WY 6

KIRKHEATON BRICKWORKS SWD IANDSITE

CONTROL OF POLLUTION ACT 1974 S11

West Yorkshire Metropolitan County Council at a meeting on the 20th July 1977 resolved to operate this site in accordance with the following conditions:-

1. The resolution shall relate to the area edged red on the plan i.e. Kirkheaton Brickworks, the operational area being shown coloured pink.

2. The site shall be operated by the West Yorkshire Metropolitan County Council, the materials to be deposited shall be limited to domestic and commercial waste plus industrial waste of a similar nature and such notifiable wastes as are acceptable to the relevant statutory authorities.

3. The Transportation and Engineering Committee shall be notified of the proposed conduct of operations and a working plan submitted not later than the date of the first meeting of the Engineering Sub Committee. after the 31st March, 1978. The Transportation and Engineering Committee shall be notified of any subsequently proposed changes in the conduct of operations from the proposals shown in that working plan.

4. Site access and internal site roads shall be constructed and maintained to a reasonable standard. The internal site roads shall be extended as necessary to minimise the distance vehicles must travel over unmade surfaces.

5. Gates and boundary fencing shall be provided and maintained in good order and all reasonable precautions taken to prevent unauthorised access to the site.

6. A site identification board of durable material and finish shall be provided at the site entrance showing the hours when the site is open and giving the name, address and telephone number of the County Council.

7. Suitable wheel cleaning facilities shall be provided these facilities shall be properly maintained and used as necessary.

8. Suitable site control/amenity accommodation shall be provided.

9. The site shall be adequately manned and supervised during working hours.

10. Waste shall be compacted and formed into a layer as soon as possible after deposit and not later than at the end of the working day on which the waste is received.

11. The layer of waste shall be formed using suitable compaction equipment with a blade or other appropriate levelling device.

12. The depth of layer of waste shall not, after initial compaction, exceed 2.5m.

13. Waste shall either be deposited on the surface of the site behind the face and partially compacted by a tractor or other compacting machine before being pushed over the face, or it shall be deposited on the ground in front of the face and shall be formed into a compacted layer by being pushed upwards and driven over by a tractor or other compacting machine.

14. Before covering, working faces and flanks shall be compacted to form gradients not steeper than 1 in 3.

15. Waste deposited on the site other than that which is wholly non-putrescible shall, subject to the traction needs of the vehicles operating at the working face be covered progressively with suitable non-putrescible or stablilised material throughout the working period each day so that by the end of the day all exposed surfaces including the flanks and the face shall have been covered to a depth of not less than 150mm.

16. All large articles such as furniture,crates and hollow containers likely to cause voids shall be crushed, broken or flattened and covered each day by other wastes in such a position that they are not within 1 m. of the surface or 2m. of the flanks or face.

17. Waste other than inert material shall not be deposited in water.

18. Not less frequently than once a week, any loose waste which may be lying on the site shall be gathered and disposed of in such a way as to keep the site tidy.

19. No waste material shall be burnt within the boundaries of the site and a fire on the site shall be regarded as an emergency and immediate action shall be taken to extinguish it.

20. Action shall be taken to deal effectively with any vermin or insects on the site.

21. Records shall be kept of the types and qunatities of waste deposited daily.

22. All necessary steps shall be taken to prevent any nuisance being caused by the emission of dust from the operation of the site.

