506039

GOLD FIELDS EXPLORATION PTY. LIMITED
DRILL CORE RECORD

HOLE NO.	ML 61
STATE	Tasmania

DLV. PRESS

PROJECT	Mt. Lindsay
DESIGNED BY	P.A. Roberts
LOGGED BY	A.J. Cartwright
COMMENCED	12-1-83
COMPLETED	20-1-83

PURPOSE

To test for the possible existence of skarn mineralisation as indicated by magnetic anomalies on Parson's Hood.

LOG SUMMARY / GENERAL COMMENTS

Two non-stannifereous skarn zones were intersected within a sequence of variably altered, hornfelsed sediments. No significant enrichments in trace metals were recorded.

ASSAY SUMMARY

INTERVAL From	INTERVAL To		Sn	WO_3	Cu	Pb	Zn	As	Sol.Sn	Bi	Ag			COMMENTS
4.0	19.0		0.01	<0.01	<0.01	<0.01	0.01	<0.1	<0.01	0.004	2			All values are wt %, except Ag which is ppm.
25.0	32.0		<0.01	<0.01	<0.01	<0.01	0.01	<0.1	<0.01	0.003	2			
36.0	45.0		<0.01	<0.01	0.01	<0.01	<0.01	<0.1	<0.01	0.003	2			
61.0	79.0		<0.01	<0.01	<0.01	<0.01	0.01	<0.1	<0.01	0.005	2			
91.0	107.0		0.03	<0.01	<0.01	<0.01	0.01	<0.1	0.01	0.006	2			

LOCATION

NORTHING	5383796
EASTING	361294
R.L.	903.2
GRID	A.M.G.
LENGTH	150.3

HOLE CONDITION

SIZE Hole Size	SIZE Depth
HQ	0-2.2
NQ	2.2-21.0
BQ	21.0-150.3

SIGNIFICANT CORE LOSS INTERVALS

From	To	% Lost

POOR GROUND CONDITION ZONES

From	To	Condition

HOLE CONDITIONS AFTER COMPLETION

Hole open. Black polythene left in the top 12m. of the hole.

SURVEY DATA (Note: Bearing type must be same as Project Grid Type)

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog.Total
0.0	266	50.0	0.0	14.5	14.5	11.1	892.1	9.3	9.3
29.0	*	49.0		44.5	30.0	22.6	869.5	19.7	29.0
60.0	*	49.0		74.5	30.0	22.6	846.9	19.7	48.7
90.0	*	48.5		104.5	30.0	22.5	824.4	19.9	68.6
120.0	*	48.0		134.5	30.0	22.3	802.1	20.1	88.7
150.0	*	48.0		150.0	15.5	11.6	790.5	10.4	99.1

*irregular readings due to high magnetic susceptibility of rock.

SURVEY Depth	SURVEY Bearing	SURVEY Dip	INTERVAL From	INTERVAL To	INTERVAL Distance	VERTICAL D.Sin.Dip	VERTICAL R.L.	HORIZONTAL D.Cos.Dip	HORIZONTAL Prog.Total

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GOLD FIELDS EXPLORATION PTY. LIMITED

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DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: ML 61

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION
				SUMMARISED LOG
0	3.8	3.8		INCIPIENTLY ALTERED, HORNFELSED, FINE GRAINED SANDSTONE AND SILTSTONE.
3.8	17.7	13.9		SKARN ZONE. STRONGLY ALTERED CALCAREOUS SANDSTONE WITH LENSES OF WEAK ALTERED FINE GRAINED SANDSTONE.
17.7	36.0	18.3		HORNFELSED SANDSTONE, INCIPIENTLY ALTERED WITH BANDS OF MODERATELY ALTERED CHERT AND UNALTERED SILTSTONE.
36.0	42.6	6.6		DARK FINE GRAINED SILTSTONE WITH THIN HORIZONS OF CHERT AND HORNFELSED SANDSTONE. WEAKLY ALTERED.
42.6	59.5	16.9		WEAKLY ALTERED, MEDIUM GRAINED, HORNFELSED SANDSTONE, WITH THIN BEDS OF SILTSTONE AND CHERT.
59.5	76.8	17.3		MODERATELY ALTERED, CHERT RICH, HORNFELSED SANDSTONE, POSSIBLY ALSO CALCAREOUS.
76.8	93.6	16.8		MEDIUM TO COARSE GRAINED, INCIPIENTLY ALTERED, HORNFELSED SANDSTONE, WITH HORIZONS OF FINER GRAINED SEDIMENTS.
93.6	101.5	7.9		SKARN ZONE. STRONGLY ALTERED AND REPLACED CALCAREOUS SANDSTONES.
101.5	135.8	34.3		HORNFELSED COARSE AND FINE GRAINED SANDSTONE WITH NUMEROUS CHERTY BANDS. INCIPIENTLY ALTERED.
135.8	150.3	14.5		INCIPIENTLY AND UNALTERED DARK SILTSTONE AND CHERT.

