REPORT ON EL 3144

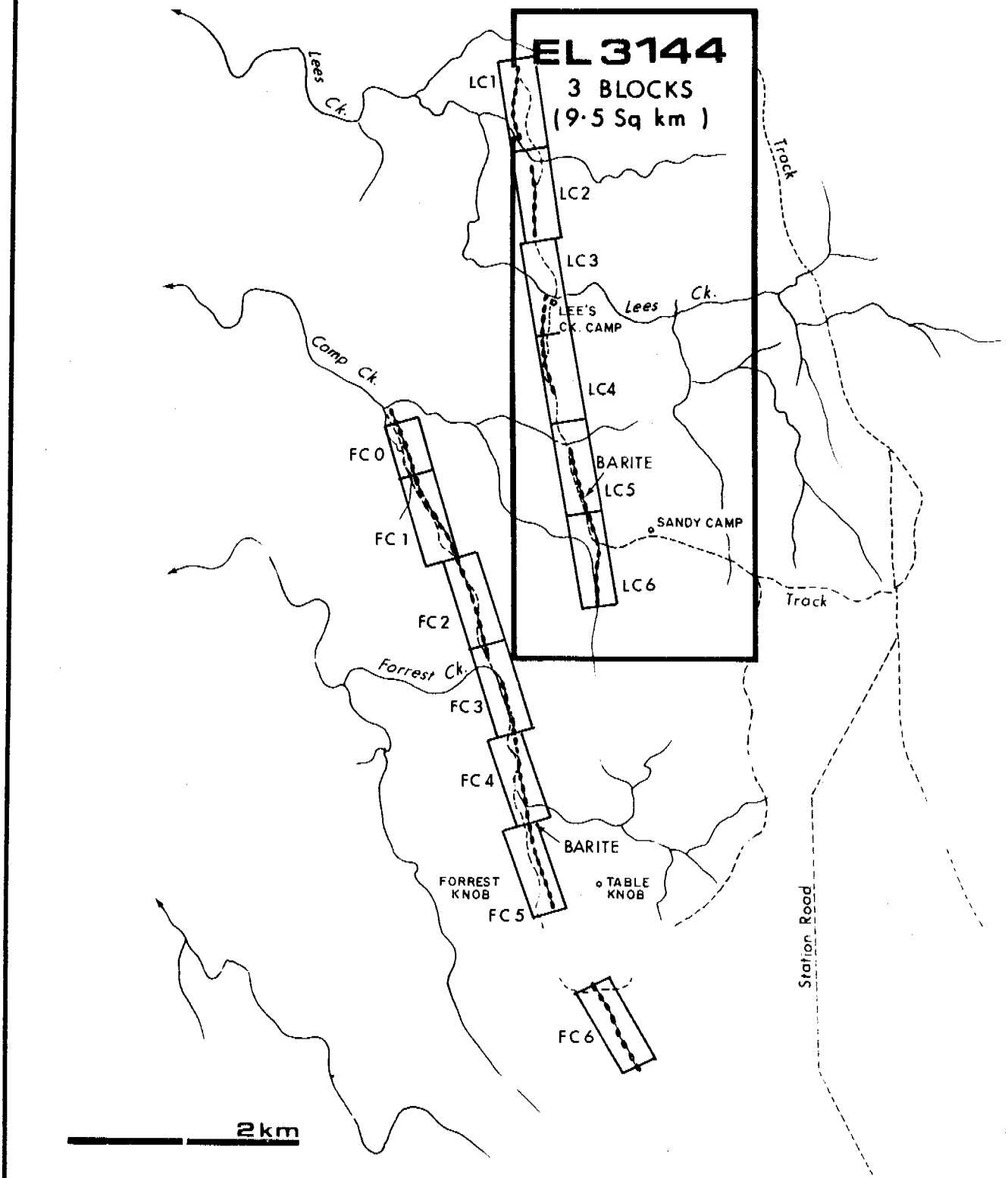
LEES CREEK & FORREST CREEK LODES

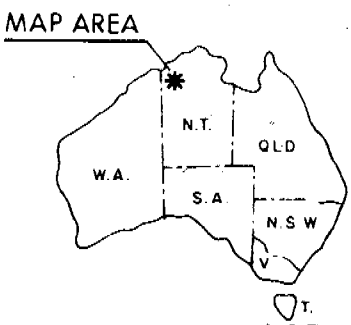
APRIL, 1986

ANTRIM BARITE CORPORATION PTY LIMITED

FOR

A J & C E TURNER





ANTRIM BARITE CORP. PTY. LTD

EL 3144
EXPLORATION LICENCE AREA

LEES CK. & FORREST CK LODES – BARITE

NORTHERN TERRITORY GEOLOGICAL SURVEY

CR 86 / 174

APRIL '86

Estimated Tonnage to 20 M. Deep

Lee's Creek Barite Lode
Section (a)

Location start	Measured width	Assumed width	Average over Section	Tonnate over Section
L.C.(a) 660 N	1			
L.C.(a) 640 N	-	1.25		
L.C.(a) 620 N		1.5	-- Average width over 360 m = 99 m --	
L.C.(a) 600 N	1.5	-		
L.C.(a) 580 N	-	1		360 x 94 x 2
L.C.(a) 560 N	-	1		= 6768 M³
L.C.(a) 540 N	-	1		= 28906
L.C.(a) 520 N	-	1		
L.C.(a) 500 N	-	1		
L.C.(a) 480 N	-	1		
L.C.(a) 460 N	-	1		
L.C.(a) 440 N	-	1		
L.C.(a) 420 N	1	-		
L.C.(a) 400 N	1.5	-		
L.C.(a) 380 N	-	1		
L.C.(a) 360 N	-	.6		
L.C.(a) 340 N	-	.5		
L.C.(a) 320 N	-	.5		
L.C.(a) 300 N	-	.5		
L.C. 200 N	-	.7	-- Average width over 200 = 7 M --	
L.C. 200 N	1	-		200 x .7 x 20
L.C.(a) 180	-	.7		= 2800 M³
L.C.(a) 160 N	1	-		x 4.271
L.C.(a) 140 N	-	.7		= 11958
L.C.(a) 120 N	-	.5		
L.C.(a) 100 N	-	.5		
L.C.(a) 80 N	-	.5		

Total Tonnage estimate to 20 M. Depth

