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ENVIRONMENTAL ASSESSMENT REPORT

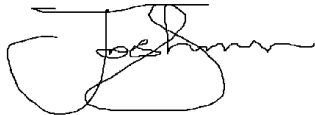
**Petrol Gomersal,
Oxford Road, Gomersal, West Yorkshire**

Report No: CP16114 CL 001

February 2017

Client: The Co-Operative Group Ltd

Report Prepared By:



James Skinner

Report Reviewed By:



James Edley

Environmental Assessment Report – Petrol Gomersal, Oxford Road, Gomersal

Environmental Investigation – Summary				
Sitework Completed				
Date investigation completed:	16 -18 th Jan 2017		No. boreholes constructed / maximum depth drilled (m)	
Date of groundwater monitoring visit:	27 th Jan 2017		No. monitoring wells installed / maximum depth (m)	
Site Sensitivity (based on desk-top information)				
Geology and Hydrogeology	None present			
	Pennine Lower Coal Measures		Secondary Aquifer (Class A)	
Source Protection Zone:	No		Nearest Surface Water:	Spring / Church Beck - 160m E
Encountered Hydrogeology/Geology				
Groundwater	Groundwater was encountered at ~4m - 5m depths in the underlying mudstone units during borehole construction. Resting groundwater levels were recorded at ~3.5m depths. We have calculated a groundwater flow direction to the west and our field testing suggest a low to moderate soil permeability.			
Soil Stratigraphy	Geological Unit	From	To	Description
	Made Ground	0.2	0.7	LOOSE to MEDIUM DENSE grey GRAVEL (Type I imported backfill) or SOFT grey CLAY with gravel.
	Pennine Lower Coal Measures (weathered)	0.4	4.5	SOFT becoming STIFF or VERY STIFF brown grey mottled CLAY with frequent mudstone gravel. Becoming increasingly friable with depth, grading to mudstone.
	Pennine Lower Coal Measures	1.8	>8.0	WEAK brown grey laminated MUDSTONE with occasional thin layers or seams of COAL.
Results of Environmental Investigation				
Environmental Assessment – Summary of Conclusions:	➤ We have not identified elevated concentrations of hydrocarbons in any of the soil samples we analysed. Low concentrations of weathered diesel and/or waste oil range hydrocarbons were identified in a single deep soil sample from BH3, and trace concentrations of hydrocarbons were recorded in soils from BH4 at 3.6m. We did not detect any elevated metal concentrations or asbestos fibres in the samples of Made Ground that we submitted for analysis. ➤ No detectable concentrations of hydrocarbons were identified in any of the groundwater samples we collected. ➤ Based on the results of our site investigation and subsequent qualitative risk assessment, we do not consider there to be any viable pollutant linkages present at the site. On this basis the site is considered suitable for continued commercial use.			
Please refer to our report for our conclusions and recommendations in full. Your attention is drawn to the Notice to Interested Parties included as Attachment One.				

Site Investigation - Summary of Recommendations for Redevelopment Works		
Temporary works - slope stability	Foundation excavations likely to be formed within:	Clay or mudstone
	Likely to remain stable for short periods without support or being battered back	Yes (although mudstone laminated and weak - may collapse)
	Note: We recommend that a detailed inspection of the side slopes be carried out in order to assess fully any support measures required.	
	We encountered weathered bedrock (Pennine Lower Coal Measures) from around 3m depths. Rotary coring methods were required to penetrate the underlying bedrock units.	
	We do not consider driven sheet piles will penetrate the underlying soils to sufficient depth to form a support measure for the tank farm excavation.	
Temporary works - De-watering	Anticipated depth to standing groundwater	~3m
	Anticipated permeability	Low to moderate
	Dewatering likely to be required?	Yes - >3m (e.g. tank farm)
	Waste water likely to be impacted with hydrocarbons?	Unlikely - investigation data indicated no hydrocarbon concentrations present
Disposal of Excavated Spoil	Soil / leachate samples analysed for compounds within Subadra Waste Acceptance Criteria Suite?	Yes
	Excavated soils from the site are likely to be classified as?	Inert / Non Haz
	Note: We recommend that we classify all potentially impacted soils prior to disposal. All waste soils and fill must be disposed of at an appropriately licensed disposal site. We have not completed a detailed assessment of underlying Made Ground for the presence of asbestos containing materials although we have not identified detectable asbestos the samples we have submitted for asbestos screening.	
Additional Comments/Recommendations		
Additional comments regarding re-development works:	The site is understood to have been a petrol station since at least the 1970s. It was last redeveloped in 1988 and the current petroleum installation dates from this time. We consider there is the potential for the original fuel tanks to remain decommissioned in-situ under the forecourt. As with any petrol filling station, additional areas of hydrocarbon impacted soil may be encountered during redevelopment works. In particular these include areas we have been unable to investigate due to the restrictions of working on an operational filling station (i.e. site buildings, petroleum installation and services). We therefore recommend that verification sampling of excavations be undertaken during the site demolition and decommissioning works to confirm no additional contamination is present.	
Please refer to our report for our recommendations in full. Your attention is drawn to the Notice to Interested Parties included as Attachment One.		

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Attachment One:	Notice to Interested Parties
Attachment Two:	Site Plans and Borehole Logs
Attachment Three:	Chemical Analysis Certificates
Attachment Four:	Environmental Data Report
Attachment Five:	Public Utility Drawings

1 Introduction

1.1 The Purpose of This Assessment

We have been commissioned by The Co-Operative Group Ltd (Coop) to carry out an environmental assessment for their Petrol Gomersal site on Oxford Road, Gomersal, near Cleckheaton. We understand that Coop propose to redevelop the site; replacing the petroleum installation.

The purpose of the assessment is to complete an appraisal of the ground conditions at the site. This was completed to determine whether the quality of soil and/or groundwater underlying the site has been impacted with hydrocarbons associated with past operations and to provide information to assist in waste classification of excavated soils during the redevelopment works. Our investigation data is also designed to assist in designing temporary works and permanent foundations for the proposed future petroleum installation.

This assessment has been undertaken in accordance with the guidelines presented in the Environment Agency, 'Model Procedures for the Management of Land Contamination'¹ and Environment Agency Guidance on Requirements for Land Contamination Reports².

All the activities comprising this assessment were carried out in accordance with the procedures set out in our Quality Manual. Your attention is drawn to the Notice to Interested Parties included as Attachment One.

1.2 The Scope of This Assessment

Our assessment of the site was carried out in the following parts:

- Preliminary Risk Assessment comprising a desk based review of site specific information that is readily available in the public domain to develop a conceptual site model and assess potential pollutants, pathways and receptors associated with the site;
- Underground utilities survey of the site using radio detection techniques to identify the location of below ground services at the site. We also obtained drawings showing the locations of the various public utilities in the vicinity of the site;
- A walkover inspection to identify visual signs of pollution or potentially polluting activities;
- An intrusive site investigation comprising five boreholes drilled using our Comacchio Geo205 drilling rig configured for dynamic sampling and rotary rock coring. Three of these were completed as groundwater wells. Logging of soil cores, collection of soil samples;
- A return visit to carry out groundwater monitoring and obtain representative groundwater samples from the monitoring wells we installed at the site;
- Collection of a water sample from the drinking water supply for analysis.
- Chemical analysis of representative soil and groundwater samples;
- Provision of this report, including the development of a Conceptual Site Model to assess potential pollutants, pathways and receptors associated with the site and completion of a Qualitative Risk Assessment;

1.3 Previous Reports Relating to the Site

We do not hold, and have not been provided with any, previous reports relating to the site.

¹ DEFRA and Environment Agency (2004) "Model Procedures for the Management of Land Contamination" Report CLR 11 Environment Agency, Bristol.

² Environment Agency (2005) "Guidance on Requirements for Land Contamination Reports" Version 1.

1.4 Proposed Redevelopment - Active Planning Applications

Data
We understand that a planning application has been submitted to Kirklees Council for the replacement of the fuel tanks at the site (Planning Application Ref. 2017/62/90130/E). Error! Picture switch must be the first formatting switch.We understand that this report is to be submitted in support of the planning application for the site's redevelopment, as detailed above. Whilst our assessment has not been compiled to directly satisfy any specific planning conditions the information contained in this report may assist in satisfying any such requirements. We note however that further works may be required.

Table One: Planning Application Details

2 Desk-based Information

2.1 Site Description, Location and Setting

Geographical Location and Description		
Site Description	The site comprises a Co-Operative branded petrol filling station. There is a combined petrol and diesel forecourt, covered with an overhead canopy, Cooperative branded shop building and car wash hall / jet wash facilities.	
Grid Reference	420960 425910	Location: The site is located off Oxford Road (A651) on the eastern edge of Gomersal and ~2km to the north east of Cleckheaton.
Height	~145m Above Ordnance Datum	
Size (approx)	~0.2 Ha	

Table Two: Site Location and Setting

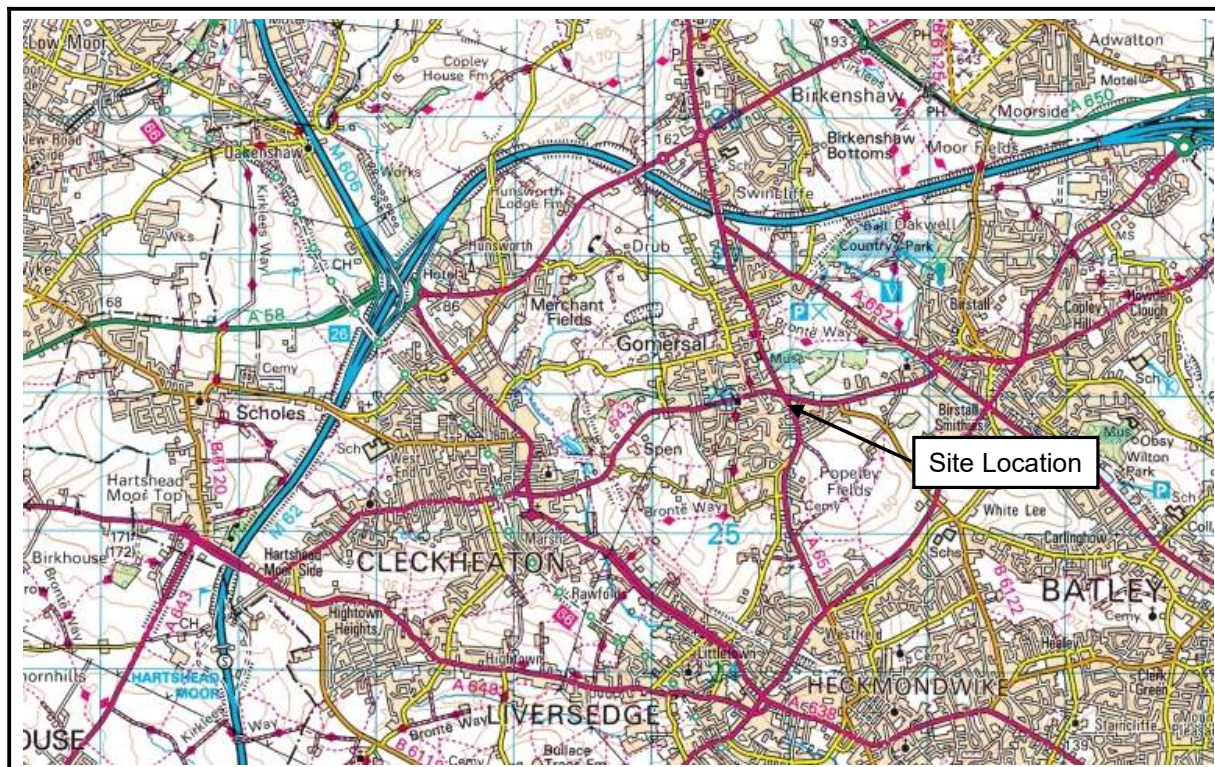


Figure One: Site Location Plan



Figure Two: Aerial Photograph Showing Site Layout

Direction	Details
North	To the immediate north of the site is a retail unit, currently used as a shop and nursery / childcare club. Beyond this is Spen Road and then predominantly residential properties.
East	Oxford Road forms the eastern boundary of the site, with residential properties beyond (~20m). Further residential properties with gardens beyond.
South	Residential properties with car parking to the immediate south (~20m). Further residential properties beyond.
West	Open grassed areas / gardens lie to the immediate west of the site, probably associated with a three storey residential flats (~80m).

Table Three: Surrounding Land Use

2.2 Geology, Hydrogeology and Hydrology

	Geological Unit	Description	Estimated Thickness	Data Source
Drift Geology	None shown present			British Geological Survey (BGS) mapping
Solid Geology	Pennine Lower Coal Measures	Generally comprising interbedded layers of mudstone and sandstone with occasional limestone, ironstone and coals	>50m	
BGS Borehole Data	The BGS hold records for various boreholes in the surrounding area. A borehole ~120m to the west of the site (BGS Ref. SE22NW460) recorded clay soils to 2.8m depth, overlying mudstone units to the termination depth of 10m. There are records of several shallow boreholes to the north east (~150m) and south (~150m) of the site that all encountered clay to ~3m depth.			British Geological Survey Website

Table Four: Regional Geology

	Geological Unit	Environment Agency Aquifer Classification	Data Source
Drift Geology	None shown present		Environment Agency
Solid Geology	Pennine Lower Coal Measures	Secondary Aquifer (Class A)	
BGS Borehole Data	The BGS logs recorded in the vicinity of the site are all shown as being dry on completion.		BGS

Table Five: Regional Hydrogeology

	Description	Distance	Direction	Data Source
Surface Water Features	Spring / Tributary of Church Beck	160m	E	Ordnance Survey mapping
	Church Beck	~250m	N	

Table Six: Regional Hydrology

Abstraction	Surface Water			Groundwater		
	Distance	Direction	Purpose	Distance	Direction	Purpose
Nearest	None within 1km of the site			469m	W	General Industrial
Nearest Public Water Supply	None within 1km of the sit			None within 1km of the sit		
Source Protection Zone	Site does not lie within designated Source Protection Zone					
Data sourced from Envirocheck report or Environment Agency web-site						

Table Seven: Nearest Surface and Groundwater Abstractions

2.3 Site History

Date	Review of Map – Description of Land Use at Site and in the Immediate Surrounding Area	Potentially Contaminative Land-use	
		On-site	Off-site
1894	The site is shown developed with terraced residential properties, with a 'Pump' (presumably water) midway along southern boundary. There is a road that forms the eastern boundary (Oxford Rd), with another road (Spen Rd) to the immediate north. There are residential properties to the south, south east and north west of the site, with a large property and gardens (Hill Top House) to the immediate west. The area to the immediate east is undeveloped. There is a school to the north east (~100m) and a large Mill with mill pond shown to the north west (>200m).	None identified	None identified
1908 / 1922	No significant changes to the site. A tramway is now shown running along Oxford Road.		
1938 / 1956	No changes to the site, which remains shown in residential use. To the east, residential properties are now shown along Oxford Road. Extensive residential development is shown to the west (>150m). No other significant changes to the surrounding area shown.		
1971	The site is shown cleared of buildings and comprises an empty plot. No significant changes to the surrounding area.		
1989 / 1993	The site is shown redeveloped and in use as a petrol station. The layout of buildings (in the northern end of the site) and canopy is similar to the current configuration. Further residential development is shown to the south.	Petrol station use	
2000	No significant changes.		
2016	No changes to the site or immediate surrounding area. The large mill to the north west is shown redeveloped as residential housing.		

Table Eight: Historical Maps Review

Date	Application reference number	Local Planning Authority – Planning Records (from local planning authority web-site)	Development carried out?
1995 / 2000	95/62/92056	Application for the installation of jet wash bays and the subsequent application for the extension of operating hours of the jet wash.	Jet wash in operation in 2000.
2006	2006/90082	Application for the extension and alterations to the existing filling station.	No - shop extension not present.
2000 - 2016	Various	Various applications for the installation of illuminated signs and advertising signs.	-
2017	2017/90259	Current planning application.	-

Table Nine: Planning Records

2.4 Additional Information

Flood Risk Zone	Flood Risk	Data Source
Zone 1	An area where flooding from rivers and the sea is very unlikely. There is less than a 0.1 per cent (1 in 1000) chance of flooding occurring each year. The majority of England and Wales falls within this area.	Environment Agency Website

Table Ten: Preliminary Flood Risk Assessment

Risk	Description	Data Source
Radon Risk	The site is located in an area where the National Radiological Protection Board have determined that <1% houses exceed the recommended Action Level for radon for existing homes in the UK of 200Bqm ⁻³ (averaged over a year). No radon protective measures are necessary in the construction of new dwellings or extensions.	Envirocheck report / UK Radon interactive map
Nearest Landfill	The Environment Agency records show that there are no current or past landfill sites within 250m of the site. The site is therefore unlikely to be at-risk of impact from elevated concentrations of hazardous ground gases that are commonly associated with landfill sites e.g. methane or carbon dioxide. As such we do not consider monitoring or assessment are required as part of any future investigation works and no special precautions are likely required to prevent landfill gas infiltration into the current building or future developments at the site.	Envirocheck report
Risk of Coal Mining	The site is located in an area considered to be at potential risk from coal mining activities. The Coal Authority records numerous recorded mine entries in the vicinity of the site location, generally ~300m to the south or west. The site is located in a 'development high risk area' and is the location of probable coal outcrop. The Coal Authority also show the site location to be at risk of probable historic surface mining for coal. Further information can be obtained from the Coal Authority in the form of a Coal Mining Report. This may be required as part of the planning application process for the site.	Coal Authority Interactive Map

Table Eleven: Landfill, Radon Gas and Coal Mining Risk

Receptor	Description	Data Source
Environmentally Sensitive Sites	None identified within 1km of the site.	Envirocheck report

Table Twelve: Other Environmental Receptors

3 Investigation Results

3.1 Summary of Site Walkover and review of Petroleum Register

Item	Details	Data		
General Site Information	Buildings	The site building is a single storey, flat roofed, stone structure with a pitched tile roof detail and steel / glass panels along the forecourt facing wall. This appeared to be in good condition.		
	Canopy	The canopy covers the central forecourt and was in good condition. It has a clearance height of 4.3m.		
	Site Pavement	The main dispensing forecourt, area in front of the shop and tank farm is covered with concrete hard standing. This was in good condition generally, with some evidence of repairs having been completed. The western area of the forecourt, used for car parking, is paved with tarmac, again, in good condition. There is also a former jet wash bay on the western site boundary that is covered with concrete.		
	General condition of the site	The site appears to be in good condition generally. We understand that the canopy and shop were only recently re-branded in the new Coop livery.		
Review of Petroleum Installation	Tank information	Site records: Petroleum License issued by West Yorkshire Fire and Rescue Service for 106,106litres of petrol with an expiry date of 30th June 2017. There are five underground storage tanks located under southern end of the forecourt.		
		Tank	Contents	Capacity
		One	Unleaded	35,400litres
		Two	Super Unleaded	17,500litres
		Three	Diesel	17,500litres
		Four	Unleaded	35,400litres
		Five	Diesel	21,700litres
	Tank fills, tank construction, tank testing	Tanks are filled via below ground, offset, fill points located on the southern site boundary. The Petroleum Officer reports that the tanks are constructed from single skin steel and date from 1988 (~29years old). There was nothing contained in the site records to indicate that the tanks have been integrity tested.		
	Tank access chambers	Tank access chambers were constructed from brick and were found in relatively poor condition. It would appear that the brick was originally rendered with cement but much of this has fallen into the base of the chambers. All were found dirty (silty) with concrete rubble at the base. There was some evidence of foam sealing of ducts, although not all.		
	Fuel supply lines	The underground utilities survey indicated that the fuel supply pipework is constructed from steel, with a plastic line encountered in the chamber to Tank Five (possible fuel line repair?).		

Continued overleaf

Environmental Assessment Report – Petrol Gomersal, Oxford Road, Gomersal

Continued

Item	Details	Data
Review of Petroleum Installation	Pump Islands	There are three pump islands located under the central canopy. These are raised islands with tiled tops and steel band surrounds. They were in good condition, although we noted staining of the forecourt pavement around each island.
	Dispensers	The dispensers are Tolkiem Quantum; each comprising a twin facing triple nozzle unit. These were found in good condition generally.
	Vents	Vents are located on the southern boundary. These were in good condition.
	Vapour recovery	Vapour recovery systems are active at the site, with an above ground vapour recovery connection located adjacent to the offset fill chambers on the southern boundary. The vapour recovery system was last tested during October 2015 (missing records?).
	Wet-stock reconciliation	Tank contents are monitored using a Veeder Root TLS 350 system with wet-stock data monitored off-site by a third party wet-stock specialist (Fairbanks Environmental Ltd).
Site Drainage	Surface water drainage and discharges	Surface water drainage comprises a series of box gullies located around the entire dispensing forecourt area, a box gully across the site exit road and additional pot gullies located in the parking area to the west of the forecourt. Surface water discharges to a mains foul sewer to the north and east of the site (under Oxford Road?) via a three chamber interceptor. Roof water from the shop and canopy discharges directly to a surface water sewer to the north and east of the site.
	Forecourt Interceptor	The interceptor appears to be constructed from GRP, with deep brick access chambers (top of interceptor located ~1.95m below ground level). We could not complete a detailed inspection of the chambers due to their depth, but we did not observe any significant hydrocarbon sheen on any of the chambers. Site records indicate the interceptors were last emptied during May 2016 (annual cycle).
	Former Jet Wash.	There are two silt trap gullies in the location of the former jet wash facilities on the western site boundary. These discharge directly to the main site drainage and appear to pass through the interceptor (although the routes shown on the survey drawing are shown as 'assumed')..
	Foul	Effluent from the shop toilets discharges directly to the foul sewer at the north eastern corner of the site
Other Information	Leaks or Losses	The site manager advised us that that the site has no anomalous wet-stock readings within the last six months.
	Abandoned Tanks	The Petroleum Officer reports the site was first licensed as a petrol station prior to 1974. The last redevelopment on record was in 1988 and the current petroleum installation dates from this time. We therefore consider there is the potential for former fuel tanks to remain under the forecourt, decommissioned in-situ

Table Thirteen: Site Walkover

Item	Details
Petroleum Officer Data Search	The Petroleum Officer provided details relating to the petroleum installation at the site during a search request completed during December 2016. Records indicate that the site has been active as a petrol filling station since at least 1974. The Petroleum Officer provided details regarding the age and construction of the tanks (information used in the previous section). There are no records of any spills or losses from the petroleum installation.

Table Fourteen: Information Provided by Petroleum Officer3.2 Details of our Investigation

Item	Details	Data
Service Clearance	Underground utilities survey	We have carried out a survey using radio detection methods of utilities buried underneath the site. Our survey was suitable for identifying power cables, metallic fuel pipework, surface water and foul water drainage. The technique that we used is unable to detect any plastic pipework or fibre optic cabling present. The results of our survey are included in Attachment Two. We also contacted the various public utility providers for information relating to mains utilities present in the site vicinity.
	On-site Service Clearance	Prior to drilling all boreholes locations were subject to a final service check using a Cable Avoidance Tool (CAT) scanner.
Drilling	Drilling method	Comacchio Geo205 (configured for dynamic sampling and rotary rock coring). Our site investigation was completed between the 16th and 18th January 2017.
	Borehole details	5No. to max depth of 8.0m. Borehole locations are provided in the figure included in Attachment Two.
	Monitoring wells	Three boreholes were completed as groundwater monitoring wells. We did not encounter any existing monitoring wells at the site.
Sampling procedures	Soil	Representative soil samples were recovered from each borehole in sealed liners and logged on-site by a suitably qualified technician.
	Groundwater	We returned to the site to complete groundwater monitoring on 27th January 2017. Prior to sampling, resting groundwater levels were recorded using an oil / water interface probe. Samples were collected, using disposable bailers, once purging of standing water had been completed.
	Drinking water supply	We obtained a sample of the sites drinking water from the shop building for screening analysis.
	Sample preservation	Sub-samples were preserved in glass jars or bottles and stored in cool boxes during transportation to the laboratory for subsequent analysis.

Table Fifteen: Drilling and Sampling Methodologies

Target / Rationale For Specific Borehole Locations	Borehole				
	One	Two	Three	Four	Five
Below ground tank farm	x	x	x		x
Forecourt - fuel pumps / lines	x	x	x	x	x
Location of proposed tank farm excavation	x		x		x

Table Sixteen: Borehole Strategy

3.3 Site Geology

Item	Details				Data					
Geology encountered	Layer I	Made Ground			LOOSE to MEDIUM DENSE grey GRAVEL (Type I imported backfill) or SOFT grey CLAY with gravel.					
	Layer II	Pennine Lower Coal Measures			SOFT becoming STIFF or VERY STIFF brown grey mottled CLAY with frequent mudstone gravel. Becoming increasingly friable with depth, grading to mudstone.					
	Layer III				WEAK brown grey laminated MUDSTONE with occasional thin layer or seams of COAL.					
Borehole	One		Two		Three		Four		Five	
Soil layer	from	to	from	to	from	to	from	to	from	to
Layer I	0.2	0.7	0.2	0.4	0.15	0.35	0.2	0.4	0.2	0.6
Layer II	0.7	2.4	0.4	4.3	0.35	4.5	0.4	1.8	0.6	2.1
Layer III	2.4	>8.0	4.3	>6.9	4.5	>7.0	1.8	>3.7	2.1	>3.5

All dimensions in metres below ground level

Table Seventeen: Soil Stratigraphy

3.4 Groundwater Monitoring Data

Borehole	Groundwater Strike (mbgl)	Borehole Elevation (mASD)	Groundwater Rest Level - 27 th Jan 2017		Comments
			(m bgl)	(mASD)	
One	~5.5	99.937	3.761	96.176	Permeability of 0.367m/day calculated.
Two	~4.3	100.411	3.698	96.713	Permeability of 0.012m/day calculated.
Three	~5.1	100.195	2.908	97.287	Permeability of 0.047m/day calculated.
Groundwater Flow Direction	Based on our initial groundwater monitoring data, we have calculated a groundwater flow direction to the west.				

Note: m bgl denotes metres below ground level, mASD denotes metres above arbitrary site datum

Table Eighteen: Groundwater Monitoring Data

3.5 Visual and Olfactory Signs of Hydrocarbon Contamination

Borehole	Soil	Groundwater
One	No odours or staining noted.	No odour or sheen noted.
Two	No odours or staining noted.	No odour or sheen noted.
Three	No odours or staining noted.	No odour or sheen noted.
Four	No odours or staining noted.	No groundwater encountered. Location not installed as a well.
Five	No odours or staining noted.	

Table Nineteen: Visual and Olfactory Signs of Hydrocarbon Contamination

4 Chemical Analysis Results

4.1 Chemical Analysis Rationale

Analysis	Rationale	No of samples	
		Soil	Water
Total petroleum hydrocarbons (TPH) reported by carbon range	Representative of compounds present in petrol, diesel and lube oils	5	-
Total petroleum hydrocarbons (TPH) reported by carbon range and with aromatic and aliphatic speciation	Representative of compounds present in petrol, diesel and lube oils but with additional information regarding composition of contaminant source.	5	3
Benzene, toluene, ethylbenzene and xylenes (BTEX)	Representative of compounds present in petrol	5	3
Drinking water screen - analysis of tap water sample for TPH and BTEX	To verify quality of water supply	-	1
Polycyclic aromatic hydrocarbons (PAH)	Representative of compounds present in diesel and lube oil	5	3
Heavy Metals and Asbestos Screen	Representative of compounds commonly encountered in imported Made Ground.	5	-
Total Organic Carbon (TOC / Fraction Organic Carbon (FOC)	Site-specific data used within risk assessment process	3	-
Sulphates and pH	For use in identifying hazardous ground conditions that could impact on the proposed redevelopment.	5	3
Waste Acceptance Criteria suite	To assist with the classification of soils	1	-
The results of our hydrocarbon analysis are summarised in the tables below. Certificates for all chemical analysis are included in Attachment Three.			

