



42B01NW0020 16 FOLEYET

DIAMOND DRILLING

010

TOWNSHIP: Foleyet

REPORT No.: 16

WORK PERFORMED BY: Hudbay Mining Ltd.

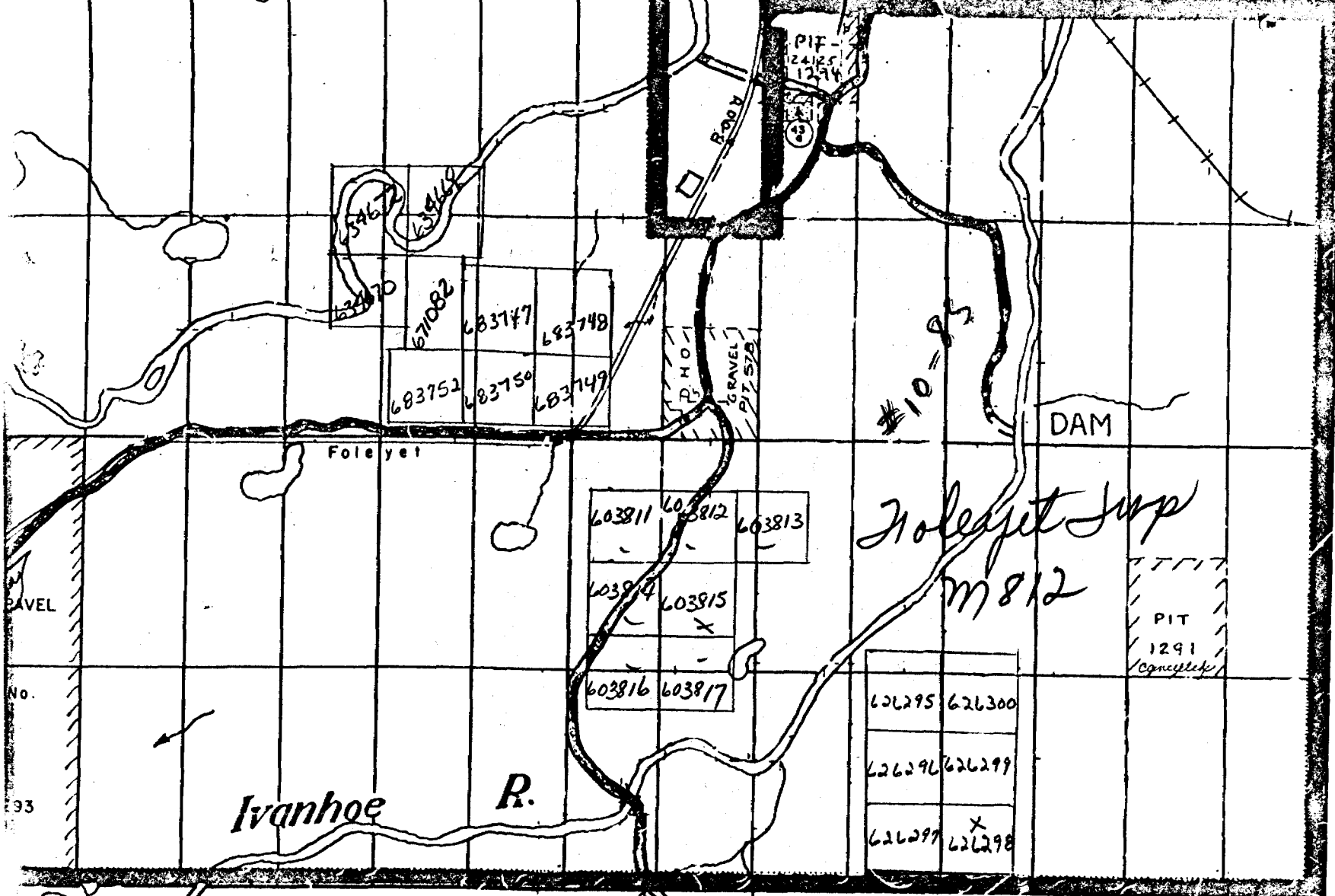
<u>CLAIM No.</u>	<u>HOLE No.</u>	<u>FOOTAGE</u>	<u>DATE</u>	<u>NOTE</u>
P 603815	F-82-5	121.9m	Nov/82	(1)
P 626298	F-82-1	129.8m	Oct/82	(2)

