Sirius Minerals

Phase 2 Site Preparation Works, Dove's Nest Farm

NYMNPA 94 - Construction Method Statement

REP-P10-XXX-PLN-003

Rev 0 | 13 January 2017

This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 234376

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Contents

			Page			
1	Introd	Introduction				
	1.1	Purpose and scope of document	1			
	1.2	Compliance with Condition NYMNPA 94	1			
2	Projec	t overview and description of the works	3			
	2.1	Project overview	3			
	2.2	CMS overview	3			
	2.3	Description of works	4			
	2.4	Management and control of the works	4			
	2.5	Contractor's offices/compound	5			
	2.6	Parking of vehicles	5			
	2.7	Loading and unloading of materials	5			
	2.8	Storage of plant and materials	5			
	2.9	Erection and maintenance of security fencing	6			
	2.10	Lighting	6			
	2.11	Domestic wastewater	7			
	2.12	Wheel cleaning facilities	7			
	2.13	Management of spoil	7			
3	Phase	2 site preparation works	8			
	3.1	General site clearance	8			
	3.2	Earthworks	9			
	3.3	Surface water management	9			
	3.4	Construction of internal access road	10			
	3.5	Traffic management	10			
4	Risk A	ssessment and Method Statement (RAMS)	11			

Appendices

Appendix A

Phase 2 Site Preparation Works Project Management Plan

Appendix **B**

Risk Assessment and Method Statements

Appendix C

Drawings

Appendix D

Wheel Washing Facilities

1 Introduction

1.1 Purpose and scope of document

This document has been prepared on behalf of Sirius Minerals plc (Sirius Minerals) and details the Construction Method Statement (CMS) for Phase 2 site preparation works (Phase 2 Works) at Dove's Nest Farm. This CMS is required to partially discharge condition 94 of the North York Moors National Park Authority (NYMNPA) planning permission NYM/2014/0676/MEIA, and has been prepared in accordance with current good practice.

This CMS only details the works required for the Phase 2 Works at Dove's Nest Farm associated with the York Potash Project. The CMS will remain a live document, being reviewed, and updated as required. The CMS will be updated and re-submitted for approval before each new Phase of the works commences.

1.2 Compliance with Condition NYMNPA 94

The wording of planning condition 94 and where the necessary material has been provided within the report is set out in Table 1.1 below:

NYMNPA Condition 94	Compliance with Condition 94
Prior to the commencement of each phase of the development at Dove's Nest Farm or Lady Cross Plantation in accordance with the approved Phasing Plan, a Construction Method Statement shall be submitted for that phase, and approved in writing by the MPA, in consultation with the appropriate Highway Authority. Each approved Statement shall be adhered to throughout the construction period. The Statements shall provide for:	This CMS is provided for Phase 2 Works at Dove's Nest Farm only. Other phases will have bespoke CMS documents.
(i) The parking of vehicles of site operatives and visitors clear of the highway;	Section 2.6
(ii) Loading and unloading of plant and materials;	Section 2.7
(iii) Storage of plant and materials used in constructing the development;	Section 2.8
(iv) Erection and maintenance of security fencing;	Section 2.9
(v) Wheel washing facilities;	Section 2.12
(vi) An outline construction method for sub- surface works including adherence to the 'rack and pillar' method of mining described in the SEI (14th February 2015) and the SRK Subsidence Memorandum (15th May 2013);	This type of work is not required in Phase 2.

Table 1.1: Details of NYMNPA Planning Condition 94

NYMNPA Condition 94	Compliance with Condition 94
(vii) Buildings and structures associated with the mine and tunnel shafts;	This type of work is not required in Phase 2.
(viii) Welfare/office building and security gatehouse;	Section 2.4 and 2.5
(ix) Screening bunds;	Section 3.2 and Appendices 1 and 2 set out the details of environmental barriers to be installed as part of Phase 2
(x) Hardstandings;	Section 3.4 and Appendix B set out details of hardstanding and access roads to be constructed in Phase 2 and relevant control measures.
(xi) Shuttle Bus terminal;	This type of work is not required in Phase 2.
(xii) Park-and-Ride layby;	This type of work is not required in Phase 2.
(xiii) Emergency helipad;	This type of work is not required in Phase 2.
(xiv) Lighting columns;	No permanent lighting is to be installed during Phase 2. Section 2.10 sets out measures to control light pollution from any construction phase lighting required during Phase 2.
(xv) Internal access and haul roads;	Section 3.4 and Appendix B set out details of hardstanding and access roads to be constructed in Phase 2 and relevant control measures.
(xvi) Domestic wastewater (foul sewage) treatment plant;	No plant to be installed in Phase 2. Section 2.11 sets out measures for management of domestic wastewater.
(xvii) Non-domestic wastewater treatment plant and settlement tanks;	This type of work is not required in Phase 2.
(xviii) Surface water attenuation ponds, settlement ponds, swales and wetland areas;	Section 3.3 and Appendices 1 and 2 set out the details of surface water management works to be undertaken as part of Phase 2.
(xix) Temporary spoil and Polyhalite storage areas;	This type of work is not required in Phase 2. Temporary soil mounds are covered in Sections 2.13 and 3.2.
(xx) Road widening and provision of right hand turn areas;	Not applicable to Phase 2.
(xxi) Removal of any temporary structures; and	No removal of temporary structures required in Phase 2.
(xxii) Formation of spoil mounds and the establishment of vegetation on them.	Sections 2.13 and 3.2 and Appendices 1 and 2 set out details of spoil mounds to be formed as part of Phase 2. Details of soil management and establishment of vegetation are provided in the CEMP (Planning Condition 93).
The CMS shall contain a construction timetable and order of works noting any construction dependencies, refer to any inherent mitigation measures required to address adverse impacts identified in the EIA and cross refer to the CEMP in relation to any additional avoidance or mitigation measures	The CMS relates to the Phase 2 Works at Dove's Nest Farm only and all required mitigation has been included in a Construction Environmental Management Plan (CEMP), which is required to discharge condition 93. References have been made to the CEMP within the CMS. The construction timetable and order of works are set out in the PMP (Appendix A).

2 Project overview and description of the works

2.1 **Project overview**

Sirius Minerals intends to develop a new mine surface development south of Whitby in North Yorkshire to extract polyhalite and transfer it to a processing and port facility on Teesside (the port facility is covered by a separate consenting regime). A full and detailed description of the project can be found in the Environmental Statement.

This CMS relates to the Phase 2 Works at Dove's Nest Farm only. These works are required to allow the main development to proceed. This document builds on the CMS produced for Phase 1, Highways Improvement Works (REP-P10-XXX-PLN-002, Arup 2016), and further versions of this live CMS will be produced for subsequent phases as outlined in Section 1.1.

2.2 CMS overview

The CMS provides an overview of the resource requirements and the plant and materials that are anticipated to be used during the Phase 2 Works at Dove's Nest Farm. It includes the measures to be taken to ensure that the works are carried out in accordance with the requirements of both the planning permission and of Sirius Minerals and, above all, are carried out safely and in compliance with all statutory obligations.

North Midland Construction PLC (NMC, "the Contractor") has been appointed by Sirius Minerals to implement the Phase 2 Works at Dove's Nest Farm. A Project Management Plan (PMP) has been prepared by NMC. The PMP will be the main tool used by the Contractor to manage the Safety, Health and Environmental (SHE) aspects of the delivery of the works, including resource and materials use. The PMP for the Phase 2 Works is included at **Appendix A**. In order to avoid duplication with the PMP, this CMS acts as a signposting document to highlight where in the PMP the relevant information is located (rather than acting as a standalone management document).

In addition, and as specified in the PMP, Risk Assessment and Method Statements (RAMS) will be generated for each of the individual activities associated with an area of work. This will provide a more detailed appraisal of the resource, plant and materials required, and specific control measures relating to that work activity. Where these are already available they are included in the PMP, and the RAMS for Phase 2 is also included at **Appendix B** of this document. For later packages of work, they will be submitted to NYMNPA and other relevant Statutory Consultees for information a minimum of four working weeks before the construction of the element(s) to which the risk assessment relates.

2.3 Description of works

The Phase 2 Works are detailed below.

- general site clearance including tree clearance for the access road and scrub clearance, as shown on Arup drawing YP-P10-DNF-CX-009 (**Appendix C**);
- construction of an acoustic fence/environmental barrier and installation of boundary fencing, gates and security, as shown on Arup drawing YP-P10-DNF-CX-004 (Appendix C);
- excavation and construction of the two tiered working platform with a western upper level at around 204m Above Ordnance Data (AOD) and an eastern lower level at around 200m AOD, as shown in Arup drawing YP-P10-DNF-CX-004 (**Appendix C**);
- construction of an access road, as shown on Arup drawing YP-P10-DNF-CX-004 (Appendix C);
- construction of temporary and permanent soil mounds including the environmental screening bund (Bund A) along the western boundary, as shown on Arup drawing YP-P10-DNF-CX-010 (**Appendix C**);
- construction of surface water drainage, silt removal facility and an attenuation pond with outfall to an existing drain, as shown on Arup drawing YP-P10-DNF-CD-001 (**Appendix C**).

2.4 Management and control of the works

The PMP encompasses all project activities and risks, detailing the safety, health and environmental (SHE) requirements for each activity. It presents staff roles and responsibilities for each activity (**Appendix A**, PMP Section 2(a)) and how staff roles and SHE requirements are embedded within the Contractor's supply chain (**Appendix A**, PMP Section 2(c)(vi)). SHE auditing arrangements are detailed in the PMP (Appendix A, PMP Section 3A(x).

Welfare and first aid facilities, as well as project specific SHE workforce training arrangements, are clearly defined in the PMP (**Appendix A**, PMP Section 2(c)(ix to xi)). The Contractor will establish temporary offices and a compound at Dove's Nest Farm. An occupational health programme will be introduced along with random drugs and alcohol testing.

A Risk Assessment and Method Statement (RAMS) is provided for the Phase 2 Works at **Appendix B**. This identifies potential hazards associated with the works and relevant information related to the scheme. The RAMS will be disseminated to the construction project team one week prior to the works being undertaken. The project team will be fully briefed as to the content of the RAMS.

Section 2(c)(xiii) of the PMP (**Appendix A**) sets out the detailed process regarding the preparation and communication of RAMS, site specific risk assessments, and Environmental Aspects and Impacts Assessment (EAIA), as well as the wider details of the Health and Safety Plan.

2.5 Contractor's offices/compound

The following facilities will be established in the Contractor's compound at Dove's Nest Farm as part of the Phase 1 highway improvement works, and will be retained for the Phase 2 Works:

- 1 x site office with 10 work stations;
- 1 x meeting room for up to 20 people;
- kitchenette within site offices;
- 2 x canteens with kitchen for up to 12 people each;
- 2 x toilet blocks with male toilets x 3 and female toilet x 1;
- washing facilities with hot running water within toilet block and canteen;
- 2 x drying rooms;
- 4 x storage containers;
- 1 x bunded COSHH store;
- 1 x static fuel bowser;
- 2 x towable fuel bowser (6000 litre);
- laydown areas for materials; and
- car parking.

Typical details of the welfare facilities, including floor plans, are included in the PMP (**Appendix A**) Section 2(c)(xi). The Dove's Nest Farm proposed site compound layout is provided in **Appendix C**.

2.6 Parking of vehicles

All construction worker's cars will be parked within the designated parking area within the site compound, see drawing 44394-PH1-SK-01 included in **Appendix C**.

2.7 Loading and unloading of materials

The areas for storage have been planned to prevent excessive handling of material and to facilitate loading and unloading.

Measures to ensure the effective management of the unloading, storage and distribution of materials are set out in the PMP (**Appendix A**) at Section 3B(vi). This section also sets out the materials that are anticipated to be required for Phase 2 Works, and the procedures for their deliveries. Details are included in the RAMS (Part MS3) at **Appendix B**.

2.8 Storage of plant and materials

Details of locations for storage of plant and materials and measures to ensure no nuisance arises as a result of materials storage are provided in the PMP (**Appendix A**) at Section 3B(xx). The materials storage location at Dove's Nest Farm is shown on Plan 44394-PH1-SK-01, **Appendix C**.

Where bulk materials can be used immediately on site, such as aggregates, deliveries will be directed to the working location, with a suitable haul road / route made available for the delivery vehicle. Details of expected deliveries and

movement of materials between locations are given in the PMP (**Appendix A**) at Section 3B(vi). The Contractor will ensure that suitable and sufficient provisions for the storage of plant, equipment and materials have been established, in a safe manner to protect the public and environment, and secure from trespass by unauthorised persons.

The areas for storage have been planned to prevent excessive handling of material and to facilitate loading and unloading. The nature of the materials being held on site will dictate the storage methodology adopted. Chemicals and fuel will be stored in sealed containers on a suitable bunded, impervious hardstanding. The bund will be capable of holding 110% of the total capacity of all containers stored within the bunded area. The chemical and fuel storage areas will be located as far from all drains and watercourses on the site as possible. No materials will be stored on land within a Site of Special Scientific Interest / Special Area of Conservation (SSSI/SAC).

Spill kits will be stored adjacent to the storage areas as well as at other key locations around the site. Personnel trained in the deployment of spill kits will be present on site at all times during working activities. The handling of materials on site will be controlled to protect land and water through the PMP (**Appendix A**), as set out in Section 3C(xi).

2.9 Erection and maintenance of security fencing

The Phase 2 Works include the installation of boundary fencing, gates and security for the Dove's Nest Farm construction site as described in REP-P10-DNF-PLN-001 Discharge of Planning Condition NYMNPA64 – Temporary Boundary Treatment.

Temporary Heras fencing erected during Phase 1 around the Contractor's compound at Dove's Nest Farm will be retained until it is replaced with the construction phase boundary fence, to ensure the compound is secured from unauthorised access. 2m tall anti-climb fencing will also be erected around the perimeter of earthworks and drainage working areas.

Details of access gates, security and maintenance are provided in the PMP (**Appendix A**) at Section 3B(xx). This section of the PMP also sets out details of fencing to be employed at each of the works areas and the provision of banksmen to protect the public from plant movements.

The method of erecting the construction phase boundary fence is described in the RAMS (**Appendix B**) Part MS3.

2.10 Lighting

Measures and controls to reduce light pollution are provided in the PMP (**Appendix A**) Section 3C(xvi). In summary:

- works in areas close to sensitive locations will be undertaken during day light hours, as far as practicable; or
- when illumination is required:

- directional lighting will be used, with lights directed downwards;
- lights will be switched off when not in use;
- task lighting will be used where appropriate;
- lighting will comply with the lowest recommended criteria; and
- lighting will comply with the Interim Guidance on minimising the impact on wildlife.

2.11 Domestic wastewater

Domestic wastewater will be collected in sealed tanks and will be removed from site on a regular basis via tanker, and disposed of to a suitably permitted facility (See PMP, Section 3C(viii) at **Appendix A**).

2.12 Wheel cleaning facilities

Wheel cleaning facilities (cross-wash or similar) will be installed on the access road between the site and the Welfare Access. Wheel cleaning facilities are detailed in Section 3C(xv) and an example of the type of wheel wash proposed is provided at **Appendix D** (44394-PH2-SK-02).

2.13 Management of spoil

Phase 2 works includes earthworks as described in Section 3 below. The procedures to be employed during the earthworks to protect both the soil and the surrounding watercourses are set out in the PMP, Appendix A, at Section 3C(viii) and the RAMS, **Appendix B** Part MS3. A full Soil Management Plan had been prepared and submitted to NYMNPA to comply with planning condition 76.

3 Phase 2 site preparation works

3.1 General site clearance

The Phase 2 Works include general site clearance of the Dove's Nest Farm site, including tree clearance for the access road and scrub clearance, as shown on Arup drawing YP-P10-DNF-CX-009.

Nesting birds, reptiles and other protected species

The Environmental Statement that supported the original planning application concluded that if appropriate mitigation and enhancement activities were undertaken, the impacts on protected species would not be considered significant.

The following mitigation measures will be implemented during the Phase 2 Works:

- dust minimisation methods will be employed (**Appendix A**, PMP, Section 3C(x));
- construction lighting will be directed away from adjacent areas of retained habitat wherever possible (refer to Section 2.10 of this CMS);
- pollution prevention controls will be adheres to at all times (**Appendix A**, PMP, Section 3C(xvi));
- all excavations that could trap animals will be covered every night to reduce the risk of protected species falling into the excavation and becoming stranded, or a means of enabling their escape will be provided;
- where required, all tree and vegetation clearance will be undertaken under the supervision of a suitably qualified ecologist to prevent disturbance to nesting birds and other protected species; and
- where vegetation clearance is being carried out in teams, each team will be accompanied by a suitably qualified ecologist.

Protected Species Management Plans submitted to partially discharge planning condition 56, document references RHDHV002, RHDHV003, RHDHV004 and RHDHV005 outline precautionary methods of working which will be implemented to protect reptiles, birds, bats and other protected species which may be found on site.

The Arboricultural Method Statement, submitted to partially discharge planning condition 70, document reference 2556.Ph2.DNF.YPL describes precautionary measures to be taken when removing trees.

Approach to site clearance

Tree, hedge and scrub clearance will be carried out adopting the precautionary methods of working described in the Protected Species Management Plans referred to above. Tree removal will be carried out in accordance with the Arboricultural Method Statement referred to above. Management of vegetation removed as part of site clearance is set out in the PMP (**Appendix A**) at Section 3C (viii) and in the RAMS (**Appendix B**) Part MS3. Further details about the procedures to be followed are found in the Arboricultural Method Statement. Tree trunks will be stored in designated locations within Dove's Nest Farm pending dispatch off-site, and vegetation will be shredded and spread across adjacent wooded areas.

3.2 Earthworks

The Phase 2 Works includes the establishment of working platforms, excavation and of site roads, construction of temporary and permanent soil mounds, surface water drainage including attenuation pond and environmental barriers.

The PMP, **Appendix A**, sets out specific measures in relation to excavations (Section 3B(xv)), working near water (Section 3B(xvii)), avoidance of buried underground services (Section 3B(vii)), and what measures are to be implemented in the event that unexpected contamination is encountered (Section 3B(xxiii) and 3C(ix)).

The Soil Management Plan, submitted to NYMNPA to comply with planning condition 76, sets out the detailed requirements in relation to soil handling and storage in order to protect the soil quality and the surrounding environment.

The RAMS, **Appendix B**, also includes specific risk management controls to be implemented during Phase 2 Works. This includes the process for issuing a Permit to Excavate ahead of all mechanical excavation work. The permit will detail all known underground utilities and stipulate a safe system of work for excavation, including CAT scanning and trial holes to locate all known services. The RAMS also specifies the equipment to be used during the works.

3.3 Surface water management

The Phase 2 Works includes the construction of surface water drainage, ditches and swales, oil interceptors, a silt removal facility and an attenuation pond with an outfall to an existing drain, as shown in Arup drawing YP-P10-DNF-CD-001. Silt fences around earthworks and check-dams within ditches and swales will also be provided to control silt run-off. The PMP, **Appendix A**, sets out detailed requirements for the protection of water at Section 3C(xi).

The surface water drainage for the site will be commenced ahead of other works, to ensure any site runoff during the works is treated via the onsite facilities. If necessary, additional separation facilities such as Siltbuster settlement units (<u>http://www.siltbuster.co.uk/siltbuster-products/settlement-units</u> or similar) will be used during construction to ensure that water discharged from the site complies with the control levels set in the Groundwater and Surface Water Monitoring Scheme (1433DevOR29, FWS Consultants Ltd.) submitted to partially discharge condition NYMNPA46 . The RAMS (**Appendix B**) Park MS3 sets out the specific sequence of surface water drainage works to be implemented.

Daily monitoring of the effectiveness of these measures is to be implemented and recorded on the daily inspection sheets and on-site inspection records by the Environmental Manager or Co-ordinator.

3.4 Construction of internal access road

The Phase 2 Works include the construction of the internal access road, and preparation of areas of hardstanding for use during the construction phase. Archaeological works to be carried out in the areas of the access road (and across the wider site) are set out in the RAMS, **Appendix B**, Part MS3. Details of access road construction and sequencing of works are also set out in the RAMS (Part MS3).

