



Submersible Pump Station Interim Service Report

Customer / Address Balfour Beatty, Mott Macdonald - Area 4		Job No. B28739	Date of Service 3/8/2016
		Station Name/Location Key Street	
Service Engineer: [REDACTED]		Number of Pumps 3	Make of Pumps
Parts Checked at Service		Condition	Comments/Recommendations
Control Panel		Poor	Evidence of rodent activity apparent in all panels
Telemetry		Satisfactory	Tested ,No fault found
Alarm: Beacon Buzzer		Satisfactory	Tested ,No fault found
Level Transducer		Not inspected	
Floats:	Stop	Not inspected	Unable to check until sump entry is carried out
	Start	Not inspected	Unable to check until sump entry is carried out
	Stop	Not inspected	Unable to check until sump entry is carried out
	Start	Not inspected	Unable to check until sump entry is carried out
	Alarm	Not inspected	Unable to check until sump entry is carried out
	Stop	Not inspected	Unable to check until sump entry is carried out
	Low Level	Not inspected	Unable to check until sump entry is carried out
Junction Box		1	Unable to check until sump entry is carried out
Sump		Satisfactory	No build up of debris
Sump Cover/Lids		Satisfactory	Heavy duty lids

Operation of Pumps - Comments/Observations:

- 1/ Evidence of rodent activity apparent inside panels
- 2/ Pump No 2 not running in hand – All fuses ok, requires investigation

Customers Signature to confirm work carried out.

Signature:.....(print)..... Date:.....



Pump Details

Job No.	B28739	Pump Number	1
Manufacturer	No details	kW	No details
Pump Type	No details	Volts	No details
Serial Number	No details	Amps	No details
Hours Run	8604 / 11915	RPM	No details
Parts Checked at Service	Condition	Comments/Recommendations	
Cable Condition			
Junction Box			
Lifting chain condition		Confined Space Entry	
Guide Rail condition		Required for checking	
Work Size Condition			
NRV operation			
Sealing Flange Face			
IR to earth @ 1KV - Ohms		Winding resistance - Ohms	
Red	30MΩ	U1 & U2	0.8 Ω
Yellow	30MΩ	V1 & V2	0.8 Ω
Blue	28MΩ	W1 & W2	0.8 Ω
IR between phases @ 1KV - Ohms			
Red - Yellow	28MΩ		
Red - Blue	32MΩ		
Blue - Yellow	25MΩ		



Pump Details

Job No.	B28739	Pump Number	2
Manufacturer	No details	kW	No details
Pump Type	No details	Volts	No details
Serial Number	No details	Amps	No details
Hours Run	1822 (21) / 103259	RPM	No details
Parts Checked at Service	Condition	Comments/Recommendations	
Cable Condition	}		
Junction Box			
Lifting chain condition		Confined Space Entry	
Guide Rail condition		Required for checking	
Pipe-work Size Condition			
NRV operation			
Sealing Flange Face			
IR to earth @ 1KV - Ohms		Winding resistance - Ohms	
Red	52MΩ	U1 & U2	0.8 Ω
Yellow	50MΩ	V1 & V2	0.8 Ω
Blue	44MΩ	W1 & W2	0.8 Ω
IR between phases @ 1KV - Ohms			
Red - Yellow	45MΩ		
Red - Blue	46MΩ		
Blue - Yellow	21MΩ		



Pump Details

Job No.	B28739	Pump Number	3
Manufacturer	Flygt	kW	No details
Pump Type	No details	Volts	No details
Serial Number	No details	Amps	No details
Hours Run	2357 038530	RPM	No details
Parts Checked at Service	Condition	Comments/Recommendations	
Cable Condition			
Junction Box			
Lifting chain condition		Confined Space Entry	
Guide Rail condition		Required for checking	
Pipe-work Size Condition			
NRV operation			
Sealing Flange Face			
IR to earth @ 1KV - Ohms		Winding resistance - Ohms	
Red	29MΩ+	U1 & U2	0.8 Ω
Yellow	31MΩ+	V1 & V2	0.8 Ω
Blue	31MΩ+	W1 & W2	0.8 Ω
IR between phases @ 1KV - Ohms			
Red - Yellow	2MΩ+		
Red - Blue	2MΩ+		
Blue - Yellow	2MΩ+		

