

VANGORDA GRUM
DIAMOND DRILL RECORDS
UNDERGROUND
76-U-112 to 76-U-135

TYPED

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76-U-112 to 76-U-135
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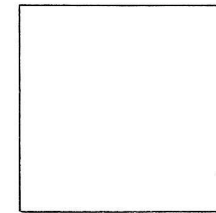
DIAMOND DRILL RECORD

LOGGED BY JOCK HOWARD

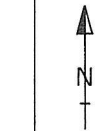
D.D.H. No 76-U-114 PAGE 1

PROPERTY GRUM JOINT VENTURE (VANGORDA-GRUM)
 LATITUDE 10,891.951 6N+28mNE STARTED JUNE 14, 1976
 DEPARTURE 7,625.063 76W COMPLETED JUNE 15, 1976
 ELEVATION 1134.224M PROPOSED DEPTH _____
 ULTIMATE DEPTH 45.7

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	222° 04°	0°



CLAIM No _____



DIRECTION AND DISTANCE
FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 84.7%

Interval		DESCRIPTION	Py Pz	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	4.6	QUARTZ SULPHIDES (P).	15 17	0.4	3298	0	1.5	1.5	4.22	10.25	67.54			6.33	15.375	101.31
		Bands and thin laminae of sulphides in a phyllite	15 18	1.5	3299	1.5	3.0	1.5	4.14	8.21	66.61			6.21	12.315	99.765
		groundmass. Banding irregular but mostly 45°. Core	15 16	1.1	3300	3.0	4.6	1.6	5.76	8.87	86.74			9.216	14.192	138.78
		is generally competent but broken. Traces of graphite.														
					W.Av.	0	4.6	4.6	4.73	9.10	73.88			21.765	41.882	339.86
4.6	5.2	BLEACHED PHYLLITE (Sbm).	0 Tr.	0.6	3401	4.6	5.2	0.6	0.68	1.45	8.23			0.408	0.870	4.938
		Earthy white to pale yellow-gray. Traces of mariposite.														
		Core is competent for this type of rock.														
5.2	10.7	QUARTZ SULPHIDES (P).	15 20	0.8	3402	5.2	6.1	0.9	4.15	6.76	58.63			3.735	6.084	52.767
		Similar to (0-4.6); banding-40° and more regular.	20 17	1.1	3403	6.1	7.6	1.5	5.55	5.86	78.86			8.325	8.79	118.29
			20 18	1.5	3404	7.6	9.1	1.5	3.08	5.15	55.54			4.62	7.725	83.31
			25 15		3405	9.1	10.7	1.6	0.55	0.45	10.97					
					W.Av.	5.2	7.6	2.4								
					W.Av.	4.6	9.1	4.5	3.8	5.22	57.62			17.088	23.469	259.31
					W.Av.	0	9.1	9.1	4.27	7.18	65.84			38.844	65.351	599.16

Interval		DESCRIPTION	Py Pz	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
10.7	16.5	QUARTZ SERICITE PHYLLITE (Sg)	- Tr.	3.0	3406	10.7	13.7	3.0	0.18	0.28	3.09						
		Medium to dark gray with sections showing some graphite. F parallel to core. Only moderately competent.	- Tr.	2.8	3407		16.5	2.8	0.18	0.30	3.09						
16.5	45.7	QUARTZ SULPHIDES (Pg).		1.8	3408	16.5	18.3	1.8	4.80	8.26	71.66			8.64	14.868	128.988	
		Bands of high grade massive sulphide and thin laminae of PZ		1.5	3409		19.8	1.5	3.13	6.73	50.40			4.695	10.095	75.6	
		in a quartz rich phyllite. F =0-15°. Competent.		1.5	3410	19.8	21.3	1.5	2.73	3.45	44.23			4.095	5.175	66.345	
				1.6	3411		22.9	1.6	1.93	3.33	32.23			3.088	5.328	51.568	
		Q-60% Pz + Py-30%		1.5	3412		24.4	1.5	2.33	3.85	35.31			3.495	5.775	52.965	
		S-10% PZ - 16+%		1.5	3413		25.9	1.5	1.48	3.10	28.46			2.22	4.65	42.69	
		G-10%		1.5	3414		27.4	1.5	2.20	4.35	40.46			3.30	6.525	60.69	
				1.3	3415	27.4	29.0	1.6	1.53	2.18	28.46			2.448	3.448	45.536	
				1.5	3416		30.5	1.5	0.98	1.88	17.14			1.47	2.82	25.71	
				1.5	3417		32.0	1.5	1.80	3.75	35.31			2.7	5.62	52.96	
				1.5	3418		33.5	1.5	2.98	5.00	48.34			4.47	7.50	72.51	
				1.6	3419		35.1	1.6	3.25	3.90	52.46			5.20	6.24	83.936	
				1.5	3420		36.6	1.5	4.00	6.74	57.60			6.00	10.11	86.4	
		38.1-38.4: Breccia (PXs)		1.8	3421		38.4	1.8	3.20	4.25	51.43			5.76	7.65	92.574	
		38.4-41.0: FAULT ZONE. Gouge and broken core.		1.2	3422		41.0	2.6	1.30	2.95	19.20			3.38	7.67	49.92	
				1.6	3423		42.7	1.7	2.00	3.96	31.20			3.4	6.732	53.04	
				1.5	3424		44.2	1.5	1.75	4.20	27.43			2.625	6.3	41.145	
	45.7	END OF HOLE.		1.5	3425		45.7	1.5	1.93	2.58	25.37			2.895	3.87	38.055	

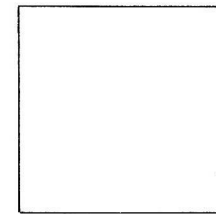
DIAMOND DRILL RECORD

LOGGED BY JOCK HOWARD/ALEXANDER YOUNG-PO

D.D.H. No 76-U-116 PAGE 1

PROPERTY GRUM JOINT VENTURE (VANGORDA-GRUM)
 LATITUDE 10,891.825N 6N+8.2mNE STARTED JUNE 15, 1976
 DEPARTURE 7,625.101E ^{76W} COMPLETED JUNE 16, 1976
 ELEVATION 1136.460M PROPOSED DEPTH _____
 ULTIMATE DEPTH 68.6

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	225°-03'	+44°-52'



CLAIM No _____

DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 69.9%

Interval		DESCRIPTION	Py Pz	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	3.2	QUARTZ SULPHIDES (P).	24 18	0.8	3426	0	1.5	1.5	5.46	10.31	91.89			8.19	15.465	137.84
		Massive bands and thin Pz laminae in a phyllite	25 17	1.1	3427	1.5	3.2	1.7	2.28	4.36	47.31			3.876	7.412	80.427
		matrix. F =75°. Competent but broken. Banding shows no regular angle. At 1.7, slickenslides = 50°.			W.Av.	0	3.2	3.2	3.77	7.15	68.21			12.066	22.877	218.26
3.2	4.1	BLEACHED AND GRAPHITE PHYLLITE (Sbc).	2 1	0.5	3428	3.2	4.1	0.9	0.18	0.33	6.17			0.51	PbZn	
		Graphitic phyllite with .2m centre section of bleached phyll.														
		F =40°. Core is incompetent.														
4.1	5.4	QUARTZ SULPHIDES (P).	50 4	0.9	3429	4.1	5.4	1.3	0.45	0.75	18.17			1.20	PbZn	
		As per 0-3.2.														
5.4	7.1	QUARTZ SERICITE PHYLLITE (S).	Tr.Tr.	0.8	3430	5.4	7.1	1.7	0.02	0.05	1.03			0.07	PbZn	
		Medium gray, F =55°, F parallel to core but contorted.														
		Moderately competent.														
7.1	9.2	WHITE PHYLLITE (Ss).	Tr.Tr.	1.4	3431	7.1	9.2	2.1	0.01	0.08	Trace			0.09	PbZn	
		Pale yellow gray, F =55°, No F. Competent.				3.2	9.2	6.0	0.39	PbZn						

