foliation=30°, F ₂ =															
		45°. 65.5: FAULT. Thick, gray clay with qtz. pebbles (=10c)															
		71.6: Clean direct contact with MASSIVE SULFIDE-25°.															
			70	8	1.1/1.5	2396	71.6	73.1	1.5	2.53	0.53	45.26					
71.6	99.0	MASSIVE SULFIDE ZONE. Dense and brittle. Inter-	70	8	1.0/1.5	2397	73.1	74.6	1.5	3.98	4.85	60.34					
		vening gaps of bleached phyllite within the zone.	75	10	1.5/1.5	2398	74.6	76.2	1.6	2.08	1.55	37.37					
		Foliation completely obliterated. Compositional	75	15	1.4/1.5	2399	76.2	77.7	1.5	6.70	5.64	111.09			10.05	8.46	166.635
		bands=15° gradually changing to =60°, towards 80.7m	70	8	1.4/1.5	2400	77.7	79.2	1.5	5.80	7.10	84.69			8.70	10.65	127.035
		until end of run. Barite prisms in cavity walls.	75	15	1.5/1.5	2401	79.2	80.7	1.5	6.55	8.07	80.57			9.825	12.105	120.855
		Opalline silica as amygdaloidal fills.	80	10	1.2/1.5	2402	80.7	82.2	1.5	9.33	10.08	138.17			13.995	15.12	207.255
			60	8	0.6/1.6	2403	82.2	83.8	1.6	2.70	1.55	37.37					

DIAMOND DRILL RECORD

LOGGED BY

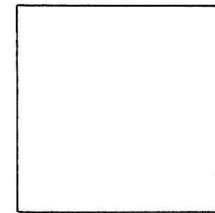
ALEXANDER YOUNG PO

D.D.H. No 76-U-67

PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10842.752 N 3N STARTED APRIL 26, 1976
 DEPARTURE 7493.677 E 78W COMPLETED APRIL 26, 1976
 ELEVATION 1126.585 M PROPOSED DEPTH
 ULTIMATE DEPTH 76.2

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	225° 28'	+01°



CLAIM No _____

TOTAL CORE RECOVERY: 90.8%

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	10.8	QUARTZ-SULFIDE (P). Competent. Foliation regular-	20	4	0.3/1.5	2414	0	1.5	1.5	1.33	0.95	20.23						
		ly marked by alternating laminae of sulfides-qtz &	20	5	1.0/1.5	2415	1.5	3.0	1.5	3.23	2.50	36.34						
		sometimes graph.=20°. Crenulations of F ₁ (c to c	15	4	1.5/1.5	2416	3.0	4.5	1.5	0.95	0.40	14.06						
		plane=40° opposite direction to foliation) often	20	6	1.5/1.5	2417	4.5	6.0	1.5	3.93	4.40	40.46			5.895	6.60	60.69	
		time distinct. Local short runs of mass. sulfides	20	6	1.5/1.6	2418	6.0	7.6	1.6	2.68	4.95	33.26			4.288	7.92	53.216	
		showing 30° compositional banding. Details:	30	7	1.5/1.5	2419	7.6	9.1	1.5	3.30	3.90	42.51			4.95	5.85	63.765	
		0-15: Broken ground. Extremely low recovery.	25	7	1.4/1.5	2420	9.1	10.6	1.5	2.78	4.00	32.23			4.17	6.00	48.345	
		7.6-7.8: Massive sulfides-gradual change.	35	5	1.5/1.5	2421	10.6	12.1	1.5	0.79	2.05	18.17			1.185	3.075	27.255	
		10.8: Clean contact with massive sulfides=40°.	20	5	1.5/1.6	2422	12.1	13.7	1.6	0.78	1.70	15.09			1.248	2.72	24.144	
10.8	12.1	MASSIVE SULFIDES (MB). Banded. Compositional band	20	5	1.5/1.5	2423	13.7	15.2	1.5	2.30	2.75	39.43						
		of Py-Sph=40°. Cryto x'llline qtz. as amygdaloidal	25	6	1.5/1.5	2424	15.2	16.7	1.5	2.68	5.82	42.51			4.02	8.73	63.765	
		filling very prominent. Shorts runs of qtz.ser 3cm	30	7	1.5/1.5	2425	16.7	18.2	1.5	4.93	10.11	67.54			7.395	15.165	101.31	
		following trend of compositional band.	75	7	1.5/1.6	2426	18.2	19.8	1.6	9.45	13.79	128.23			15.12	22.064	205.168	
		12.1: Sharp contact with graphitic phyllite=10°.	80	8	1.4/1.5	2427	19.8	21.3	1.5	10.51	13.81	100.80			15.765	20.715	151.2	
12.1	13.2	GRAPHITIC PHYLLITE (Sg). Competent. W/laminae of	80	10	1.4/1.5	2428	21.3	22.8	1.5	8.20	12.82	114.17			12.3	19.23	171.255	
		sulfides (mostly Py). Foliation approx. equal 5°.	70	6	1.5/1.5	2429	22.8	24.3	1.5	2.23	5.00	41.49			3.345	7.50	62.235	
		12.4: Nose. Ellipsoidal foliation ser/qtz-graph.	70	4	1.4/1.6	2430	24.3	25.9	1.6	3.43	8.12	65.49			5.488	12.992	104.784	

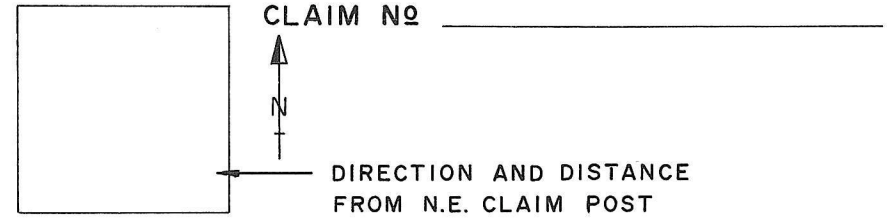
DIAMOND DRILL RECORD

LOGGED BY ALEXNNDER YOUNG PO

D.D.H. No 76-U-69 PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10843.024 N 3N STARTED APRIL 27, 1976
 DEPARTURE 7494.453 E 78W COMPLETED APRIL 27, 1976
 ELEVATION 1130.213 M PROPOSED DEPTH _____
 ULTIMATE DEPTH 38.1

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	226°53'	+60°



TOTAL CORE RECOVERY: 93%

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	23.5	QUARTZ-SULFIDE (P). Competent. Foliation=85-90°	25	4	0.8/1.5	2453	0	1.5	1.5	0.31	0.48	7.20			0.79	PbZn	
		F ₁ congruent with F ₂ . Local sphrich laminae follow-	25	4	0.6/1.6	2454	1.5	3.0	1.5	2.32	1.65	30.17			3.97	PbZn	
		ing foliation. Included intervals of massive sulfs.	30	8	1.5/1.5	2455	3.0	4.5	1.5	2.55	3.58	28.46					
		Crypox'lline silica as amygdaloidal filling. Minor	30	6	1.5/1.5	2456	4.5	6.0	1.5	2.08	3.78	34.29					
		blebs of Cpy with quartz stringers random orientat.	30	8	1.5/1.6	2457	6.0	7.6	1.6	4.25	6.62	66.51			6.80	10.592	106.416
		7.7-11: MASSIVE SULFIDES.	70	10	1.5/1.5	2458	7.6	9.1	1.5	9.15	16.71	130.97			13.725	25.065	196.455
		12-12.1: Broken core. Fragments of graph. phyllite	80	8	1.4/1.5	2459	9.1	10.6	1.5	6.99	12.62	146.06			10.485	18.93	219.09
		18.5: Bx healed by sulfides.	60	10	1.5/1.5	2460	10.6	12.1	1.5	5.20	10.33	74.74			7.80	15.495	112.11
		23.5: Gradual change to massive sulfides (increas-	40	8	1.5/1.6	2461	12.1	13.7	1.6	2.20	4.58	36.34			3.52	7.328	58.144
		ing wider)(massive sulfide bands).	35	8	1.5/1.5	2462	13.7	15.2	1.5	2.58	5.16	40.46			3.87	7.74	60.69
23.5	25.9	MASSIVE SULFIDE (M) with faint trace of compositional	30	10	1.4/1.5	2463	15.2	16.7	1.5	4.08	10.07	65.49			6.12	15.105	98.235
		banding. Short runs of porous sulfides. Banding=80	30	10	1.4/1.5	2464	16.7	18.2	1.5	5.30	12.06	87.77			7.95	18.09	131.655
		-85°. 25.9: Sharp contact w/bleached phyllite=85°.	35	10	1.5/1.6	2465	18.2	19.8	1.6	5.73	12.93	90.86			9.168	20.688	145.376
25.9	26.2	BLEACHED PHYLLITE (Sb). Greenish white. Prominent	35	+15	1.5/1.5	2466	19.8	21.3	1.5	5.68	10.22	86.74			8.52	15.33	130.11
		fuchsite spots mixed with sulfide and earthy white,	45	+15	1.5/1.5	2467	21.3	22.8	1.5	6.74	13.40	110.06			10.11	20.10	165.09
		hard material (feldspars). Foliation=85°.	65	15	1.4/1.5	2468	22.8	24.3	1.5	6.04	8.82	98.81			9.06	13.23	148.215
		26.2: Gradual change to Graphitic Phyllite (Sg).	75	10	1.5/1.6	2469	24.3	25.9	1.6	6.84	12.93	140.23			10.944	20.688	224.368

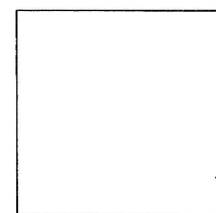
DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG-PO

