SECTION OF Selkirk Geothermal Bore, Thorn Bush Quarry, Selkirk Common. NT 4794 2785

31

Surface Level ~238m O.D.

Communicated 19/12/85 by J.D.Floyd

Date of boring or sinking 15/12/85 Borer DPI

One-inch Map 25W Six-inch Map NT 42 NE (N)

24849 8M 6/73 J.F.B.S. 275

	Thickness	Depth from Surface
	Metres	Metres
Start of core	3 10	3 10
Greywacke, fine grained at top, medium grained to base, right way up, base dips at 48°, several sub-horizontal calcite veins up to 1 cm wide.	90	4 00
Mudstone, dark grey	03	4 03
Greywacke, medium-fine grained, silty and laminated	56	4 59
Mudstone, dark grey	03	4 62
Greywacke, medium grained, silty and laminated in top 60 cm numberous sub-horizontal calcite veins up to 5 mm, dip 55°, base sheared.	3 03	7 65
Mudstone, dark grey	03	7 68
Greywacke, medium-fine grained, numerous calcite veins, sheared base	92	8 60
Mudstone	05	8 65
Greywacke, medium-grained, silty top, steep limonite-coated joints	48	9 13
Mudstone, dark grey, sheared	10	9 23
Greywacke, fine grained, laminated top, dip 60°	52	9 75
Greywacke, medium-grianed, 5 cm silty top	1 04	10 79
Greywacke, fine-grained laminated silty top	91	11 70
Steep shear plane // bedding	—	—
Mudstone, dark grey sheared	20	11 90
Greywacke, fine-medium grained, dip 60°, calcite veining	1 60	13 50
Greywacke, fine grained, sheared base	53	14 03
C/fwd	14 03	

	Thickness	Depth from Surface
	Metres	Metres
b/fwd	14 03	14 03
Mudstone, bright red	24	14 27
Mudstone, grey	27	14 54
Siltstone, laminated, dip 60°	30	14 84
Greywacke, fine grained, calcite veins sub-horizontal and // to bedding	81	15 65
Mudstone, dark grey	25	15 90
Greywacke, medium grained, broken core, sheared base	88	16 78
Mudstone, dark grey	10	16 88
Greywacke, fine grained, calcite veinlets sub-horizontal, broken core	64	17 52
Mudstone, dark grey	08	17 60
Greywacke, fine grained, sub-horizontal and bed-parallel calcite veinlets up to 1 cm	70	18 30
Greywacke, medium grained numerous steep and sub-horizontal calcite veins; silty and laminated at top	1 80	20 10
Mudstone, dark grey, silty laminae	65	20 75
Siltstone, with numerous slumped sandy balls and lenses	1 85	22 60
Mudstone, silty laminae	50	23 10
Greywacke, fine grained, laminated and silty at top	90	24 00
Mudstone	10	24 10
Greywacke, fine grained, laminated, dip 75°	40	24 50
Mudstone, dark grey, broken	40	24 90
Greywacke, fine grained	40	25 30
Mudstone, dark grey	70	26 00
Siltstone, laminated with sandy and muddy laminae, dip 70°	1 00	27 00
Greywacke, medium grained, flames at base	1 20	28 20
Mudstone, silty laminae	2 80	31 00
Siltstone, laminated	1 00	32 00
c/fwd	32 00	

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SECTION OF Selkirk Geothermal Bore

Six-inch Map (County and Quarter Sheet) NT 42 NE

	Thickness	Depth from Surface
	Metres	Metres
b/fwd		32 00
Greywacke, medium-fine grained, numerous calcite veins, dip 50°	2 56	34 56
Greywacke, fine grained, muddy top, numerous sub-horizontal calcite veinlets	4 34	38 90
Fault, calcite filled	05	38 95
Greywacke, fine grained	1 45	40 40
Mudstone, calcite veins	25	40 65
Greywacke, fine grained, dip 70°	3 05	43 70
Mudstone, dark grey, silty laminae, broken core, calcite veins	60	44 30
Greywacke, medium grained, loaded at base	80	45 10
Greywacke, fine grained, large (10 cm) red mudstone clast at 47.10, calcite veins	2 30	47 40
Mudstone, dark grey, silty to base, grades into underlying greywacke, calcite veins	90	48 30
Greywacke, fine grained, silty at top	75	49 05
Mudstone, dark grey, calcite veins	95	50 00
Greywacke, fine grained, dip 60°. Laminated siltstone, with thin sandy ribs, calcite veins parallel to bedding	50 3 35	50 50 53 85
Greywacke, fine grained	25	54 10
Mudstone, grey, silty laminae, calcite veins and concretions	1 65	55 75
Greywacke, fine grained, calcite veins	2 85	58 60
Mudstone, silty	40	59 00
Greywacke, fine grained, calcite veins	70	59 70
Siltstone, laminated, dip 60°	1 50	61 20
Greywacke, fine grained, calcite veins, vertical bedding	70	61 90
Siltstone, laminated, calcite veins	50	62 40
Greywacke, fine grained	55	62 95
c/fwd	62 95	

