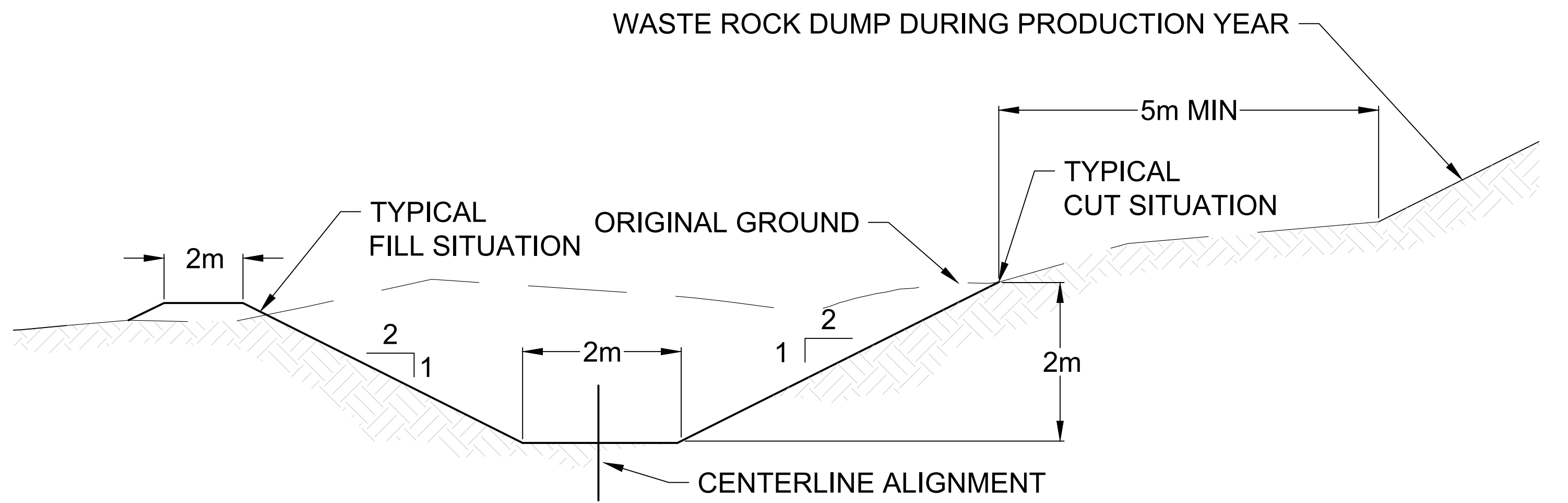
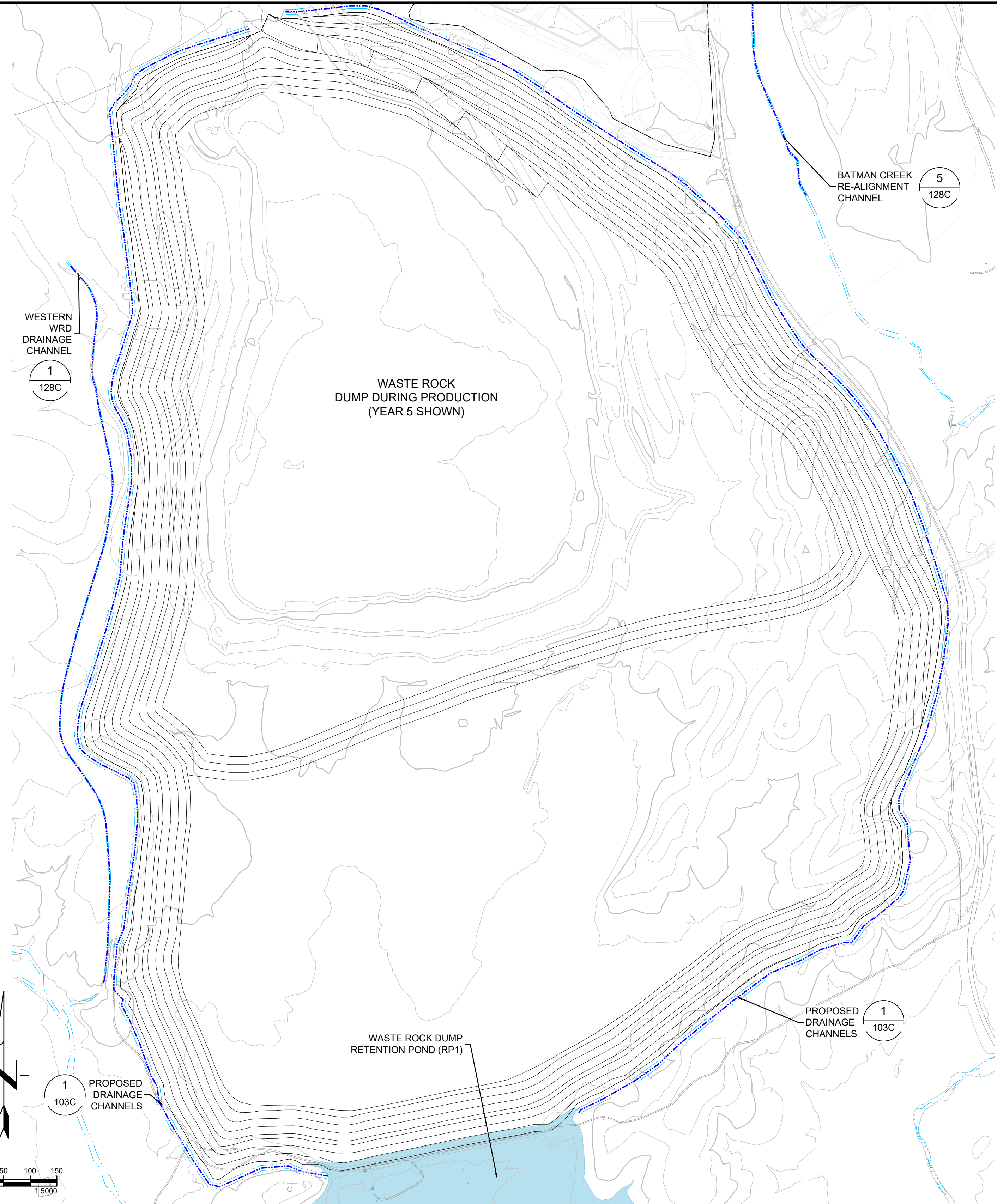


