



London Borough of Hounslow

Mogden Sewage Treatment Works

TW Site Inspection

Date of inspection: Monday 20 th January 2020 (12:00pm)	
Attendees: Mr I Inman (London Borough of Hounslow) and Mr C Rumsey (Thames Water)	
LB Hounslow Observation	Thames Water Action / Response
<p><u>Weather</u></p> <p>Dry with clear blue sky at the time of the inspection.</p> <p><u>Storm Water Storage Tanks (SWST)</u></p> <p>Tank 1A was approx 50% full and returning. Amajets 1, 2 & 3 were in operation.</p> <p>Tank 1B was approx 50% full and returning. Amajets 1, 2 & 3 were in operation.</p> <p>Tank 2A was approx 50% full and returning. Amajets 1, 2 & 3 were in operation.</p> <p>Tank 2B was approx 50% full and returning. Amajets 1 & 2 were in operation.</p> <p>Tank 3A was approx 50% full and returning. Amajets 1, 2 & 3 were in operation.</p>	

Tank 3B was approx 50% full and returning.
Amajets 1, 2 & 3 were in operation.

Tanks 4A, 4B, 5A & 5B All tanks are covered and odour controlled.
Unable to gauge condition as lighting system still not working.

Tank 6A was approx 5
0% full and returning.
Amajets 1, 2 & 3 were in operation.

Tank 6B was approx 50% full and returning.
Amajets 1, 2 & 3 were in operation.

Tank 7A was approx 50% full and returning.
Amajets 1, 2 & 3 were in operation.

Tank 7B was approx 50% full and returning.
Amajets 1 & 2 were in operation.

Tank 8A was approx 50% full and returning.
Amajets 1, 2 & 3 were in operation.

Tank 8B was approx 50% full and returning.
Amajets 1, 2 & 3 were in operation.

Storm Feed Channel - The channel was 40% full.

Thames advised of planned works to replace all of the hopper valves to prevent back flow of effluent.

They are still also awaiting parts in order to bring the wash water pump system back into operation.

Complaints

The Council has received 2 complaints by email in the preceding week.

On 10th January an email complaints was received at 16:08pm from a

resident of Percy Road, Isleworth (ref: 992574).
 At 17:53pm a further email complaint was received from a resident of Church Road, Isleworth (ref: 992680).
 The historic odour monitor trends showed no excessive odour readings at the time of the complaint's. All readings were below 0.010ppm except for OM7 which peaked at approx 17:10-17:40, max 0.013ppm.

Odour Monitors

The odour readouts (H₂S) for all of the monitors, which were providing data at time of inspection: Monday 20th January 2020 at 12:17.

Monitor 1	0.007	ppm	12:17
Monitor 2	0.007	ppm	12:17
Monitor 3	0.006	ppm	12:17
Monitor 4	0.005	ppm	12:17
Monitor 5	0.003	ppm	12:17
Monitor 6	0.006	ppm	12:17
Monitor 7	0.006	ppm	12:17
Monitor 8	0.008	ppm	12:17
Monitor 9	0.010	ppm	12:17
Monitor 10	0.008	ppm	12:17
Monitor 11	0.007	ppm	12:17
Monitor 12	0.006	ppm	12:17
Monitor 13	0.006	ppm	12:17
Wind Speed	0.202	mph	12:17
Wind Direction	249.615	°	12:17

Odour Log (Thames) - Photocopies of log entries taken:

Thursday 9th January 2020

DAY SHIFT

Temp. Cold.

Weather. Rain w/sunny spells.

Odour Readings. All OMU's in operation.

Time: Blank.

Observations / Customer Complaint. OM13 spiked to 0.016ppm
09:00-10:00.

Operational issues / causes observed. Checked area around E batt
FST's no obvious odours, FST 83 being drained.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 spiked at 20:27-21:26,
max 0.016ppm.

Operational issues / causes observed. Blank.

Actions Taken. East inlet checked and hosed down for good measure.

Friday 10th January 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM8 spiked to max 0.02ppm
10:12-10:44.

Operational issues / causes observed. No odours detected.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cold.

Weather. Clear night.

Odour Readings. All OMU's in use.

Time: 05:30.

Observations / Customer Complaint. OM5 0.017ppm 19:35-20:35.

Operational issues / causes observed. Area checked no source
found.

Actions Taken. Blank.

Saturday 11th January 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/sunny spells.

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. Cold.

Weather. Overcast night.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM2 0.019ppm 22:01-22:09
<15 mins.

OM8 0.016ppm 20:58-21:40?

Operational issues / causes observed. Part of trend missing, no source found.

Actions taken. Blank.

Sunday 12th January 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy w/patchy clouds.

Odour Readings. All OMU's in operation.

Time: 17:23.

Observations / Customer Complaint. No odour issues.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Clear night.

Odour Readings. All OMU's in operation.

Time: 05:20.

Observations / Customer Complaint. OM2 0.022ppm 23:31-23:48.

OM7 0.017ppm 3:18-4:18.

Operational issues / causes observed. Area checked no source found.

Actions Taken. Blank.

Monday 13th January 2020

DAY SHIFT

Temp. Cool.

Weather. Cloudy.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.016ppm @ 07:49-08:31, peak at 0.0104.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 05:30.

Observations / Customer Complaint. OM8 0.017ppm 21:29-22:27.

Operational issues / causes observed. Area checked no source found.

Actions Taken. Blank.

Tuesday 14th January 2020

DAY SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM2 0.104 @ 13:34-14:47.

Operational issues / causes observed. Blank.

Actions Taken. Blank.

