

Rotary Equipments - ISPRL MANGALORE														
S.NO.	Type of pump	Tag No.	Location	No.	After every 200 Hrs	250 Hrs. or 2 weeks whichever is earlier #	1000 Hrs. or 3 Months whichever is earlier #	1500 Hrs. or 3 Months whichever is earlier #	After every 2000 hrs	4000 Hrs.or 1 year whichever is earlier #	8000 Hrs. or 2 years whichever is earlier #	16000 Hrs. or 4 years whichever is earlier #	24000 Hrs. or 4 years whichever is earlier #	OISD STD
I	Submersible Pump (Vertical Centrifugal Pump)													OISD-119
1	CTP (Crude Transfer Pump)	002-PM-SM-002A	Shaft A / MUA	1		OEM					OEM			
2	CTP (Crude Transfer Pump)	002-PM-SM-002B	Shaft A / MUA	1		OEM					OEM			
3	CTP (Crude Transfer Pump)	002-PM-SM-002C	Shaft A / MUA	1		OEM					OEM			
4	CTP (Crude Transfer Pump)	002-PM-SM-002D	Shaft A / MUA	1		OEM					OEM			
5	CTP (Crude Transfer Pump)	002-PM-SM-002E	Shaft A / MUA	1		OEM					OEM			
6	CTP (Crude Transfer Pump)	002-PM-SM-003A	Shaft B / MUB	1		OEM					OEM			
7	CTP (Crude Transfer Pump)	002-PM-SM-003B	Shaft B / MUB	1		OEM					OEM			
8	CTP (Crude Transfer Pump)	002-PM-SM-003C	Shaft B / MUB	1		OEM					OEM			
9	CTP (Crude Transfer Pump)	002-PM-SM-003D	Shaft B / MUB	1		OEM					OEM			
10	CTP (Crude Transfer Pump)	002-PM-SM-003E	Shaft B / MUB	1		OEM					OEM			
11	Seepage Water pump	002-PM-SM-004A	Shaft A / MUA	1		OEM					OEM			
12	Seepage Water pump	002-PM-SM-004B	Shaft A / MUA	1		OEM					OEM			
13	Seepage Water pump	002-PM-SM-005A	Shaft B / MUB	1		OEM					OEM			
14	Seepage Water pump	002-PM-SM-005B	Shaft B / MUB	1		OEM					OEM			
15	CBD (Closed Blowdown Drum) Pump	002-PM-SM-014	Near Booster Shed	1		OEM					OEM			
16	OWS (Oil Water Sump) pump	002-PM-SM-009A	Cavern Portal Area	1		OEM					OEM			
17	OWS (Oil Water Sump) pump	002-PM-SM-009B	Cavern Portal Area	1		OEM					OEM			
18	OWS (Oil Water Sump) pump	002-PM-SM-009C	Cavern Portal Area	1		OEM					OEM			
19	ETP TREATED EFFLUENT TRANSFER PUMP	002-PM-SM-001A	ETP Pond Area	1		OEM					OEM			
20	ETP TREATED EFFLUENT TRANSFER PUMP	002-PM-SM-001B	ETP Pond Area	1		OEM					OEM			
21	ETP TREATED EFFLUENT TRANSFER PUMP	002-PM-SM-001C	ETP Pond Area	1		OEM					OEM			
22	Regeneration pit	002-PM-SM-008	Near Boiler Shed	1		OEM					OEM			
23	Portal Dewatering pump	Pit Pump 1	Cavern Portal Area	1		OEM					OEM			
24	Portal Dewatering pump	Pit Pump 2	Cavern Portal Area	1		OEM					OEM			
25	Raw water pump	002-PM-SM-007A	Drinking Water & Raw Water Pump House	1		OEM					OEM			
26	Raw water pump	002-PM-SM-007B	Drinking Water & Raw Water Pump House	1		OEM					OEM			
27	Drinking water pump	002-PM-SM-101A	Drinking Water & Raw Water Pump House	1		OEM					OEM			
28	Drinking water pump	002-PM-SM-101B	Drinking Water & Raw Water Pump House	1		OEM					OEM			
29	Return activated sludge pump	002-PA-CF-115 A	ETP SBR	1		OEM					OEM			
30	Return activated sludge pump	002-PA-CF-115 B	ETP SBR	1		OEM					OEM			
31	Surplus activated sludge pump	002-PA-CF-116 A	ETP SBR	1		OEM					OEM			
32	Surplus activated sludge pump	002-PA-CF-116 B	ETP SBR	1		OEM					OEM			
33	SBR (Sequential Batch Reactor) Filter Feed Water Pump	002-PA-CF-105-A	ETP SBR	1		OEM					OEM			
34	SBR (Sequential Batch Reactor) Filter Feed Water Pump	002-PA-CF-105-B	ETP SBR	1		OEM					OEM			

S.NO.	Type of pump	Tag No.	Location	No.	After every 200 Hrs	250 Hrs. or 2 weeks whichever is earlier #	1000 Hrs. or 3 Months whichever is earlier #	1500 Hrs. or 3 Months whichever is earlier #	After every 2000 hrs	4000 Hrs.or 1 year whichever is earlier #	8000 Hrs. or 2 years whichever is earlier #	16000 Hrs. or 4 years whichever is earlier #	24000 Hrs. or 4 years whichever is earlier #	OISD STD
35	SBR (Sequential Batch Reactor) Filter Feed Water Pump	002-PA-CF-105-C	ETP SBR	1		OEM					OEM			
II	Vertical Centrifugal Pump													OISD-119
1	LPG pumps	002-PA-CF-006-A	LPG Storage	1			B			OEM			OEM	
2	LPG pumps	002-PA-CF-006-B	LPG Storage	1			B			OEM			OEM	
3	Boiler feed water pump	002-PA-SM-18-A	Boiler Shed	1			B			OEM			OEM	
4	Boiler feed water pump	002-PA-SM-18-B	Boiler Shed	1			B			OEM			OEM	
5	Boiler feed water pump	002-PA-SM-18-C	Boiler Shed	1			B			OEM			OEM	
6	Boiler feed water pump	002-PA-SM-18-D	Boiler Shed	1			B			OEM			OEM	
III	Horizontal Centrifugal Pump (Both end supported)													OISD-119
1	Crude booster pump	004-PA-CF-001-A	Booster Shed	1			B			B	OEM	OEM		
2	Crude booster pump	004-PA-CF-001-B	Booster Shed	1			B			B	OEM	OEM		
3	Crude booster pump	004-PA-CF-001-C	Booster Shed	1			B			B	OEM	OEM		
4	Fire Water Pump (Engine Driven)	002-PA-CF-801	Fire Water Pump Shed	1			B			B	OEM	OEM		
5	Fire Water Pump (Motor Driven)	002-PA-CF-802	Fire Water Pump Shed	1			B			B	OEM	OEM		
IV	Horizontal Centrifugal Pump (End suction)													OISD-119
1	Fire Water (Jockey Pump)	002-PA-CF-803	Fire Water Pump Shed	1			B			B	OEM			
2	Fire Water (Jockey Pump)	002-PA-CF-804	Fire Water Pump Shed	1			B			B	OEM			
3	Contact Chamber Pump	002-PA-CF-113-A	ETP	1			B			B	OEM			
4	Contact Chamber Pump	002-PA-CF-113-B	ETP	1			B			B	OEM			
5	Contact Chamber Pump	002-PA-CF-113-C	ETP	1			B			B	OEM			
6	SBR (Sequential Batch Reactor) Feed Pump	002-PA-CF-114-A	ETP	1			B			B	OEM			
7	SBR (Sequential Batch Reactor) Feed Pump	002-PA-CF-114-B	ETP	1			B			B	OEM			
8	SBR (Sequential Batch Reactor) Feed Pump	002-PA-CF-114-C	ETP	1			B			B	OEM			
9	TPI (Tilted Plate Interceptor) Feed pump	002-PA-CF-101-A	ETP	1			B			B	OEM			
10	TPI (Tilted Plate Interceptor) Feed pump	002-PA-CF-101-B	ETP	1			B			B	OEM			
11	TPI (Tilted Plate Interceptor) Feed pump	002-PA-CF-101-C	ETP	1			B			B	OEM			
12	DAF (Dissolved Air Flotation) Recycle pump	022-PA-CF-102-A	ETP	1			B			B	OEM			
13	DAF (Dissolved Air Flotation) Recycle pump	022-PA-CF-102-B	ETP	1			B			B	OEM			
14	Treated Sepage Water Pump	002-PA-CF-106-A	ETP	1			B			B	OEM			
15	Treated Sepage Water Pump	002-PA-CF-106-B	ETP	1			B			B	OEM			
16	Treated Sepage Water Pump	002-PA-CF-106-C	ETP	1			B			B	OEM			
21	Overflow & Drain Transfer Pump	002-PM-CF-108-A	ETP	1			B			B	OEM			
22	Overflow & Drain Transfer Pump	002-PM-CF-108-B	ETP	1			B			B	OEM			
23	Caustic LYE unloading /transfer pump	002-PA-CF-112-A	ETP	1			B			B	OEM			
24	Caustic LYE unloading /transfer pump	002-PA-CF-112-B	ETP	1			B			B	OEM			
29	Filter Backwash Pump	002-PA-CF-107-A	ETP	1			B			B	OEM			
30	Filter Backwash Pump	002-PA-CF-107-B	ETP	1			B			B	OEM			

