

Operation & Maintenance Manuals Volume 4

Fernvale Clarifier Upgrade





Active: 21/11/2013

Contents

Section	Description	
Tenix ITPs		
	Clarifier Drive	
	Cale Supports	
	Power	
	Switchboards	
	Flowmeter	
	Level switch	
	Holding Tank Level	
	Switch	
	RAS Pumps	
	WAS Pumps	
Vendor Tests		
	Endress & Hauser	
	Flowmeter Calibration	
	Certificate	
	ROTO (RAS Pumps)	
	Pump curves	





P Id: TMS373 Active: 21/11/2013



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: Clarifier Drive Motor

TAG No .:

LOCATION/LOT DESC	RIPTION:	91.1 - 415V P1-3 - 1380 RPM
Drive No.:	Date: 11/03/13	P1.4 - 1.24 A
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I_DWG-5004(Tenix)	P1.7 - 12.5
		13.1 - SOH3

NOTE: This checklist is to cover all cabling associated with the item listed. This check may be completed without having power cables connected to the motor by removing the power cable at the switchboard end. In this instance, the bump test and motor current measurements may be carried out at a later date.

		14-3-5		
Step	Activity/Process:	Notes or Records	Complete Yes/No	
1,	Safety, environment and communication systems in place		~	
2.	Check Subcontractor mechanical installation checklists are complete		V	
3.	Verify installation of the equipment is in accordance with P&ID		/	
4.	Verify oil level is correct if applicable		./	
5.	Verify that mechanically that the installation is ready to run. Include precautions to cover bump testing which may end up running backwards		~	
6.	Verify that system is ready to run.		/	
7.	Cubicle or Switchboard settings.			
8.	Power Circuit Breaker, i.e. Imax	1.0 A		
9.	Overload Protection Relays, TOL		NA	
10.	Thermistor Relay		MA	
11.	Current Leakage Detection			
12.	Current relay		110	
13.	Cubicle Thermostat		MA	
14.	Timers			
15.	Moisture In Oil			
16.	Moisture in Stator			

Final Inspection by: (Works completed & records reviewed)	mel	Date: 123	12
		Daga 1 af 4	

Page 1 of 4

QP Id: TMS373 Active: 21/11/2013 Page 3 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade CONTRACT:

ACTIVITY/PROCESS: Clarifier Drive Motor

TAG No .:

CLIENT: Urban	1 Utilities
---------------	-------------

LOCATION/LOT DESCRIPT	TION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

17.	Shear Pin	Mussing trong INSA	TELEX
18.	Power Monitoring Relay	J Install	
19.	CT Ratios		
20.	Phase Failure Relay	5	NA
21.	Ammeter Range		,
22.	Emergency Stop Monitor Relay wired correctly		
23.			
24.	Field :		
25.	Reflux Valve Micro/Proximity Switches		V
26.	Drive connected to SPO/Field Isolator		NIA
27.	Confirm is the motor provided with Motor Thermo switch, Temperature Probe or a Thermistor and are correctly connected.		NIA
28.	Instrumentation installed and connected		NA
29.	Check safety switches and interlocks, mode selectors, stop/start station and E/Stops and wires are all connected and in the operational position.		~
30.	Check media if required is available for testing, ex. Clean water. May not be required until after a bump test proves rotation direction.		NA
31.	Mountings are secure		V
32,	Fans and cowls are unobstructed		V
33.	All cables are labelled	No Cable Labels	1

Final Inspection by: (Works completed & records reviewed)	and	Date: 12/3/12
	V X	Page 2 of 4

QP Id: TMS373 Active: 21/11/2013 Page 4 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

CLIENT: Urban Utilities

ACTIVITY/PROCESS: Clarifier Drive Motor TAG No .:

LOCATION/LOT DESCRI	PTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

34.	Power Up:			
35.	All personnel aware of energisation and signage in place			~
36.	Switch on all internal Circuit Breakers and install all fuses.			/
37.	Close switchboard and energise			V
38.	Energise Cubicle or switchboard			V
39.	Energise associated equipment UPS, PLC, etc			V
40.	With safety requirements in place bypass door mechanism and open cubicle			1
41.	Check lights, relays and drives energise and all circuit breakers and fuses are OK			/
42.	Bump test and prove rotation direction. (Refer Check media above)			/
43.	Verify by testing all mode, field and protection devices operate correctly. Where required run the drive or equipment or/and provide simulation input.			/
44.	Verify by testing all remote control from SCADA or HMI's, process control and interlocking, Where required run the drive or equipment or/and provide simulation input.			NA
45.	Performance Testing:			NIA
46.	State whether under load or no load.			V. X
	Record over operating range if applicable:	Flow / speed	Pressure	

		7	2	
(Works completed & records reviewed)	un (Date: 17	211	1
Final Inspection by:		Date:		_

QP Id: TMS373 Active: 21/11/2013 Page 5 of 81

Page 3 of 4



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CLIENT: Urban Ut				Clarifie	r Drive Motor
LOCATION/LOT DI	ESCRIPTION:				
Drive No.:	P&ID D	Date: 11/03/13 P&ID Dwg: 486/5/5-0172-009(QUU 300744-I_DWG-5004(Tenix)			עט)
48.	100% Output	t			
49.	50% Output	t			
ORRECTIVE ACTION					
No.	ITEM		ACCEPT	ABLE	COMMENTS
1 motor	r Prin Miss		X		Missing, needs
2 Shea	w Prin Mise	ny	i	0	11
Final Results Check Completed Minor Defects General	erated	YES	NO		Comments
Major Defects Gene Asset Installation A					
	is, then further testing ineer: Name M. R.C. e: Name.	tew	en Sign		Date 12 3 12
Final Inspection by: Works completed & records	reviewed)				Date: RISIZ

QP Id: TMS373 Active: 21/11/2013 Page 6 of 81



Inspection and Test Plan for Cable Supports

Project	Job No.	Stage	Section
Fernvale STP Upgrade	34588		
H - Hold Point (Work shall not proceedpas the Hold	H - Hold Point (Work shall not proceedpas the Hold Point until released by the organisation improsing the Hold Point)	RI - Res	ponsible Inspectorate
W - Witness Point (An inspection point that may be	W - Witness Point (An inspection point that may be witnessed by the organisation imposing the Witness Point)	IN - Inst	taller

S - Surveillance (An activity that is subject to ongoing monitoring) I - Inspection (Formal inspection activity to be undertaken and recorded) R - Review (Review records or other areas of compliance) SF / LH - Site Foreman/Leading Hand

SECTION A - Activities in this section are to be performed prior to work commencing on site.

PM - Project Manager

C/E - Client / External Expert

Projec	2	ш	Item		Stag	Pro	ر ن	4	ω	2	ы		item
Project Manager (Please Print Name):	Log of material suitability for hazardous areas	Agreement of design of supports	Activity		Stage 2 - Inspections / Approvals	Project Manager (Please Print Name): 500 CALRARY	Ascertain fixing / support spacing & quantify supports required.	Design support to meet weight, fixture and environment.	Determine weight to be supported.	Choose a type of support suitable for environment, restrictions & structure.	Select route and co-ordinate with other trade services.		Activity
Projec	PM	PM	2	2	S		PM	PM	PM	PM	PM		R
Project Manager (Please Sign):	Meets standards for area type	Dependent on environment	Acceptance Criteria			Project Manager (Please Sign):	Spacing subject to manufacturer recommendations and structure available.	Selected support system meets all criteria.	Per metre weight of load support system including spare capacity use.	Meets temperature limits and suitable for atmosphere, ie not affected by chemicals etc. Is able to be securely fixed to soffit or beams of structure.	Meets design requirement and fits into service area with other trade services		Acceptance Criteria
			Standard	Applicable		(Please Sign):	Manufacturer's recommendations	Manufacturer's recommendations	Cable manufacturer information	Manufacturer's recommendations	N/A	Standard	Applicable
	Doc	Doc	Method	Inspec			Visual / Doc	Visual / Docl	Doc	Doc	Visual / Doc	Method	Inspec
	Prior to site work	At Design Stage	Frequency	Inspection Test			Following Item 4	Following Item	Following Item	Following Item	Prior to Start	Frequency	Inspection Test
Date:			Z	Ve								Z	Ve
W			SF/LH	rification		60	I	I	I	I	I	SF/LH	rification
3/4/2	I	I	PM	Verification Activity By		14/E	R	20	æ	20	70	PM	Verification Activity By
Ju .	-	-	C/E	ty By		13						C/E	ty By
			Version	DWG Reg								Version	DWG Reg
			Completed	Date		Date:						Completed	Date
			Task Owner	Responsible								idsk Owner	Responsible
		Client Approval	Record	Verifying								Record	Verifying

Review Date: 11/11/2011 8308.1 EDSS - ITP Cable Supports

Reviewed By: Devon Hamon

OCZCEL LANGE

Project Manager (Please Print Name):

Project Manager (Please Sign):

Client Representative (Please Print Name):

Client Representative (Please Sign):

000

Reviewed By: Devon Hamon Review Date: 11/11/2011 8308.1 EDSS - ITP Cable Supports



Cable Supports

ro	RI - Responsible Inspectorat	ased by the organisation improsing the Hold Point)	old Point (Work shall not proceedpas the Hold Point until released by the organisation improsing the Hold Point
		34588	Fernvale STP Upgrade
Section	Stage	Job No.	Project

H - Hold Point (Work shall not proceedpas the Hold Point until released by the organisation improsing the Hold Point)

I - Inspection (Formal inspection activity to be undertaken and recorded)

W - Witness Point (An inspection point that may be witnessed by the organisation imposing the Witness Point)

S - Surveillance (An activity that is subject to ongoing monitoring)

R - Review (Review records or other areas of compliance)

SF / LH - Site Foreman/Leading Hand

C/E - Client / External Expert

PM - Project Manager

1	Cito For	D (0		Item	700
The state of the s	Site Eoreman (Diesce Print Name)	Set out / mark out route. Drill / clamp fixing anchor points		Activity	NO COLLINA
	Cito E			22	
	Site Foreman (Please Sign):	Meets drawing and agreed route	Criteria	Acceptance	
		Drawings	Standard	Applicable	
		Visual	Method	Inspec	
		At start	Frequency	Inspection Test	
- 5	Date:	I	Z	Ve	
0.4.13		-	SF/LH	Verification Activity By	
W			PM	n Activit	
			C/E	yBy	
			Version		
		10-3-13	Completed	Date	
		D. Extense	Owner	Responsible Task	
4				Verifying Record	

QP Id: TMS373 Page 8 of 81 Active: 21/11/2013

Inspection and Test Plan for Cable Supports

	34588	Fernvale STP Upgrade
Stage	Job No.	Project

H - Hold Point (Work shall not proceedpas the Hold Point until released by the organisation improsing the Hold Point)

RI - Responsible Inspectorate

IN - Installer

SF / LH - Site Foreman/Leading Hand

PM - Project Manager

S - Surveillance (An activity that is subject to ongoing monitoring) I - Inspection (Formal inspection activity to be undertaken and recorded)

R - Review (Review records or other areas of compliance)

W - Witness Point (An inspection point that may be witnessed by the organisation imposing the Witness Point)

C/E - Client / External Expert

				Applicable	inspec	tion Test	Ve	Verification Activity By	Activit	уВу	DWG Reg	Date	Responsible Task	Verifying
item	ACTIVITY	7.	Acceptance Criteria	Standard							Version	Completed	Owner	Record
				Standard	Method	Frequency	Z	SF/LH	PM	C/E	version	completed	Owner	Ked
ь	Install support bracket & Cable tray		Securely fixed as designed		Visual	As required	工	v				10-3-13	10-3-13 D. HARSAL	
2	Install earth leads		Securely fixed and no sharp edges		Visual	As Required	-	v				10-3-13	10-3-13 D.14755-2	
	Site Foreman (Please Print Name):		Site Foreman (Please Sign):	Please Sign):								Date:		
9	Durch Liture									5-3-13	(n)			
P	Project Manager (Please Print Name):		Project Manager (Please Sign):	r (Please Sign):								Date:		
50	BOY CALLAMAN		Bellhu	1						3/4/13.	J.			
Client	Client Representative (Please Print Name):	Client F	Client Representative (Please Sign):				Date:							

Page 3 of 5 Version 2.0

Reviewed By: Devon Hamon Review Date: 11/11/2011 8308.1 EDSS - ITP Cable Supports

QP Id: TMS373

Active: 21/11/2013

Page 9 of 81

8308.1 EDSS - ITP Cable Supports Review Date: 11/11/2011 Reviewed By: Devon Hamon



Inspection and Test Plan for Cable Supports

Project Job No. Stage

H - Hold Point (Work shall not proceedpas the Hold Point until released by the organisation improsing the Hold Point) RI - Responsible Inspectorate

S - Surveillance (An activity that is subject to ongoing monitoring)

R - Review (Review records or other areas of compliance)

I - Inspection (Formal inspection activity to be undertaken and recorded)

W - Witness Point (An inspection point that may be witnessed by the organisation imposing the Witness Point)

PM - Project Manager

SF / LH - Site Foreman/Leading Hand

IN - Installer

C/E - Client / External Expert

Notes	Client F	R	Project	000	Site For	Þ	Item	
	Client Representative (Please Print Name):	SEN CAMPHAN	Project Manager (Please Print Name):	Discore HARSEL	Site Foreman (Please Print Name):	Test earth continuity	Activity	
	Client F		Project	A 1	Site Fo		22	
	Client Representative (Please Sign):	Hellel	Project Manager (Please Sign):		Site Foreman (Please Sign):	To measure below 0.5 ohm.	Acceptance Criteria	
						AS3000	Standard	Applicable
						Doc	Method	Inspec
						As Required	Frequency	Inspection Test
	Date:		Date:		Date:	I	ž	
		(g)		63	***	-	SF/LH	/erificat
		3/4/13		10-3-13		v	PM	Verification Activity By
							C/E	ty By
							Version	DWG Reg
						10-3-13	8	Date
						10-3-13 D. HARVSGOL	-	Responsible Task
						Completed test records		Verifying

Page 10 of 81



Inspection and Test Plan for Cable Supports

ble Inspectorate	RI - Responsi	sed by the organisation improsing the Hold Point)	I - Hold Point (Work shall not proceedpas the Hold Point until released by the organisation improsing the Hold Point)
		34588	Fernvale STP Upgrade
Section	Stage	Job No.	Project

W - Witness Point (An inspection point that may be witnessed by the organisation imposing the Witness Point)

S - Surveillance (An activity that is subject to ongoing monitoring) I - Inspection (Formal inspection activity to be undertaken and recorded)

R - Review (Review records or other areas of compliance)

IN - Installer

SF / LH - Site Foreman/Leading Hand

PM - Project Manager

C/E - Client / External Expert

tage 1	Stage 1 - Records Management												
Item	Activity	2	Acceptance	Applicable	Inspec	Inspection Test	Verif	Verification Activity By	ctivity I		04	Date	-
			Criteria	Standard	Method	Frequency	IN S	SF/LH	PM	C/E	Version	Completed	
1	Calculation of per metre loads				77	End of install		-	S	R			
2 A	As installed drawing of routes		True record of route		7-1	End of install		-	v				
ω	Log of material suitability for hazardous areas		Meets standards for area type		R/I	End of install		-	S	S			

Notes:

Project Manager (Please Print Name):

Project Manager (Please Sign):

3/4/13

82

CRURIAN

Page 5 of 5 Version 2.0



Inspection and Test Plan for Power

Fernvale STP Upgrade Project Job No. 34588 Stage Section

H - Hold Point (Work shall not proceedpas the Hold Point until released by the organisation improsing the Hold Point) W - Witness Point (An inspection point that may be witnessed by the organisation imposing the Witness Point)

I - Inspection (Formal inspection activity to be undertaken and recorded)

S - Surveillance (An activity that is subject to ongoing monitoring)

RI - Responsible Inspectorate

IN - Installer

SF / LH - Site Foreman/Leading Hand

PM - Project Manager

C/E - Client / External Expert

Drawings have been reviewed and approved by client in regards to outlet quantities and locations. All drawing changes (if any) documented and actioned. PM Client Approval All drawing changes (if any) documented and actioned. PM Client Approval Circuit schedules and drawings marked up. Doc Prior to start R H R Circuit schedules and drawings marked up. Doc Prior to start R H R Circuit schedules and drawings marked up. Doc Prior to start Date: Circuit schedules and drawings marked up. PM Client Approval Applicable Activity Samples sent to client for approval Approval of samples received. PM Client Approval PM Client Approval Doc Prior to start Date: CIENTAMANGER (Please Print Name): PM Client Approval Doc Prior to start PM Client Approval Doc Prior to start H R CIENTAMANGER (Please Print Name): PM Client Approval Doc Prior to start H R CIENTAMANGER (Please Print Name): PM Client Approval Doc Prior to start H R	Item	Activity	2	Acceptance	Applicable	Inspect	Inspection Test	Ve	rificatio	Verification Activity By	уву	DWG Reg	Date	Responsible Task
proved by client proved by client Approval reations. PM Client Approval red up. PM Updated Drawings / Str/LH Drawings / Str/LH Specifications Project Manager (Please, Sign): Project Manager (Please, Sign): PM Client Approval				Criteria	Standard	Method	Frequency	Z	SF/LH	PM	C/E	Version	Completed	Owner
nted and actioned. PM Client Approval Visual/Doc Prior to start RI Acceptance Criteria PM Client Approval Project Manager (Please Sign): BM Client Approval PM Client Approval PM Client Approval Project Manager (Please Sign): Doc Prior to start Date: Visual Prior to start Inspection Test Verification Activity By Standard Method Frequency Prior to start H R Project Manager (Please Sign): BM Client Approval PM Client Approval Doc Prior to start Project Manager (Please Sign): Doc Prior to start Project Manager (Please Sign): PM Client Approval Doc Prior to start Date: H R	1	Drawings have been reviewed and approved by client in regards to outlet quantities and locations.	PM	Client Approval		Visual	Prior to start			I	20			
tuds, traffolyte SF/LH Specifications Project Manager (Please Sign): RI Criteria Acceptance Criteria PM Client Approval Project Manager (Please Sign): Doc Inspection Test Inspection Test Verification Activity By C/E Project Manager (Please Sign): PM Client Approval Project Manager (Please Sign): Doc Prior to start Pr	2	All drawing changes (if any) documented and actioned.	PM	Client Approval		Visual/ Doc	Prior to start			Ξ	æ			
tuds, traffolyte SF/LH Drawings / Specifications Visual Prior to start I H	ω	Circuit schedules and drawings marked up.	PM	Updated Drawing		Doc	Prior to start		20	I				
Project Manager (Please Sign): RI	4		SF/LH	Drawings / Specifications		Visual	Prior to start		-	I				
Acceptance Applicable Criteria Standard Method Frequency IN SF/LH PM C/E PM Client Approval Doc Prior to start H R method approved. PM Client Approval Doc Prior to start Date: Project Manager (Please Sign): Description Test Verification Activity By Verification Activ	Proje	2	Projec	it Manager (Please Si	gn):			Date:	7	13				
Acceptance Criteria Applicable Standard Method Frequency IN SF/LH PM C/E PM Client Approval Doc Prior to start H R Method approved. PM Client Approval Doc Prior to start Date: Project Manager (Please Sign): Verification Activity By Verificatio	Stag	e 2 - Inspections / Approvals		(
RI Criteria Standard Method Frequency IN SF/LH PM C/E PM Client Approval Doc Prior to start H R method approved. PM Client Approval Doc Prior to start H R Project Manager (Please Sign): Date:				Acceptance	Applicable	Inspect	tion Test	Ve	rificatio	n Activit	уву	DWG Reg	Date	Responsible Task
PM Client Approval PM Client Approval PM Client Approval PM Client Approval Doc Prior to start H Project Manager (Please Sign): Date:	Item	Activity	R	Criteria	Standard	Method	Frequency	Z	SF/LH	PM	C/E	Version	Completed	Owner
method approved. PM Client Approval Doc Prior to start H Project Manager (Please Sign): H Doc Prior to start H Date:	1-7	Samples sent to client for approval	PM	Client Approval		Doc	Prior to start			I	70			
method approved. PM Client Approval Doc Prior to start H Project Manager (Please Sign): Date:	2	Approval of samples received.	PM	Client Approval		Doc	Prior to start			I	æ			
Project Manager (Please Sign): Date:	ω	Cable tray routes and cable support method approved.	PM	Client Approval		Doc	Prior to start			Ξ	R			
Doll li	Projec	Z	Projec	it Manager (Please Sig	gn):			Date:	0)	113	١,			