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
		F decreases to nose at 35.8 and increases to 35° at 37.4.														
		2 Several thin laminae of PZ @ 35.9.														
37.4	43.9	QUARTZ SERICITE PHYLLITE (S).	5.2/6.5													
		Medium to dark gray, F variable but generally 65°. 50% of														
		2 core is competent, har; 50% broken and crumbly. Bx @ 38.4,														
		gouge or mud @ 40.5m. Introduction of F sulphides (parallel														
		1 to core) @ 43.3														
			5 3	1.5	3437	43.4	45.0	1.6	0.13	0.23	3.09					
43.9	45.0	BLEACHED PHYLLITE (Sbm).	0.9/1.1													
		Yellow, green, pale gray, variably. F =60°. Competent.		W.Av.		45.0	50.3	5.3	3.88	7.21	57.65			20.598	38.219	305.555
		2														
					W.Av.	45.0	48.8	3.8	4.2	7.49	60.11			15.948	28.454	288.41
45.0	64.0	QUARTZ SULPHIDES (P). Competent. Trace of graphite. 30 8	1.9	3438	45.0	47.2	2.2	4.50	7.69	63.43			9.9	16.918	139.55	
		Foliation=85-90°. Short intervals of bleached phyll. 30 12	1.4	3439	47.2	48.8	1.6	3.78	7.21	55.54			6.048	11.536	88.864	
		@ 49.9-50.3; 53-53.3; 57.9-58.3 20 6	1.5	3440	48.8	50.3	1.5	3.10	6.51	51.43			4.65	9.765	77.145	
			25 8	1.2	3441	50.3	51.8	1.5	0.73	1.38	15.09			1.095	2.07	22.635
		59.4-60.5: Broken core ave: 1-2cm Ø. No gouge 25 8	1.2	3442	51.8	53.3	1.5	2.00	4.25	27.43			3.00	6.375	41.145	
		present. 25 7	1.2	3443	53.3	54.9	1.6	1.75	2.33	27.43			2.8	3.728	43.888	
		64.0: Abrupt change to Calcitic sericite phyllite (SK) 25 7	1.3	3444	54.9	56.4	1.5	1.25	1.83	14.06			1.875	2.745	21.09	
		Contact broken ground. 20 4	0.5	3445	56.4	57.9	1.5	2.68	1.80	25.37			4.02	2.70	38.055	

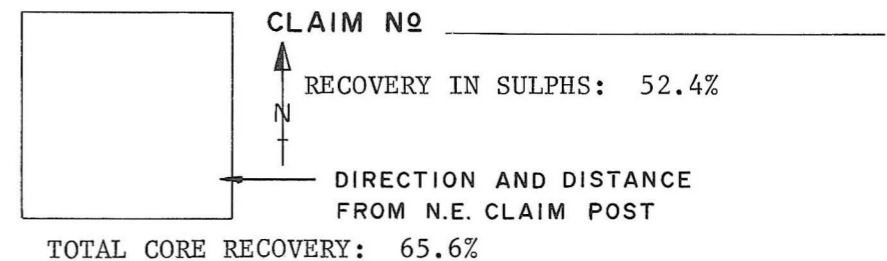
DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG-PO

D. D. H. No 76-U-118 PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10,892.665 6N+29.6mNE STARTED JUNE 17, 1976
 DEPARTURE 7,626.485 76N COMPLETED JUNE 19, 1976
 ELEVATION 1138.160m PROPOSED DEPTH _____
 ULTIMATE DEPTH 76.2m

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	248° 24'	+74° 34'



Interval		DESCRIPTION	Py PZ?	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	10.7	QUARTZ-SULFIDE (P). Blocky cores ave: 3-4cm long. Varying sulfide/quartz ratio from run to run with some local wide bands of Sph. Foliation=60°. Compositional banding in wide sulfide run=75°. Graphite as very thin laminae.	40 6	0.4	3450	0	1.5	1.5	0.45	1.28	9.94						
			35 15	0.9	3451	1.5	3.0	1.5	5.69	10.20	77.83				8.535	15.3	116.75
			40 12	1.0	3452	3.0	4.6	1.6	2.08	6.74	38.40				3.328	10.784	61.44
			40 8	1.0	3453	4.6	6.1	1.5	2.78	6.25	45.26				4.17	9.375	67.89
			45 10	0.9	3454	6.1	7.6	1.5	5.00	10.71	90.86				7.5	16.065	136.29
		10.7: Sharp contact with Graphitic Phyllite = 80°.	50 15	1.2	3455	7.6	9.1	1.5	8.40	16.54	168.3				12.6	24.81	252.51
			65 10	0.6	3456	9.1	10.7	1.6	9.30	18.49	208.8				14.88	29.584	334.08
10.7	13.7	GRAPHITIC PHYLLITE (G). Broken core ave: = 1-2cm, partly fissile-breaking like poker chips. Foliation=70-75°. No F noted.	40 10	1.2	3458	15.2	16.8	1.6	3.75	6.15	59.31				6.00	9.84	94.896
		13.7: Sharp contact with mineralized bleached phyllite (Sb) = 85°.	35 8	0.6	3459	21.3	22.9	1.6	1.45	2.66	27.43						
			35 8	0.5	3460	22.9	24.4	1.5	1.08	4.10	24.34						
13.7	14.2	MINERALIZED BLEACHED PHYLLITE (Sb). Blocky core. Buff colour with laminae of sulfides having varying thickness from 1-3cm. Foliation=85°.	40 15	1.4	3461	24.4	25.9	1.5	6.36	9.65	94.63				9.54	14.475	141.95
			35 15	1.2	3462	25.9	27.4	1.5	6.40	12.35	100.8				9.6	18.525	151.2
			20 7	0.5	3463	27.4	29.0	1.6	4.15	4.00	55.54				4.15	4.00	55.54

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
		perpendicular to general foliation.		W.Av. W.Av.	61.0 57.9	64.0 61.0	3.0 3.1	5.46 2.33	7.96 3.53	82.39 38.0			16.395 7.23	23.865 10.94	246.87 117.8
		57.0: Fold nose.		W.Av.	65.5	68.6	3.1	2.43	2.02	41.9			7.52	6.26	130.0
		57.9: Sharp clean contact with Graphitic Quartz-sulfide (PG)		W.Av.	70.1	73.2	3.1	0.57	PbZn						
		= 75°.		W.Av.	57.9	64.0	6.1	3.87	5.71	59.8			23.63	34.81	36.467
57.9	76.2	GRAPHITIC QUARTZ-SULFIDE (Pg). Competent. 35 4	1.5	3845	57.9	59.4	1.5	3.08	4.70	50.40			4.62	7.05	75.6
		Compositional banding = 85-90°. Fractures 0-5° lined 30 3	1.6	3846	59.4	61.0	1.6	1.63	2.43	26.40			2.61	3.89	42.2
		with barite primsm. 35 8	1.5	3847	61.0	62.5	1.5	7.53	11.05	111.09			11.295	16.575	166.6
		57.9-58.3: Wide Po band. 30 4	1.5	3848	62.5	64.0	1.5	3.40	4.86	53.49			5.10	7.29	80.2
		68.8-68.9: Fault bx. Sulfide angular fragments 1 X 25 3	1.5	3849	64.0	65.5	1.5	0.13	1.05	8.23					
		2cm well cemented by quartz/barite. 25 4	1.6	3850	65.5	67.1	1.6	3.50	3.30	55.54			5.60	5.28	88.9
		76.2: Sharp contact with Graphitic Phyllite (G) = 25 2	1.5	3851	67.1	68.6	1.5	1.28	0.65	27.43			1.92	0.98	41.
		80°. 25 2	1.4	3852	68.6	70.1	1.5	0.75	1.42	21.26			1.125	2.13	31.9
76.2	79.2	GRAPHITIC PHYLLITE (G). Broken blocky core ave: 3cm 30 3	1.5	3853	70.1	71.6	1.5	0.10	0.40	8.91			0.50	PbZn	
		long. Foliation = 85-90°. 30 2	1.6	3854	71.6	73.2	1.6	0.08	0.55	12.00			0.63	PbZn	
		76.8-77.8: Interval of alternating flaky to gougy 35 5	2.8	3855	73.2	76.2	3.0	1.98	2.60	30.17					
		material and solid blocky core. Could be a fault zone (?). 2.1			76.2	79.2	3.0								
		79.2: Decrease in graphitic laminae. Rock is becoming graphitic sericite phyllite (SG).													
79.2	103.6	GRAPHITIC SERICITE PHYLLITE (SG). Broken blocky core ranging from flakes/chips to 5cm long. Foliation from 79.2 to 86.6 = 80-85° with no good F noted. Foliation changes (after a fault zone interval) from 86.6-103.6 to 45-50°. F = 5° @	20.2		79.2	103.6	24.4								

