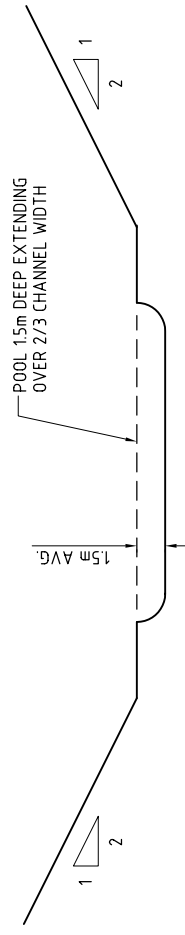


FISH HABITAT TREATMENT

LARGE WOODY DEBRIS DISTRIBUTED RANDOMLY ALONG AND ACROSS CHANNEL FLOOR

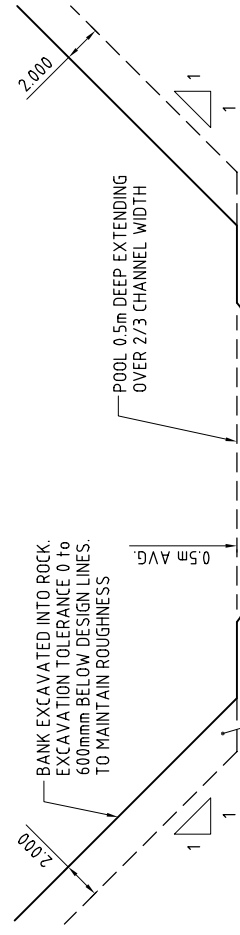
DETAIL SCALE 1:1000

DETAIL SCALE 1:1000



POOL DETAILS IN CHANNEL TYPES A1, A2, B1 & B2

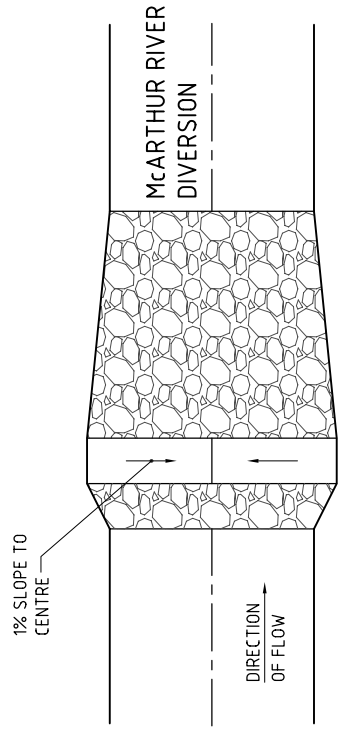
SECTION SCALE 1:200



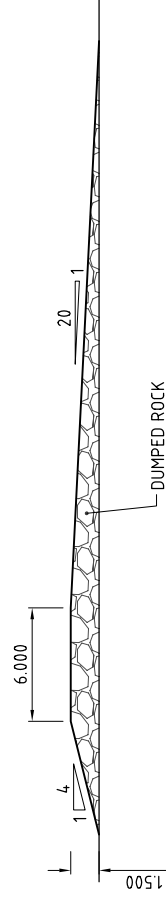
POOL DETAILS IN CHANNEL TYPE C

SECTION SCALE 1:200

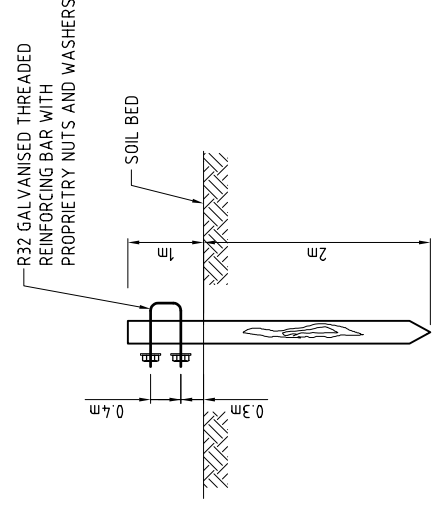
FOR McARTHUR RIVER CHANNEL TYPES REFER TO BEE508-C-DWG-103



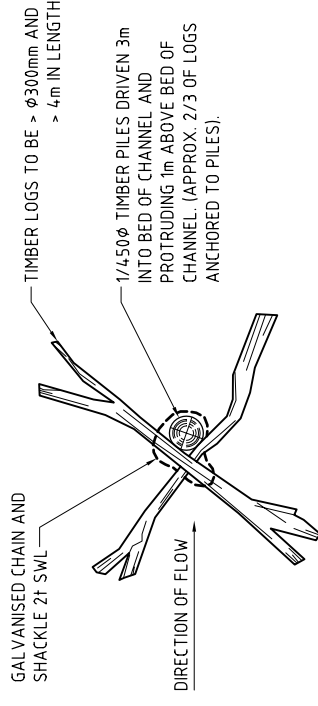
PLAN ROCK RIFFLE SCALE 1:500



SECTION ROCK RIFFLE SCALE 1:200

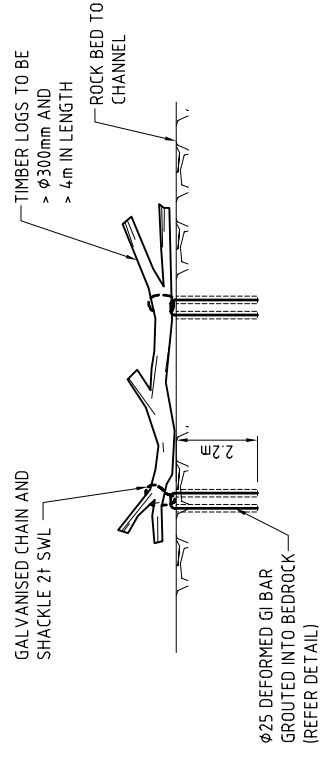


LARGE WOODY DEBRIS TIMBER PILE DETAIL (N.T.S.)



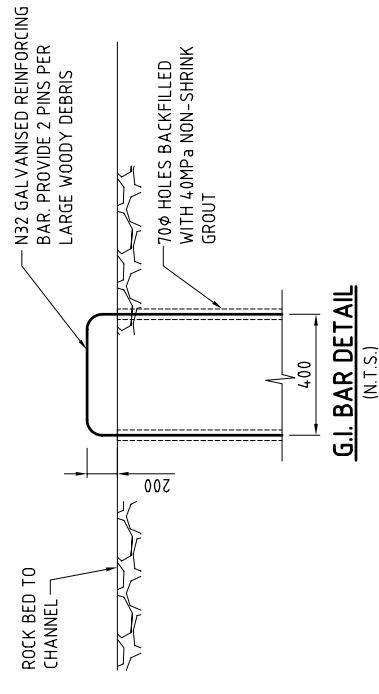
LARGE WOODY DEBRIS - LOCATED ON SOIL CHANNEL BED

DETAIL SCALE 1:100



LARGE WOODY DEBRIS - LOCATED ON ROCK CHANNEL BED

SECTION SCALE 1:100



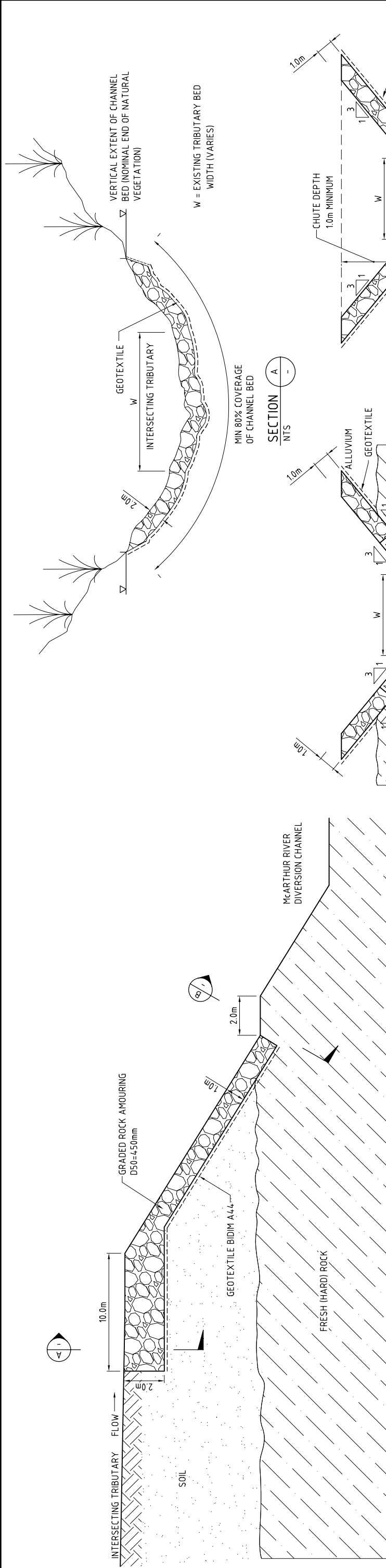
G.I. BAR DETAIL (N.T.S.)