Version 2.0 Page 1 of 5

Reviewed By: Devon Hamon Review Date: 11/11/2011

QP Id: TMS373

Active: 21/11/2013

8305.1 EDSS - ITP Power Review Date: 11/11/2011 Reviewed By: Devon Hamon



Power

H - Hold Point (Work shall not proceedpas the Hold Point until released by the organisation improsing the Hold Point)	Fernvale STP Upgrade 34588	Project Job No. Stage Sec
torate		Section

[

IN - Installer

SF / LH - Site Foreman/Leading Hand

C/E - Client / External Expert PM - Project Manager

S - Surveillance (An activity that is subject to ongoing monitoring) I - Inspection (Formal inspection activity to be undertaken and recorded)

R - Review (Review records or other areas of compliance)

ROUGH IN

Acceptance

Applicable

Inspection Test

Verification Activity By

DWG Reg

Date

Responsible Task

W - Witness Point (An inspection point that may be witnessed by the organisation imposing the Witness Point)

	Fernvo	ale STP S	ST48 Fin	al Clo	arification	(Clarif	ier Upgrade	Opera	ion ar	nd Main	tenan	ce N
Notes	Client	Projec	Site Fo	co	7	6	vi	4	ω	2	1	Item
	Client Representative (Please Print Name):	Project Manager (Please Print Name): BOU CAUATI ATU	Site Foreman (Please Print Name):	Changes to legend card if any have been conveyed to PM	As Installed drawings marked up if circuits are not designated by the engineer.	Sufficient segregation from other services through length of run.	Cabling run on set catenary runs and not short cutted. All runs square to walls etc. Fixed or tied to cable supports in approved method. i.e. cable ties, velcro, etc.	Brackets in correct positions including heights, earth tails, and separation from other points on walls.	All cable supports earthed as required.	In Slab Conduit, Cable supports securely fixed and supported through the length of the run to avoid excessive sagging.	In Slab Conduit, Catenary, Tray, Cable Support routes planned out to ensure no conflict with other trades.	Activity
	Client	Projec	Site F	SF/LH	SF/LH	SF/LH	SF/LH	SF/LH, C/E	SF/LH	SF/LH	SF/LH	R
	Client Representative (Please Sign):	Project Manager (Please Sign):	Site Foreman (Please Sign):	Drawings / Specifications	Drawings / Specifications	Drawings / Specifications	Drawings / Specifications	SF/LH, Drawings / C/E Specifications	Drawings / Specifications	Drawings / Specifications	Drawings / Specifications	Criteria
	Please Sign):	e Sign):	gn):									Standard
				Visual	Visual	Visual	Visual	Visual	Visual	Visual	Visual	Method
				Stage Comp.	Ongoing	Ongoing	Ongoing	Ongoing	Prior to start	Prior to cabling	Prior to start	Frequency
	Date:	Date:	Date:		R		S		s	s	s	Z
		3 4	0	-	20	-		v				SF/LH
		3/4/13.	3-13									PM
												C/E
												Version
				000	10.3	10.3	10-0	5	6.0	10-3	20.2	Completed
				DIVANSE	シエナンダー	DEANA	0.14251	ULANGE	O HAVERY	DIVERSI	ひまるい	Owner
				Updated Legend Card	Signed ITP / As Installed Drwg Markups	Signed ITP	Signed ITP	Signed ITP	Signed ITP	Signed ITP	Signed ITP	Verifying Record
	QP ld: T	MS373					Activ	ve: 21/1	1/2013	3		

Review Date: 11/11/2011 8305.1 EDSS - ITP Power Reviewed By: Devon Hamon

Inspection and Test Plan for Power

Project	Job No.	Stage	Section
Fernvale STP Upgrade	34588		

H - Hold Point (Work shall not proceedpas the Hold Point until released by the organisation improsing the Hold Point)

W - Witness Point (An inspection point that may be witnessed by the organisation imposing the Witness Point)

S - Surveillance (An activity that is subject to ongoing monitoring) I - Inspection (Formal inspection activity to be undertaken and recorded)

R - Review (Review records or other areas of compliance)

IN - Installer RI - Responsible inspectorate

SF / LH - Site Foreman/Leading Hand

PM - Project Manager

C/E - Client / External Expert

Notes	Client Rep	50	roject Ma	U CA	site Forem	1 All		Item
	Client Representative (Please Print Name):	BEN CAMANAN	Project Manager (Please Print Name):	Donas Honsen	Site Foreman (Please Print Name):	All points fit off and in correct position and orientation.		Activity
	Client		Projec		Site Fo	SF/LH		2
	Client Representative (Please Sign):	Bulle	Project Manager (Please Sign):		Site Foreman (Please Sign):	Work performed in accordance with drawings & specifications	Criteria	Acceptance
	ase Sign):		sign):		<u></u>		Standard	Applicable
						Visual	Method	Inspec
						Pre-Testing	Frequency	Inspection Test
	Date:	W	Date:	6	Date:		IN SI	Verif
	_721	3/4/13		10-3-13		-	SF/LH PM	Verification Activity By
		K .		(h)			M C/E	tivity By
							ACISION	DWG Reg
						(a)	Completed	Date
						D. HAUSEL	(*************************************	Responsible Task
						Completed ITP		Verifying Record

QP Id: TMS373

Review Date: 11/11/2011 8305.1 EDSS - ITP Power Reviewed By: Devon Hamon



Project Job No. 34588 Stage

H - Hold Point (Work shall not proceedpas the Hold Point until released by the organisation improsing the Hold Point) Fernvale STP Upgrade Section

W - Witness Point (An inspection point that may be witnessed by the organisation imposing the Witness Point) RI - Responsible Inspectorate IN - installer

SF / LH - Site Foreman/Leading Hand

PM - Project Manager

S - Surveillance (An activity that is subject to ongoing monitoring)

I - Inspection (Formal inspection activity to be undertaken and recorded)

R - Review (Review records or other areas of compliance)

C/E	
Client,	
/ External	
Expert	

Notes	Client F	Project	(-1	Site For	ы	Item	
	Client Representative (Please Print Name):	Project Manager (Please Print Name): Sov CAUTHAN	Dincen Housen	Site Foreman (Please Print Name):	All points tested and recorded as required.	Activity	
-	Clien	Proje		Site F	SF/LH	22	12
	Client Representative (Please Sign):	Project Manager (Please Sign):		Site Foreman (Please Sign):	SF/LH EDSS Test Sheet	Criteria	Acceptance
	ease Sign):	Sign):		₽-	AS3000	Standard	Applicable
					Document	Method	Inspec
					Post Fit Off	Frequency	Inspection Test
Ī	Date:	Date:	7	Date:		Ē	Ve
		3 14 113.	10-3-13		-:	SF/LH	Verification Activity By
		W.	(N)			PM	n Activit
						C/E	уву
						Version	DWG Reg
					Ю.	Completed	Date
					U. 17252	Owner	Responsible Task
				-	Completed Test Sheet - Doc 5215.1	vernying Record	

8305.1 EDSS - ITP Power Reviewed By: Devon Hamon Review Date: 11/11/2011



Inspection and Test Plan for Power

Fernvale STP Upgrade	Project
34588	Job No.
	Stage
	Section

W - Witness Point (An inspection point that may be witnessed by the organisation imposing the Witness Point)

I - Inspection (Formal inspection activity to be undertaken and recorded)

S - Surveillance (An activity that is subject to ongoing monitoring)

