

ANNEX 5 - SHEET 1

Weighted average area per million tonnes of resource

Resource Area	Nomination	A. Mineral resource (m. tonnes)	B. Average mineral thickness (metres)	C. Volume of resource per hectare (m3)	D. Mass of resource per hectare at 1.76t/m3 (tonnes/ha)	E. Area of total resource (ha)	F. Area required per million tonnes (ha)
NORTHERN OXFORDSHIRE SITES							
SRA 6	SG-08 Land at Lower Road	2.5	3.0	30,000	52,800	47.35	18.94
SRA 6	SG-18 Land at Standlake	0.5	2.6	26,300	46,288	10.80	21.60
SRA 6	SG-20 Land between Eynsham and Cassington	1.5	3.3	32,500	57,200	26.22	17.48
SRA 6	SG-20a Wharf Farm, Cassington	1.6	3.3	32,500	57,200	27.97	17.48
SRA 6	SG-20b Land at Eynsham	1.9	3.8	38,000	66,880	28.41	14.95
SRA 6	SG-23 Windrush North Gill Mill	0.8	4.5	45,000	79,200	10.10	12.63
SRA 6	SG-27 Vicarage Pit, Cogges Lane	1.6	3.1	31,000	54,560	29.33	18.33
SRA 6	SG-28 Guy Lakes North, adj. B4449	0.4	2.2	22,000	38,720	10.33	25.83
SRA 6	SG-29 Sutton Farm, Sutton	5.0	2.5	25,000	44,000	113.64	22.73
SRA 6	SG-30 Home Farm, Brighthampton	0.4	1.4	14,000	24,640	16.23	40.58
SRA 6	SG-31 Land East of Sutton	9.0	2.8	28,000	49,280	182.63	20.29
Subtotal Nomination Resource SRA6		25.2				503.01	
SRA6 - Weighted average area (ha per million tonnes)							19.96
Bampton/Clanfield	SG-15 Dairy Farm, Clanfield	5.4	3.8	38,000	66,880	80.74	14.95
Bampton/Clanfield	SG-58 Chestlion Farm, Clanfield	5.1	3.2	32,000	56,320	90.55	17.76
Bampton/Clanfield	SG-58a Manor Farm, Clanfield	12.0	5.3	53,000	93,280	128.64	10.72
Subtotal Nomination Resource Bampton/Clanfield		22.5				299.94	
Bampton/Clanfield - Weighted average area (ha per million tonnes)							13.33
Subtotal Nomination Resource ALL NORTHERN OXFORDSHIRE		47.7				802.95	
Northern Oxfordshire - Weighted average area (ha per million tonnes)							16.83
SOUTHERN OXFORDSHIRE SITES							
SRA5 (Radley)	SG-42 Nuneham Courtenay	4.4	2.1	21,000	36,960	119.05	27.06
SRA5 (Radley)	SG-41 North of Lower Radley	1.5	1.5	15,000	26,400	56.82	37.88
SRA5 (Drayton St. Leonard/Berinsfield)	SG-09 Land North of Drayton St. Leonard and Berinsfield.	4.5	2.4	24,000	42,240	106.53	23.67
SRA5 (Drayton St. Leonard/Berinsfield)	SG-59 Stadhampton	1.5	2.5	25,000	44,000	34.09	22.73
SRA5 (Benson)	SG-03 Land adj. Benson Marina	0.07	3.0	30,000	52,800	1.33	18.94
SRA5 (Cholsey)	SG-60 White Cross Farm, Wallingford	0.5	2.3	23,000	40,480	12.35	24.70
SRA5 (Cholsey)	SG-33 Land South of Wallingford, New Barn Farm	3.9	4.8	48,000	84,480	46.16	11.84
SRA 5 (Culham)	SG-17 Land at Culham	4.0	2	20,000	35,200	113.64	28.41
SRA5 (Culham)	SG-19 Bridge Farm Appleford	0.5	2.5	24,600	43,296	11.55	23.10
SRA5 (Culham)	SG-62 Appleford, Didcot	1.1	3.8	38,000	66,880	16.45	14.95
Subtotal SRA 5		21.97				517.97	
SRA5 - Weighted average area (ha per million tonnes)							23.58
SRA 4 (Caversham)	SG-11 Land East of Spring Land, Sonning Eye (Caversham 'C').	2.1	5.0	50,000	88,000	23.86	11.36
Subtotal SRA 4		2.1				23.86	
SRA4 - Weighted average area (ha per million tonnes)							11.36
Subtotal Nomination Resource SOUTHERN OXFORDSHIRE		24.07				541.83	
South - Weighted average area (ha per million tonnes)							22.51
Total Nomination Resource - SRA4, SRA5 and SRA6		49.27					
SRA4, SRA5 and SRA6 - Weighted average area (ha per million tonnes)							21.21
Grand total with Bampton/Clanfield		71.77					
Total - Weighted average area (ha per million tonnes)							18.74

Mineral thickness (metres) information source (MAR = BGS Mineral Assessment Report)