Submersible Pump Station Full Service Report

Customer/Address: Balfour Beatty, Mott McDonald, Area 4	Job Number: B22494	Date of Service: 01/06/2015
	Station Name/Location Key Street	
Service Engineer: [REDACTED]	Number of Pumps: 3	Make of Pumps: Bewater

Parts Checked at Service		Condition	Comments/Recommendations
Control Panel		Satisfactory	Visual inspection carried out.
Telemetry		Satisfactory	System needs to be wired to control panel.
Alarm:	Beacon	N/A	
	Buzzer	N/A	
Levels Transducer		N/A	
Floats:	Stop	Satisfactory	Cleaned and tested.
	Start	Satisfactory	Cleaned and tested.
	Stop	Satisfactory	Cleaned and tested.
	Start	Satisfactory	Cleaned and tested.
	Alarm	Satisfactory	Cleaned and tested.
	Stop	N/A	
	Low Level	N/A	
Junction Box		Acceptable	Damp found within din rail terminals.
Sump		Satisfactory	Visual check carried out.
Sump Cover/Lids		Satisfactory	Checked for any damage.

Operation of Pumps - Comments/Observations:

Chain missing from pump no 2, new slave chain required (13m slave chain-12mm link thickness).

Float tubes and a one off bracket is required due to the length of the float cables.

7 x 130v bayonet lamps required for the panel door due to not working.

Damp found within din rail terminals on the pump junction boxes, new terminals required.

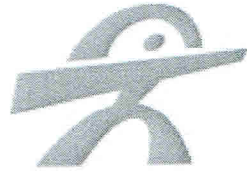
Insulation tests carried out from junction box to panel without disconnecting the pumps and found low reading of 20 - 50 MΩ, this is possibly due to the damp din rail connectors.

Pump duty selection has been changed to even out usage.

Customers Signature to confirm work carried out.

Signature: _____ Print Name _____ Date: _____

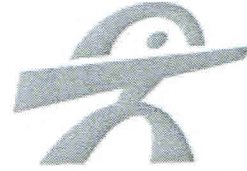
Submersible Pump Station Full Service Report



Pump Details

Job Number	B22494	Pump Number	1
Manufacturer	Biwater	kW	22
Pump Type	JVLN 228.220.6	Volts	415
Serial Number	P4244 0101010003	Amps	46
Hours Run	00146(88)	RPM	960
Parts Checked at Service		Condition	Comments/Recommendations
Impellor		Satisfactory	Visual check carried out.
Wear Ring / Wear Plate		Satisfactory	Found with tolerance.
Volute		Satisfactory	Clear from any debris.
Pump Oil		Satisfactory	Clean and clear, free from contamination.
Bearings	Top	Satisfactory	Run test carried out.
	Bottom	Satisfactory	Run test carried out.
Seals	Top	Satisfactory	See insulation resistance.
	Bottom	Satisfactory	See oil comment.
Cable Condition		Satisfactory	Visual check carried out.
Junction Box		Acceptable	Terminals slightly damp.
Lifting Chain Condition		Satisfactory	Visual check only.
Guide Rail Condition		Satisfactory	3" Box section, visual check carried out.
Pipework (Size/Condition)		Satisfactory	Check for any leaks/damage.
NRV Operation		Satisfactory	Checked for any back flow.
Sealing Flange Face		Satisfactory	Cleaned.
IR to Earth @ 1KV - mΩ		Winding Resistances - Ω	
Red	200 MΩ+	U1 & U2	1.05 Ω
Yellow	200 MΩ+	V1 & V2	1.05 Ω
Blue	200 MΩ+	W1 & W2	1.05 Ω
IR between Phases @ 1KV - mΩ			
Red - Yellow	200 MΩ+		
Red - Blue	200 MΩ+		
Blue - Yellow	200 MΩ+		

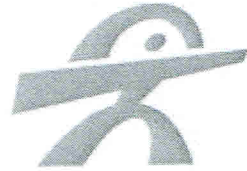
Submersible Pump Station Full Service Report