IN - Installer

SF / LH - Site Foreman/Leading Hand

C/E - Client / External Expert PM - Project Manager

CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	SECTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		ENTERN LANDING OF PARTY CONTRACTOR AND	0 U. NEMBA (VENEA PROJECT OF ATTACK
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		Extreme Location on partie in page of page of partie in page of page o	NIEM (VENIEM IEMNIO OI ARIEL GRAD AL COMPANIO)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		States (Institute a control of	Alem (uzhien izenina di zeliz
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		Extent (heathern records or extriprionse)	Area (vented teroing of Ariet area of combinator)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		STATES (NEXTENS LEGICA OF LEGICAL CONTRIBUTES)	Area (vexien recolds of anici areas of combinator)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		STATES (NEXTENS LEGISLA) OF DELIVERANCE (NEW (VENEW IEROTOS OF CHIEF Grees of Combinative)
CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CIION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CIION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		SAIREM (VEXICAL LAND) OF A CHILDIMANA)	(VEXICAL IEMPINO OF ARIEL GLASO A COMPAGNICAL)
CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST		SAMERA (VENTERA LECTION OF LEGISLA MARCO)	NEW (VENIEW I EMPINO) OF ORDER OF COmbinative)
CITON C - Section to be completed at appropriate intervals during Section A & ROOGH IN, FIT OFF AND LEST	CITON C - Section to be completed at appropriate intervals during Section A & ROOGH IN, FIT OFF AND 1831	CITON C - Section to be completed at appropriate intervals during Section A & ROOGH IN, FIT OFF AND 1231	CITON C - Section to be completed at appropriate intervals during Section A & ROOGH IN, FIT OFF AND 1231	CITON C - Section to be completed at appropriate intervals during Section A & ROOGH IN, Fit Off AND 1231	CITON C - Section to be completed at appropriate intervals during Section A & ROOGH IN, FIT OFF AND 1231	CITON C - Section to be completed at appropriate intervals during Section A & According for AND 1231	CITON C - Section to be completed at appropriate intervals during Section A & According for AND 1651	CITON C - Section to be completed at appropriate intervals during Section A & According for AND 1651	CITON C - Section to be completed at appropriate intervals during Section A & According to the Completed at appropriate intervals during Section A & According to the Completed at appropriate intervals during Section A & According to the Completed at appropriate intervals during Section A & According to the Completed at appropriate intervals during Section A & According to the Completed at appropriate intervals during Section A & According to the Completed A & According to the Complete A & According to the	CHOIN C - Section to be completed at appropriate intervals during Section A & According, fit off AND 1651			MEM (MEMBER I COMO OI COMPINION)
CITON C - Section to be completed at appropriate intervals during Section A & Account, and one of the	CITON C - Section to be completed at appropriate intervals during Section A & Account, and Cito Cito.	CITON C - Section to be completed at appropriate intervals during Section A & Account, and One Case	CITON C - Section to be completed at appropriate intervals during Section A & Account, and On Area 1231	CITON C - Section to be completed at appropriate intervals during Section A & Account, and On One 1-21	CITON C - Section to be completed at appropriate intervals during Section A & Accounty, and On Area 1231	CITON C - Section to be completed at appropriate intervals during Section A & Accounty, an On Area 1231	CITON C - Section to be completed at appropriate intervals during sections of account, an on the rest	CITON C - Section to be completed at appropriate intervals during sections of account, an on the rest	CITON C = Section to be completed at appropriate intervals during sections of accounts, an one have the	CITOM C = Section to be completed at appropriate intervals during sections of account, an on the resi	CTION O CONTROL OF THE PROPERTY OF THE PROPERT	CTION CONTRACTOR OF THE PROPERTY OF THE PROPER	CTION CONTRACTOR OF COMPANIENT
CITAL ACCURITION OF COMPLETEN OF OPEN CONTRACT MANUEL AND ACCURATE AND	CITAL ACCION OF COMPLETER OF OPEN CONTRACT MANY AND ACCIONATE AND ACCION	CITOIS CONTINUES OF A PARTICULAR OF A PARTICUL	CITOIS CONTINUES OF A PARTY AND	CITAL ACCION ON DE COMPLETEN OF OPEN CONTRACT MANING APPRILATE AND APPRI	CITAL CONTINUES OF The Combines of the Chinase inscreases with the continues of the continu	CITOIS O De completed at appropriate metranic annual annual and the complete and the complete and appropriate metranic annual and the complete	CITOIS C. Octobraces at abhackage and an any	CITOIS C. Octobraces at abhackage and an any	CITOTA C. October of combination of ablances and annual annual and annual annua	CITOIR CONCRETE OF COmbinered of abbiddings and any and any any and any and any and any and any any and any any and any and any and any any and any any and any any and any and any any and any any any and any	CTION C - section to be completed at appropriate intervals during SECTION A & BOUGH IN SIT OFF AND TEST	CTION C - Soction to be completed at appropriate intervals during SECTION A & ROUGH IN BIT DEE AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN SIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN. FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
											CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
O TO THE PARTY OF	O TO THE PARTY OF	O THE PART OF THE	O TO THE PARTY OF	O TO THE PARTY OF	O THE PERSON OF	Control of the second s			and the second s	Contract to the second	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
O TO THE PARTY OF	O TO THE PARTY OF	O. T. C.	O TO THE PARTY OF	O TO THE PARTY OF	O THE PERSON OF	Control of the second s	Control of the contro	Control of the contro	Comment of the second control of the second	Contract to the second	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN. FIT OFF AND TEST
O	O	O	O	O	O	O	Commence of the Commence of th	Commence of the Commence of th	Commence of the commence of th	The state of the s	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
O	O	O	O	O	O	O	Commence of the Commence of th	Commence of the Commence of th	Commence of the commence of th	The state of the s	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
A 1 O 1 O 1 O 1 O 1 O 1 O 1 O 1 O 1 O 1	A 1 O 1 O 1 O 1 O 1 O 1 O 1 O 1 O 1 O 1	Control of the conference of the beautiful of the control of the c	Control of the control of the character	A 1 O 1 O 1 O 1 O 1 O 1 O 1 O 1 O 1 O 1	A 10 CONTRACTOR OF A CONTRACTO	A 10 Contain to the Actual Contains the Market State of the Contains t	Can	Can	Card of Activities of Activities of the Activiti	Carlotte Control of the control of the charles of the charles and the control of the charles of	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
A 10 CAN CALL LA CALL LA CALL LA CALL CALL C	A 10 CAN CALL LA CALL LA CALL LA CALL CALL C	Canada Control of the	Control of the control of the character	A 10 CAN CALL LA CALL LA CALL LA CALL CALL C	A 10 Control of the control of the character and character and control of the character and control of	A TOWNS OF THE PARTY OF THE PAR	Can	Can	Carlotte of Activities and Activitie	Carlotte Control of the control of the charles of the charles and the control of the charles of	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
CITCIA CONTINUES OF ACTION	CITCIA CONTINUES OF ACTION	CITCIA CONTINUES OF A CONTINUES OF A CALL OF A	CITCIA CONTINUES OF A CONTINUES OF A CALL OF A CONTINUES OF A CONT	CITCIA CONTINUES OF ACTION	Carolla Controlled on combination of the character and annual amount of the control of the contr	Caroline Controller of Completence of the Character and American Complete Controller of the Controller	Caroline Account to the complete of the contract of the contra	Caroline Account to the complete of the contract of the contra	Carolina of completed at abla character and annual annual and annual ann	Cardon of Section of the character and the chara	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
CITCIA CONTINUES OF ABILIANCE INCOME.	CITCIA CONTINUES OF ABILIANCE INCOME.	CITCIA CONTINUES OF A CONTINUES OF A CALL OF A CONTINUES OF A CONT	CITCIA CONTINUES OF A CONTINUES OF A CALL OF A CONTINUES OF A CONT	CITCIA CONTINUES OF ABILIANCE INCOME.	Carolina of Action of Action of the Action o	Caroline Controller of the character of the character and annual amount of the character of	Caroline Account to the complete of the contract of the contra	Caroline Account to the complete of the contract of the contra	Cart Cart Controller or relative to the control of	Care Care Constructed of abla change and any and any and any and any any and any any	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST
CITCIA C. Secretario de abbiobardo mecanada antilo antilo antilo de combinado de co	CITCIA C. Secretario de abbiobardo mecanada antilo antilo antilo de combinado de co	CITOIS COMPAGE OF A COMPAGE AND A COMPAGE AN	CITOIS COMPAGE OF TABLE AND	CITCIA C. Secretario de abbiobardo mecanada antilo antilo antilo de combinado de co	CITAL O Section to be combined at abbitohings mentant and many and any and any and any and any and any and any	Carola C. Section to be combined at abbi objects interesting and in Section Se	Carola Controllered or oblighed desperant mentals and an analysis of the second	Carola Controllered or oblighed desperant mentals and an analysis of the second	Control of the completed of appropriate meet and desired on the control of the co	CITOTA C. October of the combined of the character and annual anguing and the contract of the	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN FIT OFF AND TEST	CTION C - Soction to be completed at appropriate intervals during SECTION A & ROUGH IN FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN FIT OFF AND TEST
CITOIS C. Section to be combined at abbiobiate intervals and in Section 2 at 100 and 1	CITOIS C. Section to be combined at abbiobiate intervals and in Section 2 at 100 and 1	CITOIS C. Section to be combined at abbiobase measures and might be accounted as the combined at abbiobase and an abbiobase and an abbiobase and are abbiobased at abbiobase and are abbiobased at abbiobase and are abbiobased at a section	CITOIS C. Section to be combined at abbitohildren and mentals and	CITOIS C. Section to be combined at abbiobiate intervals and in Section 2 at 100 and 1	CITOIS C. Section to be combined at abbiobiliate median and median and account at the combined at abbiobiliate	CITCLE C. Section to be combined at abbiobiate meet van anim Section of a modern my on our case.	CITOIA C. Section to be combined at abbitobulate medians and a section of a modern many of the section of the s	CITOIA C. Section to be combined at abbitobulate medians and a section of a modern many of the section of the s	CITOIA C. Defined to be combined at abbiodistate mentang damp decreases a modern minimum on the same and	CITOIN C. De completed at appropriate meet value de contrat de con	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN FIT OFF AND TEST	CTION C - Soction to be completed at appropriate intervals during SECTION A & ROUGH IN SIT OFF AND TEST	CTION C - Soction to be completed at appropriate intervals during SECTION A & ROUGH IN SIT OFF AND TEST
CITOIS C. Section to be combined at appropriate intervals during sections as account, or one case the combined at appropriate intervals during sections as a construction of the combined at appropriate intervals during sections.	CITOIS C. Section to be combined at appropriate intervals during sections as account, or one case the combined at appropriate intervals during sections as a construction of the combined at appropriate intervals during sections.	CITOIS C. Section to be combined at appropriate intervals and in Section Carlo Commission on the contract of t	CITOIS C. Section to be combined at appropriate intervals dating section of a model in the section of the secti	CITOIS C. Section to be combined at appropriate intervals during sections as account, or one case the combined at appropriate intervals during sections as a construction of the combined at appropriate intervals during sections.	CITOIS C. Section to be combined at appropriate intervals during sections of the combined at appropriate intervals during sections of the combined at appropriate intervals during sections of the combined at appropriate intervals during sections.	CITOIR C - Section to be combined at abbiobiliate intervals daining archival a model with the combined at abbiobiliate intervals daining archival a model with the combined at abbiobiliate intervals daining archival a model with the combined at abbiobiliate intervals daining archival a model with the combined at abbiobiliate intervals daining archival at a model with the combined at abbiobiliate intervals daining archival at a model with the combined at a model with the combin	CITOM C - Decreon to be combined at abbiobiate intervals daints are contained at the contained at abbiobiate intervals daints.	CITOM C - Decreon to be combined at abbiobiate intervals daints are contained at the contained at abbiobiate intervals daints.	CITOIN C. Decrease of abbiodation are appropriate intervals against the control of the complete of abbidding and about the control of the con	CITOIN C. Decreating or combined at abbindurate intervals drawing areas of a solder whom the contract areas.	CTION C - section to be completed at appropriate intervals during SECTION A & BOUGH IN SIT OFF AND TEST	CTION C - Soction to be completed at appropriate intervals during SECTION A & ROUGH IN SIT OFF AND TEST	CTION C - Soction to be completed at appropriate intervals during SECTION A & ROUGH IN SIT OFF AND TEST
CITOIS C. Section to be combined at appropriate intervals during sections as account, or one case the combined at appropriate intervals during sections as a construction of the combined at appropriate intervals during sections.	CITOIS C. Section to be combined at appropriate intervals during sections as account, or one case the combined at appropriate intervals during sections as a construction of the combined at appropriate intervals during sections.	CITOIS C. Section to be combined at appropriate intervals and in Section Carlo Commission on the contract of t	CITOIS C. Section to be combined at appropriate intervals dating section of a model in the section of the secti	CITOIS C. Section to be combined at appropriate intervals during sections as account, or one case the	CITOIS C. Section to be combined at appropriate intervals during sections of the combined at appropriate intervals during sections of the combined at appropriate intervals during sections of the combined at appropriate intervals during sections.	CITOIR C - Section to be combined at abbiobiliate intervals daining archival a model with the combined at abbiobiliate intervals daining archival a model with the combined at abbiobiliate intervals daining archival a model with the combined at abbiobiliate intervals daining archival a model with the combined at abbiobiliate intervals daining archival at a model with the combined at abbiobiliate intervals daining archival at a model with the combined at a model with the combin	CITOM C - Decreon to be combined at abbiobiate intervals daints are contained at the contained at abbiobiate intervals daints.	CITOM C - Decreon to be combined at abbiobiate intervals daints are contained at the contained at abbiobiate intervals daints.	CITOIN C. Decrease of abbiodation are appropriate intervals against the control of the complete of abbidding and about the control of the complete of a bidding and about the control of t	CITOIN C. Decreating or combined at abbindurate intervals drawing areas of a solder whom the contract areas.	CTION C - section to be completed at appropriate intervals during SECTION A & BOUGH IN SIT OFF AND TEST	CTION C - Soction to be completed at appropriate intervals during SECTION A & ROUGH IN SIT OFF AND TEST	CTION C - Soction to be completed at appropriate intervals during SECTION A & ROUGH IN SIT OFF AND TEST
CITOIA C - Section to be completed at appropriate intervals during sections of a recognitive or the rest	CITOIA C - Section to be completed at appropriate intervals during sections of a recognitive or the rest	CITOIR C - Section to be completed at appropriate intervals during Section Car recognition on the first	CITOIR C - Section to be completed at appropriate intervals during Section Car Account, and Control Carlo	CITOIA C - Section to be completed at appropriate intervals during sections of a recognitive or the rest	CITON C - Section to be completed at appropriate intervals during sections of a recognitive of the completed at appropriate intervals during sections of a recognitive of the completed at appropriate intervals during sections of a recognitive of the completed at appropriate intervals during sections of a recognitive of the completed at appropriate intervals during sections of the completed at a positive section of the completed	CITOIN C - Section to be completed at appropriate intervals during Sections of woods in the contract of the co	CITOM C Decident to be completed at appropriate intervals during decisions of successions, and one case intervals	CITOM C Decident to be completed at appropriate intervals during decisions of successions, and one case intervals	CITOM C. Decron to be combined at appropriate intervals and 3 recitors of a moodinity of the city of the	CITOM C - Section to be completed at appropriate intervals against Section Co. 1000 City City City	CTION C - soution to be completed at appropriate intervals during SECTION A 8, BOUGH IN BIT DEE AND TEST	CTION C - Soution to be completed at appropriate intervals during SECTION A & BOUGH IN SIT OFF AND TEST	CTION C - Social to be completed at appropriate intervals during SECTION A & BOUGH IN SIT OFF AND TEST
CITOIR C - Section to be completed at appropriate intervals during Section Car Accounts on Cito 1-21	CITOIR C - Section to be completed at appropriate intervals during Section Car Accounts on Cito 1-21	CITOIR C - Section to be completed at appropriate intervals during Section Car recognition on the rest	CITOIR C - Section to be completed at appropriate intervals daming Section Car accounts on the certain	CITOIR C - Section to be completed at appropriate intervals during Section Car Accounts on Cito 1-21	CITON C - Section to be completed at appropriate intervals during Sections of a recognitive of the section	CITOIN C - Section to be completed at appropriate intervals during Sections of the section of th	CITON C - Section to be completed at appropriate intervals during sections of a modern my interval of the	CITON C - Section to be completed at appropriate intervals during sections of a modern my interval of the	CITOM C. Decron to be combined at appropriate intervals and 3 recitors of a modern my interval and intervals and i	CITOM C Toection to be completed at appropriate intervals admin 5 accretion of a model may be the	CTION C - soution to be completed at appropriate intervals during SECTION A 8, BOUGH IN BIT DEE AND TEST	CTION C - Soution to be completed at appropriate intervals during SECTION A & BOUGH IN SIT OFF AND TEST	CTION C - Soction to be completed at appropriate interrupt during SECTION A & BOUGH IN SIT OFF AND TEST
CITON C - Section to be completed at appropriate intervals daining section A & Accounting the City of the configuration of the configur	CITON C - Section to be completed at appropriate intervals daining section A & Accounting the City of the configuration of the configur	CITON C - Section to be completed at appropriate intervals during Section A & Accounts, and Carolina and Caro	CITON C - Section to be completed at appropriate intervals daining section A & Accounting the City of the completed at appropriate intervals daining section A & Accounting the City of th	CITON C - Section to be completed at appropriate intervals daining section A & Accounting the City of the configuration of the configur	CITON C - Section to be completed at appropriate intervals during Section A & Accounty on City 1-21	CITON C - Section to be completed at appropriate intervals during Section A & Account, and Cito Teachers	CITON C - Section to be completed at appropriate intervals daming section A & account, int our city into	CITON C - Section to be completed at appropriate intervals daming section A & account, int our city into	CITON C - Section to be completed at appropriate intervals during section A & account, int on the first	CITOM C = Section to the completen at appropriate intervals and its section X & account, int on Are the	CTION C - soution to be completed at appropriate intervals during SECTION A 8, BOUGH IN BIT DEE AND TEST	CTION C - Soution to be completed at appropriate intervals during SECTION A & BOUGH IN SIT OFF AND TEST	CTION C - Costion to be completed at appropriate intervals during SECTION A & BOUGH IN SIT OFF AND TEST
CHOIL C. Decron to be completed at appropriate intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice intervals during a no	CHOIL C. Decron to be completed at appropriate intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice intervals during a no	CITON C - Section to be completed at appropriate intervals during Section A & Account, and On Area 1231	CITON C - Section to be completed at appropriate intervals during Section A & Account, and On Area 1231	CHOIL C. Decron to be completed at appropriate intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice intervals during a no	CITON C - Section to be completed at appropriate intervals during section A & Accounty, and on Area 1831	CITON C - Section to be completed at appropriate intervals during section A & Accounty, and on Area 1231	CITON C - Section to be completed at appropriate intervals daming section A & accounts, an on Area resident	CITON C - Section to be completed at appropriate intervals daming section A & accounts, an on Area resident	CITON C - Section to be completed at appropriate intervals daming section A & accountry and on Area from	CITOM C = Section to be completed at appropriate intervals during Section A & Accounts, an Ori And Test	CTION C South to be completed at appropriate intervals during SECTION & BOUIGH IN BIT OFF AND TEST	CTION C South a to be completed at a propriet intervals during SECTION A & BOUGH IN SIT OFF AND TEST	CTION C Souties to be completed at a propositive intervals diving SECTION A & BOUGH IN BIT DEE AND TEST
CHOIL C. Decron to be completed at appropriate intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice intervals during a no	CHOIL C. Decron to be completed at appropriate intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice intervals during a no	CITON C - Section to be completed at appropriate intervals during Section A & Account, and On Area 1231	CITON C - Section to be completed at appropriate intervals during Section A & Account, and On Area 1231	CHOIL C. Decron to be completed at appropriate intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice into the circumstance intervals during action of a notice intervals during a no	CITON C - Section to be completed at appropriate intervals during section A & Accounty, and on Area 1831	CITON C - Section to be completed at appropriate intervals during section A & Accounty, and on Area 1231	CITON C - Section to be completed at appropriate intervals daming section A & accounts, an on Area resident	CITON C - Section to be completed at appropriate intervals daming section A & accounts, an on Area resident	CITON C - Section to be completed at appropriate intervals daming section A & accountry and on Area from	CITOM C = Section to be completed at appropriate intervals during Section A & Accounts, an Ori And Test	CTION C South to be completed at appropriate intervals during SECTION & BOUIGH IN BIT OFF AND TEST	CTION C South a to be completed at a propriet intervals during SECTION A & BOUGH IN SIT OFF AND TEST	CTION C Souties to be completed at a propositive intervals diving SECTION A & BOUGH IN BIT DEE AND TEST
CITON C - Section to be completed at appropriate intervals during Section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting Section	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting Section	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during section A & Accounting the order and itself	CITON C = Section to be completed at appropriate intervals during section A & Accounting the original and its	CITON C = Section to be completed at appropriate intervals during Section A & Accounting the Original Area (Co.)	CITON C = Section to be completed at appropriate intervals during Section A & Accounting the Original Area (Co.)	CITON C = Section to be completed at appropriate intervals during Section A & Accounting the order avoided	CITON C = Section to be completed at appropriate intervals during Section A & Accounting the order and itself	CTION C South to be completed at a property intervals during SECTION A & BOUGH IN BIT OFF AND TEST	CTION C Continue to be completed at a propriets intervals during SECTION A & BOUGH IN SIT OFF AND TEST	CTION C Soutien to be completed at a proposition intervals divising SECTION A S. BOUGH IN EIT DEE AND TEST
CITON C - Section to be completed at appropriate intervals during Section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting Section	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting Section	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during section A & Accounting the order and itself	CITON C = Section to be completed at appropriate intervals during section A & Accounting the original and its	CITON C = Section to be completed at appropriate intervals during Section A & Accounting the Original Area (Co.)	CITON C = Section to be completed at appropriate intervals during section A & Accounting the order to be	CITON C = Section to be completed at appropriate intervals during Section A & Accounting the order avoided	CITON C = Section to be completed at appropriate intervals during Section A & Accounting the order and itself	CTION C South to be completed at a property intervals during SECTION A & BOUGH IN BIT OFF AND TEST	CTION C Continue to be completed at a propriets intervals during SECTION A & BOUGH IN SIT OFF AND TEST	CTION C Soutien to be completed at a proposition intervals divising SECTION A S. BOUGH IN EIT DEE AND TEST
CITON C - Section to be completed at appropriate intervals during Section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting Section	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting Section	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during section A & Accounting the order and itself	CITON C = Section to be completed at appropriate intervals during section A & Accounting the original and its	CITON C = Section to be completed at appropriate intervals during section A & Accounting the order to be	CITON C = Section to be completed at appropriate intervals during section A & Accounting the order to be	CITON C = Section to be completed at appropriate intervals during Section A & Accounting the order avoided	CITON C = Section to be completed at appropriate intervals during Section A & Accounting the order and itself	CTION C South to be completed at a property intervals during SECTION A & BOUGH IN BIT OFF AND TEST	CTION C Continue to be completed at a propriets intervals during SECTION A & BOUGH IN SIT OFF AND TEST	CTION C Soutien to be completed at a proposition intervals divising SECTION A S. BOUGH IN EIT DEE AND TEST
CITON C - Section to be completed at appropriate intervals during Section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting Section	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting Section	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during section A & Accounting the order and itself	CITON C = Section to be completed at appropriate intervals during section A & Accounting the original and its	CITON C = Section to be completed at appropriate intervals during section A & Accounting the order to be	CITON C = Section to be completed at appropriate intervals during section A & Accounting the order to be	CITON C = Section to be completed at appropriate intervals during Section A & Accounting the order avoided	CITON C = Section to be completed at appropriate intervals during Section A & Accounting the order and itself	CTION C Service to the service of the service desired Section A & BOUGH IN SIT OF AND TEST	CTION C. C. L. C.	CTION CONTRACTOR OF CONTRACTOR CONTRACTOR CONTRACTOR ASSESSMENT OF CONTRACTOR OF CONTRACTOR CONTRAC
CITON C - Section to be completed at appropriate intervals during Section A & Accounting the Care And Test	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the Care And Test	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the Care And Test	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the Care And Test	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the Care And Test	CITON C - Section to be completed at appropriate intervals during section A & Accounting the City And Test	CITON C = Section to be completed at appropriate intervals during section A & Accounting the City And Test	CITON C = Section to be completed at appropriate intervals during Section A & Accountry, an ora AND 1251	CITON C = Section to be completed at appropriate intervals during Section A & Accountry, an ora AND 1251	CITON C = Section to be completed at appropriate intervals during Section A & Accountry, fit of the Avertical	CITON C = Section to be completed at appropriate intervals during Section A & Accountry, fit of the Aventual	CTION C Service to the service of th	CTION C. Carting to the complete of the complete intermediate intermediate of the complete of	CTON CONTRACTOR OF CONTRACTOR
CITON C - Section to be completed at appropriate intervals during section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the City And Test	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the City And Items	CITON C - Section to be completed at appropriate intervals during section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during section A & Accounting the original and its	CITON C = Section to be completed at appropriate intervals during section A & Accounting the order to be	CITON C = Section to be completed at appropriate intervals during Section A & Accounting the order are rest	CITON C = Section to be completed at appropriate intervals during Section A & Accounting the order are rest	CITON C = Section to be completed at appropriate intervals during Section A & Accounting the order avoided	CITON C = Section to be completed at appropriate intervals during Section A & Accounting the order to be	CTION C Service to the service of the service desired Section A & BOUGH IN SIT OFF AND TEST	CTION C. Carting to the complete of the complete intermediate intermediate of the complete of	CTION CONTRACTOR OF CONTRACTOR CONTRACTOR CONTRACTOR AS POSSIBLE OF AND TEST
CITON C - Section to be completed at appropriate intervals during Section A & Accounting the Care And Test	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the Care And Test	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the Care And Test	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the Care And Test	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the Care And Test	CITON C - Section to be completed at appropriate intervals during section A & Accounting the City And Test	CITON C = Section to be completed at appropriate intervals during section A & Accounting the City And Test	CITON C = Section to be completed at appropriate intervals during Section A & Accountry, an ora AND 1251	CITON C = Section to be completed at appropriate intervals during Section A & Accountry, an ora AND 1251	CITON C = Section to be completed at appropriate intervals during Section A & Accountry, fit of the Avertical	CITON C = Section to be completed at appropriate intervals during Section A & Accountry, fit of the Aventual	CTION C Service to the service of th	CTION C. Carting to the complete of the complete intermediate intermediate of the complete of	CTON CONTRACTOR OF CONTRACTOR
CITON C - Section to be completed at appropriate intervals during Section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting Section	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting the City And Completed at appropriate intervals during Section A & Accounting Section	CITON C - Section to be completed at appropriate intervals during Section A & Accounting the original and the section A & Accounting the secti	CITON C - Section to be completed at appropriate intervals during section A & Accounting the order and itself	CITON C = Section to be completed at appropriate intervals during section A & Accounting the original and its	CITON C = Section to be completed at appropriate intervals during section A & Accounting the order to be	CITON C = Section to be completed at appropriate intervals during section A & Accounting the order to be	CITON C = Section to be completed at appropriate intervals during Section A & Accounting the order avoided	CITON C = Section to be completed at appropriate intervals during Section A & Accounting the order and itself	CTION C Service to the service of the service desired Section A & BOUGH IN SIT OF AND TEST	CTION C. C. L. C.	CTION CONTRACTOR OF CONTRACTOR CONTRACTOR CONTRACTOR ASSESSMENT OF CONTRACTOR OF CONTRACTOR CONTRAC
CITON C - Section to be completed at appropriate intervals during Section A & According, for our AND 1631	CITON C - Section to be completed at appropriate intervals during Section A & According, for our AND 1631	CITON C - Section to be completed at appropriate intervals during Section A & According, Fit off AND 1631	CITON C - Section to be completed at appropriate intervals during Section A & According, Fit off AND 1631	CITON C - Section to be completed at appropriate intervals during Section A & According, for our AND 1631	CITON C - Section to be completed at appropriate intervals during Section A & According, for our AND 1831	CITON C - Section to be completed at appropriate intervals during Section A & According, for our less	CITON C = Section to be completed at appropriate intervals during Section A & According to the City	CITON C = Section to be completed at appropriate intervals during Section A & According to the City	CHOIN C = Section to be completed at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at a period of the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to th	CHOIN C - Section to be completed at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at a period of the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A &	CTION C Service to the service of the service described of the service of the ser	CTION C. C. Min at L. C.	CTION CONTRACTOR OF CONTRACTOR CONTRACTOR CONTRACTOR ASSESSMENT OF CONTRACTOR OF CONTRACTOR CONTRAC
CITON C - Section to be completed at appropriate intervals during Section A & According, the off AND 1231	CITON C - Section to be completed at appropriate intervals during Section A & According, the off AND 1231	CITON C - Section to be completed at appropriate intervals during Section A & According for AND 1631	CITON C - Section to be completed at appropriate intervals during Section A & According for AND 1231	CITON C - Section to be completed at appropriate intervals during Section A & According, the off AND 1231	CITON C - Section to be completed at appropriate intervals during Section A & According, for our cities	CITON C - Section to be completed at appropriate intervals during Section A & According, for our less	CITON C = Section to be completed at appropriate intervals during Section A & According to orr AND 1831	CITON C = Section to be completed at appropriate intervals during Section A & According to orr AND 1831	CITON C - Section to be completed at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at a period of the complete at the compl	CHOIN C - Section to be completed at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at a period of the complete at the compl	CTION C Service to the service of th	CTION C. C. Minds L. C.	CTION CONTRACTOR OF CONTRACTOR CONTRACTOR CONTRACTOR AS A CONTRACTOR OF CONTRACTOR CONTR
CITON C - Section to be completed at appropriate intervals during Section A & According, for our AND 1631	CITON C - Section to be completed at appropriate intervals during Section A & According, for our AND 1631	CITON C - Section to be completed at appropriate intervals during Section A & According, Fit off AND 1631	CITON C - Section to be completed at appropriate intervals during Section A & According, Fit off AND 1231	CITON C - Section to be completed at appropriate intervals during Section A & According, for our AND 1631	CITON C - Section to be completed at appropriate intervals during Section A & According, for our AND 1831	CITON C - Section to be completed at appropriate intervals during Section A & According, for our less	CITON C = Section to be completed at appropriate intervals during Section A & According to the City	CITON C = Section to be completed at appropriate intervals during Section A & According to the City	CHOIN C = Section to be completed at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at the context of the complete at the context of the context o	CHOIN C - Section to be completed at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at appropriate intervals during Section A & According to the complete at a period of the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A & According to the complete at a section A &	CTION O CONTROL OF THE PROPERTY OF THE PROPERT	CTION CONTRACTOR COMPANY	CTION CONTRACTOR OF CHILD REPORT OF CHILD AND TEST
CITON C - Section to be completed at appropriate intervals during section A & According, for our AND 1831	CITON C - Section to be completed at appropriate intervals during section A & According, for our AND 1831	CITON C - Section to be completed at appropriate intervals during Section A & According, for our AND 1251	CITON C - Section to be completed at appropriate intervals during Section A & According for Another	CITON C - Section to be completed at appropriate intervals during section A & According, for our AND 1831	CITON C - Section to be completed at appropriate intervals during Section A & According, for our AND 1631	CITON C - Section to be completed at appropriate intervals during Section A & According, fill off AND 1231	CITON C = Section to be completed at appropriate intervals during Section A & According to orr AND 1231	CITON C = Section to be completed at appropriate intervals during Section A & According to orr AND 1231	CHOIN C = Section to be completed at appropriate intervals during Section A & According for AND 1231	CHOIN C - Section to be completed at appropriate intervals during Section A & According to the Christian	CTION O CONTROL OF THE PROPERTY OF THE PROPERT	CTION CONTRACTOR CONTR	CTION CONTRACTOR OF CHILD RESEARCH CONTRACTOR CONTRACTOR AS CONTRACTOR OF CONTRACTOR CON
CITON C - Section to be completed at appropriate intervals during Section A & Roodin III, Fit Off AND 1831	CITON C - Section to be completed at appropriate intervals during Section A & Roodin III, Fit Off AND 1831	CITON C - Section to be completed at appropriate intervals during Section A & Roodin III, Fit Off AND 1631	CITON C - Section to be completed at appropriate intervals during Section A & Roodin III, Fit Off AND 1831	CITON C - Section to be completed at appropriate intervals during Section A & Roodin III, Fit Off AND 1831	CITON C - Section to be completed at appropriate intervals during Section A & Roodin III, fit off AND 1831	CITON C - Section to be completed at appropriate intervals during Section A & According for AND 1831	CITON C - Section to be completed at appropriate intervals during Section A & According to orr AND 1831	CITON C - Section to be completed at appropriate intervals during Section A & According to orr AND 1831	CHOIN C - Section to be completed at appropriate intervals during Section A & According to the Choices	CHOIN C - Section to be completed at appropriate intervals during Section A & According to the Complete at appropriate intervals during Section A & According to the Complete at appropriate intervals during Section A & According to the Complete at appropriate intervals during Section A & According to the Complete at appropriate intervals during Section A & According to the Complete at appropriate intervals during Section A & According to the Complete at the C	CTION O DOLL THE OF THE PROPERTY OF THE PROPER	CTION O DOLLAR AREA COMPANIES.	CTION CONTRACTOR COMPANIENT
CITON C - Section to be completed at appropriate intervals during Section A & Rooden in, fit off And 1231	CITON C - Section to be completed at appropriate intervals during Section A & Rooden in, fit off And 1231	CHON C - Section to be completed at appropriate intervals during Section A & Rooten in, Fit off And 1231	CITON C - Section to be completed at appropriate intervals during Section A & Rooten in, Fit off And 1231	CITON C - Section to be completed at appropriate intervals during Section A & Rooden in, fit off And 1231	CITON C - Section to be completed at appropriate intervals during section A & According for AND 1631	CITON C - Section to be completed at appropriate intervals during section A & According to orr AND 1831	CITON C - Section to be completed at appropriate intervals during Section A & Roodin III, Fit Off AND 1231	CITON C - Section to be completed at appropriate intervals during Section A & Roodin III, Fit Off AND 1231	CHOIN C - Section to be completed at appropriate intervals during Section A & ROOGH IN, Fit OFF AND 1631	CHOIN C - Section to be completed at appropriate intervals during Section A & ROOGH IN, Fit OFF AND LEST	CTION O CONTINUE TO THE PROPERTY OF THE PROPER	CTION O DOLLAR AREA COMPANIES.	CTIONIC CONTRACTOR COMPANIANCE
CITON C - Section to be completed at appropriate intervals during Section A & ROOGH IN, Fit OFF AND 1231	CITON C - Section to be completed at appropriate intervals during Section A & ROOGH IN, Fit OFF AND 1231	CHON C - Section to be completed at appropriate intervals during Section A & Roodelin, Fit Off And 1831	CITON C - Section to be completed at appropriate intervals during Section A & ROOGH IN, Fit OFF AND 1231	CITON C - Section to be completed at appropriate intervals during Section A & ROOGH IN, Fit OFF AND 1231	CITON C - Section to be completed at appropriate intervals during Section A & ROOGH IN, FIT OFF AND 1231	CITON C - Section to be completed at appropriate intervals during section A & ROOGH IN, FIT OFF AND 1231	CITON C - Section to be completed at appropriate intervals during Section A & ROOGH IN, Fit OFF AND LEST	CITON C - Section to be completed at appropriate intervals during Section A & ROOGH IN, Fit OFF AND LEST	CHOIN C - Section to be completed at appropriate intervals during Section A & ROOGH IN, Fit Off AND Lesi	CHOIN C - Section to be completed at appropriate intervals during Section A & ROUGH IN, Fit OFF AND LEST			CTION CONTRACTOR CONTR
CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CHON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OF AND TEST	CHON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OF AND TEST	CHOIN C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CHOIN C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST			MEM (MEMORY DECORPORATION OF CONTRAINED OF C
CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	C I I ON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	C I I ON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, FIT OFF AND TEST	CHON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, Fit Off AND Test	CHON C - Section to be completed at appropriate intervals during Section A & ROUGH IN, Fit Off AND TEST		Carlotte in control combinated	MEM (MEMORY DEVICE DISCO OF COMPINITY)
CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	C I I ON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	C I I ON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CHON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CHON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		Cate to be the first of the fir	MEM (MEMICAL ECONO) OF CONTINUOUS)
CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, HIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, HIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, HIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, HIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	C I I ON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	C I I ON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	C I I ON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	C I I ON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		Catalan (president proposal populations)	NEW (VENICA LEGISTO OF COMPINITOR)
CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, HIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, HIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, HIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, HIT OFF AND TEST	CITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	C I I ON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	C I I ON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	C I I ON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	C I I ON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		Catalan (president proposal populations)	NEW (VENICA LEGISTO OF COMPINITOR)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	C I I ON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	C I I ON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	C I I ON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	C I I ON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		Salar (present proposal politic memor)	NEW (VENIEW ISPANCE)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	C ITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	C ITON C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		Extrem troping of print many a parishment.	NEW (VENEW LEGATION OF ARISE BASES OF COMPINATOR)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		Extrem (present appropriate propriate propriat	NEW (VENEW IEROTO OF CHIEF Green or combination)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		EXITER (DEXIDER LOCATION OF PRINT OF PARTICIONAL)	NEW (VENEW IEROTO OF CHIEF Green of Combination)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		STATES (VEXICAL LOCAL) OF USE OF CONTRACTOR (VEXICAL LOCAL)	NEW (VENEW IEROTO OF CHIEF Green of Combinator)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		STATES (VEXICES LEGICAL OF LEGICAL CONTRACTOR)	NEW (NEX) (NEX) (NEX) (NEX) (NEX)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		STATES (DESTRESS LEGICAL DESTRESS CONTINUES)	NEW (NEX) IECOTOS OF OUTBOOKS
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		STREET (NEXT END TO DE LOCATION OF END TO DELOCATION OF END TO	NEW (VENEW LEGALIS OF ARTISTICAL AND
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		STEER (TREATERN LEGALOS OF SANDERONS)	New (venter reconstruction area or combinated)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		Street Inextent (Profits on each compliance)	Alem (Venter remains on white area or combinated)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		Same treates tending at each equipment	NEW (VENTER LEGATION OF ARISE BEFORE)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		Extrem tronton or orthorousel	NEW (VENEW LEADING OF COMPANIAN)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		Extreme transfers of anti-definitive to	NEW (VENIEW LEADING OF AFRICA
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		Extreme transfers of restrictions of restrictions of	NEAN (VENTERN LEPOTAGO OL ACTION DE LA COLLINIA DEL COLLINIA DE LA COLLINIA DE LA COLLINIA DEL COLLINIA DE LA COLLINIA DE LA COLLINIA DE LA COLLINIA DEL COLI
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		ENERGY (VENERGY LAND) AND	NEW (VENIEW LEADING OF MINISTER BEAGON COMPINIONS)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		ENERA (PERIORA DEPONDE OF ANTION OF	NEW (VENIEW LEGALO) Of their area of combination)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		MICHAEL (MEXICAN INCOME)	NEW (VENEW LEGINGS OF COMPINGING)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		TAIRIN (VEXICAL ICPO) OF ACIDE MINOR OF ACIDITATE	NIEW (VENEW LECTION OF CHILD BEAUTY)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		SAIGA (MENICA LEGINA OF CHIMINAL)	NIGHT (VEXICAL ICROIDS OF Other great of combination)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		MEM (MEMERA I COOLOGY OF COMPLIANCE)	Mem (review recolds of order alread of combinator)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		STORY (MCSICAL ICCOLOR OF COMPIGNICAE)	ALCAL (NEALCAN LECOLOGO) OF CHILD INCIDENCE
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		CALCAN LOCALISM LOCALISM CONTRACTOR	ALEM (MEALEM LECOLOS OF COMPUTATOR)
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		CALCAN INCALCAN INCAL	ALCAN INCANCIAN ISCOLOGO OF COMPUTATION
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST		TAILER INCOME CONTRACTOR OF CONTRACTOR	MEM INCALCAN ISCOLO OF CALLANDIA CONTRACTOR AND CON
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST			VIEW INCOME TO US OF COMPANY OF C
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	Andrew Commence of Assessment Commence of the		The state of the s
CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	CTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND TEST	raines (included received on April and April a		