Section (a) 11958
+ 28906
= 40864 Tonnes

Estimated Tonnage to 20 M. Deep

Lee's ck Barite Lode Section (b)

Location start	Measured Width M.	Assumed Width M.	Average over Section	Tonnage over Section	
L.C.(b) 1000 N			-- Average width over 700 M = .68 M -- -- Black soil cover W = ? --		
L.C.(b) 900 N					
L.C.(b) 800 N					
L.C.(b) 700 N		.5			
L.C.(b) 600 N	1			700 x .68 x 20	Total Tonnage estimate to 20 M depth
L.C.(b) 500 N		.5		= 9520 M^3	Section (b)
L.C.(b) 400 N	.75			= 40659 Tonnes	= 40659 Tonnes
L.C.(b) 300 N		.5			
L.C.(b) 200 N		.5			
L.C.(b) 00	1	-			

Estimated Tonnage to 20 M depth

Lee's ck Barite Lode Section (c)

Location Start	Measured Width M.	Assumed Width M.	Average W over section	Est. Tonnage over section To 20M depth
L.C.(c) 420 N	1.5	Average	-- Average width over 420 M = 1.86 M --	420 x 1.86 x 20 = 15624 M^3 = 66730 T
L.C.(c) 400 N	1.5			
L.C.(c) 380 N	1.5			
L.C.(c) 360 N	1.5			
L.C.(c) 340 N	2			
L.C.(c) 320 N	2			
L.C.(c) 300 N	1.5			
L.C.(c) 280 N	1.7			
L.C.(c) 260 N	1.5			
L.C.(c) 240 N	2.8			
L.C.(c) 220 N	1.5			
L.C.(c) 200 N	2			
L.C.(c) 180 N	2.5			
L.C.(c) 160 N	2			
L.C.(c) 140 N	2			
L.C.(c) 120 N	2.2			
L.C.(c) 100 N	2.2			
L.C.(c) 80 N	2			
L.C.(c) 60 N	2			
L.C.(c) 40 N	2			
L.C.(c) 20 N	1.6			
L.C.(c) 00 N	1.5			

