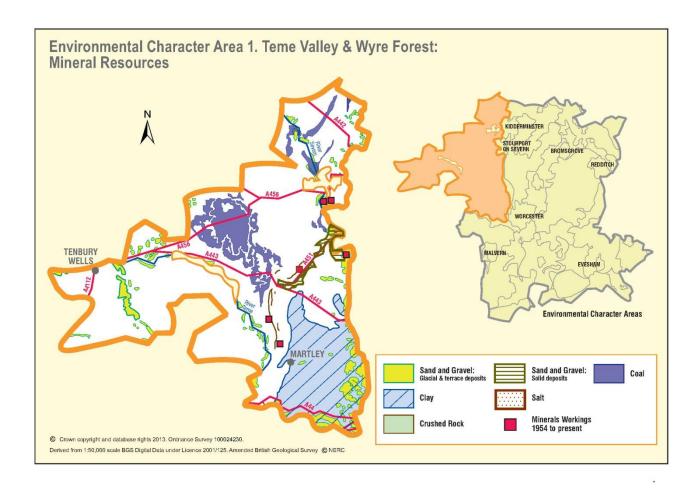
Appendix 1: Analysis of aggregate resources in ECA 1: Teme Valley and Wyre Forest



ECA Summary for the Third Stage consultation on MLP (Spring 2015):

Sand and gravel

There are 36 resource areas identified for sand and gravel in Severn Valley South ECA:

• Key: 3

Significant: 8

Not significant: 21

• Compromised: 4

Crushed rock

BGS data indicates that there are crushed rock resources in this ECA, however these are mapped as either less than 200m wide or less than 10ha in size. Therefore there are no resource areas identified in Teme Valley & Wyre Forest ECA for crushed rock.

Non-aggregates

BGS data indicates that there are deposits of clay and coal in this ECA. However, the Coal Authority and CoalPro have jointly informed the council that there are no commercially viable coal deposits in Worcestershire.

Overview of resource assessment for ECA 1

Sand and gravel resource areas:

Resource	Second Stage Co	onsultation	Third Stage C	onsultation
number*	Original estimated resource tonnage (2 tonnes/m³)	Significance	Revised estimate of resource tonnage (1.65 tonnes/m³)	Significance
1/1	Depth unknown	Not significant	Depth unknown	Not significant
1/2	Depth unknown	Not significant	Depth unknown	Not significant
1/3	1,260,000	Significant	1,039,500	Significant
1/3a	2,016,000	Compromised	1,663,200	Compromised
1/4	750,000	Significant	618,750	Significant
1/5	3,190,000	Key	2,631,750	Key
1/6	1,600,000	Significant	1,320,000	Significant
1/6a	500,000	Compromised	412,500	Compromised
1/7	594,000	Not significant	490,050	Not significant
1/8	242,000	Not significant	199,650	Not significant
1/9	220,000	Not significant	181,500	Not significant
1/10	220,000	Not significant	181,500	Not significant
1/11	3,224,000	Key	2,659,800	Key
1/11a	1,085,000	Compromised	895,125	Compromised
1/12	625,000	Significant	515,625	→ Not significant
1/13	350,000	Not significant	350,000	Not significant
1/14	1,800,000	Significant	1,800,000	Significant
1/15	340,000	Not significant	340,000	Not significant
1/16	Depth unknown	Not significant	Depth unknown	Not significant
1/17	480,000	Not significant	480,000	Not significant
1/18	Depth unknown	Not significant	Depth unknown	Not significant
1/19	Depth unknown	Not significant	Depth unknown	Not significant
1/20	Depth unknown	Significant	Depth unknown	Significant
1/21	Depth unknown	Not significant	Depth unknown	Not significant
1/22	Depth unknown	Not significant	Depth unknown	Not significant
1/23	Depth unknown	Significant	Depth unknown	Significant
1/24	Depth unknown	Not significant	Depth unknown	Not significant
1/25	Depth unknown	Not significant	Depth unknown	Not significant
1/26	Depth unknown	Not significant	Depth unknown	Not significant
1/27	Depth unknown	Not significant	Depth unknown	Not significant
1/28	960,000	Significant	792,000	Significant
1/29	630,000	Significant	519,750	→ Not significant
1/30	Depth unknown	Significant	Depth unknown	
1/31	Depth unknown	Not significant	Depth unknown	Not significant
1/32	596,330,000	Key	491,972,250	Key
1/33	149,691,000	Compromised	123,495,075	Compromised

Overview
Resource number: 1/1

Resource name: Upper Arley

Resource area: 18 ha
Resource depth: Not known

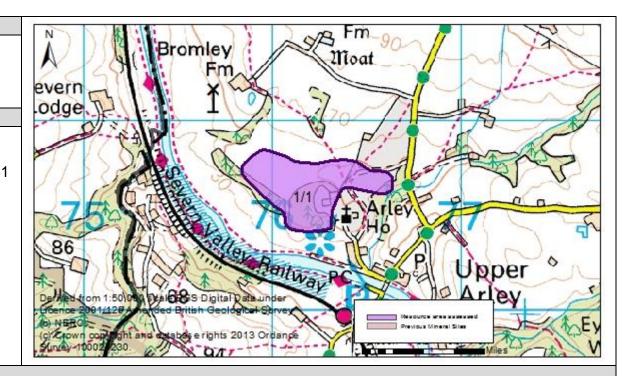
Location

OS sheet

SO 78 SE

reference:

National grid ref: 376195, 280651



Resource description:

Resource 3rd terrace (Holt Heath) sand and gravel. No thicknesses recorded in BGS memoirs.

description:

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small deposit with little built development.

Crude estimate of Depth not known.

resource:

Conclusion: Not significant: Small deposit with no information to estimate the resource in this area.

Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate No change to the assessment.

of resource:

Resource number: 1/2

Resource name: Ribbesford

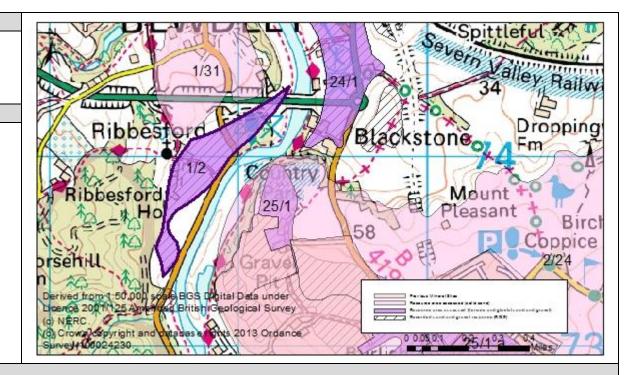
Resource area: 14ha

Resource depth: Depth not known

Location

OS sheet reference: SO 77 SE

National grid ref: 378829, 273936



Resource description:

Resource description: 1st terrace (Powerhouse) sand and gravel. No details of thickness or composition recorded in BGS memoirs.

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small deposit intersected by roads but with little other built development.

Crude estimate of Depth not known.

resource:

Conclusion: Not significant: Small deposit with no information to estimate the resource in this area.

Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of No change to the assessment.

resource:

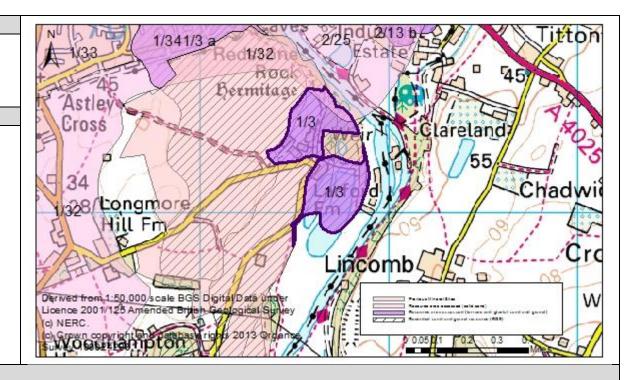
OverviewResource number:1/3Resource name:LarfordResource area:20 ha

Resource depth: Estimated 6.3m

Location

OS sheet reference: SO 86 NW

National grid ref: 381486, 268722



Resource description:

resource:

Resource description: 1st terrace (Powerhouse), 2nd terrace (Worcester) and 3rd terrace (Holt Heath) sand and gravel. Extensively

worked by the Severn Valley Sand and Gravel Company Ltd. The 3rd terrace was worked to a depth of 8m and

the 2nd and 1st terraces to between 4m and 5m.

