

Demolition and Deconstruction of Phoenix Oil Tank Farm (Phase 7 - Application 12) June 2026 Start

OVERALL SITE INFORMATION

1.1	Owner	:	TATA STEEL UK
1.2	Plant	:	PORT TALBOT PLANT, WALES, UK
1.3	Location	:	LATITUDE 51.590 N, LONGITUDE 3.780 E
1.4	Elevation above Mean Sea Level (MSL)	:	12.00 M FROM M.S.L

JOB DESCRIPTION: Controlled Deconstruction of the all tanks, pipework, supports, trestles, bridges, equipment, structures and civil buildings including the removal of all the loose items from the area and grading of land.

TIME FRAME: start date June 2026 and estimated demolition time frame as being 6 months (subject to final discussions with chosen contractor)



Fig -1: Overview of Phoenix Oil Tank Farm

A BRIEF BACKGROUND TO THE REQUIREMENT FOR THE WORK

Phoenix Oil Tank Farm is made up of 5 Tanks, (all redundant) along with a Control Room located the North side of TSUK. There are also various diameter pipework within the Tank Farm and in the surrounding areas, one particular group of pipes travels through a swamp-like area – through reed beds and onto the redundant Energy department. This plant is now no longer operational and has been viewed to progress to demolition of the whole area which, needs to be de-constructed adopting a systematic and safe engineered process.

The tanks are constructed of steel plates welded together with a roofing system that has a gradual pitch from eaves to a higher central point. There are external staircase welded to the tank shell to gain access to the roof. The tanks are placed inside bunded areas. Some of these tanks are in a 'Bunded Area' and area is cleaned. These require safe removal and cleaning of the areas after demolition process.

There are various sized pipework, support trestles and bridges that used to transport the materials to/from the energy department however these are redundant and cleaned.

There are 3 buildings: a control room, mess room with toilet facilities and a pump room. Which require safe removal and disposal thereof

All plant, equipment, civil, and mechanical structures have been de-energized and isolated by Tata. However, the contractor must ensure that a safe method of deconstruction is identified, managed, and executed in line with safe working practices. A detailed program is to be developed upon receipt of the purchase order. An outline program has been provided for informational purposes only and should not be considered indicative of the exact time frame.

The deconstruction process will involve cutting the structural steel into manageable sizes, with a maximum dimension of 1.5m (1500mm) x 0.3m (300mm) and a maximum weight of 1.5 tonnes. The preferred method of deconstruction is cutting with a mechanical shear to minimize personnel interaction with the process. RFID chips will be provided to all personnel and positioned at key areas to alert machine operators of any encroachment, automatically ceasing operations.

All materials (light and heavy scrap) will be clearly segregated and stored in an allocated area (refer to the diagram provided) near the working site. The contractor will oversee the safe stacking and loading of materials into vehicles.

The Total demolition of the buildings are to be managed appropriately and are to be surveyed for contaminated materials prior to work starting. A demolition asbestos survey will be undertaken and all results given to the Principal Contractor to ensure that all Hazardous materials are identified, quantified, removed and disposed of in accordance with legislation. The asbestos will be transported to the internal asbestos cells managed by Tata preferred contractor and all disposal notes made available to Tata.

All buildings will be demolished by mechanical excavator grab/cutting machinery (Non-Explosive method) with rubble being filtered by the principal contractor and disposed of again

within legislation. This would be sent to Tata recycling centre for further processing: all disposal notes will be made available to Tata.

Noise monitoring will be carried hourly using fixed real time data monitoring systems installed by the principal contractor, the reading would be available to Tata at any time should the necessity prevail. The normal working hours will be from 07:00 to 18:00 Monday to Friday as well as potential alternative weekend working (Saturday/Sunday) from 07:00 to 16:30 this would be agreed to facilitate the demolition process and capturing the maximum daylight hours.

A dust suppression system using domestic aspirated water will be employed to prevent the risk of Legionella. A full risk assessment will be carried out by the principal contractor and shared with Tata.

All building materials will be removed from the site.

