

APPENDICES

APPENDIX 1

DRILL HOLE COLLAR INFORMATION

All co-ordinates are presented as MGA using the GDA94 datum.

**SUTTON FOREST QUARRIES PTY LTD
DRILL HOLE COLLAR SURVEY**

Hole ID	MGA Zone 56 mE	MGA Zone 56 mN	Collar RL (m)	Azimuth	Dip	TD (m)
SFQ-DDH1	243185	6166154	692.7	360	90	51.1
SFQ-DDH2	242705	6166295	682.0	360	90	40.5
SFQ-DDH3	243009	6166460	688.0	360	90	38.9
SFQ-DDH4	242745	6166385	671.0	360	90	51.1
SFQ-DDH5	243168	6166263	689.0	360	90	65.1
SFQ-OH1	243507	6166192	690.0	360	90	32.0
SFQ-OH2	242932	6166254	685.2	360	90	36.0
SFQ-OH3	243207	6166329	684.5	360	90	39.0
SFQ-OH4	242758	6166545	686.0	360	90	40.7

APPENDIX 2a

DDH GRAPHIC LOGS, CORE PHOTOGRAPHS, AND LITHOLOGICAL LOGS

SFQ-DDH01
SFQ-DDH02
SFQ-DDH03
SFQ-DDH04
SFQ-DDH05

‘Lith Code’ = ‘Lithology’ in the adjoining column to the right.

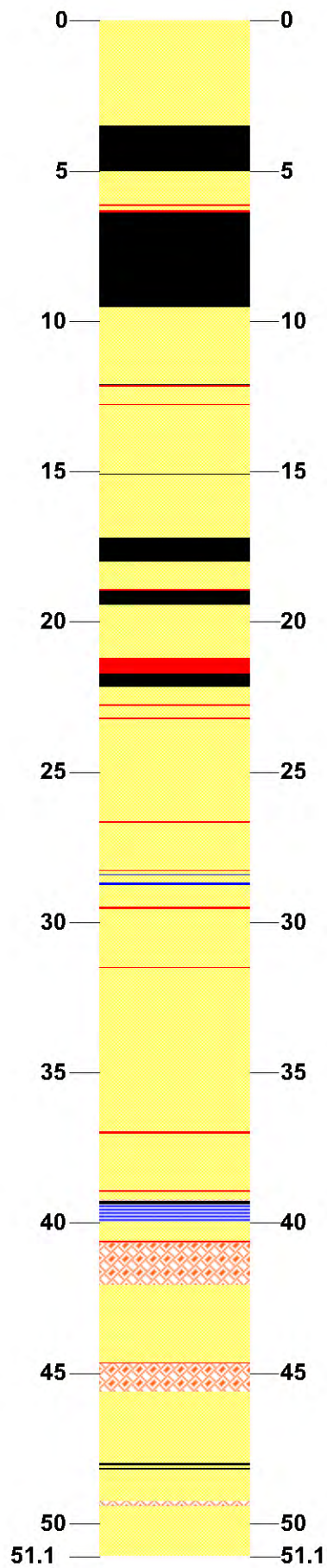
Other abbreviations:

brn	=	brown
d	=	dark
p	=	pale
vp	=	very pale
med	=	medium
mod	=	moderate(ly)
v	=	very
Fe	=	iron
ss	=	sandstone
x	=	cross

Legend SFQ Lithology

	SA = SANDSTONE
	NS = OPEN HOLE & CORE LOSS
	Fe = IRONSTONE
	CY = CLAY/CLAYSTONE
	CG = CONGLOMERATE
	SH = SHALE
	ST = SILTSTONE

SFQ-DDH1





SFQ-DDH1 Boxes 1 and 2



SFQ-DDH1 Boxes 3 and 4



SFQ-DDH1 Boxes 5 and 6



SFQ-DDH1 Boxes 7 and 8



SFQ-DDH1 Box 9



SFQ-DDH1 Box 10



SFQ-DDH1 Box 11

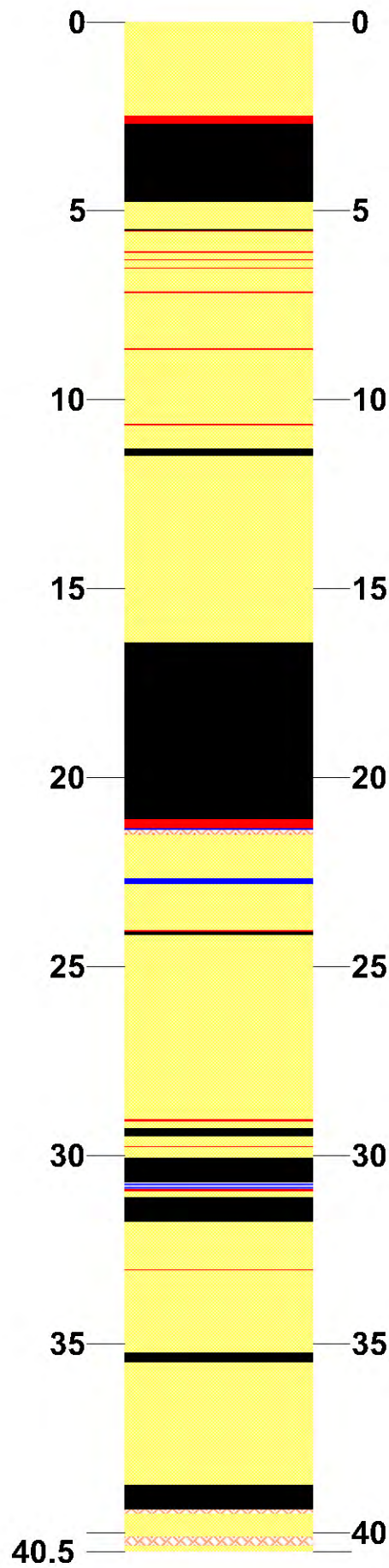
SUTTON FOREST QUARRIES - DIAMOND DRILL HOLE LITHOLOGICAL LOGS

Hole ID	From	To	Int	Lith Code	Lithology	Weathering	Colour	Drill Depth	Drilled Int (m)	Core Rec (m)	Comment
SFQDDH1	0.00	3.50	3.50	SA	SAND						Open hole cuttings. Start coring at 3.50m. No core sample.
SFQDDH1	3.50	5.00	1.50	NS	Core Loss						Sand ??
SFQDDH1	5.00	6.10	1.10	SA	SAND		yellow	6.10	2.60	1.07	Friable, soft, med grained, well sorted.
SFQDDH1	6.10	6.16	0.06	Fe	Fe STONE		brown				Hard, fine-med grained cemented sandstone.
SFQDDH1	6.16	6.30	0.14	SA	SANDSTONE		pale brn				Fine-med grained, well sorted.
SFQDDH1	6.30	6.40	0.10	Fe	Fe STONE		brown				Fine-med grained cemented sandstone.
SFQDDH1	6.40	9.10	2.70	NS	Core Loss		grey	9.10	3.00	0.30	
SFQDDH1	9.10	9.53	0.43	NS	Core Loss						
SFQDDH1	9.53	10.45	0.92	SA	SANDSTONE		white & pink				Fine-med grained, well sorted, soft & friable.
SFQDDH1	10.45	12.10	1.65	SA	SANDSTONE		orange-brn	12.10	3.00	2.59	
SFQDDH1	12.10	12.12	0.02	NS	Core Loss						
SFQDDH1	12.12	12.17	0.05	Fe	Fe STONE		brn & orange				
SFQDDH1	12.17	12.77	0.60	SA	SANDSTONE		cream & pink				Colour banded. Med grained, cross bedded.
SFQDDH1	12.77	12.79	0.02	Fe	Fe STONE		brown				With sandstone.
SFQDDH1	12.79	14.05	1.26	SA	SANDSTONE		pink & white				banded, med grained well sorted.
SFQDDH1	14.05	15.07	1.02	SA	SANDSTONE		pale brn & pink				banded, med grained well sorted.
SFQDDH1	15.07	15.10	0.03	NS	Core Loss			15.10	3.00	2.98	
SFQDDH1	15.10	15.53	0.43	SA	SANDSTONE		pink & white				banded, med grained, well sorted.
SFQDDH1	15.53	16.69	1.16	SA	SANDSTONE		orange				medium grained, moderately sorted.
SFQDDH1	16.69	17.21	0.52	SA	SANDSTONE		orange				As above, soft & friable.
SFQDDH1	17.21	18.00	0.79	NS	Core Loss						
SFQDDH1	18.00	18.10	0.10	SA	SANDSTONE		white & brn	18.10	3.00	2.20	Medium grained, well sorted.
SFQDDH1	18.10	18.90	0.80	SA	SANDSTONE		white & brn				Fine-med grained, well sorted, minor brn bands.
SFQDDH1	18.90	18.96	0.06	Fe	Fe STONE		brown				
SFQDDH1	18.96	19.45	0.49	NS	Core Loss						
SFQDDH1	19.45	21.10	1.65	SA	SANDSTONE		pale brn	21.10	3.00	2.52	medium grained, moderately sorted.
SFQDDH1	21.10	21.19	0.09	SA	SANDSTONE						As above
SFQDDH1	21.19	21.72	0.53	Fe	Fe STONE		D brn				Minor sandstone, orange-brn.
SFQDDH1	21.72	22.17	0.45	NS	Core Loss						
SFQDDH1	22.17	22.74	0.57	SA	SANDSTONE		orange & white				Medium grained, well sorted, friable,
SFQDDH1	22.74	22.80	0.06	Fe	Fe STONE		brown				
SFQDDH1	22.80	23.20	0.40	SA	SANDSTONE		d brown				Fe stained, coarse-medium grained, moderately sorted.
SFQDDH1	23.20	23.25	0.05	Fe	Fe STONE		d brown				
SFQDDH1	23.25	23.68	0.43	SA	SANDSTONE		white & p brn				Banded, medium grained, well sorted.
SFQDDH1	23.68	24.06	0.38	SA	SANDSTONE		white & p brn	24.10	3.00	2.58	Fine-medium grained, well sorted.
SFQDDH1	24.06	24.52	0.46	SA	SANDSTONE		white & p brn				As above
SFQDDH1	24.52	26.63	2.11	SA	SANDSTONE		p orange-cream				Liesegang bands, medium grained with coarser beds to 0.01m thick and occasional small pebbles. Moderately to poorly sorted.
SFQDDH1	26.63	26.69	0.06	Fe	Fe STONE		d brown				
SFQDDH1	26.69	27.13	0.44	SA	SANDSTONE		orange	27.10	3.00	3.04	Medium grained, moderately sorted.
SFQDDH1	27.13	28.27	1.14	SA	SANDSTONE		cream & orange				Coarse-medium grained. Some grit layers, occasional small pebbles. Moderately to poorly sorted.
SFQDDH1	28.27	28.30	0.03	Fe	Fe STONE		d brown				
SFQDDH1	28.30	28.40	0.10	SA	SANDSTONE		p grey-white				With granules. Poorly sorted. Bottom of fining up unit.
SFQDDH1	28.40	28.42	0.02	CY	CLAY		p grey-brn				
SFQDDH1	28.42	28.67	0.25	SA	SANDSTONE		pale grey				Fine grained, well sorted.
SFQDDH1	28.67	28.77	0.10	CY	CLAY		grey				Clay-shale.
SFQDDH1	28.77	28.91	0.14	SA	SANDSTONE		pale-grey-white				Very fine grained, silty. Moderately sorted.
SFQDDH1	28.91	29.00	0.09	SA	SANDSTONE		brn-white				Medium grained.

SUTTON FOREST QUARRIES - DIAMOND DRILL HOLE LITHOLOGICAL LOGS

Hole ID	From	To	Int	Lith Code	Lithology	Weathering	Colour	Drill Depth	Drilled Int (m)	Core Rec (m)	Comment
SFQDDH1	29.00	29.34	0.34	SA	SANDSTONE		brn-orange				With Fe laminae at top and bottom. Coarse to medium grained, granules and small pebbles. Moderately to poorly sorted.
SFQDDH1	29.34	29.47	0.13	SA	SANDSTONE		yellow				Coarse-medium grained, moderately sorted.
SFQDDH1	29.47	29.56	0.09	Fe	Fe STONE		brn & red				
SFQ-DDH1	29.56	30.12	0.56	SA	SANDSTONE		p cream	30.10	3.00	3.05	Medium grained, moderately well sorted. Massive.
SFQ-DDH1	30.12	30.95	0.83	SA	SANDSTONE		pale grey				Medium grained, well sorted. Minor bedding.
SFQ-DDH1	30.95	31.50	0.55	SA	SANDSTONE		orange-brn				Medium grained, well sorted. Minor bedding.
SFQ-DDH1	31.50	31.51	0.01	Fe	Fe STONE						
SFQ-DDH1	31.51	31.80	0.29	SA	SANDSTONE		p grey				Medium grained. Bedded. Orange mottling at top and bottom.
SFQ-DDH1	31.80	32.52	0.72	SA	SANDSTONE		orange				Fine-medium grained, well sorted. X bedded.
SFQ-DDH1	32.52	33.09	0.57	SA	SANDSTONE		p grey	33.10	3.00	2.98	Fine-medium grained, well sorted. Bedded & bedded with black carbonaceous partings on bedding.
SFQ-DDH1	33.09	36.08	2.99	SA	SANDSTONE		p grey	36.10	3.00	2.99	As above, with some thin more clayey sandstone beds to 20mm thick.
SFQ-DDH1	36.08	36.97	0.89	SA	SANDSTONE		p grey				As above.
SFQ-DDH1	36.97	37.03	0.06	Fe	Fe STONE		red				
SFQ-DDH1	37.03	38.92	1.89	SA	SANDSTONE		cream & orange				Coarse grained, poorly sorted. Fining up unit.
SFQ-DDH1	38.92	38.96	0.04	Fe	Fe STONE		brown				
SFQ-DDH1	38.96	38.98	0.02	SA	SANDSTONE		orange				Coarse to medium grained
SFQ-DDH1	38.98	39.08	0.10	SA	SANDSTONE		cream	39.10	3.00	3.01	Medium grained.
SFQ-DDH1	39.08	39.21	0.13	SA	SANDSTONE		cream				As above.
SFQ-DDH1	39.21	39.28	0.07	CG	CONGLOMERATE		cream-brn				Quartz pebbles to 10mm in sandstone matrix.
SFQ-DDH1	39.28	39.39	0.11	NS	Core Loss						
SFQ-DDH1	39.39	39.96	0.57	SH	SHALE		D grey				Rip up clasts in cream sandstone matrix. V poorly sorted.
SFQ-DDH1	39.96	40.59	0.63	SA	SANDSTONE		p cream				Coarse to medium grained, moderately sorted.
SFQ-DDH1	40.59	40.65	0.06	Fe	Fe STONE		brown				
SFQ-DDH1	40.65	42.06	1.41	CG	CONGLOMERATE		cream	42.10	3.00	2.90	Quartz pebbles to 20mm in coarse cream sandstone matrix.
SFQ-DDH1	42.06	44.66	2.60	SA	SANDSTONE		orange				Pebbly, v coarse-medium grained, v poorly sorted. Fining up unit.
SFQ-DDH1	44.66	44.67	0.01	Fe	Fe STONE		brown				
SFQ-DDH1	44.67	45.08	0.41	CG	CONGLOMERATE		pink	45.10	3.00	3.04	Pebbly sandstone, fining up unit.
SFQ-DDH1	45.08	45.61	0.53	CG	CONGLOMERATE		pink				As above.
SFQ-DDH1	45.61	47.98	2.37	SA	SANDSTONE		pink				Pebbly, v coarse-medium grained, poorly sorted. Quartz + cream clay clasts.
SFQ-DDH1	47.98	48.08	0.10	NS	Core loss			48.10	3.00	2.90	
SFQ-DDH1	48.08	48.16	0.08	SA	SANDSTONE		pink				As above.
SFQ-DDH1	48.16	48.22	0.06	NS	Core loss						Quartz pebble - loose. Core loss.
SFQ-DDH1	48.22	48.25	0.03	SA	SANDSTONE		red				Medium grained, well sorted. (Fe band poorly cemented)
SFQ-DDH1	48.25	49.26	1.01	SA	SANDSTONE		p grey & pink				Banded. Some d grey carbonaceous partings on bedding. Fine-medium grained, well sorted.
SFQ-DDH1	49.26	49.43	0.17	CG	CONGLOMERATE		p brown				Quartz, v coarse pebbles to 30mm.
SFQ-DDH1	49.43	51.09	1.66	SA	SANDSTONE		p brown & pink	51.10	3.00	2.96	V coarse, pebbly, v poorly sorted. EOH 51.10m

SFQ-DDH2





SFQ-DDH2 Boxes 1 and 2



SFQ-DDH2 Boxes 3 and 4



SFQ-DDH2 Boxes 5 and 6



SFQ-DDH2 Boxes 7 and 8

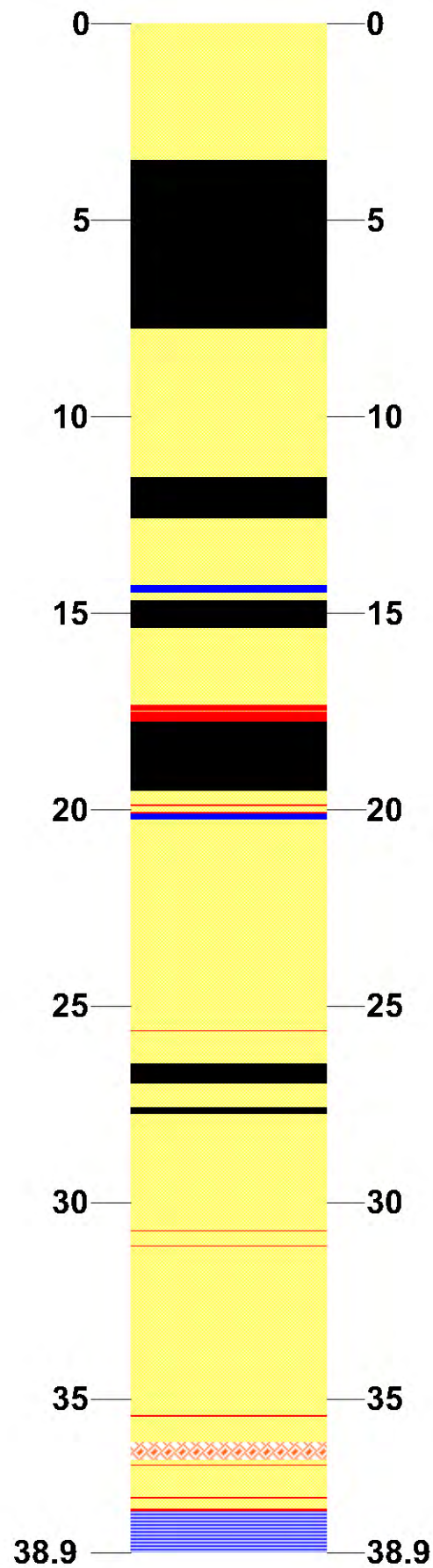
SUTTON FOREST QUARRIES - DIAMOND DRILL HOLE LITHOLOGICAL LOGS

Hole ID	From	To	Int	Lith Code	Lithology	Weathering	Colour	Drill Depth	Drilled Int (m)	Core Rec (m)	Comment
SFQ-DDH2	0.00	2.50	2.50	SA	SAND						Open hole cuttings. Start coring at 2.50m. No core sample.
SFQ-DDH2	2.50	2.70	0.20	Fe	Fe STONE		brown				Broken
SFQ-DDH2	2.70	4.78	2.08	NS	Core Loss						
SFQ-DDH2	4.78	4.98	0.20	SA	SANDSTONE		p brown				Medium grained & friable
SFQ-DDH2	4.98	5.50	0.52	SA	SANDSTONE		p brown	5.50	3.00	1.40	Fine-med grained, well sorted, massive, friable.
SFQ-DDH2	5.50	5.53	0.03	NS	Core Loss						
SFQ-DDH2	5.53	5.55	0.02	Fe	Fe STONE		brown				Broken.
SFQ-DDH2	5.55	6.07	0.52	SA	SANDSTONE		p brown				Fine-med grained, well sorted, massive, friable.
SFQ-DDH2	6.07	6.13	0.06	Fe	Fe STONE		brown				
SFQ-DDH2	6.13	6.29	0.16	SA	SANDSTONE		orange & brn				Fine-med grained, well sorted, colour banded.
SFQ-DDH2	6.29	6.31	0.02	Fe	Fe STONE		brown				
SFQ-DDH2	6.31	6.38	0.07	SA	SANDSTONE		brown				Medium grained, well sorted, massive.
SFQ-DDH2	6.38	6.42	0.04	SA	SANDSTONE		d brown				Medium grained, well sorted, massive. Fe cemented.
SFQ-DDH2	6.42	6.435	0.015	Fe	Fe STONE		brown				
SFQ-DDH2	6.44	6.510	0.075	SA	SANDSTONE		d brown				Medium grained, well sorted, massive. Fe cemented.
SFQ-DDH2	6.51	6.53	0.02	Fe	Fe STONE		brown				
SFQ-DDH2	6.53	7.15	0.62	SA	SANDSTONE		p brown				Medium grained, well sorted, massive, colour banded.
SFQ-DDH2	7.15	7.19	0.04	Fe	Fe STONE		ochre				
SFQ-DDH2	7.19	8.47	1.28	SA	SANDSTONE		brn-orange	8.50	3.80	2.97	Medium-fine grained, well sorted, massive.
SFQ-DDH2	8.47	8.64	0.17	SA	SANDSTONE		brn-orange				As above.
SFQ-DDH2	8.64	8.69	0.05	Fe	Fe STONE		brown				Laminated
SFQ-DDH2	8.69	10.65	1.96	SA	SANDSTONE		cream				Medium-fine grained, well sorted, massive. Some worm burrows.
SFQ-DDH2	10.65	10.70	0.05	Fe	Fe STONE		red				
SFQ-DDH2	10.70	11.31	0.61	SA	SANDSTONE		p orange				Medium grained. Moderately sorted. Some worm burrows.
SFQ-DDH2	11.31	11.50	0.19	NS	Core Loss			11.50	3.00	2.85	
SFQ-DDH2	11.50	14.50	3.00	SA	SANDSTONE		p orange	14.50	3.00	3.00	Medium grained. Moderately sorted. Some worm burrows.
SFQ-DDH2	14.50	15.07	0.57	SA	SANDSTONE		p orange				As above.
SFQ-DDH2	15.07	16.44	1.37	SA	SANDSTONE		cream				Coarse-medium grained, poorly sorted, some granules to 5mm, rare pebbles to 10mm. Fining upwards.
SFQ-DDH2	16.44	17.49	1.05	NS	Core Loss			17.50	3.00	1.95	
SFQ-DDH2	17.49	20.49	3.00	NS	Core Loss			20.50	3.00	0.00	
SFQ-DDH2	20.49	21.12	0.63	NS	Core Loss						
SFQ-DDH2	21.12	21.36	0.24	Fe	Fe STONE		brown				
SFQ-DDH2	21.36	21.40	0.04	CY	CLAY		grey				Soft.
SFQ-DDH2	21.40	21.52	0.12	CG	CONGLOMERATE		orange-cream				Quartz pebbles to 7mm in weak Fe sandstone matrix.
SFQ-DDH2	21.52	21.71	0.19	SA	SANDSTONE		orange				Medium-fine grained, well sorted, hard Fe cemented, with grey clay clasts.
SFQ-DDH2	21.71	22.68	0.97	SA	SANDSTONE		p-mid grey				Fine grained, well sorted, with d grey shale rip up clasts.
SFQ-DDH2	22.68	22.82	0.14	CY	CLAY		grey				Soft.
SFQ-DDH2	22.82	23.47	0.65	SA	SANDSTONE		p-mid grey	23.50	3.00	2.40	Fine grained, well sorted, with minor d grey shale lenses & lamellae.
SFQ-DDH2	23.47	24.05	0.58	SA	SANDSTONE		p-mid grey				As above.
SFQ-DDH2	24.05	24.09	0.04	Fe	Fe STONE		red				
SFQ-DDH2	24.09	24.17	0.08	NS	Core Loss						
SFQ-DDH2	24.17	26.50	2.33	SA	SANDSTONE		orange & cream	26.50	3.00	2.95	Coarse- medium grained, moderately sorted, weakly cross bedded.
SFQ-DDH2	26.50	29.06	2.56	SA	SANDSTONE		orange & cream				As above.
SFQ-DDH2	29.06	29.12	0.06	Fe	Fe STONE		brown				Banded with brownish orange sandstone.
SFQ-DDH2	29.12	29.28	0.16	SA	SANDSTONE		p brown				Medium grained, well sorted, soft & friable.
SFQ-DDH2	29.28	29.50	0.22	NS	Core Loss			29.50	3.00	2.79	
SFQ-DDH2	29.50	29.565	0.065	SA	SANDSTONE		vp brown				SS as above.
SFQ-DDH2	29.57	29.570	0.005	Fe	Fe STONE		brown				
SFQ-DDH2	29.57	29.77	0.20	SA	SANDSTONE		orange				Medium grained, well sorted. 1 x minor Fe stone laminae.
SFQ-DDH2	29.77	29.79	0.02	Fe	Fe STONE		brown				

SUTTON FOREST QUARRIES - DIAMOND DRILL HOLE LITHOLOGICAL LOGS

Hole ID	From	To	Int	Lith Code	Lithology	Weathering	Colour	Drill Depth	Drilled Int (m)	Core Rec (m)	Comment
SFQ-DDH2	29.79	30.07	0.28	SA	SANDSTONE		cream				Medium grained, well sorted. Soft & friable bands.
SFQ-DDH2	30.07	30.73	0.66	NS	Core Loss						
SFQ-DDH2	30.73	30.89	0.16	SH	SHALE		grey				With interbedded pale grey sandstone lenses.
SFQ-DDH2	30.89	30.96	0.07	Fe	Fe STONE		brown				Broken.
SFQ-DDH2	30.96	31.11	0.15	SA	SANDSTONE		cream				Coarse-medium grained, moderately sorted. Soft & friable.
SFQ-DDH2	31.11	31.77	0.66	NS	Core Loss						
SFQ-DDH2	31.77	32.32	0.55	SA	SANDSTONE		brn-orange				Coarse-medium grained, poor-mod sorted. 2 x Fe stone laminae.
SFQ-DDH2	32.32	32.43	0.11	SA	SANDSTONE		cream				Medium grained, moderately sorted.
SFQ-DDH2	32.43	32.50	0.07	SA	SANDSTONE		orange	32.50	3.00	1.56	Coarse-med grained, moderately sorted. Fe cemented, hard.
SFQ-DDH2	32.50	32.53	0.03	SA	SANDSTONE		orange				As above.
SFQ-DDH2	32.53	32.63	0.10	SA	SANDSTONE		cream				Coarse-medium grained, poor-mod sorted.
SFQ-DDH2	32.63	32.64	0.01	Fe	Fe STONE		brown				
SFQ-DDH2	32.64	33.04	0.40	SA	SANDSTONE		orange				V coarse-medium grained, v poorly sorted. Fining up unit
SFQ-DDH2	33.04	33.06	0.02	Fe	Fe STONE		brown				
SFQ-DDH2	33.06	33.40	0.34	SA	SANDSTONE		cream				Coarse-medium grained, moderately sorted.
SFQ-DDH2	33.40	33.41	0.01	Fe	Fe STONE		brown				
SFQ-DDH2	33.41	35.22	1.81	SA	SANDSTONE		cream				V coarse-medium grained, v poorly sorted. Pale brown zones. Fining up beds. Some thin Fe lamellae& rings but not beds.
SFQ-DDH2	35.22	35.48	0.26	NS	Core Loss			35.50	3.00	2.76	
SFQ-DDH2	35.48	38.50	3.02	SA	SANDSTONE		cream	38.50	3.00	3.02	V coarse-coarse grained, v poorly sorted. Fining up beds. Mostly quartz, but some white & cream clay clasts. Some brownish coloured zones. Pebbles to 15mm, almost a conglomerate. 1 x Fe band near bottom approx 5mm thick.
SFQ-DDH2	38.50	38.73	0.23	SA	SANDSTONE		cream				As above.
SFQ-DDH2	38.73	39.39	0.66	NS	Core Loss						
SFQ-DDH2	39.39	39.50	0.11	CG	CONGLOMERATE		cream				Quartz pebbles to 10mm in cream sandstone matrix.
SFQ-DDH2	39.50	40.11	0.61	SA	SANDSTONE		cream				Coarse grained, poorly sorted, with some pebbly zones.
SFQ-DDH2	40.11	40.35	0.24	CG	CONGLOMERATE		cream				Quartz pebbles to 10mm in cream sandstone matrix.
SFQ-DDH2	40.35	40.49	0.14	SA	SANDSTONE		cream	40.50	2.00	1.34	Coarse grained, poorly sorted, with some pebbly zones. EOH 40.50m.

SFQ-DDH3





SFQ-DDH3 Boxes 1 and 2



SFQ-DDH3 Boxes 3 and 4



SFQ-DDH3 Boxes 5 and 6



SFQ-DDH3 Boxes 7 and 8

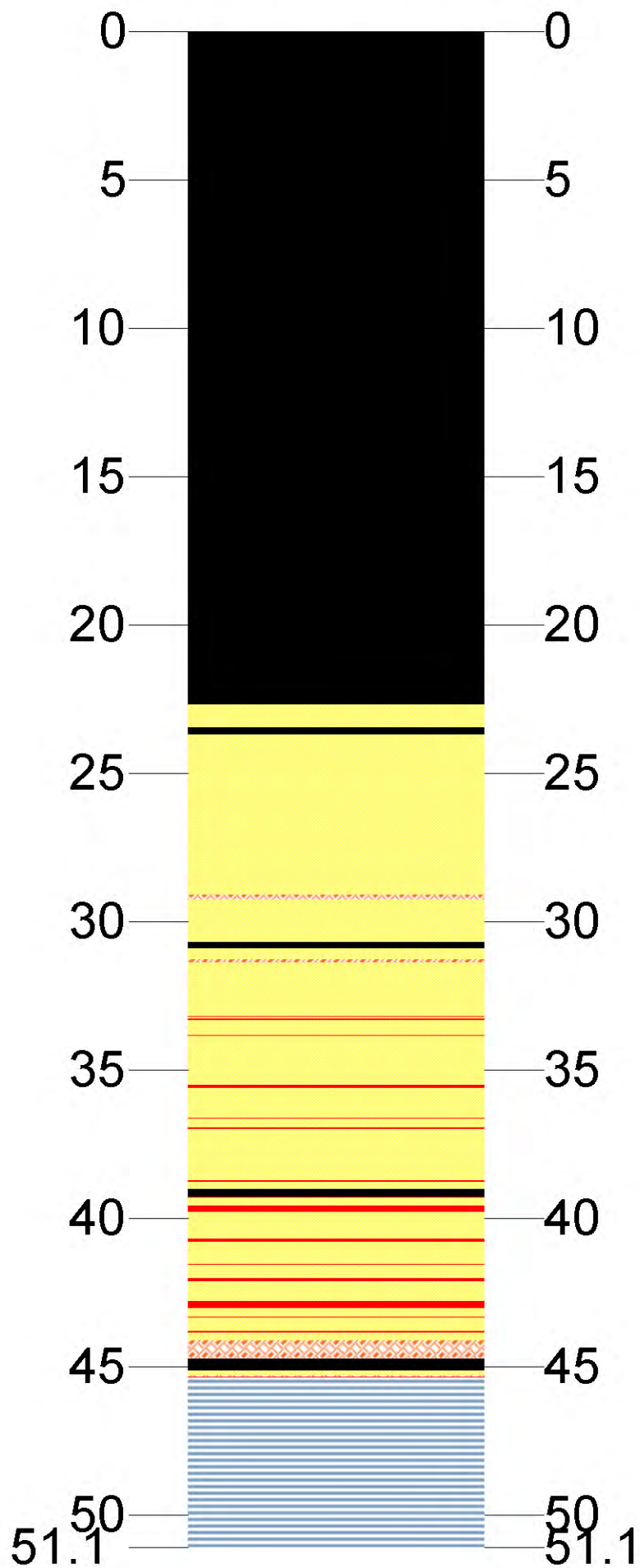
SUTTON FOREST QUARRIES - DIAMOND DRILL HOLE LITHOLOGICAL LOGS

Hole ID	From	To	Int	Lith Code	Lithology	Weathering	Colour	Drill Depth	Drilled Int (m)	Core Rec (m)	Comment
SFQ-DDH3	0.00	2.50	2.50	SA	SAND						Open hole cuttings. Start coring at 2.50m. No core sample.
SFQ-DDH3	2.50	3.48	0.98	SA	SANDSTONE		yellow & orange				Soft friable. Medium grained.
SFQ-DDH3	3.48	5.60	2.12	NS	Core Loss			5.60	3.10	0.98	
SFQ-DDH3	5.60	7.78	2.18	NS	Core Loss						
SFQ-DDH3	7.78	8.80	1.02	SA	SANDSTONE		orange	8.80	3.10	1.02	Soft friable. Medium grained, well sorted.
SFQ-DDH3	8.80	11.55	2.75	SA	SANDSTONE		orange				Soft friable,. Coarse-medium grained, some granules, moderately sorted. Minor thin Fe bands. X bedded.
SFQ-DDH3	11.55	11.90	0.35	NS	Core Loss			11.90	3.10	2.75	
SFQ-DDH3	11.90	12.60	0.70	NS	Core Loss						
SFQ-DDH3	12.60	14.03	1.43	SA	SANDSTONE		orange-brn				Medium grained, well sorted.
SFQ-DDH3	14.03	14.30	0.27	SA	SANDSTONE		cream-white				fine-medium grained, well sorted.
SFQ-DDH3	14.30	14.49	0.19	CY	CLAY		grey	14.50	2.60	1.90	Soft clay.
SFQ-DDH3	14.49	14.68	0.19	SA	SANDSTONE		cream				Medium grained well sorted.
SFQ-DDH3	14.68	15.38	0.70	NS	Core Loss						
SFQ-DDH3	15.38	17.26	1.88	SA	SANDSTONE		cream				Medium grained well sorted. Worm burrows in top 0.60m of unit.
SFQ-DDH3	17.26	17.35	0.09	SA	SANDSTONE		orange				Coarse-medium grained.
SFQ-DDH3	17.35	17.49	0.14	Fe	Fe STONE		brown				With orange sandstone lenses.
SFQ-DDH3	17.49	17.52	0.03	SA	SANDSTONE		orange	17.60	3.10	2.40	Medium grained, soft friable.
SFQ-DDH3	17.52	17.77	0.25	Fe	Fe STONE		brown				With Fe cemented sandstone lenses & beds.
SFQ-DDH3	17.77	19.53	1.76	NS	Core Loss						
SFQ-DDH3	19.53	19.88	0.35	SA	SANDSTONE		orange				Medium grained, with Fe stone laminae. Soft & very friable at top of unit.
SFQ-DDH3	19.88	19.92	0.04	Fe	Fe STONE		red-brn				
SFQ-DDH3	19.92	20.07	0.15	SA	SANDSTONE		orange				Soft & friable.
SFQ-DDH3	20.07	20.12	0.05	Fe	Fe STONE		red-brn				
SFQ-DDH3	20.12	20.27	0.15	CY	CLAY		grey & red	20.30	2.70	1.08	Clay-shale, mottled, soft.
SFQ-DDH3	20.27	20.76	0.49	SA	SANDSTONE		creamy grey				Fine grained, friable. Silty & clayey at bottom. Coarsening upwards unit.
SFQ-DDH3	20.76	21.06	0.30	SA	SANDSTONE		Creamy brn	21.10	0.80	0.80	Medium grained, massive.
SFQ-DDH3	21.06	21.37	0.31	SA	SANDSTONE		Creamy brn				As above.
SFQ-DDH3	21.37	21.88	0.51	SA	SANDSTONE		Creamy brn				Banded. Coarse grained, friable.
SFQ-DDH3	21.88	23.96	2.08	SA	SANDSTONE		cream & orange	24.10	3.00	2.90	Banded. Medium grained with some coarse beds, mostly massive. Mod-well sorted.
SFQ-DDH3	23.96	25.63	1.67	SA	SANDSTONE		cream & orange				As above.
SFQ-DDH3	25.63	25.65	0.02	Fe	Fe STONE		red-brn				
SFQ-DDH3	25.65	26.19	0.54	SA	SANDSTONE		yellow				Pebbly. Coarse to medium grained, poorly sorted. Massive.
SFQ-DDH3	26.19	26.47	0.28	SA	SANDSTONE		yellow				Medium grained, well sorted. Massive.
SFQ-DDH3	26.47	26.97	0.50	NS	Core Loss						
SFQ-DDH3	26.97	27.08	0.11	SA	SANDSTONE		yellow	27.10	3.00	2.55	Medium grained, well sorted. Massive.
SFQ-DDH3	27.08	27.57	0.49	SA	SANDSTONE		cream-orange				V coarse-medium grained, poorly sorted.
SFQ-DDH3	27.57	27.75	0.18	NS	Core loss						
SFQ-DDH3	27.75	28.08	0.33	SA	SANDSTONE		orange				Fine-medium grained, V well sorted. Massive. Palaeosol with long root.
SFQ-DDH3	28.08	28.64	0.56	SA	SANDSTONE		white				Fine-medium grained, V well sorted,. Massive. Some jointing.
SFQ-DDH3	28.64	30.03	1.39	SA	SANDSTONE		orange	30.10	3.00	2.80	As above
SFQ-DDH3	30.03	30.72	0.69	SA	SANDSTONE		orange & cream				Banded. Fine-medium grained, well sorted. Massive.
SFQ-DDH3	30.72	30.73	0.01	Fe	Fe STONE		brown				
SFQ-DDH3	30.73	31.105	0.375	SA	SANDSTONE		cream				Medium grained, well sorted. Massive.
SFQ-DDH3	31.105	31.110	0.005	Fe	Fe STONE		brown				
SFQ-DDH3	31.11	31.92	0.81	SA	SANDSTONE		cream				Medium grained. Bedded with grey & brown lamellae.
SFQ-DDH3	31.92	33.10	1.18	SA	SANDSTONE		cream	33.10	3.00	3.06	Medium grained, well sorted. Massive.
SFQ-DDH3	33.10	34.71	1.61	SA	SANDSTONE		cream				As above, with pale orange liesegang rings. Minor carbonaceous zones.
SFQ-DDH3	34.71	34.78	0.07	SA	SANDSTONE		grey & cream				Medium grained, well sorted. Massive. Carbonaceous fragments.
SFQ-DDH3	34.78	35.41	0.63	SA	SANDSTONE		cream				Medium grained, well sorted, massive. Orange at bottom.
SFQ-DDH3	35.41	35.46	0.05	Fe	Fe STONE		brown				X bedded surface.