ASSAY DATA Sample No.	From	To	Rec. %

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DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: ML 61 Page: 2.

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION
				DETAILED LOG
				0-3.8 HORNFELSED SANDSTONE AND SILTSTONE.
0	2.2			Not cored.
2.2	3.3	1.1	100	Dark blue-brown fine grained sandstone with irregular pods of finer grained sediment. Minor, weak actinolitic alteration (green) and development of sulphide (po-py) veinlets along planes of weakness and as patchy disseminations.
3.3	3.8	0.5	100	Siltstone with irregular laminae of sandstone. Hornfelsed and altered to pink (garnet?) and green (actinolite) colours with quartz-pyrite-pyrrhotite veins.
				3.8-17.7 SKARN. STRONGLY ALTERED CALCAREOUS SANDSTONE.
3.8	4.6	0.8	100	Pale coloured carbonate-rich sediments replaced by pale green actinolite, calcite, quartz and sulphides. Minor layers of fine grained darker sediments and coarser grained sand rich sediments exist. Several phases of veining and fracturing can be seen; some veining appears to be syn-sedimentary and some deformation appears to be soft-sediment. Weakly altered cherts (white) also occur.
4.6	7.2	2.6	100	Purple (garnet) alteration in very irregularly bedded siltstone and green (actinolitic) altered sandstone. Rare quartz veins and veins of gossanised/limonitised sulphides. Pyrite and pyrrhotite occur in veins and as disseminations.
7.2	8.2	1.0	100	Sandstone rich beds with green actinolite alteration. Sulphides are abundant as clots and disseminated grains, few veins other than minor, actinolite-sulphide-carbonate veins are present.
8.2	12.1	3.9	100	A 10 cm zone of purple-green altered sandstones and siltstones,

ASSAY DATA (all wt.-% except Ag-ppm)

Sample No	From	To	Rec. %	Sn	WO_3	Cu	Pb	Zn	As	Ag	Bi	Sol. Sn
	4.0	5.0	100	.01	< .01	< .01	< .01	.01	< .1	?	0.003	<.01

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DRILL CORE LOG AND ASSAY DATA