Scrap/Cutting and Storage Area:

Sizeable materials will be removed from the deconstruction area and transported to the segregated scrap reclamation area highlighted in the yellow boxes below; these materials will be further processed by mechanical means (Shears) into allocated sizes and stored in readiness for collection. There is no requirement to ring-fence the site as it will be processed in-situ and within a segregated boundary area. These defined areas are already in place with hard standing and compacted ground. This is to also ensure that there is no encroachment into/onto any other areas within the existing ring fenced site.



Fig 2: Scrap Storage Area

List of Items

Phoenix Oil Tank Farm Item List								
Ref no.	Item	Quantity	Length	Width	Height	Total Weight	Total Area/ Volume per item	Comments
Civil Works								
C01	Main Pump House	1	6.5m	15m	Single Story		97.5m ²	Still in Operation as of June 2024
C02	(Old) Main Pump House	1	6.5m	20m			130m ²	Contains ACM's – Asbestos Containing Materials
C03	Bund Wall	1	32m	32m	3m		384 Linear m	Holding water – will need to be pumped out before demolition of the bund wall
C04	Foundations							
Structural Works								
S01	Pipe Supports & Bridges (x2)					17ton		
S02	Platforms	2	1.5m	4m		2ton	12m ²	Platform Grating Area = 6m ²
S03	Walkways	3	5m	2m		4.5ton	30m ²	Platform Grating Area = 10m ²
S04	Walkway Bridges	7	5m	2m		10.5ton	70m ²	Platform Grating Area = 10m ²
S05	Fencing	300m	300m		3m	1.4ton*		
S06	Pipework		100m			12.6ton**	350m ³	Differing Diameters between Pipework **36kg/m 7mm**
S07	Trench Bridge	14	1m	1m		7ton	14m ²	Platform Grating Area = 1m ²
S08	Tank 1		9.14	7.62		22.05ton	350m ²	8mm plate = 63kg/m ²
S09	Tank 2		6.10	9.14		14.75ton	234m ²	8mm plate = 63kg/m ²
S10	Tank 3		14.64	10.97		53ton	841.21m ²	8mm plate = 63kg/m ²
S11	Tank 8					1ton		8mm plate = 63kg/m ²
S12	Redundant Tank		18.9	8		65.3ton	1037m ²	8mm plate = 63kg/m ²

Table 1: Phoenix Oil Tank Farm Full List

Description	Dimensions (m) (Diameter x Height)	Tank / Pipe Volume (m ³)	Status	Volume of material in tank to be removed (m ³)	Contents grade of oil
Tank 1	9.14 x 7.62	500	In service	10	Heavy fuel Oil*
Tank 2 (Redundant)	6.10 x 9.14	267	Out of service	10	To be sampled
Tank 3	14.64 x 10.97	1845	In service	25	Heavy Fuel Oil*
Tank 4 (Redundant)	18.9 x 8	2270	Out of service	25	To be sampled
Tank 8		10	In service	5	Heavy Fuel Oil*
Pipe work**		100		100	Heavy Fuel Oil*

