

# **High Speed Rail (Crewe to Manchester)**

## **Background information and data**

### **Agriculture, forestry and soils**

BID AG-002-0MA04

MA04: Broomedge to Glazebrook

Agriculture, forestry and soils baseline data

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Department  
for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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# 1 Introduction

- 1.1.1 This report presents agriculture, forestry and soils baseline data for the Broomedge to Glazebrook area (MA04).
- 1.1.2 The following content comprises the individual soil data logs for the soil profiles observed as part of the survey undertaken of those parts of the study area for which published Agricultural Land Classification information was unavailable as referenced in the Environmental Statement (see Volume 5: Appendix AG-001-0MA04)<sup>1</sup>.

## 1.2 Soil data

- 1.2.1 The observed soil profile data are shown below in Table 1 on baseline borehole survey sheets. The location of each survey point is identified by a grid reference.

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<sup>1</sup> High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Environmental Statement, MA04 Broomedge to Glazebrook, Agriculture, forestry and soils assessment*. Volume 5: Appendix AG-001-0MA04. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement>.

Background Information and Data

BID AG-002-0MA04

Agriculture, forestry and soils

MADA: Bromedgeto to Glazebrook

Agriculture, forestry and soils baseline data

Table 1: Baseline borehole survey records

Company	Date of soil survey	Land parcel reference	CFA farm ID	Unique borehole ID		Borehole location			Soil					Structure ped		Soil nutrients						Gley	Stone content % total	Stone content %>2cm	Stone content %>6cm	Stone lithology	Slowly permeable layer	Wetness class	Limiting factor (1)	Limiting factor (2)	Limiting factor (3)	ALC grade	Soil survey category			
				Soil type (T, U, L)	Borehole no	Borehole ID (Auto generated on save)	Survey site name	Easting (X) coordinate	Northing (Y) coordinate	Lower depth of horizon (cm)	Texture	Colour (Munsell soil colour chart)	Consistency	Subsoil structure	Calcareous	Average annual rainfall	Soil handling class	Size	Shape	OM %	pH value													P mg/l	K mg/l	Mg mg/l
RAC	18/10/2018	L5178	MA04	T	4054	L5178_T_4054	MA04 L5178	370600	389500	30	mSL - Sandy loam (Medium)	10YR3/2	Friable	N/A	No	700-1000mm	High resilience	Fine	Granular	3.7	5.7	36.2	73.7	58.1		0	0	0	Hard	No	Class III	Wetness	N/A	N/A	3a	Survey type 3
RAC	18/10/2018	L5178	MA04	U	4054	L5178_U_4054	MA04 L5178	370600	389500	40	LmS - Loamy sand (Medium)	7.5YR4/4	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular	2	6.1	18	47.6	41.8	No	0	0	0	Hard	No	Class III	Wetness	N/A	N/A	3a	Survey type 3
RAC	18/10/2018	L5178	MA04	L1	4054	L5178_L1_4054	MA04 L5178	370600	389500	50	LmS - Loamy sand (Medium)	10YR5/4	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	0	0	0	Hard	No	Class III	Wetness	N/A	N/A	3a	Survey type 3
RAC	18/10/2018	L5178	MA04	L2	4054	L5178_L2_4054	MA04 L5178	370600	389500	120	SCL - Sandy clay loam	5YR5/3	Firm	Poor	No	700-1000mm	Medium resilience	Medium	Subangular Blocky	Yes	2	0	0	0	Hard	Yes	Class III	Wetness	N/A	N/A	3a	Survey type 3				
RAC	18/10/2018	L5178	MA04	T	4056	L5178_T_4056	MA04 L5178	370700	389600	30	SCL - Sandy clay loam	10YR3/2	Firm	N/A	No	700-1000mm	Medium resilience	Medium	Subangular Blocky						1	0	0	Hard	No	Class III	Wetness	N/A	N/A	3a	Survey type 3	
RAC	18/10/2018	L5178	MA04	U	4056	L5178_U_4056	MA04 L5178	370700	389600	45	SCL - Sandy clay loam	10YR4/1	Firm	Moderate	No	700-1000mm	Medium resilience	Medium	Subangular Blocky						0	0	0	Hard	No	Class III	Wetness	N/A	N/A	3a	Survey type 3	
RAC	18/10/2018	L5178	MA04	L1	4056	L5178_L1_4056	MA04 L5178	370700	389600	120	ZC - Silty clay	5YR5/3	Very firm	Poor	No	700-1000mm	Low resilience	Coarse	Angular Blocky	Yes	0	0	0	0	Hard	Yes	Class III	Wetness	N/A	N/A	3a	Survey type 3				
RAC	18/10/2018	L5178	MA04	T	4058	L5178_T_4058	MA04 L5178	370600	389600	30	MCL - Clay loam (Medium)	7.5YR4/2	Very firm	N/A	No	700-1000mm	Low resilience	Medium	Subangular Blocky						2	0	0	Hard	No	Class IV	Wetness	N/A	N/A	3b	Survey type 3	
RAC	18/10/2018	L5178	MA04	U	4058	L5178_U_4058	MA04 L5178	370600	389600	120	ZC - Silty clay	5YR5/3	Very firm	Poor	No	700-1000mm	Low resilience	Coarse	Angular Blocky	Yes	1	0	0	0	Hard	Yes	Class IV	Wetness	N/A	N/A	3a	Survey type 3				
RAC	18/10/2018	L5178	MA04	T	4060	L5178_T_4060	MA04 L5178	370600	389700	30	SCL - Sandy clay loam	10YR4/2	Firm	N/A	No	700-1000mm	Medium resilience	Medium	Subangular Blocky	3.2	5.4	35.8	137	82.1	2	0	0	Hard	No	Class I	Wetness	N/A	N/A	2	Survey type 3	
RAC	18/10/2018	L5178	MA04	U	4060	L5178_U_4060	MA04 L5178	370600	389700	60	SCL - Sandy clay loam	10YR4/3	Firm	Moderate	No	700-1000mm	Medium resilience	Medium	Subangular Blocky	1.9	5.4	19.4	45.9	94.9		0	0	0	Hard	No	Class I	Wetness	N/A	N/A	2	Survey type 3
RAC	18/10/2018	L5178	MA04	L1	4060	L5178_L1_4060	MA04 L5178	370600	389700	120	HZCL - Silty clay loam (heavy)	10YR5/3	Firm	Moderate	No	700-1000mm	Low resilience	Coarse	Angular Blocky						Yes	0	0	0	Hard	No	Class I	Wetness	N/A	N/A	2	Survey type 3
