



27 March 2020
IE20/016/CSJ/rmc

Southwold Town Council
Town Hall
Southwold
IP18 6EF

INSPECTION OF BELOW GROUND TANKS - JUNCTION OF STATION ROAD AND BLYTH ROAD, SOUTHWOLD, IP18 6AX

1.0 INTRODUCTION

1.01.1 JP Chick & Partners Ltd were appointed by Southwold Town Council to undertake a site inspection in relation to the above. The purpose of the investigation was to verify data provided by the petroleum officer, by lifting covers and inspecting the tank refuelling points. This would enable us to assess current condition / status of the tank and provide an updated drawing for future tender purposes.

1.01.2 Prior to the site inspection, a Ground Penetrating Radar Survey (GPRS), Utility Mapping and CCTV survey was undertaken, to accurately locate the position of these features. Due to the level of interference from congested underground apparatus at the site, this limited the ability to locate the precise position of the below ground tanks, and therefore locations were identified as 'possible tank' on the survey drawing.

2.0 SITE INSPECTION

2.01.1 The site inspection was conducted on Tuesday 17th March 2020.

Tank Inspections

2.02.2 To verify the location of the tanks, JP Chick used the survey information gained from the GPRS and the Petroleum Searches to locate the tank positions. Where possible, covers were removed and the tank re-fueling infrastructure inspected, the tanks dipped (to collect a sample of the contents) and photographed.

2.02.3 Our findings are documented on a drawing appended to this report. The tank number, size, diameter, length and contents (where present) are summarised in Table 1 below:

Tank	Contents/ Decommissioned	Size (Gallons)	Diameter (m)	Length (m)
Tank 1	Foam filled (Decommissioned)	500	~1.2m	~1.8m
Tank 2	Thick black engine oil present	500	~1.2m	~1.8m
Tank 3	Accessed but blocked at @~1.0m bgl. Tank was dry	1,000	~1.2m	~3m
Tank 4	Waste Oil	500	~1.2m	~1.8m
Tank 5	Foam filled (Decommissioned)	500	~1.2m	~1.8m
Tank 6	Foam filled (Decommissioned)	2,000	~1.6m	~3.6m
Tank 7	Foam filled (Decommissioned)	2,000	~1.6m	~3.6m
Tank 8	Concrete slab over disused tank- could not be accessed	500	~1.2m	~1.8m
Tanks 9A & B	Oily water	Likely to be 2 x 500 <i>(based on an internal depth of 1.265m measured)</i>	~1.2m	~1.8m
Tank 10	Oily water	Likely to be 500 -1,000 <i>(based on an internal depth of 1.36m measured)</i>	~1.2m	~1.8-3.0m

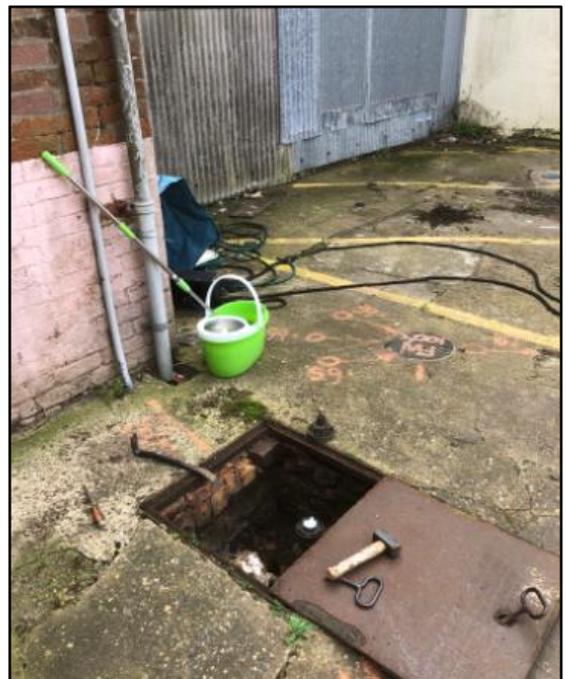
Table 1 – Tank Details

Decommissioned Tanks (Foam Filled)

2.02.4 Tanks 1, 5, 6 & 7 were inspected and confirmed as decommissioned with hard foam. The foam was visible within the refuelling apparatus. This a relatively modern method of decommissioning underground storage tanks, which prevents an accumulation of explosive vapour arising from residual contents. Photographs of the tank refuelling chambers are shown below and overleaf.