Table Twenty: Schedule of Analysis – Soil Samples

4.2 Soil Analysis

Total Petroleum Hydrocarbon (TPH) – Reported by Carbon Band	Sample Details and Concentration (mg/kg)				
	BH1	BH2	BH3	BH4	BH5
	2.2m	6.2m	5.2m	3.6m	2.6m
>C ₈ -C ₁₀	<0.5	<0.5	<0.5	<0.5	<0.5
>C ₁₀ -C ₁₂	<0.5	<0.5	<0.5	0.708	<0.5
>C ₁₂ -C ₁₆	<0.5	<0.5	2.53	0.582	<0.5
>C ₁₆ -C ₂₁	<0.5	<0.5	8.47	<0.5	<0.5
>C ₂₁ -C ₃₅	<0.5	<0.5	8.67	<0.5	<0.5

Table Twenty-one: TPH Analysis Results – Soil

Total Petroleum Hydrocarbon (TPH) – Reported by Carbon Band		Sample Details and Concentration (mg/kg)				
		BH1	BH2	BH3	BH4	BH5
		3.4m	3.0m	3.5m	0.8m	1.7m
Aliphatic Fraction	C ₆₋₈	<2.5	<2.5	<2.5	<2.5	<2.5
	>C ₈ -C ₁₀	<2.5	<2.5	<2.5	<2.5	<2.5
	>C ₁₀ -C ₁₂	<2.5	<2.5	<2.5	<2.5	<2.5
	>C ₁₂ -C ₁₆	<5	<5	<5	<5	<5
	>C ₁₆ -C ₂₁	<5	<5	<5	<5	<5
	>C ₂₁ -C ₃₅	<10	<10	<10	<10	<10
Aromatic Fraction	C ₆₋₈	<1	<1	<1	<1	<1
	>C ₈ -C ₁₀	<1	<1	<1	<1	<1
	>C ₁₀ -C ₁₂	<1	<1	<1	<1	<1
	>C ₁₂ -C ₁₆	<2.5	<2.5	<2.5	<2.5	<2.5
	>C ₁₆ -C ₂₁	<2.5	<2.5	<2.5	<2.5	<2.5
	>C ₂₁ -C ₃₅	<2.5	<2.5	<2.5	<2.5	<2.5

Table Twenty-two: TPH Analysis (ali/aro) Results – Soil

MTBE, BTEX Compounds and Volatile TPH	Sample Details and Concentration (mg/kg)				
	BH1	BH2	BH3	BH4	BH5
	2.8m	0.7m	1.4m	3.6m	2.2m
MTBE	<0.1	<0.1	<0.1	<0.1	<0.1
Benzene	<0.1	<0.1	<0.1	<0.1	<0.1
Toluene	<0.1	<0.1	<0.1	<0.1	<0.1
Ethyl-benzene	<0.1	<0.1	<0.1	<0.1	<0.1
p+m Xylene	<0.1	<0.1	<0.1	<0.1	<0.1
o Xylene	<0.1	<0.1	<0.1	<0.1	<0.1
TPH C ₆₋₈	<0.5	<0.5	<0.5	<0.5	<0.5
TPH >C ₈ -C ₁₀	<0.5	<0.5	<0.5	<0.5	<0.5
TPH >C ₁₀ -C ₁₂	<0.5	<0.5	<0.5	<0.5	<0.5

Table Twenty-three: MTBE, BTEX and Volatile TPH Analysis Results – Soil

Polycyclic Aromatic Hydrocarbon (PAH) Compound	Sample Details and Concentration (mg/kg)				
	BH1	BH2	BH3	BH4	BH5
	0.8m	1.2m	1.4m	2.4m	3.4m
Naphthalene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Pyrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chrysene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Indeno(1,2,3-cd)pyrene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenzo(ah)anthracene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Total PAHs	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6

Table Twenty-four: PAH Analysis Results – Soil

Inorganic Element	Sample Details and Concentration (mg/kg)				
	BH1	BH2	BH3	BH4	BH5
	0.4m	0.3m	0.2m	0.3m	0.9m
Arsenic	8	12	12	< 2	4
Barium	60	64	70	63	57
Beryllium	< 0.5	1.1	2.5	0.5	0.9
Boron (Water Soluble)	< 1	< 1	< 1	< 1	< 1
Cadmium	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium	8	21	24	20	21
Chromium (Hexavalent)	< 2	< 2	< 2	< 2	< 2
Copper	61	31	58	8	13
Lead	71	28	30	10	23
Mercury (Total)	< 1	< 1	< 1	< 1	< 1
Nickel	15	26	54	13	10
Selenium	< 3	< 3	< 3	< 3	< 3
Vanadium	13	23	31	19	25
Zinc	56	63	94	61	57

Table Twenty-five: Heavy Metals Analysis Results – Soil

Asbestos Screen / Identification	Sample Details and Results				
	BH1	BH2	BH3	BH4	BH5
	0.4m	0.3m	0.2m	0.3m	0.9m
Asbestos Screen	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Asbestos ID	-	-	-	-	-

Table Twenty-six: Asbestos Screening Analysis Results – Soil

Total Organic Carbon (TOC) Content	Sample Details and Results		
	BH2	BH4	BH5
	4.9m	1.7m	3.0m
Total Organic Carbon (TOC) %	< 0.1	< 0.1	0.5
Soil Organic Carbon (SOM)%*	<0.172	<0.172	0.86

* - SOM = Soil Organic Matter. Assumed to comprise 58% TOC - calculated as (TOC) x 1.72

Table Twenty-seven: Total Organic Carbon Analysis Results - Soil Samples

4.3 Geotechnical Testing - Soils

Rationale	No of soil samples/tests
Atterberg Limits: provides information about the plasticity of a cohesive soil.	3
Unconsolidated Undrained Triaxial Test: provides the undrained shear strength of cohesive soils.	3
The results of our geotechnical field testing are included on the relevant borehole logs.	

Table Twenty-eight: Schedule of Analysis

4.3.1 Laboratory Geotechnical Testing - Soils

Analyte	Sample Details and Results (%)		
	BH2	BH3	BH5
	2.2m	0.7m	1.9m
Liquid Limit	60	46	48
Plastic Limit	29	19	25
Moisture Content	39	15	27
Passing 425um Sieve	97	100	100

Table Twenty-nine: Atterberg Test Results and A-line Plot

Analyte	Unit	Sample Details		
		BH2	BH3	BH5
		2.2m	0.7m	1.9m
Length	mm	140	139	143
Diameter	mm	68.4	68.7	68.7
Bulk Density	Mg/m3	1.9	2.14	2
Dry Density	Mg/m3	1.36	1.86	1.57
Moisture Content	%	40	15	27
Axial Strain	%	11.6	9.39	8.88
Undrained Shear Strength	kN/m2	25	173	86

Table Thirty: UU Triaxial Test Results

4.4 Groundwater Analysis

Total Petroleum Hydrocarbon (TPH) – Reported by Carbon Band		Sample Details and Concentration (µg/l)		
		BH1	BH2	BH3
		3.8m	3.7m	2.9m
Aliphatic Fraction	C ₆₋₈	<50	<50	<50
	>C ₈ -C ₁₀	<50	<50	<50
	>C ₁₀ -C ₁₂	<50	<50	<50
	>C ₁₂ -C ₁₆	<50	<50	<50
	>C ₁₆ -C ₂₁	<50	<50	<50
	>C ₂₁ -C ₃₅	<50	<50	<50
Aromatic Fraction	C ₆₋₈	<50	<50	<50
	>C ₈ -C ₁₀	<50	<50	<50
	>C ₁₀ -C ₁₂	<50	<50	<50
	>C ₁₂ -C ₁₆	<50	<50	<50
	>C ₁₆ -C ₂₁	<50	<50	<50
	>C ₂₁ -C ₃₅	<50	<50	<50

Table Thirty-one: TPH Analysis (ali/aro) Results – Groundwater

MTBE, BTEX Compounds and Volatile TPH Groups	Sample Details and Concentration (µg/l)		
	BH1	BH2	BH3
	3.8m	3.7m	2.9m
MTBE	<50	<50	<50
Benzene	<10	<10	<10
Toluene	<10	<10	<10
Ethyl-benzene	<10	<10	<10
p+m Xylene	<10	<10	<10
o Xylene	<10	<10	<10
TPH C ₆₋₈	<50	<50	<50
TPH >C ₈ -C ₁₀	<50	<50	<50
TPH >C ₁₀ -C ₁₂	<50	<50	<50

Table Thirty-two: MTBE, BTEX and Volatile TPH Analysis Results – Groundwater

Polycyclic Aromatic Hydrocarbon (PAH) Compound	Sample Details and Concentration (µg/l)		
	BH1	BH2	BH3
	3.8m	3.7m	2.9m
Naphthalene	<0.01	<0.01	<0.01
Acenaphthylene	<0.01	<0.01	<0.01
Acenaphthene	<0.01	<0.01	<0.01
Fluorene	<0.01	<0.01	<0.01
Phenanthrene	<0.01	<0.01	<0.01
Anthracene	<0.01	<0.01	<0.01
Fluoranthene	<0.01	<0.01	<0.01
Pyrene	<0.01	<0.01	<0.01
Benzo(a)anthracene	<0.01	<0.01	<0.01
Chrysene	<0.01	<0.01	<0.01
Benzo(b)fluoranthene	<0.01	<0.01	<0.01
Benzo(k)fluoranthene	<0.01	<0.01	<0.01
Benzo(a)pyrene	<0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene	<0.01	<0.01	<0.01
Dibenzo(ah)anthracene	<0.01	<0.01	<0.01
Benzo(ghi)perylene	<0.01	<0.01	<0.01
Total PAHs	<0.16	<0.16	<0.16

Table Thirty-three: PAH Analysis Results – Groundwater**4.5 Drinking Water Supply Analysis**

Total Petroleum Hydrocarbon (TPH) – Reported by Carbon Band	Sample Details and Concentration (µg/l)
	Tap Sample (Site Shop)
>C ₈ -C ₁₀	<10
>C ₁₀ -C ₁₂	<10
>C ₁₂ -C ₁₆	<10
>C ₁₆ -C ₂₁	<10
>C ₂₁ -C ₃₅	<10

Table Thirty-four: TPH Analysis Results – Tap Sample

MTBE and BTEX Compounds	Sample Details and Concentration (µg/l)
	Tap Sample (Site Shop)
MTBE	<5
Benzene	<1
Toluene	<5
Ethyl-benzene	<5
p+m Xylene	<5
o Xylene	<5

Table Thirty-five: BTEX and MTBE Analysis Results – Tap Sample

5 Conceptual Site Model

5.1 Summary of Investigation Findings

Details	Data
Geology and hydrogeology	Geology at the site has been proved to comprise a thin layer of generally granular Made Ground, overlying clay that becomes increasingly friable and then grades into mudstone bedrock from ~3m depths. The mudstone was found to be finely bedded / laminated and we encountered thin coal layers in several of the boreholes. We have interpreted the underlying geology to comprise units of the Pennine Lower Coal Measures, with the shallow clay representing the weathered near surface layers. Groundwater was encountered at ~4m - 5m depths in the underlying mudstone units during the borehole construction. Resting groundwater levels were recorded at ~3.5m depths. We have calculated a groundwater flow direction to the west and our field tests suggest a low to moderate permeability.
Surface water features	As anticipated. No surface water features identified close to the site.
Site users and neighbours	As anticipated. Mixture of commercial and residential.
Identified contaminants	We have not identified elevated concentrations of hydrocarbons in any of the soil samples we analysed. Low concentrations of weathered diesel or waste oil range hydrocarbons were identified in a single deep soil sample from BH3, and trace concentrations of hydrocarbons were recorded in soils from BH4 at 3.6m. We did not detect any elevated heavy metal concentrations or asbestos fibres in the samples of Made Ground that we submitted for screening analysis. No detectable concentrations of hydrocarbons were identified in any of the groundwater samples that we obtained from our three monitoring wells.

Table Thirty-six: Summary of Investigation Findings

5.2 Conceptual Site Model

Contaminant	Pathway	Receptor	Viable Pollutant Linkage?
No significant concentrations of hydrocarbons identified in underlying soils or groundwater. No elevated concentrations of metals identified. No asbestos fibres detected in samples of Made Ground tested.	Ingestion and dermal contact	Site workers	No - site covered with hard standing; this will act as a barrier and mitigate risk of impact
	Permeation of volatile hydrocarbons into drinking water supply service pipes		No - no detectable concentrations of hydrocarbons identified in drinking water sample.
	Volatilisation of contaminants to indoor/outdoor air (either direct from soils or dissolved in groundwater)		No - no elevated concentrations of hydrocarbons identified in underlying soils and no detectable hydrocarbons identified in underlying groundwater.
	Off-site migration of contaminants: volatilisation to indoor/outdoor air (vapours from on-site soils or via lateral migration of dissolved compounds)	Residential properties close to the site to the south, east and west. Commercial unit to the north.	No - no detectable concentrations of hydrocarbons identified in underlying groundwater.
	Downward migration of contaminants to groundwater	Pennine Lower Coal Measures - classified as a Secondary A aquifer.	
	Off-site migration of contaminants dissolved in groundwater leading to direct impact of environmental receptors	Spring / Church Beck - 160m E	
		Groundwater abstraction identified 469m W	
		No environmentally sensitive site identified	

Table Thirty-seven: Possible Pollutant Linkages

Item	Data
Has our qualitative assessment confirmed that a viable pollutant linkage(s) exist at the site?	No
We therefore do not consider further (quantitative) risk assessment to be required at this time. See below for our conclusions and any recommendations relating to the data produced during our investigation.	

Table Thirty-eight: Results of Qualitative Risk Assessment

6 Conclusions and Recommendations

Conclusions
The results of our environmental assessment indicate the following: ➤ The site is located in an area of low to moderate environmental sensitivity with respect to underlying groundwater and surface water receptors. The underlying Pennine Lower Coal Measures are classified as a Secondary A aquifer unit and there is a licensed groundwater abstraction for industrial uses ~480m from the site. There is a spring / stream ~160m to the east. The surrounding area is predominantly residential, with properties to the immediate south and east and beyond gardens to the west. ➤ Records provided by the Petroleum Officer indicates that site has been a petrol station since at least the 1970s. It was last redeveloped in 1988 and the current petroleum installation dates from this time. We consider there is the potential for the original fuel tanks to remain decommissioned in-situ under the forecourt. ➤ Underlying geology at the site has been proved to comprise a thin layer of generally granular Made Ground, overlying clay that becomes increasing friable and then grades into mudstone bedrock from ~3m depths. The mudstone was found to be finely bedded / laminated and we encountered thin coal layers in several of the boreholes. We have interpreted the underlying geology to comprise units of the Pennine Lower Coal Measures, with the shallow clay representing the weathered surface layers. ➤ Groundwater was encountered at ~4m - 5m depths in the underlying mudstone units during the borehole construction. Resting groundwater levels were recorded at ~3.5m depths. We have calculated a groundwater flow direction to the west and our field tests suggest a low to moderate permeability. ➤ We have not identified elevated concentrations of hydrocarbons in any of the soil samples we analysed. Low concentrations of weathered diesel or waste oil range hydrocarbons were identified in a single deep soil sample from BH3, and trace concentrations of hydrocarbons were recorded in soils from BH4 at 3.6m. ➤ We did not detect any elevated metal concentrations or asbestos fibres in the samples of Made Ground that we submitted for screening analysis. ➤ No detectable concentrations of hydrocarbons were identified in any of the groundwater samples we collected. ➤ Based on the results of our site investigation and subsequent qualitative risk assessment, we do not consider there to be any viable pollutant linkages present at the site. On this basis the site is considered suitable for continued commercial use. We do not consider further investigation, risk assessment or remedial works will be required as part of the proposed redevelopment works.

Table Thirty-nine: Conclusions

Recommendations
We make the following recommendations relating to the site: ➤ As with any petrol filling station, additional areas of hydrocarbon impacted soil may be encountered during redevelopment works. In particular these include areas we have been unable to investigate due to the restrictions of working on an operational filling station (i.e. site buildings, petroleum installation and services). We therefore recommend that verification sampling of excavations be undertaken during the site demolition and decommissioning works to confirm no additional contamination is present.
Your attention is drawn to the Notice to Interested Parties included as Attachment One.

Table Forty: Recommendations

7 Recommendations for Redevelopment Works

Based on our site investigation data, we make a number of recommendations relating to temporary works and construction issues at the site. These are contained in the following table.

Item	Details	
Side slope stability	Foundation excavations are likely to be formed within clay or weak weathered mudstone bedrock with occasional coal seams. Excavations are likely to remain stable for short periods without support or being battered back. We recommend that a detailed inspection of the side slopes be carried out in order to assess fully any support measures required.	
Foundations in soft ground	We recommend that Made Ground be replaced with suitably compacted inert fill material in the vicinity of proposed foundations to ensure a suitable bearing capacity.	
Piling (sheets) into Dense/Hard Ground	We encountered weathered bedrock (Pennine Lower Coal Measures units) from around 3m depths. Rotary coring methods were required to penetrate the underlying bedrock units. We do not consider driven sheet piles will penetrate the underlying soils to sufficient depth to form a support measure for the tank farm excavation.	
De-watering	Underlying groundwater was noted at between ~4m - 5m depths during borehole construction, with resting levels encountered in the wells we installed at depths of ~3m below ground level. We recorded low to moderate levels of permeability in the wells. We consider de-watering of excavations for the new tank farm may well be required (excavations below ~3.0m) will be required. Please note, however, that seasonal fluctuations in groundwater level due to extended periods of heavy rain may lead to the presence of groundwater being present at shallow depths under the site.	
Treatment of Wastewater Prior to Discharge	We have not identified any hydrocarbon impact of underlying groundwater under the site. A temporary license should be obtained from the relevant authority/sewerage undertaker if waste water is to be discharged to the sewer system. However, any waste water encountered with the existing tank farm or interceptor may require treatment prior to disposal or be removed from site by tanker and disposed of appropriately.	
Waste classification	Chemical analysis results indicate excavated soils that are sent to landfill are likely to be classified as:	Inert/Non-hazardous
	As with any petrol filling station site areas of soil with greater concentrations of hydrocarbon impact (or other potential contaminants) may be encountered during redevelopment works and lead to a higher classification. We recommend that we classify all potentially impacted soils prior to disposal. All waste soils and fill materials must be disposed of at an appropriately licensed disposal site. A registered waste haulage contractor must transport all waste soils. It is the responsibility of the site owner to ensure that wastes are safely transported and disposed of correctly.	

Continued overleaf:

Continued:

Item	Details
Asbestos in Made Ground	We undertook asbestos screening of the Made Ground samples, which did not identify any asbestos fragments or fibres. It is possible, but unlikely, that buried asbestos containing material could be encountered in Made Ground.
Additional below ground tanks	The site has been a filling station since at least 1974 and was last redeveloped in 1988. The current petroleum installation is understood to date from this time. It is therefore possible that additional underground tanks may be present beneath the site.
Protection of construction workers	Construction and maintenance workers, particularly those working on below ground utilities, should be made aware of the potential for hydrocarbon impacted soil, should they encounter it. It is good policy to enforce strict hygiene practices during any below ground works. To minimise potential exposure of workers to potential hydrocarbon contaminants, site clothing should be removed after each working period. A clean area should be made available with washing facilities for use after each shift. Changing and washing areas should be positioned to ensure that no field equipment enters the clean area. Eating, drinking and smoking should be restricted to the clean area.

Table Forty-one: Temporary Works and Construction Issues

Petrol Gomersal, Cleckheaton

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Environmental - Geotechnical - Laboratory - Foundations

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**ATTACHMENT ONE:
NOTICE TO INTERESTED PARTIES**

Client: The Co-operative Group Ltd

Report

CP16114 CL 001

Date

February 2017

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Attachment One - 1

NOTICE TO INTERESTED PARTIES

The purpose of our site assessment is to provide general information on the environmental and/or geotechnical conditions existing at the site and related to soil and/or groundwater. The Client or others specified the scope of the investigation and the validity of our conclusions is limited by the scope of work specified. We are not responsible for any such limitations or omissions.

Where stated in this report, we have used information supplied by third parties. While we have evaluated as far as possible the validity of this information, we cannot guarantee its accuracy in any way whatsoever.

No investigation technique is capable of completely identifying all of the contaminants that might be present in the soil or groundwater under a site. Where specified in our report, we have examined the ground by constructing a number of boreholes and/or trial pits. We recovered samples of soil and/or groundwater from available exposures.

The depth and spacing of our Sampling locations were selected to ensure with a reasonable probability that they would be representative of the actual conditions across the whole site. However, safety considerations relating to existing site infrastructure may have restricted our ability to investigate all potential contaminant sources. Specifically, we were unable to investigate the soil and groundwater condition immediately adjacent to the underground structures and/or buried services. These limitations must be borne in mind when considering the conclusions reached in this report.

Soil is intrinsically variable and the spread of contaminants within the soil is therefore subject to a degree of non-uniformity. For these reasons no sampling technique can completely eliminate the possibility of obtaining samples that are not representative of the actual conditions. Our sampling techniques are intended to reduce the possibility to an acceptable level, within the limits imposed by the scope of the investigation.

Groundwater levels and soil vapour levels that we report were accurate at the time of the investigation. Groundwater and soil vapour levels are variable. Long term monitoring may be required to ensure that the levels recorded during our investigation are representative of long term and possible 'worst case' conditions. In accepting our recommendations and/or conclusions the Client acknowledges that further, more detailed investigation would allow a more accurate assessment of site conditions to be made and that this would reduce any consequential risk to the Client.

This investigation was carried out to assess the significance of contamination resulting from use of the site as identified in this report. Unless we have indicated otherwise, no assessment of the potential impact of any other previous uses has been made. No investigation was carried out to determine whether or not any deleterious or hazardous materials (such as asbestos) have been used in the construction of the buildings present on the site. Unless otherwise stated no investigation or assessment has been made of the presence or otherwise of invasive plant species including but not limited to Japanese Knotweed.

We do not accept any responsibility for the cost of remedial works or other costs incurred in whatever way whatsoever as a result of any omissions, errors or other shortcomings in this report unless we have been given reasonable opportunity to verify ourselves that such faults exist and we have been given a reasonable opportunity to carry out works to remedy such faults ourselves using the most practicable means available to us. We do not accept liability for any consequential losses incurred by you while either we or others carry out any remedial works we deem necessary.

This report has been prepared for the Client, as specified on the cover page of this report. In accepting our recommendations and/or conclusions the Client accepts that the terms of our appointment were as detailed in the Proposal, or Proposals, that we provided to the Client before being appointed and that these terms supersede any other terms and/or conditions set out in any contracts agreed between ourselves and the Client, regardless of when such terms and/or conditions were agreed and/or signed.

Use of, and reliance on, this report by other third parties will be at such third parties own risk, and we are unable to accept any liability or responsibility to third parties.

Neither the whole nor any part of this report, or any reference to it, may be included in any published document circular or statement or published in any way without our prior written approval.

This report and its contents, together with any supporting correspondence or other documentation, remain the property of Subadra Consulting Limited until paid for in full.

Client: The Co-operative Group Ltd		Report	CP16114 CL 001
		Date	February 2017
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Petrol Gomersal, Cleckheaton

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**ATTACHMENT TWO:
SITE PLAN AND BOREHOLE LOGS**

Client: The Co-operative Group Ltd

Report

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February 2017

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Attachment Two - 1



DISCLAIMER: The location of under ground services shown on this drawing has been determined using electro-magnetic (and/or ground probing radar, where requested) techniques and visual observations. The limitations of this drawing should be realised and no guarantee can be given that all services have been identified. This drawing may not include the location of all public services that may cross the site and therefore the relevant service drawings should be obtained from the appropriate utility company and used in conjunction with this drawing. Additional services, structures or other below ground obstructions not indicated on this drawing may be present on site. reference should be made to historical plans and as built drawings. Excavations in the vicinity of services should be carried out with due diligence ref: HS47 document "avoiding dangers from underground services". Location accuracy is determined by referring to manufacturers guidelines for the systems deployed. Reference should be made to the latest version of SVS Ltd site procedures document for utility location surveys.

BH1

SUBADRA

Environmental - Geotechnical - Laboratory - Foundations

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Project Name	Petrol Gomersal, Cleckheaton	Date	16th January 2017
Project Code	CP16114	Ground Level	+99.937m ASD
Drilling Method	Comacchio	Coordinates	420960 425910

Depth (m)	Well	Water Level	Log	Sample	Chemical Analysis	Geotechnical Analysis	SPT 'N' or Su (kPa)	Description
0				S1@0.4m	Asb/Metals			0.0m to 0.2m Made Ground Tarmac.
1				S2@0.8m	PAH		Su=25@0.9m	0.2m to 0.7m Made Ground LOOSE to MEDIUM DENSE grey sandy coarse subangular GRAVEL. With a band of black fine sand at 0.4m to 0.5m.
2				S3@1.3m		pH/SO4	Su=100@1.2m	
3				S4@2.2m	TPH			0.7m to 2.4m Pennine Lower Coal Measures SOFT orange brown mottled grey laminated CLAY. Becoming friable from 1.2m increasing with depth. With occasional bands of weathered brown laminated mudstone.
4		At Rest 3.761m		S5@2.8m	BTEX			
5				S6@3.4m	TPHCWG			2.4m to 8.0m Pennine Lower Coal Measures VERY WEAK brown grey MUDSTONE. Weathered in the top 1.5m and laminated throughout.
6		Strike 5.500m			BTEX/PAH/ pH/SO4/ TPHCWG			
7								
8								

Prism.NET
www.prismerp.co.uk

Well Diameter	50mm	Depth of Borehole	8.00m
Well Casing	3.50m	Depth to Groundwater	3.761m
Well Screen	4.50m	Logged By	SW

BH2

SUBADRA

Environmental - Geotechnical - Laboratory - Foundations

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Tel. 01296 739400 Email: consultants@subadra.com

Project Name	Petrol Gomersal, Cleckheaton	Date	17th January 2017
Project Code	CP16114	Ground Level	+100.411m ASD
Drilling Method	Comacchio	Coordinates	420960 425910

Depth (m)	Well	Water Level	Log	Sample	Chemical Analysis	Geotechnical Analysis	SPT 'N' or Su (kPa)	Description
0				S1@0.3m	Asb/Metals			
				S2@0.7m	BTEX		Su=112.5@0.6m Su=87.5@0.8m	0.2m to 0.4m Made Ground LOOSE to MEDIUM DENSE grey sandy medium GRAVEL over SOFT grey CLAY.
1				S3@1.2m	PAH			
				S4@1.8m		pH/SO4		
2				S5@2.2m		Att/UU(1)	Su=37.5@2.1m	0.4m to 4.3m Pennine Lower Coal Measures STIFF orange brown mottled grey CLAY. Becoming SOFT from 2.0m. With frequent medium fragments of laminated mudstone, friable between 1.0m to 2.0m.
				S6@3.0m	TPHCWG		Su=25@2.7m	
3				S7@3.8m	BTEX/PAH/ pH/SO4/ TPHCWG		Su=25@3.7m	
4		At Rest 3.698m Strike 4.300m		S8@4.9m	TOC		Su=37.5@4.2m	4.3m to 5.0m Pennine Lower Coal Measures WEAK brown grey MUDSTONE.
5				S9@6.2m	TPH			5.0m to 6.9m Pennine Lower Coal Measures WEAK grey MUDSTONE. Coal fragments from 6.7m to 6.9m.
6				S10@6.8m				
7								
8								



Well Diameter	50mm	Depth of Borehole	6.90m
Well Casing	3.50m	Depth to Groundwater	3.698m
Well Screen	3.40m	Logged By	SW

BH3

SUBADRA

Environmental - Geotechnical - Laboratory - Foundations

13 Triangle Business Park, Wendover Road
Stoke Mandeville, Bucks HP22 5BL
Tel. 01296 739400 Email: consultants@subadra.com

Project Name	Petrol Gomersal, Cleckheaton	Date	17th January 2017
Project Code	CP16114	Ground Level	+100.195m ASD
Drilling Method	Comacchio	Coordinates	420960 425910

Depth (m)	Well	Water Level	Log	Sample	Chemical Analysis	Geotechnical Analysis	SPT 'N' or Su (kPa)	Description
0				S1@0.2m	Asb/Metals			0.0m to 0.2m Made Ground Tarmac.
1				S2@0.7m		Att/UU(1)		0.2m to 0.4m Made Ground LOOSE to MEDIUM DENSE grey coarse type 1 GRAVEL.
2				S3@1.4m	BTEX/PAH			0.4m to 4.5m Pennine Lower Coal Measures VERY STIFF orange brown mottled grey CLAY. Becoming friable with depth With frequent bands of brown grey laminated mudstone fragments.
3		At Rest 2.908m		S4@2.6m	BTEX/PAH/ pH/SO4/ TPHCWG	pH/SO4		
4				S5@3.5m	TPHCWG			
5		Strike 5.100m		S6@4.5m				4.5m to 7.0m Pennine Lower Coal Measures WEAK grey green MUDSTONE. Friable throughout, with coal fragments between 4.5m to 4.6m.
6				S7@5.2m	TPH			
7				S8@5.9m				
8				S9@6.9m				

 Prism.NET www.prismerp.co.uk	Well Diameter	50mm	Depth of Borehole	7.00m
	Well Casing	2.50m	Depth to Groundwater	2.908m
	Well Screen	4.40m	Logged By	SW

BH4

SUBADRA

Environmental - Geotechnical - Laboratory - Foundations

13 Triangle Business Park, Wendover Road
Stoke Mandeville, Bucks HP22 5BL
Tel. 01296 739400 Email: consultants@subadra.com

Project Name	Petrol Gomersal, Cleckheaton	Date	18th January 2017
Project Code	CP16114	Ground Level	
Drilling Method	Comacchio	Coordinates	420960 425910