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1 TYPICAL WASTE ROCK DRAINAGE CHANNEL  
103C SCALE: N.T.S

REFERENCE

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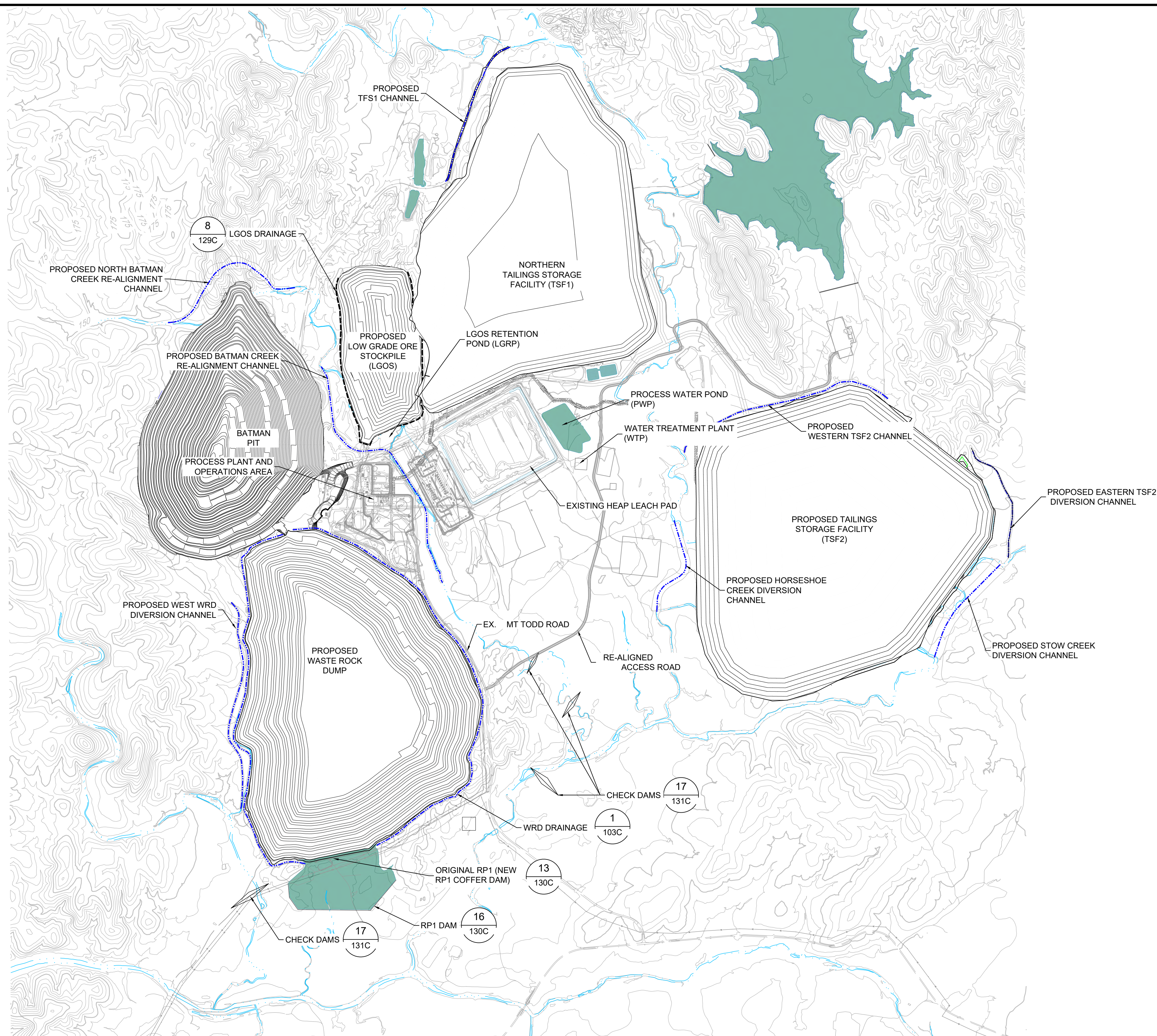