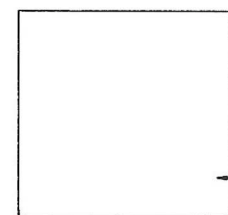
DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG PO

D.D.H. No 76-U-123 PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10,659.342 ? 70W STARTED JULY 21, 1976
 DEPARTURE 7,653.839 ? 2N COMPLETED JULY 24, 1976
 ELEVATION 1160.614 ? PROPOSED DEPTH 550' - 167.6m
 ULTIMATE DEPTH 118.9m

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	044	-45°



CLAIM No _____

DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 83.8%

Interval From	Interval To	DESCRIPTION	Zn+ Py Pb	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
						From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	18.3	MASSIVE SULFIDE WITH BARITE IN GROUNDMASS (Mb).	70 8	1.7	3861	0	3.0	3.0	4.25	8.75	80.57			12.75	26.25	241.71
		Competent. Compositional banding = 45-50°. Short porous intervals with voids aligned = 50°.	75 9	1.0	3862	3.0	4.6	1.6	5.26	10.09	89.83			8.416	16.144	143.728
		9.3-9.4: Bleached Phyllite. Buff with green fuchsite.	70 8	1.2	3863	4.6	6.1	1.5	3.88	7.72	70.63			5.82	11.58	105.945
			75 8	1.5	3864	6.1	7.6	1.5	4.98	8.27	91.89			7.47	12.405	137.835
		17-18.3: Bx. Sulfide angular fragments Ø = 1-2cm cemented by sulfides and some dark materials.	75 12	1.0	3865	7.6	9.1	1.5	6.10	9.44	99.77			9.15	14.16	149.655
		18.3: Sharp clean contact with Graphitic Phyllite	60 6	1.4	3866	9.1	10.7	1.6	2.20	4.80	54.51			3.52	7.68	87.216
		(G) = 75-80°. Partly mineralized (PG).	65 6	1.5	3867	10.7	12.2	1.5	2.38	6.50	34.29			3.57	9.75	51.435
			60 6	1.5	3868	12.2	13.7	1.5	2.85	6.33	54.51			4.275	9.495	8..765
			60 6	1.5	3869	13.7	15.2	1.5	2.38	6.82	39.43			3.57	10.23	59.145
18.3	21.5	GRAPHITIC PHYLLITE, PARTLY MINERALIZED (PG).	70 8	1.5	3870	15.2	16.8	1.6	3.08	6.17	69.60			4.928	9.872	111.36
		Broken blocky core ranging from flakes to 4cm long.	70 9	1.5	3871	16.8	18.3	1.5	4.48	7.45	85.72			6.72	11.175	128.58
		Foliation = 70-75°; F = 0°.	20 10	3.0	3872	18.3	21.3	3.0	2.11	2.13	43.54					
		Po bands and clots.	15 3	1.6	3873	21.3	22.9	1.6	0.10	0.15	2.74					
		18.7: Fold nose.	75 5	1.5	3874	22.9	24.4	1.5	4.50	5.15	92.92			6.75	7.725	139.38
		21.5: Sharp change to Mineralized Bleached Phyllite	70 6	1.5	3875	24.4	25.9	1.5	2.85	2.68	55.54			4.275	4.02	83.31
		(Psb) = 60° marked by bull quartz.			W.Av.	0	18.3	18.3	3.84	7.58	70.95			70.189	138.741	1298.37
					W.Av.	22.9	25.9	3.0	3.67	3.92	75.23			11.025	11.745	222.69
					W.Av.	0	9.1	9.1	4.79	8.85	85.59			43.606	80.539	778.873
					W.Av.	10.7	16.8	6.1	2.68	6.45	49.79			16.343	39.347	303.705

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x				
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag		
45.7	54.0	MASSIVE SULFIDE WITH QUARTZ GROUNDMASS (MQ). 60 15	1.5	3878	45.7	47.2	1.5	10.75	19.60	174.52			16.125	29.4	261.78		
		Competent. Compositional banding = 40-45°. Has some 65 17	1.6	3879	47.2	48.8	1.6	11.06	23.63	185.49			17.696	37.808	296.784		
		graphitic-sericite fragment inclusion (?)—could be 50 15	1.5	3880	48.8	50.3	1.5	9.53	18.75	124.12			14.295	28.125	186.18		
		a short interval = 2cm. 70 15	1.5	3881	50.3	51.8	1.5	4.98	8.82	60.34			7.47	13.23	90.51		
		50.4-50.5: Bleached Phyllite. Broken contact. 75 12	1.4	3882	51.8	53.3	1.5	5.82	9.35	82.63			8.73	14.025	123.945		
		51.0: Change to more pyritic, less quartz/sulfides. 60 15	1.3	3883	53.3	54.9	1.6	4.45	7.98	60.34			7.12	12.768	96.544		
		51.4-51.8: Sulfide Bx. 30 8	0.9	3884	54.9	56.4	1.5	0.09	0.30	15.09			0.39	PbZn			
		54.0: Abrupt change to mineralized graphitic phyllite. 30 7	0.9	3885	56.4	57.9	1.5	0.20	0.15	18.17			0.35	PbZn			
		Contact is clean although the graphitic side show 35 6	1.5	3886	57.9	59.4	1.5	0.08	0.45	9.94			0.53	PbZn			
		well cemented breccia and the MQ doesn't show breccia- 35 10	1.0	3887	59.4	61.0	1.6	0.15	0.60	15.09			0.75	PbZn			
		tion. Contact angle = 65°.															
				W.Av.	45.7	54.9	9.2	7.77	14.71	114.75			71.436	135.36	1055.74		
				W.Av.	54.9	61.0	6.1	0.51	PbZn								
					30 6		1.0	3888	61.0	62.5	1.5	0.35	0.78	15.09	0.525	1.17	22.635
54.0	80.8	MINERALIZED GRAPHITIC PHYLLITE (Pg). Generally com- 35 5	0.8	3889	62.5	64.0	1.5	1.33	1.83	21.26			1.995	2.745	31.89		
		petent despite of the brecciated nature of the run. 40 15	1.2	3890	64.0	65.5	1.5	6.82	9.68	78.86							
		Rounded to sub-rounded mineralized quartz fragments 35 6	1.4	3891	65.5	67.1	1.6	1.00	1.40	20.23			1.60	2.24	32.368		
		cemented by graphite. Fragments range from 2mm to 3cm. 40 6	1.4	3892	67.1	68.6	1.5	0.45	0.70	19.20			0.675	1.05	28.80		
		Sulfides confined within the fragments. Some pressure 35 6	1.5	3893	68.6	70.1	1.5	0.93	1.10	17.14			1.395	1.65	25.71		
		shadows in graphite going around the fragments. Folia 25 6	1.5	3894	70.1	71.6	1.5	0.10	0.33	5.14			0.43	PbZn			
		-tion = 55-60° developed in some short runs. Poss- 30 6	1.4	3895	71.6	73.2	1.6	0.15	0.58	10.97			0.73	PbZn			
		ibly some sulfide powder as part of cementing material. 25 4	1.3	3896	73.2	74.7	1.5	0.08	0.30	7.20			0.38	PbZn			

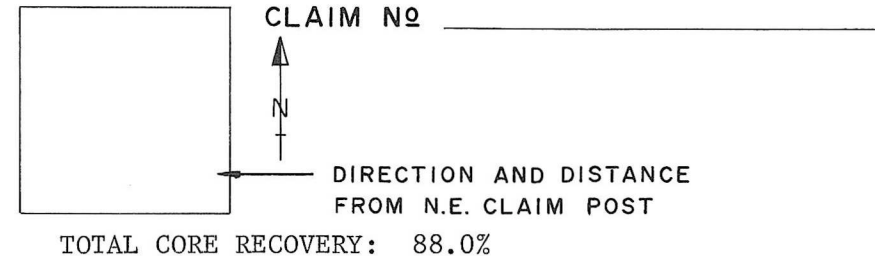
DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG PO