D.D.H. No 76-U-69 PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10,843.024 N 3N STARTED APRIL 27, 1976
 DEPARTURE 7494.453 E 78W COMPLETED APRIL 27, 1976
 ELEVATION 1130.213 M PROPOSED DEPTH _____
 ULTIMATE DEPTH 38.1

HOLE SURVEY:		
DEPTH	BEARING	DIP
226°	53'	41"
+60°		



CLAIM No _____



DIRECTION AND DISTANCE
FROM N.E. CLAIM POST

TOTAL CORE RECOVERY : 93%

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	23.5	QUARTZ-SULFIDE (P). COMPETENT. Foliation = 85-	25	4	0.8/1.5	2453	0	1.5	1.5	0.31	0.48	7.20			0.79	PbZn	
		90°. F ₁ congruent w/F ₂ . Local sph rich laminae	25	4	0.6/1.5	4	1.5	3.0	1.5	2.32	1.65	30.17			3.97	PbZn	
		following foliation. Included intervals of massive	30	8	1.5/1.5	5	3.0	4.5	1.5	2.55	3.58	28.46					
		sulfides. Cryopox'lline silica as amygdaloidal fil-	50	6	1.5/1.5	6	4.5	6.0	1.5	2.08	3.78	34.29					
		ling. Minor blebs of Cpy w/qtz stringers random	30	8	1.5/1.6	2457	6.0	7.6	1.6	4.25	6.62	66.51			6.80	10.592	106.416
		orientation.															
		7.7-11: Massive Sulfides.	70	10	1.5/1.5	8	7.6	9.1	1.5	9.15	16.71	130.97			13.725	25.065	196.455
		12-12.1: Broken core. Fragments of graph. phyll.	80	8	1.4/1.5	9	9.1	10.6	1.5	6.99	12.62	146.06			10.485	18.93	219.09
		=70°															
		18.5: Bx healed by sulphides.	60	10	1.5/1.5	2460	10.6	12.1	1.5	5.20	10.33	74.74			7.80	15.495	112.11
		23.5: Gradual change to massive sulphides (increa	40	8	1.5/1.6	1	12.1	13.7	1.6	2.20	4.58	36.34			3.52	7.328	58.144
		sing wider massive sulphide bands).	35	8	1.5/1.5	2	13.7	15.2	1.5	2.58	5.16	40.46			3.87	7.74	60.69
23.5	25.9	MASSIVE SULPHIDE (M) W/faint trace of compositional	30	10	1.4/1.5	3	15.2	16.7	1.5	4.08	10.07	65.49			6.12	15.105	98.235
		banding. Short runs of porous sulphides. Banding	30	10	1.4/1.5	2464	16.7	18.2	1.5	5.30	12.05	87.77			7.95	18.09	131.655
		=80-85°.															
		25.9: Sharp contact with bleached phyllite =85°	35	10	1.5/1.6	5	18.2	19.8	1.6	5.73	12.93	90.86			9.168	20.688	145.376
25.9	26.2	BLEACHED PHYLLITE (Sb) Greenish white. Prominent	35	15	1.5/1.5	6	19.8	21.3	1.5	5.68	10.22	86.74			8.52	15.33	130.11
		fuchsite spots mixed w/sulfides and earthy white	45	15	1.5/1.5	7	21.3	22.8	1.5	6.74	13.40	110.06			10.11	20.10	165.09
		hard material (feldspars). Foliation = 85°.	65	15	1.4/1.5	8	22.8	24.3	1.5	6.04	8.82	98.81			9.06	13.23	148.245
		26.2: Gradual change to Graphitic Phyllite (SG)	75	10	1.5/1.6	2469	24.3	25.9	1.6	6.84	12.93	140.23			10.944	20.688	224.368

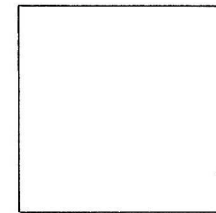
DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG-PO

D.D.H. No 76-U-70 PAGE 1

PROPERTY GRUM JOINT VENTURE, Y.T.
 LATITUDE 10844.052 N 3N STARTED APRIL 28, 1976
 DEPARTURE 7495.379 E 78W COMPLETED APRIL 28, 1976
 ELEVATION 1130.004 M PROPOSED DEPTH _____
 ULTIMATE DEPTH 39.6

HOLE SURVEY:		
DEPTH	BEARING	DIP
14°	08'	00"
+85°	45'	



CLAIM No _____

DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 83.3%

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	7.6	QUARTZ-SERICITE-SULFIDE (Ps) Competent. Trace of graphite. Short runs of bleached phyllite. Foliation = 75-80°. F ₁ apparently congruent w/F ₂ @ 80°. Local run showing F ₂ @ 60° and off-setting F ₁ ex: 2.9m	35	3	0.4/1.5	2470	0	1.5	1.5	0.95	0.48	16.11						
			25	3	1.0/1.5	2471	1.5	3.0	1.5	1.00	1.48	16.11						
			30	5	1.4/1.5	2472	3.0	4.5	1.5	3.05	2.85	37.37			4.575	4.275	56.055	
			30	5	1.5/1.6	2473	4.5	6.1	1.6	1.48	2.85	28.46			2.368	4.56	45.536	
			30	8	1.4/1.5	2474	6.1	7.6	1.5	4.90	6.80	65.49			7.35	10.2	98.236	
		0-1.5: Broken core. Extremely low core recovery.	65	+18	1.5/1.5	2475	7.6	9.1	1.5	7.79	10.69	103.89			11.685	16.035	155.835	
		1.5-1.8: Bleached phyllite interval (Sb). Yellow (Second Contact) ish white colour. Foliation = 85°. Contact = 85°	75	+18	1.5/1.5	2476	9.1	10.6	1.5	10.75	16.19	149.14			16.125	24.285	223.71	
		4.4-4.5: Shear. Sliding plane marked by graphite flakes.	80	8	1.5/1.6	2478	12.1	13.7	1.6	12.10	21.36	153.26			19.36	34.176	245.266	
		7.6: Gradual change to massive sulfides.	80	6	1.2/1.5	2479	13.7	15.2	1.5	9.38	16.56	123.09			14.07	24.84	184.635	
7.6	16.7	MASSIVE SULFIDE ZONE (M) COMPETENT. Short runs of porous sulfides. Faint compositional banding = 85°	85	6	1.5/1.5	2480	15.2	16.7	1.5	9.12	17.94	163.20			13.68	26.91	244.8	
		Concentration of Sph-Gal tends to just gradually build up w/no definite boundary except for rare cases where in it forms thin laminae alternating with Py.	10	2	0.5/1.5	2481	16.7	18.2	1.5	0.13	1.65	2.06			0.195	2.475	3.09	
			20	5	1.3/1.6	2482	18.2	19.8	1.6	0.88	2.08	15.09			1.408	3.328	24.144	
			30	6	1.0/1.5	2483	19.8	21.3	1.5	4.20	8.04	68.57			6.30	12.06	102.855	
			35	6	1.0/1.5	2484	21.3	22.8	1.5	6.05	8.18	91.89			9.075	12.27	137.835	
		12.7-12.9: Brecciated. Sulfide fragments healed by secondary minerals—mostly saccharoidal Py+clay.	40	5	1.1/1.5	2485	22.8	24.3	1.5	7.14	14.11	126.17			10.71	21.165	189.255	
			20	3	0.8/1.6	2486	24.3	25.9	1.6	3.40	8.40	81.60			5.44	13.44	130.56	

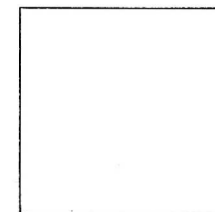
DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG PO

D.D.H. No 76-U-71 PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10844.371 N 3N STARTED APRIL 28, 1976
 DEPARTURE 7495.545 E 78W COMPLETED APRIL 29, 1976
 ELEVATION 1129.904 M PROPOSED DEPTH _____
 ULTIMATE DEPTH 45.7

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	41° 39'	+65°



CLAIM No _____

DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 87.9%

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	10.6	QUARTZ-SERICITE SULFIDE (P). Competent. Foliation 20	2		1.0/1.5	2487	0	1.5	1.5	0.33	0.19	7.20						
		=85° (F ₂) characterized by sericite flakes and small	120	3	1.5/1.5	2488	1.5	3.0	1.5	2.50	1.50	32.23			3.75	2.25	48.345	
		trace of graph. Another foliation of crenulated	25	5	1.4/1.5	2489	3.0	4.5	1.5	3.75	4.35	44.23			5.625	6.525	66.345	
		ser. and bead like qtz. usually asso. w/sulf. trains	30	5	1.0/1.5	2490	4.5	6.0	1.5	1.28	2.80	20.23			1.92	4.20	30.345	
		has axial plane approx.=80°. C to C plane=15° (F ₁).	30	6	1.2/1.6	2491	6.0	7.6	1.6	2.45	4.45	40.46			3.92	7.12	64.736	
		4.6: Broken grd. Pebble size angular to sub-roun-	30	6	0.9/1.5	2492	7.6	9.1	1.5	1.98	3.80	31.20			2.97	5.70	46.80	
		ded fragments of ser. phyll. w/some sulf. showings.	35	6	0.9/1.5	2493	9.1	10.6	1.5	6.74	11.66	82.63			10.11	17.49	123.945	
		10.6: Sharp change to MASSIVE SULFIDES (M). Con-	75	+15	1.0/1.5	2494	10.6	12.1	1.5	15.03	23.74	223.89			22.545	35.61	335.835	
		tact broken ground.	50	15	1.5/1.6	2495	12.1	13.7	1.6	4.95	11.00	72.69			7.92	17.6	116.304	
10.6	12.5	MASSIVE SULFIDES (M). Competent w/short runs of	35	10	1.5/1.5	2496	13.7	15.2	1.5	1.73	3.80	27.43			2.595	5.70	41.145	
		porous massive sulfide (MV). Faint compositional	35	10	1.5/1.5	2497	15.2	16.7	1.5	2.63	5.96	36.34			3.945	8.94	54.51	
		banding approx. equal to 75-80°.	40	10	1.5/1.5	2498	16.7	18.2	1.5	4.18	9.32	59.31			6.27	13.98	88.965	
		12.5: Sharp contact w/quartz-sericite. Sulf.(P)=85°	35	8	1.5/1.6	2499	18.2	19.8	1.6	4.37	8.76	74.74			6.992	14.016	119.548	
12.5	25.9	QUARTZ-SERICITE SULFIDE (P). Competent w/short runs	35	15	1.5/1.5	2500	19.8	21.3	1.5	4.42	12.28	66.51			6.63	18.42	99.765	
		of massive sulfides. Foliation=75° characterized	40	15	1.0/1.5	2501	21.3	22.8	1.5	6.14	13.10	94.63			9.21	19.65	141.945	
		by dark thin laminae of graphitic material alter-	40	10	1.0/1.5	2502	22.8	24.3	1.5	7.94	11.97	114.17			11.91	17.955	171.255	
		nating w/qtzo-feldspathic minerals & train of sulfs.	25	4	1.4/1.6	2503	24.3	25.9	1.6	3.58	6.93	45.26			5.728	11.088	72.416	