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INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No.	From	To	Rec. %	ASSAY DATA (all wt.-% except Ag-ppm) Sn	WO_3	Cu	Pb	Zn	As	Ag	Bi	Sol.Sn
				grading into a pervasively altered, totally replaced sequence.		5.0	6.0	100	.01	<.01	<.01	<.01	<.01	<.1	2	0.003	<.01
				Abundant sulphides carbonates and actinolite with calcite veins			7.0		<.01	<.01	.01	<.01	.02	<.1	2	0.003	<.01
				are the predominant minerals. At 8.6m, at 45°/ CA, a different			8.0		<.01	<.01	.01	<.01	.01	<.1	1	0.002	<.01
				style of alteration; very pale pink garnet-calcite alteration			9.0		.02	<.01	.01	<.01	.01	<.1	2	0.019	0.02
				with numerous calcite veinlets and much less sulphide content.			10.0		<.01	<.01	<.01	<.01	.03	<.1	3	0.005	<.01
				Within this zone are 5-10cm bands of gossanised sulphide and			11.0		<.01	<.01	<.01	<.01	.01	<.1	2	0.006	<.01
				magnetite.			12.0		<.01	<.01	<.01	<.01	.01	<.1	3	0.004	<.01
							13.0		<.01	<.01	.01	<.01	.01	<.1	2	0.002	<.01
12.1	13.0	0.9	100	Very weakly altered sandstone, medium grained. A few veins of			14.0		<.01	.01	<.01	<.01	.01	<.1	3	0.005	<.01
				quartz-pyrite-pyrrhotite-calcite-actinolite exist.			15.0		<.01	<.01	<.01	<.01	.01	<.1	3	0.005	<.01
							16.0		.02	<.01	.01	<.01	.01	<.1	3	0.005	.01
13.0	17.7	4.7	100	Incipiently banded green-pink altered sediments, at 45°/ CA.			17.0		.02	<.01	<.01	<.01	.01	<.1	2	0.004	.01
				Strongly altered. At 15.5m a vuggy gossan, approx. 10cm thick,			18.0		.02	<.01	<.01	<.01	.01	<.1	2	0.005	<.01
				of sulphides and magnetite. Underlain by bands at 45° CA, of pink			19.0		<.01	<.01	<.01	<.01	.01	<.1	2	0.002	<.01
				(garnet)-calcite and dark green (actinolite) -sulphide, around													
				1-2cm thick. At 16.5m, paler, less sulphide rich layers.														
				17.7-36.0 INCIPIENTLY ALTERED HORNFELSED SANDSTONE													
17.7	27.6	9.9	100	Blue grey sandstone with pale cherty (siliceous sediments) bands.													
				All hornfelsed. Few veinlets of sulphides and carbonates,													
				otherwise unaltered. Patches of darker, finer grained sandstone													
				with increased pyrrhotite veining.													
27.6	29.7	2.1	100	Pale pink moderately altered chert rich rock. Strongly altered													
				patches of calcite, actinolite and sulphide. Minor brecciation													
				due to fracturing with very small offsets. At 28.3, very													
				irregular bedding of pink and white chert layers.		25.0	26.0	100	<.01	<.01	<.01	<.01	.01	<.1	2	0.003	<.01
							27.0		<.01	<.01	<.01	<.01	.01	<.1	2	0.002	<.01
29.7	30.6	0.9	100	Weakly hornfelsed sandstone with thin white chert layers.			28.0		<.01	<.01	<.01	<.01	.01	<.1	2	0.004	<.01
				Sulphide veins are common. Bedding is very irregular.			29.0		<.01	<.01	<.01	<.01	.01	<.1	2	0.004	<.01
							30.0		<.01	<.01	.01	<.01	.01	<.1	1	0.002	<.01
30.6	34.4	3.8	100	Dark black very fine grained siltstone with lenses of brown-			31.0		<.01	<.01	.01	<.01	<.01	<.1	2	0.003	<.01
				purple sandstone. Weakly fractured. Veinlets of sulphide and			32.0		<.01	<.01	<.01	<.01	<.01	<.1	2	0.005	<.01
				quartz with very thin cherty horizons. Very fine, thin lenses													

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DRILL CORE LOG AND ASSAY DATA

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INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION
				(1cm long) of sulphide, parallel to bedding (primary sulphides?) Cross-cut and offset by other veinlets of sulphide (pyrite and pyrrhotite).
34.4	36.0	1.6	100	Laminar bedded cherty hornfelsed sandstone. Numerous sulphide veins and veinlets showing offsets and cross-cutting relationships. Very weak alteration with rare pale pink (garnet) and calcite veinlets.
				36.0 - 42.6 WEAKLY ALTERED, HORNFELSED SILTSTONE.
36.0	42.6	6.6	100	Very fine grained dark siltstone with thin coarser grained sandstone lenses and very thin chert (white) horizons. Narrow veins and veinlets of calcite and sulphide exhibit complex relationships, including brecciation, parallel to bedding, and later jointing/faulting also cuts and offsets these veins. Thick (relatively) lenses of primary sulphides are developed in the finer grained sediments (siltstones) and display pinch and swell structures that are parallel to bedding and non continuous i.e. en-echelon veins.
				42.6 - 59.5 WEAKLY ALTERED, HORNFELSED SANDSTONE.
42.6	59.5	16.9	100	Weak to unaltered, pale coloured, coarse grained sandstone, with white chert and siltstone lenses. Sulphides occur-commonly as irregular veins and disseminations. In cherts, weak pink (garnet) alteration with numerous, thin calcite veinlets and patches of massive pods (1cm thick, irregularly shaped) of sulphides. Very thin sulphide vein or stratiform bands (2mm) are common in the fine grained sediments. Minor actinolitic alteration also occurs in the sandstones, producing an irregular patchy style of alteration. At 43.5, a 15cm zone of stronger alteration, sulphide rich and fractured.

ASSAY DATA (all wt. % except Ag-ppm)

Sample No	From	To	Rec. %	Sn	WO_3	Cu	Pb	Zn	As	Ag	Bi	Sol.Sn
	36.0	37.0	100	<.01	<.01	<.01	<.01	<.01	<.1	2	0.004	<.01
		38.0		<.01	<.01	<.01	<.01	.01	<.1	1	0.004	<.01
		39.0		<.01	<.01	<.01	<.01	<.01	<.1	2	0.003	<.01
		40.0		<.01	<.01	<.01	<.01	<.01	<.1	2	0.002	<.01
		41.0		.01	<.01	.13	.01	.01	<.1	1	0.003	.01
		42.0		<.01	<.01	<.01	<.01	<.01	<.1	2	0.004	<.01
		43.0		.02	<.01	<.01	<.01	<.01	<.1	2	0.003	<.01
		44.0		<.01	<.01	<.01	.01	.01	<.1	2	0.003	<.01
		45.0		<.01	<.01	<.01	<.01	<.01	<.1	2	0.002	<.01