3.5 Traffic management

The approach to traffic management is set out in the PMP, **Appendix A**. The traffic management is being planned to comply with the requirements of this condition (94) and planning condition 34 (Construction Traffic Management Plan). Details incorporated in the PMP include:

- measures to manage deliveries by Heavy Good Vehicles (HGVs) including routing and timing for deliveries (**Appendix A**, PMP, Section 3B(vi));
- details of the penalty system for breaches of the agreed control (**Appendix A**, PMP, Section 3B(vi));
- temporary traffic management (Appendix A, PMP, Section 3B(viii)); and
- a scheme for parking, loading and unloading during Phase 2 (**Appendix A**, PMP, Section 2 (viii; xi and; xx)).

Temporary traffic and pedestrian management

No traffic management on highways is proposed as part of the Phase 2 Works, as all works will be within the Dove's Nest Farm site. The PMP at **Appendix A** sets out at Section 3B(viii) measures to be implemented should any road closures or restrictions to access be required.

4 Risk Assessment and Method Statement (RAMS)

The RAMS covers each element of the Phase 2 Works, and is included in **Appendix B** of this document. The RAMS addresses the aspects described below.

Description and sequence of work

The RAMS identifies the specific tasks required to deliver the work package. The sequence of works, methods and relevant specifications required to deliver the work package are detailed in the RAMS. As set out in the PMP (**Appendix A**), Section 3B(xxix), the RAMS addresses the following work items:

- access and egress;
- re-fuelling;
- tree removal and de-vegetation;
- archaeological investigation;
- drainage;
- earthworks;
- road construction;
- fencing; and
- landscaping.

Additional task specific method statements will be prepared by sub-contractors for the following tasks:

- Tree and vegetation removal
- Earthworks
- Fencing
- Surfacing

Control of risks

Details of significant hazards, health & safety and environmental risks with outline control methods can be found in the PMP (**Appendix A**) Section 3B(iv). Significant hazards are identified as those that require special control, are unusual or not obvious.

Resources

The resources employed for the works detailed in Section 2 will have the relevant site induction and be members of the Construction Skills Certification Scheme (CSCS). All plant operatives will be members of the Construction Plant Competence Scheme (CPCS).

Plant

A variety of plant will be required for the works described in Section 2. All operatives and drivers handling this plant will be suitably qualified and hold the

required training and certification. Plant would include, but not necessarily be limited to:

- excavators;
- dozers;
- small dumpers (e.g. 9 tonnes);
- large, all terrain dumpers (up to 30 tonnes)
- tractors;
- bowsers;
- single-drum rollers;
- vibrating rollers;
- paving machine; and
- delivery lorries.

Materials

Materials expected to be used for the Phase 2 Works will be in accordance with the required specification and consist mainly of:

- kerbs;
- drainage materials, including pipework and headwalls;
- small plant and equipment;
- fuel;
- ancillary items welfare provisions, cement etc.;
- aggregates; and
- asphalt during surfacing operations.

Personal protective equipment

Details of personal protective equipment (PPE) to be used is provided in the PMP (**Appendix A**) at Section 3B(xxi).

Safety documents and permits

A permit is required to ensure a safe, controlled system of work is employed for various tasks to be undertaken, these tasks must NOT be undertaken without a valid, signed permit and the permit signatory / holder being on site. All permits issued will be signed off upon completion of the work as stated below.

During the course of this contract it is anticipated that the following permits / combination of permits will be required:

Permit type	Required	Duration *	Activity / Location
Permit to Work	No	N/A	N/A
Hot Work Permit	Yes	Duration of work	Cutting, tarmac works
Permit to Dig	Yes	Weekly	Ground excavation
Electrical Work Permit	No	N/A	N/A

Table 4.1: Details of Permits Required

Permit type	Required	Duration *	Activity / Location
Confined Space Permit	No	N/A	N/A
Client Issued Permit	No	N/A	N/A
Lift Plan / Permit to Lift	Yes	Weekly	Mechanical lifting

Details of permits and consents can be found in the PMP (**Appendix A**) at Section 2(c)(iv) and 3B(iii).

Inspection and Test Plans

Regular site safety, quality and environmental monitoring will be carried out to ensure compliance with the PMP (**Appendix A**) and that a safe system of work and good practice are being employed.

The frequency and type of inspection/testing required is included in the Inspection and Test Plan (ITP) included in Section 3A(x) of the PMP (**Appendix A**). The ITP takes account of relevant product standards, the clients' requirements and level of risk.

Plant and machinery movements

All plant and machinery will remain within the designated work area and use appropriate access routes. Any access issues will be communicated during the daily briefing and interface with other contractors will be managed when planning daily activities. The works area will have an exclusion zone in place where only plant is allowed. This will ensure that safe routes are in place and traffic marshals are in place when vehicles/plant are entering the works area.

Emergency arrangements

An Environmental Emergency Preparedness Plan (EEPP) will be prepared and must be followed in the event of an environmental emergency or breaching the measures set out in the Environmental Action Plan. The EEPP will be displayed on site notice boards. The Contractor's Environmental Manager and Client's Environment Manager will be notified of environmental incidents.

In the event of a pollution incident, the EEPP must be followed. The Client's Project Manager, Contractor's Project Manager and Operations Manager will be informed immediately and immediate steps taken to minimise the impact of the incident. The EEPP will be briefed to all site personnel at their site induction and throughout the project. Further details are provided in the PMP (**Appendix A**) at Section 2(c)(xv) & Section 3C.

Key contacts in the event of an emergency have been set out in the PMP (**Appendix A**) in Section 1(b).

Interfaces

The works of other contractors and interfacing activities will be detailed in the daily activity briefing. If any interface issues occur during the shift, the site operatives will stop work and inform the General Foreman who will report the issue to the Site Agent and Contract Manager.

Information regarding interfacing with the general public can be found in Section 2(c)(viii) of the PMP (**Appendix A**)

Welfare

Details of welfare facilities, are set out in the PMP, (**Appendix A**), at Section 2(c)(xi). The proposed layout of facilities at Dove's Nest Farm is provided in drawing 44394-PH1-SK-01, included in **Appendix C**.

Briefing arrangements

Managers/supervisors will communicate daily to the operatives they are responsible for. As part of the communication and the documented monitoring process all operatives will be asked to communicate any health, safety or environment issues they may have.

Detailed information regarding consultation with the workforce is contained in Section 2(c) of the PMP (at **Appendix A**).

Information on consultation with the workforce on environmental matters is contained within the Environmental Plan.

All environmental issues will be communicated to all staff on site via a series of tool box talks which will be given prior to works starting on site. The tool box talks will be site specific as well as containing general information where required.

The Contractor's Project Manager and team will receive briefing from the Contractor's Environmental Manager to ensure that they are aware of the environmental requirements identified in the Environmental Aspects and Impacts Assessment, EAIA (Section 3C(xix) of the PMP, Appendix A). The briefing will also ensure that they are able to assess whether the environmental requirements are being implemented properly. Further detail can be found in the PMP (Appendix A), Section 3C 'Management of Environmental Issues on Site'.

Appendix A

Phase 2 Site Preparation Works Project Management Plan

HIGHWAYS							Head Office Address North Midland Construction Nunn Close The County Estate Huthwaite Sutton-in-Ashfield NG17 2HW Project Address	
Project Management Plan (Construction Phase Plan)							NMC Site Office Doves Nest Farm (Off B1416) Sneatonthorne	
	Principa	l Con	tractor:			North Y YO2	orkshire 2 5JB	
NORT	H MIDLAND	CON	STRUCTIC	N PI	_C			
	CONTROLI HIG	_ING HWA`	DIVISION: YS					
	Client: Siri	us Mir	nerals PLC					
NN Schomo: Dh	IC Contract	Numb)er: 44394. Works, Dov	002	oot Form	Principal Designer Address Arup Rose Wharf, 78 East St, Leeds LS9 8EE		
Scheme. Ph	ase z – Ellar	ning v	VOIKS, DOV	es IN	estraim			
Documen	t Reference:	4439	4-PH2-PM	P-01	Rev 4			
						CONTR	ACTOR	
Is the project Notifia	able? Yes					North I Const	Midland ruction	
	NMC STATUS UND		REGULATIONS	5		START	FINISH	
Principal Designer	Designer	Princip	oal Contractor	С	ontractor	Apr 2017	July 2017	
No	No		Yes		No			
Drafted By	North Midlar Constructio	nd n	Accepted By		Sirius	Minerals P	LC	
Name	Alex Spence	r	Name		Du	uncan Smith		
Date	16/12/16		Date					
Signature Signature								

CONTROLLED COPY CIRCULATION LIST							
Contracts Manager	Project Manager	Client	Sub-contractor				
Chris West	Chris Davis	Duncan Smith		NMC			
Issue Date:	16/12/16	Current Revision Number:		4			

Revision History					
Date	Revision number	Revision made	Signature required below		
16/12/16	A	First issue			
21/12/16	1	NYCC comments incorporated			
04/01/17	2	Comments from Sirius incorporated			
11/01/17	3	Revised site boundary monitoring locations plan			
13/01/17	4	Updated Principal Designer details			

Sub-contractors						
Company	Specialism	Address	Contact	Number		
Collins Earthworks	Earthworks	Unit 2b, Park Lane, Sutton-in-Ashfield, Notts. NG17 9LE.	Dave Collins			
TBC	Surfacing					
ATM	Fencing	Bell Wood House, Minskip Road, Boroughbridge. YO51 9HY.	TBC			

Note: This document contains hyperlinks. When it is being used on line the hyperlinks can be used to reach the appropriate documents and links on IMSOL. To activate a link, double click on the appropriate text or icon.

Hyperlinks are indicated by blue underlined text or by icons in the document

INDEX

Description	Section
1 - (a) Description of the Contract/ Project and programme details	
(b) Details of Client, Principal Designer, Designers and other Consultants	1
(c) Existing Plans/Records	1
2 - (a) North Midland Construction PLC Management Structure	2
(i) Project Team - Responsibilities	2
(ii) Project Team - Detailed Roles and Responsibilities	2
(b) Objective & Goals	2
(c) Communications	2
(i) Regular Liaison between Parties on and off site	2
(ii) Consultation with the workforce	2
(iii) Exchange of design information (Handling Design Changes)	2
(iv) Permits / consents and Constraints	2
(v) Managing Design Changes	2
(vi) Suppliers & Subcontractors (Selection and Control)	2
(vii) Communication and exchange of Information between contractors	2
(viii) Site Security	2
Site Visitors	2
Interface with the General Public	2
(ix) Site Induction, Information and Training	2
(x) On Site Training	2
(xi) Provision of Welfare & first aid Facilities	2
(xii) Reporting/Investigation of Accidents, Incidents and Near-misses	2
(xiii) Risk Assessments and Written Systems of Work	2
(xiv) Site Rules	2
(xv) Fire and other Emergency Procedures	2
3. Significant Risks	<u>Section 3</u>
A) Quality Plan	
(i) Document Control	
(ii) Human Resources	
(iii) Procurement	
(iv) Deliveries and Logistics	
(v) Product identification and traceability	
(vi) Verification on Receipt	
(vii) Handling, Storage, packaging and Preservation	
(VIII) Customer Property	
(ix) Supplier/subcontractor selection	
(x) Audits, Inspections and reports	
(xi) Non Conforming Products/Services	
(xii) Customer Satisfaction	
B) Health & Safety Plan	2
(i) 10 Golden Rules	د ک
(i) Illustrated mandatory & advisory information to be displayed	ع د
(ii) Permite	د د
(iv) Arrangements for Controlling sigificant site risks	

	ix) Adjacent Land	3
	x) Stability of Structures	3
	xí) Prevention of Falls	3
	xii) Work Near Fragile Materials	3
	xiji) Control of Lifting Operations	3
	xiv) Plant and Machinery	3
	xv) Excavations	3
	xvi) Confined Spaces	3
	xvii) Working Near Water	3
	xviji) Working in caissons or cofferdams	3
	xix) Working with Compressed Air	3
	xx) Storage of materials and work equipment	3
	xxi) Personal Protective Equipment (PPE)	3
	xxii) Asbestos	3
	xxiii) Contaminated Land	3
	xxiv) Manual handling	3
	xxv) Control of Substances Hazardous to Health (COSHH)	3
	xxví) Reducing Noise and Vibration	3
	xxvii) Ionising Radiation	3
	xxviii) Exposure to UV Radiation	3
	xxix) Hazard Identification, Risk assessment and control	3
	xxx) Health and Safety File Handover	3
C)	Environmental Plan	3
	i) Environmental golden Rules	3
	ii) Illustrated mandatory & Advisory environmental information	3
	iii) Consents and Permissions	3
	v) Environmental studies and Surveys	3
	v) Environmental Monitoring and Measurement	3
	vi) Significant Environmental changes	3
	vii) Sustainability	3
	viii) Waste Management	3
	ix) Contaminated Land	3
	x) Consideration with respect to Air	3
	xi) Consideration with respect to land and Water	3
	xii) Consideration with respect to noise and vibration	3
	xiii) Wildlife and Natural Features	3
	xiv) Archaeology and built heritage	3
	xv) Transport, access and public rights of way	3
	xvi) Pollution Prevention	3
	xvii) Carbon reduction and energy management	3
	xviii) Register of Site Specific Environmental actions	3
	xix) Environmental Aspects and Impacts	3
	xx) Hazards, risk assessment and control	3
	xxi) Control of Substances Hazardous to the Environment	3
	xxii) Incidents and near misses	3
4	- Client/Customer Specific Requirements	4

5 -	Gathering/Collection/Storage	of information5
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SECTION 1

1 - (a). Description of the Contract/ Project

Project Overview

Sirius Minerals intends to develop a new mine surface development, south of Whitby in North Yorkshire to extract and process polyhalite and transfer it to a harbour facility (the harbour facility is covered by a separate consenting regime). A full and detailed description of the project can be found in the Environmental Statement.

This PMP relates to the Phase 2 Enabling Works at Doves Nest Farm only.

Description of works

- General site clearance including tree clearance for the welfare road and scrub clearance, as shown on Arup drawing YP-P10-DNF-CX-009.
- Construction of an acoustic fence/environmental barrier and installation of fencing, gates and security, as shown on Arup drawing YP-P10-DNF-CX-004.
- Excavation and construction of the two tiered working platform with a western upper level at around 204m Above Ordnance Data (AOD) and an eastern lower level at around 200m AOD, as shown in Arup drawing YP-P10-DNF-CX-004.
- Excavation and construction of site roads, as shown on Arup drawing YP-P10-DNF-CX-004.
- Construction of temporary and permanent soil mound including the environmental screening bund (Bund A) along the western boundary, as shown on Arup drawing YP-P10-DNF-CX-010.
- Construction of surface water drainage, silt removal facility and an attenuation pond with outfall to an existing drain, as shown on Arup drawing YP-P10-DNF-CD-001.
- Construction of a site compound to the east of the welfare access road.

Approximate Start Date: Q2, 2017.

Programme of works for contract or project

Please refer to the construction programme.

1 - (b). Details of Client, Principal Designer, Designers and Other Consultants

Role	Duty Holder	Contact Details
CLIENT	Sirius Minerals PLC	Name: William Woods Position: Project Development Manager
PRINCIPAL DESIGNER	Arup	Name: Sarah McDowall Position: Senior Consultant
HEALTH & SAFETY EXECUTIVE	N/A	Address: 8 City Walk, Leeds LS11 9AT Tel: 0113 283 4200 Web: hse.gov.uk
PRINCIPAL CONTRACTOR	North Midland Construction PLC Nunn Close Huthwaite Sutton In Ashfield NG17 2HW	Name: Chris West Position: Regional Operations Manager

EMERGENCY CONTACTS

Client – Emergency Telephone Numbers

CONTACT NAME	TEL NO.
Robert Staniland, Environment Manager	
William Woods, Project Development Manager	
Duncan Smith, Project Manager	

Statutory Undertakers – Emergency Telephone Numbers

SERVICE	TEL NO.
Gas, National Grid	
Water Services, Yorkshire Water	
Electricity, Northern Power Grid	
Oil or Gas Pipeline (British Pipeline Agency)	
Telephone, BT	
Cable, Virgin Media	
Sewerage Services, Yorkshire Water	
Environment Agency	
Local Police Station	

Other – Emergency Telephone Numbers

CONTACT / POSITION	NAME	TEL NO.
Head Office	Reception	
Operation / Delivery Manager	Chris West	
Project Manager	Chris Davis	
Quantity Surveyor	Richard Oakton	
Executive Director - Managing	Geoff Poyzer	
Executive Manager - Commercial	Mark Lowson	
NMC Group Health & Safety Manager	Jeremy Blom	
NMC Group Environmental Manager	Selina Morson	
NMC Safety & Environmental Coach	Dave Powell	

Health & Safety Advisers – Emergency Telephone Numbers

NAME	TEL NO.
Hurst Setter & Associates Ltd.	

EMERGENCY PROCEDURES	REQUIRED	DISPLAY LOCATION
EEPP (Spillages – oil / chemicals)	✓	Office
Environmental Emergency Preparedness Plan	✓	Office
Fire Plan	✓	Office
A&E Hospital and Route	✓	Office

Further environmental procedures will be discussed at induction, displayed on site notice boards & detailed in the environmental section.

(c) Existing Records

Records and information	Format	Provided by
Design Risk assessment	Documents	Arup
Key Deliverables agreed with client	Documents	Arup
Existing Structures	Documents / Survey	Arup
Buried services plans	Electronic and colour print	Arup
Health & Safety surveys	Documents / Survey	Arup
Environmental Surveys	Documents / Survey	Royal Haskoning DHV
Health & Safety File	Documents	Arup

SECTION 2

2 - (a) North Midland Construction PLC Management Structure

Organogram



(i) Project Team - Responsibilities

Responsibility			Coordinators											Co	ontrolle	rs							
		A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	A21	A22
Nominated person	Role (In order of Seniority)	Project Management Plan	Legal Requirements	Environment Aspects & Impacts	Risk Assessment & Method Statements	Document Control and record Keeping	Emergency Preparedness & Response	Waste Management (SWMP)	Monitoring & Measurement	Accidents, Incidents & near miss Reporting and Investigations	Non-conformances, Corrective & Preventive action	Procurement	Temporary Works coordinator	Water Permits Control & Sampling	Site Safety	СОЅНН	Permits to work	Lifting Operations	Site Inductions and Briefings	Fire Coordinator (RP) / Marshals (D)	Plant Records	First aiders	Site Security
Geoff Poyzer	Project Director																						
Mark Lowson	Commercial Manager																						
Jayne Hope	Contractors Coordinator					X																	
Chris West	Operations Manager	х	Х		x		x			x	x	X	x	Х									
Chris Davis	Project Manager	х	Х	х	x	X	X	X	Х	x	x	X	х	х	x	x	x	x	х	x	x	x	x
Paul Styles	Project Planner					x			x		x												
Heidi Jepson	Divisional Buyer											X											
ТВС	Sub-Contractor													Х	X	X	X	X	Х	X	X	X	X

PMP – Issue R

NAME	POSTION	CONTACT PHONE NO.	RESPONSIBILITIES (in brief)	COMPETENCIES (Qualifications / training)				
Geoff Poyzer	Project Director	07970 136518	Overall responsibility for the projects safety, health and environmental management, resources, procedures and support to meet the arrangements documented in this plan.	 President of East Midlands Chamber of Commerce Fellow of Institution of Highways and Transportation Associate Member of Institution of Civil Engineers BEng (Hons) Civil Engineering CSCS Manager Health and Safety for Directors Management of Health and Safety in Construction 				
Chris West	Operations Manager	07970 136524	Responsible for the day to day management of activities with regard to health, safety and environmental management and supervision of labour and labour resources to meet the arrangements documented in this plan.	 BEng (Hons) Civil Engineering CSCS Manager SMSTS NRSWA Supervisor 				
Chris Davis	Project Manager	07712 324723	Control and manage on site construction activities, manage sub-contract activities on site, ensure client satisfaction throughout construction process, implement best practise regarding QESH procedures.	 BEng (Hons) Civil Engineering CSCS Civil Engineering Site Manager CITB Site Manager Safety Training Scheme NRSWA Street Works Site Supervisor SMSTS First Aid At Work CPCS Appointed Person (Lifting) 				
Jeremy Blom	Health & Safety Manager	07976 348 771	Advice, support and monitoring of health, safety policies and procedures to meet the arrangements documented in this plan and current legislation.	 GradIOSH MIIRSM CSCS 				

Selina Morson	Environmental Manager	01623 515008	Advice, support and monitoring of environmental management policies and procedures to meet the arrangements documented in this plan and current legislation.		BA (Hons) Joint Honours Degree NEBOSH National General Certificate Level 3 in Occupational Health and Safety CSCS IEMA Approved Associate Certificate Course in Environmental Management (UK)
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(b) Objective & Goals

It is our objective to carry out the on-site construction process of the works in accordance with the CDM Regulations 2015, in such a way as to give due regard to the welfare of all persons involved in carrying out the Works, and without putting their health and safety at significant risk to their health and safety, along with that of others who may be affected by the works, including members of the general public, and visitors to the site of the works.