NOTE: THIS DRAWING HAS BEEN COMPILED FROM SKETCHES PROVIDED BY CONNELL HATCH

NOT FOR CONSTRUCTION

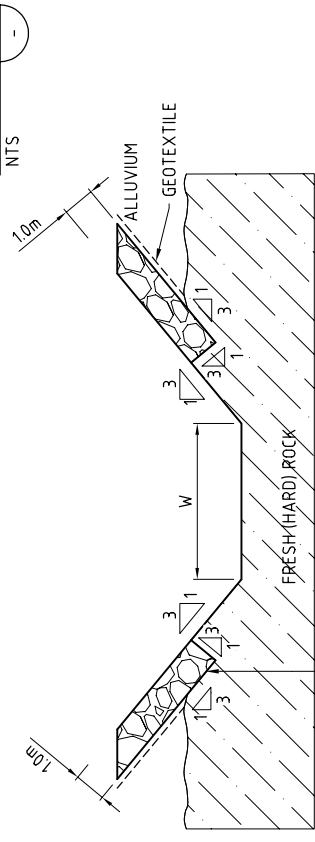
<p>Kellogg Brown & Root Pty Ltd KBR Kellogg Brown & Root Pty Ltd ABR 91 007 660 317 555 Coronation Drive, Toowoomba Brisbane, Queensland, 4066 ph (07) 3721-6555 fax (07) 3721-6500</p>		<p>McARTHUR RIVER MINE EXPANSION PROJECT McARTHUR RIVER DIVERSION TYPICAL BED DETAILS</p>	
<p>DRAWING No. AS SHOWN A1 DRAFTER: C.CRISON</p>		<p>DRAWING No. BEE508 CAD FILE: BEE508-C-DWG-105.dwg</p>	
<p>REVISIONS</p>		<p>APPROVALS</p>	
<p>REV</p>	<p>DESCRIPTION</p>	<p>DATE</p>	<p>CLIENT</p>
<p>A</p>	<p>ISSUE FOR REVIEW</p>	<p>21.12.05</p>	<p>DATE</p>
<p>B</p>	<p>PLANNING ROCK VOLUME NOTED ADDED</p>	<p>23.05.06</p>	<p>APPROVAL</p>
<p>C</p>	<p>HATCH CHANGES</p>	<p>16.06.06</p>	<p>PROJECT</p>
<p>D</p>	<p>HATCH & URS CHANGES; DWG 106 CHANGED TO 105</p>	<p>23.05.06</p>	<p>VERIFICATION</p>
<p>DESIGN</p>	<p>G.LOVELL</p>	<p>DESIGN</p>	<p>G.LOVELL</p>
<p>DESIGN</p>	<p>G.DUGDALE</p>	<p>DESIGN</p>	<p>G.DUGDALE</p>
<p>DRAFTING</p>	<p>S.LINK</p>	<p>DRAFTING</p>	<p>S.LINK</p>
<p>NAME</p>		<p>SIGNATURE</p>	
<p>100mm ON ORIGINAL DRAWING</p>			
<p>SCALE 1:100</p>		<p>SCALE 1:500</p>	
<p>SCALE 1:200</p>		<p>SCALE 1:1000</p>	
<p>NOTES</p>			
<p>REFERENCE DRAWINGS</p>			
<p>DRAWING No. BEE508 - McArthur River Mine Y105_Drawings\BEE508-C-DWG-105.dwg 21.12.05 14:39</p>			





TYPICAL SECTION IN SOIL & ROCK
N.T.S.

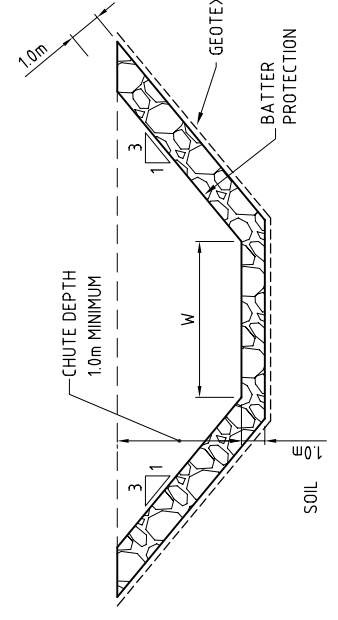
SECTION A
N.T.S.



CUT INTO ROCK 1.0m TO PROVIDE ADDITIONAL BATTER STABILITY

CHUTE - ROCK

SECTION B
N.T.S.



CHUTE - SOIL

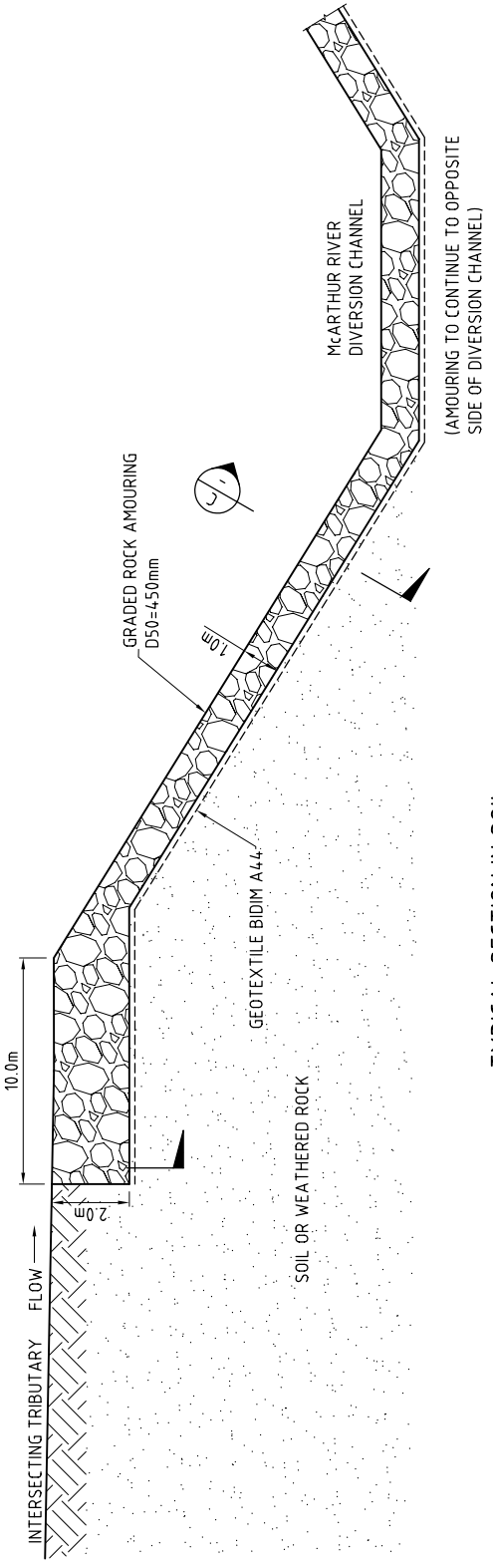
SECTION C
N.T.S.

ADDITIONAL REQUIREMENTS

- 1) PROFILING BACK TO THE EXISTING TOPOGRAPHY/TRIBUTARY BED SHOULD BE DONE IN SUCH A MANNER AS TO AVOID RAPID EXPANSION IN CROSS-SECTION AREA.
- 2) THE ENTIRE STRUCTURE SHALL BE CONSTRUCTED SUCH THAT THERE WILL BE NO CONCENTRATION OF FLOW AT ANY POINT. THIS MEANS THAT IT MUST BE LEVEL ACROSS ITS WIDTH FOR THE ENTIRE DISTURBED AREA (EXCEPT BATTERS).
- 3) WHERE FRESH (HARD) ROCK IS ENCOUNTERED ALONG THE CHUTE, IT MUST BE PRESENT ACROSS THE WHOLE WIDTH BEFORE ANY TRANSITION IN SLOPE MAY OCCUR.
- 4) ANY SMALL NATURAL DRAINS THAT ENTER THE CHUTE (E.G. VIA BATTERS) WILL BE TREATED BY PLACING ROCK ARMOURING AS PER INTERSECTING TRIBUTARY DETAILS.
- 5) GRADING OF ROCK ARMOURING

ROCK SIZE (mm)	% PASSING BY WEIGHT
1.5-2.0 x D50	100%
D50	50%
0.3-0.4 D50	10-20%

- ROCK PROTECTION:**
- × 25 MPa GREATER THAN OR EQUAL TO ROCK CRUSHING STRENGTH
 - × LENGTH < 2.5m WIDTH OR THICKNESS
 - × ANGULAR IN SHAPE
 - × FREE OF DIFFUSED CLEAVAGE PLANES
 - × NOT ADVERSELY AFFECTED BY REPEATED WETTING AND DRYING
- 6) GEOTEXTILE - BIDIM A44 OR APPROVED EQUIVALENT.



TYPICAL SECTION IN SOIL
N.T.S.