Depth (m)	Well	Water Level	Log	Sample	Chemical Analysis	Geotechnical Analysis	SPT 'N' or Su (kPa)	Description
0		Dry		S1@0.3m	Asb/Metals			0.0m to 0.2m Made Ground Tarmac.
1				S2@0.8m	TPHCWG		Su=62.5@0.7m Su=150@0.9m	0.2m to 0.4m Made Ground LOOSE to MEDIUM DENSE grey sandy medium to coarse GRAVEL.
2				S3@1.2m				0.4m to 1.8m Pennine Lower Coal Measures FIRM orange brown mottled grey CLAY. Grading to VERY STIFF with depth.
3				S4@1.7m	TOC			1.8m to 3.7m Pennine Lower Coal Measures VERY WEAK brown grey MUDSTONE.
4				S5@2.4m	PAH			
5				S6@2.8m		pH/SO4		
6				S7@3.6m	BTEX/TPH			
7								
8								

 Prism.NET www.prismerp.co.uk	Well Diameter	No well	Depth of Borehole	3.70m
	Well Casing		Depth to Groundwater	
	Well Screen		Logged By	SW

BH5

SUBADRA

Environmental - Geotechnical - Laboratory - Foundations

13 Triangle Business Park, Wendover Road
Stoke Mandeville, Bucks HP22 5BL
Tel. 01296 739400 Email: consultants@subadra.com

Project Name	Petrol Gomersal, Cleckheaton	Date	18th January 2017
Project Code	CP16114	Ground Level	
Drilling Method	Comacchio	Coordinates	420960 425910

Depth (m)	Well	Water Level	Log	Sample	Chemical Analysis	Geotechnical Analysis	SPT 'N' or Su (kPa)	Description
0		Dry		S1@0.4m	WAC			0.0m to 0.2m Made Ground Tarmac.
1				S2@0.9m	Asb/Metals		Su=100@1.0m	0.2m to 0.6m Made Ground
2				S3@1.3m			Su=150@1.3m	LOOSE to MEDIUM DENSE grey sandy GRAVEL to 0.3m over SOFT to FIRM grey sandy CLAY with frequent medium to coarse gravel and occasional red brick fragments.
3				S4@1.7m	TPHCWG	Att/UU(1)		0.6m to 2.1m Pennine Lower Coal Measures
4				S5@1.9m				STIFF to VERY STIFF orange brown mottled grey CLAY. With occasional mudstone fragments.
5				S6@2.2m	BTEX			2.1m to 3.5m Pennine Lower Coal Measures
6				S7@2.6m	TPH			WEAK grey MUDSTONE. Friable throughout.
7				S8@3.0m	TOC			
8				S9@3.4m	PAH	pH/SO4		

 Prism.NET www.prismerp.co.uk	Well Diameter	No well	Depth of Borehole	3.50m
	Well Casing		Depth to Groundwater	
	Well Screen		Logged By	SW

Petrol Gomersal, Cleckheaton

SUBADRA

Environmental - Geotechnical - Laboratory - Foundations

13 Triangle Business Park, Wendover Road
Stoke Mandeville, Bucks HP22 5BL

Tel. 01296 739400 Email: consultants@subadra.com

**ATTACHMENT THREE:
CHEMICAL ANALYSIS CERTIFICATES**

Client: The Co-operative Group Ltd

Report	CP16114 CL 001
Date	February 2017
Page	Attachment Three - 1

Report No 02533



E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	16th January 2017
Project Code	CP16114	Report Approved By	<i>Katharine Clark</i>
Sample Type	Soil		Duty Reporting Manager

Soil - TPH Banded - 26th January 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			BH1	BH2	BH3	BH4	BH5					
			S4	S9	S7	S7	S7					
			2.2m	6.2m	5.2m	3.6m	2.6m					
C8-10 TPH Band	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5					
>C10-12 TPH Band	mg/kg	0.5	<0.5	<0.5	<0.5	0.708	<0.5					
>C12-16 TPH Band	mg/kg	0.5	<0.5	<0.5	2.53	0.582	<0.5					
>C16-21 TPH Band	mg/kg	0.5	<0.5	<0.5	8.47	<0.5	<0.5					
>C21-35 TPH Band	mg/kg	0.5	<0.5	<0.5	8.67	<0.5	<0.5					

	Notes:	Method: IH QM:E9.5 based on TNRCC 1005 by GC-FID
		1. MCerts 2. UKAS 17025 3. Analysis subcontracted

	Chain of Custody No	14229	Analysed	RC 24/01/2017
	Received	DB 19/01/2017	Reported	KC 26/01/2017
	Prepared		Page	One of One

Report No 02530



E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	16th January 2017
Project Code	CP16114	Report Approved By	
Sample Type	Soil		Duty Reporting Manager

Soil - BTEX and MTBE - 25th January 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			BH1	BH2	BH3	BH4	BH5					
			S5	S2	S3	S7	S6					
			2.8m	0.7m	1.4m	3.6m	2.2m					
MTBE ²	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Benzene ²	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Toluene ²	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
Ethylbenzene ²	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
p+m Xylene ²	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
o Xylene ²	mg/kg	0.1	<0.1	<0.1	<0.1	<0.1	<0.1					
C6-C8 ²	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5					
>C8-C10 ²	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5					
>C10-C12 ²	mg/kg	0.5	<0.5	<0.5	<0.5	<0.5	<0.5					

	Notes:	Method: IH QM:E9.4 based on US EPA 5021 by GC-FID
		1. MCerts 2. UKAS 17025 3. Analysis subcontracted

 Prism.NET www.prismerp.co.uk	Chain of Custody No	14231	Analysed	RC 24/01/2017
	Received	DB 19/01/2017	Reported	KC 25/01/2017
	Prepared		Page	One of One

Report No 02582



E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	16th January 2017
Project Code	CP16114	Report Approved By	<i>Katharine Clark</i>
Sample Type	Soil		Duty Reporting Manager

Soil - TPH Ali-Aro - 1st February 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			BH1	BH2	BH3	BH4	BH5					
			S6	S6	S5	S2	S4					
			3.4m	3.0m	3.5m	0.8m	1.7m					
C6-8 Aliphatic TPH	mg/kg	NA	<2.5	<2.5	<2.5	<2.5	<2.5					
>C8-10 Aliphatic TPH	mg/kg	NA	<2.5	<2.5	<2.5	<2.5	<2.5					
>C10-12 Aliphatic TPH	mg/kg	NA	<2.5	<2.5	<2.5	<2.5	<2.5					
>C12-16 Aliphatic TPH	mg/kg	NA	<5	<5	<5	<5	<5					
>C16-21 Aliphatic TPH	mg/kg	NA	<5	<5	<5	<5	<5					
>C21-35 Aliphatic TPH	mg/kg	NA	<10	<10	<10	<10	<10					
C6-8 Aromatic TPH	mg/kg	NA	<1	<1	<1	<1	<1					
>C8-10 Aromatic TPH	mg/kg	NA	<1	<1	<1	<1	<1					
>C10-12 Aromatic TPH	mg/kg	NA	<1	<1	<1	<1	<1					
>C12-16 Aromatic TPH	mg/kg	NA	<2.5	<2.5	<2.5	<2.5	<2.5					
>C16-21 Aromatic TPH	mg/kg	NA	<2.5	<2.5	<2.5	<2.5	<2.5					
>C21-35 Aromatic TPH	mg/kg	NA	<2.5	<2.5	<2.5	<2.5	<2.5					

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	Notes:	Method: IH: QM E9.5 based on TNRCC 1005 by GC-FID
		1. MCerts 2. UKAS 17025 3. Analysis subcontracted

	Chain of Custody No	14230	Analysed	
	Received	DB 19/01/2017	Reported	KC 01/02/2017
	Prepared		Page	One of One

Report No 02570



E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	16th January 2017
Project Code	CP16114	Report Approved By	<i>Katharine Clark</i>
Sample Type	Soil		Duty Reporting Manager

Soil - PAHs - 30th January 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			BH1	BH2	BH3	BH4	BH5					
			S2	S3	S3	S5	S9					
			0.8m	1.2m	1.4m	2.4m	3.4m					
Naphthalene ³	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1					
Naphthalene ^{2,3}	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1					
Acenaphthylene ^{2,3,3}	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1					
Acenaphthylene ^{2,3}	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1					
Acenaphthene ^{2,3,3}	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1					
Acenaphthene ^{2,3}	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1					
Fluorene ^{2,3}	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1					
Fluorene ^{2,3,3}	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1					
Phenanthrene ^{2,3,3,3}	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1					
Phenanthrene ^{2,3}	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1					
Anthracene ^{2,3,3}	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1					
Anthracene ^{2,3}	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1					
Fluoranthene ^{2,3,3}	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1					
Fluoranthene ^{2,3}	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1					
Pyrene ^{2,3,3}	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1					
Pyrene ^{2,3}	mg/kg	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1					
Benzo(a)anthracene ^{2,3,3}	mg/kg	0.1	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6					



Notes:

Method: Speciated EPA16 PAHs

1. MCerts
2. UKAS 17025
3. Analysis subcontracted



Prism.NET
www.prismerp.co.uk

Chain of Custody No	14232	Analysed	
Received	DB 19/01/2017	Reported	KC 30/01/2017
Prepared		Page	One of One

Report No 02572



E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	16th January 2017
Project Code	CP16114	Report Approved By	<i>Katharine Clark</i>
Sample Type	Soil		Duty Reporting Manager

Soil - Metals - CLEA Suite Plus Chromium VI - 30th January 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			BH1	BH2	BH3	BH4	BH5					
			S1	S1	S1	S1	S2					
			0.4m	0.3m	0.2m	0.3m	0.9m					
Arsenic ^{2,3}	mg/kg	0	8	12	12	< 2	4					
Barium ^{2,3,3}	mg/kg	10	60	64	70	63	57					
Beryllium ^{2,3,3,3}	mg/kg	1	< 0.5	1.1	2.5	0.5	0.9					
Boron (Water Soluble) ^{2,3,3,3,3}	mg/kg	1	< 1	< 1	< 1	< 1	< 1					
Cadmium ^{2,3}	mg/kg	0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2					
Chromium ^{2,3}	mg/kg	0	8	21	24	20	21					
Chromium (Hexavalent) ^{2,3,3}	mg/kg	2	< 2	< 2	< 2	< 2	< 2					
Copper ^{2,3}	mg/kg	0	61	31	58	8	13					
Lead ^{2,3}	mg/kg	0	71	28	30	10	23					
Mercury (Total) ^{2,3,3}	mg/kg	1	< 1	< 1	< 1	< 1	< 1					
Nickel ^{2,3}	mg/kg	0	15	26	54	13	10					
Selenium ^{2,3,3}	mg/kg	3	< 3	< 3	< 3	< 3	< 3					
Vanadium ^{2,3,3,3}	mg/kg	0	13	23	31	19	25					
Zinc ^{2,3}	mg/kg	0	56	63	94	61	57					

Notes:

Method: CLEA metals suite plus Chromium(VI)

1. MCerts
2. UKAS 17025
3. Analysis subcontracted



Chain of Custody No	14233	Analysed	
Received	DB 19/01/2017	Reported	KC 30/01/2017
Prepared		Page	One of One

Report No 02573



E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	16th January 2017
Project Code	CP16114	Report Approved By	
Sample Type	Soil		Duty Reporting Manager

Soil - Asbestos Screen - 30th January 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			BH1	BH2	BH3	BH4	BH5					
			S1	S1	S1	S1	S2					
			0.4m	0.3m	0.2m	0.3m	0.9m					
Asbestos Screen	NA	NA	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected					
Asbestos Matrix	NA	NA										
Asbestos Type	NA	NA										

	Notes:	Method: Asbestos screen
		1. MCerts 2. UKAS 17025 3. Analysis subcontracted

	Chain of Custody No	14234	Analysed	
	Received	DB 19/01/2017	Reported	KC 30/01/2017
	Prepared		Page	One of One

Report No 02567



E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	16th January 2017
Project Code	CP16114	Report Approved By	
Sample Type	Soil		Duty Reporting Manager

Soil - TOC - 30th January 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			BH2	BH4	BH5							
			S8	S4	S8							
			4.9m	1.7m	3.0m							
TOC ^{2,3}	%	0	< 0.1	< 0.1	0.5							

	Notes:	Method: Total organic carbon
		1. MCerts 2. UKAS 17025 3. Analysis subcontracted

	Chain of Custody No	14235	Analysed	
	Received	DB 19/01/2017	Reported	KC 30/01/2017
	Prepared		Page	One of One

Report No 02552



E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	16th January 2017
Project Code	CP16114	Report Approved By	
Sample Type	Soil		

Soil - pH - 30th January 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			BH1	BH2	BH3	BH4	BH5					
			S3	S4	S4	S6	S9					
			1.3m	1.8m	2.6m	2.8m	3.4m					
pH	NA	NA	7.2	6.6	6.5	6.6	6.4					

Notes:

Method: pH analysis of soils

1. MCerts
2. UKAS 17025
3. Analysis subcontracted



Chain of Custody No	14239	Analysed	
Received	DB 19/01/2017	Reported	KC 30/01/2017
Prepared		Page	One of One

Report No 02598



E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	16th January 2017
Project Code	CP16114	Report Approved By	
Sample Type	Soil		Duty Reporting Manager

Soil - Water Soluble Sulphate - 2nd February 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			BH1	BH2	BH3	BH4	BH5					
			S3	S4	S4	S6	S9					
			1.3m	1.8m	2.6m	2.8m	3.4m					
W/S Sulphate as SO ₄ (2:1)	mg/l	NA	21	72	91	18	28					

	Notes:	Method: Water soluble sulphate
		1. MCerts 2. UKAS 17025 3. Analysis subcontracted

	Chain of Custody No	14238	Analysed	
	Received	DB 19/01/2017	Reported	KC 02/02/2017
	Prepared		Page	One of One

E: lab@fastanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Waste Acceptance Criteria Analytical Certificate - BS EN 12457/2																																	
Report No:		17-14240		Landfill Waste Acceptance Criteria Limits																													
Site Reference:		Petrol Gomersal, Cleckheaton																															
Project / Job Ref:		CP16114																															
TP / BH No:	BH5	Depth (m)	0.40																														
Sample No:		S1																															
Date Sampled:	16/01/2017	Reporting Date:	31/01/2017	<table border="1"> <thead> <tr> <th>Inert Waste Landfill</th> <th>Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill</th> <th>Hazardous Waste Landfill</th> </tr> </thead> <tbody> <tr> <td>3%</td> <td>5%</td> <td>6%</td> </tr> <tr> <td>--</td> <td>--</td> <td>10%</td> </tr> <tr> <td>6</td> <td>--</td> <td>--</td> </tr> <tr> <td>1</td> <td>--</td> <td>--</td> </tr> <tr> <td>500</td> <td>--</td> <td>--</td> </tr> <tr> <td>100</td> <td>--</td> <td>--</td> </tr> <tr> <td>--</td> <td>>6</td> <td>--</td> </tr> <tr> <td>--</td> <td>To be evaluated</td> <td>To be evaluated</td> </tr> </tbody> </table>			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	3%	5%	6%	--	--	10%	6	--	--	1	--	--	500	--	--	100	--	--	--	>6	--	--	To be evaluated	To be evaluated
Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill																															
3%	5%	6%																															
--	--	10%																															
6	--	--																															
1	--	--																															
500	--	--																															
100	--	--																															
--	>6	--																															
--	To be evaluated	To be evaluated																															
Determinand	Unit	MDL																															
TOC ^S	%	< 0.1	0.2																														
Loss on Ignition ^S	%	<0.01	3.60																														
BTEXS	mg/kg	<0.05	< 0.05																														
Sum of PCBs ^S	mg/kg	<0.7	< 0.1																														
Mineral Oil (C10-C40) ^S	mg/kg	<10	< 10																														
Total PAH ^S	mg/kg	<1.7	< 1.7																														
pH ^S	pH Units	+ / - 0.1	7.0																														
Acid Neutralisation Capacity ^S	mol/kg (+/-)	<1	<1																														
Eluate Analysis		10:1 mg/l	Converted 10:1 mg/kg	Limit values for compliance leaching test using BS EN 12457-2 at L/S 10 l/kg (mg/kg)																													
Arsenic ^S		< 0.01	< 0.1	0.5	2	25																											
Barium ^S		0.02	0.2	20	100	300																											
Cadmium ^S		< 0.0005	< 0.005	0.04	1	5																											
Chromium ^S		< 0.005	< 0.05	0.5	10	70																											
Copper ^S		< 0.01	< 0.1	2	50	100																											
Mercury ^S		< 0.0005	< 0.01	0.01	0.2	2																											
Molybdenum ^S		0.001	0.01	0.5	10	30																											
Nickel ^S		< 0.007	< 0.07	0.4	10	40																											
Lead ^S		0.011	0.11	0.5	10	50																											
Antimony ^S		< 0.005	< 0.05	0.06	0.7	5																											
Selenium ^S		< 0.005	< 0.05	0.1	0.5	7																											
Zinc ^S		0.026	0.26	4	50	200																											
Chloride ^S		13	134	800	15000	25000																											
Fluoride ^S		< 0.5	< 5	10	150	500																											
Sulphate ^S		37	372	1000	20000	50000																											
TDS ^S		87	870	4000	60000	100000																											
Phenol Index ^S		< 0.01	< 0.1	1	-	-																											
DOC ^S		14.4	144	500	800	1000																											
Leach Test Information																																	
Sample Mass (kg)	0.10																																
Dry Matter (%)	86.2																																
Moisture (%)	16																																
Results are expressed on a dry weight basis, after correction for moisture content where applicable. Stated limits are for guidance only and Fast Analysis cannot be held responsible for any discrepancies with current legislation U denotes UKAS accredited test S denotes subcontracted test n.d. Result not determined																																	
Released By	<i>Katherine Clark</i>		Kate Clark	Laboratory Manager																													

E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Report No:	17-14240
Site Reference:	Petrol Gomersal, Cleckheaton
Project / Job Ref:	CP16114
Date Sampled:	16/01/2017 Reporting Date: 31/01/2017

			Sample Details	
Soil PAHs (EPA 16)	Unit	Detection limit	BH5	S1
Naphthalene ^S	mg/kg	0.1	< 0.1	
Acenaphthylene ^S	mg/kg	0.1	< 0.1	
Acenaphthene ^S	mg/kg	0.1	< 0.1	
Fluorene ^S	mg/kg	0.1	< 0.1	
Phenanthrene ^S	mg/kg	0.1	< 0.1	
Anthracene ^S	mg/kg	0.1	< 0.1	
Fluoranthene ^S	mg/kg	0.1	< 0.1	
Pyrene ^S	mg/kg	0.1	< 0.1	
Benzo(a)anthracene ^S	mg/kg	0.1	< 0.1	
Chrysene ^S	mg/kg	0.1	< 0.1	
Benzo(b)fluoranthene ^S	mg/kg	0.1	< 0.1	
Benzo(k)fluoranthene ^S	mg/kg	0.1	< 0.1	
Benzo(a)pyrene ^S	mg/kg	0.1	< 0.1	
Indeno(1,2,3,cd)pyrene ^S	mg/kg	0.1	< 0.1	
Dibenzo(a,h)anthracene ^S	mg/kg	0.1	< 0.1	
Benzo(ghi)perylene ^S	mg/kg	0.1	< 0.1	
Total	mg/kg	0.1	< 1.6	
CLEA Metals				
Arsenic (As) ^S	mg/kg	< 2	6	
Barium (Ba) ^S	mg/kg	< 5	58	
Beryllium (Be) ^S	mg/kg	< 0.5	0.6	
W/S Boron ^S	mg/kg	< 1	< 1	
Cadmium (Cd) ^S	mg/kg	< 0.2	< 0.2	
Chromium (Cr) ^S	mg/kg	< 2	16	
Chromium (hexavalent) ^S	mg/kg	< 2	< 2	
Copper (Cu) ^S	mg/kg	< 4	22	
Lead (Pb) ^S	mg/kg	< 3	563	
Mercury (Hg) ^S	mg/kg	< 1	< 1	
Nickel (Ni) ^S	mg/kg	< 3	17	
Selenium (Se) ^S	mg/kg	< 3	< 3	
Vanadium (V) ^S	mg/kg	< 2	21	
Zinc (Zn) ^S	mg/kg	< 3	104	
Asbestos Screen ^S	N/a	N/a	Not Detected	

Report No 02633E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	16th January 2017
Project Code	CP16114	Report Approved By	 Duty Reporting Manager
Sample Type	Soil		

Soil - UU Triaxial - Single Stage - 8th February 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			BH2	BH3	BH5							
			S5	S2	S5							
			2.2m	0.7m	1.9m							
Length	mm	NA	139.5	138.8	143.2							
Diameter	mm	NA	68.4	68.7	68.7							
Bulk Density	Mg/m3	NA	1.90	2.14	2.00							
Dry Density	Mg/m3	NA	1.36	1.86	1.57							
Moisture Content	%	NA	40	15	27							
Axial Strain	%	NA	11.63	9.39	8.88							
Undrained Shear Strength	kN/m2	NA	25	173	86							

Notes:

Method: UU Triaxial - Single stage

1. MCerts
2. UKAS 17025
3. Analysis subcontracted



Chain of Custody No	14237	Analysed	
Received	DB 19/01/2017	Reported	KC 08/02/2017
Prepared		Page	One of One

Report No 02632



E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	16th January 2017
Project Code	CP16114	Report Approved By	 Duty Reporting Manager
Sample Type	Soil		

Soil - Atterberg Limits - 8th February 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			BH2	BH3	BH5							
			S5	S2	S5							
			2.2m	0.7m	1.9m							
Liquid Limit	%	NA	60	46	48							
Plastic Limit	%	NA	29	19	25							
Moisture Content	%	NA	39	15	27							
Passing 425um Sieve	%	NA	97	100	100							

	Notes:	Method: Atterberg limits
		1. MCerts 2. UKAS 17025 3. Analysis subcontracted

	Chain of Custody No	14236	Analysed	
	Received	DB 19/01/2017	Reported	KC 08/02/2017
	Prepared		Page	One of One

Atterberg Limits

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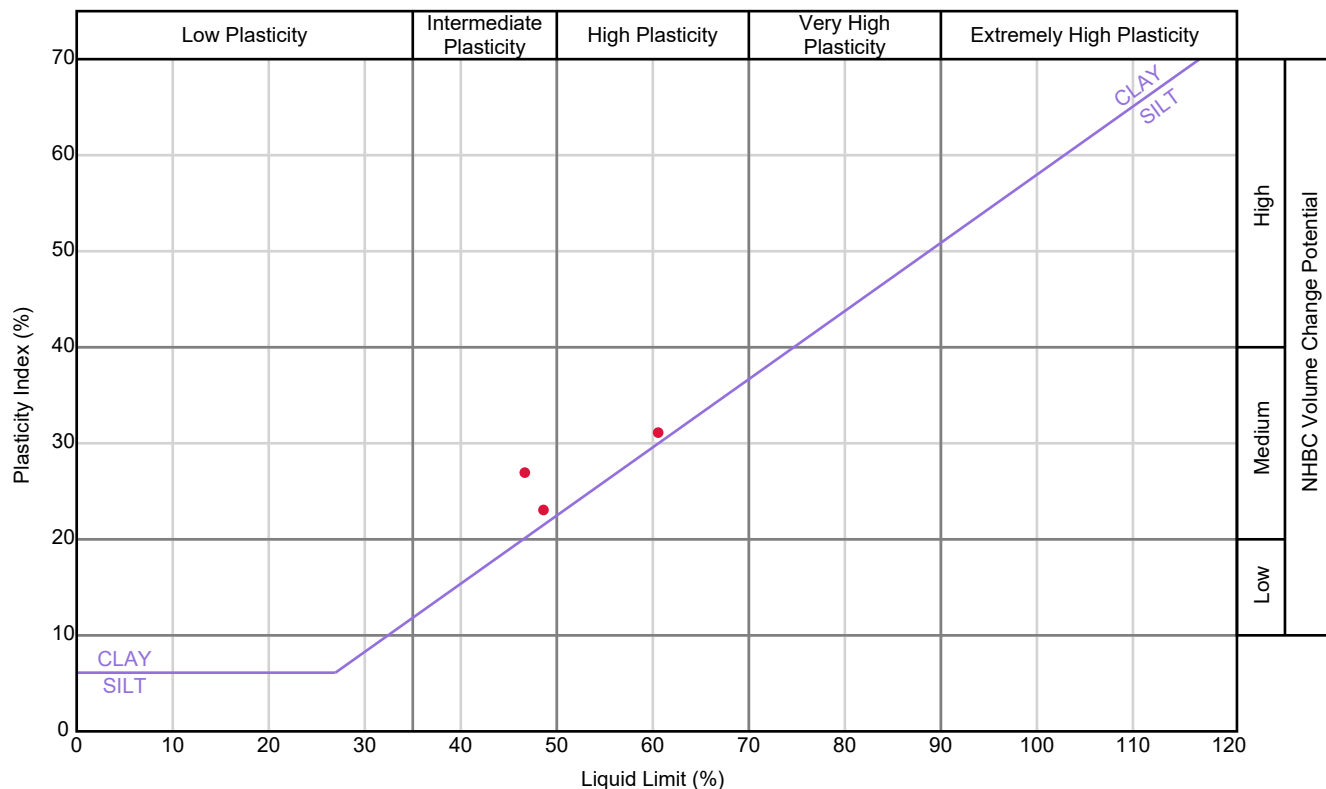
Environmental - Geotechnical - Laboratory - Foundations

13 Triangle Business Park, Wendover Road
Stoke Mandeville, Bucks HP22 5BL

Tel. 01296 739400 Email: consultants@subadra.com

Project Name Petrol Gomersal, Cleckheaton

Project Code CP16114



Borehole	Sample Number	Depth (m)	Moisture Content	Sieve	Liquid Limit	Plastic Limit	Plasticity Index	Plasticity	NHBC VCP
BH2	S5	2.2	39	97	60	29	31	CH	Medium
BH3	S2	0.7	15	100	46	19	27	CI	Medium
BH5	S5	1.9	27	100	48	25	23	CI	Medium

Report No 02623



E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	27th January 2017
Project Code	CP16114	Report Approved By	
Sample Type	Water		Duty Reporting Manager

Water - TPH Ali-Aro - 6th February 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			BH1	BH2	BH3							
			3.7m	3.6m	2.9m							
C6-8 Aliphatic TPH	ug/l	NA	<50	<50	<50							
>C8-10 Aliphatic TPH	ug/l	NA	<50	<50	<50							
>C10-12 Aliphatic TPH	ug/l	NA	<50	<50	<50							
>C12-16 Aliphatic TPH	ug/l	NA	<50	<50	<50							
>C16-21 Aliphatic TPH	ug/l	NA	<50	<50	<50							
>C21-35 Aliphatic TPH	ug/l	NA	<50	<50	<50							
C6-8 Aromatic TPH	ug/l	NA	<50	<50	<50							
>C8-10 Aromatic TPH	ug/l	NA	<50	<50	<50							
>C10-12 Aromatic TPH	ug/l	NA	<50	<50	<50							
>C12-16 Aromatic TPH	ug/l	NA	<50	<50	<50							
>C16-21 Aromatic TPH	ug/l	NA	<50	<50	<50							
>C21-35 Aromatic TPH	ug/l	NA	<50	<50	<50							

	Notes:	Method: IH: QM E9.5 based on TNRCC 1005 by GC-FID
		1. MCerts 2. UKAS 17025 3. Analysis subcontracted

	Chain of Custody No	14294	Analysed	
	Received	DB 31/01/2017	Reported	KC 06/02/2017
	Prepared		Page	One of One

Report No 02606



E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	27th January 2017
Project Code	CP16114	Report Approved By	<i>Katharine Clark</i>
Sample Type	Water		Duty Reporting Manager

Water - BTEX and MTBE - 3rd February 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			BH1	BH2	BH3							
			3.7m	3.6m	2.9m							
MTBE ²	µg/l	50	<50	<50	<50							
Benzene ²	µg/l	10	<10	<10	<10							
Toluene ²	µg/l	10	<10	<10	<10							
Ethylbenzene ²	µg/l	10	<10	<10	<10							
p+m Xylene ²	µg/l	10	<10	<10	<10							
o Xylene ²	µg/l	10	<10	<10	<10							
C6-C8 ²	µg/l	50	<50	<50	<50							
>C8-C10 ²	µg/l	50	<50	<50	<50							
>C10-C12 ²	µg/l	50	<50	<50	<50							

	Notes:	Method: IH QM:E9.4 based on US EPA 5021 by GC-FID
		1. MCerts 2. UKAS 17025 3. Analysis subcontracted

	Chain of Custody No	14292	Analysed	RC 02/02/2017
	Received	DB 31/01/2017	Reported	KC 03/02/2017
	Prepared		Page	One of One

Report No 02664



E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	27th January 2017
Project Code	CP16114	Report Approved By	<i>Katharine Clark</i>
Sample Type	Water		Duty Reporting Manager