(Estimated resource depth based on mean average of a) 1st and 2nd terrace depths (mid-point of 4m to 5m =

4.5m) and b) 3^{rd} terrace depths 8m = 6.3m)

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small resource area which is part of a deposit which has been extensively worked. Worked areas are not

included as part of the resource area. The deposit also continues beyond the former working to the north

(resource area 1/3a) and over 500m to the south (resource area 1/29).

Crude estimate of Area: 20 ha x average depth: $6.3 \div 2$

Estimated resource volume: 630,000m³

Estimated resource tonnage (at 2 t/m³): 1,260,000 tonnes

Conclusion: Significant.

Consider in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of Area: 20 ha x average depth: $6.3 \div 2$ **resource:** Estimated resource volume: 630,000m³

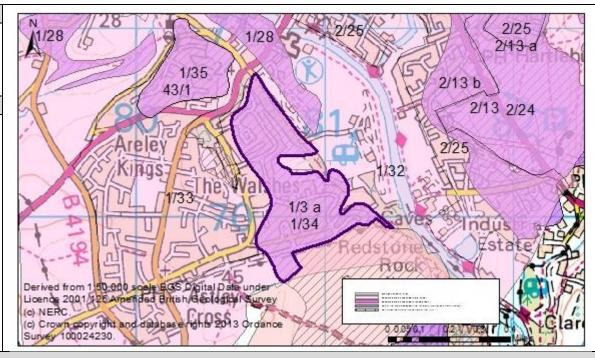
Estimated resource tonnage (at 1.65 t/m³): 1,039,500 tonnes

Conclusion: Significant.

Overview	
Resource number:	1/3a
Resource name:	Larford a)
Resource area:	32 ha
Resource depth:	Estimated 6.3m
Location	

OS sheet reference: SO 86 NW

National grid ref: 380819, 270166



Resource description:	
Resource description:	Resource area 1/3a is 1 st terrace (Powerhouse), 2 nd terrace (Worcester) and 3 rd terrace (Holt Heath) sand and gravel. Extensively worked by the Severn Valley Sand and Gravel Company Ltd. The 3 rd terrace was worked to a depth of 8m and the 2 nd and 1 st terraces to between 4m and 5m. It is underlain by solid sand, assessed as resource area 1/34. (Estimated resource depth based on mean average of a) 1 st and 2 nd terrace depths (mid-point of 4m to 5m = 4.5m) and b) 3 rd terrace depths 8m = 6.3m)
Assessment of resourc	e for the second consultation on MLP (Autumn 2013)
Commentary:	A small resource area which is part of a deposit which has been extensively worked and is compromised by the settlement of the Walshes. Worked areas are not included as part of the resource area. The deposit also continues beyond the former working to the south east (resource area 1/3) and over 500m to the south (resource area 1/29).
Crude estimate of	Area: 32 ha x average depth: 6.3 ÷ 2
resource:	Estimated resource volume: 1,008,000m ³
	Estimated resource tonnage (at 2 t/m³): 2,016,000 tonnes
Conclusion:	Compromised by development with less than 10ha of the deposit remaining.
Assessment of resourc	e for the Third Stage consultation on MLP (Spring 2015)
Revised estimate of	Area: 32 ha x average depth: 6.3 ÷ 2
resource:	Estimated resource volume: 1,008,000m ³
	Estimated resource tonnage (at 1.65 t/m³): 1,663,200 tonnes
Conclusion:	Compromised by development with less than 10ha of the deposit remaining.

Resource number: 1/4

Resource name: Sinton Green

Resource area: 30 ha

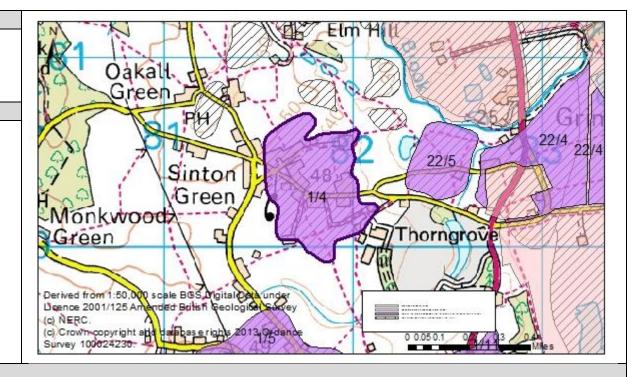
Resource depth: Estimated 2.5m

Location

OS sheet reference: SO 86 SW, SO 85

NW

National grid ref: 381792, 260319



Resource description:

Resource description: 4th terrace (Kidderminster Station) sand and gravel. The memoir records that deposits in this area are about 2-

3m thick. This is supported by findings at a borehole in the 4th terrace at Little Eastbury, south of Hallow (approx. 3km south of this resource area), which recorded 0.9m of overburden and 1.8m of sand and gravel.

Estimated resource depth based on memoir record for the area: midpoint of 2m to 3m = 2.5m

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small resource area intersected by roads with some ribbon development.

Crude estimate of resource:Area: 30 ha x average depth: 2.5 m ÷ 2
Estimated resource volume: 375,000 m³

Estimated resource tonnage (at 2 t/m³): 750,000 tonnes

Conclusion: Significant.

Consider in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of Area: 30 ha x average depth: 2.5 m ÷ 2 Estimated resource volume: 375,000 m³

Estimated resource tonnage (at 1.65 t/m³): 618,750 tonnes

Conclusion: Significant.

Resource number: 1/5
Resource name: Moseley

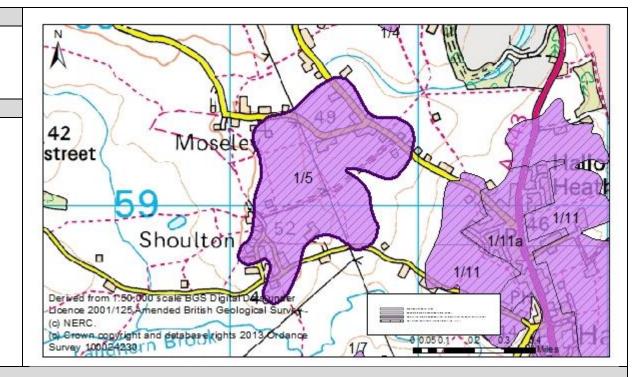
Resource area: 58 ha

Resource depth: Estimated 5.5m

Location

OS sheet reference: SO 85 NW

National grid ref: 381473, 259143



Resource description:

Resource description: 4th terrace (Kidderminster Station) sand and gravel. The memoir records that deposits in this area are about 2-

3m thick except at Moseley where the terrace is 5-6m thick.

(Estimated resource depth based on midpoint of resource depth at Moseley: 5.5m)

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A medium resource area intersected by roads with some ribbon development.

Crude estimate of

resource:

resource:

Area: 58 ha x average depth: 5.5m ÷ 2
Estimated resource volume: 1,595,000m³

Estimated resource tonnage (at 2 t/m³): 3,190,000 tonnes

Conclusion: Significant – key resource.

Use to define areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of Area: 58 ha x ave

Area: 58 ha x average depth: 5.5m ÷ 2 Estimated resource volume: 1,595,000m³

Estimated resource tonnage (at 1.65 t/m³): 2,631,750 tonnes

Conclusion: Significant – key resource.

Resource number: 1/6

Resource name: Lower Broadheath

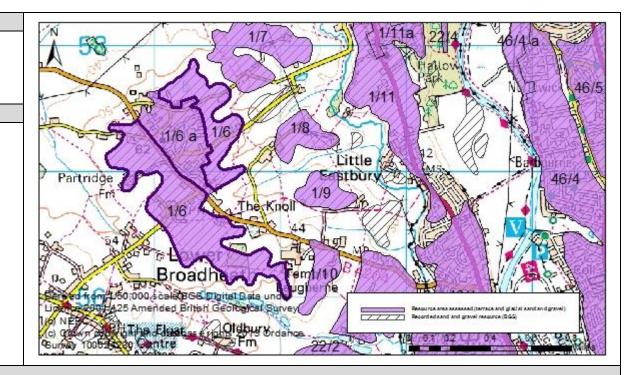
Resource area: 80 ha

Resource depth: Estimated 2m

Location

OS sheet reference: SO 85 NW

National grid ref: 381308, 256897



Resource description:

Resource description: A 5th terrace (Bushley Green) sand and gravel deposit. The deposit consists of predominantly of yellow to red-

brown pebbly sand but is locally clayey or gravelly. The BGS memoirs state that much of it is less than 2m thick in Lower Broadheath. Three resistivity soundings just south of Lower Broadheath indicate up to 2m of

sand and/or gravel on Mercia Mudstone.