D.D.H. No 76-U-124 PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE *10,853.5 5N+19mNE STARTED JUNE 22, 1976
 DEPARTURE *7,597.7 76W X-CUT COMPLETED JUNE 23, 1976
 ELEVATION *1138. PROPOSED DEPTH _____
 * - approximated ULTIMATE DEPTH 91.4m

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	Ø	-90°



Interval		DESCRIPTION	Pb+ Py Zn	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To					From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
0	20.8	QUARTZ-SULFIDE. Broken core ave: 4cm long. Folia-	15 6	0.3	3476	0	1.5	1.5	2.00	2.15	27.43			3.00	3.225	41.145
		tion = 80-85°. No F noted. Sulfides parallel to	25 8	1.2	3477	1.5	3.0	1.5	2.08	3.65	27.43			3.12	5.475	51.145
		1 general foliation as laminae.	30 10	1.3	3478	3.0	4.6	1.6	2.63	4.60	40.46			4.208	7.36	64.736
		4.7-4.9: Bleached Phyllite (Sb). Buff with greenish	25 12	1.3	3479	4.6	6.1	1.5	1.43	4.00	21.26			2.145	6.00	31.89
		tint. Both contact = 80°.	30 10	0.6	3480	6.1	7.6	1.5	1.75	4.30	25.37			2.625	6.45	38.055
		9.0-9.1: Broken ground. Pebbly. No gouge.	25 10	1.1	3481	7.6	9.1	1.5	2.00	3.65	24.34			3.00	5.475	36.51
		12.2-12.3: Broken ground. Sand to pebble size	25 12	0.9	3482	9.1	10.7	1.6	2.00	3.75	26.40			3.2	6.00	42.24
		fragments of sulfides and quartz. Some clay-could	45 10	0.8	3483	10.7	12.2	1.5	2.73	5.68	43.54			4.095	8.52	65.31
		be Fault.	50 10	1.2	3484	12.2	13.7	1.5	3.13	7.39	52.46			4.695	11.085	78.69
		19.5-19.6: FAULT. Pebbles of quartz and sulfides and	50 12	1.4	3485	13.7	15.2	1.5	4.35	8.13	67.54			6.525	12.195	101.31
		bleached sericite with thick gouge.	60 12	1.5	3486	15.2	16.8	1.6	5.90	6.36	75.77			9.44	10.176	121.232
		20.8: Fault contact with Sericite Phyllite (S).	60 15	1.5	3487	16.8	18.3	1.5	5.79	9.36	89.83			8.685	14.04	134.745
		Plane = 50°.	45 8	0.7	3488	18.3	19.5	1.2	5.36	7.21	77.83			6.432	8.652	93.396
20.8	24.4	SERICITE PHYLLITE (S). Blocky ave: =4cm. Foliation	35 5	1.2	3489	19.5	20.8	1.3	1.35	2.73	20.23					
		= 45-50°.														
		20.8-21.1: FAULT. Light gray gouge with quartz pebbles.		3.5		20.8	24.4	3.6								
		24.4: Sharp contact with Bleached Phyllite (Sb) =55°.				0	10.7	10.7	1.99	3.73	27.63					

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
24.4	25.9	BLEACHED PHYLLITE (Sb). Broken core. Light gray with green- ish tint. Foliation = 70°. Spotty showing of sulfides. Trace of calcite.	0.8		24.4	25.9	1.5									
				W.Av.	1.5	7.6	6.1	1.98	4.14	28.82			12.098	25.285	175.826	
				W.Av.	7.6	10.7	3.1	2.0	3.70	25.40			6.20	11.475	78.75	
		25.9: Abrupt change to Quartz-sulfides. Contact marked by broken ground.		W.Av.	10.7	19.5	8.8	4.53	7.35	67.58			39.873	64.688	594.683	
				W.Av.	12.2	19.5	7.3	4.90	7.69	72.52			35.788	56.148	529.373	
25.9	37.5	QUARTZ-SULFIDE. Blocky core ave: = 4cm. Foliation = 70-75°. No F noted. Intervening gaps of sericite phyllite = 30cm.		W.Av.	13.7	19.5	5.8	5.36	7.77	77.70			31.08	45.06	450.68	
		27.6-27.8: Bx. Sulfide angular fragments (Ø = 1-2cm) cemented by quartz and sulfides and trace of calcite. 35 7	1.1	3490	25.9	27.4	1.5	1.58	2.74	32.23			2.37	4.11	48.35	
		Open fissure parallel to C.A. lined with Py + Calcite. 40 7	1.3	3491	27.4	29.0	1.6	2.58	4.35	59.31			4.13	6.96	94.9	
		29.5-29.8: Sericite Phyllite run. Foliation = 75°. 15 4	1.5	3492	29.0	30.5	1.5	0.73	1.25	17.14			1.095	1.875	25.71	
		35 5	1.2	3493	30.5	32.0	1.5	1.45	1.05	22.29			2.175	1.575	33.435	
		32.5-33: Bleached Phyllite (Sb). Light buff with fuchsite spots. Trace of calcite. 25 3	1.4	3494	32.0	33.5	1.5	1.48	2.95	33.26			2.22	4.43	49.89	
		60 7	1.5	3495	33.5	35.1	1.6	1.87	3.85	38.40			2.992	6.16	61.44	
		34.6-35.1: Massive sulfides. Py: 75, Zn + Pb: 6. 50 5	1.5	3496	35.1	36.6	1.5	1.78	2.88	43.54			2.67	4.32	65.31	
		37.5: Abrupt change to Bleached Phyllite (Sb) = 40°. 50 12	0.9	3497	36.6	37.6	1.0	5.75	6.77	85.72			5.75	6.77	85.72	
				W.Av.	25.9	29.0	3.1	2.1	3.57	46.21			6.50	11.07	143.25	
				W.Av.	29.0	32.0	3.0	1.09	1.15	19.71			3.27	3.45	59.145	
37.5	38.7	BLEACHED PHYLLITE(Sb). Blocky ave: =4cm long. Greenish colour. Foliation = 75°. Spots of Fuchsite.	1.0		37.6	38.7	1.1									
				W.Av.	33.5	37.6	4.1	2.78	4.21	51.82			11.412	17.25	212.47	
				W.Av.	32.0	36.6	4.6	1.71	3.24	38.40			7.88	14.91	176.64	
		38.7: Sharp contact with Quartz-Sulfide = 55°. 40 10	2.3	3498	38.7	41.1	2.4	8.09	17.89	126.17			19.416	42.936	302.808	

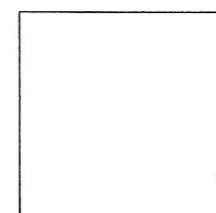
DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG PO

D.D.H. No 76-U-125 PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10,748.611 70W STARTED JULY 21, 1976
 DEPARTURE 7,731.638 6N COMPLETED ABANDONED
JULY 29, 1976
 ELEVATION 1,156.649 PROPOSED DEPTH 450' - 137.16m
 ULTIMATE DEPTH 92.3m

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	227° 38'	-30° 06'