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DRAWING No.	DESCRIPTION
	REFERENCE DRAWINGS
	McArthur River Mine Y105_Drawings/BEE508-C-DWG-106.dwg 21.06.06 14:39

REV	DATE	DESCRIPTION	REVISIONS
D	16.06.06	HATCH & URS CHANGES; DWG 105 CHANGED TO 106	
C	23.05.06	PROJECT APPROVAL	
B	04.04.06	HATCH & URS CHANGES	
A	21.12.05	ISSUE FOR REVIEW	

DRAFTING	NAME	SIGNATURE
DESIGN	G.DJUGDALE	
DESIGN VERIFICATION	G.LOVELL	
PROJECT APPROVAL	D.VENESS	
CLIENT		



DRAWING SCALE	ORIG. SIZE	PROJECT No.	DRAWING No.
AS SHOWN	A1	BEE508	BEE508-C-DWG-106

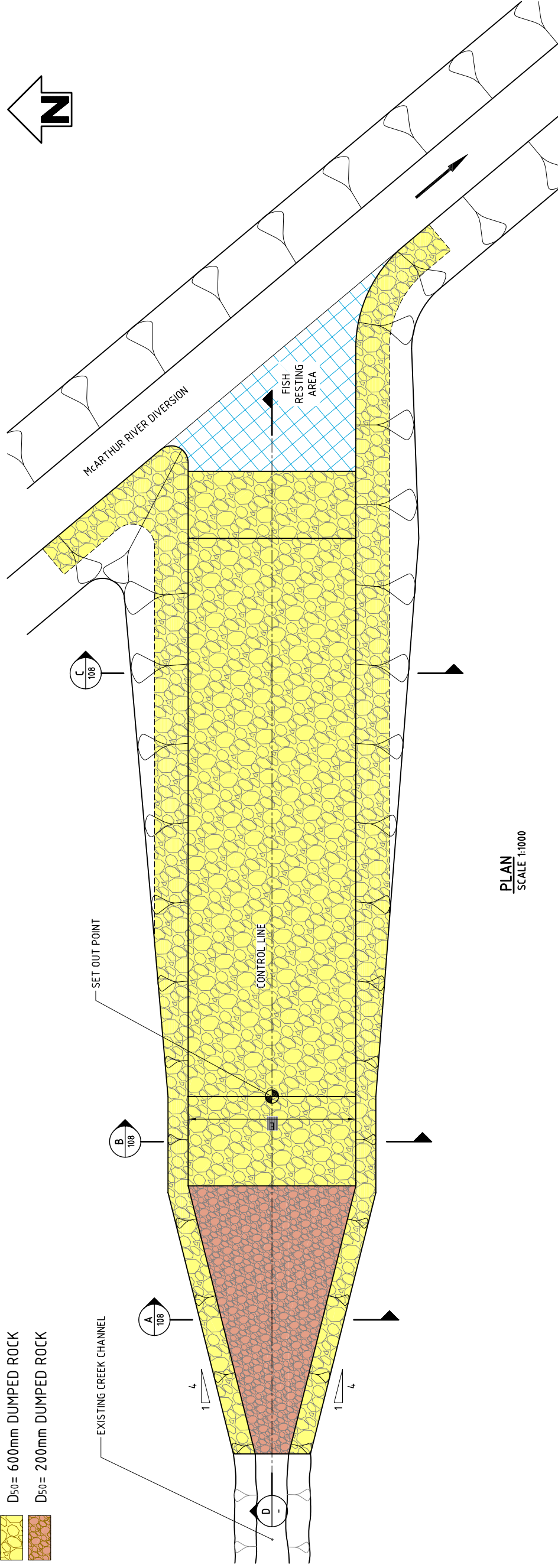
TITLE	DRAWING No.	REVISION
Kellogg Brown & Root Pty Ltd KBR McARTHUR RIVER MINE EXPANSION PROJECT TYPICAL DETAILS - TRIBUTARY TREATMENT DETAILS	BEE508-C-DWG-106	D

NOT FOR CONSTRUCTION

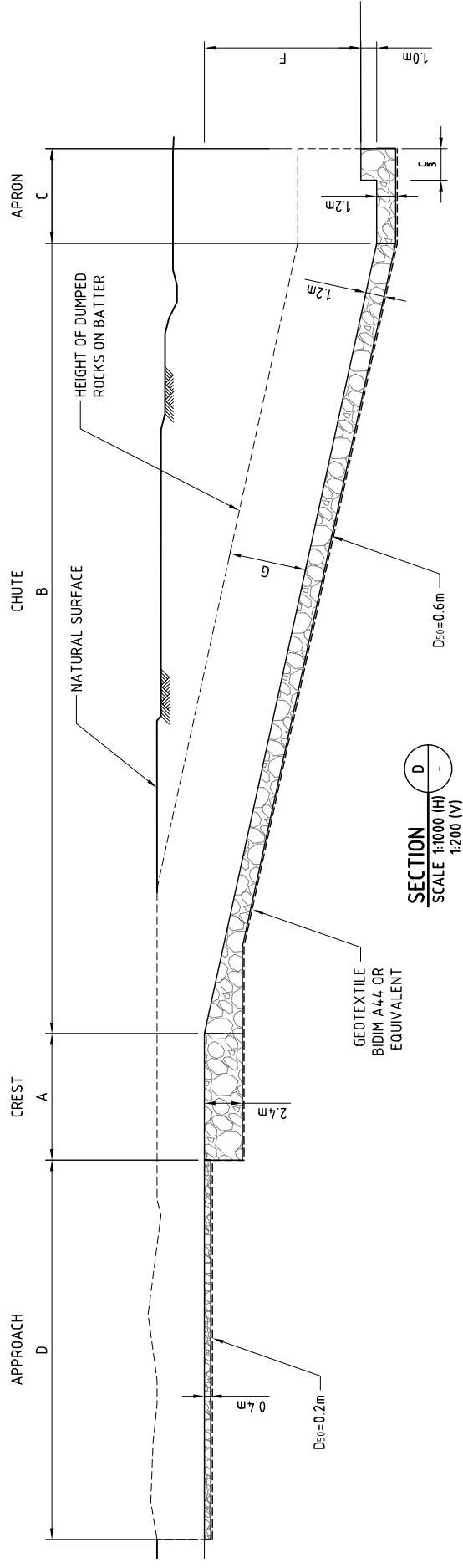


LEGEND

-  D₅₀= 600mm DUMPED ROCK
-  D₅₀= 200mm DUMPED ROCK



PLAN
SCALE 1:1000



SECTION
SCALE 1:200 (H)
SCALE 1:200 (V)

SET OUT DIMENSIONS

McARTHUR RIVER DIVERSION CHAINAGE	A	B	C	D	E	F	G	CH.	CH.
CREST LENGTH (m)	4.0							3250	4420
CHUTE LENGTH (m)		250							90
APRON LENGTH (m)			30						15
APPROACH LENGTH (m)				120					20
CREST WIDTH (m)	75								10
CHUTE HEIGHT (m)					10.9				7.4
DUMPED ROCK HEIGHT (m)								5	3

NOTES:

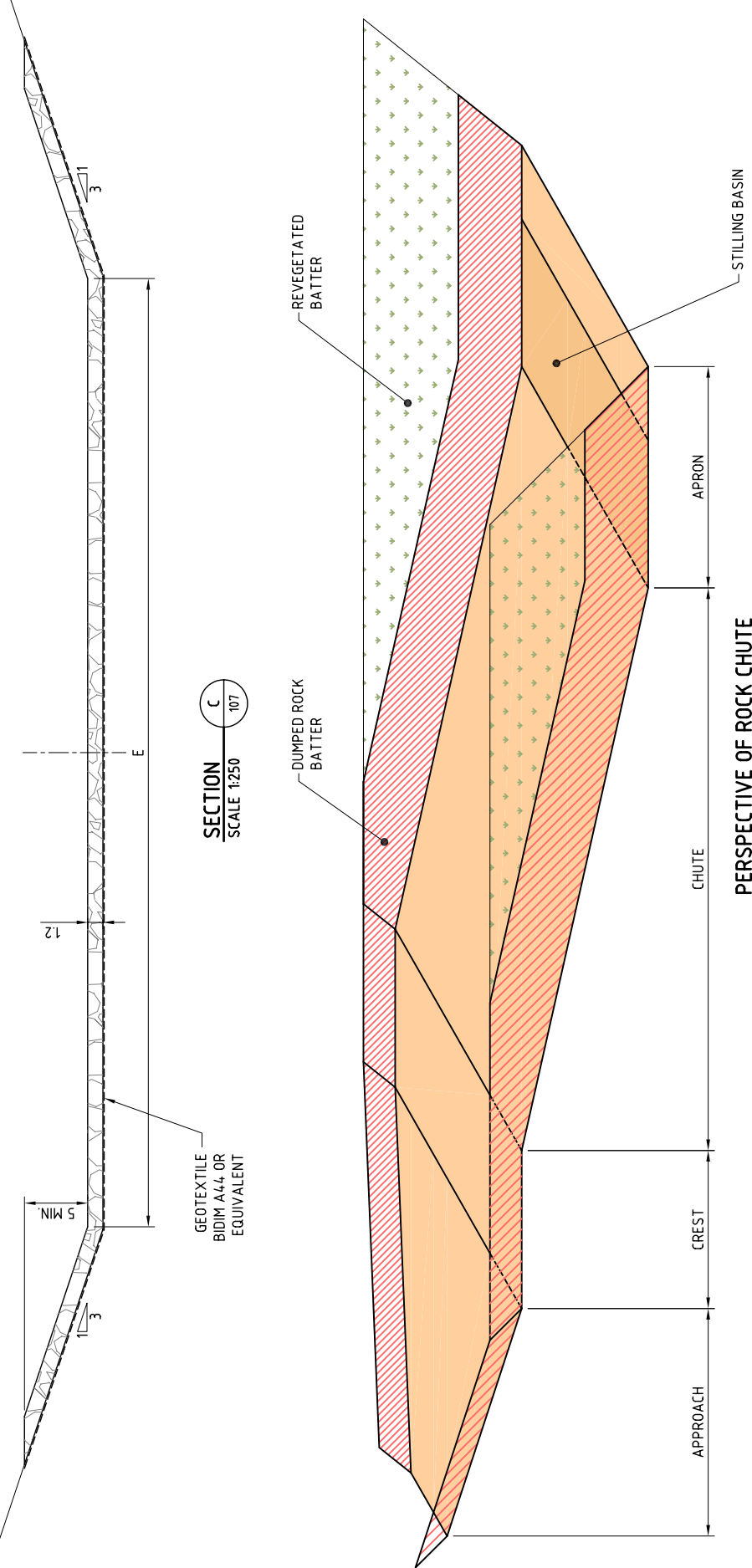
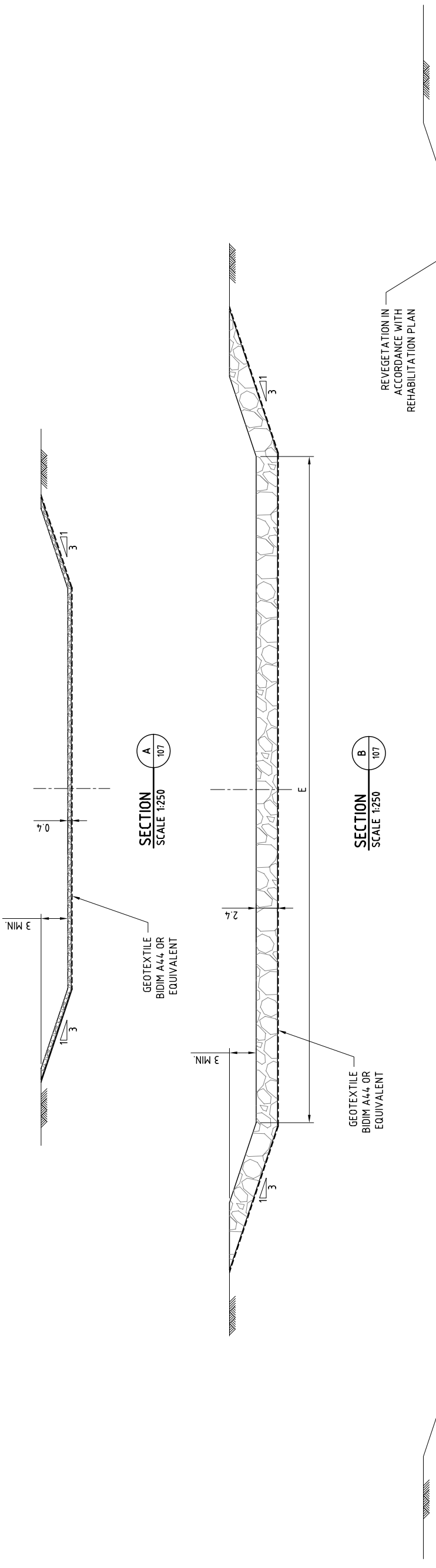
1. PROFILING BACK TO EXISTING CHANNEL AND BANKS SHOULD BE DONE IN SUCH A MANNER AS TO AVOID RAPID EXPANSION IN CROSS-SECTIONAL AREA.
2. DUMPED ROCK PROTECTION MAY BE OMITTED WHEN FRESH ROCK IS PRESENT OVER FULL WIDTH OF STRUCTURE.
3. FOR DETAILS OF DUMPED ROCK PROTECTION AND GEOTEXTILE REFER TO SPECIFICATION.