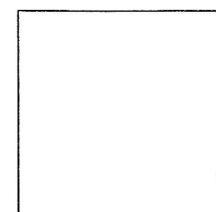
DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG PO

D.D.H. No 76-U-72 PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10 842.738 3N STARTED APRIL 29, 1976
 DEPARTURE 7494.992 78W COMPLETED MAY 2, 1976
 ELEVATION 1124.623 M PROPOSED DEPTH _____
 ULTIMATE DEPTH 137.3

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	224° 08'	-56° 15'



CLAIM No _____

TOTAL CORE RECOVERY: 93%

Interval From	Interval To	DESCRIPTION	Pb+ Py Zn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	30.4	QUARTZ-SERICITE SULFIDE (P). Competent. Foliation = 75° (F). F as stretched S-shaped fold c to c plane =0-10° w/axial plane // to F. Trace of graphite. Sulfide oftentime following F, sometime F, sometime partly disseminated in the grdmass. Cpy blebs.	25 3	1.3	2504	0	1.5	1.5	2.08	1.32	22.29			3.12	1.98	33.435
		75° (F). F as stretched S-shaped fold c to c plane =0-10° w/axial plane // to F. Trace of graphite.	25 5	0.9	2505	1.5	3.0	1.5	2.50	1.00	25.37			3.75	1.5	38.055
		Sulfide oftentime following F, sometime F, sometime partly disseminated in the grdmass. Cpy blebs.	25 5	1.5	2506	3.0	4.5	1.5	3.00	1.44	38.40			4.5	2.16	57.6
		14-15.2: Bx. Phyllite, qtz, sulfide pebbles cemented by minute sulfide grains, sericite flakes and black clayey material.	25 5	1.5	2507	4.5	6.1	1.6	2.10	0.66	29.14			3.36	1.056	46.624
		22-22.2: Bx. Sulfide fragments (1-3cm) cemented by black rock powder and sulphides.	30 5	1.5	2508	6.1	7.6	1.5	1.25	0.52	16.11			1.77	PbZn	
		24-24.5: Massive sulfides. Both contacts broken grd.	35 6	1.5	2509	7.6	9.1	1.5	1.15	0.78	17.14			1.93	PbZn	
		30.4: Sharp contact w/graphitic phyllite (SG)=75.	30 4	1.5	2510	9.1	10.6	1.5	0.60	0.39	10.97			0.99	PbZn	
		30.4: Sharp contact w/graphitic phyllite (SG)=75.	30 5	1.4	2511	10.6	12.1	1.5	0.53	0.70	9.94			1.23	PbZn	
		30.4: Sharp contact w/graphitic phyllite (SG)=75.	25 3	1.4	2512	12.1	13.7	1.6	0.31	0.45	4.11			0.76	PbZn	
		30.4: Sharp contact w/graphitic phyllite (SG)=75.	20 2	1.5	2513	13.7	15.2	1.5	0.35	0.67	6.17			1.02	PbZn	
		30.4: Sharp contact w/graphitic phyllite (SG)=75.	25 1	1.5	2514	15.2	16.7	1.5	0.44	0.63	5.14			1.07	PbZn	
		30.4: Sharp contact w/graphitic phyllite (SG)=75.	25 1	1.5	2515	16.7	18.2	1.5	0.27	0.54	6.17			0.81	PbZn	
30.4	40.8	GRAPHITIC PHYLLITE (SG). Very fissile. Foliation F =75-80° (also plane of fissility). F axial plane // to F w/ c to c plane=10-15° (opp. direction of F). Sporadic showing sulfides as clots and as widely spaced trains folowing both F & F.	20 1	1.4	2516	18.2	19.8	1.6	0.27	0.45	5.14			0.73	PbZn	
		GRAPHITIC PHYLLITE (SG). Very fissile. Foliation F =75-80° (also plane of fissility). F axial plane // to F w/ c to c plane=10-15° (opp. direction of F). Sporadic showing sulfides as clots and as widely spaced trains folowing both F & F.	25 3	1.5	2517	19.8	21.3	1.5	1.50	2.80	23.31					
		GRAPHITIC PHYLLITE (SG). Very fissile. Foliation F =75-80° (also plane of fissility). F axial plane // to F w/ c to c plane=10-15° (opp. direction of F). Sporadic showing sulfides as clots and as widely spaced trains folowing both F & F.	30 5	1.5	2518	21.3	22.8	1.5	1.58	1.20	27.43					
		GRAPHITIC PHYLLITE (SG). Very fissile. Foliation F =75-80° (also plane of fissility). F axial plane // to F w/ c to c plane=10-15° (opp. direction of F). Sporadic showing sulfides as clots and as widely spaced trains folowing both F & F.	30 6	1.4	2519	22.8	24.3	1.5	2.35	3.65	45.26			3.525	5.475	67.89
		GRAPHITIC PHYLLITE (SG). Very fissile. Foliation F =75-80° (also plane of fissility). F axial plane // to F w/ c to c plane=10-15° (opp. direction of F). Sporadic showing sulfides as clots and as widely spaced trains folowing both F & F.	35 6	1.3	2520	24.3	25.9	1.6	0.79	1.15	26.40			1.264	1.84	42.24

Interval		DESCRIPTION	Py PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
		105.1: Gradual change to Quartz-Sulfide with trace of			W.Av.	105.1	108.2	3.1	2.64	2.76	34.7			3.19	8.56	107.42
					W.Av.	103.0	108.2	5.2	2.28	2.56	32.2			11.84	13.29	167.09
		Graphite (Pg).	30 8	1.4	W.Av.	124.9	137.3	12.4	7.35	14.05	122.3			91.2	174.25	1515.9
					2527	105.1	106.6	1.5	3.08	3.00	39.43			4.26	4.50	59.15
105.1	112.7	QUARTZ-SULFIDE W?TRACE OF GRAPHITE (Pg). Competent	35 10	1.6	2528	106.6	108.2	1.6	2.23	2.54	30.17			3.57	4.06	48.27
		w/included run of massive sulfide=40cm. Foliation=85	25 4	1.5	2529	108.2	109.7	1.5	0.70	0.63	9.94					
		-90° followed by sulfide train. Compositional banding	40 8	1.5	2530	109.7	111.2	1.5	2.98	3.12	34.29			4-47	4.68	51.435
		of Sph-Pb rich run=85°.	35 8	1.5	2531	111.2	112.7	1.5	2.95	3.20	36.34			4.425	4.80	54.51
			10 3	2.3	2532	112.7	115.2	2.5	0.25	0.46	4.11			0.71	PbZn	
		112.7: Contact with bleached phyllite (Sb)=85°.	10 3	2.1	2533	115.2	117.3	2.1	0.64	1.35	9.94			1.99	PbZn	
112.7	115.2	BLEACHED PHYLLITE (Sb). Competent. Buff coloured	30 8	1.5	2534	117.3	118.8	1.5	0.99	1.21	15.09			2.20	PbZn	
		w/isolated laminae of graphite and minor clots of	20 4	1.0	2535	118.8	120.3	1.5	1.23	2.40	17.14			3.63	PbZn	
		sulfides. Foliation=80°.	20 5	1.5	2536	120.3	121.9	1.5	1.33	1.43	23.31			2.76	PbZn	
		115.2: Gradual change to Quartz-sulfide with trace	60 6	1.5	2537	121.9	123.4	1.5	1.40	1.55	28.46			2.95	PbZn	
		of graphite (P + G).	60 6	1.5	2538	123.4	124.9	1.5	2.88	3.90	45.26			4.32	5.85	67.89
115.2	137.3	QUARTZ-SULFIDE W?TRACE OF GRAPHITE (P + G). Compe-	60 +20	1.5	2539	124.9	126.4	1.5	10.09	19.85	181.37			15.135	29.775	272.06
		tent. Foliation=85° (F) and 75° (F) both being with	50 +20	1.5	2540	126.4	128.0	1.6	9.32	20.36	156.34			14.912	32.576	250.14
		sulfide trains. Short runs of massive banded sulfides	50 +20	1.5	2541	128.0	129.5	1.5	8.71	18.60	141.26			13.065	27.9	211.89
		(MB) =20cm. Compositional band=80°. Minor chlorite	50 +20	1.5	2542	129.5	131.0	1.5	7.57	15.47	102.86			11.355	23.205	154.29
		Po @ 123.	50 8	1.5	2543	131.0	132.5	1.5	1.78	3.38	37.37			2.67	5.07	56.055
		133.5-133.6: Bleached phyllite. Buff with green	40 6	1.5	2544	132.5	134.1	1.6	2.60	6.03	59.31			4.16	9.648	94.896
		fuchsite and calcite.	50 +20	1.5	2545	134.1	135.6	1.5	9.20	14.85	146.06			13.8	22.275	219.09
	137.3	END OF HOLE. W/Sulfide showing.	50 +20	1.2	2546	135.6	137.3	1.7	9.47	14.00	153.26			16.099	23.8	260.54
		Broken ground.			W.Av.	109.7	112.7	3.0	2.96	3.16	35.31			8.895	9.48	105.95
					W.Av.	117.3	123.4	6.1	2.88	PbZn						
					W.Av.	123.4	137.3	13.9	6.87	12.96	113.94			95.516	180.099	1583.852

