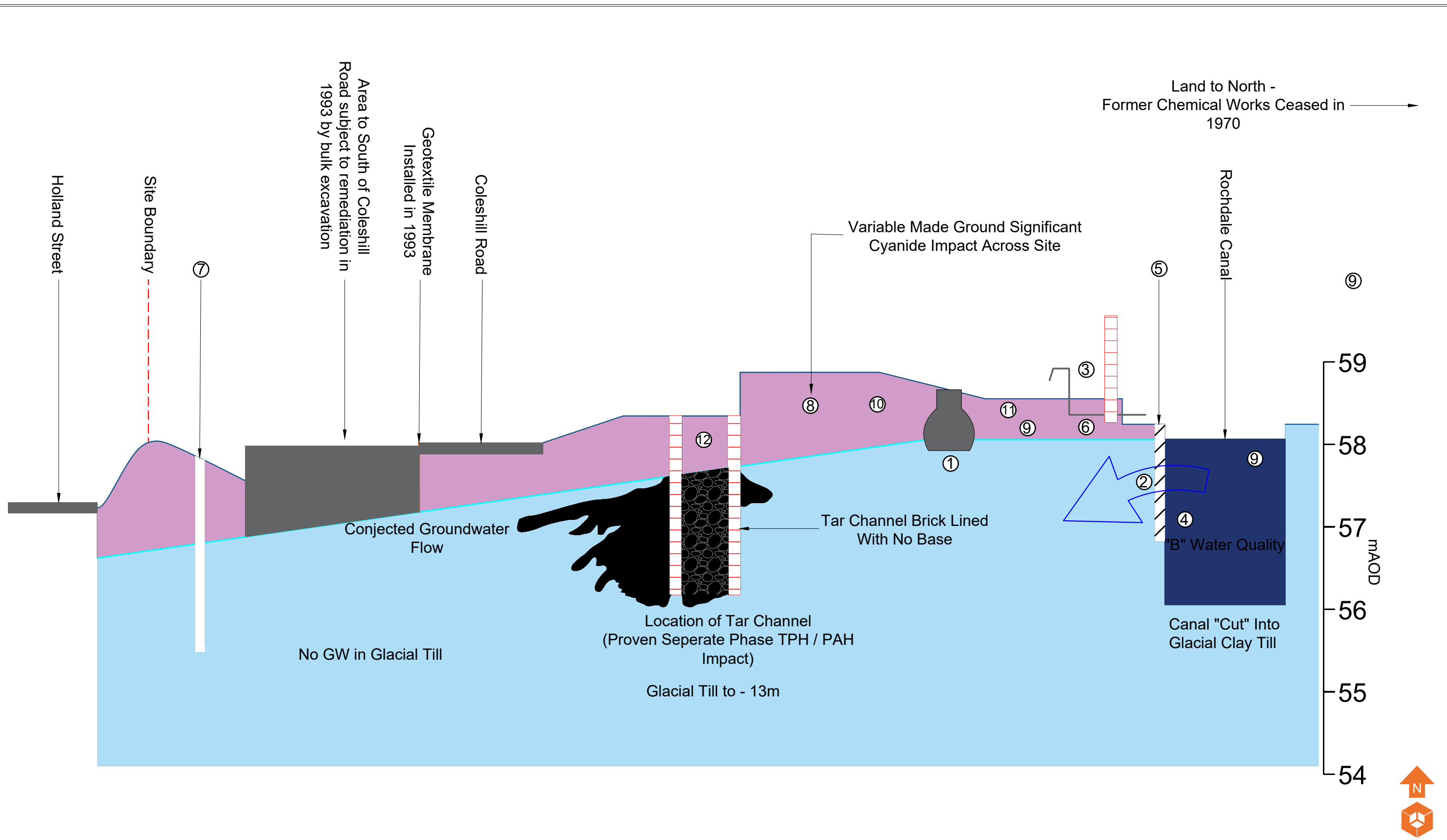




Location Symbols

① Localised separate phase TPH (With PAH) impact of near surface representation of surface spillage. (Not delineated) Limited migration to south down hydraulic gradient. Vertical migration confined by clay walls

② Canal "Up" hydraulic graient likely scenerario is canal is contributing to hydrology & shallow perched water confined above law permeability clay

③ Former / Remenant drainage infrastrucutre represents a preferntial pathway to canal. All infrastructure to be removed & pathway negated

④ Canal wall lining limit hydraulic impact

⑤ ERM Investigation confirmed visual leakage of contaminants through boundary wall to canal considered to be leaching not GW hydraulic conductivity.