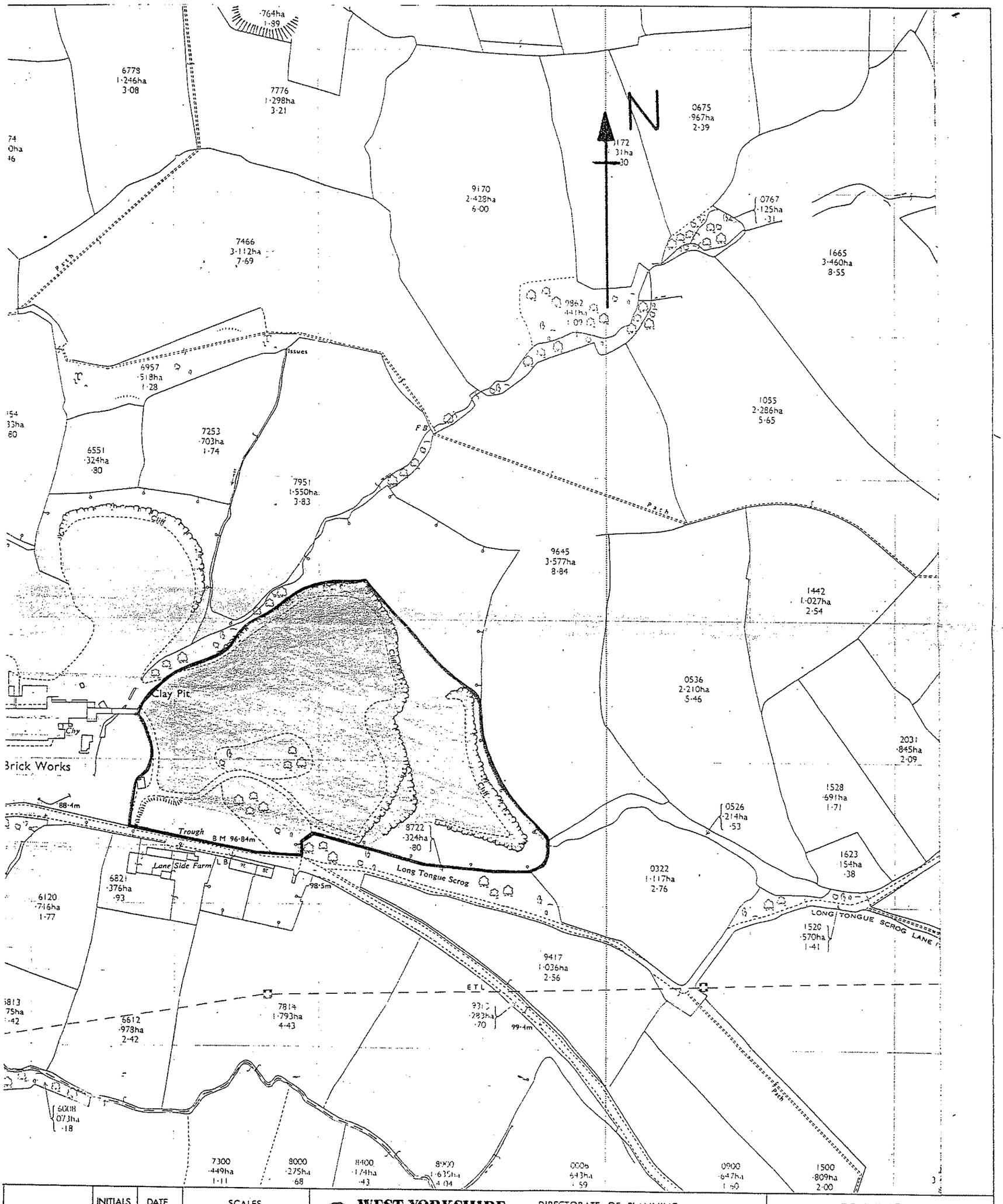
23. Animal carcasses and waste consisting wholly or mainly of animal fish waste or other obnoxious material shall be deposited in front of the working face and immediately covered with other waste material so that the obnoxious material is not within 1 metre of the surface and 2 metres of the flanks or face.

24. Until final restoration, completed areas of landfilling shall be graded and maintained in a tidy condition and where necessary action shall be taken to control or destroy weeds.

25. The final layer deposited shall be subject to minimum compaction and shall to a depth of not less than 1 m. be kept free of materials likely to interfere with final restoration or subsequent cultivation.

26. The terms of this resolution shall be made known to any person who is made responsible for the management of the site and a copy of this resolution shall be displayed at the site control office.

