June 1991

CR91/320

EL 4879, MT FITCH
ANNUAL REPORT TO THE NORTHERN TERRITORY DEPARTMENT OF MINES & ENERGY FOR THE YEAR ENDING
25 MAY, 1991

OPEN FILE

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TENEMENT DETAILS

EL 4879 was granted on 25 May, 1986 and was originally of 95 blocks covering approximately 23 square kilometres. Reductions were made at the end of the second year, to 47 blocks, and at the end of the third year, to 23 blocks and at the end of the fourth year to 12 blocks.

OWNERSHIP

Central Electricity Generating Board (Australia) Pty. Limited (CEGBEA) began exploration for uranium in the Rum Jungle area in 1986. In late 1989 Compass Resources N.L. entered into a joint venture with CEGBEA and the emphasis was changed from uranium to base metal targets.

CEGBEA changed its name to Power Resources (Australia) Pty. Ltd. (PRA) on 7 May 1990.

On 4 December 1990 Guardian Resources N.L. signed an agreement entitling that company to earn 24% equity in Exploration Licence 4879 subject to meeting joint venture terms. Equity in EL 4879 is Compass Resources N.L. 51%, PRA 25% and Guardian Resources N.L. 24%.

This report covers exploration, principally for base metals, undertaken in the period 26 May, 1990 to 25 May, 1991.

PREVIOUS EXPLORATION

Within the north-east section of the tenement the Bureau of Mineral Resources (BMR) and Territory Exploration Pty. Limited (TEP) undertook major exploration programmes in the 1950s and 1960s. Work was concentrated at the Mt. Fitch and Mt. Burton locations where uranium and base metals were both present. Mining of a small uranium/copper deposit at Mt. Burton occurred in 1958 and trial mining for metallurgical testing occurred at Mt. Fitch in 1969. This resource is currently held by MCN 984.

During the late 1970s and early 1980s Uranerz undertook additional uranium exploration in the area, particularly concentrating on the Mt. Fitch Prospect were they drilled 17 holes.

In the south of the Exploration Licence, both TEP and the BMR undertook major drilling programmes at Area 55 West, Dolerite Ridge and Area 55 West west.

In the early years of EL 4879, PRA drilled 10 diamond drill holes at Mt. Fitch and nearby areas.

WORK COMPLETED DURING THE LAST YEAR

Following compilation of previous exploration data that had been located, Compass, as operator for the joint venture, undertook drilling at 3 prospects. These were:

North Mt Fitch	1 diamond drill hole 190.5m, 1 percussion hole 60m
Mt. Burton	1 diamond drill hole 213.4m
Area 55B	1 diamond drill hole 204.3m

In late 1990 the Rum Jungle section of Uranerz's library was purchased. This contained much useful data including many reports which are held in the Archives of the Northern Territory and not currently available to the public. Relevant sections from this data base have been used to update Compass' compilation of previous exploration results.

North Mt. Fitch Prospect

Following compilation of existing data it was discovered that the geochemical results in earlier BMR records had been transposed and therefore completely misplotted. When corrected, the large copper anomaly corresponded to that described in BMR record 1967/150 and falls on a distinct vegetation anomaly - devoid of trees. Although outcrop is poor, gossanous float and strongly silicified stromatolitic dolomite crops out in the area of the vegetation anomaly.

It was decided to drill the down dip projection of the geochemically anomalous stratigraphy in EL 4879. Diamond drill hole MFN 1 was completed in Coomalie Dolomite at 190.5 metres after intersecting anomalous lead zinc mineralisation in Whites Formation. Percussion drill hole MFN 2 located east of MFN 1 was drilled to test beneath a cherty/ferruginous outcrop and encountered significant secondary copper mineralisation (see Figure 4, 4b). This hole was unfortunately abandoned at 60 metres due to excessive water flow. The location of both holes is shown on Figure 2.

Additional exploration of this prospect will be undertaken but to enable an effective programme, access to a limited area of Mining Reserve 372 has been requested.

Appendix 1 contains lithological and geochemical logs of drill holes MFN 1 and MFN 2.

Table 1 gives an updated drill hole summary of previous drilling at the North Mt. Fitch Prospect.

TABLE 1
NORTH MT. FITCH PROSPECT
Drill Hole Summary

Hole No	Dec.	Azimuth	Co-ordinates (Mine Grid) N	E	Depth Ft
CD126	Vertical		51140	10830	130
CD127	Vertical		51290	10825	60
CD128	Vertical		51350	10875	80
CD129	Vertical		51050	10880	67
RD93	Vertical		51210	10760	90
RD96	Vertical		51200	10845	55
RD97	Vertical		51550	10950	???
D583	60°	114°	50730	10840	220
D584	60°	114°	51010	10800	199
D585	60°	114°	51270	10730	255
D849	Vertical		49931	10946	150
D852	Vertical		49932	10847	300
D853	60°	90°	50132	10803	200
D854	Vertical		49931	10748	200
D855	60°	90°	50336	10800	300
D856	Vertical		49931	10699	260
D859	Vertical		50337	10525	299
D866	60°	124°	49900	10600	293
D965	Vertical		49575	10400	496
D968	Vertical		50337	10400	502

Mt. Burton Prospect

Following field inspections and compilation of the then available data, one vertical diamond drill hole was completed west of the old pit (see Figure 3), aimed at intersecting the mineralised stratigraphy at depth. Drill hole MB 1 was finally terminated at 212.4 metres in Coomalie Dolomite. Although pyritic siltstones and sandstones were encountered, no significant base metals were intersected. Additional work would not appear to be warranted at this prospect. The location of drill holes in the Mt. Burton area are shown on Figure 3.

Appendix 2 contains the lithological logs and assay results obtained from this drilling.

Table 2 updates the previous drilling status from this prospect.

TABLE 2

MT. BURTON PROSPECT - DRILL HOLE SUMMARY
Circa/1955 TEP Churn Drill Holes

Hole No	Declination	Co-ordinates (mine grid)		Depth Ft
C 289	"	32370	15998	52
290	"	32300	15913	135
291	"	32249	15825	226
292	"	32380	15854	175
293	"	32220	15980	145
294	"	32507	15833	152
295	"	32587	15735	220
296	"	32419	15700	300
297	"	33079	15746	125
298	"	33122	15582	176

TEP diamond drill holes

Hole	Dec.	Azimuth	Mine Grid Co-ordinates N	E	Depth Ft
D 279	Vertical		32790	15625	130
282	Vertical		32790	15544	246
283	"		32688	15684	147'6"
284	65°	138°	32940	15656	65
285	Vertical		32995	15715	51
287	Vertical		32624	15630	312
289	65°	138°	33010	15575	140
291	Vertical		33090	15705	138
292	70°	86°	32785	15340	326
293	Vertical		32870	15578	150'6"
296	Vertical		32910	15470	243
301	Vertical		32707	15573	268
324	Vertical		32849	15644	96
325	"		32791	15587	193
327	55°	86°	32799	15625	148
328	Vertical		32757	15666	111
331	Vertical		32684	15758	98
332	"		32738	15632	218
345	60°	103°	33142	15485	285
347	Vertical		33301	15350	305
348	70°	90°	34099	15201	274'6"
349	Vertical		33701	15300	227
350	71.5°	90°	34093	14902	536
351	Vertical		33300	14994	726
354	75°	90°	33700	14835	593

Area 55B Prospect

One diamond drill hole FB 1 was completed at this prospect to evaluate the down dip nature of geochemically anomalous sulphidic Whites Formation. This prospect is located to the north and west of the Area 55 base metal mineralisation which mainly falls within EL 6640, a project which is owned 75% Compass Resources N.L. and 25% Guardian Resources N.L.

This hole passed through a major fault zone into massive tremolite prior to intersecting Coomalie Dolomite. Prior to intersecting the fault zone, the Whites Formation proved to be pyritic shales and mudstones without appreciable base metal mineralisation (see Figure 4)

Appendix 3 contains the lithological log and assay results from this drill hole.

PROPOSAL FOR THE SIXTH YEAR OF TENURE

Exploration will continue to concentrate on the Area 55B prospect and several kilometres its north-east, and the southern extension of the Mt. Fitch prospect.

Rotary air blast drilling will be required to fully define geochemical anomalies which will then be evaluated by deeper drilling methods.

In addition it is planned to undertake rotary air blast drilling to the south-west of CRA's Browns leases in order to locate the strike extensions of the mineralised stratigraphy.

Expenditure for the next year is estimated at $100,000.