JDDH

251.7 m

NOTES:

- (1) #10-83
- (2) #11-83



IV

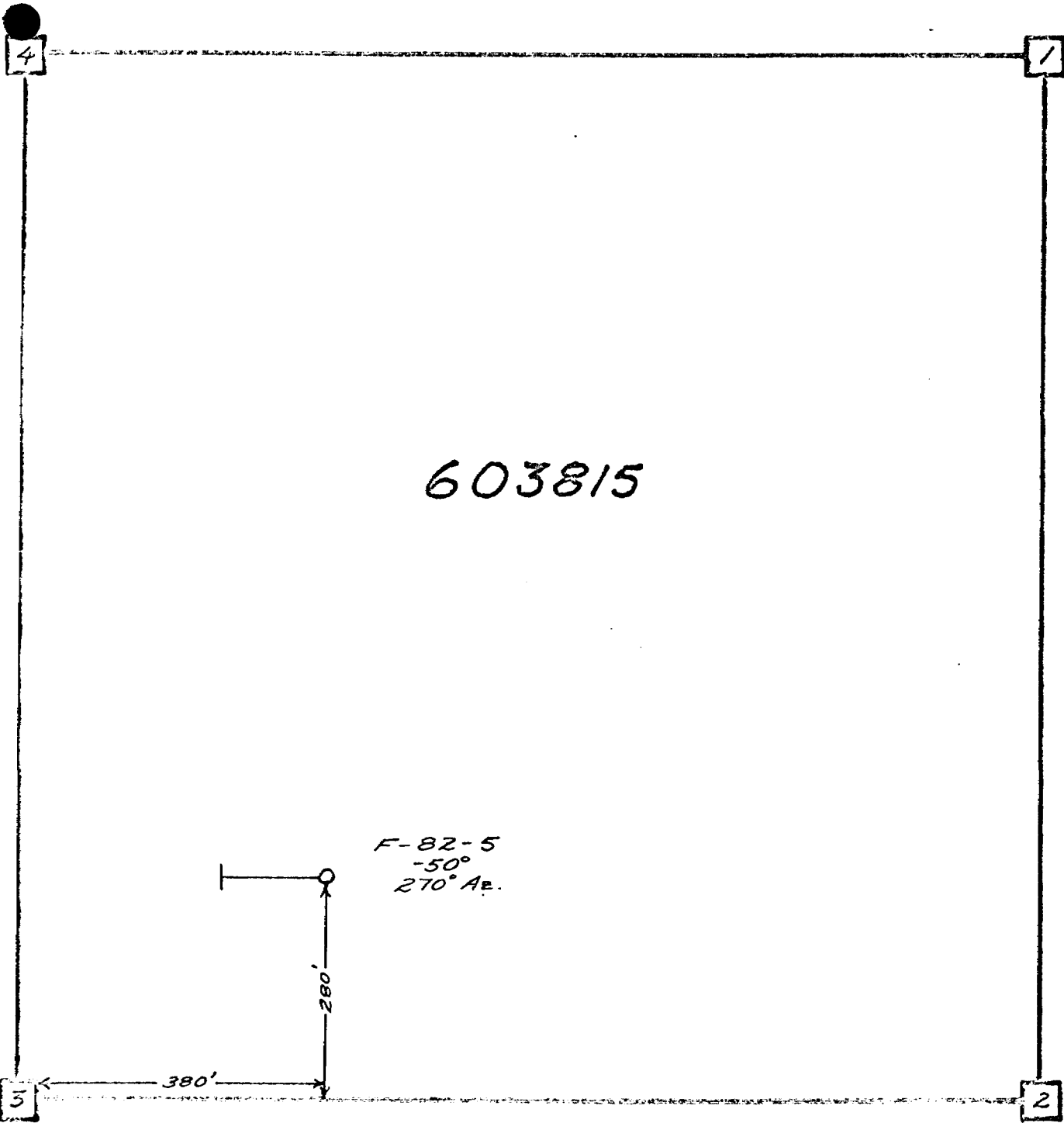
III

II

I

4 13 12 11 10 9 8 7 6 5 4 3 2 1

TWP.