To carry out all works in accordance with the <u>NMC policy documents</u> including the <u>Integrated Management</u> <u>Systems Policy</u> which covers Quality, Health & Safety, and Environmental requirements on the basis of the Management System approvals meeting the requirements of:

ISO 9001 BS OHSAS 18001 & ISO 14001

The overall Quality goals are to:

- Meet or exceed the client's requirements
- Compliance with project drawings and other written specifications
- Reporting of all non-conformances
- Compliance with product/process legislation

The overall Health & Safety goals are to:

- Zero RIDDOR accidents
- Prevent or minimise the number of non-RIDDOR accidents and incidents
- Compliance with project H&S requirements
- Reporting of all accidents, incidents and near misses
- Compliance with Health & Safety Legislation

The overall Environmental goals are to:

- Prevent or minimise any environmental disturbance
- Compliance with project environmental requirements
- Reporting of all incidents and near misses
- Compliance with environmental Legislation

PROJECT QESH & OTHER SPECIFIC OBJECTIVES & TARGETS

Environmental, Quality, Health and Safety and client Key objectives and targets for the project and arrangements for monitoring and review of environmental performance will be as follows:

Objective	Target	Measure	Review Process	Owner	
Environmental objective/targets	Zero environmental incidents	Contractor's Report	Monthly	Project Manager	
	High level of Near Miss / Positive Intervention reporting (target 3 per week)	Contractor's Report	Monthly	Project Manager	
Quality objectives/targets	Zero defects at handover	ero defects at andover Defects list at handover Review at handover		Project Manager	
Health & Safety objectives/targets	Zero accidents	Contractor's Report	Monthly	Project Manager	
	High level of Near Miss / Positive Intervention	Contractor's Report	Monthly	Project Manager	

reporting (target 5		
per week)		

Standard Setting

Through management team supervision and monitoring NMC will ensure that work carried out is in accordance with relevant Policies, legislation, Approved Codes of Practice and Guidance Notes.

The company will operate under the control of a Quality Plan, an Environmental Plan and a Health & Safety Plan, (in accordance with the Construction Design & Management Regulations 2015).

Reference should be made to the following NMC PLC documentation held on IMSOL for further information:

- Integrated Management Policy.
- Continuous Improvement Policy.
- CDMCP Compliance Policy.
- Supporting Policy for Health & Safety.
- Sustainability Policy.
- Housekeeping Sites.
- Health and Safety for Site Operations.
- Health & Safety for Employees and Subcontractors.
- Electronic Communications Policy.
- Standards of Business Conduct.
- Values and Philosophies.
- Customer Care Policy.
- Press Communications.
- PPE Usage & Exchange Policy.
- Handbook for Van & Lorry Drivers.
- Alcohol & Drugs Policy.
- Social Networking Policy.
- Statutory Notices and other forms and documents as detailed in this document.

Legislation

North Midland Construction PLC maintains a legal register of all applicable legislation that applies to site operations. Links to the legislation are included below (must be connected to NMCloud).

- Link to Environmental Legislation.
- Link to Health and Safety Legislation.
- Link to HR Legislation.

Arrangements for Monitoring Quality, Environment, Health and Safety (QESH) Performance

Site inspections and audits will be carried out to ensure compliance with the requirements. This may include first parties i.e. people working for NMC, second parties i.e. clients representatives, and third parties such as our Health and Safety Advisors (Hurst Setter and Associates) or accreditation bodies (such as BSI).

During the construction phase NMC will be responsible for ensuring that its quality, environment and health & safety performance and the performance of its subcontractors are reviewed on an ongoing basis.

Members of the management team will also monitor performance of the activities they undertake and those undertaken by its subcontractors through regular audits and inspections.

Performance will be reviewed at each Project Review Meeting attended by all relevant members of the Project.

Any issues identified will be raised immediately with the relevant contractor who will be expected to implement the appropriate corrective action within timescales agreed between both parties.

Site Monitoring, Inspections and Monthly Audits

Monitoring procedures and documentation used are held on the NMC IMSOL. Monitoring records shall be held by the management team in the project office and reviewed by the management team.

Type Of Monitoring	Carried out by	Schedule
SHE inspection	Project Manager / Site Agent	Completed weekly
Internal audit	QESH facilitator	Quarterly
Weekly (F91) site inspection	Project Manager / Site Agent	Weekly
Hurst Setter H&S inspection	Hurst Setter	Monthly
Hurst Setter Environmental inspection	Hurst Setter	Monthly
Hurst Setter Audit	Hurst Setter	Quarterly
Quality Test Requirements (e.g. concrete cubes / other inspections)	Project Manager / Site Agent	As per Inspection & Test Form Plan

More information on site monitoring, inspections and audits in relation to environmental matters is contained within the Environmental Plan.

(c) Communications

(i) Regular Liaison between Parties on and off site

NMC will maintain regular project meetings with the project team and labour resource. As required NMC will attend meetings with local authorities, trades, amenities and service providers.

NMC management will attend regular meetings to liaise with local authorities. These will include the council, highways management, hospital management, the armed forces and the police as appropriate.

NMC management will, where identified, contact the trades, amenities and services to communicate the arrangements and controls, ensuring understanding to reduce risk and disruption.

Contingency provisions will be made for potential activity overruns. These too will be communicated and discussed with those concerned. Contingency provisions will include bus routes, road gritting routes, work timings and distances and traffic control arrangements.

Regular liaison meetings will be held with the Health and Safety Executive, the Environment Agency, and other government bodies such as DEFRA throughout the duration of the project, as required.

In accordance with the Environmental Emergency Preparedness Plan, the Project Manager will notify the Group Environmental Manager of environmental incidents, who will complete an investigation report for issue to the client. Please refer to Section (xv) Fire and other Emergency Procedures for more details.

Complaints will be recorded and actioned as appropriate in accordance with IMS Procedure OP 5/3.

Further to the above, the client has developed the following Complaints Procedure, which will be implemented

Client Complaints procedure

The procedure below outlines the process of managing complaints from receipt through to resolution. All complaints, regardless of the source, will be managed by the Sirius Minerals External Affairs team and will involve the Company's Project team, contractors and other parties as appropriate.

Key terms:

info@siriusminerals.com – email address managed by the External Affairs team Data collection form – details required from each complainant (e.g. full name, contact number) Site Manager – Designated decision maker on each project site (e.g. highways site, Dove's Nest) Log – Complaints log managed by the External Affairs team

Update meetings - Regular construction progress meetings



Communications with external third parties for example, local authorities, DEFRA will be logged as a communication on IMSOL, in accordance with <u>IMS Procedure OP 1/6</u> (including letters, and telephone conversations).

The involvement of the local community and stakeholders will be encouraged.

Meetings will be held as detailed below to secure co-operation between the Client, Principal Designer, Principal Contractor, other Contractors and Designers to ensure that Health & Safety objectives are being adequately addressed and achieved.
		z			FREQ	FREQUENCY				
MEETING / REPORT TYPE	CLIENT REQUIREMENT	MC REQUIREMENT	TRAINING AND CONSULTAION	DAILY	WEEKLY	MONTHLY	ONCE			
Contractors coordination meetings	x	x			x					
Contractors Report Design H&S Review meetings	x	x					x			
Health, Safety and Environmental Inspection Report	x	x			x					
Joint Site Safety and Environmental Advisor Site Inspections	x	x				x				
Progress meetings	x	х				x				
Progress photographs	x	х		x						
Safety and Environmental advisor meeting		х			X					
Safety committee meetings		x					x			
Site safety coordination meeting		x			x					
Site team meeting		х			x					
Subcontractors progress		x				x				
Contractors progress / coordination meeting	x	x				x				
Progress photographs	X	х		x						
Site Induction	x	х					x			
Subcontractors pre-commencement meetings	x	x					x			
Activity briefings		х		x						
Environmental Alerts		х				x				
Safety Alerts		х				x				
Toolbox Talks		x			Х					
Daily monitoring of construction works by the contractor	x			x						
Weekly inspections by the Environment Team	x				x					
Preparation of environmental reports (fortnightly)	x									
Progress reports covering environmental issues	x					x				
Meetings with Sirius Minerals	x					X				

(ii) Consultation with the workforce

Managers/supervisors will communicate daily to the operatives they are responsible for. As part of the communication and the documented monitoring process all operatives will be asked to communicate any health, safety or environment issues they may have. Near Miss / Accident / Incident / Communication cards will be provided in the Site Office and Canteen to encourage open communications on all matters. Issued raised will be logged on the IMSOL system, raising a "pending action", until satisfactorily closed-out. The individual who raised the issue will receive feedback from the Project Manager ahead of close-out on IMSOL.

NMC will provide detailed <u>risk assessments and method statements</u> for each of the work activities. Each RAMS records the people involved in the consultation.

On a daily basis a <u>KSAW (Keep Safe and Well)</u> meeting is held. This is a daily brief of site activities that may require special attention.

On a quarterly basis there are representatives of Health & Safety (RoES) meetings between management and employee representatives. The meeting dates and minutes are issued by the Health & Safety Manager. Anyone can become a representative by contacting the Health & Safety Manager.

Should there be non-English speaking operatives on site these will be managed through the use of an interpreter to be supplied by the contractor or subcontractor. – This can either be in the form of a professional translator – or a bilingual member of the gang/team. This translator will be used to ensure that all members of the team understand the site induction and the method statement briefing.

As well as the above we will ensure that all people understand simple commands such as "Stop" and "no." Any further instruction will then be passed on through the interpreter.

More information on consultation with the workforce on environmental matters is contained within the Environmental Plan.

(iii) The exchange of design information between client, principal designer, designers, principal contractor and contractors

Regular meetings, for the purpose of exchange of information, will be set up in agreement with the site manager. These will include, where appropriate, the client, client's representatives, principal designer, designers, contractors and other interested parties.

(iv) Permits / Consents and Constraints

Any consent applied for or site constraints must be logged on to <u>the IMSOL system</u> or listed below. This is to allow proactive monitoring of all consents and associated duties held by North Midland Construction PLC.

The requirements are listed in section (iii) of the Environmental Plan.

(v) Managing Design Changes

Designers are required to comply with Regulation 11 of the Construction (Design and Management) Regulations. Designers will also be required to demonstrate compliance with their duty to liaise with the Principal Designer and other Designers for exchange of information.

Design changes will be managed in accordance with the relevant OP from section OP 6/4 of the <u>IMS Operating</u> <u>Procedures index</u> for the group concerned.

Where the site manager identifies that the construction or installation activity cannot proceed or continue as planned he will inform the client. A visit to the site may be arranged to discuss and instruct any minor changes, these will be confirmed in writing to the designer and the client.

Where major changes are required the site manager may close down the site and contact the designer and seek a re-design. Upon receiving a revised design this shall be communicated to the team undertaking the activity and the works will recommence. Changes to exiting consents, or additional consents, will be obtained, as required by the change.

Designers are required to identify risk associated with the design, both permanent and temporary works and provide information regarding the significant risks to all parties involved in the project. Designers when preparing or modifying a design are required to avoid foreseeable risks to the health and safety of any person involved with:

- Constructing the design
- Operating the constructed design
- Maintaining the constructed design
- Clearing the constructed design
- Future construction/alteration of the constructed design
- The ultimate demolition/dismantling of the constructed design

NMC's design planning will include design Input Reviews and Design Change control, in accordance with <u>IMS</u> <u>Operating Procedure OP 6/4 section</u> – Design Control, to ensure co-operation and co-ordination of the works with the Principal Designer and / or other designers is adequately achieving requirements. All temporary works required will be assessed and where they are found to give rise to significant risk that cannot be designed out by use of the proprietary structures, full design and calculation of the temporary works will be carried out. The <u>temporary works co-ordinator</u> is identified in <u>Section 2(a)(i) of this document</u>. A <u>temporary Works</u> <u>permit</u> is used in accordance with <u>OP 8/4 Temporary Works Procedure</u>.

Where the designer identifies significant risk, these risks will be included within the relevant method statements with the associated control measures. Designers Risks Assessments and Services information are filed on site, following issue by the Principal Designer.

Note: Responsibilities and lines of communication are detailed in IMS OP6/4.3 Design control.

(vi) Selection and Control of Suppliers & Subcontractors

All suppliers and subcontractors are subject to the <u>NMC Company selection procedures</u>. Only suppliers and subcontractors on the NMC preferred suppliers list will be used on this project. These have successfully completed and met the minimum requirements of the selection procedure. The suppliers or subcontractors performance will be monitored by project management and agent/supervisors, if they fail to meet the minimum requirements documented within this safety plan its supporting policies, procedures and processes they will be instructed to improve or be removed from the contract.

SUBCONTRACTORS / SUPPLIER SCHEDULE

Details specific subcontractors and suppliers and methods of control

		METHODS OF CONTROL									
WORKS PACKAGE	SUBCONTRACTOR / SUPPLIER	Pre-commencement Meeting	Health & Safety Plan	Risk Assessment	Method Statement	Permit to Work	Inspection & Test Plan	Weekly Coordination Meeting	Monthly Coordination Meeting		
Earthworks	Collins Earthworks	х	х	х	х	х	х	x	х		
Surfacing	TBC	х	Х	х	х	х	х	х			
Fencing	ATM	х	х	х	x	х	х	x			

To be updated as subcontractors are appointed.

(vii) Communication and Exchange of information between Contractors

Contract-specific awareness training will be arranged as necessary by NMC as identified by the client, the Health & Safety Manager and project Management team. Regular meetings, for the purpose of exchange of information, will be set up in agreement with the site manager. These will include, where appropriate, the client, client's representatives, contractors and other interested parties.

Information will be provided by NMC to all personnel on the site via the site induction and records maintained in the <u>Site Rules Induction Register</u>.

This information will include the issue to all persons of the <u>NMC's Health & Safety Site Rules Induction Card</u> and information about the project made available by reference to the relevant parts of the Health and Safety Plan using the <u>Keep Safe and Well</u> briefing

All personnel will be made aware of NMC, Management Systems and <u>Policy Statements</u> for Health & Safety, Quality and the Environment.

(viii) Site Security

The objective of the security is to ensure business continuity and to minimise damage and theft by preventing and/or minimising the impact of security incidents. The <u>Company Site Security Procedure</u> and <u>Customer Care</u> <u>Policy</u> will apply. Planning, implementation and reviewing of Site Security shall be undertaken in accordance with <u>IMS OP 6/7.1</u>.

All works carried out shall be suitably cordoned off and road signage used will comply with the Safety at Street Works and Road Works, Code of Practice where applicable.

Where excavations are to be left open at night suitable covers will be positioned over the top of the excavation and/or barriers or fencing. The level of protection shall be assessed and resourced by the site manager.

The site security will be managed by NMC as identified and will take into consideration the prevention of unauthorised persons entering the site and the prevention of theft and unauthorised use of plant.

The following methods of site security will be implemented as detailed below. Although open to change as the works progress or conditions dictate, all actions and control methods must be followed and regularly reviewed throughout the contract to minimise the risk of unauthorised entry to / theft from the sit. Where the option "Other" is chosen, this must have approval of the Contracts Manager and the reasons for use clearly stated.

ITEM	POTENTIAL METHODS OF CONTROL	OPTION TO USE	COMMENTS
Allocation of Responsibilities	Security Guard Supervisor	YES	
Police Liaison	 Emergency contact details provided 	YES	
Access	Security Guard	YES	
Perimeter Protection	Heras	YES	
Compound Protection	Heras	YES	
Control Procedures for Goods and Materials	 Site checker Authorised signatories Store man Secure storage areas 	YES	
Security of Heavy Plant Items	 Secure storage areas Tracker systems Immobiliser Locks 	YES	
Security of Small Plant	Site registerSecure storesIssue procedures	YES	
Security Lighting	Sensory ControlledTime Switch	YES	
Security Containers	Steel construction	YES	
Site office Accommodation	 Steel construction 	YES	
Office Equipment	Lockable offices	YES	
Keys	Access restrictedSecure key box	YES	
Security Guarding	Out of hours	YES	
Alarm system	Monitored	NO	
CCTV	 Monitored with response 	NO	
Site closure	Contact details to policeRota for site visit	YES	
Car / Van parking	 Designated area within compound 	YES	
General	 Advice to staff Discipline implications Advice to sub-contractors Tool box talks Warning notices Local community involvement 	YES	
Labour only sub- contactors	 Implementation of checking procedures 	TBC	

Site Visitors

Site visitors will report to the site manager and a site safety induction will be given. The <u>pre-commencement safety</u> <u>questionnaire</u> will be given out by the site manager and reviewed so that any special requirements can be dealt with. PPE as prescribed by the <u>PPE usage and exchange policy</u> will be worn. No visitors are to be within close proximity to any plant in operation. All visitors must be recorded on the <u>sign in register</u>.

Any accidents/incidents involving either the Health and Safety Executive or the Environment Agency must be notified to the QESH Department within 24 hours by phone, then by using the <u>accident/incident/near miss section</u> <u>of IMSOL</u> or by completing an <u>accident/incident/near miss form</u> when on-line access is not possible.

Interface with the General Public

Project Managers are responsible for notifying all relevant parties that work is being undertaken. If works are to be carried out in public areas and on the public highway it is important at all times to protect the public from the risks of the works being carried out as per the <u>Customer Care Policy</u>. Where identified in the construction information the manager/supervisor will contact the general public and communicate the arrangements and controls, ensuring understanding to reduce risk and disruption. Where works will be carried out outside of private dwellings and businesses letters will be mailed to them at least 3 days before commencement. Also notices will be positioned to inform the public of future disruption and road closures with a contact number and the expected time frames recorded. Where the site is at or close to a sensitive location (e.g. schools, prisons, police stations, MOD property) the workforce involved may be required by the client to have a clean CRB check as per <u>OP 6/7.9</u>.

All complaints or commendations received from member of the public shall be reported to the Project Manager, who shall arrange suitable corrective action and will report the contact using the <u>Communications section of IMSOL</u>.

All other public queries shall be handled by the Project Manager, and as agreed with the client.

Further to the above procedures, the following Sirius Minerals' document shall the adhered to, which shall be maintained in the Site Office at all times throughout construction.

- Community and Stakeholder Engagement Plan.
- Complaints Procedure.

(ix) Site Induction, Information and Training

Information will be provided by NMC to all personnel on the site via a Site Induction. The <u>pre-commencement</u> <u>safety questionnaire</u> will be given out by the site manager and reviewed so that any special requirements can be dealt with.

This information will include the issue to all persons of the <u>NMC's Health & Safety Site Rules Induction Card</u> and information about the project made available by reference to the relevant parts of the Health and Safety Plan.

Records will be maintained in the project office in the sign in Register.

Skills cards will be held by operatives as per NMC policy requirements.

(x) On-site Training

NMC will ensure that its employees have received appropriate information, instruction and training. <u>Toolbox</u> <u>Talks/Agent Briefings</u> shall be delivered as the project management deem necessary or as required by group. All training will be given by NMC or other suitable bodies nominated by NMC.

In accordance with the Integrated Management System (<u>OP 3/3 Training Awareness & Competence</u>), Registers of Operatives Specialist Training and Indexes are maintained at Head Office and available for checking via the <u>IMSOL training records link</u>.

Project specific awareness training will be arranged as necessary by NMC as identified by the Principal Designer, the Health & Safety Manager, Site Management and/or Safety Advisors.

<u>Health & Safety and Environmental Toolbox talks</u> or task health and safety talks will be provided by NMC as the need arises and identified by the Site Management, the Health & Safety Manager and/or Safety Advisors, both at the planning stage and during in the construction period. Records of the Toolbox Talks and other training provided are recorded on the <u>Record of Training Provided (ROTP) form</u>.

All site personnel shall, as a minimum, receive a Toolbox Talk on General Site Safety, Environmental and Manual Handling in accordance with the subject matter contained in the <u>NMC Toolbox Manual</u>.