27. The cut off drain running along the Northern boundary of the site shall be repaired and maintained in a sound condition so as to prevent the inflow of surface water into the site and should any leachate arise from the deposited waste all reasonable precautions shall be taken to prevent the pollution of any surface water system.



	INITIALS	DATE
DRAWN BY		
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CHECKED BY		

SCALES

1 : 2500

WEST YORKSHIRE
Metropolitan County Council

DIRECTORATE OF PLANNING
ENGINEERING & TRANSPORTATION
COUNTY HALL WAKEFIELD WF1 2QW

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F. A. SIMS B.Sc.(Eng.) C.Eng. F.I.C.E. F.I.H.E. M.I.S.W.M. Executive Director
Executive Director

DRAWING No.

SWD 20·01·66

DATE MAR. 77

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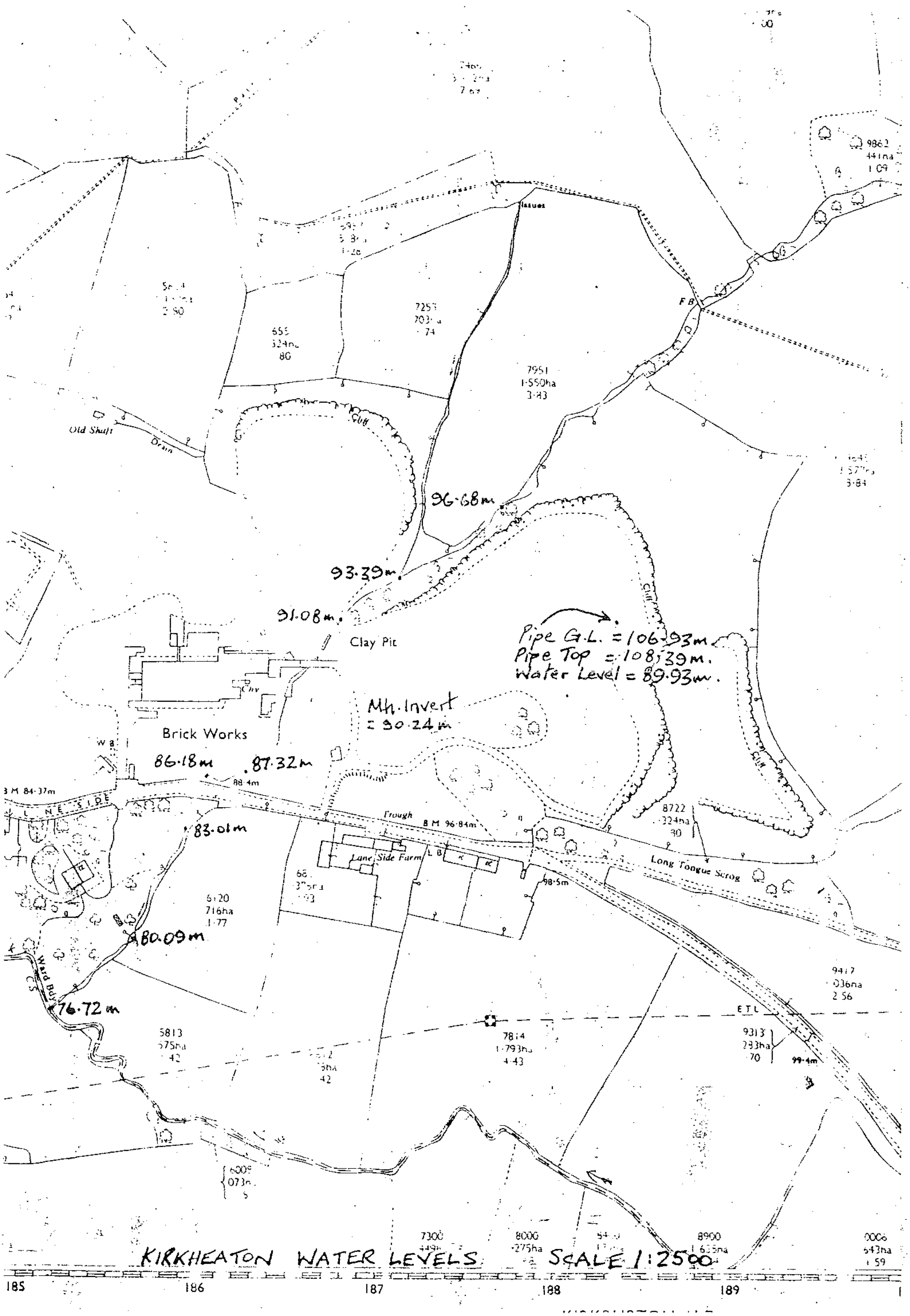