⑥ Perched water confirmed by walls at higher elevation to canal and is seeping through and impacting. remediation to solidify and stabilise cyanide impact will remove this pathway

⑦ Monitoring wells down hydraulic gradient do not show significant cyanide impact

⑧ Made ground in Manox sector impacted by semi volatile and volatile organic compounds. No tox data readily available to inform robust SSR's mitigate pathway by vapor membrane.

⑨ Carbon disulphide (CS2) off site primary source CS2 impact known in canal and sediment. Low level CS2 impact onsite no primary CS2 source identified on Manox.

⑩ Significant aromatic semi volatile PAH/SVOC impact on site in MG across Manox.

⑪ Significant arsenic and lead impact in MG multiple instances of discoloration (Blue and Green) suggesting primary source.

⑫ Salt glazed feeder pipe to tar channel

Conjected Groundwater Flow

Rochdale Canal

Tar Channel

Glacial Clay Till

Notes:

P1	R1	03.08.2020	REVISION	HM	MD
P1	-	31.07.2020	DRAFT	HM	MD
Phase	Revision	Date	Issue	Drawn	Checked

Client:

Engie

Manox

Job No:

13-887

Drawing No:

028

Date:

03.08.2020

Scale:

NTS

Drawing Title:

Canal Impact Section Plan

Environmental Engineering Partnerships Ltd
City Heliport & Business Centre
Eccles, Manchester, M30 7RU
Tel: 0161 707 9612
E-mail: info@e3p.co.uk
Website: www.e3p.co.uk

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Location Symbols

- Approximate Rotary Borehole Location (URS 2004)
- Approximate Trial Pit Location (URS 2006)
- Approximate Window Sample Probehole Location (URS 2006)
- Approximate Shell and Auger Location (URS 2006)
- Approximate Trial Pit Location (ERM 2009)
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- Approximate Test Location (Parson Brickenhoff 2007)
- Approximate Sample Probehole Location (Parson Brickenhoff 2007)
- Approximate Trial Pit Location (Parson Brickenhoff 2007)
- Stockpile
- Vegetation / Trees
- Hardstanding
- Services (BT/Gas/Electricity/Sewer/Surface water)

Notes:

Client:

Engie

Job No:

13-887

Date:

03.08.2020

Drawing No:

032

Scale:

NTS



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Eccles, Manchester, M30 7RU
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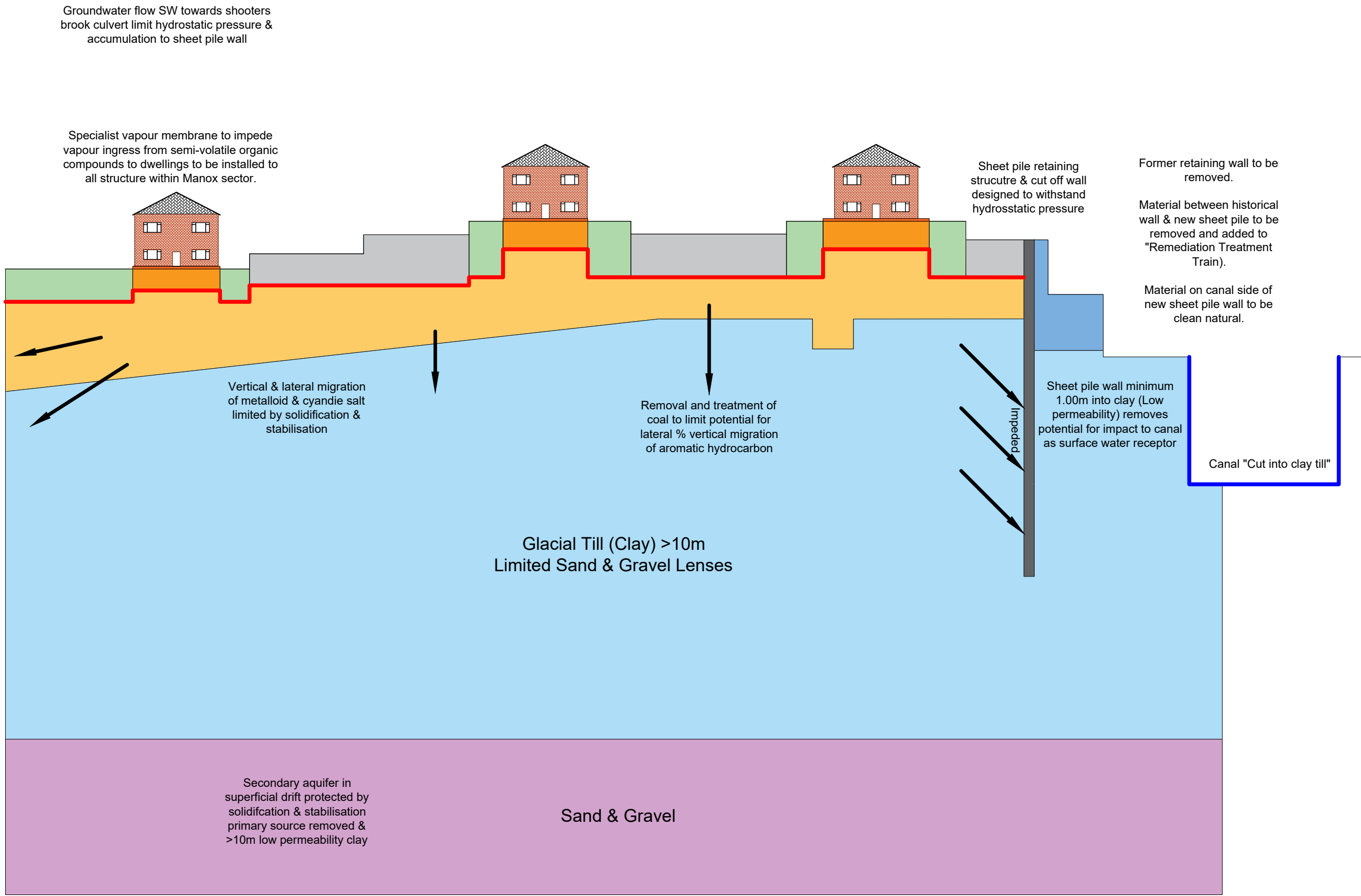
Manox