Table 2. Tanks Dimensions

BUILDINGS/CONVEYORS

Items to be Removed in Association With the Phoenix Oil Tank Farm

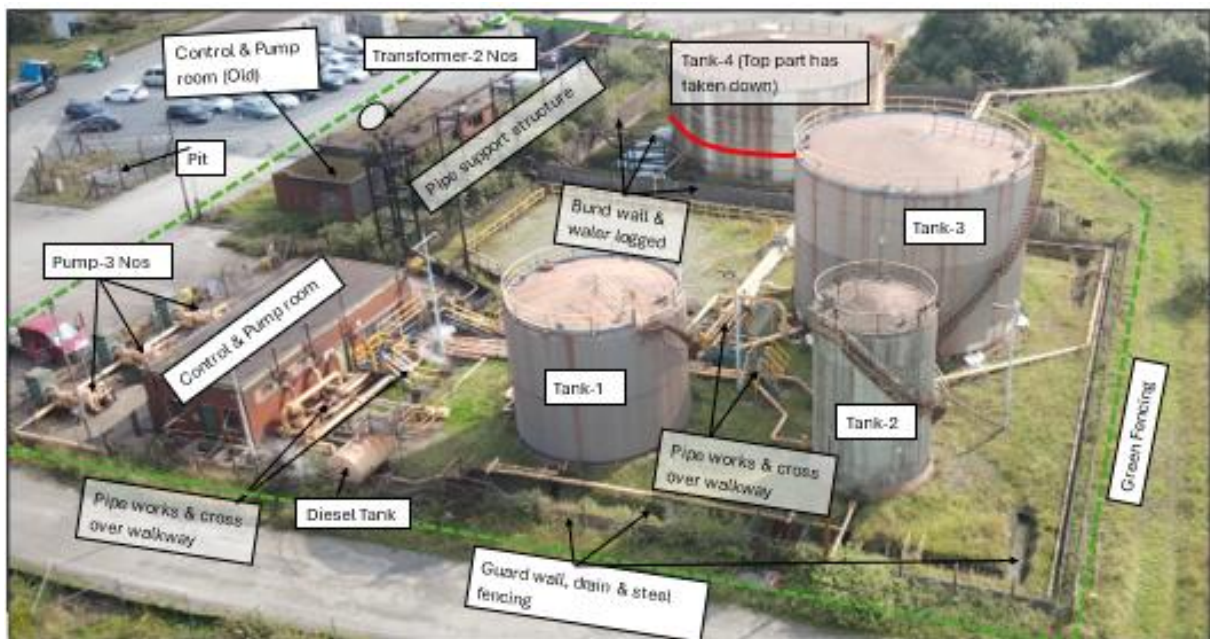


Fig.3 Tanks, Associated Pipework & Buildings

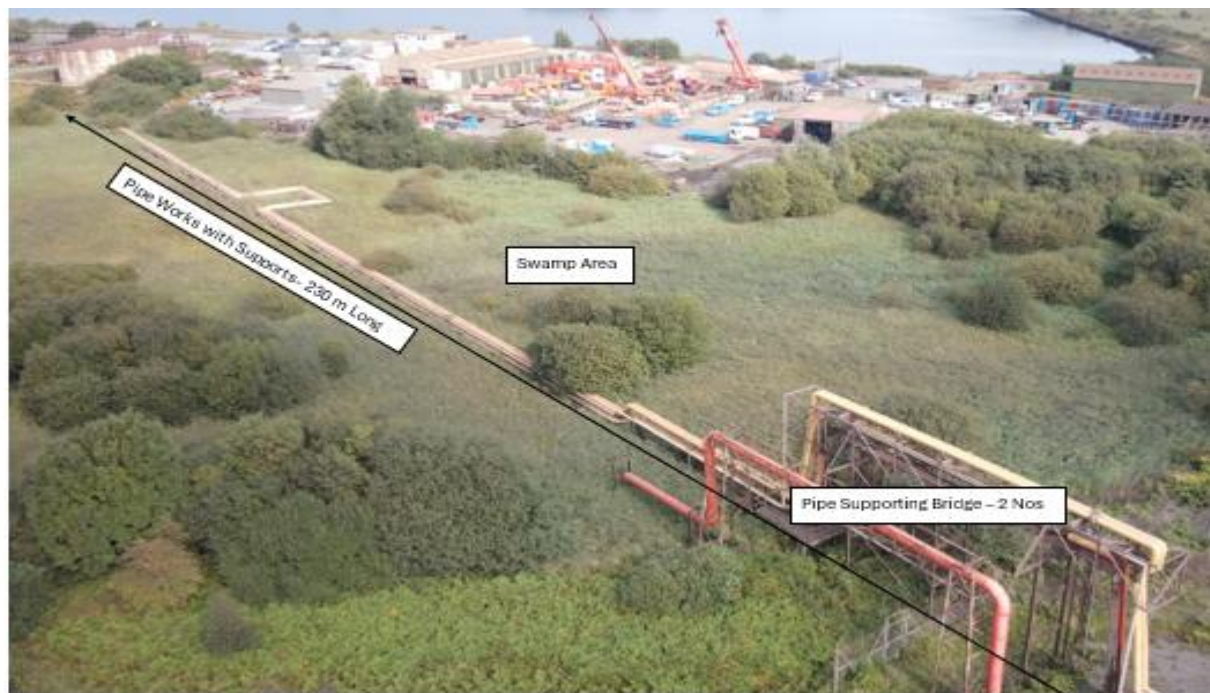


Fig. 4 Pipework Along Swamp Area



Fig. 5 Pipework Including Support Bridge

Table 3. Deconstructed Elements

What is Being Removed	Reference	How is this being	Date From	Date To	Any Laydown
Oil Tanks 1, 2, 3 & 4	Fig 3	Mechanical - cutting and burning by machine & Lifting			Yes. Fig 2
Various Pipework, Support Trestles and Pumps	Fig 3	Mechanical - cutting and burning by machine & Lifting			
Various Pipework, Support Trestles & Pipe Bridges	Fig 4	Mechanical - cutting and burning by machine & Lifting			Yes. Fig 2
Various Pipework, Support Trestles and Pipe Bridge	Fig.5	Mechanical - cutting and burning by machine and lifting			Yes. Fig 2
Abandoned Civil Buildings: Control Pump Room, Transformer Building, Control 7 Pump Room, Lego Blocks etc.	Fig.3	Mechanical - cutting and burning by machine and lifting			Yes. Fig 2