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<b>SURFACE WATER MANAGEMENT PLAN WASTE ROCK DUMP DRAINAGE PERIMETER CHANNELS PLAN</b>				
Project: 2021 MT TODD FEASIBILITY STUDY DRAINAGE DESIGN	Project no.: 200-01299-21007	<b>4520-DC-103C</b>		
Location: NORTHERN TERRITORY, AUSTRALIA	Date: 12/16/2021	SHEET 4 OF 34		

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△	PRELIMINARY DESIGN ISSUED FOR REVIEW	JC	05/12/2017
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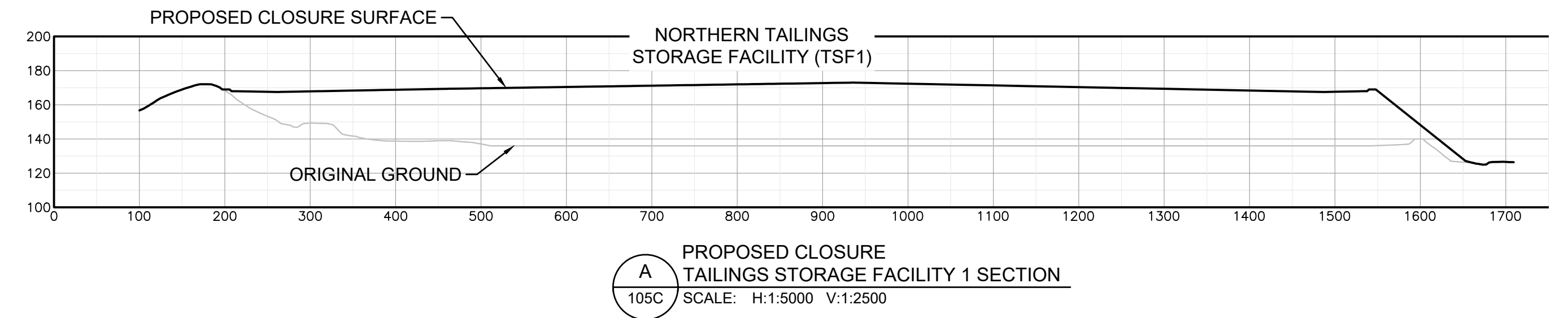
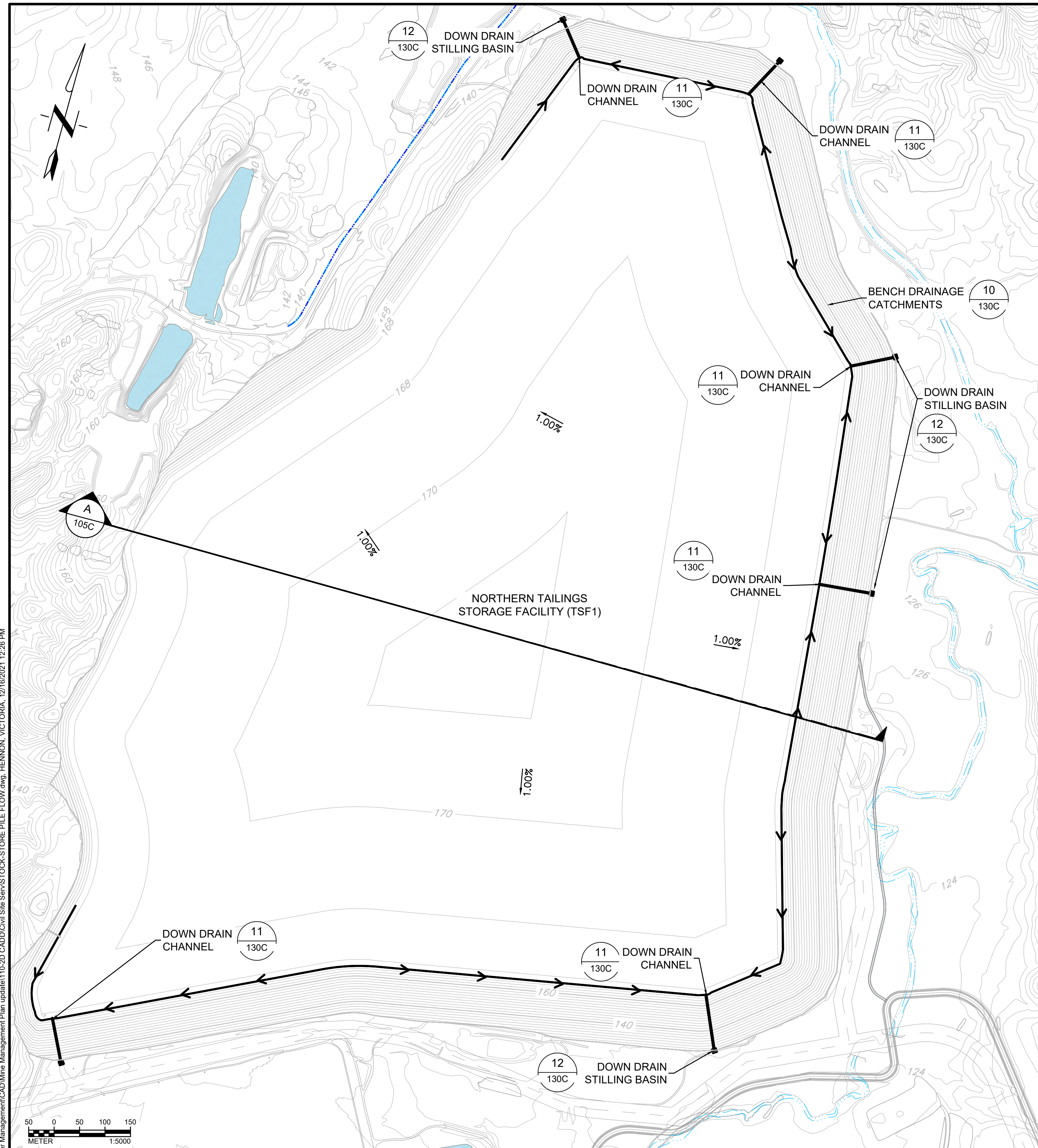
**STORMWATER MANAGEMENT PLAN  
 PROPOSED SEDIMENT AND EROSION  
 CONTROL PLAN**



Project: 2021 MT TODD FEASIBILITY STUDY DRAINAGE DESIGN  
 Project no.: 200-01299-21007  
 Location: NORTHERN TERRITORY, AUSTRALIA  
 Date: 12/16/2021