SUTTON FOREST QUARRIES - DIAMOND DRILL HOLE LITHOLOGICAL LOGS

Hole ID	From	To	Int	Lith Code	Lithology	Weathering	Colour	Drill Depth	Drilled Int (m)	Core Rec (m)	Comment
SFQ-DDH3	35.46	35.56	0.10	SA	SANDSTONE		orange				Medium grained, X bedded.
SFQ-DDH3	35.56	35.57	0.01	Fe	Fe STONE		brown				
SFQ-DDH3	35.57	36.10	0.53	SA	SANDSTONE		cream	36.10	3.00	2.99	V coarse-medium grained, poorly sorted. Fining up unit.
SFQ-DDH3	36.10	36.56	0.46	CG	CONGLOMERATE		cream				Quartz pebbles in cream & orange sandstone matrix. Poorly sorted. Fining up unit.
SFQ-DDH3	36.56	36.67	0.11	SA	SANDSTONE		orange				Coarse to med grained, well sorted.
SFQ-DDH3	36.67	36.69	0.02	Fe	Fe STONE		brown				
SFQ-DDH3	36.69	37.50	0.81	SA	SANDSTONE		orange				V coarse to medium grained, poorly sorted. Fining up unit, with thin Fe lamellae.
SFQ-DDH3	37.50	37.53	0.03	Fe	Fe STONE		brown				
SFQ-DDH3	37.53	37.79	0.26	SA	SANDSTONE		cream & brn				V coarse to medium grained, V poorly sorted.
SFQ-DDH3	37.79	37.86	0.07	Fe	Fe STONE						
SFQ-DDH3	37.86	38.90	1.04	SH	SHALE		D grey	38.90	2.80	2.82	Carbonaceous shale. EOH 38.90m

SFQ-DDH4





SFQ-DDH4 Boxes 1 and 2



SFQ-DDH4 Boxes 3 and 4



SFQ-DDH4 Boxes 5 and 6



SFQ-DDH4 Boxes 7 and 8

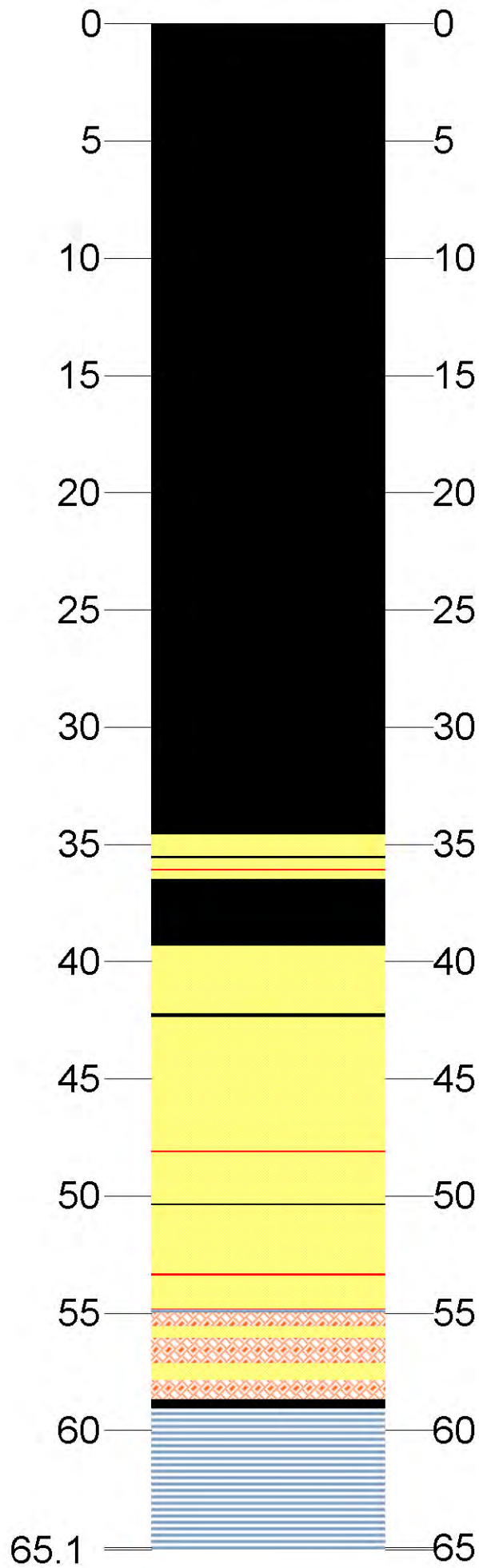
SUTTON FOREST QUARRIES - DIAMOND DRILL HOLE LITHOLOGICAL LOGS

Hole ID	From	To	Int	Lith Code	Lithology	Weathering	Colour	Drill Depth	Drilled Int (m)	Core Rec (m)	Comment
SFQ-DDH4	0.00	22.70	22.70	NS	Core Loss						Open hole. Start coring at 22.7m. No core, small bags of cuttings.
SFQ-DDH4	22.70	23.45	0.75	SA	SANDSTONE		Orange & brn				Med-coarse, mod sorted, minor Fe stained laminae.
SFQ-DDH4	23.45	23.70	0.25	NS	Core Loss			23.70	1.00	0.75	
SFQ-DDH4	23.70	24.13	0.43	SA	SANDSTONE		Orange & brn				As above, slightly coarser.
SFQ-DDH4	24.13	29.09	4.96	SA	SANDSTONE		cream-white				Med grained, mod-poor sorted, coarser towards base. Minor fine pebbles. V minor Fe lamellae and rings.
SFQ-DDH4	29.09	29.27	0.18	CG	CONGLOMERATE		cream-white				Poor sorted pebbly sand, qtz + cream clay clasts to 50mm dia
SFQ-DDH4	29.27	29.60	0.33	SA	SANDSTONE		white	29.60	5.90	5.90	Fine grained, well sorted, thin bedded, dip 15°. White clay and carb layers on bedding.
SFQ-DDH4	29.60	29.86	0.26	SA	SANDSTONE		white				As above, grading to med grained at base. Fining up.
SFQ-DDH4	29.86	30.70	0.84	SA	SANDSTONE		cream-white				Med-coarse, partly broken core. Minor p grey & cream clay lamellae on some bedding.
SFQ-DDH4	30.70	30.90	0.20	NS	Core Loss						
SFQ-DDH4	30.90	31.28	0.38	SA	SANDSTONE		orange-brn				Coarse grained, qtz grit & fine gravel. Fe lamellae on top of zone.
SFQ-DDH4	31.28	31.39	0.11	CG	CONGLOMERATE		orange-cream				Qtz pebbles to 40mm dia, + clay clasts
SFQ-DDH4	31.39	32.37	0.98	SA	SANDSTONE		p orange				Fine-coarse grained, mod sorted, coarser at bottom to 5mm qtz gravel.
SFQ-DDH4	32.37	33.20	0.83	SA	SANDSTONE		orange				Fine-med, well sorted.
SFQ-DDH4	33.20	33.22	0.015	Fe	Fe STONE		brown				Sandstone heavily Fe cemented
SFQ-DDH4	33.22	33.28	0.065	SA	SANDSTONE		cream				Fine-med, well sorted.
SFQ-DDH4	33.28	33.33	0.05	Fe	Fe STONE		brown				Sandstone heavily Fe cemented
SFQ-DDH4	33.33	33.83	0.50	SA	SANDSTONE		cream				Fine-med, well sorted. Some graphite rich layers.
SFQ-DDH4	33.83	33.86	0.03	Fe	Fe STONE		brown				With qtz pebbles to 20mm dia.
SFQ-DDH4	33.86	35.11	1.25	SA	SANDSTONE		cream				Fine, well sorted. Graphite rich at top. Well bedded dip 13°.
SFQ-DDH4	35.11	35.13	0.015	CG	CONGLOMERATE		P brn				Qtz pebbles to 10mm in f grained sandstone matrix.
SFQ-DDH4	35.13	35.50	0.375	SA	SANDSTONE		white	35.50	5.90	5.90	Fine-med, mod sorted.
SFQ-DDH4	35.50	35.63	0.13	Fe	Fe STONE		brown				Med grained sandstone
SFQ-DDH4	35.63	36.28	0.65	SA	SANDSTONE		brown				Coarse grained, pebbly. Some Fe cement with heavier veins. Scattered qtz pebbles to 15mm dia. 50% loss to Fe stone.
SFQ-DDH4	36.28	36.64	0.36	SA	SANDSTONE		cream				Coarse, poorly sorted.
SFQ-DDH4	36.64	36.65	0.01	Fe	Fe STONE		brown				Med grained sandstone
SFQ-DDH4	36.65	36.95	0.30	SA	SANDSTONE		cream				Med grained poorly sorted.
SFQ-DDH4	36.95	37.00	0.05	Fe	Fe STONE		brown				Med grained sandstone. Pebbly.
SFQ-DDH4	37.00	38.67	1.67	SA	SANDSTONE		cream				Coarse, poorly sorted. Qtz pebbles to 10mm dia.
SFQ-DDH4	38.67	38.68	0.01	Fe	Fe STONE		brown				
SFQ-DDH4	38.68	38.72	0.04	SA	SANDSTONE		orange				Med grained, well sorted.
SFQ-DDH4	38.72	38.79	0.065	Fe	Fe STONE		brown				Fine grained sandstone + qtz pebbles, with Fe cement. 15mm of FeOH precipitate at base.
SFQ-DDH4	38.79	39.02	0.235	SA	SANDSTONE		p brown				Fine-med grained, mod-well sorted. Fining up.
SFQ-DDH4	39.02	39.29	0.27	NS	Core Loss						
SFQ-DDH4	39.29	39.31	0.02	Fe	Fe STONE		brown				sandstone.
SFQ-DDH4	39.31	39.58	0.27	SA	SANDSTONE		cream				Med grained, well sorted. Some cream clay lamellae on bedding. Bedding dip 15°.
SFQ-DDH4	39.58	39.79	0.21	Fe	Fe STONE		brown				Med sandstone with qtz to 5mm dia, Fe cemented. 50% loss to Fe stone.
SFQ-DDH4	39.79	40.70	0.91	SA	SANDSTONE		cream				Med-coarse, mod sorted.

SUTTON FOREST QUARRIES - DIAMOND DRILL HOLE LITHOLOGICAL LOGS

Hole ID	From	To	Int	Lith Code	Lithology	Weathering	Colour	Drill Depth	Drilled Int (m)	Core Rec (m)	Comment
SFQ-DDH4	40.70	40.80	0.10	Fe	Fe STONE		brown				Fine-med sandstone with Fe cement.
SFQ-DDH4	40.80	41.40	0.60	SA	SANDSTONE		p orange	41.40	5.90	5.90	Med grained, mostly well sorted. Minor qtz pebbles to 5mm dia near top.
SFQ-DDH4	41.40	41.55	0.15	SA	SANDSTONE		p orange				As above.
SFQ-DDH4	41.55	41.57	0.015	Fe	Fe STONE		brown				Fine-med sandstone with Fe cement.
SFQ-DDH4	41.57	42.04	0.470	SA	SANDSTONE		p pink				Med-coarse, mod sorted. Some qtz pebbles to 15mm dia at base + clay clasts.
SFQ-DDH4	42.04	42.14	0.100	Fe	Fe STONE		brown				Fine-med sandstone with Fe cement.
SFQ-DDH4	42.14	42.81	0.675	SA	SANDSTONE		cream & p brn				Med-coarse, mod sorted. Minor Fe enriched laminae & thin bands to 5mm.
SFQ-DDH4	42.81	43.04	0.23	Fe	Fe STONE		brown				Fe cemented sandstone. 30% loss to Fe stone.
SFQ-DDH4	43.04	43.32	0.28	SA	SANDSTONE		cream				Med grained, mod sorted.
SFQ-DDH4	43.32	43.35	0.03	Fe	Fe STONE		brown				Fe cemented sandstone.
SFQ-DDH4	43.35	43.81	0.46	SA	SANDSTONE		cream				Med grained, mod sorted. Some graphite.
SFQ-DDH4	43.81	43.86	0.05	Fe	Fe STONE		brown				Fe cemented sandstone.
SFQ-DDH4	43.86	44.14	0.28	SA	SANDSTONE		p orange				Med grained, mod-well sorted. Random qtz pebbles + clay clasts.
SFQ-DDH4	44.14	44.74	0.60	CG	CONGLOMERATE		p orange				Qtz pebbles to 20mm dia in sand matrix. Some clay clasts.
SFQ-DDH4	44.74	45.14	0.40	NS	Core Loss						
SFQ-DDH4	45.14	45.31	0.17	SA	SANDSTONE		cream				Med grained, mod sorted.
SFQ-DDH4	45.31	45.36	0.05	CG	CONGLOMERATE						Qtz pebbles in sand matrix.
SFQ-DDH4	45.36	45.38	0.02	Fe	Fe STONE		brown				FeOH precipitate.
SFQ-DDH4	45.38	45.91	0.53	ST	SILTSTONE		grey				With cavities. Possible palaeosol? Top of Berry Fm
SFQ-DDH4	45.91	47.29	1.38	ST	SILTSTONE		Brn-grey	47.30	5.90	5.90	
SFQ-DDH4	47.29	51.10	3.81	ST	SILTSTONE		Yellow-green-grey	51.10	3.80	3.80	As above. Discoloured due to sulphide breakdown. Random pebbles to 30mm dia. Some core breakdown to friable dark grey material at 50.37m. EOH 51.1m

SFQ-DDH5





SFQ-DDH5 Boxes 1 and 2



SFQ-DDH5 Boxes 3 and 4



SFQ-DDH5 Boxes 5 and 6



SFQ-DDH5 Boxes 7 and 8

SUTTON FOREST QUARRIES - DIAMOND DRILL HOLE LITHOLOGICAL LOGS

Hole ID	From	To	Int	Lith Code	Lithology	Weathering	Colour	Drill Depth	Drilled Int (m)	Core Rec (m)	Comment
SFQ-DDH5	0.00	34.60	34.60	NS	Core Loss						Open hole. Start coring at 34.6m. No core, small bags of cuttings.
SFQ-DDH5	34.60	35.50	0.90	SA	SANDSTONE		p brown				Fine-med grained, well sorted, well bedded, dip 13°. Minor graphite on some bedding.
SFQ-DDH5	35.50	35.60	0.10	NS	Core Loss			35.60	1.00	0.90	
SFQ-DDH5	35.60	36.05	0.45	SA	SANDSTONE		p brown				As above.
SFQ-DDH5	36.05	36.13	0.08	Fe	Fe STONE		brown				Fine grained sandstone & FeOH precipitate
SFQ-DDH5	36.13	36.50	0.37	SA	SANDSTONE		cream				Fine-coarse grained, mod sorted. Banded. Some qtz pebbles to 20mm dia.
SFQ-DDH5	36.50	39.34	2.84	NS	Core Loss						
SFQ-DDH5	39.34	41.50	2.16	SA	SANDSTONE		cream	41.50	5.90	3.2	Fine-med grained, mod sorted, scattered qtz pebbles to 15mm dia +clay clasts.
SFQ-DDH5	41.50	42.00	0.50	SA	SANDSTONE		cream				As above.
SFQ-DDH5	42.00	42.22	0.22	SA	SANDSTONE		cream				Fine grained, well sorted.
SFQ-DDH5	42.22	42.36	0.14	NS	Core Loss						
SFQ-DDH5	42.36	47.40	5.04	SA	SANDSTONE		cream	47.40	5.90	5.84	Med-V coarse grained, mod to poor sorted, layered. Qtz pebble layers throughout.
SFQ-DDH5	47.40	48.07	0.67	SA	SANDSTONE		cream				As above.
SFQ-DDH5	48.07	48.12	0.05	Fe	Fe STONE		brown				Precipitated FeOH
SFQ-DDH5	48.12	49.89	1.77	SA	SANDSTONE		cream				Fine grained, well sorted. Slightly coarser (M g) towards base. Minor coarse clay clasts at bottom + qtz pebbles.
SFQ-DDH5	49.89	49.90	0.005	Fe	Fe STONE		brown				
SFQ-DDH5	49.90	49.96	0.06	SA	SANDSTONE		orange				Med grained, well sorted.
SFQ-DDH5	49.96	49.99	0.03	Fe	Fe STONE		brown				
SFQ-DDH5	49.99	50.32	0.34	SA	SANDSTONE		orange				Med grained, well sorted.
SFQ-DDH5	50.32	50.39	0.07	NS	Core Loss						
SFQ-DDH5	50.39	50.55	0.16	SA	SANDSTONE		cream				Coarse grained, poorly sorted. Friable.
SFQ-DDH5	50.55	52.62	2.07	SA	SANDSTONE		p orange				Med grained, mod sorted, minor random coarser qtz pebbles. Bedding 16°.
SFQ-DDH5	52.62	53.30	0.68	SA	SANDSTONE		p orange	53.30	5.90	5.80	As above, but slightly coarser & less well sorted.
SFQ-DDH5	53.30	53.40	0.10	Fe	Fe STONE		cream & brn				Conglomerate & med grained sandstone with Fe cement. Qtz pebbles to 15mm. 50% loss.
SFQ-DDH5	53.40	53.66	0.26	SA	SANDSTONE		cream				Med grained mod sorted. Some qtz pebbles.
SFQ-DDH5	53.66	53.67	0.01	Fe	Fe STONE		brown				Med grained sandstone with Fe cement.
SFQ-DDH5	53.67	54.11	0.44	SA	SANDSTONE		p brown				Coarse grained, poorly sorted. Friable. Qtz grains to 5mm in med matrix.
SFQ-DDH5	54.11	54.82	0.71	SA	SANDSTONE		cream				Med grained, mod sorted, competent core. Minor random qtz pebbles to 5mm.
SFQ-DDH5	54.82	54.86	0.04	Fe	Fe STONE		brown				Siltstone, Fe rich, well bedded.
SFQ-DDH5	54.86	54.97	0.11	ST	SILTSTONE		cream				V sandy, well bedded. Bedding dip 12°.
SFQ-DDH5	54.97	55.58	0.61	CG	CONGLOMERATE		p orange				Poorly sorted, qtz pebbles to 45mm in med-co grained sand matrix. Some clay clasts.
SFQ-DDH5	55.58	56.05	0.47	SA	SANDSTONE		p orange				Med-co grained, poorly sorted, scattered qtz pebbles to 10mm.
SFQ-DDH5	56.05	57.14	1.09	CG	CONGLOMERATE		p orange				Poorly sorted, qtz pebbles to 45mm in med-co grained sand matrix. Some clay clasts.
SFQ-DDH5	57.14	57.86	0.72	SA	SANDSTONE		p orange				Coarse grained, poor sorted, with qtz pebbles, to 10mm.
SFQ-DDH5	57.86	58.68	0.82	CG	CONGLOMERATE		white				Unsorted qtz pebbles to 50mm, little sand matrix. BASAL Cgt

SUTTON FOREST QUARRIES - DIAMOND DRILL HOLE LITHOLOGICAL LOGS

Hole ID	From	To	Int	Lith Code	Lithology	Weathering	Colour	Drill Depth	Drilled Int (m)	Core Rec (m)	Comment
SFQ-DDH5	58.68	59.08	0.40	NS	Core Loss						
SFQ-DDH5	59.08	59.20	0.12	ST	SILTSTONE		grey	59.2	5.9	5.5	With cavities in core. Palaeosol? V friable at top of zone. Berry Fm
SFQ-DDH5	59.20	59.68	0.48	ST	SILTSTONE		grey				As above. V friable to 59.3m
SFQ-DDH5	59.68	65.10	5.42	ST	SILTSTONE		grey & brn	65.1	5.9	5.9	Siltstone with alteration stain, sulphide breakdown. Wavy bedding, bioturbated. EOH 65.10m

APPENDIX 2b

OPEN HOLE LITHOLOGICAL LOGS

SFQ-OH01

SFQ-OH02

SFQ-OH03

SFQ-OH04

‘Lith Code’ = ‘Lithology’ in the adjoining column to the right.

Other abbreviations:

brn = brown

d = dark

p = pale

vp = very pale

med = medium

mod = moderate(ly)

v = very

Fe = iron

ss = sandstone

x = cross

SUTTON FOREST QUARRIES - OCTOBER 2012 OPEN HOLE LITHOLOGICAL LOGS

Min	From	To	LithCode	Major Lith	Maj Grainsize	Maj Sorting	Maj Colour	Comment	Minor Lith	Min Grainsiz	Min Colour	Quality
SFQ-OH1	0.0	1.0	Sa	SAND	medium	mod	brown	Fe stone bands. Small sample.	clay		brown	Good
SFQ-OH1	1.0	2.0	Sa	SAND	medium	mod	orange	Minor Fe bands. Small sample.	clay		orange	Good
SFQ-OH1	2.0	3.0	Sa	SAND	medium	mod	orange-brn	Fe stone bands (red). Fair sample.	clay		orange-brn	Good
SFQ-OH1	3.0	4.0	Sa	SAND	medium	well	orange	Good sample.	clay		orange	Good
SFQ-OH1	4.0	5.0	Sa	SAND	medium-fine	well	orange	Fe stone 4.9-5.0m, hard. Good sample.	clay		orange	Good
SFQ-OH1	5.0	6.0	Sa	SAND	fine	well	orange	Fe stone bands 5.0-5.4m. Good sample.	clay		orange	Good
SFQ-OH1	6.0	7.0	Sa	SAND	fine	well	yellow	Good sample.	clay		yellow	Good
SFQ-OH1	7.0	8.0	Sa	SAND	fine	well	cream	Good sample.	clay		cream	Good
SFQ-OH1	8.0	9.0	Sa	SAND	fine	well	cream	Good sample.	clay		cream	Good
SFQ-OH1	9.0	10.0	Sa	SAND	fine	well	white	Good sample.	clay		white	Good
SFQ-OH1	10.0	11.0	Sa	SAND	fine	well	brn-red	Good sample.	clay		brn-red	Good
SFQ-OH1	11.0	12.0	Sa	SAND	medium-fine	moderate	p brown	Good sample.	clay		p brown	Good
SFQ-OH1	12.0	13.0	Sa	SAND	medium	moderate	p brown	Good sample.	clay		p brown	Good
SFQ-OH1	13.0	14.0	Sa	SAND	fine	well	red	Good sample.	clay +25%		red	fair-good
SFQ-OH1	14.0	15.0	Sa	SAND	fine	well	red	Good sample.	clay		red	Good
SFQ-OH1	15.0	16.0	Sa	SAND	medium	mod	red-brown	Good sample.	clay		red-brown	Good
SFQ-OH1	16.0	17.0	Sa	SAND	medium-fine	mod	red-brown	Good sample.	clay		red-brown	Good
SFQ-OH1	17.0	18.0	Sa	SAND	medium	mod	p brown	Good sample.	clay		p brown	Good
SFQ-OH1	18.0	19.0	Sa	SAND	medium	mod	p red & red	Good sample.	clay		p red & red	Good
SFQ-OH1	19.0	20.0	Sa	SAND	medium-fine	mod	p red	Good sample.	clay		p red	Good
SFQ-OH1	20.0	21.0	Sa	SAND	fine	well	cream	Good sample.	clay		cream	Good
SFQ-OH1	21.0	22.0	Sa	SAND	fine	well	brn & p brown	Good sample.	clay		brn & p brown	Good
SFQ-OH1	22.0	23.0	Sa	SAND	medium-fine	mod	brn & p brown	Fe stone bands. Slight moisture. Good sample.	clay		brn & p brown	Good
SFQ-OH1	23.0	24.0	Sa	SAND	fine	mod	brown	Small wet sample.	clay		brown	fair-good
SFQ-OH1	24.0	25.0	Sa	SAND	medium	mod	brown	Small wet sample.	clay		brown	fair-good
SFQ-OH1	25.0	26.0	Sa	SAND	coarse-medium	poor	brown	Medium wet sample.	clay		brown	fair-good
SFQ-OH1	26.0	27.0	Sa	SAND	medium	poor	brown	Small wet sample.	clay		brown	fair-good
SFQ-OH1	27.0	28.0	Sa	SAND	medium	poor	brown	Small wet sample.	clay		brown	fair-good
SFQ-OH1	28.0	29.0	Sa	SAND	coarse-medium	poor	brown	Small wet sample.	clay		brown	fair-good
SFQ-OH1	29.0	30.0	Sa	SAND	medium-fine	poor	brown	Small wet sample.	clay		brown	fair-good
SFQ-OH1	30.0	31.0	Sa	SAND	coarse-medium	poor	brown	Small wet sample.	clay		brown	fair-good
SFQ-OH1	31.0	32.0	Sa	SAND	coarse-medium	poor	brown	Small wet sample. Loss of water, poor return.	clay		brown	fair-good
EOH 32m												

SUTTON FOREST QUARRIES - OCTOBER 2012 OPEN HOLE LITHOLOGICAL LOGS

Min	From	To	LithCode	Major Lith	Maj Grainsize	Maj Sorting	Maj Colour	Comment	Minor Lith	Min Grainsiz	Min Colour	Quality
SFQ-OH2	0.0	1.0	Sa	SAND	medium	mod	brown-orange	Soil & sand. Small sample.	Organics		brown-orange	Good
SFQ-OH2	1.0	2.0	Sa	SAND	coarse-medium	poor-mod	orange	Some granules to 3mm.	clay		orange	Good
SFQ-OH2	2.0	3.0	Sa	SAND	fine	well	orange	Casing to 3m. Small sample.	clay		orange	Good
SFQ-OH2	3.0	4.0	Sa	SAND	fine-medium	well	brown	Clay lumps. Medium sample.	clay +25%		brown	fair-good
SFQ-OH2	4.0	5.0	Sa	SAND	fine-medium	well	brown	Good sample.	clay		brown	Good
SFQ-OH2	5.0	6.0	Sa	SAND	medium	well	orange	Good sample.	clay		orange	Good
SFQ-OH2	6.0	7.0	Sa	SAND	coarse-medium	mod	orange-brn	Good sample.	clay		orange-brn	Good
SFQ-OH2	7.0	8.0	Sa	SAND	fine-medium	well	orange-brn	Good sample.	clay		orange-brn	Good
SFQ-OH2	8.0	9.0	Sa	SAND	fine-medium	well	p grey	Good sample.	clay		p grey	Good
SFQ-OH2	9.0	10.0	Sa	SAND	fine	well	cream	Some grey shale lumps. Good sample.	clay		cream	Good
SFQ-OH2	10.0	11.0	Sa	SAND	fine	well	p grey	Good sample.	clay +25%		p grey	fair-good
SFQ-OH2	11.0	12.0	Sa	SAND	fine	well	p grey	Some grey shale lumps. Good sample.	clay +25%		p grey	fair-good
SFQ-OH2	12.0	13.0	Sa	SAND	fine	well	p grey	Some grey shale lumps. Good sample.	clay		p grey	Good
SFQ-OH2	13.0	14.0	Sa	SAND	coarse-medium	mod	cream	Minor grey shale lumps. Good sample.	clay		cream	Good
SFQ-OH2	14.0	15.0	Sa	SAND	medium	mod	p orange	Good sample.	clay		p orange	Good
SFQ-OH2	15.0	16.0	Sa	SAND	medium	mod	brown	Harder. Good sample.	clay		brown	Good
SFQ-OH2	16.0	17.0	Sa	SAND	fine	mod	brn & grey	Harder. Some clay lumps. Good sample.	clay +25%		brn & grey	fair-good
SFQ-OH2	17.0	18.0	Sa	SAND	medium	mod	brn & grey	Grey clay lumps. Good sample.	clay +25%		brn & grey	fair-good
SFQ-OH2	18.0	19.0	Sa	SAND	fine	mod	cream	Small sample.	clay		cream	Good
SFQ-OH2	19.0	20.0	Sa	SAND	fine	well	p grey	Small sample.	clay		p grey	Good
SFQ-OH2	20.0	21.0	Sa	SAND	fine	well	cream	Pulled rods, slow drilling. Big sample.	clay		cream	Good
SFQ-OH2	21.0	21.5	Sa	SAND	fine-medium	well	brown	Slow drilling, water in hole.	clay		brown	fair-good
SFQ-OH2	21.5	22.0	Sa	SAND	coarse-medium	mod	cream	Water injection. Small wet sample.	clay		cream	fair-good
SFQ-OH2	22.0	23.0	Sa	SAND	medium	mod	red & cream	Poor sample return, small.	clay		red & cream	fair-good
SFQ-OH2	23.0	24.0	Sa	SAND	fine	mod	brown	Some Fe stone bands.	clay		brown	fair-good
SFQ-OH2	24.0	25.0	Sa	SAND		well	cream	Small sample.	clay		cream	fair-good
SFQ-OH2	25.0	26.0	Sa	SAND		well	cream	Small sample.	clay		cream	fair-good
SFQ-OH2	26.0	27.0	Sa	SAND	fine	well	orange	Big sample.	clay		orange	fair-good
SFQ-OH2	27.0	28.0	Sa	SAND	coarse-medium	poor	orange	Small sample.	clay		orange	fair-good
SFQ-OH2	28.0	29.0	Sa	SAND	medium	poor	brown	Medium sample.	clay		brown	fair-good
SFQ-OH2	29.0	30.0	Sa	SAND	fine	mod	brown	Medium large sample.	clay		brown	fair-good
SFQ-OH2	30.0	31.0	Sa	SAND	fine	mod	brown	Small sample.	clay		brown	fair-good
SFQ-OH2	31.0	32.0	Sa	SAND	medium	mod	brown	Small sample.	clay		brown	fair-good
SFQ-OH2	32.0	33.0	Sa	SAND	medium	mod	cream-brn	Medium sample.	clay		cream-brn	fair-good
SFQ-OH2	33.0	34.0	Sa	SAND	coarse	mod	cream-brn	V small sample.	clay		cream-brn	fair-good
SFQ-OH2	34.0	35.0	Sa	SAND	coarse	mod	cream-brn	VV small sample.	clay		cream-brn	fair-good
SFQ-OH2	35.0	36.0	Sh	SHALE			D grey	EOH 36.0m in D grey shale.				

SUTTON FOREST QUARRIES - OCTOBER 2012 OPEN HOLE LITHOLOGICAL LOGS

Min	From	To	LithCode	Major Lith	Maj Grainsize	Maj Sorting	Maj Colour	Comment	Minor Lith	Min Grainsiz	Min Colour	Quality
SFQ-OH3	0.0	1.0	Sa	SAND	medium	mod	orange	Small sample.	clay		orange	Good
SFQ-OH3	1.0	2.0	Sa	SAND	medium	well	orange	Small sample.	clay		orange	Good
SFQ-OH3	2.0	3.0	Sa	SAND	medium	well	orange	Small sample.	clay		orange	Good
SFQ-OH3	3.0	4.0	Sa	SAND	coarse-medium	mod	brown	Good sample.	clay		brown	Good
SFQ-OH3	4.0	5.0	Sa	SAND	medium	mod	orange-brn	Good sample.	clay		orange-brn	Good
SFQ-OH3	5.0	6.0	Sa	SAND	medium-fine	well	orange-brn	Good sample.	clay		orange-brn	Good
SFQ-OH3	6.0	7.0	Sa	SAND	medium-fine	well	orange-red	Good sample.	clay		orange-red	Good
SFQ-OH3	7.0	8.0	Sa	SAND	medium-fine	well	p brown	Good sample.	clay		p brown	Good
SFQ-OH3	8.0	9.0	Sa	SAND	fine	well	p brown	Good sample.	clay		p brown	Good
SFQ-OH3	9.0	10.0	Sa	SAND	fine	well	d brown	Good sample.	clay		d brown	Good
SFQ-OH3	10.0	11.0	Sa	SAND	coarse-medium	moderate-poor	d brown	Good sample.	clay		d brown	Good
SFQ-OH3	11.0	12.0	Sa	SAND	medium-fine	well	orange-brn	Good sample.	clay		orange-brn	Good
SFQ-OH3	12.0	13.0	Sa	SAND	medium	mod	orange	Fair sample	clay		orange	Good
SFQ-OH3	13.0	14.0	Sa	SAND	medium-fine	mod	orange-brn	Large sample.	clay		orange-brn	Good
SFQ-OH3	14.0	15.0	Sa	SAND	medium-fine	mod	brown	Good sample.	clay		brown	Good
SFQ-OH3	15.0	16.0	Sa	SAND	fine	well	orange	Small sample.	clay		orange	Good
SFQ-OH3	16.0	17.0	Sa	SAND	fine	well	orange	Good sample.	clay		orange	Good
SFQ-OH3	17.0	18.0	Sa	SAND	v fine	well	orange	Good sample.	clay		orange	Good
SFQ-OH3	18.0	19.0	Sa	SAND	v fine	well	orange	Good sample.	clay		orange	Good
SFQ-OH3	19.0	20.0	Sa	SAND	fine	well	orange-brn	Pulled rods at 20m. Damp bit, blocked.	clay		orange-brn	Good
SFQ-OH3	20.0	21.0	Sa	SAND	medium-fine	mod	orange-brn	Water injection started.	clay		orange-brn	fair-good
SFQ-OH3	21.0	22.0	Sa	SAND	medium	mod	orange		clay		orange	fair-good
SFQ-OH3	22.0	23.0	Sa	SAND	medium-fine	mod	orange		clay		orange	fair-good
SFQ-OH3	23.0	24.0	Sa	SAND	fine	mod	orange		clay		orange	fair-good
SFQ-OH3	24.0	25.0	Sa	SAND	medium-fine	mod	orange		clay		orange	fair-good
SFQ-OH3	25.0	26.0	Sa	SAND	fine	well-mod	orange		clay		orange	fair-good
SFQ-OH3	26.0	27.0	Sa	SAND	fine	mod	orange		clay		orange	fair-good
SFQ-OH3	27.0	28.0	Sa	SAND	fine	well	cream		clay		cream	fair-good
SFQ-OH3	28.0	29.0	Sa	SAND	fine	well	cream		clay		cream	fair-good
SFQ-OH3	29.0	30.0	Sa	SAND	fine	well	cream-brn	Small sample.	clay		cream-brn	fair-good
SFQ-OH3	30.0	31.0	Sa	SAND	fine	well	cream-grey	Good sample.	clay		cream-grey	fair-good
SFQ-OH3	31.0	32.0	Sa	SAND	fine	well	cream-grey	Good sample.	clay		cream-grey	fair-good
SFQ-OH3	32.0	33.0	Sa	SAND	medium-fine	well	brown	Good sample.	clay		brown	fair-good
SFQ-OH3	33.0	34.0	Sa	SAND	coarse-medium	poor	brown	Small sample.	clay		brown	fair-good
SFQ-OH3	34.0	35.0	Sa	SAND	medium-fine	poor	cream	Good sample.	clay		cream	fair-good
SFQ-OH3	35.0	36.0	Sa	SAND	fine	mod	p brown	Small sample.	clay		p brown	fair-good
SFQ-OH3	36.0	37.0	Sa	SAND	medium-fine	mod	p brown	Fair sample	clay		p brown	fair-good
SFQ-OH3	37.0	38.0	Sa	SAND	medium	mod	p brown	Good sample.	clay		p brown	fair-good
SFQ-OH3	38.0	39.0	Sa	SAND	medium	mod	p brown	Good sample. EOH 39.0m	clay		p brown	fair-good