1 2 3 4 5 6 7 8 9 10 11 12

10 20 30 40 50 60 70 80m

CONFIDENTIAL - CORUS

DO NOT SCALE

WELD SYMBOLS TO BS EN 22543
HORIZONTAL PARTS TO BS 1854
GENERAL TOLERANCES TO BS EN 22543 - PART 1 MEDIAN CLASS

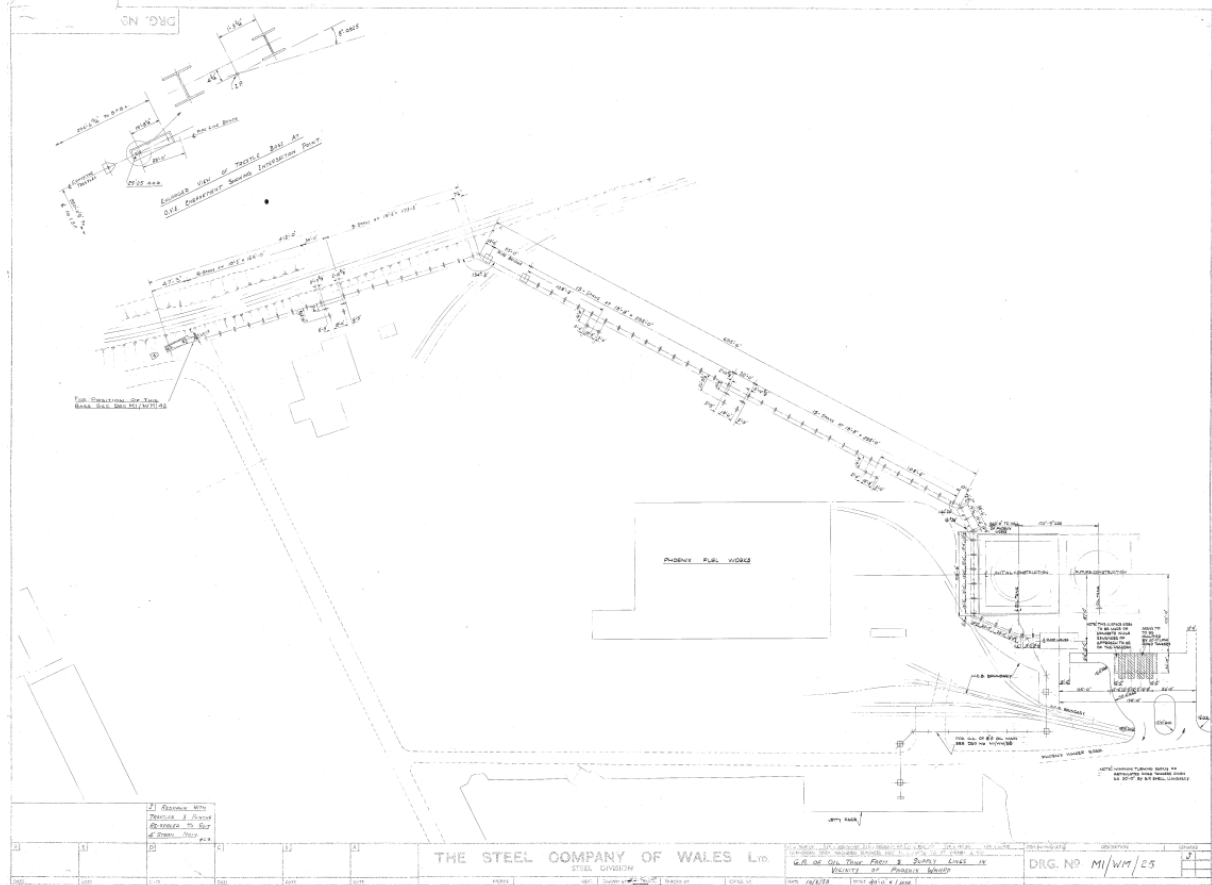
THESE DRAWINGS ARE NOT TO BE