EXPLORATION LICENCE 4879
EXPENDITURE FOR THE PERIOD
25 MAY 1990 TO 25 MAY 1991

	$
Salaries, wages & on costs	23,523.17
Travel & Accommodation	6,769.73
Consultant Services	4,875.42
Land Services	1,397.92
Field Costs	3,257.59
Assay/Metallurgy Costs	3,301.68
Other	85.25
Motor Vehicle Costs	4,474.05
Photos/Maps	1,188.60
Drilling & site preparation	29,375.32
Overhead allocation	11,906.30
	$91,286.62

APPENDIX 1

EL 4879 HOLE NO: MFN 1

Declination -65° Azimuth 090° T Precollar 0 - 54m
Total Depth 190.5m Commenced 22.5.90 Finished 6.6.90

Depth M			Description
0	-	2	Rubble, grey to brown finely cleaved sericitic shale
2	-	4	As above
4	-	6	As above,
6	-	8	As above, chips become harder
8	-	10	Well cleaved sericitic brown-bronze & grey shale, minor cleavage ferruginous quartz
10	-	12	As above
12	-	14	As above
14	-	16	As above
16	-	18	Yellow-white-red clay alteration and extensive quartz veining in sericitic shale
18	-	20	Finely cleaved grey brown sericitic shale, no sandy layers
20	-	22	As above
22	-	24	Grey sericitic, carbonaceous shale
24	-	26	As above, minor chlorite, 10-15% quartz
26	-	28	As above, 5% quartz
28	-	30	As above, wet sample, 1-3% chloritic shale
30	-	32	As above
32	-	34	As above
34	-	36	As above, more massive, less sericitic
36	-	38	As above, more finely cleaved
38	-	40	As above, trace pyrite associated with quartz veining
40	-	42	As above, no pyrite
42	-	44	As above
44	-	46	As above
46	-	48	As above, minor dark green chlorite, with fine grained pyrite, trace chalcopyrite?
48	-	50	Sericitic shale, with dark green chlorite, minor trace pyrite and chalcopyrite
50	-	52	As above, into dominantly white dololutite, trace pyrite
52	-	54	As above, back into sericitic, carbonaceous shale
End of precollar			
54	-	63.4	Dark grey graphitic and sericitic shales with minor chloritic bands. Minor quartz rich bands. Minor pyrite along bedding planes and in cleavage.At 55m θ = 65°, 61m θ = 75°
63.4	-	63.5	Grey-green clay, slightly haematitic. May be a tuff θ = 70°
63.5	-	65.0	Grey chlorite biotite sericite shale
65.0	-	66.0	Grey-green chloritic schist, trace pyrite and biotite. May be a tuff band θ = 70°
66.0	-	72.2	Fine grained grey sericitic carbonaceous shale, massive to banded, cross bedded at 71-72m
72.2	-	74.7	Fine grained well cleaved graphitic sericitic shales fine pyrite in cleavage planes.

EL 4879 HOLE NO: MFN 1 (continued)

Declination -65° Azimuth 090° T Precollar 0 - 54m
Commenced 22.5.90 Finished 6.6.90

Depth m			Description
74.7	-	75.4	Major fractured zone; chlorite sericite shale fragments in chlorite and clay matrix, minor quartz veining
75.4	-	76.8	Grey fine grained chlorite sericite graphitic shales $\theta = 70°$
76.8	-	76.9	Light grey-green chloritic schist, possible tuff band
76.9	-	79.7	Graphitic sericitic shale with disseminated pyrite
79.7	-	85.4	Alternating bands of slightly pyritic graphitic sericitic shales and light green sericite/chlorite schists after tuffs. $\theta = 70°$
85.4	-	86.6	Fractured zone - chlorite and carbonate veining.
86.6	-	89.5	Graphitic sericite shale with fine grained pyrite bands
89.5	-	93.5	Sericitic shale fine grained. $\theta = 75°$
93.5	-	100.0	Grey medium grained quartz sericite chlorite shale with trace of disseminated pyrite throughout.
100.0	-	102.0	Chloritic shear zone with quartz fragments
102.0	-	104.5	Thinly banded quartz sericite graphite shales with traces of pyrite and maybe galena/sphalerite. $\theta = 70°$
104.5	-	105.2	Core loss
105.3	-	108.1	Medium grained quartz sericite chlorite shale $\theta = 35°$
108.1	-	113.0	Fine to medium grained grey quartz sericite shales, minor pyrite.
113.0	-	113.2	Core loss
113.2	-	115.1	Quartz sericite shale with quartz veining with minor galena, sphalerite and galena
115.1	-	117.0	Graphitic chloritic schists, fractured, veined with quartz
117.0	-	122.9	Graphitic chlorite sericite shales with up to 1% disseminated pyrite
122.9	-	126.1	Very light grey sericite quartz shale $\theta = 80°$
126.1	-	126.7	Cherty shales, contains graphite and chlorite
126.7	-	127.5	Dark grey siliceous graphitic shales
127.5	-	145.5	Very soft zone containing mostly pale tremolite with some biotite, phlogopite and chlorite. Significant core loss due to cherty fragments blocking drill bit
145.5	-	147.6	Pale grey-green sericite chlorite shales. Very soft and friable $\theta = 80°$
147.6	-	152.6	Light grey coarse grained dolarenite with some dolomite containing chlorite tremolite and quartz. $\theta = 60°$
152.6	-	159.0	Black graphitic chloritic shale with trace pyrite, galena and sphalerite. $\theta = 65°$

EL 4879 HOLE NO: MFN 1 (continued)

Declination -65° Azimuth 090° T Precollar 0 - 54m
Commenced 22.5.90 Finished 6.6.90

Depth m			Description
159.0	-	159.5	Grey dolomite containing tremolite and pyrite
159.5	-	166.4	Sericitic chloritic graphitic shales with dolomitic interbeds $\theta = 80°$
166.4	-	169.3	Massive grey-green stylolitic dolomite with tremolite.
169.3	-	190.5	Massive coarse grained recrystallised dolomite with minor pyrite.
			E.O.H.

EL 4879 Hole No MFN 1

Declination 65° Azimuth 090° T
Started 27.5.1990 Finished 6.6.1990 Total depth 190.5m

Sample	Interval m			Cu	Pb	Zn	Ag	Co	Ni	Mn	As
23525	0	-	2	46	84	103	<0.5	13	25	-	
23526	10	-	12	66	30	74	<0.5	24	40	-	
23527	20	-	22	34	42	34	<0.5	15	25	-	
23528	30	-	32	18	12	59	<0.5	16	25	-	
23529	40	-	42	41	31	61	<0.5	10	20	-	
23530	50	-	52	12	14	20	<0.5	<5	<5	-	
23754	136	-	138	80	33	525	3.7	25	80		
23755	138	-	139	31	42	641	0.5	8	83		
23756	139	-	141	50	17	291	<0.5	7	36		
23757	141	-	142	138	30	473	<0.5	14	83		
23758	142	-	143	114	18	316	0.5	7	41		
23759	143	-	144.5	21	7	24	0.5	6	10		
23760	144.5	-	147	5	7	39	<0.5		5	9	
23450	152	-	153	25	155	255	<0.5	10	45	2200	<100
23445	153	-	154	1200	1.7%	5350	4.5	350	515	325	<100
23446	154	-	155	60	280	135	0.5	15	90	125	<100
23447	155	-	156	60	240	250	<0.5	10	65	610	<100
23448	156	-	157	45	0.66%	3450	<0.5	25	95	230	<100
23449	157	-	158	105	290	1950	<0.5	20	100	200	<100

EL 4879 HOLE NO: MFN 2
Percussion Hole
Declination -60° Azimuth 090° T
Total Depth 60m
Commenced 7.6.1990 Finished 8.6.1990

Sample No	Depth m		Description
0	-	2	Brown weathered sericitic shale
2	-	4	Grey-light grey-brown weathered sericitic shale
4	-	6	As above, becoming more grey-black
6	-	8	As above, more graphitic
8	-	10	Sericitic shale with chips of grey-pink dololutite?
10	-	12	Black finely cleaved graphitic shale
12	-	14	50% as above, 50% light brown clay, quartz, ferruginous in part
14	-	16	Dominantly silica, maybe replacing dolomite
16	-	18	As above
18	-	20	As above, strong water flow
20	-	22	50% silica replaced dolomite, 50% siliceous grey-green well banded siltstone
22	-	24	Weathered and black fresh graphitic shale
24	-	26	Dominantly siliceous, graphitic shale, hole taking water, ferruginous
26	-	28	As above, strong contamination from water flushing
28	-	30	30-40% white quartz veining in black graphitic shale, ferruginous and gossanous
30	-	32	Very yellow coloured water, maybe soft weathered rock being lost as chips
32	-	34	As above
34	-	36	As above, some sign of cavity filling quartz
36	-	38	As above, first trace malachite in cleavage plans of black graphitic shales
38	-	40	As above, dominantly graphitic shales, some quartz veining, trace malachite
40	-	42	As above, trace-minor malachite
42	-	44	Strongly graphitic zone, minor to 1% malachite, trace azurite, chrysocolla
44	-	46	As above, 3% malachite, minor native copper. Both in shale and in quartz veins
46	-	48	As above, copper drops off slightly
48	-	50	Graphitic chloritic shale, minor silica replacing dolomite, minor native copper, trace malachite
50	-	52	As above, minor-2% native copper, dominantly in shale, minor malachite
52	-	54	As above, bright red mineral, probably cuprite
54	-	56	Dominantly graphitic shale, trace-minor native copper, 30% quartz due to caving
56	-	58	Much more quartzitic, sericitic shale, trace-minor malachite + natural copper
58	-	60	As above, massive caving. Lost the hole, bottom of hole caved in!