Drawing Title:

Constaints Plan

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P1	-	03.08.2020	DRAFT	HM	OJ
Phase	Revision	Date	Issue	Drawn	Checked



CSM Features Inert import & Sub-Structure Inert import & Highways & Driveways 1000mm clean cover to garden / Landscaping to remove direct exposure Full depth excavation of made ground across Manox site. All material enters "Remediation Train" prior to treatment, analysis & Re-use Glacial Till (Clay) Sand & Gravel Subformation or "Remediation platform level" Gardens 1000mm / Roads / Drives & Plots - 750mm



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Remediation Issues

- Hardstanding / Obstruction
- Soft / Loose natural ground
- Dense Vegetation
- Semi - mature Trees
- Carbon Disulphide detected, removal required between 1.50 - 1.60m
- Visual / Olfactory Contamination
- Human health exceedance requiring removal

Notes:

P1	-	10.11.2020	REVISION	LM	OJ
Phase	Revision	Date	Issue	Drawn	Checked

Client:

Engie
Manox

Job No:

13-887
Drawing No:
034

Date:

10.11.2020
Scale:
NTS

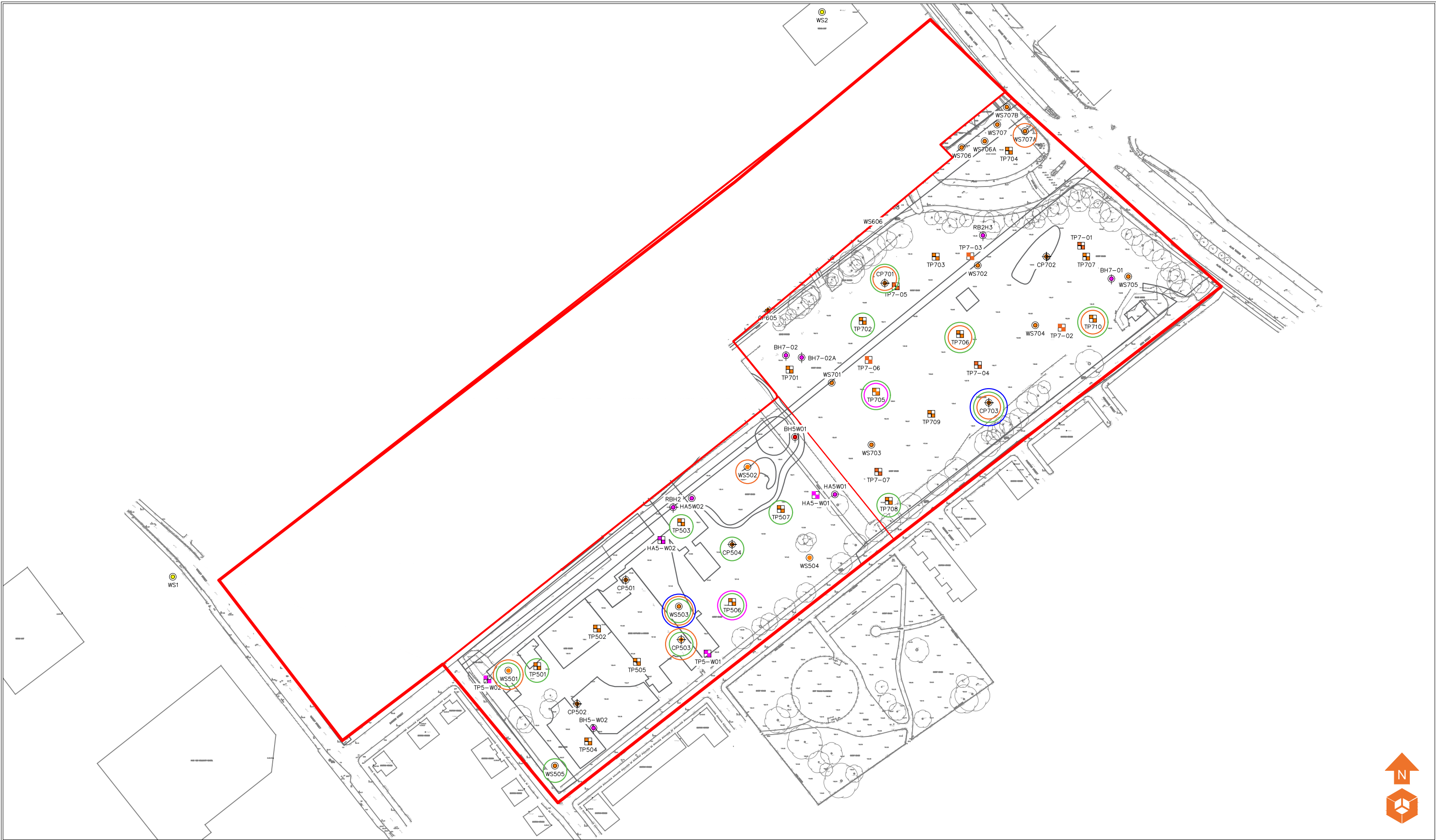


Environmental Engineering Partnerships Ltd
City Heliport & Business Centre
Eccles, Manchester, M30 7RU
Tel: 0161 707 9612
E-mail: info@e3p.co.uk
Website: www.e3p.co.uk

Drawing Title:

Zone 5 and Zone 7 Remediation Issues Plan
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Contamination Exceedances

- PAH
- TPH
- Carbon Dioxide