USED FOR THE PURPOSES OF A PLANT

TANK DATA

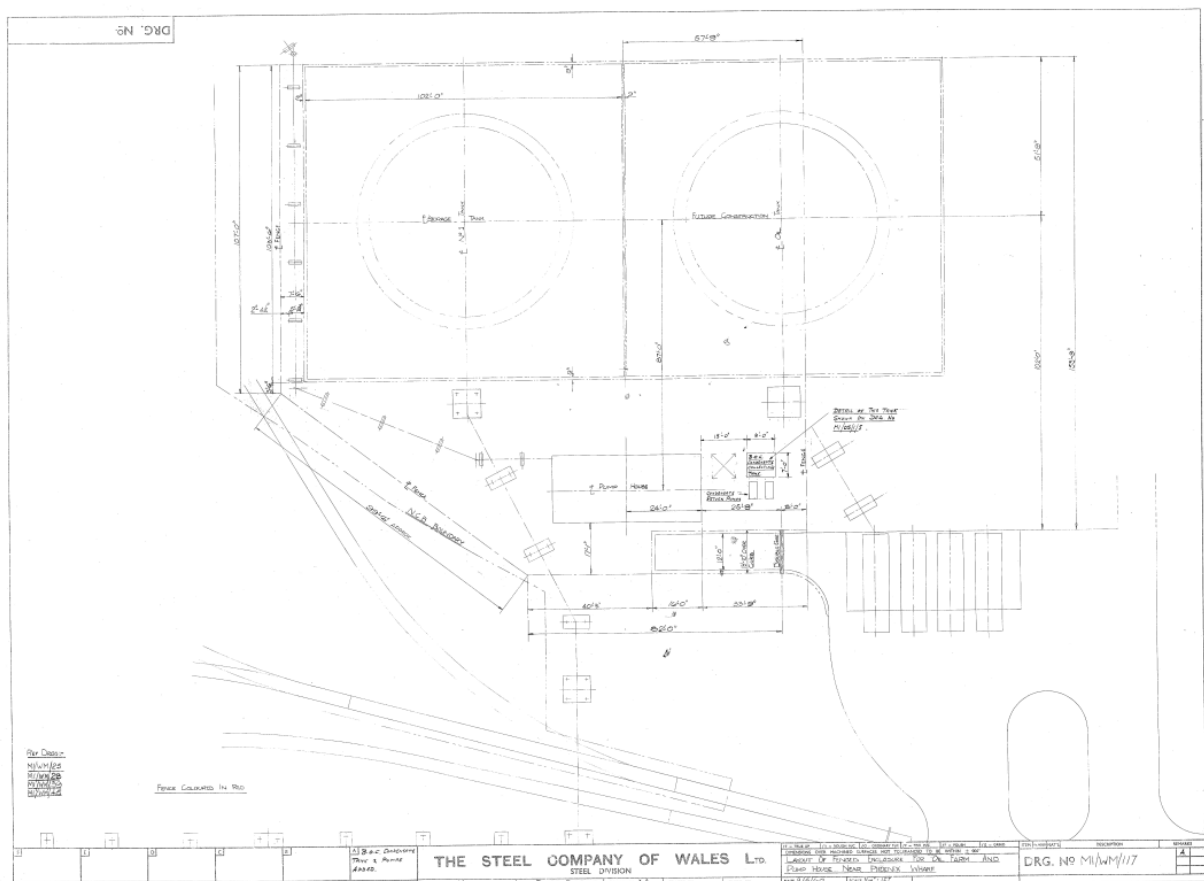
TANK	DIAMETER	HEIGHT	VOLUME
1-100	1-100	1-100	1-100
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1-103	1-103	1-103	1-103
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1-172			