NOTE: THIS DRAWING HAS BEEN COMPILED FROM SKETCHES PROVIDED BY CONNELL HATCH

NOT FOR CONSTRUCTION



<p>Kellogg Brown & Root Pty Ltd KBR Kellogg Brown & Root Pty Ltd ABN 91 007 660 317 555 Coronation Drive, Toowong Brisbane, Queensland, 4066 ph (07) 3721-6555 fax (07) 3721-6500</p>		<p>McARTHUR RIVER MINE EXPANSION PROJECT McARTHUR RIVER TRIBUTARIES ROCK CHUTE DETAILS - SHEET 1 OF 2</p>	
<p>AS SHOWN A1 BEE508 DRAWING No. PROJECT No. DRAFTER: G. SPILLANE CAD FILE: BEE508-C-DWG-107.dwg</p>		<p>BEE508-C-DWG-107 DRAWING No. REVISION A</p>	
<p>16.06.06 DATE</p>		<p>APPROVALS</p>	
<p>ISSUE FOR REVIEW DESCRIPTION</p>		<p>REVISIONS</p>	
<p>10mm ON ORIGINAL DRAWING</p> <p>SCALE 1:200 SCALE 1:1000</p>		<p>NOTES</p>	
<p>REFERENCE DRAWINGS</p>		<p>REVISIONS</p>	



PERSPECTIVE OF ROCK CHUTE
(NOT TO SCALE)

NOTE: THIS DRAWING HAS BEEN COMPILED FROM SKETCHES PROVIDED BY CONNELL HATCH

NOT FOR CONSTRUCTION

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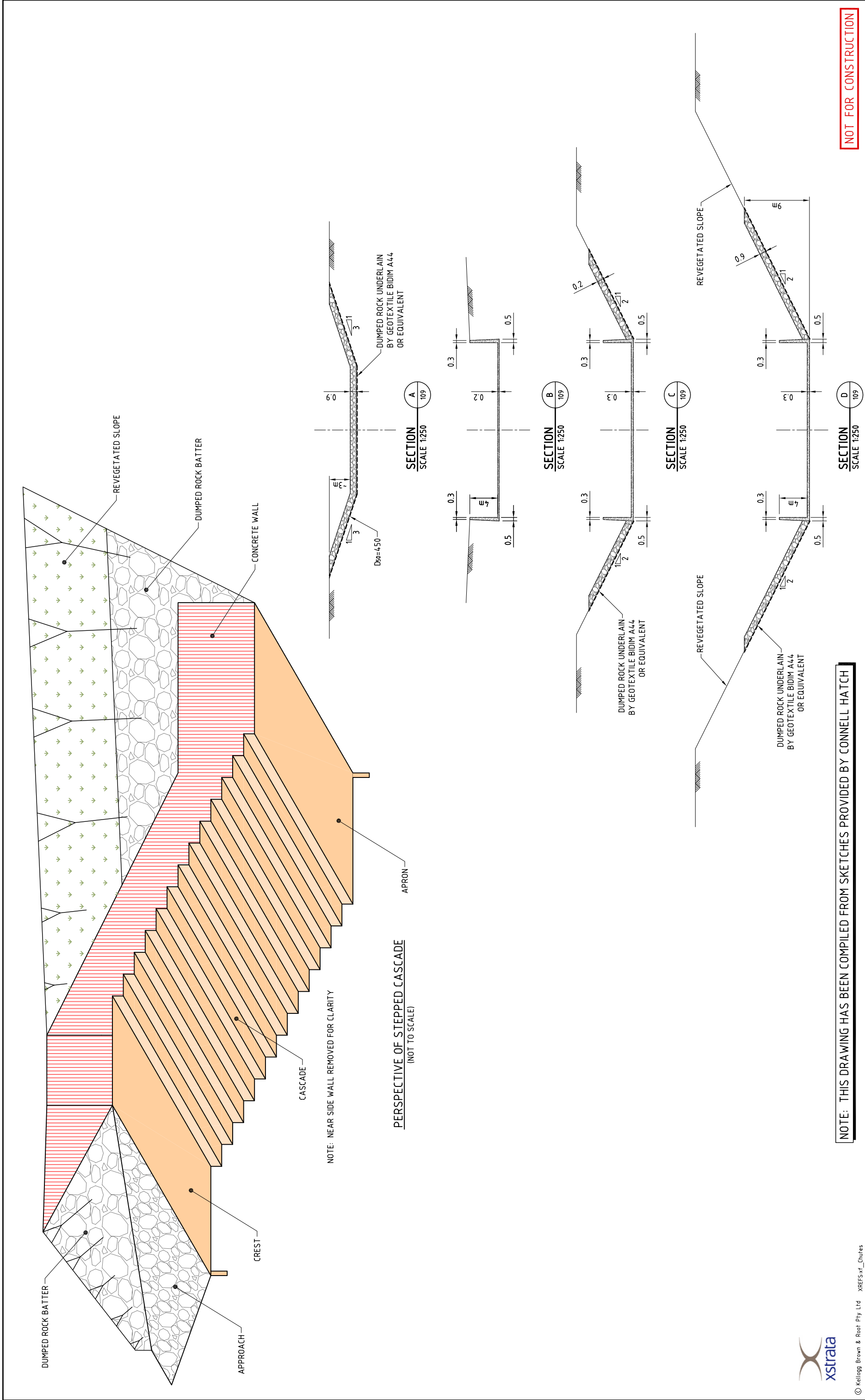
DRAWING No.	DESCRIPTION	REVISIONS	NOTES
	REFERENCE DRAWINGS		

REV	ISSUE FOR REVIEW	DATE	DESCRIPTION	REVISIONS
A	ISSUE FOR REVIEW	16.06.06		

DRAFTING	NAME	SIGNATURE	APPROVALS
DESIGN	G.DUGDALE		
DESIGN VERIFICATION	G.LOVELL		
PROJECT APPROVAL	D.VENESS		
CLIENT			

DRAWING SCALE	ORIG. SIZE	PROJECT No.	DRAWING No.	DRAFTER	CAD FILE
AS SHOWN	A1	BEE508	BEE508	G. SPILLANE	BEE508-C-DWG-108.dwg