(Estimated resource depth based on estimates of 2m)

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A medium-sized resource area in two sections either side of the village of Lower Broadheath. The deposit

extends under the village of Lower Broadheath, this is considered separately as resource area 1/6b.

Crude estimate of

resource:

Area: 80 ha x average depth: 2m ÷ 2 Estimated resource volume: 800.000 m³

Estimated resource tonnage (at 2 t/m³): 1,600,000 tonnes

Conclusion: Significant.

Consider in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of Area: 80 ha x average depth: 2m ÷ 2

resource: Estimated resource volume: 800,000 m³

Estimated resource tonnage (at 1.65 t/m³): 1,320,000 tonnes

Conclusion: Significant.

Overview
Resource number: 1/6 a

Resource name: Lower Broadheath a)

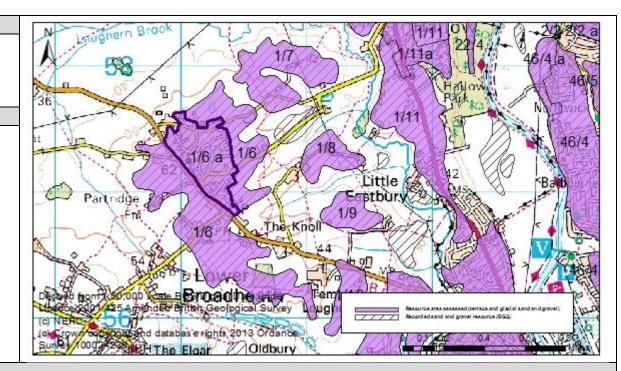
Resource area: 25 ha

Resource depth: Estimated 2m

Location

OS sheet reference: SO 85 NW

National grid ref: 381308, 256897



Resource description:

Resource description: 5th terrace (Bushley Green) sand and gravel. The deposit consists of predominantly of yellow to red-brown

pebbly sand but is locally clayey or gravelly. The BGS memoirs state that much of it is less than 2m thick in Lower Broadheath. Three resistivity soundings just south of Lower Broadheath indicate up to 2m of sand

and/or gravel on Mercia Mudstone.

(Estimated resource depth based on estimates of 2m)

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small resource area compromised by the settlement of Lower Broadheath. The deposit extends to the east

and west of the village (assessed as resource area 1/6).

Crude estimate of Area: 25 ha x average depth: 2m ÷ 2

resource: Estimated resource volume: 250,000 m³

Estimated resource tonnage (at 2 t/m³): 500,000 tonnes

Conclusion: Compromised by development.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of Area: 25 ha x average depth: 2m ÷ 2 resource: Estimated resource volume: 250,000 m³

Estimated resource tonnage (at 1.65 t/m³): 412,500 tonnes

Conclusion: Compromised by development.

Overview
Resource number: 1/7

Resource name: Ashfield Farm

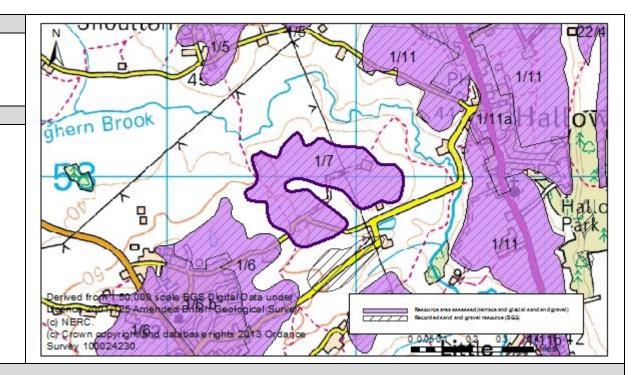
Resource area: 27 ha

Resource depth: Estimated 2.2m

Location

OS sheet reference: SO 85 NW

National grid ref: 381807, 257947



Resource description:

Resource description: 4th terrace (Kidderminster Station) sand and gravel. A borehole in the 4th terrace at Little Eastbury, south of

Hallow (approx. 1km south west of this resource area), recorded 0.9m of overburden and 1.8m of sand and

gravel. The memoir records that deposits in this area are about 2-3m thick.

(Estimated resource depth based on average of: a) borehole at Little Eastbury: 1.8m and b) memoir record:

(midpoint of 2m to 3m = 2.5m) = 2.2m

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small resource area with little built development.

Crude estimate of Area: 27 ha x average depth: 2.2 m ÷ 2 **resource:** Estimated resource volume: 297.000 m³

Estimated resource tonnage (at 2 t/m³): 594,000 tonnes

Conclusion: Not significant: Small deposit with less than 300,000m³.

Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of Area: 27 ha x average depth: 2.2 m ÷ 2 **resource:** Estimated resource volume: 297.000 m³

Estimated resource tonnage (at 1.65 t/m³): 490,050 tonnes

Overview1/8Resource number:1/8Resource name:Lovington

Resource area: 11 ha

Resource depth: Estimated 2.2m

Location

OS sheet reference: SO 85 NW

National grid ref: 382164, 257280



Resource description:

Resource description: 4th terrace (Kidderminster Station) sand and gravel. A borehole in the 4th terrace at Little Eastbury recorded

0.9m of overburden and 1.8m of sand and gravel. The memoir records that deposits in this area are about 2-

3m thick.

(Estimated resource depth based on average of: a) borehole at Little Eastbury: 1.8m and b) memoir record:

(midpoint of 2m to 3m = 2.5m) = 2.2m

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small resource area with little built development.

Crude estimate of Area: 11 ha x average depth: 2.2 m ÷ 2 **resource:** Estimated resource volume: 121.000 m³

Estimated resource tonnage (at 2 t/m³): 242,000 tonnes

Conclusion: Not significant: Small deposit with less than 300,000m³.

Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of resource:Area: 11 ha x average depth: 2.2 m ÷ 2
Estimated resource volume: 121,000 m³

Estimated resource tonnage (at 1.65 t/m³): 199,650 tonnes

Overview
Resource number: 1/9

Resource name: Eastbury Manor

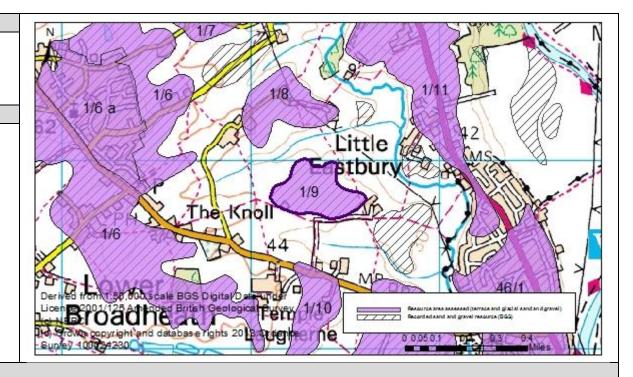
Resource area: 10 ha

Resource depth: Estimated 2.2m

Location

OS sheet reference: SO 85 NW

National grid ref: 382343, 256830



Resource description:

Resource description: A 4th terrace (Kidderminster Station) sand and gravel. A borehole in the 4th terrace at Little Eastbury recorded

0.9m of overburden and 1.8m of sand and gravel. The memoir records that deposits in this area are about 2-

3m thick.

(Estimated resource depth based on average of: a) borehole at Little Eastbury: 1.8m and b) memoir record:

(midpoint of 2m to 3m = 2.5m) = 2.2m

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small resource area with little built development.

Crude estimate of Area: 10 ha x average depth: 2.2m ÷ 2 **resource:** Estimated resource volume: 110.000 m³

Estimated resource tonnage (at 2 t/m³): 220,000 tonnes

Conclusion: Not significant: Small deposit with less than 300,000m³.

Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of Area: 10 ha x average depth: $2.2m \div 2$ resource: Estimated resource volume: 110.000 m^3

Estimated resource tonnage (at 1.65 t/m³): 181,500 tonnes

Overview
Resource number: 1/10

Resource name: Temple Laughern

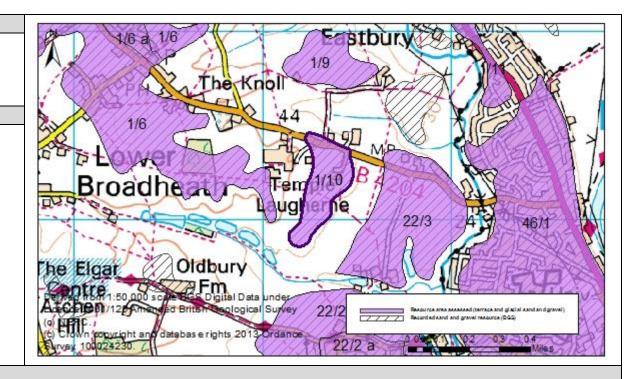
Resource area: 10 ha

Resource depth: Estimated 2.2m

Location

OS sheet reference: SO 85 NW

National grid ref: 382314, 256180



Resource description:

Resource description: 4th terrace (Kidderminster Station) sand and gravel. A borehole in the 4th terrace at Little Eastbury, south of

Hallow, recorded 0.9m of overburden and 1.8m of sand and gravel. The memoir records that deposits in this

area are about 2-3m thick.

