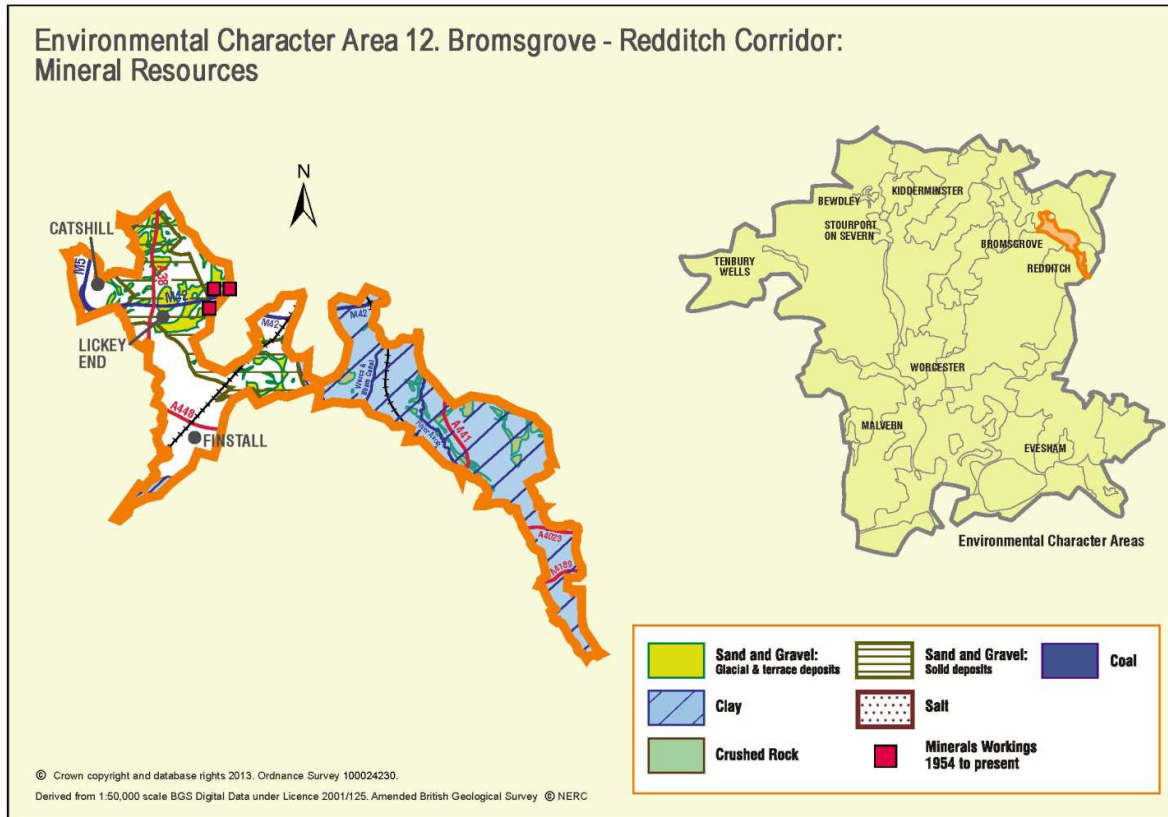


## Appendix 12: Analysis of aggregate resources in ECA 12: Bromsgrove – Redditch Corridor



### ECA Summary for the Fourth Stage consultation on MLP (Winter 2018):

#### Sand and gravel

There are 13 resource areas identified for sand and gravel in Bromsgrove-Redditch corridor ECA:

- Key: 1
- Significant: 2
- Not significant: 1
- Compromised: 9

There are additional resource areas for solid sand and gravel which cross into this ECA, but are assessed as part of ECA 3.

#### Crushed rock

There are no resource areas identified in Bromsgrove-Redditch corridor ECA for crushed rock.

#### Non-aggregates

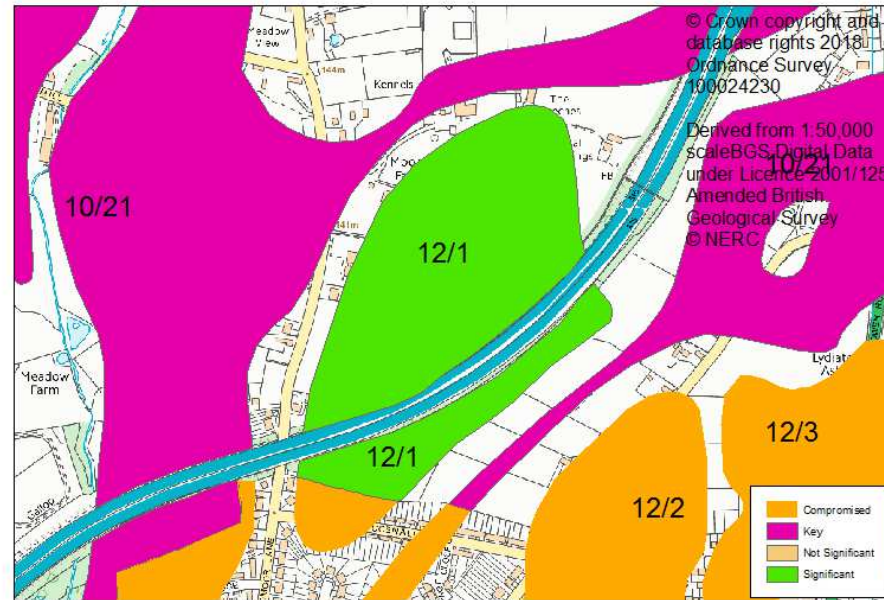
BGS data indicates that there are deposits of clay in this ECA.