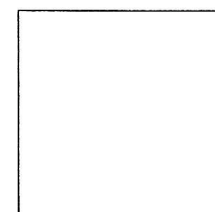
DIAMOND DRILL RECORD

LOGGED BY FRED CHOW

D.D.H. No 76-U-73 PAGE 1

PROPERTY VANGORDA - GRUM JOINT VENTURE
 LATITUDE 10 481.072 3N STARTED MAY 2, 1976
 DEPARTURE 7494.756 78W COMPLETED MAY 3, 1976
 ELEVATION 1126.003 M PROPOSED DEPTH _____
 ULTIMATE DEPTH 121.9M

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	194°	0°
121.9M	196° 17'	+1° 16'



CLAIM No _____
 DIRECTION AND DISTANCE
 FROM N.E. CLAIM POST

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	13.3	QUARTZ-SULPHS-GRAPH-SER (P). Siliceous, light to med. gray														
		15-25% Py, 5% Ser-graph. Very siliceous and hard. F & F prominent, F & F mineralization. At 12.2m F dominant and all F mineralization.	1.6	2547	0	2.9	2.9	2.15	1.64	24.34						
		0±2.9m: 25 Py, 4 Pz.1 F =40°. -4.4m: 20 Py, 1 PZ, 0.2% arsenopy. F ₂ =30-40°. F ₁ sub-V	1.5	2548	2.9	4.4	1.5	0.66	0.45	10.97						
		-5.3m: 25 Py, 5 PZ, F ₂ =30-10°. -7.6m: 15 Py, 8 PZ, F ₂ =10-35°, F ₁ sub-V F ₂ . -9.0m: 20 Py, 10 Pz, F ₂ & F ₁ as above. -10.7m: 15 Py, 8 PZ -12.0m: 15 Py, 6.5 PZ, F ₂ =40°, F sub-v F ₂ . -13.3m: 4 Py, 0.7 PZ, F ₂ @ 0-20° ¹ , late quartz-sulphs filled fractures @ 45° to core.	0.9	2549	4.4	5.3	0.9	3.28	2.70	35.31						
			2.3	2550		7.6	2.3	4.45	7.84	52.46			10.235	18.032	120.66	
			1.4	2551		9.0	1.4	4.20	7.84	49.37			5.88	10.976	69.118	
			1.7	2552		10.7	1.7	3.70	5.75	40.46			6.29	9.775	68.782	
			1.3	2553		12.0	1.3	3.30	3.90	34.29			4.29	5.07	44.577	
13.3	23.2	QUARTZ-SULPHS-GRAPH-SER(P). Siliceous.														
		Similar rock as above but more pyritic and structure appear to be mainly F ₁	2.4	2554	12.0	14.4	2.4	0.60	0.88	12.00			1.44	2.112	28.8	
		13.3-14.4: 25 Py, 1.5 PZ. F ₂ @ 60°, F ₁ @ 0-3° undulating.	0.8	2555		15.2	0.8	2.28	4.36	40.46			1.824	3.488	32.368	
		-17.1: 30-40 Py, 5-6.5 PZ. F ₂ 30-40°, F ₁ @ 45-0°.	1.9	2556		17.1	1.9	2.75	4.75	50.40			5.225	9.025	95.76	
		-20.7: 35-30 Py, 8-9 PZ. F ₂ 45° @ 17.8m. F ₁ @ 30°.	2.0	2557		19.1	2.0	2.98	6.80	46.29			5.96	13.6	92.58	
		-23.2: 20 Py, 10 PZ. F 40° @ 20.7-23m, F ₁ 0-30°.	1.6	2558		20.7	1.6	4.03	9.32	59.31			6.448	14.912	94.896	
			2.5	2559		23.2	2.5	3.58	7.94	53.49			8.95	19.85	133.73	

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
34.1	35.4	MASSIVE SULPHIDES (MB) AND QUARTZ-SULPHIDES (P). 34.1-34.65M Quartz-sulph; 40 Py, 2-3 Pz. -35.4m: M.S. 75 Py, 12 Pz. -35.4m: Contact @ 65°. CA: 40°.	1.0	2570	34.5	35.5	1.0	9.12	13.74	175.54			9.12	13.74	175.54
35.4	38.5	QUARTZ-GRAPH-SER PHYLLITE (G). MEDIUM GRAY 60% quartz, 25 graph., no ser. Contorted landing. Medium firm rock, 2-3% pyrite, negli. PbZn first 0.5m. CA: F 60° @ 35.7m, 30° @ 36, 40-50° @ 36.6-38M. 2 F 55-60° @ 36.9-38m, 0° @ 38.4m. 1	0.5/2.5	2571	35.5	36.0	0.5	0.16	0.25	1.03					
38.5	39.2	MASSIVE SULPHIDES (MB). Banded, massive f.g. sulphs w/ H.G. Zn. Later fractures pyrite filled. 65 Py, 24 Pz. Banding 25-35°. Upper contact 40°, lower 50° in contact with muddy shear 0.1m wide. F mineralization? 1	0.6	2572	38.5	39.2	0.7	7.59	17.61	55.54			5.313	12.327	38.878
39.2	41.9	QUARTZ-GRAPH-SER PHYLLITE (G) WITH MINOR SULPHIDES. Phyllite similar to 35.4-38.5M with 5% Py, 1-2 Pz. Moderate fracturing with many slips. F ₂ 45° @ 39.6m, 45° to 41.6m. F ₁ 0° @ 39.3, 55° @ 40, 30° @ 41m. 1	2.7	2573	39.2	41.9	2.7	0.78	1.62	12.00			1.794	3.726	27.6

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
41.9	61.5	QUARTZ-SERICITE+ GRAPH PHYLLITE. (Sg) Medium gray.														
		45-50% quartz, thick and thin foliations sericite and light gray quartzose bnads. 50-50.6M qtz vein.	19.6/19.6		41.9	61.5										
		51-52.3M: Many white quartz veinlets.														
		Rock firm except @ 41.9-44.1M where shearing occurs adjacent to FAULT (shattered) @ 42.5-42.7m.														
		1 + % pyrite occuring in qtzose bands and in late quartz filled fracture.														
		F / 25° @ 42m, 40° @ 43.6, 25° @ 44.1-46, 0° @ 46.5,		W.Av.	5.3	12.0	6.7	3.98	6.54	45.24			26.695	43.853	303.135	
		25° @ 46.8-50, 40° @ 50.7-54.5m, 30° @ 55.3,		W.Av.	9.0	12.0	3.0	3.53	4.95	37.78			10.58	14.845	113.36	
		20° @ 56, 0° @ 56.5, 25° @ 57.5, 45° @ 57.8-59.4, 0° @ 59.6, 25 to 35 to 20° @ 59.8-61.5M.		W.Av.	14.4	19.1	4.7	2.77	5.56	46.96			13.009	26.113	220.71	
		F / 20° @ 42m, sub-v to F @ 45.4-48.3, //F @ 48.5,		W.Av.	14.4	35.5	21.1	5.41	9.81	82.77			114.210	206.959	1746.55	
		1 60° to F @ 49, sub-v to F @ 57.8, vert. to F @ 59.		W.Av.	5.3	35.5	30.2	4.71	8.37	68.82			142.345	252.924	2078.48	
		F local.														
61.5	63.0	FAULT ZONE?														
		Zone straddles Qtz-Ser-Graph (Med. Gray) and Qtz-Ser (Light Gray + Bleached). Rock broken, qtz breccia in phyllitic goundmass re-cemmented and/or healed; gouge noted.	0.6/1.5		61.5	63.0										
63.0	65.3	QUARTZ-SERICITE PHYLLITE (Ss). Bleached Buff+Light Gray.														
		Altered by fault, sheared. F 20-0-20°. F local sub-v to F	1.1/1.3		63.0	65.3										

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
		65.8-66.0: Massive Py.		W.Av.	56.5	60.5	4.0	5.63	PbZn	?						
67.9	91.4	QUARTZ-SULPHIDES (P).														
		As previous but with thin bands of sphalerite and some chal-														
		copyrite; trace of pyrrhotite. Py PbZn														
					33	2.5	1.4	2605	67.9	69.3	1.4	0.11	0.68	10.97		0.79 PbZn
					35	2	1.3	2606	69.3	70.6	1.3	0.12	0.45	3.91		0.57 PbZn
					35	2	1.3	2607	70.6	71.9	1.3	0.32	1.20	17.14		1.52 PbZn
					30	Tr.	1.2	2608	71.9	73.1	1.2	0.07	1.15	6.17		1.22 PbZn
					35	2	1.4	2609	73.1	74.5	1.4	0.05	0.73	8.23		0.78 PbZn
					35	4	1.2	2610	74.5	75.7	1.2	0.80	1.90	30.17		2.70 PbZn
					33	4	1.3	2611	75.7	77.0	1.3	0.49	1.73	23.31		2.22 PbZn
					30	4	1.4	2612	77.0	78.6	1.6	0.45	1.58	21.26		2.03 PbZn
					30	3	1.3	2613	78.6	79.9	1.3	0.48	1.40	16.11		1.88 PbZn
		TRACE OF MAGNETITE			35	3	1.6	2614	79.9	81.5	1.6	0.09	0.60	10.79		0.69 PbZn
					37	4	1.3	2615	81.5	82.8	1.3	0.49	2.33	15.09		2.82 PbZn
		OPEN TENSION CRACKS			25	Tr	1.5	2616	82.8	84.3	1.5	0.08	0.45	7.20		0.53 PbZn
					35	4	1.3	2617	84.3	85.6	1.3	0.07	0.68	7.20		0.75 PbZn
					30	3	1.2	2618	85.6	86.8	1.2	0.10	0.67	8.91		0.77 PbZn
		SOME ANKERITE FILLED TENSION CRACKS			25	3	1.4	2619	86.8	88.2	1.4	0.08	0.58	8.91		0.66 PbZn
					25	5	3.2	2620	88.2	91.4	3.2	0.50	0.75	17.14		1.25 PbZn