603815

HUDBAY MINING LTD.
DDH LOCATION SKETCH

Scale: 1:2000
(Imperial)

DIAMOND DRILL RECORD & LOG

LOCATION: ROAD GROUP "A"

PROPERTY: FOLEYET

HOLE NO: F-82-5

LATITUDE: L 0+20S

DEPARTURE: 1+25E

LENGTH: 121.9m

ELEVATION:

INCLIN: -50°

CORE SIZE: BQ

AZIMUTH: 270°

DIP TESTS: -45° @ 121.9m

STARTED: 82-11-14

COMPLETED: 82-11-16

PURPOSE: To test an EM Conductor

DRILLED BY: Bradley Bros Ltd.

DRILLED FOR: Hudbay Mining Ltd.

CLAIM NO. P603815

SECTION:

LOGGED BY: M.P. Corrigan

DATE LOGGED: 82-11-17

M.P. Corrigan

METRES		DESCRIPTION	SAMPLE NO.	METRES		LENGTH	ASSAYS						
From	To			From	To		Au oz/T	Ag oz/T					
0	17.1	Overburden											
17.1	36.9	<u>Talc-Chlorite-Carbonate Unit</u> - medium grey to greenish - fine grained to aphanitic - talc-chlorite alteration has obscured the original rock-type (50-60% talc-chlorite) - unit appears tuffaceous as @ start of the hole - talc imparts a greasy feel to the core - 40-50% carbonatized; carbonate occurs within 5-10mm stringers; occasionally to 3 cm; @ 40°-60° TCA; local ankeritic zones @ 17.9m (50cm) & 28.8m (30 cm) - fault gouge @ 19.3m (1 cm), 24.2m (10 cm), 25.3m (5 cm), 29.4m (1cm), 31.9m (3 cm) & 32.1 (2 cm); all faults @ 60° TCA - brecciation is common, as @ 28.9m - talc content decreases with depth, while carbonate content increases - Tr disseminated Py along fractures - lower contact sharp @ 70° TCA	1399	21.9	23.4	1.5	nil	tr					
			1400	28.0	29.5	1.5	nil	nil					
			1401	32.9	34.4	1.5	nil	nil					

PROPERTY: Foleyet

PAGE NO: 2 of 4

METRES		DESCRIPTION	SAMPLE NO.	METRES		LENGTH	ASSAYS				
From	To			From	To		Au oz/T	Ag oz/T			
36.9	44.4	<u>Chlorite - Carbonate Unit</u> - fine grained - greenish grey - original rock-type obscure - unit is much more competent than the previous one - 60% carbonate + 40% chlorite (includes minor sericite) - a crude banding developed owing to alternating chlorite-rich & carbonate-rich sections to 2 cm, @ 60°-65°TCA - Tr disseminated Py along fractures - lower contact gradational, set @ 60° TCA	1402	38.4	39.9	1.5	nil	nil			
44.4	53.9	<u>Talc-Chlorite-Carbonate Unit</u> - same as @ 17.1 m except: - more competent - @ 48.3m a 1.0 m section becomes very chloritic & 5-10%, 1-2mm, anhedral to subhedral chloritoid xenocrysts occur; no preferred orientation; chloritoid persists throughout the unit - @ 49.9m & 51.1m ash & lapilli(?) beds to 30 cm; heterolithic & altered fragments; @ 60° TCA - Tr diss Py along fractures - lower contact sharp @ 75° TCA	1403	44.4	45.9	1.5	nil	nil			
			1404	50.9	52.4	1.5	nil	tr			
53.9	60.5	<u>Chlorite-Carbonate Unit</u> - same as before @ 36.9m except: - initial 50cm contains a light green talcose mineral (brucite?) - chloritoid re-appears @ 55.0m (1.0m section); <5% in 1-2mm clots - carbonate stringer content decreases to 10% beyond 58.3m; unit becomes much harder & slightly silicified - lower 60 cm is intermixed with underlying graphite zone & displays brecciation - Tr disseminated Py along fractures - lower contact sharp @ 70° TCA	1405	59.5	60.5	1.0	0.001	tr			