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DRILL CORE LOG AND ASSAY DATA

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INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No	From	To	Rec. %	ASSAY DATA (all wt. % except Ag-ppm) Sn	WO_3	Cu	Pb	Zn	As	Ag	Bi	Sol. Sn
				59.5 - 76.8 HORNFELSED SANDSTONE, IN PLACES CALCAREOUS AND CHERT RICH, MODERATELY ALTERED.													
59.5	62.0	2.5	100	A cherty grey sandstone, laminated. Weakly altered overall, with slight increases in alteration at 60.0 (for 15cm) and 61.0 (also 15cm). At 60.15, a 2cm thick pyrrhotite with minor chalcopyrite and magnetite vein, at 70° CA.		61.0	62.0	100	<.01	<.01	<.01	<.01	<.01	<.1	4	0.007	.01
62.0	73.3	11.3	100	Carbonate rich sediments, moderately and strongly altered. Strong pink-grey alteration, with sulphide and calcite veining over a mosaic,blotchy replacement (coarse grained, 3-4mm) texture. This style of alteration persists to 73.3. Large, thick (3-4 cm) monomineralic calcite veins at 45-75°/ CA occur at 67.7 and 68.6. Alteration is strong pink grey-green, banded.			63.0		.01	<.01	<.01	<.01	.01	<.1	4	0.007	.01
							64.0		<.01	<.01	<.01	<.01	<.01	<.1	3	0.005	<.01
							65.0		<.01	<.01	<.01	<.01	<.01	<.1	3	0.005	<.01
							66.0		<.01	<.01	<.01	<.01	<.01	<.1	2	0.005	<.01
							67.0		<.01	<.01	<.01	<.01	.01	<.1	2	0.005	<.01
							68.0		<.01	<.01	<.01	<.01	<.01	<.1	3	0.006	<.01
							69.0		<.01	<.01	<.01	<.01	<.01	<.1	3	0.005	<.01
73.3	76.8	3.5	100	Banded alteration as above with strongly altered calcite rich patches. Sulphides are disseminated in the stronger altered zones and veined in the weaker.			70.0		<.01	<.01	<.01	<.01	.01	<.1	2	0.004	<.01
							71.0		<.01	<.01	<.01	<.01	.01	<.1	2	0.003	<.01
							72.0		<.01	<.01	.01	<.01	.01	<.1	2	0.003	<.01
							73.0		<.01	<.01	.01	<.01	.01	<.1	1	0.004	<.01
							74.0		<.01	<.01	.01	<.01	.01	<.1	2	0.004	<.01
				76.8 - 93.6 INCIPIENTLY ALTERED, HORNFELSED SANDSTONE.			75.0		.01	<.01	<.01	<.01	.03	<.1	2	0.004	<.01
							76.0		.01	<.01	.02	<.01	<.01	<.1	1	0.004	<.01
76.8	82.8	6.0	100	Grey, medium grained sandstone, unaltered other than a few zones of actinolite-garnet-calcite-sulphide (po + py) around 10cm thick Fine grained sandstone lenses and cherty horizons with cross-cutting sulphide veins also occur.			77.0		.01	<.01	.01	.01	.02	<.1	1	0.004	<.01
							78.0		<.01	<.01	<.01	<.01	.01	<.1	2	0.003	<.01
							79.0		<.01	<.01	<.01	<.01	.01	<.1	1	0.004	<.01
82.8	86.5	3.7	100	Alternating pink and grey, weakly altered sandstones; medium grained with fine silica horizons and patches of coarse sandstone. Minor actinolitic alteration and veining. A few large sulphide pods are developed.													
86.5	93.6	7.1	100	Grey-brown coarse grained sandstone, alternating with a darker grey finer grained sandstone, with numerous silicic horizons. Unaltered and rarely veined. Sulphides are uncommon.													