**4520-DC-104C**

SHEET 5 OF 34



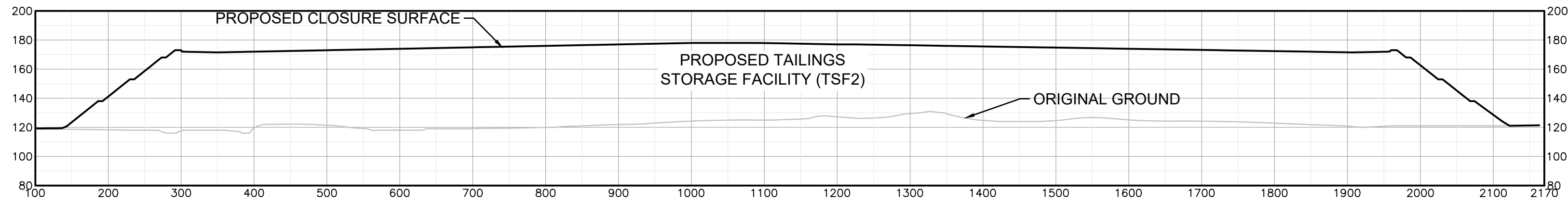
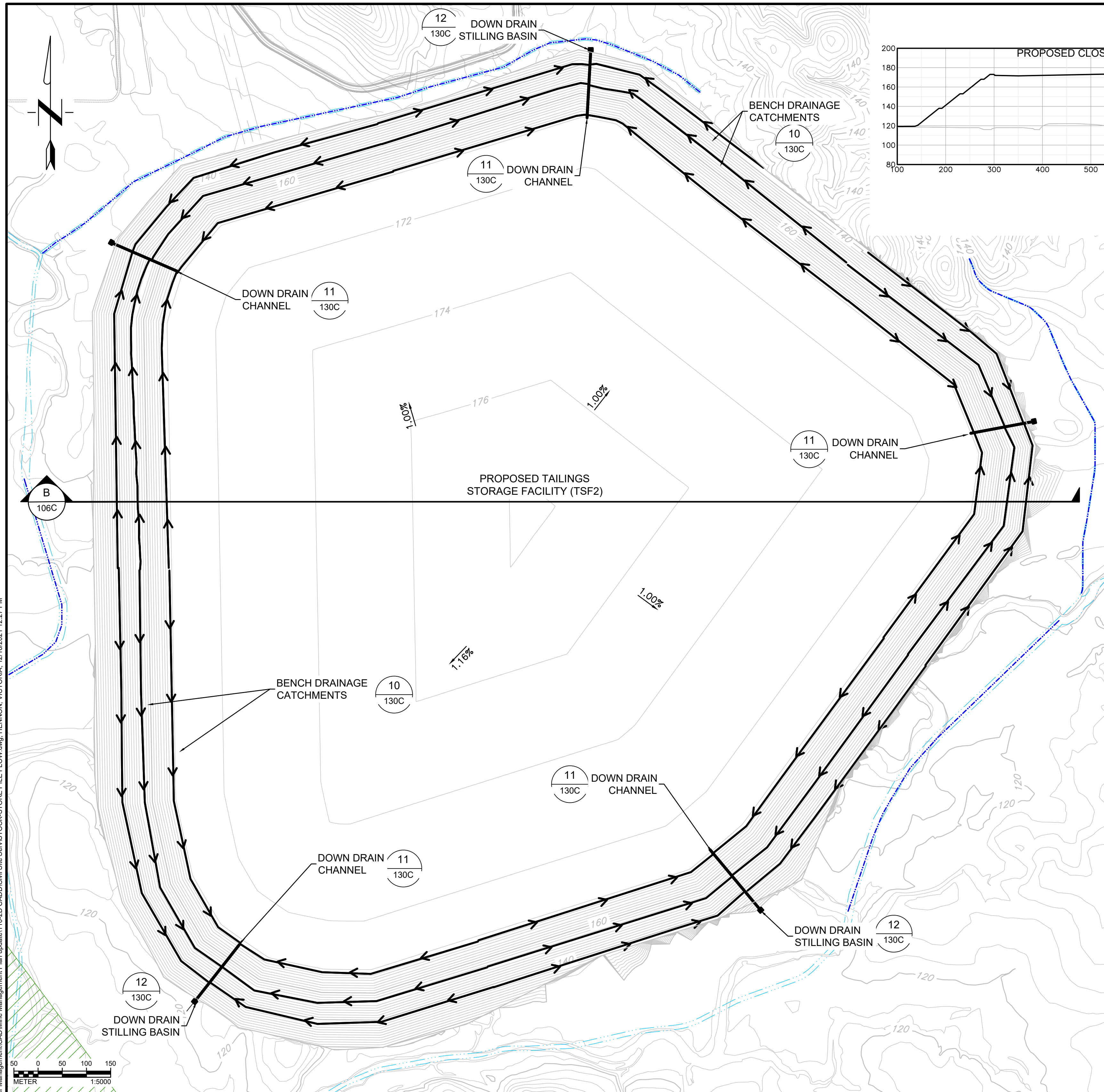
TSF1 Runoff Volume by Bench						
Bench	Footprint Area (ha)	Exposed Finished Area (ha)	Runoff Coefficient	100 YR-Rainfall intensity (mm/hr)	Runoff by Bench (m³/s)	Total Runoff (m³/s)
Crown	41.06	41.06	0.33	95	3.58	3.58

TSF1 Draindown Channel HEC-RAS Model Output						
Location	Flow Regime	Min. Channel El. (m)	W.S.E (m)	Channel Depth (m)	Freeboard (m)	Channel Velocity (m/s)
Top of TSF1	100-Year Flow	167.75	168.41	0.66	0.59	1.63
Beginning of Draindown Channel	100-Year Flow	167.63	168.19	0.56	0.69	2.03
Entering Stilling Basin	100-Year Flow	123.07	123.84	0.77	0.48	1.32
Stilling basin	100-Year Flow	122.32	123.89	1.57	-0.32	0.46
Stilling basin	100-Year Flow	122.32	123.89	1.57	-0.32	0.46
Exiting to Environment	100-Year Flow	123.07	123.77	0.7	0.55	1.5