## Overview of resource assessment for ECA 12

### Sand and gravel resource areas:

Resource number*	Second Stage Consultation		Third Stage Consultation		Fourth Stage Consultation		
	Original estimated resource tonnage (2 tonnes/m <sup>3</sup> )	Significance	Revised estimate of resource tonnage (1.65 tonnes/m <sup>3</sup> )	Significance	New resource number (where resource has been split)	Revised estimate of resource tonnage (1.65 tonnes/m <sup>3</sup> )	Result
12/1	780,000	Significant	643,500	Significant	12/1	600,600	Significant
					12/1b		Compromised
12/2	884,000	Compromised	729,300	Compromised	Not reassessed		
12/3	520,000	Compromised	429,000	Compromised			
12/4	884,000	Compromised	729,300	Compromised			
12/5	182,000	Compromised	150,150	Compromised			
12/5a	364,000	Compromised	300,300	Compromised			
12/6	1,314,000	Significant	1,084,050	Significant	12/6	1,039,500	Significant
					12/6b		Compromised
12/6a	252,000	Compromised	207,900	Compromised	Not reassessed		
12/7	Depth not known	Not significant	Depth not known	Not significant			
12/8	435,690,000	Key	359,444,250	Key	12/8	286,790,625	Key
					12/8b		Compromised

Overview	
<b>Resource number:</b>	12/1
<b>Resource name:</b>	North of Upper Catshill
<b>Resource area:</b>	15ha
<b>Resource depth:</b>	Estimated 5.2m
Location	
<b>OS sheet reference:</b>	SO 97 NE, SO 97 SE
<b>National grid ref:</b>	396371, 274871



**Resource description:**

**Resource description:** Resource area 12/1 is Alluvial fan sand and gravel, however this is underlain by solid sand deposits (assessed as resource areas 3/7 and 3/10). This is a complex area of geology but with some limited information available:

- To the north of Junction 4 of the M5 motorway, between Chadwich Grange Farm and Manor Farm, 3 boreholes have recorded:
  - 3.6m of sand and gravel on sandstone overlain by 0.7m of sandy clay;
  - 1.4m of clayey, silty sand on 7.6m of sandstone and
  - 1.3m of clayey, pebbly sand on 5.7m of sandstone.
- 2 boreholes at Lydiate Ash recorded 2.1m and 1.8m of sand and gravel on sandstone.
- An exposure at the southern end of the Chadwich Farm Pit shows 1.9m of sand and gravel on sandstone.
- A borehole adjacent to the M5 south east of the Chadwich Lane / Money Lane junction proves 8.2m of sand and gravel on sandstone overlain by 1.4m of boulder clay.
- An exposure at Tramontana's Pit (in the Chadwich Lane, Money Lane, Sandy Lane area) on the south side of the County Council tip showed a 15m base of well bedded sand and gravel. The pit now infilled by Austin / BL formerly exposed 7.6m of gravel on 4m of coarse sand and fine gravel with the base not seen (total 11.6m).

Estimated resource depth based on mean average of: a) boreholes to the north of Junction 4: (average of 3.6m, 1.4m and 1.3m = 2.1m), b) boreholes at Lydiate Ash: (average of 1.8m to 2.1m = 1.95m), c) exposure at