CLAIM No _____

DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 74%

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	42.1	MASSIVE SULFIDE. INTERVALS OF POROUS (MV) AND SILI-	75 20	0.7	3759	0	1.5	1.5	13.26	30.48	147.1			19.89	45.72	220.64
		CEOUS GROUNDMASS (MQ). Broken, friable. Some in-	75 18	1.0	3760	1.5	3.0	1.5	5.92	10.11	116.9			8.88	15.165	175.39
		cluded interval of bleached phyllite = 3cm.	75 15	0.9	3761	3.0	4.6	1.6	4.10	9.96	85.72			6.56	15.936	137.15
		0-13.3: Porous variety. Voids show varying orien-	75 15	0.6	3762	4.6	6.1	1.5	6.96	11.38	141.2			10.44	17.07	211.89
		tation from 0° to 25°.	75 18	1.0	3763	6.1	8.1	2.0	6.01	8.95	103.9			12.02	17.90	207.78
		25.2-25.9: FAULT. Sulfide pebbles with quartz set	75 10	1.0	3764	8.1	10.1	2.0	5.72	9.92	105.9			11.44	19.84	211.88
		in light gray gouge.	75 8	0.6	3765	10.1	12.1	2.0	4.15	9.96	58.63			8.30	19.92	117.26
		27-30: Massive sulfide Bx, well cemented by finer	60 12	0.9	3766	12.1	14.1	2.0	6.27	13.89	100.8			12.54	27.78	201.6
		grain sulfides and other black materials. Bx frag-	50 12	1.2	3767	14.1	16.1	2.0	7.71	19.90	126.2			15.42	39.80	252.34
		ments Ø = 1cm. (MXs).	50 15	1.1	3768	16.1	18.1	2.0	9.26	17.66	157.4			18.52	35.32	314.74
		34-34.4: Pebble size core. Also friable.	50 18	1.0	3769	18.1	20.1	2.0	8.71	24.30	149.1			17.42	48.60	298.28
		40.4-40.6: Quartz-sulfide. Very siliceous ground-	60 18	0.9	3770	20.1	22.1	2.0	9.81	26.75	162.5			19.62	53.50	325.04
		mass interval. Sulfides as laminae =25°. Contacts	60 15	0.9	3771	22.1	24.1	2.0	7.71	14.10	142.3			15.42	28.20	284.58
		broken ground.														
		42.1: Clean contact with sericite phyllite (S).	60 10	0.8	3772	24.1	26.1	2.0	5.70	14.15	77.83			11.40	28.30	155.66
		Contact 30° characterized by light gray thin clay	75 12	1.1	3773	26.1	28.1	2.0	5.92	12.78	92.92			11.84	25.56	185.84
		material.	75 12	1.1	3774	28.1	30.1	2.0	6.25	12.57	99.77			12.50	25.14	199.54
42.1	52.1	SERICITE PHYLLITE (S). Has significant but spotty	75 18	1.5	3775	30.1	32.1	2.0	8.66	14.50	146.1			17.32	29.00	292.12

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
		sulfide distribution. Notable long span of bull qtz. 75 18	2.0	3776	32.1	34.1	2.0	10.75	19.40	184.46			21.50	38.80	368.92
		showing some sulfides along fractures. IE: 49.6- 75 10	1.6	3777	34.1	36.1	2.0	5.20	11.07	81.60			10.40	22.14	163.20
		50.7. 75 10	2.0	3778	36.1	38.1	2.0	4.88	8.15	59.31			9.76	16.30	118.62
		44.0-44.5: Well cemented Bx. Fragments are quartz/ 75 12	1.9	3779	38.1	40.1	2.0	6.76	9.20	93.94			13.52	18.40	187.88
		phyllite \emptyset = 1cm. Cemented by sulfides. 65 12	2.0	3780	40.1	42.1	2.0	4.95	10.11	75.77			9.90	20.22	151.54
		50.6: Shear. 20 4	2.5	3781	42.1	45.1	3.0	0.48	0.70	5.14					
		52.1: Abrupt change to Massive Sulfides (M) with porous													
		variety (MV). Contact broken ground.	6.0		45.1	52.1	7.0								
52.1	61.2	MASSIVE SULFIDE (M), W/SOME POROUS VARIETY (MV).													
		Faint compositional banding at 53.6-54.2 = 60-65° 75 12	1.5	3782	52.1	53.6	1.5	6.37	8.46	87.77			9.555	12.69	131.66
		75 12	1.5	3783	53.6	55.6	2.0	7.35	13.99	120.0			14.70	27.98	240.00
		55.7-57.3: Pores/voids aligned = 20-25°. 75 10	1.6	3784	55.6	57.3	1.7	4.70	7.80	78.86			7.99	13.26	134.06
		61.2: Sharp clean contact with mineralized graphi- 75 6	1.5	3785	57.3	58.8	1.5	7.36	11.80	114.9			11.04	17.70	172.29
		tic phyllite (PG) = 25°. 75 10	1.5	3786	58.8	60.3	1.5	4.05	6.54	67.54			6.075	9.81	101.31
		70 12	1.5	3787	60.3	61.8	1.5	6.80	12.63	110.1			10.2	18.945	165.09
61.2	73.5	MINERALIZED GRAPHITIC PHYLLITE (PG). Competent. 50 6	1.5	3788	61.8	63.3	1.5	2.15	2.90	35.31			3.225	4.35	52.965
		Foliation = 10-20°. 30 5	1.5	3789	63.3	64.8	1.5	1.85	2.78	30.17			2.775	4.17	45.255
		62.8-64.5: Sulfide bx cemented by graphite and 35 5	1.5	3790	64.8	66.3	1.5	0.83	1.38	22.29			2.21	PbZn	
		possibly powdered sulfides. 30 5	1.5	3791	66.3	67.8	1.5	0.23	0.83	14.06			1.06	PbZn	
		65.0: Fold nose. 30 5	0.9	3792	67.8	69.3	1.5	0.65	0.78	20.23			1.45	PbZn	
		70.5-71.3: Greenish white thick sticky gouge. 10 2	1.2	3793	69.3	71.3	2.0	0.60	1.05	9.94			1.65	PbZn	

FAULT.

DIAMOND DRILL RECORD

LOGGED BY R. GILES/ALEX YOUNG-PO

D.D.H. No 76-U-127 PAGE 1

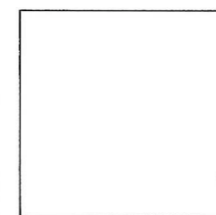
PROPERTY GRUM JOINT VENTURE

LATITUDE 10,659.572 ? 70W STARTED JULY 24, 1976

DEPARTURE 7,654.124 ? 2N COMPLETED JULY 25, 1976

ELEVATION 1161.824 ? PROPOSED DEPTH _____
 ULTIMATE DEPTH 45.7m

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	044	0



CLAIM No _____

DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 83%

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x				
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag		
0	27.5	MASSIVE SULPHIDES (M). Intervals of bleached phyllite, graphitic phyllite, sulphide breccia, porous sulphides. 0-2.7: Low recovery, pebble size. 2.7-2.9: Bleached Phyllite gouge. 4.6-5.8: Graphitic phyllite-blocky. Foliation 2 40°, fold nose @ 5.3. First contact at 4.6 - sharp at 40°; Second contact sudden in broken ground. Py PbZn															
		5.8-6.0: Mineralized bleached phyllite (Psb). 20 2	0.5	4006	0	3.0	3.0	9.41	13.98	140.2			28.23	41.94	420.69		
		Greenish fuchsite, bleached sericite in thin laminae with quartz. Shear contact at 6.0 - bleached phyllite flakey, with quartz fragments. 60 10	1.4	4007	3.0	4.6	1.6	10.72	18.36	137.1			17.152	29.376	219.42		
		6.0-6.4: Bleached phyllite: Foliation at 40°. Greenish mariposite. Second contact sharp with massive sulphide at 20°. 60 1	1.2	4008	4.6	5.8	1.2	1.28	2.48	17.14			1.536	2.976	20.568		
		6.8-7.3: Bleached Phyllite similar to 6.0-6.4. First contact sharp at 30°. Second contact in broken ground-possible shear. 1 1	1.3	4009	5.8	7.3	1.5	0.25	0.40	5.14			0.375	0.60	7.71		
		6.0-6.4: Bleached phyllite: Foliation at 40°. Greenish mariposite. Second contact sharp with massive sulphide at 20°. 60 10	1.4	4010	7.3	8.7	1.4	7.30	10.76	93.94			10.22	15.064	131.52		
		6.8-7.3: Bleached Phyllite similar to 6.0-6.4. First contact sharp at 30°. Second contact in broken ground-possible shear. 65 8	1.5	4011	8.7	10.2	1.5	6.20	15.01	96.69			9.30	22.315	145.04		
		6.8-7.3: Bleached Phyllite similar to 6.0-6.4. First contact sharp at 30°. Second contact in broken ground-possible shear. 60 12	1.2	4012	10.2	11.7	1.5	1.53	2.50	30.17			2.295	3.75	45.255		
		6.8-7.3: Bleached Phyllite similar to 6.0-6.4. First contact sharp at 30°. Second contact in broken ground-possible shear. 70 10	1.2	4013	11.7	13.7	2.0	8.26	12.41	87.77			16.52	24.82	175.54		
		6.8-7.3: Bleached Phyllite similar to 6.0-6.4. First contact sharp at 30°. Second contact in broken ground-possible shear. 60 5	1.1	4014	13.7	15.2	1.5	4.80	10.51	95.66			7.20	15.765	143.49		
		6.8-7.3: Bleached Phyllite similar to 6.0-6.4. First contact sharp at 30°. Second contact in broken ground-possible shear. 80 10	1.5	4015	15.2	16.8	1.6	6.90	12.04	80.57			11.04	19.264	128.91		

DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG-PO

D.D.H. No 76-U-129 PAGE 1

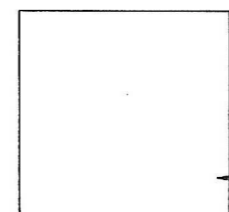
PROPERTY GRUM JOINT VENTURE

LATITUDE 10,850. * 5N+0.3mNE STARTED JULY24, 1976

DEPARTURE 7,584.8 * 76W X-CUT COMPLETED JULY 28, 1976

ELEVATION 1,137.6 * PROPOSED DEPTH _____
 * - approximated ULTIMATE DEPTH 142.3m

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	224°	-56°
79.9	226°	-61°
110.3	226°	-63°
140.8	227°	-64°



CLAIM No _____



DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 82%

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
		NOTE: First 1.8m - cased. No core recovered.														
0	5.0	SERICITE PHYLLITE (S). Blocky core ave: 3cm long. Foliation =75-80°. No clear F ₁ , F ₂ relationship noted.	1.6		1.8	5.0	3.2									
		5.0: Sharp change to Quartz-Sulfide (P) = 80°. Contact with clay material.	25 8 30 10	1.7 1.9	4030 4031	5.0 6.7	6.7 8.7	1.7 2.0	3.65 4.20	4.70 4.15	53.49 70.63			6.205 8.4	7.99 8.30	90.933 141.26
			25 6	1.7	4032	8.7	10.7	2.0	3.00	2.75	40.46			6.00	5.50	80.92
5.0	20.4	QUARTZ-SULFIDE. Competent. Sulfides as thin, evenly spaced laminae following mostly general 70-75° foliation. F ₁ = 5-10°. 15.8-17.3: Broken core. Bx'ted - sheared (?). 20.4: Decrease in sulfide laminae.	20 5 25 6 20 4 20 4 15 3	1.3 1.4 1.0 1.1 1.0	4033 4034 4035 4046 4047	10.7 12.7 14.7 16.7 19.7	12.7 14.7 16.7 19.7 22.7	2.0 2.0 2.0 3.0 3.0	2.98 1.23 1.38 2.25 2.30	2.10 0.95 1.13 2.05 1.75	38.40 20.23 21.26 24.34 23.31			5.96 2.46 2.76 6.75 6.9	4.20 1.90 2.26 6.15 5.25	76.8 40.46 42.52 73.02 69.93
			10 3	2.4	4048	22.7	25.7	3.0	1.23	2.10	14.06					
20.4	53.9	SERICITE PHYLLITE (S). Competent. Partly or weakly mineralized. Sulfides as thin laminae, widely spaced. Py: 5%, Zn+ Pb: 1%. Spots of Po. Foliation = 80-75°; F ₁ = 10-15°.	28			25.7	53.9	28.2								
					W.av.	5.0	8.7	3.7	3.95	4.40	62.75			14.605	16.29	232.19
					W.av.	8.7	12.7	4.0	2.99	2.42	39.43			11.96	9.70	157.72
					W.Av.	12.7	16.7	4.0	1.30	1.04	20.74			5.22	4.16	82.98
					W.Av.	16.7	22.7	6.0	2.27	1.90	23.82			13.65	11.40	142.95
					W.Av.	8.7	14.7	6.0	2.40	1.93	33.0					

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
68.5	75.0	MINERALIZED GRAPHITIC PHYLLITE (PG). Broken blocky	35 5	1.6	4041	68.5	70.5	2.0	0.23	0.50	5.14					
		core ranging from flakes to 4cm long. Foliation =	35 6	0.8	4042	70.5	72.0	1.5	1.15	2.23	20.23					
		80-85°; F = 35-40° @ 70.5.	40 8	1.0	4043	72.0	73.5	1.5	1.60	2.40	26.40					
		1	40 7	1.2	4044	73.5	75.0	1.5	1.10	1.08	25.37					
		75.0: Gradual change to Massive porous Sulfide	75 8	0.8	4045	75.0	76.5	1.5	2.23	4.20	76.80			3.345	6.30	115.20
		Zone (MV).	75 6	0.6	4046	76.5	78.0	1.5	3.40	3.65	43.54			5.10	5.475	65.31
			75 5	0.9	4047	78.0	79.5	1.5	3.80	6.76	55.54			5.70	10.14	83.31
75.0	92.0	MASSIVE POROUS SULFIDE ZONE. Blocky and friable.	60 6	0.6	4048	79.5	81.0	1.5	1.73	5.70	30.17			2.595	8.55	45.255
		Barite in groundmass of some solid intervals @ 80-	50 6	0.5	4049	81.0	82.5	1.5	1.65	3.58	28.46			2.475	5.37	42.69
		80.6; 90-90.5. Compositional bands = 30-35°. Voids	70 7	0.6	4050	82.5	84.0	1.5	3.58	6.43	55.54			5.37	9.645	83.31
		= 40-45°.	75 10	0.7	4051	84.0	85.5	1.5	5.25	10.06	88.80			7.875	15.09	133.2
		89.3-89.6: FAULT. Black sticky gouge with quartz	75 7	0.7	4052	85.5	87.0	1.5	3.88	7.24	67.54			5.82	10.86	101.31
		and sulfide fragments \emptyset = .5-1cm.	70 8	0.6	4053	87.0	89.0	2.0	2.45	2.75	42.51			4.90	5.50	85.02
		92.0: Abrupt change to Graphitic Phyllite (G).	65 7	1.2	4054	89.0	92.0	3.0	2.18	4.15	50.40			6.54	12.45	151.20
		Contact broken core.														
92.0	110.3	GRAPHITIC PHYLLITE (G). Fissile, core readily breaks into		18.0		92.0	110.3	18.3								
		poker chips. Foliation F = plane of fissility = 80-85°;														
		2			W.Av.	75.0	78.0	3.0	2.81	3.93	60.17			8.445	11.775	180.51
		F = 0-5°. Calcite in groundmass as thin laminae, also as			W.Av.	75.0	82.5	7.5	2.56	4.78	46.90			19.215	35.835	351.77
		1			W.Av.	78.0	81.0	3.0	2.76	6.23	42.85			8.295	18.69	128.57
		short discontinuous stringers.			W.Av.	82.5	87.0	4.5	4.24	7.91	70.63			19.065	35.595	317.82
		102: Shear.			W.Av.	78.0	87.0	7.5	3.98	7.95	66.80			29.835	59.655	501.01
					W.Av.	87.0	92.0	5.0	2.29	3.59	47.24			11.44	17.95	236.22