MAR 28: block C average = 3.6; block F average = 2.3; Av. = 3.0 (approx.)
 MAR 28: block A = 3.3; site nomination information indicates 2.63
 MAR 28: block C average = 3.6; site nomination information indicates 3.25
 MAR 28: block C average = 3.6; site nomination information indicates 3.25
 MAR 28: block C average = 3.6; withdrawn planning application information states 3.8
 MAR 23: block C average = 4.2; site nomination information from site geolocal reports calculates as 4.5
 MAR 23: block C average = 4.2; site nomination information from site geolocal reports calculates as 3.1
 MAR 23: block C average = 4.2; site nomination information from site geolocal reports calculates as 2.2
 MAR 28: block B average = 2.8; site nomination information from site geolocal reports calculates as 2.5
 MAR 23: block G average = 1.6; site nomination information from site geolocal reports calculates as 1.4
 MAR 28: block B average = 2.8; site nomination information indicates 2.8

MAR23: block D average = 2.9; site nomination information indicates 3.8
 MAR23: block B average = 4.7; site nomination information indicates 3.2
 MAR23: block B average = 4.7; site nomination information indicates 5.3

MAR 38: block A average = 2.2; site nomination information indicates 2.1
 MAR 38: block A average = 2.2; site nomination information indicates 1.5

MAR 38: block D average = 2.6; site nomination states 2.4
 MAR 38: block D average = 2.6; site nomination states 2.5

MAR 81: block C average = 3.0

MAR 64: block B average = 3.6; site nomination information indicates 2.3; Scoping opinion request MW.0137/15 indicates 2.3 is more likely
 MAR 64: block A average = 3.9; updated nomination information (email 28.05.15) calculates at 4.8m; planning application MW.0094/16 data calculates at 5.1 for smaller area

MAR 38: block B average = 2.0; planning application MW.0039/16 data calculates at 1.8 for smaller area
 MAR 38: block B average = 2.0; site nomination information indicates 2.46
 MAR 38: block B average = 2.0; site nomination information indicates 3.8

MAR 32: block D average = 5.0; site nomination information indicates 5.0

SRA6: ha for 5 mt 99.80
 SRA4&5: ha for 5 mt 112.55
 %age difference 12.8%

Source for density of 1.76 tonne per cubic metre <http://www.myersgroup.co.uk/nm/technicalpage.asp?pageID=15> 1.76

Calculating the weighted averages
 The weighted average area for each SRA (and combinations of SRAs) is calculated by adding all values in "F. Area required per million tonnes (ha)" and then dividing by the total resource (million tonnes) in that SRA (combination of SRAs).

ANNEX 5 - SHEET 2

Weighted averages for distance to markets

NORTHERN OXFORDSHIRE SITES

Resource Area	Nomination	Resource (million tonnes)	Distance to Banbury (miles)		Distance to Bicester (miles)		Distance to Oxford (miles)		Distance to Abingdon (miles)		Distance to Didcot (miles)		Distance to Wantage-Grove (miles)	
			Million tonne miles	Million tonne miles	Million tonne miles	Million tonne miles	Million tonne miles	Million tonne miles	Million tonne miles	Million tonne miles	Million tonne miles	Million tonne miles		
SRA 6	SG-08 Land at Lower Road	2.5	29.4	73.5	15	37.5	7.9	19.75	15.6	39	22.6	56.5	21.2	53
SRA 6	SG-18 Land at Standlake	0.5	32.5	16.25	18.1	9.05	11	5.5	18.7	9.35	25.7	12.85	24.3	12.15
SRA 6	SG-20 Land between Eynsham and Cassington	1.5	26.7	40.05	12.3	18.45	5.2	7.8	12.9	19.35	19.9	29.85	18.5	27.75
SRA 6	SG-20a Wharf Farm, Cassington	1.6	26.7	42.72	12.3	19.68	5.2	8.32	12.9	20.64	19.9	31.84	18.5	29.6
SRA 6	SG-20b Land at Eynsham	1.9	26.7	50.73	12.3	23.37	5.2	9.88	12.9	24.51	19.9	37.81	18.5	35.15
SRA 6	SG-23 Windrush North Gill Mill	0.8	35.5	28.4	21.1	16.88	14	11.2	21.7	17.36	28.7	22.96	27.3	21.84
SRA 6	SG-27 Vicarage Pit, Cogges Lane	1.6	35.5	56.8	21.1	33.76	14	22.4	21.7	34.72	28.7	45.92	27.3	43.68
SRA 6	SG-28 Guy Lakes North, adj. B4449	0.4	35.5	14.2	21.1	8.44	14	5.6	21.7	8.68	28.7	11.48	27.3	10.92
SRA 6	SG-29 Sutton Farm, Sutton	5.0	30.9	154.5	16.5	82.5	9.4	47	17.1	85.5	24.1	120.5	22.7	113.5
SRA 6	SG-30 Home Farm, Brighthampton	0.4	37.9	15.16	23.5	9.4	16.4	6.56	24.1	9.64	31.1	12.44	29.7	11.88
SRA 6	SG-31 Land East of Sutton	9.0	30.9	278.1	16.5	148.5	9.4	84.6	17.1	153.9	24.1	216.9	22.7	204.3
SRA6 Resource Nomination Total Resource / Average Distance (million tonne miles)		25.2	30.6	16.2	9.1	16.8	23.8	22.4						
Bampton/Clanfield	SG-15 Dairy Farm, Clanfield	5.4	43.2	233.3	28.8	155.5	21.7	117.2	29.4	158.8	36.4	196.6	35.0	189.0
Bampton/Clanfield	SG-58 Chestlion Farm, Clanfield	5.1	43.2	220.3	28.8	146.9	21.7	110.7	29.4	149.9	36.4	185.6	35.0	178.5
Bampton/Clanfield	SG-58a Manor Farm, Clanfield	12.0	43.2	518.4	28.8	345.6	21.7	260.4	29.4	352.8	36.4	436.8	35.0	420.0
Bampton/Clanfield Total Resource / Average Distance (million tonne miles)		22.5	43.2	28.8	21.7	29.4	36.4	35.0						
All Northern Oxfordshire Total Resource / Average Distance (million tonne miles)		47.7	36.5	22.1	15.0	22.7	29.7	28.3						