Water - PAHs - 15th February 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			BH1	BH2	BH3							
			3.7m	3.6m	2.9m							
Naphthalene	ug/l	NA	<0.01	<0.01	<0.01							
Acenaphthylene	ug/l	NA	<0.01	<0.01	<0.01							
Acenaphthene	ug/l	NA	<0.01	<0.01	<0.01							
Fluorene	ug/l	NA	<0.01	<0.01	<0.01							
Phenanthrene	ug/l	NA	<0.01	<0.01	<0.01							
Anthracene	ug/l	NA	<0.01	<0.01	<0.01							
Fluoranthene	ug/l	NA	<0.01	<0.01	<0.01							
Pyrene	ug/l	NA	<0.01	<0.01	<0.01							
Benzo(a)anthracene	ug/l	NA	<0.01	<0.01	<0.01							
Chrysene	ug/l	NA	<0.01	<0.01	<0.01							
Benzo(b)fluoranthene	ug/l	NA	<0.01	<0.01	<0.01							
Benzo(k)fluoranthene	ug/l	NA	<0.01	<0.01	<0.01							
Benzo(a)pyrene	ug/l	NA	<0.01	<0.01	<0.01							
Indeno(1,2,3-cd)pyrene	ug/l	NA	<0.01	<0.01	<0.01							
Dibenzo(ah)anthracene	ug/l	NA	<0.01	<0.01	<0.01							
Benzo(ghi)perylene	ug/l	NA	<0.01	<0.01	<0.01							
Total PAHs	ug/l	NA	<0.16	<0.16	<0.16							



Notes:

Method: Speciated EPA16 PAHs

1. MCerts
2. UKAS 17025
3. Analysis subcontracted



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Chain of Custody No	14293	Analysed	
Received	DB 31/01/2017	Reported	KC 15/02/2017
Prepared		Page	One of One

Report No 02595



E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	27th January 2017
Project Code	CP16114	Report Approved By	 Duty Reporting Manager
Sample Type	Water		

Water - Sulphate - 2nd February 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			BH1	BH2	BH3							
			3.7m	3.6m	2.9m							
Sulphate	mg/L	NA	239	107	485							

Notes:

Method: Sulphate in water analysis

1. MCerts
2. UKAS 17025
3. Analysis subcontracted



Chain of Custody No	14295	Analysed	
Received	DB 31/01/2017	Reported	KC 02/02/2017
Prepared		Page	One of One

Report No 02594



E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	27th January 2017
Project Code	CP16114	Report Approved By	
Sample Type	Water		Duty Reporting Manager

Water - pH - 2nd February 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			BH1	BH2	BH3							
			3.7m	3.6m	2.9m							
pH	NA	NA	6.6	6.6	6.6							

Notes:

Method: pH Analysis

1. MCerts
2. UKAS 17025
3. Analysis subcontracted



Chain of Custody No	14296	Analysed	
Received	DB 31/01/2017	Reported	KC 02/02/2017
Prepared		Page	One of One

Report No 02568



E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	16th January 2017
Project Code	CP16114	Report Approved By	
Sample Type	Water		Duty Reporting Manager

Water - DW BTEX and MTBE - 30th January 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			Tap									
			0.0m									
MTBE ^{2,3}	ug/l	10	< 10									
Benzene ^{2,3}	ug/l	0	< 1									
Toluene ^{2,3}	ug/l	10	< 5									
Ethylbenzene ^{2,3}	ug/l	10	< 5									
p+m Xylene ^{2,3}	ug/l	10	< 10									
o Xylene ^{2,3}	ug/l	10	< 5									

	Notes:	Method: BTEX and MTBE with low LORs
		1. MCerts 2. UKAS 17025 3. Analysis subcontracted

	Chain of Custody No	14227	Analysed	
	Received	DB 19/01/2017	Reported	KC 30/01/2017
	Prepared		Page	One of One

Report No 02535



E: lab@astanalysis.co.uk T: 01296 739 423
13 Triangle Business Park, Stoke Mandeville, HP22 5BL

Project Name	Petrol Gomersal, Cleckheaton	Sampled	16th January 2017
Project Code	CP16114	Report Approved By	 Duty Reporting Manager
Sample Type	Water		

Water - TPH Banded - 25th January 2017

Analyte	Unit	Method Detection Limit	Sample Details									
			Tap									
			0.0m									
C8-10 TPH Band	µg/l	10	<10									
>C10-12 TPH Band	µg/l	10	<10									
>C12-16 TPH Band	µg/l	10	<10									
>C16-21 TPH Band	µg/l	10	<10									
>C21-35 TPH Band	µg/l	10	<10									

	Notes:	Method: IH QM:E9.5 based on TNRCC 1005 by GC-FID
		1. MCerts 2. UKAS 17025 3. Analysis subcontracted

	Chain of Custody No	14228	Analysed	RC 24/01/2017
	Received	DB 19/01/2017	Reported	KC 25/01/2017
	Prepared		Page	One of One

Petrol Gomersal, Cleckheaton

SUBADRA

Environmental - Geotechnical - Laboratory - Foundations

13 Triangle Business Park, Wendover Road
Stoke Mandeville, Bucks HP22 5BL

Tel. 01296 739400 Email: consultants@subadra.com

**ATTACHMENT FOUR:
ENVIRONMENTAL DATA REPORT**

Client: The Co-operative Group Ltd

Report

CP16114 CL 001

Date

February 2017

Page

Attachment Four - 1

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

114531511_1_1

Customer Reference:

CP16114

National Grid Reference:

420960, 425910

Slice:

A

Site Area (Ha):

0.2

Search Buffer (m):

1000

Site Details:

The Co-Operative, The Co-Operative Food
Gomersal Filling Station

231

CLECKHEATON

BD19 4PY

Client Details:

Mr S Partridge

Subadra Consulting Ltd

Unit 13 Triangle Business Park

Wendover

Bucks

HP22 5BL

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	13
Hazardous Substances	14
Geological	15
Industrial Land Use	19
Sensitive Land Use	23
Data Currency	24
Data Suppliers	29
Useful Contacts	30

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v50.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1				6
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls	pg 3				8
Integrated Pollution Prevention And Control	pg 4				4
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 5	2			
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 5		Yes		
Pollution Incidents to Controlled Waters	pg 5		1	1	11
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 7				1
River Quality Biology Sampling Points	pg 8				1
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 8			2	2 (*8)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 11	Yes	n/a	n/a	n/a
Drift Deposits			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 11	Yes	n/a	n/a	n/a
Superficial Aquifer Designations			n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
Detailed River Network Lines	pg 11			Yes	n/a
Detailed River Network Offline Drainage					n/a

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites	pg 13				1
Historical Landfill Sites	pg 13				1
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 13	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)	pg 14				2
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents	pg 14				3
Planning Hazardous Substance Enforcements					
Geological					
BGS 1:625,000 Solid Geology	pg 15	Yes	n/a	n/a	n/a
BGS Recorded Mineral Sites	pg 15		1	4	9
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 17	Yes	n/a	n/a	n/a
Mining Instability	pg 17	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 17	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 17		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 17	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 18		Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 18	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Industrial Land Use					
Contemporary Trade Directory Entries	pg 19	2	5	7	26
Fuel Station Entries	pg 22	1			
Gas Pipelines					
Underground Electrical Cables					
Sensitive Land Use					
Ancient Woodland	pg 23				1
Areas of Adopted Green Belt	pg 23		1		
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 23		1		
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (S)	0	1	420962 425915
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (NE)	65	1	421000 426000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (NE)	173	1	421100 426050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (E)	216	1	421200 425950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (E)	234	1	421200 426000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (E)	260	1	421250 425915
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (E)	265	1	421250 425950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (E)	310	1	421300 425915
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (E)	310	1	421300 425900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SW (E)	373	1	421350 425800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A14SW (E)	410	1	421400 425900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (E)	421	1	421400 425800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (E)	462	1	421450 425850
1	Discharge Consents Operator: Yorkshire Water Services Ltd Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Moor Lane Sso Swincliffe, Birkenshaw, Bradford, West Yorkshire Authority: Environment Agency, North East Region Catchment Area: Calder Reference: Wadc1150 Permit Version: 1 Effective Date: 18th September 1989 Issued Date: 18th September 1989 Revocation Date: 25th April 2005 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Smithies Beck Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A18NE (N)	909	2	421080 426850

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Discharge Consents Operator: Yorkshire Water Services Ltd Property Type: Not Given Location: Moor Lane, BIRKENSHAW, West Yorkshire Authority: Environment Agency, North East Region Catchment Area: Aire Reference: WADC1148 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Storm sewage overflow discharge Discharge: Freshwater Stream/River Environment: Receiving Water: Smithies Beck Status: Not Supplied Positional Accuracy: Located by supplier to within 100m	A18NE (N)	922	2	421100 426860
2	Discharge Consents Operator: Yorkshire Water Services Ltd Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Birkenshaw Cso, Moor Lane, Birkenshaw, Bradford Authority: Environment Agency, North East Region Catchment Area: Calder Reference: Wra8486 Permit Version: 1 Effective Date: 31st March 2005 Issued Date: 31st March 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Nutter Beck Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A18NE (N)	955	2	421120 426890
2	Discharge Consents Operator: Yorkshire Water Services Ltd Property Type: Not Given Location: Moor Lane, BIRKENSHAW, West Yorkshire Authority: Environment Agency, North East Region Catchment Area: Aire Reference: WADC1149 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Storm sewage overflow discharge Discharge: Freshwater Stream/River Environment: Receiving Water: Smithies Beck Status: Not Supplied Positional Accuracy: Located by supplier to within 100m	A23SE (N)	996	2	421130 426930
3	Discharge Consents Operator: Yorkshire Water Services Ltd Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Listing Mill Farm Cso, Gomersal, Cleckheaton, West Yorkshire Authority: Environment Agency, North East Region Catchment Area: Calder Reference: 2767 Permit Version: 2 Effective Date: 31st March 2004 Issued Date: 12th February 2004 Revocation Date: 23rd January 2005 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of River Spen Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m	A8SW (S)	978	2	420740 424930

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	Discharge Consents Operator: Yorkshire Water Services Ltd Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Listing Mill Farm Cso, Gomersal, Cleckheaton, West Yorkshire Authority: Environment Agency, North East Region Catchment Area: Calder Reference: 2767 Permit Version: 1 Effective Date: 7th October 1971 Issued Date: 7th October 1971 Revocation Date: 30th March 2004 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of River Spen Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961 Positional Accuracy: Located by supplier to within 10m	A8SW (S)	978	2	420740 424930
4	Integrated Pollution Controls Name: Spen Valley Scouring Co Ltd Location: P O Box 1, Gomersal Mills, CLECKHEATON, West Yorkshire, BD19 4NE Authority: Environment Agency, North East Region Permit Reference: BH5340 Dated: 6th April 2000 Process Type: IPC minor (non-substantial) variation to previous variation Description: 6.5 A (B) Coating processes and Printing within Miscellaneous Industries Status: Authorisation certificate surrendered by operatorSurrendered Positional Accuracy: Manually positioned to the road within the address or location	A7NE (SW)	514	2	420612 425505
4	Integrated Pollution Controls Name: Spen Valley Scouring Co Ltd Location: Gomersal Mills, Po Box 1, CLECKHEATON, West Yorkshire, BD19 4NE Authority: Environment Agency, North East Region Permit Reference: BE3235 Dated: 24th November 1998 Process Type: IPC minor (non-substantial) variation to previous variation Description: 6.5 A (B) Coating processes and Printing within Miscellaneous Industries Status: Authorisation superseded by a substantial or non substantial variationSuperseded Positional Accuracy: Manually positioned to the road within the address or location	A7NE (SW)	518	2	420612 425500
4	Integrated Pollution Controls Name: Spen Valley Scouring Co Ltd Location: P O Box 1, Gomersal Mills, CLECKHEATON, West Yorkshire, BD19 4NE Authority: Environment Agency, North East Region Permit Reference: BA6615 Dated: 12th February 1998 Process Type: IPC minor (non-substantial) variation to previous variation Description: 6.5 A (B) Coating processes and Printing within Miscellaneous Industries Status: Authorisation superseded by a substantial or non substantial variationSuperseded Positional Accuracy: Manually positioned to the road within the address or location	A7NE (SW)	521	2	420607 425500
4	Integrated Pollution Controls Name: Spen Valley Scouring Co Ltd Location: P O Box 1, Gomersal Mills, CLECKHEATON, West Yorkshire, BD19 4NE Authority: Environment Agency, North East Region Permit Reference: AW8068 Dated: 14th October 1996 Process Type: IPC minor (non-substantial) variation to previous variation Description: 6.5 A (B) Coating processes and Printing within Miscellaneous Industries Status: Authorisation superseded by a substantial or non substantial variationSuperseded Positional Accuracy: Manually positioned to the road within the address or location	A7NE (SW)	521	2	420612 425495
4	Integrated Pollution Controls Name: Spen Valley Scouring Co Ltd Location: P O Box 1, Gomersal Mills, CLECKHEATON, West Yorkshire, BD19 4NE Authority: Environment Agency, North East Region Permit Reference: AU7559 Dated: 29th August 1996 Process Type: IPC application for process that was regulated by HMIP for air releases under previous legislation Description: 6.5 A (B) Coating processes and Printing within Miscellaneous Industries Status: Authorisation superseded by a substantial or non substantial variationSuperseded Positional Accuracy: Manually positioned to the road within the address or location	A7NE (SW)	525	2	420607 425495

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Integrated Pollution Controls Name: Hays Chemical Distribution Ltd Location: Union Mills, Oxford Road, Gomersal, CLECKHEATON, West Yorkshire, BD19 4JW Authority: Environment Agency, North East Region Permit Reference: AM1585 Dated: 11th February 1994 Process Type: Application since found to be exempt from IPC Description: 4.3 A (D) Acid processes within the Chemical Industry Status: Application since found to be exempt from IPCExempt Positional Accuracy: Automatically positioned to the address	A8SE (S)	804	2	421015 425081
5	Integrated Pollution Controls Name: Hays Chemical Distribution Ltd Location: Union Mills, Oxford Road, Gomersal, CLECKHEATON, West Yorkshire, BD19 4JW Authority: Environment Agency, North East Region Permit Reference: AM1569 Dated: 11th February 1994 Process Type: Application since found to be exempt from IPC Description: 4.4 A (A) processes involving Halogens within the Chemical Industry Status: Application since found to be exempt from IPCExempt Positional Accuracy: Automatically positioned to the address	A8SE (S)	809	2	421015 425076
5	Integrated Pollution Controls Name: Hays Chemical Distribution Ltd Location: Union Mills, Oxford Road, Gomersal, CLECKHEATON, West Yorkshire, BD19 4JW Authority: Environment Agency, North East Region Permit Reference: AM1577 Dated: 11th February 1994 Process Type: Application since found to be exempt from IPC Description: 4.4 A (A) processes involving Halogens within the Chemical Industry Status: Application since found to be exempt from IPCExempt Positional Accuracy: Automatically positioned to the address	A8SE (S)	809	2	421020 425076
6	Integrated Pollution Prevention And Control Name: Brenntag Uk Ltd Location: Gomersal Works, Union Mills, Oxford Road, Gomersal,, CLECKHEATON, West Yorkshire, BD19 4JW Authority: Environment Agency, North East Region Permit Reference: JP3235HN Original Permit Ref: Jp3235hn Effective Date: 12th October 2010 Status: Effective Application Type: Transfer App. Sub Type: Whole limited change in management Positional Accuracy: Automatically positioned to the address Activity Code: 4.2 A(1) (A) (IV) Activity Description: Inorganic Chemicals; Salts Eg Ammonium Chloride Primary Activity: Y	A8SE (S)	804	2	421015 425081
6	Integrated Pollution Prevention And Control Name: Brenntag Inorganic Chemicals Limited Location: Gomersal Works, Union Mills, Oxford Road, Gomersal,, CLECKHEATON, West Yorkshire, BD19 4JW Authority: Environment Agency, North East Region Permit Reference: FP3333HK Original Permit Ref: Rp3634pc Effective Date: 27th July 2010 Status: Superseded By Variation Application Type: Variation App. Sub Type: Minor Positional Accuracy: Automatically positioned to the address Activity Code: 4.2 A(1) (A) (IV) Activity Description: Inorganic Chemicals; Salts Eg Ammonium Chloride Primary Activity: Y	A8SE (S)	804	2	421015 425081
6	Integrated Pollution Prevention And Control Name: Albion Chemicals Company Ltd Location: Union Mills, Oxford Road, Gomersal, Cleckheaton, West Yorkshire, BD19 4JW Authority: Environment Agency, North East Region Permit Reference: AP3138LZ Original Permit Ref: Rp3634pc Effective Date: 23rd August 2006 Status: Superseded By Variation Application Type: Variation App. Sub Type: Minor Positional Accuracy: Automatically positioned to the address Activity Code: 4.2 A(1) (A) (IV) Activity Description: Inorganic Chemicals; Salts Eg Ammonium Chloride Primary Activity: Y	A8SE (S)	804	2	421015 425081

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	Integrated Pollution Prevention And Control Name: Albion Chemicals Company Ltd Location: Gomersal Works, Union Mills, Oxford Road, CLECKHEATON, West Yorkshire, BD19 4JW Authority: Environment Agency, North East Region Permit Reference: Rp3634pc Original Permit Ref: Rp3634pc Effective Date: 6th January 2006 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 4.2 A(1) (B) Activity Description: Inorganic Chemicals; Using Halogens Etc If Release To Air/Water (Unless Otherwise Prescribed) (Unless Chlorination Of Water) Primary Activity: N Activity Code: 4.2 A(1) (A) (IV) Activity Description: Inorganic Chemicals; Salts Eg Ammonium Chloride Primary Activity: Y	A8SE (S)	804	2	421015 425081
7	Local Authority Pollution Prevention and Controls Name: Co-Operative Group Location: Gomersal Filling Station, Oxford Road, Gomersal, CLECKHEATON, West Yorkshire, BD19 4PY Authority: Kirklees Metropolitan Borough Council, Environmental Health Department Permit Reference: PPC E 105 Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Permitted Positional Accuracy: Automatically positioned to the address	A13NW (N)	0	3	420958 425941
7	Local Authority Pollution Prevention and Controls Name: Gomersal Service Station Location: Oxford Road, Gomersal, BD19 4PY Authority: Kirklees Metropolitan Borough Council, Environmental Health Department Permit Reference: Not Supplied Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station Status: Authorised Positional Accuracy: Located by supplier to within 10m	A13NE (NE)	0	3	420973 425927
	Nearest Surface Water Feature	A13NE (E)	160	-	421137 425961
8	Pollution Incidents to Controlled Waters Property Type: Miscellaneous Premises: Unknown Location: Mouth/Scotia Beck Batley Beck Afl Authority: Environment Agency, North East Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 31st August 1993 Incident Reference: 147393 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (E)	110	2	421100 425900
9	Pollution Incidents to Controlled Waters Property Type: Miscellaneous Premises: Unknown Location: Scotia Beck/Source Batley Beck Afu Authority: Environment Agency, North East Region Pollutant: Miscellaneous - No Visible Pollution/Nothing Found Note: Not Supplied Incident Date: 11th October 1993 Incident Reference: 148214 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14SW (E)	410	2	421400 425900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	Pollution Incidents to Controlled Waters Property Type: Highway/Car Park Location: Mouth/Scotia Beck Batley Beck Afl Authority: Environment Agency, North East Region Pollutant: Oils - Unknown Note: Not Supplied Incident Date: 22nd June 1994 Incident Reference: 152350 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	730	2	421600 426300
11	Pollution Incidents to Controlled Waters Property Type: Industrial Premises Location: Mouth/Gomersal Spen Afl Authority: Environment Agency, North East Region Pollutant: Chemicals - Acid Note: Not Supplied Incident Date: 18th September 1991 Incident Reference: 126242 Catchment Area: Not Given Receiving Water: No Pollution Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A8SE (S)	784	2	421000 425100
12	Pollution Incidents to Controlled Waters Property Type: Other General Premises Location: R B On A643/Balme Road Spen 08 Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 27th July 1989 Incident Reference: 101883 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12SW (W)	840	2	420100 425900
13	Pollution Incidents to Controlled Waters Property Type: Road Location: Fusden Beck / Spen Beck Authority: Environment Agency, North East Region Pollutant: Oils - Diesel (Including Agricultural) Note: Spen Beck/Dean Beck; No Fish Killed Incident Date: 2nd June 1998 Incident Reference: SL980479 Catchment Area: Calder Tributaries Receiving Water: Estuary Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12NW (W)	855	2	420100 426100
14	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Storm Overflow Location: Moor Lane, BIRKENSHAW Authority: Environment Agency, North East Region Pollutant: Sewage - Storm Overflow Note: Watercourse :Batley Beck; From Lady Ann Beck To River Calder Incident Date: 8th April 1998 Incident Reference: SL980238 Catchment Area: Calder Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18NE (N)	863	2	421100 426800
15	Pollution Incidents to Controlled Waters Property Type: Fire Water Location: Spen Beck, CLECKHEATON Authority: Environment Agency, North East Region Pollutant: Oils - Diesel (Including Agricultural) Note: No Fish Killed Incident Date: 14th February 1997 Incident Reference: SL970173 Catchment Area: Calder Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18NW (N)	891	2	420700 426800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
16	Pollution Incidents to Controlled Waters Property Type: Industrial Premises Location: Scotia Beck/Source Batley Beck Afu Authority: Environment Agency, North East Region Pollutant: Not Given Note: Not Supplied Incident Date: 5th July 1989 Incident Reference: 101065 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	904	2	421800 426300
17	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Foul Sewer Location: Scotia Beck/Source Batley Beck Afu Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 8th December 1989 Incident Reference: 106029 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A18NE (N)	917	2	421300 426800
18	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Foul Sewer Location: Mouth/Todmorden Calder Afl Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 6th August 1990 Incident Reference: 113340 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	923	2	421700 426500
19	Pollution Incidents to Controlled Waters Property Type: Industrial Premises Location: Mouth/Scotia Beck Batley Beck Afl Authority: Environment Agency, North East Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 29th March 1993 Incident Reference: 141907 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	953	2	421800 426400
20	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Sewage Treatment Works Location: Scotia Beck/Source Batley Beck Afu Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 10th September 1990 Incident Reference: 114447 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A19NW (NE)	958	2	421400 426800
	River Quality Name: Batley_Beck GQA Grade: River Quality D Reach: Gomersal_Lady_Ann_Bec Estimated Distance (km): 5 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A18NE (N)	771	2	421174 426689

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
21	River Quality Biology Sampling Points Name: Smithies/Batley Beck Reach: Gomersal To Lady Ann Beck Estimated Distance: 5.00 Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: River Quality Biology GQA Grade Not Supplied Year: 1995 GQA Grade: River Quality Biology GQA Grade E - Poor Year: 2000 GQA Grade: River Quality Biology GQA Grade D - Fair Year: 2002 GQA Grade: River Quality Biology GQA Grade D - Fair Year: 2003 GQA Grade: River Quality Biology GQA Grade D - Fair Year: 2004 GQA Grade: River Quality Biology GQA Grade E - Poor Year: 2005 GQA Grade: River Quality Biology GQA Grade E - Poor Year: 2006 GQA Grade: River Quality Biology GQA Grade E - Poor Year: 2007 GQA Grade: River Quality Biology GQA Grade E - Poor Year: 2008 GQA Grade: River Quality Biology GQA Grade E - Poor Year: 2009 GQA Grade: River Quality Biology GQA Grade D - Fair	A18NE (N)	771	2	421174 426689
22	Water Abstractions Operator: Gomersal Mills Ltd Licence Number: 2/27/13/001 Permit Version: 101 Location: Boreholes X 2 - Coal Measures Authority: Environment Agency, North East Region Abstraction: Textiles And Leather: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Gomersal Mills, Nr. Leeds Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A12NE (W)	469	2	420500 426100
22	Water Abstractions Operator: Gomersal Mills Ltd Licence Number: 2/27/13/001 Permit Version: 100 Location: Boreholes X 2 Authority: Environment Agency, North East Region Abstraction: Textiles And Leather: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 1364 Yearly Rate (m3): 350000 Details: Gomersal Mills, Nr. Leeds Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 28th February 1997 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A12NE (W)	469	2	420500 426100
23	Water Abstractions Operator: Birstall Carpet Company Limited Licence Number: 2/27/13/137 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, North East Region Abstraction: Cooling/Gen Ind. Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 1037 Yearly Rate (m3): 228400 Details: Licence Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A14SE (E)	915	2	421900 425800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
23	Water Abstractions Operator: Kalon Ltd Licence Number: 2/27/13/159 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, North East Region Abstraction: General Industrial Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 818 Yearly Rate (m3): 211380 Details: Licence Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A14SE (E)	916	2	421900 425795
	Water Abstractions Operator: Sigmakalon Uk Ltd Licence Number: 2/27/13/220 Permit Version: 1 Location: Borehole - Coal Measures - Batley Authority: Environment Agency, North East Region Abstraction: Chemicals: General Use (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Birstall Smithies, Batley, Leeds Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15SW (E)	1255	2	422230 425700
	Water Abstractions Operator: Sigmakalon Uk Ltd Licence Number: 2/27/13/190 Permit Version: 103 Location: Borehole - Coal Measures - Batley Authority: Environment Agency, North East Region Abstraction: Chemicals: General Use (High Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Birstall Smithies, Batley, Leeds Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 13th March 2006 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15SW (E)	1255	2	422230 425700
	Water Abstractions Operator: Kalon Ltd Licence Number: 2/27/13/190 Permit Version: 102 Location: Borehole - Coal Measures - Batley Authority: Environment Agency, North East Region Abstraction: Chemicals: General Use (High Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Birstall Smithies, Batley, Leeds Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 2nd January 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15SW (E)	1255	2	422230 425700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Kalon Ltd Licence Number: 2/27/13/190 Permit Version: 101 Location: Borehole - Coal Measures - Batley Authority: Environment Agency, North East Region Abstraction: Chemicals: General Use (High Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Birstall Smithies, Batley, Leeds Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 11th January 2001 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15SW (E)	1255	2	422230 425700
	Water Abstractions Operator: Kalon Group Limited Licence Number: 2/27/13/190 Permit Version: 100 Location: Borehole Authority: Environment Agency, North East Region Abstraction: Other Industrial/Commercial/Public Services: General Use (High Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 160 Yearly Rate (m3): 40000 Details: Birstall Smithies, Batley, Leeds Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 30th April 1997 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A15SW (E)	1255	2	422230 425700
	Water Abstractions Operator: Moss Metal Finishing Limited Licence Number: 2/27/13/027 Permit Version: 101 Location: Well - Coal Measures - Birstall Authority: Environment Agency, North East Region Abstraction: Metal: General Use Relating To Secondary Category (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Providence Mill, Smithies Moor Lane, Birstall, Nr. Leeds Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 18th April 2002 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A15SE (E)	1622	2	422600 425700
	Water Abstractions Operator: Roundhay Metal Finishers (Leeds) Ltd Licence Number: 2/27/13/027 Permit Version: 100 Location: Well - Coal Measures - Birstall Authority: Environment Agency, North East Region Abstraction: Metal: General Use Relating To Secondary Category (Medium Loss) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 123 Yearly Rate (m3): 36823 Details: Providence Mill, Smithies Moor Lane, Birstall, Nr. Leeds Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 14th December 1965 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15SE (E)	1622	2	422600 425700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Kirklees Metropolitan Council Licence Number: 2/27/13/153 Permit Version: 100 Location: Nova Beck Authority: Environment Agency, North East Region Abstraction: Holiday Sites, Camp Sites & Tourist Attractions: Make-Up or Top Up Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): 36 Yearly Rate (m3): 9500 Details: Oakwell Hall, Country Park, Birstall, Near Batley Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 26th April 1982 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A25SW (NE)	1630	2	421980 427220
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 11 South Pennines Scale: 1:100,000	A13SW (S)	0	2	420962 425915
	Drift Deposits None				
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SW (S)	0	1	420962 425915
	Superficial Aquifer Designations No Data Available				
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
24	Detailed River Network Lines River Type: Secondary River River Name: Church Beck Hydrographic Area: B04 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NW (N)	254	2	420930 426201
25	Detailed River Network Lines River Type: Tertiary River River Name: Church Beck Hydrographic Area: B04 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NW (N)	289	2	420957 426237

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
26	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: B04 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NE (NE)	325	2	421215 426151
27	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: B04 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A18SE (NE)	432	2	421247 426273
28	Detailed River Network Lines River Type: Tertiary River River Name: Church Beck Hydrographic Area: B04 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A18SE (NE)	439	2	421257 426272
29	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: B04 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A14NW (NE)	467	2	421361 426187
30	Detailed River Network Lines River Type: Tertiary River River Name: Church Beck Hydrographic Area: B04 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A19SW (NE)	484	2	421335 426255
	Detailed River Network Offline Drainage None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
31	BGS Recorded Landfill Sites Site Name: Nibshaw Lane Location: Gomersal, CLECKHEATON, West Yorks Authority: British Geological Survey, National Geoscience Information Service Ground Water: Information not available Surface Water: Information not available Geology: N/A Positional Accuracy: Positioned by the supplier Boundary Accuracy: Good	A12SW (W)	671	-	420276 425820
32	Historical Landfill Sites Licence Holder: Not Supplied Location: Gomersal, Cleckheaton, West Yorkshire Name: Nibshaw Lane Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD31587 First Input Date: Not Supplied Last Input Date: 31st July 1972 Specified Waste: Deposited Waste included Inert and Commercial Waste Type: EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: 1142 Other Ref: Not Supplied	A12SW (W)	685	2	420272 425763
	Local Authority Landfill Coverage Name: Kirklees Metropolitan Borough Council - Has not been able to supply Landfill data		0	4	420962 425915