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
9.2	27.4	QUARTZ SULPHIDES (PF).															
		Dark gray; fine grained phyllite with blebs of sulphides in quartz; sulphides confined to F ₂ @ 0-20°.															
		12.2-12.6: Traces of graphite and-1% PbZn.															
		13.1: Traces of galena.															
			5	Tr	9.7		9.2	18.3	9.1								
			15	1	2.8	2624	18.3	21.1	2.8	0.30	1.20	8.91					
			15	Tr.	6.3		21.1	27.4	6.3								
27.4	42.7	QUARTZ SULPHIDES (P).															
		Variously brassy to white; fine grained; low angle	55	10	1.5	2625	27.4	29.3	1.9	3.90	5.00	50.40			7.41	9.50	95.76
		bands of F ₁ sulphides-25-30°. Section of massive	50	14	1.2	2626	29.3	30.5	1.2	5.15	7.05	83.66			6.18	8.46	100.392
		sulphides. Sections of high grade PbZn within	45	14	1.5	2627	30.5	32.0	1.5	4.60	5.85	73.71			6.90	8.775	170.565
		and without massive sections.	40	15	0.8	2628	32.0	32.8	0.8	6.92	10.21	86.74			5.536	8.168	69.392
			30	8	1.4	2629	32.8	34.3	1.5	4.30	5.10	57.60			6.45	7.65	86.4
			25	25	2.0	2630	34.3	36.4	2.1	12.04	12.77	183.43			25.284	26.817	385.203
			30	5	2.0	2621	36.4	38.5	2.1	2.70	1.60	40.46					
			20	Tr.	2.5	2632	38.5	41.1	2.6	1.95	1.15	32.23					
			20	1	1.4	2633	41.1	42.7	1.6	1.20	0.25	20.23					
						W.Av.	27.4	36.4	9	6.42	7.71	94.19			57.76	69.37	847.712
						W.Av.	32.0	36.4	4.4	8.47	9.69	122.95			37.270	42.635	540.995

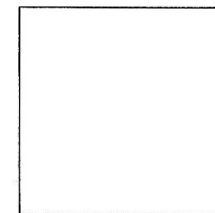
DIAMOND DRILL RECORD

LOGGED BY ALEXANDER Y. PO

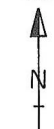
D.D.H. No 76-U-77 PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10844.451 3N STARTED MAY 9, 1976
 DEPARTURE 7496.313 78W COMPLETED MAY 15, 1976
 ELEVATION 1124.893 M PROPOSED DEPTH _____
 ULTIMATE DEPTH 167.6

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	044°	-55° 37!



CLAIM No _____



DIRECTION AND DISTANCE FROM N.E. CLAIM POST

CORE RECOVERY: 94.9%.

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	1.6	BLEACHED PHYLLITE (Sb). Broken core. Greenish-buff colour. Foliation=20°, regular fine laminae of bleached sericite. Fuchsite as sporadic spots. 1.6: Sharp contact with Quartz-Sulfide (P) =75°.	0.5		0	1.6	1.6									
1.6	13.7	QUARTZ-SERICITE-SULFIDE (P). Competent. Pervasive silicification of groundmass. Sulfides in thin laminae and as clots. Foliation=70-75° but becomes more complex towards middle of fun or near fold nose. Intervals of chloritic groundmass. 6.5-7.6: Chloritic groundmass. Fold nose F =0-3° forming concentric ellipsoid. 10 1	3.0	2707	1.6	4.6	3.0	0.98	1.00	9.94						
		13.7: Gradual change to Sericite Phyllite (S) 5 Tr.	7.6		4.6	12.2	7.6									
13.7	62.2	SERICITE PHYLLITE (S). Competent. Foliation=45° as F. F as stretched-S=10°. Trace of graphite. Short runs of Bleached Phyllite. Clots of sulfides in sporadic distribution. 31.0: Shear. Bull quartz with sericite flakes=40°.	1.5	2708	12.2	13.7	1.5	2.55	4.00	30.17						
		44.2-62.2: F foliation gradually change to =75°. F =0-10°														

Interval		DESCRIPTION	Py	Zn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
		F =85-90°; F =45-50°. Sulfides in both foliation.	45	8	1.4	2719	82.3	83.8	1.5	5.83	8.62	97.72			8.745	12.93	146.58
		Trace of graphite as thin laminae. Calcite as short	40	10	1.5	2720	83.8	85.3	1.5	2.70	3.75	44.23			4.05	5.625	66.345
		discontinuous stringers. Barite in groundmass as	10	6	3.1	2721	85.3	88.4	3.1	1.05	1.45	13.03					
		well as cavity walls.															
		77.7-79.2: Low recovery although rx look competent, dense															
		and hard.				W.Av.	71.6	74.4	3.1	6.74	12.16	103.82			20.9	37.71	321.84
		83.8-85.2: Banded Magnetite-Po (2-3cm) =60°.					76.2	82.3	6.1	0.80	PbZn						
		85.3: Gradual change to graphitic sulfides phyllite. B nds					82.3	85.3	3.0	4.27	6.18	70.975			12.795	18.555	212.93
		of Phyllite increasing.															
85.3	88.4	GRAPHITIC PHYLLITE (SG) with prominent sulfide laminae, clots															
		and some (1cm) bands. Competent. Foliation=60° usually															
		followed by sulfide train. F appear to be = to F except															
		in fold noses where f =0°. Blebs of Cpy.															
		87.2: Fold nose.															
		88.4: Sudden change to bleached phyllite (Sb) =60°.															
88.4	90.0	BLEACHED PHYLLITE (Sb). Greenish buff colour. Spots of			1.6		88.4	90.0	1.6								
		Fuchsite. Foliation=60-65°.															
		90.0: Contact with quartz-sulfide (P). Broken core.															
90.0	90.5	QUARTZ-SULFIDE (P). All broken core.	15	5	2.5	2722	90	92.9	2.9	0.65	0.88	12.00					
90.5	102.5	QUARTZ-SERICITE-SULFIDE PHYLLITE WITH TRACE OF GRAPH.	10	5	1.4	2723	92.9	94.4	1.5	1.35	1.67	19.20			20.025	2.505	28.8
		(Pg). Competent. Foliation=65-70°. F =F except	10	5	1.5	2724	94.4	96.0	1.6	1.38	1.44	21.26			2.208	2.304	34.016
		in fold noses. Barite xls in cavity walls. Clots	15	5	1.3	2725	96.0	97.5	1.5	0.55	0.60	8.91					
		of Cpy.	15	6	1.5	2726	97.5	99.0	1.5	2.03	2.40	27.43					

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
		99.5: Fold nose. 20 6	1.4	2727	99.0	100.5	1.5	0.83	1.25	12.00					
		102.5: Sharp contact with massive sulfide zone=70° 20 8	2.0	2728	100.5	102.5	2.0	2.23	4.20	31.20			4.46	8.4	62.4
		75 10	1.1	2729	102.5	103.6	1.1	4.90	7.70	81.60			5.39	8.47	89.76
102.5	108.2	MASSIVE SULFIDE ZONE (M). Dense, Brittle. Compo- 75 8	1.5	2730	103.6	105.1	1.5	6.29	7.52	63.43			9.435	11.28	95.145
		sitional bands of Sph in predominantly Py ground, 80 10	1.5	2731	105.1	106.6	1.5	4.98	6.73	93.94			7.47	10.095	140.91
		=65-70°. Py in varying degree of x'llinity and 75 6	1.6	2732	106.6	108.2	1.6	4.73	1.90	90.85			7.568	3.04	145.36
		grain size. Small intervals of porous variety (5cm) with													
		aligned voids=65°. Some voids filled with oppalline silica. W.Av.			92.9	96.0	3.1	1.36	1.55	20.26			4.233	4.809	62.816
		106-106.1: Intervening graphitic phyllite. Both contacts W.Av.			100.5	108.2	7.7	4.46	5.36	69.29			34.323	41.285	533.575
		equal 40°. W.Av.			102.5	106.6	4.1	5.44	7.28	79.47			22.295	29.845	325.82
		108.2: Sharp contact with graphitic phyllite (Sg)=40. Con- W.Av.			100.5	106.6	6.1	4.39	6.27	63.64			26.76	38.25	388.22
		tact marked by bull quartz.													
108.2	123.0	GRAPHITIC PHYLLITE (Sg). Fissile. Foliation =40-45° (F). 14.5			108.2	123.0	14.8								
		F =0°. Minor sporadic clots of sulphides 1													
		112.0: Shear. Broken graphitic phyllite=10cm.													
		123.0: Sharp contact with Massive Sulfide (M) =40°.													
123.0	125.2	MASSIVE SULFIDE (M). Dense and brittle. Compostional bands													
		and some calcite stringers=40°-45°. Short interval 75 15	2.2	2733	123.0	125.2	2.2	6.06	6.63	78.86					
		of bleached phyllite with Fuchsite laminae.													
		125.2: Sharp contact with sericite phyllite (Sg).													
125.2	132.6	DARK SERICITE PHYLLITE WITH TRACES OF GRAPHITE (Sg). 7.0			125.2	132.6	7.4								
		Fissile. Foliation=65°F). F not so distinct except in													

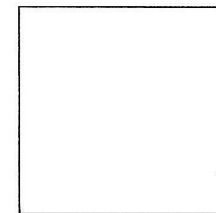
DIAMOND DRILL RECORD

LOGGED BY JOCK HOWARD

D.D.H. No 76-U-78 PAGE 1

PROPERTY VANGORDA GRUM
 LATITUDE 10603.298 2+15mN STARTED MAY 8, 1976
 DEPARTURE 7732.983 66+23mW COMPLETED MAY 9, 1976
 ELEVATION 1175.072 M PROPOSED DEPTH _____
 ULTIMATE DEPTH 106.7

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	315° 49'	?
45.7m	316°	+4
76.2m	316°	+2
106.7m	313°	0



CLAIM No _____



DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 86.3%.