SUTTON FOREST QUARRIES - OCTOBER 2012 OPEN HOLE LITHOLOGICAL LOGS

Min	From	To	LithCode	Major Lith	Maj Grainsize	Maj Sorting	Maj Colour	Comment	Minor Lith	in Grainsiz	Min Colour	Quality
SFQ-OH4	0.0	1.0	Sa	SAND	medium	well-mod	orange	Small sample.	clay		orange	Good
SFQ-OH4	1.0	2.0	Sa	SAND	medium	well-mod	orange	Small sample. Fe stone bands.	Fe stone		orange	Good
SFQ-OH4	2.0	3.0	Sa	SAND	medium	well-mod	orange-brn	Open hole to 2.2m. Fe stone band.	Fe stone		orange-brn	Good
SFQ-OH4	3.0	4.0	Sa	SAND	medium-fine	well	cream	Good sample.	clay		cream	Good
SFQ-OH4	4.0	5.0	Sa	SAND	medium-fine	well	cream	Good sample.	clay		cream	Good
SFQ-OH4	5.0	6.0	Sa	SAND	medium-fine	well	cream	Good sample.	clay		cream	Good
SFQ-OH4	6.0	7.0	Sa	SAND	medium-fine	well	cream	Good sample.	clay		cream	Good
SFQ-OH4	7.0	8.0	Sa	SAND	medium-fine	well	cream	Good sample.	clay		cream	Good
SFQ-OH4	8.0	9.0	Sa	SAND	medium-fine	well	cream	Good sample.	clay		cream	Good
SFQ-OH4	9.0	10.0	Sa	SAND	medium	mod	orange-brn	Good sample.	clay		orange-brn	Good
SFQ-OH4	10.0	11.0	Sa	SAND	medium	mod	orange	Good sample.	clay		orange	Good
SFQ-OH4	11.0	12.0	Sa	SAND	medium-fine	mod	cream	Good sample.	clay		cream	Good
SFQ-OH4	12.0	13.0	Sa	SAND	coarse-medium	mod-poor	cream	Good sample.	clay		cream	Good
SFQ-OH4	13.0	14.0	Sa	SAND	medium-fine	mod	cream	Good sample.	clay		cream	Good
SFQ-OH4	14.0	15.0	Sa	SAND	medium	mod	orange	Good sample.	clay		orange	Good
SFQ-OH4	15.0	16.0	Sa	SAND	fine	well	cream	Good sample.	clay		cream	Good
SFQ-OH4	16.0	17.0	Sa	SAND	fine	well	cream	Good sample.	clay		cream	Good
SFQ-OH4	17.0	18.0	Sa	SAND	fine	well	cream-grey	Shale lenses. Good sample.	clay		cream-grey	Good
SFQ-OH4	18.0	19.0	Sa	SAND	fine	well	p. Grey	Shale lenses. Good sample.	clay		p. Grey	Good
SFQ-OH4	19.0	20.0	Sa	SAND	fine	well	p. Grey	Shale lenses. Good sample.	clay		p. Grey	Good
SFQ-OH4	20.0	21.0	Sa	SAND	fine	well	p. Grey	Orange SS at end of sample. Good sample.	clay		p. Grey	Good
SFQ-OH4	21.0	22.0	Sa	SAND	medium-fine	well	orange	Good sample.	clay		orange	Good
SFQ-OH4	22.0	23.0	Sa	SAND	medium	mod	orange	Good sample.	clay		orange	Good
SFQ-OH4	23.0	24.0	Sa	SAND	coarse	poor-mod	orange	Fair sample	clay		orange	Good
SFQ-OH4	24.0	25.0	Sa	SAND	medium	mod	orange	Good sample.	clay		orange	Good
SFQ-OH4	25.0	26.0	Sa	SAND	coarse-medium	poor-mod	orange	Good sample.	clay		orange	Good
SFQ-OH4	26.0	27.0	Sa	SAND	coarse-medium	mod	brown	Fe stone + sand. Fair sample.	clay		brown	Good
SFQ-OH4	27.0	28.0	Sa	SAND	coarse-medium	mod	orange	Good sample.	clay		orange	fair-good
SFQ-OH4	28.0	29.0	Sa	SAND	medium	mod	orange	Good sample.	clay		orange	fair-good
SFQ-OH4	29.0	30.0	Sa	SAND	medium	mod	orange	Fair sample	clay		orange	fair-good
SFQ-OH4	30.0	31.0	Sa	SAND	medium	mod	cream-brn	Good sample.	clay		cream-brn	fair-good
SFQ-OH4	31.0	32.0	Sa	SAND	medium	mod	cream-brn	Good sample.	clay		cream-brn	fair-good
SFQ-OH4	32.0	33.0	Sa	SAND	medium-fine	well	p brown	Small sample	clay		p brown	fair-good
SFQ-OH4	33.0	34.0	Sa	SAND	medium	mod	p brown	Good sample.	clay		p brown	fair-good
SFQ-OH4	34.0	35.0	Sa	SAND	coarse-medium	mod	p orange	Good sample.	clay		p orange	fair-good
SFQ-OH4	35.0	36.0	Sa	SAND	medium-fine	mod	p brown	Fe stone band. Good sample.	clay		p brown	fair-good
SFQ-OH4	36.0	37.0	Sa	SAND	medium	mod	p grey	Good sample.	clay		p grey	fair-good
SFQ-OH4	37.0	38.0	Sa	SAND	medium	mod	p brown	Fe stone band. Good sample.	clay		p brown	fair-good
SFQ-OH4	38.0	39.0	Sa	SAND	medium	mod	brown	Fe stone band. Good sample.	clay		brown	fair-good
SFQ-OH4	39.0	40.0	Sa	SAND	medium	mod	brown	Fe stone band. Large sample.	clay		brown	fair-good
SFQ-OH4	40.0	40.7	Sh	SHALE			brn + grey	EOH 40.7m. Dry hole.				poor

APPENDIX 3a

BULK DENSITY

SAMPLE INTERVALS AND TEST RESULTS

BULK DENSITY TEST SAMPLES

DRILL HOLE	DEPTH (m)	CORE LENGTH (mm)	LITHOLOGY	USE
SFQ-DH1	13.7	285	Sandstone.	Feed
	21.4	130	Fe cemented sandstone (ironstone).	Waste
	24.3	270	Hard sandstone.	Feed
	27.2	135	Sandstone.	Feed
	33.1	310	Sandstone.	Feed
	42.3	185	Sandstone.	Feed
	46.1	256	Sandstone.	Feed
SFQ-DDH2	9.3	345	Hard sandstone.	Feed
	13.2	312	Sandstone.	Feed
	23.5	135	Sandstone.	Feed
	26.7	130	Sandstone.	Feed
	33.9	130	Sandstone.	Feed
	37.1	112	Sandstone.	Feed
SFQ-DDH3	11.1	100	Sandstone.	Feed
	21.3	190	Hard sandstone.	Feed
	32.0	265	Hard sandstone.	Feed
	35.7	255	Sandstone.	Feed

Aggregate/Soil Test Report

Report No.: MAT:CWES13W00133

Issue No.: 1

Client: Graham Lee & Associates Pty. Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:

Project No.: INFOCWES00258AA

Project: Drill Core Sample Testing

Lot No.: **TRN:**

A O'Callaghan

Signatory: Adam O'Callaghan
(Senior Geotechnician)

Date of Issue: (Type date here)

Sampling Details

Specification: No Specification
Sampling Method: Submitted by Client

Sample(s) Details and Test(s) Results

Density of Rock Cores by Immersion

Sample ID:	SFQ-DDH1	SFQ-DDH1	SFQ-DDH1	SFQ-DDH1
Field Sample:	1-1	1-2	1-3	1-4
Date Submitted:	15/01/2013	15/01/2013	15/01/2013	15/01/2013
Source:	Client	Client	Client	Client
Material:	Purple banded sandstone	Ironstone	Grey sandstone, fine grained	Orange sandstone
Depth:	13.7m	21.4m	24.3m	27.2m
Length of Core:	285mm	130mm	270mm	135mm
Bulk Density, t/m³	2.12	2.86	2.26	2.09
As Recieve				

Sample ID:	SFQ-DDH1	SFQ-DDH1	SFQ-DDH1	
Field Sample:	1-5	1-6	1-7	
Date Submitted:	15/01/2013	15/01/2013	15/01/2013	
Source:	Client	Client	Client	
Material:	Grey sandstone, fine grained	Orange sandstone	Orange sandstone	
Depth:	33.1m	42.3m	46.1m	
Length of Core:	310mm	185mm	256mm	
Bulk Density, t/m³	2.48	2.27	2.13	
As Recieve				

Comments:

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For

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Client: Graham Lee & Associates Pty. Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:

Project No.: INFOCWES

Project: Drill Core Sample Testing

Lot No.: **TRN:**

A O'Callaghan

Signatory: Adam O'Callaghan
(Senior Geotechnician)

Date of Issue: (Type date here)

Sampling Details

Specification: No Specification
Sampling Method: Submitted by Client

Sample(s) Details and Test(s) Results

Density of Rock Cores by Immersion

Sample ID:	SFQ-DDH2	SFQ-DDH2	SFQ-DDH2	SFQ-DDH2
Field Sample:	2-1	2-2	2-3	2-4
Date Submitted:	15/01/2013	15/01/2013	15/01/2013	15/01/2013
Source:	Client	Client	Client	Client
Material:	Grey sandstone, fine grained	Orange sandstone	Grey clayey sandstone, fine grained	Orange sandstone
Depth:	9.3m	13.2m	23.5m	26.7m
Length of Core:	345mm	312mm	135mm	130mm
Bulk Density, t/m³	2.21	2.18	2.45	2.18
As Recieve				

Sample ID:	SFQ-DDH2	SFQ-DDH2		
Field Sample:	2-5	2-6		
Date Submitted:	15/01/2013	15/01/2013		
Source:	Client	Client		
Material:	Coarse orange sandstone	Coarse grey sandstone		
Depth:	33.9m	37.1m		
Length of Core:	130mm	112mm		
Bulk Density, t/m³	2.29	2.29		
As Recieve				

Comments:

Page 2 of 3

For

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Aggregate/Soil Test Report

Report No.: MAT:CWES13W00133

Issue No.: 1

Client: Graham Lee & Associates Pty. Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:

Project No.: INFOCWES

Project: Drill Core Sample Testing

Lot No.: **TRN:**

A O'Callaghan

Signatory: Adam O'Callaghan
(Senior Geotechnician)

Date of Issue: (Type date here)

Sampling Details

Specification: No Specification
Sampling Method: Submitted by Client

Sample(s) Details and Test(s) Results

Density of Rock Cores by Immersion

Sample ID:	SFQ-DDH3	SFQ-DDH3	SFQ-DDH3	SFQ-DDH3
Field Sample:	3-1	3-2	3-3	3-4
Date Submitted:	15/01/2013	15/01/2013	15/01/2013	15/01/2013
Source:	Client	Client	Client	Client
Material:	Friable orange sandstone	Grey sandstone, fine grained	Orange sandstone	Orange sandstone
Depth:	11.1m	21.3m	26.0m	32.0m
Length of Core:	100mm	190mm	Not Received	265mm
Bulk Density, t/m³	2.13	2.20	Not Received	2.31
As Recieve				

Sample ID:	SFQ-DDH3			
Field Sample:	3-5			
Date Submitted:	15/01/2013			
Source:	Client			
Material:	Coarse orange sandstone			
Depth:	35.7m			
Length of Core:	255mm			
Bulk Density, t/m³	2.33			
As Recieve				

Comments:

Page 3 of 3

For

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APPENDIX 3b

SIZE GRADINGS AND OTHER TEST RESULTS

SAMPLE INTERVALS AND TESTRITE TEST RESULTS

CORE SAMPLE COMPOSITES

WASHED SIEVE ANALYSIS BY TESTRITE

DRILL HOLE	DEPTH (m)	INTERVAL (m)	LITHOLOGY	CORE LOSS (m)	CORE RECOVERY (%)
SFQ-DDH1	9.53 to 18.1	8.57	Fine-medium sandstone	0.84	90
	18.10 to 23.25	5.15	Fine-med sandstone with Fe bands & core loss	0.94	82
	23.25 to 32.52	9.27	Fine-medium sandstone, grey clayey	0.0	100
	32.52 to 42.06	9.54	Fine-medium sandstone, grey clayey	0.11	99
	42.06 to 51.09	9.03	Coarse sandstone, pale orange	0.16	98
SFQ-DDH2	4.78 to 8.69	3.91	Fine-medium friable sandstone	0.03	99
	8.69 to 16.44	7.75	Fine-medium sandstone	0.19	98
	21.40 to 24.05	2.65	Medium sandstone	0.0	100
	24.05 to 29.06	5.01	Medium sandstone	0.08	98
	32.50 to 40.49	7.99	Coarse sandstone, some core loss	0.92	88
SFQ-DDH3	2.5 to 14.3	11.8	Fine-medium sandstone & core loss	5.35	55
	14.49 to 20.12	5.63	Grey clayey sandstone & core loss	2.46	56
	20.27 to 25.63	5.36	Grey clayey sandstone	0	100
	25.63 to 33.10	7.47	Fine-medium sandstone	0.68	91
	33.10 to 37.79	4.69	Coarse sandstone	0	100

**REPORT ON SIEVE ANALYSIS
TO A.S 1141.11.1 (Washed analysis)**

JOB NO CWES13W00134.a
PAGE NO. 1 of 1
DATE TESTED 30.01.13 to 13.03.13

CLIENT Graham Lee & Associates
ADDRESS 22 Grove Avenue
Penshurst NSW 2222

PROJECT: SFQ Testing
SOURCE: Rock Cores

SAMPLED BY: OTHERS



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SAMPLE NO	SQF-DDH1 9.53-18.10m	SQF-DDH1 18.10-23.25m	SQF-DDH1 23.25 - 32.52m	SQF-DDH1 32.52-42.06m
DESCRIPTION OF MATERIAL	Crushed Sandstone Cores	Crushed Sandstone Cores	Crushed Sandstone Cores	Crushed Sandstone Cores

SIEVE ANALYSIS

% PASSING SIEVE SIZE SHOWN	19mm	--	100	--	100
	13.2mm	--	98	--	98
	9.5mm	100	94	100	98
	6.7mm	100	93	100	94
	4.75mm	100	92	99	93
	2.36mm	99	90	98	89
	1.18mm	97	88	94	82
	0.600mm	87	82	87	68
	0.425mm	74	55	80	54
	0.300mm	52	33	59	39
	0.150mm	24	20	28	18
	0.075mm	17	14	18	12

SIGNED BY:

A.O'CALLAGHAN

A handwritten signature in black ink, appearing to read 'A O'Callaghan'.

APPROVED SIGNATORY

DATE

18/03/2013

**REPORT ON SIEVE ANALYSIS
TO A.S 1141.11.1 (Washed analysis)**

JOB NO CWES13W00134.a
PAGE NO. 2 of 6
DATE TESTED 30.01.13 to 13.03.13

CLIENT Graham Lee & Associates
ADDRESS 22 Grove Avenue
Penshurst NSW 2222

PROJECT: SFQ Testing
SOURCE: Rock Cores

SAMPLED BY: OTHERS



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SAMPLE NO	SQF-DDH1 42.06 - 51.09m			
DESCRIPTION OF MATERIAL	Crushed Sandstone Cores			

SIEVE ANALYSIS

% PASSING SIEVE SIZE SHOWN	19mm		--	--	--
	13.2mm	100	--	--	--
	9.5mm	98	--	--	--
	6.7mm	96	--	--	--
	4.75mm	94	--	--	--
	2.36mm	90	--	--	--
	1.18mm	80	--	--	--
	0.600mm	64	--	--	--
	0.425mm	42	--	--	--
	0.300mm	24	--	--	--
	0.150mm	12	--	--	--
	0.075mm	8	--	--	--

SIGNED BY: A.O'CALLAGHAN

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DATE

18/03/2013

**REPORT ON SIEVE ANALYSIS
TO A.S 1141.11.1 (Washed analysis)**

JOB NO CWES13W00134.a
PAGE NO. 3 of 6
DATE TESTED 30.01.13 to 13.03.13

CLIENT Graham Lee & Associates
ADDRESS 22 Grove Avenue
Penshurst NSW 2222

PROJECT: SFQ Testing
SOURCE: Rock Cores

SAMPLED BY: OTHERS



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SAMPLE NO	SQF-DDH2 4378 - 8.69m	SQF-DDH2 8.69 - 16.44m	SQF-DDH2 21.40 - 24.05m	SQF-DDH2 24.05 - 29.06m
DESCRIPTION OF MATERIAL	Crushed Sandstone Cores	Crushed Sandstone Cores	Crushed Sandstone Cores	Crushed Sandstone Cores

SIEVE ANALYSIS

% PASSING SIEVE SIZE SHOWN	19mm	100	--		--
	13.2mm	98	--	100	--
	9.5mm	96	--	94	100
	6.7mm	94	100	93	96
	4.75mm	93	100	90	95
	2.36mm	90	98	83	90
	1.18mm	87	95	73	75
	0.600mm	93	89	64	44
	0.425mm	78	76	59	30
	0.300mm	56	42	52	20
	0.150mm	18	18	35	15
	0.075mm	13	12	23	13

SIGNED BY:

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**REPORT ON SIEVE ANALYSIS
TO A.S 1141.11.1 (Washed analysis)**

JOB NO CWES13W00134.a
PAGE NO. 4 of 6
DATE TESTED 30.01.13 to 13.03.13

CLIENT Graham Lee & Associates
ADDRESS 22 Grove Avenue
Penshurst NSW 2222

PROJECT: SFQ Testing
SOURCE: Rock Cores

SAMPLED BY: OTHERS



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SAMPLE NO	SQF-DDH2 32.5 - 20.49m			
DESCRIPTION OF MATERIAL	Crushed Sandstone Cores			

SIEVE ANALYSIS

% PASSING SIEVE SIZE SHOWN	19mm	--	--	--	--
	13.2mm	100	--	--	--
	9.5mm	97	--	--	--
	6.7mm	96	--	--	--
	4.75mm	96	--	--	--
	2.36mm	95	--	--	--
	1.18mm	91	--	--	--
	0.600mm	74	--	--	--
	0.425mm	46	--	--	--
	0.300mm	30	--	--	--
	0.150mm	17	--	--	--
	0.075mm	13	--	--	--

SIGNED BY: A.O'CALLAGHAN

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18/03/2013

**REPORT ON SIEVE ANALYSIS
TO A.S 1141.11.1 (Washed analysis)**

JOB NO CWES13W00134.a
PAGE NO. 5 of 6
DATE TESTED 15.02.13 to 13.02.13

CLIENT Graham Lee & Associates
ADDRESS 22 Grove Avenue
Penshurst NSW 2222

PROJECT: SFQ Testing
SOURCE: Crushed Cores

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SAMPLE NO	SFQ-DDH3 2.50 - 14.30	SFQ-DDH3 14.49 - 20.12	SFQ-DDH3 20.27 - 25.63	SFQ-DDH3 25.63 - 33.10
DESCRIPTION OF MATERIAL	Crushed Sandstone Cores	Crushed Sandstone Cores	Crushed Sandstone Cores	Crushed Sandstone Cores

SIEVE ANALYSIS

% PASSING SIEVE SIZE SHOWN	19mm	--	--	100	100
	13.2mm	100	--	94	97
	9.5mm	99	100	94	97
	6.7mm	98	98	94	96
	4.75mm	98	97	93	96
	2.36mm	97	93	90	91
	1.18mm	93	87	84	84
	0.600mm	82	77	78	71
	0.425mm	71	71	57	61
	0.300mm	46	57	30	45
	0.150mm	16	27	22	21
	0.075mm	11	18	14	12

SIGNED BY:

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**REPORT ON SIEVE ANALYSIS
TO A.S 1141.11.1 (Washed analysis)**

JOB NO CWES13W00134.a
PAGE NO. 6 of 6
DATE TESTED 15.02.13 to 13.02.13

CLIENT Graham Lee & Associates
ADDRESS 22 Grove Avenue
Penshurst NSW 2222

PROJECT: SFQ Testing
SOURCE: Crushed Cores

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SAMPLE NO	SFQ-DDH3 33.10 - 37.79			
DESCRIPTION OF MATERIAL	Crushed Sandstone Cores			

SIEVE ANALYSIS

% PASSING SIEVE SIZE SHOWN	19mm	100	--	--	--
	13.2mm	97	--	--	--
	9.5mm	97	--	--	--
	6.7mm	97	--	--	--
	4.75mm	96	--	--	--
	2.36mm	96	--	--	--
	1.18mm	95	--	--	--
	0.600mm	92	--	--	--
	0.425mm	67	--	--	--
	0.300mm	29	--	--	--
	0.150mm	13	--	--	--
	0.075mm	10	--	--	--

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A.O'CALLAGHAN

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DATE

18/03/2013

CORE TEST SAMPLES – SFQ-DDH1**WASHED SIEVE ANALYSIS 1m INTERVALS BY NETWORK GEOTECHNICS**

DRILL HOLE	DEPTH (m)	INTERVAL (m)	LITHOLOGY	CORE LOSS (m)	CORE RECOVERY (%)
SFQ-DDH1	5.0 to 6.0	1.0	See Appendix 1	0	100
SFQ-DDH1	6.0 to 7.0	1.0	See Appendix 1	60	40
SFQ-DDH1	9.0 to 10.0	1.0	See Appendix 1	43	57
SFQ-DDH1	10.0 to 11.0	1.0	See Appendix 1	0	100
SFQ-DDH1	11.0 to 12.0	1.0	See Appendix 1	0	100
SFQ-DDH1	12.0 to 13.0	1.0	See Appendix 1	2	98
SFQ-DDH1	13.0 to 14.0	1.0	See Appendix 1	0	100
SFQ-DDH1	14.0 to 15.0	1.0	See Appendix 1	0	100
SFQ-DDH1	15.0 to 16.0	1.0	See Appendix 1	3	97
SFQ-DDH1	16.0 to 17.0	1.0	See Appendix 1	0	100
SFQ-DDH1	17.0 to 18.0	1.0	See Appendix 1	79	21
SFQ-DDH1	18.0 to 19.0	1.0	See Appendix 1	4	96
SFQ-DDH1	19.0 to 20.0	1.0	See Appendix 1	45	55
SFQ-DDH1	20.0 to 21.0	1.0	See Appendix 1	0	100
SFQ-DDH1	21.0 to 22.0	1.0	See Appendix 1	28	72
SFQ-DDH1	22.0 to 23.0	1.0	See Appendix 1	17	83
SFQ-DDH1	23.0 to 24.0	1.0	See Appendix 1	0	100
SFQ-DDH1	24.0 to 25.0	1.0	See Appendix 1	0	100
SFQ-DDH1	25.0 to 26.0	1.0	See Appendix 1	0	100
SFQ-DDH1	26.0 to 27.0	1.0	See Appendix 1	0	100
SFQ-DDH1	27.0 to 28.0	1.0	See Appendix 1	0	100
SFQ-DDH1	28.0 to 29.0	1.0	See Appendix 1	0	100
SFQ-DDH1	29.0 to 30.0	1.0	See Appendix 1	0	100
SFQ-DDH1	30.0 to 31.0	1.0	See Appendix 1	0	100
SFQ-DDH1	31.0 to 32.0	1.0	See Appendix 1	0	100
SFQ-DDH1	32.0 to 33.0	1.0	See Appendix 1	0	100
SFQ-DDH1	33.0 to 34.0	1.0	See Appendix 1	0	100
SFQ-DDH1	34.0 to 35.0	1.0	See Appendix 1	0	100
SFQ-DDH1	35.0 to 36.0	1.0	See Appendix 1	0	100
SFQ-DDH1	36.0 to 37.0	1.0	See Appendix 1	0	100
SFQ-DDH1	37.0 to 38.0	1.0	See Appendix 1	0	100
SFQ-DDH1	38.0 to 39.0	1.0	See Appendix 1	0	100
SFQ-DDH1	39.0 to 40.0	1.0	See Appendix 1	11	89
SFQ-DDH1	40.0 to 41.0	1.0	See Appendix 1	0	100
SFQ-DDH1	41.0 to 42.0	1.0	See Appendix 1	0	100
SFQ-DDH1	42.0 to 43.0	1.0	See Appendix 1	0	100
SFQ-DDH1	43.0 to 44.0	1.0	See Appendix 1	0	100
SFQ-DDH1	44.0 to 45.0	1.0	See Appendix 1	0	100
SFQ-DDH1	45.0 to 46.0	1.0	See Appendix 1	0	100
SFQ-DDH1	46.0 to 47.0	1.0	See Appendix 1	0	100
SFQ-DDH1	47.0 to 48.0	1.0	See Appendix 1	2	98
SFQ-DDH1	48.0 to 49.0	1.0	See Appendix 1	14	86
SFQ-DDH1	49.0 to 50.0	1.0	See Appendix 1	0	100
SFQ-DDH1	50.0 to 51.0	1.0	See Appendix 1	0	100

TEST REPORT

1 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sand Stone Cores Sampling Procedure: Sampled By Client

Sample Number: 1

Laboratory Number: W56457 Date Received 11/03/2016

Client Number: DDH1 #1 Date Tested: 8/04/2016

Depth: 5 (m) to 6 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	96
Percentage (%) Passing	1.18 mm sieve	90
Percentage (%) Passing	600 µm sieve	74
Percentage (%) Passing	425 µm sieve	57
Percentage (%) Passing	300 µm sieve	37
Percentage (%) Passing	150 µm sieve	21
Percentage (%) Passing	75 µm sieve	13

REMARKS: Samples crushed prior to testing.



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Eliot O'Donnell

DATE
27/04/2016

TEST REPORT

2 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 2

Laboratory Number: W56458 Date Received 11/03/2016

Client Number: DDH1 #2 Date Tested: 6/04/2016

Depth: 6 to 7 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	97
Percentage (%) Passing	2.36 mm sieve	87
Percentage (%) Passing	1.18 mm sieve	77
Percentage (%) Passing	600 µm sieve	65
Percentage (%) Passing	425 µm sieve	48
Percentage (%) Passing	300 µm sieve	32
Percentage (%) Passing	150 µm sieve	18
Percentage (%) Passing	75 µm sieve	11

REMARKS: Samples crushed prior to testing.



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DATE
27/04/2016

TEST REPORT

3 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 3

Laboratory Number: W56459 Date Received 11/03/2016

Client Number: DDH1 #3 Date Tested: 8/04/2016

Depth: 9 to 10 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	99
Percentage (%) Passing	600 µm sieve	90
Percentage (%) Passing	425 µm sieve	78
Percentage (%) Passing	300 µm sieve	46
Percentage (%) Passing	150 µm sieve	21
Percentage (%) Passing	75 µm sieve	16

REMARKS: Samples crushed prior to testing.



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DATE
27/04/2016

TEST REPORT

4 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 4

Laboratory Number: W56460 Date Received: 11/03/2016

Client Number: DDH1 #4 Date Tested: 6/04/2016

Depth: 10 to 11 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	96
Percentage (%) Passing	600 µm sieve	75
Percentage (%) Passing	425 µm sieve	44
Percentage (%) Passing	300 µm sieve	24
Percentage (%) Passing	150 µm sieve	11
Percentage (%) Passing	75 µm sieve	8

REMARKS: Samples crushed prior to testing.



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DATE
27/04/2016

TEST REPORT

5 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 5

Laboratory Number: W56461 Date Received: 11/03/2016

Client Number: DDH1 #5 Date Tested: 5/04/2016

Depth: 11 to 12 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	95
Percentage (%) Passing	600 µm sieve	76
Percentage (%) Passing	425 µm sieve	47
Percentage (%) Passing	300 µm sieve	27
Percentage (%) Passing	150 µm sieve	11
Percentage (%) Passing	75 µm sieve	8

REMARKS: Samples crushed prior to testing.



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Eliot O'Donnell

DATE
27/04/2016

TEST REPORT

6 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 6

Laboratory Number: W56462 Date Received: 11/03/2016

Client Number: DDH1#6 Date Tested: 7/04/2016

Depth: 12 to 13 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	97
Percentage (%) Passing	600 µm sieve	83
Percentage (%) Passing	425 µm sieve	64
Percentage (%) Passing	300 µm sieve	42
Percentage (%) Passing	150 µm sieve	16
Percentage (%) Passing	75 µm sieve	11

REMARKS: Samples crushed prior to testing.



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Eliot O'Donnell

DATE
27/04/2016

TEST REPORT

7 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 7

Laboratory Number: W56463 Date Received: 11/03/2016

Client Number: DDH1 #7 Date Tested: 7/04/2016

Depth: 13 to 14 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	100
Percentage (%) Passing	600 µm sieve	86
Percentage (%) Passing	425 µm sieve	69
Percentage (%) Passing	300 µm sieve	49
Percentage (%) Passing	150 µm sieve	19
Percentage (%) Passing	75 µm sieve	12

REMARKS: Samples crushed prior to testing.



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APPROVED SIGNATORY
Eliot O'Donnell

DATE
27/04/2016

TEST REPORT

8 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 8

Laboratory Number: W56464 Date Received: 11/03/2016

Client Number: DDH1 #8 Date Tested: 6/04/2016

Depth: 14 to 15 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	97
Percentage (%) Passing	1.18 mm sieve	91
Percentage (%) Passing	600 µm sieve	80
Percentage (%) Passing	425 µm sieve	68
Percentage (%) Passing	300 µm sieve	46
Percentage (%) Passing	150 µm sieve	15
Percentage (%) Passing	75 µm sieve	10

REMARKS: Samples crushed prior to testing.



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27/04/2016

TEST REPORT

9 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 9

Laboratory Number: W56465 Date Received 11/03/2016

Client Number: DDH1 #9 Date Tested: 7/04/2016

Depth: 15 to 16 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	99
Percentage (%) Passing	600 µm sieve	91
Percentage (%) Passing	425 µm sieve	82
Percentage (%) Passing	300 µm sieve	55
Percentage (%) Passing	150 µm sieve	19
Percentage (%) Passing	75 µm sieve	12

REMARKS: Samples crushed prior to testing.



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Eliot O'Donnell

DATE
27/04/2016

TEST REPORT

10 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 10

Laboratory Number: W56466 Date Received: 11/03/2016

Client Number: DDH1 #10 Date Tested: 6/04/2016

Depth: 16 to 17 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	96
Percentage (%) Passing	1.18 mm sieve	93
Percentage (%) Passing	600 µm sieve	75
Percentage (%) Passing	425 µm sieve	35
Percentage (%) Passing	300 µm sieve	16
Percentage (%) Passing	150 µm sieve	9
Percentage (%) Passing	75 µm sieve	6

REMARKS: Samples crushed prior to testing.



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TEST REPORT

11 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 11

Laboratory Number: W56467 Date Received 11/03/2016

Client Number: DDH1 #11 Date Tested: 6/04/2016

Depth: 17 to 18 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	95
Percentage (%) Passing	1.18 mm sieve	92
Percentage (%) Passing	600 µm sieve	76
Percentage (%) Passing	425 µm sieve	41
Percentage (%) Passing	300 µm sieve	20
Percentage (%) Passing	150 µm sieve	13
Percentage (%) Passing	75 µm sieve	10

REMARKS: Samples crushed prior to testing.



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TEST REPORT

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Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 12

Laboratory Number: W56468

Date Received 11/03/2016

Client Number: DDH1 #12

Date Tested: 7/04/2016

Depth: 18 to 19 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	98
Percentage (%) Passing	1.18 mm sieve	97
Percentage (%) Passing	600 µm sieve	78
Percentage (%) Passing	425 µm sieve	60
Percentage (%) Passing	300 µm sieve	46
Percentage (%) Passing	150 µm sieve	26
Percentage (%) Passing	75 µm sieve	14

REMARKS: Samples crushed prior to testing.



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TEST REPORT

13 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 13

Laboratory Number: W56469 Date Received: 11/03/2016

Client Number: DDH1#13 Date Tested: 6/04/2016

Depth: 19 to 20 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	97
Percentage (%) Passing	1.18 mm sieve	94
Percentage (%) Passing	600 µm sieve	84
Percentage (%) Passing	425 µm sieve	38
Percentage (%) Passing	300 µm sieve	13
Percentage (%) Passing	150 µm sieve	7
Percentage (%) Passing	75 µm sieve	5

REMARKS: Samples crushed prior to testing.



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TEST REPORT

14 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 14

Laboratory Number: W56470 Date Received 11/03/2016

Client Number: DDH1 #14 Date Tested: 7/04/2016

Depth: 20 to 21 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	91
Percentage (%) Passing	1.18 mm sieve	82
Percentage (%) Passing	600 µm sieve	68
Percentage (%) Passing	425 µm sieve	42
Percentage (%) Passing	300 µm sieve	20
Percentage (%) Passing	150 µm sieve	10
Percentage (%) Passing	75 µm sieve	6

REMARKS: Samples crushed prior to testing.



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DATE
27/04/2016

TEST REPORT

15 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 15

Laboratory Number: W56471 Date Received 11/03/2016

Client Number: DDH1 #15 Date Tested: 7/04/2016

Depth: 21 to 22 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	100
Percentage (%) Passing	600 µm sieve	88
Percentage (%) Passing	425 µm sieve	62
Percentage (%) Passing	300 µm sieve	32
Percentage (%) Passing	150 µm sieve	14
Percentage (%) Passing	75 µm sieve	10

REMARKS: Samples crushed prior to testing.



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TEST REPORT

16 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 16

Laboratory Number: W56472 Date Received 11/03/2016

Client Number: DDH1#16 Date Tested: 6/04/2016

Depth: 22 to 23 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	99
Percentage (%) Passing	4.75 mm sieve	97
Percentage (%) Passing	2.36 mm sieve	89
Percentage (%) Passing	1.18 mm sieve	79
Percentage (%) Passing	600 µm sieve	67
Percentage (%) Passing	425 µm sieve	53
Percentage (%) Passing	300 µm sieve	29
Percentage (%) Passing	150 µm sieve	12
Percentage (%) Passing	75 µm sieve	9

REMARKS: Samples crushed prior to testing.



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TEST REPORT

17 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 17

Laboratory Number: W56473

Date Received 11/03/2016

Client Number: DDH1 #17

Date Tested: 8/04/2016

Depth: 23 to 24 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	96
Percentage (%) Passing	1.18 mm sieve	94
Percentage (%) Passing	600 µm sieve	77
Percentage (%) Passing	425 µm sieve	57
Percentage (%) Passing	300 µm sieve	37
Percentage (%) Passing	150 µm sieve	18
Percentage (%) Passing	75 µm sieve	11

REMARKS: Samples crushed prior to testing.



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TEST REPORT

18 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 18

Laboratory Number: W56474 Date Received 11/03/2016

Client Number: DDH1 #18 Date Tested: 8/04/2016

Depth: 24 to 25 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	100
Percentage (%) Passing	600 µm sieve	81
Percentage (%) Passing	425 µm sieve	69
Percentage (%) Passing	300 µm sieve	52
Percentage (%) Passing	150 µm sieve	21
Percentage (%) Passing	75 µm sieve	12

REMARKS: Samples crushed prior to testing.



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TEST REPORT

19 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 19

Laboratory Number: W56475 Date Received 11/03/2016

Client Number: DDH1 #19 Date Tested: 8/04/2016

Depth: 25 to 26 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	99
Percentage (%) Passing	600 µm sieve	81
Percentage (%) Passing	425 µm sieve	70
Percentage (%) Passing	300 µm sieve	53
Percentage (%) Passing	150 µm sieve	23
Percentage (%) Passing	75 µm sieve	12

REMARKS: Samples crushed prior to testing.



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TEST REPORT

20 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 20

Laboratory Number: W56476 Date Received 11/03/2016

Client Number: DDH1 #20 Date Tested: 7/04/2016

Depth: 26 to 27 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	98
Percentage (%) Passing	4.75 mm sieve	96
Percentage (%) Passing	2.36 mm sieve	92
Percentage (%) Passing	1.18 mm sieve	89
Percentage (%) Passing	600 µm sieve	71
Percentage (%) Passing	425 µm sieve	59
Percentage (%) Passing	300 µm sieve	37
Percentage (%) Passing	150 µm sieve	15
Percentage (%) Passing	75 µm sieve	9

REMARKS: Samples crushed prior to testing.



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TEST REPORT

21 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 21

Laboratory Number: W56477 Date Received 11/03/2016

Client Number: DDH1 #21 Date Tested: 8/04/2016

Depth: 27 to 28 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	99
Percentage (%) Passing	600 µm sieve	83
Percentage (%) Passing	425 µm sieve	64
Percentage (%) Passing	300 µm sieve	28
Percentage (%) Passing	150 µm sieve	13
Percentage (%) Passing	75 µm sieve	10

REMARKS: Samples crushed prior to testing.



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TEST REPORT

22 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 22

Laboratory Number: W56478 Date Received 11/03/2016

Client Number: DDH1 #22 Date Tested: 8/04/2016

Depth: 28 to 29 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	96
Percentage (%) Passing	1.18 mm sieve	90
Percentage (%) Passing	600 µm sieve	70
Percentage (%) Passing	425 µm sieve	58
Percentage (%) Passing	300 µm sieve	41
Percentage (%) Passing	150 µm sieve	26
Percentage (%) Passing	75 µm sieve	14

REMARKS: Samples crushed prior to testing.



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TEST REPORT

23 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 23

Laboratory Number: W56479 Date Received 11/03/2016

Client Number: DDH1 #23 Date Tested: 8/04/2016

Depth: 29 to 30 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	98
Percentage (%) Passing	2.36 mm sieve	93
Percentage (%) Passing	1.18 mm sieve	88
Percentage (%) Passing	600 µm sieve	69
Percentage (%) Passing	425 µm sieve	54
Percentage (%) Passing	300 µm sieve	36
Percentage (%) Passing	150 µm sieve	17
Percentage (%) Passing	75 µm sieve	10

REMARKS: Samples crushed prior to testing.



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TEST REPORT

24 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 24

Laboratory Number: W56480 Date Received 11/03/2016

Client Number: DDH1#24 Date Tested: 7/04/2016

Depth: 30 to 31 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	100
Percentage (%) Passing	600 µm sieve	82
Percentage (%) Passing	425 µm sieve	73
Percentage (%) Passing	300 µm sieve	62
Percentage (%) Passing	150 µm sieve	27
Percentage (%) Passing	75 µm sieve	15

REMARKS: Samples crushed prior to testing.



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TEST REPORT

25 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 25

Laboratory Number: W56481 Date Received 11/03/2016

Client Number: DDH1 #25 Date Tested: 8/04/2016

Depth: 31 to 32 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	98
Percentage (%) Passing	1.18 mm sieve	97
Percentage (%) Passing	600 µm sieve	82
Percentage (%) Passing	425 µm sieve	73
Percentage (%) Passing	300 µm sieve	62
Percentage (%) Passing	150 µm sieve	24
Percentage (%) Passing	75 µm sieve	13

REMARKS: Samples crushed prior to testing.



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TEST REPORT

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Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 26

Laboratory Number: W56482 Date Received: 11/03/2016

Client Number: DDH1#26 Date Tested: 8/04/2016

Depth: 32 to 33 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	100
Percentage (%) Passing	600 µm sieve	84
Percentage (%) Passing	425 µm sieve	74
Percentage (%) Passing	300 µm sieve	61
Percentage (%) Passing	150 µm sieve	24
Percentage (%) Passing	75 µm sieve	14

REMARKS: Samples crushed prior to testing.