Chadwich Farm Pit: 1.9m d) borehole adjacent to M5 south east of Chadwich Lane/Money Lane: 8.2m, and e) average of exposures at Tramontana's Pit: 11.6m = 5.15m rounded to 5.2m)	
<b>Assessment of resource for the second consultation on MLP (Autumn 2013)</b>	
<b>Commentary:</b>	A small resource area with little built development throughout but extending under the settlement of Upper Catshill to the south. The deposit extends under the M5 motorway, this section is not included as part of the resource area.
<b>Crude estimate of resource:</b>	Area: 15 ha x average depth: 5.2 m ÷ 2 Estimated resource volume: 390,000 m <sup>3</sup> <b>Estimated resource tonnage (at 2 t/m<sup>3</sup>): 780,000 tonnes</b>
<b>Conclusion:</b>	Significant. Consider in defining areas of search.
<b>Assessment of resource for the Third Stage consultation on MLP (Spring 2015)</b>	
<b>Revised estimate of resource:</b>	Area: 15 ha x average depth: 5.2 m ÷ 2 Estimated resource volume: 390,000 m <sup>3</sup> <b>Estimated resource tonnage (at 1.65 t/m<sup>3</sup>): 643,500 tonnes</b>
<b>Conclusion:</b>	Significant.
<b>Assessment of resource for the Fourth Stage consultation on MLP (August 2018)</b>	
This resource area has been split into areas 12/1 and 12/1b.	
<b>Resource area 12/1</b>	
<b>Resource area:</b>	14 ha
<b>Resource depth:</b>	Estimated 5.2m
<b>Revised estimate of resource:</b>	Area: 14 ha x average depth: 5.2m ÷ 2 Estimated resource volume: 364,000 m <sup>3</sup> <b>Estimated resource tonnage (at 1.65 t/m<sup>3</sup>): 600,600 tonnes</b>
<b>Conclusion:</b>	Significant resource
<b>Resource area 12/1b</b>	
<b>Commentary:</b>	Screened out due to the following appendix A criterion: - Settlement boundary
<b>Conclusion:</b>	Compromised

Overview	
Resource number:	12/2
Resource name:	Woodrow Lane
Resource area:	17 ha
Resource depth:	Estimated 5.2m
Location	
OS sheet reference:	SO 97 NE
National grid ref:	396530, 274325

**Resource description:**

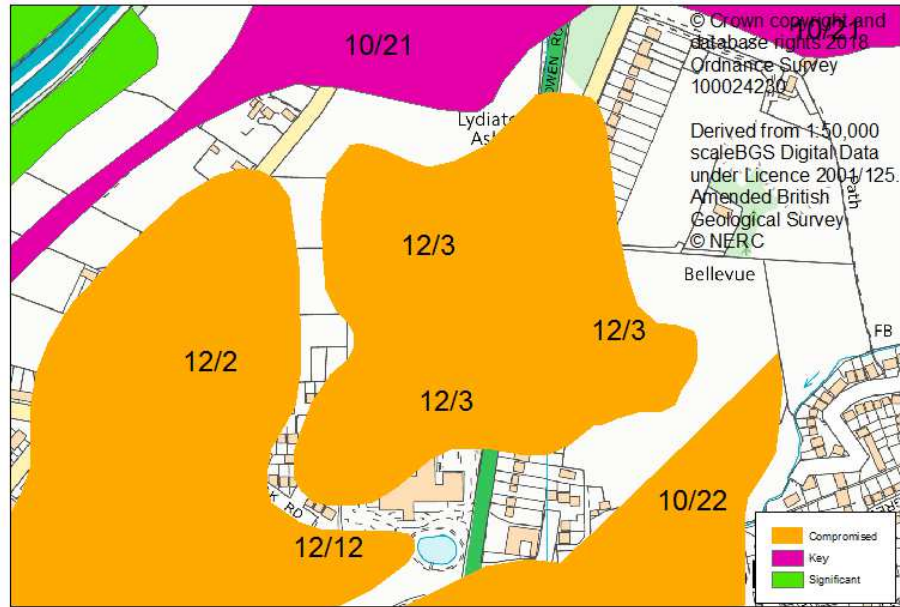
**Resource description:** Resource area 12/2 is Alluvial fan sand and gravel, however this is underlain by solid sand deposits (assessed as resource areas 3/7 and 3/10). This is a complex area of geology but with some limited information available:

- To the north of Junction 4 of the M5 motorway, between Chadwich Grange Farm and Manor Farm, 3 boreholes have recorded:
  - 3.6m of sand and gravel on sandstone overlain by 0.7m of sandy clay;
  - 1.4m of clayey, silty sand on 7.6m of sandstone and
  - 1.3m of clayey, pebbly sand on 5.7m of sandstone.
- 2 boreholes at Lydiate Ash recorded 2.1m and 1.8m of sand and gravel on sandstone.
- An exposure at the southern end of the Chadwich Farm Pit shows 1.9m of sand and gravel on sandstone.
- A borehole adjacent to the M5 south east of the Chadwich Lane / Money Lane junction proves 8.2m of sand and gravel on sandstone overlain by 1.4m of boulder clay.
- An exposure at Tramontana's Pit (in the Chadwich Lane, Money Lane, Sandy Lane area) on the south side of the County Council tip showed a 15m base of well bedded sand and gravel. The pit now infilled by Austin / BL formerly exposed 7.6m of gravel on 4m of coarse sand and fine gravel with the base not seen (total 11.6m).