RAC	07/06/2018	L5374	MA04	T	4032	L5374_T_4032	MA04 L5374	371000	388400	30	mSL - Sandy loam (Medium)	7.5YR3/2	Friable	N/A	No	700-1000mm	High resilience	Fine	Granular						No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	07/06/2018	L5374	MA04	U	4032	L5374_U_4032	MA04 L5374	371000	388400	60	LmS - Loamy sand (Medium)	7.5YR3/1	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	07/06/2018	L5374	MA04	L1	4032	L5374_L1_4032	MA04 L5374	371000	388400	110	LmS - Loamy sand (Medium)	5YR3/1	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	07/06/2018	L5374	MA04	T	4033	L5374_T_4033	MA04 L5374	370800	388350	30	mSL - Sandy loam (Medium)	7.5YR3/2	Friable	N/A	No	700-1000mm	High resilience	Fine	Granular	3.9	5.9	17	34	78	No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	07/06/2018	L5374	MA04	U	4033	L5374_U_4033	MA04 L5374	370800	388350	60	LmS - Loamy sand (Medium)	7.5YR3/1	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular	3.3	6.2	5.4	31	108	No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	07/06/2018	L5374	MA04	L1	4033	L5374_L1_4033	MA04 L5374	370800	388350	110	LmS - Loamy sand (Medium)	5YR3/1	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	07/06/2018	L5374	MA04	T	4034	L5374_T_4034	MA04 L5374	371000	388500	30	LmS - Loamy sand (Medium)	7.5YR4/3	Friable	N/A	No	700-1000mm	High resilience	Fine	Granular						No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	3a	Survey type 3
RAC	07/06/2018	L5374	MA04	U	4034	L5374_U_4034	MA04 L5374	371000	388500	55	LmS - Loamy sand (Medium)	7.5YR4/4	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	3a	Survey type 3
RAC	07/06/2018	L5374	MA04	L1	4034	L5374_L1_4034	MA04 L5374	371000	388500	120	mS - Sand (Medium)	7.5YR4/6	Friable	Moderate	No	700-1000mm	High resilience	Fine	Single grain						No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	3a	Survey type 3
RAC	07/06/2018	L5374	MA04	T	4035	L5374_T_4035	MA04 L5374	370800	388450	20	ZC - Silty clay	7.5YR4/2	Very firm	N/A	No	700-1000mm	Low resilience	Medium	Subangular Blocky	Yes	0	0	0	0	Soft	Yes	Class IV	Wetness	N/A	N/A	4	Survey type 3				
RAC	07/06/2018	L5374	MA04	U	4035	L5374_U_4035	MA04 L5374	370800	388450	60	ZC - Silty clay	2.5Y4/1	Very firm	Poor	No	700-1000mm	Low resilience	Coarse	Angular Blocky						Yes	0	0	0	Soft	Yes	Class IV	Wetness	N/A	N/A	4	Survey type 3
RAC	07/06/2018	L5374	MA04	L1	4035	L5374_L1_4035	MA04 L5374	370800	388450	120	HZCL - Silty clay loam (heavy)	2.5Y4/1	Firm	Poor	No	700-1000mm	Low resilience	Coarse	Angular Blocky	Yes	0	0	0	0	Soft	Yes	Class IV	Wetness	N/A	N/A	4	Survey type 3				
RAC	07/06/2018	L5374	MA04	T	4036	L5374_T_4036	MA04 L5374	370900	388500	30	LmS - Loamy sand (Medium)	7.5YR2.5/2	Friable	N/A	No	700-1000mm	High resilience	Fine	Granular						No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	07/06/2018	L5374	MA04	U	4036	L5374_U_4036	MA04 L5374	370900	388500	60	LmS - Loamy sand (Medium)	5YR2.5/1	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	07/06/2018	L5374	MA04	L1	4036	L5374_L1_4036	MA04 L5374	370900	388500	120	LmS - Loamy sand (Medium)	5YR2.5/1	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	07/06/2018	L5374	MA04	T	4037	L5374_T_4037	MA04 L5374	370700	388450	35	LmS - Loamy sand (Medium)	10YR4/2	Friable	N/A	No	700-1000mm	High resilience	Fine	Granular						No	0	0	0	Soft	No	Class IV	Wetness	N/A	N/A	3b	Survey type 3
RAC	07/06/2018	L5374	MA04	U	4037	L5374_U_4037	MA04 L5374	370700	388450	50	LmS - Loamy sand (Medium)	10YR5/3	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular	Yes	0	0	0	0	Soft	No	Class IV	Wetness	N/A	N/A	3b	Survey type 3				
RAC	07/06/2018	L5374	MA04	L1	4037	L5374_L1_4037	MA04 L5374	370700	388450	120	ZC - Silty clay	10YR4/1	Very firm	Poor	No	700-1000mm	Low resilience	Coarse	Angular Blocky	Yes	0	0	0	0	Soft	Yes	Class IV	Wetness	N/A	N/A	3b	Survey type 3				
RAC	07/06/2018	L5374	MA04	T	4038	L5374_T_4038	MA04 L5374	371000	388600	35	mSL - Sandy loam (Medium)	7.5YR3/2	Friable	N/A	No	700-1000mm	High resilience	Fine	Granular	3.8	6.2	36.4	35	84	No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	07/06/2018	L5374	MA04	U	4038	L5374_U_4038	MA04 L5374	371000	388600	50	LmS - Loamy sand (Medium)	10YR6/3	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular	1.3	6.2	6.4	17	41	No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	07/06/2018	L5374	MA04	L1	4038	L5374_L1_4038	MA04 L5374	371000	388600	80	mS - Sand (Medium)	7.5YR4/4	Friable	Moderate	No	700-1000mm	High resilience	Fine	Single grain						No	0	0	0	Soft	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	07/06/2018	L5374	MA04	L2	4038	L5374_L2_4038	MA04 L5374	371000	388600	120	mS - Sand (Medium)	10YR6/2	Friable	Moderate	No	700-1000mm	High resilience	Fine	Single grain						No	0	0	0	Soft	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	07/06/2018	L5374	MA04	T	4039	L5374_T_4039	MA04 L5374	370600	388500	18	HZCL - Silty clay loam (heavy)	7.5YR4/2	Firm	N/A	No	700-1000mm	Low resilience	Medium	Subangular Blocky	6.1	6.4	15.8	34	161	Yes	0	0	0	Soft	No	Class IV	Wetness	N/A	N/A	4	Survey type 3
RAC	07/06/2018	L5374	MA04	U	4039																															