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<p>ENGINEER'S SEAL</p> <p style="text-align: center;"><b>PRELIMINARY DRAWING</b></p> <p style="text-align: center;">NOT ISSUED FOR CONSTRUCTION</p>	<table border="1"> <thead> <tr> <th>Rev</th> <th>Description</th> <th>BY</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>▲</td> <td>2021 FEASIBILITY STUDY</td> <td>VH</td> <td>12/16/2021</td> </tr> <tr> <td>▲</td> <td>ADDRESSED 08/2017 CLIENT COMMENTS</td> <td>DF</td> <td>11/03/2017</td> </tr> <tr> <td>▲</td> <td>PRELIMINARY DESIGN ISSUED FOR REVIEW</td> <td>JC</td> <td>05/12/2017</td> </tr> <tr> <td>▲</td> <td>PRELIMINARY DESIGN</td> <td>CC</td> <td>04/21/2017</td> </tr> </tbody> </table>	Rev	Description	BY	Date	▲	2021 FEASIBILITY STUDY	VH	12/16/2021	▲	ADDRESSED 08/2017 CLIENT COMMENTS	DF	11/03/2017	▲	PRELIMINARY DESIGN ISSUED FOR REVIEW	JC	05/12/2017	▲	PRELIMINARY DESIGN	CC	04/21/2017	<p>Scale: AS SHOWN</p> <p>Designed by: CC          Drawn by: VH          Checked by: VS          Approved by: VS</p> <p>Issued by:</p>	<p>Issued by:</p>
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 <b>VISTA GOLD</b>	 <b>TETRA TECH</b> <small>350 Indiana Street, Suite 500          Golden, Colorado 80401          (303) 217-5700 (303) 217-5705 fax</small>	<p><b>SURFACE WATER MANAGEMENT PLAN</b>  <b>PROPOSED TAILINGS STORAGE FACILITY 1</b>  <b>DRAINAGE PLAN</b></p> <p>Project: 2021 MT TODD FEASIBILITY STUDY DRAINAGE DESIGN          Project no.: 200-01299-21007</p> <p>Location: NORTHERN TERRITORY, AUSTRALIA          Date: 12/16/2021</p>
		<p style="font-size: 2em;">D</p> <p>REVISION</p>
		<p><b>4520-DC-105C</b></p> <p>SHEET 6 OF 34</p>



**B**  
106C  
PROPOSED CLOSURE  
TAILINGS STORAGE FACILITY 2 SECTION  
SCALE: H:1:5000 V:1:2500

Bench	Footprint Area (ha)	Exposed Finished Area (ha)	Runoff Coefficient	100 YR-Rainfall intensity (mm/hr)	Runoff by Bench (m <sup>3</sup> /s)	Total Runoff (m <sup>3</sup> /s)
Base	62.94	7.09	0.33	95	0.62	5.49
1	55.86	8.07	0.33	95	0.70	4.87
Crown	47.79	47.79	0.33	95	4.16	4.16

Location	Flow Regimes	Channel Depth (m)	Freeboard (m)	Channel Velocity (m/s)
Crown	100-Year Flow	0.71	0.54	1.71
Beginning of Draindown Channel	100-Year Flow	0.61	0.64	2.1
Beginning of Bench 5	100-Year Flow	0.19	1.06	9.41
End of Bench 4	100-Year Flow	0.35	0.9	4.35
Beginning of Bench 3	100-Year Flow	0.22	1.03	7.67
End of Bench 3	100-Year Flow	0.43	0.82	3.97
Beginning of Bench 2	100-Year Flow	0.89	0.36	1.45
End of Bench 2	100-Year Flow	0.67	0.58	2.18
Beginning of Bench 1	100-Year Flow	0.97	0.28	1.27
Entering Stilling Basin	100-Year Flow	1.51	-0.26	0.74
Stilling basin	100-Year Flow	2.27	-1.02	0.43
Stilling basin	100-Year Flow	2.27	-1.02	0.43
Exiting to Environment	100-Year Flow	0.87	0.38	1.68