KIRKHEATON WATER LEVELS SCALE 1:2500

County Operated Waste Disposal Sites

Site : Laneside, Kirkheaton

N.G.R. SE 188 173

Location

South east of Kirkheaton centre to the north of Laneside Lane. The site is immediately east of the brickworks.

Physical - Geographical Description

The site is an old brickworks quarry dug into a south west facing hillside. The quarry itself is three sided being open at the south west side.

The original quarry floor sloped north eastwards towards the high quarry face.

Geology and Hydrogeology

The quarry has been dug into a series of Lower Coal Measure shales, mudstones and siltstones and thin sandstones situated above the Elland Flags which underlie the site at some depth below the quarry floor, probably less than 10 m. The Better Bed seam outcrops through the quarry and in the past this seam has been worked in day-holes for coal and the associated fireclay. The shales dip about 3° to the south west with the outcrop of the underlying Elland Flags closing, and immediately south of the site and not outcropping further down dip.

South of the site a stream flows from east to west in an alluvium filled channel and a small stream, arising from spring flow from a sandstone outcropping above the quarry, flows south westwards towards the major stream and adjacent to the west side of the quarry. There is evidence of slight leakage from this stream bed adjacent to the quarry into the underlying shales. This small stream crosses the exposure of the Elland Flags to the south west of the site.

There has been a cut-off ditch dug along the top of the quarry face to prevent the ingress of surface drainage from the hillside into the quarry. This currently is in a poor state of repair and in places is breached.

The open south west end of the site is cut off by a french drain to prevent the discharge of leachate from the site. This drain is connected to the public foul sewer. No discharge has yet occurred through this system.

Known imput of difficult waste

1. 25,000 gallons/month of liquid latex waste.
   This material is being discharged into a short, shallow trench into previously tipped dry refuse. This imput is experimental by nature and the operation is being carried out with the co-operation of the Yorkshire Water Authority pollution prevention staff to investigate the further potential for the disposal of liquid wastes on sites with sewer connections.

Known problems and difficulties

1. Local undermining. This is not likely to be a serious problem as the day-hole workings will have followed the Black Bed seam which is underlain by several metres of shales and siltstones.