Stage	Stage 1 - Records Management												
Hom	Activity	RD.	Acceptance	Applicable	inspec	Inspection Test	Verifica	Verification Activity By	ту Ву	DWG Reg	Date	Responsible Task	Verifying Record
	- Committee		Criteria	Standard	Method	Frequency	IN SF/LH	H PM	C/E	Version	Completed	Owner	
ь	Test Reports submitted to PM	PM	Completed Test Report		Document	At Completion	W	Ξ					Completed test report saved in PP
2	As Installed Drawings submitted to PM	PM	Completed AS Installed Drawings		Document	At Completion	W	I					Completed As Installed saved in PP
ω	ITP's submitted to PM	PM	Completed and Signed ITP		Document	Document At Completion	W	I					Completed POWER ITP saved in PP
All ne	All necessary inspections have been carried out and I verify that the above activities/items conform	out and	I verify that the	above activi	ities/item		to the contract specifications.	ract spe	ification	15.			
roject	Project Manager (Please Print Name): Servi (Arthorn Arthur)	Proje	Project Manager (Please Sign): £	(Jan):			Date:	· 81/1/18	1.				
Notes:													



Inspection and Test Plan for **Switchboards**

	Action Mark Committee and Michigan Committee and Michigan and Committee				
	Project	Job No.	Stage	Section	
	Fernvale STP Upgrade	34588			
- 1	H - Hold Point (Work shall not proceedpas the Hold Point until released by the organisation improsing the Hold Point)	released by the organisation improsing the Hold Point)	RI - Resp	onsible Inspectorate	
-	W - Witness Point (An inspection point that may be witnessed by the organisation imposing the Witness Point	by the organisation imposing the Witness Point)	IN - Insta	aller	

Surveillance (An activity that is subject to ongoing monitoring)

I - Inspection (Formal inspection activity to be undertaken and recorded)

R - Review (Review records or other areas of compliance)

Item

Activity

2

Acceptance Criteria

Applicable Standard

Inspection Test

Method

Frequency

Z

SF/LH

PM

C/E

Completed Date

Verification Activity By

DWG Reg Version

Responsible Task Owner

Verifying Record

Stage 1 - Documentation & Design

SF / LH - Site Foreman/Leading Hand PM - Project Manager

SECTION A - Activities in this section are to be performed prior to work commencing on site.

Projec	2	ב		Hom.	Stag	Projec	42	ω	2	-
Project Manager (Please Print Name):	Final Inspection, conformation that the complete switchboard complies 100% with the Approved "For Construct" dwgs	Inspection of Board before complete to verify cable entry, gland plates, cable zone & general compliance with "For Construct" drawings	i constant y	Activity	Stage 2 - Inspections / Approvals	Project Manager (Please Print Name):	Implementation of any comments or changes from the Client/Engineer	Shop Drawings to be submitted to C/E	Review of Detailed "For Construct" drawings	Meeting with Switchboard Manager to discuss site specific conditions such as size, IP Rating, amount of circuits, spare capacity & Type of Drawings required.
Projec	PM	PM	1	R		Proje	C/E	PM	PM, SI	PM
Project Manager (Pjease Sign):	Detailed Shop Drawings	Detailed Shop Drawings	Criteria	Acceptance		Project Manager (Please/Sign):	Comments/Mark ups	Comments/Mark ups	PM, SF Detailed Shop Drawings	Appropriate Spec & Dwg's
Sign):	"For Construct" dwg & AS3000	"For Construct" dwg	Standard	Applicable		Sign):	Mark up dwgs	Mark up dwgs	AS3000, AS3439	AS3000, AS3439
	Visual	Visual	Method	lns			Doc	Doc	Doc	Doc
	After complete but before sent to site	Before completion	Frequency	Inspection Test			Prior to start of construction	Prior to start of construction	Prior to start of construction	Prior to Start
Date:			Z	Ver		Date:				
00	-		SF/LH	fication		3/4/13			I	
2/4/13	-	S	PM	Verification Activity By		2			I	Ι
			C/E	/ By			π	I		
			Version	DWG Reg						
			Completed	Date						
			Owner	Responsible Task						
	Switchboard Inspection Report to be completed Doc 8024 & saved in PP	General report & comments recorded	Actual Succord				Revised Drawings sent for formal approval. Revised Drawings stored in PP	Drawings sent for formal approval.	Review Drawings stored in PP	Meeting agenda recorded

Reviewed By: Devon Hamon Review Date: 11/11/2011 8307.1 EDSS - ITP Switchboards

Version 2.0 Page 1 of 3

Page 17 of 81 QP Id: TMS373 Active: 21/11/2013

C/E - Client / External Expert



Inspection and Test Plan for Switchboards

Project	Job No.	Stage	Section
Fernvale STP Upgrade	34588		

H - Hold Point (Work shall not proceedpas the Hold Point until released by the organisation improsing the Hold Point)

W - Witness Point (An inspection point that may be witnessed by the organisation imposing the Witness Point)

S - Surveillance (An activity that is subject to ongoing monitoring)

I - Inspection (Formal inspection activity to be undertaken and recorded)

R - Review (Review records or other areas of compliance)

INSTALLATION

RI - Responsible Inspectorate

SF / LH - Site Foreman/Leading Hand

PM - Project Manager

C/E - Client / External Expert

lient	Projec	Site Fo	7	6	vı	4	ω	2	Þ		Item
Client Representative (Please Print Name):	Project Manager (Please Print Name): Sov Control Project Name):	Site Foreman (Please Print Name): Dinican Hapasser	Switchboard Testing	Hat Sections measured, drawn in detail & sent to PM for ordering	Phase Barriers are installed & Switchboard has been cleaned and vacuumed	All cables neatly loomed	Legend Card/Labels updated if required	Sealing of all penetrations and protect sharp edges	Switchboard installed in a quality manner		Activity
Client I	Project	Site Fo	LH/SF	LH/SF	LH / SF	LH / SF	LH / SF	LH / SF	PM/ SF		2
Client Representative (Please Sign):	Project Manager (Please Sign):	Site Foreman (Please Sign):	Test Report	Project Plans	Project Plans	Project Plans	Project Plans	Project Plans	Project Plans	Criteria	Acceptance
ease Sign):	Sign):	3.	AS3000	AS3000	AS3000	AS3000	AS3000	AS3000	AS3000	Standard	Applicable
			Doc	Visual	Visual	Visual	Visual	Visual	Visual	Method	Inspe
			Before SWB is Energised	After SWB is installed	After SWB is installed	After SWB is installed	After SWB is installed	After SWB is installed	After SWB is installed	Frequency	Inspection Test
Date:	Date:	Date:								N	Veri
	3/4/13	10-3-13	-	in.	S	v	is.	S	65	SF/LH	Verification Activity By
	113	W	-	v	v	v	v	S	v	PM	Activity
										C/E	Ву
										Version	DWG Reg
			10-3-13	10-3-13	10-3-15	10-3-13	10-3-13	10-3-13	10-3-13	Completed	Date
			D. FLANSSET	J. 4282	ひこれないて	D. IAZSAZ	ローを欠る	D. HANSCH	D. HANSKAL	Owner	Responsible Task
			Electrical Test Report Doc 5215.1	Completed Doc 8025 - SWM Checklist	Completed Doc 8025 - SWB Checklist	Completed Doc 8025 - SWB Checklist	Completed Doc 8025 - SWB Checklist	Completed Doc 8025 - SWB Checklist	Completed Doc 8025 - SWB Checklist		Verifying Record

Active: 21/11/2013

8307.1 EDSS - ITP Switchboards

Reviewed By: Devon Hamon Review Date: 11/11/2011 Reviewed By: Devon Hamon Review Date: 11/11/2011 8307.1 EDSS - ITP Switchboards



Switchboards

W - Witness Point (An inspection point that may be witnessed by the organisation imposing the Witness Point) H - Hold Point (Work shall not proceedpas the Hold Point until released by the organisation improsing the Hold Point) Fernvale STP Upgrade Project 34588 Job No. Stage RI - Responsible Inspectorate Section

