



Coal Mining Risk Assessment

Ref: 1057

Proposed Commercial Development

at

Greenside Mills

Skelmanthorpe

HD8 9EE

CMRA UK LIMITED

5 Sanders Close
Ashton Vale
Bristol
BS3 2BG

www.cmra-uk.com

Company No: 09787437

Coal Mining Risk Assessment

Residential Development at Greenside Mills Saville Road Huddersfield HD8 9EE

Existing Site Description

The proposed development site is a large sized parcel of land which contains the existing properties, occupying approximately 5000m² in a commercial part of Huddersfield. The site is located as per the area location plan; the site is adjacent to other commercial properties.

The shallow geology in this part of Huddersfield tends to consist of fill or soft dark soil, with sandstone and coal recorded at various depths.

Brief Local History

Mining was started by the monks from Byland Abbey in the Flockton area, possibly before the 14th century. As well as the bell pit method miners also dug what were called day holes or day eyes. These were worked by tunnelling a near horizontal adit into the shales from the side of the hill to obtain coal. Often miners who worked bell pits also had their own day hole for domestic use.

Later the introduction of mechanisation and deeper shafts increased the coal mining industry's extraction of the mineral as it gave access to deeper seams. The coal seams at Huddersfield dip towards the east, concealed by younger rocks. One of the larger coal mines in the district was the Denby Grange pit, north of Flockton, where several shafts were sunk. The pit was worked for 150 years in thin seams less than a metre thick from which a large tonnage of coal was extracted. In 1778 a new lease from the Denby Grange estate enabled more shafts to be sunk nearby which included Caphouse Colliery, now the National Mining Museum for England.

There are four main coal seams and a minor seam in the Huddersfield area between Lockwood and Castle Hill. The coals vary in thickness, hardness and sulphur content. These seams of coal were important in the past as they were mined by local people for domestic fuel. Industry also used local coal in the mills and factories for steam power during the industrial revolution. There were many pits in the Huddersfield area in the 1860s and as the coal was mined out new pits were opened. Many pits were individually owned, with few families or companies owning more than one pit at a time. An interesting account of local mining is given in the 'History of Kirkburton', written by Eli Exley in 1912.

He suggests that mining began "many generations ago" and describes the extent of the industry between 1850 -1910. In Kirkburton there were over 30 collieries of various sizes, employing at least 300 local men, so mining was clearly a major industry. The coal seams are not far beneath the surface, so many of the mines were day-holes rather than shafts. Some collieries however had shafts, the deepest of which was St. Helen's colliery, Moor Lane, at a depth of 50 metres. Coal mining became less important in the Huddersfield area during the first few decades of the 1900s, probably because the seams are generally thin. Deeper and more effective mines were opened further east towards Wakefield.

Coal Authority Report

A Residential Coal Authority Mining Report was ordered for this development site from the Coal Authority (Reference 51001106919001). The Authorities records indicate that the site is within the likely zone of influence from coal at near or close to the surface.

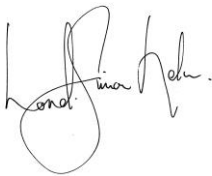
Any ground movement from these deep coal workings should have stopped by now. The site is also in an area where the Coal Authority believes there is coal at, or close to the surface, which may have been worked in the past (see comments on site investigation report).

The site is not in the likely zone of influence of any present underground workings and the Authority is currently not determining a licence for the removal of coal using underground or open cast surface methods, however, coal reserves exist in the local area which could be worked in the future. There are no known coal mine entries within, or within 20m, of the boundary of the site. The property is not within 800m of an open cast site or a site which is currently having an open cast license granted.

No notice of the risk of subsidence has been given under Section 33 of the Coal Mining Subsidence Act 1991 and there are no records of mine gas emission requiring action by the Coal Authority within the boundary of the site. There are no geological faults or lines of weakness recorded in the immediate area of the site which have, or could be, affected by mining or have caused damage to properties.

Whilst the site does lie in a former coal mining area based on the findings of the Non-Residential Coal Mining Report, the lack of Authority records indicating the presence of shallow coal however the age of the surrounding properties it is felt that the risk to any future development from coal workings should be classed as Medium.