	Thickness Metres		Depth from Surface Metres	
b/fwd			62	95
Siltstone, laminated, broken, dip 70°, calcite veins		20	63	15
Greywacke, fine grained, ? breccia at base		55	63	70
Siltstone, laminated, sandy ribs, calcite veins	6	90	70	60
Greywacke, fine grained	1	70	72	30
Silty mudstone, dark grey, sandy laminae, dip 78°, calcite veins up to 5 cm thick at base.	4	00	76	30
Greywacke, fine grained, calcite veins up to 5 cm thick at base.	1	40	77	70
Mudstone, dark grey, sheared, faulted		20	77	90
Greywacke, fine grained, much calcite veining, dip vertical	4	80	82	70
Faulted and sheared mudstones		60	83	30
Greywacke, fine grained, broken core		70	84	00
Greywacke, fine grained, silty laminae, dip 80°	10	60	94	60
Fault, sheared greywackes		35	94	95
Siltstone, laminated, dip 80°	1	60	96	55
Greywacke, fine grained	1	80	98	35
Siltstone, laminated, dip vertical		65	99	00
Fault, sheared and veined mudstones		80	99	80
Siltstones, laminated, dip vertical	1	20	101	00
Greywacke, fine grained, sheared in places, calcite veins	1	15	102	15
Siltstone, laminated, sheared and veined		45	102	60
Greywacke, fine grained, calcite veins		30	102	90
Siltstone, sheared and veined with calcite		50	103	40
Greywacke, fine grained, broken		80	104	20
Fault, Breccia		55	104	75
Greywacke, fine grained, calcite veins, badly sheared in bottom metre	4	35	109	10
c/fwd	109	10		

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SECTION OF Selkirk Geothermal Bore

Six-inch Map (County and Quarter Sheet) NT 42 NE

	Thickness Metres	Depth from Surface Metres
b/fwd		109 10
Dyke, ?dolerite, greenish-grey, hard, with white flecks, true thickness about 1.10 m	6 40	115 50
Siltstone, laminated, hard, baked?	1 00	116 50
Greywacke, fine grained, hard, baked?, calcite veining	1 10	117 60
Mudstone, pale grey/buff, dip 80°	1 10	118 70
Siltstone, grey/pale grey	30	119 00
Greywacke, fine grained, calcite veining, dip 75°	1 50	120 50
Mudstone, shearing parallel to bedding	20	120 70
Greywacke, fine grained, calcite veining, dip 80°	90	121 60
Mudstone, dark grey	05	121 65
Greywacke, fine grained, calcite veining, dip 75°	2 35	124 00
Mudstone, grey, silty laminae	30	124 30
Greywacke, medium grained, good flames ⇒ strata now young down the hole! Muddy top 20 cm, a few thin calcite veins	1 45	125 75
Greywacke, fine grained, dip 72°	75	126 50
Mudstone, grey, calcite veins	30	126 80
Greywacke, fine grained	30	127 10
Mudstone, dark grey, thin calcite veins	35	127 45
Greywacke, fine grained	35	127 80
Mudstone	20	128 00
Greywacke, medium grained, 1 cm coase base, 40 cm silty muddy top, graded bedding and flames prove strata young down hole	1 30	129 30
Greywacke, fine grained, few calcite veinlets	1 40	130 70
Mudstone, dark grey, with silty laminae	30	131 00
Mudstone, dark red	45	131 45
Greywacke, fine grained, few silty and muddy bands, dip 65°	3 85	135 30
c/fwd	135 30	

	Thickness Metres		Depth from Surface Metres	
b/fwd			135	30
Mudstone, dark grey		30	135	60
Greywacke, fine grained		60	136	20
Siltstone		50	136	70
Greywacke, fine grained, few muddy bands, dip 60°	1	70	138	40
Mudstone, grey		60	139	00
Greywacke, medium to fine grained	2	40	141	40
Mudstone, dark grey		15	141	55
Greywacke, fine grained, 20 cm muddy top (ie 142.50 - 142.70)	1	15	142	70
Greywacke, coarse grained basal 5 cm (ie 142.70 to 142.75), medium-fine grained above (ie 142.75 - 145.30), silty laminae in top half (145.30 - 147.90) dip 70°, calcite veining, graded bedding proves strata young down hole.	5	20	147	90
Greywacke, medium grained, dip 60°	1	05	148	95
Siltstone, laminated		80	149	75
Greywacke, medium grained, flames prove beds young down hole (overturned)	1	25	151	00
Siltstone, laminated		65	151	65
Greywacke, fine to medium grained, much calcite veining, rip-up clasts at stratigraphic base, beds young down hole, dip 70°	7	85	159	50
Mudstone, thick calcite vein - faulted?		20	159	70
Greywacke, medium grained, many calcite veins, silty in top 50 cm (161.95 - 162.45)	2	75	162	45
Greywacke, medium-coarse grained		20	162	65
Greywacke, medium-fine grained, silty laminae in places, dip 50°, calcite veins	1	95	164	60
Greywacke, medium grained, calcite veining	1	20	165	80
Mudstone, grey, much calcite veining		60	166	40
Greywacke, medium grained, dip 75°	1	80	168	20
Siltstone, laminated, calcite veins, beds dip 60°	1	00	169	20
Greywacke, fine grained, silty, much calcite veining, expecially below 175.40	6	60	175	80
c/fwd	175	80		

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Six-inch Map (County and Quarter Sheet) NT 42 NE

	Thickness	Depth from Surface
	Metres	Metres
b/fwd	175 80	
Mudstone, highyly sheared and veined with calcite - faulted	60	176 40
Greywacke, fine grained, dip 60°, numerous calcite veins, beds young up hole, good flames at 188.00, silty bands and laminae	16 60	193 00
Mudstone, dark grey, silty bands and laminae	2 10	195 10
Greywacke, medium grained, much calcite veining, beds dip 50°, good flames at 196.20 prove strata young up hole	1 10	196 20
Siltstone, muddy bands and laminae, calcite veins, beds dip 50°	1 00	197 20
Greywacke, fine grained, much calcite veining, beds dip 50°, coarse base 10 cm (200.45 - 200.55), good graded bedding proves beds young up hole.	3 35	200 55
Siltstone, laminated, beds dip 45°	1 75	202 30
BASE OF HOLE		