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
		109-109.2: Short interval of limy bleached phyllite.														
		Foliation = 85°. White to buff with medium grain groundmass.														
		110.3: Gradual decrease in graphitic constituents. Rx becoming dark sericite phyllite with trace of graphite (SG).														
110.3	121.3	DARK SERICITE PHYLLITE WITH TRACE OF GRAPHITE (SG). Fissile, easily breaks into poker chips. Foliation = 70-75°; F = 40-45° oblique to F. 1 2 115.3: Fold nose. Closure marked by bull quartz.	10.1		110.3	121.3	11.0									
		116.5: Shear. Has sulfide fragments.														
		120.8: Fold nose.														
		121.3: Sharp clean contact with massive sulfide zone (MV) = 70°.														
121.3	134.6	MASSIVE SULFIDE ZONE. Generally structureless except	50 8	1.5	4055	121.3	122.8	1.5	6.82	10.10	97.72			10.23	15.15	146.58
		for some banded variety (M+MB). Has short intercalated	75 5	1.2	4056	122.8	124.3	1.5	6.18	9.51	87.77			9.27	14.27	131.66
		graphitic sericite (SG) interval. Compositional	75 5	1.5	4057	124.3	125.8	1.5	3.10	6.17	55.54			4.65	9.26	83.31
		banding Sph/Py = 80-85°. Some quartz inclusions.	70 6	1.4	4058	125.8	127.3	1.5	2.10	3.30	42.51			3.15	4.95	63.77
			75 6	1.5	4059	127.3	128.8	1.5	1.73	1.98	39.43			2.60	2.97	59.15
		121-122.5: Graphitic Sericite interval (SG).	75 7	1.5	4060	128.8	130.3	1.5	1.77	2.48	36.34			2.66	3.72	54.51
		Competent. Foliation = 0-5° with closure-fold nose.	60 8	1.5	4061	130.3	131.8	1.5	4.25	5.75	79.54			6.38	8.63	119.31
			45 10	2.6	4062	131.8	134.6	2.8	5.00	7.03	72.69			14.00	19.68	203.53

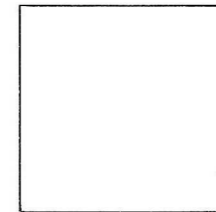
DIAMOND DRILL RECORD

LOGGED BY ALEZANDER YOUNG PO

D.D.H. No 76-U-132 PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10,895.4N * 7N+1.5mNE STARTED JULY 7, 1976
 DEPARTURE 7,628.7E * 76W COMPLETED JULY 12, 1976
 ELEVATION 1,138 * PROPOSED DEPTH _____
 * - approximated ULTIMATE DEPTH 132.8m

HOLE SURVEY:		
DEPTH	BEARING	DIP
COLLAR	044	+63°
No D & B survey taken.		
Hole caved in.		



CLAIM No _____

DIRECTION AND DISTANCE FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 89.0%

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x				
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag		
0	9.1	GRAPHITIC SERICITE PHYLLITE (SG). Broken blocky core ranging from 2-4cm long. Foliation = 45-50°; F = 5-10°.	8.7		0	9.1	9.1										
		4.5-4.6: Shear. Sliding plane marked by flakey phyllite fragments = 20°.															
		7.6-7.8: FAULT. Phyllite/quartz pebble in black, gritty clay sand material.															
		9.1: Gradual change to Sericite Phyllite.	5.5		9.1	15.0	5.9										
9.1	15.0	SERICITE PHYLLITE. Blocky core ave: = 3cm long. Foliation = 45-50°. F = 5-10°. Similar to preceeding run except for decrease in graphitic lamin ae.															
		14.6: Fold nose.															
		15.0: Sharp contact with bleached phyllite (Sb) = 50°.															
15.0	16.8	BLEACHED PHYLLITE (Sb). Competent. White to buff colour with green fuchsite spots. Foliation = 50°.															
		15.4-16.0: Massive sulfide interval. Dense almost structureless except for faint compositional bands of Po = 70°.															
		Has quartz inclusions Ø=1mm-1cm and Py=75, PbZn = 12%. 25 6	1.8	3709	15	16.8	1.8	3.38	6.45	67.54							

Interval		Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To	From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
				21.3-21.6: Mineralized graphitic phyllite. Broken core- pebble size. Py: 25, PbZn: 2.													
29.0	39.6			21.6: Abrupt change to Bleached Phyllite (Sb).													
		21.6	24.4	BLEACHED PHYLLITE (Sb). Competent. Foliation = 25-30°. Buff to light gray with prominent fuchsite as thin laminae and spots.	2.8		21.6	24.4	2.8								
				24.0: Fold nose													
39.6	47.2			24.4: Sharp change to Graphitic Phyllite (G). Contact marked by bull quartz and sulfide band = 30°.													
		24.4	25.7	GRAPHITIC PHYLLITE (G). Soft. Foliation = 35-40°. Mixed with some thin laminae of bleached sericite and sulfides.	1.3		24.4	25.7	1.3								
				25.7: Sharp and clean contact with bleached phyllite (SB) = 40°.													
		25.7	29.0	BLEACHED PHYLLITE (Sb). Broken, blocky to flakey. Light gray with buff laminae. Foliation = 45-50°.	3.0		25.7	29.0	3.3								
47.2	53.1			27.0: Sheared.													
				27.4: Foliation changing to 65-75°. No definite F / F relationship noted.													

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
		50.8: Fold nose. Closure marked by graphitic phyllite with sulfide bands. 65 15	1.5	3952	51.8	53.3	1.5	11.10	11.58	168.34			16.65	17.37	252.51
			1.0		53.3	54.4	1.1	NIL					NIL		
		53.1: Sharp clean contact with graphitic phyllite (G). Contact marked by short bleached sericite phyllite (=5cm) = 75-80°. 75 12	1.9	3953	54.4	56.4	2.0	4.70	5.45	75.77			9.40	10.90	151.54
			1.4	3954	56.4	57.9	1.5	2.80	5.35	45.26			4.20	8.03	67.89
			1.3	3955	57.9	59.4	1.5	4.48	9.56	62.40			6.72	14.34	93.6
			0.9	3956	59.4	61.0	1.6	0.83	1.85	14.74					
53.1	54.5	GRAPHITIC PHYLLITE (G). Fissile. Foliation = 45-50. Entire run soft-appears to have been sheared. 50 5	1.0	3957	61.0	62.5	1.5	0.20	0.98	8.91			1.18	PbZn	
			1.5	3958	62.5	64.0	1.5	0.15	1.60	13.03			1.75	PbZn	
			1.7	3959	64.0	67.1	3.1	0.10	0.68	15.09			0.78	PbZn	
		54.0: Fold nose. 35 3	1.5	3960	67.1	70.1	3.0	0.18	0.68	9.94			0.86	PbZn	
		54.4: Sheared contact with massive sulfide = 85°.													
				W.Av.	47.2	59.4	12.2	6.37	10.87	101.43			77.77	132.66	1237.42
54.5	62.5	MASSIVE SULFIDE ZONE W/PROMINENT BRECCIATED INTERVALS (MXs). Well cemented-competent. Unbrecciated interval show banding = 35-40°. 54.9: Sulfide bx cemented by sulfides and graphite (?) and trace of calcite. Fragments Ø = 0.5-1.5cm. 62.5: Gradual increase in graphitic constituents. Rx becoming mineralized graphitic phyllite (PG).		W.Av.	54.4	59.4	5.0	4.06	6.65	62.61			20.32	33.27	313.03
				W.Av.	61.0	70.1	9.1	1.03	PbZn						

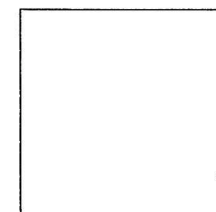
DIAMOND DRILL RECORD

LOGGED BY ALEXANDER YOUNG PO

D.D.H. No 76-U-134 PAGE 1

PROPERTY GRUM JOINT VENTURE
 LATITUDE 10,808.430 76W STARTED July 12, 1976
 DEPARTURE 7,544.402 3N+3.5mNE COMPLETED July 18, 1976
 ELEVATION 1,134.118 PROPOSED DEPTH _____
 ULTIMATE DEPTH 99.1

HOLE SURVEY:		
DEPTH	BEARING	DIP
Collar	42° 13'	-28° 48'