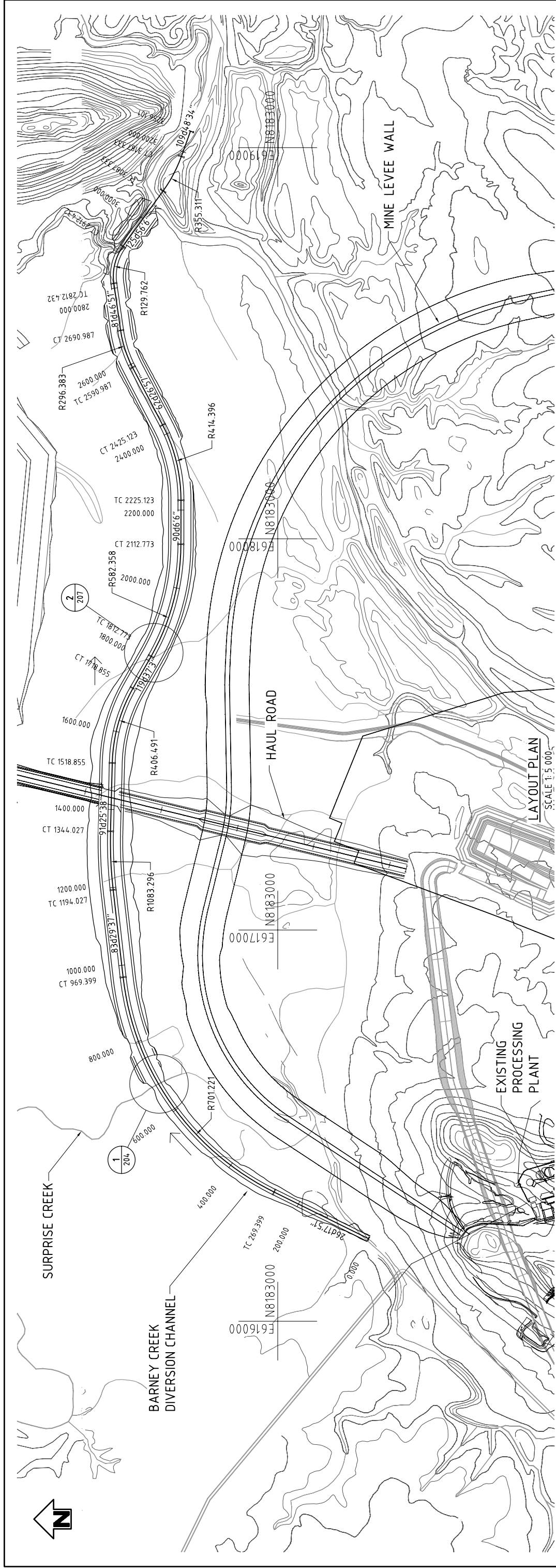
TITLE	DRAWING No.	REVISION
Kellogg Brown & Root Pty Ltd KBR Kellogg Brown & Root Pty Ltd ABN 91 007 660 317 555 Coronation Drive, Toowoong Brisbane, Queensland, 4366 ph (07) 3721-6555 fax (07) 3721-6500	BEE508-C-DWG-108	A
McARTHUR RIVER MINE EXPANSION PROJECT McARTHUR RIVER TRIBUTARIES ROCK CHUTE DETAILS - SHEET 2 OF 2	BEE508-C-DWG-108	



NOTE: THIS DRAWING HAS BEEN COMPILED FROM SKETCHES PROVIDED BY CONNELL HATCH

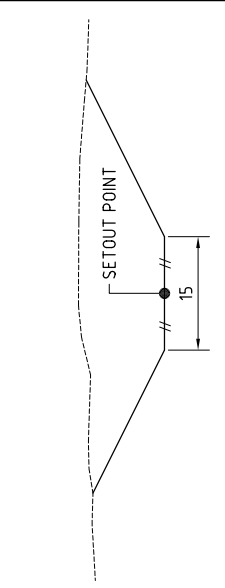
NOT FOR CONSTRUCTION

		Kellogg Brown & Root Pty Ltd KBR Kellogg Brown & Root Pty Ltd ABN 91 007 660 317 555 Coronation Drive, Toowoomba Brisbane, Queensland, 4366 ph (07) 3721-6555 fax (07) 3721-6500		TITLE McARTHUR RIVER MINE EXPANSION PROJECT BULL CREEK CASCADE CONCEPT DESIGN - SHEET 2 OF 2	
DRAFTING S.LINK G.DUGDALE G.LOVELL D.VENESS		NAME AS SHOWN A1 BEE508		DRAWING No. BEE508-C-DWG-110	
DESIGN G.DUGDALE G.LOVELL D.VENESS		ORG. SIZE A1 BEE508		PROJECT No. BEE508	
PROJECT APPROVAL DATE 16.06.06		APPROVALS DATE 16.06.06		REVISIONS DESCRIPTION REV A ISSUE FOR REVIEW	
DRAWING No. BEE508-C-DWG-110		DESCRIPTION REFERENCE DRAWINGS Mine Y105_Drawings\BEE508-C-DWG-110.dwg 21.6.06 14:42		REVISION A	



NOTES:

1. SURVEY DATUM:
DATUM HORIZONTAL - MRM TRUNCATED
DATUM VERTICAL - AHD
2. ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS - BEE508-Z-SPEC-001.



SETOUT SECTION DETAIL
N.T.S.
NOTE:
SETOUT POINT TO BE TOP SURFACE OF DUMPED ROCK

NOT FOR CONSTRUCTION

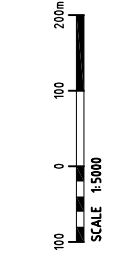
BARNEY CREEK DIVERSION ALIGNMENT SETOUT (Cont.)

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	TANGENT	DEF. ANGLE	ARC LEN	ARC LEN
CT	2112.773	7986.285	3247.678	90d06'06"	90d06'06"	90d06'06"			
TC	2200	8073.512	3247.523	90d06'06"	90d06'06"	90d06'06"			
IP6	2225.123	8098.635	3247.478	90d06'06"	90d06'06"	90d06'06"			
CT	2400	8200.622	3247.297	65d55'21"	65d55'21"	65d55'21"			
TC	2425.123	8268.432	3283.532	3294.470	62d26'57"	62d26'57"			
IP7	2600	8291.044	3371.189	62d26'57"	62d26'57"	62d26'57"			
CT	2640.987	8446.152	3375.235	64d11'29"	64d11'29"	64d11'29"			
TC	2690.987	8482.855	3394.537	3401.754	81d46'51"	81d46'51"			
CT	2800	8640.709	3417.339	81d46'51"	81d46'51"	81d46'51"			
TC	2812.432	8653.014	3419.116	81d46'51"	81d46'51"	81d46'51"			
IP8	2862.432	8705.104	3426.640	3426.640	125d56'06"	125d56'06"			
CT	2912.432	8747.718	3395.753	125d56'06"	125d56'06"	125d56'06"			
TC	3000	8818.620	3344.362	125d56'06"	125d56'06"	125d56'06"			
IP9	3087.333	8889.332	3293.109	125d56'06"	125d56'06"	125d56'06"			
CT	3187.333	8930.086	3263.570	3246.513	109d48'34"	109d48'34"			
IP10	3200	8977.440	8977.440	3242.220	109d48'34"	109d48'34"			
IP10	3256.101	8989.357	8989.357	3223.208	109d48'34"	109d48'34"			
IP10	3256.101	9042.138	9042.138	3223.208	109d48'34"	109d48'34"			

BARNEY CREEK DIVERSION ALIGNMENT SETOUT

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	TANGENT	DEF. ANGLE	ARC LEN	ARC LEN
IP1	0.000	6210.869	2767.867	26d17'51"	26d17'51"	26d17'51"			
TC	200	6299.475	2947.168	26d17'51"	26d17'51"	26d17'51"			
IP2	269.399	6330.221	3009.384	26d17'51"	26d17'51"	26d17'51"			
CT	400	6398.620	3120.420	36d58'08"	36d58'08"	36d58'08"			
IP3	619.399	6539.906	3261.019	53d18'38"	53d18'38"	53d18'38"			
CT	800	6499.587	3352.106	69d39'08"	69d39'08"	69d39'08"			
TC	969.399	6879.411	3356.184	83d29'37"	83d29'37"	83d29'37"			
IP4	1194.027	6909.815	3398.892	83d29'37"	83d29'37"	83d29'37"			
CT	1200	7102.593	3420.878	83d29'37"	83d29'37"	83d29'37"			
IP5	1269.027	7108.529	3421.538	83d48'34"	83d48'34"	83d48'34"			
CT	1344.027	7177.229	3429.390	3429.390	75d56'01"	75d56'01"			
TC	1400	7252.326	3427.519	91d25'38"	91d25'38"	91d25'38"			
IP6	1518.855	7308.281	3426.125	91d25'38"	91d25'38"	91d25'38"			
CT	1600	7427.099	3423.165	91d25'38"	91d25'38"	91d25'38"			
IP7	1618.855	7507.480	3413.088	102d51'53"	102d51'53"	102d51'53"			
CT	1718.855	7529.135	3420.623	3420.623	28d11'25"	28d11'25"			
IP8	1800	7617.866	3370.181	119d37'03"	119d37'03"	119d37'03"			
IP9	1812.773	7699.513	3330.078	119d37'03"	119d37'03"	119d37'03"			
IP10	1962.773	7832.877	3247.951	3247.951	153d408'57"	153d408'57"			
IP10	2000	7874.235	3258.762	101d11'49"	101d11'49"	101d11'49"			