(Estimated resource depth based on average of: a) borehole at Little Eastbury: 1.8m and b) memoir record:

(midpoint of 2m to 3m = 2.5m) = 2.2m

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small resource area with little built development.

Crude estimate of Area: 10 ha x average depth: 2.2m ÷ 2 **resource:** Estimated resource volume: 110.000 m³

Estimated resource tonnage (at 2 t/m³): 220,000 tonnes

Conclusion: Not significant: Small deposit with less than 300,000m³.

Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of resource:Area: 10 ha x average depth: 2.2m ÷ 2
Estimated resource volume: 110,000 m³

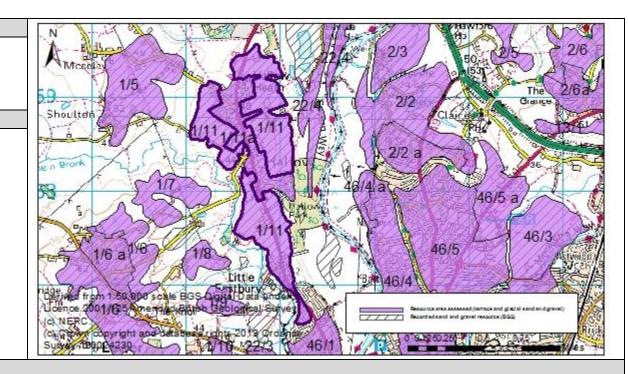
Estimated resource tonnage (at 1.65 t/m³): 181,500 tonnes

Overview	
Resource number:	1/11
Resource name:	Hallow
Resource area:	104 ha
Resource depth:	Estimated 3.1m

Location

OS sheet reference: SO 85 NW

National grid ref: 382719, 258413



Resource description:

Resource description: 4th terrace (Kidderminster Station) sand and gravel. A borehole in the 4th terrace at Little Eastbury, south of

Hallow, recorded 0.9m of overburden and 1.8m of sand and gravel. Three resistivity soundings on the deposits at Hallow indicate sand and/or gravel to a depth of up to 4.1m resting on Mercia Mudstone. The terrace at Hallow is also reported in the memoir as about 5m thick, thinning to 2-3m at its southern extremity.

(Estimated resource depth based on mean average of a) borehole at little Eastbury 1.8m b) resistivity soundings 4.1m and c) BGS memoir reports on the terrace at Hallow (mid-point of 5m to 2m) 3.5m = 3.1m)

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A medium-sized resource area in two sections either side of the village of Hallow. An A road runs through the resource area with some ribbon development. The deposit extends under the village of Hallow (assessed as

resource area 1/11a).

Crude estimate of Area: 104 ha x average depth: 3.1m ÷ 2

resource: Estimated resource volume: 1,612,000 m³

Estimated resource tonnage (at 2 t/m³): 3,224,000 tonnes

Conclusion: Significant – key resource.

Use to define areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of Area: 104 ha x average depth: 3.1m ÷ 2 Estimated resource volume: 1,612,000 m³

Estimated resource tonnage (at 1.65 t/m³): 2,659,800 tonnes

Conclusion: Significant – key resource.

Overview 1/11 a Resource number: Resource name: Hallow a) 35 ha

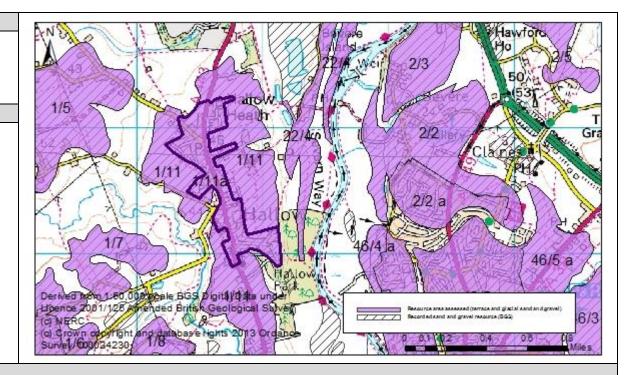
Estimated 3.1m Resource depth:

Location

Resource area:

SO 85 NW OS sheet reference:

382719, 258413 National grid ref:



Resource description:

4th terrace (Kidderminster Station) sand and gravel. A borehole in the 4th terrace at Little Eastbury, south of Resource description:

Hallow, recorded 0.9m of overburden and 1.8m of sand and gravel. Three resistivity soundings on the deposits at Hallow indicate sand and/or gravel to a depth of up to 4.1m resting on Mercia Mudstone. The terrace at

Hallow is also reported in the memoir as about 5m thick, thinning to 2-3m at its southern extremity.

Estimated resource depth based on mean average of a) borehole at little Eastbury 1.8m b) resistivity soundings 4.1m and c) BGS memoir reports on the terrace at Hallow (mid point of 5m to 2m) 3.5m = 3.1m

Assessment of resource for the second consultation on MLP (Autumn 2013)

A small resource area compromised by the settlement of Hallow. The deposit extends to the east and west of **Commentary:**

the village of Hallow (assessed as resource area 1/11).

Crude estimate of Area: 35 ha x average depth: 3.1m ÷ 2 Estimated resource volume: 542,500 m³ resource:

Estimated resource tonnage (at 2 t/m³): 1,085,000 tonnes

Compromised by development. Conclusion:

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Area: 35 ha x average depth: 3.1m ÷ 2 Revised estimate of Estimated resource volume: 542,500 m³ resource:

Estimated resource tonnage (at 1.65 t/m³): 895,125 tonnes

Conclusion: Compromised by development.

Resource number: 1/12

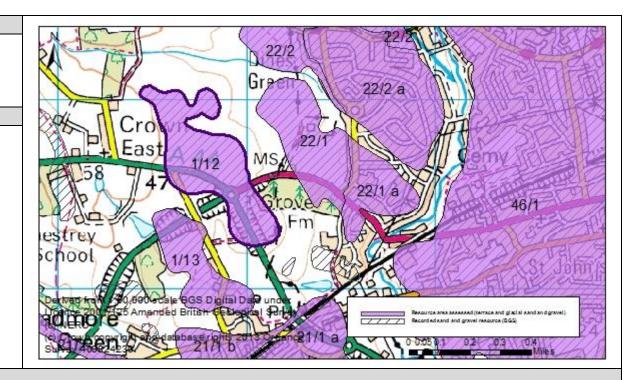
Resource name: Crown East **Resource area:** 25 ha

Resource depth: Estimated 2.5m

Location

OS sheet reference: SO 85 SW

National grid ref: 381729, 254768



Resource description:

Resource description: 4th terrace (Kidderminster Station) sand and gravel. The memoir records that deposits in this area are about 2-

3m thick.

Estimated resource depth based on midpoint of 2-3m = 2.5m

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small resource area intersected by roads.

Crude estimate of Area: 25 ha x average depth: $2.5m \div 2$ Estimated resource volume: $312,500m^3$

Estimated resource tonnage (at 2 t/m³): 625,000 tonnes

Conclusion: Significant.

Consider in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of Area: 25 ha x average depth: 2.5m ÷ 2 **resource:** Estimated resource volume: 312,500m³

Estimated resource tonnage (at 1.65 t/m³): 515,625 tonnes

Conclusion: Change to conclusion: Not significant.