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31	Boiler Feed Water Makeup Pump	002-PA-CF-17-A	Boiler Shed	1			B			B	OEM			
32	Boiler Feed Water Makeup Pump	002-PA-CF-17-B	Boiler Shed	1			B			B	OEM			
33	Diesel Pump	002-PA-CF-015	HSD / Diesel Storage	1			B			B	OEM			
34	Diesel Pump	002-PA-CF-016-A	HSD / Diesel Storage	1			B			B	OEM			
35	Diesel Pump	002-PA-CF-016-B	HSD / Diesel Storage	1			B			B	OEM			
36	Foam Pump	Foam Pump-1	HSD / Diesel Storage	1			B			B	OEM			
37	Foam Pump	Foam Pump-2	HSD / Diesel Storage	1			B			B	OEM			
V	Positive dispalcement (diaphragm) pumps													OISD-119
1	Alum Solution Dosing Pump-A	002-PA-DF-101 A	ETP Chemical House	1			B			OEM	OEM			
2	Alum Solution Dosing Pump-B	002-PA-DF-101 B	ETP Chemical House	1			B			OEM	OEM			
3	DEOILING POLYELECRTOLYTE (DOPE) Solution Dosing Pump-A	002-PA-DF-102 A	ETP Chemical House	1			B			OEM	OEM			
4	DEOILING POLYELECRTOLYTE (DOPE) Solution Dosing Pump-A	002-PA-DF-102 B	ETP Chemical House	1			B			OEM	OEM			
5	Nutrient Solution Dosing Pump- A	002-PA-DF-103 A	ETP Chemical House	1			B			OEM	OEM			
6	Nutrient Solution Dosing Pump- B	002-PA-DF-103 B	ETP Chemical House	1			B			OEM	OEM			
7	(Dewatering Polyelectrolyte) DWPE Solution Dosing Pump-A	002-PA-DF-104 A	ETP Chemical House	1			B			OEM	OEM			
8	(Dewatering Polyelectrolyte) DWPE Solution Dosing Pump-A	002-PA-DF-104 B	ETP Chemical House	1			B			OEM	OEM			
9	Caustic Solution Dosing Pump-A	002-PA-DF-105 A	ETP Chemical House	1			B			OEM	OEM			
10	Caustic Solution Dosing Pump-B	002-PA-DF-105 B	ETP Chemical House	1			B			OEM	OEM			
11	Chlorination System	002-LZ-00-108 A	ETP Chemical House	1			B			OEM	OEM			
12	Chlorination System	002-LZ-00-108 B	ETP Chemical House	1			B			OEM	OEM			
13	HP Dosing Pump motor for the Boiler-I	002-PA-PD-24 A	Boiler Shed	1			B			OEM	OEM			
14	HP Dosing Pump motor for the Boiler-I	002-PA-PD-24 B	Boiler Shed	1			B			OEM	OEM			
15	HP Dosing Pump motor for the Boiler-II	002-PA-PD-25 A	Boiler Shed	1			B			OEM	OEM			
16	HP Dosing Pump motor for the Boiler-II	002-PA-PD-25 B	Boiler Shed	1			B			OEM	OEM			
17	LP Dosing Pump motor for O2 Scavenging	002-PA-PD-26 A	Boiler Shed	1			B			OEM	OEM			
18	LP Dosing Pump motor for O2 Scavenging	002-PA-PD-26 B	Boiler Shed	1			B			OEM	OEM			
19	LP Dosing Pump motor for PH Boosting	002-PA-PD-27 A	Boiler Shed	1			B			OEM	OEM			
20	LP Dosing Pump motor for PH Boosting	002-PA-PD-27 B	Boiler Shed	1			B			OEM	OEM			
VI	Gear Pumps/Gear Pump													OISD-119
1	CTP (Crude Transfer Pump) lube oil pump	002-PM-CF-4001	Shaft A / MUA	1		B				OEM	OEM	OEM	OEM	
2	CTP (Crude Transfer Pump) lube oil pump	002-PM-CF-4002	Shaft A / MUA	1		B				OEM	OEM	OEM	OEM	
3	CTP (Crude Transfer Pump) lube oil pump	002-PM-CF-4003	Shaft A / MUA	1		B				OEM	OEM	OEM	OEM	
4	CTP (Crude Transfer Pump) lube oil pump	002-PM-CF-4004	Shaft A / MUA	1		B				OEM	OEM	OEM	OEM	
5	CTP (Crude Transfer Pump) lube oil pump	002-PM-CF-4005	Shaft A / MUA	1		B				OEM	OEM	OEM	OEM	
6	CTP (Crude Transfer Pump) lube oil pump	002-PM-CF-4011	Shaft B / MUB	1		B				OEM	OEM	OEM	OEM	
7	CTP (Crude Transfer Pump) lube oil pump	002-PM-CF-4012	Shaft B / MUB	1		B				OEM	OEM	OEM	OEM	
8	CTP (Crude Transfer Pump) lube oil pump	002-PM-CF-4013	Shaft B / MUB	1		B				OEM	OEM	OEM	OEM	
9	CTP (Crude Transfer Pump) lube oil pump	002-PM-CF-4014	Shaft B / MUB	1		B				OEM	OEM	OEM	OEM	
10	CTP (Crude Transfer Pump) lube oil pump	002-PM-CF-4015	Shaft B / MUB	1		B				OEM	OEM	OEM	OEM	
11	Seepage Water Lube Oil Pump	002-PM-SM-004A	Shaft A / MUA	1		B				OEM	OEM	OEM	OEM	
12	Seepage Water Lube Oil Pump	002-PM-SM-004B	Shaft A / MUA	1		B				OEM	OEM	OEM	OEM	
13	Seepage Water Lube Oil Pump	002-PM-SM-005A	Shaft B / MUB	1		B				OEM	OEM	OEM	OEM	
14	Seepage Water Lube Oil Pump	002-PM-SM-005B	Shaft B / MUB	1		B				OEM	OEM	OEM	OEM	

S.NO.	Type of pump	Tag No.	Location	No.	After every 200 Hrs	250 Hrs. or 2 weeks whichever is earlier #	1000 Hrs. or 3 Months whichever is earlier #	1500 Hrs. or 3 Months whichever is earlier #	After every 2000 hrs	4000 Hrs.or 1 year whichever is earlier #	8000 Hrs. or 2 years whichever is earlier #	16000 Hrs. or 4 years whichever is earlier #	24000 Hrs. or 4 years whichever is earlier #	OISD STD
15	Wet slop oil transfer pump	002-PA-CF-109-A	ETP NEAR OVERFLOW & DRAIN PUMP HOUSE	1		B				OEM	OEM	OEM	OEM	
16	Wet slop oil transfer pump	002-PA-CF-109-B	ETP NEAR OVERFLOW & DRAIN PUMP HOUSE	1		B				OEM	OEM	OEM	OEM	
17	Dry slop oil transfer pump	002-PA-CF-110-A	ETP NEAR WET SLOP TANK	1		B				OEM	OEM	OEM	OEM	
18	Dry slop oil transfer pump	002-PA-CF-110-B	ETP NEAR WET SLOP TANK	1		B				OEM	OEM	OEM	OEM	
19	Thickened Sludge Transfer Pump	002-PA-00-102-A	ETP NEAR OVERFLOW & DRAIN PUMP HOUSE	1		B				OEM	OEM	OEM	OEM	
20	Thickened Sludge Transfer Pump	002-PA-00-102-B	ETP NEAR OVERFLOW & DRAIN PUMP HOUSE	1		B				OEM	OEM	OEM	OEM	
21	Sludge Thickner Feed Pump	002-PA-00-101-A	ETP NEAR OVERFLOW & DRAIN PUMP HOUSE	1		B				OEM	OEM	OEM	OEM	
22	Sludge Thickner Feed Pump	002-PA-00-101-B	ETP NEAR OVERFLOW & DRAIN PUMP HOUSE	1		B				OEM	OEM	OEM	OEM	
23	Density Pump	002-SM-014	Meetering Shed	1		B				OEM	OEM	OEM	OEM	
VII	Agitators													OISD 122
1	DEOILING POLYELECRTOLYT AGITATOR	002-TM-00-105-A	ETP Chemical House	1	B		B		B	OEM	OEM	OEM		
2	DEOILING POLYELECRTOLYT AGITATOR	002-TM-00-105-B	ETP Chemical House	1	B		B		B	OEM	OEM	OEM		
3	NUTRIENT SOLUTION AGITATOR	002-TM-00-106-A	ETP Chemical House	1	B		B		B	OEM	OEM	OEM		
4	NUTRIENT SOLUTION AGITATOR	002-TM-00-106-B	ETP Chemical House	1	B		B		B	OEM	OEM	OEM		
5	DWPE SOLUTION AGITATOR	002-TM-00-107-A	ETP Chemical House	1	B		B		B	OEM	OEM	OEM		
6	DWPE SOLUTION AGITATOR	002-TM-00-107-B	ETP Chemical House	1	B		B		B	OEM	OEM	OEM		
7	CAUSTIC SOLUTION AGITATOR	002-TM-00-108-A	ETP Chemical House	1	B		B		B	OEM	OEM	OEM		
8	CAUSTIC SOLUTION AGITATOR	002-TM-00-108-B	ETP Chemical House	1	B		B		B	OEM	OEM	OEM		
9	ALUM SOLUTION AGITATOR	002-TM-00-104-A	ETP Chemical House	1	B		B		B	OEM	OEM	OEM		
10	ALUM SOLUTION AGITATOR	002-TM-00-104-B	ETP Chemical House	1	B		B		B	OEM	OEM	OEM		
11	LP Dosing agitator	4512	Boiler Shed	1	B		B		B	OEM	OEM	OEM		
12	LP Dosing agitator	4504	Boiler Shed	1	B		B		B	OEM	OEM	OEM		
13	HP Dosing agitator	4524	Boiler Shed	1	B		B		B	OEM	OEM	OEM		
14	HP Dosing agitator	4525	Boiler Shed	1	B		B		B	OEM	OEM	OEM		
15	FLASH MIXING AGITATOR	002-TM-00-101	ETP	1	B		B		B	OEM	OEM	OEM		
16	FLOCCULATION AGITATOR	002-TM-00-102	ETP	1	B		B		B	OEM	OEM	OEM		
17	PH Adjustment Agitator	002-TM-00-120	ETP	1	B		B		B	OEM	OEM	OEM		
18	Sludge Thickner Agitator	002-TM-00-114-ST	ETP	1	B		B		B	OEM	OEM	OEM		
	Thickened Sludge Sump Agitator	002-TM-00-103	ETP	1	B		B		B	OEM	OEM	OEM		
VIII	Blower													OISD 122
1	SBR (Sequential Batch Reactor) Blower	002-KA-TL-102 A	ETP SBR BLOWER SHED	1	B		B		B	OEM	OEM	OEM		
2	SBR (Sequential Batch Reactor) Blower	002-KA-TL-102 B	ETP SBR BLOWER SHED	1	B		B		B	OEM	OEM	OEM		
3	Air Scour Blower	002-KA-TL-103 A	ETP SBR BLOWER SHED	1	B		B		B	OEM	OEM	OEM		
4	Air Scour Blower	002-KA-TL-103 B	ETP SBR BLOWER SHED	1	B		B		B	OEM	OEM	OEM		
5	Air Scour Blower	002-KA-TL-103 C	ETP SBR BLOWER SHED	1	B		B		B	OEM	OEM	OEM		
6	Soot Air Blower	Soot Blower -1	Boiler Shed	1	B		B		B	OEM	OEM	OEM		
7	Soot Air Blower	Soot Blower -2	Boiler Shed	1	B		B		B	OEM	OEM	OEM		
8	Main control room HVAC blower	HVAC-1	MAIN CONTROL ROOM	1	B		B		B	OEM	OEM	OEM		
9	Main control room HVAC blower	HVAC-2	MAIN CONTROL ROOM	1	B		B		B	OEM	OEM	OEM		
10	Main control room HVAC blower	HVAC-3	MAIN CONTROL ROOM	1	B		B		B	OEM	OEM	OEM		
11	Main control room HVAC blower	HVAC-4	MAIN CONTROL ROOM	1	B		B		B	OEM	OEM	OEM		

[illegible]

Static Equipments - ISPRL MANGALORE								
S. No.	Description	Qty.	Visual Inspection	Cleaning	Greasing	Calibration	Overhauling	Testing & certification
1	Chain Pulley Blocks	22	B	B	B	N/A	OEM	OEM
2	EOT/HOT Cranes	3	B	B	B	N/A	OEM	OEM
3	PSV/TSV	132	N/A	N/A	N/A	OEM	OEM	OEM
4	MOV	104	B	B	B	N/A	OEM	N/A
5	Ball Valve/Gate valve/Globe valve 0.5" to 32"	1700 approx.	B	B	B	N/A	OEM	N/A
6	Sump tank (CBD drum)	1	OEM	OEM	N/A	N/A	OEM	OEM
7	Bucket strainer (Crude booster pump)	3	OEM	OEM	N/A	N/A	N/A	N/A
8	(PSF) Pressure Sand Filter	3	B	B	B	N/A	OEM	N/A
9	(ACF) Activated Carbon Filter	3	B	B	B	N/A	OEM	N/A
10	Cartridge Filters (ETP)	3	B	B	B	N/A	OEM	N/A
11	Cartridge Filters (Crude transfer pump)	20	OEM	OEM	N/A	N/A	OEM	N/A
12	Heat Exchanger for crude heating	2	N/A	OEM	N/A	N/A	N/A	OEM
13	Heat Exchanger - CTP lube oil cooling	10	N/A	OEM	N/A	N/A	N/A	OEM