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TEST REPORT

27 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 27

Laboratory Number: W56483 Date Received: 11/03/2016

Client Number: DDH1#27 Date Tested: 8/04/2016

Depth: 33 to 34 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	100
Percentage (%) Passing	600 µm sieve	85
Percentage (%) Passing	425 µm sieve	76
Percentage (%) Passing	300 µm sieve	68
Percentage (%) Passing	150 µm sieve	37
Percentage (%) Passing	75 µm sieve	21

REMARKS: Samples crushed prior to testing.



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TEST REPORT

28 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 28

Laboratory Number: W56484 Date Received 11/03/2016

Client Number: DDH1#28 Date Tested: 8/04/2016

Depth: 34 to 35 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	100
Percentage (%) Passing	600 µm sieve	81
Percentage (%) Passing	425 µm sieve	71
Percentage (%) Passing	300 µm sieve	52
Percentage (%) Passing	150 µm sieve	24
Percentage (%) Passing	75 µm sieve	15

REMARKS: Samples crushed prior to testing.



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TEST REPORT

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Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 29

Laboratory Number: W56485 Date Received 11/03/2016

Client Number: DDH1#29 Date Tested: 8/04/2016

Depth: 35 to 36 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	100
Percentage (%) Passing	600 µm sieve	85
Percentage (%) Passing	425 µm sieve	73
Percentage (%) Passing	300 µm sieve	52
Percentage (%) Passing	150 µm sieve	22
Percentage (%) Passing	75 µm sieve	14

REMARKS: Samples crushed prior to testing.



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DATE
27/04/2016

TEST REPORT

30 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 30

Laboratory Number: W56486 Date Received 11/03/2016

Client Number: DDH1#30 Date Tested: 8/04/2016

Depth: 36 to 37 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	100
Percentage (%) Passing	600 µm sieve	82
Percentage (%) Passing	425 µm sieve	72
Percentage (%) Passing	300 µm sieve	58
Percentage (%) Passing	150 µm sieve	28
Percentage (%) Passing	75 µm sieve	16

REMARKS: Samples crushed prior to testing.



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27/04/2016

TEST REPORT

31 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 31

Laboratory Number: W56487 Date Received 11/03/2016

Client Number: DDH1#31 Date Tested: 8/04/2016

Depth: 37 to 38 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	97
Percentage (%) Passing	1.18 mm sieve	92
Percentage (%) Passing	600 µm sieve	59
Percentage (%) Passing	425 µm sieve	36
Percentage (%) Passing	300 µm sieve	22
Percentage (%) Passing	150 µm sieve	12
Percentage (%) Passing	75 µm sieve	8

REMARKS: Samples crushed prior to testing.



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27/04/2016

TEST REPORT

32 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 32

Laboratory Number: W56488 Date Received: 11/03/2016

Client Number: DDH1#32 Date Tested: 6/04/2016

Depth: 38 to 39 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	98
Percentage (%) Passing	600 µm sieve	55
Percentage (%) Passing	425 µm sieve	20
Percentage (%) Passing	300 µm sieve	11
Percentage (%) Passing	150 µm sieve	7
Percentage (%) Passing	75 µm sieve	5

REMARKS: Samples crushed prior to testing.



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DATE
27/04/2016

TEST REPORT

33 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 33

Laboratory Number: W56489 Date Received 11/03/2016

Client Number: DDH1#33 Date Tested: 7/04/2016

Depth: 39 to 40 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	99
Percentage (%) Passing	4.75 mm sieve	97
Percentage (%) Passing	2.36 mm sieve	92
Percentage (%) Passing	1.18 mm sieve	87
Percentage (%) Passing	600 µm sieve	65
Percentage (%) Passing	425 µm sieve	49
Percentage (%) Passing	300 µm sieve	31
Percentage (%) Passing	150 µm sieve	14
Percentage (%) Passing	75 µm sieve	9

REMARKS: Samples crushed prior to testing.



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27/04/2016

TEST REPORT

34 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 34

Laboratory Number: W56490 Date Received: 11/03/2016

Client Number: DDH1#34 Date Tested: 8/04/2016

Depth: 40 to 41 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	97
Percentage (%) Passing	1.18 mm sieve	94
Percentage (%) Passing	600 µm sieve	73
Percentage (%) Passing	425 µm sieve	58
Percentage (%) Passing	300 µm sieve	38
Percentage (%) Passing	150 µm sieve	18
Percentage (%) Passing	75 µm sieve	12

REMARKS: Samples crushed prior to testing.



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27/04/2016

TEST REPORT

35 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 35

Laboratory Number: W56491 Date Received 11/03/2016

Client Number: DDH1#35 Date Tested: 7/04/2016

Depth: 41 to 42 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	99
Percentage (%) Passing	4.75 mm sieve	97
Percentage (%) Passing	2.36 mm sieve	92
Percentage (%) Passing	1.18 mm sieve	82
Percentage (%) Passing	600 µm sieve	53
Percentage (%) Passing	425 µm sieve	29
Percentage (%) Passing	300 µm sieve	14
Percentage (%) Passing	150 µm sieve	6
Percentage (%) Passing	75 µm sieve	4

REMARKS: Samples crushed prior to testing.



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DATE
27/04/2016

TEST REPORT

36 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 36

Laboratory Number: W56492 Date Received: 11/03/2016

Client Number: DDH1#36 Date Tested: 6/04/2016

Depth: 42 to 43 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	99
Percentage (%) Passing	4.75 mm sieve	98
Percentage (%) Passing	2.36 mm sieve	93
Percentage (%) Passing	1.18 mm sieve	81
Percentage (%) Passing	600 µm sieve	58
Percentage (%) Passing	425 µm sieve	36
Percentage (%) Passing	300 µm sieve	19
Percentage (%) Passing	150 µm sieve	10
Percentage (%) Passing	75 µm sieve	7

REMARKS: Samples crushed prior to testing.



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DATE
27/04/2016

TEST REPORT

37 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 37

Laboratory Number: W56493 Date Received: 11/03/2016

Client Number: DDH1 #37 Date Tested: 8/04/2016

Depth: 43 to 44 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	99
Percentage (%) Passing	4.75 mm sieve	98
Percentage (%) Passing	2.36 mm sieve	91
Percentage (%) Passing	1.18 mm sieve	75
Percentage (%) Passing	600 µm sieve	49
Percentage (%) Passing	425 µm sieve	27
Percentage (%) Passing	300 µm sieve	13
Percentage (%) Passing	150 µm sieve	6
Percentage (%) Passing	75 µm sieve	4

REMARKS: Samples crushed prior to testing.



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27/04/2016

TEST REPORT

38 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 38

Laboratory Number: W56494 Date Received 11/03/2016

Client Number: DDH1 #38 Date Tested: 6/04/2016

Depth: 44 to 45 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	98
Percentage (%) Passing	4.75 mm sieve	96
Percentage (%) Passing	2.36 mm sieve	81
Percentage (%) Passing	1.18 mm sieve	60
Percentage (%) Passing	600 µm sieve	38
Percentage (%) Passing	425 µm sieve	23
Percentage (%) Passing	300 µm sieve	11
Percentage (%) Passing	150 µm sieve	6
Percentage (%) Passing	75 µm sieve	4

REMARKS: Samples crushed prior to testing.



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27/04/2016

TEST REPORT

39 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 39

Laboratory Number: W56495

Date Received 11/03/2016

Client Number: DDH1#39

Date Tested: 5/04/2016

Depth: 45 to 46 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	99
Percentage (%) Passing	4.75 mm sieve	97
Percentage (%) Passing	2.36 mm sieve	88
Percentage (%) Passing	1.18 mm sieve	72
Percentage (%) Passing	600 µm sieve	45
Percentage (%) Passing	425 µm sieve	23
Percentage (%) Passing	300 µm sieve	9
Percentage (%) Passing	150 µm sieve	5
Percentage (%) Passing	75 µm sieve	4

REMARKS: Samples crushed prior to testing.



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DATE
27/04/2016

TEST REPORT

40 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 40

Laboratory Number: W56496 Date Received 11/03/2016

Client Number: DDH1#40 Date Tested: 7/04/2016

Depth: 46 to 47 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	97
Percentage (%) Passing	1.18 mm sieve	89
Percentage (%) Passing	600 µm sieve	58
Percentage (%) Passing	425 µm sieve	25
Percentage (%) Passing	300 µm sieve	10
Percentage (%) Passing	150 µm sieve	5
Percentage (%) Passing	75 µm sieve	4

REMARKS: Samples crushed prior to testing.



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27/04/2016

TEST REPORT

41 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 41

Laboratory Number: W56497 Date Received 11/03/2016

Client Number: DDH1#41 Date Tested: 6/04/2016

Depth: 47 to 48 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	95
Percentage (%) Passing	1.18 mm sieve	84
Percentage (%) Passing	600 µm sieve	57
Percentage (%) Passing	425 µm sieve	27
Percentage (%) Passing	300 µm sieve	9
Percentage (%) Passing	150 µm sieve	5
Percentage (%) Passing	75 µm sieve	4

REMARKS: Samples crushed prior to testing.



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TEST REPORT

42 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 42

Laboratory Number: W56498 Date Received: 11/03/2016

Client Number: DDH1#42 Date Tested: 8/04/2016

Depth: 48 to 49 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	96
Percentage (%) Passing	600 µm sieve	75
Percentage (%) Passing	425 µm sieve	60
Percentage (%) Passing	300 µm sieve	47
Percentage (%) Passing	150 µm sieve	22
Percentage (%) Passing	75 µm sieve	12

REMARKS: Samples crushed prior to testing.



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TEST REPORT

43 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 43

Laboratory Number: W56499 Date Received: 11/03/2016

Client Number: DDH1#43 Date Tested: 8/04/2016

Depth: 49 to 50 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	86
Percentage (%) Passing	1.18 mm sieve	72
Percentage (%) Passing	600 µm sieve	45
Percentage (%) Passing	425 µm sieve	25
Percentage (%) Passing	300 µm sieve	16
Percentage (%) Passing	150 µm sieve	7
Percentage (%) Passing	75 µm sieve	4

REMARKS: Samples crushed prior to testing.



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TEST REPORT

44 of 44

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 1
Report Date: 27/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 44

Laboratory Number: W56500 Date Received 11/03/2016

Client Number: DDH1#44 Date Tested: 8/04/2016

Depth: 50 to 51 m

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	99
Percentage (%) Passing	4.75 mm sieve	97
Percentage (%) Passing	2.36 mm sieve	91
Percentage (%) Passing	1.18 mm sieve	76
Percentage (%) Passing	600 µm sieve	49
Percentage (%) Passing	425 µm sieve	19
Percentage (%) Passing	300 µm sieve	7
Percentage (%) Passing	150 µm sieve	4
Percentage (%) Passing	75 µm sieve	3

REMARKS: Samples crushed prior to testing.



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CORE TEST SAMPLES – SFQ-DDH3

WASHED SIEVE ANALYSIS 1m INTERVALS BY NETWORK GEOTECHNICS

DRILL HOLE	DEPTH (m)	INTERVAL (m)	LITHOLOGY	CORE LOSS (m)	CORE RECOVERY (%)
SFQ-DDH3	2.0 to 3.0	1.0	See Appendix 1	0	100
SFQ-DDH3	3.0 to 4.0	1.0	See Appendix 1	52	48
SFQ-DDH3	8.0 to 9.0	1.0	See Appendix 1	0	100
SFQ-DDH3	9.0 to 10.0	1.0	See Appendix 1	0	100
SFQ-DDH3	10.0 to 11.0	1.0	See Appendix 1	0	100
SFQ-DDH3	11.0 to 12.0	1.0	See Appendix 1	45	55
SFQ-DDH3	12.0 to 13.0	1.0	See Appendix 1	60	40
SFQ-DDH3	13.0 to 14.0	1.0	See Appendix 1	0	100
SFQ-DDH3	14.0 to 15.0	1.0	See Appendix 1	32	68
SFQ-DDH3	15.0 to 16.0	1.0	See Appendix 1	38	62
SFQ-DDH3	16.0 to 17.0	1.0	See Appendix 1	0	100
SFQ-DDH3	17.0 to 18.0	1.0	See Appendix 1	23	77
SFQ-DDH3	18.0 to 19.0	1.0	See Appendix 1	100	0
SFQ-DDH3	19.0 to 20.0	1.0	See Appendix 1	53	47
SFQ-DDH3	20.0 to 21.0	1.0	See Appendix 1	0	100
SFQ-DDH3	21.0 to 22.0	1.0	See Appendix 1	0	100
SFQ-DDH3	22.0 to 23.0	1.0	See Appendix 1	0	100
SFQ-DDH3	23.0 to 24.0	1.0	See Appendix 1	0	100
SFQ-DDH3	24.0 to 25.0	1.0	See Appendix 1	0	100
SFQ-DDH3	25.0 to 26.0	1.0	See Appendix 1	50	50
SFQ-DDH3	26.0 to 27.0	1.0	See Appendix 1	18	82
SFQ-DDH3	27.0 to 28.0	1.0	See Appendix 1	0	100
SFQ-DDH3	28.0 to 29.0	1.0	See Appendix 1	0	100
SFQ-DDH3	29.0 to 30.0	1.0	See Appendix 1	0	100
SFQ-DDH3	30.0 to 31.0	1.0	See Appendix 1	0	100
SFQ-DDH3	31.0 to 32.0	1.0	See Appendix 1	0	100
SFQ-DDH3	32.0 to 33.0	1.0	See Appendix 1	0	100
SFQ-DDH3	33.0 to 34.0	1.0	See Appendix 1	0	100
SFQ-DDH3	34.0 to 35.0	1.0	See Appendix 1	0	100
SFQ-DDH3	35.0 to 36.0	1.0	See Appendix 1	0	100
SFQ-DDH3	36.0 to 37.0	1.0	See Appendix 1	0	100

TEST REPORT

1 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 45

Laboratory Number: W56503 Date Received: 11/03/2016

Client Number: DDH3#1 Date Tested: 12/04/2016

Depth: 2 (m) to 3 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	98
Percentage (%) Passing	2.36 mm sieve	94
Percentage (%) Passing	1.18 mm sieve	88
Percentage (%) Passing	600 µm sieve	61
Percentage (%) Passing	425 µm sieve	48
Percentage (%) Passing	300 µm sieve	38
Percentage (%) Passing	150 µm sieve	24
Percentage (%) Passing	75 µm sieve	17

REMARKS: Samples crushed prior to testing.



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28/04/2016

TEST REPORT

2 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 46

Laboratory Number: W56504 Date Received: 11/03/2016

Client Number: DDH3#2 Date Tested: 12/04/2016

Depth: 3 (m) to 4 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	99
Percentage (%) Passing	600 µm sieve	92
Percentage (%) Passing	425 µm sieve	65
Percentage (%) Passing	300 µm sieve	52
Percentage (%) Passing	150 µm sieve	30
Percentage (%) Passing	75 µm sieve	20

REMARKS: Samples crushed prior to testing.



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DATE
28/04/2016

TEST REPORT

3 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 47

Laboratory Number: W56505 Date Received: 11/03/2016

Client Number: DDH3#3 Date Tested: 9/04/2016

Depth: 8 (m) to 9 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	100
Percentage (%) Passing	600 µm sieve	74
Percentage (%) Passing	425 µm sieve	39
Percentage (%) Passing	300 µm sieve	28
Percentage (%) Passing	150 µm sieve	15
Percentage (%) Passing	75 µm sieve	11

REMARKS: Samples crushed prior to testing.



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28/04/2016

TEST REPORT

4 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 48

Laboratory Number: W56506 Date Received: 11/03/2016

Client Number: DDH3#4 Date Tested: 9/04/2016

Depth: 9 (m) to 10 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	98
Percentage (%) Passing	1.18 mm sieve	93
Percentage (%) Passing	600 µm sieve	72
Percentage (%) Passing	425 µm sieve	47
Percentage (%) Passing	300 µm sieve	29
Percentage (%) Passing	150 µm sieve	16
Percentage (%) Passing	75 µm sieve	11

REMARKS: Samples crushed prior to testing.



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TEST REPORT

5 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 49

Laboratory Number: W56507 Date Received: 11/03/2016

Client Number: DDH3#5 Date Tested: 11/04/2016

Depth: 10 (m) to 11 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	98
Percentage (%) Passing	1.18 mm sieve	89
Percentage (%) Passing	600 µm sieve	57
Percentage (%) Passing	425 µm sieve	29
Percentage (%) Passing	300 µm sieve	15
Percentage (%) Passing	150 µm sieve	8
Percentage (%) Passing	75 µm sieve	6

REMARKS: Samples crushed prior to testing.



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TEST REPORT

6 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 50

Laboratory Number: W56508 Date Received: 11/03/2016

Client Number: DDH3#6 Date Tested: 9/04/2016

Depth: 11 (m) to 12 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	98
Percentage (%) Passing	1.18 mm sieve	92
Percentage (%) Passing	600 µm sieve	64
Percentage (%) Passing	425 µm sieve	31
Percentage (%) Passing	300 µm sieve	16
Percentage (%) Passing	150 µm sieve	8
Percentage (%) Passing	75 µm sieve	6

REMARKS: Samples crushed prior to testing.



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TEST REPORT

7 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 51

Laboratory Number: W56509 Date Received: 11/03/2016

Client Number: DDH3#7 Date Tested: 11/04/2016

Depth: 12 (m) to 13 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	99
Percentage (%) Passing	600 µm sieve	87
Percentage (%) Passing	425 µm sieve	50
Percentage (%) Passing	300 µm sieve	23
Percentage (%) Passing	150 µm sieve	12
Percentage (%) Passing	75 µm sieve	9

REMARKS: Samples crushed prior to testing.



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TEST REPORT

8 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 52

Laboratory Number: W56510 Date Received: 11/03/2016

Client Number: DDH3#8 Date Tested: 11/04/2016

Depth: 13 (m) to 14 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	98
Percentage (%) Passing	600 µm sieve	92
Percentage (%) Passing	425 µm sieve	76
Percentage (%) Passing	300 µm sieve	48
Percentage (%) Passing	150 µm sieve	21
Percentage (%) Passing	75 µm sieve	17

REMARKS: Samples crushed prior to testing.



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TEST REPORT

9 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 53

Laboratory Number: W56511 Date Received: 11/03/2016

Client Number: DDH3#9 Date Tested: 11/04/2016

Depth: 14 (m) to 15 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	98
Percentage (%) Passing	600 µm sieve	90
Percentage (%) Passing	425 µm sieve	77
Percentage (%) Passing	300 µm sieve	50
Percentage (%) Passing	150 µm sieve	17
Percentage (%) Passing	75 µm sieve	11

REMARKS: Samples crushed prior to testing.



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TEST REPORT

10 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 54

Laboratory Number: W56512 Date Received: 11/03/2016

Client Number: DDH3#10 Date Tested: 11/04/2016

Depth: 15 (m) to 16 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	98
Percentage (%) Passing	600 µm sieve	84
Percentage (%) Passing	425 µm sieve	65
Percentage (%) Passing	300 µm sieve	41
Percentage (%) Passing	150 µm sieve	11
Percentage (%) Passing	75 µm sieve	7

REMARKS: Samples crushed prior to testing.



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TEST REPORT

11 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 55

Laboratory Number: W56513 Date Received: 11/03/2016

Client Number: DDH3#11 Date Tested: 11/04/2016

Depth: 16 (m) to 17 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	97
Percentage (%) Passing	600 µm sieve	79
Percentage (%) Passing	425 µm sieve	61
Percentage (%) Passing	300 µm sieve	39
Percentage (%) Passing	150 µm sieve	12
Percentage (%) Passing	75 µm sieve	7

REMARKS: Samples crushed prior to testing.



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TEST REPORT

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Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 56

Laboratory Number: W56514 Date Received: 11/03/2016

Client Number: DDH3#12 Date Tested: 11/04/2016

Depth: 17 (m) to 18 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	93
Percentage (%) Passing	600 µm sieve	76
Percentage (%) Passing	425 µm sieve	61
Percentage (%) Passing	300 µm sieve	39
Percentage (%) Passing	150 µm sieve	14
Percentage (%) Passing	75 µm sieve	8

REMARKS: Samples crushed prior to testing.



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TEST REPORT

13 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 57

Laboratory Number: W56515 Date Received: 11/03/2016

Client Number: DDH3#13 Date Tested: 9/04/2016

Depth: 18 (m) to 19 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	98
Percentage (%) Passing	2.36 mm sieve	91
Percentage (%) Passing	1.18 mm sieve	83
Percentage (%) Passing	600 µm sieve	57
Percentage (%) Passing	425 µm sieve	33
Percentage (%) Passing	300 µm sieve	17
Percentage (%) Passing	150 µm sieve	9
Percentage (%) Passing	75 µm sieve	5

REMARKS: Samples crushed prior to testing.



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TEST REPORT

14 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 58

Laboratory Number: W56516 Date Received: 11/03/2016

Client Number: DDH3#14 Date Tested: 11/04/2016

Depth: 19 (m) to 20 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	98
Percentage (%) Passing	600 µm sieve	77
Percentage (%) Passing	425 µm sieve	64
Percentage (%) Passing	300 µm sieve	49
Percentage (%) Passing	150 µm sieve	26
Percentage (%) Passing	75 µm sieve	15

REMARKS: Samples crushed prior to testing.



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TEST REPORT

15 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 59

Laboratory Number: W56517 Date Received: 11/03/2016

Client Number: DDH3#15 Date Tested: 11/04/2016

Depth: 20 (m) to 21 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	96
Percentage (%) Passing	600 µm sieve	73
Percentage (%) Passing	425 µm sieve	58
Percentage (%) Passing	300 µm sieve	41
Percentage (%) Passing	150 µm sieve	14
Percentage (%) Passing	75 µm sieve	9

REMARKS: Samples crushed prior to testing.



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TEST REPORT

16 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 60

Laboratory Number: W56518 Date Received: 11/03/2016

Client Number: DDH3#16 Date Tested: 9/04/2016

Depth: 21 (m) to 22 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	97
Percentage (%) Passing	600 µm sieve	77
Percentage (%) Passing	425 µm sieve	65
Percentage (%) Passing	300 µm sieve	53
Percentage (%) Passing	150 µm sieve	32
Percentage (%) Passing	75 µm sieve	16

REMARKS: Samples crushed prior to testing.



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TEST REPORT

17 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 61

Laboratory Number: W56519 Date Received: 11/03/2016

Client Number: DDH3#17 Date Tested: 11/04/2016

Depth: 22 (m) to 23 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	98
Percentage (%) Passing	1.18 mm sieve	97
Percentage (%) Passing	600 µm sieve	72
Percentage (%) Passing	425 µm sieve	58
Percentage (%) Passing	300 µm sieve	39
Percentage (%) Passing	150 µm sieve	14
Percentage (%) Passing	75 µm sieve	8

REMARKS: Samples crushed prior to testing.



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TEST REPORT

18 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 62

Laboratory Number: W56520 Date Received: 11/03/2016

Client Number: DDH3#18 Date Tested: 9/04/2016

Depth: 23 (m) to 24 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	97
Percentage (%) Passing	600 µm sieve	82
Percentage (%) Passing	425 µm sieve	70
Percentage (%) Passing	300 µm sieve	50
Percentage (%) Passing	150 µm sieve	20
Percentage (%) Passing	75 µm sieve	12

REMARKS: Samples crushed prior to testing.



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TEST REPORT

19 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 63

Laboratory Number: W56521 Date Received: 11/03/2016

Client Number: DDH3#19 Date Tested: 9/04/2016

Depth: 24 (m) to 25 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	
Percentage (%) Passing	2.36 mm sieve	
Percentage (%) Passing	1.18 mm sieve	100
Percentage (%) Passing	600 µm sieve	86
Percentage (%) Passing	425 µm sieve	74
Percentage (%) Passing	300 µm sieve	53
Percentage (%) Passing	150 µm sieve	20
Percentage (%) Passing	75 µm sieve	11

REMARKS: Samples crushed prior to testing.



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TEST REPORT

20 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 64

Laboratory Number: W56522 Date Received: 11/03/2016

Client Number: DDH3#20 Date Tested: 9/04/2016

Depth: 25 (m) to 26 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	95
Percentage (%) Passing	1.18 mm sieve	89
Percentage (%) Passing	600 µm sieve	67
Percentage (%) Passing	425 µm sieve	42
Percentage (%) Passing	300 µm sieve	17
Percentage (%) Passing	150 µm sieve	7
Percentage (%) Passing	75 µm sieve	5

REMARKS: Samples crushed prior to testing.



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TEST REPORT

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Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 65

Laboratory Number: W56523 Date Received: 11/03/2016

Client Number: DDH3#21 Date Tested: 9/04/2016

Depth: 26 (m) to 27 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	96
Percentage (%) Passing	600 µm sieve	76
Percentage (%) Passing	425 µm sieve	57
Percentage (%) Passing	300 µm sieve	34
Percentage (%) Passing	150 µm sieve	14
Percentage (%) Passing	75 µm sieve	8

REMARKS: Samples crushed prior to testing.



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TEST REPORT

22 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 66

Laboratory Number: W56524 Date Received: 11/03/2016

Client Number: DDH3#22 Date Tested: 9/04/2016

Depth: 27 (m) to 28 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	100
Percentage (%) Passing	600 µm sieve	89
Percentage (%) Passing	425 µm sieve	76
Percentage (%) Passing	300 µm sieve	51
Percentage (%) Passing	150 µm sieve	17
Percentage (%) Passing	75 µm sieve	10

REMARKS: Samples crushed prior to testing.



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TEST REPORT

23 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 67

Laboratory Number: W56525 Date Received: 11/03/2016

Client Number: DDH3#23 Date Tested: 11/04/2016

Depth: 28 (m) to 29 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	
Percentage (%) Passing	2.36 mm sieve	
Percentage (%) Passing	1.18 mm sieve	100
Percentage (%) Passing	600 µm sieve	92
Percentage (%) Passing	425 µm sieve	77
Percentage (%) Passing	300 µm sieve	50
Percentage (%) Passing	150 µm sieve	17
Percentage (%) Passing	75 µm sieve	11

REMARKS: Samples crushed prior to testing.



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TEST REPORT

24 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 68

Laboratory Number: W56526 Date Received: 11/03/2016

Client Number: DDH3#24 Date Tested: 11/03/2016

Depth: 29 (m) to 30 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	98
Percentage (%) Passing	600 µm sieve	87
Percentage (%) Passing	425 µm sieve	75
Percentage (%) Passing	300 µm sieve	52
Percentage (%) Passing	150 µm sieve	17
Percentage (%) Passing	75 µm sieve	10

REMARKS: Samples crushed prior to testing.



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TEST REPORT

25 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 69

Laboratory Number: W56527 Date Received: 11/03/2016

Client Number: DDH3#25 Date Tested: 9/04/2016

Depth: 30 (m) to 31 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	99
Percentage (%) Passing	600 µm sieve	83
Percentage (%) Passing	425 µm sieve	73
Percentage (%) Passing	300 µm sieve	62
Percentage (%) Passing	150 µm sieve	33
Percentage (%) Passing	75 µm sieve	15

REMARKS: Samples crushed prior to testing.



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TEST REPORT

26 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 70

Laboratory Number: W56528 Date Received: 11/03/2016

Client Number: DDH3#26 Date Tested: 9/04/2016

Depth: 31 (m) to 32 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	100
Percentage (%) Passing	600 µm sieve	85
Percentage (%) Passing	425 µm sieve	72
Percentage (%) Passing	300 µm sieve	51
Percentage (%) Passing	150 µm sieve	21
Percentage (%) Passing	75 µm sieve	11

REMARKS: Samples crushed prior to testing.



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TEST REPORT

27 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 71

Laboratory Number: W56529 Date Received: 11/03/2016

Client Number: DDH3#27 Date Tested: 11/04/2016

Depth: 32 (m) to 33 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	100
Percentage (%) Passing	600 µm sieve	83
Percentage (%) Passing	425 µm sieve	69
Percentage (%) Passing	300 µm sieve	47
Percentage (%) Passing	150 µm sieve	19
Percentage (%) Passing	75 µm sieve	10

REMARKS: Samples crushed prior to testing.



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TEST REPORT

28 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 72

Laboratory Number: W56530 Date Received: 11/03/2016

Client Number: DDH3#28 Date Tested: 11/04/2016

Depth: 33 (m) to 34 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	100
Percentage (%) Passing	600 µm sieve	86
Percentage (%) Passing	425 µm sieve	74
Percentage (%) Passing	300 µm sieve	51
Percentage (%) Passing	150 µm sieve	20
Percentage (%) Passing	75 µm sieve	11

REMARKS: Samples crushed prior to testing.



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TEST REPORT

29 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 73

Laboratory Number: W56531 Date Received: 11/03/2016

Client Number: DDH3#29 Date Tested: 11/04/2016

Depth: 34 (m) to 35 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	94
Percentage (%) Passing	600 µm sieve	70
Percentage (%) Passing	425 µm sieve	59
Percentage (%) Passing	300 µm sieve	45
Percentage (%) Passing	150 µm sieve	19
Percentage (%) Passing	75 µm sieve	9

REMARKS: Samples crushed prior to testing.



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TEST REPORT

30 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 74

Laboratory Number: W56532 Date Received: 11/03/2016

Client Number: DDH3#30 Date Tested: 11/04/2016

Depth: 35 (m) to 36 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	97
Percentage (%) Passing	2.36 mm sieve	84
Percentage (%) Passing	1.18 mm sieve	69
Percentage (%) Passing	600 µm sieve	48
Percentage (%) Passing	425 µm sieve	37
Percentage (%) Passing	300 µm sieve	26
Percentage (%) Passing	150 µm sieve	11
Percentage (%) Passing	75 µm sieve	6

REMARKS: Samples crushed prior to testing.



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TEST REPORT

31 of 31

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 2
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 75

Laboratory Number: W56533 Date Received: 11/03/2016

Client Number: DDH3#31 Date Tested: 9/04/2016

Depth: 36 (m) to 37 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	98
Percentage (%) Passing	2.36 mm sieve	92
Percentage (%) Passing	1.18 mm sieve	82
Percentage (%) Passing	600 µm sieve	51
Percentage (%) Passing	425 µm sieve	30
Percentage (%) Passing	300 µm sieve	16
Percentage (%) Passing	150 µm sieve	7
Percentage (%) Passing	75 µm sieve	5

REMARKS: Samples crushed prior to testing.



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CORE TEST SAMPLES – SFQ-DDH4

WASHED SIEVE ANALYSIS 1m INTERVALS BY NETWORK GEOTECHNICS

DRILL HOLE	DEPTH (m)	INTERVAL (m)	LITHOLOGY	CORE LOSS (m)	CORE RECOVERY (%)
SFQ-DDH4	22.0 to 23.0	1.0	See Appendix 1	70	30
SFQ-DDH4	23.0 to 24.0	1.0	See Appendix 1	25	75
SFQ-DDH4	24.0 to 25.0	1.0	See Appendix 1	0	100
SFQ-DDH4	25.0 to 26.0	1.0	See Appendix 1	0	100
SFQ-DDH4	26.0 to 27.0	1.0	See Appendix 1	0	100
SFQ-DDH4	27.0 to 28.0	1.0	See Appendix 1	0	100
SFQ-DDH4	28.0 to 29.0	1.0	See Appendix 1	0	100
SFQ-DDH4	29.0 to 30.0	1.0	See Appendix 1	0	100
SFQ-DDH4	30.0 to 31.0	1.0	See Appendix 1	20	80
SFQ-DDH4	31.0 to 32.0	1.0	See Appendix 1	0	100
SFQ-DDH4	32.0 to 33.0	1.0	See Appendix 1	0	100
SFQ-DDH4	33.0 to 34.0	1.0	See Appendix 1	0	100
SFQ-DDH4	34.0 to 35.0	1.0	See Appendix 1	0	100
SFQ-DDH4	35.0 to 36.0	1.0	See Appendix 1	0	100
SFQ-DDH4	36.0 to 37.0	1.0	See Appendix 1	0	100
SFQ-DDH4	37.0 to 38.0	1.0	See Appendix 1	0	100
SFQ-DDH4	38.0 to 39.0	1.0	See Appendix 1	0	100
SFQ-DDH4	39.0 to 40.0	1.0	See Appendix 1	27	73
SFQ-DDH4	40.0 to 41.0	1.0	See Appendix 1	0	100
SFQ-DDH4	41.0 to 42.0	1.0	See Appendix 1	0	100
SFQ-DDH4	42.0 to 43.0	1.0	See Appendix 1	0	100
SFQ-DDH4	43.0 to 44.0	1.0	See Appendix 1	0	100
SFQ-DDH4	44.0 to 45.0	1.0	See Appendix 1	26	74
SFQ-DDH4	45.0 to 46.0	1.0	See Appendix 1	14	86

TEST REPORT

1 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 76

Laboratory Number: W56536 Date Received: 11/03/2016

Client Number: DDH4#1 Date Tested: 29/03/2016

Depth: 22 (m) to 23 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	93
Percentage (%) Passing	1.18 mm sieve	67
Percentage (%) Passing	600 µm sieve	33
Percentage (%) Passing	425 µm sieve	20
Percentage (%) Passing	300 µm sieve	11
Percentage (%) Passing	150 µm sieve	5
Percentage (%) Passing	75 µm sieve	3

REMARKS: Samples crushed prior to testing.



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TEST REPORT

2 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 77

Laboratory Number: W56537 Date Received: 11/03/2016

Client Number: DDH4#2 Date Tested: 29/03/2016

Depth: 23 (m) to 24 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	92
Percentage (%) Passing	1.18 mm sieve	66
Percentage (%) Passing	600 µm sieve	28
Percentage (%) Passing	425 µm sieve	14
Percentage (%) Passing	300 µm sieve	10
Percentage (%) Passing	150 µm sieve	5
Percentage (%) Passing	75 µm sieve	4

REMARKS: Samples crushed prior to testing.



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TEST REPORT

3 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 78

Laboratory Number: W56538 Date Received: 11/03/2016

Client Number: DDH4#3 Date Tested: 29/03/2016

Depth: 24 (m) to 25 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	94
Percentage (%) Passing	1.18 mm sieve	65
Percentage (%) Passing	600 µm sieve	27
Percentage (%) Passing	425 µm sieve	12
Percentage (%) Passing	300 µm sieve	8
Percentage (%) Passing	150 µm sieve	4
Percentage (%) Passing	75 µm sieve	2

REMARKS: Samples crushed prior to testing.



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TEST REPORT

4 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 79

Laboratory Number: W56539 Date Received: 11/03/2016

Client Number: DDH4#4 Date Tested: 29/03/2016

Depth: 25 (m) to 26 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	93
Percentage (%) Passing	1.18 mm sieve	71
Percentage (%) Passing	600 µm sieve	31
Percentage (%) Passing	425 µm sieve	14
Percentage (%) Passing	300 µm sieve	8
Percentage (%) Passing	150 µm sieve	5
Percentage (%) Passing	75 µm sieve	3

REMARKS: Samples crushed prior to testing.



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TEST REPORT

5 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 80

Laboratory Number: W56540 Date Received: 11/03/2016

Client Number: DDH4#5 Date Tested: 29/03/2016

Depth: 26 (m) to 27 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	98
Percentage (%) Passing	2.36 mm sieve	86
Percentage (%) Passing	1.18 mm sieve	58
Percentage (%) Passing	600 µm sieve	29
Percentage (%) Passing	425 µm sieve	13
Percentage (%) Passing	300 µm sieve	7
Percentage (%) Passing	150 µm sieve	4
Percentage (%) Passing	75 µm sieve	2

REMARKS: Samples crushed prior to testing.



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TEST REPORT

6 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 81

Laboratory Number: W56541 Date Received: 11/03/2016

Client Number: DDH4#6 Date Tested: 29/03/2016

Depth: 27 (m) to 28 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	98
Percentage (%) Passing	2.36 mm sieve	92
Percentage (%) Passing	1.18 mm sieve	76
Percentage (%) Passing	600 µm sieve	40
Percentage (%) Passing	425 µm sieve	17
Percentage (%) Passing	300 µm sieve	8
Percentage (%) Passing	150 µm sieve	4
Percentage (%) Passing	75 µm sieve	2

REMARKS: Samples crushed prior to testing.



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TEST REPORT

7 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 82

Laboratory Number: W56542 Date Received: 11/03/2016

Client Number: DDH4#7 Date Tested: 29/03/2016

Depth: 28 (m) to 29 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	98
Percentage (%) Passing	2.36 mm sieve	92
Percentage (%) Passing	1.18 mm sieve	75
Percentage (%) Passing	600 µm sieve	40
Percentage (%) Passing	425 µm sieve	16
Percentage (%) Passing	300 µm sieve	8
Percentage (%) Passing	150 µm sieve	4
Percentage (%) Passing	75 µm sieve	2

REMARKS: Samples crushed prior to testing.



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TEST REPORT

8 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 83

Laboratory Number: W56543 Date Received: 11/03/2016

Client Number: DDH4#8 Date Tested: 29/03/2016

Depth: 29 (m) to 30 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	97
Percentage (%) Passing	2.36 mm sieve	88
Percentage (%) Passing	1.18 mm sieve	77
Percentage (%) Passing	600 µm sieve	59
Percentage (%) Passing	425 µm sieve	39
Percentage (%) Passing	300 µm sieve	17
Percentage (%) Passing	150 µm sieve	9
Percentage (%) Passing	75 µm sieve	6

REMARKS: Samples crushed prior to testing.



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TEST REPORT

9 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 84

Laboratory Number: W56544 Date Received: 11/03/2016

Client Number: DDH4#9 Date Tested: 29/03/2016

Depth: 30 (m) to 31 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	93
Percentage (%) Passing	600 µm sieve	75
Percentage (%) Passing	425 µm sieve	52
Percentage (%) Passing	300 µm sieve	14
Percentage (%) Passing	150 µm sieve	7
Percentage (%) Passing	75 µm sieve	5

REMARKS: Samples crushed prior to testing.