Background Information and Data

BID AG-002-0MA04

Agriculture, forestry and soils

MADA: Bromedgeto to Glazebrook

Agriculture, forestry and soils baseline data

Company	Date of soil survey	Land parcel reference	CFA farm ID	Unique borehole ID		Borehole location			Soil					Structure ped		Soil nutrients						Gley	Stone content % total	Stone content %>2cm	Stone content %>6cm	Stone lithology	Slowly permeable layer	Wetness class	Limiting factor (1)	Limiting factor (2)	Limiting factor (3)	ALC grade	Soil survey category				
				Soil type (T, U, L)	Borehole no	Borehole ID (Auto generated on save)	Survey site name	Easting (X) coordinate	Northing (Y) coordinate	Lower depth of horizon (cm)	Texture	Colour (Munsell soil colour chart)	Consistency	Subsoil structure	Calcareous	Average annual rainfall	Soil handling class	Size	Shape	OM %	pH value													P mg/l	K mg/l	Mg mg/l	total N mg/l
RAC	29/08/2018	L5932	MA04	T	4090	L5932_T_4090	MA04 L5932	369950	391050	40	cSL - Sandy loam (Coarse)	10YR2/1	Very friable	Moderate	No	700-1000mm	Low resilience	N/A	N/A							No	10	0	0	Hard	No	Class I	N/A	N/A	N/A	Other land	Survey type 3
RAC	29/08/2018	L5932	MA04	T	4091	L5932_T_4091	MA04 L5932	370000	391100	15	mSL - Sandy loam (Medium)	10YR2/2	Friable	Moderate	No	700-1000mm	High resilience	N/A	N/A							No	10	0	0	Hard	No	Class I	N/A	N/A	N/A	Other land	Survey type 3
RAC	29/08/2018	L5932	MA04	T	4092	L5932_T_4092	MA04 L5932	370100	391200	30	mSL - Sandy loam (Medium)	10YR2/1	Friable	N/A	No	700-1000mm	High resilience	N/A	N/A							No	0	0	0	Soft	No	Class III	N/A	N/A	N/A	Other land	Survey type 3
RAC	29/08/2018	L5932	MA04	U	4092	L5932_U_4092	MA04 L5932	370100	391200	40	SCL - Sandy clay loam	10YR2/1	Friable	Moderate	No	700-1000mm	Low resilience	N/A	N/A							No	0	0	0	Soft	No	Class III	N/A	N/A	N/A	Other land	Survey type 3
RAC	29/08/2018	L5932	MA04	L1	4092	L5932_L1_4092	MA04 L5932	370100	391200	50	C - Clay	2.5Y4/1	Firm	Moderate	No	700-1000mm	Low resilience	N/A	N/A							Yes	0	0	0	Soft	No	Class III	N/A	N/A	N/A	Other land	Survey type 3
RAC	29/08/2018	L5932	MA04	L2	4092	L5932_L2_4092	MA04 L5932	370100	391200	60	SCL - Sandy clay loam	10YR4/1	Firm	Moderate	No	700-1000mm	Low resilience	N/A	N/A							Yes	0	0	0	Soft	No	Class III	N/A	N/A	N/A	Other land	Survey type 3
RAC	29/08/2018	L5932	MA04	T	4093	L5932_T_4093	MA04 L5932	369900	391100	30	cSL - Sandy loam (Coarse)	7.5YR3/2	Friable	N/A	No	700-1000mm	Low resilience	N/A	N/A							No	10	0	0	Hard	No	Class I	N/A	N/A	N/A	Other land	Survey type 3
RAC	29/08/2018	L5932	MA04	U	4093	L5932_U_4093	MA04 L5932	369900	391100	80	LmS - Loamy sand (Medium)	7.5YR2.5/3	Very friable	Moderate	No	700-1000mm	High resilience	N/A	N/A							No	10	0	0	Hard	No	Class I	N/A	N/A	N/A	Other land	Survey type 3
RAC	29/08/2018	L5932	MA04	T	4094	L5932_T_4094	MA04 L5932	370000	391200	30	mSL - Sandy loam (Medium)	10YR2/2	Friable	N/A	No	700-1000mm	High resilience	N/A	N/A							No	0	0	0	Soft	No	Class I	N/A	N/A	N/A	Other land	Survey type 3
RAC	29/08/2018	L5932	MA04	T	4095	L5932_T_4095	MA04 L5932	370100	391300	30	SCL - Sandy clay loam	10YR2/2	Friable	Moderate	No	700-1000mm	Low resilience	N/A	N/A							No	0	0	0	Soft	No	Class I	N/A	N/A	N/A	Other land	Survey type 3
RAC	29/08/2018	L5932	MA04	U	4095	L5932_U_4095	MA04 L5932	370100	391300	40	SCL - Sandy clay loam	10YR3/1	Friable	Moderate	No	700-1000mm	Low resilience	N/A	N/A							No	0	0	0	Soft	No	Class I	N/A	N/A	N/A	Other land	Survey type 3
RAC	29/08/2018	L5943	MA04	T	4008	L5943_T_4008	MA04 L5943	371400	386900	25	mSL - Sandy loam (Medium)	10YR3/2	Friable		No	700-1000mm	High resilience	Fine	Granular	5.7	6.2	26.6	106	140	No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	3a	Survey type 3	
RAC	29/08/2018	L5943	MA04	U	4008	L5943_U_4008	MA04 L5943	371400	386900	45	mS - Sand (Medium)	10YR5/2	Very friable	Moderate	No	700-1000mm	Soil Handling Class	Fine	Granular	1.3	6.8	11.2	51.6	48.3	No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	3a	Survey type 3	
RAC	29/08/2018	L5943	MA04	L1	4008	L5943_L1_4008	MA04 L5943	371400	386900	120	mS - Sand (Medium)	10YR7/2	Very friable	Moderate	No	700-1000mm	High resilience	Fine	Granular							No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	3a	Survey type 3
RAC	29/08/2018	L5943	MA04	T	4009	L5943_T_4009	MA04 L5943	371400	387000	20	mSL - Sandy loam (Medium)	10YR3/2	Friable		No	700-1000mm	Soil Handling Class	Fine	Granular							No	1	0	0	Hard	No	Class I	Droughtiness	Wetness	N/A	1	Survey type 3
RAC	29/08/2018	L5943	MA04	U	4009	L5943_U_4009	MA04 L5943	371400	387000	70	mSL - Sandy loam (Medium)	10YR5/2	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular							No	1	0	0	Hard	No	Class I	Droughtiness	Wetness	N/A	1	Survey type 3