ISPRL Mangalore - Electrical list of Equipment

Sl.No.	Area	Total No.	Tag Numbers	Description	Weekly #	Fortnightly #	Monthly #	Quarterly #	Half yearly #	Yearly #	3 Yearly #	Remarks	As per OISD
Diesel generator													
1	DG Room	1	DG- 01	1250 kVA Diesel generator- Generator	B	B	B		B			DG	OISD-137
2				1250 kVA Diesel generator- Engine	B	B				OEM	OEM	DG	OISD-127
3	IVS DG ROOM	1	DG- 01	25 KVA Diesel generator-01	B	B	B		B			DG	OISD-137
4				25 KVA Diesel generator-01- Engine	B	B				OEM	OEM	DG	OISD-127
5	IVS DG ROOM	1	DG- 02	25 KVA Diesel generator-02	B	B	B		B			DG	OISD-137
6				25 KVA Diesel generator-02- Engine	B	B				OEM	OEM	DG	OISD-127
Motors													
7	ETP	3	002-PA-CF-106 A/B/C	Treated seepage water pump motor			B	B	B	OEM		Motor	OISD-137
8	ETP SBR Air Blower's Shed	5	002-KA-RP-102 A/B/C	Air scour blower pump motor			B	B	B	OEM		Motor	OISD-137
9	ETP	2	002-PA-CF-107 A/B	Filter back wash pump motor			B	B	B	OEM		Motor	OISD-137
10	ETP	3	002-PA-SU-105 A/B/C	Filter Feed Pump Motor			B	B	B	OEM		Motor	OISD-137
11	ETP	2	002-DM-00-101 A/B	Decantor Pump Motor			B	B	B	OEM		Motor	OISD-137
12	ETP	2	002-PA-CF-115 A/B	RAS Pump Motor			B	B	B	OEM		Motor	OISD-137
13	ETP	2	002-PA-CF-116 A/B	SAS Pump Motor			B	B	B	OEM		Motor	OISD-137
14	ETP Chemical House	3	002-PA-CF-113 A/B/C	Cartridge Filter Feed Pump Motor			B	B	B	OEM		Motor	OISD-137
15	ETP Chemical House	2	002-PA-CF-112 A/B	Caustic Lye Unloading T/F Pump Motor			B	B	B	OEM		Motor	OISD-137
16	ETP Chemical House	2	002-PA-DF-104 A/B	Dope Solution Dosing Pump Motor			B	B	B	OEM		Motor	OISD-137
17	ETP Chemical House	2	002-PA-DF-102 A/B	Deoiling Polyelectrolyt Pump Motor			B	B	B	OEM		Motor	OISD-137
18	ETP Chemical House	2	002-PA-DF-101 A/B	Alum Dosing Pump Motor			B	B	B	OEM		Motor	OISD-137
19	ETP Chemical House	2	002-PA-DF-105 A/B	Caustic Solution Pump Motor			B	B	B	OEM		Motor	OISD-137
20	ETP Chemical House	4	002-PA-DF-102 A/B/C	Nutrient solution Pump motor			B	B	B	OEM		Motor	OISD-137
21	ETP Chemical House	2	002-TM-00-108 A/B	Caustic Solution Tank Agitator Motor			B	B	B	OEM		Motor	OISD-137
22	ETP Chemical House	2	002-TM-00-104 A/B	Alum Solution Tank Agitator Motor			B	B	B	OEM		Motor	OISD-137
23	ETP Chemical House	2	002-TM-00-105 A/B	De-oiling Polyelectrolyt Agitator Motor			B	B	B	OEM		Motor	OISD-137
24	ETP Chemical House	2	002-TM-00-107 A/B	DWPE Solution Tank Agitator Motor			B	B	B	OEM		Motor	OISD-137
25	ETP WET Slope Oil tank	2	002-PA-CF-110 A/B	WET Slope Oil Pump Motor			B	B	B	OEM		Motor	OISD-137
26	ETP	4	002-PA-CF-114 A/B/C	SBR Feed Pump Motor			B	B	B	OEM		Motor	OISD-137
27	ETP	1	002-PA-SCF-122	Centrefuge Shed Pump Motor			B	B	B	OEM		Motor	OISD-137
28	ETP	2	002-PA-00-102 A/B	Sludge Thickner T/F Pump Motor			B	B	B	OEM		Motor	OISD-137
29	ETP	1	002-TM-00-103	Thicked Sludge Agitator Motor			B	B	B	OEM		Motor	OISD-137
30	ETP	1	002-TM-STM-121	Centrefuge Shed Agitator Motor			B	B	B	OEM		Motor	OISD-137
31	ETP	3	002-PA-CF-102 A/B/C	Daf Pump Motor			B	B	B	OEM		Motor	OISD-137
32	ETP	1	002-TM-FSD-123	Screw Augur Agitator Motor			B	B	B	OEM		Motor	OISD-137
33	ETP	2	002-KA-RP-101 A/B	DAF Compressor motor			B	B	B	OEM		Motor	OISD-137
34	ETP	1	002-TM-00-101	Flash Mixing Agitator			B	B	B	OEM		Motor	OISD-137
35	ETP	1	002-TM-00-102	Flocculation Agitator			B	B	B	OEM		Motor	OISD-137
36	ETP Seepage Water Tank	3	002-PA-CF-101 A/B/C	Seepage Water Pump Motor			B	B	B	OEM		Motor	OISD-137
37	ETP Seepage Water Tank	2	002-PA-CF-109 A/B	Wet Slope Oil T/F Pump Motor			B	B	B	OEM		Motor	OISD-137
38	ETP Seepage Water Tank	2	002-PA-00-101 A/B	Sludge Thickner T/F Pump Motor			B	B	B	OEM		Motor	OISD-137
39	ETP Seepage Water Tank	2	002-PA-CF-108 A/B	Over Flow & Drain T/F Pump Motor			B	B	B	OEM		Motor	OISD-137
40	ETP Seepage Water Tank	1	002-PA-CF-119	Under Ground Pump Motor			B	B	B	OEM		Motor	OISD-137
41	ETP Pond Area	3	002-PA-SM-001 A/B/C	Pond pump motor			B	B	B	OEM		Motor	OISD-137
42	Shaft- A	5	002-TM-SM-002	Crude oil transfer pump motor			B	B	B	OEM		Motor	OISD-137
43	Shaft- A	2	002-PM-SM-004 A/B	Seepage water pump motor			B	B	B	OEM		Motor	OISD-137
44	Shaft- B	5	002-TM-SM-003	Crude oil transfer pump motor			B	B	B	OEM		Motor	OISD-137
45	Shaft- B	2	002-PM-SM-005 A/B	Seepage water pump motor			B	B	B	OEM		Motor	OISD-137
46	Shaft- A and B	10	002-TM-SM-001 A/B	Oil Circulation Unit			B	B	B	OEM		Motor	OISD-137
47	Diesel Tank Area	3	002-PA-CF-103 A/B/C	Diesel Tank Pump Motor			B	B	B	OEM		Motor	OISD-137
48	Diesel Tank Area	2	002-PA-CF-104 A/B	Foam Pump Motor			B	B	B	OEM		Motor	OISD-137
49	L.P.G Munded Bullet Area	2	002-PA-CF-006 A/B	L.P.G Bullet Pump Motor			B	B	B	OEM		Motor	OISD-137
50	Inst. Air Compressor Shed	2	002-KA-RP-001 A/B	Instrument Air Compressor Motor			B	B	B	OEM		Motor	OISD-137
51	Inst. Air Compressor Shed	2	AOP-01/02	Auxiliary Oil Pump Motor			B	B	B	OEM		Motor	OISD-137
52	Boiler area	2	002-PA-CF-17 A/B	Makeup Water Pump Motor			B	B	B	OEM		Motor	OISD-137
53	Boiler area	2	002-PA-PD-27 A/B	Dosing Pump Motor			B	B	B	OEM		Motor	OISD-137
54	Boiler area	4	002-PA-CF-105 A/B/C	Agitator Motor			B	B	B	OEM		Motor	OISD-137
55	Boiler area	6	002-PA-CF-106 A/B/C	Dosing Pump Motor			B	B	B	OEM		Motor	OISD-137
56	Boiler area	4	002-PA-CF-107 A/B/C	Boiler feed pump motor			B	B	B	OEM		Motor	OISD-137
57	Boiler area	2	002-PA-CF-108 A/B/C	Soot blower motor			B	B	B	OEM		Motor	OISD-137
58	Fire Water Pump House	1	002-PA-CF-802	HT main fire water pump motor			B	B	B	OEM		Motor	OISD-137
59	Fire Water Pump House	2	002-PA-CF-803/804	LT Jockey motor			B	B	B	OEM		Motor	OISD-137

