

# **Mogden Sewage Treatment Works**

# **TW Site Inspection**

Date of inspection: 26 January 2023
Attendance Kumail Haidan (L. D. Haumalaux) and Mica Emma MaDanald (Thamas Metan)

Attendees: Kumail Haider (L.B. Hounslow) and Miss Emma McDonald (Thames Water)						
LB Hounslow Observation	Thames Water Action / Response					
Storm Water Storage Tanks (SWST)						
Tank 1A – Tank empty clean. However, all hoopers full and require draining.						
<b>Tank 1B</b> – Tank empty around 30% of tank covered in grit and sludge. tank requires flushing, Hopper 3 approx 40% full- requires draining/over-pumping.						
Tank 2A – Tank requires flushing 20% covered in grit requires draining/over-pumping.						
<b>Tank 2B</b> – Tank requires flushing 50% covered in grit/sludge requires draining/over-pumping.						
<b>Tank 3A</b> – Tank 50% covered by grit and sludge – requires further flushing – All Hoppers approx 70% full - requires draining/over-pumping						
<b>Tank 3B</b> – Tank 30% covered by grit and sludge – requires further flushing – All Hoppers approx. 60% full - requires draining/over-pumping.						

**Tanks 4A, 4B, 5A & 5B** are covered, and odour controlled, were all in use - unable to measure condition as lighting system still not working.

**Tank 6A** – Tank 20% covered by grit and sludge – requires further flushing – Hoppers 1 approx. 70% full - requires draining/over-pumping.

 ${f Tank~6B-Tank~30\%}$  covered by grit and sludge – requires further flushing.

**Tank 7A** – Tank 40% full in process of being returned to works –only two Amajets in operation.

**Tank 7B** – Tank 20% covered by effluent, grit and sludge – requires further flushing.

**Tank 8A** – Tank 50% covered by grit and sludge – requires further flushing/over pumping.

**Tank 8B** – Tank empty around 50% of tank covered in grit and sludge. tank needs further flushing. All hoppers full and require draining.

**Feed Channel** - The level of effluent in both feed channels was approximately 20% capacity.

# **Sludge Dip Records**

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total		
	All units in m <sup>3</sup>							
OMP limit	500							
20/01/2023	0	923	412	1335	936	2271		
23/01/2023	0	1485	267	1752	1112	2864		
25/01/2023	0	1236	122	1358	1264	2622		

# **Complaints** The Council received no complaints by email from MRAG in the preceding week. Thames Water controller advised that they had received no direct complaints in the preceding week. The Council directly received no complaints by email in the preceding week. The Council received 0 online complaints and 0 out of hour calls during the preceding week. **Odour Monitors** The odour readouts (H<sub>2</sub>S) for all monitors which were providing data at time of inspection: Monitor 1 0.004 12.59 ppm

Monitor 2	0.002	ppm	
Monitor 3	0.005	ppm	Ţ
Monitor 4	0.005	ppm	
Monitor 5	0.000	ppm	
Monitor 6	0.007	ppm	
Monitor 7	0.004	ppm	
Monitor 8	0.005	ppm	
Monitor 9	0.004	ppm	
Monitor 10	0.006	ppm	
Monitor 11	0.004	ppm	
Monitor 12	0.005	ppm	
Monitor 13	0.000	ppm	+
Wind Speed	6.819mph	m/s	
Wind Direction	339.49		
Odour Log (Thame	<u>es):</u>		
Friday 20 January	2023		
DAY SHIFT			
Temp. Freezing.			

Weather. Sunny w/Patchy Clouds.

Odour Readings. All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** 

No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

#### **NIGHT SHIFT**

**Temp.** Freezing.

Weather Clear Night.

Odour Readings. All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** 

No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

## Saturday 21 January 2023

#### **DAY SHIFT**

Temp. Freezing.

Weather. Sunny w/Patchy Clouds.

Odour Readings. All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** 

OM3 0.015, 17.33 Ongoing

Operational issues / causes observed. Blank.

Actions Taken. Blank.

#### **NIGHT SHIFT**

Temp. Freezing.

Weather. Clear night.

Odour Readings. All OMU's in operation.

**Time:** 05:30.

Observations / Customer Complaint.
No odour issues found or reported.

Operational issues / causes observed. Blank

Actions Taken. Blank.

## Sunday 22 January 2023

#### **DAY SHIFT**

**Temp.** Freezing.

Weather. Sunny w/Patchy Clouds

Odour Readings. All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** 

OM3,5,6,7 & 9 (0.022) max spike 16.00 ongoing.

Operational issues / causes observed. No obvious odour source

found-boilers running.

Actions taken. wsps diesel pumps swapped over, higher gasbell

heights.

#### **NIGHT SHIFT**

**Temp.** Freezing.

Weather. Clear Night.

Odour Readings. All OMU's in operation.

Time: blank.

**Observations / Customer Complaint.** 

OM6 max 0.018ppm 19.15-20.12 OM8 max 0.019ppm 19.15-20.13

**Operational issues / causes observed.** Areas checked no obvious odours detected.

Actions taken. Blank.

## Monday 23 January 2023

# DAY SHIFT

Temp. Freezing.