IN - Installer

SF / LH - Site Foreman/Leading Hand

PM - Project Manager

C/E - Client / External Expert

ON C - Section to be con	ON C - Section to be completed at appropriate inte	ON C - Section to be completed at appropriate interval	ON C - Section to be completed at appropriate intervals du	ON C - Section to be completed at appropriate intervals durin	ON C - Section to be completed at appropriate intervals during SI	ON C - Section to be completed at appropriate intervals during SECT	ON C - Section to be completed at appropriate intervals during SECTION	$ON\ C$ - Section to be completed at appropriate intervals during SECTION A $\mathfrak c$	$ON\ C$ - Section to be completed at appropriate intervals during SECTION A & R	ON C - Section to be completed at appropriate intervals during SECTION A & ROUG	≥ SECTION C - Section to be completed at appropriate intervals during SECTION A & ROUGH I	SECTI
Section to be con	Section to be completed at appropriate interest	2 - Section to be completed at appropriate interval	Section to be completed at appropriate intervals du	🕽 - Section to be completed at appropriate intervals durin	🕽 - Section to be completed at appropriate intervals during SI	Section to be completed at appropriate intervals during SECT	Section to be completed at appropriate intervals during SECTION] - Section to be completed at appropriate intervals during SECTION A a	- Section to be completed at appropriate intervals during SECTION A & R	🕽 - Section to be completed at appropriate intervals during SECTION A & ROU(🕽 - Section to be completed at appropriate intervals during SECTION A & ROUGH I	ONC
Section to be con	Section to be completed at appropriate inte	Section to be completed at appropriate interval	Section to be completed at appropriate intervals du	Section to be completed at appropriate intervals durin	Section to be completed at appropriate intervals during S	Section to be completed at appropriate intervals during SECT	Section to be completed at appropriate intervals during SECTION	Section to be completed at appropriate intervals during SECTION A a	Section to be completed at appropriate intervals during SECTION A & R	Section to be completed at appropriate intervals during SECTION A & ROUG	Section to be completed at appropriate intervals during SECTION A & ROUGH I	8
on to be con	on to be completed at appropriate inte	on to be completed at appropriate interval	on to be completed at appropriate intervals du	on to be completed at appropriate intervals durin	on to be completed at appropriate intervals during Si	on to be completed at appropriate intervals during SECT	on to be completed at appropriate intervals during SECTION	on to be completed at appropriate intervals during SECTION A a	on to be completed at appropriate intervals during SECTION A & Ro	on to be completed at appropriate intervals during SECTION A & ROU	on to be completed at appropriate intervals during SECTION A & ROUGH I	Section
be con	be completed at appropriate inte) be completed at appropriate interval) be completed at appropriate intervals du	be completed at appropriate intervals durin	be completed at appropriate intervals during S) be completed at appropriate intervals during SECT	be completed at appropriate intervals during SECTION	be completed at appropriate intervals during SECTION A a) be completed at appropriate intervals during SECTION A & R) be completed at appropriate intervals during SECTION A & ROU	be completed at appropriate intervals during SECTION A & ROUGH I	on to
COM	completed at appropriate inte	completed at appropriate interval	completed at appropriate intervals du	completed at appropriate intervals durin	completed at appropriate intervals during Si	completed at appropriate intervals during SECT	completed at appropriate intervals during SECTION	completed at appropriate intervals during SECTION A &	completed at appropriate intervals during SECTION A & R	completed at appropriate intervals during SECTION A & ROUG	completed at appropriate intervals during SECTION A & ROUGH I	be
	apleted at appropriate inte	npleted at appropriate interval	npleted at appropriate intervals du	npleted at appropriate intervals durin	npleted at appropriate intervals during S	npleted at appropriate intervals during SECT	npleted at appropriate intervals during SECTION	npleted at appropriate intervals during SECTION A	npleted at appropriate intervals during SECTION A & R	npleted at appropriate intervals during SECTION A & ROU	npleted at appropriate intervals during SECTION A & ROUGH	con
	l at appropriate inte	l at appropriate interval	l at appropriate intervals du	l at appropriate intervals durin	at appropriate intervals during Si	at appropriate intervals during SECT	at appropriate intervals during SECTION	at appropriate intervals during SECTION A	l at appropriate intervals during SECTION A & R	l at appropriate intervals during SECTION A & ROUG	l at appropriate intervals during SECTION A & ROUGH I)91c
)eje	appropriate inte	appropriate interval	appropriate intervals du	appropriate intervals durin	appropriate intervals during Si	appropriate intervals during SECT	appropriate intervals during SECTION	appropriate intervals during SECTION A &	appropriate intervals during SECTION A & R	appropriate intervals during SECTION A & ROUG	appropriate intervals during SECTION A & ROUGH	at
eted at	propriate inte	propriate interval	propriate intervals du	propriate intervals durin	propriate intervals during Si	propriate intervals during SECT	propriate intervals during SECTION	propriate intervals during SECTION A	propriate intervals during SECTION A & R	propriate intervals during SECTION A & ROUG	propriate intervals during SECTION A & ROUGH	app
ted at app	oriate inte	priate interval	oriate intervals du	oriate intervals durin	priate intervals during Si	priate intervals during SECT	priate intervals during SECTION	priate intervals during SECTION A	priate intervals during SECTION A & R	priate intervals during SECTION A & ROUG	priate intervals during SECTION A & ROUGH	070
ted at approp	te inte	te interval	te intervals du	te intervals durin	te intervals during Si	te intervals during SECT	te intervals during SECTION	te intervals during SECTION A &	te intervals during SECTION A & R	te intervals during SECTION A & ROUG	te intervals during SECTION A & ROUGH	oria.
ted at appropria	nte	nterval	ntervals du	ntervals durin	ntervals during Si	ntervals during SECT	ntervals during SECTION	ntervals during SECTION A	ntervals during SECTION A & R	ntervals during SECTION A & ROUG	ntervals during SECTION A & ROUGH	(e :
ted at appropriate i		Na Na	vals du	vals durin	vals during S	vals during SECT	vals during SECTION	vals during SECTION A	vals during SECTION A & R	vals during SECTION A & ROUG	vals during SECTION A & ROUGH	ntei
eted at appropriate intervals during SECTION A & ROUGH IN,	s during SECTION A & ROUGH IN,	uring SECTION A & ROUGH IN,	g SECTION A & ROUGH IN,	ECTION A & ROUGH IN,	ION A & ROUGH IN,	A & ROUGH IN,	& ROUGH IN,	OUGH IN,	N HE	Z		FIT
eted at appropriate intervals during SECTION A & ROUGH IN, FIT	s during SECTION A & ROUGH IN, FIT	uring SECTION A & ROUGH IN, FIT	g SECTION A & ROUGH IN, FIT	ECTION A & ROUGH IN, FIT	ION A & ROUGH IN, FIT	A & ROUGH IN, FIT	& ROUGH IN, FIT	OUGH IN, FIT	SHIN, FIT	N, FIT	113	OFF
sted at appropriate intervals during SECTION A & ROUGH IN, FIT OFF	s during SECTION A & ROUGH IN, FIT OFF	Jring SECTION A & ROUGH IN, FIT OFF	g SECTION A & ROUGH IN, FIT OFF	ECTION A & ROUGH IN, FIT OFF	ION A & ROUGH IN, FIT OFF	A & ROUGH IN, FIT OFF	ROUGH IN, FIT OFF	OUGH IN, FIT OFF	SH IN, FIT OFF	IN, FIT OFF	FIT OFF	D
sted at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AN	s during SECTION A & ROUGH IN, FIT OFF AN	JI J	g SECTION A & ROUGH IN, FIT OFF AN	ECTION A & ROUGH IN, FIT OFF AN	ION A & ROUGH IN, FIT OFF AN	A & ROUGH IN, FIT OFF AN	ROUGH IN, FIT OFF AN	OUGH IN, FIT OFF AN	SHIN, FIT OFF AN	IN, FIT OFF AN	FIT OFF AN	Z
eted at appropriate intervals during SECTION A & ROUGH IN, FIT OFF AND T	s during SECTION A & ROUGH IN, FIT OFF AND T	JI J	g SECTION A & ROUGH IN, FIT OFF AND T	ECTION A & ROUGH IN, FIT OFF AND T	ION A & ROUGH IN, FIT OFF AND T	A & ROUGH IN, FIT OFF AND T	ROUGH IN, FIT OFF AND T	OUGH IN, FIT OFF AND T	3H IN, FIT OFF AND T	IN, FIT OFF AND T	FIT OFF AND T	NOT

S - Surveillance (An activity that is subject to ongoing monitoring) I - Inspection (Formal inspection activity to be undertaken and recorded)

R - Review (Review records or other areas of compliance)

Site changes to be marked up of "AS Builts" Completed ITP Completed ITP SF,PM SF,PM SF,PM Doc At Completion R Completed ITP R Completed ITP SF,PM Doc At Completion R Completion R Doc At Completion R Completion R Doc At Completion R Doc At Completion Doc At Completion R Doc At Completion Doc At Completion Doc At Completion R Doc At Completion R Doc At Completion R Doc At Completion Doc At Completion Doc At Completion R Doc At Completion R	Item	Activity	2	Acceptance	Applicable	inspe	Inspection Test	Verific	Verification Activity By	ty By	DWG Reg	Date	Responsible Task
AS Builts" SF,PM SF,PM SF,PM SF,PM Doc At Completio Doc At Completio At Completio Doc At Completio PM Project Manager (Please Sign):		Assessed		Criteria	Standard	Method	Frequency			C/E	Version	Completed	
SF,PM Project Manager (Please Sign): Doc At Completion At Completion At Completion Doc At Completion		Site changes to be marked up of "AS Builts"	SF,LH			Doc	At Completion		,,				
been carried out and I verify that the above activities/items conform Project Manager (Please Sign):		Completed ITP	SF,PM			Doc	At Completion		20				
been carried out and I verify that the above activities/items conform		Received Switchboard Test Results	PM			Doc	At Completion		70				
Project Manager (Please Sign): Date	II nec	essary inspections have been carrie	d out and	I verify that the	above activ	ities/item		the cont	ract spec	ificatio	15.		1
Call of 1	roject	/lanager (Please Print Name):	Projec	t Manager (Please S	Sign):			Date:		,			



OPERATIONAL PRECOMMISSIONING **CHECKLIST**

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

CLIENT: Urban Utilities ACTIVITY/PROCESS: New Clarifier flowmeter tor chlorine contact tank

TAG No.: FI201/FIT201/FE201

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

No.	ITEM	COMMENTS AND SETTINGS	Accept Yes / No
1.	Safety, environment and communication systems in place (PRE-START RECORD)		V
2.	Pre-commissioning documentation handed over from electrical subcontractor		~
3.	Visually check of the instrumentation including Display and sensors. Verify that they have been installed correctly in accordance with the manufacturer's manuals.		V
4.	Visual check of electrical connections to the sensors and instrumentation to verify that polarities are correct.		~
5.	Verify that there are no leaks or potential for leaks in the future		
6.	Check earth straps have been fitted if required.		NOT
7.	Ensure equipment to be used is with calibration date if applicable Note down the Model: Serial Number: Next Cal date Due:		NA
8.	Document the models and serial numbers of all the instrumentation that is being commissioned.	ROMAG SO H1001B20000 SOWIF-SSOATASJA	V
		EDWIF - SSOATAS JA	BB W

Final Inspection by: (Works completed & records reviewed) Date:

Page 1 of 4

QP Id: TMS373 Active: 21/11/2013 Page 20 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade CONTRACT:

ACTIVITY/PROCESS: New Clarifier flowmeter tor chlorine contact tank TAG No.: FI201/FIT201/FE201

CLIENT: Urban Utilities

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-L DWG-5004(Tenix)

9.	If the instrument retransmits back to PLC or RTU, disconnect the output and inject signal and verify that the PLC displays the correct value. Do this for bottom range, mid range and full scale and document the results. Bottom Scale (0mA, 4mA or 0V) Mid Scale (10mA, 12mA or 5v) Full Scale (20mA or 10v)	NA
10	Visually check panel, and obtain approval to Energise	V
11	Verify that the supply protection is of a correct value.	~
12.	. Energise Circuit	
13.	Verify supply to panel is energized and verify voltage and polarity at CB (if required)	
14.	Verify that display if applicable energizes and the display has no defective sections	V
15.	Enter any programming required for the application, this might include input ranges, alarm outputs, retransmitted outputs, types of probes etc. Any setting which are different to default need to be recorded in table below.	
16.	Simulate readings across the range (can be via programming outputs, measuring a reference flow or pressure testing) and verify that the readings are displayed on the local display where applicable and the readings match on the PLC SCADA screens.	V
17.	Verify function of all remote indicators, gauges etc	

		70
Final Inspection by:	4.1	Date:
(Works completed & records reviewed)	na	12/3/12
	Page 2	of 4

QP Id: TMS373 Active: 21/11/2013 Page 21 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade CONTRACT:

ACTIVITY/PROCESS: New Clarifier flowmeter tor chlorine contact tank TAG No.: FI201/FIT201/FE201

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

18	Verify all Inputs to instrumentation from PLC/RTU which have not been tested, for example: totaliser pulses	~
19	Verify all outputs from instrumentation to PLC (digital inputs/ analog inputs). This might be alarm outputs from relay contacts etc.	~
20.	Verify that these outputs are all reflected on the SCADA system.	/
21.	Once all items have been tested. Write down all final parameters that have been changed as part of this commissioning process. If this data is downloadable, save the configuration fill, to be handed over in the handover package.	
22.		

No.	PARAMETER	DEFAULT SETTING	COMMISSIONED SETTING AND COMMENTS
1			
2			nt-
3			
4			
5			
6			H Comment
7			
8			

Final Inspection by: (Works completed & records reviewed)	ul	Date: 12 3 1	2
	Page 3	of 4	

QP Id: TMS373 Active: 21/11/2013 Page 22 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CLIENT: Urban Utilities

ACTIVITY/PROCESS: New Clarifier flowmeter tor chlorine contact tank TAG No.: FI201/FIT201/FE201

LOCATION/LOT DESCRIPTION:	
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I_DWG-5004(Tenix)

lo.	ITEM	ACCEPTABLE	COMMENTS
1			
2			
3			
4			
5			
6			

Final Results	YES	NO	Comments
Check Completed	V		
Minor Defects Generated			
Major Defects Generated			
Asset Installation Accepted	V		

Notes:

1. If no major defects, the	en further testing may proce	eed.		
Commissioning Engineer:	Name M. FRITCHAD	Signature	Date	12/3/12
Client's representative:	Name.	Signature	Date	

Final Inspection by:	Date:
(Works completed & records reviewed)	Date 12 12 12



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: New clarifier level switch

TAG No.: LAL201/LSL201

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU)

No.	ITEM	COMMENTS AND SETTINGS	Accept Yes / No
1.	Safety, environment and communication systems in place (PRE-START RECORD)		/
2,	Pre-commissioning documentation handed over from electrical subcontractor		V
3.	Visually check of the instrumentation including Display and sensors. Verify that they have been installed correctly in accordance with the manufacturer's manuals.		1
4.	Visual check of electrical connections to the sensors and instrumentation to verify that polarities are correct.		~
5.	Verify that the float or level switch is installed in a way that it cannot be affected by any external mechanical influences.		/
6.	Verify that the float or level switch has been installed in a manner that allows itself to be easily maintained or removed		
7.	Document the models and serial numbers of all the instrumentation that is being tested.	TGO	/
8.	Visually check panel, and obtain approval to Energise		~
9.	Verify that the supply protection is of a correct value.		
10.	Energise Circuit		~
11.	Enter any programming required for the application, this might include input ranges, alarm outputs, retransmitted outputs, types of probes etc. Any setting which are different to default need to be recorded in table below.		/

Final Inspection by:	
(Works completed & records review	(he

Date: 12



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: New clarifier level switch

TAG No.: LAL201/LSL201

Drive	No.:		86/5/5-0172-009(QUU)		
		300744-I_DW	G-5004(Tenix)		
12	Perform a calibration of the the manufactures manuals checking the calibration of solutions or programming HART programmer (if app	s. This might inclu probes with buffe sensors directly w	ude er		V
13	Simulate readings across simple as tilting the float so Multitrode clear of the water	witch or pulling a	as		V
14	Verify function of all remote gauges etc if applicable	e indicators SCAI	DA,		
	Once all items have been to final parameters that have of this commissioning produced downloadable, save the contained over in the handover.	been changed as ess. If this data is nfiguration fill, to er package.	s part s be		
ARAM	ETER SETTINGS WHICH W	ERE CHANGED	FROM THE DEFAULT	1	
No.	PARAMETE	R	DEFAULT SETTING	COMMISSIONED AND COMMI	
1					
2					
3					
4					
5					
6				1	
	CTIVE ACTION				

und	Date: (2313
	und

Page 2 of 3

QP Id: TMS373 Active: 21/11/2013 Page 25 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

Drive No.:	Date: 11/03/13		
	P&ID Dwg: 48 300744-I_DWC	6/5/5-0172-009	(QUU)
	100771120110	3-3004(TCIIIX)	
2			
3			
4			
5			
6			
Check Completed Minor Defects Generated			
Major Defects Generated			
Major Defects Generated Asset Installation Accepted			
Major Defects Generated Asset Installation Accepted lotes: If no major defects, then fu Commissioning Engineer: Nan			Date 12 3
Major Defects Generated Asset Installation Accepted lotes: If no major defects, then fu Commissioning Engineer: Nan	ne MPRITZUS	Signature	
Major Defects Generated Asset Installation Accepted lotes: If no major defects, then fu Commissioning Engineer: Nan	ne MPRITZUS	Signature	Date 12 3 17
Major Defects Generated Asset Installation Accepted lotes: If no major defects, then fu Commissioning Engineer: Nan	ne MPRITZUS	Signature	1.3
Major Defects Generated Asset Installation Accepted lotes: If no major defects, then fu Commissioning Engineer: Nan	ne MPRITZUS	Signature	1.3
Major Defects Generated Asset Installation Accepted lotes: If no major defects, then fu Commissioning Engineer: Nan	ne MPRITZUS	Signature	1.3
Major Defects Generated Asset Installation Accepted lotes: If no major defects, then fu Commissioning Engineer: Nan	ne MPRITZUS	Signature	1.3

Final Inspection by: (Works completed & records reviewed)

Date: Page 3 of 3

QP Id: TMS373 Active: 21/11/2013 Page 26 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: New scum holding tank level switch

TAG No.: LAL202/LAH202/LS202

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

No.	ITEM	COMMENTS AND SETTINGS	Accept Yes / No
1,	Safety, environment and communication systems in place (PRE-START RECORD)		~
2.	Pre-commissioning documentation handed over from electrical subcontractor		V
3.	Visually check of the instrumentation including Display and sensors. Verify that they have been installed correctly in accordance with the manufacturer's manuals.		V
4.	Visual check of electrical connections to the sensors and instrumentation to verify that polarities are correct.		
5.	Verify that the float or level switch is installed in a way that it cannot be affected by any external mechanical influences.		V
6,	Verify that the float or level switch has been installed in a manner that allows itself to be easily maintained or removed		
T.	Document the models and serial numbers of all the instrumentation that is being tested.	Kumio	V
8.	Visually check panel, and obtain approval to Energise		/
9.	Verify that the supply protection is of a correct value.		V
10.	Energise Circuit		1
11.	Enter any programming required for the application, this might include input ranges, alarm outputs, retransmitted outputs, types of probes etc. Any setting which are different to default need to be recorded in table below.		

Final Inspection by: (Works completed & records reviewed)	no	Date: 12/3/12
		Page 1 of 3

QP Id: TMS373 Active: 21/11/2013 Page 27 of 81



Final Inspection by:

(Works completed & records reviewed)

CLIENT: Urban Utilities

OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: New scum holding tank level switch

TAG No.: LAL202/LAH202/LS202

Drive I	No.:	Date: 11/03/13			
		P&ID Dwg: 486/5/ 300744-I_DWG-50	5-0172-009(QUU) 04(Tenix)		
12	Perform a calibration of the the manufactures manual checking the calibration of solutions or programming HART programmer (if app	s. This might include f probes with buffer sensors directly with a			L
13.	Simulate readings across simple as tilting the float s Multitrode clear of the wat	witch or pulling a			
14.	Verify function of all remogauges etc if applicable	te indicators SCADA,			1
15.	Once all items have been	tested. Write down all			
	final parameters that have of this commissioning pro- downloadable, save the co handed over in the hando	cess. If this data is onfiguration fill, to be ver package.			V
RAME	of this commissioning produced by the commissioning produced by the commission of th	cess. If this data is onfiguration fill, to be ver package.	OM THE DEFAU	COMMI	ISSIONED SETTING
lo.	of this commissioning pro- downloadable, save the co- handed over in the hando	cess. If this data is onfiguration fill, to be ver package.		COMMI	ISSIONED SETTING
	of this commissioning produced by the commissioning produced by the commission of th	cess. If this data is onfiguration fill, to be ver package.	OM THE DEFAU	COMMI	
lo.	of this commissioning produced by the commissioning produced by the commission of th	cess. If this data is onfiguration fill, to be ver package.	OM THE DEFAU	COMMI	
lo. 1	of this commissioning produced by the commissioning produced by the commission of th	cess. If this data is onfiguration fill, to be ver package.	OM THE DEFAU	COMMI	
lo. 1 2	of this commissioning produced by the commissioning produced by the commission of th	cess. If this data is onfiguration fill, to be ver package.	OM THE DEFAU	COMMI	
10. 1 2 3	of this commissioning produced by the commissioning produced by the commission of th	cess. If this data is onfiguration fill, to be ver package.	OM THE DEFAU	COMMI	
10. 1 2 3 4 5	of this commissioning produced by the commissioning produced by the commission of th	cess. If this data is onfiguration fill, to be ver package.	OM THE DEFAU	COMMI	
10. 1 2 3 4 5	of this commissioning prodownloadable, save the contained over in the handown of the second over the contained over in the handown over the second over the se	cess. If this data is onfiguration fill, to be ver package. VERE CHANGED FROM DE	OM THE DEFAU	G COMMI	

QP Id: TMS373 Active: 21/11/2013 Page 28 of 81

Page 2 of 3

Date:



OPERATIONAL PRECOMMISSIONING **CHECKLIST**

CONTRACT TITLE: Fernyale Water Reclamation Plant Into

CLIENT: Urban Utilities	CONTRACT: ACTIVITY/PROCESS: New scum holding tank level switch TAG No.: LAL202/LAH202/LS202		
LOCATION/LOT DESCRIPTION		JEUZ/LATIZU	02/LS202
LOCATION LOT DESCRIPTION	M.		
Drive No.:	Date: 11/03/13		
	P&ID Dwg: 486 300744-I_DWG	5/5/5-0172-00	09(QUU)
		-3004(1emx	9
2			
3			
4			
5			
6			
Check Completed	V		
Minor Defects Generated		V	
Major Defects Generated Asset Installation Accepted			
otes:			
If no major defects, then fu			ire Date 12/5/17
lient's representative: Nar	ne	Signatu	ure Date
inal Inspection by: Vorks completed & records reviewed)			Date: (2/1)

QP Id: TMS373 Active: 21/11/2013 Page 29 of 81

Page 3 of 3



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 1 (Relocated)

TAG No.: RAS-PU-01

LOCATION/LOT DESCRIPTION	ON:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

No.	ITEM	COMMENTS	ACCEPT YES / NO
t.	Safety, environment and communication systems in place		123/10
2.	Check Subcontractor mechanical installation checklists are complete		/
3.	Verify installation of pump is in accordance with P&ID		/
4,	Verify oil level is correct if applicable		/
5.	Check that sump is free of debris before filling with liquid		/
6.	Check and record the serial number of the pump before the sump is filled or the pump is lowered into a wetwell.		/
7.	Is chain attached to pump and hanging from hook at top of sump?	٦	
8.	Are cables to pump adequately supported with 'socks' and hanging clear of pump suction?		
9.	Are cables of sufficient length to allow pump to be withdrawn and placed adjacent to sump?		
10.	Can pump cable be withdrawn from sump (in event of pump being replaced) without entering sump?		NA
11.	Are pumps able to be removed simply using guide rails? (if in doubt attempt to have pump removed using lifting device)		
12.	Are copies of the pump name plate attached to starter cubicle, or power cable in starter cubicle?		
13,	Verify pipe flushing is complete?		/
14.	Verify pipe pressure test is complete?		/
15.	Verify pump discharge is ready to receive water?		