Estimated resource depth based on mean average of: a) boreholes to the north of Junction 4: (average of 3.6m, 1.4m and 1.3m = 2.1m), b) boreholes at Lydiate Ash: (average of 1.8m to 2.1m = 1.95m), c) exposure at

	Chadwich Farm Pit: 1.9m d) borehole adjacent to M5 south east of Chadwich Lane/Money Lane: 8.2m, and e) average of exposures at Tramontana's Pit: 11.6m = 5.15m rounded to 5.2m)
<b>Assessment of resource for the second consultation on MLP (Autumn 2013)</b>	
<b>Commentary:</b>	A small resource area which extends under the settlement of Upper Catshill. Only approximately 3 hectares remains uncompromised by development.
<b>Crude estimate of resource:</b>	Area: 17 ha x average depth: 5.2 m ÷ 2 Estimated resource volume: 442,000 m <sup>3</sup> <b>Estimated resource tonnage (at 2 t/m<sup>3</sup>): 884,000 tonnes</b>
<b>Conclusion:</b>	Compromised by development with less than 10ha of the deposit remaining.
<b>Assessment of resource for the Third Stage consultation on MLP (Spring 2015)</b>	
<b>Revised estimate of resource:</b>	Area: 17 ha x average depth: 5.2 m ÷ 2 Estimated resource volume: 442,000 m <sup>3</sup> <b>Estimated resource tonnage (at 1.65 t/m<sup>3</sup>): 729,300 tonnes</b>
<b>Conclusion:</b>	Compromised by development.
<b>Assessment of resource for the Fourth Stage consultation on MLP (August 2018)</b>	
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation	

<b>Overview</b>	
<b>Resource number:</b>	12/3
<b>Resource name:</b>	Halesowen Road
<b>Resource area:</b>	10ha
<b>Resource depth:</b>	Estimated 5.2m
<b>Location</b>	
<b>OS sheet reference:</b>	SO 97 SE
<b>National grid ref:</b>	396933, 274591



**Resource description:**

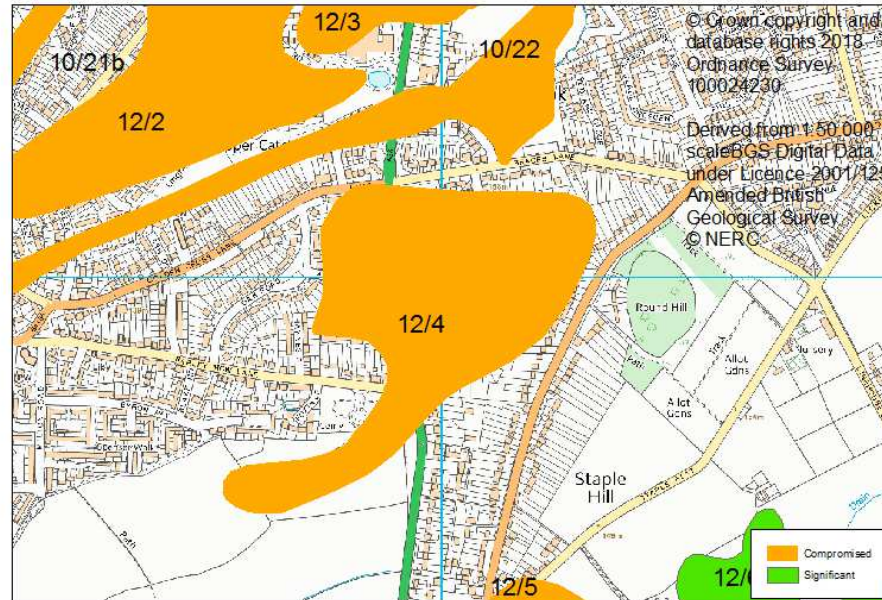
**Resource description:** Resource area 12/3 is Alluvial fan sand and gravel, however this is underlain by solid sand deposits (assessed as resource areas 3/7 and 3/10). This is a complex area of geology but with some limited information available:

- To the north of Junction 4 of the M5 motorway, between Chadwich Grange Farm and Manor Farm, 3 boreholes have recorded:
  - 3.6m of sand and gravel on sandstone overlain by 0.7m of sandy clay;
  - 1.4m of clayey, silty sand on 7.6m of sandstone and
  - 1.3m of clayey, pebbly sand on 5.7m of sandstone.
- 2 boreholes at Lydiat Ash recorded 2.1m and 1.8m of sand and gravel on sandstone.
- An exposure at the southern end of the Chadwich Farm Pit shows 1.9m of sand and gravel on sandstone.
- A borehole adjacent to the M5 south east of the Chadwich Lane / Money Lane junction proves 8.2m of sand and gravel on sandstone overlain by 1.4m of boulder clay.
- An exposure at Tramontana's Pit (in the Chadwich Lane, Money Lane, Sandy Lane area) on the south side of the County Council tip showed a 15m base of well bedded sand and gravel. The pit now infilled by Austin / BL formerly exposed 7.6m of gravel on 4m of coarse sand and fine gravel with the base not seen (total 11.6m).