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TEST REPORT

10 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 85

Laboratory Number: W56545 Date Received: 11/03/2016

Client Number: DDH4#10 Date Tested: 29/03/2016

Depth: 31 (m) to 32 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	97
Percentage (%) Passing	2.36 mm sieve	86
Percentage (%) Passing	1.18 mm sieve	65
Percentage (%) Passing	600 µm sieve	37
Percentage (%) Passing	425 µm sieve	19
Percentage (%) Passing	300 µm sieve	10
Percentage (%) Passing	150 µm sieve	5
Percentage (%) Passing	75 µm sieve	3

REMARKS: Samples crushed prior to testing.



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Eliot O'Donnell

DATE
28/04/2016

TEST REPORT

11 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 86

Laboratory Number: W56546 Date Received: 11/03/2016

Client Number: DDH4#11 Date Tested: 29/03/2016

Depth: 32 (m) to 33 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	93
Percentage (%) Passing	1.18 mm sieve	80
Percentage (%) Passing	600 µm sieve	54
Percentage (%) Passing	425 µm sieve	30
Percentage (%) Passing	300 µm sieve	13
Percentage (%) Passing	150 µm sieve	6
Percentage (%) Passing	75 µm sieve	4

REMARKS: Samples crushed prior to testing.



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28/04/2016

TEST REPORT

12 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 87

Laboratory Number: W56547 Date Received: 11/03/2016

Client Number: DDH4#12 Date Tested: 29/03/2016

Depth: 33 (m) to 34 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	98
Percentage (%) Passing	2.36 mm sieve	93
Percentage (%) Passing	1.18 mm sieve	88
Percentage (%) Passing	600 µm sieve	76
Percentage (%) Passing	425 µm sieve	52
Percentage (%) Passing	300 µm sieve	20
Percentage (%) Passing	150 µm sieve	8
Percentage (%) Passing	75 µm sieve	6

REMARKS: Samples crushed prior to testing.



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28/04/2016

TEST REPORT

13 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 88

Laboratory Number: W56548 Date Received: 11/03/2016

Client Number: DDH4#13 Date Tested: 29/03/2016

Depth: 34 (m) to 35 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	98
Percentage (%) Passing	1.18 mm sieve	96
Percentage (%) Passing	600 µm sieve	80
Percentage (%) Passing	425 µm sieve	69
Percentage (%) Passing	300 µm sieve	48
Percentage (%) Passing	150 µm sieve	19
Percentage (%) Passing	75 µm sieve	10

REMARKS: Samples crushed prior to testing.



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28/04/2016

TEST REPORT

14 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 89

Laboratory Number: W56549 Date Received: 11/03/2016

Client Number: DDH4#14 Date Tested: 29/03/2016

Depth: 35 (m) to 36 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	98
Percentage (%) Passing	600 µm sieve	78
Percentage (%) Passing	425 µm sieve	62
Percentage (%) Passing	300 µm sieve	47
Percentage (%) Passing	150 µm sieve	21
Percentage (%) Passing	75 µm sieve	11

REMARKS: Samples crushed prior to testing.



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DATE
28/04/2016

TEST REPORT

15 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 90

Laboratory Number: W56550 Date Received: 11/03/2016

Client Number: DDH4#15 Date Tested: 29/03/2016

Depth: 36 (m) to 37 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	90
Percentage (%) Passing	2.36 mm sieve	73
Percentage (%) Passing	1.18 mm sieve	58
Percentage (%) Passing	600 µm sieve	37
Percentage (%) Passing	425 µm sieve	22
Percentage (%) Passing	300 µm sieve	14
Percentage (%) Passing	150 µm sieve	6
Percentage (%) Passing	75 µm sieve	4

REMARKS: Samples crushed prior to testing.



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DATE
28/04/2016

TEST REPORT

16 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 91

Laboratory Number: W56551 Date Received: 11/03/2016

Client Number: DDH4#16 Date Tested: 29/03/2016

Depth: 37 (m) to 38 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	94
Percentage (%) Passing	2.36 mm sieve	79
Percentage (%) Passing	1.18 mm sieve	62
Percentage (%) Passing	600 µm sieve	37
Percentage (%) Passing	425 µm sieve	23
Percentage (%) Passing	300 µm sieve	16
Percentage (%) Passing	150 µm sieve	8
Percentage (%) Passing	75 µm sieve	5

REMARKS: Samples crushed prior to testing.



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DATE
28/04/2016

TEST REPORT

17 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 92

Laboratory Number: W56552 Date Received: 11/03/2016

Client Number: DDH4#17 Date Tested: 29/03/2016

Depth: 38 (m) to 39 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	96
Percentage (%) Passing	2.36 mm sieve	85
Percentage (%) Passing	1.18 mm sieve	65
Percentage (%) Passing	600 µm sieve	33
Percentage (%) Passing	425 µm sieve	13
Percentage (%) Passing	300 µm sieve	7
Percentage (%) Passing	150 µm sieve	5
Percentage (%) Passing	75 µm sieve	4

REMARKS: Samples crushed prior to testing.



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DATE
28/04/2016

TEST REPORT

18 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 93

Laboratory Number: W56553 Date Received: 11/03/2016

Client Number: DDH4#18 Date Tested: 29/03/2016

Depth: 39 (m) to 40 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	95
Percentage (%) Passing	2.36 mm sieve	81
Percentage (%) Passing	1.18 mm sieve	67
Percentage (%) Passing	600 µm sieve	43
Percentage (%) Passing	425 µm sieve	25
Percentage (%) Passing	300 µm sieve	16
Percentage (%) Passing	150 µm sieve	8
Percentage (%) Passing	75 µm sieve	5

REMARKS: Samples crushed prior to testing.



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DATE
28/04/2016

TEST REPORT

19 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 94

Laboratory Number: W56554 Date Received: 11/03/2016

Client Number: DDH4#19 Date Tested: 29/03/2016

Depth: 40 (m) to 41 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	96
Percentage (%) Passing	2.36 mm sieve	86
Percentage (%) Passing	1.18 mm sieve	69
Percentage (%) Passing	600 µm sieve	43
Percentage (%) Passing	425 µm sieve	28
Percentage (%) Passing	300 µm sieve	18
Percentage (%) Passing	150 µm sieve	8
Percentage (%) Passing	75 µm sieve	4

REMARKS: Samples crushed prior to testing.



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DATE
28/04/2016

TEST REPORT

20 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 95

Laboratory Number: W56555 Date Received: 11/03/2016

Client Number: DDH4#20 Date Tested: 29/03/2016

Depth: 41 (m) to 42 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	95
Percentage (%) Passing	2.36 mm sieve	85
Percentage (%) Passing	1.18 mm sieve	73
Percentage (%) Passing	600 µm sieve	46
Percentage (%) Passing	425 µm sieve	28
Percentage (%) Passing	300 µm sieve	18
Percentage (%) Passing	150 µm sieve	8
Percentage (%) Passing	75 µm sieve	5

REMARKS: Samples crushed prior to testing.



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TEST REPORT

21 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 96

Laboratory Number: W56556 Date Received: 11/03/2016

Client Number: DDH4#21 Date Tested: 29/03/2016

Depth: 42 (m) to 43 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	93
Percentage (%) Passing	2.36 mm sieve	80
Percentage (%) Passing	1.18 mm sieve	67
Percentage (%) Passing	600 µm sieve	43
Percentage (%) Passing	425 µm sieve	27
Percentage (%) Passing	300 µm sieve	17
Percentage (%) Passing	150 µm sieve	8
Percentage (%) Passing	75 µm sieve	5

REMARKS: Samples crushed prior to testing.



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TEST REPORT

22 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 97

Laboratory Number: W56557 Date Received: 11/03/2016

Client Number: DDH4#22 Date Tested: 29/03/2016

Depth: 43 (m) to 44 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	96
Percentage (%) Passing	2.36 mm sieve	90
Percentage (%) Passing	1.18 mm sieve	83
Percentage (%) Passing	600 µm sieve	65
Percentage (%) Passing	425 µm sieve	42
Percentage (%) Passing	300 µm sieve	17
Percentage (%) Passing	150 µm sieve	6
Percentage (%) Passing	75 µm sieve	4

REMARKS: Samples crushed prior to testing.



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TEST REPORT

23 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 98

Laboratory Number: W56558 Date Received: 11/03/2016

Client Number: DDH4#23 Date Tested: 29/03/2016

Depth: 44 (m) to 45 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	98
Percentage (%) Passing	2.36 mm sieve	88
Percentage (%) Passing	1.18 mm sieve	75
Percentage (%) Passing	600 µm sieve	44
Percentage (%) Passing	425 µm sieve	25
Percentage (%) Passing	300 µm sieve	17
Percentage (%) Passing	150 µm sieve	9
Percentage (%) Passing	75 µm sieve	6

REMARKS: Samples crushed prior to testing.



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TEST REPORT

24 of 24

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 3
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 99

Laboratory Number: W56559 Date Received: 11/03/2016

Client Number: DDH4#24 Date Tested: 29/03/2016

Depth: 45 (m) to 46 (m)

GRADING ANALYSIS - AS 1141.11.1 Washed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	90
Percentage (%) Passing	2.36 mm sieve	68
Percentage (%) Passing	1.18 mm sieve	51
Percentage (%) Passing	600 µm sieve	34
Percentage (%) Passing	425 µm sieve	24
Percentage (%) Passing	300 µm sieve	16
Percentage (%) Passing	150 µm sieve	8
Percentage (%) Passing	75 µm sieve	5

REMARKS: Samples crushed prior to testing.



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CORE TEST SAMPLES – SFQ-DDH1
‘PRODUCT’ SAND SIEVE ANALYSIS 5m INTERVALS BY NETWORK
GEOTECHNICS

DRILL HOLE	DEPTH (m)	INTERVAL (m)	COMMENT
SFQ-DDH1	5.0 to 7.0	2.0	5m OF COMBINED SAMPLES
SFQ-DDH1	9.0 to 12.0	3.0	
SFQ-DDH1	12.0 to 17.0	5.0	
SFQ-DDH1	17.0 to 22.0	5.0	
SFQ-DDH1	22.0 to 27.0	5.0	
SFQ-DDH1	27.0 to 32.0	5.0	
SFQ-DDH1	32.0 to 37.0	5.0	
SFQ-DDH1	37.0 to 42.0	5.0	
SFQ-DDH1	42.0 to 47.0	5.0	
SFQ-DDH1	47.0 to 51.0	4.0	

TEST REPORT

1 of 9

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 4
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 100

Laboratory Number: W57051 Date Received: 11/03/2016

Client Number: DDH1#1-5 Date Tested: 12/04/2016

Depth: 5 to 7 (m) & 9 to 12 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	96
Percentage (%) Passing	1.18 mm sieve	91
Percentage (%) Passing	600 µm sieve	74
Percentage (%) Passing	425 µm sieve	50
Percentage (%) Passing	300 µm sieve	25
Percentage (%) Passing	150 µm sieve	6
Percentage (%) Passing	75 µm sieve	1

REMARKS: samples mixed together in equal mass prior to testing



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TEST REPORT

2 of 9

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 4
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 101

Laboratory Number: W57052 Date Received: 11/03/2016

Client Number: DDH1#6-10 Date Tested: 12/04/2016

Depth: 12 (m) to 17 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	98
Percentage (%) Passing	1.18 mm sieve	95
Percentage (%) Passing	600 µm sieve	82
Percentage (%) Passing	425 µm sieve	60
Percentage (%) Passing	300 µm sieve	36
Percentage (%) Passing	150 µm sieve	7
Percentage (%) Passing	75 µm sieve	1

REMARKS: samples mixed together in equal mass prior to testing



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TEST REPORT

3 of 9

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 4
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 102

Laboratory Number: W57053 Date Received: 11/03/2016

Client Number: DDH1#11-15 Date Tested: 12/04/2016

Depth: 17 (m) to 22 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	97
Percentage (%) Passing	1.18 mm sieve	94
Percentage (%) Passing	600 µm sieve	77
Percentage (%) Passing	425 µm sieve	45
Percentage (%) Passing	300 µm sieve	20
Percentage (%) Passing	150 µm sieve	6
Percentage (%) Passing	75 µm sieve	1

REMARKS: samples mixed together in equal mass prior to testing



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TEST REPORT

4 of 9

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 4
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 103

Laboratory Number: W57054 Date Received: 11/03/2016

Client Number: DDH1#16-20 Date Tested: 12/04/2016

Depth: 22 (m) to 27 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	95
Percentage (%) Passing	1.18 mm sieve	92
Percentage (%) Passing	600 µm sieve	74
Percentage (%) Passing	425 µm sieve	59
Percentage (%) Passing	300 µm sieve	36
Percentage (%) Passing	150 µm sieve	9
Percentage (%) Passing	75 µm sieve	1

REMARKS: samples mixed together in equal mass prior to testing



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TEST REPORT

5 of 9

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 4
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 104

Laboratory Number: W57055 Date Received: 11/03/2016

Client Number: DDH1#21-25 Date Tested: 12/04/2016

Depth: 27 (m) to 32 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	97
Percentage (%) Passing	1.18 mm sieve	95
Percentage (%) Passing	600 µm sieve	76
Percentage (%) Passing	425 µm sieve	61
Percentage (%) Passing	300 µm sieve	40
Percentage (%) Passing	150 µm sieve	11
Percentage (%) Passing	75 µm sieve	1

REMARKS: samples mixed together in equal mass prior to testing



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28/04/2016

TEST REPORT

6 of 9

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 4
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 105

Laboratory Number: W57056 Date Received: 11/03/2016

Client Number: DDH1#26-30 Date Tested: 12/04/2016

Depth: 32 (m) to 37 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	
Percentage (%) Passing	4.75 mm sieve	
Percentage (%) Passing	2.36 mm sieve	100
Percentage (%) Passing	1.18 mm sieve	100
Percentage (%) Passing	600 µm sieve	81
Percentage (%) Passing	425 µm sieve	68
Percentage (%) Passing	300 µm sieve	50
Percentage (%) Passing	150 µm sieve	14
Percentage (%) Passing	75 µm sieve	1

REMARKS: samples mixed together in equal mass prior to testing



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TEST REPORT

7 of 9

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 4
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 106

Laboratory Number: W57057 Date Received: 11/03/2016

Client Number: DDH1#31-35 Date Tested: 13/04/2016

Depth: 37 (m) to 42 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	98
Percentage (%) Passing	2.36 mm sieve	95
Percentage (%) Passing	1.18 mm sieve	89
Percentage (%) Passing	600 µm sieve	57
Percentage (%) Passing	425 µm sieve	33
Percentage (%) Passing	300 µm sieve	17
Percentage (%) Passing	150 µm sieve	4
Percentage (%) Passing	75 µm sieve	0

REMARKS: samples mixed together in equal mass prior to testing



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TEST REPORT

8 of 9

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 4
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 107

Laboratory Number: W57058 Date Received: 11/03/2016

Client Number: DDH1#36-40 Date Tested: 13/04/2016

Depth: 42 (m) to 47 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	99
Percentage (%) Passing	4.75 mm sieve	97
Percentage (%) Passing	2.36 mm sieve	89
Percentage (%) Passing	1.18 mm sieve	74
Percentage (%) Passing	600 µm sieve	47
Percentage (%) Passing	425 µm sieve	22
Percentage (%) Passing	300 µm sieve	7
Percentage (%) Passing	150 µm sieve	2
Percentage (%) Passing	75 µm sieve	0

REMARKS: samples mixed together in equal mass prior to testing



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TEST REPORT

9 of 9

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 4
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 108

Laboratory Number: W57059 Date Received: 11/03/2016

Client Number: DDH1#41-44 Date Tested: 13/04/2016

Depth: 47 (m) to 51 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	93
Percentage (%) Passing	1.18 mm sieve	82
Percentage (%) Passing	600 µm sieve	55
Percentage (%) Passing	425 µm sieve	29
Percentage (%) Passing	300 µm sieve	16
Percentage (%) Passing	150 µm sieve	5
Percentage (%) Passing	75 µm sieve	1

REMARKS: samples mixed together in equal mass prior to testing



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CORE TEST SAMPLES – SFQ-DDH3
‘PRODUCT’ SAND SIEVE ANALYSIS 5m INTERVALS BY NETWORK
GEOTECHNICS

DRILL HOLE	DEPTH (m)	INTERVAL (m)	COMMENT
SFQ-DDH3	2.0 to 4.0	2.0	5m OF COMBINED SAMPLES
SFQ-DDH3	8.0 to 11.0	3.0	
SFQ-DDH3	11.0 to 16.0	5.0	
SFQ-DDH3	16.0 to 21.0	5.0	
SFQ-DDH3	21.0 to 26.0	5.0	
SFQ-DDH3	26.0 to 31.0	5.0	
SFQ-DDH3	31.0 to 36.0	5.0	

TEST REPORT

1 of 6

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 5
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 109

Laboratory Number: W57060 Date Received: 11/03/2016

Client Number: DDH3#1-5 Date Tested: 13/04/2016

Depth: 2 to 4 (m) & 8 to 11 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	94
Percentage (%) Passing	600 µm sieve	69
Percentage (%) Passing	425 µm sieve	38
Percentage (%) Passing	300 µm sieve	24
Percentage (%) Passing	150 µm sieve	8
Percentage (%) Passing	75 µm sieve	1

REMARKS: samples mixed together in equal mass prior to testing



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TEST REPORT

2 of 6

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 5
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 110

Laboratory Number: W57061 Date Received: 11/03/2016

Client Number: DDH3#6-10 Date Tested: 13/04/2016

Depth: 11 (m) to 16 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	97
Percentage (%) Passing	600 µm sieve	83
Percentage (%) Passing	425 µm sieve	58
Percentage (%) Passing	300 µm sieve	29
Percentage (%) Passing	150 µm sieve	5
Percentage (%) Passing	75 µm sieve	0

REMARKS: samples mixed together in equal mass prior to testing



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TEST REPORT

3 of 6

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 5
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 111

Laboratory Number: W57062 Date Received: 11/03/2016

Client Number: DDH3#11-15 Date Tested: 13/04/2016

Depth: 16 (m) to 21 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	98
Percentage (%) Passing	1.18 mm sieve	93
Percentage (%) Passing	600 µm sieve	70
Percentage (%) Passing	425 µm sieve	51
Percentage (%) Passing	300 µm sieve	32
Percentage (%) Passing	150 µm sieve	7
Percentage (%) Passing	75 µm sieve	1

REMARKS: samples mixed together in equal mass prior to testing



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TEST REPORT

4 of 6

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 5
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 112

Laboratory Number: W57063 Date Received: 11/03/2016

Client Number: DDH3#16-20 Date Tested: 14/04/2016

Depth: 21 (m) to 26 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	96
Percentage (%) Passing	600 µm sieve	75
Percentage (%) Passing	425 µm sieve	58
Percentage (%) Passing	300 µm sieve	35
Percentage (%) Passing	150 µm sieve	10
Percentage (%) Passing	75 µm sieve	1

REMARKS: samples mixed together in equal mass prior to testing



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TEST REPORT

5 of 6

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 5
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 113

Laboratory Number: W57064 Date Received: 11/03/2016

Client Number: DDH3#21-25 Date Tested: 14/04/2016

Depth: 26 (m) to 31 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	100
Percentage (%) Passing	2.36 mm sieve	99
Percentage (%) Passing	1.18 mm sieve	98
Percentage (%) Passing	600 µm sieve	85
Percentage (%) Passing	425 µm sieve	70
Percentage (%) Passing	300 µm sieve	45
Percentage (%) Passing	150 µm sieve	10
Percentage (%) Passing	75 µm sieve	0

REMARKS: samples mixed together in equal mass prior to testing



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TEST REPORT

6 of 6

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 5
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 114

Laboratory Number: W57065 Date Received: 11/03/2016

Client Number: DDH3#26-30 Date Tested: 14/04/2016

Depth: 31 (m) to 36 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	96
Percentage (%) Passing	1.18 mm sieve	92
Percentage (%) Passing	600 µm sieve	74
Percentage (%) Passing	425 µm sieve	60
Percentage (%) Passing	300 µm sieve	40
Percentage (%) Passing	150 µm sieve	10
Percentage (%) Passing	75 µm sieve	0

REMARKS: samples mixed together in equal mass prior to testing



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CORE TEST SAMPLES – SFQ-DDH4

**‘PRODUCT’ SAND SIEVE ANALYSIS 5m INTERVALS BY NETWORK
GEOTECHNICS**

DRILL HOLE	DEPTH (m)	INTERVAL (m)	COMMENT
SFQ-DDH4	22.0 to 27.0	5.0	
SFQ-DDH4	27.0 to 32.0	5.0	
SFQ-DDH4	32.0 to 37.0	5.0	
SFQ-DDH4	37.0 to 42.0	5.0	
SFQ-DDH4	42.0 to 46.0	4.0	

TEST REPORT

1 of 5

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 6
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 115

Laboratory Number: W57066 Date Received: 11/03/2016

Client Number: DDH4#1-5 Date Tested: 11/04/2016

Depth: 22 (m) to 27 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	99
Percentage (%) Passing	2.36 mm sieve	91
Percentage (%) Passing	1.18 mm sieve	65
Percentage (%) Passing	600 µm sieve	28
Percentage (%) Passing	425 µm sieve	12
Percentage (%) Passing	300 µm sieve	7
Percentage (%) Passing	150 µm sieve	2
Percentage (%) Passing	75 µm sieve	0

REMARKS: samples mixed together in equal mass prior to testing



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TEST REPORT

2 of 5

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 6
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 116

Laboratory Number: W57067 Date Received: 11/03/2016

Client Number: DDH4#6-10 Date Tested: 12/04/2016

Depth: 27 (m) to 32 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	98
Percentage (%) Passing	4.75 mm sieve	96
Percentage (%) Passing	2.36 mm sieve	89
Percentage (%) Passing	1.18 mm sieve	76
Percentage (%) Passing	600 µm sieve	50
Percentage (%) Passing	425 µm sieve	27
Percentage (%) Passing	300 µm sieve	9
Percentage (%) Passing	150 µm sieve	2
Percentage (%) Passing	75 µm sieve	0

REMARKS: samples mixed together in equal mass prior to testing



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TEST REPORT

3 of 5

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 6
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 117

Laboratory Number: W57068 Date Received: 11/03/2016

Client Number: DDH4#11-15 Date Tested: 12/04/2016

Depth: 32 (m) to 37 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	100
Percentage (%) Passing	4.75 mm sieve	97
Percentage (%) Passing	2.36 mm sieve	91
Percentage (%) Passing	1.18 mm sieve	84
Percentage (%) Passing	600 µm sieve	64
Percentage (%) Passing	425 µm sieve	45
Percentage (%) Passing	300 µm sieve	25
Percentage (%) Passing	150 µm sieve	6
Percentage (%) Passing	75 µm sieve	1

REMARKS: samples mixed together in equal mass prior to testing



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TEST REPORT

4 of 5

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 6
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 118

Laboratory Number: W57069 Date Received: 11/03/2016

Client Number: DDH4#16-20 Date Tested: 12/04/2016

Depth: 37 (m) to 42 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	99
Percentage (%) Passing	4.75 mm sieve	96
Percentage (%) Passing	2.36 mm sieve	84
Percentage (%) Passing	1.18 mm sieve	68
Percentage (%) Passing	600 µm sieve	39
Percentage (%) Passing	425 µm sieve	21
Percentage (%) Passing	300 µm sieve	11
Percentage (%) Passing	150 µm sieve	3
Percentage (%) Passing	75 µm sieve	0

REMARKS: samples mixed together in equal mass prior to testing



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TEST REPORT

5 of 5

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
TR Number :

Job Number: W07/3867
Report Number: 6
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled By Client

Sample Number: 119

Laboratory Number: W57070 Date Received: 11/03/2016

Client Number: DDH4#21-24 Date Tested: 11/04/2016

Depth: 42 (m) to 46 (m)

GRADING ANALYSIS - AS1141.11.1 Unwashed

TEST PROCEDURE

TEST RESULTS

Percentage (%) Passing	13.2 mm sieve	
Percentage (%) Passing	9.5 mm sieve	100
Percentage (%) Passing	6.7 mm sieve	99
Percentage (%) Passing	4.75 mm sieve	95
Percentage (%) Passing	2.36 mm sieve	81
Percentage (%) Passing	1.18 mm sieve	69
Percentage (%) Passing	600 µm sieve	45
Percentage (%) Passing	425 µm sieve	28
Percentage (%) Passing	300 µm sieve	13
Percentage (%) Passing	150 µm sieve	4
Percentage (%) Passing	75 µm sieve	1

REMARKS: samples mixed together in equal mass prior to testing



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CORE TEST SAMPLES – SFQ-DDH1
PARTICLE DENSITY WATER ABSORPTION TEST RESULTS 5m INTERVALS
FROM NETWORK GEOTECHNICS

DRILL HOLE	DEPTH (m)	INTERVAL (m)	COMMENT
SFQ-DDH1	5.0 to 7.0	2.0	5m OF COMBINED SAMPLES
SFQ-DDH1	9.0 to 12.0	3.0	
SFQ-DDH1	12.0 to 17.0	5.0	
SFQ-DDH1	17.0 to 22.0	5.0	
SFQ-DDH1	22.0 to 27.0	5.0	
SFQ-DDH1	27.0 to 32.0	5.0	
SFQ-DDH1	32.0 to 37.0	5.0	
SFQ-DDH1	37.0 to 42.0	5.0	
SFQ-DDH1	42.0 to 47.0	5.0	
SFQ-DDH1	47.0 to 51.0	4.0	

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 7
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 100

Laboratory Number: W57051 Date Received: 11/03/2016

Client Number: DDH1#1-5 Date Tested: 15/04/2016

Depth: 5 to 7 (m) & 9 to 12 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.61
Particle Density(Dry)	(t/m ³)	2.58
Apparent Particle Density	(t/m ³)	2.66
Water Absorption	(%)	1.1

REMARKS: samples mixed together in equal mass prior to testing



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28.4.16

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 7
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 101

Laboratory Number: W57052 Date Received: 11/03/2016

Client Number: DDH1#6-10 Date Tested: 15/04/2016

Depth: 12 to (m) 17 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.59
Particle Density(Dry)	(t/m ³)	2.59
Apparent Particle Density	(t/m ³)	2.61
Water Absorption	(%)	0.4

REMARKS: samples mixed together in equal mass prior to testing



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DATE
28.4.16

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 7
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 102

Laboratory Number: W57053 Date Received: 11/03/2016

Client Number: DDH1#11-15 Date Tested: 15/04/2016

Depth: 17 to (m) 22 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.59
Particle Density(Dry)	(t/m ³)	2.56
Apparent Particle Density	(t/m ³)	2.64
Water Absorption	(%)	1.2

REMARKS: samples mixed together in equal mass prior to testing



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DATE
28.4.16

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 7
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 103

Laboratory Number: W57054 Date Received: 11/03/2016

Client Number: DDH1#16-20 Date Tested: 15/04/2016

Depth: 22 to (m) 27 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.52
Particle Density(Dry)	(t/m ³)	2.48
Apparent Particle Density	(t/m ³)	2.58
Water Absorption	(%)	1.6

REMARKS: samples mixed together in equal mass prior to testing



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APPROVED SIGNATORY
Eliot O'Donnell

DATE
28.4.16

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 7
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 104

Laboratory Number: W57055 Date Received: 11/03/2016

Client Number: DDH1#21-25 Date Tested: 14/04/2016

Depth: 27 to (m) 32 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.57
Particle Density(Dry)	(t/m ³)	2.54
Apparent Particle Density	(t/m ³)	2.62
Water Absorption	(%)	1.3

REMARKS: samples mixed together in equal mass prior to testing



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DATE
28.4.16

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 7
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 105

Laboratory Number: W57056 Date Received: 11/03/2016

Client Number: DDH1#26-30 Date Tested: 15/04/2016

Depth: 32 to (m) 37 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.59
Particle Density(Dry)	(t/m ³)	2.56
Apparent Particle Density	(t/m ³)	2.63
Water Absorption	(%)	1.0

REMARKS: samples mixed together in equal mass prior to testing



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DATE
28.4.16

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 7
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 106

Laboratory Number: W57057 Date Received: 11/03/2016

Client Number: DDH1#31-35 Date Tested: 18/04/2016

Depth: 37 to (m) 42 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.57
Particle Density(Dry)	(t/m ³)	2.53
Apparent Particle Density	(t/m ³)	2.63
Water Absorption	(%)	1.4

REMARKS: samples mixed together in equal mass prior to testing



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DATE
28.4.16

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 7
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 107

Laboratory Number: W57051 Date Received: 11/03/2016

Client Number: DDH1#36-40 Date Tested: 18/04/2016

Depth: 42 to (m) 47 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.59
Particle Density(Dry)	(t/m ³)	2.57
Apparent Particle Density	(t/m ³)	2.63
Water Absorption	(%)	0.9

REMARKS: samples mixed together in equal mass prior to testing



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DATE
28.4.16

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 7
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 108

Laboratory Number: W57051 Date Received: 11/03/2016

Client Number: DDH1#41-44 Date Tested: 18/04/2016

Depth: 47 to (m) 51 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.58
Particle Density(Dry)	(t/m ³)	2.55
Apparent Particle Density	(t/m ³)	2.63
Water Absorption	(%)	1.1

REMARKS: samples mixed together in equal mass prior to testing



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28.4.16

CORE TEST SAMPLES – SFQ-DDH3
PARTICLE DENSITY WATER ABSORPTION TEST RESULTS 5m INTERVALS
FROM NETWORK GEOTECHNICS

DRILL HOLE	DEPTH (m)	INTERVAL (m)	COMMENT
SFQ-DDH3	2.0 to 4.0	2.0	5m OF COMBINED SAMPLES
SFQ-DDH3	8.0 to 11.0	3.0	
SFQ-DDH3	11.0 to 16.0	5.0	
SFQ-DDH3	16.0 to 21.0	5.0	
SFQ-DDH3	21.0 to 26.0	5.0	
SFQ-DDH3	26.0 to 31.0	5.0	
SFQ-DDH3	31.0 to 36.0	5.0	

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 8
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 109

Laboratory Number: W57060 Date Received: 11/03/2016

Client Number: DDH3#1-5 Date Tested: 15/04/2016

Depth: 2 to 4 & 8 to 11 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.60
Particle Density(Dry)	(t/m ³)	2.56
Apparent Particle Density	(t/m ³)	2.68
Water Absorption	(%)	1.7

REMARKS: samples mixed together in equal mass prior to testing



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DATE
28.4.16

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 8
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 110

Laboratory Number: W57061 Date Received: 11/03/2016

Client Number: DDH3#6-10 Date Tested: 15/04/2016

Depth: 11 to (m) 16 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.59
Particle Density(Dry)	(t/m ³)	2.56
Apparent Particle Density	(t/m ³)	2.63
Water Absorption	(%)	1.0

REMARKS: samples mixed together in equal mass prior to testing



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DATE
28.4.16

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 8
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 111

Laboratory Number: W57062 Date Received: 11/03/2016

Client Number: DDH3#11-15 Date Tested: 21/04/2016

Depth: 16 to (m) 21 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.59
Particle Density(Dry)	(t/m ³)	2.56
Apparent Particle Density	(t/m ³)	2.65
Water Absorption	(%)	1.3

REMARKS: samples mixed together in equal mass prior to testing



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28.4.16

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 8
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 112

Laboratory Number: W57063 Date Received: 11/03/2016

Client Number: DDH3#16-20 Date Tested: 19/04/2016

Depth: 21 to (m) 26 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.52
Particle Density(Dry)	(t/m ³)	2.47
Apparent Particle Density	(t/m ³)	2.59
Water Absorption	(%)	1.8

REMARKS: samples mixed together in equal mass prior to testing



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28.4.16

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 8
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 113

Laboratory Number: W57064 Date Received: 11/03/2016

Client Number: DDH3#21-25 Date Tested: 18/04/2016

Depth: 26 to (m) 31 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.50
Particle Density(Dry)	(t/m ³)	2.47
Apparent Particle Density	(t/m ³)	2.56
Water Absorption	(%)	1.3

REMARKS: samples mixed together in equal mass prior to testing



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TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 8
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 114

Laboratory Number: W57065 Date Received: 11/03/2016

Client Number: DDH3#26-30 Date Tested: 18/04/2016

Depth: 31 to (m) 36 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.56
Particle Density(Dry)	(t/m ³)	2.51
Apparent Particle Density	(t/m ³)	2.63
Water Absorption	(%)	1.8

REMARKS: samples mixed together in equal mass prior to testing



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CORE TEST SAMPLES – SFQ-DDH4
PARTICLE DENSITY WATER ABSORPTION TEST RESULTS 5m INTERVALS
FROM NETWORK GEOTECHNICS

DRILL HOLE	DEPTH (m)	INTERVAL (m)	COMMENT
SFQ-DDH4	22.0 to 27.0	5.0	
SFQ-DDH4	27.0 to 32.0	5.0	
SFQ-DDH4	32.0 to 37.0	5.0	
SFQ-DDH4	37.0 to 42.0	5.0	
SFQ-DDH4	42.0 to 46.0	4.0	

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 9
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 115

Laboratory Number: W57066 Date Received: 11/03/2016

Client Number: DDH4#1-5 Date Tested: 15/04/2016

Depth: 22 to (m) 27 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.59
Particle Density(Dry)	(t/m ³)	2.56
Apparent Particle Density	(t/m ³)	2.62
Water Absorption	(%)	0.8

REMARKS: samples mixed together in equal mass prior to testing



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28.4.16

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 9
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 116

Laboratory Number: W57067 Date Received: 11/03/2016

Client Number: DDH4#6-10 Date Tested: 14/04/2016

Depth: 27 to (m) 32 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.59
Particle Density(Dry)	(t/m ³)	2.56
Apparent Particle Density	(t/m ³)	2.63
Water Absorption	(%)	1.0

REMARKS: samples mixed together in equal mass prior to testing



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DATE
28.4.16

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 9
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 117

Laboratory Number: W57068 Date Received 11/03/2016

Client Number: DDH4#11-15 Date Tested: 18/04/2016

Depth: 32 to (m) 37 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.57
Particle Density(Dry)	(t/m ³)	2.54
Apparent Particle Density	(t/m ³)	2.62
Water Absorption	(%)	1.2

REMARKS: samples mixed together in equal mass prior to testing



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28.4.16

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 9
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 118

Laboratory Number: W57069 Date Received: 11/03/2016

Client Number: DDH4#16-20 Date Tested: 19/04/2016

Depth: 37 to (m) 42 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.57
Particle Density(Dry)	(t/m ³)	2.54
Apparent Particle Density	(t/m ³)	2.61
Water Absorption	(%)	0.9

REMARKS: samples mixed together in equal mass prior to testing



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Eliot O'Donnell

DATE
28.4.16

TEST REPORT

Client: Sutton Forest Quarries Pty Ltd
Project: Material Testing
Location: Sutton Forest Quarries
GTR Number :

Job Number: W07/3867
Report Number: 9
Report Date: 28/04/2016
Edition Number: 1

Sample Identification

Sample Description : Sandstone cores Sampling Procedure: Sampled by Client

Sample Number: 119

Laboratory Number: W57070 Date Received: 11/03/2016

Client Number: DDH4#21-24 Date Tested: 14/04/2016

Depth: 42 to (m) 46 (m)

PARTICLE DENSITY WATER ABSORPTION (Fine) - AS1141.5

TEST PROCEDURE

TEST RESULTS

Particle Density (SSD)	(t/m ³)	2.59
Particle Density(Dry)	(t/m ³)	2.55
Apparent Particle Density	(t/m ³)	2.66
Water Absorption	(%)	1.5

REMARKS: samples mixed together in equal mass prior to testing



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DATE
28.4.16

OPEN HOLE TEST SAMPLES
WASHED SIEVE ANALYSIS BY TESTRITE

DRILL HOLE	DEPTH (m)	INTERVAL (m)	LITHOLOGY	COMMENTS
SFQ-OH1	1.0 to 8.0	7.0	Sand	Dry samples
	8.0 to 15.0	7.0	Sand	Dry samples
	15.0 to 23.0	8.0	Sand	Dry samples
	23.0 to 32.0	9.0	Sand	Small wet samples
SFQ-OH2	1.0 to 8.0	7.0	Sand	Dry samples
	8.0 to 15.0	7.0.	Sand	Dry samples
	15.0 to 21.0	6.0	Sand	Dry samples
	21.0 to 29.0	8.0	Sand	All samples wet, various sizes
SFQ-OH3	1.0 to 8.0	7.0	Sand	Dry samples
	8.0 to 14.0	6.0	Sand	Dry samples
	14.0 to 20.0	6.0	Sand	Dry samples
	20.0 to 29.0	9.0	Sand	All samples wet, various sizes
SFQ-OH4	1.0 to 9.0	8.0	Sand	Dry samples
	9.0 to 17.0	8.0	Sand	Dry samples
	17.0 to 21.0	4.0	Shale lenses	Dry samples. NOT TESTED.
	21.0 to 29.0	8.0	Sand	Dry samples



Concord West, Sydney Laboratory

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Material Test Report

Report No: CWES13S-02875-1

Issue No: 1

Client: Graham Lee & Associates Pty Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:
Project No.: INFOCWES00293AA
Project Name: SFQ Testing
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.