RAC	29/08/2018	L5943	MA04	L1	4009	L5943_L1_4009	MA04 L5943	371400	387000	120	mS - Sand (Medium)	10YR7/2	Very friable	Moderate	No	700-1000mm	Soil Handling Class	Fine	Granular							No	1	0	0	Hard	No	Class I	Droughtiness	Wetness	N/A	1	Survey type 3
RAC	29/08/2018	L5943	MA04	T	4010	L5943_T_4010	MA04 L5943	371300	387000	35	mSL - Sandy loam (Medium)	7.5YR3/1	Friable		No	700-1000mm	High resilience	Fine	Granular								0	0	0	Soft	No	Class I	Droughtiness	Wetness	N/A	1	Survey type 3
RAC	29/08/2018	L5943	MA04	U	4010	L5943_U_4010	MA04 L5943	371300	387000	50	mSL - Sandy loam (Medium)	7.5YR4/2	Friable	Moderate	No	700-1000mm	Soil Handling Class	Fine	Granular							No	0	0	0	Soft	No	Class I	Droughtiness	Wetness	N/A	1	Survey type 3
RAC	29/08/2018	L5943	MA04	L1	4010	L5943_L1_4010	MA04 L5943	371300	387000	90	mS - Sand (Medium)	10YR6/2	Very friable	Moderate	No	700-1000mm	High resilience	Fine	Granular							No	0	0	0	Soft	No	Class I	Droughtiness	Wetness	N/A	1	Survey type 3
RAC	29/08/2018	L5943	MA04	L2	4010	L5943_L2_4010	MA04 L5943	371300	387000	120	C - Clay	5YR5/2	Very firm	Poor	No	700-1000mm	Low resilience	Coarse	Angular Blocky							Yes	0	0	0	Soft	No	Class I	Droughtiness	Wetness	N/A	1	Survey type 3
RAC	29/08/2018	L5943	MA04	T	4011	L5943_T_4011	MA04 L5943	371400	387100	22	mSL - Sandy loam (Medium)	10YR4/2	Friable		No	700-1000mm	High resilience	Fine	Granular	6.1	6.3	39	220	120	No	2	0	0	Hard	No	Class I	Droughtiness	Wetness	N/A	1	Survey type 3	
RAC	29/08/2018	L5943	MA04	U	4011	L5943_U_4011	MA04 L5943	371400	387100	65	mSL - Sandy loam (Medium)	10YR5/2	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular	5.3	6.2	30.6	90.3	93.2	No	1	0	0	Hard	No	Class I	Droughtiness	Wetness	N/A	1	Survey type 3	
RAC	29/08/2018	L5943	MA04	L1	4011	L5943_L1_4011	MA04 L5943	371400	387100	120	mS - Sand (Medium)	10YR7/2	Very friable	Moderate	No	700-1000mm	High resilience	Fine	Granular							No	1	0	0	Hard	No	Class I	Droughtiness	Wetness	N/A	1	Survey type 3
RAC	29/08/2018	L5943	MA04	T	4012	L5943_T_4012	MA04 L5943	371300	387100	35	mSL - Sandy loam (Medium)	10YR3/2	Friable		No	700-1000mm	High resilience	Fine	Granular							No	0	0	0	Soft	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	29/08/2018	L5943	MA04	U	4012	L5943_U_4012	MA04 L5943	371300	387100	50	LmS - Loamy sand (Medium)	10YR4/3	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular							No	0	0	0	Soft	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	29/08/2018	L5943	MA04	L1	4012	L5943_L1_4012	MA04 L5943	371300	387100	120	mS - Sand (Medium)	10YR7/2	Very friable	Moderate	No	700-1000mm	High resilience	Fine	Granular							No	0	0	0	Soft	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	29/08/2018	L5943	MA04	T	4013	L5943_T_4013	MA04 L5943	371400	387200	32	mSL - Sandy loam (Medium)	10YR4/2	Friable		No	700-1000mm	High resilience	Fine	Granular							No	2	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	29/08/2018	L5943	MA04	U	4013	L5943_U_4013	MA04 L5943	371400	387200	57	SCL - Sandy clay loam	10YR5/2	Firm	Moderate	No	700-1000mm	Low resilience	Medium	Subangular Blocky							No	2	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	29/08/2018	L5943	MA04	L1	4013	L5943_L1_4013	MA04 L5943	371400	387200	120	mS - Sand (Medium)	10YR6/1	Very friable	Moderate	No	700-1000mm	High resilience	Fine	Granular							No	2	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	29/08/2018	L5943	MA04	T	4014	L5943_T_4014	MA04 L5943	371300	387200	35	mSL - Sandy loam (Medium)	10YR3/2	Friable		No	700-1000mm	High resilience	Fine	Granular	4.3	6.4	18.4	52.4	97	No	0	0	0	Soft	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L5943	MA04	U	4014	L5943_U_4014	MA04 L5943	371300	387200	70	mS - Sand (Medium)	10YR7/2	Very friable	Moderate	No	700-1000mm	High resilience	Fine	Granular	0.5	7	5.6	19.4	38.5	No	0	0	0	Soft	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L5943	MA04	L1	4014	L5943_L1_4014	MA04 L5943	371300	387200	120	mS - Sand (Medium)	10YR4/2	Very friable	Moderate	No	700-1000mm	High resilience	Fine	Granular							No	0	0	0	Soft	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	11/10/2018	L5949	MA04	T	4006	L5949_T_4006	MA04 L5949	371350	386650	30	mSL - Sandy loam (Medium)	10YR2/1	Friable		No	700-1000mm	High resilience	Medium	SAB - Subangular Blocky	5.6	6.4	46.4	298	118	No	0	0	0	Soft	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	11/10/2018	L5949	MA04	U	4006	L5949_U_4006	MA04 L5949	371350	386650	40	mSL - Sandy loam (Medium)	10YR2/1	Friable	Moderate	No	700-1000mm	High resilience	Medium	SAB - Subangular Blocky	1.9	6.3	17.4	56	39	No												