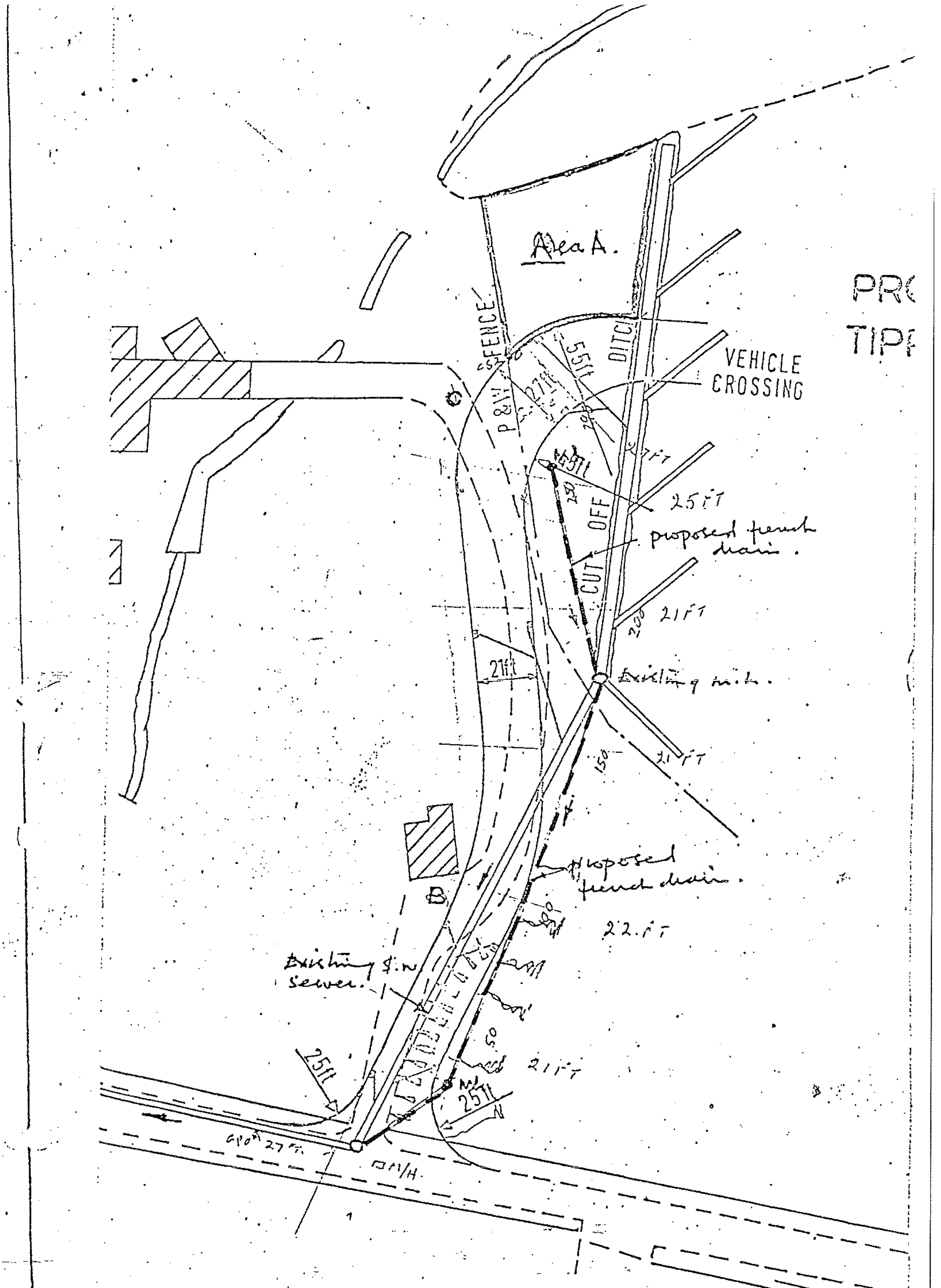
2. Possibility of discharge to minor stream south west of site from Elland Flags. The Water Authority are looking into this aspect.

Summary

This is a three sided brickworks clay quarry with a drainage cut-off at the open end. The whole site is underlain by several metres of shales and siltstones and there is little risk of significant leakage of undiluted leachate to the underlying Elland Flags. Down dip leachate movement is not likely to result in polluting discharges to surface waters.

Recommendations

On available evidence the site appears suitable for receiving some quantities of "white" liquid wastes. Reactive or toxic liquids and sludges are not recommended because of the limited size of the site and the requirement to maintain a suitable quality of any possible sewer discharge. The investigation of the potential of this site is in hand and of tip liquor sampling points has recently been installed.


Area A.
FENCE
DITCH
VEHICLE CROSSING
55ft
27ft
25FT
proposed french drain.
CUT OFF
200
21FT
Existing m.h.
21ft
150
21FT
proposed french drain.
22.FT
B
Existing S.W. Sewer.
21FT
25ft
25ft
27FT
M/H.