A O'Callaghan
Approved Signatory: Adam O'Callaghan
(Senior Geotechnician)
NATA Accredited Laboratory Number: 19239
Date of Issue: 3/09/2013

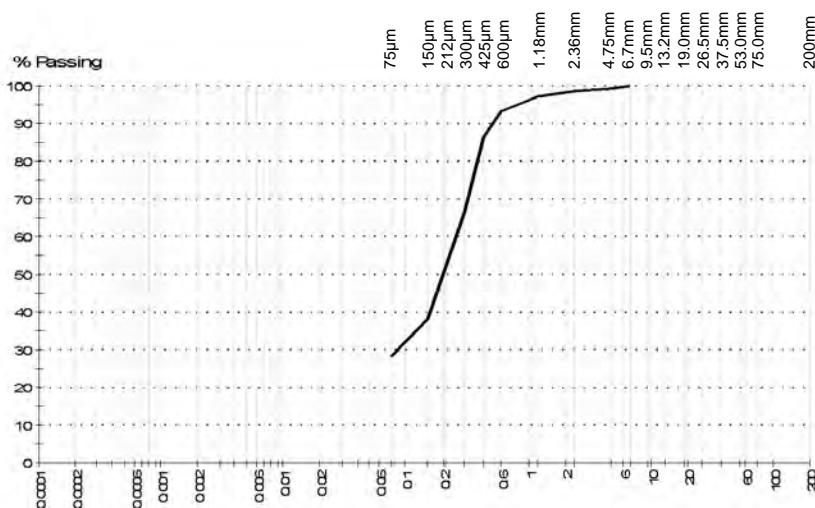
Sample Details

Sample ID: CWES13S-02875
Client Sample: SQF-OH1 1.0-8.0m
Date Sampled:
Source: Client
Material: Sand
Specification: AS Grading
Sampling Method: Submitted by client
Project Location: Open Hole
Sample Location: SQF-OH1 1.0-8.0m

Other Test Results

Description	Method	Result	Limits

Particle Size Distribution



Sieve Size	% Passing	Limits
6.7mm	100	
4.75mm	99	
2.36mm	99	
1.18mm	97	
600µm	93	
425µm	86	
300µm	66	
150µm	38	
75µm	28	
Finer 75µm	28.0	

CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	

Particle Size (mm)

Comments

CWES13W01105



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Report No: CWES13S-02876-1

Issue No: 1

Material Test Report

Client: Graham Lee & Associates Pty Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:

Project No.: INFOCWES00293AA

Project Name: SFQ Testing

Lot No.:

TRN:

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A O'Callaghan

Approved Signatory: Adam O'Callaghan
(Senior Geotechnician)

NATA Accredited Laboratory Number: 19239
Date of Issue: 3/09/2013

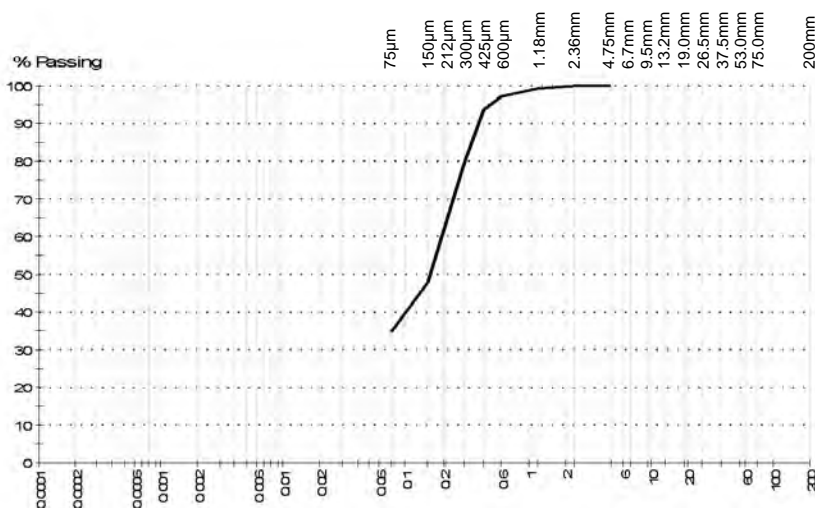
Sample Details

Sample ID: CWES13S-02876
Client Sample: SQF-OH1 8.0-15.0m
Date Sampled:
Source: Client
Material: Sand
Specification: AS Grading
Sampling Method: Submitted by client
Project Location: Open Hole
Sample Location: SQF-OH1 8.0-15.0m

Other Test Results

Description	Method	Result	Limits

Particle Size Distribution



CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	

Particle Size (mm)

Comments

CWES13W01105



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Report No: CWES13S-02877-1

Issue No: 1

Material Test Report

Client: Graham Lee & Associates Pty Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:

Project No.: INFOCWES00293AA

Project Name: SFQ Testing

Lot No.:

TRN:

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A O'Callaghan

Approved Signatory: Adam O'Callaghan
(Senior Geotechnician)

NATA Accredited Laboratory Number: 19239
Date of Issue: 3/09/2013

Sample Details

Sample ID: CWES13S-02877
Client Sample: SQF-OH1 15.0-23.0m
Date Sampled:
Source: Client
Material: Sand
Specification: AS Grading
Sampling Method: Submitted by client
Project Location: Open Hole
Sample Location: SQF-OH1 15.0-23.0m

Other Test Results

Description	Method	Result	Limits

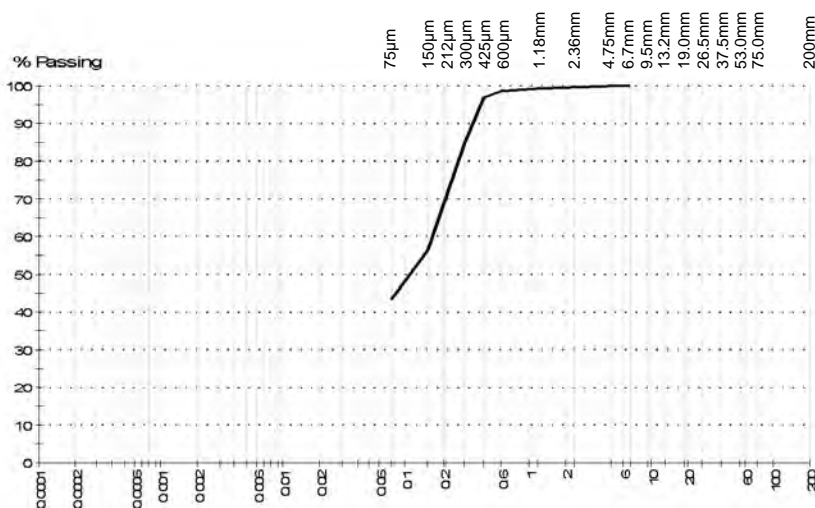
Particle Size Distribution

Method: AS 1141.11.1, AS 1141.12

Date Tested: 12/08/2013

Note:

Sieve Size	% Passing	Limits
6.7mm	100	
4.75mm	100	
2.36mm	100	
1.18mm	99	
600µm	99	
425µm	97	
300µm	85	
150µm	57	
75µm	43	
Finer 75µm	43.1	



CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	

Particle Size (mm)

Comments

CWES13W01105



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Material Test Report

Report No: CWES13S-02878-1

Issue No: 1

Client: Graham Lee & Associates Pty Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:
Project No.: INFOCWES00293AA
Project Name: SFQ Testing
Lot No.: TRN:

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A O'Callaghan
Approved Signatory: Adam O'Callaghan
(Senior Geotechnician)
NATA Accredited Laboratory Number: 19239
Date of Issue: 3/09/2013

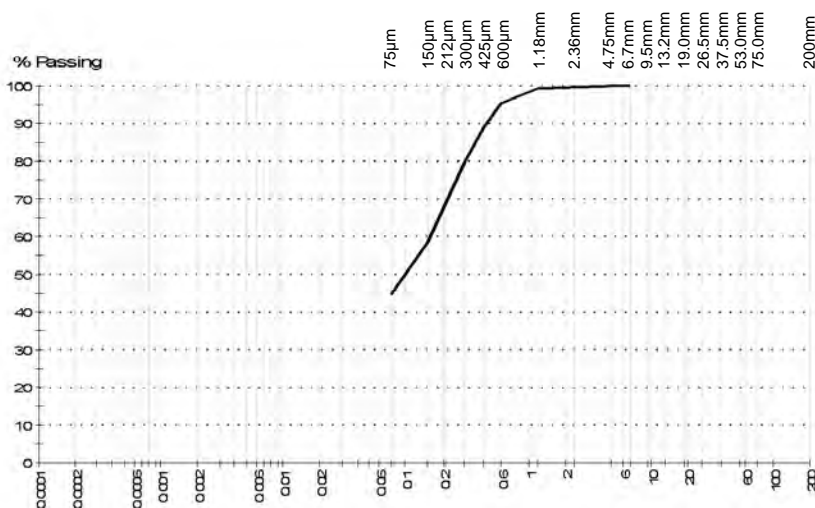
Sample Details

Sample ID: CWES13S-02878
Client Sample: SQF-OH1 23.0-32.0m
Date Sampled:
Source: Client
Material: Sand
Specification: AS Grading
Sampling Method: Submitted by client
Project Location: Open Hole
Sample Location: SQF-OH1 23.0-32.0m

Other Test Results

Description	Method	Result	Limits

Particle Size Distribution



Method: AS 1141.11.1, AS 1141.12
Drying by: Oven

Date Tested: 22/08/2013

Note:

Sieve Size	% Passing	Limits
6.7mm	100	
4.75mm	100	
2.36mm	100	
1.18mm	99	
600µm	95	
425µm	89	
300µm	80	
150µm	59	
75µm	45	
Finer 75µm	44.8	

CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	

Particle Size (mm)

Comments

CWES13W01105



Concord West, Sydney Laboratory

Coffey Testing Pty Ltd
ABN 92 114 364 046
4 Rothwell Ave. (PO Box 329)
Concord West NSW 2138

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Fax: +61 (2) 9743 5860

Material Test Report

Report No: CWES13S-02879-1

Issue No: 1

Client: Graham Lee & Associates Pty Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:
Project No.: INFOCWES00293AA
Project Name: SFQ Testing
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

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Date of Issue: 3/09/2013

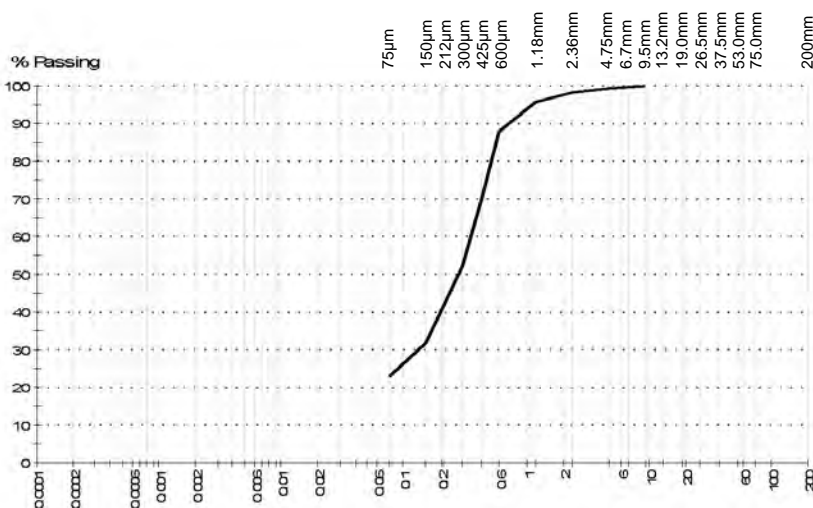
Sample Details

Sample ID: CWES13S-02879
Client Sample: SQF-OH2 1.0-8.0m
Date Sampled:
Source: Client
Material: Sand
Specification: AS Grading
Sampling Method: Submitted by client
Project Location: Open Hole
Sample Location: SQF-OH2 1.0-8.0m

Other Test Results

Description	Method	Result	Limits

Particle Size Distribution



CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	

Particle Size (mm)

Comments

CWES13W01105



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Material Test Report

Report No: CWES13S-02880-1

Issue No: 1

Client: Graham Lee & Associates Pty Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:
Project No.: INFOCWES00293AA
Project Name: SFQ Testing
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

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(Senior Geotechnician)
NATA Accredited Laboratory Number: 19239
Date of Issue: 3/09/2013

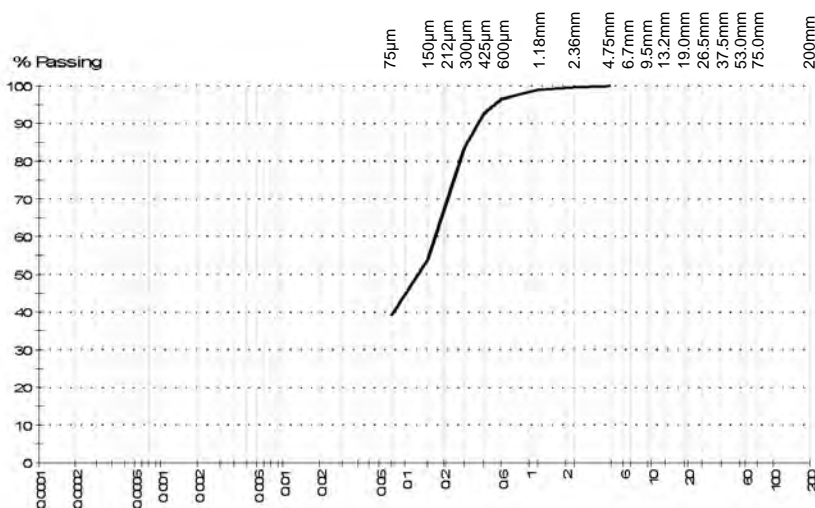
Sample Details

Sample ID: CWES13S-02880
Client Sample: SQF-OH2 8.0-15.0m
Date Sampled:
Source: Client
Material: Sand
Specification: AS Grading
Sampling Method: Submitted by client
Project Location: Open Hole
Sample Location: SQF-OH2 8.0-15.0m

Other Test Results

Description	Method	Result	Limits

Particle Size Distribution



Method: AS 1141.11.1, AS 1141.12
Drying by: Oven
Date Tested: 26/08/2013

Note:

Sieve Size	% Passing	Limits
4.75mm	100	
2.36mm	100	
1.18mm	99	
600µm	96	
425µm	93	
300µm	84	
150µm	54	
75µm	39	
Finer 75µm	38.8	

CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	

Particle Size (mm)

Comments

CWES13W01105



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Material Test Report

Report No: CWES13S-02881-1

Issue No: 1

Client: Graham Lee & Associates Pty Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:
Project No.: INFOCWES00293AA
Project Name: SFQ Testing
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

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NATA Accredited Laboratory Number: 19239
Date of Issue: 3/09/2013

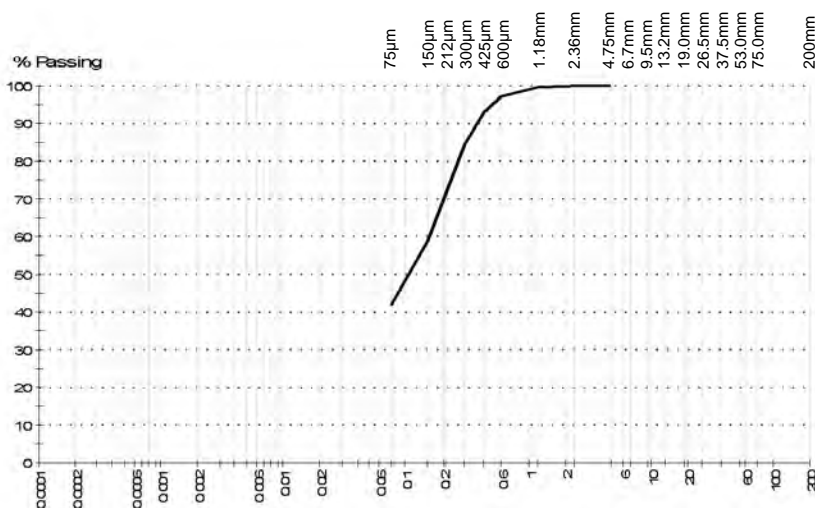
Sample Details

Sample ID: CWES13S-02881
Client Sample: SQF-OH2 15.0-21.0m
Date Sampled:
Source: Client
Material: Sand
Specification: AS Grading
Sampling Method: Submitted by client
Project Location: Open Hole
Sample Location: SQF-OH2 15.0-21.0m

Other Test Results

Description	Method	Result	Limits

Particle Size Distribution



Method: AS 1141.11.1, AS 1141.12
Drying by: Oven

Date Tested: 26/08/2013

Note:

Sieve Size	% Passing	Limits
4.75mm	100	
2.36mm	100	
1.18mm	100	
600µm	97	
425µm	93	
300µm	84	
150µm	59	
75µm	42	
Finer 75µm	41.8	

CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	

Particle Size (mm)

Comments

CWES13W01105



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Material Test Report

Report No: CWES13S-02882-1

Issue No: 1

Client: Graham Lee & Associates Pty Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:
Project No.: INFOCWES00293AA
Project Name: SFQ Testing
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

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NATA Accredited Laboratory Number: 19239
Date of Issue: 3/09/2013

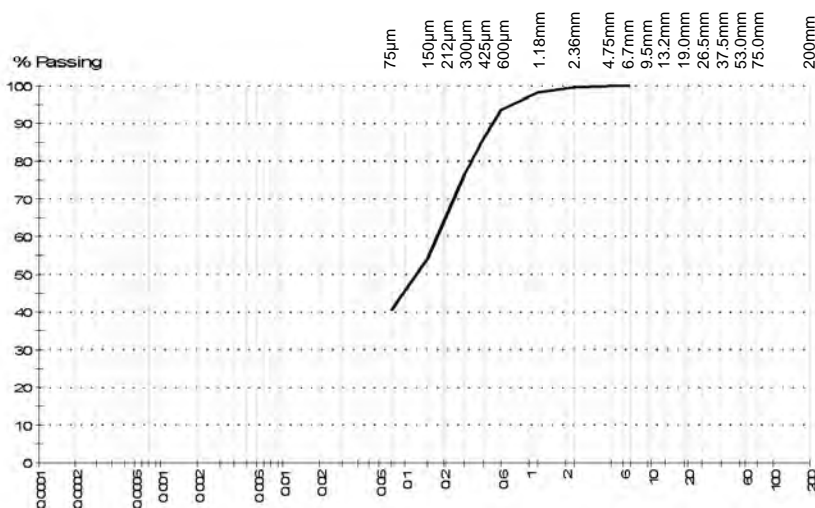
Sample Details

Sample ID: CWES13S-02882
Client Sample: SQF-OH2 21.0-29.0m
Date Sampled:
Source: Client
Material: Sand
Specification: AS Grading
Sampling Method: Submitted by client
Project Location: Open Hole
Sample Location: SQF-OH2 21.0-29.0m

Other Test Results

Description	Method	Result	Limits

Particle Size Distribution



Method: AS 1141.11.1, AS 1141.12
Drying by: Oven

Date Tested: 19/08/2013

Note:

Sieve Size	% Passing	Limits
6.7mm	100	
4.75mm	100	
2.36mm	100	
1.18mm	98	
600µm	93	
425µm	86	
300µm	76	
150µm	54	
75µm	40	
Finer 75µm	40.4	

CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	

Particle Size (mm)

Comments

CWES13W01105



Material Test Report

Report No: CWES13S-02883-1

Issue No: 1

Client: Graham Lee & Associates Pty Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:
Project No.: INFOCWES00293AA
Project Name: SFQ Testing
Lot No.: TRN:



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A O'Callaghan

Approved Signatory: Adam O'Callaghan
(Senior Geotechnician)
NATA Accredited Laboratory Number: 19239
Date of Issue: 3/09/2013

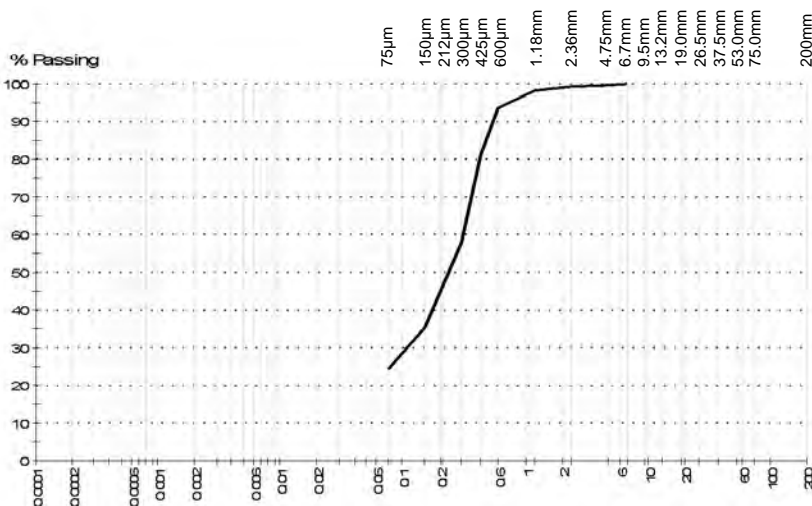
Sample Details

Sample ID: CWES13S-02883
Client Sample: SQF-OH3 1.0-8.0m
Date Sampled:
Source: Client
Material: Sand
Specification: AS Grading
Sampling Method: Submitted by client
Project Location: Open Hole
Sample Location: SQF-OH3 1.0-8.0m

Other Test Results

Description	Method	Result	Limits

Particle Size Distribution



Method: AS 1141.11.1, AS 1141.12
Drying by: Oven

Date Tested: 14/08/2013

Note:

Sieve Size	% Passing	Limits
6.7mm	100	
4.75mm	100	
2.36mm	99	
1.18mm	98	
600µm	94	
425µm	81	
300µm	58	
150µm	35	
75µm	24	
Finer 75µm	24.2	

CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	

Particle Size (mm)

Comments

CWES13W01105



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Report No: CWES13S-02884-1

Issue No: 1

Material Test Report

Client: Graham Lee & Associates Pty Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:

Project No.: INFOCWES00293AA

Project Name: SFQ Testing

Lot No.:

TRN:

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NATA Accredited Laboratory Number: 19239
Date of Issue: 3/09/2013

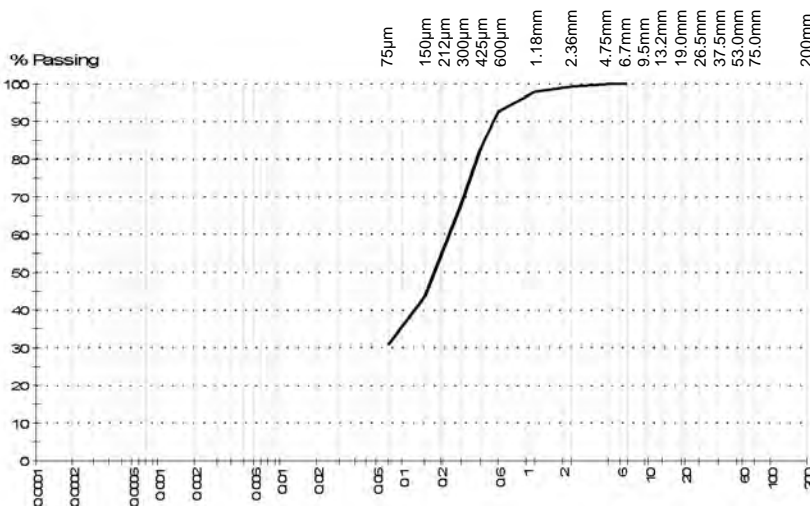
Sample Details

Sample ID: CWES13S-02884
Client Sample: SQF-OH3 8.0-14.0m
Date Sampled:
Source: Client
Material: Sand
Specification: AS Grading
Sampling Method: Submitted by client
Project Location: Open Hole
Sample Location: SQF-OH3 8.0-14.0m

Other Test Results

Description	Method	Result	Limits

Particle Size Distribution



Method: AS 1141.11.1, AS 1141.12
Drying by: Oven

Date Tested: 14/08/2013

Note:

Sieve Size	% Passing	Limits
6.7mm	100	
4.75mm	100	
2.36mm	99	
1.18mm	98	
600µm	92	
425µm	83	
300µm	68	
150µm	44	
75µm	31	
Finer 75µm	30.8	

CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	

Particle Size (mm)

Comments

CWES13W01105



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Report No: CWES13S-02885-1

Issue No: 1

Material Test Report

Client: Graham Lee & Associates Pty Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:

Project No.: INFOCWES00293AA

Project Name: SFQ Testing

Lot No.: TRN:

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(Senior Geotechnician)

NATA Accredited Laboratory Number: 19239
Date of Issue: 3/09/2013

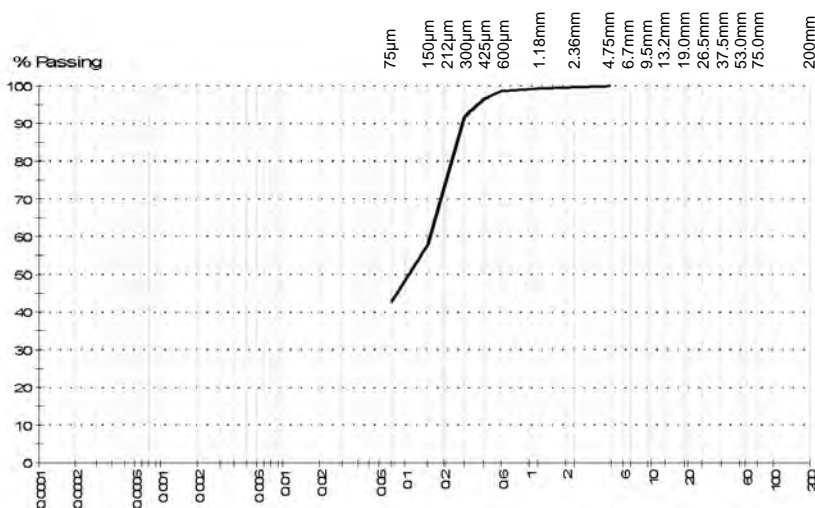
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Sample ID: CWES13S-02885
Client Sample: SQF-OH3 14.0-20.0m
Date Sampled:
Source: Client
Material: Sand
Specification: AS Grading
Sampling Method: Submitted by client
Project Location: Open Hole
Sample Location: SQF-OH3 14.0-20.0m

Other Test Results

Description	Method	Result	Limits

Particle Size Distribution



Method: AS 1141.11.1, AS 1141.12
Drying by: Oven

Date Tested: 14/08/2013

Note:

Sieve Size	% Passing	Limits
4.75mm	100	
2.36mm	100	
1.18mm	99	
600µm	99	
425µm	97	
300µm	92	
150µm	58	
75µm	42	
Finer 75µm	42.4	

CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	

Particle Size (mm)

Comments

CWES13W01105



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Material Test Report

Report No: CWES13S-02886-1

Issue No: 1

Client: Graham Lee & Associates Pty Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:
Project No.: INFOCWES00293AA
Project Name: SFQ Testing
Lot No.: TRN:

Accredited for compliance with ISO/IEC 17025.

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NATA Accredited Laboratory Number: 19239
Date of Issue: 3/09/2013

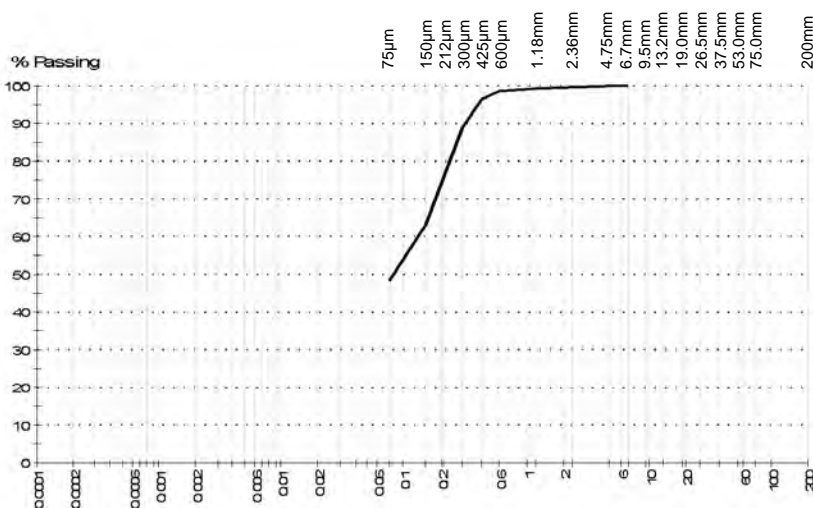
Sample Details

Sample ID: CWES13S-02886
Client Sample: SQF-OH3 20.0-29.0m
Date Sampled:
Source: Client
Material: Sand
Specification: AS Grading
Sampling Method: Submitted by client
Project Location: Open Hole
Sample Location: SQF-OH3 20.0-29.0m

Other Test Results

Description	Method	Result	Limits

Particle Size Distribution



Method: AS 1141.11.1, AS 1141.12
Drying by: Oven

Date Tested: 14/08/2013

Note:

Sieve Size	% Passing	Limits
6.7mm	100	
4.75mm	100	
2.36mm	100	
1.18mm	99	
600µm	98	
425µm	96	
300µm	89	
150µm	63	
75µm	48	
Finer 75µm	48.3	

CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	

Particle Size (mm)

Comments

CWES13W01105



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Report No: CWES13S-02887-1

Issue No: 1

Material Test Report

Client: Graham Lee & Associates Pty Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:

Project No.: INFOCWES00293AA

Project Name: SFQ Testing

Lot No.:

TRN:

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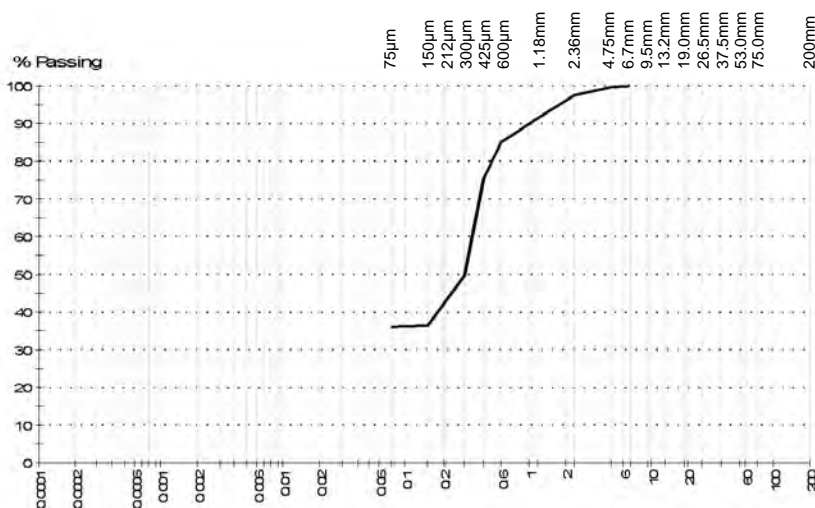
Sample Details

Sample ID: CWES13S-02887
Client Sample: SQF-OH4 1.0-9.0m
Date Sampled:
Source: Client
Material: Sand
Specification: AS Grading
Sampling Method: Submitted by client
Project Location: Open Hole
Sample Location: SQF-OH4 1.0-9.0m

Other Test Results

Description	Method	Result	Limits

Particle Size Distribution



Method: AS 1141.11.1, AS 1141.12
Drying by: Oven

Date Tested: 26/08/2013

Note:

Sieve Size	% Passing	Limits
6.7mm	100	
4.75mm	99	
2.36mm	98	
1.18mm	91	
600µm	85	
425µm	75	
300µm	50	
150µm	36	
75µm	36	
Finer 75µm	36.1	

CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	

Particle Size (mm)

Comments

CWES13W01105



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Material Test Report

Report No: CWES13S-02888-1

Issue No: 1

Client: Graham Lee & Associates Pty Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:
Project No.: INFOCWES00293AA
Project Name: SFQ Testing
Lot No.: TRN:

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Date of Issue: 3/09/2013

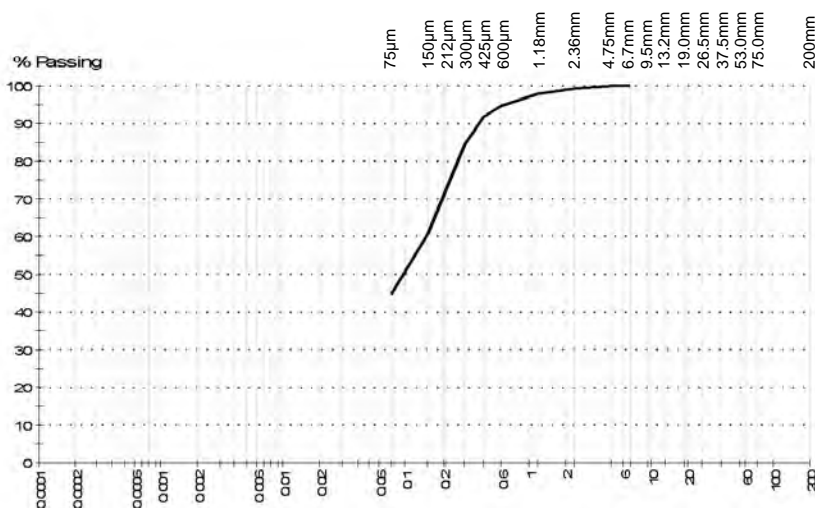
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Sample ID: CWES13S-02888
Client Sample: SQF-OH4 9.0-17.0m
Date Sampled:
Source: Client
Material: Sand
Specification: AS Grading
Sampling Method: Submitted by client
Project Location: Open Hole
Sample Location: SQF-OH4 9.0-17.0m

Other Test Results

Description	Method	Result	Limits

Particle Size Distribution



CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	

Particle Size (mm)

Comments

CWES13W01105



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Material Test Report

Report No: CWES13S-02889-1

Issue No: 1

Client: Graham Lee & Associates Pty Ltd
22 Grove Avenue
Penshurst NSW 2222

Principal:
Project No.: INFOCWES00293AA
Project Name: SFQ Testing
Lot No.: TRN:

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Date of Issue: 3/09/2013

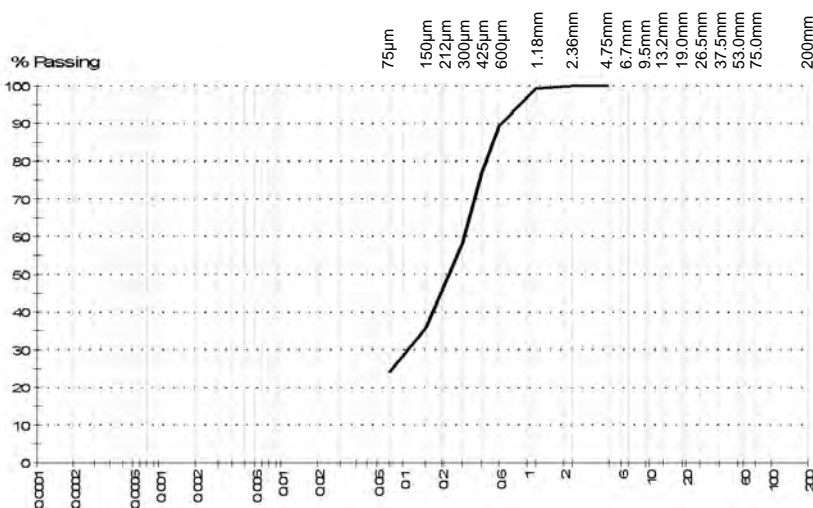
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Sample ID: CWES13S-02889
Client Sample: SQF-OH4 21.0-29.0m
Date Sampled:
Source: Client
Material: Sand
Specification: AS Grading
Sampling Method: Submitted by client
Project Location: Open Hole
Sample Location: SQF-OH4 21.0-29.0m

Other Test Results

Description	Method	Result	Limits

Particle Size Distribution



Method: AS 1141.11.1, AS 1141.12
Drying by: Oven

Date Tested: 26/08/2013

Note:

Sieve Size	% Passing	Limits
4.75mm	100	
2.36mm	100	
1.18mm	99	
600µm	89	
425µm	77	
300µm	58	
150µm	36	
75µm	24	
Finer 75µm	23.9	

CLAY FRACTION	SILT FRACTION			SAND FRACTION			GRAVEL FRACTION			COBBLES
	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	

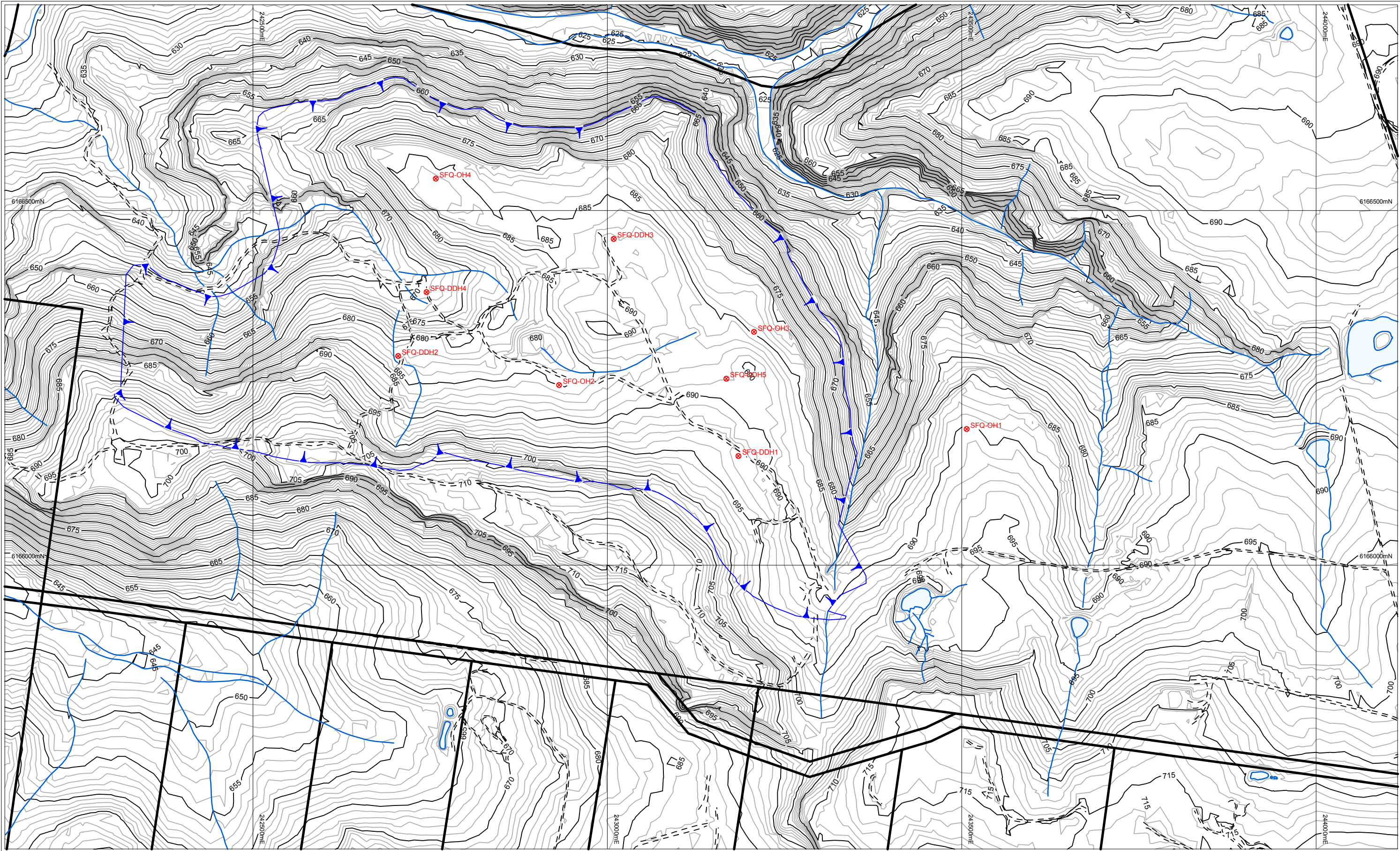
Particle Size (mm)