Areas requiring Specialist Qualifications/Training needs

The following areas of work require the operatives to have specialist competencies/qualifications. If there is a need for training the training request form is to be completed and passed to the QESH co-ordinator.

Area of Work	Qualification Required Y/N	Names of Operatives	Training Required Y/N	
N/A	N/A	N/A	N/A	

All training will be generally given by NMC or other suitable bodies nominated by NMC.

(xi) Provision of Welfare & First Aid Facilities

Welfare Facilities, as a minimum equal to that required by the Construction (Design and Management) Regulations 2015 will be provided by NMC, in addition to any specified specific requirements of the customer, and will be regularly serviced and maintained. There must be changing facilities, Canteen/mess room and adequate toilet facilities on site.

All offices and site accommodation are non-smoking, in accordance with NMC's Smoking Policy.

Mixed toilet Facilities			Male Toilet facilities					
Number of people at work	No of toilets	No of washbasins	Number of men at work	No of toilets	No of Urinals			
1-5	1	1	1-15	1	1			
6-25	2	2	16-30	2	1			
26-50	3	3	31-45	2	2			
51-75	4	4	46-60	3	2			
76-100	5	5	61-75	3	3			
			76-90	4	3			
			91-100	4	4			

Detail of Welfare

The following welfare will be provided for this contract:

Facilities at Doves Nest Farm / on Site

The following facilities will be provided at the main compound at Doves Nest Farm (please refer to compound layout drawing on document 44394-PH2-SK-01 Rev 1):

- 1 x Site office with 10 work stations
- 1 x Meeting room for up to 20 people
- Kitchenette within site offices
- 2 x Canteen with kitchen for up to 12 people each
- 2 x toilet block (each with male toilets x 3 and female toilet x 1)
- Washing facilities with hot running water within toilet block and canteen
- 2 x Drying rooms
- 4 x Storage containers
- 1 x Bunded COSHH store
- 1 x Static fuel bowser

- 2 x Towable fuel bowser (6000 litre)
- Laydown areas for materials
- Car parking

Typical Office / Welfare / Storage Units to be Used

Office / Canteen / Meeting Room / Drying Room (9.8m x 3.1m x 2.5m tall, colour RAL 6008, Brown Green):



Toilet unit (4.9m x 2.8m x 2.5m tall, colour RAL 6008, Brown Green):



The <u>Site Rules Induction Card</u> includes references to shared welfare facilities. Page 24 of 68

First Aid

The provision of First Aid facilities throughout the project will be:

- First Aid box available in Site Office and within all NMC vehicles.
- A minimum of 1 First Aider in attendance on site while works are being undertaken.

(xii) Reporting / Investigation of Accidents, Incidents and Near-misses

Site Management shall ensure that an <u>Accident Book, GS0309</u>, is available on site recording any injury to anyone at the site.

All incidents resulting in injury to any employee, subcontractor or member of the public and any incidents regarded as dangerous occurrences must be reported in accordance with <u>IMS Operating Procedure OP 4/5</u> – Analysis of Accidents/Incidents. This procedure is in accordance with the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR).

All Incidents that require to be reported under the RIDDOR regulations shall be reported by telephone to the Director Responsible for Safety and the Health & Safety Manager. All accidents reportable under the RIDDOR regulations shall be investigated and a report produced.

In the event of a Near Miss incident, it shall be either the Health & Safety Manager or Environmental Manager preferably by <u>direct entry on line</u> or by using an <u>Accident, Incident and Near Miss Report Form</u>

<u>Near Miss/Positive Intervention Cards</u> are available for use by Operatives, which provide a freepost service to report any unsafe act or near miss to the Group QESH Department.

The Health & Safety Manager will respond to significant health and safety issues and the Environmental Manager will respond to any significant Environmental issues reported by the site.

At the discretion of the QESH department, the Health & Safety Manager or the Environmental Manager or the QESH manager may raise an alert e-mail and circulate it to all appropriate Departments following an accident, incident or near-miss. The previous alerts are available on the intranet site.

All Sub-Contractors are obliged to pass information to the Principal Contractor either verbally or in writing on accidents/incidents and near miss situations in accordance with the <u>Health & Safety Site Rules for operatives and contractors</u>.

All Emergency Procedures and Major Incident Reporting are covered by the Health & Safety and Environmental Management Systems. Specific plans are drawn up by the site staff and displayed and practised Copies of the plans are filed on site. All key personnel carry mobile phones, as do a number of operatives.

Staff will, in addition, report all accidents and incidents to the customer or nominated person when requested.

(xiii) Risk Assessments and Written Systems of Work

Standard format Risk Assessments and Method Statements which cover the risk controls and safe systems of work will be used. <u>A RAMS guide</u> is provided to assist in completing the <u>RAMS form</u>.

Prior to any activity commencing, a site specific risk assessment and an <u>on-line environmental aspects and impacts</u> <u>assessment</u> (or <u>manual environmental aspects and impacts assessment</u>) is carried out by the Site Manager. This is then communicated to the rest of the gang and formally monitored by the foreman.

A list of RAMS which will be produced under this contract can be found in the Health & Safety Plan.

Other significant risks identified may be when working close to:

Ambulance Stations	Oil/Gas Pipeline routes
Archaeological sites	Overhead power lines
Bridges and flyovers	Pedestrian crossings

Bus/Coach depots	Police stations
Business Park	Prisons
Care homes	Railways
Cycle ways	River Dee Catchment area (North Wales)
Electric sub stations	Rivers, streams, lakes, brooks, canals and culverts
Fire Stations	Roundabouts
Garages and fuel stations	Shops / supermarkets
Gas mains	Schools / Colleges / Universities
Hedgerows	Services identification markers
Hospitals	Show grounds
Hotels and car parks	Sites of Special Scientific Interest (SSSI)
Junctions and road crossings	Street lighting cabinets
Mature trees	Traffic lights
MOD installations	Water meters
	Zoos / Animal Parks

(xiv) Site Rules

An NMC site rules induction card will be given to all operatives on induction and the site rules induction register completed. The full rules for the health and safety for employees and contractors is available on IMSOL.

Drug and Alcohol Policy

The project will follow the NMC Alcohol and Drug Policy and procedures. Both employees and sub-contractors (including supervisory and management staff) are subject to the policy. Employees and sub-contractors involved in an accident / incident may be tested automatically for drugs and alcohol.

(The D&A policy is also communicated in the NMC Employee Hand Book as well as the NMC Induction card)

(xv) Fire and other Emergency Procedures

Emergency information for the site location or premises will either be provided as part of project induction for the standard scope of works or as a specific premises induction or make up part of the premises survey information provided to the operatives. The Operating Procedure OP3/4 applies.

An emergency contacts list will be held by all operational teams as given in section1.

Fire

It is company policy not to attempt to fight fires. When a fire occurs the alarm is to be raised and the Fire Service contacted on 999. A check of personnel using the sign in register is to be conducted and the emergency services are to be alerted to anyone unaccounted for and their possible location on the site.

Damage of Underground Services

Where damage has been caused to underground services the industry and NMC emergency procedure will be followed as documented in WI 6/6.10. and HSG 47.

Where a serious incident has occurred which is likely to cause serious pollution or flooding then the Environment Agency will be contacted

Liquid / Chemical Spills

Spill kits will be placed at strategic locations around the site near to storage areas. These are to be used to contain small spills and have absorbents to soak up liquids. Care should be taken if the spill involves hazardous chemicals and spill kits should not be used if there is any risk to the person/s attempting a clean-up.

Large spills should be contained by barriers where possible. Where a serious incident has occurred which is likely to cause serious pollution or flooding then the Environment Agency will be contacted Page 26 of 68 PMP - Issue

ENVIRONMENTAL EMERGENCY PROCEDURES

In the event of an environmental emergency or breaching the measures of the Environmental Plan the following procedures must be adhered to:

An Environmental Emergency Preparedness Plan (EEPP) will be completed and displayed on Site Notice Boards.

In the event of a pollution incident the Environmental Emergency Preparedness Plan must be followed. The Project Manager / Contract Manager must be informed immediately and immediate steps taken to minimise the impact of the incident. Spill kits will be available on site for use in the event of a spillage. The Plan must be briefed to all site personnel at their site induction and throughout the project. Records of all briefings are to be kept on site.

The Group Environmental Manager is to be notified of an incident, and an investigation will be undertaken by the Client, & or the Group Environmental Manager and a detailed pollution incident report compiled.

Emergency contacts are detailed in the table below:

CONTACT / POSITION	NAME	TEL NO.
NMC Operation Manager	Chris West	
NMC Project Manager	Chris Davis	
NMC Group Environmental Manager	Selina Morson	
NMC Environmental Co-ordinator	James Betts	
NMC Environmental Inspector	Dave Powell	
Yorkshire Water	N/A	
Environment Agency	N/A	
North Yorkshire County Council	Pam Johnson	
North York Moors National Park Authority	Mark Hill	

More details on environmental protection and emergency response procedures can be found in the Environmental Plan.

3. SIGNIFICANT RISKS

The risks are split into three areas each shown in a separate plan:

A) Quality Plan B) Health and safety Plan & C) Environmental Plan

A) QUALITY PLAN

This is designed to meet the requirements of our ISO 9001 approval and our integrated management system.

(i) Document Control

All documents relating to the contract, whether electronic or hard copy will be processed in accordance with the Document Control procedures detailed in IMSOL (Integrated Management System On-Line). The on-line versions are the latest documents and can be obtained through the hyperlinks given on the main document: The key areas are:

Policies Legal Registers Operating Procedures Work Instructions Approved Codes of Practise Guidance notes and Forms

All completed site records shall be generated and maintained in accordance with section 4 of this document.

On receipt, documents will be dated stamped and annotated with the contract number and status; superseded documents will be clearly marked "S/S" when retained for legal and/or knowledge preservation purposes.

All IMS documents and forms that will be completed for the works undertaken are listed on IMSOL's form register. The forms list gives details of the frequency and purpose of each document along with the latest issue/version number.

Completion of forms as listed will ensure evidence is generated to achieve compliance with the IMS Procedures. The retention details are given in section 4.

(ii) Human Resources

The company operates an <u>Equal Opportunity Procedure</u> and monitoring protocols on all contracts and office locations and endeavours to, as a minimum, comply with all current legislation.

Site management must obtain authorization from the HR Manager and liaise with the Recruitment Manager prior to placing recruitment adverts for site based personnel.

All Human Resource activities are to take place in accordance with the <u>relevant policies</u> and <u>procedures</u> available on IMSOL. There main areas for consideration with respect to HR are:

- Recruitment.
- Job Descriptions, Competency Matrix, Application Forms, Advertised Employee Applications Register, New Starter Competency Assessments, Personnel Detail Record, Pre-Commencement Safety Questionnaire, Agreed Working Hours, Equal Opportunities Monitoring.
- Induction.
- Staff Induction, Staff Introduction.
- Appraisal.
- Performance Appraisal for Managers or Site Supervisors, Staff or Site Employee, Performance Appraisal Interim Review, Appraisal Evaluation Questionnaires.
- Absenteeism.
- Absence with Permissions, Sickness Absence Self Certification.
- Disciplinary Action.
- Site Safety Disciplinary Notice.

These are covered in the Employee handbook.

(iii) Procurement

All procurement on this contract shall be undertaken in accordance with <u>IMS OP 6/1.1</u>.

In accordance with Section 6 of the Health and Safety at Work Etc. Act 1974 all orders shall contain the statement that any article or substance to be supplied is, so far as is reasonably practicable, safe and without risk to health whilst being prepared for use, used, cleaned or maintained. Also, in accordance with the above, details of any tests or examinations carried out and full instructions for the safe etc. use of the article or substance shall be provided and to ensure no adverse effect upon the environment.

The Buying Manager shall keep a record of holders of <u>Small Purchase Orders (SPO's)</u> covering materials up to the value of £100.00, and they shall be distributed:- original to Supplier; 2nd copy to be returned to Head office along with relevant delivery ticket; 3rd copy to be held in originator's book. Alternatively electronic on line ordering may be made using the e-Proc system.

The buyer shall obtain any relevant technical data or samples required by the Customer for their subsequent approval. They would be sent officially, seeking approval by the Customer, by the buyer or nominee.

Within the Civil Engineering Division, the nominated Quantity Surveyor will carry out delegated responsibilities on behalf of the Buyer with respect to Tenders and Quotations. Where delegated activities are carried out by the Quantity Surveyor, these are detailed and controlled by <u>WI 6/1.1 Sub-Contract Enquiry / Procurement</u>.

(iv) Deliveries and Logistics

All deliveries to site will be managed in accordance with the appropriate RAMS.

Materials requiring storage prior to use will be placed in designated storage areas as close as possible to final point of use. Material/equipment that is prone to damage by weather or contamination will be given appropriate protection. Packing will not be removed, other than to verify condition on delivery, until material / equipment is to be used / installed. Storage of materials shall be undertaken in consideration with relevant environmental planning to ensure no pollution.

Newly installed material / equipment will be given appropriate protection to prevent unintentional damage.

Any problems are recorded against the supplier using the <u>non-conformance system</u> which is part of the supplier review process.

(v) Product Identification and Traceability

Identification is originally established by the accompanying documentation, i.e. delivery ticket, or product marking. Identification is maintained only for materials or product to be retained in permanent or temporary storage areas and is at the discretion of the contract Management.

The methods of maintaining identification, as appropriate to the products/materials, include the following:-

- Segregation by location.
- Existing labelling or product marking.
- Attaching labels if necessary.
- Grouping of components, e.g. manhole sets etc.
- Shelf life of items, where appropriate (first in / first out).

The COSHH risk assessment will identify any purchased materials or products hazardous to health and to the environment and the Site Agent shall implement appropriate identification and control measures for Handling, Storage and Traceability. <u>Refer to OP 6/6 Series</u>.

Specific records of concrete placement for deliveries of greater than 6m³ will only be identified if requested by the Customer; although some identification may be available from applicable concrete cube test certificates or the site diary.

(vi) Verification on Receipt

The following routine will be followed by the contract management for all deliveries to this site:

The person receiving products/materials, whether purchased or customer supplied shall:

- Compare supplier delivery note against pertinent copy purchase order.
- Determine if goods conform to delivery note.
- Visually examine goods for any obvious signs of transit damage, contamination or deterioration.
- Quantity check where appropriate.
- Identify "Use by date" of items, where appropriate (check with manufacturer if unsure).

Records of verification will be established by endorsing the delivery ticket as follows:

- Date of receipt (if not pre-printed on the ticket on day of receipt).
- Signature and printed name of person receiving the goods.
- Comments as to acceptability of products as appropriate.

Where goods are collected using a company vehicle, the registration number shall, in addition, be indicated on the delivery note.

A weekly record of each delivery will be made on the <u>Goods Received Sheet GRS (HSP)</u>, the top copy of which will be forwarded to the Accounts Department on a weekly basis with the pertinent delivery tickets.

Any problems are recorded against the supplier using the <u>non-conformance system</u> which is part of the supplier review process.

(vii) Handling, Storage, Packaging and Preservation

All materials shall be handled in such a manner as to prevent damage, pollution or injury. Materials containing a substance hazardous to health are handled in accordance with the specific <u>COSHH Assessment</u>.

Materials will be stored in a manner and location to prevent damage, pollution or deterioration. Monthly records of stock levels and condition shall be maintained in the <u>Site Diary (SD)</u>. For materials being temporarily stored on site prior to use, packaging will only be removed to enable product verification at time of delivery. Packaging shall be ultimately disposed of in a controlled manner, either back to the supplier or in the appropriate waste receptacles.

Items with a defined shelf life shall be used on a first in / first out basis to avoid creating waste from unused, out of date stocks.

Packaging and protection to materials with sensitive finishes shall remain on the goods until handed over to the customer. Alternatively, adequate additional protection may be applied after incorporation into the contract works, to comply with customer specifications, if applicable, until handover to, or takeover by, the customer. Removal of protection material shall only be undertaken with the approval of the customer, upon handover to, or takeover by, the customer.

(viii) Customer Property

North Midland Construction PIc shall execute care with customer property (including intellectual property) whilst it is under our care. All customer property shall be identified and protected. If any customer property is damaged, lost or otherwise found to be unsuitable for use then this must be reported to the customer and a <u>Non-conformance</u> <u>note (OP5/1)</u> raised.

(ix) Supplier / Subcontractor Selection

All employees and Suppliers, such as designers, labour only subcontractors and material suppliers are subject to the Company selection procedures OP6/1.1 contained in the Company's Integrated Management System. They will be monitored in accordance with Operating Procedure OP6/1.3 – Supplier evaluation, with site performance concerns also raised through a Non-Conformance Note as detailed in Operating Procedure OP 5/1 – Non-Conformance.

Following contract completion, or completion of a supplier or sub-contractors elements of the work, a <u>Supplier /</u> <u>Sub-Contractor Performance Evaluation (SSPE)</u> will be completed to review their performance during the contract.

(x) Audits, Inspections and Reports

Regular site safety, quality and environmental monitoring will be carried out to ensure compliance with this PMP and that safe system of work and best practice are being employed.

In addition, at regular intervals during the contract, audits will be undertaken by various parties to monitor the safety standard and hazard control on the site.

The following parties may attend site for the purpose of undertaking an audit:

- NMC Senior Management.
- Health and Safety Manager or Environmental Manager.
- Approved consultant.
- Group Integrated Management Systems Manager.
- Client.
- Health & Safety Executive.

Any recommendations made will be implemented in the order of priory stated and within the time frame given.

Refer to IMS forms for schedules for Audit, Inspection and Monitoring forms.

Routine Testing is carried out in accordance with the methods listed in the <u>ITF series of forms</u>. A schedule of test types and frequency is to be kept with this plan. The frequency and type of testing needs to be included in the plan below and must take account of relevant product standards, the clients' requirements and level of risk.

INSPECTION AND TESTING

INSPECTION AND TEST PLAN									
Contract no	44394.002		Title	•	York Potash – Phase 2 Enabling Works, Doves Nest Farm				
			Ins	pection Activitie	es				
PACKAGE	ACTIVITY	HOLD POINT	TYPE OF INSPECTION	RESPONSIE	ILITY	TESTING REGIME	METHOD OF RECORDING	Final Handover sheet	
Establishment	Setting out		Engineer checks	Engineer/ c	ther	Calibration	Survey book		
	Site Clearance and Demolition		Engineer checks	Engineer/ c	ther		ITF18		
Earthworks	Bulk Excavation	Y	Engineer checks	Engineer/ c	ther	25m x 25m grid	ITF12		
	Bulk Filling		Engineer checks	Engineer/ c	ther	25m x 25m grid	ITF13		
	Stabilisation	Y	Engineer checks	Subcontra	ctor	25m x 25m grid	As per Subcontractor's QA Procedure		
Drainage	Drainage runs	Y	Camera survey Air test/water test	Contr/ Eng /	other	MH to MH	ITF17		
	Manholes	Y	Visual	Contr/ Eng /	other	Water test	ITF19/20		
	Soil Testing (Laboratory)		Contamination grade, etc.	Agent		Laboratory analysis	ESG/laboratory		
Roadways	Asphalt						ITF028		
	Subbase				ITF16				
	Kerbs						ITF23		
Others	Landscaping		Visual	Engineer/ c	ther		ITF24		
	Fences and gates		Visual				ITF25		

INSPECTION AND TEST PLAN									
Contract no	44394.002		Title)	York Potash – Phase 2 Enabling Works, Doves Nest Farm				
Inspection Activities									
PACKAGE	ACTIVITY	HOLD POINT	TYPE OF INSPECTION	RESPONSIE	BILITY	TESTING REGIME	METHOD OF RECORDING	Final Handover sheet	
Operation and Maintenance	Draft issue of manuals			Engineer/ c	other		Site manual		
	Final Issue of manuals			Engineer/ c	other		Site manual		
	PRE COMMISSIONING TESTS			Engineer/ c	other		Commissioning Document		
	COMMISSIONING			Engineer/ c	other		Commissioning Document		
	Final Job Inspections			Engineer/ c	other		Test / inspection records & as-built drawings		

Laboratory Testing Details

Testing will be undertaken in accordance with Appendix 1/5 of the Specification. Laboratory testing will be undertaken by ESG (Environmental Scientifics Group):

Environmental Scientifics Group Ltd. Askern Road, Carcroft, Doncaster. DN6 8DG.