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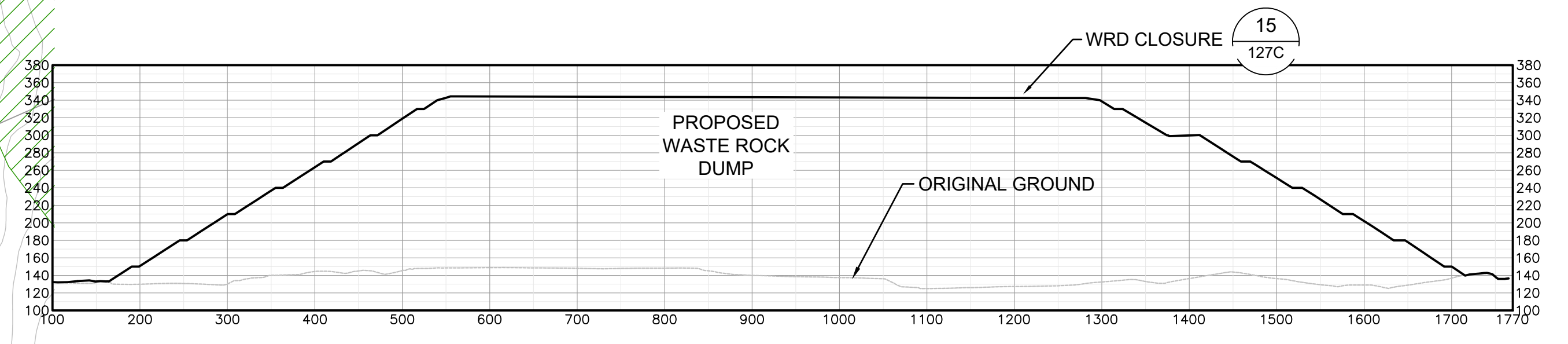
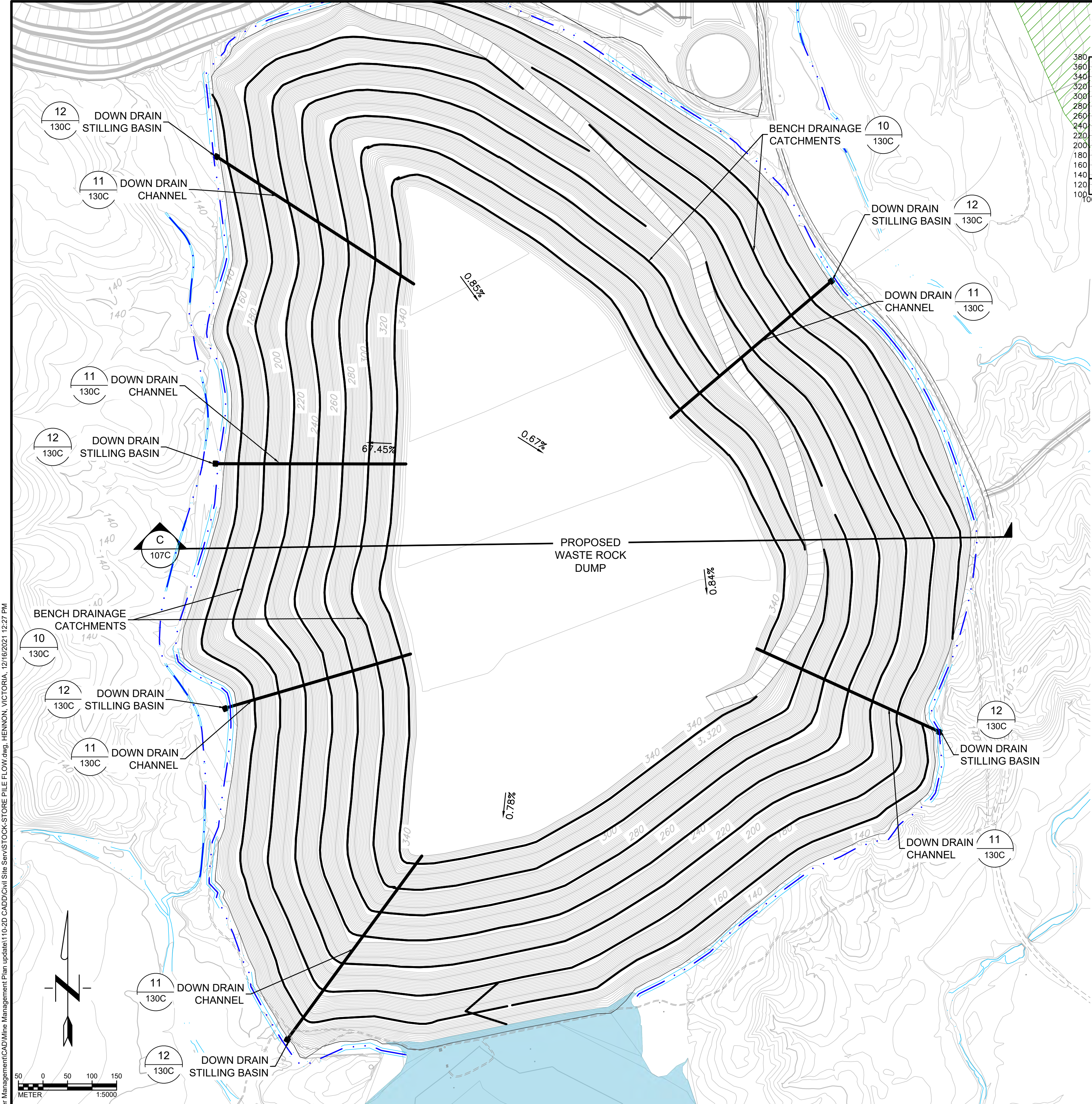
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SURFACE WATER MANAGEMENT PLAN  
 PROPOSED TAILINGS STORAGE FACILITY 2  
 DRAINAGE PLAN