Background Information and Data

BID AG-002-0MA04

Agriculture, forestry and soils

MADA: Bromedje to Glazebrook

Agriculture, forestry and soils baseline data

Company	Date of soil survey	Land parcel reference	CFA farm ID	Unique borehole ID		Borehole location			Soil					Structure ped		Soil nutrients						Gley	Stone content % total	Stone content %>2cm	Stone content %>6cm	Stone lithology	Slowly permeable layer	Wetness class	Limiting factor (1)	Limiting factor (2)	Limiting factor (3)	ALC grade	Soil survey category				
				Soil type (T, U, L)	Borehole no	Borehole ID (Auto generated on save)	Survey site name	Easting (X) coordinate	Northing (Y) coordinate	Lower depth of horizon (cm)	Texture	Colour (Munsell soil colour chart)	Consistency	Subsoil structure	Calcareous	Average annual rainfall	Soil handling class	Size	Shape	OM %	pH value													P mg/l	K mg/l	Mg mg/l	total N mg/l
RAC	29/08/2018	L6075	MA04	L2	4031	L6075_L2_4031	MA04 L6075	371000	388200	120	ZC - Silty clay	7.5YR6/3	Very firm	Poor	No	700-1000mm	Low resilience	Very coarse	Angular Blocky							Yes	1	0	0	Hard	Yes	Class II	Wetness	N/A	N/A	3a	Survey type 3
RAC	29/08/2018	L6095	MA04	T	4110	L6095_T_4110	MA04 L6095	369500	391700	28	mSL - Sandy loam (Medium)	10YR3/2	Friable	N/A	No	700-1000mm	High resilience	Fine	Granular	4.6	6.7	16.8	163	83.1	No	6	2	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	U	4110	L6095_U_4110	MA04 L6095	369500	391700	40	mSL - Sandy loam (Medium)	7.5YR4/3	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular	4	6.8	13.6	145	78	No	8	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	L1	4110	L6095_L1_4110	MA04 L6095	369500	391700	65	mS - Sand (Medium)	7.5YR5/6	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	10	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	L2	4110	L6095_L2_4110	MA04 L6095	369500	391700	120	mS - Sand (Medium)	10YR7/3	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	T	4111	L6095_T_4111	MA04 L6095	369400	391700	30	mSL - Sandy loam (Medium)	10YR3/2	Friable	N/A	No	700-1000mm	High resilience	Fine	Granular						No	6	2	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	U	4111	L6095_U_4111	MA04 L6095	369400	391700	45	mSL - Sandy loam (Medium)	7.5YR5/3	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	8	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	L1	4111	L6095_L1_4111	MA04 L6095	369400	391700	70	mS - Sand (Medium)	7.5YR5/6	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	10	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	L2	4111	L6095_L2_4111	MA04 L6095	369400	391700	120	mS - Sand (Medium)	10YR7/3	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	T	4113	L6095_T_4113	MA04 L6095	369400	391800	30	mSL - Sandy loam (Medium)	7.5YR3/2	Friable	N/A	No	700-1000mm	High resilience	Fine	Granular						No	2	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	U	4113	L6095_U_4113	MA04 L6095	369400	391800	52	mSL - Sandy loam (Medium)	7.5YR4/3	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	5	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	L1	4113	L6095_L1_4113	MA04 L6095	369400	391800	70	mS - Sand (Medium)	7.5YR5/6	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	10	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	L2	4113	L6095_L2_4113	MA04 L6095	369400	391800	120	mS - Sand (Medium)	7.5YR7/1	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	1	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	T	4114	L6095_T_4114	MA04 L6095	369300	391800	24	mSL - Sandy loam (Medium)	7.5YR3/2	Friable	N/A	No	700-1000mm	High resilience	Fine	Granular						No	2	0	0	Hard	No	Class II	Wetness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	U	4114	L6095_U_4114	MA04 L6095	369300	391800	75	MSZL - Medium sandy silt loam	7.5YR4/4	Friable	Moderate	No	700-1000mm	High resilience	Medium	Subangular Blocky						No	5	0	0	Hard	No	Class II	Wetness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	L1	4114	L6095_L1_4114	MA04 L6095	369300	391800	120	HZCL - Silty clay loam (heavy)	7.5YR7/1	Firm	Moderate	No	700-1000mm	Medium resilience	Coarse	Angular Blocky						No	10	0	0	Hard	No	Class II	Wetness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	T	4115	L6095_T_4115	MA04 L6095	369400	391900	25	mSL - Sandy loam (Medium)	7.5YR3/2	Friable	N/A	No	700-1000mm	High resilience	Fine	Granular	5.5	6.9	25.4	178	73.6	No	2	0	0	Hard	No	Class III	Wetness	N/A	N/A	3a	Survey type 3	