PROPERTY: FOLEYET

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METRES		DESCRIPTION	SAMPLE NO.	METRES		LENGTH	ASSAYS		
From	To			From	To		Au	Ag	Zn
							oz/T	oz/T	%
60.5	76.5	<p><u>Rhyolitic Tuff</u></p> <ul style="list-style-type: none"> - hosts the conductor (62.2m to 75.0m) - light grey to buff coloured - fine grained - initially sericitized but silicification increases with depth - @ 60.5m a 40 cm zone of finely laminated & silicified graphite which is weakly to non-conductive; minor Py in wisps parallel to bedding @ 80° TCA - @ 61.9m lapilli (?) appear; cream coloured; marks the start of the massive Py zones; lapilli are matrix-supported - @ 62.2m massive Py in blebs to 25 cm appear to have been brecciated in-situ; a euhedral fine grained Py also occurs, as does a "marcasitic" massive-type of Py - unit becomes banded @ 62.5m; may be a fragment-supported lapilli bed; % graphite increases with depth in this portion of the unit - @ 64.1m a 90 cm zone of silicified graphite with felsic fragments. - @ 65.0m a 5.0m mixed zone of graphitic fragmental and massive Py bands (sulfides end @ 68.8m) @ 70°-80° TCA - breccia zones @ 67.6m (30cm) & 68.3 (5cm); both contain angular to subrounded, non-aligned fragments in a quartz-carbonate cement - @69.1m, distinct 0.5-1cm, fusiform-shaped, light grey lapilli in a black matrix - @70.0m the unit becomes sericitized & changes to a brownish/green colour. - @72.8m graphitic fragmental zone; Py fragments(?) @ 73.1m; graphitic sections are not as siliceous as before - lower 70 cm is kaolinized and displays brecciation - <5% matrix carbonate + 50% carbonate in 1-2mm stringers @ various angles within the graphitic zones - lower contact diffuse, set @ 75° TCA 	1406	60.5	60.9	0.4	nil	tr	0.09
			1407	60.9	62.2	1.3	nil	nil	—
			1408	62.2	64.1	1.9	nil	tr	—
			1409	64.1	65.0	0.9	nil	tr	0.60
			1410	65.0	66.5	1.5	tr	tr	0.06
			1411	66.5	67.4	0.9	0.002	tr	0.04
			1412	67.4	69.1	1.7	nil	tr	—
			1413	69.1	70.0	0.9	nil	tr	—
			1414	70.0	71.5	1.5	nil	tr	—
			1415	71.5	72.8	1.3	nil	tr	—
			1416	72.8	74.3	1.5	nil	nil	—
			1417	74.3	76.5	2.2	nil	tr	—

4

1

460'

100'

F-82-1
-50°
075° Az.

626298

3

2

HUBBAY MINING LTD.
DDH LOCATION SKETCH

Scale: 1:2000
(Imperial)

DIAMOND DRILL RECORD & LOG

LOCATION: MAG GROUP (EAST CONDUCTOR)

PROPERTY: FOLEYET

HOLE NO: F-82-1

LATITUDE: L8+00S DEPARTURE: 2+40E
 INCLIN: -50°
 AZIMUTH: 075°
 STARTED: 1982-10-28
 COMPLETED: 1982-10-30
 PURPOSE: To test EM Conductor

LENGTH: 129.8m
 CORE SIZE: B.Q.
 DIP TESTS: 129.8m, -50°

ELEVATION:
 DRILLED BY: Bradley Bros. Ltd.
 DRILLED FOR: Hudbay Mining Ltd.