60	Raw Water Pump House	2	002-PA-SM-101 A/B	Drinking water pump motor				B	B	B	OEM		Motor	OISD-137	
61	Raw Water Pump House	2	002-PA-SM-007 A/B	Raw water pump motor				B	B	B	OEM		Motor	OISD-137	
62	Booster Shed	3	004-PA-CF-001 A/B/C	Booster pump motor				B	B	B	OEM		Motor	OISD-137	
63	Booster Shed	6	103-PA-001-002-003-004-005-006-007-008	AUX-Pump Motor-1 (Booster Pump-A)				B	B	B	OEM		Motor	OISD-137	
64	CBD Area	1	002-PM-SM-014	CBD pump motor				B	B	B	OEM		Motor	OISD-137	
65	OWS Area	3	002-PM-SM-009 A/B/C	Pit pump motor				B	B	B	OEM		Motor	OISD-137	
66	Flare Area	1	Winch Motor	Winch Motor				B	B	B	OEM		Motor	OISD-137	
67	Metering shed	1	002-PA CF-XXX-P1	Density meter pump motor				B	B	B	OEM		Motor	OISD-137	
68	IVS	2	002-PA-SM-101/003-04-PA-101	Motor				B	B	B	OEM		Motor	OISD-137	
Transformers / Reactors/ Bus -duct															
69	Substation	1	TR - 01	Power transformer – 1 (33kV/6.9kV)	B				B	B	B	OEM	OEM	TR	OISD-137
70	Substation	1	TR - 02	Power transformer – 2 (33kV/6.9kV)	B				B	B	B	OEM	OEM	TR	OISD-137
71	Substation	1	TR - 03	Distribution transformer – 3 (6.9kV/0.433	B				B	B	B	OEM	OEM	TR	OISD-137
72	Substation	1	TR - 04	Distribution transformer – 4 (6.9kV/0.433	B				B	B	B	OEM	OEM	TR	OISD-137
73	Substation	1	LTR - 01	SUB-STATION (LTR 01)	B				B	B	B	OEM	OEM	TR	OISD-137
74	Substation	1	LTR - 02	SUB-STATION (LTR 02)	B				B	B	B	OEM	OEM	TR	OISD-137
75	Substation	1	LTR - 03	SUB-STATION (LTR 03)	B				B	B	B	OEM	OEM	TR	OISD-137
76	Substation	1	ELTR - 04	SUB-STATION (ELTR 04)	B				B	B	B	OEM	OEM	TR	OISD-137
77	ETP-MCC Room	1	LTR - 01	ETP (LTR 01)	B				B	B	B	OEM	OEM	TR	OISD-137
78	ETP-MCC Room	1	LTR - 02	ETP (LTR 02)	B				B	B	B	OEM	OEM	TR	OISD-137
Battery bank															
79	MCR (Inst. Rack room)	1	Battery bank	Battery bank for PA system	B						OEM			BATTERY	OISD-137
80	MCR (Battery room)	1	Battery bank	UPS Battery bank -MCR for 2*65kVA UPS	B						OEM			BATTERY	OISD-137
81	ETP (Battery room)	1	Battery bank	UPS Battery bank - ETP for 2*15kVA UPS	B						OEM			BATTERY	OISD-137
82	Substation	2	Battery bank	HMI FCBC- Battery bank	B						OEM			BATTERY	OISD-137
83	MCR (Battery room)	1	Battery bank	Battery Bank - Telephone	B						OEM			BATTERY	OISD-137
84	Admin.Bulding	1	Battery bank	Battery bank for 1*20kVA UPS	B						OEM			BATTERY	OISD-138
VFD/UPS/INVERTOR															
85	MCR (UPS Room)	1	UPS - 01 65kVA	UPS-MCR	B			B			OEM			UPS	OISD-137
86	MCR (UPS Room)	1	UPS - 02 65kVA	UPS-MCR	B			B			OEM			UPS	OISD-137
87	ETP-Control Room	1	UPS - 01 15kVA	UPS-ETP	B			B			OEM			UPS	OISD-137
88	ETP-Control room	1	UPS - 02 15kVA	UPS-ETP	B			B			OEM			UPS	OISD-137
89	Admin.Bulding	1	UPS - 01 20kVA	UPS-Admin.bulding	B			B			OEM			UPS	OISD-138
Battery charger / DC Board															
90	MCR (UPS Room)	2	FCBC-01 & 02	Battery charger telephone	B						OEM			FCBC	OISD-137
91	MCR (Inst. Rack room)	1	BATTERY CHARGER	Battery charger public address	B						OEM			FCBC	OISD-137
92	IVS	1	FCBC-01	Battery charger	B						OEM			FCBC	OISD-137
93	IVS	1	FCBC-02	Battery charger	B						OEM			FCBC	OISD-137
94	Substation	1	FCBC - 01	Battery charger (HMI ROOM)	B						OEM			FCBC	OISD-137
95	Substation	1	FCBC - 02	Battery charger (HMI ROOM)	B						OEM			FCBC	OISD-137
Cathodic protection															
96	Shaft- A	1	TRU -1	Cathodic protection	B						OEM			CP	OISD-137
97	Shaft- B	1	TRU -2	Cathodic protection	B						OEM			CP	OISD-137
98	L.P.G Munded bullet area	1	TRU -3	Cathodic protection	B						OEM			CP	OISD-137
99	Substation	1	TRU -1	Cathodic protection	B						OEM			PANEL	OISD-137
100	Substation	1	TRU -2	Cathodic protection	B						OEM			PANEL	OISD-137
101	L.P.G Munded bullet area	1	TRU -3	Cathodic protection	B						OEM			PANEL	OISD-137
102	Substation	1	Rectifier unit 48"	CATHODIC PROTECTION	B						OEM			PANEL	OISD-137
Lighting Fixtures and Junction boxes (plant and building)															
103	Plant area	7	115-01/02/03/04/05/06	High mast - 01/02/03/04/05/06 and ETP -	B			B			B	OEM		HM	OISD-137
104	Watch tower - 01-06	10	Search light	Search light	B			B			B	OEM		LIGHT	OISD-137
105	IVS	Lights	Lights	Light- All Plant	B			B			B	OEM		LIGHT	OISD-137
106	Lights - All Plant	Lights	Lights	Light- All Plant	B			B			B	OEM		LIGHT	OISD-137
HVAC and AC System															
107	MCR (HVAC Room)	4	PAC-01/02/06/04	creating ventilation & air conditioning -										HVAC	OEM
108	ETP-Control Room	6	AC-01/02/03/04/05/06	Air Conditioner										AC	OEM
109	Admin.Bulding	16	AC- 01to16	Air Conditioner										AC	OEM
110	IVS	3	AC-01/02/03	Air Conditioner						OEM				AC	OEM
111	MCR (HVAC room)	1	CFU-01	CHEMICAL FILTER UNITS										CFU	OEM
112	Substation	1	CF - 01	Pressurisation - 01										PRE	OEM