However, in light of the proposal and the nature of current construction which investigation were carried out before that development the risk is reduced to Low and further detailed site investigation via site sample pits to assess the type of foundations, prior to any building work commencing will be required.

A handwritten signature in black ink, appearing to read 'Simon Helm', with a large, stylized initial 'S'.

Simon Helm
25th February 2016

Area Location Map

Huddersfield, West Yorkshire HD8 9EE



50 m

Local Borehole

RECORD OF WELL

At JOHN HAGGAS
(FAR FARMS LTD) WAKEFIELD RD.
Town or Village SKELMANTHORPE YORKS.

County YORKS.

Six-inch County Sheet YORKS 261 SE/W

Six-inch National Grid sheet and reference SE 2330-1094 SE 21 SW.

For JOHN HAGGAS

State whether owner, tenant, builder, contractor, consultant, etc. — OWNER

Address (if different from above)

Level of ground surface above sea level (O.D.) ft () m

If well top is not at ground level, state how far above* ft () m

SHAFT ft () m; diameter ft () m;

HEADINGS (please attach details—dimensions and directions)

BORE 24.6 ft (7.5 m); diameter: at top 8 in (200 cm); at

bottom 8 in (200 cm)

Full details of permanent lining tubes (position, length, diameter, plain, slotted, etc.)

(14'') 4.5m x 200mm has been inserted in the bore hole 13m (43')
of which has been slotted and inserted at depths of 39m (128')

Water struck at depths of 20' - 22' - 21.5' ft (6.09m - 2.5m - 6.5m m) below well top

Rest level of water ft () m above* well top. Suction at ft () m

Yield on 7.2 hours* test pumping at 2000 galls (8.8396 m³) per 1/5 mins*

depression to ft () m below well top. Recovery to rest level in mins*

Capacity of pump 14000 g.p.h. (12.628 m³/h)

Date of measurements 30.5.1. 1.5/77

DESCRIPTION OF PERMANENT PUMPING EQUIPMENT:

Make and/or type Motive power

Capacity galls () m³ per hour. Suction at ft () m

below well top. Amount pumped galls () m³ per day. Estimated

consumption galls () m³ per week

Well made by FARRODS UK LTD Date of sinking 1977

ADDITIONAL NOTES ANALYSIS (please attach copy if available)

Received from FARRODS
(U.K.) LTD.

Date 24.6.77

Observation well

Recorder

E.R. log

Site marked on 1" map

6" map

(use symbol)

Copy to DC Y+E. Micks

Date

INSTITUTE OF GEOLOGICAL SCIENCES,
WATER DEPARTMENT,
SOUTH KENSINGTON,
LONDON, S.W.7.

For Institute use only Licence No.

RECORD OF WELL

86/22 B
SE 21/11 B
14326
SE 21 SW/28

At JOHN HAGGAS
(FAR FARRIES LTD) WAKEFIELD RD

Town or Village SHELMANTHORPE YORKS.

County YORKS.

Six-inch County Sheet YORKS 261 SE/W

Six-inch National Grid sheet and reference SE 2330-1094 SE 21 SW.

For JOHN HAGGAS

State whether owner, tenant, builder, contractor, consultant, etc.:— OWNER.

Address (if different from above)

Level of ground surface above sea level (O.D.) ft (..... m)

If well top is not at ground level, state how far above* ft (..... m)
below:

SHAFT ft (..... m); diameter ft (..... m);

HEADINGS (please attach details—dimensions and directions)

BORE ft (..... m); diameter: at top in (..... cm), at
bottom in (..... cm)

Full details of permanent lining tubes (position, length, diameter, plain, slotted, etc.)
(148') 4.5m x 200mm has been inserted in the bore hole 13m (43')
of which has been slotted and inserted at depths of 3.9m (128')

Water struck at depths of ft (..... m) below well top
(1) 20' (2) 82' (3) 213' (4) 6.09m (5) 2.5m (6) 6.5m

Rest level of water ft (..... m) above* well top. Suction at ft (..... m)

Yield on hours* test pumping at galls (8.8396 m³) per mins*
depression to ft (..... m) below well top. Recovery to rest level in hours

Capacity of pump g.p.h. (12.628 m³/h)

Date of measurements 30.31.1/5/77

DESCRIPTION OF PERMANENT PUMPING EQUIPMENT:

Make and/or type Motive power

Capacity galls (..... m³) per hour. Suction at ft (..... m)

below well top. Amount pumped galls (..... m³) per day. Estimated

consumption galls (..... m³) per week

Well made by FARRIDS UK Ltd Date of sinking 1977

ADDITIONAL NOTES ANALYSIS (please attach copy if available)

Received from FARRIDS (U.K.) LTD.