EL 4879

Hole No MFN 2

Declination 60° Azimuth 090° Percussion Hole
Total depth 60m
Commenced 7.6.90 Finished 8.6.90

Sample No	Depth m			Cu	Pb	Zn	Ag	Co	Ni	Mn	As
23531	0	-	2	275	1005	403	<0.5	20	55		
23532	2	-	4	126	488	225	<0.5	17	20		
23533	4	-	6	154	680	231	<0.5	13	25		
23534	6	-	8	186	6790	87	1.1	<5	10		
23535	8	-	10	360	9910	119	2.2	13	20		
23536	10	-	12	179	4510	112	0.5	12	20		
23537	12	-	14	265	1340	221	0.8	13	35		
23538	14	-	16	220	303	134	0.6	10	30		
23539	16	-	18	330	407	209	0.8	23	50		
23540	18	-	20	404	1340	277	0.5	28	55		
23541	20	-	22	317	1920	266	1.1	21	45		
23542	22	-	24	630	610	339	1.1	27	85		
23543	24	-	26	308	1420	165	1.6	23	45		
23544	26	-	28	405	739	174	0.8	24	50		
23545	28	-	30	503	687	187	1.2	35	55		
51016	30	-	32	650	855	250	1.5	50	80		
51017	32	-	34	510	615	215	1.0	50	65		
51018	34	-	34	510	530	215	1.0	50	70		
51019	36	-	38	880	605	390	1.0	75	135		
51020	38	-	40	1150	695	285	1.0	80	115		
51021	40	-	42	3550	525	195	1.0	55	115		
51022	42	-	44	3300	505	240	1.0	75	110		
51023	44	-	46	7500	435	155	1.0	230	200		
51024	46	-	48	6150	555	175	1.0	145	300		
51025	48	-	50	5600	575	170	1.0	130	350		
51026	50	-	52	1.13%	315	151	1.5	200	500		
51027	52	-	54	1.87%	40	180	2.5	215	600		
51028	54	-	56	5500	555	220	1.5	125	370		
51029	56	-	58	6600	345	165	1.5	150	630		
51030	58	-	60	6000	370	185	1.0	135	540		

APPENDIX 2

MT BURTON DRILL HOLE

HOLE: MB 1

EL 4879
AMG Co-ordinates 712750 E, 8564150 N
Started 12.6.90 Finished 26.6.90
Precollared to 78 metres

Declination: Vertical

Total Depth: 213.4 m

0	- 2	Brown-red soil
2	- 4	Partly weathered quartzite
4	- 6	Very slightly weathered quartzite
6	- 8	Khaki sand after quartzite
8	- 10	Quartzite
10	- 12	Pyritic graphitic shale
12	- 14	Pyritic graphitic shale
14	- 16	Pyritic graphitic shale & pyritic quartzite
16	- 18	Pyritic quartzite
18	- 20	As above
20	- 22	As above
22	- 24	Pyritic quartzite & minor pyritic graphitic shale higher sulphide zone from 22-32m
24	- 26	As above
26	- 28	As above
28	- 30	As above
30	- 32	As above
32	- 34	Pyritic quartzite
34	- 36	As above
36	- 38	As above
38	- 40	as above
40	- 42	As above
42	- 44	As above
44	- 46	As above, very coarse fragments
46	- 48	Pyritic quartzite
48	- 50	As above
50	- 52	As above
52	- 54	As above, some sericitic sections
54	- 56	Pyritic quartzite and pyritic graphitic sericitic shale
56	- 58	As above
58	- 60	Pyritic quartzite
60	- 62	Pyritic quartzite and pyritic graphitic sericitic shale
62	- 64	As above
64	- 66	As above
66	- 68	As above
68	- 70	Mostly pyritic quartzite, minor pyritic graphitic sericitic shale
70	- 72	Pyritic quartzite
72	- 74	Pyritic graphitic sericitic shale
74	- 76	As above with minor pyritic quartzite
76	- 78	As above with more quartzite
End of pre-collar		
78	- 78.4	Grey quartzite pyritic θ = 50°
78.4	- 84.5	Graphitic pyritic shales, minor quartzite bands θ = 45°
84.5	- 85.2	Mixed quartz veins and silicified quartzite
85.2	- 86.4	Silicified quartz θ = 20°
86.4	- 88.2	Graphitic pyritic shale θ = 45°

MT BURTON DRILL HOLE

HOLE: MB 1 (Continued)

EL 4879
AMG Co-ordinates 712750 E, 8564150 N
Started 12.6.90 Finished 26.6.90
Precollared to 78 metres

Declination: Vertical

Total Depth: 213.4 m

Depth m			Description
88.2	-	88.5	Quartz vein
88.5	-	89.1	Quartzite θ = 40°
89.1	-	89.4	Graphitic shale, puggy
89.4	-	89.9	Quartzite
89.9	-	90.7	Graphitic pyritic shale
90.7	-	91.0	Quartzite θ = 45°
91.0	-	94.2	Graphitic sericitic pyritic shale, strong cleavage
94.2	-	94.5	Pyritic quartzite
94.5	-	95.6	Soft pyritic graphitic shale
95.6	-	95.8	Quartzite
95.8	-	96.6	Very soft dark grey-black clay after shales
96.6	-	96.85	Quartz vein
96.85	-	109.4	Graphitic pyritic well bedded black shale (increase in pyritic) 100m θ = 45°, 102.5m θ = 40°, 106m θ = 0 or 40°, 107.5m θ = 45°, 109.4m θ = 10°,
109.4	-	110.7	Pyritic quartzite band, very pyritic at 110.2 θ = 45° at 110.7m
110.7	-	116.3	Graphitic shale, pyritic. 112m θ = 30° 116m θ = 22°
116.3	-	117.50	Interbedded shale and pyritic quartzite
117.5	-	122	Graphitic pyritic shales, strong pyrite 118-119m, 119.5m θ = 45° 117.5m θ = 45°
122	-	125.3	Mostly pyritic quartzite
125.3	-	127.0	Interbedded shale and quartzite, pyritic
127.0	-	131.7	Mostly pyritic quartzite, mottled texture 129.5-131m
131.7	-	134.8	Pyritic graphitic mudstone (little obvious bedding) unusual texture, tremolitic + tension gashes with ? gypsum
134.8	-	136.9	Mostly mottled pyritic quartzite
136.9	-	138.7	Pyritic graphitic mudstone, tension gashed with ? gypsum
138.7	-	139.3	Pyritic graphitic quartzite
139.3	-	140.8	Pyritic graphitic mudstone
140.8	-	140.9	Pyritic graphitic quartzite θ = 50°
140.9	-	147.6	Graphitic pyritic mudstone, tension gashes (at 145.6 θ = 45°)
147.6	-	148.0	Mottled pyritic quartzite
148.0	-	148.5	Quartz vein
148.5	-	149.8	Graphitic pyritic mudstone, tension gashes with ? gypsum
149.8	-	150.2	Mottled pyritic quartzite
150.2	-	150.5	Quartz vein with pyrite
150.5	-	150.9	Mottle pyritic quartzite
150.9	-	151.5	Quartz vein with pyrite
151.5	-	152.3	Quartzite with multiple quartz veins
152.3	-	158.8	Mottled pyritic quartzite, minor quartz veining
158.8	-	160.6	Very graphitic pyritic mudstone, many white filled tension gashes. (160m θ = 50°)

MT BURTON DRILL HOLE

EL 4879 HOLE: MB 1 (Continued)
AMG Co-ordinates 712750 E, 8564150 N Declination: Vertical
Started 12.6.90 Finished 26.6.90
Precollared to 78 metres Total Depth: 213.4 m

Depth m			Description
160.6	-	160.7	Quartz vein
160.7	-	161.15	Pyritic graphitic quartzite
161.15	-	161.4	Very graphitic mudstone
161.4	-	162.2	Pyritic graphitic quartzite
162.2	-	164.8	Graphitic pyritic mudstone, tension gashes, with gypsum
164.8	-	165.0	Quartzite
165.0	-	175.0	Graphitic pyritic mudstone, tension gashes, at 168.3m θ = 45°
175.0	-	175.5	Graphitic pyritic quartzite
175.5	-	180.0	Graphitic pyritic mudstone, lesser tension gashes, at 179.8 narrow odd green zone (176m θ = 40°). Reduced to NQ from HQ
180.0	-	182.9	Pyritic quartzite
182.9	-	183.2	Soft pyritic mudstone
183.2	-	184.2	Pyritic quartzite
184.2	-	184.5	Soft pyritic mudstone
184.5	-	185.4	Pyritic quartzite
185.4	-	186.4	Pyritic graphitic mudstone
186.4	-	187.1	Pyritic quartzite with some pyritic graphitic mudstone
187.1	-	189.4	Pyritic graphitic mudstone
189.4	-	189.7	Pyritic quartzite
189.7	-	193.2	Pyritic graphitic mudstone
193.2	-	194.0	Graphitic pyritic quartzite
194.0	-	201.0	Pyritic graphitic mudstone with minor quartzite bands
201.0	-	205.5	Partly oxidised pyritic graphitic mudstone
205.5	-	206.8	Soft graphitic mudstone
206.8	-	208.5	Partly oxidised sericitic graphitic mudstone
208.5	-	213.4	Dolomite, becoming more clayey over last 50cm

ASSAY RESULTS MB 1

Depth m				Cu	Pb	Zn	Ag	Co	Ni	Mn	ppm
169	-	170	125	20	190	1.0	55	170	390		
170	-	171	100	20	160	1.0	50	155	630		
171	-	172	95	15	160	1.0	45	140	595		
172	-	173	85	15	120	0.5	45	135	520		
173	-	174	100	10	140	0.5	50	130	440		
174	-	175	55	25	125	0.5	40	95	310		
175	-	176	55	10	80	0.5	35	95	360		
176	-	177	60	15	110	0.5	50	110	250		
177	-	178	60	15	95	0.5	45	100	235		
178	-	179	50	10	65	0.5	35	85	210		
179	-	180	50	10	815	<0.5	65	140	170		
180	-	186	50	5	120	0.5	30	95	155		
186	-	187	85	5	70	0.5	40	120	370		
187	-	188	60	<5	55	0.5	30	90	300		
188	-	189	55	5	55	0.5	30	85	180		
189	-	190	35	<5	50	0.5	20	65	145		
190	-	191	60	5	80	0.5	30	80	260		
191	-	192	45	<5	60	0.5	20	60	570		
192	-	193	45	<5	80	0.5	20	55	665		
193	-	194	50	<5	100	0.5	30	75	710		
194	-	195	45	<5	60	0.5	20	50	800		
195	-	196	50	5	60	0.5	25	45	805		
196	-	197	35	<5	50	0.5	15	35	1700		
197	-	198	55	<5	50	0.5	35	90	285		
198	-	199	45	<5	55	0.5	30	75	175		
199	-	200	65	<5	45	0.5	35	90	315		
200	-	201	75	5	40	0.5	40	100	140		
201	-	202	50	<5	50	0.5	30	85	80		
202	-	203	55	<5	75	0.5	95	320	110		
203	-	204	60	5	50	0.5	70	165	130		
204	-	205	50	<5	45	1.0	30	70	100		
205	-	206	35	<5	60	0.5	30	85	2900		
206	-	207	30	5	75	0.5	60	195	1500		
207	-	208	35	5	105	0.5	25	50	4550		