SCALE 1-500

KIRKHEATON BRICKWORKS LANDFILL SITE
LEACHATE ANALYSES
(page 1 of 2)

Description	Tip Liquor	Water within Refuse Tip	Tip Leachate		Water from Soakaway
Date	5/4/76	27/6/76	16/6/76	26/7/76	10/10/78
pH	7.4	7.8	8.0	7.8	6.9
Suspended solids	0.4%	1100		200	89
COD	6400	2100	1900	8300	132
BOD		80	96	250	20.5/23
Ammonia		112	59	1.6	5.6
Cadmium	Nil		0.02		<0.01
Copper	0.3		0.10		0.05
Chromium	0.4		0.07		0.10
Lead	0.7		0.46		0.04
Zinc	3.4		1.8		0.27
Iron			13		35
Nitrite		13.5	2.9	0.1	0.03
Nitrate		7.8	11.4	ND	ND
Chloride		350	590	1720	
Orthophosphate		1.3	1.1	0.9	ND
PV N/80 4hr		52	6.8	200	14.6
Alkalinity			1150	300 +	
Nickel			0.16		0.01
Sulphate			384		

Results obtained from Environment Agency file WY6.
All units mg/l except pH, unless stated otherwise
ND - None Detected

KIRKHEATON BRICKWORKS LANDFILL SITE
LEACHATE ANALYSES
(page 2 of 2)

Description	Tip Leachate	Overflow to Sewer	Inspection Column	Brown Liquid from Bottom of Pipe	Leachate from Inspection Chamber
Date	10/10/78	9/1/79	9/1/79	Undated	Undated
pH	7.8	6.8	7.7	7.9	6.9
Suspended solids	1590	460	27		
COD	1850	220	845	1250	136
BOD	180/240	218	530		
Ammonia	358	7.7	305	518.8	23.1
Cadmium	0.05	0.01-	0.01-	<0.01	<0.01
Copper	2.5	0.16	2.1	0.06	0.12
Chromium	0.51	0.17	0.08	<0.05	<0.05
Lead	3.7	0.29	0.17	0.17	0.22
Zinc	7.9	0.76	0.17	0.11	0.45
Iron	131	86	5.8	6.8	55.1
Nitrite		0.15	0.05		
Nitrate	1.0	3.3	0.8		
Chloride		166	3425	3350	710
Orthophosphate	3.0	ND	2.2		
PV N/80 4 hr	404	18.6	140		
Alkalinity		300 +	300 +		
Nickel	0.66	0.3	0.1	<0.05	<0.05
Sulphate					

Results obtained from Environment Agency file WY6
All units mg/l except pH unless stated otherwise
ND - None detected

County Council of the West Riding of Yorkshire

Town and Country Planning Act 1968

ESTABLISHED USE CERTIFICATE

Land at ... Lane Side, Kirkheaton .....

more particularly shown ~~coloured~~ edged red ..... on the plan attached hereto.

It is hereby certified that the use of the above land ~~as~~ for ... the tipping of ..... waste materials .....

..... was on ... 5th April, 1971 ..... established within the meaning of ..... paragraph (a) ..... of Section 17(1) of the Town and Country Planning Act 1968