Total Tonnage estimate to 20 M. depth

Section (c)

66730 Tonnes

Estimated Tonnage to 20 M. depth

Lee's ck Barite Lode Section (d)

Location Start	Measured Width M	Assumed Width M	Average W over section	Est. Tonnage over section To 20 M depth
L.C.(d) 460 N				
L.C.(d) 440 N				
L.C.(d) 420 N	-	1.5	-- Average width over 180 M = 1.2 M --	
L.C.(d) 400 N	-	1.5		
L.C.(d) 380 N	2.2			
L.C.(d) 360 N		.5		180 x 1.2 x 20
L.C.(d) 340 N	1			= 4320 M^3
L.C.(d) 320 N	1.25			= 18450 T
L.C.(d) 300 N	1.75			
L.C.(d) 280 N	1.5			
L.C.(d) 260 N	-	.5		
L.C.(d) 240 N	.5			
L.C.(d) 220 N				
L.C.(d) 200 N				
L.C.(d) 180 N	.5			
L.C.(d) 160 N	1			
L.C.(d) 140 N	1.5			
L.C.(d) 120 N	1.2			
L.C.(d) 100 N	1			
L.C.(d) 80 N	2	-	-- Average over 180 M. = 1 M --	
L.C.(d) 60 N	1			
L.C.(d) 40 N	.85			
L.C.(d) 20 N	.5			
L.C.(d) 00 N	.9			

Total Tonnage estimate to 20 M. depth

Section (d)

15375

+ 18450

= 33825 Tonnes

Estimated Tonnage to 20 M depth

Lee's Creek Lode Section (e)

Location Start	Measured Width M	Assumed Width M	Average over section	Est. Tonnage over section to 20 M depth
L.C.(e) 540 N	-	.5		
L.C.(e) 520 N	-	1.5		
L.C.(e) 500 N	-	3.2		
L.C.(e) 480 N	-	2		
L.C.(e) 460 N	-	2		
L.C.(e) 440 N	-	1.5		
L.C.(e) 420 N	-	-	.5 M	280 x 1.3 x 20
L.C.(e) 400 N	-	-	1	7280 M^3
L.C.(e) 380 N			.5	= 31092 T
L.C.(e) 360 N			1	
L.C.(e) 340 N			1	
L.C.(e) 320 N			1	
L.C.(e) 300 N			1	
L.C.(e) 280 N	-	2		
L.C.(e) 260 N	-	1.5		
L.C.(e) 240 N				
L.C.(e) 220 N	-	.5		
L.C.(e) 200 N	2.5	-		
L.C.(e) 180 N	3	-		160 x 1.84 x 20
L.C.(e) 160 N	1.5	-		= 5888 M^3
L.C.(e) 140 N	1.62	-		25147 T
L.C.(e) 120 N	2	-		
L.C.(e) 100 N	1.65	-		
L.C.(e) 80 N	2	-		
L.C.(e) 60 N	1.75	-		
L.C.(e) 40 N				
L.C.(e) 20 N				
L.C.(e) 00 N				

-- Average width over 280 M = 1.3 --

-- Average width over 160 M = 1.84 M --

Total tonnage = 31092
+ 25147
+ 5466
= 61705 Tonnes

Location start	Measured width M	Asssumed width M	Average W over section	Est. Tonnage over section to 20 M depth
L.C.(e) 640 N				
L.C.(e) 620 N	-	1.5		40 x 1.6 x 20
L.C.(e) 600 N	-	1.5		1280 M^3
L.C.(e) 580 N	2	-		= 5466 T
L.C.(e) 560 N				

-- Average width over 40 M = 1.6 M

Estimated Tonnage to 20 M depth

Lee's ck Lode Section (g)