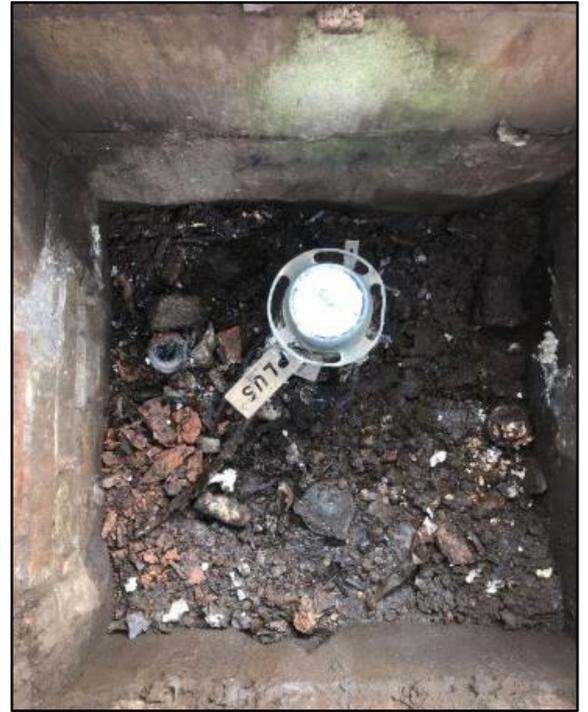
Tank 1



Tank 5



Tank 6



Tank 7

Decommissioned Tanks (Water Filled)

2.02.5 Tanks 4, 9A, 9B, and 10 were inspected and confirmed as containing oily water. Photographs of the tanks are shown below and overleaf.



Tank 4



Tanks 9A & 9B



Tank 10

Non-decommissioned Tanks

2.02.6 Tank 2, was inspected and found to contain what appeared to be waste engine oil. See image below.



Tank 2

Tanks with un-proven status

2.02.7 The refuelling chamber to Tank 3, was found to contain oily debris, however we were able to locate and remove the refuelling standpipe. See images below.



Tank 3



Tank 3

2.02.8 The refuelling chamber to Tank 3, was found to contain oily debris, however we were able to locate and remove the cover of the refuelling standpipe. Unfortunately, the pipe was blocked at a depth of approximately 1.0m the top of pipe. No liquid contents were encountered.

2.02.9 The location of Tank 8 could not be proven. It is assumed from the search response from Trading Standards that this tank is located beneath a concrete slab between Tank 1 and Tank 4.

Sampling of tank contents

2.02.10 We were able to collect samples from Tanks 2, 9A, 9B, and 10.

2.02.11 At Tank 2, the sample was a dark brown to black oil. The laboratory test report states that although the sample does not match their product database it is indicative of a 'Lube Oil'. Based on the colour it is our considered opinion that contents are likely to be waste engine oil.

2.02.12 At Tanks 9A, 9B and Tank 10, the contents had the appearance of oily water. The laboratory test results show significant concentrations of both aliphatic and aromatic petroleum hydrocarbons, and BTEX compounds (benzene, toluene, ethylbenzene and xylene).

2.02.13 A copy of the laboratory results, as well as the tank locations are enclosed at the end of this report.

3.0 WAY FORWARD

3.01.1 As the contents of Tanks 2, 9A, 9B and Tank 10 are all liquid, the contents will need to be pumped out by a tanker and the tanks de-gassed. This should take place in conjunction with the tank removal contract so that there is no risk of any gas accumulation.