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	Control of Major Accident Hazards Sites (COMAH) Name: Hays Chemicals Ltd Location: Union Mills, Oxford Road, Gomersal, Cleckheaton, West Yorkshire, BD19 4JW Reference: Not Supplied Type: Lower Tier Status: Record Ceased To Be Supplied Under COMAH Regulations Positional Accuracy: Automatically positioned to the address	A8SE (S)	804	5	421015 425081
33	Control of Major Accident Hazards Sites (COMAH) Name: Brenntag Uk Limited Location: Union Mills, Oxford Road, Gomersal, Cleckheaton, West Yorkshire, BD19 4JW Reference: Not Supplied Type: Lower Tier Status: Active Positional Accuracy: Automatically positioned to the address	A8SE (S)	804	5	421015 425081
34	Planning Hazardous Substance Consents Name: Hays Chemicals Limited Location: Union Mills, Oxford Road, Gomersal, CLECKHEATON, . Authority: Kirklees Metropolitan Borough Council, Planning Services Application Ref: 99/50/93047/Eo Hazardous Substance: Very toxic Maximum Quantity: 10 Application date: 21st October 1999 Decision: Deemed Consent Granted Positional Accuracy: Located by supplier to within 10m	A8SE (S)	694	4	421000 425190
34	Planning Hazardous Substance Consents Name: Hays Chemicals Limited Location: Union Mills, Oxford Road, Gomersal, CLECKHEATON, . Authority: Kirklees Metropolitan Borough Council, Planning Services Application Ref: 99/50/93047/Eo Hazardous Substance: Oxidising Maximum Quantity: 170 Application date: 21st October 1999 Decision: Deemed Consent Granted Positional Accuracy: Located by supplier to within 10m	A8SE (S)	694	4	421000 425190
35	Planning Hazardous Substance Consents Name: Brenntag Uk Ltd Location: Union Mills, Oxford Road, Gomersal, Cleckheaton, Bd19 4jw Authority: Kirklees Metropolitan Borough Council, Planning Services Application Ref: 2012/51/90503/E Hazardous Substance: Dangerous for the environment (very toxic to aquatic organisms) Maximum Quantity: 0 Application date: 22nd February 2012 Decision: Deemed Consent Granted Positional Accuracy: Manually positioned to the address or location	A8SE (S)	804	4	421015 425081

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Pennine Lower Coal Measures Formation And South Wales Lower Coal Measures Formation (Undifferentiated)	A13SW (S)	0	1	420962 425915
36	BGS Recorded Mineral Sites Site Name: Field House Location: , Gomersal, Batley, Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 73728 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13SE (S)	211	1	420976 425672
37	BGS Recorded Mineral Sites Site Name: Little Gomersall Location: , Gomersal, Batley, Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 73729 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A13SE (S)	304	1	421014 425584
38	BGS Recorded Mineral Sites Site Name: Marsh House Coal Pit Location: , Gomersal, Cleckheaton, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 72479 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12SE (W)	331	1	420626 425805
39	BGS Recorded Mineral Sites Site Name: Field House Location: , Gomersal, Batley, Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 73727 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A8NW (S)	392	1	420869 425502
40	BGS Recorded Mineral Sites Site Name: Bunker Hill Coal Pit Location: , Gomersal, Cleckheaton, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 72480 Type: Underground Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A8NW (S)	461	1	420828 425441

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
41	BGS Recorded Mineral Sites Site Name: Popely House Location: , Gomersal, Cleckheaton, Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 74109 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Thornhill Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A14SW (SE)	640	1	421574 425636
42	BGS Recorded Mineral Sites Site Name: West Lane Location: , Gomersal, Cleckheaton, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 72764 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	646	1	420490 426399
43	BGS Recorded Mineral Sites Site Name: Monk Ings Location: , Birstall, Batley, Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 73723 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	701	1	421387 426505
44	BGS Recorded Mineral Sites Site Name: Royds Hill Location: , Gomersal, Batley, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 73792 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A7NE (SW)	705	1	420426 425422
45	BGS Recorded Mineral Sites Site Name: Spen Cottage Location: , Gomersal, Cleckheaton, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 72761 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Lepton Edge Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A12SW (W)	754	1	420192 425824
46	BGS Recorded Mineral Sites Site Name: White Lee Location: , White Lee, Batley, Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 73791 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A9NE (SE)	871	1	421795 425564

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
47	BGS Recorded Mineral Sites Site Name: Cromwell Gas Works Location: , Oakwell, Leeds, Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 73719 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18NE (N)	896	1	421280 426785
48	BGS Recorded Mineral Sites Site Name: Lower House Location: , Gomersal, Cleckheaton, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 73714 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A18NW (N)	903	1	420950 426851
49	BGS Recorded Mineral Sites Site Name: Castle House Location: , Gomersal, Cleckheaton, West Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 109806 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Falhouse Rock Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A8SE (S)	957	1	420999 424927
	Coal Mining Affected Areas Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A13SW (S)	0	6	420962 425915
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13SW (S)	0	-	420962 425915
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	0	1	420962 425915
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	0	1	420962 425915
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	94	1	421032 426009
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	0	1	420962 425915
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	0	1	420962 425915
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	25	1	421004 425925
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	204	1	421166 426001

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	0	1	420962 425915
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	94	1	421032 426009
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	0	1	420963 425909
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	0	1	420962 425915
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	104	1	420835 425918
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	0	1	420962 425915
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	0	1	420962 425915

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
50	Contemporary Trade Directory Entries Name: Texaco Location: Gomersal Filling Station, 231, Oxford Road, Cleckheaton, BD19 4PY Classification: Petrol Filling Stations Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (NW)	0	-	420955 425930
50	Contemporary Trade Directory Entries Name: Gomersal Filling Station Location: Gomersal Filling Station, Oxford Road, Gomersal, Cleckheaton, West Yorkshire, BD19 4PY Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	0	-	420958 425941
51	Contemporary Trade Directory Entries Name: Pressed For Time Location: 248, Oxford Road, Gomersal, Cleckheaton, West Yorkshire, BD19 4RE Classification: Ironing & Home Laundry Services Status: Active Positional Accuracy: Automatically positioned to the address	A13SE (SE)	113	-	421051 425802
51	Contemporary Trade Directory Entries Name: Centenary Shipping Services Ltd Location: 242, Oxford Road, Gomersal, Cleckheaton, West Yorkshire, BD19 4RE Classification: Freight Forwarders Status: Active Positional Accuracy: Automatically positioned to the address	A13SE (SE)	133	-	421061 425785
52	Contemporary Trade Directory Entries Name: Metal Masters Location: 2, Bleak Street, Gomersal, Cleckheaton, West Yorkshire, BD19 4RD Classification: Sheet Metal Work Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	201	-	421092 425725
53	Contemporary Trade Directory Entries Name: Commercial Location: 14, Oxford Drive, Gomersal, Cleckheaton, West Yorkshire, BD19 4TU Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (S)	216	-	420876 425685
54	Contemporary Trade Directory Entries Name: Parkinson H & Sons Ltd Location: 14, Bleak Street Lower, Gomersal, Cleckheaton, West Yorkshire, BD19 4RB Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	235	-	421152 425727
55	Contemporary Trade Directory Entries Name: Greyhound Box & Packaging Ltd Location: Gomersal Mills, Spen La, Cleckheaton, West Yorkshire, BD19 4AB Classification: Boxes & Cartons Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12NE (W)	317	-	420622 425940
56	Contemporary Trade Directory Entries Name: Dendale Location: 84, Craven Lane, Gomersal, Cleckheaton, West Yorkshire, BD19 4QU Classification: Printers Status: Active Positional Accuracy: Automatically positioned to the address	A14SW (E)	354	-	421339 425836
57	Contemporary Trade Directory Entries Name: Priest (Lindley) Ltd Location: Spen Lane, Gomersal, Cleckheaton, West Yorkshire, BD19 4LU Classification: Textile Manufacturing Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NE (NW)	409	-	420574 426120
57	Contemporary Trade Directory Entries Name: Paint Box Textiles Location: Gomersal Mills, Gomersal, Cleckheaton, West Yorkshire, BD19 4LU Classification: Dyers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A12NE (NW)	409	-	420574 426120

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
58	Contemporary Trade Directory Entries Name: J L Hobson & Sons Location: 11-15, Grove Lane, Gomersal, Cleckheaton, West Yorkshire, BD19 4JT Classification: Boilers - Servicing, Replacements & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (NW)	454	-	420716 426331
58	Contemporary Trade Directory Entries Name: J L Hobson & Sons Location: 27, Grove Lane, Gomersal, Cleckheaton, West Yorkshire, BD19 4JT Classification: Boilers - Servicing, Replacements & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (NW)	485	-	420692 426352
59	Contemporary Trade Directory Entries Name: T Powles Location: 29, Clumber Drive, Gomersal, Cleckheaton, West Yorkshire, BD19 4RP Classification: Domestic Appliances - Servicing, Repairs & Parts Status: Active Positional Accuracy: Automatically positioned to the address	A8NW (S)	480	-	420789 425435
60	Contemporary Trade Directory Entries Name: Phillip'S Cleaner Homes Location: 67, Clumber Drive, Gomersal, Cleckheaton, West Yorkshire, BD19 4RP Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	518	-	420683 425445
61	Contemporary Trade Directory Entries Name: Davlec Engineering Ltd Location: 4, Willow Close, Gomersal, Cleckheaton, West Yorkshire, BD19 4JA Classification: Laboratories Status: Active Positional Accuracy: Automatically positioned to the address	A8NW (S)	627	-	420839 425268
62	Contemporary Trade Directory Entries Name: Jay-Be Ltd Location: Spen Lane, Gomersal, Cleckheaton, West Yorkshire, BD19 4PN Classification: Bed & Mattress Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	703	-	420237 425913
62	Contemporary Trade Directory Entries Name: Jay-Be Ltd Location: Spen Lane, Gomersal, CLECKHEATON, West Yorkshire, BD19 4PN Classification: Furniture Manufacturers - Home & Office Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	703	-	420237 425913
63	Contemporary Trade Directory Entries Name: Taylor Joinery & Shop Fitting Ltd Location: Duvalay, Dyson House, Oxford Road, Cleckheaton, BD19 4HQ Classification: Shop Fittings Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	754	-	420960 425128
63	Contemporary Trade Directory Entries Name: Duvalay Location: Camtex House, Quarry Road, Gomersal, Cleckheaton, West Yorkshire, BD19 4HX Classification: Bed & Mattress Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A8SW (S)	758	-	420963 425125
63	Contemporary Trade Directory Entries Name: Camtex Ltd Location: Camtex House, Quarry Road, Gomersal, Cleckheaton, West Yorkshire, BD19 4HX Classification: Textile Manufacturing Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	758	-	420963 425125
63	Contemporary Trade Directory Entries Name: A P T Engineering Ltd Location: Oxford Road, Gomersal, Cleckheaton, West Yorkshire, BD19 4HQ Classification: Sheet Metal Work Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	781	-	420998 425102

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
63	Contemporary Trade Directory Entries Name: Platts Engineers Ltd Location: Oxford Road, Gomersal, Cleckheaton, West Yorkshire, BD19 4HQ Classification: Precision Engineers Status: Active Positional Accuracy: Automatically positioned to the address	A8SE (S)	781	-	420998 425102
63	Contemporary Trade Directory Entries Name: Automate Wheel Covers Ltd Location: California Works, Oxford Road, Gomersal, Cleckheaton, West Yorkshire, BD19 4HQ Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	803	-	420955 425080
63	Contemporary Trade Directory Entries Name: Paul Rhodes Precision Engineering Ltd Location: Cleckheaton, BD19 4HQ Classification: Engineers - General Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	804	-	420955 425079
63	Contemporary Trade Directory Entries Name: Heat Works Ltd Location: Oxford Court, Oxford Road, Gomersal, Cleckheaton, BD19 4HQ Classification: Air Conditioning & Refrigeration Contractors Status: Active Positional Accuracy: Automatically positioned to the address	A8SW (S)	852	-	420955 425031
63	Contemporary Trade Directory Entries Name: California M O T'S Ltd Location: Unit 1, California Works, Oxford Road, Gomersal, Cleckheaton, BD19 4HQ Classification: Mot Testing Centres Status: Active Positional Accuracy: Automatically positioned to the address	A8SW (S)	852	-	420955 425031
64	Contemporary Trade Directory Entries Name: Wheatsheaf Garage Location: 95, Upper Lane, Gomersal, Cleckheaton, West Yorkshire, BD19 4JF Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	779	-	420475 425274
65	Contemporary Trade Directory Entries Name: Engine Transplant Location: 156, Dewsbury Road, Gomersal, Cleckheaton, West Yorkshire, BD19 4LL Classification: Engine Rebuilding & Reconditioning Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	786	-	421261 426675
66	Contemporary Trade Directory Entries Name: Vermatec Location: 271, Cliffe Lane, Gomersal, Cleckheaton, West Yorkshire, BD19 4SB Classification: Pest & Vermin Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (NW)	786	-	420216 426242
66	Contemporary Trade Directory Entries Name: Sykes Pest Control Location: 271, Cliffe Lane, Gomersal, Cleckheaton, West Yorkshire, BD19 4SB Classification: Pest & Vermin Control Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (NW)	786	-	420216 426242
67	Contemporary Trade Directory Entries Name: Hepworth Landscapes Location: 48, Queen Street, Gomersal, Cleckheaton, West Yorkshire, BD19 4LG Classification: Coal & Smokeless Fuel Merchants & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NW (N)	789	-	420921 426736
68	Contemporary Trade Directory Entries Name: Svs Glazing Location: 1, Latham Court, Gomersal, Cleckheaton, West Yorkshire, BD19 4DE Classification: Windows - Sash Status: Inactive Positional Accuracy: Automatically positioned to the address	A17NE (NW)	797	-	420584 426651

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
69	Contemporary Trade Directory Entries Name: Brenntag Uk Ltd Location: Union Mills, Oxford Road, Gomersal, Cleckheaton, West Yorkshire, BD19 4JW Classification: Chemicals - Distributors & Wholesalers Status: Active Positional Accuracy: Automatically positioned to the address	A8SE (S)	804	-	421015 425081
69	Contemporary Trade Directory Entries Name: Albion Chemical Distribution Location: Union Mills, Oxford Road, Gomersal, Cleckheaton, West Yorkshire, BD19 4JW Classification: Chemicals - Distributors & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	804	-	421015 425081
69	Contemporary Trade Directory Entries Name: Rhodes H G & Son Location: Oxford Road, Gomersal, Cleckheaton, BD19 4HQ Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	805	-	421014 425080
70	Contemporary Trade Directory Entries Name: Brendan Tingle Location: 72, Moor Lane, Gomersal, Cleckheaton, West Yorkshire, BD19 4LF Classification: Electrical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NW (N)	831	-	420952 426779
71	Contemporary Trade Directory Entries Name: Ovenblitz Location: 13, Monk Ings, Birstall, Batley, West Yorkshire, WF17 9HU Classification: Oven cleaning Status: Active Positional Accuracy: Automatically positioned to the address	A19SE (NE)	858	-	421730 426331
72	Contemporary Trade Directory Entries Name: Brunton-Hague Prestige Ltd Location: 33, Richmond Grove, Gomersal, Cleckheaton, West Yorkshire, BD19 4AG Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NW (N)	894	-	420724 426811
73	Contemporary Trade Directory Entries Name: A.W Gate Automation Location: 224, Spen Lane, Gomersal, Cleckheaton, West Yorkshire, BD19 4PJ Classification: Gate Manufacturers - Automated Status: Inactive Positional Accuracy: Manually positioned to the address or location	A11SE (W)	998	-	419950 425792
74	Fuel Station Entries Name: Co-Op Gomersal Location: Gomersal Filling Station, Oxford Road, Gomersal, Cleckheaton, West Yorkshire, BD19 4PY Brand: Co-Op Premises Type: Hypermarket Status: Open Positional Accuracy: Manually positioned to the address or location	A13NW (NW)	0	-	420955 425929

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
75	Ancient Woodland Name: Fusden Wood Reference: 1103095 Area(m²): 24335.76 Type: Plantation on Ancient Woodland	A12NW (W)	919	7	420021 425955
76	Areas of Adopted Green Belt Authority: Kirklees Metropolitan Borough Council Plan Name: Kirklees Unitary Development Plan Status: Adopted Plan Date: 1st March 1999	A13NE (NE)	75	8	421047 425963
77	Nitrate Vulnerable Zones Name: Not Supplied Description: Surface Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A13SW (S)	83	10	420962 425800

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Bradford Metropolitan City Council - Environmental Health Leeds City Council - Planning and Development Kirklees Metropolitan Borough Council - Planning Services Calderdale Metropolitan Borough Council - Environmental Health	April 2014 April 2014 November 2013 September 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - North East Region	October 2016	Quarterly
Enforcement and Prohibition Notices Environment Agency - North East Region	March 2013	As notified
Integrated Pollution Controls Environment Agency - North East Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control Environment Agency - North East Region	January 2017	Quarterly
Local Authority Integrated Pollution Prevention And Control Kirklees Metropolitan Borough Council - Environmental Health Department Leeds City Council - Neighbourhoods Department Bradford Metropolitan City Council - Environmental Health Calderdale Metropolitan Borough Council - Environmental Health	April 2014 June 2014 October 2014 October 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Controls Kirklees Metropolitan Borough Council - Environmental Health Department Leeds City Council - Neighbourhoods Department Bradford Metropolitan City Council - Environmental Health Calderdale Metropolitan Borough Council - Environmental Health	April 2014 August 2014 October 2014 October 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Kirklees Metropolitan Borough Council - Environmental Health Department Bradford Metropolitan City Council - Environmental Health Leeds City Council - Neighbourhoods Department Calderdale Metropolitan Borough Council - Environmental Health	April 2014 January 2013 June 2014 October 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Nearest Surface Water Feature Ordnance Survey	July 2012	Quarterly
Pollution Incidents to Controlled Waters Environment Agency - North East Region	December 1998	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - North East Region	March 2013	As notified
Prosecutions Relating to Controlled Waters Environment Agency - North East Region	March 2013	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area	January 2017 January 2017	Quarterly Quarterly
Water Abstractions Environment Agency - North East Region	October 2016	Quarterly
Water Industry Act Referrals Environment Agency - North East Region	January 2017	Quarterly
Groundwater Vulnerability Environment Agency - Head Office	April 2015	Not Applicable

Agency & Hydrological	Version	Update Cycle
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations British Geological Survey - National Geoscience Information Service	August 2015	As notified
Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service	August 2015	As notified
Source Protection Zones Environment Agency - Head Office	February 2017	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	November 2016	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	November 2016	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	November 2016	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	November 2016	Quarterly
Flood Defences Environment Agency - Head Office	November 2016	Quarterly
Detailed River Network Lines Environment Agency - Head Office	September 2014	Annually
Detailed River Network Offline Drainage Environment Agency - Head Office	March 2012	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Environment Agency - Head Office	January 2017	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - North East Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area	August 2016 August 2016	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area	October 2016 October 2016	Quarterly Quarterly
Local Authority Landfill Coverage Bradford Metropolitan City Council - Planning Department Calderdale Metropolitan Borough Council - Environmental Health Kirklees Metropolitan Borough Council - Planning Services Leeds City Council - Planning and Development	May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Bradford Metropolitan City Council - Planning Department Calderdale Metropolitan Borough Council - Environmental Health Kirklees Metropolitan Borough Council - Planning Services Leeds City Council - Planning and Development	May 2000 May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable Not Applicable
Registered Landfill Sites Environment Agency - North East Region - Ridings Area	March 2003	Not Applicable
Registered Waste Transfer Sites Environment Agency - North East Region - Ridings Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites Environment Agency - North East Region - Ridings Area	March 2003	Not Applicable
Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	July 2016	Bi-Annually
Explosive Sites Health and Safety Executive	September 2016	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Kirklees Metropolitan Borough Council - Planning Services Bradford Metropolitan City Council - Planning Department Calderdale Metropolitan Borough Council Leeds City Council - Planning and Development	August 2015 February 2016 February 2016 February 2016	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Planning Hazardous Substance Consents Kirklees Metropolitan Borough Council - Planning Services Bradford Metropolitan City Council - Planning Department Calderdale Metropolitan Borough Council Leeds City Council - Planning and Development	August 2015 February 2016 February 2016 February 2016	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	October 2016	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	As notified
Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	January 2017	Quarterly
Fuel Station Entries Catalist Ltd - Experian	November 2016	Quarterly
Gas Pipelines National Grid	July 2014	Quarterly
Underground Electrical Cables National Grid	December 2015	Bi-Annually

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural England	August 2016	Bi-Annually
Areas of Adopted Green Belt Bradford Metropolitan City Council Calderdale Metropolitan Borough Council Kirklees Metropolitan Borough Council Leeds City Council	November 2016 November 2016 November 2016 November 2016	As notified As notified As notified As notified
Areas of Unadopted Green Belt Bradford Metropolitan City Council Calderdale Metropolitan Borough Council Kirklees Metropolitan Borough Council Leeds City Council	November 2016 November 2016 November 2016 November 2016	As notified As notified As notified As notified
Areas of Outstanding Natural Beauty Natural England	January 2017	Bi-Annually
Environmentally Sensitive Areas Natural England	January 2017	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	January 2017	Bi-Annually
Marine Nature Reserves Natural England	January 2017	Bi-Annually
National Nature Reserves Natural England	January 2017	Bi-Annually
National Parks Natural England	February 2017	Bi-Annually
Nitrate Sensitive Areas Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	April 2016	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	October 2015	Annually
Ramsar Sites Natural England	January 2017	Bi-Annually
Sites of Special Scientific Interest Natural England	January 2017	Bi-Annually
Special Areas of Conservation Natural England	January 2017	Bi-Annually
Special Protection Areas Natural England	January 2017	Bi-Annually
World Heritage Sites English Heritage - National Monument Record Centre	September 2015	Bi-Annually

A selection of organisations who provide data within this report

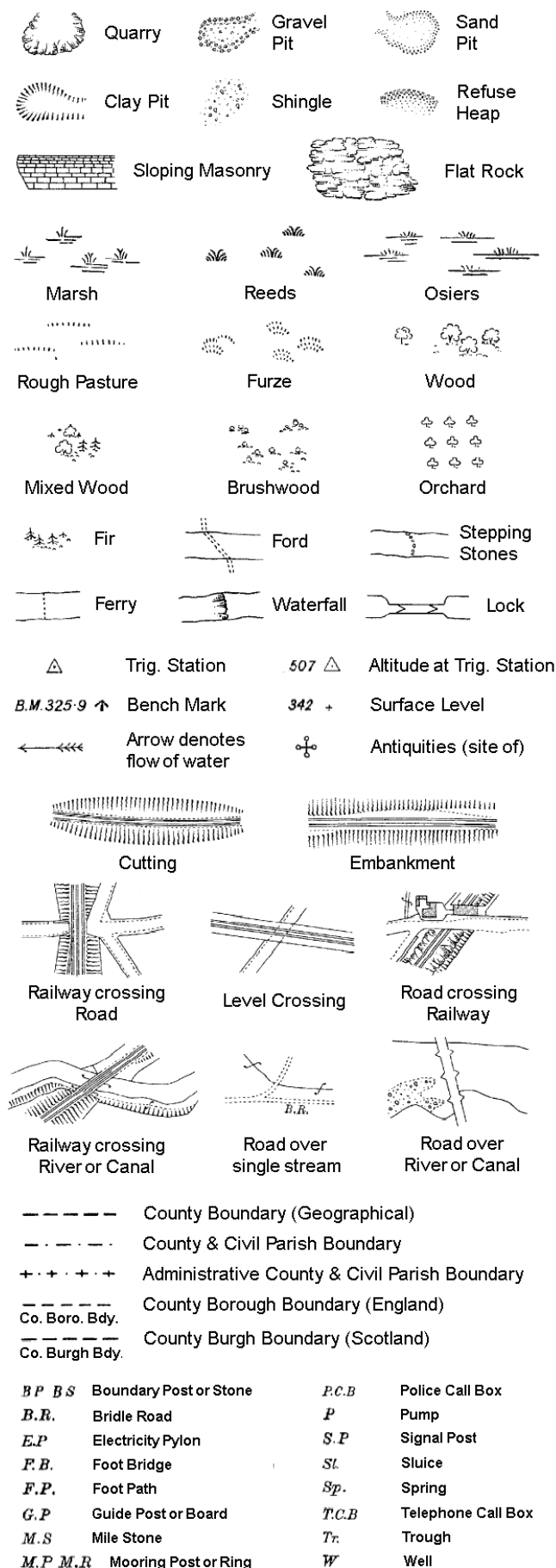
Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	Kirklees Metropolitan Borough Council - Environmental Health Department West Riding House, 9 Manchester Road, Huddersfield, West Yorkshire, HD1 3HH	Telephone: 01484 221000 Email: customer.relations@kirklees.gov.uk Website: www.kirklees.gov.uk
4	Kirklees Metropolitan Borough Council - Planning Services PO BOX B93, Civic Centre III, Off Market Street, Huddersfield, West Yorkshire, HD1 2JR	Telephone: 01484 221000 Fax: 01484 221613 Website: www.kirklees.gov.uk
5	Health and Safety Executive 5S.2 Redgrave Court, Merton Road, Bootle, L20 7HS	Website: www.hse.gov.uk
6	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk
7	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
8	Kirklees Metropolitan Borough Council Town Hall, Civic Centre, Huddersfield, West Yorkshire, HD1 2TA	Telephone: 01484 221000 Fax: 01484 442768 Website: www.kirklees.gov.uk
9	Leeds City Council Civic Hall, Leeds, West Yorkshire, LS1 1UR	Telephone: 0113 234 8080 Fax: 0113 242 1321 Website: www.leeds.gov.uk
10	Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) Government Buildings, Otley Road, Lawnswood, Leeds, West Yorkshire, LS16 5QT	Telephone: 0113 2613333 Fax: 0113 230 0879
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

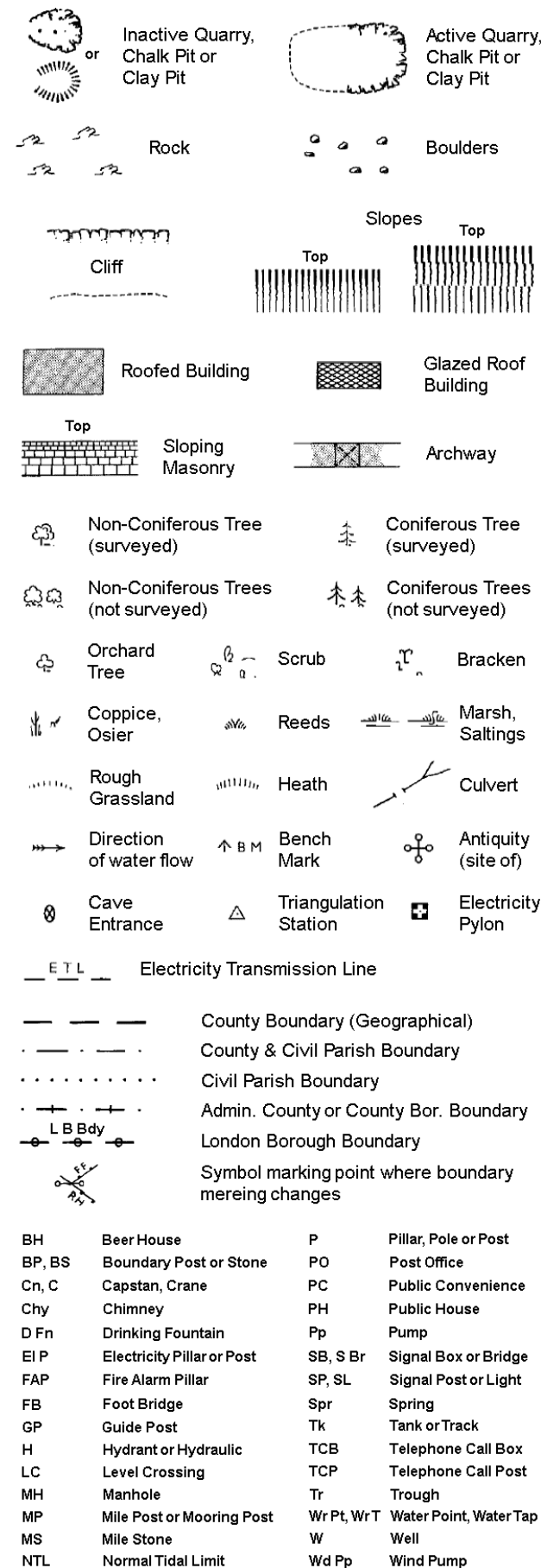
Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.