Estimated resource depth based on mean average of: a) boreholes to the north of Junction 4: (average of 3.6m, 1.4m and 1.3m = 2.1m), b) boreholes at Lydiat Ash: (average of 1.8m to 2.1m = 1.95m), c) exposure at

	Chadwich Farm Pit: 1.9m d) borehole adjacent to M5 south east of Chadwich Lane/Money Lane: 8.2m, and e) average of exposures at Tramontana's Pit: 11.6m = 5.15m rounded to 5.2m)
<b>Assessment of resource for the second consultation on MLP (Autumn 2013)</b>	
<b>Commentary:</b>	A small resource area intersected by roads and largely overlain by built development.
<b>Crude estimate of resource:</b>	Area: 10 ha x average depth: 5.2 m ÷ 2 Estimated resource volume: 260,000 m <sup>3</sup> <b>Estimated resource tonnage (at 2 t/m<sup>3</sup>): 520,000 tonnes</b>
<b>Conclusion:</b>	Compromised by development with less than 10ha of the deposit remaining.
<b>Assessment of resource for the Third Stage consultation on MLP (Spring 2015)</b>	
<b>Revised estimate of resource:</b>	Area: 10 ha x average depth: 5.2 m ÷ 2 Estimated resource volume: 260,000 m <sup>3</sup> <b>Estimated resource tonnage (at 1.65 t/m<sup>3</sup>): 429,000 tonnes</b>
<b>Conclusion:</b>	Compromised by development.
<b>Assessment of resource for the Fourth Stage consultation on MLP (August 2018)</b>	
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation	

Overview	
Resource number:	12/4
Resource name:	Birmingham Road
Resource area:	17ha
Resource depth:	Estimated 5.2m
Location	
OS sheet reference:	SO 97 SE
National grid ref:	396768, 273656



**Resource description:**

**Resource description:** Resource area 12/4 is Alluvial fan sand and gravel, however this is underlain by solid sand deposits (assessed as resource areas 3/8 and 3/10).

This is a complex area of geology but with some limited information available:

- To the north of Junction 4 of the M5 motorway, between Chadwich Grange Farm and Manor Farm, 3 boreholes have recorded:
  - 3.6m of sand and gravel on sandstone overlain by 0.7m of sandy clay;
  - 1.4m of clayey, silty sand on 7.6m of sandstone and
  - 1.3m of clayey, pebbly sand on 5.7m of sandstone.
- 2 boreholes at Lydiate Ash recorded 2.1m and 1.8m of sand and gravel on sandstone.
- An exposure at the southern end of the Chadwich Farm Pit shows 1.9m of sand and gravel on sandstone.
- A borehole adjacent to the M5 south east of the Chadwich Lane / Money Lane junction proves 8.2m of sand and gravel on sandstone overlain by 1.4m of boulder clay.
- An exposure at Tramontana's Pit (in the Chadwich Lane, Money Lane, Sandy Lane area) on the south side of the County Council tip showed a 15m base of well bedded sand and gravel. The pit now infilled by Austin / BL formerly exposed 7.6m of gravel on 4m of coarse sand and fine gravel with the base not seen (total 11.6m).

Estimated resource depth based on mean average of: a) boreholes to the north of Junction 4: (average of 3.6m, 1.4m and 1.3m = 2.1m), b) boreholes at Lydiate Ash: (average of 1.8m to 2.1m = 1.95m, c) exposure at

	Chadwich Farm Pit: 1.9m d) borehole adjacent to M5 south east of Chadwich Lane/Money Lane: 8.2m, and e) average of exposures at Tramontana's Pit: 11.6m = 5.15m rounded to 5.2m)
<b>Assessment of resource for the second consultation on MLP (Autumn 2013)</b>	
<b>Commentary:</b>	A small resource area that is largely overlain by the settlement of Upper Catshill.
<b>Crude estimate of resource:</b>	Area: 17 ha x average depth: 5.2 m ÷ 2 Estimated resource volume: 442,000 m <sup>3</sup> <b>Estimated resource tonnage (at 2 t/m<sup>3</sup>): 884,000 tonnes</b>
<b>Conclusion:</b>	Compromised by development with less than 10ha of the deposit remaining.
<b>Assessment of resource for the Third Stage consultation on MLP (Spring 2015)</b>	
<b>Revised estimate of resource:</b>	Area: 17 ha x average depth: 5.2 m ÷ 2 Estimated resource volume: 442,000 m <sup>3</sup> <b>Estimated resource tonnage (at 1.65 t/m<sup>3</sup>): 729,300 tonnes</b>
<b>Conclusion:</b>	Compromised by development.
<b>Assessment of resource for the Fourth Stage consultation on MLP (August 2018)</b>	
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation	