Pump Details

Job Number	B22494	Pump Number	2
Manufacturer	Biwater	kW	22
Pump Type	JVLN 228.220.6	Volts	415
Serial Number	P4244 0101010002	Amps	46
Hours Run	184010	RPM	960
Parts Checked at Service		Condition	Comments/Recommendations
Impellor		Satisfactory	Visual check carried out.
Wear Ring / Wear Plate		Satisfactory	Found with tolerance.
Volute		Satisfactory	Clear from any debris.
Pump Oil		Satisfactory	Clean and clear, free from contamination.
Bearings	Top	Satisfactory	Run test carried out.
	Bottom	Satisfactory	Run test carried out.
Seals	Top	Satisfactory	See insulation resistance.
	Bottom	Satisfactory	See oil comment.
Cable Condition		Satisfactory	Visual check carried out.
Junction Box		Acceptable	Terminals slightly damp.
Lifting Chain Condition		Satisfactory	Visual check only.
Guide Rail Condition		Satisfactory	3" Box section, visual check carried out.
Pipework (Size/Condition)		Satisfactory	Check for any leaks/damage.
NRV Operation		Satisfactory	Checked for any back flow.
Sealing Flange Face		Satisfactory	Cleaned.
IR to Earth @ 1KV - mΩ		Winding Resistances - Ω	
Red	200 MΩ+	U1 & U2	1.05 Ω
Yellow	200 MΩ+	V1 & V2	1.05 Ω
Blue	200 MΩ+	W1 & W2	1.06 Ω
IR between Phases @ 1KV - mΩ			
Red - Yellow	200 MΩ+		
Red - Blue	200 MΩ+		
Blue - Yellow	200 MΩ+		

Submersible Pump Station Full Service Report



Pump Details			
Job Number	B22494	Pump Number	3
Manufacturer	Biwater	kW	22
Pump Type	JVLN 228.220.6	Volts	415
Serial Number	P4244 0101010001	Amps	46
Hours Run	00023(52)	RPM	960
Parts Checked at Service	Condition	Comments/Recommendations	
Impellor	Satisfactory	Visual check carried out.	
Wear Ring / Wear Plate	Satisfactory	Found with tolerance.	
Volute	Satisfactory	Clear from any debris.	
Pump Oil	Satisfactory	Clean and clear, free from contamination.	
Bearings	Top	Satisfactory	Run test carried out.
	Bottom	Satisfactory	Run test carried out.
Seals	Top	Satisfactory	See insulation resistance.
	Bottom	Satisfactory	See oil comment.
Cable Condition	Satisfactory	Visual check carried out.	
Junction Box	Acceptable	Terminals slightly damp.	
Lifting Chain Condition	Satisfactory	Visual check only.	
Guide Rail Condition	Satisfactory	3" Box section, visual check carried out.	
Pipework (Size/Condition)	Satisfactory	Check for any leaks/damage.	
NRV Operation	Satisfactory	Checked for any back flow.	
Sealing Flange Face	Satisfactory	Cleaned.	
IR to Earth @ 1KV - mΩ		Winding Resistances - Ω	
Red	200 MΩ+	U1 & U2	1.08 Ω
Yellow	200 MΩ+	V1 & V2	1.08 Ω
Blue	200 MΩ+	W1 & W2	1.09 Ω
IR between Phases @ 1KV - mΩ			
Red - Yellow	200 MΩ+		
Red - Blue	200 MΩ+		
Blue - Yellow	200 MΩ+		



Submersible Pump Station Interim Service Report

Customer / Address		Job No.	Date of Service
Balfour Beatty, Mott Macdonald, Area 4 Sittingbourne, Kent		B21271	19-2-14
		Station Name/Location	
		Key Street Pumping Station.	
Service Engineer:		Number of Pumps	Make of Pumps
[REDACTED]		3	Biwater
Parts Checked at Service		Condition	Comments/Recommendations
Control Panel		Satisfactory	5 x Panel lamps not working, visual check carried out.
Telemetry		Satisfactor	System needs to be wired to the control panel.
Alarm: Beacon Buzzer		N/A N/A	High level lamp on the control panel. Should work on the Telemetry system.
Level Transducer		N/A	
Floats:	Stop	Satisfactory	Cleaned and tested.
	Start	Satisfactory	Cleaned and tested.
	Stop	Satisfactory	Cleaned and tested.
	Start	Satisfactory	Cleaned and tested.
	Alarm	Satisfactory	Cleaned and tested
	Stop	N/A	
	Low Level	N/A	
Junction Box		Satisfactory	Four junction boxes within the sump, one for each pump and one for the floats.
Sump		Satisfactory	Visual check carried out.
Sump Cover/Lids		Satisfactory	Heavy duty covers fitted, lifting frame required to remove safely.