RAC	29/08/2018	L6095	MA04	U	4115	L6095_U_4115	MA04 L6095	369400	391900	39	mS - Sand (Medium)	7.5YR4/2	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular	5.8	6.6	27.2	174	73.8	No	3	0	0	Hard	No	Class III	Wetness	N/A	N/A	3a	Survey type 3	
RAC	29/08/2018	L6095	MA04	L1	4115	L6095_L1_4115	MA04 L6095	369400	391900	70	mS - Sand (Medium)	5YR4/6	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	1	0	0	Hard	No	Class III	Wetness	N/A	N/A	3a	Survey type 3	
RAC	29/08/2018	L6095	MA04	L2	4115	L6095_L2_4115	MA04 L6095	369400	391900	120	ZC - Silty clay	2.5Y7/4	Firm	Moderate	No	700-1000mm	Medium resilience	Coarse	Angular Blocky						No	1	0	0	Hard	No	Class III	Wetness	N/A	N/A	3a	Survey type 3	
RAC	29/08/2018	L6095	MA04	T	4117	L6095_T_4117	MA04 L6095	369300	391900	25	mSL - Sandy loam (Medium)	7.5YR3/2	Friable	N/A	No	700-1000mm	High resilience	Fine	Granular						No	6	0	0	Hard	No	Class II	Wetness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	U	4117	L6095_U_4117	MA04 L6095	369300	391900	75	MSZL - Medium sandy silt loam	7.5YR4/4	Friable	Moderate	No	700-1000mm	High resilience	Medium	Subangular Blocky						No	8	0	0	Hard	No	Class II	Wetness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	L1	4117	L6095_L1_4117	MA04 L6095	369300	391900	120	HZCL - Silty clay loam (heavy)	7.5YR7/1	Firm	Moderate	No	700-1000mm	Medium resilience	Coarse	Angular Blocky						No	10	0	0	Hard	No	Class II	Wetness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	T	4118	L6095_T_4118	MA04 L6095	369200	391900	32	mSL - Sandy loam (Medium)	10YR3/2	Friable	N/A	No	700-1000mm	High resilience	Fine	Granular						No	4	3	2	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	U	4118	L6095_U_4118	MA04 L6095	369200	391900	50	mSL - Sandy loam (Medium)	7.5YR4/4	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	4	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	L1	4118	L6095_L1_4118	MA04 L6095	369200	391900	120	SCL - Sandy clay loam	5YR4/4	Firm	Moderate	No	700-1000mm	Medium resilience	Medium	Subangular Blocky						No	10	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	T	4119	L6095_T_4119	MA04 L6095	369300	392000	35	MSZL - Medium sandy silt loam	10YR3/2	Friable	N/A	No	700-1000mm	High resilience	Medium	Subangular Blocky						No	4	3	2	Hard	No	Class I	Droughtiness	Wetness	N/A	1	Survey type 3	
RAC	29/08/2018	L6095	MA04	U	4119	L6095_U_4119	MA04 L6095	369300	392000	120	MSZL - Medium sandy silt loam	7.5YR4/4	Friable	Moderate	No	700-1000mm	High resilience	Medium	Subangular Blocky						No	5	0	0	Hard	No	Class I	Droughtiness	Wetness	N/A	1	Survey type 3	
RAC	29/08/2018	L6095	MA04	T	4120	L6095_T_4120	MA04 L6095	369200	392000	30	MSZL - Medium sandy silt loam	10YR3/2	Friable	N/A	No	700-1000mm	High resilience	Medium	Subangular Blocky	3.9	6.7	24.2	186	88.6	No	3	2	1	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	U	4120	L6095_U_4120	MA04 L6095	369200	392000	35	MSZL - Medium sandy silt loam	10YR4/3	Friable	Moderate	No	700-1000mm	High resilience	Medium	Subangular Blocky	0.9	7.2	8.8	104	116	No	3	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	L1	4120	L6095_L1_4120	MA04 L6095	369200	392000	120	SCL - Sandy clay loam	7.5YR4/4	Firm	Moderate	No	700-1000mm	Medium resilience	Coarse	Angular Blocky						No	5	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	29/08/2018	L6095	MA04	T	4121	L6095_T_4121	MA04 L6095	369200	392100	35	MSZL - Medium sandy silt loam	10YR3/2	Friable	N/A	No	700-1000mm	High resilience	Medium	Subangular Blocky						No	4	3	1	Hard	No	Class I	Droughtiness	Wetness	N/A	1	Survey type 3	
RAC	29/08/2018	L6095	MA04	U	4121	L6095_U_4121	MA04 L6095	369200	392100	45	MSZL - Medium sandy silt loam	5YR4/4	Friable	Moderate	No	700-1000mm	High resilience	Medium	Subangular Blocky						No	4	0	0	Hard	No	Class I	Droughtiness	Wetness	N/A	1	Survey type 3	
RAC	29/08/2018	L6095	MA04	L1	4121	L6095_L1_4121	MA04 L6095	369200	392100	120	SCL - Sandy clay loam	5YR4/4	Firm	Moderate	No	700-1000mm	Medium resilience	Coarse	Angular Blocky						No	6	0	0	Hard	No	Class I	Droughtiness	Wetness	N/A	1	Survey type 3	
RAC	29/08/2018	L6095	MA04	T	4122	L6095_T_4122	MA04 L6095	369100	392100	35	MSZL - Medium sandy silt loam	10YR4/2	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular						No	3	2	1	Hard	No	Class I	Droughtiness	Wetness	N/A	1	Survey type 3</	