(xi) Non-conforming Products / Services

In the instances of non-conforming products or undesirable/unplanned events, such as customer complaints etc. a Non-Conformance Note shall be raised to facilitate effective closeout in a timely manner and by identification of root-causes to minimise the risk of recurrence. All Non-conformances shall be dealt with in accordance with <u>IMS</u> <u>OP 5/1</u>.

Non-conformances relating to subcontractors will be categorised in the following manner:

Description
Poor Records
Incorrect Delivery
Late Delivery not affecting Construction Programme
Poor Communication
Incorrect Invoicing
Minor Failure within Allowed Tolerances
Attitude of NMC Site
Health and Safety
Environmental
Product Failure requiring Rework/Cost
Works requiring Concession
Non-conformances highlighted by Client
Late Delivery affecting Construction Programme
Property Damage
Insurance Claim
Breech of Contract
Design Failure
Theft
Inadequate Tender resulting in Extra Cost

The Group Buying Manager shall undertake corrective action on all significant issues as soon as reasonably practicable, all non-significant non-conformances shall be monitored and actioned as appropriate.

(xii) Customer Satisfaction

On completion of a project a <u>contract performance questionnaire</u> is to be given to the client as per <u>OP 4/4</u> to assess the level of workmanship delivered by our workforce. The completed form is then passed to a Director of the group concerned for any actions to be taken. If a client has an alternative system then this should be used as well. Any complaints are dealt with as non-conformances.

B) HEALTH AND SAFETY PLAN

This is designed to meet the requirements of our BS OHSAS 18001 approval and our integrated management system.

Where an activity identifies on survey a significant safety risks or hazard not covered by the normal scope of works this will be documented and communicated to the team undertaking the activity on a site specific RAMS. The RAMS will be provided by NMC project management.

(i) Health & Safety – 10 Golden Rules

1. Site rules, safe systems of work and safe working

- o Safe working is a condition of your employment, and you must follow the 10 golden rules and the site rules
- Method statements are required for all tasks where there is a significant risk to your health and safety; this may include the need for a permit. Do not work if you have not been briefed in a method statement.

2. Incident and Injury Reporting

 All incidents where you are injured (no matter how minor) or where there is damage must be reported to your supervisor on the day of the incident. Where this is not possible it must be reported as soon as you can.

3. Mobile Plant, vehicles and transport

- Do not use mobile plant unless you have been trained and authorised to do so.
- Where you operate mobile plant you must carry out daily checks on the equipment and report any defects to you supervisor.
- If you drive company vehicles you must carry out routine checks and ensure that the vehicle is safe for use on the road, this
 includes checking the safety and security of any load carried or trailer towed.

4. Confined Spaces

- Do not enter a category 2, 3 or 4 confined space unless you are trained and authorised to do so.
- Do not enter a category 2,3 or 4 confined space without a permit
- Never enter a confined space unless a method statement has been prepared and explained to you and the controls required for safe entry are in place.

5. Lifting Equipment, lifting operations and manual handling

- Always ensure that lifting equipment is checked before it is used.
 Do not work as a slinger or banksman unless you are trained and competent.
- Do not work as a slinger or banksman unless y
 Never work under a suspended load.
- Never work under a suspended load.
 Always follow the sefe system of work for lifting operations of
- Always follow the safe system of work for lifting operations, such as lifting plans.
- Always use mechanical lifting wherever possible.
- \circ $\;$ Always use the correct lifting technique where you have to lift manually.

6. Work at Height, slips, trips and falls and safe access

- Never work at height unless you have had the safe system of work explained to you and all the required protection is in place.
- Always clean up you working area and ensure that you keep it tidy.
- o Always use proper means of access to the working area, do not climb up structures or take short cuts.

7. Excavations & Safe Digging Practice

- Never carry out an excavation unless you have a permit to dig.
- Never work in an excavation that is unsupported or battered back.
- Always use proper access into and out of excavations.
- You must always wear flame retardant overalls when working near buried services.
- Never carry out any excavation unless the area has been checked for buried services and any found have been clearly marked.
- You must always hand dig if you are within 500mm of a known service.

8. Mechanical and Electrical Work

- Never work on any electrical or mechanical system unless it has been locked off and confirmed safe.
- Never work on an electrical system without a permit or if the method statement has not been explained to you.
- o Never work on any mechanical system unless you are trained, competent and authorised.

9. Housekeeping, Welfare and D+A

- Keep you work area tidy and dispose of waste in the correct manner.
- Keep the welfare facilities clean and tidy and report any defects to your supervisor.
- Never come to work under the influence of drugs or alcohol

10. Use of Personal Protective Equipment

- You must look after your PPE and keep it in a safe place and in good condition.
- You must ask for a replacement if the equipment is damaged or worn.
- Always follow the instructions for use with PPE supplied.
- o Always use the correct PPE for the job; if the method statement requires the use of PPE then you must use it.

(ii) ILLUSTRATED MANDATORY AND ADVISORY INFORMATION TO BE DISPLAYED

POSTER / DOCUMENT	LOCA	TION
c = Compulsory, o = Optional/ site specific	Site Cabin	Welfare units
Accident / Incident Flowchart	с	0
Accident book(GS0309) Cabin Electrical certificates	c C	0 C
Confined Spaces Poster	c	0
Control of substances Hazardous to Health (Enfield GS1129)	0	С
COSHH Assessments (Current)	C C	0
Details of emergency services (S471S)	с с	c c
Emergency Action Plans:		
• Fire	c	с
Major spillage	c	с
Road Traffic Accident	С	С
Bomb Threat	0	o
Emergency Resuscitation (Enfield GS1103)	0	с
Employers Liability Insurance Certificate	с	
F10 – Notification of Project – (copy)	c	ο
Fire Action Sign	c	с
Good House Keeping	c	с
Guidance Notes – Noise	0	с
Guidance Notes – Working at Height	0	ο
Health & Safety and environmental contacts	c	с
Health & Safety Law poster	c	С
Health & Safety Management System Certificate	c	o
Integrated Management Policy (includes: Safety / Environmental/Quality/HR/Procurement Annexes)	c	o
Just Culture	c	o
Keep your shirt on	o	o
Know Where to Get First Aid (S472S)	с	с
Manual Handling Operations Regulations (Enfield GS1123)	ο	с
Method Statements (current)	с	ο
Near Miss/PI Cards	c	с
NORM Posters, various	o	o
Occupational Health & Safety Management Permits (current)	с	ο
Permits (current)	с	ο
Quality Management System Certificate	с	ο
Representatives of Employee Safety	с	с
Rescue Plans: • Water (where appropriate)	c	o
Fall Arrest (where appropriate)	c	с
Risk Assessment (current)	0	0
Safety Alert (current)	ο	ο

Site Layout Drawing	с	с
Site Register of Weekly Inspections	с	ο
Site Rules	с	с
Site Safety (Enfield GS1216)	ο	с
Speedy and/or GAP Hand Arm Vibration Guidance poster	o	с

Note – Guidance documents are available on IMSOL via the ACOP/Guidance list.

(iii) Permits

A permit is required to ensure a safe, controlled system of work is employed for various task to be undertaken, these tasks must NOT be undertaken without a valid, signed permit and the permit signatory / holder being on site. All permits issued will be signed off upon completion of the work as stated below.

During the course of this contract it is anticipated that the following Permit / combination of permits will be required:

Permit type	Required Duration *		Activity / Location
Permit to Work	No	N/A	N/A
Hot Work Permit	Yes	Duration of work	Cutting, tarmac works
Permit to Dig	Yes	Weekly	Ground excavation
Electrical Work Permit	No	N/A	N/A
Confined Space Permit	No	N/A	N/A
Client Issued Permit	No	N/A	N/A
Lift Plan / Permit to Lift	Yes	Weekly	Mechanical lifting

*Maximum of 1 week is allowed except for confined spaces which are daily, providing that the work is continuous and the details of the permit e.g. working party, conditions and method remain unchanged.

(iv) Arrangements for controlling significant site risks

Details of Significant hazards, Health & Safety and Environmental, with outline control methods

Considering the hazards detailed in the Pre-construction Information as passed on from the Principal Designer, the following table details the tasks posing potentially significant hazards during any construction phase and possible outline methods of control. Below the table are brief descriptions of the issues that may be encountered.

Significant hazards are identified as those that require special control, are unusual or not obvious.

Area under assessment	Hazard identification & foreseeable risk	Outline method of control (detailed below)	
Significant risks identified from Pre-construction information or communication from Principal Designer or designer			
Delivery and removal of materials (including waste)	Contamination of materials or land	Waste Management with licences will be in place.	
Avoidance of buried underground services (including water, gas, electricity (overhead and underground) and temporary electrical installations)	Services which are unknown can be Hit. Gas Mains and electric posing the largest risk.	C.A.T Scan will be used before any ground can be broken.	
Movement of vehicles and plant on and around site, including site interface with member of the public and traffic routes, including the segregation of pedestrians	Pedestrians getting hit by moving vehicles	Speed limits and lights to be used and footpaths for pedestrians.	
Adjacent land use, interface with local community	Third party people could be involved. Security risk and moving vehicle risk.	Heras Fencing and securing all working areas using a clear access	
Structural stability, temporary structures and existing structures	N/A	N/A	
Prevention of falls	Slips and falls can cause damage to the workers.	Cover all open excavations and maintain a clean and tidy site.	

Work with or near fragile materials	N/A	N/A
Control of lifting operations	Lifting items using non certified chains. Or in an unsafe way can be the result of damage to people and materials.	Lifting plans will be used along with all equipment with certificates.
Maintenance of plant and equipment	Risk of the vehicle not working how it should. Cause injury to workers	Daily inspection sheets to be used to check all plant daily
Work on excavations and work where there will be poor ground conditions	Collapsing of the excavation while people are in there	Daily inspection sheets of each hole will be done along with the correct ground support whenever needed
Confined Spaces - Work on tunnels, wells and other underground earthworks	N/A	N/A
Work on or near water where there is a risk of drowning	N/A	N/A
Work in caissons or cofferdams	N/A	N/A
Working with compressed air	Pipelines can become loose and injure someone	All pipelines will be fitted with correct wire traces
Storage of materials, plant and equipment (including hazardous materials)	Injury to workers when handling or even explosions or contaminations	COSHH store will be on site to store all hazardous materials.
asbestos removal (health risks)	N/A	N/A
contaminated land (health risks)	N/A	N/A
manual handling (health risks)	Injury to Workers	Correct Methods to be used training if required.
hazardous substances	N/A	N/A
Noise and vibration	Raynaud's disease caused by prolonged use of vibrating hand tools	Vibration cards to be filled out daily
Ionizing radiation	N/A	N/A
Exposure to UV radiation (sun)	Burning of workers skin or heat stroke	Cover up skin and use sun cream where not able to. Drinking plenty of water.
Proper use of PPE/ specialised PPE	Injuries to workers eyes hands and ears	Correct PPE to be used at all times.
Hazard Identification		
Health & Safety File Handover		

(v) Significant risks identified from pre-construction information

There may be site specific risks identified at the design stage to be considered or information passed on by the Principal Designer. Sometimes this may include Environmental risks and the issues may need to be considered jointly.

(vi) Delivery and removal of materials

Delivery and removal of all materials will be approved by North Midland Construction and kept within the work site boundaries where reasonably practicable. All waste transfer notes from both NMC and its subcontractors will be handed to the project team and held in the waste management plan.

Delivery Routes

The routes used by HGVs will be consistent with those identified in the planning permission (namely the B1416 from the A171 to the farm entrance, A171 north and south of the B1416, A171 towards Teesside and A169 towards Pickering).

All suppliers and drivers will be given a tool box talk at their premises prior to their first delivery. They will be advised on the permitted and prohibited HGV routes, as well as the actions which will be taken if they deviate from the permitted routes.

To help the public distinguish Phase 2 construction traffic from other traffic on the network and therefore effectively report any concerns, each vehicle would be required to display a unique identifier within the window of the cab (the Sirius Minerals logo).

In addition to the tool box talks drivers would also be issued with information packs. The packs would be a convenient size so it can be stored in a truck cab and include key information on:

• The unique identifier to display in the window.

- A plan of showing the delivery routes.
- Details of procedures for dealing with emergencies.
- Details of driver training requirements.
- Details of disciplinary measures for non-compliance.

Penalty System for Breaches of Traffic Management Requirements

In order to ensure that the traffic management requirements are adhered to by all suppliers, a penalty system has been developed. This will be relayed to suppliers and each driver, prior to their first visit to site, as part of the tool box talk. Drivers observed or reported to be using unauthorised routes will be banned from site. If a repeat transgression of the use of prohibited HGV routes by drivers from suppliers occurs, those suppliers will be removed from the project.

(vii) Avoidance of Buried Underground Services

It is anticipated that the following underground services may exist on or adjacent to the site(s): Electricity, Gas, Water, Telecommunications and Drainage. Service location drawings will be provided and issued in the Job Pack to the team.

NMC will ensure that location and avoidance techniques are employed as documented in <u>HSG 47 Location and</u> <u>Avoidance of Buried Services</u> and as per <u>WI 6/6.10</u>

(viii) Movement of Vehicles -Traffic and Pedestrian Management

NMC will ensure that whilst working in local council areas, roadworks and guarding will be co-ordinated with the local authority. Any changes required must not affect the scope of work and the provisions of the New Roads and Street Works Act 1991 and that any local authority requirements are adopted and followed at all times.

Safety of all road users must remain of paramount importance. All traffic/pedestrian routes should be maintained and or diverted as appropriate and where applicable legally during the works, including the maintenance of access to premises. Any closures of roads or access to premises must be agreed with the Client and other relevant parties in advance. Access and parking must be within the agreed Roadwork guarding scheme.

(ix) Adjacent Land

Where identified on survey that site activities will affect adjacent land at a specific location, arrangements will be made to communicate with the land owner/occupier the details of the activity and the risks involved.

(x) Stability of Structures

Where identified that site activities may affect the stability of structures at a specific location, arrangements will be made to carry out site specific RAMS to assess the controls to be followed to prevent or reduce any of the risks. Where necessary a specialist engineer will be consulted.

(xi) Prevention of Falls

Where identified that site activities will present a fall risk at a specific location, arrangements will be made to carry out RAMS to assess the controls to be followed to prevent risk of fall. Where necessary a specialist engineer will be consulted.

(xii) Work Near Fragile Materials

Where identified that site activities will be working in close proximity to fragile materials and surfaces at a specific location, arrangements will be made to carry out RAMS to assess the controls to be followed to prevent damage and the risk of fall. Where necessary a specialist engineer will be consulted.

(xiii) Control of Lifting Operations

Where identified that site activities will employ lifting equipment and carry out lifting operations at a specific location, arrangements will be made to carry out RAMS / lifting plan to document the controls to be followed to prevent risk of damage or injury from lifting operations. Where necessary a specialist in lifting operations will be consulted.

(xiv) Maintenance - Plant and Machinery

NMC Contract Management will ensure that where applicable the Calibration & Inspection records of Technical Equipment is detailed, recorded and made available when appropriate for periodic review. Such checks of CAT and Generators and GDU's must be documented.

Site security will be managed by NMC as identified and will take into consideration the prevention of unauthorised persons entering the site and the prevention of theft and unauthorised use of plant. Identification of site specific security will be recorded in the Job pack Site Specific Fact Sheet.

With regard to sites left overnight plant will where possible be taken back to the depot.

Sub-contractors will be responsible for servicing and maintaining the plant they use.

All operational sub-contractor employees should have been trained in the safe use of equipment, records of training should when deemed necessary be made available for periodic review at the contract office.

(xv) Excavations

All excavations are treated as high risk and care will be taken at all times to keep open excavations barriered off or suitably covered. Where there are excavations are in soft unstable ground conditions or deeper than 1.2 m suitable shoring and bracing protection measures shall be used. Where excavations are in close proximity to structures, suitable shoring shall be provided. For further information on excavations reference will be made to the safety in excavations booklet in the 'Blue Bag'. Risk assessments carried in the Gang Pack 'Blue Bag' cover standard trenching works. Where necessary a specialist will be consulted.

(xvi) Confined Spaces

Where identified that site activities will be working in a confined space arrangements will be made to carry out RAMS to assess the controls to be followed to prevent/reduce the risk identified for the confined space. Where necessary a specialist will be consulted.

(xvii) Working on / Near Water

Where identified that site activities will be working in close proximity to water at a specific location, arrangements will be made to carry out RAMS to assess the controls to be followed to prevent/reduce the risks identified. Where necessary a specialist will be consulted. There may be specific Environmental laws/rules that apply which will need to be incorporated into the RAMS.

(xviii) Working in caissons or near cofferdams

Caissons have both the risks of working in a confined space and near water so both risks are to be considered. Cofferdams may give rise to risk of drowning and/or flooding. In both cases it may be necessary to provide emergency equipment such as flotation devices and warning systems. These must be included in the RAMS.

(xix) Working with Compressed Air

Only competent people are permitted to use compressed air. Care will be taken when working with compressed air; this needs to be documented in the RAMS.

(xx) Storage of materials, plant and work equipment

NMC will ensure that suitable and sufficient provisions for the storage of plant, equipment and materials have been established, in a safe manner to protect the public and secure from trespass by unauthorised persons

Materials Storage

Materials will be delivered to and stored at the main compound at Doves Nest Farm. This will include:

- Aggregates (road stone)
- Kerbs
- Drainage materials (pipework, headwalls, etc.)

- Membranes
- Fencing and gates

Where bulk materials can be immediately used on site, such as aggregates, deliveries will be directed to the working location, with a suitable haul road / route made available for the delivery vehicle. A banksman will be utilised to control this operation throughout the deliver process.

Plant and Work Equipment Storage

At the end of each working day, large items of plant (excavators, dozers, rollers, etc.) will be secured and left on site. Smaller items of plant (e.g. 9T dumpers) and work equipment will be stored at the designated location within the compound at Doves Nest Farm, as detailed on the compound layout plan.

Compound Fencing

Temporary Heras fencing will be installed round the full extent of the compound to ensure that they are secured from unauthorised access. Access gates will be implemented to permit authorised access, as required. This will be controlled by a gate-man / Site Foreman during working hours.

All fencing will be checked regularly to ensure no breach or damage has occurred. If a breach or damage is discovered, it will be reported immediately and measures taken to re-secure the site. A stock of fencing will be maintained at the compound so that repairs/replacement can be implemented as quickly as possible.

Temporary Site Fencing

2m tall anti-climb fencing will be erected to the perimeter of the earthworks and drainage working areas.

Additional fencing will be erected within the working areas as follows:

- Areas of deep excavations (e.g. during drainage works) 2m tall anti-climb fencing.
- Working areas without deep excavations but with other hazards Pedestrian barrier.
- At the interface with steep changes in gradient High visibility Netlon fencing.



Pedestrian barrier



2m tall anti-climb fencing



High-visibility Netlon fencing

Site Notice Boards

A site notice board will be erected at the following locations:

- Doves Nest Farm Site Office.
- Doves Nest Farm Canteen.

The notice boards will detail the names and contact details of the key personnel on site, including the Project Manager, Site Agent and the Contractor's Environmental Manager and will include details of how to make a complaint. In addition the details for the NYMNPA and the Environment Agency's Emergency Help Desk number will be included on the notice boards. The notice boards will be reviewed on a regular basis to ensure that the information remains up to date.

(xxi) Personal Protective Equipment

At all times, as a minimum, on all NMC Plc Group construction sites; helmet (with a chin-strap for tasks where the helmet is likely to fall off), high visibility top, safety footwear and gloves; full length trousers and a top must be worn, even in warmer weather as prescribed in the <u>PPE Usage and Exchange Policy</u>.

Flame retardant overalls (Proban or similar) are to be worn whenever undertaking any hot work (i.e. welding / burning / cutting / grinding) or when working near buried services.

Transparent eye / full face protection is to worn where there is a likely impact to face or specifically to the eyes. For hot work purposes i.e. burning / welding, appropriate tinted facial protection to be worn.

Ear protection to be worn (i.e. ear muffs or plugs) when using noisy machinery or working within a noisy environment. Ear protection must never be shared between people due to possible ear infection.

Respiratory protection must be worn to give protection for specific hazards i.e. dust, mists, fumes etc. Manufacturer's instructions must be followed with reference to the replacement of masks and filters (where fitted). All respiratory protection used must match the hazard. (Product Safety Data sheets should be consulted for advice).