Historical Mapping Legends

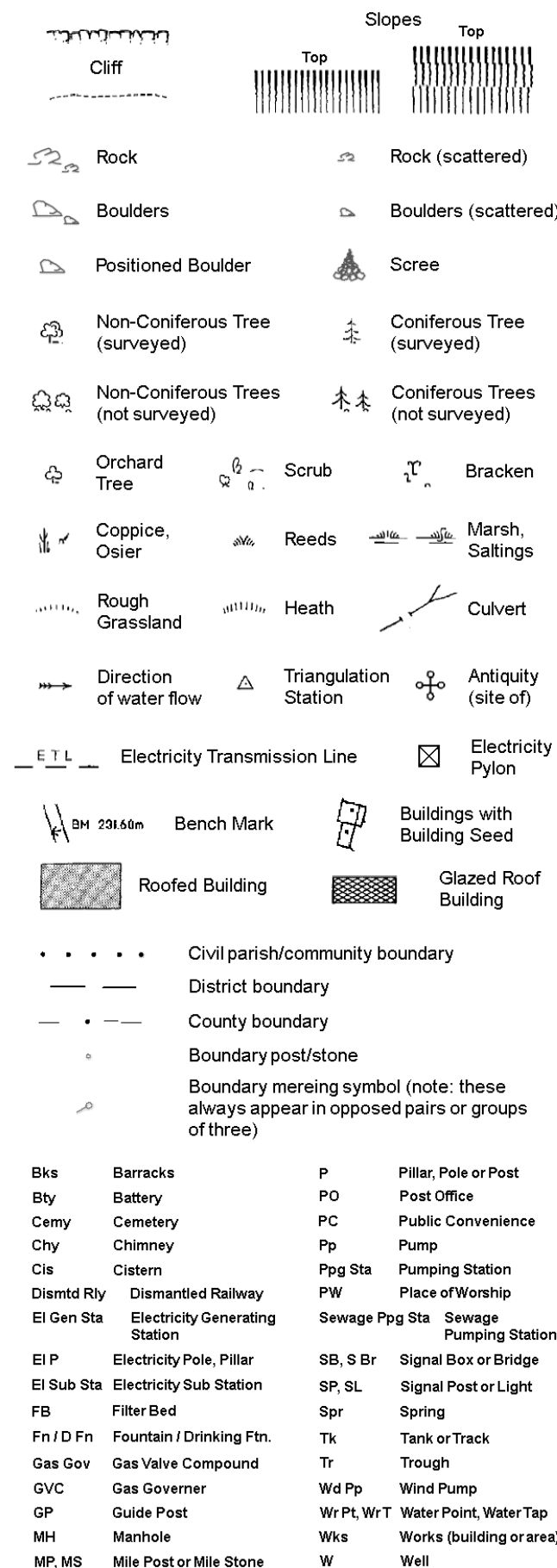
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



Large-Scale National Grid Data 1:2,500 and 1:1,250



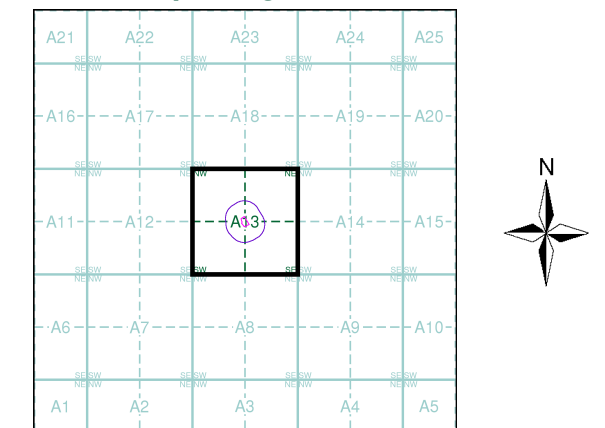
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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:2,500	1894	2
Yorkshire	1:2,500	1908	3
Yorkshire	1:2,500	1922	4
Yorkshire	1:2,500	1938	5
Ordnance Survey Plan	1:1,250	1956	6
Ordnance Survey Plan	1:2,500	1956 - 1957	7
Additional SIMs	1:1,250	1956 - 1986	8
Ordnance Survey Plan	1:1,250	1967 - 1971	9
Additional SIMs	1:1,250	1967 - 1988	10
Ordnance Survey Plan	1:2,500	1968	11
Ordnance Survey Plan	1:1,250	1989	12
Large-Scale National Grid Data	1:1,250	1993	13
Large-Scale National Grid Data	1:1,250	1995	14

Historical Map - Segment A13



Order Details

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Customer Ref: CP16114
National Grid Reference: 420960, 425910
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Site Area (Ha): 0.2
Search Buffer (m): 100

Site Details

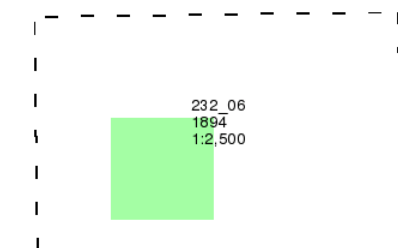
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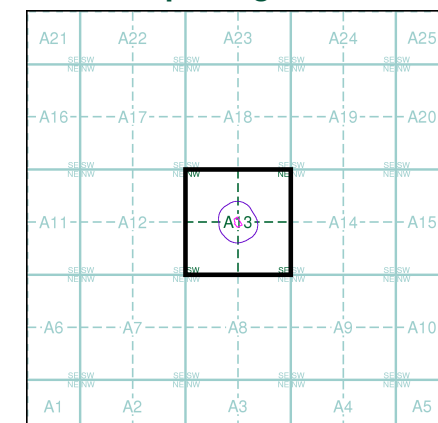
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Map Name(s) and Date(s)



Historical Map - Segment A13

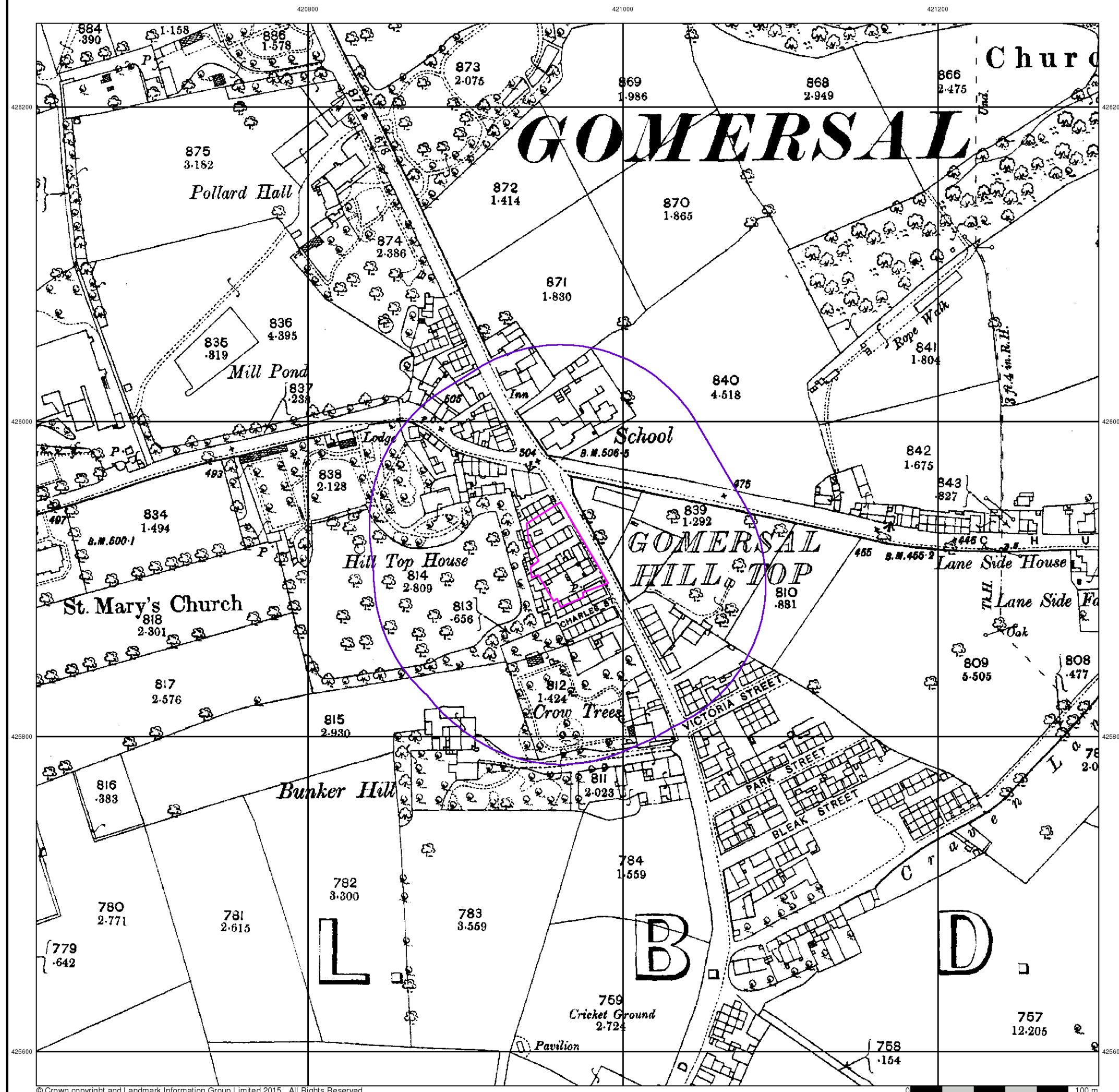


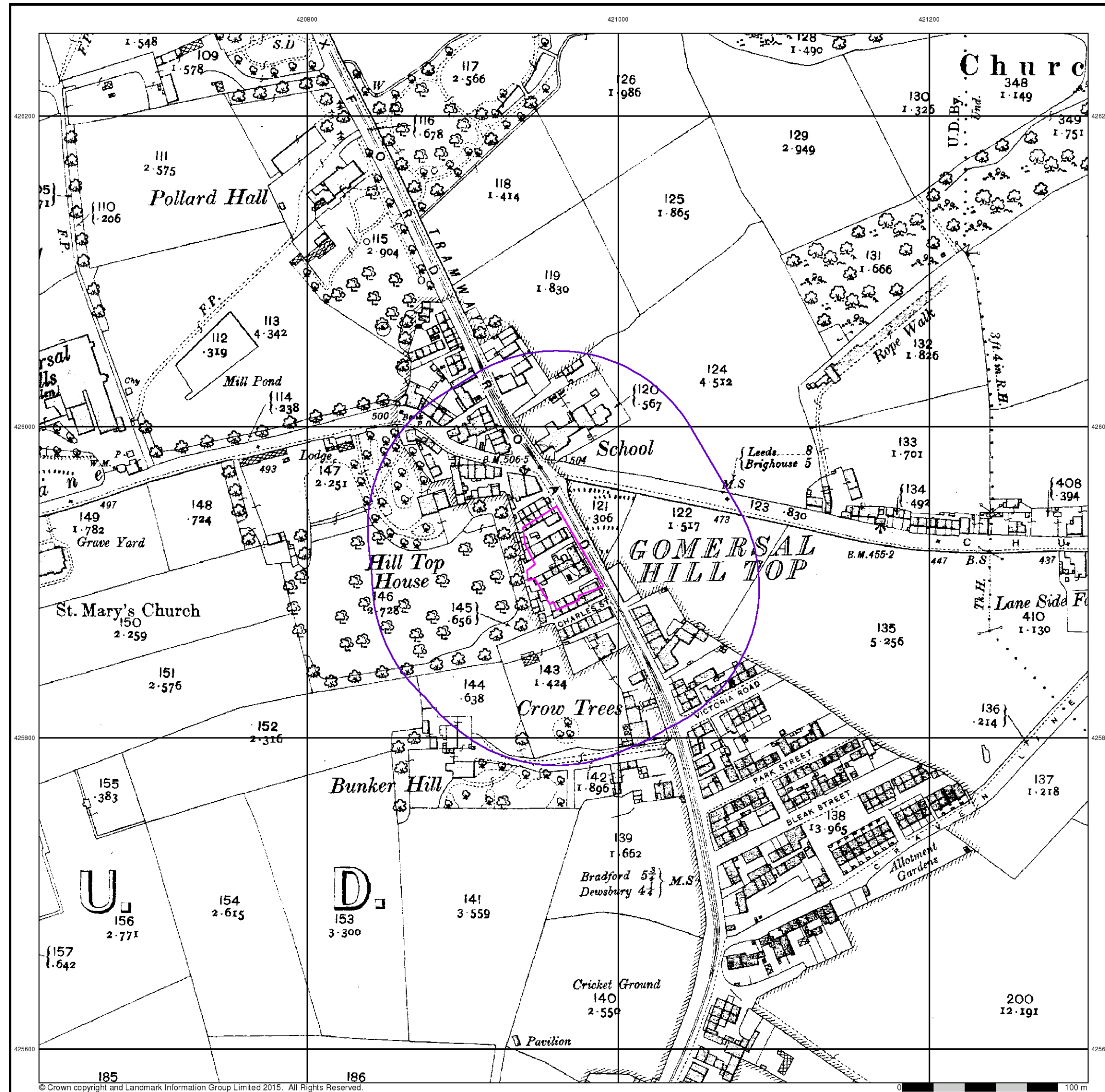
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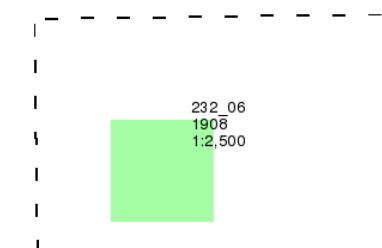
Yorkshire

Published 1908

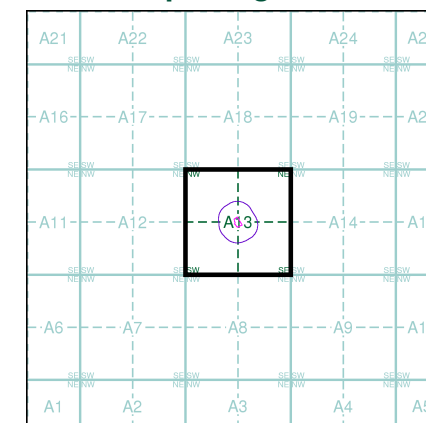
Source map scale - 1:2,500

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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

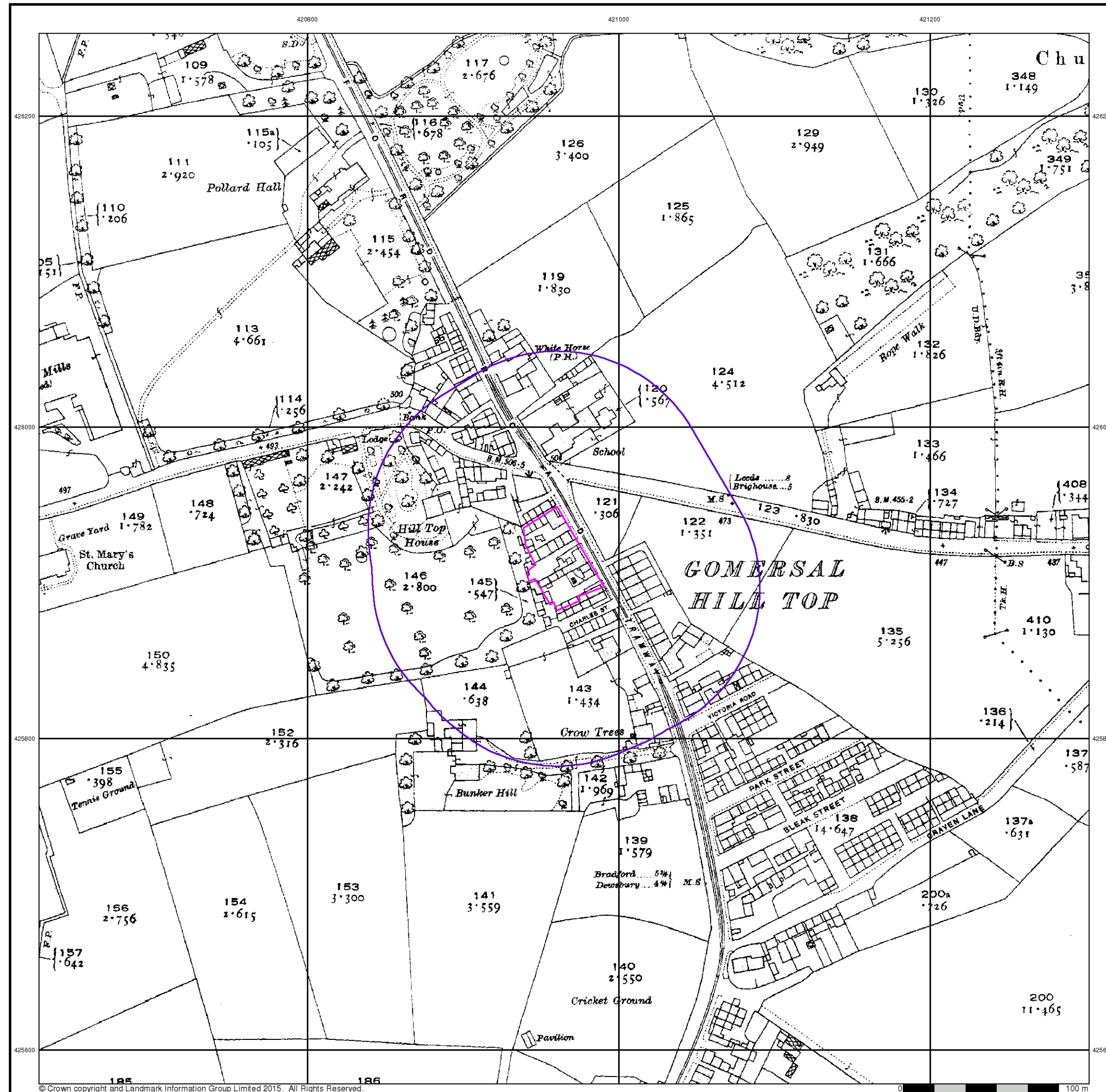
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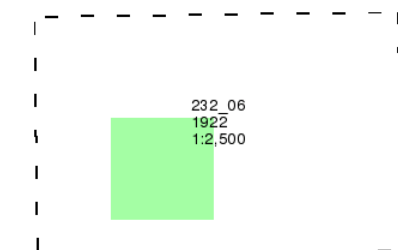
Yorkshire

Published 1922

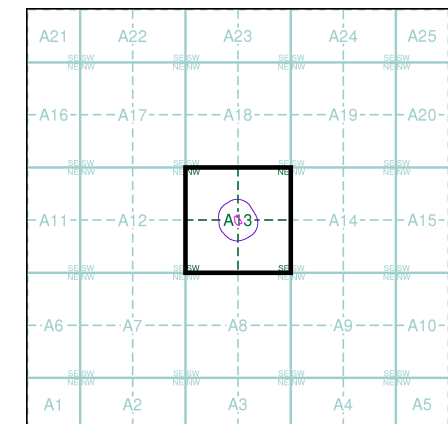
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Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

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Customer Ref: CP16114
National Grid Reference: 420960, 425910
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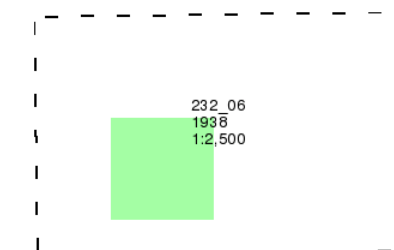
Yorkshire

Published 1938

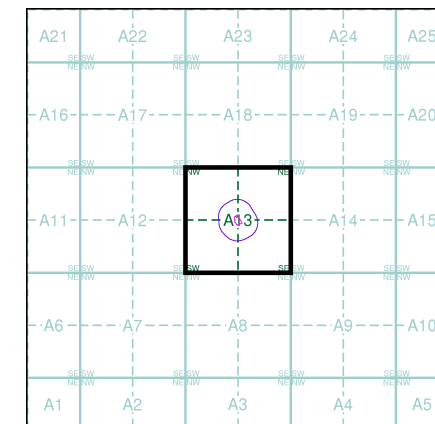
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Map Name(s) and Date(s)



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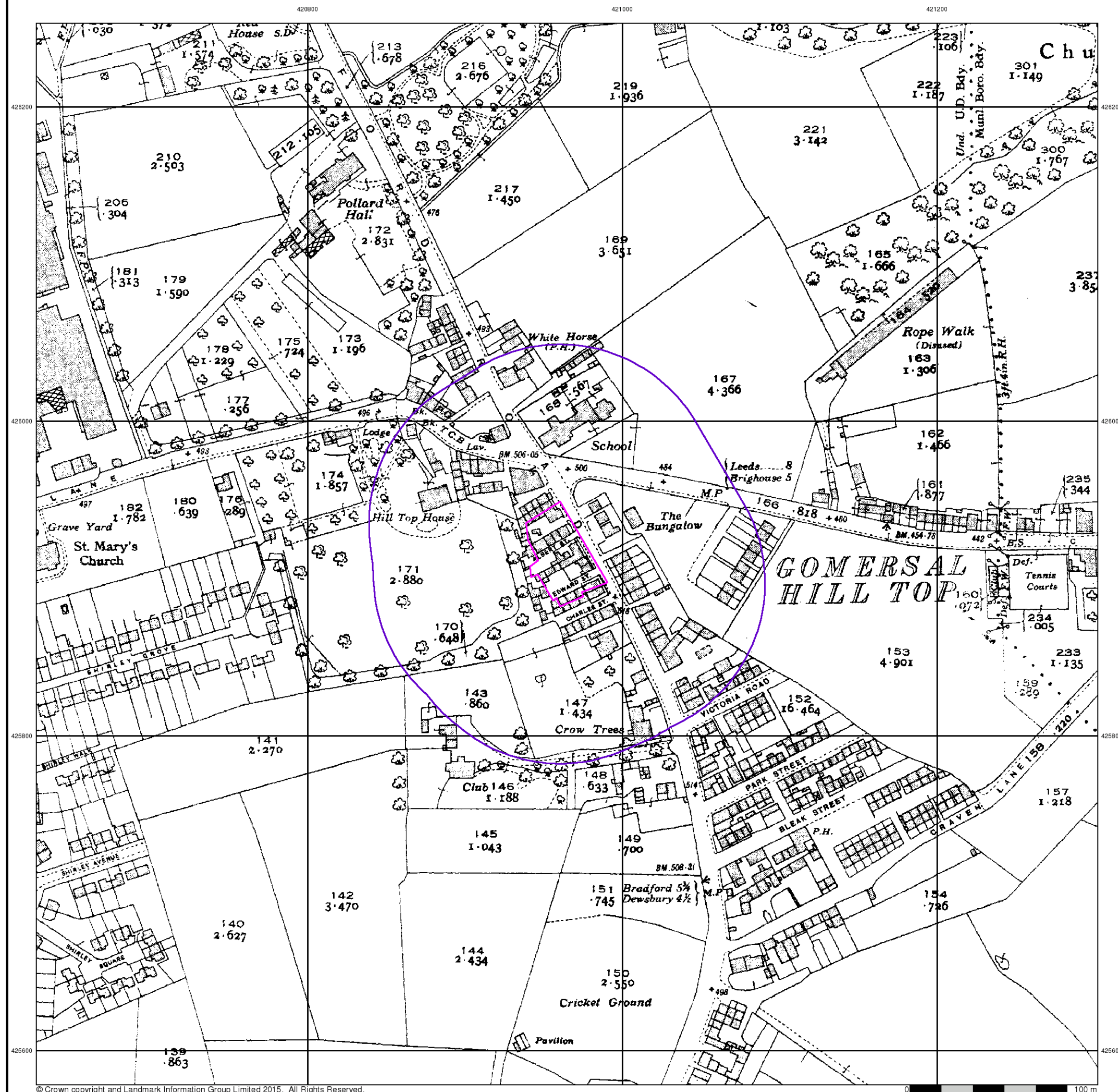


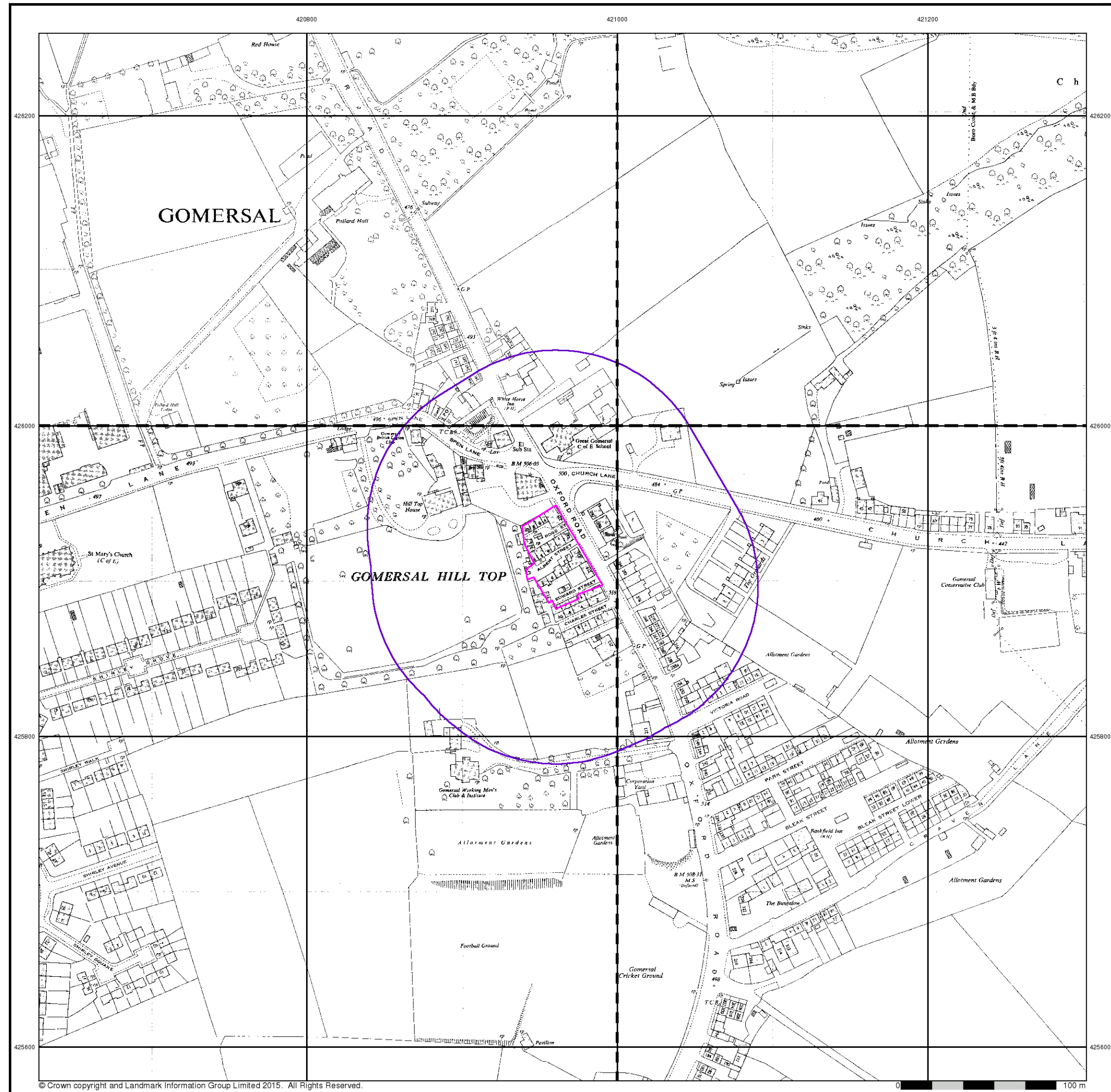
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Ordnance Survey Plan

Published 1956

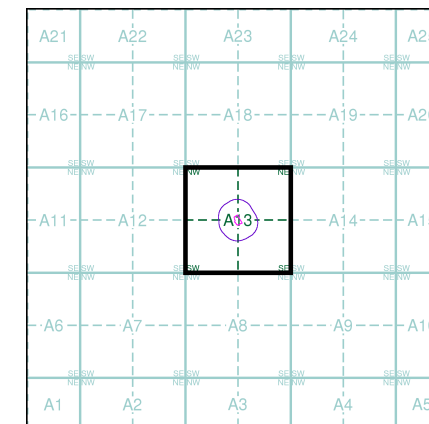
Source map scale - 1:1,250

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Map Name(s) and Date(s)