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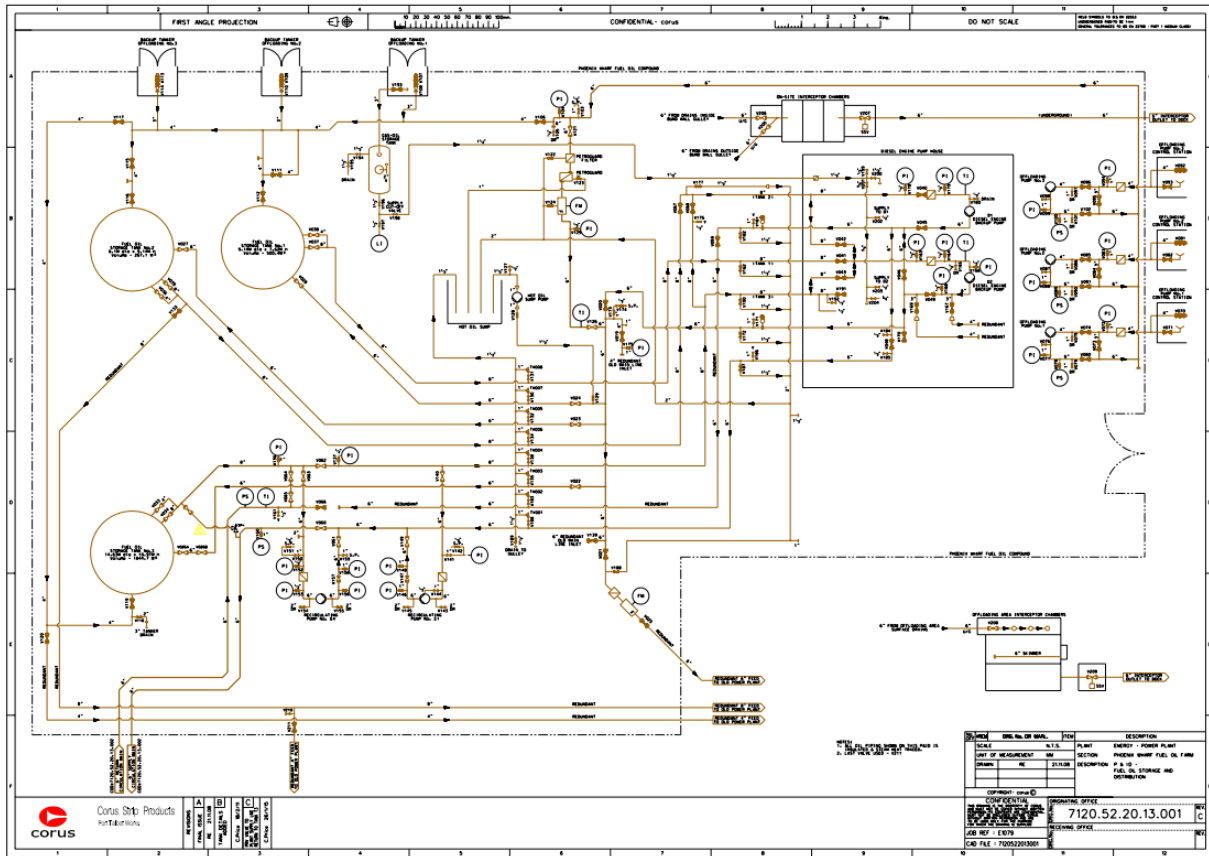
Drawing-3 – Tank Farm & Supply Line Layout



Drawing-4 – Layout of Fenced Enclosure For Oil Farm & Pump House.



Drawing-5 – P&ID For Fel Storage & Distribution



Drawing-6 – Steam Trace Heating System to Fuel Oil System