CLAIM NO. P626298
 SECTION:
 LOGGED BY: M.P. Corrigan
 DATE LOGGED: 1982-11-01

M.P. Corrigan

METRES		DESCRIPTION	SAMPLE NO.	METRES		LENGTH	ASSAYS							
From	To			From	To		Au oz/T	Ag oz/T						
0	8.5	Overburden												
8.5	21.9	<u>DACITE TUFF</u> - medium green in colour - initially ash, but lapilli are common in the heterolithic central portion of the unit (@ 10.8m to 13.7m); bedding @ 30-40° TCA - lapilli are rounded to subangular and inter-mixed with angular graphitic clasts to 4 cm - brecciation evident @ 18.6m; fragments are encompassed by carbonate. - 0.5 to 2 cm quartz-carbonate veinlets @ various angles TCA; <5% carbonate overall, locally to 50% over 0.2m - concentrically-zoned pisolites (?) to 1 cm in chill-zone @ 14.2m - undulatory laminae @ 14.4m - rusty slickenside surface (parallel to strike) @ 19.1m, 1-2mm wide - tr disseminated Po along fractures, locally to 5% intermixed with graphitic clasts - unit is silicified & chloritic - lower contact gradational based on decrease in hardness due to an increase in chlorite content; @ 35° TCA	701	10.8	11.8	1.0	nil	nil						

DIAMOND DRILL RECORD & LOG

HOLE NO:

F-82-1

PROPERTY: FOLEYET

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METRES		DESCRIPTION	SAMPLE NO.	METRES		LENGTH	ASSAYS					
From	To			From	To		Au oz/T	Ag oz/T				
36.0	47.5	<u>DACITIC FLOWS</u> - as before @ 21.9m - several flows present - one flow @ 39.2m to 41.2m has medium grained crystal mats; appears gabbroic textured - tuff bed (?) @ 37.4m to 38.3m; possibly a very fine grained flow - acicular olivene crystals(?) appear to be less randomly oriented than previous unit; does not appear to be a spinifex texture - bleached, aphanitic, portions of unit between olivene(?) -bearing zones - @43.7m, 7cm quartz-carbonate veinlet parallel to bedding - @ 44.4m, 2 cm quartz-carbonate veinlet + tourmaline - @45.0m, 60cm quartz-carbonate vein + very coarse grained euhedral carbonate crystals - fractures @ 70-80° TCA - unit is very highly silicified - Tr disseminated Po along fractures - lower contact is undulatory & gradational; based on disappearance of olivene(?) crystals & chlorite content increase; @ 50° TCA	702	45.0	45.6	0.6	nil	nil				
47.5	64.7	<u>DACITIC TUFF</u> - as before @ 8.5m except: - initially, ash size fragments - flow occurs @ 50.8m to 51.9m; upper contact is gradational, lower contact displays "chilling" - fragment size increases to lapilli beyond the flow - interstitial to the lapilli are concordant to discordant quartz-carbonate veinlets; quartz-carbonate constitutes 10-15% of unit, locally to 30-40% over 2.0m - @60.3m, a 60cm pisolitic zone occurs; flattened (4:1 ratio) 1-2cm x 2-5 cm pisolites @ 50° TCA	703	53.6	55.1	1.5	nil	nil				
			704	55.1	56.7	1.6	nil	nil				
			705	56.7	58.2	1.5	nil	nil				

DIAMOND DRILL RECORD & LOG

HOLE NO:

F-82-1

PROPERTY: FOLEYET

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METRES		DESCRIPTION	SAMPLE NO.	METRES		LENGTH	ASSAYS						
From	To			From	To		Au oz/T	Ag oz/T					
		<ul style="list-style-type: none"> -@ 63.1m, 1.0m of brecciated ash; fragments are outlined by quartz-carbonate veinlets - @ 64.3m, bleached chill-zone; aphanitic, displays cooling-related fractures perpendicular to the lower contact; similar sequence occurs @ 64.5m. - 3-5% Po as disseminations and fragments (locally conductive) locally to 10-15% over 10-20 cm; increased sulfide content is intimately associated with the occurrence of quartz-carbonate veinlets - lower contact is undulatory but sharp, @ 15° TCA. 											
64.7	65.9	<u>GRAPHITIC PELITE/PSAMMITE</u> <ul style="list-style-type: none"> - conductive - silicified graphite + several "net-textured" Po bands to 2 cm, intercalated with pelite and psammite beds; @30-40° TCA - tr cpy in Po; 3-8% Po, locally massive over 1-2 cm - unit is transected by several 0.5 cm to 1 cm concordant & discordant quartz-carbonate veinlets - lower contact is gradational, but sharp; based on the decrease of graphitic clasts with respect to an increase in volcanic fragments; @ 40° TCA 	706	64.7	65.9	1.2	tr	nil					
65.9	99.0	<u>RHYOLITE LAPILLI TUFF</u> <ul style="list-style-type: none"> - buff-coloured siliceous, aphanitic, lapilli in a grey ash matrix; bedding @ 40-60° TCA - lapilli to several cm's x ??; generally angular and fusiform-shaped; occasionally with 1-3mm clear quartz eyes - Po occurs interstitially and/or as fragments; intimately associated with % carbonate; 3-5% locally to 10-15% in graphite-rich zones - initial 1.5m of the unit is intermixed with graphitic metasediments - chloritic fragments impart a green colour to some portions of unit 	707	65.9	66.9	1.0	nil	nil					
			708	66.9	68.8	1.9	nil	nil					
			709	71.8	73.3	1.5	nil	nil					
			710	74.8	76.3	1.5	nil	nil					
			711	77.8	79.3	1.5	nil	nil					
			712	81.1	82.1	1.0	nil	nil					
			713	84.1	85.1	1.0	nil	nil					

DIAMOND DRILL RECORD & LOG

HOLE NO:

F-82-1

PROPERTY: FOLEYET

PAGE NO: 5 of 5

METRES		DESCRIPTION	SAMPLE NO.	METRES		LENGTH	ASSAYS		
From	To			From	To		Au oz/T	Ag oz/T	Zn %
		- siliceous lapilli display cooling fractures and reaction rims (welding?)	714	86.4	87.9	1.5	nil	nil	—
		- portions of the unit appear to be fragments within blocks	715	89.7	91.1	1.4	nil	nil	—
		- sulfide fragments @ 91.7m	716	91.1	91.8	0.7	nil	nil	—
			717	91.8	93.4	1.6	nil	nil	—
		- unit is very tight, few quartz-carbonate veinlets or fractures	718	93.4	94.8	1.4	nil	nil	—
			719	94.8	95.0	0.2	nil	nil	0.08
		-23cm graphite-rich (Po-bearing) zone @ 94.1m	720	95.0	96.0	1.0	nil	nil	—
		- 5-10% carbonate; increases to 15-20% with depth	721	98.0	99.0	1.0	nil	nil	—
		- lower contact gradational, but sharp; intermixed with underlying graphitic unit; @ 40° TCA							
99.0	100.6	<u>GRAPHITIC PELITE/PSAMMITE</u>							
		- silicified graphite beds alternating with pelite/psammite laminae to several cm's	722	99.0	100.6	1.6	0.001	nil	—
		- graded bedding @ 99.4m, fining downhole							
		- 8-10% Po as whisps & disseminations; whisps are concordant to discordant; Po is intimately associated with carbonatized fractures (Po is likely remobilized or secondary)							
		- offsetting of graphite beds evidenced by "Z" fractures & outlined by carbonate & crenulations							
		- tr Cpy in & about Po							
		- 10-20% carbonate							
		- lower contact sharp @ 45°C							
100.6	129.8	<u>RHYOLITIC LAPILLI TUFF</u>							
		- as before @ 65.9m	723	100.6	102.1	1.5	nil	nil	—
		- @ 114.2m, whisps of Cpy	724	102.1	103.6	1.5	nil	nil	—
		- @ 120.1m, minor fold or slump	725	103.6	105.1	1.5	nil	nil	—
		- up to 20% carbonate in chlorite-rich portion of the unit	726	108.7	110.2	1.5	nil	nil	—
			727	112.9	114.4	1.5	nil	nil	—
			728	114.4	116.1	1.7	nil	nil	—
			729	116.1	118.5	2.4	nil	nil	—
			730	121.0	122.5	1.5	nil	nil	—
			731	125.4	126.9	1.5	0.001	nil	—
			732	128.7	129.8	1.1	nil	nil	—
		NOTE: Core checked with spectrometer and U.V. lamp; no anomalous results were obtained.							