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DRILL CORE LOG AND ASSAY DATA

HOLE NUMBER: ML 61

INTERVAL From	INTERVAL To	RECOVERY m	RECOVERY %	DESCRIPTION	Sample No.	From	To	Rec. %	Sn	WO_3	Cu	Pb	Zn	As	Ag	Bi	Sol. Sn
									ASSAY DATA (all wt. % except Ag-ppm)								
				93.6 - 101.5 SKARN OF STRONGLY ALTERED CALCAREOUS SANDSTONE.		93.0	94.0	100	<.01	<.01	.04	<.01	.01	<.1	2	0.003	<0.01
							95.0		.02	<.01	<.01	<.01	.01	<.1	2	0.005	0.01
93.6	99.9	6.3	100	A strongly altered pervasive mosaic of calcite, actinolite, pink			96.0		.05	<.01	<.01	<.01	.01	<.1	2	0.007	0.01
				garnet, disseminated pyrrhotite and pyrite with accesory magnetite,			97.0		.04	<.01	<.01	<.01	.01	<.1	2	0.008	0.01
				replacing a carbonate rich sediment, destroying the original			98.0		.04	<.01	<.01	<.01	.01	<.1	3	0.009	0.01
				textures. Calcite also occurs as veins and the overall colour			99.0		.04	<.01	<.01	<.01	.01	<.1	2	0.008	0.01
				is green due to the predominance of actinolite. Between 98.0 and			100.0		.05	<.01	<.01	<.01	<.01	<.1	2	0.008	0.02
				99.0, occurs an increase in sulphides (pyrrhotite) as massive			101.0		.03	<.01	<.01	<.01	.01	<.1	2	0.008	0.02
				patches.			102.0		.02	<.01	<.01	<.01	.01	<.1	2	0.007	0.02
							103.0		.01	<.01	<.01	<.01	.02	<.1	1	0.003	0.01
99.9	101.5	1.6	100	A moderately and strongly altered zone with few fractures. Second			104.0		.01	<.01	<.01	<.01	.02	<.1	2	0.005	<0.01
				-ary minerals include pink garnet, calcite, with much much less			105.0		<.01	<.01	<.01	<.01	.01	<.1	2	0.003	<0.01
				sulphide than above, and no actinolite. Original sediment was			106.0		.01	<.01	<.01	<.01	.01	<.1	2	0.004	<0.01
				sandy, coarse and fine grained with cherty horizons.			107.0		<.01	<.01	<.01	<.01	.01	<.1	2	0.004	<0.01
				101.5 - 135.8 HORNFELSED SANDSTONE, WEAKLY ALTERED.													
101.5	114.7	13.2	100	Chert rich sandstone, fine grained; the chert beds occuring as													
				highly irregular intergrowths. Alteration is characterised by													
				veins and veinlets of quartz-sulphide and calcite.													
114.7	130.4	15.7	100	Coarse grained sandstone, hornfelsed with thick (10-30cm) beds													
				of chert. Minor pink garnet alteration in pervasive zones with													
				sulphide veins. Beds of very coarse grained sandstone, purple-													
				brown in colour also exist. Bedding is very irregular with the													
				coarser units occuring as lenses. The chert beds are fractured													
				(soft-sediment?) with sandstone infillings. At 130.2m a few													
				large actinolite?/tourmaline? veins, 10°CA 1-2mm thick, with													
				minor sulphide - quartz - carbonate are surrounded by a thin													
				zone of carbonate-actinolitic alteration.													
130.4	135.8	5.4	100	Medium-coarse grained sandstone with a brown and pink colouration													
				due to alteration (weak). Minor quartz veining (probably assoc-													
				iated with hornfelsing) and fracturing occurs. Rare sulphides-													

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				-usually in vein form, and rare actinolitic altered bands.
				Veinlets of actinolite?/tourmaline? as above, are found at 135.5.
				Alteration declines with depth to produce unaltered sandstone.
				135.8 - 150.3 UNALTERED SILTSTONE AND CHERT.
135.8	150.3	14.5	100	Dark fine grained siltstone with chert lenses; the latter being more altered than the former (secondary minerals are actinolite, garnet, sulphides and carbonates). A few large beds of unaltered, coarse grained sandstone, grey with rare sulphide veins, also occur. The siltstone has syn-sedimentary sulphides (disseminated) and patches of secondary sulphides (some rare chalcopyrite). After 144.0, quartz veining increases and some chert units are brecciated (not strongly). Sulphides are rare, mostly pyrrhotite with rare chalcopyrite. Overall weak to unaltered.
				END OF HOLE 150.3
				SAMPLES TAKEN FOR PETROGRAPHY AT:-
				4.0-4.4, 10.0, 15.0, 28.0, 36.5, 41.0, 41.9, 53.5-54.2, 67.7, 79.6-80.3, 98.0, 98.3,99.1,100.2, 100.7, 101.3, 119.3-119.6, 136.3-136.8.

ASSAY DATA Sample No.	From	To	Rec. %