Operation of Pumps - Comments/Observations:

- Chain missing from pump no 2, new slave chain required (13m slave chain-12mm link thickness).
- Floats tubes and a one off bracket are required due to the length of the float cables.
- The railing on the mid section has been badly damaged and gives you very limited access from the ladder, will need to be repaired for safer access in the future.
- 5 x 130 v bayonet connector lamps required for the panel door lamp due to not working.
- Pump duty selection has been changed to even out usage.

Customers Signature to confirm work carried out.

Signature:.....(print)..... Date:.....



Pump Details

Job No.	B21271	Pump Number	1
Manufacturer	Biwater	kW	22
Pump Type	JVLN 228.220.6	Volts	415
Serial Number	P4244 0101010003	Amps	46
Hours Run	00124(62)	RPM	960
Parts Checked at Service	Condition	Comments/Recommendations	
Cable Condition	Satisfactory	Visual check carried out.	
Junction Box	Satisfactory	Visual check only.	
Lifting chain condition	Satisfactory	Slave chain fitted. Visual check carried out.	
Guide Rail condition	Satisfactory	3" box section. Visual check carried out.	
Pipe-work Size Condition	Satisfactory 250mm	Visual check carried out. Checked for any damage/leaking.	
NRV operation	Satisfactory	Checked for any back flow.	
Sealing Flange Face	Satisfactory	Visual check carried out.	
IR to earth @ 1KV - Ohms		Winding resistance - Ohms	
Red	105 MΩ	U1 & U2	0.80 Ω
Yellow	237 MΩ	V1 & V2	0.80 Ω
Blue	223 MΩ	W1 & W2	0.80 Ω
IR between phases @ 1KV - Ohms			
Red - Yellow	845 MΩ		
Red - Blue	693 MΩ		
Blue - Yellow	674 MΩ		



Pump Details

Job No.	B21271	Pump Number	2
Manufacturer	Blwater	kW	22
Pump Type	JVLN 228.220.6	Volts	415
Serial Number	P4244 0101010002	Amps	46
Hours Run	01839(87)	RPM	960
Parts Checked at Service	Condition	Comments/Recommendations	
Cable Condition	Satisfactory	Visual check carried out	
Junction Box	Satisfactory	Visual check carried out	
Lifting chain condition	N/A	Chain missing – new slave chain required.	
Guide Rail condition	Satisfactory	3"box section. Visual check carried out	
Pipe-work Size Condition	250mm Satisfactory	Visual check carried out. Checked for any damage/leaking.	
NRV operation	Satisfactory	Checked for any back flow.	
Sealing Flange Face	Satisfactory	Visual check carried out.	
IR to earth @ 1KV - Ohms		Winding resistance - Ohms	
Red	729 MΩ	U1 & U2	0.80 Ω
Yellow	684 MΩ	V1 & V2	0.80 Ω
Blue	927 MΩ	W1 & W2	0.80 Ω
IR between phases @ 1KV - Ohms			
Red - Yellow	562 MΩ		
Red - Blue	673 MΩ		
Blue - Yellow	669 MΩ		



Pump Details

Job No.	B21271	Pump Number	3
Manufacturer	Biwater	kW	22
Pump Type	JVLN 228.220.6	Volts	415
Serial Number	P4244 0101010001	Amps	46
Hours Run	00023(52)	RPM	960
Parts Checked at Service	Condition	Comments/Recommendations	
Cable Condition	Satisfactory	Visual check carried out	
Junction Box	Satisfactory	Visual check carried out	
Lifting chain condition	Satisfactory	Slave chain fitted.	
Guide Rail condition	Satisfactory	3"box section. Visual check carried out	
Pipe-work Size Condition	250mm Satisfactory	Visual check carried out. Checked for any damage/leaking.	
NRV operation	Satisfactory	Checked for any back flow.	
Sealing Flange Face	Satisfactory	Visual check carried out.	
IR to earth @ 1KV - Ohms		Winding resistance - Ohms	
Red	999 MΩ+	U1 & U2	0.80 Ω
Yellow	999 MΩ+	V1 & V2	0.80 Ω
Blue	999 MΩ+	W1 & W2	0.80 Ω
IR between phases @ 1KV - Ohms			
Red - Yellow	999 MΩ+		
Red - Blue	999 MΩ+		
Blue - Yellow	999 MΩ+		