CLAIM No _____



DIRECTION AND DISTANCE
FROM N.E. CLAIM POST

TOTAL CORE RECOVERY: 66.4%

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
0	4.6	QUARTZ-SERICITE PHYLLITE (S). Weak mineralized. 6 2 Broken blocky core. Foliation = 60°. F = 10°. Trace calcite. Sulfides as widely spaced laminae. Groundmass has trace of chlorite as thin laminae/spots with sericite. Extremely low core recovery. 4.6: Gradual change to Quartz-sulfide.	1.0	3734	0	4.6	4.6	0.13	0.20	20.57						
4.6	7.0	QUARTZ-SULFIDE (P). Competent. Minor occurrence of spotty chlorite. Foliation = 0° (due to fold nose). 5; 6.2; 6.5: Fold nose. 7.0: Sharp change to Graphitic Phyllite (G). Contact broken core.	2.0	3735	4.6	7.0	2.4	0.30	0.56	5.14						
7.0	7.9	GRAPHITIC PHYLLITE (G). Competent. Foliation = 0-5°. 7.1; 7.6: Fold nose. 7.8: Quartz-stringer with Po, Py, Cpy specks. 7.9: Gradual change to sericite phyllite.	0.9		7.0	7.9	0.9									
7.9	20.5	SERICITE PHYLLITE (S). Competent. Foliation = 0° due to fold noses. F @ 15m = 90° crest to crest plane.	2.6		7.9	20.5	2.6									

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
43.5	69.0	MINERALIZED GRAPHITIC PHYLLITE (PG) W/Short intervals 20 5	1.9	3966	43.5	45.7	2.2	6.26	10.87	125.14			13.77	23.91	275.31
		of bleached phyllite (Sb) = 5cm. Foliation = 70-75°, 25 5	1.8	3967	45.7	48.2	2.5	5.00	7.71	82.63			12.50	19.28	206.58
		sometime up to 85°.	1.3		48.2	49.5	1.3								
		Compositional band Sph/Py = 75°. Has intercalated 30 4	2.3	3968	49.5	51.8	2.3	0.20	0.03	17.14					
		graphitic phyllite intervals.	3.0		51.8	55.0	3.2								
		45.5-46; 46.5-46.8; 48-48.8: Graphitic phyllite inter-30 8	2.8	3969	55.0	57.9	2.9	3.35	4.75	52.46			9.72	13.78	152.13
		vals. Fissile. All contacts clean and sharp = 80°. 35 6	1.3	3970	57.9	59.4	1.5	3.35	5.15	57.60			5.03	7.73	86.40
		Po @ 49.1. 30 6	1.5	3971	59.4	61.0	1.6	4.33	7.84	76.80			6.93	12.54	122.88
		51.8-55: Graphitic sericite phyllite (SG) interval. 40 8	1.5	3972	61.0	62.5	1.5	3.98	5.20	61.37			5.97	7.80	92.06
		Fissile. Foliation = fissility = 80°. Contact sharp = 80°.	1.8		62.5	64.5	2.0								
		F = 0°. 20 6	2.7	3973	64.5	67.2	2.7	1.73	2.13	22.28					
		1 62.5-64.1: Graphitic sericite phyllite gradually changing	1.5		67.2	68.9	1.7								
		to bleached phyllite at 63m. All contacts broken grd. 10 2	2.1	3974	68.9	71.6	2.7	0.81	1.25	8.91					
		64.1-64.5: FAULT. White sticky gouge with quartz- 7 1	2.3	3975	71.6	74.3	2.7	0.33	0.50	3.09					
		sulfides-phyllite fragments. 5 Tr.	7.1		74.3	82.0	7.7								
		67,3-69.0: Intervals of bleached phyllite and sericite 10 3	1.6	3976	82.0	83.8	1.8	0.98	2.00	13.03			1.18	PbZn	
		phyllite. Greenish flaky minerals with sericite-chlor 7 1	2.8	3977	83.8	86.9	3.1	0.68	1.28	7.20			1.96	PbZn	
		ite interstacked with sericite flakes (like mix layers).		W.Av.	43.5	48.2	4.7	5.59	9.19	102.53			26.27	43.19	481.89
		Foliation F = 75-80°; F = 0-5°.		W.Av.	55.0	62.5	7.5	3.69	5.58	60.46			27.65	41.85	453.47
		2 1 69.0: Change to mineralized quartz-sericite-sulfide (P).		W.Av.	59.4	62.5	3.1	4.16	6.56	69.34			12.90	20.34	214.94
				W.Av.	82.0	86.9	4.9	1.67	PbZn						

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x		
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag
		105.3: Contact with quartz-sulfide (P).													
105.3	111.3	QUARTZ-SULFIDE (P) with interval of massive sulfide (M).40 8	2.3	3978	105.3	108.2	2.9	3.45	5.15	65.49			10.01	14.94	189.92
		Competent. Foliation = 40-45°. Thin laminae of 35 4	1.2	3979	108.2	111.3	3.1	2.10	3.65	29.14			6.51	11.32	90.33
		graphite in some run (PG) = @ 105.8-106.5.		W.Av.	105.3	111.3	6.0	2.75	4.38	46.7			16.52	26.26	280.25
		106.7-109.7: Massive sulfide interval structureless except for faint compositional banding Sph/Ph = 45-50°													
		111.3: Abrupt change to sericite phyllite (S). Contact broken ground and re-drilled.													
111.3	125.5	DARK SERICITE PHYLLITE (S). Easily breaks into poker chips. Foliation = fissility = 85-90°; F = 0-5°. Sporadic clots of sulfides.	14.0		111.3	125.5	14.2								
		125.5: Abrupt change to Quartz-sulfide (P) with intercalated short runs of bleached phyllite (Sb).													
125.5	133.8	QUARTZ-SULFIDE W/INTERCALATED SHORT RUNS OF BLEACHED PHYLLITE (P-Sb). Foliation = 80-85°.	2.9	3997	125.5	128.5	3.0	0.53	1.00	10.97			1.53	PbZn	
		Sulfides as laminae following general foliation.	3.0	3998	128.5	131.5	3.0	0.25	0.13	5.14			0.38	PbZn	
		No clear F /F relationship noted.	2.7		131.5	134.2	2.7	Tr. Pz est.							
		1 2 127.5-128: Bleached phyllite with chlorite stripes	1.4	3999	134.2	135.6	1.4	7.02	8.07	96.69			9.83	11.30	135.37
		and fuchsite spots (Sbc).	1.7	4000	135.6	137.3	1.7	4.20	8.25	63.43			7.14	14.03	107.83
			1.3	4081	137.3	138.7	1.4	2.15	4.45	34.29			3.01	6.23	48.01

Interval		DESCRIPTION	Recovery	Sample No	Interval		Sample Length	Assay					Assay x			
From	To				From	To		Pb	Zn	Ag	Au	Cu	Pb	Zn	Ag	
		164.6: Abrupt change to sericite phyllite (S). Contact broken ground.														
164.6	167.6	SERICITE PHYLLITE (S). Broken, blocky core. Foliation = 85-90°. F = 0-5°.	2.6		164.6	167.6	3.0									
		165.8; 167.0: Shear.														
		167.6: Shear contact with graphitic phyllite (G).														
167.6	169.5	GRAPHITIC PHYLLITE (G). Broken core-fragments of "poker chips". Foliation = 90°.	1.5		167.6	169.5	1.9									
		169.5: Increase in mineralization. Rx becoming mineralized graphitic phyllite (PG).														
169.5	172.2	MINERALIZED GRAPHITIC PHYLLITE (PG). Broken core-poker chips except in massive sulfide intervals. Foliation = 35 10	2.0	4084	169.5	172.2	2.7	2.08	3.85	38.40						
		fissility = 80-85°. F = 0-5°. 60 6	1.4	4085	172.2	173.7	1.5	5.66	8.04	90.86			8.49	12.06	136.29	
		172.2: Increase in mineralization and introduction of barite in groundmass (Mb). 65 5	1.5	4086	173.7	175.3	1.6	4.15	4.25	53.49			6.64	6.80	85.58	
		65 4	1.5	4087	175.3	176.8	1.5	1.30	1.33	25.37			1.95	2.00	38.06	
		65 4	1.5	4088	176.8	178.3	1.5	2.13	1.20	18.17			3.20	1.8	27.26	
172.2	184.4	MASSIVE SULFIDE (M). Competent. Compositional band = 85-90°. With some quartz inclusions (MIq). 70 5	1.5	4089	178.3	179.8	1.5	1.93	1.85	24.34			2.90	2.78	36.51	
		75 4	1.6	4090	179.8	181.4	1.6	2.83	2.35	51.43			4.53	3.76	82.29	
		172.2-175: Barite in groundmass = 10%. 75 4	1.5	4091	181.4	182.9	1.5	3.35	3.05	54.51			5.03	4.58	81.77	