APPENDIX 3

AREA 55B DRILL HOLE

EL 4879 Hole No FB 1
AMG Co-ordinates: 713100 E 8560550 N
Declination 60° Azimuth 160° mag.
Started 27 June 1990 Finished 11 July 1990 Total depth 204.3m
(Local Co-ordinates) 1232N 1436E

0	-	2	Red soil, clayey, minor weathered rock chips
2	-	4	Red-brown clays
4	-	6	Light khaki clays
6	-	8	Tan clays, some paler flecks
8	-	10	Tan-khaki clays, very fine (weathered dolerite)
10	-	12	As above
12	-	14	Tan brown clays, very fine (weathered dolerite)
14	-	16	Tan khaki clays, very fine (weathered dolerite)
16	-	18	Green-khaki clays
18	-	20	As above
20	-	22	As above with fresh dolerite fragments
22	-	28	Fresh dolerite, some pyrite .
28	-	30	Slightly chloritic dolerite and white vein quartz
30	-	32	Vein quartz and dolerite
32	-	34	Fresh dolerite, slightly chloritised
34	-	36	Fresh dolerite
36	-	38	As above
38	-	40	As above
40	-	42	As above
42	-	44	As above and vein quartz
44	-	46	Fresh dolerite
46	-	49	As above, very contaminated sample too much water to continue precollar
	End of Precollar		
49	-	51.9	Talcose sericitic greenschist θ = 65°
51.9	-	57.0	Fine grained dolerite
57.0	-	58.2	Talcose sericitic greenschist θ = 55°
58.2	-	58.9	Fine grained dolerite
58.9	-	63.3	Talcose sericitic greenschist, some sulphide rich narrow veins θ = 60°
63.3	-	64.1	Narrow quartz veining, then highly contorted soft sulphide rich schists θ varying from 10° to 30°
64.1	-	70.0	Grey sericitic schists, after shale, θ = 30°
70.0	-	70.5	Quartz vein with sulphides
70.5	-	81.5	Dark grey sericitic graphitic sulphidic schists, highly contorted
81.5	-	95.6	Pyritic graphitic shales with quartz pyrite segregations, dark grey to black
95.6	-	97.7	Dark grey to black highly contorted graphitic schists with quartz/pyrite segregation
97.7	-	101.0	Black graphitic pyritic shales, minor quartz/pyrite segregated veins, contorted, brecciated between 106.8m and 107.3m
101.0	-	102.2	Graphitic shale with minor pyrite
102.2	-	102.8	Graphitic shale 5-10% coarse bedded pyrite θ = 40°
102.8	-	103.2	Graphitic mudstone, <5% pyrite
103.2	-	103.8	Slumped brecciated graphitic mudstone
103.8	-	105.1	Graphitic mudstone and shale with 5% coarse pyrite θ = 50°
105.1	-	106.5	Graphitic mudstone
106.5	-	107.5	Graphitic brecciated slumped mudstone θ = 10°
107.5	-	109.6	Graphitic mudstone approx. 5% pyrite θ = 50°

AREA 55B DRILL HOLE

EL 4879 Hole No FB 1 (continued)
AMG Co-ordinates: 713100 E 8560550 N
Declination 60° Azimuth 160° mag.
Started 27 June 1990 Finished 11 July 1990 Total depth 204.3m
(Local Co-ordinates) 1232N 1436E

109.6	-	113.5	Graphitic mudstone and shale, strongly sheared approx. 5% pyrite
113.5	-	116.5	Brecciated veined graphitic mudstone with chlorite layers and quartz veins θ = 10°
116.5	-	127.4	Graphitic shale and siltstone with some lighter layers θ = 20°
127.4	-	127.8	Approximately 40% pyrite in graphitic shale
127.8	-	128.8	Graphitic shale and siltstone with minor pyrite
128.8	-	129.0	Quartz vein
129.0	-	130.2	Graphitic shales, brecciated, with approximately 5% pyrite
130.2	-	133.8	Pyritic (approx 5%) graphitic siltstone θ = 50°
133.8	-	137.0	Brecciated graphitic siltstone with green clay and chlorite zone (possibly after tremolite) pyrite approx 5%. θ = 30°
137.0	-	138.0	Grey-green chlorite rock, possibly altered tremolite
138.0	-	145.2	Graphitic mudstone and shale with thin lighter grey-green bands from 140.2m θ = 15°
145.2	-	148.0	Green greasy clay zones, main quartz vein zone with pyritic brecciated graphitic shale
148.0	-	149.2	Poor core recovery broken quartz and brecciated zones
149.2	-	150.7	Graphitic shales with semi-concordant quartz veins and lighter grey-green chlorite rich layers, possibly altered tremolite dolomite layer. Quartz veins at 149.4-149.5m θ = 10°
150.7	-	152.2	Chlorite rich zone with mixture of chlorite and lighter grey-white clay layers and sandy quartzose layers, greasy blue green mica present; porous zone
152.2	-	153.4	As above but with slumping structures
153.4	-	153.9	Soft green clay, fibrous, possibly after fairly massive tremolite in a strongly altered dolomite
153.9	-	158.0	Quartzite with some quartz veins
158.0	-	158.8	Increased chlorite, some grey graphitic shale beds and quartzite layers (slumping at 158.8 and 159.6m)
158.8	-	161.0	Quartzite with vuggy layers, θ = 5°
161.0	-	163.0	Unbedded fairly massive fibrous chlorite
163.0	-	164.0	Brecciated chlorite rich rock, unbedded
164.0	-	169.3	Dark grey-green fibrous chlorite, possibly after tremolite altered dolomite
169.3	-	170.0	Brecciated quartzite fragments in dark grey chlorite matrix
170.0	-	172.7	Light grey-white clay interbedded with dark grey chlorite matrix (pyrite band 5cm wide at 175.6m), quartz veins at 170.6 and 170.8m. θ = 55°
172.7	-	175.8	Dominantly dark chlorite rich rock with lighter layers, some carbonate, <5% pyrite
175.8	-	176.4	Light grey dolomite with thin layers of chlorite flecking
176.4	-	177.0	Dark grey-green fibrous chlorite (after tremolite dolomite?)
177.0	-	178.9	Chlorite and clay and quartz: fault zone
178.9	-	179.6	Fine greasy dark green chlorite becoming intermixed with light grey-green clay (non calcareous)
179.6	-	179.9	Dark grey silicified pyritic shale
179.9	-	184.1	Fairly massive dolomite with chlorite flecks and occasional quartz vein. θ = 45°

AREA 55B DRILL HOLE

EL 4879 Hole No FB 1 (continued)
AMG Co-ordinates: 713100 E 8560550 N
Declination 60° Azimuth 160 mag.
Started 27 June 1990 Finished 11 July 1990 Total depth 204.3m
(Local Co-ordinates) 1232N 1436E

184.1	-	184.5	Finer bedded dark chlorite and lighter silicious layers vuggy with soft mineral (?gypsum) missing, acid negative, minor pyrite
184.5	-	189.2	Interbedded silicified dark grey shales and chlorite flecked dolomite. Some quartz and carbonate veins. Core loss problem at 188.5m, approx. 5% pyrite
189.7	-	190.7	Dark chlorite and clay with 5% pyrite, 80% core loss
190.7	-	191.3	Very vuggy soft light and dark brown chlorite flecked with iridescent blue green mica, calcareous.
191.3	-	194.1	Massive light and dark grey gradational beds, 5% pyrite, only acid positive in places, transition zone
194.1	-	198.3	Massive dolomitic limestone with dark green and brown chlorite and brown garnets. Pyrite and pyrrhotite flecks and blobs. Has blotchy irregular appearance with possible bedding at 70° to core.
198.3	-	201.3	As above chlorite flecked dolomitic limestone, $\theta = 65°$ Minor quartz veins and about 5% pyrite and pyrrhotite from 198.3 metres. Grains of garnet present.
201.3	-	204.3	Chlorite flecked dolomitic limestone with chlorite flecks along apparent bedding planes at 70° to core. Quartz veins sub parallel to core 302-302.8 metres (vein about 2cms wide) pyrite about 5% (garnet still present)

E.O.H.