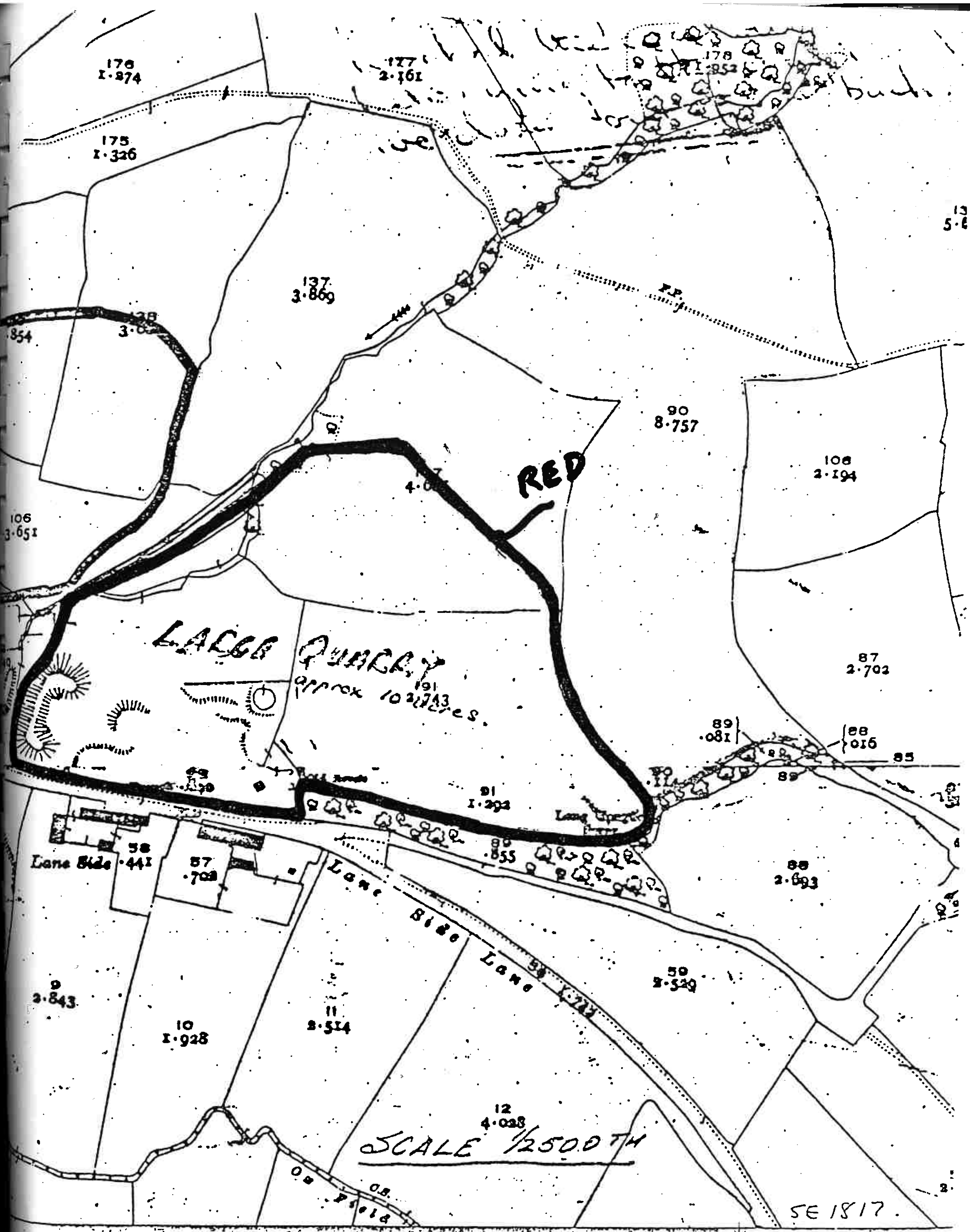
Signed .....

Clerk of the ..... County .. Council

Date ... 27th April, 1971.

To ... Kirkheaton Brickworks Limited,
c/o Messrs. Fennell, Green and Bates,
25 Smyth Street, Wakefield.

NOTE: This certificate is issued for the purposes of section 17 of the Town and Country Planning Act 1968 only. It certifies that the use of the land for the purpose named is not liable to enforcement action under section 15 of that Act, but it is not a grant of planning permission and does not necessarily entitle the owner or occupier of the land to any consequential statutory rights which may be conferred where planning permission has been granted, under Part III of the Town and Country Planning Act 1962, for a use of land.



176
1·274
177
2·161
178
1·952
175
1·326
137
3·869
F.P.
90
8·757
108
2·194
106
3·651
RED
LARGE QUARRY
87
2·702
89
·081
88
·016
85
89
91
1·292
Lane Side
58
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57
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Lane Side Lane
88
2·693
9
2·843
10
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11
2·514
12
4·028
SCALE 1/2500TH
SE 1817