3.01.2 The tank contents must be taken to at a suitably permitted waste transfer or treatment facility, ensuring that a hazardous waste consignment note is provided for each tanker of waste removed from site.

We trust the above and attached are self-explanatory however if you have any queries or require any further information please do not hesitate to contact us.

Yours faithfully,



On behalf of JPC Environmental Services

a division of J P Chick & Partners Limited

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Enc. Tank Location Plans
Laboratory Test Report



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Analytical Report Number : 20-93431

Project / Site name:	Site at Junction of Station + Blyth Road	Samples received on:	19/03/2020
Your job number:	IE20 1033	Samples instructed on:	19/03/2020
Your order number:		Analysis completed by:	25/03/2020
Report Issue Number:	1	Report issued on:	25/03/2020
Samples Analysed:	4 water samples		

Signed: 

Rachel Bradley

Deputy Quality Manager
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 20-93431

Project / Site name: Site at Junction of Station + Blyth Road

Lab Sample Number	1476671	1476672	1476673	1476674	
Sample Reference	Tank 2	Tank 9A	Tank 9B	Tank 10	
Sample Number	2A	9X	9X	10X	
Depth (m)	1.00	1.00	1.00	1.00	
Date Sampled	17/03/2020	17/03/2020	17/03/2020	17/03/2020	
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status		

Monoaromatics & Oxygenates

	µg/l	1	ISO 17025	-	19.2	26.6	11.5
Benzene	µg/l	1	ISO 17025	-	19.2	26.6	11.5
Toluene	µg/l	1	ISO 17025	-	3.2	3.9	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	-	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	ISO 17025	-	6.9	9.4	12.2
o-xylene	µg/l	1	ISO 17025	-	7.0	8.8	8.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	-	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	-	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	-	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	-	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	-	1000	20000	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	-	23000	210000	410
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	-	55000	290000	3200
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	-	18000	110000	4200
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	-	98000	630000	7800

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	-	19	27	12
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	-	3.2	3.9	< 1.0
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	-	30	42	44
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	-	370	3300	240
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	-	3800	8900	220
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	-	3400	4500	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	-	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	-	7700	17000	510

Miscellaneous Organics

Product ID		N/A	NONE	See Appendix	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample



Analytical Report Number : 20-93431

Project / Site name: Site at Junction of Station + Blyth Road

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

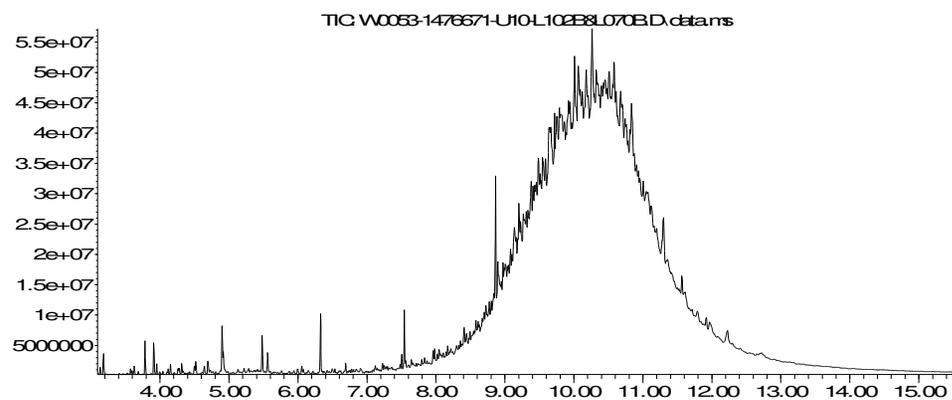
Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L0738-PL	W	ISO 17025
Product ID	Determination of product ID by interpretation against standard chromatograms - Water.	In-house method	L070-PL/UK	W	NONE
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30°C.

Abundance



Time-->

The total ion count (TIC trace) shows a carbon range from C10 to C40.
The sample TIC trace is complex, showing mainly aliphatic and some of aromatic product sources.
The trace does not match the standard product profiles but is suggestive of lube oil.