Date 24.6.77

Observation well

Recorder

E.R. log

Site marked on Wat Grid Sheet

6" map O

(use symbol)

Copy to D.G. Y. & E. Mads

Date

INSTITUTE OF GEOLOGICAL SCIENCES,
WATER DEPARTMENT,
SOUTH KENSINGTON,
LONDON, S.W.7.

[illegible]

(For Institute use only)
GEOLOGICAL
CLASSIFICATION

NATURE OF STRATA

British Geological Survey

If measurements start below
ground surface, state how far.

THICKNESS

British Geological Survey

DEPTH

British Geological Survey

Feet

Inches

Metres

Feet

Inches

Metre

Head

CLAY

6m

6m

SHALE

19m

25m

British Geological Survey

SANDSTONE

British Geological Survey

4m

British Geological Survey

29m

Carboniferous

SHALE

4m

33m

Westphalian A

SANDSTONE

2m

35m

(Lower Coal Measures)

SHALE

10

45m

Aggrifer: lower

Coal Measures

C/E 22/2/49

SANDSTONE

British Geological Survey

3

British Geological Survey

48m

SHALE

27

246

-

75

Per

E. R. SMITH

7/7/77

British Geological Survey

British Geological Survey

British Geological Survey

British Geological Survey

British Geological Survey

British Geological Survey

British Geological Survey

British Geological Survey

British Geological Survey

British Geological Survey

British Geological Survey

British Geological Survey

British Geological Survey

British Geological Survey

British Geological Survey

Additional Well Information:

- ☐ Well Loss Data: B..... C..... Efficiency.....
- ☐ Well Acidified
- ☐ Flow Logs
- ☐ Other Geophysical Logs
- ☐ Fissure Information: major inflows from.....to.....
from.....to.....
from.....to.....

Aquifer Parameters:

Analysis Type	Transmissivity	Storativity
Recovery Theris	220 m ² d ⁻¹ 330 m ² d ⁻¹	

Confidence:

excellent

☐☐☐☒☐

very poor

Notes:

DATA POINTS WERE QUITE SCATTERED

INSPECTION REPORT	WATER QUALITY	DATE OF INSPECTION:-
Present Owner:- Access (Yes or No) 1/2" Probe 3" Instruments Land rover Access Agreed Date	Date pH Total hard Temp. hard Alk. Ca Mg Na K	Other Comments:- Sketch Plan of Location
Water Level at time of insp. metres below Date Datum above O.D. P.W.L. above O.D. Date	HCO ₃ SO ₄ Cl NO ₃ Fe	

DATA ACQUISITION SHEET

NRA region: North East (Leeds)

File Number: SE21

SE21/11B

MJP 10/2785

MJA 1/192

Pump Well Identification:

NRA id No:

BGS (WL) No: SE21/11B

NGR: SE 2330 1094

Elevation:

Measuring Point: 0.7n AGL

Site Name: John Hagger
(Fur Fabrics) Ltd,
Wakefield Road
Skelmanthorpe,
Yorkshire

Well details:

depth of pumping well: 75m

diameter: 200mm

casing details: 0-45n 200mm.
"two lengths slotted" (PTD)

☒ observation boreholes

number of obs bhs: 1

obs bh details:

Fields BH 12" x 396' SE 233 109

RWL 6.73n

PWL 8.20n

DD 1.47n

Aquifer Details:

confined / semi-confined / unconfined

confining layer:

Borehole Stratigraphy		from	to	thick	units
Head → Carb. Westphalian A Elland Flags	clay	0	6	6	7
	shale	6	25	19	7
	sandstone	25	29	4	7
	shale	29	33	4	7
	semishale	33	35	2	7
	shale	35	45	10	7
	sandstone	45	48	3	7
	shale	48	75	27	7

Pumping Test Details:

date of test: 30 May 1977

length of test: 72 hrs

RWL: 4.96n

(DD) (4.07m)

PWL: 9.03n

pumping rate: 1,000 gph at end.