Resource number: 1/13

Resource name: Claphill Lane

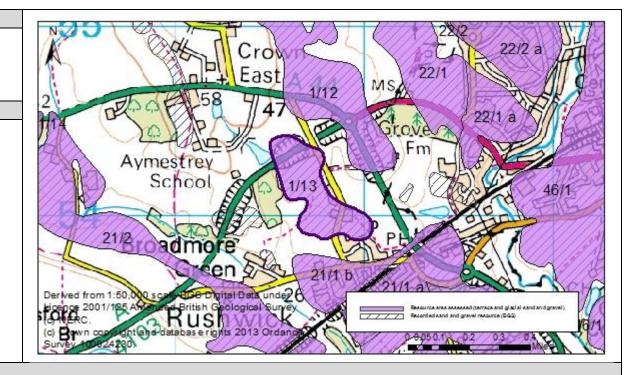
Resource area: 14 ha

Resource depth: Estimated 2.5m

Location

OS sheet reference: SO 85 SW

National grid ref: 381737, 254121



Resource description:

Resource description: 4th terrace (Kidderminster Station) sand and gravel. The memoir records that deposits in this area are about 2-

3m thick.

Estimated resource depth based on midpoint of 2-3m = 2.5m

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small resource area intersected by roads.

Crude estimate of Area: 14 ha x average depth: $2.5m \div 2$ resource: Estimated resource volume: $175,000 \text{ m}^3$

Estimated resource tonnage (at 2 t/m³): 350,000 tonnes

Conclusion: Not significant: Small deposit with less than 300,000m³.

Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of Area: 14 ha x average depth: 2.5m ÷ 2 **resource:** Estimated resource volume: 175.000 m³

Estimated resource volume: 175,000 m³
Estimated resource tonnage (at 1.65 t/m³): 288,750 tonnes

Resource number: 1/14

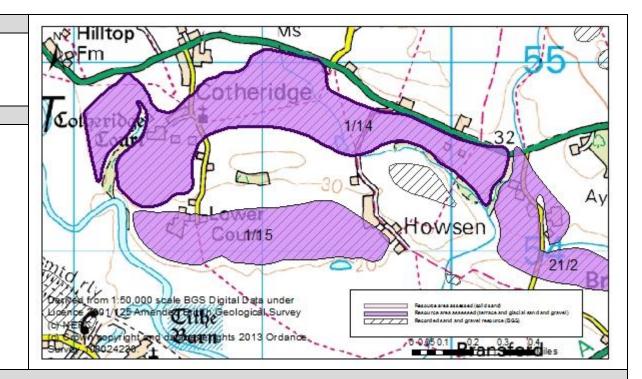
Resource name: Cotheridge **Resource area:** 72 ha

Resource depth: Estimated 2.5m

Location

OS sheet reference: SO 75 SE

National grid ref: 378994, 254659



Resource description:

Resource description: 3rd terrace (Holt Heath) sand and gravel. The gravels contain a high proportion of exotic material of Scottish

and Lake District origin. At least 2.5m of gravel is reported east of Cotheridge in the BGS memoirs.

(Estimated resource depth based on memoir record for Cotheridge: 2.5m)

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A medium resource area with some built development.

Crude estimate of Area: 72 ha x average depth: 2.5m ÷ 2 resource: Estimated resource volume: 900,000 m³

Estimated resource tonnage (at 2 t/m³): 1,800,000 tonnes

Conclusion: Significant.

Consider in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of Area: 72 ha x average depth: 2.5m ÷ 2 **resource:** Estimated resource volume: 900,000 m³

Estimated resource tonnage (at 1.65 t/m³): 1,485,000 tonnes

Conclusion: Significant.

1/15 Resource number:

Lower Court Resource name:

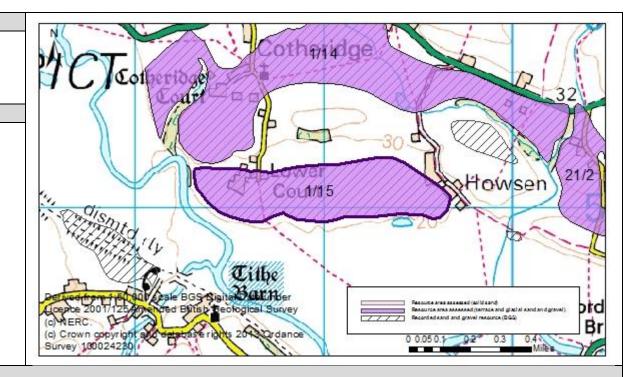
34 ha Resource area:

Estimated 1m Resource depth:

Location

SO 75 SE OS sheet reference:

National grid ref: 378996, 254086



Resource description:

Conclusion:

resource:

2nd terrace (Worcester) sand and gravel. Although the memoir refers to extensive deposits of 2nd terrace **Resource description:**

around Cotheridge, the only information on depth given is a section at Horsham (approx. 6km north west of this resource area) which showed about 2.3m of red silt above 1m of gravel.

(Estimated resource depth based on section at Horsham: 1m)

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small resource area with little built development.

Crude estimate of Area: 34 ha x average depth: 1m ÷ 2 resource:

Estimated resource volume: 170,000 m³

Estimated resource tonnage (at 2 t/m³): 340,000 tonnes

Not significant: Small deposit with less than 300,000m³.

Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Area: 34 ha x average depth: 1m ÷ 2 Revised estimate of

Estimated resource volume: 170,000 m³

Estimated resource tonnage (at 1.65 t/m³): 280,500 tonnes

Not significant. **Conclusion:**

Overview

Resource number: 1/16

Resource name: Broadwas

Resource area: 14 ha

Resource depth: Not known

Location

OS sheet reference: SO 75 NE, SO 75 SE

National grid ref: 375743, 255098



Resource description: 1st terrace (Powerhouse) sand and gravel. No thicknesses recorded in the BGS memoirs. **Resource description:** Assessment of resource for the second consultation on MLP (Autumn 2013) **Commentary:** A small resource area with some built development across the area. Crude estimate of Depth not known. resource: **Conclusion:** Not significant: Small deposit with no information to estimate the resource in this area. Not for consideration in defining areas of search. Assessment of resource for the Third Stage consultation on MLP (Spring 2015) Revised estimate of No change to the assessment. resource: Not significant. **Conclusion:**

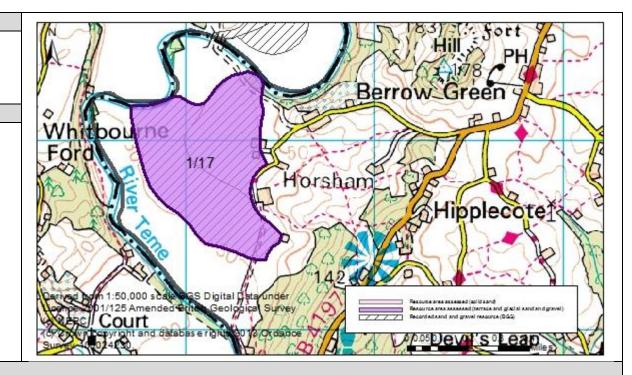
Resource number: 1/17
Resource name: Horsham
Resource area: 48 ha

Resource depth: Estimated 1m

Location

OS sheet reference: SO 75 NW

National grid ref: 373125, 257880



Resource description:

Resource description: 1st terrace (Powerhouse) and 2nd terrace (Worcester) sand and gravel. No information on 1st terrace

thicknesses. A section in the 2nd terrace at Horsham showed about 2.3m of silt above 1m of gravel.

(Estimated resource depth based on section in 2nd terrace at Horsham: 1m)

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A medium resource area with little built development.

Crude estimate of Area: 48 ha x average depth: 1m ÷ 2 **resource:** Estimated resource volume: 240.000 m³

Estimated resource tonnage (at 2 t/m³): 480,000 tonnes

Conclusion: Not significant: Small deposit with less than 300,000m³.

Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of Area: 48 ha x average depth: $1m \div 2$ Estimated resource volume: 240,000 m³

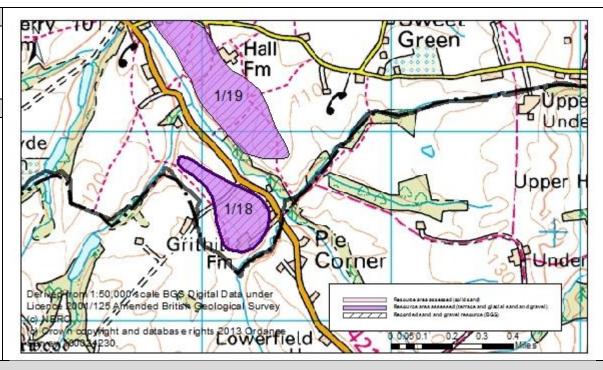
Estimated resource tonnage (at 1.65 t/m³): 396,000 tonnes

Overview Resource number: 1/18 Pie Corner **Resource name:** 10 ha Resource area: Resource depth: Not known

Location

SO 66 SW OS sheet reference:

National grid ref: 364157, 261590



Resource description:

BGS digital data indicates that this is Bank Farm sand and gravel. No further information available in the BGS **Resource description:**

memoirs.