Location	Measured Width M	Assumed Width M	Average W over Section	Tonnage over Section
L.C.(g) 520 N				
L.C.(g) 500 N				
L.C.(g) 480 N	-	1		
L.C.(g) 460 N	-	1.5		
L.C.(g) 440 N	-	1		
L.C.(g) 420 N	-	1	— Average over 180 M = 1.4 M —	180 x 1.4 x 20
L.C.(g) 400 N	3.2	-		= 5040 M³
L.C.(g) 380 N	-	1.5		= 21525 T.
L.C.(g) 360 N	1.75	-		
L.C. (g) 340 N	1	-		
L.C.(g) 320 N	-	1		
L.C.(g) 300 N	1.2	-		
L.C.(g) 280 N				
L.C.(g) 260 N	-	.5		
L.C.(g) 240 N	-	1	— Average width over 240 M = 1.2 M —	240 x 1.2 x 20
L.C.(g) 220 N	-	1		= 5760 M³
L.C.(g) 200 N	-	1		= 24600 T.
L.C.(g) 180 N	1.15	-		
L.C.(g) 160 N	1.15	-		
L.C.(g) 140 N	-	1.5		
L.C.(g) 120 N	1.4	-		
L.C.(g) 100 N	1.5	-		
L.C.(g) 80 N	-	1		
L.C.(g) 60 N	-	1		
L.C.(g) 40 N	-	1		
L.C.(g) 20 N	-	1		
L.C.(g) 00 N	-	1		

Total Tonnage 21525

Section g + 24600

= 46125 Tonnes

Total Tonnage Estimate to 20 M Deep for Lee's Creek Barite Lode

Section (a) 40864

Section (b) 40659

Section (c) 66730

Section (d) 33825

Section (e) 61705

Section (g) 46125

Total = 289908 Tonnes

Estimated Tonnage to 20 M. depth

Forrest Creek Lode Section (a)

Location start	Measured Width M	Assumed Width M	Average W over section	Tonnage over section
F.C.(a) 800 N			-- Average width over 260 M = 6 M --	
F.C.(a) 680 N				
F.C.(a) 620 N				
F.C.(a) 560 N				
F.C.(a) 520 N				
F.C.(a) 440 N	.5			260 x .6 x 20
F.C.(a) 380 N	-	.3		= 3120 M^3
F.C.(a) 340 N	.3	-		= 13325 T
F.C.(a) 320 N	.8	-		
F.C.(a) 280 N	1	-		
F.C.(a) 260 N	.7	-		
F.C.(a) 220 N	.75	-		
F.C.(a) 180 N	.3	-		
F.C.(a) 160 N				
F.C.(a) 100 N				
F.C.(a) 60 N				
F.C.(a) 40 N				
F.C.(a) 00 N				

Total Tonnage estimate to 20 M. depth

F.C. Section (a)

= 13325 Tonnes

Estimated Tonnate to 20 M. depth

Forrest Creek Section (b)

Location start	Measured width M	Assumed Width M	Average Width over Section	Tonnage over section
F.C.(b) 460 N	-	1	-- Average width over 460 M = 1.5 M --	460 x 1.5 x 20 13800 M^3 = 58939 T
F.C.(b) 440 N	-	1		
F.C.(b) 400 N	-	1		
F.C.(b) 360 N	-	1.5		
F.C.(b) 320 N	-	1.5		
F.C.(b) 280 N	-	1.5		
F.C.(b) 260 N	-	1.5		
F.C.(b) 240 N	2	-		
F.C.(b) 200 N	1.8	-		
F.C.(b) 160 N	1.75	-		
F.C.(b) 40 N	2	-		
F.C.(b) 00 N	1.5	-		

Total Tonnage estimate to 20 M depth

F.C. Section (b)

= 58939 Tonnes

Estimated Tonnage to 20 M. depth

Forrest Creek Lode Section (c)