EL 4879 Hole No FB 1
AMG Co-ordinates: 713100 E 8560550 N
Declination 60° Azimuth 160 mag.
Started 27 June 1990 Finished 11 July 1990 Total depth 204.3m
(Local Co-ordinates) 1232N 1436E

Sample	Interval			Cu	Pb	Zn	Ag	Co	Ni	Mn	As
23421	127	-	128	265	610	155	1.0	85	240	350	<100
23422	129	-	130	145	765	485	0.5	50	150	75	<100
23423	137	-	138	130	870	280	1.0	35	160	110	<100
23424	138	-	139	120	275	260	0.5	25	105	135	<100
23425	156	-	157	10	30	1950	0.5	10	45	45	<100
23426	164	-	165	5	20	1.34%	<0.5	55	130	4750	<100
23427	173	-	174	80	15	75	<0.5	20	160	185	<100
23428	177	-	178	65	10	65	<0.5	5	50	330	<100
23429	190.5	-	191.5	70	15	55	<0.5	20	85	1400	<100

CR91/320

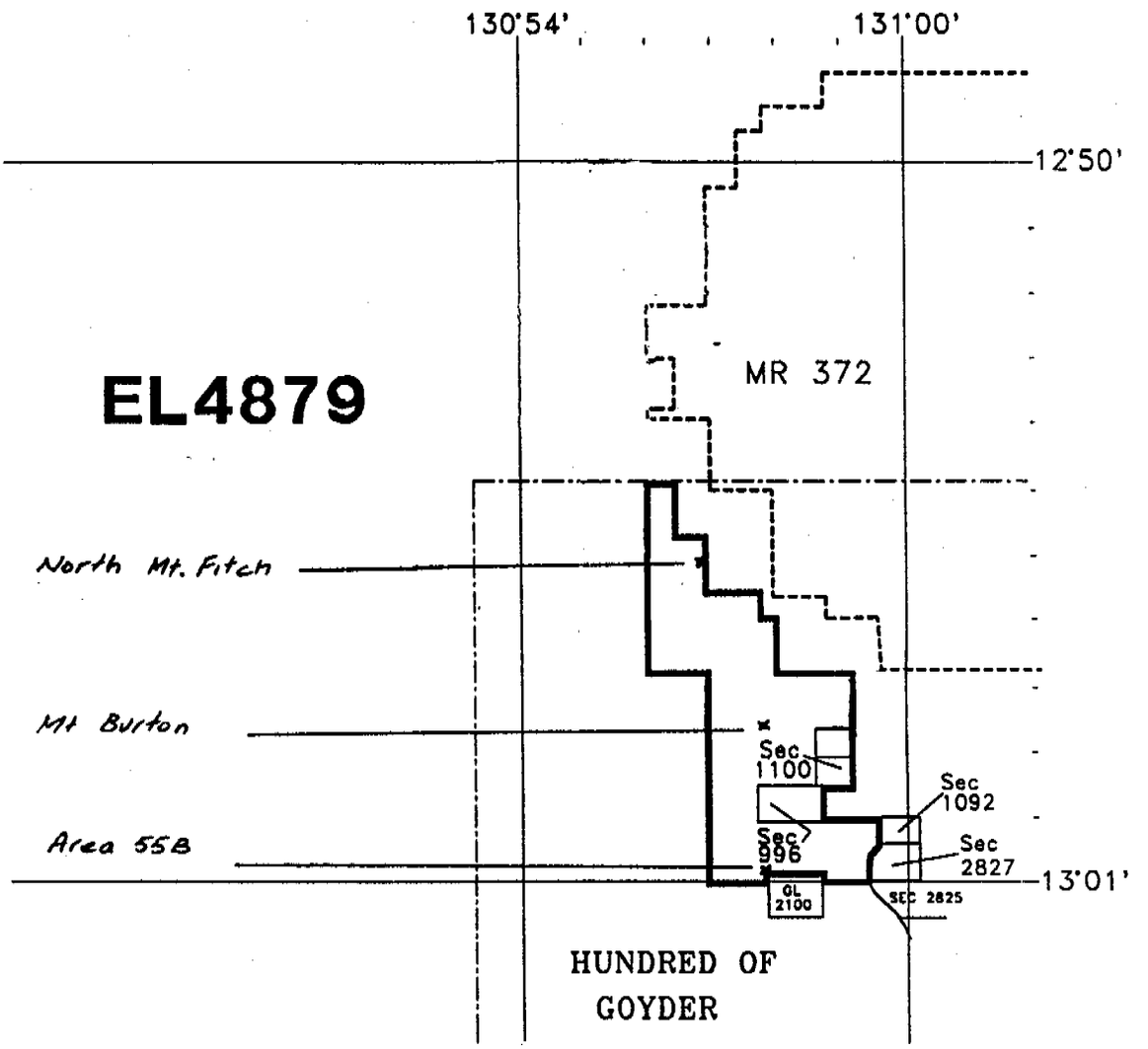


Figure 1.

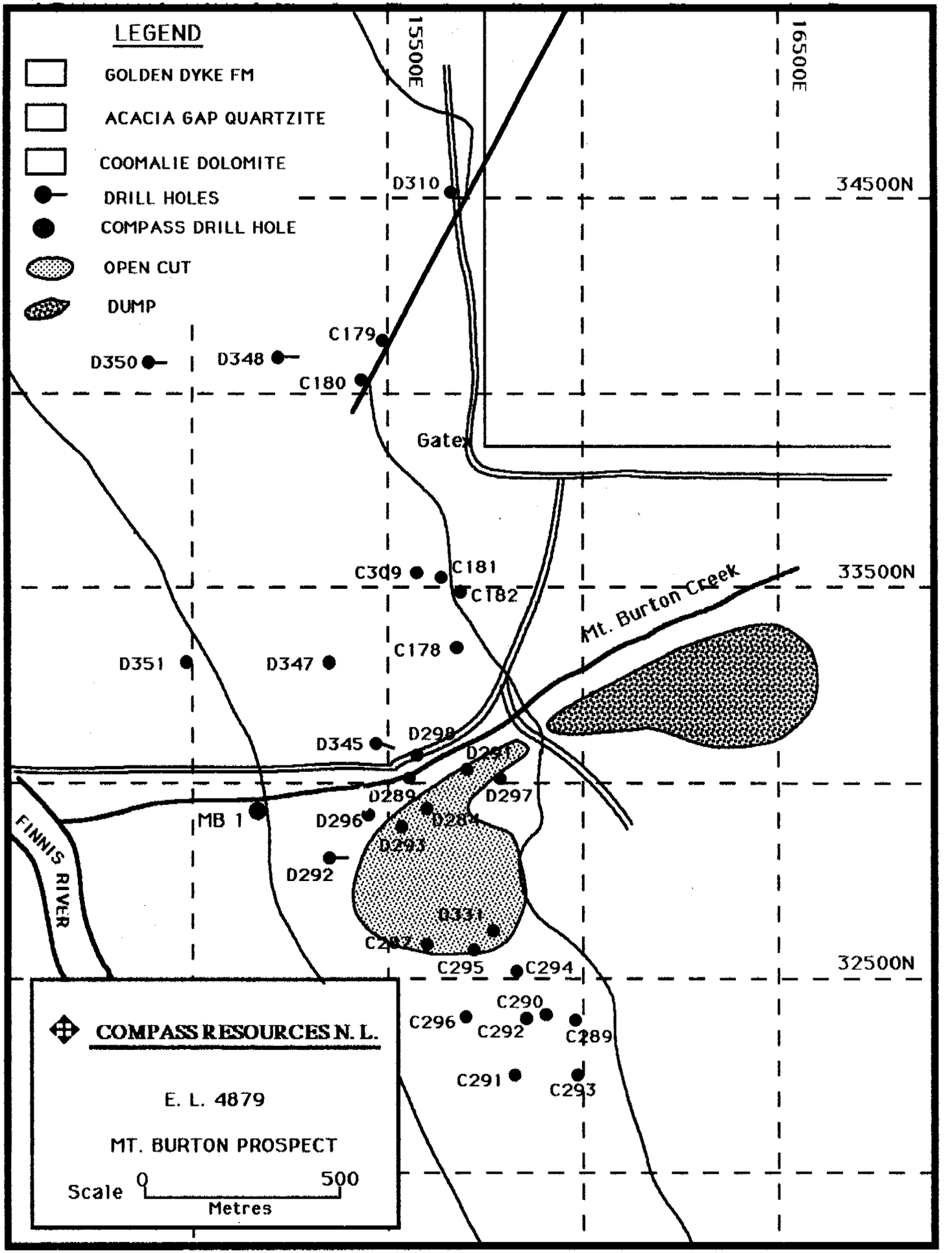
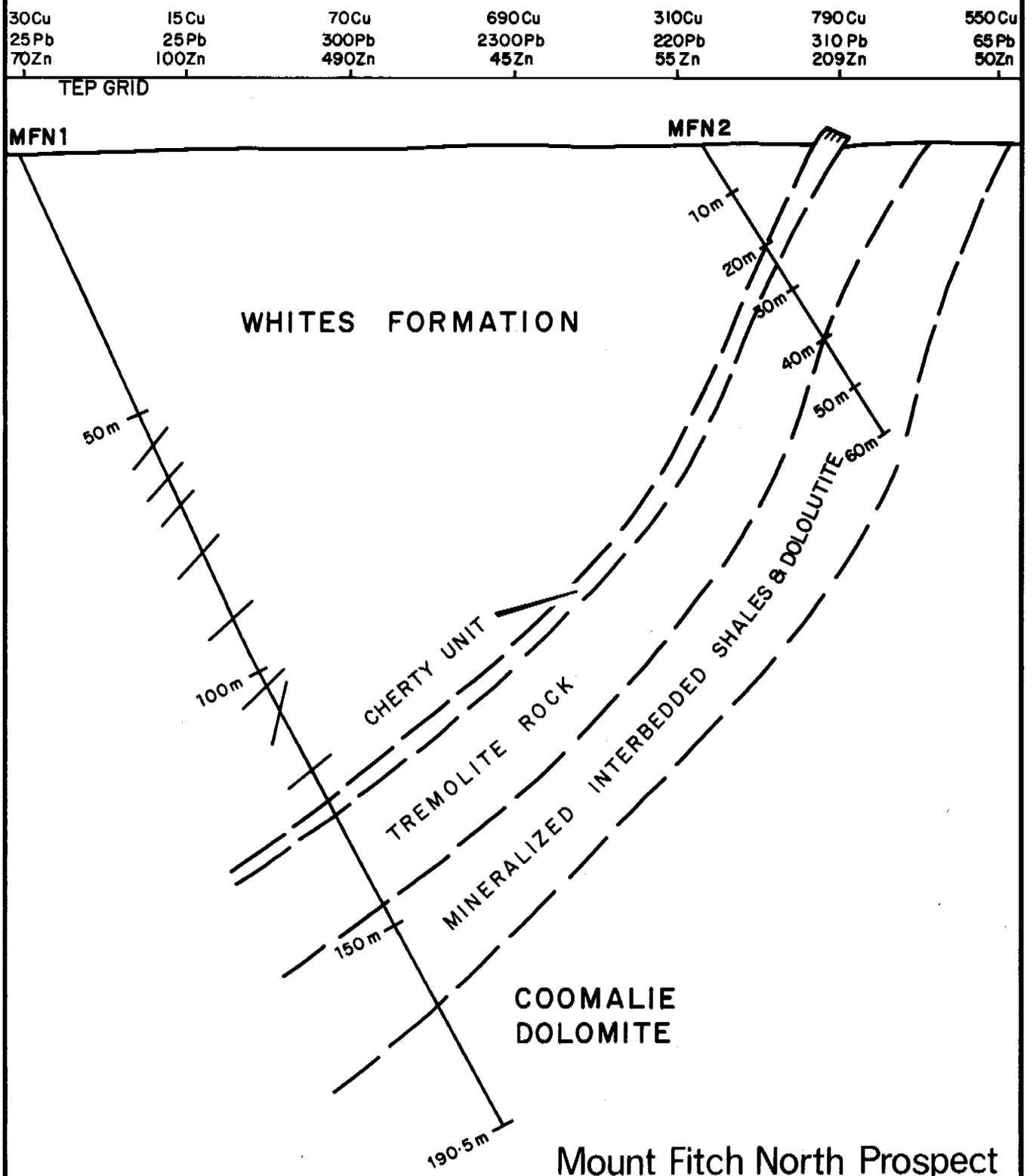