SE2026SE 1956 1:1,250	SE2126SW 1956 1:1,250
SE2025NE 1956 1:1,250	SE2125NW 1956 1:1,250

Historical Map - Segment A13



Order Details

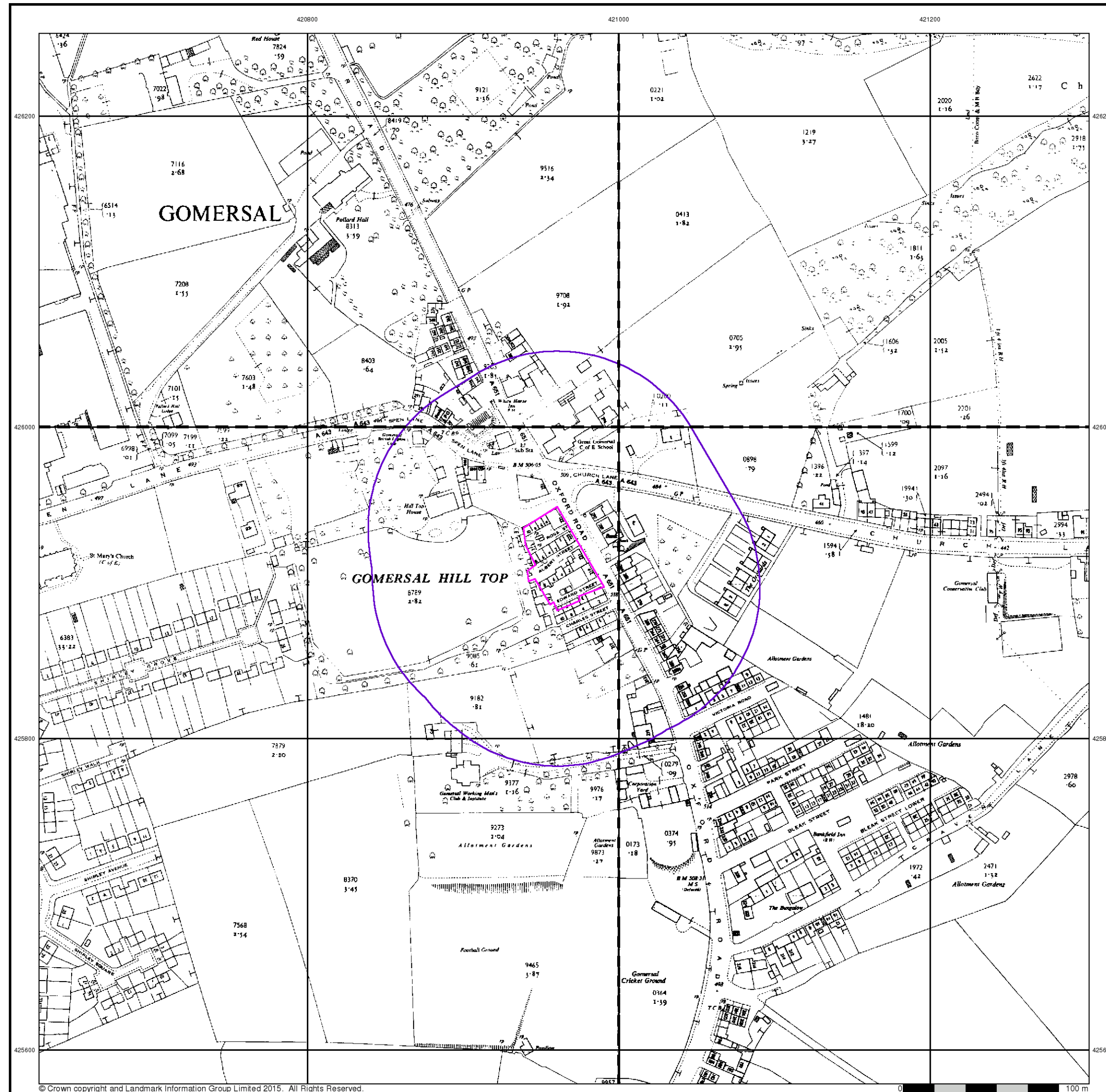
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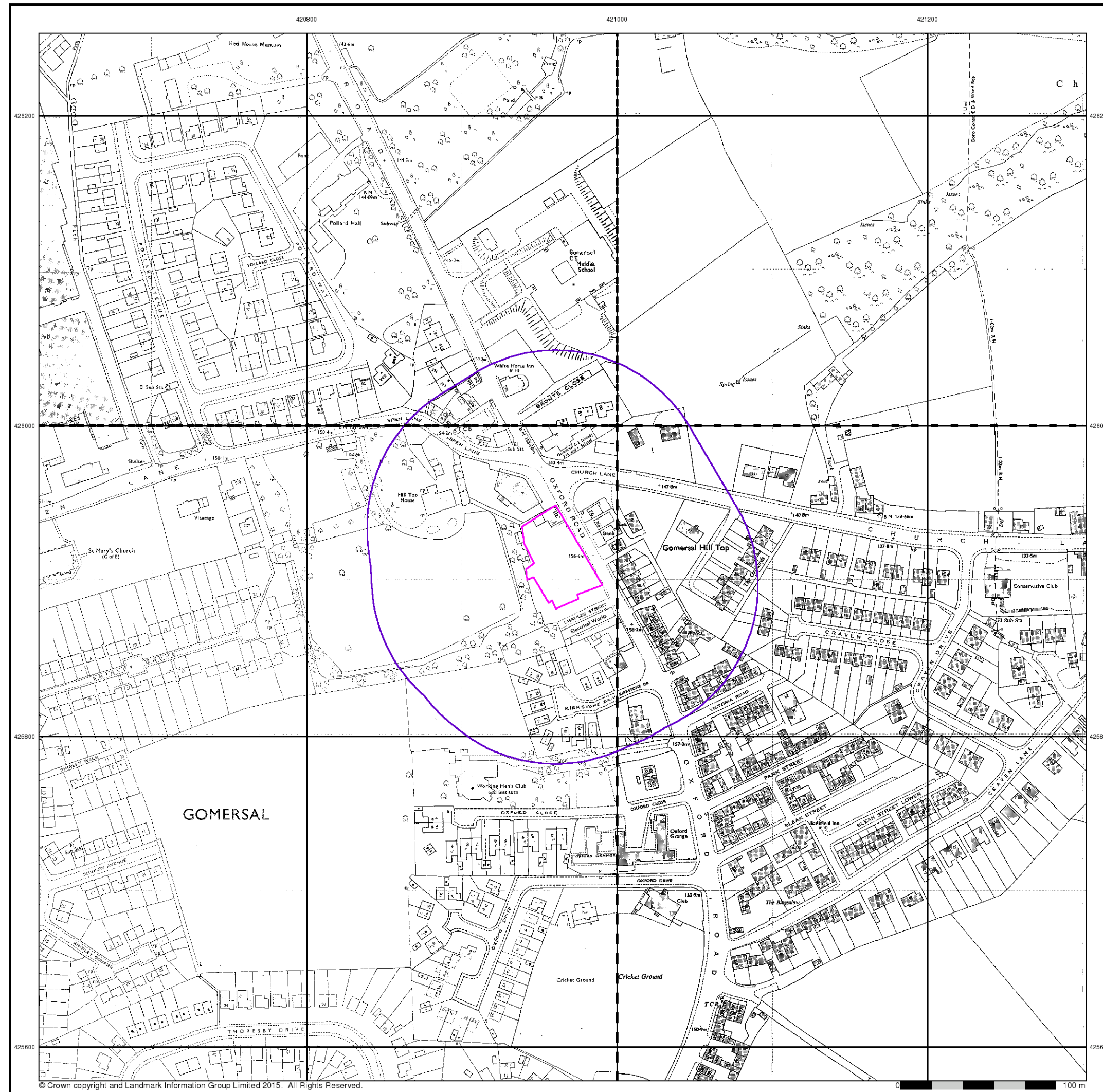
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Additional SIMs

Published 1956 - 1986

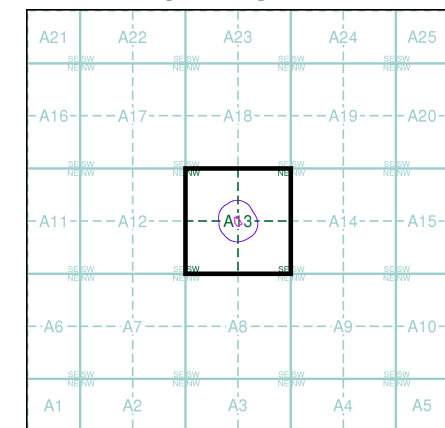
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SE2026SE 1986 1:1,250	SE2126SW 1956 1:1,250
SE2025NE 1977 1:1,250	SE2125NW 1967 1:1,250

Historical Map - Segment A13



Order Details

Order Number: 114531511_1_1
Customer Ref: CP16114
National Grid Reference: 420960, 425910
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 100

Site Details

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Ordnance Survey Plan

Published 1967 - 1971

Source map scale - 1:1,250

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Map Name(s) and Date(s)

SE2026SE	1971	1:1,250
SE2025NE	1971	1:1,250
SE2125NW	1967	1:1,250

Historical Map - Segment A13

Order Details

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Customer Ref: CP16114
National Grid Reference: 420960, 425910
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Search Buffer (m): 100

Site Details

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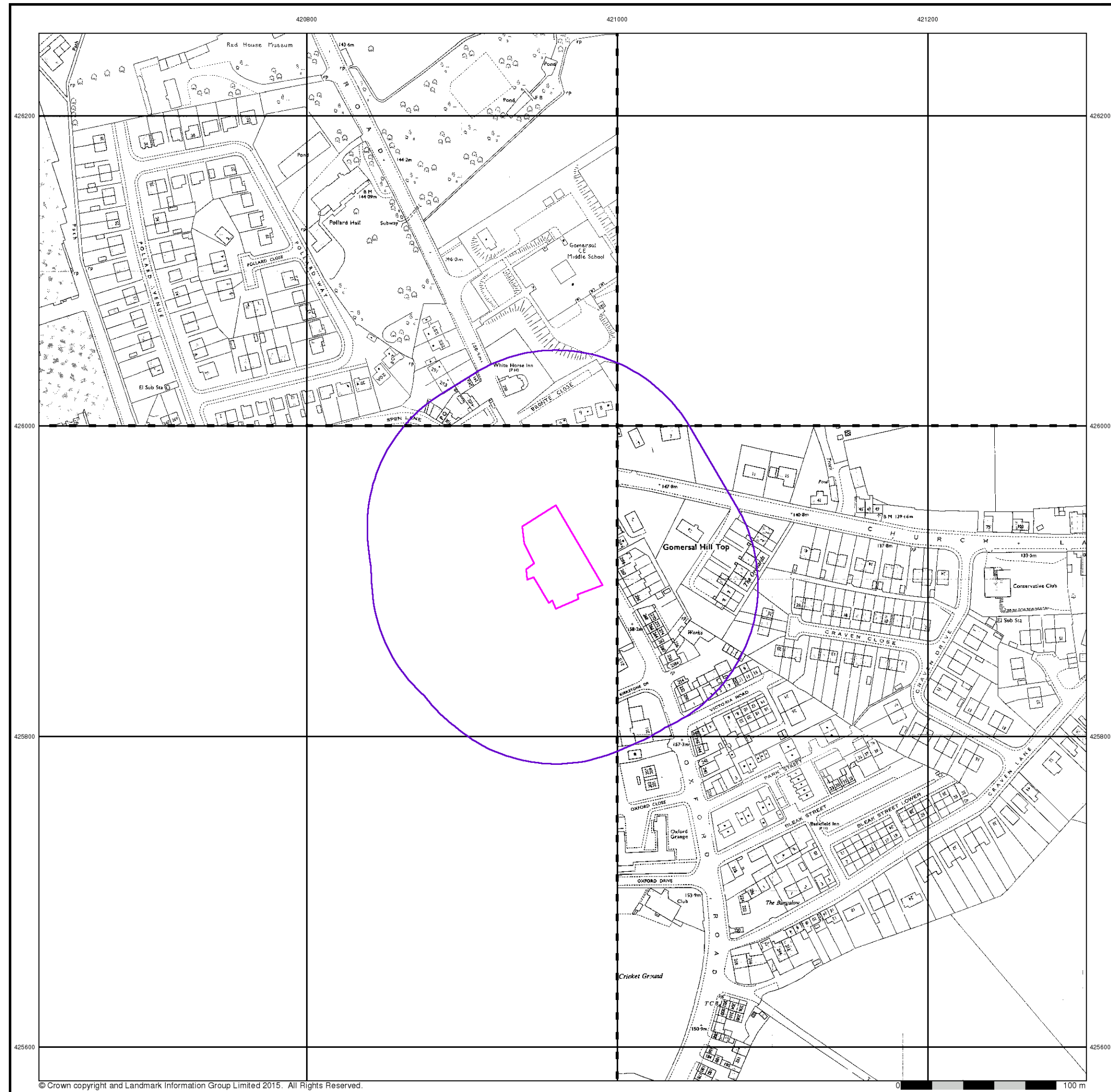
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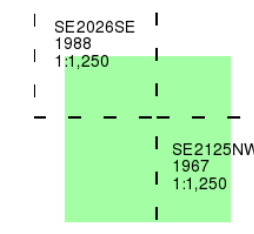
Additional SIMs

Published 1967 - 1988

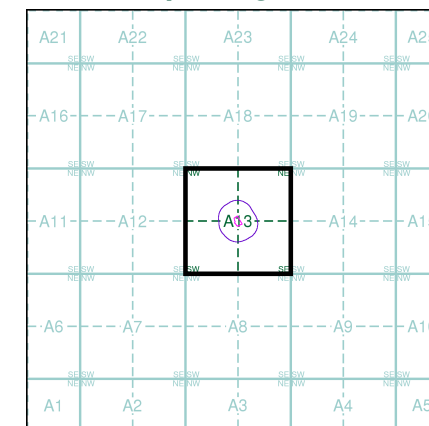
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

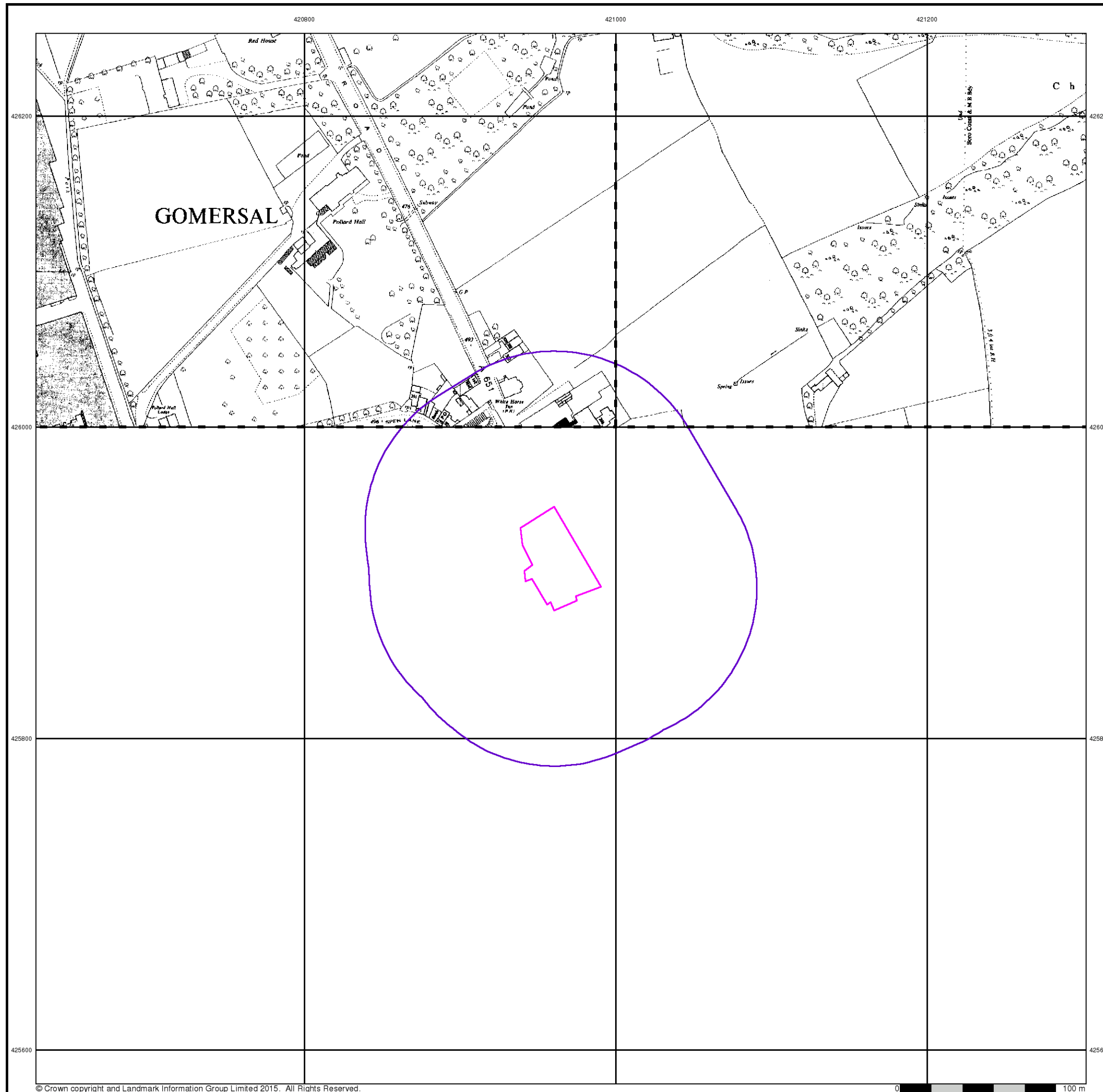
Order Number: 114531511_1_1
Customer Ref: CP16114
National Grid Reference: 420960, 425910
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 100

Site Details

The Co-Operative, The Co-Operative Food, Gomersal Filling Station, 231, CLECKHEATON, BD19 4PY

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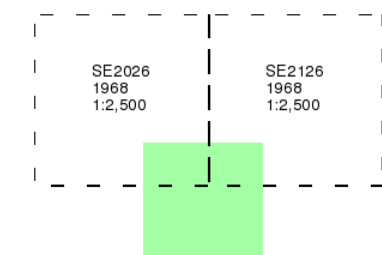
Ordnance Survey Plan

Published 1968

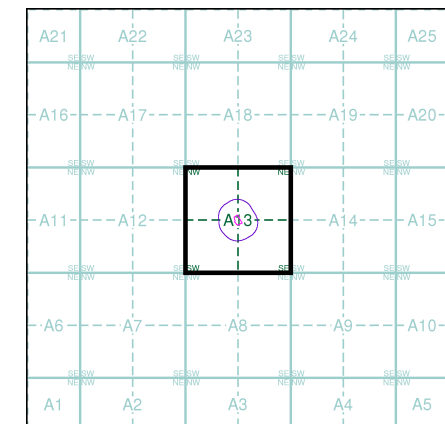
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 114531511_1_1
Customer Ref: CP16114
National Grid Reference: 420960, 425910
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 100

Site Details

The Co-Operative, The Co-Operative Food, Gomersal Filling Station, 231, CLECKHEATON, BD19 4PY

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Ordnance Survey Plan

Published 1989

Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

SE2025NE

1989

1:1,250

Historical Map - Segment A13

A21	A22	A23	A24	A25
A16	A17	A18	A19	A20
A11	A12	A13	A14	A15
A6	A7	A8	A9	A10
A1	A2	A3	A4	A5

N

Order Details

Order Number:	114531511_1_1
Customer Ref:	CP16114
National Grid Reference:	420960, 425910
Slice:	A
Site Area (Ha):	0.2
Search Buffer (m):	100

Site Details

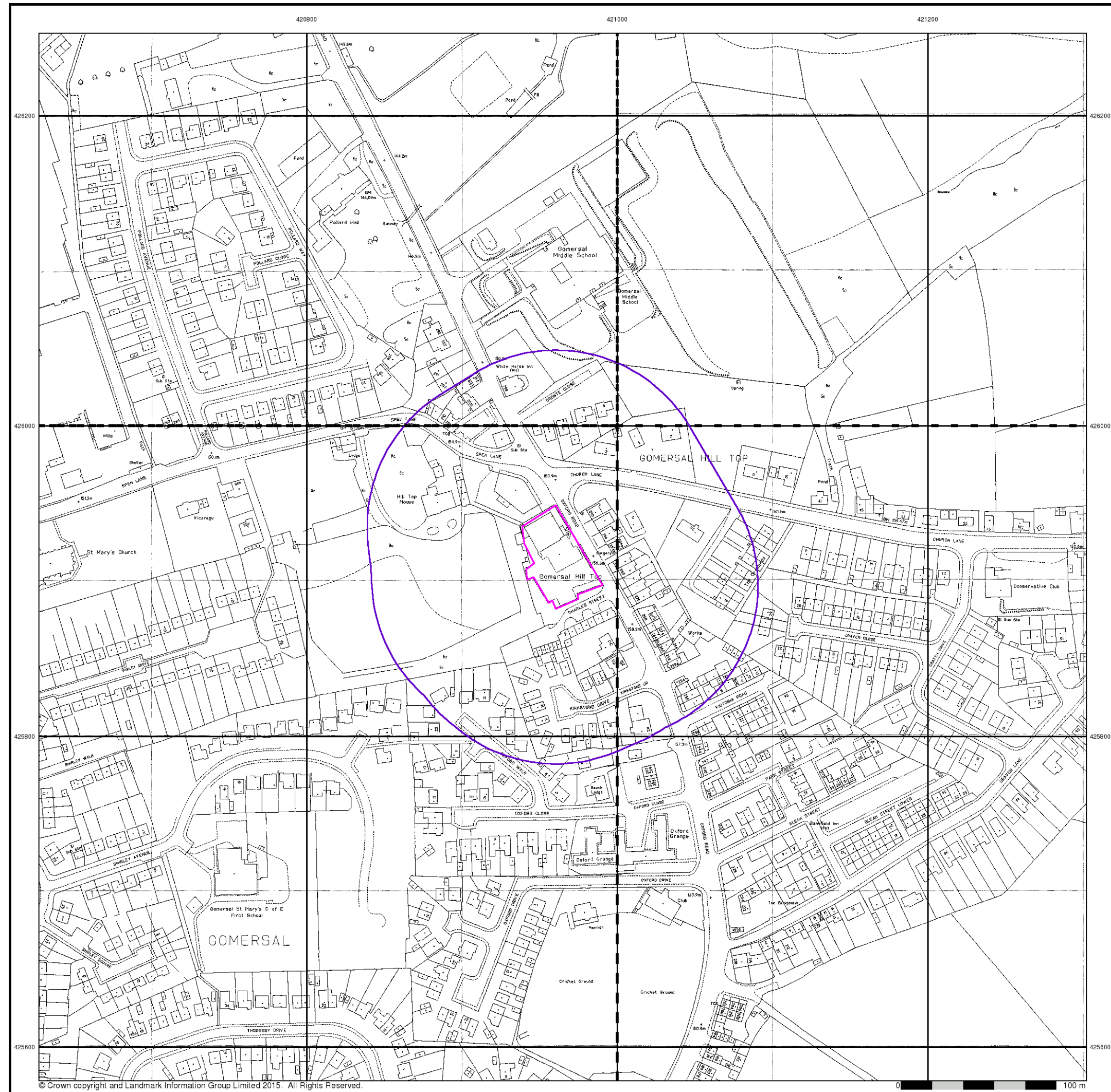
The Co-Operative, The Co-Operative Food, Gomersal Filling Station, 231, CLECKHEATON, BD19 4PY

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Large-Scale National Grid Data

Published 1993

Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SE2026SE 1993 1:1,250	SE2126SW 1993 1:1,250
SE2025NE 1993 1:1,250	SE2125NW 1993 1:1,250

Historical Map - Segment A13

Order Details

Order Number: 114531511_1_1
Customer Ref: CP16114
National Grid Reference: 420960, 425910
Slice: A
Site Area (Ha): 0.2
Search Buffer (m): 100

Site Details

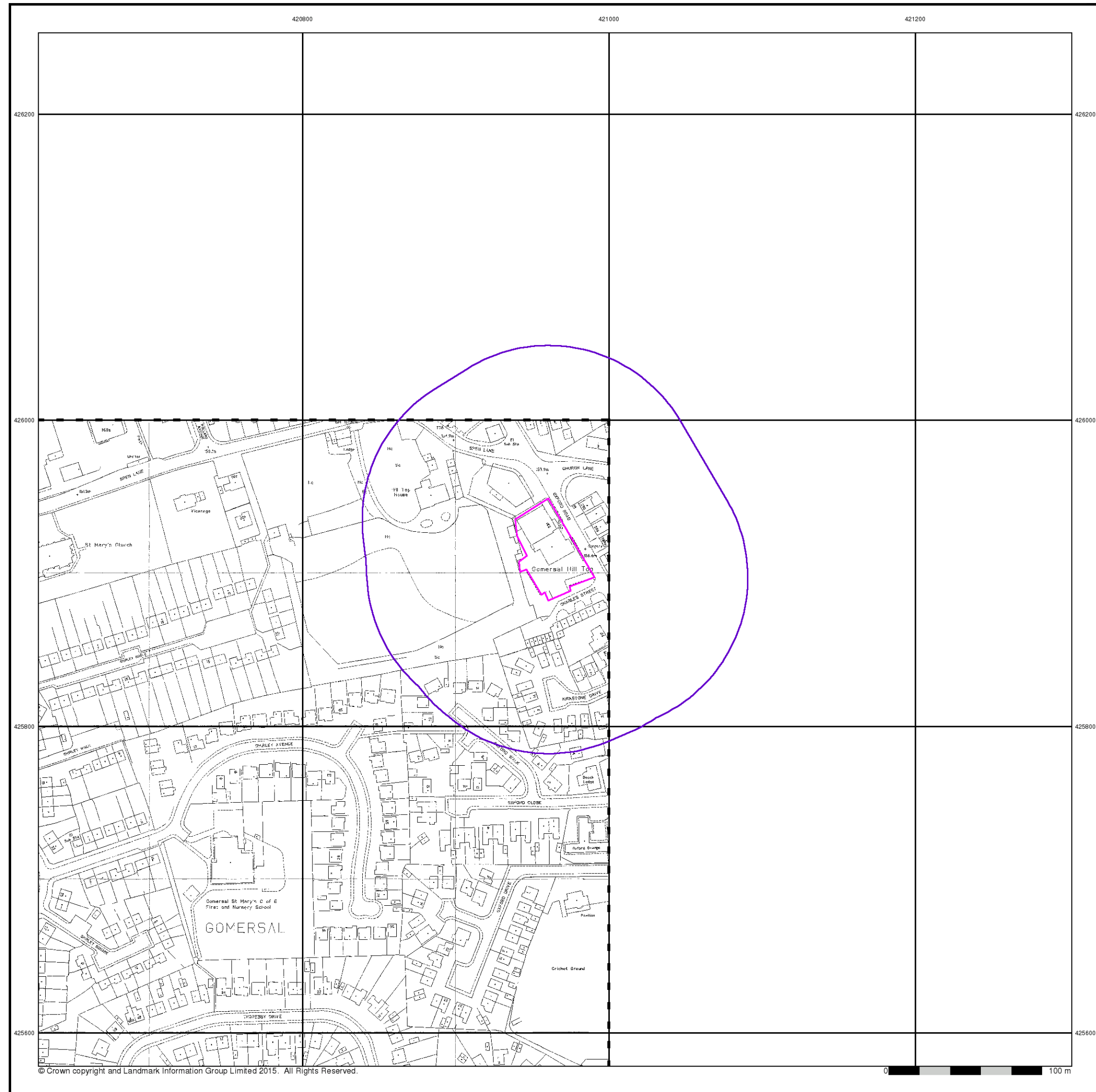
The Co-Operative, The Co-Operative Food, Gomersal Filling Station, 231, CLECKHEATON, BD19 4PY

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Large-Scale National Grid Data

Published 1995

Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SE2025NE

1995

1:1,250

Historical Map - Segment A13

A21

A22

A23

A24

A25

A16

A17

A18

A19

A20

A11

A12

A13

A14

A15

A6

A7

A8

A9

A10

A1

A2

A3

A4

A5

N

Order Details

Order Number:	114531511_1_1
Customer Ref:	CP16114
National Grid Reference:	420960, 425910
Slice:	A
Site Area (Ha):	0.2
Search Buffer (m):	100

Site Details

The Co-Operative, The Co-Operative Food, Gomersal Filling Station, 231, CLECKHEATON, BD19 4PY

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v50.0

16-Feb-2017

Page 14 of 14

Petrol Gomersal, Cleckheaton

SUBADRA

Environmental - Geotechnical - Laboratory - Foundations

13 Triangle Business Park, Wendover Road
Stoke Mandeville, Bucks HP22 5BL

Tel. 01296 739400 Email: consultants@subadra.com

**ATTACHMENT FIVE:
PUBLIC UTILITY DRAWINGS**

Client: The Co-operative Group Ltd

Report

CP16114 CL 001

Date

February 2017

Page

Attachment Five - 1

Maps by email Plant Information Reply



IMPORTANT WARNING

Information regarding the location of BT apparatus is given for your assistance and is intended for general guidance only. No guarantee is given of its accuracy.