<b>Overview</b>	
<b>Resource number:</b>	12/5
<b>Resource name:</b>	Staple Hill
<b>Resource area:</b>	7ha remaining
<b>Resource depth:</b>	Estimated 2.6m
<b>Location</b>	
<b>OS sheet reference:</b>	SO 97 SE
<b>National grid ref:</b>	397241, 273210
<b>Resource description:</b>	
<b>Resource description:</b>	Resource area 12/5 is Alluvial fan sand and gravel, however this is underlain by solid sand deposits (assessed as resource area 3/8 and 3/10). A borehole in this deposit found 3.1m of sand and gravel over 3m of clay and 9m of sandstone. A second borehole found 3.8m of sandy clay over 2m of sand and gravel.  Estimated resource depth based on a) 1 <sup>st</sup> borehole: 3.1m and b) 2 <sup>nd</sup> borehole: 2m = 2.6m
<b>Assessment of resource for the second consultation on MLP (Autumn 2013)</b>	
<b>Commentary:</b>	A small resource area with little built development. The deposit extends to the south and west under Junction 1 of the M42, this area is not included as part of the resource area. The deposit also extends under the urban areas of Lickey End and Staple Hill, this is considered as resource area 12/5a.
<b>Crude estimate of resource:</b>	Area: 7 ha x average depth: 2.6 m ÷ 2 Estimated resource volume: 91,000 m <sup>3</sup> <b>Estimated resource tonnage (at 2 t/m<sup>3</sup>): 182,000 tonnes</b>
<b>Conclusion:</b>	Compromised by development with less than 10ha of the deposit remaining.
<b>Assessment of resource for the Third Stage consultation on MLP (Spring 2015)</b>	
<b>Revised estimate of resource:</b>	Area: 7 ha x average depth: 2.6 m ÷ 2 Estimated resource volume: 91,000 m <sup>3</sup> <b>Estimated resource tonnage (at 1.65 t/m<sup>3</sup>): 150,150 tonnes</b>
<b>Conclusion:</b>	Compromised by development.
<b>Assessment of resource for the Fourth Stage consultation on MLP (August 2018)</b>	

Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation

<b>Overview</b>		
<b>Resource number:</b>	12/5a	
<b>Resource name:</b>	Staple Hill a)	
<b>Resource area:</b>	14ha	
<b>Resource depth:</b>	Estimated 2.6m	
<b>Location</b>		
<b>OS sheet reference:</b>	SO 97 SE	
<b>National grid ref:</b>	397241, 273210	
<b>Resource description:</b>		
<b>Resource description:</b>	<p>Resource area 12/5a is Alluvial fan sand and gravel, however this is underlain by solid sand deposits (assessed as resource area 3/8 and 3/10). A borehole in this deposit found 3.1m of sand and gravel over 3m of clay and 9m of sandstone. A second borehole found 3.8m of sandy clay over 2m of sand and gravel.</p> <p>Estimated resource depth based on a) 1<sup>st</sup> borehole: 3.1m and b) 2<sup>nd</sup> borehole: 2m = 2.6m</p>	
<b>Assessment of resource for the second consultation on MLP (Autumn 2013)</b>		
<b>Commentary:</b>	A small resource area overlain by the urban areas of Lickey End and Staple Hill. The deposit extends to the north-east this is considered as resource area 12/5a.	
<b>Crude estimate of resource:</b>	Area: 14 ha x average depth: 2.6 m ÷ 2 Estimated resource volume: 182,000 m <sup>3</sup> <b>Estimated resource tonnage (at 2 t/m<sup>3</sup>): 364,000 tonnes</b>	
<b>Conclusion:</b>	Compromised by development.	
<b>Assessment of resource for the Third Stage consultation on MLP (Spring 2015)</b>		
<b>Revised estimate of resource:</b>	Area: 14 ha x average depth: 2.6 m ÷ 2 Estimated resource volume: 182,000 m <sup>3</sup> <b>Estimated resource tonnage (at 1.65 t/m<sup>3</sup>): 300,300 tonnes</b>	
<b>Conclusion:</b>	Compromised by development.	
<b>Assessment of resource for the Fourth Stage consultation on MLP (August 2018)</b>		
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation		