NIGHT SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.
Time: 05:30.
Observations / Customer Complaint. OM7 0.016ppm 18:41-19:41.
Operational issues / causes observed. Nothing of note found, storm tanks filling.
Actions Taken. Blank.

Wednesday 15th January 2020

DAY SHIFT

Temp. Cool.

Weather. Rain.

Odour Readings. All OMU's in operation.

Time: 17:30.

Observations / Customer Complaint. OM1 0.015ppm 06:12-07:15.
OM6 0.02 08:14-08:28.

Operational issues / causes observed. Blank.

Action Taken. Blank.

NIGHT SHIFT

Temp. Cool.

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.

Sludge Dip Records

Date	West PSTs 1	West PSTs 2	West PSTs 3	West Total	East PSTs	Grand Total
	All units in m ³					
OMP limit	500					
13/01/2020	39	993	581	1613	5061	6674
15/01/2020	0	412	322*	734	608*	1342*

***Incorrect total entered on Thames Water paperwork.**

There are no limits for the East side primary settlement tanks as these are covered and odour controlled. Thames is required by the terms of the abatement notice agreed in 2005 to notify LBH on the next working day of any such exceedance and notify LBH within three working days of any appropriate remedial measure taken.

Imported Sludge

There have been 63 imports of sludge over the last week (9 per day).

No.5 Pumping Station

The doors of No.5 pumping station was open at the time of the inspection although no odour was evident.

Raw Sludge Screening House

The large roller shutter door of the Raw Sludge Screening building was open at the time of the inspection and two 40yds bulk containers were inside. However, a large pile of debris had formed at the end of the conveyor belt (in excess of 2 metres high) due to the bulk carried not being aligned.

Digesters

Digesters 1-4 Out of use (permanent). Thames advised of a long term project currently initiated to bring these units back into service that will require significant investment.

Digesters 5 & 6: Both were in service and had totally wet seals that were bubbling off small amounts of gas.

Digester 7: Out of service.

Digester 8-12: All were in service and had totally wet seals that were bubbling off small amounts of gas.

Digester 13: In service and had a very high wet seal level (just below the retaining coping stones) and was bubbling off gas.
There was also evidence of a small spill that required cleaning up.

Digesters 14 & 15: Both were out of service.

Digesters 16 & 17: Both were in service and had wet seals that were bubbling off small amounts of gas.
The bell height of digester-16 was noted to be very high and digester-17 had evidence of a small spill that required cleaning up.

Digester 18: Out of service.

Digesters 19 & 20: Both were in service and had totally wet seals that were bubbling off gas.

There was evidence of anti-foaming agent in use and TW advised that this is applied daily to all of the digesters that are operational.

GENERAL

Final Settlement Tanks East Side of Works

The 8 circular tanks previously used as PSTs are now being used as final tanks (71-78).

All tanks were operational at the time of the inspection and no issues were evident.

Skips

On the East side there were two 8yds open skips, one of which contained general non-inert rubbish and one was approx 30% full of rag, which was only part covered with a tarpaulin and had weeds growing out of it.

Also present was one closed 14yds skip that was empty.

In the area next to STW 1A there was an open 14yds skip that contained scrap metal pumps.

On the service road next to raw sludge screening building was an 8yds open skip that contained rag and other waste, which was part covered with a tarpaulin.

On the West side there was one 40yds closed bulk carrier that was empty.

East Side Screen House

The doors to the screen house building were closed at the time of the inspection. However, TW were unable to confirm how many or which screens were in operation?

Return Activated Sludge Channel

The nearside RAS channel (which runs in the ground between FST's 61-64 & 65-67) was clogged along 60% of the near-side channel.

TW were advised this needed to be rectified to avoid potential insect and odour problems.

West Side Aeration Lanes (Old)

No issues.

West side primary settlement tanks (PST)

Rectangular PSTs are now covered and odour controlled. TW advised no issues.

Circular PST 9 was in service and had fat across 30% of the surface in front of the sweep arm.

Circular PST 10 was out of service and outer overflow channel was being over pumped at the time of the inspection.

Circular PST's 11 & 12 had clean fat free surfaces.

Pasteurisation Plant

The pasteurisation plant is in service. TW advised 9 streams are currently in service.

Section 106 agreement

There have been no breaches of the s106 agreement in the last week.

West Side Aeration Lanes (New)

A thick fluffy scum has again developed across all of the aeration lane surfaces that was thick enough to almost obscure all of the internal dividing walls.

Nearly all of the sprinklers appeared to be in operation.

The mixed liquor feed channel serving aeration lanes 25 & 24 of E-

Battery was again clogged with thick scum and surface debris. However, no odour was noticeable.

New Inlet Works (West Side)

No issues.

Odour Control Unit (OCU) performance monitoring: 14/01/2020

Plant	Reading (ppm)	Action Level (ppm)	Compliant
Main pumping station inlet	0.01 0.02 0.01	Unknown	Unknown
Main pumping station outlet	0.00 0.00 0.00	0.2	Yes
East OCU	0.00 0.00 0.00	0.05	No
West inlet OCU	0.00 0.00 0.00	0.05	Yes
Sludge reception inlet	Blank	Unknown	Unknown
Sludge reception outlet	Blank	0.8	Yes
Thickening plant inlet	Blank	0.5	Yes
Thickening plant outlet	0.01 0.01 0.01	0.6	Yes
Transfer PS inlet	Blank	Unknown	Unknown
Transfer PS outlet	0.00 0.00 0.00	0.6	Yes
New West inlet (OCU 11)	0.00 0.00 0.00	0.5	Yes

Pasteurisation (OCU 12)	0.00 0.00 0.00	0.5	Yes	
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