Interval From	Interval To	DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	17.6	QUARTZ SERICITE PHYLLITE (S) Dark gray; fine grained; no visible F - F @ 20°. 1 2 6.5-7.2: White quartz vein within F . 2 Sharp in/out 7.5-8.4: White quartz vein within F . contact at 20%. 2 10.5-11.1: White quartz vein within F . 2	15.0/17.6													
17.6	18.6	WHITE PHYLLITE (Sg). Yellow-gray; fine grained; F at 30° F -F barely visible, 1 2 1 F at 30°. 2	1.0/1.0													
18.6	20.4	QUARTZ SERICITE PHYLLITE (S) As previous, without quartz veins; F 0-10° and contorted. 2 Also tension cracks.	1.8/1.8													
20.4	23.2	BLEACHED PHYLLITE (Sbm). Pale yellow-gray; fine grained; F @ 0-20°. Core is muddy 2 and soft; scattered flakes of mariposite.	1.5/2.8													
23.2	34.9	GRAPHITE PHYLLITE (Gqp). Black and white striped; fine-medium grained; F -45° F - 1 2 F @ 20°. Py within F quartz bands. Py 15, PbZn 1	8.5/11.7													

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
34.9	106.7	QUARTZ SULPHIDES (PB).															
		Interbanded sulphides and phyllite or quartz. Fine grained;															
		F perpendicular to F -F @0-20°.	20		1.4	2634	38.1	39.6	1.5	0.25	1.20	17.14			1.45	PbZn	
		1 2 2	15		4.5/4.6		39.6	44.2									
			35		1.3	2635	44.2	45.7	1.3	0.05	1.00	9.94			1.05	PbZn	
			20		4.6/4.6		45.7	50.3									
			15		1.5	2636	50.3	51.8	1.5	0.05	0.62	5.14			0.67	PbZn	
			20		4.3/4.3		51.8	56.1									
		-1% Cu, 1% Pb.	25	1	1.5	2637	56.1	57.6	1.5	0.40	0.42	26.40			0.82	PbZn	
		60.0-61.5: FAULT GOUGE.	20		4.4/6.4		57.6	64.0									
			15		1.4	2638	64.0	65.5	1.5	0.05	0.25	4.11			0.30	PbZn	
		68.7-69.4: Quartz and Pyrite breccia in phyllite	25		4.0/4.5		65.5	71.0									
		groundmass.	20		1.5	2639	70.1	71.6	1.5	0.06	0.37	9.94			0.43	PbZn	
		75.0-75.7: Breccia as previous.	20		5.9/5.9		71.6	77.7									
			35		1.4	2640	77.7	79.2	1.5	0.14	0.75	8.23			0.80	PbZn	
		80.4-81.8: Breccia as previous.	15		4.4/4.6		79.2	83.8									
		-1% Cu.	20		1.5	2641	83.8	85.3	1.5	0.11	0.55	18.17			0.66	PbZn	
		-1% Cu.	20		4.6/4.6		85.3	89.9									
		-1% Cu.	20		1.5	2642	89.9	91.4	1.5	0.09	0.25	9.94			0.34	PbZn	
		94.5-94.9: Breccia as previous.	20	Tr.	3.3/3.5		91.4	94.9									
			25	4	1.2	2643	94.9	96.5	1.6	1.73	2.20	28.46			3.93	PbZn	
			25	4	1.3	2644	96.5	97.8	1.3	0.66	1.28	20.23			1.94	PbZn.	

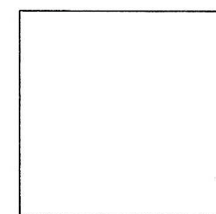
DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG PO

D.D.H. No 76-U-79 PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10 841.867 3N STARTED MAY 15, 1976
 DEPARTURE 7494.408 78W COMPLETED MAY 16, 1976
 ELEVATION 1125.110 M PROPOSED DEPTH _____
 ULTIMATE DEPTH 97.5m

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	218° 23'	-29° 51'
45.7m	227	-35°
96.0m	228	-41°



CLAIM No _____

DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 94.6%.

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	30.5	GRAPHITIC QUARTZ PHYLLITE W?SULPHIDE (Pg). Compe-	15	5	0.9	2743	0	1.5	1.5	1.37	1.00	18.17						
		tent. Foliation=60° (F); F =0-3° and off setted	15	4	1.4	2744	1.5	3.0	1.5	0.44	0.24	8.91			0.68	PbZn		
		by F -ex. 2.6 local concentration of Sph generally	10	3	1.4	2745	3.0	4.6	1.6	0.50	0.14	9.94			0.64	PbZn		
		following F. Py prominently following F in fold	20	6	1.3	2746	4.6	6.1	1.5	3.40	1.78	35.31			5.10	2.67	52.965	
		noses. Fold noses @: 13.5; 15; 18.3;	25	6	1.5	2747	6.1	7.6	1.5	2.93	2.63	30.17			4.395	3.945	45.255	
30.5	32.0	TRANSITIONAL ZONE BETWEEN GRAPHITIC-QTZ-SULF-PHYLL.	25	6	1.5	2748	7.6	9.1	1.5	3.15	1.30	32.22			4.725	1.95	48.33	
		(PG) AND MASS. SULFIDE ZONE (M). Foliation and	20	6	1.5	2749	9.1	10.7	1.6	3.10	1.00	29.14			4.96	1.60	46.24	
		bands=40°. Sulfide bands gradually thickening	30	7	1.5	2750	10.7	12.2	1.5	1.53	0.30	19.20			2.295	0.45	28.8	
		towards end of run.	35	5	1.4	2751	12.2	13.7	1.5	1.25	0.26	28.45			1.875	0.39	42.675	
		30.6-30.9: Broken grd. No clay materials but core	25	4	1.5	2752	13.7	15.2	1.5	0.73	0.38	16.11			1.095	0.57	24.165	
		is angular to Sub-angular=2-4cm.	30	8	1.5	2753	15.2	16.8	1.6	2.88	3.45	31.20			4.61	5.52	49.92	
32.0	36.6	MASSIVE SULFIDE(M). Generally competent except for	15	6	1.4	2754	16.8	18.3	1.5	2.60	1.32	29.14			3.90	1.98	43.71	
		a short interval (=20cm) of Saccharoidal Py. Com-	15	5	1.5	2755	18.3	19.8	1.5	1.89	1.56	23.31			2.835	2.34	34.965	
		positional banding=85°.	15	6	1.5	2756	19.8	21.3	1.5	2.38	2.86	26.40			3.57	4.29	39.6	
		33.1-33.1: Sugary Py, very friable.	20	6	1.5	2757	21.3	22.9	1.6	1.85	0.63	24.34			2.96	1.008	38.944	
		36.5: Banding changes to =75°.	15	8	1.5	2758	22.9	24.4	1.5	4.35	4.40	48.34			6.525	6.60	72.51	
		36.6: Sharp contact with graphitic phyllite (G)=60°20	10		1.5	2759	24.4	25.9	1.5	3.30	3.80	40.45			4.95	5.70	60.675	

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
			10	8.5	1.2	2655	13.7	15.2	1.5	1.77	5.65	28.46			2.655	8.475	42.69
		15.4-16.1: FAULT GOUGE.	15	10	1.2	2656	15.2	16.8	1.6	5.20	7.11	72.69			8.32	11.376	116.304
			10	10	1.4	2657	16.8	18.3	1.5	2.40	5.15	37.37			3.6	7.725	56.055
		18.6-19.0: PXs	15	10	1.3	2658	18.3	19.8	1.5	2.10	4.38	34.29			3.15	6.57	51.435
			10	8.5	1.2	2659	19.8	21.3	1.5	2.10	2.88	30.17					
			5	14	1.5	2660	21.3	22.9	1.6	1.00	2.55	16.11			1.6	4.08	25.776
			5	12	1.5	2661	22.9	24.4	1.5	1.29	2.43	21.26			1.935	3.645	31.89
			5	14	1.5	2662	24.4	25.9	1.5	1.04	2.92	19.20			1.56	4.38	28.8
			5	16	1.4	2663	25.9	27.4	1.5	1.05	2.65	17.14			1.575	3.975	25.71
			15	18	1.6	2664	27.4	29.0	1.6	3.35	6.07	50.40			5.36	9.712	80.64
		30.0-33.0: Core is mostly blocky, pebbly and	15	18	1.4	2665	29.0	30.5	1.5	3.30	8.49	56.57			4.95	12.375	84.855
		broken. FAULT?	15	16	1.3	2666	30.5	32.0	1.5	2.50	5.48	39.43					
			15	10	1.3	2667	32.0	33.5	1.5	1.45	1.65	22.29					
			30	1	1.5	2668	33.5	35.1	1.6	0.15	1.18	9.94			1.33	PbZn	
			35	2	1.3	2669	35.1	36.6	1.5	0.35	1.40	13.03			1.75	PbZn	
		36.6-43.1: PXq. Core is broken and blocky.	25	2	0.7	2670	36.6	38.1	1.5	1.14	1.95	22.29					
		Solid pieces show brecciation.	20	7	1.1	2671	38.1	39.6	1.5	2.65	4.50	37.37					
			15	15	1.3	2672	39.6	41.1	1.5	5.05	9.52	65.49			7.575	14.28	98.235
			25	9	1.4	2673	41.1	42.7	1.6	3.45	5.15	52.46			5.52	8.24	83.936
			40	5	1.1	2674	42.7	44.2	1.5	4.95	2.95	89.83			7.425	4.425	134.75
			40	8	1.5	2675	44.2	45.7	1.5	4.40	8.98	65.49			6.6	13.47	98.235
		45.7-46.7: PXq as previous.	30	5	1.5	2676	45.7	47.2	1.5	2.43	2.13	35.31			3.645	3.195	52.965