It should not be relied upon in the event of excavations or other works being made near to BT apparatus which may exist at various depths and may deviate from the marked route.



openreach
a BT Group business

CLICK BEFORE YOU DIG

FOR PROFESSIONAL FREE ON SITE ASSISTANCE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS INCLUDING LOCATE AND MARKING SERVICE

email cbyd@openreach.co.uk

ADVANCE NOTICE REQUIRED
(Office hours: Monday - Friday 08.00 to 17.00)
www.openreach.co.uk/cbyd

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KEY TO BT SYMBOLS

DP	
Planned DP	
PCP	
Planned PCP	
Built	
Planned	
Inferred	
Building	
Kiosk	
Hatchings	

Pole	
Planned Pole	
Joint Box	
Change Of State	
Split Coupling	
Duct Tee	
Planned Box	
Manhole	
Planned Manhole	
Cabinet	
Planned Cabinet	

Other proposed plant is shown using dashed lines.
BT Symbols not listed above may be disregarded.
Existing BT Plant may not be recorded.
Information valid at time of preparation

openreach
a BT Group business

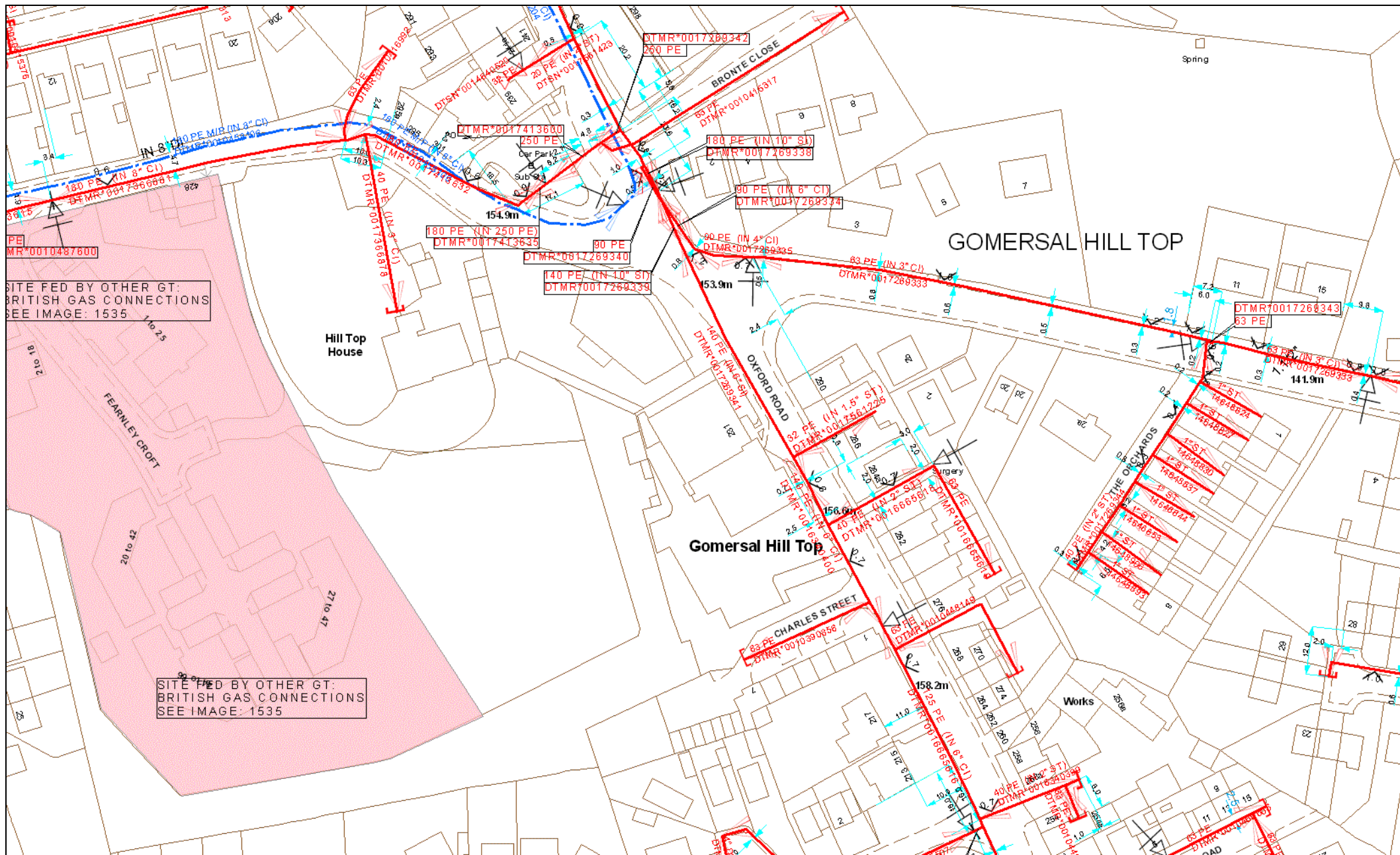
BT Ref : XWX02202L

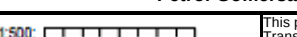
Map Reference : (centre) SE2095 52593

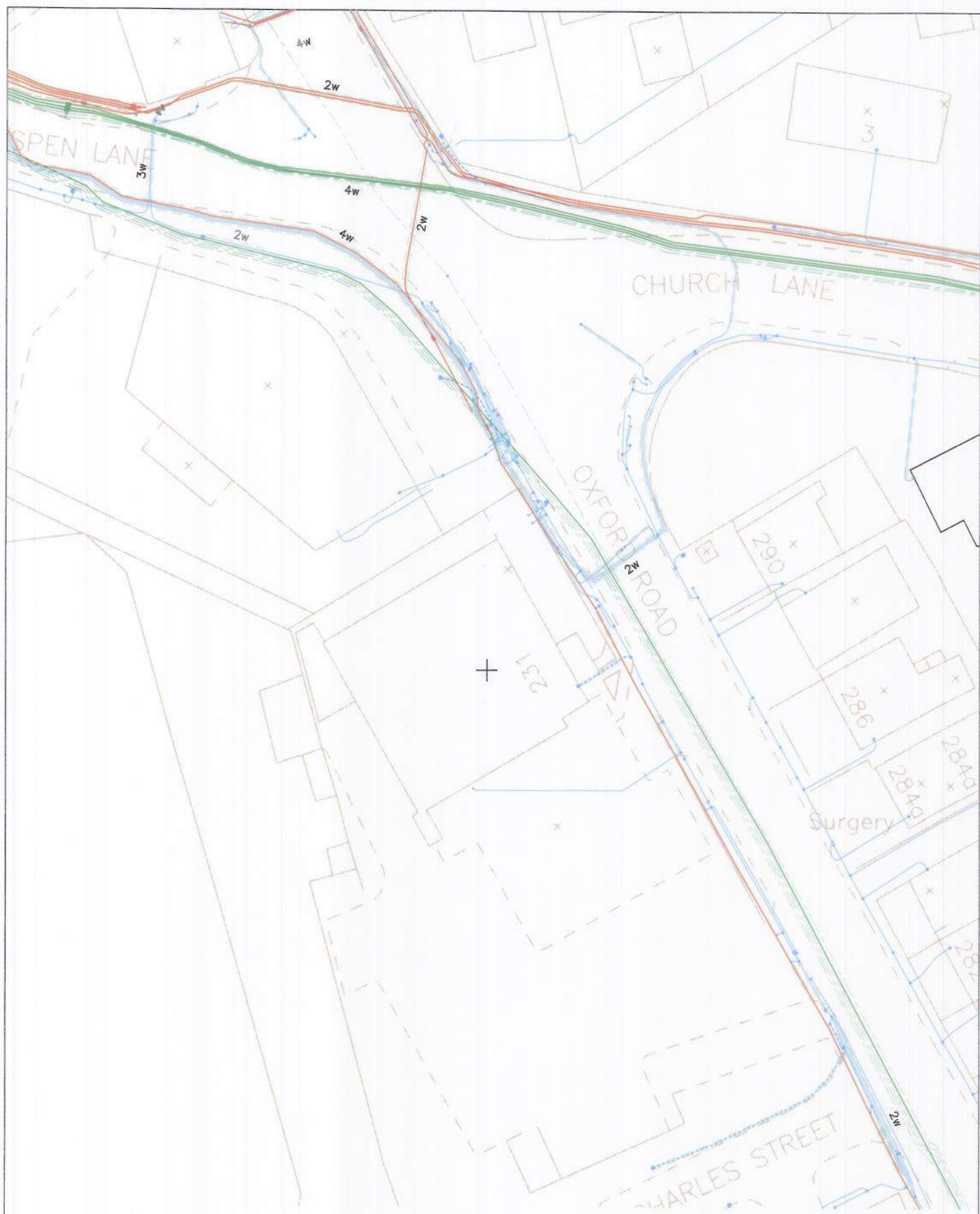
Easting/Northing : (centre) 42095 5,425

Issued : 29/11/2016 14:20:53

WARNING: IF PLANNED WORKS FALL INSIDE HATCHED AREA IT IS ESSENTIAL BEFORE PROCEEDING THAT YOU CONTACT THE NATIONAL NOTICE HANDLING CENTRE. PLEASE SEND E-MAIL TO: nnhc@openreach.co.uk



Title:		Petrol Gomersal										 This plan is reproduced or based on the OS map by Northern Gas Networks, with the sanction of the controller of HM Stationary Office. Crown Copyright Reserved.											
Scale:	1:1250	 Scale in metres												This plan shows those pipes owned by Northern Gas Networks or the relevant Gas Distribution Network in their roles as Licensed Gas Transporters (GT). Gas pipes owned by other GTs, or otherwise privately owned, may be present in this area. Information with regard to such pipes should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. Service pipes, valves, syphons, stub connections, etc. are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Northern Gas Networks, the relevant Gas Distribution Network, or their agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HS(G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near gas apparatus. The information included on this plan should not be referred to beyond a period of 28 days from the date of issue.									
User ID:	Gill																						
Date:	29/11/2016																						
Grid Ref:	420955,425931	Low Pressure Medium Pressure Intermediate Pressure Regional High Pressure Abandoned Pipe 1 Abandoned Pipe 2 Some examples of Plant Items: Valve Depth of Cover Syphon Diameter Change Material Change																					
Internal Use Only																							



Northern Powergrid Holdings Company.

The position of our equipment is shown on this plan as accurately as possible. However, it may have changed since the plan was produced. Therefore, the position of our equipment and those of service cables which may not be shown should be established on site. Electricity cables not owned by Northern Powergrid Holdings Company may be laid in this area and may not be shown on this plan. Where private cables are shown, the information should not be regarded as accurate and should be used for guidance purposes only. In all cases, accurate information should be obtained from the owner of such cables prior to the commencement of work on site.

Petrol Gomersal

Northern
Powergrid
Holdings
Company

Safe Digging Map

420909,425869

02-12-2016

1:500

ZR

HV Cables shown with Voltage and Description		LV Mains / Services { LV Mains & Service Cables shown Surface Wiring { with Description only	
12.1kV			Pls / Telephone
8kV			
33kV			
11kV			
6.6kV			

	Tower
	Steel Mael
	H Pole
	Single Wood Pole
	Stay
	Stays in Tandem
	Live Line Stay
	Spiral
	Pole Mounted Transformer

C	Concentric	Inner phase core Outer concentric neutral
C/A/Cu	Concentric	Al inner phase core Cu outer concentric neutral
C/S	Concentric	Al sheath
D	Distortable	
S/S	Split Concentric	Stranded C, phase Stranded C, neutral
T/C	Twist Concentric	Inner phase core Middle concentric phase core Outer concentric neutral
TW	Two phase core Concentric neutral	
W/A	Waveform	Solid Al phase core Stranded Al neutral

 Trifurcating joint
 Joint (11kV & Above)
 Overhead Recept
 Cable Termination (Wall or Pole Mounted & Insulated End)
 Uninsulated End
 2 Insulated Ends in One Box
 Joint (LV)
 Pilot/Telephone Joint
 Street Lamp
 Traffic Sign
 Telephones Call Box

The diagram illustrates 12 different wiring configurations for a 4-wire system (A, B, C, N) connected to various components. The configurations are as follows:

- Earth Electrode**: A is connected to Earth Electrode, B, C, and N are connected to Earth Electrode via insulated Lead.
- Aerial Earth Wire to Earth Electrode**: A is connected to Earth Electrode, B, C, and N are connected to Earth Electrode via insulated Lead.
- Neutral to Earth Electrode via Insulated Lead**: A, B, and C are connected to Earth Electrode, N is connected to Earth Electrode via insulated Lead.
- Neutral to Sheath**: A, B, and C are connected to Earth Electrode, N is connected to Earth Electrode via insulated Lead.
- Neutral to Earth Conductor**: A, B, and C are connected to Earth Electrode, N is connected to Earth Electrode via insulated Lead.
- Neutral to Sheath to Earth Electrode**: A, B, and C are connected to Earth Electrode, N is connected to Earth Electrode via insulated Lead.
- Neutral to Case to Earth Electrode**: A, B, and C are connected to Earth Electrode, N is connected to Earth Electrode via insulated Lead.
- Tank to Earth Electrode**: A, B, and C are connected to Earth Electrode, N is connected to Earth Electrode via insulated Lead.
- Tank to Earth Electrode via Insulated Lead**: A, B, and C are connected to Earth Electrode, N is connected to Earth Electrode via insulated Lead.
- Neutral to Tank to Earth Electrode**: A, B, and C are connected to Earth Electrode, N is connected to Earth Electrode via insulated Lead.

Special Customer	Red Phase
Water cabinet & ISU	Yellow Phase
Cut Out	Blue Phase
Address Point	Green Phase
Bird Flight Diviser	White Phase
Current End Position for GIS	Phase Unknown
Generator	Three Phase
Marker Post	Other 2000 ft
	Depth Marker
	Height Above Sea
	Height Above Seafloor
	Oranges Drift

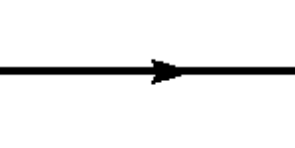
4 3

YORKSHIRE WATER PROTECTION OF MAINS AND SERVICES

1. The position of Yorkshire Water Services Ltd (YWS) apparatus shown on the existing mains record drawing(s) indicates the **general** position and nature of our apparatus and the accuracy of this information cannot be guaranteed. Any damage to YWS apparatus as a result of your works may have serious consequences and you will be held responsible for all costs incurred. Prior to commencing major works, the exact location of apparatus must be determined on site, if necessary by excavating trial holes. The actual position of such apparatus and that of service pipes which have not been indicated must be established on site by contacting the Customer Helpline on 0845 124 24 24 for both water and sewerage.
2. The public sewer and water network is lawfully retained in its existing position and the sewerage and water undertaker is entitled to have it remain so without any disturbance. The provisions of section 159 of the Water Industry Act 1991 provides that the undertaker may "inspect, maintain, adjust, repair or alter" the network. Those rights are given to enable the undertaker to perform its statutory duties. Any development of the land or any other action that unacceptably hindered the exercise of those rights would be unlawful. The provisions contained in Section 185 of the Water Industry Act 1991 state that where it is reasonable to do so, a person may require the water supply undertaker to alter or remove a pipe where it is necessary to enable that person to carry out a proposed change of use of the land. The provisions contained in Section 185 also require the person making the request to pay the full cost of carrying out the necessary works.
3. Ground levels over existing YWS apparatus are to be maintained. Sewers in highways will **generally** be laid to give 1200mm of cover from finished ground level working to kerb races, other permanent identification of the limits of the road or to an agreed line and level. Substantial increases or decreases to this 1200mm depth of cover will result in the sewer being re-laid at your expense. Water mains and services will **generally** be laid with a minimum of 750mm depth of cover however some mains and services usually those installed over 50 years ago may have less ground cover.
4. If surface levels are to be decreased / increased significantly the effects on existing water supply apparatus will be carefully considered and if any alterations are necessary, the costs of the alterations will be recharged to you in full. Outlets on fire hydrants must be no more than 300mm below the new levels and all surface boxes must be adjusted as part of the scheme.
5. To enable future repair works to be carried out without hindrance; any pipe, cable, duct, etc. installed parallel to a water main or service pipe should not be installed directly over or within 300mm of a water main or service pipe or 1000mm of a waste water asset. Where a pipe, cable, duct, etc. crosses a main or service it should preferably cross perpendicular or at an angle of no less than 45° and with a minimum clearance of 150mm. These requirements apply to activities within an existing highway and are relevant to the installation of pipes, cables, ducts, etc. up to and including 250mm in diameter (*see illustration below*). Necessary protection measures for installations greater than 250mm in diameter and/or in private land will need to be agreed on an individual basis. Installations within a new development site must comply with the National Joint Utilities Group publication Volume 2: NJUG Guidelines On The Positioning Of Underground Utilities Apparatus For New Development Sites.
6. All excavation works near to YW apparatus should be by hand digging only.
7. Backfilling with a suitable material to a minimum 300mm above YW apparatus is required.
8. Adequate support must be provided where any works pass under YW apparatus.
9. Jointing chambers, lighting columns and other structures must be installed in such a way that future repair or maintenance works to YW apparatus will not be hindered.
10. Apparatus such as; railings, sign posts, etc. must not be placed in such a way that they prevent access to or full operation of controlling valves, hydrants or similar apparatus. YWS surface boxes must not be covered or buried. Any adjustment, alteration or replacement of manhole covers must be agreed on site prior to the commencement of the works with a YWS Inspector who may be contacted via our Call Centre on 0845 124 24 24.
11. Explosives shall not be used within 100 metres of any Yorkshire Water Services apparatus or installations.
12. Vibrating plant should not be used directly over any apparatus. Movement or operation by vehicles or heavy plant is not to be permitted in the immediate vicinity of YWS plant or apparatus unless there has been prior consultation and, if necessary, adequate protection provided without cost to YWS.
13. **Under no circumstances** should thrust boring or similar trenchless techniques commence until the actual position of the Company's mains/services along the proposed route have been confirmed by trial holes.
14. Any alterations to the highway should be notified following the procedures outlined in the New Road and Street Works Act 1991 Code of Practice; Measures Necessary Where Apparatus Is Affected By Major Works (Diversions Works).

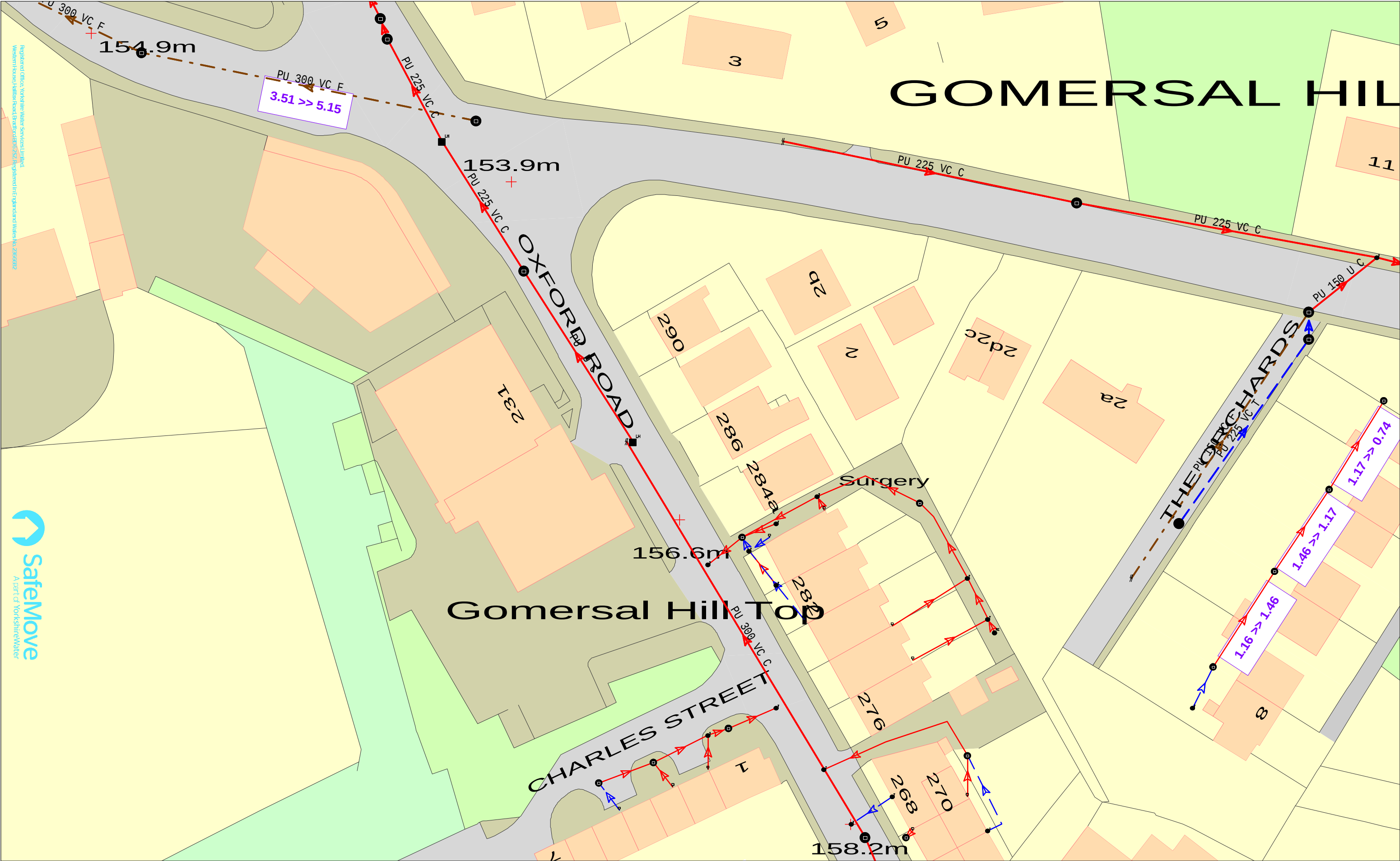
15. You will be held responsible for any damage or loss to YWS apparatus during and after completion of work, caused by yourselves, your servant or agent. Any damage caused or observed to YWS plant or apparatus should be immediately reported to YWS. Should YW incur any costs as a result of non-compliance with the above, all costs will be rechargeable in full.
16. You should ensure that nothing is done on the site to prejudice the safety or operation of YWS employees, plant or apparatus.
17. In accordance with the New Roads and Street Works Act 1991, Chapter 22, Part 3, Section 80. The location of any identified YW asset "*which is not marked, or is wrongly marked, on the records made available* " should be communicated back to Yorkshire Water. The location of the apparatus should be identified on copies of the supplied plans which should be returned to Yorkshire Water (Asset Records Team) with photographic supporting evidence where possible.
18. The Government has decided that responsibility for private sewers serving two or more properties and lateral drains (the section of pipe beyond the boundary of a single property, connecting it to the public sewer) will be transferred to the water companies on Oct 1 2011. Private pumping stations will also transfer during the period 1 October 2011 – 1 Oct 2016. Records of these assets may not yet be shown on the existing mains record drawing(s). If you encounter any of these assets you must inform Yorkshire Water Services Ltd (YWS).
19. Please note that the information supplied on the enclosed plans is reproduced from Ordnance Survey material with the permission of the Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office, © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. Licence Number 1000019559.
20. This information is for guidance only and the position and depth of any YW apparatus is approximate only. Likewise, the nature and condition of any YW apparatus cannot be guaranteed. YW has no responsibility for recording the locations of privately owned apparatus. As of 1 October 2011, there may be some lateral drains and/or public sewers which are not documented on YW records but may still be present. For the avoidance of doubt, this information is not a substitute for appropriate professional and/or legal advice. YW accepts no responsibility for any inaccuracy or omissions in this information. The actual position of YW apparatus must be determined on site by excavating trial holes by hand. YW requires a minimum of two working days' written notice of the intention to excavate any trial holes before any excavation can be undertaken. If there are any queries in this respect please contact Yorkshire Water on 0845 124 24 24.

Sewer Legend

	Combined Sewer		S24 Combined Sewer
	Surface Water Sewer		S24 Surface Water Sewer
	Foul Sewer		S24 Foul Sewer
	Section 104 Sewer		Public Rising Main
	Pumping Station		Abandoned Sewer
	Public Sewage Treatment Works		Syphon Sewer & Vacuum Sewer
		+	Property Identifier

Water Legend

	Water Main 4" and below
	Water Main 4" and above
	Raw Water Main
	Private Water Main
	Fire Hydrant
	Pumping Station



420902 : 425876



Yorkshire Water,
PO Box 500,
Halifax Road,
Bradford BD6 2LZ
Contact Name :
Dobson
Contact Tel :

Map Name : SE2025NE

Title

Notes

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Partial Key

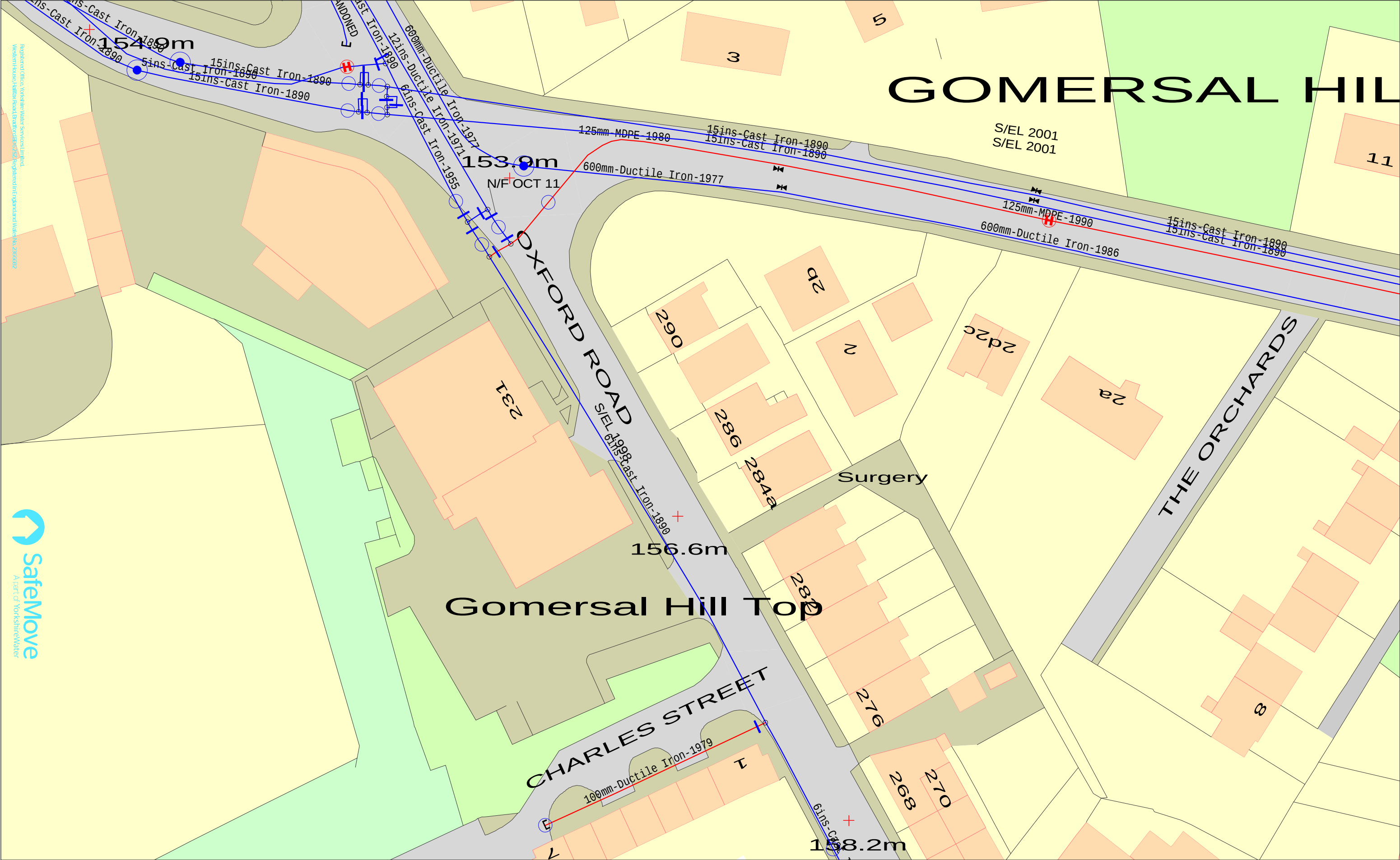
Foul Sewer = F
Combined Sewer = C
Surface Water Sewer = SW
Trade Sewer = TD
Partially Separate = PS

Date Req : 29/11/2016, 15:26:32

Date Gen : 29/11/2016, 15:27:15

Source : Sewer Network Enquiry

This plan is furnished as a general guide only and no warranty as to its correctness is given or implied. This plan must not be relied upon in the event of excavations or other works made in the vicinity of public sewers. No house or property connections are shown.



420902 : 425875		Map Name : SE2025NE	Title	Partial Key Water mains up to 4" in diameter Water mains over 4" in diameter Raw water mains Private water mains
-----------------	--	---------------------	-------	--

The position and depths of apparatus shown on this plan are approximate only. The exact positions and depths should be obtained by excavation trial holes.