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10mm ON ORIGINAL DRAWING



REV	DESCRIPTION	DATE	CLIENT	APPROVALS
A	ISSUE FOR REVIEW	21.12.05	CLIENT	
B	MINE LEVEE WALL AMENDED	14.02.06	APPROVAL	
C	BARNEY CREEK ALIGNMENT CHANGED	21.02.06	PROJECT	
D	HATCH & URS CHANGES	04.04.06	VERIFICATION	
E	HATCH & URS CHANGES	04.05.06	DESIGN	
F	SURPRISE CREEK LABEL ADDED	23.05.06	DESIGN	
G	HATCH & URS CHANGES	16.06.06	DRAFTING	

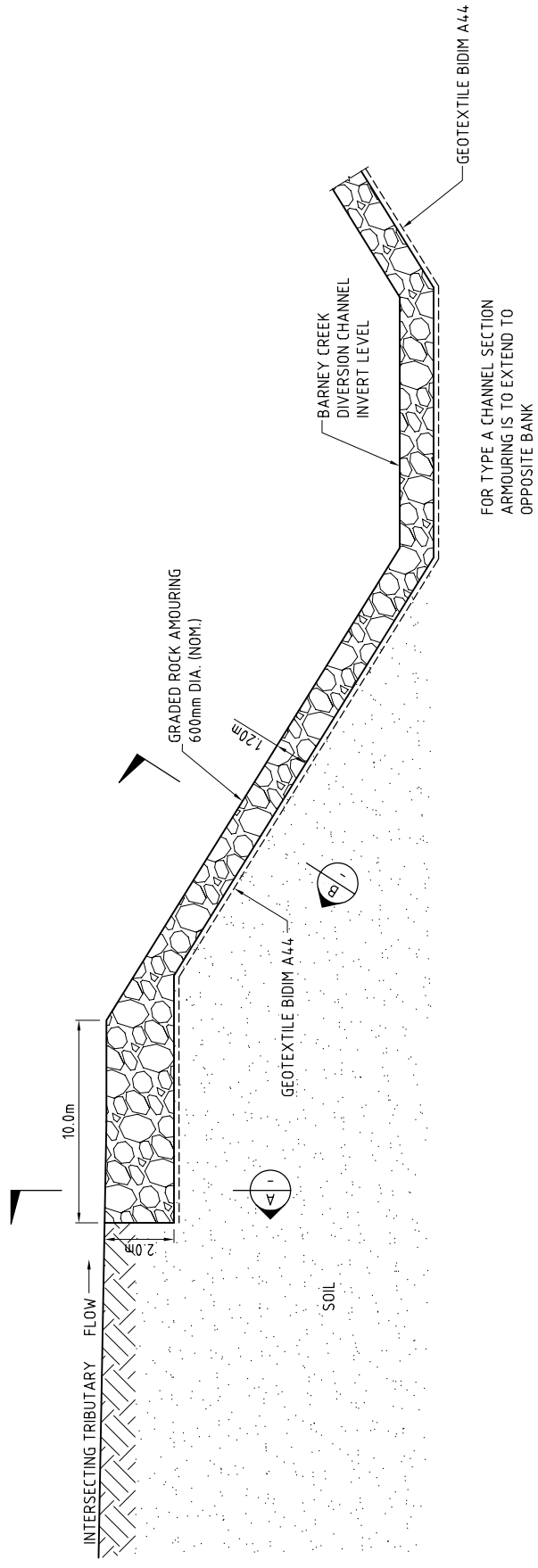
DRAWING No.	AS SHOWN	ORG. SIZE	A1	PROJECT No.	BEE508	DRAWER	C.RITSON	CAD FILE	BEE508-C-DWG-201.DWG
TITLE	Kellogg Brown & Root Pty Ltd KBR Kellogg Brown & Root Pty Ltd ABN 91 007 660 317 555 Coronation Drive, Toowoomba Brisbane, Queensland, 4066 ph (07) 3721-6555 fax (07) 3721-6500								
REVISION	McARTHUR RIVER MINE EXPANSION PROJECT BARNEY CREEK DIVERSION SETOUT DETAILS DRAWING No. BEE508-C-DWG-201 REVISION G								



ADDITIONAL REQUIREMENTS

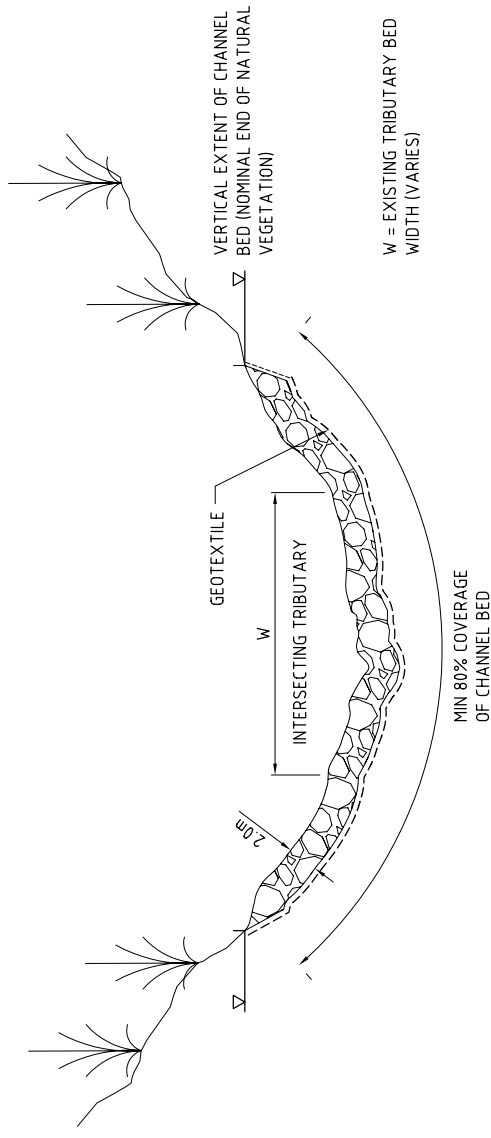
- 1) PROFILING BACK TO THE EXISTING TOPOGRAPHY/TRIBUTARY BED SHOULD BE DONE IN SUCH A MANNER AS TO AVOID RAPID EXPANSION IN CROSS-SECTION AREA.
- 2) THE ENTIRE STRUCTURE SHALL BE CONSTRUCTED SUCH THAT THERE WILL BE NO CONCENTRATION OF FLOW AT ANY POINT. THIS MEANS THAT IT MUST BE LEVEL ACROSS ITS WIDTH FOR THE ENTIRE DISTURBED AREA (EXCEPT BATTERS).
- 3) ANY SMALL NATURAL DRAINS THAT ENTER THE CHUTE (E.G. VIA BATTERS) WILL BE TREATED BY PLACING ROCK ARMOURING AS PER INTERSECTING TRIBUTARY DETAILS.
- 4) GRADING OF ROCK ARMOURING 600mm DIAMETER (NOM)

ROCK SIZE (mm)	% PASSING BY WEIGHT
900	100
600	40 TO 60
250	< 20
- ROCK PROTECTION:
 - × 25 MPa GREATER THAN OR EQUAL TO ROCK CRUSHING STRENGTH
 - × LENGTH ~ 2.5m WIDTH OR THICKNESS
 - × ANGULAR IN SHAPE
 - × FREE OF DIFFUSED CLEAVAGE PLANES
 - × NOT ADVERSELY AFFECTED BY REPEATED WETTING AND DRYING
- 5) GEOTEXTILE - BIDIM A44 OR APPROVED EQUIVALENT.

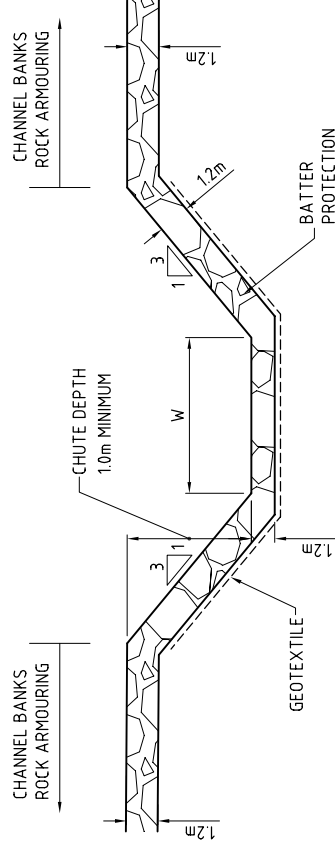


FOR TYPE A CHANNEL SECTION ARMOURING IS TO EXTEND TO OPPOSITE BANK

TYPICAL SECTION
NTS



SECTION A
NTS



SECTION B
NTS

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DRAWING No.	DESCRIPTION
	REFERENCE DRAWINGS
	McArthur River Mine Y105_Drawings\BEE508-C-DWG-206.dwg 21.6.06 14:48

100mm ON ORIGINAL DRAWING

NOT TO SCALE

REV	DESCRIPTION	DATE	APPROVALS
A	ISSUE FOR REVIEW	21.12.05	
B	PLANNING ROCK VOLUME ADDED	21.02.06	
C	HATCH & URS CHANGES	04.04.06	
	PROJECT APPROVAL		
	DESIGN VERIFICATION		
	DESIGN		
	DRAFTING		

NAME	SIGNATURE
S.LINK	
G.DUGDALE	
G.LOVELL	
D.VENESS	

DRAWING SCALE	ORIG. SIZE	PROJECT No.	DRAWING No.
AS SHOWN	A1	BEE508	BEE508-C-DWG-206
DRAFTER	Y.FRASER	CAD FILE	BEE508-C-DWG-206.dwg