Safety footwear i.e. work boots including 'Wellington' boots must be steel toe capped and have good sole treads. Please note that rigger boots are banned from all Network Rail contracts and are not supplied by NMC Plc.

Harnesses are subject to 6 monthly thorough examinations and should be checked before each use and inspections logged in the Site Register of Weekly Inspections. Fall arrest harnesses should be worn over the top of any clothing.

Specific types of PPE may be requested by regulatory requirements, the client, or in the risk assessment for the activity being carried out and you will be expected to comply with these. If in doubt speak to your supervisor..

A record of all PPE issued will be maintained by completing the <u>Personal Protective Equipment Issue Register</u> (<u>PPEIR</u>) and, in line with the company <u>PPE Policy</u>, replacement will only be issued on production of the unsafe originals.

Minimum Site Specific PPE Requirements

As detailed during the site induction it is compulsory, while working on this site to wear the following minimum PPE:

Item of PPE	Use Requirement	Replacement / Location
Hardhat	Always	PPE stores
Safety boots	Always	PPE stores
Gloves	When Working	PPE stores
High visibility clothing	Always	PPE stores
Ear and eye protection	When required	PPE stores
FR overalls	Exposing services, hot works	PPE stores
Dust mask and overalls	When required	PPE stores

(xxii) Asbestos

Where identified that site activities will be working in close proximity or disturbing asbestos at a specific location, arrangements will be made to carry out <u>RAMS</u> to assess the controls to be followed to prevent exposure to the health dangers from asbestos. Where necessary a specialist contractor will be consulted.

In the event of discovering illegally buried asbestos North Midland Construction will immediately cease works so that specialist assessments can take place and arrangements made for its safe removal.

(xxiii) Contaminated Land

Where identified that site activities will be working in close proximity or disturbing contaminated land at a specific location, arrangements will be made to carry out <u>RAMS</u> to assess the controls to be followed to prevent dangers to the environment or individuals. Where necessary a specialist contractor will be consulted.

(xxiv) Manual handling

Where ever possible manual handling is to be avoided by using mechanical means. Operatives are instructed to ask for assistance and where possible to break up or dismantle a load into smaller loads. They are also instructed to follow the rules of safe lifting - legs apart, bend knees with straight back, elbows in and arms close to body.

(xxv) Control of Substances Hazardous to Health (COSHH)

In accordance with the Control of Substances Hazardous to Health Regulations, reference should be made to North Midland Construction Plc's – <u>COSHH Manual for Site Operations</u>.

This manual contains instructions on the control measures and procedures to be adopted, and generic assessments for typical products used on site by the company. Other pertinent COSHH assessments used on this contract will be given at the time of usage and/or should be covered in the Construction Phase Health and Safety Plan.

The Site Agent will raise Site Specific <u>Risk Assessments and Method Statements RAMS</u> with the assistance of our Safety Advisors if necessary.

(xxvi) Reducing Noise and Vibration

To reduce vibration exposure to operatives from vibrating tools, where ever possible large operator driven plant is to be used, for example a mini digger with a pecker fitted. NMC only allow authorised, trained competent personnel to use vibrating tools/machines. Operative are instructed to always wear ear and eye protection when using plant and equipment. All plant and equipment is part of the NMC scheduled maintenance program.

(xxvii) Ionising Radiation

There is a possibility that previous use of the site may have involved ionising radiation and there may be contamination to consider (e.g. Nuclear industry, Defence Establishments, medical research). Also some inspection techniques (e.g. weld inspection) may use X-ray or ionising sources. Specialist help should be sought at the earliest opportunity.

(xxviii) Exposure to UV Radiation

Operatives are instructed to keep arms and legs covered up or use sun block on sunny days to prevent skin damage from the suns UV radiation (example <u>Site Rules induction card</u>, and the "<u>keep your shirt on poster</u>"). Another source of UV radiation is welding which would normally involve barriers such as curtains to avoid stray UV light. Also the use of equipment has restricted access to those trained to do so. This is supported by tool box talks, posters and leaflets as required.

(xxix) Hazard Identification, Risk Assessment & Control

<u>RAMS</u> will be prepared for the effective management of all <u>activities with significant risks</u> to Health & Safety; these shall include, but not limited to the following:

- Site initiation and enabling works.
- The unloading, storage and distribution of materials.
- The movement of vehicles on site, particularly as this affects pedestrian and vehicular safety.
- Control and disposal of waste.
- The provision and use of common means of access and places of work.
- The provision and use of temporary services (e.g.: electricity).
- Temporary support structures (e.g.: falsework and ground support).
- Commissioning, including the use of permit-to-work systems.
- Work at height and protection from falling materials.
- Exclusion of unauthorised people/protection of the general public.
- Conditions affecting health such as noise and vibration.

Risk Assessment Method Statements (RAMS) will be produced for the following work items:

- Access and egress.
- Re-fuelling.
- Tree removal and de-vegetation.
- Archaeological investigation.
- Drainage.
- Earthworks.
- Road construction.
- Fencing.
- Landscaping.

Note: each individual RAMS document may contain multiple related activities.

(xxx) Health and Safety File Handover

It is important during a project and at the end of a project that the Principal Designer is made aware of Health and Safety Information. Arrangements for passing on information to the Principal Designer for the Health and Safety File will be achieved by continuing liaison during the course of the contract, with a final handover meeting after an agreed period following receipt of the Substantial Completion Certificate.

For works undertaken or equipment supplied by NMC within the contract the Health and Safety File will contain as a minimum:

- The design Criteria (if NMC responsible), including Design Risk Assessment.
- Trial hole Information.
- Updated Existing Service drawings, where found to be at variance with the details provided.
- General details of the construction methods and materials used.
- Service laying records for pipes, ducts, cables etc.
- 'Records' or 'As Built' drawings and plans used and produced throughout the construction process.
- Maintenance procedures and requirements for structure / pipelines.
- Details of equipment installed within structures and the maintenance facilities (If provided by NMC).
- Manuals produced by specialist contractors and schedules for plant and equipment installed as part of the contract works by NMC.
- Details of the location and nature of utilities and services, including emergency and fire-fighting systems (if provided by NMC).
- Guidance as appropriate upon ultimate demolition / end of life disposal.
- Such other details as the Principal Designer may request.

Lessons learned during in the project, including those from Sub-Contractors and Suppliers, will also be included in the information passed to the Principal Designer for inclusion in the Health & Safety File.

Implementation of the Health & Safety Plan

This Health & Safety Plan will be implemented by the Project Manager.

C) ENVIRONMENTAL PLAN

This is designed to meet the requirements of our ISO 14001 approval and our integrated management system.

(i) Environmental – Golden Rules

1. WASTE:

- Kept safe or secure in suitable containers to prevent pollution or harm
- Re-use and Recycle waste where possible always dispose of in the correct skip
- Hazardous wastes must not be mixed together or with general waste
- Waste disposals must be fully documented

2. WATER

- Ensure all consents are in place

-Must not contaminate water for example by disposal of a substance causing pollution

3. CONSERVATION

- Ensure all permissions are in place - stop work if you find a protected plant or animal

4. NOISE AND VIBRATION

- Switch off equipment when not in use - Notify and Inform neighbours

- Operate and maintain plant and machinery preventing / minimizing noise / vibration

5. AIR POLLUTION

- Reduce emissions – Keep to site speed limits – Use extraction equipment or practical means to prevent wind blown dust

- Plant and machinery maintained - preventing and minimizing emissions / dust

6. **RESOURCES**

- Switch off equipment - Report water leaks - Only order what you need

- Use energy efficiently - avoid waste

7. INCIDENTS

- Always report Environmental Incidents / Near Misses / Positive Interventions however small

8. ASPECTS AND IMPACTS

- Complete / Review / Update the Aspects and Impacts Register for the site

9. DRIP TRAYS

- Use Drip Trays – Maintain and Lock Fuel Bowsers

10. FUELS, LUBRICANTS AND CHEMICALS

- Adhere to procedures for storage, handling and dealing with spillages of these substances. Be familiar with the Environmental Emergency Preparedness Plan

11. TRANSPORT

- Vehicles leaving site must use the wheel / vehicle cleaning facilities provided

12. SITE CLEANLINESS / HOUSEKEEPING

- Keep site tidy at all times and ensure it is left in a clean and tidy condition when leaving site

13. HOURS OF WORK

- Be familiar with and comply with restrictions on working hours

(ii) Illustrated Mandatory and Advisory Environmental Information

The following information is to be displayed on notice boards were applicable:

POSTER / DOCUMENT c = compulsory, o = optional/site specific		LOCATION	
		Welfare units	
Certificate of Registration Under the Control of Pollution (Amended) Act 1989 (EA) (Waste Carriers Certificate)	с	ο	
Don't Leave Me This Way	o	ο	
EA Hotline Number	c	с	
Ecology Poster	o	ο	
Environmental Alerts (Current)	с	с	
Environmental Annex (from Integrated Management Policy)	c	с	
Environmental Emergency Preparedness Plan	с	с	
Environmental Impacts Assessment	с	ο	
Environmental Management System Certificate	с	ο	
Good House Keeping Procedure	с	с	
Halve waste to landfill	o	с	
Light Switch A	0	ο	
Near Miss / Positive Intervention Cards	с	с	
NMC Environmental Considerations	o	ο	
NORM Posters, various	0	0	
PC Monitor Speech Bubble	0	ο	
Photocopier	0	ο	
Re-fuelling Poster	с	с	
Remember Wildlife & Planning Poster	0	0	
Site Wise – Segregation	o	ο	
Switching Off Non Essential Equipment	ο	ο	
Trade effluent Discharge, Environment Agency	0	0	
Waste Storage and Disposal	0	ο	
Water Footprint	0	ο	
Window Open	0	ο	

Note: Guidance documents are available on IMSOL via the Environmental Guidance List.

Any consent or licence applied for must be logged as a consent or licence on IMSOL.

Consents and permissions which are applicable on the project include:

Type of Consent	Regulator	Required	Activity or Location	Start Date
Flood Defence Consent (works in/near watercourses)	Environment Agency	No		
Flood Defence Consent (works in/near ordinary watercourses)	Local Authority	Yes		Apr 2017
Environmental Permits: - Water Discharge Consent - Abstraction		Yes	Outfall into tributary	Apr 2017
Groundwater Permits	Environment Agency	No		
Waste Management Licence		Yes	Disposal	Apr 2017
Waste Exemptions	Environment Agency / Local Authority	No		
Hazardous Waste Producer Registration	Environment Agency	No		
Planning Permission	Local Planning Authority	Yes	All works	Apr 2017
Hedgerow Removal	Local Authority	Yes	Various	Apr 2017
Land Drainage Consent	Environment Agency	No		
Footpath Diversions (temporary / permanent)	Local Authority	No		
Protected Species Licenses e.g. Bats/Badgers/Great Crested Newts	DEFRA	No		
Scheduled Ancient Monuments	Ministry for Culture, Media and Sport	No		
Consent to work in SSSIs	Natural England	No		
Tree Preservation Orders	Local Authority	No		
Listed Building Consent	Local Authority	No		
Conservation Area Consent	Local Authority	Yes	All works	Apr 2017
Construction (noise) Consent	Local Authority	No		

Constraints	Permitted	Activity / Location
Bonfires	No	
Smoking	Yes	In Designated areas
Radios	No	
Mobiles phones	Yes	Permitted for work use and emergencies
Night Lighting	Yes	If needed
Night Working	Yes	When required

(iv) Environmental Studies and Surveys

Copies of completed environmental studies or surveys to be kept on site as per section 4.

Mitigation measures identified in the surveys are to be incorporated into the <u>site specific aspects and impacts</u> <u>assessment.</u>

Protected Species and Precautionary Method of Working

The CEMP outlines precautionary methods of working which will be taken to protect reptiles, birds, and other protected species which may be found on site.

The CEMP contains information relating to the precautionary measures to be taken when removing trees.

(v) Environmental Monitoring and Measurement

Mitigation measures identified in surveys undertaken and licences and permissions obtained for example, noise monitoring, water sampling to monitor water discharges etc. are incorporated into the <u>site specific aspects and impacts assessment.</u>

(vi) Environmentally Significant Changes

[Insert details of the procedure to be followed if any significant changes are encountered once a project has commenced which would result in a change to the Environmental Plan for example the use of alternative construction methods or design – this section should also detail who is responsible for overseeing changes and ensuring these do not conflict with any consenting or planning conditions]

Any potential changes in the proposed work processes or implementation must be communicated by the Contractor's Project Manager to the Employer's Environment Manager immediately who will advise the Employer's Project Manager. The Employer's Environment and Project Managers will assess the significance of any changes and decide whether specific consultation or revision to this PMP is required.

GENERIC ENVIRONMENTAL ACTIONS (ENVIRONMENTAL LEGAL REQUIREMENTS)

(vii) Environment & Sustainability

All projects are to be managed in a sustainable manner, using resources efficiently, protecting and enhancing the environment in which we work and reducing our impacts.

In order to undertake projects in a sustainable manner, during the planning and implementation phase of a project, a number of key areas will be considered:

- Aim to reduce carbon emissions
- Aim to reduce water consumption
- Reduce, reuse and recycle waste in preference to disposal
- Use sustainable practices and materials
- Conserve and enhance the areas in which we work
- Use local resources wherever possible

(viii) Waste Management

All waste management shall be undertaken in accordance with procedure IMS OP 3/5. and OP 9/1

Site Waste Management Plan

It is the policy of North Midland Construction Plc to minimise waste where possible using best available techniques.

All waste management shall be undertaken in accordance with <u>IMS OP 3/5</u> and IMS <u>OP 9/1</u>.

NMC encourages the adoption of the SWMP process and all projects must complete a SWMP.

The SWMP is a live, documented process, recording how waste is managed. The SWMP is set up before the project starts on site and is updated regularly during the course of the project.

NMC have a <u>standard SWMP template on IMSOL</u> which must be completed on all projects by the Project Manager / Contract Manager / Site Agent unless the Client stipulates that their own Site Waste Management Plan must be used for the project, such as SMART Waste for example. In this case the clients plan would be completed and access to the data given to the Group Environmental Manager for reporting purposes.

There are two SWMPs available within the NMC SWMP reporting system, one for projects equal to or more than £300,000 in value and one for small projects below the value of £300,000. The SWMP on IMSOL

Each SWMP will be completed in accordance with the following nine steps:

- 1. Assign responsibility
- 2. Identify your waste
- 3. Work out waste management options
- 4. Identify waste management sites
- 5. Plan waste handling
- 6. SWMP communications and training
- 7. Measure your waste
- 8. Monitor success
- 9. Review at project completion and learn

A schedule for auditing of the SWMP should be agreed with the Client and the Group Environmental Manager. A schedule for auditing the SWMP is particularly important for high value projects, projects that last a number of years, or if required by the Client. In these cases, arrangements should be made by the Project Manager / Site Manager / Site Agent.

Targets for waste arisings should be set for each construction stage / component and recorded in the SWMP. Targets for waste reduction reuse and recycling should be agreed with the Client.

Roles and responsibilities should be assigned at an early stage. At a minimum, a Waste Champion should be appointed for the project. Where possible, NMC personnel and or subcontractors should be made responsible for specific waste streams; The Waste Champion being ultimately responsible for ensuring that all waste streams are reported on.

Duty of care checks must be undertaken alongside the SWMP, it is a statutory requirement that any waste operators, and any sites to which the waste is being taken, hold a permit under the Environmental Permitting (England and Wales) Regulations 2010 or are registered (under those Regulations) as a waste operation exempt from the need for such a permit. It is a statutory requirement that all waste from the site is dealt with in accordance with the waste Duty of Care in Section 34 of the Environmental Protection act 1990 and the Waste (England & Wales) Regulations 2011.

NMC and any associated subcontractors will fulfil these legislative requirements by:

- Identifying and describing the waste correctly on waste documentation
- Preventing the escape of waste
- Storing hazardous wastes separately from other wastes
- Transferring waste to authorised waste carriers
- Disposing of wastes at licensed waste management facilities
- Keeping records
- All skips will be located on hard standing, in a secure area, at a minimum of 10 m from surface drains and watercourses

Waste generated should be removed from site and sent for recycling or disposal using a registered waste carrier to a licensed recycling facility, transfer station, landfill site, and licensed incineration plant or to a site or facility holding an appropriate Exemption from the Environment Agency. NMC will obtain Waste Management Permits (including the list of waste types accepted at that facility) and Waste Carrier Licences. Please note: in accordance with the Scrap Metal Dealers Act anyone who is a scrap metal dealer must hold a licence issued by the relevant Local Authority (a site licence or a collector's licence). NMC will obtain the correct licences held by the metal recycling / disposal companies used in accordance with these new requirements. The validity of all these licences (waste carriers, collectors, site licences and waste management licences / permits will be checked on the Environment Agency public register. These documents will be filed in the Project Management Plan file along with any correspondence.

Waste Transfer Notes or copies will be retained on site or at the principal place of business. NMC will ensure that tickets contain all the required information. In order to avoid non-compliant Waste Transfer Notes that is often

provided by third party waste carriers an additional compliant NMC WTN pro-forma will be completed were required.

An assessment of waste to be transferred for disposal or re-used on site should be carried out in order to determine whether the waste is classified as hazardous or not.

All waste leaving site must be accompanied by a Waste Transfer Note (inert wastes) or a Hazardous Waste Consignment Note (hazardous).

Sites producing hazardous wastes must be registered as a hazardous waste producer with the Environment Agency. The premises code will be required for completion of the Hazardous Waste Consignment Note.

Upon completion of a Site Waste Management Plan and any subsequent revisions, please download a copy of the plan and save electronically in a location accessible by all of the project team (alternatively print a copy and file with this plan) the licences, certificates and WTN/HWCNs obtained.

If wastes are to be re-used on site, stored, crushed or sent to a receiving site for reuse then the appropriate exemptions or permits must be obtained and the requirements within them complied with.

Further guidance can be found on types of exemptions, and how to register them on the Environment Agency website http://www.environment-agency.gov.uk/

Management of Non-extractive Waste / Soil Management

Waste materials will be stored within an individual location for no more than 28 days, in line with the Permitted Development Rights¹. Where materials cannot be re-used, recycled, or recovered, this waste will be disposed to an appropriately permitted site. No materials will be stored on land within a SSSI/SAC.

Soils being excavated and relocated as part of the cut & fill process are not classified as waste.

Vegetation

Vegetation removed as part of site clearance will be shredded and spread at an adjacent wooded area. All trees that are felled will be logged and removed from site by the felling contractor. Further details about the procedures to be followed can be found in the arboricultural method statement.

Soils

For details on soil management, please refer to the Soil Management Plan.

Domestic Wastewater

Domestic wastewater will be collected in sealed tanks and will be removed from site on a regular basis via tanker, and disposed of to a suitably permitted facility.

General Office Waste

General waste will be stored within labelled skips within the compound and disposed of or recycled through a permitted waste facility.

Hazardous Waste

Although it is not anticipated that any hazardous waste will be generated on site, should this occur, it will be stored separately from non-hazardous waste in fully sealed containers. Different streams of hazardous waste will be stored separately to prevent cross contamination before being disposed of in accordance with the legislation governing the storage, transportation, and disposal of hazardous waste.

Updating the SWMP

The Contractor will keep a copy of the Construction Site Waste Management Plan (SWMP) and will ensure that this document is updated throughout construction and upon completion of the scheme. The Construction SWMP will also contain records of waste transfers, waste carriers, and waste management facilities.

Registered Waste Carriers

Where waste has to be transported off site, registered waste carriers will be employed, ensuring all waste is sent to appropriately permitted sites via agreed routes. Waste consignment or transfer notes will be retained to provide a

¹ The Town and Country Planning (General Permitted Development) (England) Order 2015, Part B Temporary Use of Land. Page 51 of 68 PMP – Issue

robust audit trail. All waste will be classified according to current legislative requirements, industry best practice, and the European Waste Catalogue Code.

Record Keeping

In addition to maintaining an up-to-date copy of the Construction SWMP, other records will also be held including copies of waste carriers licences, environmental permits, waste transfer notes, consignment notes, records of energy (in this case in the form of fuel for site accommodation and plant) and water usage. Measurements of the quantities of waste materials reprocessed and reused as aggregate within the project or disposed of off-site will also be recorded and used to report on key performance indicators (KPIs). In addition, copies of waste carriers licences, environmental permits, waste transfer notes, and consignment notes will be kept at the main compound.