To add to Oxford distance for all northern sites (as they all use Wolvercote roundabout)
 Ban 21.5 Bic 7.1 Ab 7.7 Did 14.7 Wan 13.3

SOUTHERN OXFORDSHIRE SITES

Resource Area	Nomination	Resource (million tonnes)	Distance to Banbury (miles)		Distance to Bicester (miles)		Distance to Oxford (miles)		Distance to Abingdon (miles)		Distance to Didcot (miles)		Distance to Wantage-Grove (miles)	
			Million tonne miles	Million tonne miles	Million tonne miles	Million tonne miles	Million tonne miles	Million tonne miles	Million tonne miles	Million tonne miles				
SRA5 (Radley)	SG-42 Nuneham Courtenay	4.4	32.5	143	18.1	79.64	5.5	24.2	7.4	32.56	17.4	76.56	18.9	83.16
SRA5 (Radley)	SG-41 North of Lower Radley	1.5	33.6	50.4	19.2	28.8	7.6	11.4	2.4	3.6	10.5	15.75	15.1	22.65
SRA5 (Drayton St. Leonar	SG-09 Land North of Drayton St. Leonard and Berinsfield.	4.5	35.1	157.95	20.7	93.15	8.1	36.45	6.7	30.15	14.8	66.6	21.5	96.75
SRA5 (Drayton St. Leonar	SG-59 Stadhampton	1.5	35.1	52.65	20.7	31.05	8.1	12.15	6.7	10.05	14.8	22.2	21.5	32.25
SRA5 (Benson)	SG-03 Land adj. Benson Marina	0.07	39.7	2.779	25.3	1.771	12.7	0.889	9.6	0.672	10.4	0.728	21.4	1.498
SRA5 (Cholsey)	SG-60 White Cross Farm, Wallingford	0.5	43.3	21.65	28.9	14.45	16.3	8.15	13.2	6.6	6.8	3.4	17.9	8.95
SRA5 (Cholsey)	SG-33 Land South of Wallingford, New Barn Farm	3.9	43.4	169.26	29	113.1	16.4	63.96	13.3	51.87	6.5	25.35	17.5	68.25
SRA 5 (Culham)	SG-17 Land at Culham	4.0	38	152	23.6	94.4	11.1	44.4	3.7	14.8	16.1	64.4	24.5	98
SRA5 (Culham)	SG-19 Bridge Farm Appleford	0.5	41.4	20.7	27	13.5	15.3	7.65	7.8	3.9	1.8	0.9	10.2	5.1
SRA5 (Culham)	SG-62 Appleford, Didcot	1.1	41.4	45.54	27	29.7	15.3	16.83	7.8	8.58	1.8	1.98	10.2	11.22
SRA 5 Subtotal (Average) Resource / Average Distance (million tonne miles)		21.97	37.1	22.7	10.3	7.4	12.6	19.5						
SRA 4 (Caversham)	SG-11 Land East of Spring Lane, Sonning Eye (Caversham 'C').	2.1	55.4	116.34	41	86.1	28.4	59.64	25.3	53.13	20.7	43.47	31.7	66.57
SRA 4 Subtotal (Average) Resource / Average Distance (million tonne miles)		2.1	55.4	41	28.4	25.3	20.7	31.7						
All Southern Oxfordshire Total Resource / Average Distance (million tonne miles)		24.07	38.7	24.3	11.9	9.0	13.4	20.5						
SOUTHERN AND NORTHERN OXFORDSHIRE														
A. Total SRA4, SRA5 and SRA6 / Average Distance (million tonne miles)		49.27	34.6	20.2	10.4	13.0	18.7	21.5						
B. Grand total with Bampton/Clanfield / Average Distance (million tonne miles)		71.77	37.3	22.9	14.0	18.1	24.2	25.7						
Difference between A and B (million tonne miles)			2.7	2.7	3.5	5.2	5.6	4.2						
Difference between SRA6 and SRA4&SRA5 (i.e total south) (million tonne miles)			-8.2	-8.2	-2.8	7.8	10.4	1.8						

To convert Banbury distance to Bicester distance
 Used in Column H. 14.4