Location Start	Measured Width M	Assumed Width M	Average width over Section	Tonnage over Section
F.C.(c) 460 N	-	1		
F.C.(c) 440 N	-	1		
F.C.(c) 420 N	1.7	-		
F.C.(c) 400 N	.5	-		
F.C.(c) 380 N	.5	-		
F.C.(c) 360 N	-	1		
F.C.(c) 340 N	2	-		
F.C.(c) 320 N	3	-		
F.C.(c) 300 N	1	-		
F.C.(c) 280 N	-	3	-- Average width over 360 M = 1.6 M --	360 x 1.6 x 20
F.C.(c) 260 N	3.2	-		= 11520 M^3
F.C.(c) 240 N	-	2		= 49201 T
F.C.(c) 220 N	2	-		
F.C.(c) 200 N	1.8	-		
F.C.(c) 180 N	1	-		
F.C.(c) 160 N	1.75	-		
F.C.(c) 140 N	1.4			
F.C.(c) 120 N	1	-		
F.C.(c) 100 N	.5	-		
F.C.(c) 80 N	1.8	-		
F.C.(c) 60 N	1	-	-- Average width over 100 M = 1.4 M --	100 x 1.4 x 20
F.C.(c) 40 N	-	1.7		= 2800 M^3
F.C.(c) 20 N	-	1.6		= 11958 T
F.C.(c) 00 N	-	1.6		

Total tonnage estimate to 20 M depth

F.C. Section (c) = 49201

= 11958

= 61159 Tonnes

Estimated Tonnage to 20 M depth

Forrest Creek Lode Section (d)

Location Start	Measured Width M	Assumed Width M	Average width over Section	Tonnage over section
F.C.(d) 380 N				
F.C.(d) 360 N				
F.C.(d) 340 N				
F.C.(d) 320 N				
F.C.(d) 300 N	-	1		
F.C.(d) 280 N	-	1		
F.C.(d) 260 N	-	1		
F.C.(d) 240 N	-	1		
F.C.(d) 220 N	-	1.2		
F.C.(d) 220 N	1.6	-	— Average width over 300 M = 1.3 M —	
F.C.(d) 180 N	1	-		300 x 1.3 x 20
F.C.(d) 160 N	1.2	-		= 7800 M^3
F.C.(d) 140 N	1.6	-		= 33313 T
F.C.(d) 120 N	1	-		
F.C.(d) 100 N	1.6	-		
F.C.(d) 80 N	1.5	-		
F.C.(d) 60 N	1.6	-		
F.C.(d) 40 N	-	1.5		
F.C.(d) 20 N	-	1.5		
F.C.(d) 00 N	1.5	-		

Total Tonnage estimate to 20 M depth

F.C. Section (d)

= 33313 Tonnes

Estimated Tonnage to 20 M depth

Forrest Creek Lode Section (e)

Location Start	Measured Width M	Assumed Width M	Average width over Section	Tonnage over section
F.C.(e) 400 N				
F.C.(e) 300 N				
F.C.(e) 280 N				
F.C.(e) 260 N				
F.C.(e) 240 N				
F.C.(e) 220 N				
F.C.(e) 200 N				
F.C.(e) 180 N				
F.C.(e) 160 N				
F.C.(e) 140 N				
F.C.(e) 120 N	1.6	-	-- Average Width over 120 M = 1.7 --	
F.C.(e) 100 N	1.6	-		
F.C.(e) 80 N	2.5	-		120 x 1.7 x 20
F.C.(e) 60 N	2.5	-		4080 M^3
F.C.(e) 40 N	1.75	-		= 17425 T
F.C.(e) 20 N	1	-		
F.C.(e) 00 N	1	-		

Total Tonnage estimate to 20 M depth

F.C. Section (e)

= 17425 Tonnes

Estimated Tonnage to 20 M depth

Forrest Creek Section (f)

Location Start	Measured Width M	Assumed Width M	Average width over section	Tonnage over section
F.C.(f) 2200 N			-- Average width over 1500 M = M 9	
F.C.(f) 2100 N				
F.C.(f) 2000 N				
F.C.(f) 1900 N				
F.C.(f) 1800 N				
F.C.(f) 1700 N				
F.C.(f) 1600 N				
F.C.(f) 1500 N	1	-		
F.C.(f) 1400 N	1	-		
F.C.(f) 1300 N	-	1		
F.C.(f) 1200 N	1.2	-		
F.C.(f) 1100	1.2	-		1500 x .6 x 15
F.C.(f) 1000 N	-	.5		= 18000 M^3
F.C.(f) 900 N	.4	-		= 76878 T
F.C.(f) 800 N	-	.5		
F.C.(f) 700 N	.6	-		
F.C.(f) 600 N	.4	-		
F.C.(f) 500 N	.4	-		
F.C.(f) 400 N	-	.4		
F.C.(f) 300 N	-	.5		
F.C.(f) 200 N	-	.5		
F.C.(f) 100 N	-	.5		
F.C.(f) 00 N	-	.5		