113	Substation	1	CF - 02	Pressurisation - 02													PRE	OEM	
CAPACITOR BANK																			
114	Substation	1	CB - 01	CAPACITOR BANK 1	B											OEM	CB	OISD-137	
115	Substation	1	CB - 02	CAPACITOR BANK 2	B											OEM	CB	OISD-137	
Swith board & Panel																			
116	ISPRL Main gate	1	HT - 33KV - SWBD - 10	33 KV ISPRL MAIN METER PANEL	B											OEM	PANEL	OISD-137	
117	Substation	1	HT - 33KV - SWBD - 10	33 KV PANEL	B											OEM	PANEL	OISD-137	
118	Substation	1	HT - 6.6KV - SWBD - 10	6.6 KV PANEL	B											OEM	PANEL	OISD-137	
119	Substation	1	HT - PCC - SWBD - 10	PCC PANEL	B											OEM	PANEL	OISD-137	
120	Substation	1	HT - EPMCC - SWBD - 10	EPMCC PANEL	B											OEM	PANEL	OISD-137	
121	Substation	1	HT - MCC - SWBD - 10	MCC PANEL	B											OEM	PANEL	OISD-137	
122	Substation	1	HT - MOVDB - SWBD - 10	MOVDB PANEL	B											OEM	PANEL	OISD-137	
123	Substation	1	HT - ASPB - SWBD - 10	ASPB PANEL	B											OEM	PANEL	OISD-137	
124	Substation	2	HT - ELDB - 01 / 02	ELDB & MLDB PANEL	B											OEM	PANEL	OISD-137	
125	Substation	1	LT - DCDB - 01	PANEL	B											OEM	PANEL	OISD-137	
126	Substation	1	HT - RTCC - 01	PANEL	B											OEM	PANEL	OISD-137	
127	Substation	1	HT - RTCC - 02	PANEL	B											OEM	PANEL	OISD-137	
128	Substation	1	HT - RTCC - 03	PANEL	B											OEM	PANEL	OISD-137	
129	ETP-MCC Room	1	002-MCC - SWBD - 01	MCC PANEL	B											OEM	PANEL	OISD-137	
130	ETP - SCADA Room	1	VFD PANEL - 01	PANEL	B											OEM	PANEL	OISD-137	
131	ETP - SCADA Room	1	VFD PANEL - 02	PANEL	B											OEM	PANEL	OISD-137	
132	Substation	1	PDB-01	Pressurisation room panel	B											OEM	PANEL	OISD-137	
133	Boiler area	1	LT - SWBD - 306	Boiler MCC room panel	B											OEM	PANEL	OISD-137	
134	IVS	2	UDB - 01 / 02	UDB PANEL	B											OEM	PANEL	OISD-137	
135	IVS	1	MCC PANEL-415V	MCC PANEL-415V	B											OEM	PANEL	OISD-137	
136	ETP-MCC Room	1	002 - ELDB - 01	ELDB PANEL	B											OEM	PANEL	OISD-137	
137	ETP-MCC Room	1	002 - EPDB - 01	EPDB PANEL	B											OEM	PANEL	OISD-137	
138	ETP-MCC Room	1	002 - LDB - 01	LDB PANEL	B											OEM	PANEL	OISD-137	
139	ETP-MCC Room	1	002-DOL-01	DOL PANEL	B											OEM	PANEL	OISD-137	
140	Substation	3	Sub station rooming / 002-MCC	Sub station / boiler room ETP-MCC	B											OEM	PANEL	OISD-137	
141	Substation	6	HT-01/02/03/04 and CB	Switch yardequpement	B											OEM	PANEL	OISD-137	
142	Plant all areas	All plant	Lightning Protection - Earth	Lightening protection	B											OEM	PANEL	OISD-137	
143	Field	All plant	-	Flame proof / weather protection	B											OEM	PANEL	OISD-137	
144	MCR/Admin/ETP	3	-	Fire alram ssytem (Eletrcal circuit)	B											OEM	PANEL	OISD-137	
PA & Telephone - system																			
145	All Plant Area	21	PA - system	PA - system													PA	As per OEM/SOP	
146	All Plant Area	16	Telephone - system	Telephone - system (Field call station)													Telephone	As per OEM/SOP	
Pipeline																			
147	ISPRL to IVS & IVS to LFP	1	48" Pipeline	CATHODIC PROTECTION												OEM	Pipeline	As per OEM/SOP	
148	IVS to Munk	1	42" Pipeline	CATHODIC PROTECTION												OEM	Pipeline	As per OEM/SOP	
Field Equipments																			
149	ETP	2	MOV-1701/1702	Motor operated valve												B	OEM	MOV	OISD-137
150	Shaft- A	35	002-MOV-2807/2808/2809/1401/1402/2601/2602/2603/2604/2605/2606/2607/2608/2609/2610/2611/2612/2613/2614/2615/2616/2617/2618/2619/2620/2621/2622/2623/2624/2625/2626/2627/2628/2629/2630/2631/2632/2633/2634/2635/2636/2637/2638/2639/2640/2641/2642/2643/2644/2645/2646/2647/2648/2649/2650/2651/2652/2653/2654/2655/2656/2657/2658/2659/2660/2661/2662/2663/2664/2665/2666/2667/2668/2669/2670/2671/2672/2673/2674/2675/2676/2677/2678/2679/2680/2681/2682/2683/2684/2685/2686/2687/2688/2689/2690/2691/2692/2693/2694/2695/2696/2697/2698/2699/2700/2701/2702/2703/2704/2705/2706/2707/2708/2709/2710/2711/2712/2713/2714/2715/2716/2717/2718/2719/2720/2721/2722/2723/2724/2725/2726/2727/2728/2729/2730/2731/2732/2733/2734/2735/2736/2737/2738/2739/2740/2741/2742/2743/2744/2745/2746/2747/2748/2749/2750/2751/2752/2753/2754/2755/2756/2757/2758/2759/2760/2761/2762/2763/2764/2765/2766/2767/2768/2769/2770/2771/2772/2773/2774/2775/2776/2777/2778/2779/2780/2781/2782/2783/2784/2785/2786/2787/2788/2789/2790/2791/2792/2793/2794/2795/2796/2797/2798/2799/2800/2801/2802/2803/2804/2805/2806/2807/2808/2809/2810/2811/2812/2813/2814/2815/2816/2817/2818/2819/2820/2821/2822/2823/2824/2825/2826/2827/2828/2829/2830/2831/2832/2833/2834/2835/2836/2837/2838/2839/2840/2841/2842/2843/2844/2845/2846/2847/2848/2849/2850/2851/2852/2853/2854/2855/2856/2857/2858/2859/2860/2861/2862/2863/2864/2865/2866/2867/2868/2869/2870/2871/2872/2873/2874/2875/2876/2877/2878/2879/2880/2881/2882/2883/2884/2885/2886/2887/2888/2889/2890/2891/2892/2893/2894/2895/2896/2897/2898/2899/2900/2901/2902/2903/2904/2905/2906/2907/2908/2909/2910/2911/2912/2913/2914/2915/2916/2917/2918/2919/2920/2921/2922/2923/2924/2925/2926/2927/2928/2929/2930/2931/2932/2933/2934/2935/2936/2937/2938/2939/2940/2941/2942/2943/2944/2945/2946/2947/2948/2949/2950/2951/2952/2953/2954/2955/2956/2957/2958/2959/2960/2961/2962/2963/2964/2965/2966/2967/2968/2969/2970/2971/2972/2973/2974/2975/2976/2977/2978/2979/2980/2981/2982/2983/2984/2985/2986/2987/2988/2989/2990/2991/2992/2993/2994/2995/2996/2997/2998/2999/3000/3001/3002/3003/3004/3005/3006/3007/3008/3009/3010/3011/3012/3013/3014/3015/3016/3017/3018/3019/3020/3021/3022/3023/3024/3025/3026/3027/3028/3029/3030/3031/3032/3033/3034/3035/3036/3037/3038/3039/3040/3041/3042/3043/3044/3045/3046/3047/3048/3049/3050/3051/3052/3053/3054/3055/3056/3057/3058/3059/3060/3061/3062/3063/3064/3065/3066/3067/3068/3069/3070/3071/3072/3073/3074/3075/3076/3077/3078/3079/3080/3081/3082/3083/3084/3085/3086/3087/3088/3089/3090/3091/3092/3093/3094/3095/3096/3097/3098/3099/3100/3101/3102/3103/3104/3105/3106/3107/3108/3109/3110/3111/3112/3113/3114/3115/3116/3117/3118/3119/3120/3121/3122/3123/3124/3125/3126/3127/3128/3129/3130/3131/3132/3133/3134/3135/3136/3137/3138/3139/3140/3141/3142/3143/3144/3145/3146/3147/3148/3149/3150/3151/3152/3153/3154/3155/3156/3157/3158/3159/3160/3161/3162/3163/3164/3165/3166/3167/3168/3169/3170/3171/3172/3173/3174/3175/3176/3177/3178/3179/3180/3181/3182/3183/3184/3185/3186/3187/3188/3189/3190/3191/3192/3193/3194/3195/3196/3197/3198/3199/3200/3201/3202/3203/3204/3205/3206/3207/3208/3209/3210/3211/3212/3213/3214/3215/3216/3217/3218/3219/3220/3221/3222/3223/3224/3225/3226/3227/3228/3229/3230/3231/3232/3233/3234/3235/3236/3237/3238/3239/3240/3241/3242/3243/3244/3245/3246/3247/3248/3249/3250/3251/3252/3253/3254/3255/3256/3257/3258/3259/3260/3261/3262/3263/3264/3265/3266/3267/3268/3269/3270/3271/3272/3273/3274/3275/3276/3277/3278/3279/3280/3281/3282/3283/3284/3285/3286/3287/3288/3289/3290/3291/3292/3293/3294/3295/3296/3297/3298/3299/3300/3301/3302/3303/3304/3305/3306/3307/3308/3309/3310/3311/3312/3313/3314/3315/3316/3317/3318/3319/3320/3321/3322/3323/3324/3325/3326/3327/3328/3329/3330/3331/3332/3333/3334/3335/3336/3337/3338/3339/3340/3341/3342/3343/3344/3345/3346/3347/3348/3349/3350/3351/3352/3353/3354/3355/3356/3357/3358/3359/3360/3361/3362/3363/3364/3365/3366/3367/3368/3369/3370/3371/3372/3373/3374/3375/3376/3377/3378/3379/3380/3381/3382/3383/3384/3385/3386/3387/3388/3389/3390/3391/3392/3393/3394/3395/3396/3397/3398/3399/3400/3401/3402/3403/3404/3405/3406/3407/3408/3409/3410/3411/3412/3413/3414/3415/3416/3417/3418/3419/3420/3421/3422/3423/3424/3425/3426/3427/3428/3429/3430/3431/3432/3433/3434/3435/3436/3437/3438/3439/3440/3441/3442/3443/3444/3445/3446/3447/3448/3449/3450/3451/3452/3453/3454/3455/3456/3457/3458/3459/3460/3461/3462/3463/3464/3465/3466/3467/3468/3469/3470/3471/3472/3473/3474/3475/3476/3477/3478/3479/3480/3481/3482/3483/3484/3485/3486/3487/3488/3489/3490/3491/3492/3493/3494/3495/3496/3497/3498/3499/3500/3501/3502/3503/3504/3505/3506/3507/3508/3509/3510/3511/3512/3513/3514/3515/3516/3517/3518/3519/3520/3521/3522/3523/3524/3525/3526/3527/3528/3529/3530/3531/3532/3533/3534/3535/3536/3537/3538/3539/3540/3541/3542/3543/3544/3545/3546/3547/3548/3549/3550/3551/3552/3553/3554/3555/3556/3557/3558/3559/3560/3561/3562/3563/3564/3565/3566/3567/3568/3569/3570/3571/3572/3573/3574/3575/3576/3577/3578/3579/3580/3581/3582/3583/3584/3585/3586/3587/3588/3589/3590/3591/3592/35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Earthing System																			
156	Substation	24	EPN-77/76/75/74/12/72/71/7	Earth pit					B	OEM		Earth	OISD-137						
157	Diesel generator shed	3	EPN-41/44/25/26	Earth pit					B	OEM		Earth	OISD-137						
158	MCR	8	EPL-17/16/19/ EPE-20/1	Earth pit					B	OEM		Earth	OISD-137						
159	Admin.Bulding	6	EPE-02/20/23/ EPL-25/2	Earth pit					B	OEM		Earth	OISD-137						
160	Shaft- B	5	EPE-40/39/ EPL-27/65/4	Earth pit					B	OEM		Earth	OISD-137						
161	Metering shed	3	EPL-66/ ELE-37/36	Earth pit					B	OEM		Earth	OISD-137						
162	Shaft- A	3	ELE-36/ EPL-68/69	Earth pit					B	OEM		Earth	OISD-137						
163	Raw Water Pump House	2	EPE-34/35	Earth pit					B	OEM		Earth	OISD-137						
164	Fire Water Pump House	5	EPE-01/02/25/29/30	Earth pit					B	OEM		Earth	OISD-137						
165	Diesel Tank Area	1	EPE-49	Earth pit					B	OEM		Earth	OISD-137						
166	Flare Area	4	EPE-51/52/ EPL-59/58	Earth pit					B	OEM		Earth	OISD-137						
167	L.P.G Munded bullet area	1	EPN-8	Earth pit					B	OEM		Earth	OISD-137						
168	Nitrogen Area	3	EPE-46/ EPL61/60	Earth pit					B	OEM		Earth	OISD-137						
169	Inst. Air Compressor Shed	1	EPE-47	Earth pit					B	OEM		Earth	OISD-137						
170	Boiler area	5	EPE-51/52/ EPL-42A/62 EPL-53/50/ EPL-5	Earth pit					B	OEM		Earth	OISD-137						
171	ETP	22	05/06/07/09/08/11/12/0 103/03/	Earth pit					B	OEM		Earth	OISD-137						
172	Booster Shed	6	LE-01/02/03/04/05/06 LOKSH/02/03/04/ LE-	Earth pit					B	OEM		Earth	OISD-137						
173	IVS	19	01/02/03/04/05/06/07/ 05-01/02-EPN	Earth pit					B	OEM		Earth	OISD-137						
<table><tr><td rowspan="3">B OEM</td><td></td><td>Bidder scope</td></tr><tr><td></td><td>Original Equipment Manufacturer scope (bidder to assist in the activities to be carried out by OEM)</td></tr><tr><td></td><td>NOT APPLICABLE</td></tr></table>													B OEM		Bidder scope		Original Equipment Manufacturer scope (bidder to assist in the activities to be carried out by OEM)		NOT APPLICABLE
B OEM		Bidder scope																	
		Original Equipment Manufacturer scope (bidder to assist in the activities to be carried out by OEM)																	
		NOT APPLICABLE																	
# All activity under the mentioned frequency shall be carried out as per OISD standards/OEM recommendation																			