Weather. Cloudy w/Sunny Spells

Odour Readings. All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** 

OM8 spiked at 07.15-08.15 max 0.019ppm, OM3 spiked at 09.30-09.50 max 0.020ppm, OM6,8&9 spiked at 09.50-10.17 max 0.019ppm

**Operational issues** *I* causes observed. Areas checked nothing unusual found but there is a PAS type odour in the breeze.

Actions taken. Blank.

NIGHT SHIFT

**Temp.** Freezing.

Weather. Clear Night.

Odour Readings. All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** 

No odour issues

Operational issues / causes observed. Blank.

Actions taken. Blank.

# **Tuesday 24 January 2023**

**DAY SHIFT** 

Temp. Cold.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** 

No odour issues found or reported.

Operational issues / causes observed. Blank.

Actions taken. Blank.

#### **NIGHT SHIFT**

Temp. Freezing.

Weather. Clear Night.

Odour Readings. All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** 

OM5 0.103 00.18-00.35

Operational issues / causes observed. Blank.

Actions Taken. Blank.

# Wednesday 25 January 2023

**DAY SHIFT** 

Temp. Cold.

Weather. Patchy Rain.

Odour Readings. All OMU's in operation.

**Time:** 17:30.

**Observations / Customer Complaint.** 

No odour issues found or reported.

Operational issues / causes observed.

No odour issues found or reported.

Actions taken. Blank.

#### **NIGHT SHIFT**

**Temp.** Freezing.

Weather. Clear Night.

Odour Readings. All OMU's in operation.

**Time:** 05:30.

**Observations / Customer Complaint.** 

No issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

# **Digesters**

**Digesters 1-4** – Out of use (permanent).

**Digester 5** - In use - seal level approx. 2ft below coping stones - seal weak and bubbling.

**Digester 6** - In use - seal level approx. 1.5 ft below coping stones - seal weak and bubbling.

**Digester 7** - In use — seal level approx. 2ft below coping stones - seal weak bubbling, bell high gas draw down required

**Digester 8** - In use – seal level approx. 1.5ft below coping stones - seal weak and bubbling, bell high gas draw down required

 $\mbox{\bf Digester 9}$  - In use — seal level approx. 1ft below coping stones - seal weak and bubbling.

**Digester 10** - In use – seal level approx. 2ft below coping stones - Seal weak, bubbling and bell high

Digester 11 - In use - seal level approx. 1.5ft below coping stones -

Seal weak and bubbling.

**Digester 12** - In use – seal level approx. 2ft below coping stones - Seal weak and bubbling

**Digester 13** - In use – seal level approx. 1.5ft below coping stones – seal weak and bubbling

**Digester 14** – Out of use.

**Digester 15** – Out of use.

**Digester 16** – Out of use.

**Digester 17** - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

**Digester 18** – In use – seal level approx. 1.5ft below coping stones - Seal weak bubbling.

**Digester 19** – In use – seal level approx. 3ft below coping stones - seal weak and bubbling.

**Digester 20** - In use – seal level approx. 2ft below coping stones - seal weak and bubbling.

# **GENERAL**

## **Sludge Screening House**

1x (pedestrian) door open at time of inspection. Roller shutter currently missing and awaiting replacement following damage – opening has been screened temporarily.

# **Imported Sludge**

There were 58m<sup>2</sup> in preceding seven days

## **Final Settlement Tanks East Side of Works**

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78) – no issues.

# East Side Raw Sludge Screen House

Doors open at time of inspection, contractors working.

## West Side Aeration Lanes (Old)

Battery C aeration feed channel 100% obstructed in one channel (left) – requires jetting (TW advise that there is continuing flow below surface).

# West side primary settlement tanks (PST)

Rectangular PSTs – no issues.

Circular PST's 10 & 11 in use – PST9 requires investigation scraper arm not rotating. Number 12 drained down.

# New Works (West Side) Battery E

E-battery aeration lane blockage require clearance.
Pastourisation Plant
Pasteurisation Plant  Streems 1, 2, 6, 10 and 11 out of comics
Streams 1, 2, 6, 10 and 11 out of service.
<u>Skips</u>
1x 8-Yard skips – Rag (covered) by Sludge Area Thames advised to check for possible contamination and removal.
1x 10-Yard enclosed General Waste skip in Service Road at rear of East Raw Sludge Screening House.
1x open container General Waste skip in Service Road at rear of Pasteurisation Plant.
$2\ x$ grit skips uncovered by entrance to Digester Area being filled for collection.
1 x 20 Yard skip uncovered containing grit by West Side.

# Odour Control Unit (OCU) performance monitoring: 24/01/2023

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	Not done by TW due to resource issues	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	0.028 0.025 0.023	0.05	Yes
West inlet	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	-	-	-
Sludge reception outlet	-	-	-
Thickening plant inlet	-	-	-
Thickening plant outlet	0.011 0.018 0.016	0.6	Yes
New West inlet (OCU 11)	0.037 0.036 0.033	0.5	Yes
Pasteurization (OCU 12)	1.631 1.685 1.713	0.5	No OCU 12 reading high project in place to refurb.
Transfer PS inlet	1.887 1.637 1.648	-	-
Transfer PS outlet	0.039 0.039 0.041	0.6	Yes
GBT Plant OCU Outlet	0.00 0.00 0.00	-	-