Assessment of resource for the second consultation on MLP (Autumn 2013)

A small resource area with little built development. **Commentary:**

Crude estimate of

Depth not known.

resource:

Conclusion: Not significant: Small deposit with no information to estimate the resource in this area.

Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of No change to the assessment.

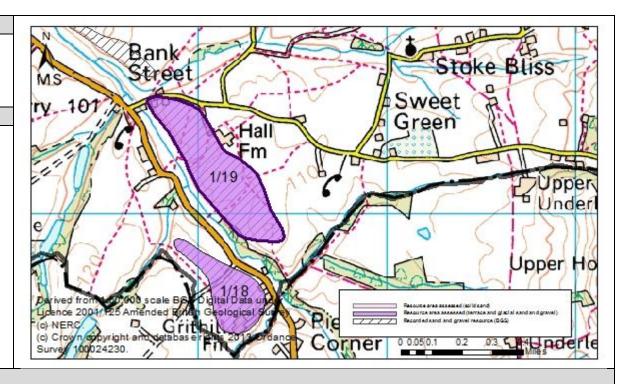
resource:

Overview Resource number: 1/19 Hall Farm **Resource name:** 21 ha Resource area: Resource depth: Not known

Location

SO 66 SW OS sheet reference:

National grid ref: 364108, 262221



Resource description:

BGS data indicates that this is Bank Farm sand and gravel. No further information available in the BGS **Resource description:**

memoirs.

Assessment of resource for the second consultation on MLP (Autumn 2013)

A small resource area with little built development **Commentary:**

Crude estimate of Depth not known.

resource:

Conclusion: Not significant: Small deposit with no information to estimate the resource in this area.

Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of No change to the assessment.

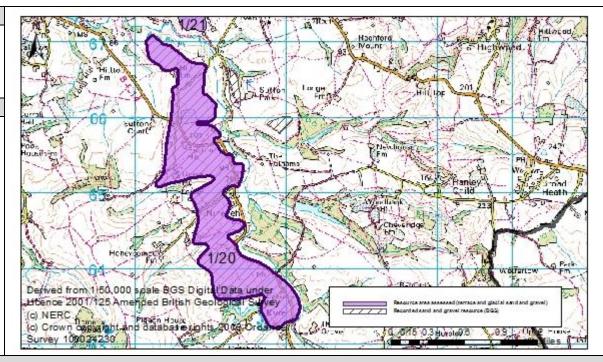
resource:

Overview Resource number: 1/20 Nineveh **Resource name:** 223 ha Resource area: Resource depth: Not known

Location

SO 66 SW OS sheet reference:

National grid ref: 362036, 265027



Resource description:

BGS data indicates that this is Bank Farm sand and gravel. No further information available in the BGS **Resource description:**

memoirs.

Assessment of resource for the second consultation on MLP (Autumn 2013)

A large resource area with little built development. **Commentary:**

Crude estimate of

Depth not known.

resource:

Significant. **Conclusion:**

Consider in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of

No change to the assessment.

resource:

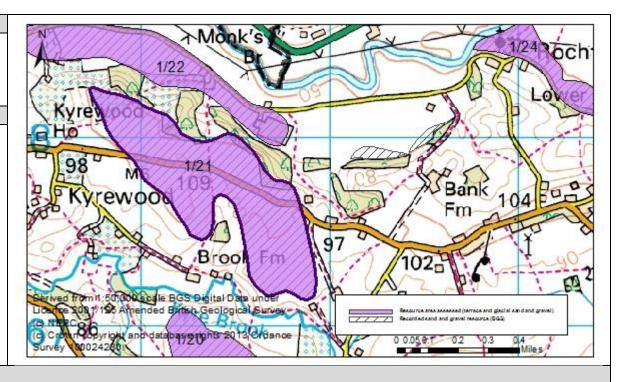
Significant. **Conclusion:**

OverviewResource number:1/21Resource name:KyrewoodResource area:50 haResource depth:Not known

Location

OS sheet reference: SO 66 SW

National grid ref: 361407, 267713



Resource description:

Resource description: BGS data indicates that this is Bank Farm sand and gravel. No further information available in the BGS

memoirs.

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small resource area intersected by a road.

Crude estimate of

Depth not known.

resource:

Conclusion: Not significant: Small deposit with no information to estimate the resource in this area.

Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of No change to the assessment.

resource:

Overview
Resource number: 1/22

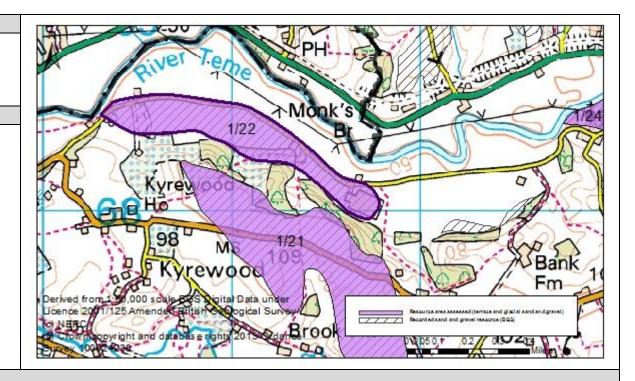
Resource name: Monk's Bridge

Resource area: 27 ha
Resource depth: Not known

Location

OS sheet reference: SO 66 SW

National grid ref: 361042, 268378



Resource description:

Resource description: Undifferentiated river terrace. No further information available in the BGS memoirs.

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small resource area with a road running along the northern edge. Little other built development.

Crude estimate of Depth not known.

resource:

Conclusion: Not significant: Small deposit with no information to estimate the resource in this area.

Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of No change to the assessment.

resource:

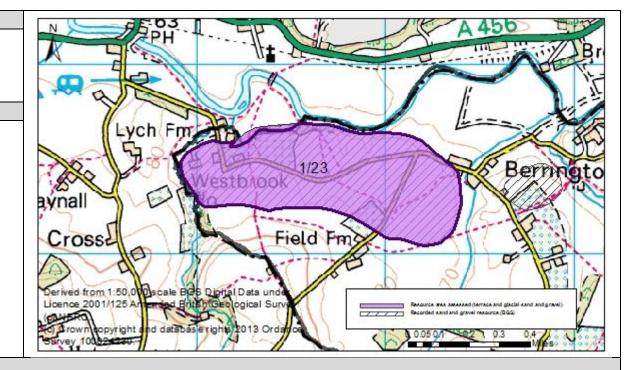
Overview Resource number: 1/23

Westbrook **Resource name:** 62 ha Resource area: **Resource depth:** Not known

Location

SO 56 NE OS sheet reference:

National grid ref: 355726, 267395



Resource description:

Resource description: BGS data indicates that this is Little Hereford sand and gravel. No further information available in the BGS

memoirs.

Assessment of resource for the second consultation on MLP (Autumn 2013)

A medium resource area intersected by roads. The deposit extends to a small extent over the county **Commentary:**

boundary. This section is not considered as part of the resource area.

Crude estimate of

Depth not known. resource:

Significant. **Conclusion:**

Consider in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of No change to the assessment.

resource:

Conclusion: Significant. OverviewResource number:1/24Resource name:RochfordResource area:18 ha

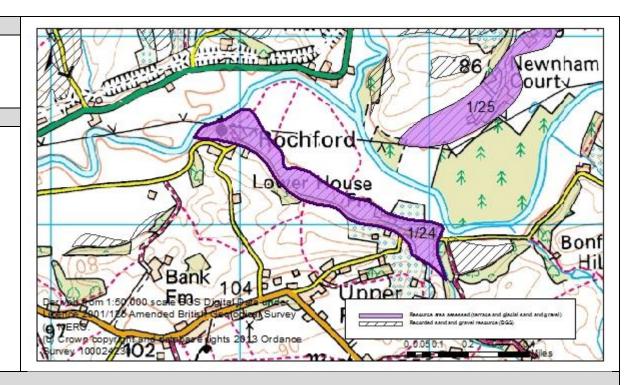
Location

Resource depth:

OS sheet reference: SO 66 NE

National grid ref: 363442, 268199

Not known



Resource description:

Resource description: Undifferentiated river terrace deposit. No further information available in the BGS memoirs.

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small narrow resource area intersected by a road down the length of the area.

Crude estimate of

Depth not known.

resource:

Conclusion: Not significant: Small deposit with no information to estimate the resource in this area.

Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of No change to

No change to the assessment.

resource:

Overview 1/25

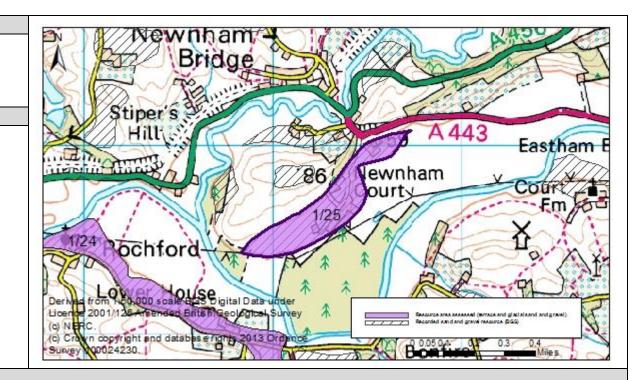
Resource name: Newnham Court

Resource area: 15 ha
Resource depth: Not known

Location

OS sheet reference: SO 66 NE

National grid ref: 364275, 268678



Resource description:

Resource description: Undifferentiated river terrace deposit. No further information available in the BGS memoirs.

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small resource area with little built development.

Crude estimate of Depth not known.

resource:

Conclusion: Not significant: Small deposit with no information to estimate the resource in this area.

Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of No change to the assessment.

resource:

Resource number: 1/26

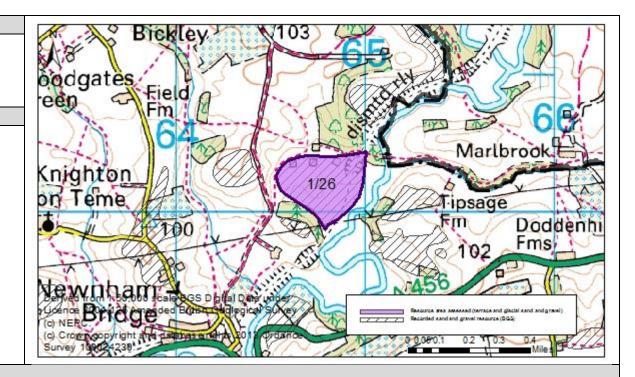
Resource name: Tunnel Coppice

Resource area: 12 ha
Resource depth: Not known

Location

OS sheet reference: SO 66 NE

National grid ref: 364780, 270145



Resource description:

Resource description: A 2nd river terrace deposit. No further information available in the BGS memoirs.

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small resource area with little built development.

Crude estimate of Depth not known.

resource:

Conclusion: Not significant: Small deposit with no information to estimate the resource in this area.

Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of No change to the assessment.

resource:

OverviewResource number:1/27Resource name:Eardiston

Resource area: 11 ha
Resource depth: Not known

Location

OS sheet reference: SO 66 NE

National grid ref: 369286, 268179



Resource description:

Resource description: 2nd terrace sand and gravel. Exposures are scarce and there are no details of depth in this location.

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary: A small resource area with dispersed development across the area.

Crude estimate of Depth not known

resource:

Conclusion: Not significant: Small deposit with no information to estimate the resource in this area.

Not for consideration in defining areas of search.

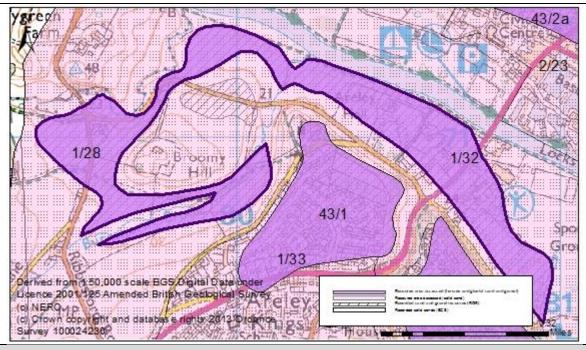
Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of No change to the assessment.

resource:

Overview	
Resource number:	1/28
Resource name:	Around Broomy Hill
	and Areley Kings
Resource area:	30ha
Resource depth:	Estimated 3.2m
Location	
OS sheet reference:	SO 87 SW, SO 77 SE
National grid ref:	380182, 270952

Resource description:



Resource description:	1 st terrace (Powerhouse) sand and gravel. The BGS memoirs state that 1 st terrace varies in depth between 6'
	(1.8m) and 14'8" (4.5m) in the Stourport area.
	This deposit is underlain by solid sand resources, which are assessed separately as resource area 1/32.
	Estimated resource depth based on midpoint of 1 st terrace deposit in Stourport Area 1.8m to 4.5m = 3.2m
Assessment of resourc	e for the second consultation on MLP (Autumn 2013)
Commentary:	A small narrow deposit with some built development in the west.
Crude estimate of	Area: 30 ha x average depth: 3.2 m ÷ 2
resource:	Estimated resource volume: 480,000 m ³
	Estimated resource tonnage (at 2 t/m³): 960,000 tonnes
Conclusion:	Significant.
	Consider in defining areas of search.
Assessment of resourc	e for the Third Stage consultation on MLP (Spring 2015)
Revised estimate of	Area: 30 ha x average depth: 3.2 m ÷ 2
resource:	Estimated resource volume: 480,000 m ³
	Estimated resource tonnage (at 1.65 t/m³): 792,000 tonnes
Conclusion:	Significant.

Overview 1/29 Resource number: The Burf Resource name:

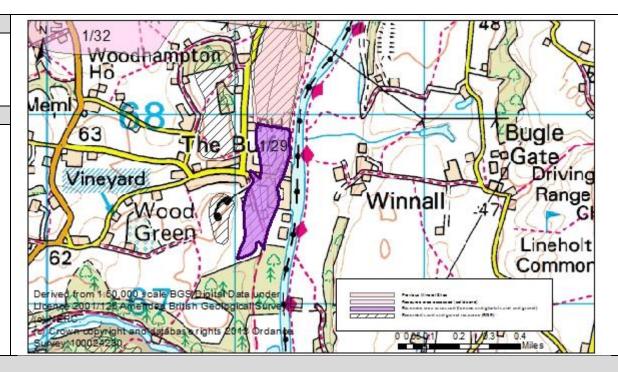
10ha Resource area:

Estimated 6.3m Resource depth:

Location

SO 86 NW OS sheet reference:

381154, 267623 National grid ref:



Resource	description:

Resource description: 1st terrace (Powerhouse). 2nd terrace (Worcester) and 3rd terrace (Holt Heath) sand and gravel. Extensively worked by the Severn Valley Sand and Gravel Company Ltd. The 3rd terrace was worked to a depth of 8m and

the 2nd and 1st terraces to between 4m and 5m.

(Estimated resource depth based on mean average of a) 1st and 2nd terrace depths (mid-point of 4m to 5m =

4.5m) and b) 3^{rd} terrace depths 8m = 6.3m)

Assessment of resource for the second consultation on MLP (Autumn 2013)

A small resource area which is part of a deposit which has been extensively worked. Worked areas are not Commentary: included as part of the resource area. This resource area is compromised by the settlement of The Burf with less than 10ha of the deposit remaining. The deposit also continues beyond the former working over 500m to the north east (resource area 1/3) and to the north west under Arley Kings (resource area 1/3a).

Area: 10 ha x average depth: 6.3 m ÷ 2

Crude estimate of Estimated resource volume: 315,000 m³ resource:

Estimated resource tonnage (at 2 t/m³): 630,000 tonnes

Conclusion: Significant.