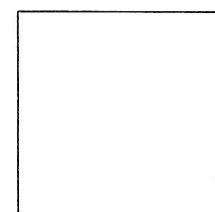
DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG PO

D.D.H. No 76-U-81 PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10835.044 4N+9.1mN STARTED MAY 18, 1976
 DEPARTURE 7570.330 76W X-CUT COMPLETED MAY 18, 1976
 ELEVATION 1137.789 M PROPOSED DEPTH _____
 ULTIMATE DEPTH 38.1

HOLE SURVEY:		
DEPTH	BEARING	DIP



CLAIM No _____

DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 95.2%

Interval From	Interval To	DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	9.1	SERICITE PHYLLITE (S). Broken cores. Foliation=45-50°. F =0-5° @ 6.2m. Rest of run show no distinct F -F relation 1 1 2 ship. Widely spaced sulfide trains following dominant foliation. Short bleached phyllite interval at end of run. 8.9-9.1: Bleached phyllite (Sb). First contact sharp =80°. Buff coloured. Second contact-broken ground.	8.9		0	9.1	9.1									
9.1	27.4	QUARTZ-SULFIDE (P). Competent. F =80°-85°; F 15 10 2 1 0-5°. Sulfides ff. both foliation. Short inter-vening runs of bleached phyllite at 9.5-9.7. 12.4-12.8: FAULT. Thick sticky gray gouge with sericite flecks. 16.5-16.7: Sheared. Marked by sericite flakes.	1.4	2777	9.1	10.7	1.6	3.38	5.60	59.31			5.408	8.96	94.896	
			1.2	2778	10.7	12.2	1.5	4.35	5.40	68.57			6.525	8.10	102.855	
			2.7	2779	12.2	15.2	3.0	2.95	2.38	45.25						
			2.6	2780	15.2	18.3	3.1	1.61	1.15	16.11			4.991	3.565	49.941	
			3.0	2781	18.3	21.3	3.0	1.62	0.85	19.20			4.86	2.55	57.6	
27.4	37.5	SERICITE PHYLLITE. Competent. Foliation=75-80°; F 8 5 1 F 0-5° @ 35.3 but not always distinct. Sporadic clots of sulfides as sph-Pb with Py. 27.9-28.1: Open fx. lined with quartz and clots of sulfides.	2.9	2782	21.3	24.4	3.1	2.03	0.78	22.28			6.293	2.418	69.068	
			3.0	2783	24.4	27.4	3.0	1.55	1.95	18.17			4.65	5.85	54.51	
			10.0/10.1		27.4	37.5										
				W.Av.	9.1	12.2	3.1	3.85	5.50	63.79			11.933	17.06	197.751	
		37.5: Gradual change to Bleached Phyllite (Sb).		W.Av.	15.2	29.4	12.2	1.70	1.18	18.94			20.794	14.383	231.119	

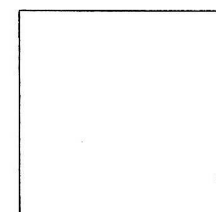
DIAMOND DRILL RECORD

LOGGED BY JOCK HOWARD

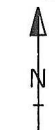
D.D.H. No 76-U-82 PAGE 1

PROPERTY VANGORDA-GRUM
 LATITUDE 10775.094 5N+15m 72W STARTED MAY 12, 1976
 DEPARTURE 7686.964 COMPLETED MAY 12, 1976
 ELEVATION 1154.668 M PROPOSED DEPTH _____
 ULTIMATE DEPTH 45.7

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	186° 54'	+09° 38'



CLAIM No _____



DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 79.2%

Interval From	Interval To	DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x				
					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag		
0	2.8	BLEACHED PHYLLITE (Sbm). Py PbZn Yellow-gray; F variably 0-30° where visible. Short tension cracks perpendicular to F. Scattered flecks of mariposite, bands of ankerite with quartz.	2.4/2.8														
2.8	4.9	MASSIVE SULPHIDES (MBV). Interbanded massive sulphides and quartz sulphides bands. F -40°.	2.0	2686	2.7	4.9	2.2	2.58	5.39	36.34							
4.9	11.4	BLEACHED PHYLLITE (Sbm). As per 0-2.8 except: 7.0-7.3: Quartz sulphide band w/zinc; contacts and 4 3 8.4-9.6: AS per 7.0-7.3. F & contacts @ 10°. 5 3.5 10-10.5: As per 7.0-7.3. " " " " @ 35°. 1 11.0-11.3: " " " " " " " @ 40°. 1 Fold nose @ 11.3. Quartz Sulphide bands Py 10%, PbZn-12%	2.0		4.9	6.9											
			2.1	2687	6.9	9.1	2.2	0.84	1.83	13.03							
			2.4	2688	9.1	11.4	2.3	1.03	3.48	19.20			2.369	8.004	44.16		

DIAMOND DRILL RECORD

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ALEXANDER YOUNG PO

D.D.H. No 76-U-83

PAGE 1

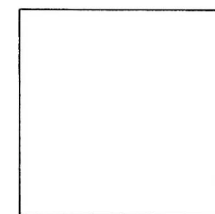
PROPERTY GRUM JOINT VENTURE

LATITUDE 10835.153 4N+9.5mN STARTED MAY 18, 1976

DEPARTURE 7570.732 76W/X-CUT COMPLETED MAY 20, 1976

ELEVATION 1142.061 M PROPOSED DEPTH
ULTIMATE DEPTH 38.1M

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR		+90°



CLAIM No



DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 77.7%

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	6.0	SERICITE PHYLLITE (S). Fissile. Foliation=70-75°. No clear F indication. Clots and trains of sulfides sporadically 1 distributed oftentime associated with bull quartz. 5.8-6.0: Bleached phyllite. Both contact=80°. Buff col- oured with spots of fuchsite.	5.0		0	6.0	6.0									
6.0	15.2	QUARTZ-SULFIDE (P). Hard broken core. Foliation 30 15 =80° usually followed by sulfide laminae. F appear 20 8 1 // F. Yellowish clay along open fx (pyromorphite?) 20 7 2 Intervening interval of bleached phyll. w/in the zone. 15 6 8.8-9.5: Mineralized Bleached phyllite (sb). Broken 15 6 ground. Prominent fuchsite spots//laminae. Fol.=80° 10 5 13.7-15.2: Very broken grd. Extremely poor recov. 50 8 Core=2-3 Ø fragments. No gougy material but plenty 75 6 of sericite flakes-appear to be shear zone. 60 8 15.2: Gradual increase of sulfides to massive 70 10 sulfide type (M). 70 12	1.2	2784	6.0	7.6	1.6	3.83	6.40	63.42			6.128	10.24	101.47	
			1.0	2785	7.6	9.1	1.5	0.75	1.73	14.05			1.125	2.595	21.075	
			1.4	2786	9.1	10.7	1.6	1.05	1.20	18.17			1.68	1.92	29.072	
			1.5	2787	10.7	12.2	1.5	1.35	2.10	17.14			2.025	3.15	25.71	
			1.4	2788	12.2	13.7	1.5	1.08	1.40	18.17			1.62	2.10	27.255	
			0.3	2789	13.7	15.2	1.5	1.00	1.78	15.08			1.50	2.67	27.62	
			1.2	2790	15.2	16.8	1.6	3.60	7.28	56.57			5.76	11.648	90.512	
			1.3	2791	16.8	18.3	1.5	6.92	12.97	96.68			10.38	19.455	145.02	
			0.8	2792	18.3	19.8	1.5	3.48	7.44	55.54			5.22	11.16	83.31	
			0.9	2793	19.8	21.3	1.5	7.81	15.59	128.22			11.715	23.385	192.33	
			0.6	2794	21.3	22.9	1.6	6.62	12.81	103.88			10.592	20.496	166.21	
15.2	24.4	ZONE OF MASSIVE (M) AND MASSIVE BANDED TYPE ORE (MB) 50 6	0.5	2795	22.9	24.4	1.5	4.59	8.56	66.51			6.885	12.84	99.765	