Background Information and Data

BID AG-002-0MA04

Agriculture, forestry and soils

MAD4: Bromedje to Glazebrook

Agriculture, forestry and soils baseline data

Company	Date of soil survey	Land parcel reference	CFA farm ID	Unique borehole ID		Borehole location			Soil						Structure ped		Soil nutrients						Gley	Stone content % total	Stone content %>2cm	Stone content %>6cm	Stone lithology	Slowly permeable layer	Wetness class	Limiting factor (1)	Limiting factor (2)	Limiting factor (3)	ALC grade	Soil survey category				
				Soil type (T, U, L)	Borehole no	Borehole ID (Auto generated on save)	Survey site name	Easting (X) coordinate	Northing (Y) coordinate	Lower depth of horizon (cm)	Texture	Colour (Munsell soil colour chart)	Consistency	Subsoil structure	Calcareous	Average annual rainfall	Soil handling class	Size	Shape	OM %	pH value	P mg/l													K mg/l	Mg mg/l	total N mg/l	
RAC	28/08/2019	L5135	MA04	U	4002	L5135_U_4002	MA04 L5135	371500	386500	85	mS - Sand (Medium)	7.5YR5/2	Friable	Good	No	700-1000mm	High resilience	Fine	Granular							No	0	0	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	3a	Survey type 3
RAC	28/08/2019	L5135	MA04	L1	4002	L5135_L1_4002	MA04 L5135	371500	386500	120	mS - Sand (Medium)	7.5YR4/2	Friable	Good	No	700-1000mm	High resilience	Fine	Granular							No	0	0	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	3a	Survey type 3
RAC	28/08/2019	L5135	MA04	T	4004	L5135_T_4004	MA04 L5135	371600	386600	30	LmS - Loamy sand (Medium)	10YR3/2	Friable	N/A	No	700-1000mm	High resilience	Fine	Granular	5.2	6.6	47.6	167	82.9	No	0	0	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	3a	Survey type 3	
RAC	28/08/2019	L5135	MA04	U	4004	L5135_U_4004	MA04 L5135	371600	386600	76	mS - Sand (Medium)	7.5YR5/2	Friable	Good	No	700-1000mm	High resilience	Fine	Granular	3	7.1	13.2	189	47.2	No	0	0	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	3a	Survey type 3	
RAC	28/08/2019	L5135	MA04	L1	4004	L5135_L1_4004	MA04 L5135	371600	386600	120	mS - Sand (Medium)	7.5YR4/2	Friable	Good	No	700-1000mm	High resilience	Fine	Granular							No	0	0	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	3a	Survey type 3
RAC	02/10/2019	L21213	MA04	T	4098	L21213_T_4098	MA04 L21213	369800	391400	29	mSL - Sandy loam (Medium)	10YR6/2	Friable	N/A	Yes	700-1000mm	High resilience	Fine	Granular							No	4	2	1	Hard	No	Class II	Droughtiness	N/A	N/A	3b	Survey type 3	
RAC	02/10/2019	L21213	MA04	U	4098	L21213_U_4098	MA04 L21213	369800	391400	47	mS - Sand (Medium)	10YR6/2	Friable	Moderate	Yes	700-1000mm	High resilience	Fine	Granular							No	0	0	0	0	Hard	No	Class II	Droughtiness	N/A	N/A	3b	Survey type 3
RAC	02/10/2019	L21213	MA04	L1	4098	L21213_L1_4098	MA04 L21213	369800	391400	120	mS - Sand (Medium)	10YR6/2	Friable	Poor	Yes	700-1000mm	High resilience	Fine	Granular							Yes	0	0	0	0	Hard	Yes	Class II	Droughtiness	N/A	N/A	3b	Survey type 3
RAC	02/10/2019	L21213	MA04	T	4100	L21213_T_4100	MA04 L21213	369800	391500	27	mSL - Sandy loam (Medium)	10YR6/2	Friable	N/A	Yes	700-1000mm	High resilience	Fine	Granular							No	2	0	0	0	Hard	No	Class II	Droughtiness	N/A	N/A	3b	Survey type 3
RAC	02/10/2019	L21213	MA04	U	4100	L21213_U_4100	MA04 L21213	369800	391500	50	mS - Sand (Medium)	10YR6/2	Friable	Moderate	Yes	700-1000mm	High resilience	Fine	Granular							No	0	0	0	0	Hard	No	Class II	Droughtiness	N/A	N/A	3b	Survey type 3
RAC	02/10/2019	L21213	MA04	L1	4100	L21213_L1_4100	MA04 L21213	369800	391500	120	mS - Sand (Medium)	10YR6/2	Friable	Poor	Yes	700-1000mm	High resilience	Fine	Granular							Yes	0	0	0	0	Hard	Yes	Class II	Droughtiness	N/A	N/A	3b	Survey type 3
RAC	02/10/2019	L21213	MA04	T	4101	L21213_T_4101	MA04 L21213	369700	391500	30	mSL - Sandy loam (Medium)	10YR6/2	Friable	N/A	Yes	700-1000mm	High resilience	Fine	Granular							No	4	2	1	Hard	No	Class II	Droughtiness	N/A	N/A	3b	Survey type 3	
RAC	02/10/2019	L21213	MA04	U	4101	L21213_U_4101	MA04 L21213	369700	391500	50	mS - Sand (Medium)	10YR6/2	Friable	Moderate	Yes	700-1000mm	High resilience	Fine	Granular							No	0	0	0	0	Hard	No	Class II	Droughtiness	N/A	N/A	3b	Survey type 3
RAC	02/10/2019	L21213	MA04	L1	4101	L21213_L1_4101	MA04 L21213	369700	391500	120	mS - Sand (Medium)	10YR6/2	Friable	Poor	Yes	700-1000mm	High resilience	Fine	Granular							Yes	0	0	0	0	Hard	Yes	Class II	Droughtiness	N/A	N/A	3b	Survey type 3
RAC	02/10/2019	L21213	MA04	T	4102	L21213_T_4102	MA04 L21213	369800	391600	30	mSL - Sandy loam (Medium)	10YR3/1	Friable	Moderate	Yes	700-1000mm	High resilience	Fine	Granular							No	0	0	0	0	Hard	No	Class III	Wetness	Droughtiness	N/A	3a	Survey type 3