Materials management and waste management records will be maintained by the main NMC's Site Environmental Co-ordinators. These will be provided to the Environmental Manager so quantities and percentages of imported secondary and recycled aggregates used within the project can be identified and calculated for sustainability reporting. A sustainability report will be generated by the Site Environmental Co-ordinators (refer to Appendix 8 of the CEMP) in accordance with the reporting requirements of section 6 of the CEMP.

All staff and subcontractors will be notified of the requirement for waste segregation at the initial site induction carried out prior to any works commencing and their compliance with these requirements will be monitored as detailed above.

(ix) Contaminated Land

Before starting work on site all site specific information must be obtained and reviewed, to ensure appropriate measures have been identified on how to manage the work being undertaken.

For sites previously identified as contaminated, a specialist contamination assessment may have been undertaken, which should help identify the location of any contaminants and measures needed to manage them.

If unexpected land contamination is found works must stop immediately and expert advice must be sought from the Environment Agency or Local Authority.

Where contaminated land may be identified for remediation, or re-use, the appropriate testing shall have been undertaken to ensure that it is suitable for the proposed re-use without posing risk to the environment and human health.

RAMS will be developed in consultation with the relevant specialists and in accordance with current guidelines.

Where excavated arisings are deemed to be contaminated and are not suitable for remediation, re-use or recycling then they must be removed by a registered waste carrier to a permitted waste disposal site.

NMC will work in liaison with the Local Authority, and seek expert advice, whilst working to the agreed RAMS to avoid creating further contaminated areas.

(x) Considerations With Respect to Air

Considerations regarding environmental air quality to meet legislation such as the Clean Air Act etc. should be made in conjunction with health and safety considerations under the Control of Substances Hazardous to Health regulations 2002.

No fires are permitted on site for the burning of waste or any other use.

Air Quality and Dust Management

The following activities will give rise to the potential for noticeable levels of dust and particulates to be generated during the works, and the mitigation measures details employed:

- Excavation works undertaken during hot, dry spells of weather water suppression via bowser / jetter.
- Placement of lime / cement during stabilisation activities works will cease in windy weather.
- Cutting of concrete kerbs and other materials water suppression at source of cutting.

Daily visual dust inspections and monitoring will be undertaken by the General Foreman during earthworks, stabilisation and cutting operations, in accordance with the "Good practice mitigation for the management of dust

from construction and demolition works" from the Institute of Air Quality Management² will be implemented, as applicable.

(xi) Considerations With Respect to Land and Water

NMC shall ensure that all necessary consents are obtained and appropriate controls are in place so that water is managed in accordance with all legal and contract requirements. RAMS will contain details of the prevention of water pollution from all construction processes and related activities. The RAMS shall, as appropriate, include details of water quality monitoring (samples to be analysed by a UKAS accredited laboratory), designed to check that the precautions are effective in preventing adverse impact on water quality (groundwater and water courses).

For further Guidance consult <u>PPG 6 Working at Construction and Demolition Sites</u> and <u>PPG 5 working near major</u> <u>Aquifers</u>.

Silt and Surface Water Management

The surface water drainage design will be implemented ahead of other works in the vicinity. These works comprise:

- A silt removal facility
- An attenuation pond
- Swales and ditches with check dams
- Silt fencing
- Oil separator tanks

Monitoring of the effectiveness of the above measures will be recorded on daily inspection sheets by the Contractor and on-site inspection reports by the Environmental Co-coordinators and / or Environmental Manager during their inspections. These will be stored along with a record of the actions that were taken in the event of issues arising and their effectiveness. These reports will be stored by the Contractor.

Materials handling on site

All Chemicals and fuel will be stored in sealed containers on a suitable bunded, impervious hardstanding at the Doves Nest Farm Compound. The bund will be capable of holding 110% of the total capacity of all containers stored within the bunded area. The chemical and fuel storage area will be located as far from all drains and watercourses on the site as possible. No materials will be stored on land within a SSSI/SAC. Fuel required on site will be delivered via towable bowsers.

Spill kits will be stored adjacent to the storage areas as well as at other key locations around the site. Personnel trained in the deployment of spill kits will be present on site at all times during working activities.

(xii) Considerations with Respect to Noise and Vibration

The regime for managing the noise and vibration emissions of plant and equipment to protect personnel from adverse effects and documented in the construction phase plan shall also be designed to minimise environmental harm including noise nuisance and be managed in accordance with any Section 61 consents. Section 61 requirements shall be notified as soon as practicable. The Principal Contractor shall notify the Client and the Principal Designer of general planned hours of work, and of noisy work.

NMC will employ "best practical means" to minimise noise and vibration resulting from our operations and shall comply with the recommendations detailed in the Code of Practice for noise and vibration control on construction and open sites (<u>BS 5228-1: 2009</u> & <u>BS 5228-2:2009</u>). If required to measure noise emitted from site this shall be performed in accordance with <u>BS 5228-1: 2009 Annex G</u>.

Please refer to the Noise & Vibration Management Plan for details of noise restrictions.

The following plan shows Receptor Monitoring Locations and Site Boundary Monitoring Locations for the scheme:

² Guidance on the Assessment of Dust from Demolition and Construction, V1.1, February 2014, (Institute of Air Quality Management)
 Page 53 of 68
 PMP – Issue


(xiii) Wildlife and Natural Features

There are areas which are designated for their nature conservation interest such as SSSIs, AONBs, and SACs due to the presence of certain habitats or species. Many species are afforded legal protection for example under the Wildlife and Countryside Act 1981 and thus require a high level of protection.

Liaison with an ecological specialist will be undertaken and methods of work agreed with them. Any works which require a licence will be obtained and the requirements detailed in any licences will be met.

Please refer to the Phase 2 Protected Species Management Plan for site-specific details.

Where the site has features which require protection such as trees, plants and animals NMC will work with the relevant authorities for example, the Environment Agency, Natural England to ensure they are protected and suitable mitigation measures are put in place.

When working near trees which are to be retained, NMC shall carry out works in accordance with <u>NJUG</u> <u>Publication No. 10 Guidelines for Planning, Installation and Maintenance of Services in Proximity to Trees</u> and <u>BS</u> <u>5837:2005 Trees in Relation to Construction</u>. NMC will comply with any Tree Preservation Orders.

Hedgerows are protected under the Hedgerow Regulations 1997; it is a legal requirement to notify the district or borough council before removing a hedgerow or part of one.

Hedgerow removal is to be avoided where possible. Any hedgerow removal and replacement shall be carried out in accordance with the Hedgerow Removal Notice. No work shall be undertaken without a notice in place.

Under the regulations the removal of a hedgerow longer than 20m requires planning permission. If the hedge is shown to be significant in terms of its age, environmental or historical importance then the planning authority can refuse permission and take further measures to protect the hedgerow.

The hedgerow will be reinstated to the specification contained in the removal notice. Hedgerows should be taken out outside the bird breeding season i.e. during the period early August to end February, checks should be undertaken to ensure no birds are present.

Survey information will be obtained where species are likely to occur.

For survey timings please consult the Ecological Calendar / Poster.

Ecology is affected through the spreading of noxious and invasive plants and it is an offence to cause their spread (Wildlife and Countryside Act 1981 (as amended) / Weeds Act 1959 (as amended)).

Common examples which may be found on NMC construction sites include:

- Japanese Knotweed
- Giant Hogweed
- Ragwort
- Thistle
- Himalayan Balsam

If noxious and invasive species are identified on site NMC will:

- Cordon off the area to prevent spreading
- Identify and inform all site personnel to ensure the area is not disturbed
- All protective fencing will be maintained until either the plants are eradicated or works are complete
- Ensure approved methodology by a suitably qualified person and the Contract / Project Manager will be agreed

Measures to Minimise Risk of Damage to Species-rich Verges

An environmental survey has identified species-rich grassland in the roadside verge opposite the Welfare Access. The following measures will be adopted to reduce the risk of damage to species-rich verges:

Use of Traffic Regulation Orders

As agreed with North Yorkshire County Council (NYCC) and as set out in NYMNPA Condition 37, Traffic Regulation Orders (TROs) will be in place on the B1416 for the duration of all construction activities associated with the project. The TRO's include a temporary 40mph speed limit and a clearway along the identified extent of 'Important Verge No. 10', to provide mitigation for the Moors to Sea Cycle Route. This will further reduce the potential for damage to the verges, as vehicles will be travelling at a reduced speed and will not be allowed to stop on the carriageway.

Condition Survey, Monitoring and Remediation

Prior to the commencement of the works, a condition survey will be undertaken to record the current condition of the full extent of 'Important Verge No. 10', as shown in Figure 1. The condition survey will include:

A walk-over condition survey will be carried out between the Contractor, the Client's Representative and, if desired, a representative of NYMNPA.

- Photographs will be taken to record the condition of the verges.
- A report will be generated, in the form of a word document, to record the findings of the initial walk-over survey and submitted to the Client's Representative and NYMNPA for agreement.

The condition survey will not include any specific botanical survey, as the measures to protect the verge will be applied regardless of species composition.

The condition survey will be repeated on a monthly basis, with visual monitoring carried out every week in order to maintain an auditable record and to ensure that any impact, attributable to the Works is identified and recorded as soon as possible.

On completion of the works (as detailed in NYM Condition 4: Phasing Plan), the full condition survey will be repeated and, in the unlikely event of any damage to the verges, a specific method statement for any necessary remediation will be prepared, based on the extent of damage recorded and its content will be agreed with the NYMNPA prior to implementation.

As the most likely scenario for damage would be indentations of the verge, in the form of tyre tracks, remediation is envisaged to comprise the application of top soil to impacted areas, followed by re-seeding with a seed mix agreed with the NYMNPA.



(xiv) Archaeology and the Built Heritage

Areas and sites can be designated at national and local level for their heritage value for example, Scheduled Ancient Monuments. Buildings and structures are important parts of our built environment and must be preserved.

Construction works will be carried out in accordance with legal requirements to ensure features of archaeological interest are protected.

If it is likely that archaeological or historical features will be found during construction works, all information will be obtained and reviewed from the Client that they hold about the site.

Archaeological impact assessments and agreements with the Local Authority will be complied with. Where applicable NMC and any contractors will work in accordance with an archaeological watching brief and comply with any contractual obligations and conditions that may be attached to the planning permission for the site. Page 56 of 68 PMP - Issue

Contact will be made with the local planning authority archaeologist for archaeological matters and the local authority conservation officer for listed buildings. The county/local authority/regional archaeologist has responsibility for planning issues.

Any works affecting a scheduled monument will be carried out in accordance with the Scheduled Ancient Monument Consent.

If any unexpected finds are encountered works will immediately be stopped, the area will be blocked off and the local archaeologist will be contacted.

Archaeology

A Written Scheme of Investigation have been produced for this scheme, which will be implemented on site.

(xv) Transport, Access and Public rights of Way

The project team will give consideration to the logistics of the project, avoiding deliveries at peak times, and coordinating deliveries to minimise congestion and disruption which might affect general traffic.

Access to the site will be agreed prior to commencement of construction works. All accesses will have gates and will be signed accordingly to prevent unauthorised access outside of working hours.

Public rights of way must be accessible at all times unless prior agreement has been obtained with the Local Authority. Requirements determined by the Local Authority will be adhered to at all times.

Where works require public rights of way to be closed or obstructed the necessary diversion or closure notice will be obtained, and implemented as agreed with the Local Authority.

Footpaths that are diverted due to the works being undertaken will be mapped to ensure they are kept open during this period and the safety of anyone using such footpaths is maintained.

Plant and wheel wash arrangements

Wheel-wash facilities (Cross-wash or similar – see image below) will be implemented on the access road between site and the Welfare Access. Further details will be included within the RAMS.



(xvi) Pollution Prevention

Where applicable the Contract / Project Manager will liaise with the Environment Agency to agree control methods in the way work is undertaken before projects commence and action to ensure environmental matters identified by the Environment Agency are effectively addressed. The <u>EA PPG (Pollution Prevention Guides) are available via</u> <u>IMSOL</u>.

Light Pollution

The specific controls to be implemented to reduce light pollution are as follows:

- Works will be undertaken during day light hours, as far as practicable, removing the requirement for external lights.
- When activities are to be scheduled to take place between late autumn to early spring, it is likely that there will be activities where illumination is required during hours of low light at dawn and dusk. In these circumstances, the following will apply:
 - Directional tower lighting with directional lanterns will be used, with lights directed down towards the area required to be lit and away from any area of concern (e.g. roads).
 - Lights will be switched off when not in use.
- Task lighting will be used where appropriate to light up local areas of small works instead of mast illumination affecting a large radius.
- Lights will be turned off when not required to avoid unnecessary light pollution.
- The lighting will comply with the lowest recommended criteria within the relevant British Standards and relevant Chartered Institution of Building Services Engineers Lighting Guides³.
- Lighting will comply with the Interim Guidance: Artificial lighting and wildlife: Recommendations to help minimise the impact artificial lighting⁴.

(xvii) Carbon Reduction and Energy Management

NMC will take all reasonable measures to reduce energy and fuel consumption and minimise carbon emissions from activities relating to the construction project.

Vehicles and items of plant should be switched off when not in use. The use of speed limiters on vehicles is employed to reduce fuel consumption and increase efficiency.

Office accommodation on construction projects or at depots should be well insulated to prevent excess heat loss and energy efficiency measures used where possible, for example timer controlled heating and movement activated lighting. Electrical equipment should be energy efficient and switched off when not in use.

Travel to and from sites should be minimised and the utilisation of video and telephone conferencing encouraged. Journeys should be planned to minimise fuel use, and alternative methods of travel should be encouraged such as car sharing, bus, train travel.

Local suppliers of materials will be used and deliveries planned to minimise unnecessary journeys.

(xviii) Register of Site Specific Actions Arising From Construction Phase

The Environmental Aspects & Impacts Assessment will detail all site specific actions required throughout construction. Please refer to the following section (xix).

(xix) Environmental Aspects and Impacts

Documentation for assessing, controlling and minimising potential environmental damage

The principal environmental objective of North Midland Construction PLC is to continually improve our environmental performance to prevent or minimise pollution, minimise waste and to conform to Environmental Legislation, Regulations and Company Policies and Procedures.

NMC will ensure all activities undertaken on site will be subject to an Environmental Aspects and Impacts Assessment (EAIA). The EAIA will be prepared with regard to the information in the CEMP, this PMP and all other relevant documents. These will:

 ³ BS EN 12464-2 Lighting of work places – Outdoor work place. CIBSE Lighting Guide 1 – Lighting of the industrial environment. CIBSE Lighting Guide 6 – Lighting o the outdoor environment
 ⁴ Bat Conservation Trust Interim Guidance Lighting, June 2015 http://www.bats.org.uk/pages/bats_and_lighting.html Page 58 of 68

- Identify any significant environmental impacts that can be anticipated. •
- Assess the risks from these impacts.
- Identify control measures to mitigate the risk.
- Report any unacceptable residual risk such that changes can be implemented to reduce the risk to an • acceptable level.

The findings of each EAIA and, in particular, the necessary controls to reduce risk, will be incorporated into the scheme RAMS (Risk Assessment Method Statement) and daily K-SAW (Keep Safe and Well) as required. These documents shall be briefed to all site operatives involved in the works prior to the commencement of activities on site. Tool Box Talks shall be used to target environmental issues of particular significance at relevant times throughout the works.

Should any aspect of the scheme change, the EAIA will be updated accordingly.

The Contractor will keep a copy of all EAIAs in the main site office and will ensure that all control measures identified to control risk are fully implemented.

Upon completion of the Aspect and Impacts Assessment on-line – please print out a copy and insert into the Environmental Plan

(xx) Hazard Identification, Risk Assessment and Controls

RAMS will be prepared for the effective management of all activities with significant risks to Health & Safety and the environment. RAMS shall include details on the following:

- Location of activity and access arrangement. •
- Work to be undertaken and methods of construction. •
- Plant and materials to be used. .
- Supervision requirements.
- Health and safety considerations all issues identified in the health & safety risk assessment. •
- Environmental considerations all issues identified in the Environmental Aspects and Impacts Assessment. •
- Details of any permit or consent requirements. •
- Identify significant environmental impacts that can be anticipated and how they are to be controlled. •
- Details of properly trained personnel on site responsible for various aspects such as using spill kit or dust suppression etc.

RAMS will be reviewed by the Employer's Project Manager and agreed in advance of works. Once approved by the Employer's Project Manager, RAMS will be submitted to the NYMNPA and other relevant Statutory Consultees a minimum of four working weeks before the construction of the element(s) to which the RAMS relates. This will enable the Authority to review and approve each document.

NMC will keep a copy of all RAMS and daily Keep Safe & Well briefings, along with signature sheets, in the main site office, and will ensure that actions in the documents are fully implemented.

All RAMS and daily Keep Safe & Well briefings will be kept under review. They will be revised, updated, or rewritten as a result of lessons learnt, changes in legislative requirements, incidents and/or as part of the continuous improvement of construction environmental management on site.

(xxi) Control of Substances Hazardous to the Environment

In accordance with the Control of Substances Hazardous to Health Regulations, reference should be made to North Midland Construction Plc's - COSHH Manual for Site Operations.

This manual contains instructions on the control measures and procedures to be adopted, and generic assessments for typical products used on site by the company including substances which are known to be dangerous to the environment.

Where possible the substances identified as hazardous to the Environment should be substituted for less harmful ones. Site Managers can consult with the Environmental Manager over any concerns. Page 59 of 68 PMP - Issue

Deliveries of Fuel

Fuel will be delivered to the compound at Doves Nest Farm where towable bowsers will be available to transport fuel to the various site locations. The towable bowsers will be bunded and have at least 110% of the capacity of their capacity. The bowsers themselves will to stored on an impervious hardstanding, and as far from surface watercourses and drainage as possible – this is shown on the Doves Nest Farm compound layout drawing.

Refuelling on site will be undertaken using drip trays and plant nappies to ensure that any spillages are contained.

In the event of a fuel spillage, this will be cleared up using an oil spill kit, which will be held at the Doves Nest Farm compound. Where a spill outside of a bunded area occurs, the pollution incident procedure identified in Section 4.7 of the CEMP will be implemented.

Signs detailing the refuelling procedures will be posted in the area with information relating to the location of the nearest oil spill kit. Personnel trained in the deployment of spill kits will be present during all fuel delivery and refuelling activities.

As a result of the nature of the sites, there is a possibility that fuel deliveries to site may not be possible, for example during periods of extreme weather. The following measures will be implemented to ensure that fuel supplies are not depleted during inclement weather:

- 2No 6000 litre towable bowsers will be utilised, giving a generally high level of fuel storage.
- A reserve fuel bowser of 2500 litres will be located at the Doves Nest Farm compound; this will only be used in an emergency, and shall not be used for day-to-day refuelling of plant.
- Fuel levels shall be monitored daily by NMC's Foreman and deliveries booked accordingly.
- Weather forecasts shall be monitored and, when inclement weather is expected, fuel levels deliveries shall be brought forward, as required.

(xxii) Environmental Incidents and Near Misses

All incidents resulting in pollution must be recorded in accordance with <u>IMS Operating Procedure OP 4/5</u> – Analysis of Accidents/Incidents.

In the event of a Near Miss incident, it shall be reported preferably by <u>direct entry on line</u> or by using an <u>Accident,</u> <u>Incident and Near Miss Report Form</u>

<u>Near Miss/Positive Intervention Cards</u> are available for use by Operatives, which provide a freepost service to report any environmental incident or near miss to the Group QESH Department.

The Environmental Manager will respond to any significant Environmental issues reported by the site.

At the discretion of the Health & Safety Manager, the Environmental Manager or the QESH manager may raise an alert e-mail and circulate it to all appropriate Departments following an incident or near-miss. The previous alerts that have been issued are available on the NMC intranet site.

All Emergency Procedures and Major Incident Reporting are covered by the Health & Safety and Environmental Management Systems. Specific plans are drawn up by the site staff and displayed and practised. All key personnel carry mobile phones, as do a number of operatives.

Staff will, in addition, report all accidents and incidents to the customer or nominated person when requested.

Action to minimise the risk of pollution incidents

The following actions will be taken to minimise the risk of pollution incidents occurring on site:

Oil / Fuel Oil spillages

- Refuelling of plant and vehicles will be undertaken at designated refuelling point at the Doves Nest Farm, or on site in accordance with the RAMS.
- Plant will be well maintained so that leakages do not occur.
- Drains in the vicinity of the refuelling point will be blocked off to ensure that any spillages cannot wash into the drainage system and into any adjacent watercourses.