Total Tonnage estimate to 20 M depth for F.C. Section f

= 76878 Tonnes

Total estimated Tonnage for whole of Forrest Creek Barite Lode

F.C.(a)	13325
F.C.(b)	58939
F.C.(c)	61159
F.C.(d)	33313
F.C.(e)	17425
F.C.(f)	76878

Total 261039 Metric Tonnes

Tonnage Estimate to 20 M Deep using surface widths for calculations

Lees ck Lode	289908 Metric tonnes
Forrest ck Lode	261039 Metric tonnes
Total	550947 Metric Tonnes

Results of Specific Gravity tests of Barite Samples 110 samples 910 M 51+ 4 Nov. 1982

Samples

Forrest ck Lode

Location	Sample No.	Average S.G.
F.C.(a)	31	4.275
F.C.(b)	32	4.286
F.C.(c)	28	4.302
F.C.(d)	26	4.245
F.C.(e)	27	4.324
L.C.(f)	33	4.280

Average S.G. of samples from Forrest ck Lode = 4.285

Lee's ck Lode

Location	Sample No.	Average S.G.
L.C.(a)	23	4.2075
L.C.(b)	2,3,4,5,6,7, 8 & 9	4.274
L.C.(c)	24	4.225
L.C.(d)	25	4.288
L.C.(e)	30	4.255
L.C.(f)	Nil poor outcrops	-
L.C.(g)	29	4.296

Average S.G. of samples from Lee's creek Lode = 4.257

Average of samples from both Lodes = 4.271 Specific Gravity

Notes:- For sample location refer to map of EL 3144

Testing:- Each whole sample crushed to minus 30 mesh, sun dried and reduced on splitting machine to two test samples of 40 - 60 grams which were oven dried for 2 hours at 150°.
Samples tested for S.G. using water and pychnometer
Vacuum exhausted for 2 minutes and temperature corrections applied for variation from 4°C. Two tests made for each sample and average shown on above list.
Test figures shown in sample book.
Average variation between each pair of samples
= ± .07%

TO Headleys Yard 9 Km.

129°05' 08 09 10 11 12 13 14 15

17°35'

Lees Ck. Camp Ck. Forrest Ck. Spring Creek

LC1 LC2 LC3 LC4 LC5 LC6

FC0 FC1 FC2 FC3 FC4 FC5 FC6

Lees Knob Lees old camp Camp Knob Centre camp Sunday Camp Old Yard Forrest Ck Camp Table Knob Forrest Knob Observation Hill

Vehicle track Station road Pipe Track

[redacted]

EL 3144 1-3-88

17°40'

TO Kirkimbie Station 16 Km.
TO Duncan Highway abt 50 Km.

Scale 1 : 16,000

0 1 2 3 km

Contour Interval 20 m

PROPECTING 4WD TRACK ---- vehicle track
STATION GRADED ROAD ---- Station road
BARITE LODE ---- Ba
RUNNING SPRINGS JULY 1982 ---- spring
E.L BOUNDARY ----

GRID NUMBERS SAME AS USED ON 1:100 000 TOPOGRAPHIC SHEET 'NAPIER' NO 4762.

GN
GN.
MN
GRID CONVERGENCE 0-1°
GRID/MAGNETIC ANGLE 3-6°

ANTRIM BARITE CORP. PTY. LTD

EL 3144
EXPLORATION LICENCE AREA
LEES CK. & FORREST CK LODES – BARITE

APRIL 1986

NORTHERN TERRITORY GEOLOGICAL SURVEY

CR86/174