LEGEND
GOLDEN DYKE FM
ACACIA GAP QUARTZITE
COOMALIE DOLOMITE
DRILL HOLES
COMPASS DRILL HOLE
OPEN CUT
DUMP
15500E
16500E
34500N
33500N
32500N
D310
C179
D350
D348
C180
Gate
C309
C181
C182
Mt. Burton Creek
C178
D351
D347
D345
D298
D297
D289
D296
D284
D293
D292
MB 1
FINNIS RIVER
D331
C295
C294
C290
C296
C292
C289
C291
C293
COMPASS RESOURCES N. L.
E. L. 4879
MT. BURTON PROSPECT
Scale 0 500
Metres

Figure 3

CROSS SECTION DDH MFN1

EL 4879



Hole MFN1 collared at
710550E 8568525N AMG.

Mount Fitch North Prospect

COMPASS RESOURCES N.L.

Figure 4

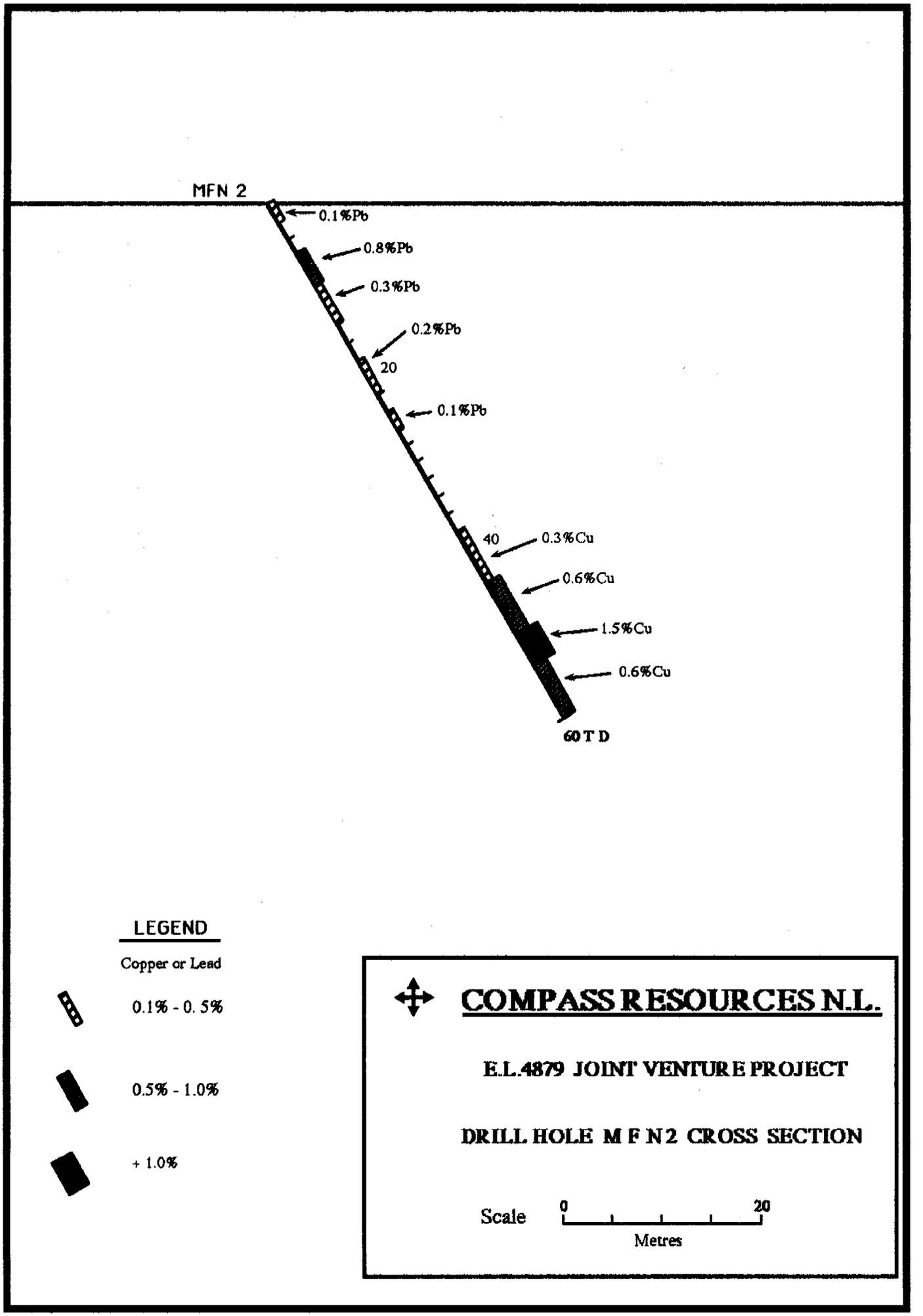

MFN 2
0.1%Pb
0.8%Pb
0.3%Pb
0.2%Pb
20
0.1%Pb
40
0.3%Cu
0.6%Cu
1.5%Cu
0.6%Cu
60 T D
LEGEND
Copper or Lead
0.1% - 0. 5%
0.5% - 1.0%
+ 1.0%
COMPASS RESOURCES N.L.
E.L.4879 JOINT VENTURE PROJECT
DRILL HOLE M F N2 CROSS SECTION
Scale
0
20
Metres