162	Field gauge	General	LG-21218	Level gauge/indicator	Instrument air compressor		OEM				NA
163	Field gauge	-	LG-3810/3003	Level gauge/indicator (Gauge Glass tube)	LPG		OEM				NA
164	Field gauge	Protalina	LG-4001	Level gauge/indicator	LPG		OEM				NA
165	Field gauge	Protalina	LG-4001	Level gauge/indicator	LPG		OEM				NA
166	Field gauge	KSR Kubler	U-4006	Level Indicator	MUA (CTP-002A)		OEM				NA
167	Field gauge	KSR Kubler	U-4007	Level Indicator	MUA (CTP-002B)		OEM				NA
168	Field gauge	KSR Kubler	U-4008	Level Indicator	MUA (CTP-002C)		OEM				NA
169	Field gauge	KSR Kubler	U-4009	Level Indicator	MUA (CTP-002D)		OEM				NA
170	Field gauge	KSR Kubler	U-4010	Level Indicator	MUA (CTP-002E)		OEM				NA
171	Field gauge	KSR Kubler	U-4016	Level Indicator	MUB (CTP-003A)		OEM				NA
172	Field gauge	KSR Kubler	U-4017	Level Indicator	MUB (CTP-003B)		OEM				NA
173	Field gauge	KSR Kubler	U-4018	Level Indicator	MUB (CTP-003C)		OEM				NA
174	Field gauge	KSR Kubler	U-4019	Level Indicator	MUB (CTP-003D)		OEM				NA
175	Field gauge	KSR Kubler	U-4020	Level Indicator	MUB (CTP-003E)		OEM				NA
176	Field gauge	KSR Kubler	U-4021	Level Indicator	MUA (STP-004A)		OEM				NA
177	Field gauge	KSR Kubler	U-4022	Level Indicator	MUA (STP-004B)		OEM				NA
178	Field gauge	KSR Kubler	U-4025	Level Indicator	MUB (STP-005A)		OEM				NA
179	Field gauge	KSR Kubler	U-4026	Level Indicator	MUB (STP-005B)		OEM				NA
180	Field gauge	V Automat	LG 1101	Level gauge	ETP		OEM				NA
181	Field gauge	V Automat	LG 1601	Level gauge	ETP		OEM				NA
182	Field gauge	V Automat	LG 1602	Level gauge	ETP		OEM				NA
183	Field gauge	V Automat	LG 1603	Level gauge	ETP		OEM				NA
184	Field gauge	V Automat	LG 1604	Level gauge	ETP		OEM				NA
185	Field gauge	V Automat	LG 1605	Level gauge	ETP		OEM				NA
186	Field gauge	V Automat	LG 1606	Level gauge	ETP		OEM				NA
187	Field gauge	V Automat	LG 1610	Level gauge	ETP		OEM				NA
188	Field gauge	V Automat	LG 1611	Level gauge	ETP		OEM				NA
189	Field gauge	V Automat	LG 1607	Level gauge	ETP		OEM				NA
190	Field gauge	V Automat	LG 1608	Level gauge	ETP		OEM				NA
191	Field gauge	GIC	PJ-3005	Pressure gauge	Flare system		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
192	Field gauge	GIC	PJ-3106	Pressure gauge	Condensate recovery & Fuel transfer system		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
193	Field gauge	GIC	PJ-3107	Pressure gauge	Condensate recovery & Fuel transfer system		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
194	Field gauge	GIC	PJ-3108	Pressure gauge	Condensate recovery & Fuel transfer system		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
195	Field gauge	GIC	PJ-3113	Pressure gauge	Condensate recovery & Fuel transfer system		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
196	Field gauge	GIC	PJ-3012	Pressure gauge	LPG		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
197	Field gauge	GIC	PJ-3013	Pressure gauge	LPG		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
198	Field gauge	GIC	PJ-3801	Pressure gauge	LPG		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
199	Field gauge	GIC	PJ-3803	Pressure gauge	LPG		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
200	Field gauge	GIC	PJ-2103	Pressure gauge	Instrument Air compressor		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
201	Field gauge	GIC	PJ-2108	Pressure gauge	Instrument Air compressor		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
202	Field gauge	GIC	PJ-2110	Pressure gauge	Instrument Air compressor		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
203	Field gauge	GIC	PJ-2111	Pressure gauge	Instrument Air compressor		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
204	Field gauge	GIC	PJ-2112	Pressure gauge	Instrument Air compressor		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
205	Field gauge	GIC	PJ-2113	Pressure gauge	Instrument Air compressor		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
206	Field gauge	GIC	PJ-2114	Pressure gauge	Instrument Air compressor		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
207	Field gauge	GIC	PJ-2601	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
208	Field gauge	GIC	PJ-2603	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
209	Field gauge	GIC	PJ-2605	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
210	Field gauge	GIC	PJ-2607	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
211	Field gauge	GIC	PJ-2609	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
212	Field gauge	GIC	PJ-2611	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
213	Field gauge	GIC	PJ-2701	Pressure gauge	MUB		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
214	Field gauge	GIC	PJ-2703	Pressure gauge	MUB		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
215	Field gauge	GIC	PJ-2705	Pressure gauge	MUB		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
216	Field gauge	GIC	PJ-2707	Pressure gauge	MUB		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
217	Field gauge	GIC	PJ-2709	Pressure gauge	MUB		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
218	Field gauge	GIC	PJ-2711	Pressure gauge	MUB		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
219	Field gauge	GIC	PJ-1605	Pressure gauge	MUB		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
220	Field gauge	GIC	PJ-1606	Pressure gauge	MUB		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
221	Field gauge	GIC	PJ-1607	Pressure gauge	MUB		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
222	Field gauge	GIC	PJ-1608	Pressure gauge	MUB		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
223	Field gauge	GIC	PJ-1609	Pressure gauge	MUB		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
224	Field gauge	GIC	PJ-1610	Pressure gauge	MUB		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
225	Field gauge	GIC	PJ-1611	Pressure gauge	MUB		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
226	Field gauge	GIC	PJ-1612	Pressure gauge	MUB		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
227	Field gauge	GIC	PJ-1613	Pressure gauge	MUB		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
228	Field gauge	GIC	PJ-1614	Pressure gauge	MUB		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
229	Field gauge	GIC	PJ-2803	Pressure gauge	Crude Heating system (MUB)		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
230	Field gauge	GIC	PJ-2804	Pressure gauge	Crude Heating system (MUB)		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
231	Field gauge	GIC	PJ-2808	Pressure gauge	Crude Heating system (MUB)		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
232	Field gauge	GIC	PJ-2809	Pressure gauge	Crude Heating system (MUB)		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
233	Field gauge	GIC	PJ-2811	Pressure gauge	Crude Heating system (MUB)		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
234	Field gauge	GIC	PJ-1401	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
235	Field gauge	GIC	PJ-1403	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
236	Field gauge	GIC	PJ-1405	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
237	Field gauge	GIC	PJ-1407	Pressure gauge	MUB		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
238	Field gauge	GIC	PJ-2501	Pressure gauge	CBD		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
239	Field gauge	GIC	PJ-2502	Pressure gauge	CBD		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
240	Field gauge	GIC	PJ-0401	Pressure gauge	OWS/CHWS		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
241	Field gauge	GIC	PJ-0402	Pressure gauge	OWS/CHWS		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
242	Field gauge	GIC	PG-0301	Pressure gauge	Raw water pump house		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
243	Field gauge	GIC	PG-0302	Pressure gauge	Raw water pump house		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
244	Field gauge	GIC	PG-0501	Pressure gauge	Treated effluent water pond		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
245	Field gauge	GIC	PG-0502	Pressure gauge	Treated effluent water pond		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
246	Field gauge	GIC	PG-0503	Pressure gauge	Treated effluent water pond		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
247	Field gauge	GIC	PJ-1505	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
248	Field gauge	GIC	PJ-1506	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
249	Field gauge	GIC	PJ-1507	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
250	Field gauge	GIC	PJ-1508	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
251	Field gauge	GIC	PJ-1509	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
252	Field gauge	GIC	PJ-1510	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
253	Field gauge	GIC	PJ-1511	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
254	Field gauge	GIC	PJ-1512	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
255	Field gauge	GIC	PJ-1513	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
256	Field gauge	GIC	PJ-1514	Pressure gauge	MUA		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
257	Field gauge	GIC	PG-102	Pressure gauge	Drinking water pump house		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
258	Field gauge	GIC	PJ-0308	Pressure gauge	Fire water pump house		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
259	Field gauge	GIC	PJ-0306	Pressure gauge	Fire water pump house		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
260	Field gauge	GIC	PJ-0307	Pressure gauge	Fire water pump house		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
261	Field gauge	GIC	PJ-0304	Pressure gauge	Fire water pump house		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
262	Field gauge	GIC	PJ-0305	Pressure gauge	Fire water pump house		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
263	Field gauge	GIC	PJ-0302	Pressure gauge	Fire water pump house		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
264	Field gauge	GIC	PJ-0303	Pressure gauge	Fire water pump house		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
265	Field gauge	GIC	PJ-8211	Pressure gauge	Fire water spray system-Diesel tank		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
266	Field gauge	GIC	PJ-8211A	Pressure gauge	Fire water spray system-Diesel tank		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
267	Field gauge	GIC	PJ-8212	Pressure gauge	Fire water spray system-Diesel tank		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
268	Field gauge	GIC	PJ-8212A	Pressure gauge	Fire water spray system-Diesel tank		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
269	Field gauge	GIC	PJ-8221	Pressure gauge	Fire water spray system-LPG		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
270	Field gauge	GIC	PJ-8221A	Pressure gauge	Fire water spray system-heat exchanger		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
271	Field gauge	GIC	PJ-8222	Pressure gauge	Fire water spray system-heat exchanger		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
272	Field gauge	GIC	PJ-8223	Pressure gauge	Fire water spray system-heat exchanger		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
273	Field gauge	GIC	PJ-8234	Pressure gauge	Fire water spray system-heat exchanger		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
274	Field gauge	GIC	PJ-8251	Pressure gauge	Fire water spray system-metering shed		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
275	Field gauge	GIC	PJ-2301	Pressure gauge	Nitrogen		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
276	Field gauge	GIC	PJ-2305	Pressure gauge	Nitrogen		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
277	Field gauge	GIC	PJ-2306	Pressure gauge	Nitrogen		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
278	Field gauge	GIC	PJ-4518A	Pressure gauge	Boiler		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
279	Field gauge	GIC	PJ-4518B	Pressure gauge	Boiler		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
280	Field gauge	GIC	PJ-4519A	Pressure gauge	Boiler		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
281	Field gauge	GIC	PJ-4519B	Pressure gauge	Boiler		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
282	Field gauge	GIC	PG-4501A	Pressure gauge	Boiler		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
283	Field gauge	GIC	PG-4501B	Pressure gauge	Boiler		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
284	Field gauge	GIC	PG-4504B	Pressure gauge	Boiler		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
285	Field gauge	GIC	PG-4520	Pressure gauge	Boiler		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
286	Field gauge	GIC	PG-2120A	Pressure gauge	Instrument Air compressor		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
287	Field gauge	GIC	PG-2121A	Pressure gauge	Instrument Air compressor		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
288	Field gauge	GIC	PG-2122A	Pressure gauge	Instrument Air compressor		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
289	Field gauge	GIC	PG-2123A	Pressure gauge	Instrument Air compressor		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
290	Field gauge	GIC	PG-2124A	Pressure gauge	Instrument Air compressor		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
291	Field gauge	GIC	PG-2125A	Pressure gauge	Instrument Air compressor		OEM	OSD 244 10.6.V	M6		As per NABL guidelines
292	Field gauge	GIC	PG-2126B	Pressure gauge	Instrument Air						