RAC	02/10/2019	L21213	MA04	U	4102	L21213_U_4102	MA04 L21213	369800	391600	75	mS - Sand (Medium)	10YR6/2	Friable	Poor	Yes	700-1000mm	High resilience	Fine	Granular							Yes	0	0	0	0	Hard	Yes	Class III	Wetness	Droughtiness	N/A	3a	Survey type 3
RAC	02/10/2019	L21213	MA04	L1	4102	L21213_L1_4102	MA04 L21213	369800	391600	120	C - Clay	5YR4/4	Firm	Poor	Yes	700-1000mm	Low resilience	Coarse	Angular Blocky							Yes	0	0	0	0	Hard	Yes	Class III	Wetness	Droughtiness	N/A	3a	Survey type 3
RAC	02/10/2019	L21213	MA04	T	4103	L21213_T_4103	MA04 L21213	369600	391500	30	mSL - Sandy loam (Medium)	10YR3/1	Friable	Moderate	Yes	700-1000mm	High resilience	Fine	Granular							No	0	0	0	0	Hard	No	Class III	Wetness	Droughtiness	N/A	3a	Survey type 3
RAC	02/10/2019	L21213	MA04	U	4103	L21213_U_4103	MA04 L21213	369600	391500	78	mS - Sand (Medium)	10YR6/2	Friable	Poor	Yes	700-1000mm	High resilience	Fine	Granular							Yes	0	0	0	0	Hard	Yes	Class III	Wetness	Droughtiness	N/A	3a	Survey type 3
RAC	02/10/2019	L21213	MA04	L1	4103	L21213_L1_4103	MA04 L21213	369600	391500	120	C - Clay	5YR4/4	Firm	Poor	Yes	700-1000mm	Low resilience	Coarse	Angular Blocky							Yes	0	0	0	0	Hard	Yes	Class III	Wetness	Droughtiness	N/A	3a	Survey type 3
RAC	02/10/2019	L21213	MA04	T	4104	L21213_T_4104	MA04 L21213	369700	391600	28	mSL - Sandy loam (Medium)	10YR3/1	Friable	Moderate	Yes	700-1000mm	High resilience	Fine	Granular							No	0	0	0	0	Hard	No	Class III	Wetness	Droughtiness	N/A	3a	Survey type 3
RAC	02/10/2019	L21213	MA04	U	4104	L21213_U_4104	MA04 L21213	369700	391600	77	mS - Sand (Medium)	10YR6/2	Friable	Poor	Yes	700-1000mm	High resilience	Fine	Granular							Yes	0	0	0	0	Hard	Yes	Class III	Wetness	Droughtiness	N/A	3a	Survey type 3
RAC	02/10/2019	L21213	MA04	L1	4104	L21213_L1_4104	MA04 L21213	369700	391600	120	C - Clay	5YR4/4	Firm	Poor	Yes	700-1000mm	Low resilience	Coarse	Angular Blocky							Yes	0	0	0	0	Hard	Yes	Class III	Wetness	Droughtiness	N/A	3a	Survey type 3
RAC	02/10/2019	L21213	MA04	T	4106	L21213_T_4106	MA04 L21213	369700	391700	30	mSL - Sandy loam (Medium)	10YR3/1	Friable	Moderate	Yes	700-1000mm	High resilience	Fine	Granular							No	0	0	0	0	Hard	No	Class III	Wetness	Droughtiness	N/A	3a	Survey type 3
RAC	02/10/2019	L21213	MA04	U	4106	L21213_U_4106	MA04 L21213	369700	391700	75	mS - Sand (Medium)	10YR6/2	Friable	Poor	Yes	700-1000mm	High resilience	Fine	Granular							Yes	0	0	0	0	Hard	Yes	Class III	Wetness	Droughtiness	N/A	3a	Survey type 3
RAC	02/10/2019	L21213	MA04	L1	4106	L21213_L1_4106	MA04 L21213	369700	391700	120	C - Clay	5YR4/4	Firm	Poor	Yes	700-1000mm	Low resilience	Coarse	Angular Blocky							Yes	0	0	0	0	Hard	Yes	Class III	Wetness	Droughtiness	N/A	3a	Survey type 3
RAC	25/09/2019	L21533	MA04	T	4003	L21533_T_4003	MA04 L21533	371400	386500	30	mSL - Sandy loam (Medium)	7.5YR3/1	Friable	N/A	No	700-1000mm	High resilience	Fine	Granular	6	6.8	51.8	261	73.8	No	0	0	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	25/09/2019	L21533	MA04	U	4003	L21533_U_4003	MA04 L21533	371400	386500	50	mSL - Sandy loam (Medium)	5YR4/3	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular	3.2	6.6	32.6	166	49.8	No	0	0	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3	
RAC	25/09/2019	L21533	MA04	L1	4003	L21533_L1_4003	MA04 L21533	371400	386500	120	mSL - Sandy loam (Medium)	5YR4/4	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular							No	0	0	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	25/09/2019	L21533	MA04	T	4005	L21533_T_4005	MA04 L21533	371400	386600	28	mSL - Sandy loam (Medium)	7.5YR3/1	Friable	N/A	No	700-1000mm	High resilience	Fine	Granular							No	0	0	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	25/09/2019	L21533	MA04	U	4005	L21533_U_4005	MA04 L21533	371400	386600	47	mSL - Sandy loam (Medium)	5YR4/3	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular							No	0	0	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3
RAC	25/09/2019	L21533	MA04	L1	4005	L21533_L1_4005	MA04 L21533	371400	386600	120	mS - Sand (Medium)	5YR4/4	Friable	Moderate	No	700-1000mm	High resilience	Fine	Granular							No	0	0	0	0	Hard	No	Class I	Droughtiness	N/A	N/A	2	Survey type 3

## Background Information and Data

BID AG-002-0MA04

Agriculture, forestry and soils

MA04: Broomedge to Glazebrook

Agriculture, forestry and soils baseline data

## 2 References

High Speed Two Ltd (2022), High Speed Rail (Crewe – Manchester), *Environmental Statement, MA04 Broomedge to Glazebrook, Agriculture, forestry and soils assessment*. Volume 5: Appendix AG-001-0MA04. Available online at: <https://www.gov.uk/government/collections/hs2-phase-2b-crewe-manchester-environmental-statement>.