Figure 4b

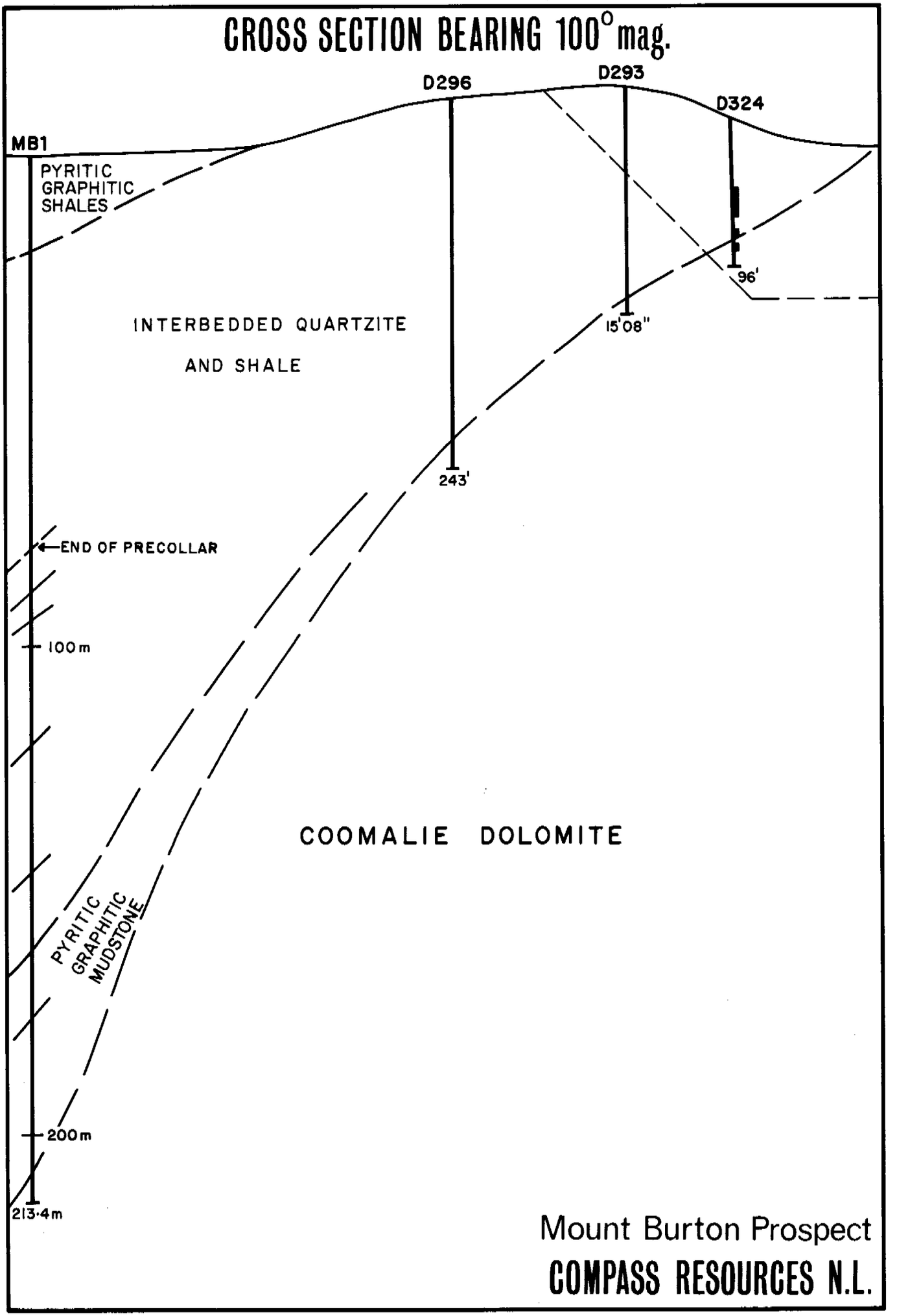
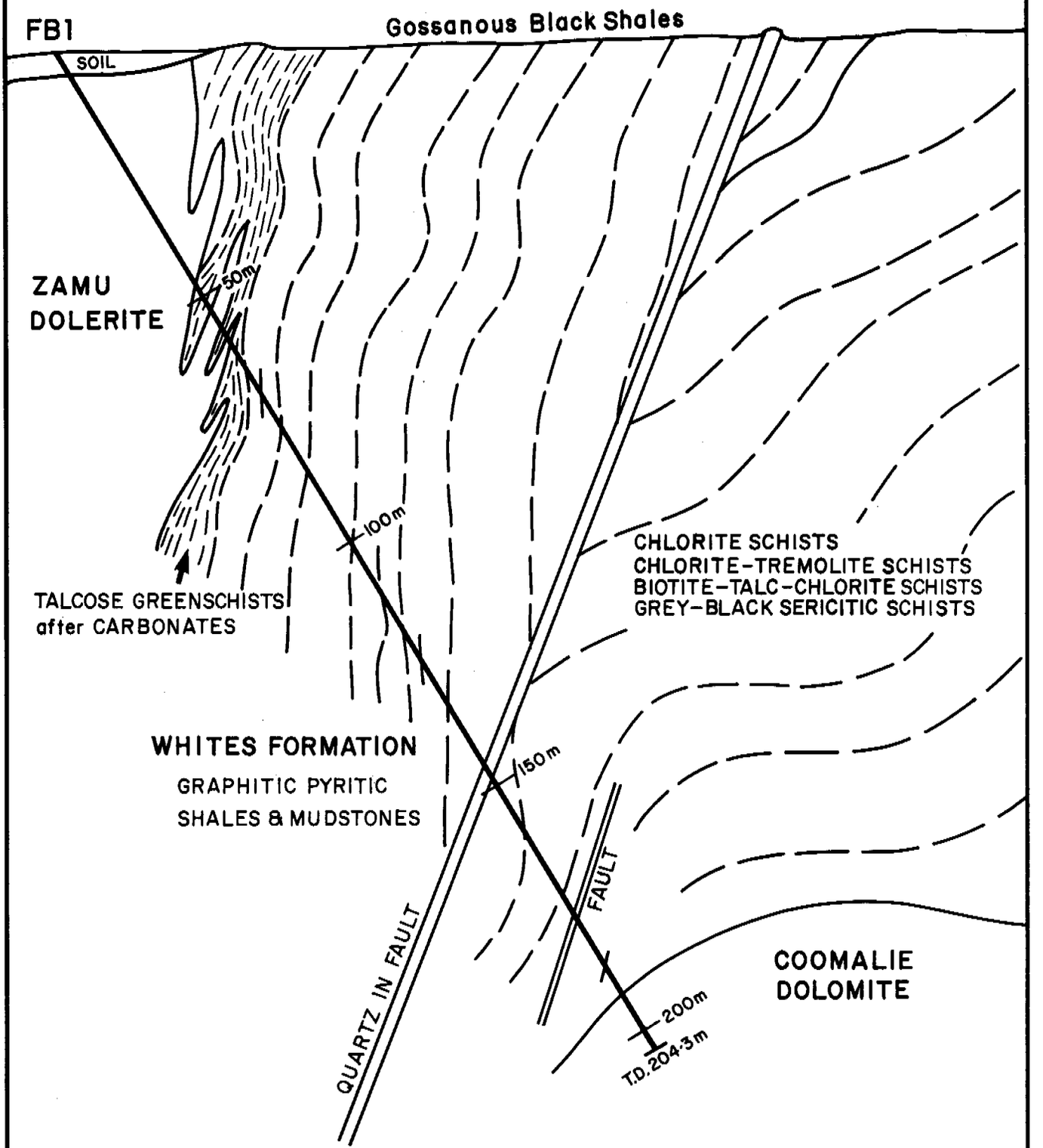

CROSS SECTION BEARING 100° mag.
D296
D293
D324
MB1
PYRITIC GRAPHITIC SHALES
INTERBEDDED QUARTZITE
AND SHALE
96'
15'08"
243'
END OF PRECOLLAR
100m
COOMALIE DOLOMITE
PYRITIC GRAPHITIC MUDSTONE
200m
213·4m
Mount Burton Prospect
COMPASS RESOURCES N.L.

Figure 5

CROSS SECTION BEARING 160° mag.

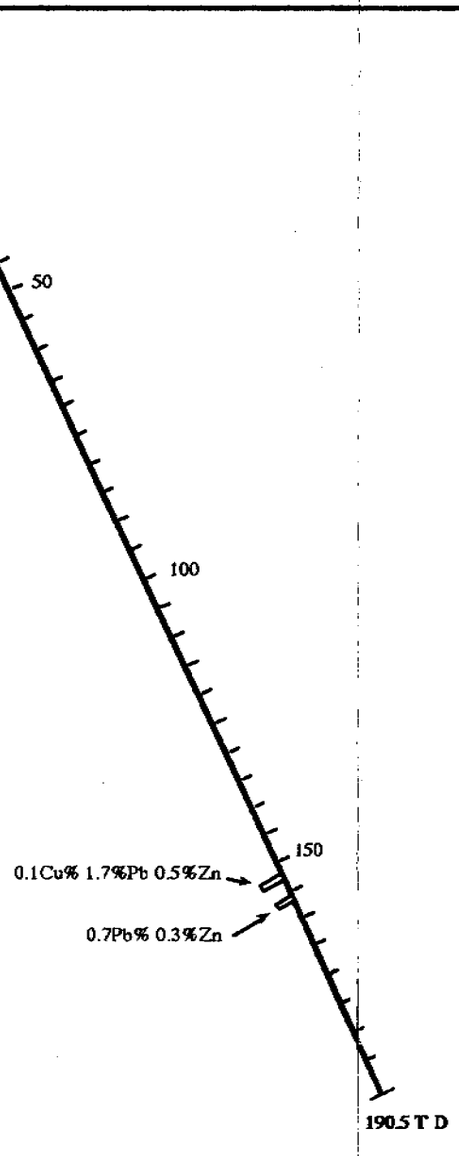


EL 4879 Area 55B

COMPASS RESOURCES N.L.

Figure 6

MFN1



COMPASS RESOURCES N.L.