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508	Field gauge	General	TG-2123A	Temperature gauge	Instrument air compressor	OEM	As per NABL guidelines	Y	NABL approved vendor
509	Field gauge	General	TG-2123B	Temperature gauge	Instrument air compressor	OEM	As per NABL guidelines	Y	NABL approved vendor
510	Field gauge	General	TG-2124A	Temperature gauge	Instrument air compressor	OEM	As per NABL guidelines	Y	NABL approved vendor
511	Field gauge	General	TG-2124B	Temperature gauge	Instrument air compressor	OEM	As per NABL guidelines	Y	NABL approved vendor
512	Field gauge	General	TG-2125A	Temperature gauge	Instrument air compressor	OEM	As per NABL guidelines	Y	NABL approved vendor
513	Field gauge	General	TG-2125B	Temperature gauge	Instrument air compressor	OEM	As per NABL guidelines	Y	NABL approved vendor
514	Field gauge	General	TG-2126A	Temperature gauge	Instrument air compressor	OEM	As per NABL guidelines	Y	NABL approved vendor
515	Field gauge	General	TG-2126B	Temperature gauge	Instrument air compressor	OEM	As per NABL guidelines	Y	NABL approved vendor
516	Field gauge	General	TG-2127A	Temperature gauge	Instrument air compressor	OEM	As per NABL guidelines	Y	NABL approved vendor
517	Field gauge	General	TG-2127B	Temperature gauge	Instrument air compressor	OEM	As per NABL guidelines	Y	NABL approved vendor
518	Field gauge	General	TG-2128A	Temperature gauge	Instrument air compressor	OEM	As per NABL guidelines	Y	NABL approved vendor
519	Field gauge	General	TG-2128B	Temperature gauge	Instrument air compressor	OEM	As per NABL guidelines	Y	NABL approved vendor
520	Field transmitter	SFC (CTECH)	DELS 1701	Decantor level sensor	ETP-SBR	B	5.5.5	Y	M3
521	Field transmitter	SFC (CTECH)	DELS 1702	Decantor level sensor	ETP-SBR	B	5.5.5	Y	M3
522	Field transmitter	SFC (CTECH)	DEPS 1701	Decantor position sensor	ETP-SBR	B	5.5.5	Y	M3
523	Field transmitter	SFC (CTECH)	DEPS 1702	Decantor position sensor	ETP-SBR	B	5.5.5	Y	M3
524	Field transmitter	SFC (CTECH)	DEPS 1703	Decantor position sensor	ETP-SBR	B	5.5.5	Y	M3
525	Field transmitter	SFC (CTECH)	DEPS 1704	Decantor position sensor	ETP-SBR	B	5.5.5	Y	M3
526	Field transmitter	SFC (CTECH)	DEPS 1705	Decantor position sensor	ETP-SBR	B	5.5.5	Y	M3
527	Field transmitter	SFC (CTECH)	DEPS 1706	Decantor position sensor	ETP-SBR	B	5.5.5	Y	M3
528	Field transmitter	ATS	AT-2101/1120	New point analyser	Instrument air dryer	B	5.5.5	Y	M3 M6
529	Field transmitter	Emerson	DPT-4501A	Differential pressure transmitter	Boiler	B	OEM	As per NABL guidelines	Y
530	Field transmitter	Emerson	DPT-4501B	Differential pressure transmitter	Boiler	B	OEM	As per NABL guidelines	Y
531	Field transmitter	Emerson	DPT-4502A	Differential pressure transmitter	Boiler	B	OEM	As per NABL guidelines	Y
532	Field transmitter	Emerson	DPT-4502B	Differential pressure transmitter	Boiler	B	OEM	As per NABL guidelines	Y
533	Field transmitter	Emerson	DPT-4503A	Differential pressure transmitter	Boiler	B	OEM	As per NABL guidelines	Y
534	Field transmitter	Emerson	DPT-4503B	Differential pressure transmitter	Boiler	B	OEM	As per NABL guidelines	Y
535	Field transmitter	Emerson	DPT-4504A	Differential pressure transmitter	Boiler	B	OEM	As per NABL guidelines	Y
536	Field transmitter	Emerson	DPT-4504B	Differential pressure transmitter	Boiler	B	OEM	As per NABL guidelines	Y
537	Field transmitter	Emerson (Rosemount)	004-P01T-1301	Differential pressure transmitter	Mangalore Booster	B	OEM	OSD 244 10.6.FV	M6
538	Field transmitter	Emerson (Rosemount)	004-P01T-1302	Differential pressure transmitter	Mangalore Booster	B	OEM	OSD 244 10.6.FV	M6
539	Field transmitter	Emerson (Rosemount)	004-P01T-1303	Differential pressure transmitter	Mangalore Booster	B	OEM	OSD 244 10.6.FV	M6
540	Field transmitter	Honeywell	DPT 1301	Differential pressure transmitter	ETP-Polishing section	B	OEM	As per NABL guidelines	Y
541	Field transmitter	Honeywell	DPT 1302	Differential pressure transmitter	ETP-Polishing section	B	OEM	As per NABL guidelines	Y
542	Field transmitter	Honeywell	DPT 1303	Differential pressure transmitter	ETP-Polishing section	B	OEM	As per NABL guidelines	Y
543	Field transmitter	Honeywell	DPT 1304	Differential pressure transmitter	ETP-Polishing section	B	OEM	As per NABL guidelines	Y
544	Field transmitter	Honeywell	DPT 1305	Differential pressure transmitter	ETP-Polishing section	B	OEM	As per NABL guidelines	Y
545	Field transmitter	Honeywell	DPT 1306	Differential pressure transmitter	ETP-Polishing section	B	OEM	As per NABL guidelines	Y
546	Field transmitter	Honeywell	DPT 1401	Differential pressure transmitter	ETP-Polishing section	B	OEM	As per NABL guidelines	Y
547	Field transmitter	Honeywell	DPT 1402	Differential pressure transmitter	ETP-Polishing section	B	OEM	As per NABL guidelines	Y
548	Field transmitter	Honeywell	DPT 1403	Differential pressure transmitter	ETP-Polishing section	B	OEM	As per NABL guidelines	Y
549	Field transmitter	Forbes Marshall	DOIT 1203	Dissolved oxygen analyser	ETP-SBR	B	5.5.5	Y	M3
550	Field transmitter	Forbes Marshall	DOIT 1202	Dissolved oxygen analyser	ETP-SBR	B	5.5.5	Y	M3
551	Field transmitter	Krohne Marshall	RI1 1105	Flow indicating transmitter (MAGNETIC TI) ETP	B	OEM	OSID 153 (6.4)	Y	During Planned Shutdown
552	Field transmitter	Krohne Marshall	RI1 1106	Flow indicating transmitter (MAGNETIC TI) ETP	B	OEM	OSID 153 (6.4)	Y	During Planned Shutdown
553	Field transmitter	Krohne Marshall	RI1 1107	Flow indicating transmitter (MAGNETIC TI) ETP	B	OEM	OSID 153 (6.4)	Y	During Planned Shutdown
554	Field transmitter	Krohne Marshall	RI1 1201	Flow indicating transmitter (MAGNETIC TI) ETP	B	OEM	OSID 153 (6.4)	Y	During Planned Shutdown
555	Field transmitter	Krohne Marshall	RI1 1309	Flow indicating transmitter (MAGNETIC TI) ETP	B	OEM	OSID 153 (6.4)	Y	During Planned Shutdown
556	Field transmitter								

682	Field transmitter	Krohne	LT-4505	Level transmitter (RADAR type)	Boiler	B	OEM	6.2.2	M3	
682	Field transmitter	Krohne	LT-4507	Level transmitter (RADAR type)	Boiler	B	OEM	6.2.2	M3	
683	Field transmitter	Krohne	LT-4508	Level transmitter (RADAR type)	Boiler	B	OEM	6.2.2	M3	
684	Field transmitter	Krohne	LT-4509	Level transmitter (RADAR type)	Boiler	B	OEM	6.2.2	M3	
685	Field transmitter	Krohne	LT-4509A	Level transmitter (RADAR type)	Boiler	B	OEM	6.2.2	M3	
686	Field transmitter	Krohne	LT-4509B	Level transmitter (RADAR type)	Boiler	B	OEM	6.2.2	M3	
687	Field transmitter	Krohne	LT-4510	Level transmitter (RADAR type)	Boiler	B	OEM	6.2.2	M3	
688	Field transmitter	Vega	LTA-150	Level transmitter (RADAR type)	Drinking water pump house	B	OEM	6.2.2	M3	
689	Field transmitter	Vega	LT-0901	Level transmitter (RADAR type)	Raw water pump house	B	OEM	6.2.2	M3	
690	Field transmitter	Vega	LTA1-2501	Level transmitter (RADAR type)	CBD	B	OEM	6.2.2	M3	
691	Field transmitter	Vega	LT-2502	Level transmitter (RADAR type)	CBD	B	OEM	6.2.2	M3	
692	Field transmitter	Vega	LT-0403	Level transmitter (RADAR type)	OWS/CRWs	B	OEM	6.2.2	M3	
693	Field transmitter	Vega	LT-0501	Level transmitter (RADAR type)	Treated effluent water pond	B	OEM	6.2.2	M3	
694	Field transmitter	Vega	LT-0901	Level transmitter (RADAR type)	Water curtain system (MUA)	B	OEM	6.2.2	M3	
695	Field transmitter	Vega	LTA-0301	Level transmitter (RADAR type)	Fire water tank area	B	OEM	6.2.2	M3	
696	Field transmitter	Vega	LTA-0302	Level transmitter (RADAR type)	Fire water tank area	B	OEM	6.2.2	M3	
697	Field transmitter	Vega	LT-3101	Level transmitter (RADAR type)	Desel tank area	B	OEM	6.2.2	M3	
698	Field transmitter	Vega	LT-3104	Level transmitter (RADAR type)	Desel tank area	B	OEM	6.2.2	M3	
699	Field transmitter	Vega	LT-3103	Level transmitter (RADAR type)	Regeneration pit	B	OEM	6.2.2	M3	
700	Field transmitter	Vega	LT-3010	Level transmitter (RADAR type)	LPG	B	OEM	6.2.2	M3	
701	Field transmitter	Vega	LT-3801	Level transmitter (RADAR type)	LPG	B	OEM	6.2.2	M3	
702	Field transmitter	Vega	LT-3803	Level transmitter (RADAR type)	LPG	B	OEM	6.2.2	M3	
703	Field transmitter	Vega	LT-3805	Level transmitter (RADAR type)	LPG	B	OEM	6.2.2	M3	
704	Field transmitter	Vega	LIT 1101	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
705	Field transmitter	Vega	LIT 1103	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
706	Field transmitter	Vega	LIT 1104	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
707	Field transmitter	Vega	LIT 1105	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
708	Field transmitter	Vega	LIT 1107	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
709	Field transmitter	Vega	LIT 1108	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
710	Field transmitter	Vega	LIT 1205	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
711	Field transmitter	Vega	LIT 1201	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
712	Field transmitter	Vega	LIT 1212	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
713	Field transmitter	Vega	LIT 1303	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
714	Field transmitter	Vega	LIT 1304	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
715	Field transmitter	Vega	LIT 1507	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
716	Field transmitter	Vega	LIT 1508	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
717	Field transmitter	Vega	LIT 1509	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
718	Field transmitter	Vega	LIT 1510	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
719	Field transmitter	Vega	LIT 1601	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
720	Field transmitter	Vega	LIT 1602	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
721	Field transmitter	Vega	LIT 1603	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
722	Field transmitter	Vega	LIT 1604	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
723	Field transmitter	Vega	LIT 1605	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
724	Field transmitter	Vega	LIT 1606	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
725	Field transmitter	Vega	LIT 1607	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
726	Field transmitter	Vega	LIT 1608	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA
727	Field transmitter	Vega	LIT 1609	Level indicating transmitter (RADAR Type)	ETP	B	OEM	6.2.2	M3	NA</