<b>Overview</b>	
<b>Resource number:</b>	12/6
<b>Resource name:</b>	Lickey End to Gorse Hill
<b>Resource area:</b>	73ha
<b>Resource depth:</b>	Estimated 1.8m
<b>Location</b>	
<b>OS sheet reference:</b>	SO 97 SE
<b>National grid ref:</b>	397987, 273223
<b>Resource description:</b>	
<b>Resource description:</b>	<p>Resource area 12/6 is Alluvial fan sand and gravel, however this is partially underlain by solid sand deposits (assessed as resource area 3/8 and 3/10). A borehole north of Shepley Quarry reported 1.1m of sandy clay, 0.6m of sand and gravel, 1.2m of sand, 2.6m of clay and silt and 10.9m of sandstone. (Total 1.8m of sand and gravel).</p> <p>Estimated resource depth based on borehole North of Shepley Quarry: 1.8m</p>
<b>Assessment of resource for the second consultation on MLP (Autumn 2013)</b>	
<b>Commentary:</b>	A medium-sized resource area with some built development. The deposit extends under the M42 motorway, this is not included as part of the resource area. The deposit also extends under the urban area of Lickey End, this section is assessed as resource area 12/6a.
<b>Crude estimate of resource:</b>	<p>Area: 73 ha x average depth: 1.8 m ÷ 2</p> <p>Estimated resource volume: 657,000 m<sup>3</sup></p> <p><b>Estimated resource tonnage (at 2 t/m<sup>3</sup>): 1,314,000 tonnes</b></p>
<b>Conclusion:</b>	<p>Significant.</p> <p>Consider in defining areas of search.</p>
<b>Assessment of resource for the Third Stage consultation on MLP (Spring 2015)</b>	
<b>Revised estimate of resource:</b>	<p>Area: 73 ha x average depth: 1.8 m ÷ 2</p> <p>Estimated resource volume: 657,000 m<sup>3</sup></p> <p><b>Estimated resource tonnage (at 1.65 t/m<sup>3</sup>): 1,084,050 tonnes</b></p>
<b>Conclusion:</b>	Significant.

<b>Assessment of resource for the Fourth Stage consultation on MLP (August 2018)</b>			
This resource area has been split into areas 12/6 and 12/6b.			
<b>Resource area 12/6</b>		<b>Resource area 12/6b</b>	
<b>Resource area:</b>	70 ha	<b>Commentary:</b>	Screened out due to the following appendix A criterion: - Settlement boundary
<b>Resource depth:</b>	Estimated 1.8m		
<b>Revised estimate of resource:</b>	Area: 70 ha x average depth: 1.8m ÷ 2 Estimated resource volume: 630,000 m <sup>3</sup> <b>Estimated resource tonnage (at 1.65 t/m<sup>3</sup>): 1,039,500 tonnes</b>		
<b>Conclusion:</b>	Significant resource	<b>Conclusion:</b>	Compromised

<b>Overview</b>		<p>© Crown copyright and database rights 2018 Ordnance Survey 100024230 Derived from 1:50,000 scale BGS Digital Data under Licence 2001/125 Amended British Geological Survey © NERC</p>
<b>Resource number:</b>	12/6a	
<b>Resource name:</b>	Lickey End a)	
<b>Resource area:</b>	14ha	
<b>Resource depth:</b>	Estimated 1.8m	
<b>Location</b>		
<b>OS sheet reference:</b>	SO 97 SE	
<b>National grid ref:</b>	397987, 273223	
<b>Resource description:</b>		
<b>Resource description:</b>	Resource area 12/6a is Alluvial fan sand and gravel, however this is underlain by solid sand deposits (assessed as resource area 3/10). A borehole north of Shepley Quarry reported 1.1m of sandy clay, 0.6m of sand and gravel, 1.2m of sand, 2.6m of clay and silt and 10.9m of sandstone. (Total 1.8m of sand and gravel). (Estimated resource depth based on borehole North of Shepley Quarry: 1.8m)	
<b>Assessment of resource for the second consultation on MLP (Autumn 2013)</b>		
<b>Commentary:</b>	A small resource area overlain by the urban area of Lickey End. The deposit extends to the south and east, this is assessed as resource area 12/6.	

<b>Crude estimate of resource:</b>	Area: 14 ha x average depth: 1.8 m ÷ 2 Estimated resource volume: 126,000 m <sup>3</sup> <b>Estimated resource tonnage (at 2 t/m<sup>3</sup>): 252,000 tonnes</b>
<b>Conclusion:</b>	Compromised by development.
<b>Assessment of resource for the Third Stage consultation on MLP (Spring 2015)</b>	
<b>Revised estimate of resource:</b>	Area: 14 ha x average depth: 1.8 m ÷ 2 Estimated resource volume: 126,000 m <sup>3</sup> <b>Estimated resource tonnage (at 1.65 t/m<sup>3</sup>): 207,900 tonnes</b>
<b>Conclusion:</b>	Compromised by development.
<b>Assessment of resource for the Fourth Stage consultation on MLP (August 2018)</b>	
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation	