Project: 2021 MT TODD FEASIBILITY STUDY DRAINAGE DESIGN	Project no.: 200-01299-21007	4520-DC-106C SHEET 7 OF 34
Location: NORTHERN TERRITORY, AUSTRALIA	Date: 12/16/2021	



PROPOSED CLOSURE  
WASTE ROCK DUMP SECTION  
SCALE: H:1:5000 V:1:5000

Bench	Footprint Area (ha)	Exposed Finished Area (ha)	Runoff Coefficient	100 YR-Rainfall Intensity (mm/hr)	Runoff by Bench (m <sup>3</sup> /s)	Total Runoff (m <sup>3</sup> /s)
1	70.24	3.68	0.33	95	0.32	6.12
2	66.55	6.16	0.33	95	0.54	5.80
3	60.40	5.54	0.33	95	0.48	5.26
4	54.85	5.18	0.33	95	0.45	4.78
5	49.68	4.58	0.33	95	0.40	4.33
6	45.09	3.49	0.33	95	0.30	3.93
Crown	41.60	41.60	0.33	95	3.63	3.63

Location	Flow Regime	Min. Channel El. (m)	W.S.E (m)	Channel Depth (m)	Freeboard (m)	Channel Velocity (m/s)
Crown	100-Year Flow	346.88	347.45	0.57	0.68	2.04
Beginning of Draindown Channel	100-Year Flow	346.75	347.23	0.48	0.77	2.52
Beginning of Bench 7	100-Year Flow	328.89	329.55	0.66	0.59	1.64
End of Bench 7	100-Year Flow	328.75	329.32	0.57	0.68	2.04
Beginning of Bench 6	100-Year Flow	298.9	299.59	0.69	0.56	1.67
End of Bench 6	100-Year Flow	298.75	299.34	0.59	0.66	2.08
Beginning of Bench 5	100-Year Flow	268.91	269.64	0.73	0.52	1.71
End of Bench 5	100-Year Flow	268.75	269.38	0.63	0.62	2.12
Beginning of Bench 4	100-Year Flow	238.91	239.68	0.77	0.48	1.76
End of Bench 4	100-Year Flow	238.75	239.41	0.66	0.59	2.17
Beginning of Bench 3	100-Year Flow	208.92	209.72	0.8	0.45	1.81
End of Bench 3	100-Year Flow	208.75	209.45	0.7	0.55	2.22
Beginning of Bench 2	100-Year Flow	178.92	179.77	0.85	0.4	1.86
End of Bench 2	100-Year Flow	178.75	179.49	0.74	0.51	2.27
Beginning of Bench 1	100-Year Flow	148.91	149.78	0.87	0.38	1.89
End of Bench 1	100-Year Flow	148.75	149.51	0.76	0.49	2.3
Entering Stilling Basin	100-Year Flow	144.96	145.24	0.28	0.97	8.51
Edge of Stilling Basin	100-Year Flow	144.33	145.89	1.56	-0.31	0.78
Stilling basin	100-Year Flow	143.58	145.91	2.33	-1.08	0.46
Stilling basin	100-Year Flow	143.58	145.91	2.33	-1.08	0.46
Exiting to Environment	100-Year Flow	144.83	145.75	0.92	0.33	1.73

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**SURFACE WATER MANAGEMENT PLAN  
 PROPOSED WASTE ROCK DUMP  
 DRAINAGE PLAN**

Project: 2021 MT TODD FEASIBILITY STUDY DRAINAGE DESIGN  
 Project no.: 200-01299-21007  
 Location: NORTHERN TERRITORY, AUSTRALIA  
 Date: 12/16/2021

**4520-DC-107C**

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