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1027	Field transmitter	Emerson (Rosemount)	TT-45048	Temperature transmitter	Boiler	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1028	Field transmitter	Emerson (Rosemount)	TT-4507A	Temperature transmitter	Boiler	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1029	Field transmitter	Emerson (Rosemount)	TT-4507B	Temperature transmitter	Boiler	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1030	Field transmitter	Emerson (Rosemount)	TT-4508	Temperature transmitter	Boiler	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1031	Field transmitter	Emerson (Rosemount)	TT-4510A	Temperature transmitter	Boiler	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1032	Field transmitter	Emerson (Rosemount)	TT-4510B	Temperature transmitter	Boiler	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1033	Field transmitter	Emerson (Rosemount)	TT-4001	Temperature transmitter	MUA (CTP-002A)	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1034	Field transmitter	Emerson (Rosemount)	TT-4002	Temperature transmitter	MUA (CTP-002B)	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1035	Field transmitter	Emerson (Rosemount)	TT-4003	Temperature transmitter	MUA (CTP-002C)	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1036	Field transmitter	Emerson (Rosemount)	TT-4004	Temperature transmitter	MUA (CTP-002D)	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1037	Field transmitter	Emerson (Rosemount)	TT-4005	Temperature transmitter	MUA (CTP-002E)	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1038	Field transmitter	Emerson (Rosemount)	TT-4006	Temperature transmitter	MUA (CTP-002F)	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1039	Field transmitter	Emerson (Rosemount)	TT-4007	Temperature transmitter	MUA (CTP-003B)	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1040	Field transmitter	Emerson (Rosemount)	TT-4008	Temperature transmitter	MUB (CTP-003C)	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1041	Field transmitter	Emerson (Rosemount)	TT-4009	Temperature transmitter	MUB (CTP-003D)	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1042	Field transmitter	Emerson (Rosemount)	TT-4010	Temperature transmitter	MUB (CTP-003E)	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1043	Field transmitter	Emerson (Rosemount)	TT-4011	Temperature transmitter	MUA (CTP-004A)	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1044	Field transmitter	Emerson (Rosemount)	TT-4012	Temperature transmitter	MUA (CTP-004B)	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1045	Field transmitter	Emerson (Rosemount)	TT-4013	Temperature transmitter	MUB (STP-005A)	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1046	Field transmitter	Emerson (Rosemount)	TT-4024	Temperature transmitter	MUB (STP-005B)	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1047	Field transmitter	Emerson (Rosemount)	008 TT-1201	Temperature transmitter	PS	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1048	Field transmitter	Yokogawa	TT-2120A	Temperature transmitter	Instrument air compressor	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1049	Field transmitter	Yokogawa	TT-2120B	Temperature transmitter	Instrument air compressor	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1050	Field transmitter	Yokogawa	TT-2121A	Temperature transmitter	Instrument air compressor	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1051	Field transmitter	Yokogawa	TT-2121B	Temperature transmitter	Instrument air compressor	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1052	Field transmitter	Yokogawa	TT-2122A	Temperature transmitter	Instrument air compressor	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1053	Field transmitter	Yokogawa	TT-2122B	Temperature transmitter	Instrument air compressor	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1054	Field transmitter	Yokogawa	TT-2123A	Temperature transmitter	Instrument air compressor	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1055	Field transmitter	Yokogawa	TT-2123B	Temperature transmitter	Instrument air compressor	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1056	Field transmitter	Yokogawa	TT-2124A	Temperature transmitter	Instrument air compressor	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1057	Field transmitter	Yokogawa	TT-2124B	Temperature transmitter	Instrument air compressor	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1058	Field transmitter	Yokogawa	TT-2305	Temperature transmitter	Nitrogen	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1059	Field transmitter	Yokogawa	TT-2306	Temperature transmitter	Nitrogen	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1060	Field transmitter	Yokogawa	TT-2307	Temperature transmitter	Nitrogen	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1061	Field transmitter	Yokogawa	TT-2308A	Temperature transmitter	Nitrogen	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1062	Field transmitter	Yokogawa	TT-2308B	Temperature transmitter	Nitrogen	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1063	Field transmitter	Yokogawa	TT-2308C	Temperature transmitter	Nitrogen	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1064	Field transmitter	Emerson (Rosemount)	004 TT-1201	Temperature transmitter	LPG	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1065	Field transmitter	Emerson (Rosemount)	004 TT-1201	Temperature transmitter	Mangalore PIG receiver	B	OEM	As per NABL guidelines	Y	NABL approved vendor
1066	Fire Alarm system	Tyco Fire & Safety	DGAP-01	Data Gathering & Fire Alarm Panel-01	Admin. Bldg.	B	OEM	5.6	OEM	NA
1067	Fire Alarm system	Tyco Fire & Safety	DGAP-02	Data Gathering & Fire Alarm Panel-02	Main Control Room	B	OEM	5.6	OEM	NA
1068	Fire Alarm system	Tyco Fire & Safety	DGAP-03	Data Gathering & Fire Alarm Panel-03	ETP control room	B	OEM	5.6	OEM	NA
1069	Junction box	Flexpro	002-JB-A-S-001	Junction box	MUA	B	B	5.2.5/6	Y	shutdown
1070	Junction box	Flexpro	002-JB							

	002-J800-002	Junction box	ETP	B	OEM	5.2/5/6	y/shutdown
	quipmer-002-J800-003	Junction box	ETP	B	OEM	5.2/5/6	y/shutdown
	quipmer-002-J800-004	Junction box	ETP	B	OEM	5.2/5/6	y/shutdown
	quipmer-002-J800-005	Junction box	ETP	B	OEM	5.2/5/6	y/shutdown
	quipmer-002-J800-006	Junction box	ETP	B	OEM	5.2/5/6	y/shutdown
	quipmer-002-J800-007	Junction box	ETP	B	OEM	5.2/5/6	y/shutdown
	quipmer-002-J800-008	Junction box	ETP	B	OEM	5.2/5/6	y/shutdown
	quipmer-002-PJB-001	Junction box	ETP	B	OEM	5.2/5/6	y/shutdown
	quipmer-002-PJB-002	Junction box	ETP	B	OEM	5.2/5/6	y/shutdown
	quipmer-002-PJB-003	Junction box	ETP	B	OEM	5.2/5/6	y/shutdown
	quipmer-002-PJB-004	Junction box	ETP	B	OEM	5.2/5/6	y/shutdown
on/Ene	Mov-1304	Agas Server /MMI	Main Control room	B	OEM	5.6	CeM
	MOV-1304	Motor operated valve	Metering shed	B		5.5.3	M6
	MOV-1305	Motor operated valve	Metering shed	B		5.5.3	M6
	MOV-1306	Motor operated valve	Metering shed	B		5.5.3	M6
	MOV-1307	Motor operated valve	Metering shed	B		5.5.3	M6
	MOV-1308	Motor operated valve	Metering shed	B		5.5.3	M6
	MOV-1309	Motor operated valve	Metering shed	B		5.5.3	M6
	MOV-1313	Motor operated valve	Metering shed	B		5.5.3	M6
	MOV-1314	Motor operated valve	Metering shed	B		5.5.3	M6
	MOV-1315	Motor operated valve	Metering shed	B		5.5.3	M6
	MOV-1316	Motor operated valve	Metering shed	B		5.5.3	M6
	MOV-1401	Motor operated valve	MUA	B		5.5.3	M6
	MOV-1402	Motor operated valve	MUA	B		5.5.3	M6
	MOV-1403	Motor operated valve	MUB	B		5.5.3	M6
	MOV-1404	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2601	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2602	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2603	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2604	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2605	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2606	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2607	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2608	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2609	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2610	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2611	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2612	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2613	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2614	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2615	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2616	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2617	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2618	Motor operated valve	MUA	B		5.5.3	M6
	MOV-2701	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2702	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2703	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2704	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2705	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2706	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2707	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2708	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2709	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2710	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2711	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2712	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2713	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2714	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2715	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2716	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2717	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2718	Motor operated valve	MUB	B		5.5.3	M6
	MOV-2801	Motor operated valve	Crude Heating system (MUB)	B		5.5.3	M6
	MOV-2802	Motor operated valve	Crude Heating system (MUB)	B		5.5.3	M6
	MOV-2803	Motor operated valve	Crude Heating system (MUB)	B		5.5.3	M6
	MOV-2804	Motor operated valve	Crude Heating system (MUB)	B		5.5.3	M6
	MOV-2805	Motor operated valve	Crude Heating system (MUB)	B		5.5.3	M6
	MOV-2806						

matic, SOV	XV 1328 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
matic, SOV	XV 1329 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
matic, SOV	XV 1330 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
matic, SOV	XV 1331 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
matic, SOV	XV 1332 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
matic, SOV	XV 1333 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
matic, SOV	XV 1334 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
matic, SOV	XV 1335 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
matic, SOV	XV 1336 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
matic, SOV	XV 1337 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
matic, SOV	XV 1338 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
matic, SOV	XV 1339 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
matic, SOV	XV 1342 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
matic, SOV	XV 1701 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
matic, SOV	XV 1702 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
matic, SOV	XV 1705 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
ols (Vias)	XV 1706 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
ols (Vias)	XV 1708 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
ols (Vias)	XV 1709 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
ols (Vias)	XV 1710 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
ves & Com	XV 1703 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
ves & Com	XV 1704 (KS-DI)/(KVS-DO)	On-off valve/solenoid operated valve	ETP	OEM	6.9	M6	NA
PI/NOV-1371		Pilot operated valve/Solenoid operated valve	Flare system	OEM	6.9	M6	NA
PI/NOV-1372		Pilot operated valve/Solenoid operated valve	Flare system	OEM	6.9	M6	NA
SOV-1373		Solenoid operated valve	Flare system	OEM	6.9	M6	NA
SOV-1374		Solenoid operated valve	Flare system	OEM	6.9	M6	NA
SOV-2120A		Solenoid operated valve	Instrument air compressor	OEM	6.9	M6	NA
SOV-2120B		Solenoid operated valve	Instrument air compressor	OEM	6.9	M6	NA
-		Pipeline SCADA system	Main Control room/VSS/LFP	OEM	5.6	OEM	
ar	002-PSV-2101	Safety valve	LP air receiver	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-2102	Safety valve	Instrument air receiver	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-2103	Safety valve	Instrument air compressor	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-2104	Safety valve	Instrument Air compressor	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-2801	Safety valve	Crude heating system (MUH)	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-2802	Safety valve	Crude heating system (MUH)	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-2803	Safety valve	Crude heating system (MUH)	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-2804	Safety valve	Crude heating system (MUH)	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-2901	Safety valve	MUA	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-2902	Safety valve	MUA	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-2903	Safety valve	MUB	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-2904	Safety valve	MUB	OEM	OSD 244.10.6.1.F		Y
ar	002-TSV-3101	Safety valve	Diesel tank area	OEM	OSD 244.10.6.1.F		Y
ar	002-TSV-1301	Safety valve	Metering shed	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-3001	Safety valve	LPG	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-1302	Safety valve	Metering shed	OEM	OSD 244.10.6.1.F		Y
ar	002-TSV-1303	Safety valve	Metering shed	OEM	OSD 244.10.6.1.F		Y
ar	002-TSV-1304	Safety valve	Metering shed	OEM	OSD 244.10.6.1.F		Y
ar	002-TSV-1305	Safety valve	Metering shed	OEM	OSD 244.10.6.1.F		Y
ar	002-TSV-1306	Safety valve	Metering shed	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-4508A	Safety valve	Boiler	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-4508B	Safety valve	Boiler	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-4510A	Safety valve	Boiler	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-4510B	Safety valve	Boiler	OEM	OSD 244.10.6.1.F		Y
ar	002-PSV-4522						

1546	TFMS	Honeywell Enraf	LT-1802A	Level transmitter (Servo Type)	MUB		B		OEM	6.2.2	M3	OEM
1547	TFMS	Honeywell Enraf	LT-1802B	Level transmitter (Servo Type)	MUB		B		OEM	6.2.2	M3	OEM
1548	TFMS	Honeywell Enraf	LT-3102	Level transmitter (Servo Type)	Diesel tank area		B		OEM	6.2.2	M3	OEM
1549	TFMS	Honeywell Enraf	LT-3105	Level transmitter (Servo Type)	Diesel tank area		B		OEM	6.2.2	M3	OEM
1550	TFMS	Honeywell Enraf	LT-3802	Level transmitter (Servo Type)	LPG		B		OEM	6.2.2	M3	OEM
1551	TFMS	Honeywell Enraf	MPTE-1700/ TE/TT-1701C	Multipoint temperature element	MUA		B		OEM	6.2.2	M3	OEM
1552	TFMS	Honeywell Enraf	MPTE-1800/ TE/TT-1801C	Multipoint temperature element	MUB		B		OEM	6.2.2	M3	OEM
1553	TFMS	Honeywell Enraf	-	TFMS Panel / OIU cabinet	Main control room		B		OEM	5.6	OEM	NA
1554	TFMS	Honeywell Enraf	-	TFMS workstation	Main control room		B		OEM	5.6	OEM	NA