0-24hr 3,400 gph

24-48hr 6,000 gph

48-72hr 6,900 gph

① 6.42n

② 8.16n

③ 9.03n

↑
PWL at end of 'stage'

Slotted casing is interspersed with plain casing.
i.e. slotted sections are probably against sandstone
horizons at ~~22~~ 25-29m and 33-35m.
(Not possible to tell exactly from log)



British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Geology of Britain viewer

Surface
Geology

3D
Models

Borehole
Scans

Earthquake
Timeline

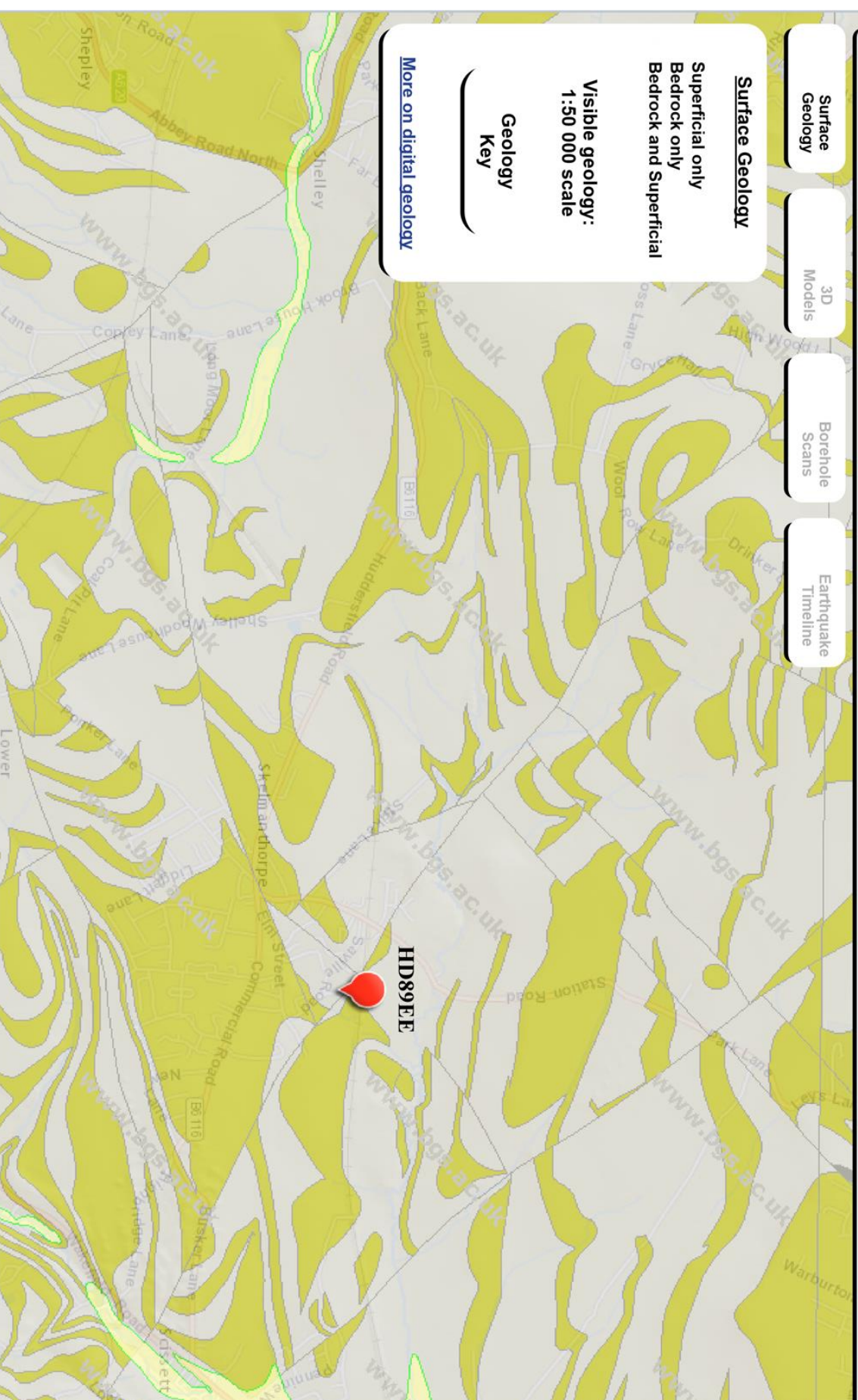
Surface Geology

Superficial only
Bedrock only
Bedrock and Superficial

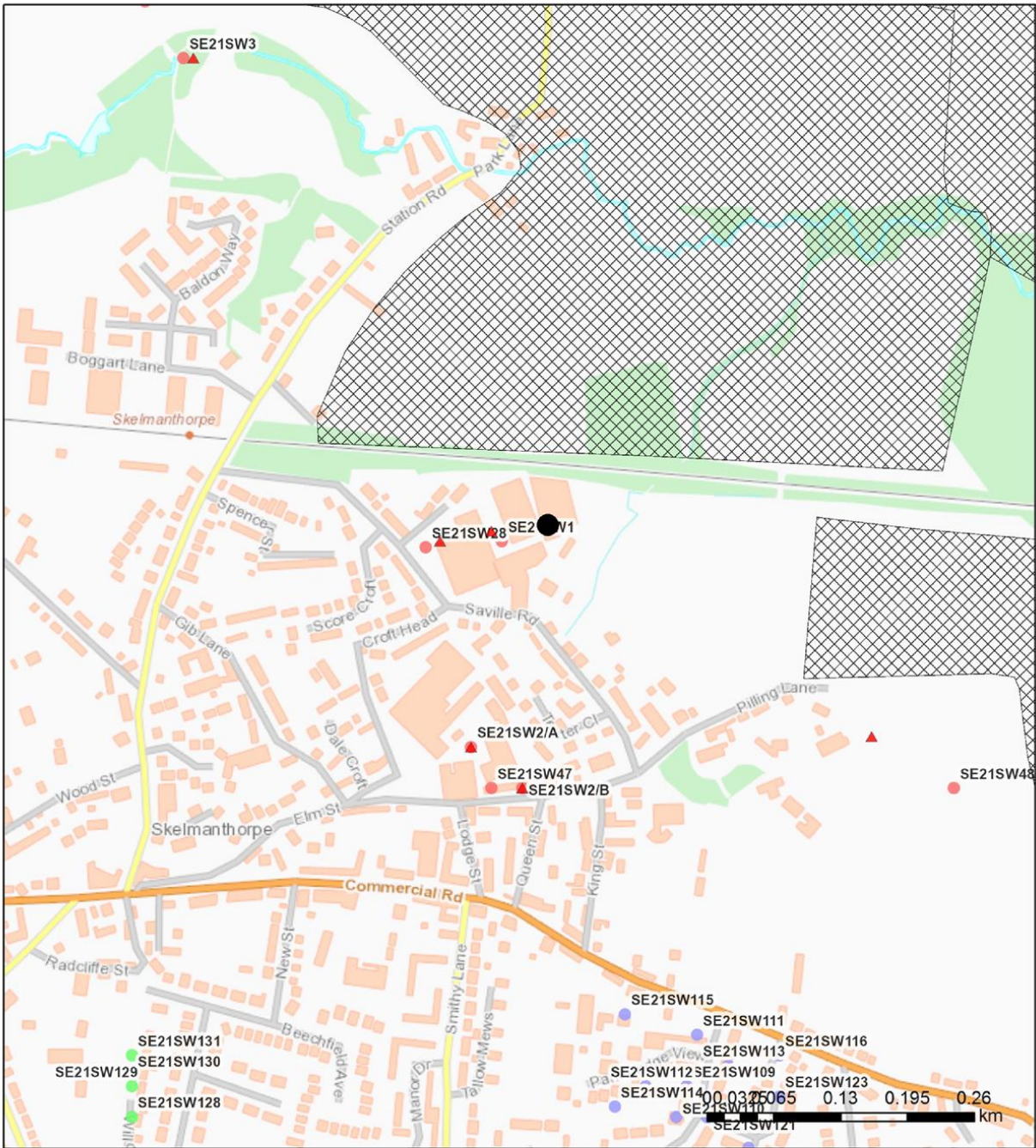
Visible geology:
1:50 000 scale

Geology
Key

[More on digital geology](#)



GeoIndex Report



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