Consider in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

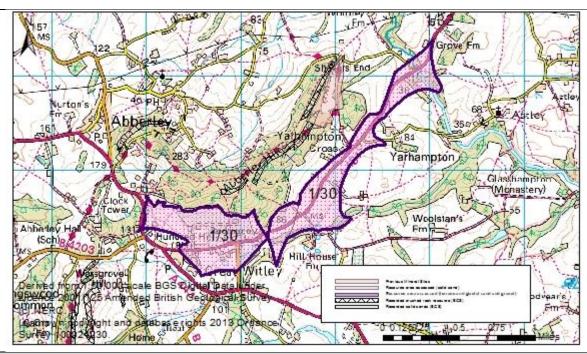
Area: 10 ha x average depth: 6.3 m ÷ 2 Revised estimate of Estimated resource volume: 315,000 m³ resource:

Estimated resource tonnage (at 1.65 t/m³): 519,750 tonnes

Conclusion: Change to conclusion: Not significant. Overview
Resource number: 1/30
Resource name: North of Great Witley
Resource area: 130ha
Resource depth: Not known

Location
OS sheet reference: SO 76 NE, SO 77 SE
National grid ref: 376472, 266762

Resource description:



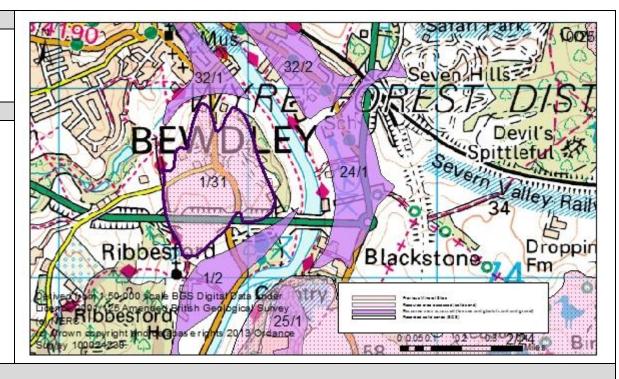
Resource description: Wildmoor formation solid sand. The memoir records that the junction between trias and old red sandstone is not easy to determine in this area. No information about thicknesses available for this area. Assessment of resource for the second consultation on MLP (Autumn 2013) A large resource area, a small section of which is overlain by the village of Great Witley in the west. The Commentary: resource area is also intersected by roads and dispersed built development. Crude estimate of Depth not known resource: **Conclusion:** Significant. Consider in defining areas of search. Assessment of resource for the Third Stage consultation on MLP (Spring 2015) Revised estimate of No change to the assessment. resource: Conclusion: Significant.

OverviewResource number:1/31Resource name:Red HillResource area:30haResource depth:Not known

Location

OS sheet reference: SO 77 SE

National grid ref: 378823, 274503



Resource description:

Kidderminster formation solid sand. Exposures in this area show the interbedding of pebbly sandstones with bands of breccia. No information on depths available for this location in the BGS memoirs.

Assessment of resource for the second consultation on MLP (Autumn 2013)

Commentary:

A small resource area intersected by roads with some dispersed built development.

Crude estimate of resource:

Conclusion:

Not significant: Small deposit with no information to estimate the resource in this area.

Not for consideration in defining areas of search.

Assessment of resource for the Third Stage consultation on MLP (Spring 2015)

Revised estimate of No change to the assessment.

resource:

Resource description:

Overview 1/32

Resource name: South of Stourport

Resource area: 490ha

Resource depth: Estimated 121.7m

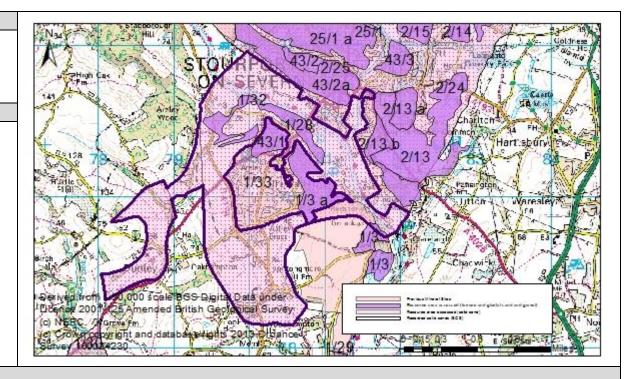
Location

OS sheet reference: SO 77 SE, SO 87

SW, SO 76 NE, SO

86 NW

National grid ref: 380071, 270083



Resource description:

Resource description: This resource area is mapped as Wildmoor Sandstone Formation.

In this part of the county there are large areas of Wildmoor Formation and Kidderminster Formation solid sand of considerable geological complexity and although the resource area is mapped as Wildmoor Formation there may be some overlap with the Kidderminster Formation.

The Kidderminster and Wildmoor sandstones are partially by terrace and glacial sand and gravel deposits (assessed as resource areas 1/3 and 1/28).

Wildmoor Formation

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 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.

The memoir states that the Wildmoor Sandstone Formation ranges in thickness from 90m-120m. There is some information about some sections of the deposit in this area:

	 Near Dunley: The outcrop of Wildmoor formation (Upper Mottled Sandstone) is capped to the west by
	an outlier of Bromsgrove sandstone faulted on its west side against the sandstone.
	 To the south of the Gladder Brook there are exposures around Areley Kings and southwards to
	Longmore Hill Farm, Astley where the deposits are recorded as 454 (138.4m) thick.
	(Estimated resource depth calculated as a mean average of: a) memoir range (median average of 90m to
	120m = 105m), b) south of the Gladder Brook: 138.4m = 121.7m)
Assessment of resour	ce for the second consultation on MLP (Autumn 2013)
Commentary:	A large resource area intersected by roads, with some dispersed development. The deposit extends under the
_	settlement of Areley Kings (assessed as resource area 1/33).
Crude estimate of	Area: 490 ha x average depth: 121.7 m ÷ 2
resource:	Estimated resource volume: 298,165,000 m ³
	Estimated resource tonnage (at 2 t/m³): 596,330,000 tonnes
Conclusion:	Significant – key resource.
	Use to define areas of search.
Assessment of resour	ce for the Third Stage consultation on MLP (Spring 2015)
Revised estimate of	Area: 490 ha x average depth: 121.7 m ÷ 2
resource:	Estimated resource volume: 298,165,000 m ³
	Estimated resource tonnage (at 1.65 t/m³): 491,972,250 tonnes
Conclusion:	Significant – key resource.

Resource number: 1/33

Resource name: **Areley Kings** 123 ha

Estimated 121.7m **Resource depth:**

Location

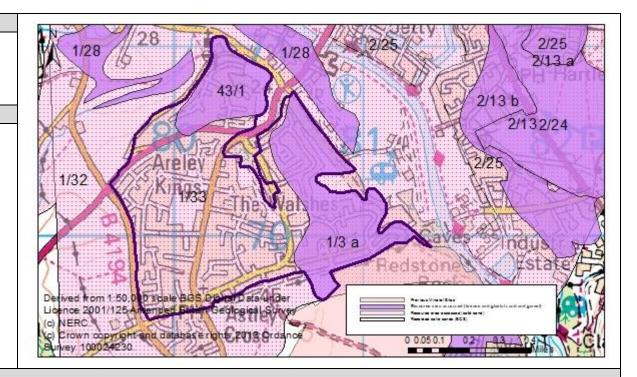
Resource area:

OS sheet reference: SO 76 NE, SO 77

SE, SO 86 NW, SO

87 SW

National grid ref: 380164, 270111



Resource description:

Resource description: This resource area is mapped as Wildmoor Sandstone Formation.

> In this part of the county there are large areas of Wildmoor Formation and Kidderminster Formation solid sand of considerable geological complexity and although the resource area is mapped as Wildmoor Formation there may be some overlap with the Kidderminster Formation.

> The Kidderminster and Wildmoor sandstones are partially but extensively overlain by terrace and glacial sand and gravel deposits (assessed as resource areas 1/3a and 43/1)

Wildmoor Formation

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 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.

The memoir states that the Wildmoor Sandstone Formation ranges in thickness from 90m-120m. There is some information about some sections of the deposit in this area:

	Near Duplays The outerer of Wildmoor formation (Upper Mottled Conditions) is conned to the west by
	Near Dunley: The outcrop of Wildmoor formation (Upper Mottled Sandstone) is capped to the west by
	an outlier of Bromsgrove sandstone faulted on its west side against the sandstone.
	 To the south of the Gladder Brook there are exposures around Areley Kings and southwards to
	Longmore Hill Farm, Astley where the deposits are recorded as 454' (138.4m) thick.
	(Estimated resource depth calculated as a mean average of: a) memoir range (median average of 90m to
	120m = 105m), b) south of the Gladder Brook: 138.4m = 121.7m)
Assessment of resource	ce for the second consultation on MLP (Autumn 2013)
Commentary:	A large resource area compromised by the development of Areley Kings.
Crude estimate of	Area: 123 ha x average depth: 121.7 m ÷ 2
resource:	Estimated resource volume: 74,845,500 m ³
	Estimated resource tonnage (at 2 t/m³): 149,691,000 tonnes
Conclusion:	Compromised by development.
Assessment of resource	ce for the Third Stage consultation on MLP (Spring 2015)
Revised estimate of	Area: 123 ha x average depth: 121.7 m ÷ 2
resource:	Estimated resource volume: 74,845,500 m ³
	Estimated resource tonnage (at 1.65 t/m³): 123,495,075 tonnes
Conclusion:	Compromised by development.