Comments

CWES13W01105

APPENDIX 4

AMDAD EXTRACTION PIT DESIGN AND QUANTITY ESTIMATES



Australian Mine Design & Development Pty Ltd
Brisbane Office
4/46 Edward St, Brisbane
Tel. +61 7 3012 9256
Fax +61 7 3012 9284

Sydney Office
Unit 14, 340 Darling Street, Balmain
Tel. +61 2 9555 5309
Fax +61 2 9810 1329

Legend

- Roads or Tracks
- RP Boundary
- Drainage Line
- Buildings or Plant

Scale 1 : 5000



Coordinate System:
Horizontal: MGA
Vertical Datum: AHD

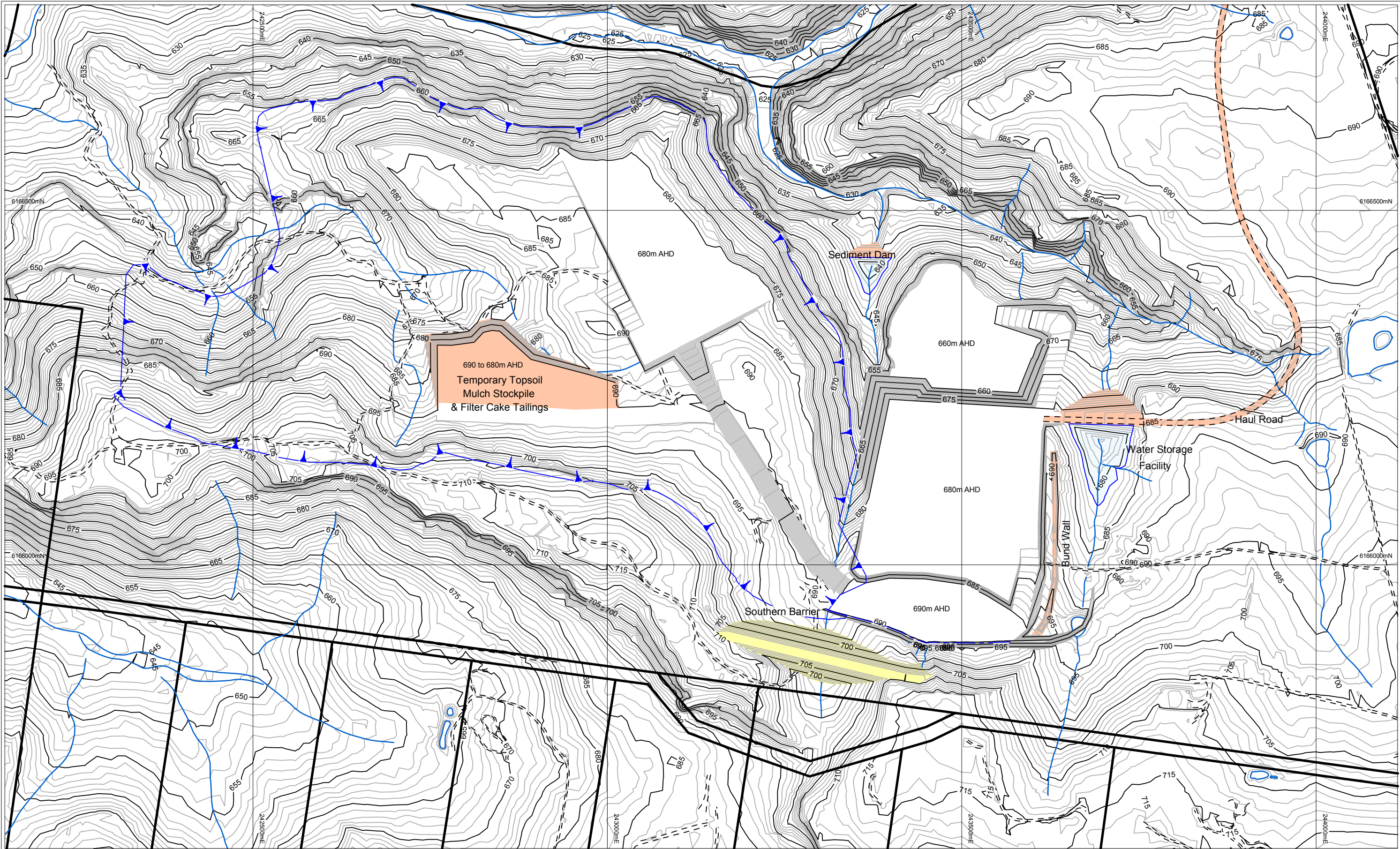


SUTTON FOREST QUARRY

Current Topography

Date: 08-Jun-16

Plan No.



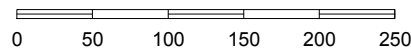
Australian Mine Design & Development Pty Ltd
Brisbane Office
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Tel. +61 7 3012 9256
Fax +61 7 3012 9284

Sydney Office
Unit 14, 340 Darling Street, Balmain
Tel. +61 2 9555 5309
Fax +61 2 9810 1329

Legend

- Roads or Tracks
- RP Boundary
- Drainage Line
- Buildings or Plant

Scale 1 : 5000



Coordinate System:
Horizontal: MGA
Vertical Datum: AHD

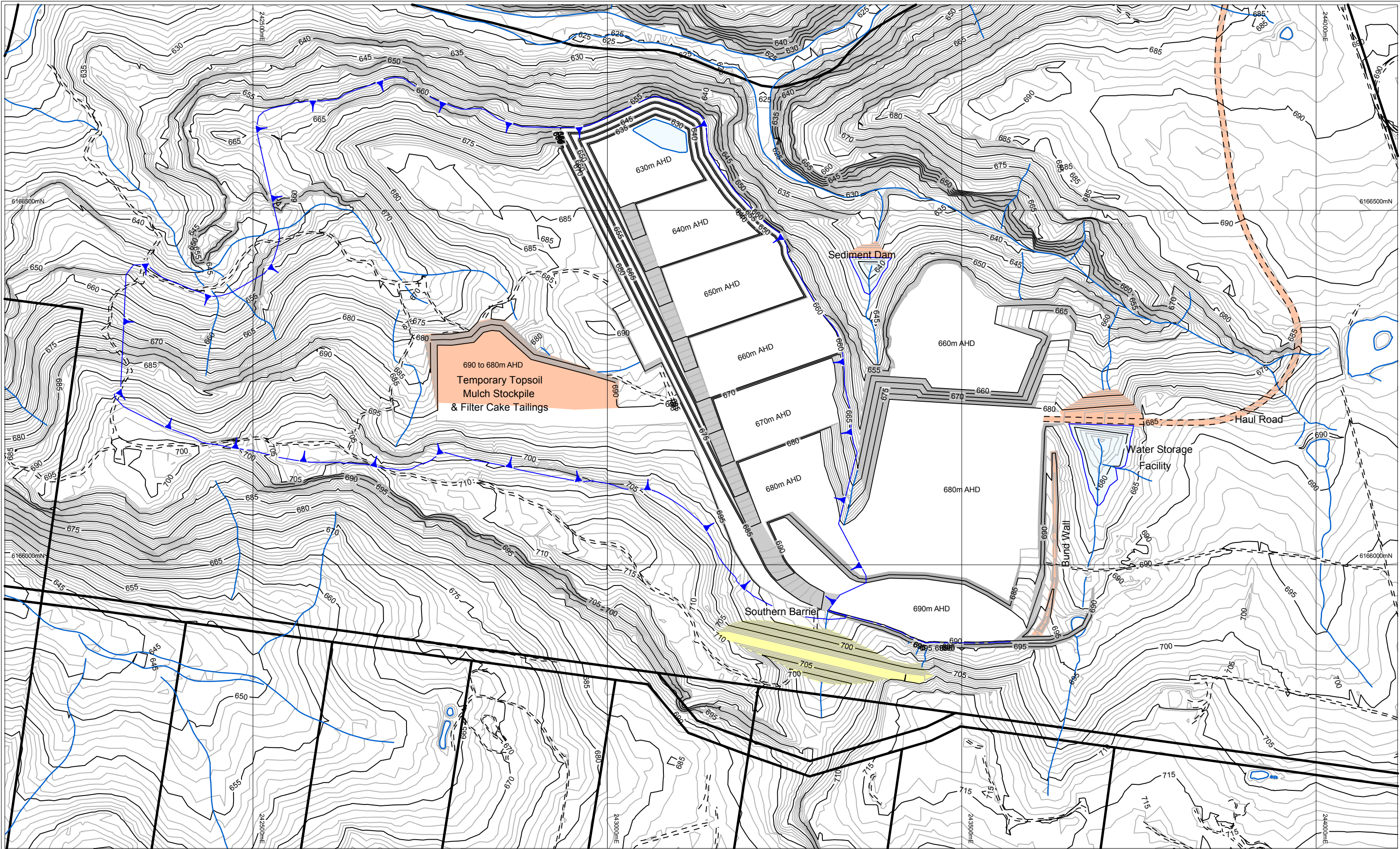


SUTTON FOREST QUARRY

Proposed Stage 1 Design

Date: 08-Jun-16

Plan No.



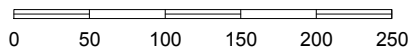
Australian Mine Design & Development Pty Ltd
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Fax +61 7 3012 9284

Sydney Office
Unit 14, 340 Darling Street, Balmain
Tel. +61 2 9555 5309
Fax +61 2 9810 1329

Legend

- Roads or Tracks
- RP Boundary
- Drainage Line
- Buildings or Plant

Scale 1 : 5000



Coordinate System:

Horizontal: MGA

Vertical Datum: AHD

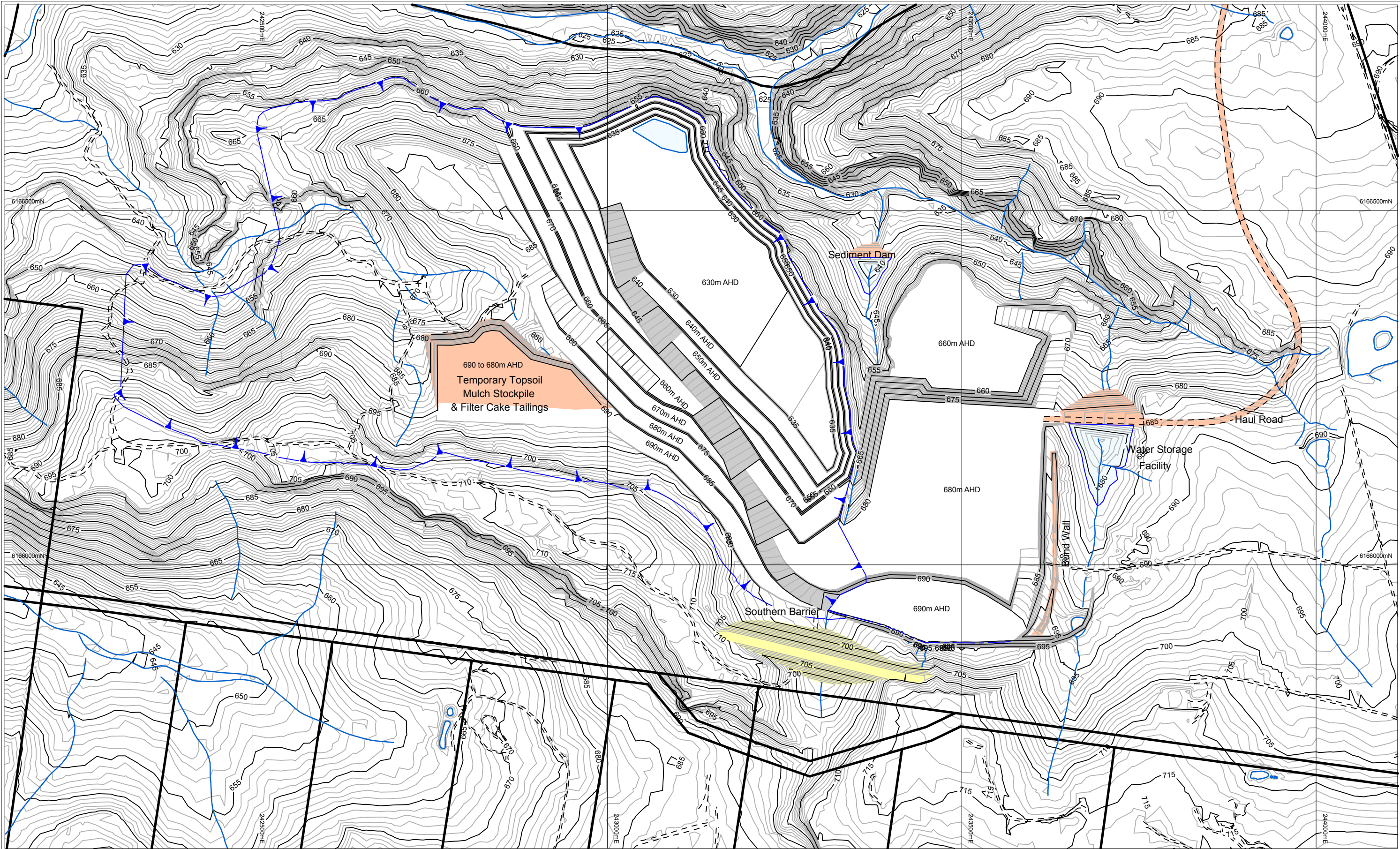


SUTTON FOREST QUARRY

Proposed Stage 2 Design

Date: 08-Jun-16

Plan No.



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Legend

- Roads or Tracks
- RP Boundary
- Drainage Line
- Buildings or Plant

Scale 1 : 5000



Coordinate System:
Horizontal: MGA
Vertical Datum: AHD

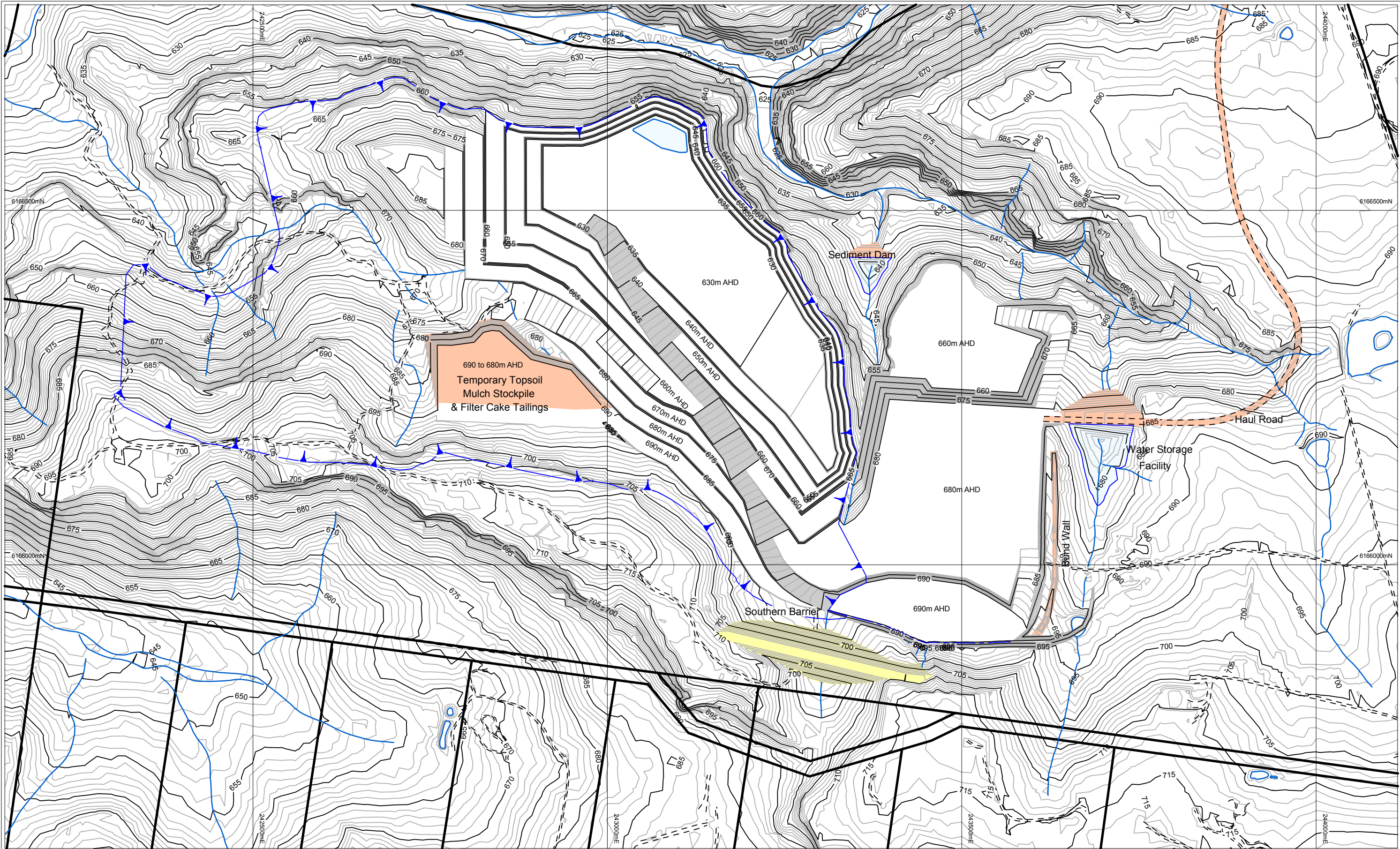


SUTTON FOREST QUARRY

Proposed Stage 3 Design

Date: 08-Jun-16

Plan No.



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Fax +61 2 9810 1329

Legend

- Roads or Tracks
- RP Boundary
- Drainage Line
- Buildings or Plant

Scale 1 : 5000



Coordinate System:
Horizontal: MGA
Vertical Datum: AHD

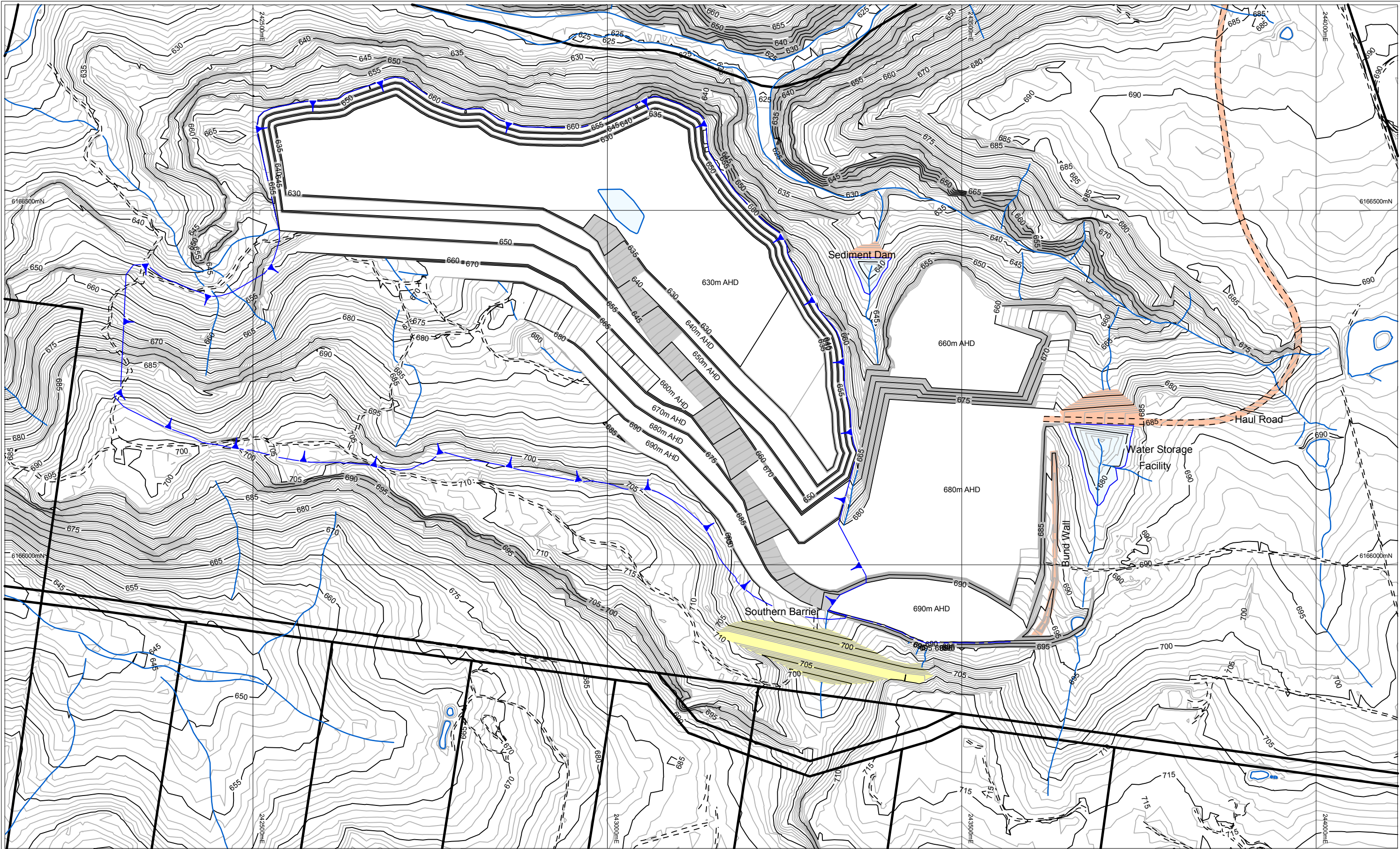


SUTTON FOREST QUARRY

Proposed Stage 4 Design

Date: 08-Jun-16

Plan No.



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Fax +61 2 9810 1329

Legend

- Roads or Tracks
- RP Boundary
- Drainage Line
- Buildings or Plant

Scale 1 : 5000



Coordinate System:
Horizontal: MGA
Vertical Datum: AHD

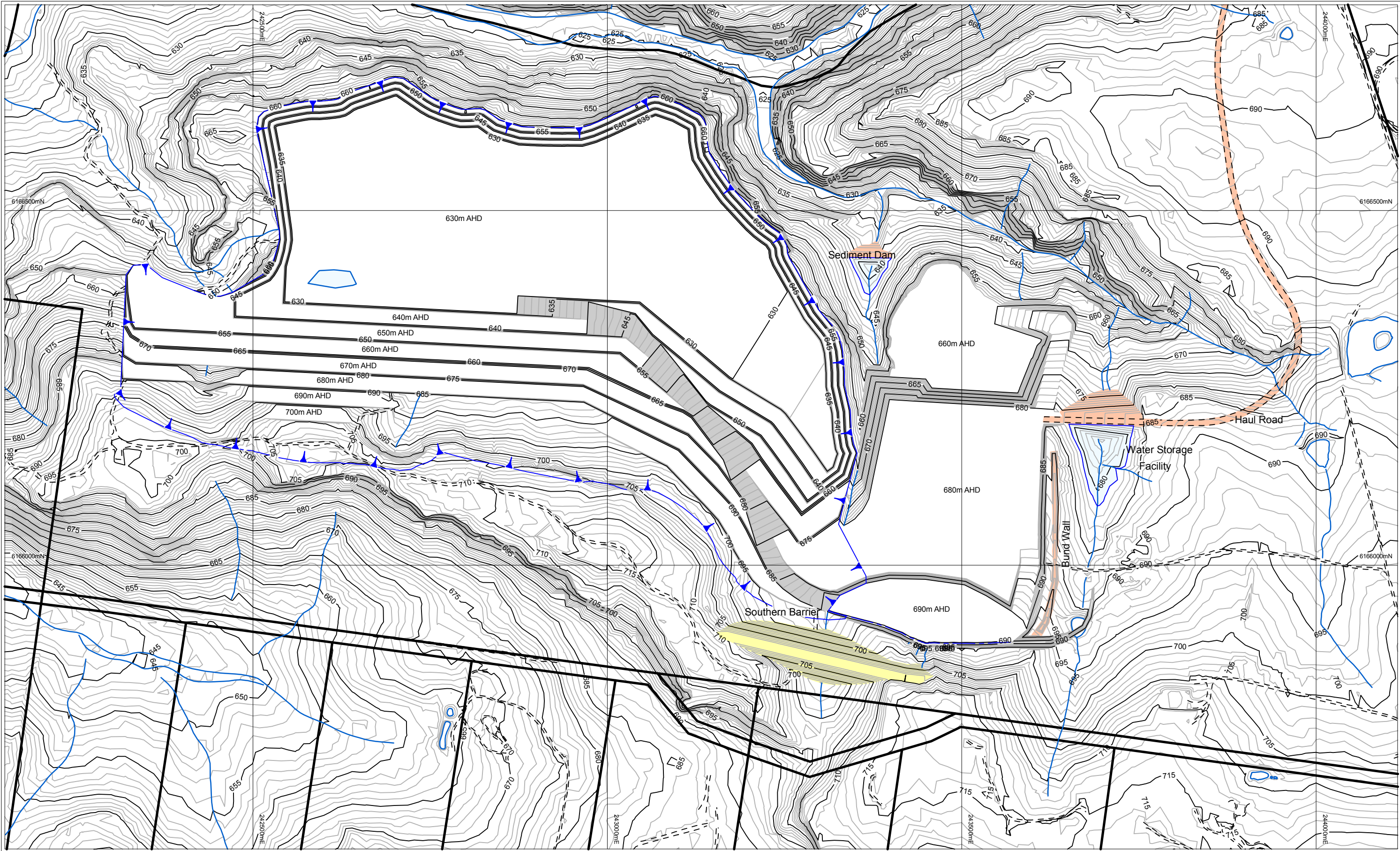


SUTTON FOREST QUARRY

Proposed Stage 5 Design

Date: 08-Jun-16

Plan No.



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Legend

- Roads or Tracks
- RP Boundary
- Drainage Line
- Buildings or Plant

Scale 1 : 5000



Coordinate System:
Horizontal: MGA
Vertical Datum: AHD

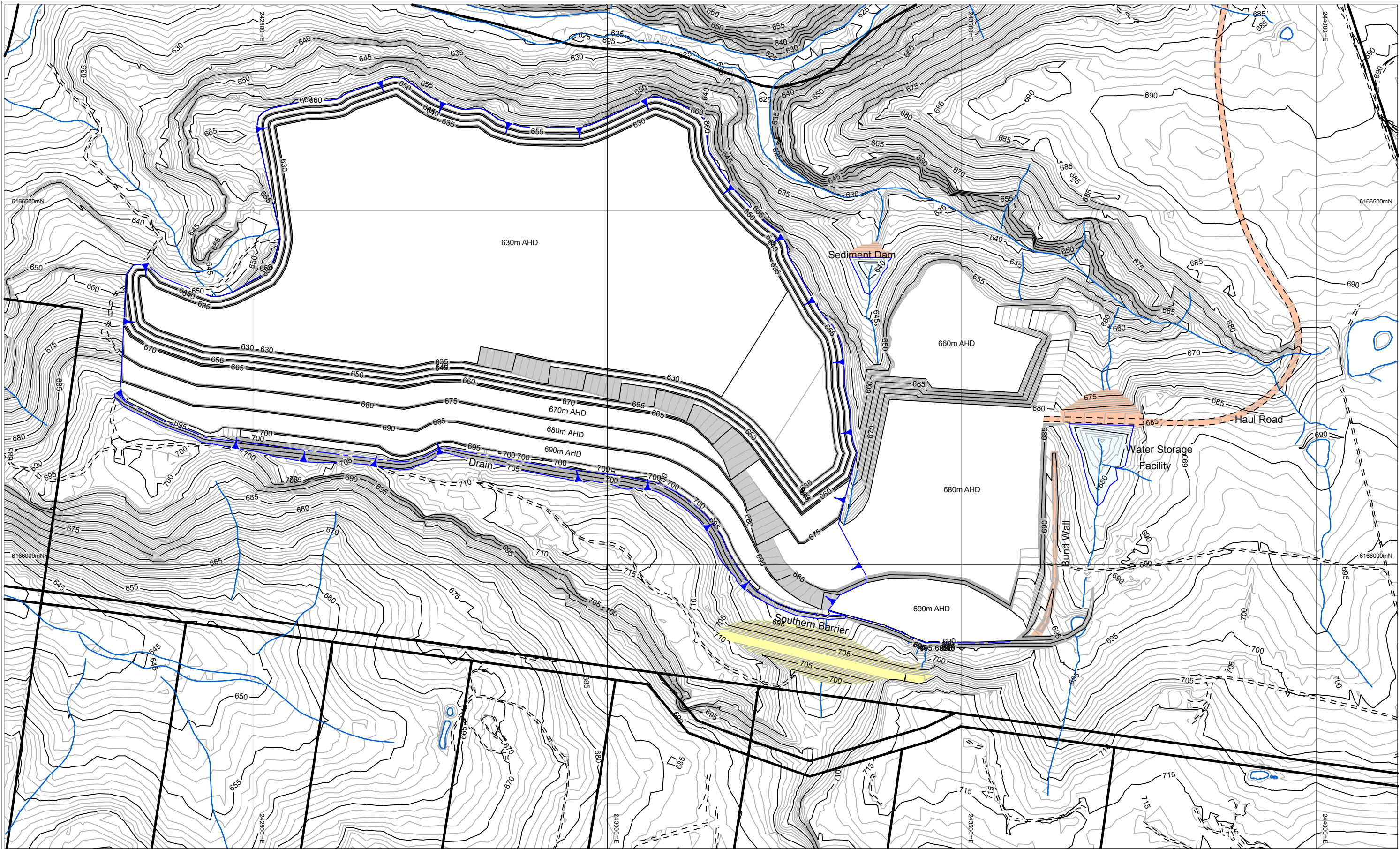


SUTTON FOREST QUARRY

Proposed Stage 6 Design

Date: 08-Jun-16

Plan No.



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Legend

- Roads or Tracks
- RP Boundary
- Drainage Line
- Buildings or Plant

Scale 1 : 5000



Coordinate System:
Horizontal: MGA
Vertical Datum: AHD

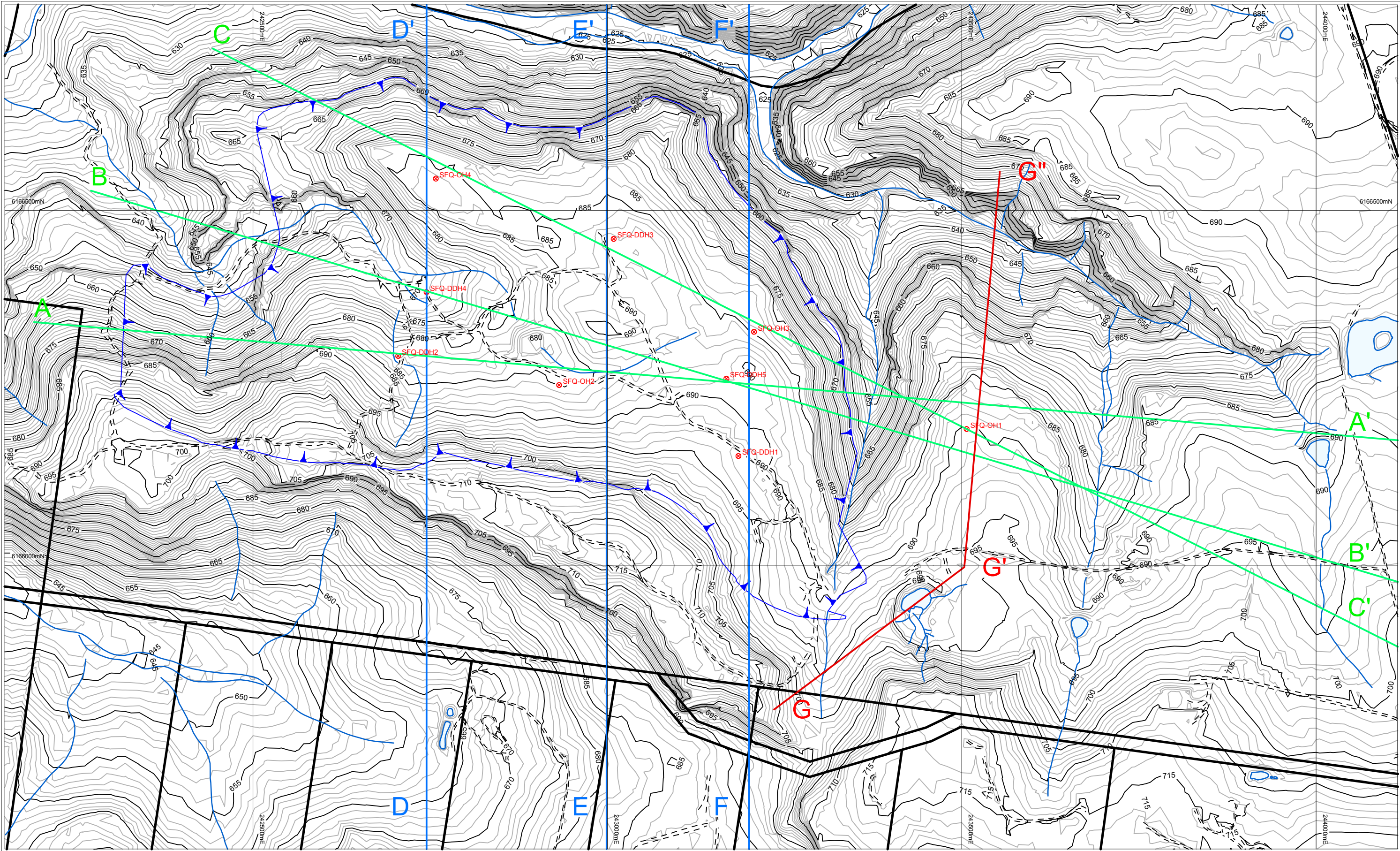


SUTTON FOREST QUARRY

Proposed Final Design

Date: 08-Jun-16

Plan No.

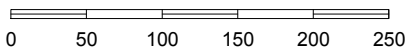


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Fax +61 2 9810 1329

Legend

- Roads or Tracks
- RP Boundary
- Drainage Line
- Buildings or Plant

Scale 1 : 5000



Coordinate System:
Horizontal: MGA
Vertical Datum: AHD

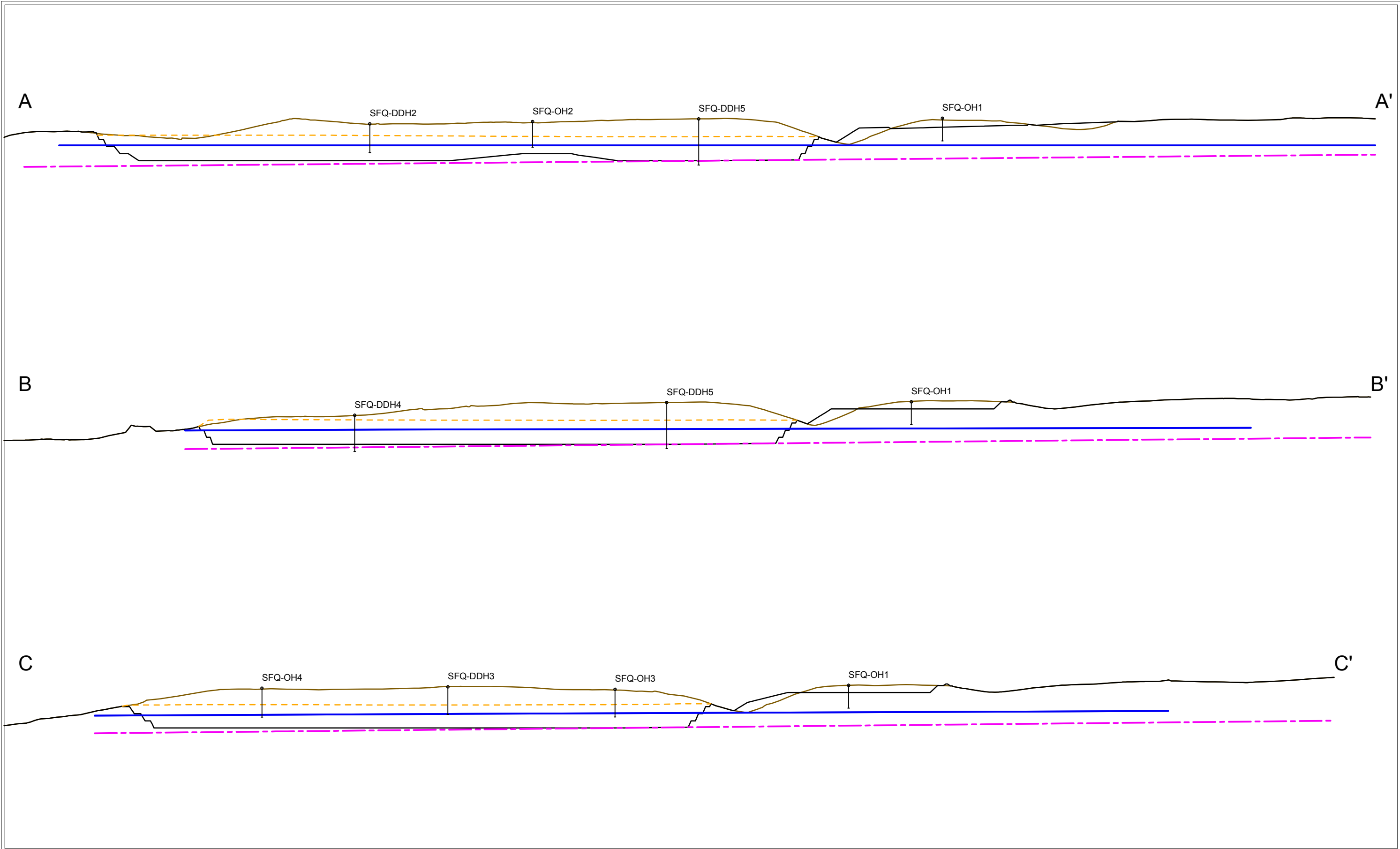



SUTTON FOREST QUARRY

Current Topography
Showing Section Lines

Date: 08-Jun-16

Plan No.