<b>Overview</b>	
<b>Resource number:</b>	12/7
<b>Resource name:</b>	East of Bordesley Park Farm
<b>Resource area:</b>	26ha
<b>Resource depth:</b>	Not known
<b>Location</b>	
<b>OS sheet reference:</b>	SO 07 SE, SO 06 NE
<b>National grid ref:</b>	405177, 270266
<b>Resource description:</b>	
<b>Resource description:</b>	Glaciofluvial and alluvial fan sand and gravel. No information on thicknesses available.
<b>Assessment of resource for the second consultation on MLP (Autumn 2013)</b>	
<b>Commentary:</b>	A small narrow resource area with little built development.
<b>Crude estimate of resource:</b>	Depth not known
<b>Conclusion:</b>	Not significant: Small deposit with no information to estimate the resource in this area. Not for consideration in defining areas of search.
<b>Assessment of resource for the Third Stage consultation on MLP (Spring 2015)</b>	
<b>Revised estimate of resource:</b>	No change to the assessment.
<b>Conclusion:</b>	Not significant.
<b>Assessment of resource for the Fourth Stage consultation on MLP (August 2018)</b>	
Not reassessed due to resource not being classified as Key or Significant in the Third Stage Consultation	

<b>Overview</b>		
<b>Resource number:</b>	12/8	
<b>Resource name:</b>	Blackwell Court to Brockhill	
<b>Resource area:</b>	282ha	
<b>Resource depth:</b>	Estimated 154.5m	
<b>Location</b>		
<b>OS sheet reference:</b>	SO 97 NE, SO 97 SE, SP 07 SW, SP 06 NW	
<b>National grid ref:</b>	399890, 271073	
<b>Resource description:</b>		
<b>Resource description:</b>	<p>Resource area 12/8 is Wildmoor Sandstone Formation solid sand. This is overlain by resource area 4/1 which is alluvial fan sand and gravel.</p> <p>The Wildmoor Formation is generally described as red-brown and orange, fine to medium grained, feldspathic sandstone with sparse, thin mudstone beds. Generally the formation is characterised by a remarkably uniform, very weakly cemented, fine grained, silty, micaceous sandstone and an absence of pebbles, in contrast to the Kidderminster Formation, although sparse pebbly stringers are recorded. The fine grain-size and soft, poorly cemented, nature of the sandstone in some areas made it ideal for exploitation as moulding sand for use in the foundry industry.</p> <p>The Wildmoor Sandstone Formation ranges in thickness, a borehole near Hagley (at grid reference 389940 281690) proved 175m of red hard and soft sandstone some of this could be attributed to the underlying Kidderminster Formation since the lower boundary is indistinct. The memoir for Redditch reports that the strata in this district is thickest at Webheath (134m), approx. 3km south of this resource area. East of the main outcrop the formation is cut out rapidly by the overstepping Bromsgrove Sandstone. There is no additional information about the depth of the deposit in this resource area.</p> <p>(Estimated resource depth based on a mean average of: a) borehole near Hagley: 175m, b) Webheath: 134m = 154.5m)</p>	
<b>Assessment of resource for the second consultation on MLP (Autumn 2013)</b>		

<b>Commentary:</b>	A large resource area with some built development.		
<b>Crude estimate of resource:</b>	Area: 282 ha x average depth: 154.5 m ÷ 2 Estimated resource volume: 217,845,000 m <sup>3</sup> <b>Estimated resource tonnage (at 2 t/m<sup>3</sup>): 435,690,000</b>		
<b>Conclusion:</b>	Significant – key resource. Use to define areas of search.		
<b>Assessment of resource for the Third Stage consultation on MLP (Spring 2015)</b>			
<b>Revised estimate of resource:</b>	Area: 282 ha x average depth: 154.5 m ÷ 2 Estimated resource volume: 217,845,000 m <sup>3</sup> <b>Estimated resource tonnage (at 1.65 t/m<sup>3</sup>): 359,444,250 tonnes</b>		
<b>Conclusion:</b>	Significant – key resource.		
<b>Assessment of resource for the Fourth Stage consultation on MLP (August 2018)</b>			
This resource area has been split into areas 12/8 and 12/8b.			
<b>Resource area 12/8</b>		<b>Resource area 12/8b</b>	
<b>Resource area:</b>	225 ha	<b>Commentary:</b>	Screened out due to the following appendix A criterion: - Listed Buildings - Source Protection Zone
<b>Resource depth:</b>	Estimated 154.5m		
<b>Revised estimate of resource:</b>	Area: 225 ha x average depth: 154.5m ÷ 2 Estimated resource volume: 173,812,500 m <sup>3</sup> <b>Estimated resource tonnage (at 1.65 t/m<sup>3</sup>): 286,790,625 tonnes</b>		
<b>Conclusion:</b>	Key resource	<b>Conclusion:</b>	Compromised