Final Inspection	by:
(Works completed &	& records reviewed)

Date:

Page 1 of 5

QP Id: TMS373 Active: 21/11/2013 Page 30 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade CONTRACT:

ACTIVITY/PROCESS: RAS Pump 1 (Relocated)

TAG No.: RAS-PU-01

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

16.	Fill sump with water (prime pump suction)		
	Cubicle or Switchboard settings.		
17.	Power Circuit Breaker, i.e. Imax	16A m	CB V
18.	Overload Protection Relays, TOL		
19.	Thermistor Relay		
20.	Current Leakage Detection		
21.	Current relay		
22.	Cubicle Thermostat		1
23.	Timers		
24.	Moisture In Oil	N	A
25.	Moisture in Stator		151
26.	Shear Pin		
27.	Power Monitoring Relay		
28.	CT Ratios		
29.	Phase Failure Relay		
30.	Ammeter Range		
	Starter name plate details:		
31.	Volts	415V	/
32.	kW	2-20N	/
33.	FLC	12:7A	/
34.	Make	MLI ODU-4	
35,	Serial Number and Frame Type	105670026	/
36,	RPM	1400	./
37.	Starter Type: Variable Frequency Drive / Soft Starter / DOL	DOL	V
38. 39. 40.	Make		

Final Inspection by: (Works completed & records reviewed)	ne	Date: 12 3 12
	Page 2 o	f5

Active: 21/11/2013 QP Id: TMS373 Page 31 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 1 (Relocated)

TAG No.: RAS-PU-01

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

41.	Frame Type		
42.	Serial Number		
43.	Max capacity in kW		
44.	Input Volts		
45.	Settings:	\	NA
46.	Test all field connections for continuity to drive control circuits and or PLC		
47.	Cubicle Circuit Breaker Bypass Mechanism		
48.	Emergency Stop Monitor Relay wired correctly		
49.	TOL Reset Circuit tested		
	Field:		
50.	Reflux Valve Micro/Proximity Switch		NIF
51.	Drive connected to SPO/Field Isolator		/
52.	Confirm is the motor provided with Motor Thermo switch, Temperature Probe or a Thermistor and are correctly connected.		N(F
53.	Instrumentation installed and connected		1/
54.	Check safety switches and interlocks, mode selectors, stop/start station and E/Stops and wires are all connected and in the operational position.		/
55,	Check media if required is available for testing, ex. Clean water. May not be required until after a bump test proves rotation direction.		/
56.	Mountings are secure		1
57.	Fans and cowls are unobstructed		/
58.	All cables are labelled		1
	Power Up:		
59.	All personnel aware of energisation and signage in place		-/

	Λ	
Final Inspection by:	A 1	Date:
(Works completed & records reviewed)	rag	12/3/12
	Page 3	of 5

QP Id: TMS373 Active: 21/11/2013 Page 32 of 81



OPERATIONAL PRECOMMISSIONING **CHECKLIST**

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 1 (Relocated)

TAG No.: RAS-PU-01

LOCATION/LOT DES	CRIPTION:	
Drive No.:	Date: 11/03/13	
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)	

60.	Switch on all internal Circuit Breakers and install all fuses.			V
61.	Close switchboard and energise			1
62.	Energise Cubicle or switchboard			V
63.	Energise associated equipment UPS, PLC, etc			V
64.	With safety requirements in place bypass door mechanism and open cubicle			
65.	Check lights, relays and drives energise and all circuit breakers and fuses are OK			V
66.	Bump test and prove rotation direction. (Refer Check media above)			V
67.	Verify by testing all mode, field and protection devices operate correctly. Where required run the drive or equipment or/and provide simulation input.			V
68.	Verify by testing all remote control from SCADA or HMI's, process control and interlocking, Where required run the drive or equipment or/and provide simulation input.			/
	Performance Testing (if applicable):			
69.	State whether under load or no load.			MA
70.	Record over operating range if applicable:	Flow	Pressure	1.0()/(
71.	100% Output			
72.	50% Output			

No.	PARAMETER	DEFAULT SETTING	COMMISSIONED SETTING AND COMMENTS
1			COMMENTS
2			
3			
4			

Final Inspection by: (Works completed & records reviewed)	Date: 12/3/12		
	Page 4 c	of 5	

QP Id: TMS373 Active: 21/11/2013 Page 33 of 81



OPERATIONAL PRECOMMISSIONING **CHECKLIST**

	Drive No.:		Date: 11/03/13			
		P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I_DWG-5004(Tenix)				UU)
5						
6						
CORRECTIVE AC						
No.	ITEM			ACCEP.	TABLE	COMMENTS
Final Results		1	YES	NO		Comments
Check Comple	ted		/			
Minor Defects	Generated			/		
Major Defects Asset Installation			-/	V		
10001 IIIOtalialli	on Accepted		V			
If no major d	efects, then furth	ner testing	may p	roceed.		
		MA Ro.	- n 1	A		N. O ala
	Engineer: Name		LOCA	Sign	ature	Date 12 3
Commissioning	g					

Final Inspection by: Date: (Works completed & records reviewed) Page 5 of 5

QP Id: TMS373 Active: 21/11/2013 Page 34 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 1 pressure switch

TAG No.: PAHH201/PS201

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU)

No.	ITEM	COMMENTS AND SETTINGS	Accept Yes / No
1.	Safety, environment and communication systems in place (PRE-START RECORD)		V
2.	Pre-commissioning documentation handed over from electrical subcontractor		V
3.	Visually check of the instrumentation including Display and sensors. Verify that they have been installed correctly in accordance with the manufacturer's manuals.		V
4.	Visual check of electrical connections to the sensors and instrumentation to verify that polarities are correct.		/
5.	Verify that there are no leaks or potential for leaks in the future		V
6.	Ensure equipment to be used is with calibration date. Note down the Model: Serial Number: Next Cal date Due:		NA
7.	Document the models and serial numbers of all the instrumentation that is being tested.	1FM P12796 0-2.5BAR	-
8.	Visually check panel, and obtain approval to Energise		1
9.	Verify that the supply protection is of a correct value.		/
10.	Energise Circuit		V

Final Inspection by: (Works completed & records reviewed)

my

Date: 12/3 17

Page 1 of 3

QP Id: TMS373 Active: 21/11/2013 Page 35 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 1 pressure switch

TAG No.: PAHH201/PS201

LOCATION/LOT DESCRI	PTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

11.	Make Adjustments to the settings to trip at the correct pressure	
		V
12.	Perform a calibration of the instrumentation as per the manufactures manuals. This might include pressurizing with the process pressure or with an external pressure source.	
13.	Activate switch and verify function of all remote indicators, gauges, SCADA etc	~
14.	Once all items have been tested. Write down all final parameters that have been changed as part of this commissioning process. If this data is downloadable, save the configuration fill, to be handed over in the handover package.	

No.	PARAMETER	DEFAULT SETTING	COMMISSIONED SETTING AND COMMENTS
	Trip Selling		1 BAR
2			
3			
4			
5			8"
6			
7			
8			

Final Inspection by: (Works completed & records reviewed)	My	Date: 12	3	12
	N. Carlotte	Page 2	of 3	

QP Id: TMS373 Active: 21/11/2013 Page 36 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 1 pressure switch

TAG No.: PAHH201/PS201

LOCATION/LOT DESCRIPTIO	N:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I_DWG-5004(Tenix)

No.	ITEM	ACCEPTABLE	COMMENTS
1	Postion		CH IT
2			pressure line
3			prosoure line
4			
5			
6			

Final Results	YES	NO	Comments
Check Completed		11	
Minor Defects Generated		WC .	
Major Defects Generated			
Asset Installation Accepted			

Notes:

 If no major defects, the 	en further testing may proceed.	
Commissioning Engineer:	Name M. PRINTID Signature. M. Date 1	2/3/17
Client's representative:	Name Date	

Final Inspection by: (Works completed & records reviewed)	MAR	Date: 12	17
	1001	14)	1,0

Page 3 of 3

QP Id: TMS373 Active: 21/11/2013 Page 37 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

ACTIVITY/PROCESS: RAS Pump 2 (Relocated)

TAG No.: RAS-PU-02

CLIENT:	Urban	Utilities

LOCATION/LOT DES	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

No.	ITEM	COMMENTS	ACCEPT YES/NO
I.	Safety, environment and communication systems in place	i di	V
2.	Check Subcontractor mechanical installation checklists are complete		V
3,	Verify installation of pump is in accordance with P&ID		/
4.	Verify oil level is correct if applicable		/
5.	Check that sump is free of debris before filling with liquid		
6.	Check and record the serial number of the pump before the sump is filled or the pump is lowered into a wetwell.		/
7.	Is chain attached to pump and hanging from hook at top of sump?		,
8.	Are cables to pump adequately supported with 'socks' and hanging clear of pump suction?		
9,	Are cables of sufficient length to allow pump to be withdrawn and placed adjacent to sump?		
10.	Can pump cable be withdrawn from sump (in event of pump being replaced) without entering sump?		NIA
11.	Are pumps able to be removed simply using guide rails? (if in doubt attempt to have pump removed using lifting device)		
12.	Are copies of the pump name plate attached to starter cubicle, or power cable in starter cubicle?		
13.	Verify pipe flushing is complete?		V
14.	Verify pipe pressure test is complete?		
15,	Verify pump discharge is ready to receive water?		/

Final Inspection by: (Works completed & records reviewed)	M	Date: 123 n
	Page 1	of 5

QP Id: TMS373 Active: 21/11/2013 Page 38 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

ACTIVITY/PROCESS: RAS Pump 2 (Relocated)

TAG No.: RAS-PU-02

CLIENT:	Urban	Utilities
---------	-------	-----------

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

16.	Fill sump with water (prime pump suction)		
	Cubicle or Switchboard settings.		
17.	Power Circuit Breaker, i.e. Imax	iba mcg	V
18.	Overload Protection Relays, TOL		
19.	Thermistor Relay		
20.	Current Leakage Detection		1
21.	Current relay		
22.	Cubicle Thermostat		
23.	Timers		
24.	Moisture In Oil		1
25.	Moisture in Stator		MA
26.	Shear Pin		
27.	Power Monitoring Relay		
28.	CT Ratios		
29.	Phase Failure Relay		
30.	Ammeter Range		
	Starter name plate details:		
31.	Volts	415V	V
32.	kW	415V 2.2KW	
33.	FLC	12.7A	
34.	Make.	MLIDOLI-4	
35.	Serial Number and Frame Type	105670022	V
36.	RPM	1400	V
37.	Starter Type: Variable Frequency Drive / Soft Starter / DOL	DOC	V
38. 39. 40.	Make		NIA

Final Inspection by: (Works completed & records reviewed)	IM	Date: 12[3]	12
	Page 2	ef 5	

QP Id: TMS373 Active: 21/11/2013 Page 39 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 2 (Relocated)

TAG No.: RAS-PU-02

LOCATION/LOT DESCRIPTION	ī:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

41.	Frame Type	
42.	Serial Number	
43.	Max capacity in kW	
44.	Input Volts	NIA
45.	Settings:	11/74
46.	Test all field connections for continuity to drive control circuits and or PLC	
47.	Cubicle Circuit Breaker Bypass Mechanism	
48.	Emergency Stop Monitor Relay wired correctly	
49.	TOL Reset Circuit tested	
	Field:	
50.	Reflux Valve Micro/Proximity Switch	NA
51.	Drive connected to SPO/Field Isolator	
52.	Confirm is the motor provided with Motor Thermo switch, Temperature Probe or a Thermistor and are correctly connected.	N(+
53.	Instrumentation installed and connected	· ·
54.	Check safety switches and interlocks, mode selectors, stop/start station and E/Stops and wires are all connected and in the operational position.	
55.	Check media if required is available for testing, ex. Clean water. May not be required until after a bump test proves rotation direction.	/
56.	Mountings are secure	
57.	Fans and cowls are unobstructed	i/
58.	All cables are labelled	
	Power Up:	
59.	All personnel aware of energisation and signage in place	/

Final Inspection by: (Works completed & records reviewed)

Date:

Page 3 of 5



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 2 (Relocated)

TAG No.: RAS-PU-02

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU)

60.	Switch on all internal Circuit Breakers and install all fuses.			V
61.	Close switchboard and energise			/
62.	Energise Cubicle or switchboard			1
63.	Energise associated equipment UPS, PLC, etc			/
64.	With safety requirements in place bypass door mechanism and open cubicle			/
65.	Check lights, relays and drives energise and all circuit breakers and fuses are OK			1
66.	Bump test and prove rotation direction. (Refer Check media above)			V
67.	Verify by testing all mode, field and protection devices operate correctly. Where required run the drive or equipment or/and provide simulation input.			
68.	Verify by testing all remote control from SCADA or HMI's, process control and interlocking, Where required run the drive or equipment or/and provide simulation input.			/
	Performance Testing (if applicable):			
69.	State whether under load or no load.			MA
70.	Record over operating range if applicable:	Flow	Pressure	14
71.	100% Output			
72.	50% Output			

VSD or SOFT STARTER PARAMETER SETTINGS WHICH WERE CHANGED FROM THE DEFAULT COMMISSIONED SETTING AND No. PARAMETER **DEFAULT SETTING** COMMENTS 2 3

Final Inspection by: (Works completed & records reviewed) Date:

Page 4 of 5

QP Id: TMS373 Active: 21/11/2013 Page 41 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

There are	ln.	4 (0.2.14.2			
Drive No.:	P&ID	1/03/13 Dwg: 486	5/5/5-017	2-009(Q	UU)
	1 300 /44	-1_DWG	5-5004(Te	nix)	
5					
6					
CORRECTIVE ACTION					
No. ITE	М		ACCEP1	ABLE	COMMENTS
Final Results		YES	NO		Comments
Check Completed		1/			
Minor Defects Generated					
Major Defects Generated			1		
Asset Installation Accepted		V			
tooot motamation / toooptou	further testing				pul Date 12/3/
. If no major defects, then	ma M Ra	TChAD	/)0:		I V Data I/J
Collinson Collinson	ame MR	TCIAR	Sign	ature	Date

Final Inspection by: (Works completed & records reviewed) M Date: 12 3 12

Page 5 of 5



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 2 pressure switch

TAG No.: PAHH202/PS202

LOCATION/LOT DES	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU)

No.	ITEM	COMMENTS AND SETTINGS	Accept Yes / No
1.	Safety, environment and communication systems in place (PRE-START RECORD)		V
2.	Pre-commissioning documentation handed over from electrical subcontractor		/
3.	Visually check of the instrumentation including Display and sensors. Verify that they have been installed correctly in accordance with the manufacturer's manuals.		V
4.	Visual check of electrical connections to the sensors and instrumentation to verify that polarities are correct.		
5,	Verify that there are no leaks or potential for leaks in the future		/
6.	Ensure equipment to be used is with calibration date. Note down the Model: Serial Number: Next Cal date Due:		NA
7.	Document the models and serial numbers of all the instrumentation that is being tested.	15m 12796 0-2.5BAR	V
8.	Visually check panel, and obtain approval to Energise		~
9.	Verify that the supply protection is of a correct value.		
10.	Energise Circuit		

Final Inspection by: (Works completed & records reviewed) m

Date: 12/3/17

Page 1 of 3



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 2 pressure switch

TAG No.: PAHH202/PS202

LOCATION/LOT DESCRIPTION:		
Drive No.:	Date: 11/03/13	
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I_DWG-5004(Tenix)	

11	. Make Adjustments to the settings to trip at the correct pressure	V
12.	Perform a calibration of the instrumentation as per the manufactures manuals. This might include pressurizing with the process pressure or with an external pressure source.	
13.	Activate switch and verify function of all remote indicators, gauges, SCADA etc	V
14.	Once all items have been tested. Write down all final parameters that have been changed as part of this commissioning process. If this data is downloadable, save the configuration fill, to be handed over in the handover package.	

No.	PARAMETER	DEFAULT SETTING	COMMISSIONED SETTING AND COMMENTS
1	Trip Selling		IBAR
2	,		
3			
4			
5			
6			
7			
8			

Final	Inspection by:	
(Work	completed & records reviewed)	

my

Date: 2/3/12

Page 2 of 3

QP Id: TMS373 Active: 21/11/2013 Page 44 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 2 pressure switch

TAG No.: PAHH202/PS202

Drive No.:	Date: 11/03/13
1 = 1	P&ID Dwg: 486/5/5-0172-009(QUU 300744-I_DWG-5004(Tenix)

No.	ITEM	ACCEPTABLE	COMMENTS
1	Position	X	fit into preson
2			line
3			
4			
5			
6			

Final Results	YES	NO	Comments
Check Completed	V	11-1	
Minor Defects Generated	V	The same of the sa	
Major Defects Generated			
Asset Installation Accepted	1/	1 2 1	

Notes:

1. If no major defects,	then further testing may proceed.		
Commissioning Engine	er: Name M. fr. Tersal Signature. M.	Date	12/3/12
Client's representative:	Name Signature	Date	

Final Inspection by: (Works completed & records reviewed)	m	Date; 2317
		Page 2 of 2

QP Id: TMS373 Active: 21/11/2013 Page 45 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 3

TAG No.: RAS-PU-03

LOCATION/LOT DESCRIPTION	ON:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I_DWG-5004(Tenix)

No.	ITEM	COMMENTS	ACCEPT YES / NO
i.	Safety, environment and communication systems in place		V
2.	Check Subcontractor mechanical installation checklists are complete		~
3.	Verify installation of pump is in accordance with P&ID		/
4.	Verify oil level is correct if applicable		1
5.	Check that sump is free of debris before filling with liquid		V
6-	Check and record the serial number of the pump before the sump is filled or the pump is lowered into a wetwell.		
7.	Is chain attached to pump and hanging from hook at top of sump?		
8.	Are cables to pump adequately supported with 'socks' and hanging clear of pump suction?		
9.	Are cables of sufficient length to allow pump to be withdrawn and placed adjacent to sump?		
10.	Can pump cable be withdrawn from sump (in event of pump being replaced) without entering sump?		MIA
11,	Are pumps able to be removed simply using guide rails? (if in doubt attempt to have pump removed using lifting device)		
12.	Are copies of the pump name plate attached to starter cubicle, or power cable in starter cubicle?		
13.	Verify pipe flushing is complete?		
14.	Verify pipe pressure test is complete?		V
15.	Verify pump discharge is ready to receive water?		