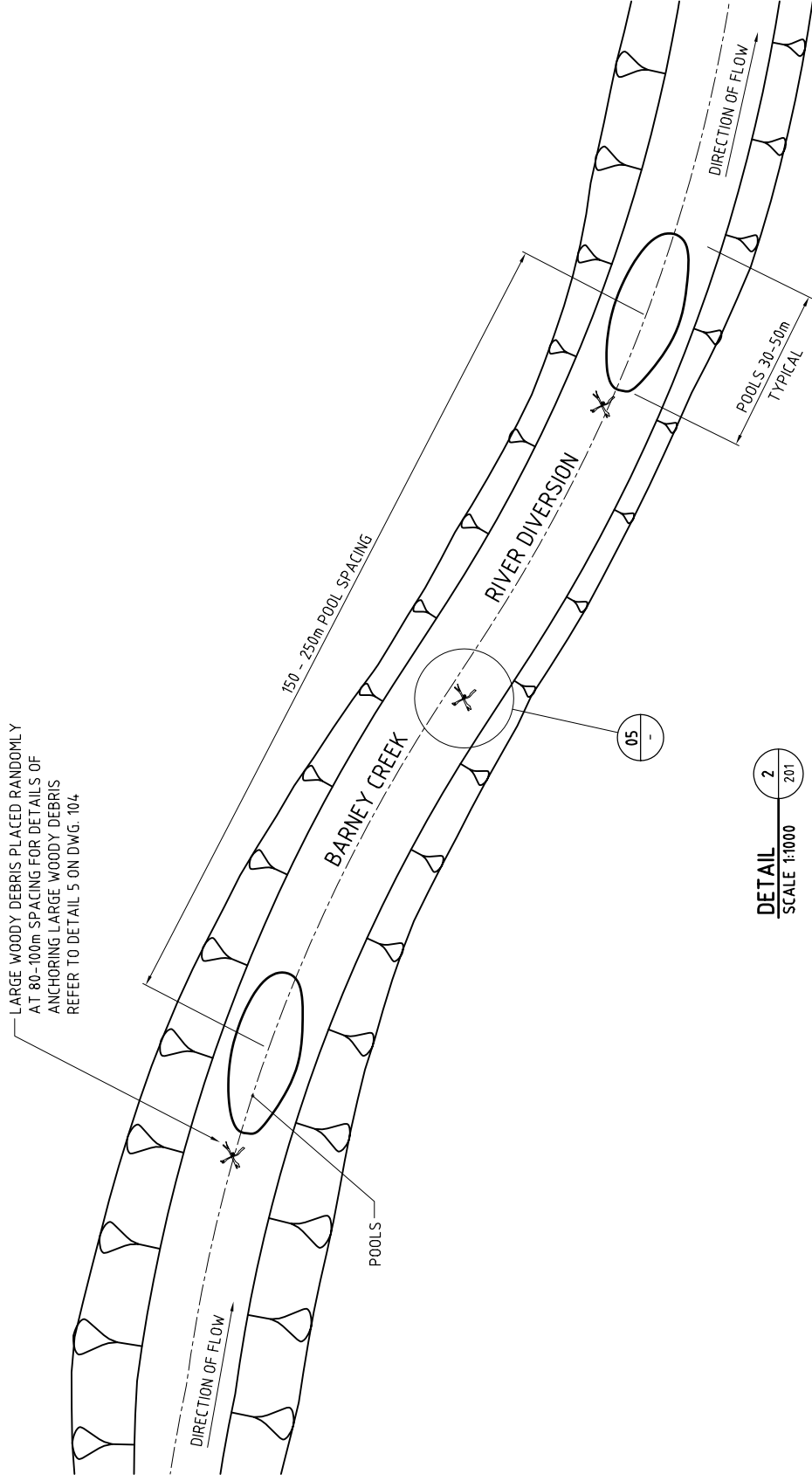
TITLE	REVISION
Kellogg Brown & Root Pty Ltd KBR Kellogg Brown & Root Pty Ltd ABN 91 007 660 317 555 Coronation Drive, Toowoong Brisbane, Queensland, 4666 ph (07) 3721-6555 fax (07) 3721-6500	
McARTHUR RIVER MINE EXPANSION PROJECT BARNEY CREEK DIVERSION TYPICAL DETAILS - TRIBUTARY TREATMENT DETAILS	
	C

NOT FOR CONSTRUCTION

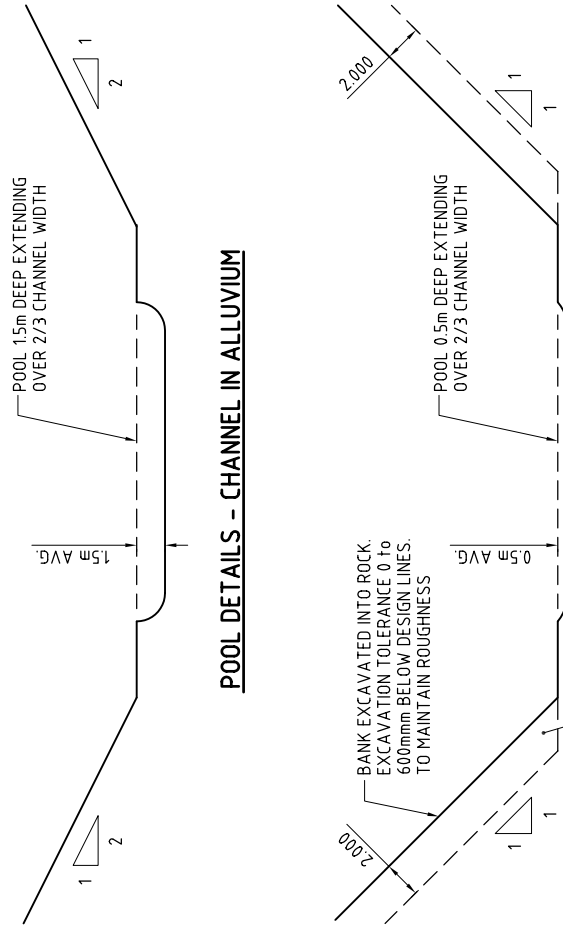




LARGE WOODY DEBRIS PLACED RANDOMLY AT 80-100m SPACING FOR DETAILS OF ANCHORING LARGE WOODY DEBRIS REFER TO DETAIL 5 ON DWG. 104

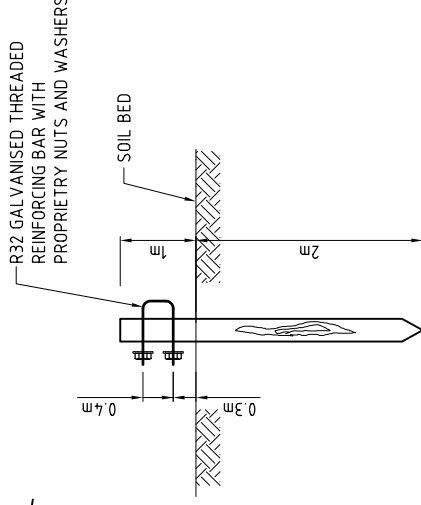


DETAIL SCALE 1:1000

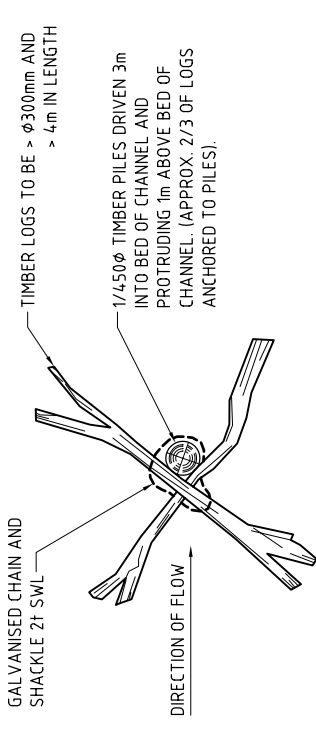


POOL DETAILS - CHANNEL IN ALLUVIUM

POOL DETAILS - CHANNEL IN ROCK



LARGE WOODY DEBRIS TIMBER PILE DETAIL (N.T.S.)

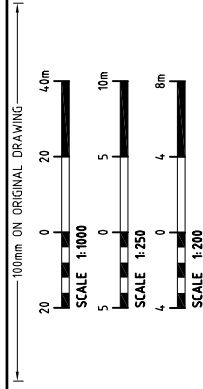


LARGE WOODY DEBRIS - LOCATED ON SOIL CHANNEL BED

DETAIL SCALE 1:100

© Kellogg Brown & Root Pty Ltd XREFS:

DRAWING No.	DESCRIPTION
REFERENCE DRAWINGS	



NOTES

NOTE: THIS DRAWING HAS BEEN COMPILED FROM SKETCHES PROVIDED BY CONNELL HATCH

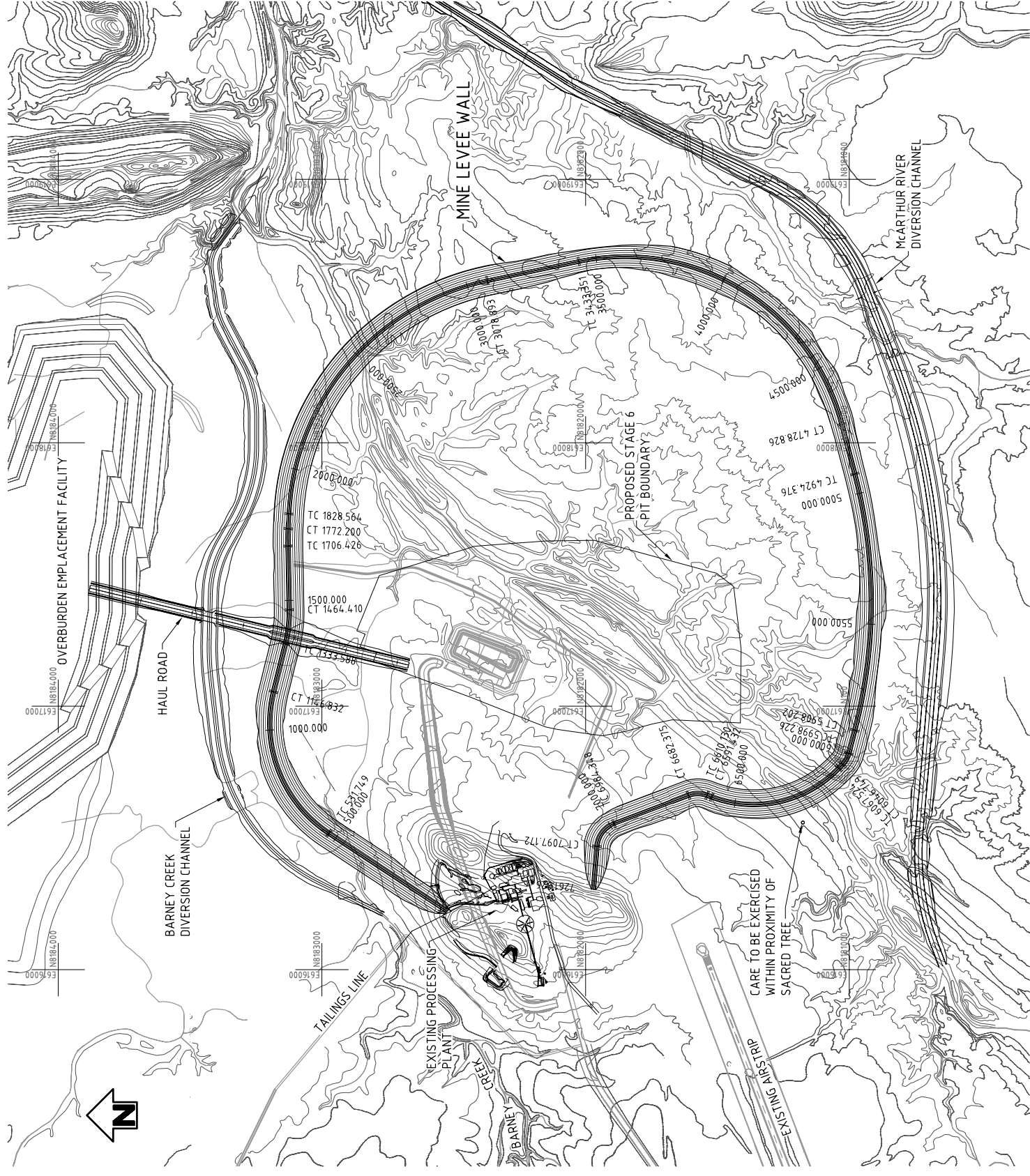
NOT FOR CONSTRUCTION

REV	DESCRIPTION	DATE	CLIENT	APPROVALS	SIGNATURE
E	HATCH & URS CHANGES	16.06.06	DESIGN	G.DUGDALE	
D	HATCH & URS CHANGES	23.05.06	VERIFICATION	G.LOVELL	
C	DRAWING COMPILED FROM HATCH SKETCHES NOTE ADDED	17.05.06	PROJECT APPROVAL	D.VENESS	
B	HATCH & URS CHANGES	04.05.06	APPROVAL		
A	ISSUE FOR REVIEW	04.04.06	CLIENT		

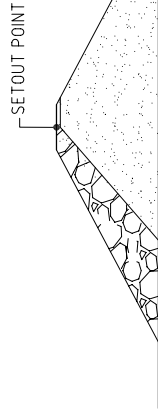
Kellogg Brown & Root Pty Ltd	KBR
Kellogg Brown & Root Pty Ltd 555 Coronation Drive, Toowong Brisbane, Queensland, 4066 ph (07) 3721-6555 fax (07) 3721-6500	ABN 91 007 660 317 555 Coronation Drive, Toowong Brisbane, Queensland, 4066 ph (07) 3721-6555 fax (07) 3721-6500
DRAWING SCALE: AS SHOWN	ORIG. SIZE: A1
PROJECT No.: BEE508	DRAWING No.: BEE508-C-DWG-207
DRAFTER: Y.FRASER	CAD FILE: BEE508-C-DWG-207.dwg

TITLE	
McARTHUR RIVER MINE EXPANSION PROJECT BARNEY CREEK DIVERSION TYPICAL BED DETAILS	
DRAWING No.	BEE508-C-DWG-207
REVISION	E





LAYOUT PLAN
SCALE 1:10 000



MINE LEVEL WALL TYPICAL SECTION
(CH.00 - CH.7261)
SCALE 1500

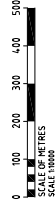
NOTE:

1. SURVEY DATUM:
DATUM HORIZONTAL - MRM TRUNCATED
DATUM VERTICAL - AHD.
2. ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS - BEE508-Z-SPEC-001 Rev 0.
3. COORDINATES OF SACRED TREE ARE: E 6558.53; N 1175.87.



© Kellogg Brown & Root Pty Ltd XREFS:xf-existing-contours /xf-mine base 280605 /xf-mine-diversions /xf-levee-ex-runway-envelope /xf-grd /xf-haul /xf-levee contours

10mm ON ORIGINAL DRAWING



SCALE METRES

REV	DATE	DESCRIPTION	REVISIONS
E	22.06.06	HATCH & URS CHANGES	
D	19.04.06	DEF LAYOUT AMENDED	
C	21.02.06	BARNEY CREEK ALIGNMENT CHANGED	
B	14.02.06	MINE LEVEL WALL AMENDED	
A	21.12.05	ISSUE FOR REVIEW	

NOTES

TOP OF LEVEE ALIGNMENT SETOUT

PT	CHAINAGE	EASTING	NORTHING	LEVEL	BEARING	RAD/SPIRAL	A LENGTH	D ANGLE
IP1	0.000	6224.786	2529.880	44.500				
TC	531.749	6517.598	2973.748	44.500	33°24'44"	500.000	615.083	70°28'60"
IP2	839.291	6712.121	3268.621	44.500	103°53'44"			
CT	1146.832	7055.039	3183.786	44.500	103°53'44"	500.000	-130.822	14°59'28"
TC	1333.588	7236.330	3138.936	44.500				
IP3	1398.999	7300.191	3123.138	44.500	88°54'16"	1000.000	65.774	3°46'07"
CT	1464.410	7365.966	3124.396	44.500	88°54'16"			
TC	1706.426	7607.938	3129.023	44.500	92°40'23"	950.000	1250.329	75°24'33"
IP4	1739.313	7640.831	3129.652	44.500	92°40'23"			
CT	1772.200	7673.694	3128.118	44.500	168°04'55"	850.000	1295.475	87°19'26"
TC	1828.564	7729.996	3125.489	43.998	168°04'55"			
IP5	2453.729	8463.560	3091.242	43.943	255°24'21"	1930.000	983.827	29°12'24"
CT	3078.893	8615.214	2372.708	44.500	255°24'21"			
TC	3433.351	8688.414	2025.891	44.136	284°36'46"	95.000	4.8523	29°15'54"
IP6	4081.088	8855.935	1232.180	44.500	284°36'46"			
CT	4728.826	8070.911	1027.782	44.500	313°52'40"	450.000	523.908	66°42'22"
TC	4924.376	7881.670	978.510	44.500	313°52'40"			
IP7	5416.289	7395.045	851.807	44.500	20°35'02"	100.000	-72.245	41°23'37"
CT	5908.202	6908.461	978.667	44.500	20°35'02"			
TC	5998.226	6821.350	1001.379	44.500	274°32'49"	100.000	-112.824	64°38'36"
IP8	6022.488	6797.349	1007.636	44.500				
CT	6046.749	6779.470	1024.828	44.500				
TC	6067.524	6764.495	1039.227	44.500				
IP9	6329.478	6550.994	1244.524	44.500				
CT	6591.432	6655.128	1521.806	44.500				
TC	6610.130	6661.702	1539.310	44.500				
IP10	6646.253	6674.985	1574.679	44.500				
CT	6682.375	6661.563	1609.995	44.500				
TC	6984.348	6554.282	1892.268	44.000				
IP11	7040.760	6531.804	1951.411	44.500				
CT	7097.172	6468.733	1956.427	44.500				
IP12	7261.026	6305.395	1969.416	44.500				

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DRAWING No.		DESCRIPTION		NOTES	
BEE508		MINE LEVEL WALL			
AS SHOWN		MINE LEVEL WALL TYPICAL SECTION			
A1		(CH.00 - CH.7261)			
PROJECT No.		DRAWING No.		TITLE	
BEE508		BEE508-C-DWG-301		McARTHUR RIVER MINE EXPANSION PROJECT LEVEE SETOUT DETAILS	
DRAFTER: Y.FRASER		CAD FILE: BEE508-C-DWG-301.DWG		KBR Kellogg Brown & Root Pty Ltd 555 Coronation Drive, Toowoomba, Queensland, 4666 ph (07) 3721-6555 fax (07) 3721-6500	
DRAWING SCALE		ORIG. SIZE		REVISION	
AS SHOWN		A1		E	