E.L.4879 JOINT VENTURE PROJECT

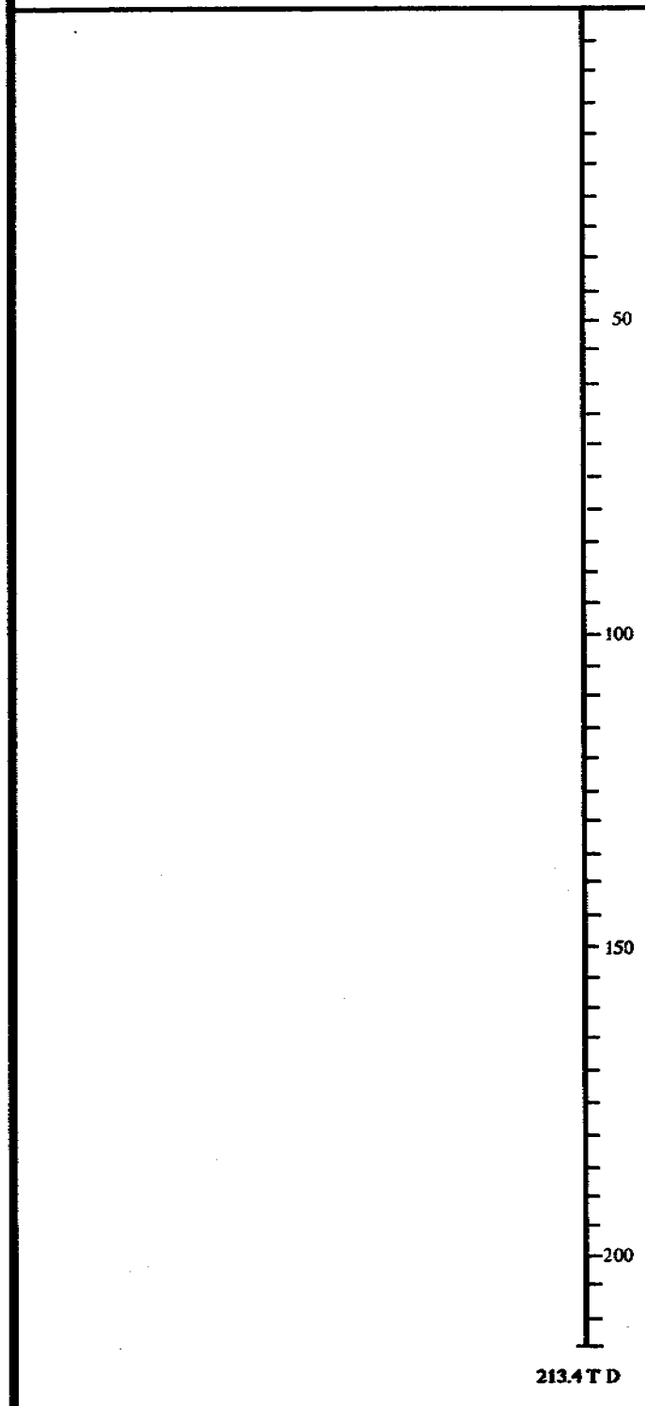
DRILL HOLE M F N 1 CROSS SECTION

Scale 0 50
Metres

Figure 4a

MB 1 COORDINATES 8564150N 711112750E

MB 1



COMPASS RESOURCES N.L.

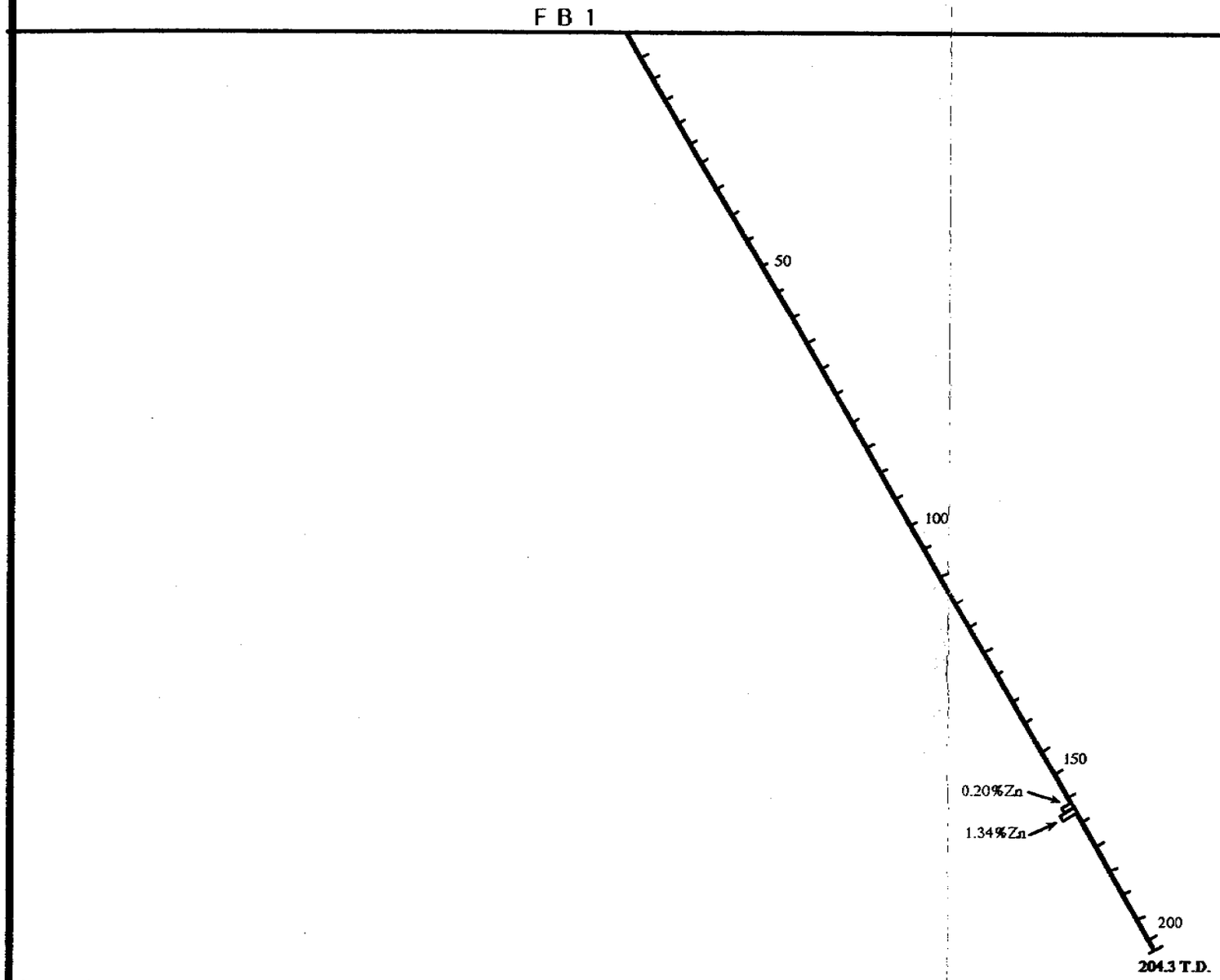
E.L.4879 JOINT VENTURE PROJECT

DRILL HOLE M B 1 CROSS SECTION

Scale 0 50 Metres

Figure 5a

FB 1 COORDINATES 8560550N 713100E



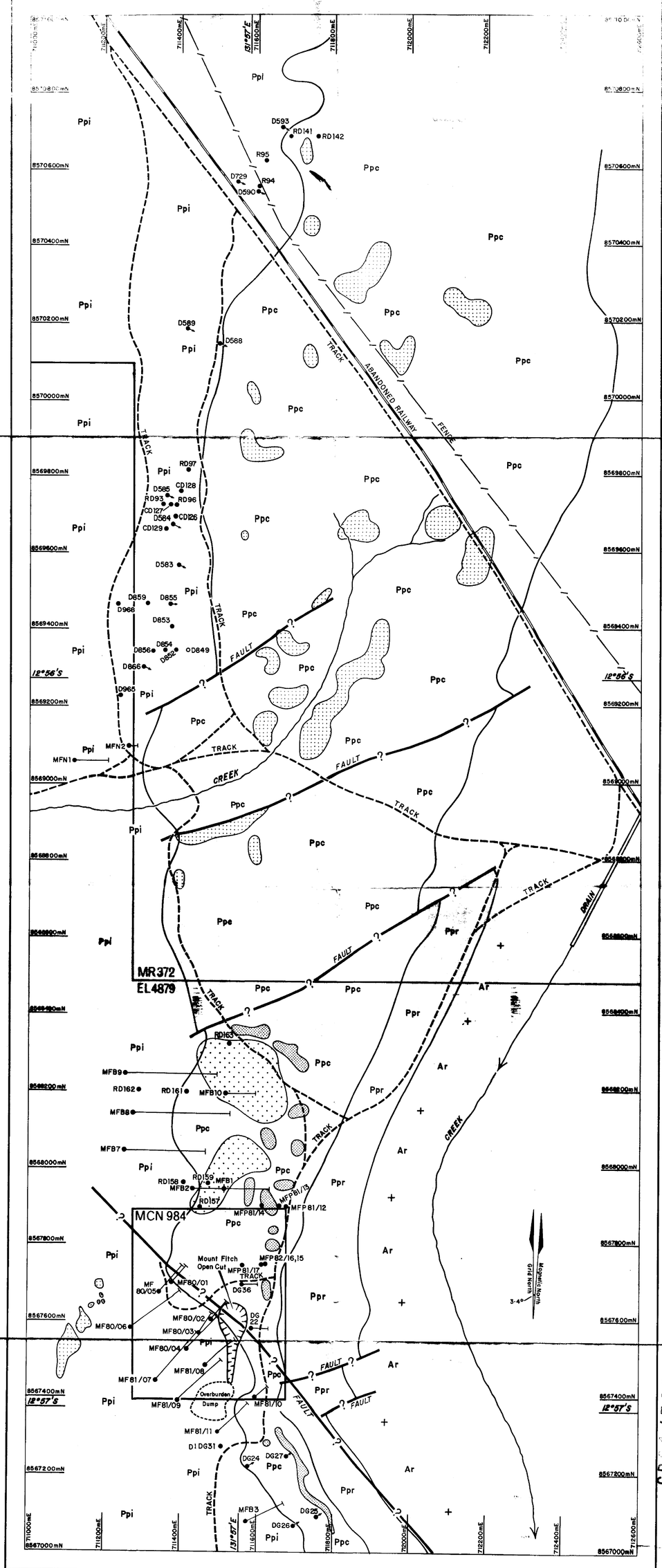
COMPASS RESOURCES N.L.

E.L.4879 JOINT VENTURE PROJECT

DRILL HOLE F B 1 CROSS SECTION

Scale 0 50 Metres

Figure 6a



Locality Map

LEGEND

- Laterite
- Gossan
- Cretaceous Sandstone
- Ppi — Whites Formation
- Ppc — Coomalie Dolomite
- Ppr — Crater Formation
- Ar + — Rum Jungle Complex
- Diamond drill hole

COMPASS RESOURCES N.L.

EL 4879

Mount Fitch - Mount Fitch North Interpreted Geology

Scale 1: 5000

0 50 100 150 200 250 Metres

Figure 2

Author: M.K. Boots | Date: August 1990 | Drawn by: R.R.

Revised

CR91/320