Final Inspection by: (Works completed & records reviewed) 12312 Da

Date:

mg

Page 1 of 5



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 3

TAG No.: RAS-PU-03

LOCATION/LOT DES	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU)

16.	Fill sump with water (prime pump suction)		/
	Cubicle or Switchboard settings.		
17.	Power Circuit Breaker, i.e. Imax		1
18.	Overload Protection Relays, TOL	6-34	
19.	Thermistor Relay		
20.	Current Leakage Detection		
21.	Current relay		
22.	Cubicle Thermostat		
23.	Timers		
24.	Moisture In Oil		ILA
25,	Moisture in Stator		Alx
26.	Shear Pin		
27.	Power Monitoring Relay		
28.	CT Ratios		
29.	Phase Failure Relay		
30.	Ammeter Range		
	Starter name plate details:		/
31.	Volts	415V	
32.	kW	3	V
33.	FLC	6-3A	
34.	Make	SEW ENROBLINE	V
35.	Serial Number and Frame Type	RF47 PREPOLCA	DH
36.	RPM	1455 000271	3.
37.	Starter Type: Variable Frequency Drive / Soft Starter / DOL	DOI	1
38. 39. 40.	Make	<i>y</i> • <i>U</i> •	N/A

Final Inspection by: (Works completed & records reviewed)	lur.	Date: (2) 2 12
(or an equipleted to records reviewed)	7	14511
	Dogo 2	25

QP Id: TMS373 Active: 21/11/2013 Page 47 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 3

TAG No.: RAS-PU-03

CLIENT:	Urban	Utilities

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

41.	Frame Type	
42.	Serial Number	
43.	Max capacity in kW	
44.	Input Volts	N/A
45.	Settings:	lide
46.	Test all field connections for continuity to drive control circuits and or PLC	
47.	Cubicle Circuit Breaker Bypass Mechanism	
48.	Emergency Stop Monitor Relay wired correctly	
49.	TOL Reset Circuit tested	
	Field:	
50.	Reflux Valve Micro/Proximity Switch	N
51.	Drive connected to SPO/Field Isolator	14
52.	Confirm is the motor provided with Motor Thermo switch, Temperature Probe or a Thermistor and are correctly connected.	N
53.	Instrumentation installed and connected	-
54.	Check safety switches and interlocks, mode selectors, stop/start station and E/Stops and wires are all connected and in the operational position.	
55.	Check media if required is available for testing, ex. Clean water. May not be required until after a bump test proves rotation direction.	L
56.	Mountings are secure	1/
57.	Fans and cowls are unobstructed	V
58.	All cables are labelled	60
	Power Up:	
59.	All personnel aware of energisation and signage in place	

	^		
Final Inspection by: (Works completed & records reviewed)	m	Date:	17_
	Page 3	of 5	

QP Id: TMS373 Active: 21/11/2013 Page 48 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 3

TAG No.: RAS-PU-03

LOCATION/LOT DES	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU)

60.	Switch on all internal Circuit Breakers and install all fuses.			V
61.	Close switchboard and energise			-
62.	Energise Cubicle or switchboard			V
63.	Energise associated equipment UPS, PLC, etc		/	
64.	With safety requirements in place bypass door mechanism and open cubicle			/
65.	Check lights, relays and drives energise and all circuit breakers and fuses are OK			V
66.	Bump test and prove rotation direction. (Refer Check media above)			/
67.	Verify by testing all mode, field and protection devices operate correctly. Where required run the drive or equipment or/and provide simulation input.			/
68.	Verify by testing all remote control from SCADA or HMI's, process control and interlocking, Where required run the drive or equipment or/and provide simulation input.			/
	Performance Testing (if applicable):			
69.	State whether under load or no load.			NIA
70.	Record over operating range if applicable:	Flow	Pressure	(2)
71.	100% Output			
72.	50% Output			

No.	PARAMETER	DEFAULT SETTING	COMMISSIONED SETTING AND COMMENTS
1			
2			
3			~

Final Inspection by:
(Works completed & records reviewed)

Date: 12317

Page 4 of 5



OPERATIONAL PRECOMMISSIONING CHECKLIST

LOCATION/LOT DESCR						
Drive No.:	I	Date: 11/03/13 P&ID Dwg: 4: 000744-I_DW	86/5/5-017	72-009(Q enix)	UU)	
-5						
6						
CORRECTIVE ACTION						
No.	ITEM		ACCEP	TABLE	COMMEN	NTS
Final Results		YES	NO	1		Comments
						Comments
Check Completed Minor Defects Generate	d		1			
Major Defects Generate			LV			
Asset Installation Accep		V		7		
. If no major defects, the	nen further to				nQ	Date V
						Date

Final Inspection by: (Works completed & records reviewed)

QP Id: TMS373

VIQ Date: 12/3/12

Page 5 of 5

Active: 21/11/2013 Page 50 of 81



OPERATIONAL PRECOMMISSIONING **CHECKLIST**

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 3 pressure switch

TAG No.: PAHH203/PS203

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

No.	ITEM	COMMENTS AND SETTINGS	Accept Yes / No
1.	Safety, environment and communication systems in place (PRE-START RECORD)		V
2.	Pre-commissioning documentation handed over from electrical subcontractor		
3,	Display and sensors. Verify that they have been installed correctly in accordance with the manufacturer's manuals.		
4.	Visual check of electrical connections to the sensors and instrumentation to verify that polarities are correct.		~
5,	Verify that there are no leaks or potential for leaks in the future		
6.	Ensure equipment to be used is with calibration date. Note down the Model: Serial Number: Next Cal date Due:		MA
7.	Document the models and serial numbers of all the instrumentation that is being tested.	1FM 12796 0-2-5BAR	V
8.	Visually check panel, and obtain approval to Energise		/
9.	Verify that the supply protection is of a correct value.		
10.	Energise Circuit		./

Final Inspection by: (Works completed & records reviewed)



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade CONTRACT:

ACTIVITY/PROCESS: RAS Pump 3 pressure switch

TAG No.: PAHH203/PS203

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

11	Make Adjustments to the settings to trip at the correct pressure	
12.	Perform a calibration of the instrumentation as per the manufactures manuals. This might include pressurizing with the process pressure or with an external pressure source.	~
13.	Activate switch and verify function of all remote indicators, gauges, SCADA etc	V
14.	Once all items have been tested. Write down all final parameters that have been changed as part of this commissioning process. If this data is downloadable, save the configuration fill, to be handed over in the handover package.	

No.	PARAMETER	DEFAULT SETTING	COMMISSIONED SETTING AND COMMENTS
1	Try Silling		1 BAR
2			
3			4
4			
5			
6			
7			
8			

Final Inspection by:	// A.1	Date:
(Works completed & records reviewed)	ull	13/3/12
	0	Page 2 of 3

Page 52 of 81

QP Id: TMS373

Active: 21/11/2013



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 3 pressure switch

TAG No.: PAHH203/PS203

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I_DWG-5004(Tenix)

No.	(TEM	ACCEPTABLE	COMMENTS
1	Position		Fit into pressure
2			1100
3			We,
4			
5			
6			

Final Results	YES	NO	Comments
Check Completed		14	
Minor Defects Generated	V	de	
Major Defects Generated			
Asset Installation Accepted			

Notes:

	en further testing may proceed.	
Commissioning Engineer	: Name M. FL. TWAD Signature. M.) Date
Client's representative:	Name Signature	Date

Final Inspection by:	1	1-	. /	
(Works completed & records reviewed)	Mall	Date:	13	1.
	1004	1	77	, ,

Page 3 of 3

QP Id: TMS373 Active: 21/11/2013 Page 53 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 4

TAG No.: RAS-PU-04

LOCATION/LOT DESCRIPT	TON:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I_DWG-5004(Tenix)

No.	ITEM	COMMENTS	ACCEPT YES / NO
1.	Safety, environment and communication systems in place		V
2.	Check Subcontractor mechanical installation checklists are complete		V
3.	Verify installation of pump is in accordance with P&ID		~
4.	Verify oil level is correct if applicable		/
5,	Check that sump is free of debris before filling with liquid		/
6.	Check and record the serial number of the pump before the sump is filled or the pump is lowered into a wetwell.		/
7.	Is chain attached to pump and hanging from hook at top of sump?	~	
8.	Are cables to pump adequately supported with 'socks' and hanging clear of pump suction?		
9.	Are cables of sufficient length to allow pump to be withdrawn and placed adjacent to sump?		
10.	Can pump cable be withdrawn from sump (in event of pump being replaced) without entering sump?		11/4
11.	Are pumps able to be removed simply using guide rails? (if in doubt attempt to have pump removed using lifting device)		>NA(
12.	Are copies of the pump name plate attached to starter cubicle, or power cable in starter cubicle?		
13.	Verify pipe flushing is complete?		/
14.	Verify pipe pressure test is complete?		/
15.	Verify pump discharge is ready to receive water?		

Final Inspection by: (Works completed & records reviewed) Date:

12/3/12

Page 1 of 5



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 4

TAG No.: RAS-PU-04

LOCATION/LOT DESCRIPTION	N:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I_DWG-5004(Tenix)

16.	Fill sump with water (prime pump suction)		/
	Cubicle or Switchboard settings.		
17.	Power Circuit Breaker, i.e. Imax		V
18.	Overload Protection Relays, TOL	6-3A	
19.	Thermistor Relay		
20.	Current Leakage Detection		
21.	Current relay		
22.	Cubicle Thermostat		
23.	Timers		
24.	Moisture In Oil		
25.	Moisture in Stator		NA
26.	Shear Pin		0(
27.	Power Monitoring Relay		
28.	CT Ratios		
29.	Phase Failure Relay		
30.	Ammeter Range		
	Starter name plate details:		
31.	Volts	4is	-
32.	kW	3	/
33.	FLC	6-3A	/
34.	Make	SEW EUROPHINE	1
35,	Serial Number and Frame Type	20184381890200	D1X13
36.	RPM	1455	
37,	Starter Type: Variable Frequency Drive / Soft Starter / DOL	Doc	V
38. 39. 40.	Make		NA

Final Inspection by: (Works completed & records reviewed)	rel	Date: 1)3	17/
	Page 2 c	of 5	

QP Id: TMS373 Active: 21/11/2013 Page 55 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 4

TAG No.: RAS-PU-04

LOCATION/LOT DESCRIPTION:	
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

41.	Frame Type	,)
42.	Serial Number		
43.	Max capacity in kW		
44.	Input Volts		>NA
45.	Settings:		
46.	Test all field connections for continuity to drive control circuits and or PLC		
47.	Cubicle Circuit Breaker Bypass Mechanism		
48.	Emergency Stop Monitor Relay wired correctly		
49.	TOL Reset Circuit tested		
	Field:		1
50.	Reflux Valve Micro/Proximity Switch		NA
51.	Drive connected to SPO/Field Isolator		
52.	Confirm is the motor provided with Motor Thermo switch, Temperature Probe or a Thermistor and are correctly connected.	Ref	NA
53.	Instrumentation installed and connected		1/
54.	Check safety switches and interlocks, mode selectors, stop/start station and E/Stops and wires are all connected and in the operational position.		
55.	Check media if required is available for testing, ex. Clean water. May not be required until after a bump test proves rotation direction.		
56.	Mountings are secure		-
57.	Fans and cowls are unobstructed		1
58,	All cables are labelled		V
	Power Up:		
59.	All personnel aware of energisation and signage in place		

			1	
Final Inspection by: (Works completed & records reviewed)	M	Date: 12	3	12
	Page 3 o	f 5	1	

QP Id: TMS373 Active: 21/11/2013 Page 56 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 4

TAG No.: RAS-PU-04

LOCATION/LOT DES	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

60.	Switch on all internal Circuit Breakers and install all fuses.			V
61.	Close switchboard and energise	Close switchboard and energise		V
62.	Energise Cubicle or switchboard		V	
63.	Energise associated equipment UPS, PLC, etc		/	
64.	With safety requirements in place bypass door mechanism and open cubicle	With safety requirements in place bypass door mechanism and open cubicle		/
65.	Check lights, relays and drives energise and all circuit breakers and fuses are OK			/
66.	Bump test and prove rotation direction. (Refer Check media above)		/	
67.	Verify by testing all mode, field and protection devices operate correctly. Where required run the drive or equipment or/and provide simulation input.			/
68.	Verify by testing all remote control from SCADA or HMI's, process control and interlocking, Where required run the drive or equipment or/and provide simulation input.			
	Performance Testing (if applicable):			
69.	State whether under load or no load.			NA
70.	Record over operating range if applicable:	Flow	Pressure	
71.	100% Output			
72.	50% Output			

No.	PARAMETER	DEFAULT SETTING	COMMISSIONED SETTING AND COMMENTS
1			- Comment
2			
3			
4			

Final Inspection by:
(Works completed & records reviewed)

Page 4 of 5

Date:

QP Id: TMS373 Active: 21/11/2013 Page 57 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

Drive No.:	P&I	e: 11/03/13 D Dwg: 48 /44-I_DWC	6/5/5-017 G-5004(Te	2-009(Q nix)	UU)	
5						
6						
CORRECTIVE ACTION						
No.	ITEM		ACCEPT	ABLE	COMMENTS	
		-				
Final Results		YES	NO		Comm	ents
Check Completed		1				
Minor Defects Generated	d		1			
Major Defects Generated						
Asset Installation Accept	ed					
If no major defects, the					0	. 4
Commissioning Engineer	: Name . M	ALT ZX	Sign	ature	my	Date .12.13.

Final Inspection by: (Works completed & records reviewed)

Date: 12/3/12

Page 5 of 5

QP Id: TMS373 Active: 21/11/2013 Page 58 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 4 pressure switch

TAG No.: PAHH204/PS204

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

No.	ITEM	COMMENTS AND SETTINGS	Accept Yes / No
1.	Safety, environment and communication systems in place (PRE-START RECORD)		~
2.	Pre-commissioning documentation handed over from electrical subcontractor		V
3.	Visually check of the instrumentation including Display and sensors. Verify that they have been installed correctly in accordance with the manufacturer's manuals.		/
4.	Visual check of electrical connections to the sensors and instrumentation to verify that polarities are correct.		V
5.	Verify that there are no leaks or potential for leaks in the future		V
6.	Ensure equipment to be used is with calibration date. Note down the Model: Serial Number: Next Cal date Due:		NIA
7.	Document the models and serial numbers of all the instrumentation that is being tested.	1fm P12796 0-2.5BAR	~
8.	Visually check panel, and obtain approval to Energise		~
9.	Verify that the supply protection is of a correct value.		/
10.	Energise Circuit		./

Final Inspection by: (Works completed & records reviewed)	in	Date: 12 2 12
	V- V	12/3/12

Page 1 of 3

QP Id: TMS373 Active: 21/11/2013 Page 59 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: RAS Pump 4 pressure switch

TAG No.: PAHH204/PS204

LOCATION/LOT DES	CRIPTION:
Drive No.:	Date: 11/03/13
7.7.2	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I_DWG-5004(Tenix)

11	Make Adjustments to the settings to trip at the correct pressure	
12.	Perform a calibration of the instrumentation as per the manufactures manuals. This might include pressurizing with the process pressure or with an external pressure source.	V
13.	Activate switch and verify function of all remote indicators, gauges, SCADA etc	
14.	Once all items have been tested. Write down all final parameters that have been changed as part of this commissioning process. If this data is downloadable, save the configuration fill, to be handed over in the handover package.	

No.	PARAMETER	DEFAULT SETTING	COMMISSIONED SETTING AND COMMENTS
1	Tip Setting		# 1 Bar
2	, -		
3			
4			
5			
6			
7			
8			

Final	Inspection	by:	
(Work	s completed &	records	reviewed)

und

Date: 12/3/12

Page 2 of 3

QP Id: TMS373 Active: 21/11/2013 Page 60 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CLIENT: Urban Utilities CONTRACT: ACTIVITY/PR

ACTIVITY/PROCESS: RAS Pump 4 pressure switch

TAG No.: PAHH204/PS204

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-1_DWG-5004(Tenix)

No.	ITEM	ACCEPTABLE	COMMENTS
1	Position -	X	Folty unto Pressur
2			1.n.o
3			u Q
4			A
5			
6			

Final Results	YES	NO	Comments
Check Completed		445	
Minor Defects Generated		ec .	
Major Defects Generated		1/	
Asset Installation Accepted			

Notes:

	en further testing may proceed.		
Commissioning Engineer	Name M. M. Trush D. Signature	Date	12/3/12
Client's representative:	Name Signature	Date	

Final Inspection by: (Works completed & records reviewed)	m	Date: 12 3 12
		Page 2 of 2

Page 3 of 3

QP Id: TMS373 Active: 21/11/2013 Page 61 of 81



OPERATIONAL PRECOMMISSIONING **CHECKLIST**

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: WAS Pump 1 pressure switch

TAG No.: PAHH205/PS205

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

No.	ITEM	COMMENTS AND SETTINGS	Accept Yes / No
1.	Safety, environment and communication systems in place (PRE-START RECORD)		J
2.	Pre-commissioning documentation handed over from electrical subcontractor		V
3.	Display and sensors. Verify that they have been installed correctly in accordance with the manufacturer's manuals.		
4.	Visual check of electrical connections to the sensors and instrumentation to verify that polarities are correct.		
5.	Verify that there are no leaks or potential for leaks in the future		V
6.	Ensure equipment to be used is with calibration date. Note down the Model: Serial Number: Next Cal date Due:		NA
7.	Document the models and serial numbers of all the instrumentation that is being tested.	1 FM P127 96 0-2.5 BAR	
8.	Visually check panel, and obtain approval to Energise		
9.	Verify that the supply protection is of a correct value.		~
10.	Energise Circuit		

Final	Inspection by:
(Work	s completed & records reviewed)

Date:

Page 1 of 3

QP Id: TMS373 Active: 21/11/2013 Page 62 of 81



LOCATION/LOT DESCRIPTION:

14. Once all items have been tested. Write down all final parameters that have been changed as part of this commissioning process. If this data is downloadable, save the configuration fill, to be

handed over in the handover package.

OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: WAS Pump 1 pressure switch

TAG No.: PAHH205/PS205

Drive No.:	Date: 11/03/13	
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I_DWG-5004(Tenix)	
11. Make Adjustme correct pressur	ents to the settings to trip at the	~
the manufacture	ration of the instrumentation as per es manuals. This might include h the process pressure or with an re source.	
13. Activate switch indicators, gaug	and verify function of all remote	1/

No.	PARAMETER	DEFAULT SETTING	COMMISSIONED SETTING AND COMMENTS
	Try Selling		1 Bar
2	,		
3			
4			
5	-		
6			
7			
8			

Final Inspection by: (Works completed & records reviewed)	vil	Date: 12 3 12
		7 0 00

Page 2 of 3

QP Id: TMS373 Active: 21/11/2013 Page 63 of 81



LOCATION/LOT DESCRIPTION:

OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: WAS Pump 1 pressure switch

TAG No.: PAHH205/PS205

Drive No.:	_	Date: 11/03/13	
		P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I_DWG-5004(Tenix)	
ORRECTIVE A	CTION		
No.	ITEM	ACCEPTABLE	COMMENTS
1			
2			
3			
4			
5			
6			

Final Results	YES	NO	Comments
Check Completed	V		
Minor Defects Generated			
Major Defects Generated		N	
Asset Installation Accepted	0		

Notes:

1. If no major defects, th	en further testing may proc	eed.		
Commissioning Engineer	: Name M. PATTAND	Signature	Date	12/3/12
Client's representative:	Name	. Signature	. Date	

Final Inspection by:	
(Works completed & records	reviewe

Date: 12/3/17
Page 3 of 3

QP Id: TMS373 Active: 21/11/2013 Page 64 of 81



OPERATIONAL PRECOMMISSIONING **CHECKLIST**

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: WAS Pump 1 (Relocated)

TAG No.: WAS-PU-01

LOCATION/LOT DESCRIPTION	
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I_DWG-5004(Tenix)

No.	ITEM	COMMENTS	ACCEPT VES / NO
1.	Safety, environment and communication systems in place		1/
2.	Check Subcontractor mechanical installation checklists are complete	Wet Available	MA.
3,	Verify installation of pump is in accordance with P&ID	7 10000	/
4.	Verify oil level is correct if applicable		NIA
5.	Check that sump is free of debris before filling with liquid		1
6.	Check and record the serial number of the pump before the sump is filled or the pump is lowered into a wetwell.		V
7.	Is chain attached to pump and hanging from hook at top of sump?		
8.	Are cables to pump adequately supported with 'socks' and hanging clear of pump suction?		
9.	Are cables of sufficient length to allow pump to be withdrawn and placed adjacent to sump?		
10.	Can pump cable be withdrawn from sump (in event of pump being replaced) without entering sump?		AA
11.	Are pumps able to be removed simply using guide rails? (if in doubt attempt to have pump removed using lifting device)		
12.	Are copies of the pump name plate attached to starter cubicle, or power cable in starter cubicle?		
13.	Verify pipe flushing is complete?		~
14.	Verify pipe pressure test is complete?		
15.	Verify pump discharge is ready to receive water?		V_

Final Inspection by: (Works completed & records reviewed)

Date: [

QP Id: TMS373 Active: 21/11/2013 Page 65 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: WAS Pump 1 (Relocated)

TAG No.: WAS-PU-01

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU)

16.	Fill sump with water (prime pump suction)		
	Cubicle or Switchboard settings.		
17.	Power Circuit Breaker, i.e. Imax	16A Mes	~
18.	Overload Protection Relays, TOL		
19.	Thermistor Relay		
20.	Current Leakage Detection		
21.	Current relay		
22.	Cubicle Thermostat		
23.	Timers		
24.	Moisture In Oil		
25.	Moisture in Stator	10/	4
26.	Shear Pin		
27.	Power Monitoring Relay		
28.	CT Ratios		
29.	Phase Failure Relay		
30.	Ammeter Range		
	Starter name plate details:		
31.	Volts	415V	V
32.	kW	2.2k	1
33.	FLC	6.35A	~
34.	Make	TECO AUST	
35.	Serial Number and Frame Type	MLIGOL	
36,	RPM	105670020	
37.	Starter Type: Variable Frequency Drive / Soft Starter / DOL	1400 DOL	
38. 39. 40.	Make		NHA

Final Inspection by: (Works completed & records reviewed)	nis	Date: 12 3 12



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: WAS Pump 1 (Relocated)

TAG No.: WAS-PU-01

LOCATION/LOT DESCRIPTION:	
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

		Frame Type	41.
)		Serial Number	42.
		Max capacity in kW	43.
>NH		Input Volts	44.
, , ,	-	Settings:	45.
		Test all field connections for continuity to drive control circuits and or PLC	46.
		Cubicle Circuit Breaker Bypass Mechanism	47.
		Emergency Stop Monitor Relay wired correctly	48.
NH		TOL Reset Circuit tested	49,
		Field:	
V		Reflux Valve Micro/Proximity Switch	50.
-		Drive connected to SPO/Field Isolator	51.
N(t		Confirm is the motor provided with Motor Thermo switch, Temperature Probe or a Thermistor and are correctly connected.	52.
M/		Instrumentation installed and connected	53.
		Check safety switches and interlocks, mode selectors, stop/start station and E/Stops and wires are all connected and in the operational position.	54.
		Check media if required is available for testing, ex. Clean water. May not be required until after a bump test proves rotation direction.	55.
		Mountings are secure	56.
V		Fans and cowls are unobstructed	57.
V		All cables are labelled	58.
		Power Up:	
1/		All personnel aware of energisation and signage in place	59.