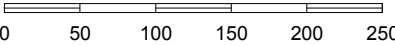
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Fax +61 2 9810 1329

Legend

- Current Topography
- Final Pit Design
- Final Fill Surface
- Shale Lens
- Base of Sandstone / Top of Berry Siltstone

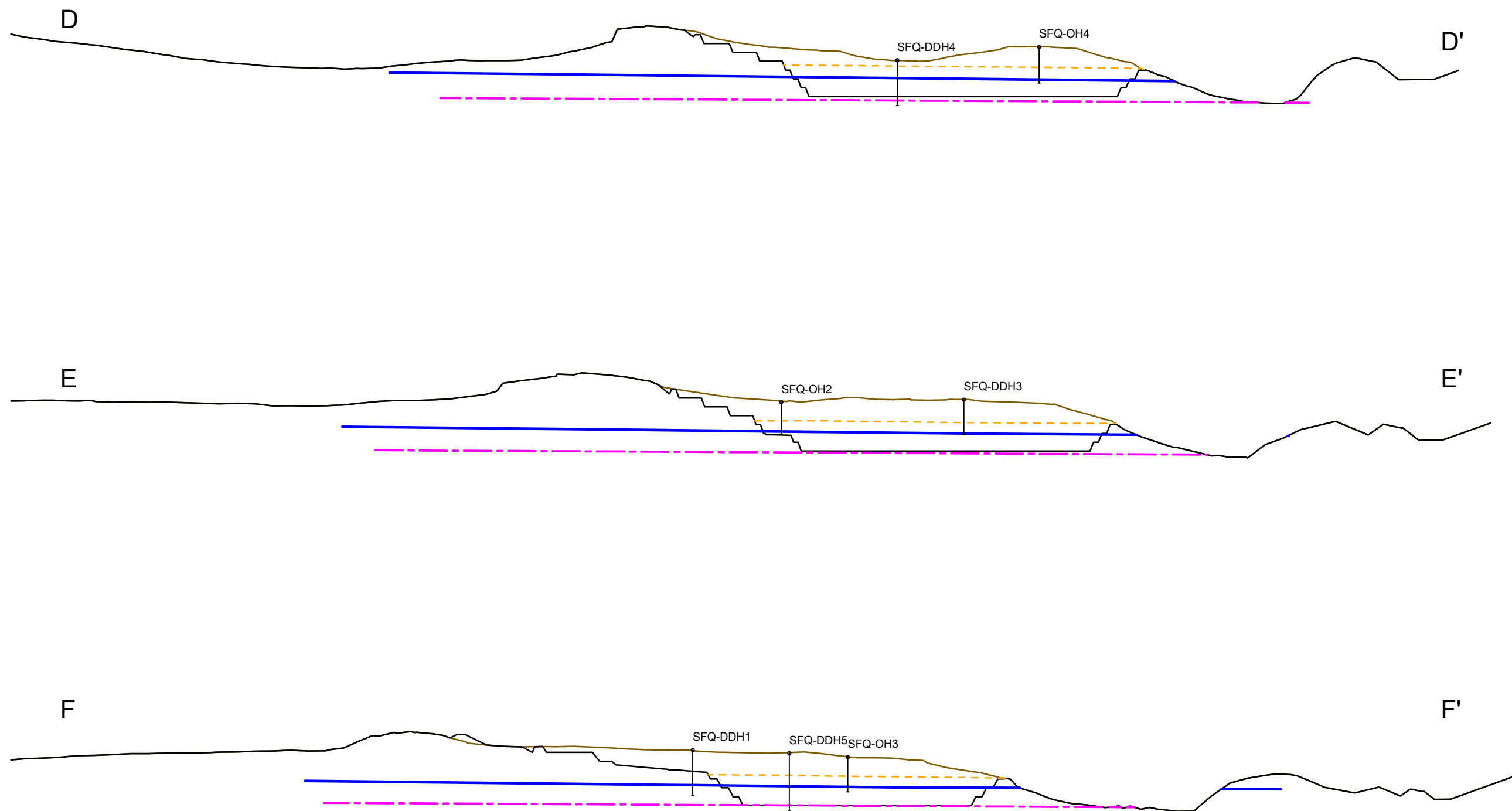
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SUTTON FOREST QUARRY

Section Lines
Showing Final Design and Geological Units

Date: 07-Jun-16	Plan No.
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Fax +61 2 9810 1329

Legend
— Current Topography
— Final Pit Design
- - - Final Fill Surface
— Shale Lens
- - - Base of Sandstone / Top of Berry Siltstone

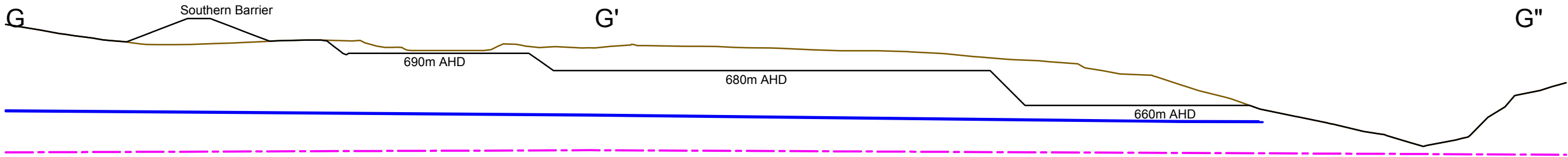
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SUTTON FOREST QUARRY

Section Lines
Showing Final Design and Geological Units

Date: 08-Jun-16

Plan No.

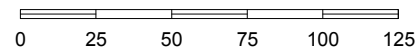


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Legend

- Current Topography
- Final Pit Design
- Final Fill Surface
- Shale Lens
- Base of Sandstone / Top of Berry Siltstone

Scale 1 : 2500

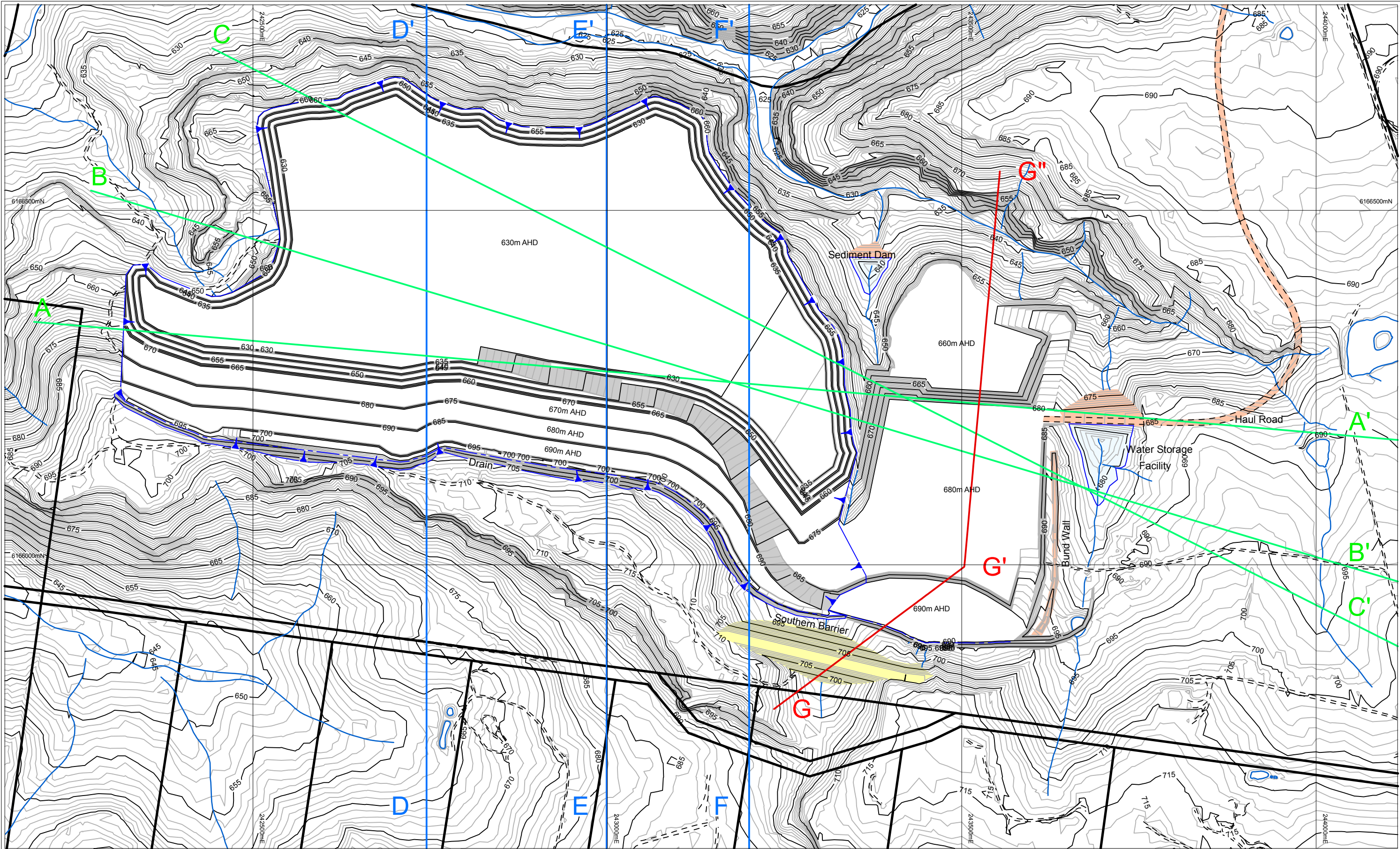


SUTTON FOREST QUARRY

Section Lines
Showing Final Design and Geological Units

Date: 07-Jun-16

Plan No.

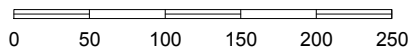


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Legend

- Roads or Tracks
- RP Boundary
- Drainage Line
- Buildings or Plant

Scale 1 : 5000



Coordinate System:
Horizontal: MGA
Vertical Datum: AHD

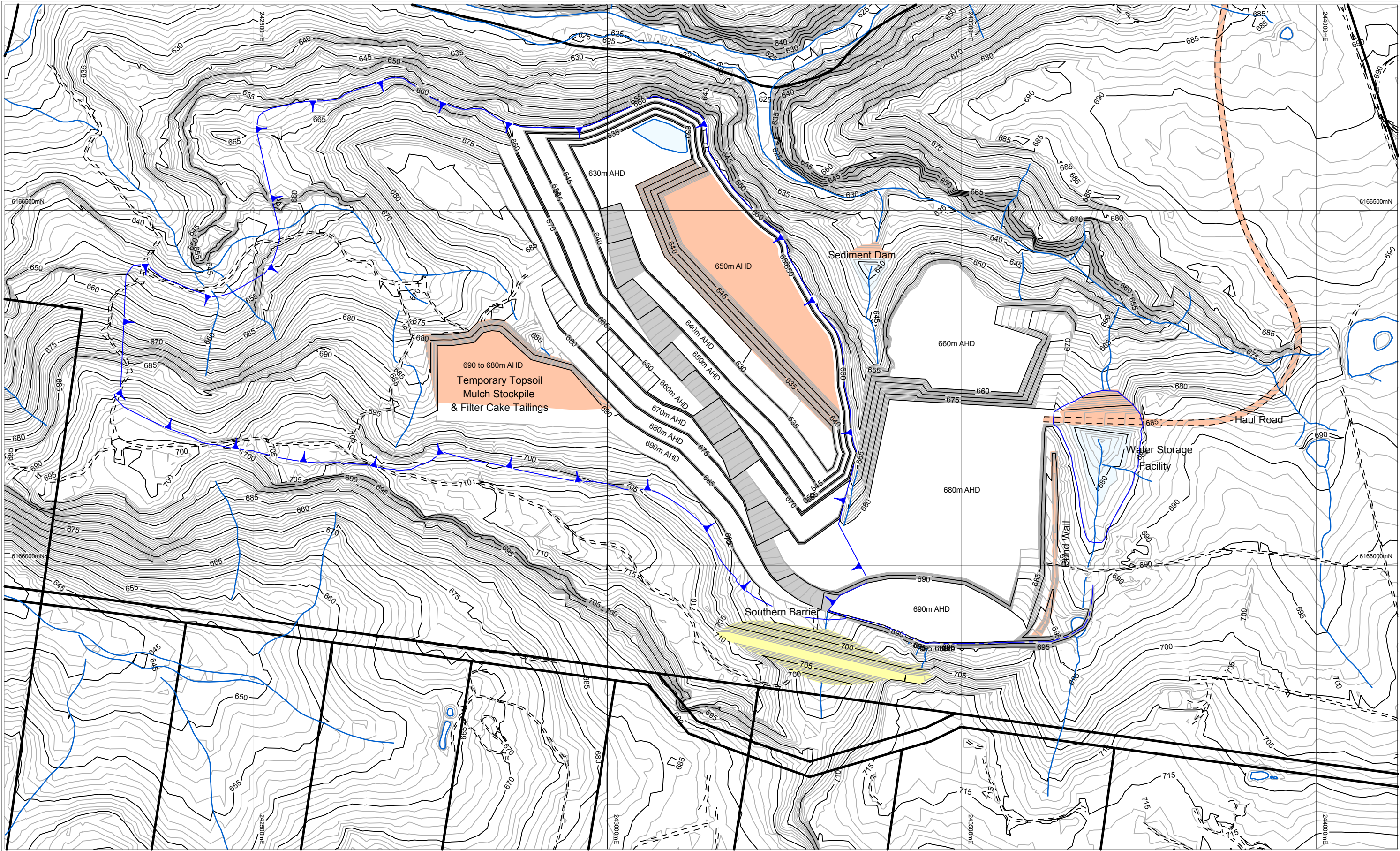


SUTTON FOREST QUARRY

Proposed Final Design
Showing Section Lines

Date: 08-Jun-16

Plan No.



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Legend

- Roads or Tracks
- RP Boundary
- Drainage Line
- Buildings or Plant

Scale 1 : 5000



Coordinate System:
Horizontal: MGA
Vertical Datum: AHD

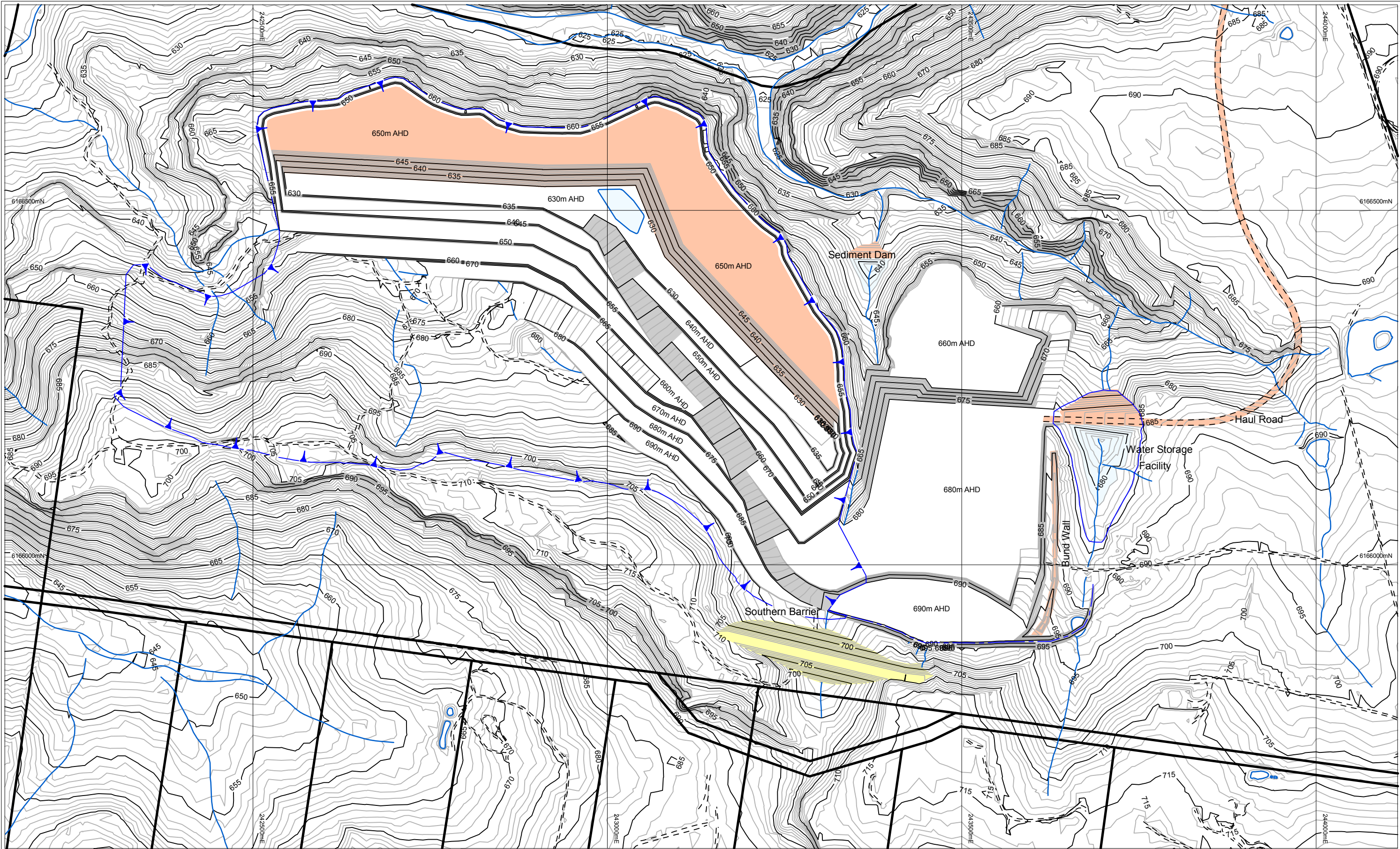


SUTTON FOREST QUARRY

Proposed Stage 3 Fill Design

Date: 08-Jun-16

Plan No.



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Legend

- Roads or Tracks
- RP Boundary
- Drainage Line
- Buildings or Plant

Scale 1 : 5000



Coordinate System:
Horizontal: MGA
Vertical Datum: AHD

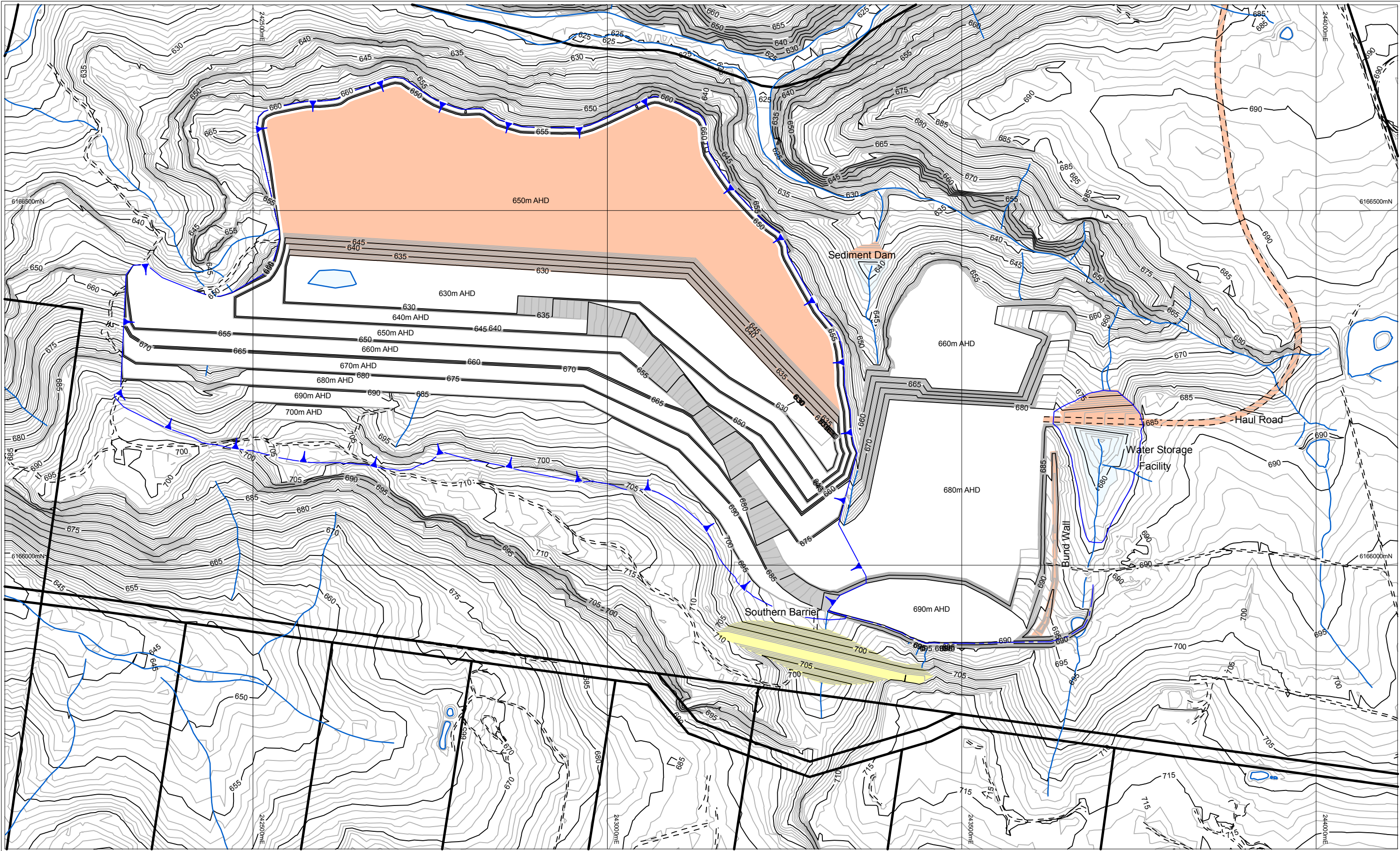


SUTTON FOREST QUARRY

Proposed Stage 5 Fill Design

Date: 08-Jun-16

Plan No.



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Legend

- Roads or Tracks
- RP Boundary
- Drainage Line
- Buildings or Plant

Scale 1 : 5000



Coordinate System:
Horizontal: MGA
Vertical Datum: AHD

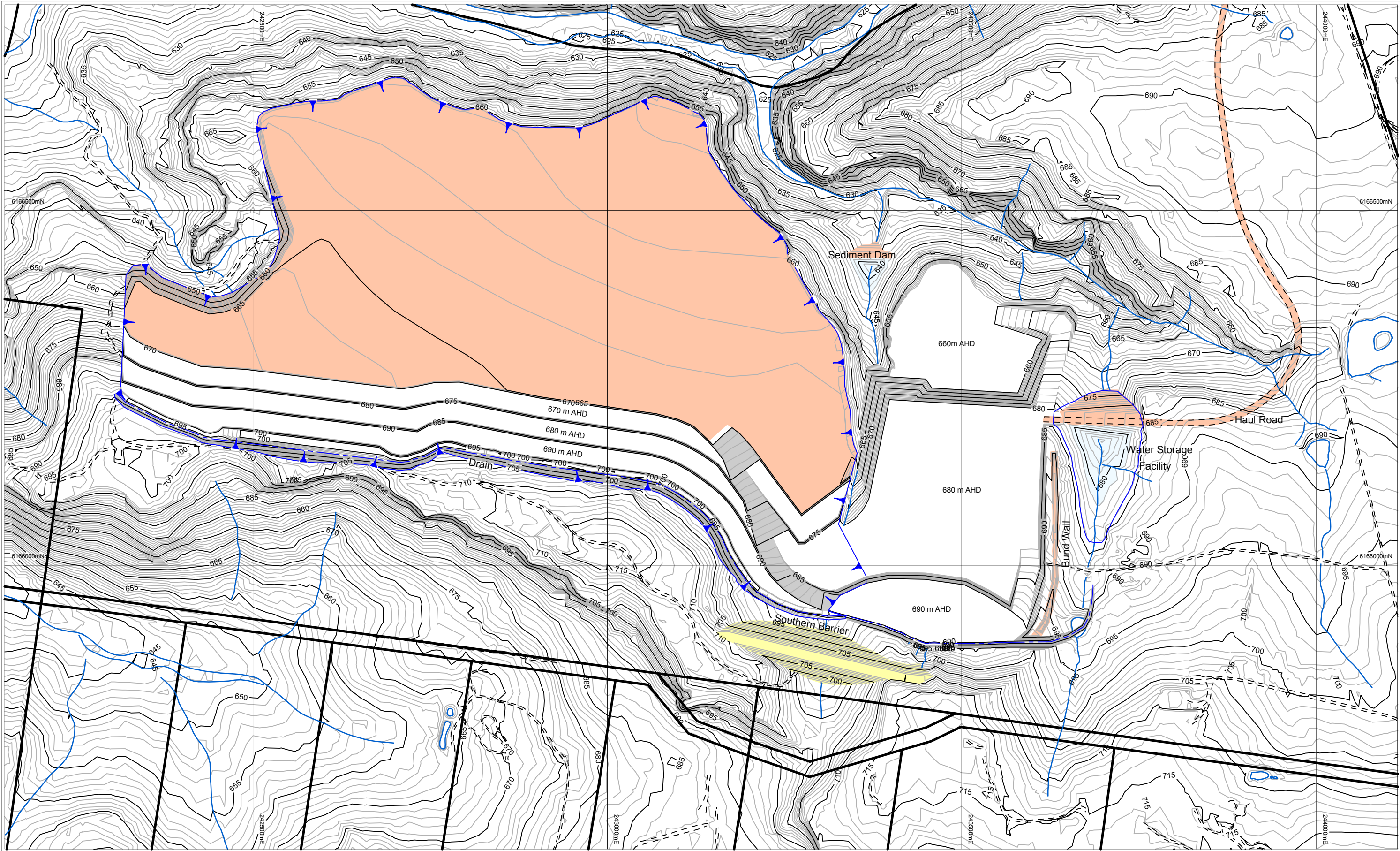


SUTTON FOREST QUARRY

Proposed Stage 6 Fill Design

Date: 08-Jun-16

Plan No.



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Fax +61 2 9810 1329

Legend

- Roads or Tracks
- RP Boundary
- Drainage Line
- Buildings or Plant

Scale 1 : 5000



Coordinate System:
Horizontal: MGA
Vertical Datum: AHD



SUTTON FOREST QUARRY

Proposed Final Fill Fill Design

Date: 08-Jun-16

Plan No.

Sandstone																				
Site Establishment					Stage 1				Stage 2				Stage 3				Stage 4			
Bench	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm
700					0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
690	185,350	407,770	1.32	9	2,575	5,665	1.82	13	75,500	166,100	1.24	9	36,075	79,365	1.04	7	0	0	0	0
680	531,075	1,168,365	1.85	12	231,675	509,685	1.66	17	373,825	822,415	1.85	12	353,525	777,755	1.72	15	63,200	139,040	1.55	17
670	148,200	326,040	1.82	9	0	0	0	0	804,175	1,769,185	1.80	10	525,175	1,155,385	1.81	10	176,950	389,290	1.82	10
660					0	0	0	0	791,250	1,740,750	1.75	10	547,050	1,203,510	1.74	11	160,425	352,935	1.77	10
650					0	0	0	0	578,950	1,273,690	1.66	10	537,300	1,182,060	1.71	11	127,100	279,620	1.69	10
640					0	0	0	0	322,950	710,490	2.62	4	566,375	1,246,025	2.58	5	90,825	199,815	2.71	4
630					0	0	0	0	146,550	322,410	2.51	6	506,750	1,114,850	2.62	5	81,900	180,180	2.52	6
Total	864,625	1,902,175	1.73	11	234,250	515,350	1.66	17	3,093,200	6,805,040	1.87	9	3,072,250	6,758,950	2.04	9	700,400	1,540,880	1.96	9

Shale Lense																				
Site Establishment					Stage 1				Stage 2				Stage 3				Stage 4			
Bench	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm
700					0	0			0	0			0	0			0	0		
690					0	0			0	0			0	0			0	0		
680					0	0			0	0			0	0			0	0		
670					0	0			0	0			0	0			0	0		
660					0	0			0	0			0	0			0	0		
650					0	0			10,575	23,265			22,850	50,270			600	1,320		
640					0	0			9,000	19,800			3,275	7,205			4,875	10,725		
630					0	0			0	0			0	0			0	0		
Total					0	0			19,575	43,065			26,125	57,475			5,475	12,045		

All Material																				
Site Establishment					Stage 1				Stage 2				Stage 3				Stage 4			
Bench	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm
700	0	0			0	0			0	0			0	0			0	0		
690	185350	407,770			2575	5,665			75,500	166,100			36,075	79,365			0	0		
680	531075	1,168,365			231675	509,685			373,825	822,415			353,525	777,755			63,200	139,040		
670	148200	326,040			0	0			804,175	1,769,185			525,175	1,155,385			176,950	389,290		
660	0	0			0	0			791,250	1,740,750			547,050	1,203,510			160,425	352,935		
650	0	0			0	0			589,525	1,296,955			560,150	1,232,330			127,700	280,940		
640	0	0			0	0			331,950	730,290			569,650	1,253,230			95,700	210,540		
630	0	0			0	0			146,550	322,410			506,750	1,114,850			81,900	180,180		
Total	864,625	1,902,175			234,250	515,350			3,112,775	6,848,105			3,098,375	6,816,425			705,875	1,552,925		

Fill Material																				
Site Establishment					Stage 1				Stage 2				Stage 3				Stage 4			
660																				
650																				
640													286,615				489			
630													321,212				27,279			
Total													607,827				27,768			

Stage 5				Stage 6				Final				Total			
Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm
0	0	0	0	8,675	19,085	0	0	70,150	154,330	0	0	78,825	173,415	0.00	0
0	0	0	0	47,525	104,555	0.94	7	217,300	478,060	0.71	5	564,325	1,241,515	1.03	8
41,550	91,410	1.54	17	212,800	468,160	1.63	17	289,850	637,670	1.76	16	2,097,500	4,614,500	1.76	14
228,000	501,600	1.79	9	491,700	1,081,740	1.8	10	265,700	584,540	1.81	10	2,639,900	5,807,780	1.80	10
498,350	1,096,370	1.77	10	675,000	1,485,000	1.77	10	228,975	503,745	1.76	10	2,901,050	6,382,310	1.76	10
608,475	1,338,645	2.01	8	756,350	1,663,970	1.9	9	356,950	785,290	1.91	9	2,965,125	6,523,275	1.83	9
498,750	1,097,250	2.88	3	767,500	1,688,500	2.83	3	569,650	1,253,230	2.8	4	2,816,050	6,195,310	2.75	4
426,675	938,685	2.52	6	740,550	1,629,210	2.54	6	679,700	1,495,340	2.55	6	2,582,125	5,680,675	2.55	6
2,301,800	5,063,960	2.21	7	3,700,100	8,140,220	2.15	8	2,678,275	5,892,205	2.08	7	16,644,900	36,618,780	2.04	8

Stage 5				Stage 6				Final				Total			
Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm
0	0			0	0			0	0			0	0		
0	0			0	0			0	0			0	0		
0	0			0	0			0	0			0	0		
0	0			0	0			0	0			0	0		
0	0			0	0			0	0			0	0		
0	0			52,025	114,455			5,675	12,485			91,725	201,795		
30,625	67,375			0	0			0	0			47,775	105,105		
0	0			0	0			0	0			0	0		
30,625	67,375			52,025	114,455			5,675	12,485			139,500	306,900		

Stage 5				Stage 6				Final				Total			
Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm	Volume	Tonnes	Fineness	-0.75mm
0	0			8,675	19,085			70,150	154,330			78,825	173,415		
0	0			47,525	104,555			217,300	478,060			564,325	1,241,515		
41,550	91,410			212,800	468,160			289,850	637,670			2,097,500	4,614,500		
228,000	501,600			491,700	1,081,740			265,700	584,540			2,639,900	5,807,780		
498,350	1,096,370			675,000	1,485,000			228,975	503,745			2,901,050	6,382,310		
608,475	1,338,645			808,375	1,778,425			362,625	797,775			3,056,850	6,725,070		
529,375	1,164,625			767,500	1,688,500			569,650	1,253,230			2,863,825	6,300,415		
426,675	938,685			740,550	1,629,210			679,700	1,495,340			2,582,125	5,680,675		
2,332,425	5,131,335			3,752,125	8,254,675			2,683,950	5,904,690			16,784,400	36,925,680		

DTM m³ Check: 15,931,448

Stage 5		Stage 6		Final		Total	
				1,171,238		1,171,238	
				3,112,317		3112317	
410,748		651,904		1,513,494		2,863,250	
403,155		621,202		1,207,452		2,580,300	
813,903		1,273,106		7,004,501		9,727,105	

Z1	Z2	Geology	Volume	Fineness	Minus Pt75mm	
690	700	SA	2575	1.82	13	
680	690	SA	231675	1.66	16.822	

Z1	Z2	Geology	Volume	Fineness	Minus Pt75mm	
690	700	SA	75500	1.24	8.889	
680	690	SA	373825	1.85	12.044	
670	680	SA	804175	1.8	9.558	
660	670	SA	791250	1.75	10.199	
650	660	SA	578950	1.66	10.077	
650	660	SH	10575	2.54	4.972	
640	650	SA	322950	2.62	4.445	
640	650	SH	9000	2.54	5	
630	640	SA	146550	2.51	5.66	

Z1	Z2	Geology	Volume	Fineness	Minus Pt75mm	
690	700	SA	36075	1.04	7.414	
680	690	SA	353525	1.72	14.975	
670	680	SA	525175	1.81	9.598	
660	670	SA	547050	1.74	10.685	
650	660	SA	537300	1.71	11.273	
650	660	SH	22850	2.1	9.208	
640	650	SA	566375	2.58	4.823	
640	650	SH	3275	2.54	5	
630	640	SA	506750	2.62	5.167	

Z1	Z2	Geology	Volume	Fineness	Minus Pt75mm	
680	690	SA	63200	1.55	17.129	
670	680	SA	176950	1.82	9.591	
660	670	SA	160425	1.77	9.718	
650	660	SA	127100	1.69	9.782	
650	660	SH	600	2.54	5	
640	650	SA	90825	2.71	3.949	
640	650	SH	4875	2.54	5	
630	640	SA	81900	2.52	5.698	
630	640	ST	10850	2.92	4.889	

Z1	Z2	Geology	Volume	Fineness	Minus Pt75mm	
680	690	SA	41550	1.54	17.238	
670	680	SA	228000	1.79	9.472	
660	670	SA	498350	1.77	9.61	
650	660	SA	608475	2.01	7.948	
640	650	SA	498750	2.88	3.096	
640	650	SH	30625	2.87	3.212	
630	640	SA	426675	2.52	5.7	

Z1	Z2	Geology	Volume	Fineness	Minus Pt75mm	
700	710	SA	8675	0	0	
690	700	SA	47525	0.94	7.252	
680	690	SA	212800	1.63	16.999	
670	680	SA	491700	1.8	9.51	
660	670	SA	675000	1.77	9.727	
650	660	SA	756350	1.9	8.638	
650	660	SH	52025	2.83	3.655	
640	650	SA	767500	2.83	3.364	
630	640	SA	740550	2.54	5.641	
630	640	ST	2625	2.9	5	

Z1	Z2	Geology	Volume	Fineness	Minus Pt75mm	
700	710	SA	70150	0	0	
690	700	SA	217300	0.71	5.4	
680	690	SA	289850	1.76	15.922	
670	680	SA	265700	1.81	9.599	
660	670	SA	228975	1.76	9.976	
650	660	SA	356950	1.91	8.825	
650	660	SH	5675	2.55	5.524	
640	650	SA	569650	2.8	3.564	
630	640	SA	679700	2.55	5.534	

Z1	Z2	Geology	Volume	Fineness	Minus Pt75mm	
690	700	SA	185350	1.32	9.419	
680	690	SA	531075	1.85	12.108	
670	680	SA	148200	1.82	9.36	
660	670	SA	230050	1.7	11.586	