- Heavy Metals

Notes:

P1	-	10.11.2020	REVISION	LM	OJ
Phase	Revision	Date	Issue	Drawn	Checked

Client:

Engie

Job Title:

Manox

Job No:

13-887

Drawing No:

035

Date:

10.11.2020

Scale:

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Environmental Engineering Partnerships Ltd
City Heliport & Business Centre
Eccles, Manchester, M30 7RU
Tel: 0161 707 9612
E-mail: info@e3p.co.uk
Website: www.e3p.co.uk

Zone 5 and Zone 7 Human Health Exceedances Plan

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Post Remediation gas + vapour monitoring required

Focused treatment of TPH soils and delineation of tar channel.

Focused treatment of Metalloid impacted soils.

0.80m bgl
0.038%

1.60m bgl
0.802%

1.00m bgl
0.020%

Focused treatment of Metalloid impacted soils.

Full turnover of Made Ground and 1000mm cover system within all residential gardens.



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Remediation Issues Plan

- Hardstanding / Obstruction
- Areas requiring Treatment
- Dense Vegetation
- Asbestos hotspot requiring removal

Notes:

P1	-	10.11.2020	REVISION	LM	OJ
Phase	Revision	Date	Issue	Drawn	Checked

Client:

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Drawing Title:

Remediation Issues Plan



Environmental Engineering Partnerships Ltd
City Heliport & Business Centre
Eccles, Manchester, M30 7RU
Tel: 0161 707 9612
E-mail: info@e3p.co.uk
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