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x				
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag		
		Foliation-banding=75°. Broken core in many places, but no indication of faulting.															
		24.4: Sharp contact with sericite phyllite (S)=20°.															
24.4	27.4	SERICITE PHYLLITE (S). Fissile. Foliation=75-80° (F). F =25-30° @ 24.6. Sporadic clots of sulfide. Short bleached phyllite run. Trace of graphite.	2.5		24.4	27.4	3.0										
		25.7-26.0: Bleached phyllite (sb). Buff coloured. Foliation=75°. Gradual change to calcitic chloritic (?) phyllite (Sk+c) at 27.4.															
27.4	38.1	CALCITIC-CHLORITIC(?) PHYLLITE. Limy groundmass with calcite stringers at random orientation. Greenish hue due to green chlorite(?) laminae. Foliation=75° as F . F as S crenulations =10° sometimes followed by calcite.	10		27.4	38.1	10.7										
				W.Av.	7.6	15.2	7.6	1.05	1.63	16.54				7.950	12.435	125.73	
	38.1	END OF HOLE.		W.Av.	15.2	24.4	9.2	5.94	10.76	84.47				50.522	98.984	777.15	
				W.Av.	6.0	9.1	3.1	2.34	4.14	39.53				7.253	12.835	122.55	

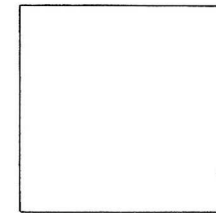
DIAMOND DRILL RECORD

LOGGED BY JOCK HOWARD

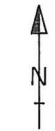
D.D.H. No 76-U-84 PAGE 1

PROPERTY VANGORDA-GRUM
 LATITUDE 10,780.56N 5N+18M 72W STARTED MAY 13, 1976
 DEPARTURE 7687.55 E COMPLETED MAY 14, 1976
 ELEVATION 1153.23 PROPOSED DEPTH _____
 ULTIMATE DEPTH 76.2

HOLE SURVEY:		
DEPTH	BEARING	DIP
collar	49° 27'	-55° 03'



CLAIM No _____



DIRECTION AND DISTANCE
FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 80.1%

Interval		DESCRIPTION	Py	PbZn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	6.2	MASSIVE SULPHIDES (MQ).																
		Brown-brassy-gray depending upon relative amounts	+50	+16	1.6	2811	0	3.0	3.0	5.51	6.68	66.51			16.53	20.04	199.53	
		of Zn, Py or quartz-phyllite. Quartz phyllite 30%	+50	+16	1.6	2812	3.0	4.6	1.6	3.80	8.13	56.57			6.08	13.008	90.512	
		Sulphs restricted to F @ 60-70°. F ¹ F . F ² F ¹ F ²	+50	+16	1.4	2813	4.6	6.2	1.6	3.83	7.96	61.37			6.128	12.736	98.192	
		causes slight contortion of F visible only in Phyllite																
		bands. Lower contact @ 65°. Sulphide is medium grained.				W.Av.	0	6.2	6.2	4.63	7.38	62.62			28.738	45.784	388.234	
6.2	10.2	BLEACHED PHYLLITE (Sbpy)	Tr.	Tr.	3.6	2814	6.2	10.2	4.0	0.05	0.14	0.34			0.20	0.56	1.36	
		Yellow-buff. F @ 50°. Scattered quartz veins and																
		occasional sulphide (Py/Zn) veinlets.																
10.2	12.5	MASSIVE SULPHIDE (MQ).	+55	+16	2.3	2815	10.2	12.5	2.3	8.27	13.41	136.12			19.021	30.843	313.076	
		As per 0-6.2 except quartz content 20%, and phyllite																
		content is nil. F @ 55°.																
12.5	13.0	FAULT GOUGE: WHITE, CRUMBLY, UNCONSOLIDATED.	Tr.	Tr.	0.3	2816	12.5	13.0	0.5	0.10	2.10	2.06			0.05	1.05	1.03	

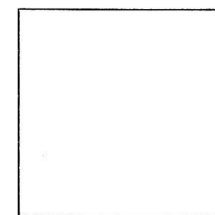
DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG PO

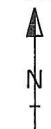
D.D.H. No 76-U-85 PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10834.141 N 4N+8.4mN STARTED MAY 20, 1976
 DEPARTURE 7570.116 E 76W/X-CUT COMPLETED MAY 21, 1976
 ELEVATION 1142.226 M PROPOSED DEPTH _____
 ULTIMATE DEPTH 44.2m

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	227° 02'	+65° 07'



CLAIM No _____



DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 48.8%

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x				
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag		
0	7.6	SERICITE PHYLLITE (S). Fissile. Foliation=50°. F -0-10°. Sporadic clots of sulfides. 1	4.5		0	7.6											
		7.6: Gradual change to bleached phyllite 9sb).															
7.6	8.1	BLEACHED PHYLLITE. Broken ground. Mineralized. Buff-green colour with laminae of sulfides evenly distributed. 10 4	1.3	2796	7.6	9.1	1.5	0.83	1.00	17.14			1.245	1.50	25.71		
		8.1: Gradual change to Qtz-Sulfide (Pg) w/trace of graph. 30 5	1.5	2797	9.1	10.7	1.6	0.63	1.13	13.03			1.008	1.808	20.848		
8.1	13.7	QTZ-SULPHIDE W/ TRACE OF GRAPHITE (P+g). Competent, 20 6	1.3	2798	10.7	12.2	1.5	0.93	1.93	16.11			1.395	2.895	24.165		
		except for some short broken intervals. Foliation 20 6	0.8	2799	12.2	13.7	1.5	0.58	1.20	10.97			0.87	1.80	16.455		
		=45-70°. F =10°. 70 8	0.9	2800	13.7	15.2	1.5	4.10	8.96	62.40			6.15	13.44	93.60		
		10.0: Fold nose. 80 15	1.3	2901	15.2	16.8	1.6	7.12	17.45	114.17			11.392	27.92	182.672		
		13.7: Broken ground contact w/massive sulphide. 80 10	1.4	2902	16.8	18.3	1.5	7.22	22.48	120.00			10.83	33.72	180.00		
13.7	23.2	MASSIVE SULFIDE (M). Generally dense except for 80 12	1.2	2903	18.3	19.8	1.5	5.32	17.28	87.77			7.98	25.92	131.655		
		short runs of porous variety. Compositional bands 75 12	1.5	2904	19.8	21.3	1.5	6.40	11.30	98.74			9.60	16.95	148.11		
		=35°. Barite prisms lining some cavity walls. 76 8	1.9	2905	21.3	23.2	1.9	5.63	11.09	84.69			10.697	21.071	160.911		
						7.6	13.7	6.1	0.74	1.31	14.29		4.518	8.003	87.178		
		13.7-14: Broken ground. Could be FAULT. Phyllite, quartz, sulphide fragments (pebble-sand size) associated w/some				13.7	23.2	9.5	5.96	14.63	94.41		56.649	139.021	896.948		

DIAMOND DRILL RECORD

LOGGED BY

ALEXANDER YOUNG PO

D. D. H. No 76-U-87

PAGE 1

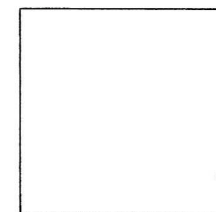
PROPERTY GRUM JOINT VENTURE

LATITUDE 10833.250 4N+6.7MNE STARTED MAY 23, 1976

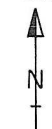
DEPARTURE 7568312 76W XC COMPLETED MAY 24, 1976

ELEVATION 1137.839 M PROPOSED DEPTH
ULTIMATE DEPTH 61.0

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	223° 41'	-53° 04'



CLAIM No _____



DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 94%

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x				
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag		
0	50.3	SERICITE PHYLLITE (S). Foliation=75-80°. F =0-10°. Sporadic sulfide showing widely spaced. Short intervals of bleached phyllite (sb)=19.8-20; 23.4-23.5 50.3: Contact with faulted bleached phyllite (Sb). Contact (whatever can be distinguished=45°).	49		0	50.3											
50.3	55.0	BLEACHED SERICITE PHYLLITE (Sb). Faulted in first 15m. and rest are fissile. Buff-greenish colour (may contain tiny specks of chlorite). Foliation=75-80°; F 0-5°. Sporadic thin laminae and clots of sulfides. 50.3-51.8: FAULT. Extremely poor core recovery-Pebbles of quartz and bleached phyllite fragments. 52.3: Nose. 55.0: Broken contact with mineralized graphitic phyllite.	3.2		50.3	55.0											
55.0	56.5	MINERALIZED GRAPHITIC PHYLLITE (Sg). Fissile. Foliation =80° marked by graphite-sulfide-quartz alternating laminae. Py 20 PbZn 2	1.3	2906	55.0	56.5	1.5	1.92	3.23	35.31							

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
22.1	23.7	QUARTZ SERICITE PHYLLITE (SPg). Interbanded Py and graphitic phyllite. F -70°; F -55°. Py-10%. 2 1	1.8/2.6													
23.7	35.1	QUARTZ SERICITE PHYLLITE (S+SBm+Ss). 23.7-23.9: (Sbm) bleached phyllite with mariposite. 24.4-24.6: Core is soft, and almost white. Sections (<5m) of white or bleached (see above) phyllite within dark gray phyllite. F -55°. Core is platy. 2	10.0/11.4													
35.1	47.3	FAULT GOUGE (F). Core is consolidated phyllite mud. 44.2-45.7: Massive sulphide? mud! 70 5	4.0/12.2													
			0.4	2850	44.2	45.7	1.5	56.5	7.90	79.54						
47.3	50.4	WHITE PHYLLITE (Ss). Light gray, F -65°; F perpendicular to F . Occasional 2 1 2 quartz veins (-5mm).														
50.4	54.7	MASSIVE SULPHIDES (MB). 35 10 Sulphide in a groundmass of barite-50%. No visible 35 10 F or F 35 10 1 2.	1.4	2851	50.4	51.8	1.4	6.05	9.15	94.62			8.47	12.81	132.47	
			1.5	2852	51.8	53.3	1.5	7.05	9.15	100.80			10.575	13.725	151.2	
			1.4	2853		54.7	1.4	7.15	9.15	104.91			10.01	12.81	146.87	

