

ITP Inspection and Test Plan

Project Title: WDC Fluoridation	Project No: CON23011 (internal #J2028)	Procedure No:
Description of Activity: Ruddell's WTP Chemical storage bund (Civil Works)	ITP No.: 001	
Location of Inspection / Testing: Ruddells WTP	ITP Approved by (BCL) Name: Stephen Abercrombie Date: 11/01//24	
ITP Prepared by: Stephen Abercrombie	Date: 11/01/2024	ITP Approved by (Client) Name: WDC Date:

ID No	Sequence of Activity	Type of inspect / Test and Frequency	Acceptance Criteria	Inspection Responsibility				Verification Records of Inspection(s) / Test(s)
				BCL		Client	Date	
1.0	Documentation							
1.1	Construction Drawings	All drawings are for construction and latest revision.	Latest IFC Drawings	I		S		Drawing Register
1.2	Concrete mix design	Submitted to Beca for approval	Approved RFI	H		A		RFI
2.0	Fence Relocation/Swale works							
2.1	Set Out, as per latest “For Construction” revision	Survey and mark the correct locations Check Boundary location	IFC Drawings Survey data check by PM and Beca Engineer	D		A		Survey Record, Redline Drawings Approved RFI
2.2	Install new relocated fence to match existing	New fence matches existing	Witness by engineer	I		R		Photos
2.3	Place rock riprap	75-200mm size rock, 1m wide at top side to 1.5m wide at bottom end	Witness by Engineer	I		R		Photos

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		(inspected once at end of works)						
3.0	Excavation							
3.1	Set Out, as per latest "For Construction" revision	Survey and mark the bund location	IFC Drawings Survey data check by PM	T		I		Survey Record, Redline Drawings
3.2	Subgrade inspection	Scala testing to confirm subgrade is of sufficient strength Witness by engineer Minimum of 2 tests per bund pour	Minimum of 5 blows per 150mm	H		A		Scala Test Results
3.3	Ground Contaminants	Soil testing to confirm no contaminants	Test results clear for clean fill	T		R		Lab test report
5.0	Post Excavation							
5.1	>150mm compacted hard fill under bund (GAP20)	Clegg hammer testing, 5x5 grid, minimum of 4no per bund pour	Clegg CIV>10	T		R		Clegg results
6.0	Concrete works							
6.1	Site concrete	Visual inspection and record of site concrete install, completed for each slab pour	50mm site concrete poured to base level of foundation +0mm - 10mm tolerance	D		W		Photos Concrete pour record
6.2	DPM	Visual inspection and record of DPM installed, completed prior to each pour	Polythene laid on site concrete prior to reinforcing	D		W		Photos Concrete pour record

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6.3	Reinforcing (material)	Review documentation for each pour	Reinforcing to be Grade 500E to ASS/NZS4671	D		W		Mill certificates Detail sheet
6.4	Sump Construction	Reinforcing check, dimension check, Formwork check	As per IFC drawings	D		W		Concrete pour record
6.5	Reinforcing install	Measure to check cover, bar size and arrangement, lap length and type. Complete prior to pouring concrete	Reinforcing matches IFC drawings, any deviations recorded and acceptance agreed with engineer prior to pour	D		W		Concrete pour record Photos
6.6	Reinforcing install	Starter bars for tank plinth Starter bars for blockwork	Matches IFC drawing	D		W		Concrete pour record Photos
6.7	Tank plinth	Size of plinth, height of plinth Reinforcing checked, Formwork checked	Matches IFC drawing and response of RFI017	D		W		Concrete pour record Photos
6.8	Concrete pour	Embedded items located in slab - Ducting - Pits	Matches IFC drawings	D		W		Concrete pour record photos
6.9	Concrete pour	Level check, formwork check, cover check. Inspections prior to every pour	Matches IFC drawing dimensions and notes	D		W		Concrete pour record
6.10	Pour inspection/Approval to pour	Pre pour inspection by Beca Engineer (hold Point)	Approval from Engineer to pour	H		A		

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6.10	Concrete strength	Test certificate 7 and 2no 28day tests required for each pour day or per 70m3	28 day compressive strength >40mPa	D		R		Test certificate
7.0	Blockwork							
7.1	Blockwork (material)	Manufacturer documentation. Required once prior to commencement of works	Masonry units meet AS/NZS4455	D		R		Supplier documentation
7.2	Blockwork (reinforcing)	Inspect bar size, placement, lap length and number (once per pour)	Install matches IFC drawings and notes. Deviations agreed with engineer via approved RFI	D		R		Concrete pour record
7.3	Blockwork (pour)	Inspection prior to pour, check washout location, dimensions, line and level (once per pour)	Install matches IFC drawings and notes. Deviations agreed with engineer via approved RFI	W		A		Concrete pour record
7.4	Concrete strength	Test certificate 7 and 2no 28day tests required for each pour day	28 day compressive strength >17.5mPa	R		R		Test certificate
8.0	Bund Liner							
8.1	Pre lining check (post pour)	Square edges on all corners	Placon check	W				Photos

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		Concrete surface cleaned – all excess grout/splatters removed						
8.2	Watertightness of bund	Flood test of bund	No leak, Water stable over 3 days (taking into account for evaporation, wind)	I	I	W		Photos, drop in water height measurement
9.0	As-builts							
9.1	Redline Drawings	Redline Civil Drawings Sets post construction	N/A	D		R		As built drawings

Revision Status of ITP				Inspection Responsibility Legend			Records Legend
Rev. No:	Revision 1:	Revision 2:	Revision 3:	A: Approve	H: Hold Point	T: Test	ITR: Inspection and Test Report HPR: Hold Point Release form
Rev. (ID No's)				D: Document	Review	V: Visual	
Date:				I: Inspection	R: Submit	W: Witness	
Approved by:				S.Con: Subcontractor	S:	Cons: Consultant	

Signature Verification Record

Sign	Name	Position / Title	Company