Final Inspection by: (Works completed & records reviewed)	mg	Date: 12/3/12	
	Page 3	of 5	_

QP Id: TMS373 Active: 21/11/2013 Page 67 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: WAS Pump 1 (Relocated)

TAG No.: WAS-PU-01

LOCATION/LOT DESCRIPTION	[:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

60.	Switch on all internal Circuit Breakers and install all fuses.			-
61.	Close switchboard and energise	e switchboard and energise		-
62.	Energise Cubicle or switchboard			
63.	Energise associated equipment UPS, PLC, etc			
64.	With safety requirements in place bypass door mechanism and open cubicle			~
65.	Check lights, relays and drives energise and all circuit breakers and fuses are OK			V
66.	Bump test and prove rotation direction. (Refer Check media above)			V
67.	Verify by testing all mode, field and protection devices operate correctly. Where required run the drive or equipment or/and provide simulation input.			
68.	Verify by testing all remote control from SCADA or HMl's, process control and interlocking, Where required run the drive or equipment or/and provide simulation input.			/
	Performance Testing (if applicable):			
69.	State whether under load or no load.			NIA
70.	Record over operating range if applicable:	Flow	Pressure	1,0
71.	100% Output			
72.	50% Output			

No. PARAMETER DEFAULT SETTING COMMISSIONED SETTING AND COMMENTS 1 2 3

Final Inspection by:
(Works completed & records reviewed)

Date: (2)3/12



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

Drive No.:	Pe	ate: 11/03/13 &ID Dwg: 48 00744-I_DW(6/5/5-017 G-5004(T	'2-009(Q enix)	UU)	
5						
6						
No.	ITEM		ACCEP [*]	TABLE	COMM	IENTS
Final Results		YES	NO			Comments
Check Completed		V				
Minor Defects Genera						
Major Defects Genera						
Asset Installation Acce If no major defects, Commissioning Engine	then further te				M	Date

Final Inspection by: (Works completed & records reviewed)

QP Id: TMS373

Date: Page 5 of 5

Active: 21/11/2013 Page 69 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: WAS Pump 2 (Relocated)

TAG No.: WAS-PU-02

LOCATION/LOT DES	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

No.	ITEM	COMMENTS	ACCEPT YES / NO
f.	Safety, environment and communication systems in place		V
2.	Check Subcontractor mechanical installation checklists are complete	Not Sited	~
3.	Verify installation of pump is in accordance with P&ID		/
4.	Verify oil level is correct if applicable		NA
5.	Check that sump is free of debris before filling with liquid		1/
6.	Check and record the serial number of the pump before the sump is filled or the pump is lowered into a wetwell.		V
7.	Is chain attached to pump and hanging from hook at top of sump?	7	
8.	Are cables to pump adequately supported with 'socks' and hanging clear of pump suction?		
9.	Are cables of sufficient length to allow pump to be withdrawn and placed adjacent to sump?		Ál a
10.	Can pump cable be withdrawn from sump (in event of pump being replaced) without entering sump?		NIA
11:	Are pumps able to be removed simply using guide rails? (if in doubt attempt to have pump removed using lifting device)		
12.	Are copies of the pump name plate attached to starter cubicle, or power cable in starter cubicle?		
13.	Verify pipe flushing is complete?		V
14.	Verify pipe pressure test is complete?		
15.	Verify pump discharge is ready to receive water?		~

Final Inspection by:			
(Works completed & records reviewed)	Final Inspection by: (Works completed & records reviewed)	in	Date: 123/13

Page 1 of 5

QP Id: TMS373 Active: 21/11/2013 Page 70 of 81



QP Id: TMS373

CLIENT: Urban Utilities

OPERATIONAL PRECOMMISSIONING **CHECKLIST**

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: WAS Pump 2 (Relocated)

TAG No.: WAS-PU-02

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU)

16.	Fill sump with water (prime pump suction)		
	Cubicle or Switchboard settings.		
17.	Power Circuit Breaker, i.e. Imax	llof mcB	
18.	Overload Protection Relays, TOL	71 11 21	
19.	Thermistor Relay		
20.	Current Leakage Detection		
21.	Current relay		
22.	Cubicle Thermostat		
23.	Timers		111
24.	Moisture In Oil) (JA
25.	Moisture in Stator		
26.	Shear Pin		
27.	Power Monitoring Relay		
28.	CT Ratios		
29,	Phase Failure Relay		
30.	Ammeter Range		
	Starter name plate details:		
31,	Volts	415V	
32.	kW	2.244	V
33.	FLC	6-25A	
34.	Make	160 AUSI	
35.	Serial Number and Frame Type	10 56 7000	
36,	RPM	1400	V
37.	Starter Type: Variable Frequency Drive / Soft Starter / DOL	1400 DOL	1
38. 39. 40.	Make		NA

Final Inspection by: (Works completed & records reviewed)	M	Date: 12312
	Page 2 c	of 5

Active: 21/11/2013 Page 71 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: WAS Pump 2 (Relocated)

TAG No.: WAS-PU-02

LOCATION/LOT DESCR	IPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

		14
	Frame Type	41.
	Serial Number	42.
	Max capacity in kW	43.
	Input Volts	44.
NA	Settings:	45.
	Test all field connections for continuity to drive control circuits and or PLC	46.
	Cubicle Circuit Breaker Bypass Mechanism	47.
	Emergency Stop Monitor Relay wired correctly	48.
	TOL Reset Circuit tested	49.
	Field:	
/	Reflux Valve Micro/Proximity Switch	50.
V	Drive connected to SPO/Field Isolator	51.
NA	Confirm is the motor provided with Motor Thermo switch, Temperature Probe or a Thermistor and are correctly connected.	52.
MA	Instrumentation installed and connected	53.
MA	Check safety switches and interlocks, mode selectors, stop/start station and E/Stops and wires are all connected and in the operational position.	54.
V	Check media if required is available for testing, ex. Clean water. May not be required until after a bump test proves rotation direction.	55.
	Mountings are secure	56.
	Fans and cowls are unobstructed	57,
/	All cables are labelled	58.
,	Power Up:	
1	All personnel aware of energisation and signage in place	59.

Final Inspection by:
(Works completed & records reviewed)

Date: 32/3/12

Page 3 of 5



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

CONTRACT:

ACTIVITY/PROCESS: WAS Pump 2 (Relocated)

TAG No.: WAS-PU-02

LOCATION/LOT DESC	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I DWG-5004(Tenix)

60.	Switch on all internal Circuit Breakers and install all fuses.			
61.	Close switchboard and energise			~
62.	Energise Cubicle or switchboard			
63.	Energise associated equipment UPS, PLC, etc	etc		1
64.	With safety requirements in place bypass door mechanism and open cubicle			/
65.	Check lights, relays and drives energise and all circuit breakers and fuses are OK			/
66.	Bump test and prove rotation direction. (Refer Check media above)			/
67.	Verify by testing all mode, field and protection devices operate correctly. Where required run the drive or equipment or/and provide simulation input.			/
68.	Verify by testing all remote control from SCADA or HMI's, process control and interlocking, Where required run the drive or equipment or/and provide simulation input.			~
	Performance Testing (if applicable):			
69.	State whether under load or no load.			NA
70.	Record over operating range if applicable:	Flow	Pressure	1//
71.	100% Output			
72.	50% Output			

No.	PARAMETER	DEFAULT SETTING	COMMISSIONED SETTING AND COMMENTS
1			SOMMET!
2			
3			
4			

Final Inspection by: (Works completed & records reviewed)

Page 4 of 5

QP Id: TMS373 Active: 21/11/2013 Page 73 of 81



OPERATIONAL PRECOMMISSIONING **CHECKLIST**

	11/03/13				
P&ID 30074	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I_DWG-5004(Tenix)				
		N. T.			V
1		ACCEPT	ABLE	COM	MENTS
	- : 4				
	-	_			
	VES	I NO I			Communication
	120	NO			Comments
	V	V			
		V			
	V				
	7				0
ne W	RITTON	he Signa	ature	VV	Date
	1 30074	YES	YES NO urther testing may proceed.	ACCEPTABLE YES NO urther testing may proceed.	YES NO

Active: 21/11/2013

Final Inspection by: (Works completed & records reviewed)

QP Id: TMS373

Date: Page 5 of 5

Page 74 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade

ACTIVITY/PROCESS: WAS Pump 2 pressure switch

TAG No.: PAHH206/PS206

CLIENT:	Urban	Utilities	

LOCATION/LOT DESCRI	PTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I_DWG-5004(Tenix)

No.	ITEM	COMMENTS AND SETTINGS	Accept Yes / No
1.	Safety, environment and communication systems in place (PRE-START RECORD)		V
2,	Pre-commissioning documentation handed over from electrical subcontractor		V
3.	Visually check of the instrumentation including Display and sensors. Verify that they have been installed correctly in accordance with the manufacturer's manuals.		~
4.	Visual check of electrical connections to the sensors and instrumentation to verify that polarities are correct.		V
5.	Verify that there are no leaks or potential for leaks in the future		~
6.	Ensure equipment to be used is with calibration date. Note down the Model: Serial Number: Next Cal date Due:		NA
7.	Document the models and serial numbers of all the instrumentation that is being tested.	JAM P12796 0-2.5BAR	V
8.	Visually check panel, and obtain approval to Energise		V
	Verify that the supply protection is of a correct value.		V
10.	Energise Circuit		1

Final Inspection by: (Works completed & records reviewed)	no	Date: 12312

Page 1 of 3

QP Id: TMS373 Active: 21/11/2013 Page 75 of 81



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade CONTRACT:

ACTIVITY/PROCESS: WAS Pump 2 pressure switch

TAG No.: PAHH206/PS206

LOCATION/LOT DESCRIPTION	V:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I_DWG-5004(Tenix)

11	. Make Adjustments to the settings to trip at the correct pressure	
12.	Perform a calibration of the instrumentation as per the manufactures manuals. This might include pressurizing with the process pressure or with an external pressure source.	
13.	Activate switch and verify function of all remote indicators, gauges, SCADA etc	~
14.	Once all items have been tested. Write down all final parameters that have been changed as part of this commissioning process. If this data is downloadable, save the configuration fill, to be handed over in the handover package.	

No.	PARAMETER	DEFAULT SETTING	COMMISSIONED SETTING AND COMMENTS
1	rip Setting		1 bour
2	9		
3			
4			
5			
6			
7			
8			

Final Inspection b	y:
(Works completed & 1	records reviewed)

Date: 12/3/12



OPERATIONAL PRECOMMISSIONING CHECKLIST

CONTRACT TITLE: Fernvale Water Reclamation Plant Interim Upgrade CONTRACT:

ACTIVITY/PROCESS: WAS Pump 2 pressure switch

TAG No.: PAHH206/PS206

LOCATION/LOT DES	CRIPTION:
Drive No.:	Date: 11/03/13
	P&ID Dwg: 486/5/5-0172-009(QUU) 300744-I_DWG-5004(Tenix)

No.	ITEM	ACCEPTABLE	COMMENTS
1	Sten	X	More to prossure
2			Hone to prossure
3			Japping
4			J
5			
6			

Final Results	YES	NO	Comments	
Check Completed		W.		
Minor Defects Generated		ye		
Major Defects Generated				
Asset Installation Accepted				

Notes:

 If no major defects, th 	en further testing may proceed.		
Commissioning Engineer	: Name M. RATCWAND Signature		nte 12/12/12
Client's representative:	Name Signature .	Da	ate

Final Inspection by:	
(Works completed & records reviewed)



People for Process Automation

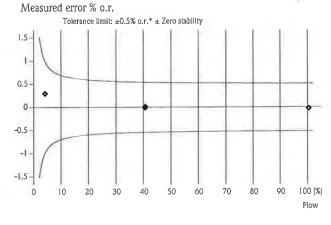
Flow Calibration with Adjustment

40090604-2939785

3027003850
Purchase order number
AU-3004943412-10 / Endress+Hauser Flowtec A Order N°/Manufacturer
50W1F-S50A1A51ABBW Order code ,
PROMAG 50 W DN150 Transmitter/Sensor
H1001D20000
Serial Nº
FIT-201
Tag N°

FCP-7.1.D	
Calibration rig	
88.3573 l/s	(≙ 100%)
Calibrated full scale	
Service interface	
Calibrated output	
0.9563	
Calibration factor	
-3	
Zero point	
30.6 °C	
Water temperature	

	Flow	Flow	Duration	V target	V meas.	△ o.r.*	Outp.**
	[%]	[l/s]	[s]	[1]	[1]	[%]	[mA]
1	4.0	3.56	120.1	427.415	428.695	0.30	4.65
1	40.6	35.9	60.1	2154.02	2153.81	-0.01	10.49
	40.6	35.9	60.1	2154.57	2154.85	0.01	10.50
1	100.5	88.8	60.1	5335.60	5334.42	-0.02	20.08
	+:-	-	-	9	(-)	-	-
1	-	-	-	-	-	7	-
	-	=	-	2	-	-	-
	-	~.	-	-	-	-	5
		-		-		-	9.
1	- E	~	-	-	-	~	-
	*o.r.; of rate						



For detailed data concerning output specifications of the unit under test, see Technical Information (TI), chapter Performance characteristics.

Traceability to the national standard for all test instruments used for the calibration is guaranteed.

Endress+Hauser Flowtec operates ISO/IEC 17025 accredited calibration facilities in Reinach (CH), Cernay (FR), Greenwood (USA), Aurangabad (IN) and Suzhou (CN).

18/01/2013
Date of calibration

**Calculated value (4 - 20 mA)

3010/

Balaji Kallepwar Operator Certified acc. to ISO 9001

People for Process Automation

Parameter Setting

40093675-2939785

3027003850

Purchase order number

3004943412-10 / Endress+Hauser Flowtec AG

Order Nº/Manufacturer

50W1F-S50A1A51ABBW

Order code

H1001D20000

Serial Nº

The below parameters are set according to your order.

Please refer to the Operating Manual for any parameters not mentioned.

Communication type

Device software

Device revision

Units

Unit volume flow

Unit volume

User interface

Assign line 1

Assign line 2

Totalizer

Unit volume totalizer 1

Assign totalizer 1

Unit volume totalizer 2

Assign totalizer 2

Current output 1

Assign current output

Current span

Value 20 mA

Time constant

Failsafe mode

PROMAG 50 W

Transmitter/Sensor

DN150

Nominal diameter

FIT-201

Tag N°

HART

V2.04.00

Dev.9/DD.1 [ID 41 (hex)]

1/s

 ${\rm m}^3$

Volume flow

Totalizer 1

 ${\rm m}^3$

Volume flow

 m^3

Volume flow

Volume flow

4-20 mA HART NAMUR

Page 79 of 81

20 1/s

5 s

Minimum current

18/01/2013

Endress+Hauser Flowtec (India) Pvt. Ltd. M-171 - M-176, Waluj MIDC Aurangabad - 431 136, India

QP Id: TMS373 Active: 21/11/2013



Pump Technicals - PCP

Fluid	:	RETURN ACTIVATED SLUDGE	Flow Rate (M3/hr.)	:	14.40
Chemical Composition	+		Suction Pressure / Head	4	
Specific Gravity		1.2	Discharge Pressure	40	
P.H. Value	2	6	Differential Pressure	:	2,00 Kg/Cm2
Size Of Solid (mm) /%	- 1		NPSH (A) (Mt)	:	1
Nature Of Solid	- ;		Running Hours Per Day	:	
Pumping Temp (0C)		20	Type Of Duty	:	
Viscosity at Pumping Temp.	:	200 - 200 CST	Type Of Location	1	

"Pump Operating Parameters"

Absorbed Power (KW)	2.20	Pump Design	
Pump Speed (Rpm)	261.00	Type of Joint : Universal	Cardan Joint with 24 Mths Warranty
NPSH (R) (Mt)	: 2.36	Rec. Prime Mover Rating (KV	N) :
Volumetric Efficiency	98.39%	Direction Of Rotation	CCW (SOG)
Mechanical Efficiency	36.34%	Starting Method	‡ DOL
Disc. Connection/ Size	Flange/ 80 mm	Starting Torque	: 105.81 N-m
Disc, Location/ Rating/ Facing	: End/ BS:4504/ RF	Running Torque	: 80.41 N-m
Suc. Location/ Rating/ Facing	: Top/ BS:4504/ RF		i
Suc. Connection/Size	: Flange/ 80 mm		:
Rubbing Velocity	: 0.99		
Partical Velocity	1.17		1
Drive Type	Direct Drive Through Geared	Motor	

"Material of Construction"

;	Cast Iron as per (IS 210 FG 220)	
	Cast Iron as per (IS 210 FG 220)	
:	Stainless Steel AISI 410 (IS:2174) - HCP	
:	Stainless Steel AISI 410 (IS:2174) - HCP	
	RR-Nitrile Black	
	:	Cast Iron as per (IS 210 FG 220) Stainless Steel AISI 410 (IS:2174) - HCP Stainless Steel AISI 410 (IS:2174) - HCP

"Shaft Sealing Arrangement"

Type Of Gland Packing	:	Single Acting Unbalanced Bi-Directional Elastomer Bellow, Face Comb Sic vs Sic, Viton elastomer,
Lantern Ring Location	1	
Make Of Meachnical Seal	1	Roto Pumps

We recommend the use of relief valve immediately after pump discharge.

QP Id: TMS373 Active: 21/11/2013 Page 80 of 81