Cementitious materials spillages

- Concrete will be ready-mixed concrete to avoid on-site batching.
- A designated concrete wash-out skip will be located within the compound.
- Sand / cement mixing will be undertaken using a cement mixer located on an area of hardstanding.

Contaminated land

- The discovery of contaminated land is not anticipated, however, visual monitoring of excavated materials will take place by Contractor and sampling undertaken if concerns arise.
- Subsequent testing and hazardous waste management procedures will be followed in event of contamination levels above acceptable legal limits being confirmed, in line with the Contaminated Land Reference Material.

Action to be taken if spillages/ leakages occur

Oil / Fuel Oil spillages

- Oil spill kits will be available at each site and appropriately trained staff will be present on site during all working activities.
- In the event of an oil or fuel spillage, staff will ensure that the adjacent drains are properly sealed and then advise the Site Agent/Foreman.
- Staff on site will clean up the spillage in accordance with their training and ensure that the oil or fuel contaminated spill kits are disposed of in accordance with the Control of Substances Hazardous to Health Regulations 2002 (as amended).
- If the volumes of fuel are such that the oil kits on site are not sufficient, additional oil spill kits will be obtained.

Implementation of the Environmental Plan

The following organogram shows the key personnel responsible for implementing this Environmental Plan:



The following outlines the responsibilities each person will hold with respect to environmental performance across the contract.

Employer

The Employer is responsible for ensuring that the legal and planning requirements of the overall project are fully complied with. The Employer will receive monthly reports on environmental matters as a part of established management processes.

Employer's Project Manager

The Employer's Project Manager is responsible for leading the construction phase of the project to a successful conclusion. The Employer's Project Manager will be supported by the Employer's Environment Manager and Inspectors, as necessary.

Duties of the Employer's Project Manager include:

- Implementing systems and processes which enable effective monitoring of environmental compliance and quality of the project
- Exercising controls and continuously monitoring the delivery of the project
- Coordinating and leading the work of the Employer's Environment Manager and Inspector(s)
- Reviewing the status of environmental performance and reporting to the Employer
- Advising the Employer of any failure of the Contractor to meet its obligations under the Contract

Contractor's Project Manager

The Contractor's Project Manager is responsible for ensuring the effective management of all construction issues, including the environmental requirements outlined in this PMP, the client Construction Environmental Management Plan, other relevant planning documentation, and the Employer's contract documents. The Contractor's Project Manager will be responsible for regular review of this PMP and will receive and generate monthly reports on environmental matters associated with it.

The Contractor's Project Manager has responsibility for the delivery of environmental objectives throughout construction. This includes ensuring the dissemination of environmental information, including waste reduction and waste management procedures, and water sustainability matters to all relevant personnel on site and the application of environmental requirements during the construction process.

The Contractor's Project Manager will ensure that appropriate resources are available and any necessary environmental controls or mitigation measures are implemented. This includes those identified through environmental audits of the site works. As such, the Contractor's Project Manager is in a position to direct and control construction activities on site.

Duties of the Contractor's Project Manager include:

- Planning and ensuring that all environmental inductions are undertaken.
- Planning and ensuring that weekly environmental inspections of the site are undertaken.
- Ensuring the environmental competence of all personnel working on the project.
- Managing and supporting of all other environmental staff on site.
- Acting as the main point of contact with other (including external) parties for environmental matters, including complaints, concerns and general enquires.
- Monitoring construction activities to ensure that identified control measures are effective and in compliance with this PMP.
- Reviewing the inspection reports produced by the Environmental Co-ordinators and ensuring that any issues are resolved.
- Reviewing and updating this PMP, as required.
- Reviewing and revising construction method statements and task briefing sheets (and any updates thereof) for environmental aspects of the work.
- Providing information to the Employer's Environment Manager for inclusion in progress meetings, on a monthly basis.
- Ensure the Employer's Environment Manager is fully informed on all environmental matters as construction works proceed.
- Being available for construction site audits with the Employer's Project or Environment Manager(s) as required.

Contractor's Environmental Manager

The Contractor's Environmental Manager will have responsibility for the environmental aspects of the work undertaken in accordance with its ISO14001 certification, the contract, and the provisions of this PMP. The Contractor's Environmental Manager will ensure compliance with environmental aspects of the construction works

through the Environmental co-ordinators, together with the necessary monitoring, and will report to the Contractor's Project Manager.

Duties of the Contractor's Environmental Manager include:

- Planning and undertaking quarterly environmental audits of the work and reporting to the Employer's Project Manager.
- Identifying and monitoring trends and identifying areas for environmental improvement.
- Advising when control measures are not effective and/or not being fully implemented and suggesting alternative mitigation as required.
- Reviewing and updating Environmental Procedures, as required.
- Providing feedback to the Contractor and their personnel on environmental impacts and risks prior to the commencement of any part of the works.
- Being available for construction site audits with the Employer's Project or Environment Manager(s) as required.

Contractor's Site Environmental Co-ordinator

Site Environmental Co-ordinators will be identified by the Contractor's Environmental Manager for overseeing specific construction activities on site.

Together with the Contractor's Project Manager, the Contractor's Site Environmental Co-ordinator will form the site Environmental Team. The Contractor's Environmental Manager will provide the Site Environmental Co-ordinator and any subsequent team members with a specific induction for the role prior to commencement of work and will be available for advice and guidance to them on an on-going basis. Construction activities are likely to run in parallel so this approach ensures coverage of all aspects of the works and a point of accountability for environmental matters on a continuous basis.

Duties of the Contractor's Site Environmental Co-ordinator include:

- Plan work to ensure that all inspections, reviews of documentation and other activities are undertaken in a timely manner and that all issues are reported and acted on.
- Consider how approaches for different aspects of the works can contribute to environmental improvement in performance and present these to the Contractor's Project Manager for consideration.
- Act as a conduit for dissemination of issues and lessons learnt across the site (through provision of toolbox talks).
- Ensuring implementation and monitoring of (the control of) nuisance matters such as noise, dust, light, and conduct on site that may have environmental implications.
- Attend site environmental audits with the Contractor's Environmental Manager and Project Manager or their advisors within the area they have responsibility for, as required.
- Ensure the Contractor's Environmental Manager and Project Manager is fully informed on all environmental matters as construction works proceed.
- Contribute to regular updates of this PMP as well as the preparation of method statements, task briefing sheets, and risk assessments.

Contractor's Environmental Inspector

The Contractor's Environmental Inspector has responsibility for monitoring and auditing the Contractor's compliance with environmental legislation, and conformance with its ISO14001 procedures and this PMP.

Duties of the Contractor's Environmental Inspector include:

- Monitoring, auditing and reporting on the Contractor's compliance with environmental legislation, planning requirements, permits, licences and any other requirements.
- Monitoring, auditing and reporting on the Contractor's conformance with its environmental management procedures and ISO14001.
- Monitoring and reporting on the implementation and effectiveness of preventative and corrective actions.

Communication of Environmental Issues

Site Inductions and Tool-box Talks

The raising of environmental awareness amongst those working on site is a crucial element in the implementation of this PMP. As a consequence all staff be will required to attend a pre-start (i.e. prior to commencing work on site) site induction which will include details of the environmental aspects of the project. Managers and supervisors will

ensure that all personnel engaged in activities are competent to carry out their duties or, where necessary, provided suitable training.

Toolbox talks will cover the details of this PMP and the environmental issues within in it, including, but not limited to:

- Environmental issues on site e.g. site clearance, nesting birds, protected species.
- Environmental Action Plan and mitigation.
- Communication.
- Working with the community.
- Dust control and mitigation.
- Emergency response.
- Roles and responsibilities on site.
- Feedback on issues of concern that are raised by staff or general information of interest to the site staff.

Tool-box talks aim to communicate information to the site staff and serve to educate, prompt, and remind staff of certain environmental responsibilities. A tool-box talk might cover a particular permit licence or consent, an issue such as water pollution, or protocols such as those for archaeological finds. A particular talk may be repeated after a period of time as a reminder or prompted by an incident arising on site. This is an important tool in communicating information to workers and it is anticipated that each work team will receive at least one environmental tool-box talk per fortnight throughout the construction period.

Specific induction will be given to the Contractor's Project Manager and other members of their Environmental Team by the Contractor's Environmental Manager to ensure they have broad appreciation of environmental matters. This training will include a presentation on sites designated for Nature Conservation, protected and invasive species, and an overview of legal requirements (including matters such as nesting birds). They will also include an overview of environmental permits licences and consents, and the implications of non-compliance or loss of those that apply to the works.

A copy of this PMP will be provided to each Contractor's Environmental Team and the content explained. The Contractor's Environmental Manager will provide updates of relevant methods of working, schedules, permits, consents, and licences as they arise and develop and disseminate these at tool box talks. The specific inductions will also apply to any replacement or additional staff in these roles as they are required for the works.

Communication with Site Staff

During site inspections to assess environmental compliance, the environment team will liaise with the staff on site to provide feedback on the inspections, identify areas of good practice and areas for improvement. Inspection sheets will be completed for each inspection and copied to the Project Manager / Site Agent who will disseminate information to all site staff as required. In the event of issues arising on site, actions for improvement will be identified and the Project Manager / Site Agent will complete a section of the form detailing why the issue arose and what actions can be taken to prevent similar issues occurring in the future.

Communication within the Contractor's Environmental Team

Fortnightly meetings of the Contractor's Environmental Team will ensure that current and forthcoming issues are identified, site environmental performance monitoring is discussed, and good practice disseminated. The key findings from these meetings will be communicated formally to the Employer's Project Manager, the Contractor's Project Manager and Site Agents as a summary note. Updates to the Construction Environmental Management Plan, this PMP, RAMS and other controlling documents will also be discussed and raised with the aforementioned staff for discussion prior to approval.

The Contractor's Environmental Team meetings will:

- Review site performance over the preceding two week period.
- Identify trends in performance.
- Consider the need for amendments to the CEMP, PMP, RAMS, Site Waste Management Plan and other relevant documents.
- Propose actions required to mitigate issues that have arisen and/or forthcoming risks.
- Identify best practice on site.

Environmental issues will be discussed at monthly project environmental reviews, attended by Employer's Environment Manager, with other relevant representatives attending when required. When necessary this may

include representatives from statutory bodies to address matters of concern to them or for them to provide information on changes to legislative requirements or its interpretation.

The project environmental review will:

- Consider the past period performance.
- Review audits and available data from inspections.
- Provide an overview of any environmental monitoring results.
- Plan actions required to mitigate issues that have arisen and/or forthcoming risks.
- Provide a mechanism to disseminate best practice across the site.

The information discussed at these meetings will be presented at site wide monthly progress meetings, with notes from the meetings being used to prepare the monthly environmental progress report.

Communication with the Public

Keeping neighbours informed of the works is paramount to avoiding any complaints and maintaining a good working relationship. As such the Contractor will establish a residents and landowner liaison protocol which will be submitted for approval four weeks before construction commences, and will provide a resource to monitor communications. A Communication Plan has been prepared, and can be found within the CEMP.

Where a complaint from the public is received, it will be immediately logged and all relevant details obtained. The complaint will be investigated and the complainant contacted within five working days to be advised of the findings of the investigation and any mitigation required. All complaints will be acknowledged within 24 hours of receipt of the complaint, and will be closed out within five working days in order to satisfy the complainant.

The Sirius Complaints Procedure can be found within the CEMP and will be adhered to throughout construction.

Traffic Management Liaison Group

The purpose of this group will be to facilitate liaison between local residents, local authorities, and other interested stakeholders and communicate the programme for highway improvement schemes. The group will oversee the management and monitoring of the Construction Traffic Management Plan (CTMP), and will be chaired by Sirius Minerals.

The group members will include:

- Sirius Minerals.
- NYMNPA as Minerals Planning Authority.
- North Yorkshire County Council as Highway Authority on the highway improvement schemes within their boundary.
- North Yorkshire Police.
- Redcar and Cleveland Borough Council as Highway Authority on the highway improvement schemes within their boundary.
- Scarborough Borough Council.
- A representative of the Contractor.

Management of Environmental Issues on Site

Supervision of Construction Activities

All construction and installation activities, including those carried out by sub-contractors, will be supervised by the Contractor's Project Manager with the support of members of their team on a daily basis. The Contractor's Project Manager and team will receive briefing from the Contractor's Environmental Manager to ensure that they are aware of the environmental requirements identified in risk assessments and method statements. The briefing will also ensure that they are able to assess whether the environmental requirements are being implemented properly.

All works on site will be supervised and records of the inspections made. Records, which will include areas inspected, examples of good practice and areas for improvement will be recorded in the Contractor's general site supervision forms. Copies of these forms will be forwarded to the Contractor's Project Management, Environmental Manager and Sirius Minerals.

Monitoring Environmental Impacts during Construction

The environmental management identified within the Construction Environmental Management Plan, this PMP and other related documents, will be subject to inspections by the Contractor's Site Environmental Co-ordinator at least once every five working days. These inspections will seek to confirm that:

- Construction works are progressing in accordance with the agreed RAMS and daily K-SAW briefings.
- Agreed controls, protection and mitigation measures (including those detailed within this PMP) are in place prior to or during the implementation of construction activities.
- Construction works have been completed in accordance with commitments made during the statutory process as set out within permits, licences, and consents.

Inspections will be recorded on inspections forms which will be may be adapted to suit a specific site. The form will outline the work being done on site at the time of the inspection, any good practice identified and/or any improvements made, and will also contain a section for the Contractor to record any improvements made as a result of the inspection. This will ensure that records of issues identified and remedial works undertaken are recorded in the same place and that any outstanding issues can be closed off. Photographs and other records can also be added to this form. The form will list possible KPIs that could be used to assess performance against key environmental issues. These will be reviewed and may be amended in future.

The Contractor's Environmental Manager will carry out an inspection of the construction areas, prior to the fortnightly / monthly meetings, to verify that the required methods and mitigation measures are being implemented effectively and will draw on information from the weekly inspection reports produced by the Contractor's Site Environmental Co-ordinator.

Records of water, fuel, and power consumption will be maintained by the Contractor's Project Manager and will include metrics to measure aspects of performance, such as waste minimisation, recycling and reuse of materials. The metrics will include the volumes of different waste streams produced, the volumes of waste recycled and volumes of waste disposed of off-site.

Auditing and Controlling Environmental Performance

Monitoring environmental performance on site by the Contractor's Environmental Manager and inspections by the Contractor's Site Environmental Team are key to ensure that the requirements of the Construction Environmental Management Plan and this PMP are fully implemented on site. It is important that the results of the monitoring are audited on a regular basis to ensure that any issues are identified and that changes to the operations on site can be made if required.

The site inspections reports completed will be audited by the Contractor's Project Manager on a regular basis, and no less than monthly and reported on at the monthly progress meetings, with recommendations for improvements made where necessary. Furthermore, the Contractor shall arrange for monthly site inspections and quarterly audits by an independent auditing company to ensure that the environmental controls detailed within this PMP, and other relevant environmental documents, are being implemented.

Reports of environmental inspections undertaken on site will be reviewed by the Contractor's Environmental Manager prior to their issue to the Contractor's Project Manager, the Employer's Project Manager and the Employer's Environment Manager, which will enable re-occurring issues to be identified at an early stage. The Contractor's Project Manager must identify the cause of any re-occurring issues and work with the Contractor's Environmental Manager and the Employer's representatives to identify actions to be taken to rectify to solution.

The Contractor's Environmental Manager will carry out an audit of environmental performance on site, based upon reports from the Contractor's Environmental Team and responses from the Contractor where required. This will be carried out on a monthly basis and will be reported at the monthly progress meetings.

The Contractor's Environmental Team will meet on a fortnightly basis to discuss the works being undertaken on site and any environmental issues identified. Minutes of these meetings will be forwarded to the Contractor's Project Manager, the Employer's Project Manager and the Employer's Environment Manager.

An assessment of the performance over the month, including information about water, fuel, and power usage will be made and quantified, where possible and also reported at the monthly progress meetings.

Reporting Environmental Performance

Reports of all environmental audits, as well as monthly progress reports on inspections undertaken, construction activities, environmental performance and minutes from the fortnightly Contractor's Environmental Team meetings will be forwarded by the Contractor's Project Manager to the Employer's Project Manager and the Employer's

Environment Manager. Copies of these documents, as well as an updated a register of incidents and actions taken, will be held on site and will be available for inspection by the statutory bodies, as required.

Monthly Progress Meetings will be used to disseminate the results of monitoring and audit reports. At these meetings, a review of the environmental performance on site to date will be undertaken and any improvements required during the construction phase will be identified. Details of where sustainable construction has been implemented or developed as the work proceeds will also be discussed and recorded and its suitability for implementation at other areas of the site will be considered and applied where appropriated. Decisions about amendments required to the processes and procedures will also be agreed at this time.

On completion of the scheme, a report detailing how the Contractor has complied with all elements of the Construction Environmental Management Plan, this PMP and supporting documentation relating to other environmental, planning and approvals requirements will be provided and will be issued to Sirius Minerals.

SECTION 4

Client / Customer Specific Requirements

Record any client / customer specific requirements/documents for the construction phase in this section.

Client requirements have been integrated into the Quality Plan, Health & Safety Plan and Environmental Plan. For identification purposes, client requirements and scheme-specific information are shown in blue font.

SECTION 5

Gathering/Collection/Storage of records and information

Records to be maintained in accordance with <u>OP2/4</u>.

Contract Filing

Records specific to this contract are to be filed in accordance with the <u>contract filing index</u>. This may require the set-up of a number of folders in order to accommodate the records specified but the numbering system must be maintained in order to ensure that interested parties can locate the relevant documents easily.

Records to be maintained in accordance with OP2/4.

Appendix B

Risk Assessment and Method Statements



The RAMS pack is valid for 30 days from the date of signature or date of review

 Ref no:
 44394-PH2-RAMS-01
 Rev:
 1

PART P - PLANNING

PART P1 – Gener	PART P1 – General Details								
Title of method statement:	Enabling Works at Doves Nest Farm								
Contract Name:	York Potash Phase 2 Enabling Works, Doves Nest Farm								
		Start Date:	03/04/2017						
Site Address &	NMC SITE Office,	Finish Date:	04/06/2017						
Telephone No:	Off B1416, Sneatonthorpe	Duration:	9 weeks						
		Working Hours:	07:30 – 17:30 Mon – Fri 07:30 – 14:00 Sat						
Location of Works:	Sneatonthorpe								
Scope of Works / Work Activity:	Tree and vegetation removal, cut & fill, attenuation ponds, earth bund, drainage and fencing.								

PART P2 – RAMS Sign Off, Consultation and Review

	Signed	Print Name	Position / Status	Date	Notes
Prepared by		Alex Spencer	Preconstruction Manager	21/12/2016	To be completed by Person Preparing Method Statement or Sub- Contractor)
Employee consultation					Persons carrying out the work MUST be consulted and sign here
Tech review by		Chris West	Operations Manager	21/12/2016	To be completed by a Competent Person or Sub- Contractor)
H&S, Env review by		Selina Morson	Environmental Manager	21/12/2016	To be completed by a Competent Person
Authorised for construction (Principal Contractor / Peer review)		Geoff Poyzer	Contract Director	21/12/2016	To be completed by the Principal Contractor or a peer of the person preparing the RAMS
Rejected by					To be completed by the Principal Contractor or Competent Person

The RAMS must be reviewed by someone other than the person who has prepared it.



PART P3 – Personnel and Resources

	Labour (Role/Trade and numb	er of)	Qualification Required, to be shown at			
		,	induction			
	6 x machine operators		CPCS			
	2 x dozer operators		CPCS			
Resources Required:	A x tractor operators		CPCS			
(Including supervision)	3 x roller operators	CPCS				
	1 x paying machine operator		CPCS			
	6 x groundwork operatives		CSCS			
	1 x Foreman		SSSTS			
	1 x Setting out Engineer		Civil Engineering degree or similar			
	Tree surgery		Task specific co	ompetencies (refer to		
	Earthworks		subcontract M	ethod Statements)		
Subcontractors	Fencing					
	How will they be supervised		NMC Foreman	, Engineer and Site Agent		
			, , , , , , , , , , , , , , , , , , , ,			
	Plant / Equipment Name	Rated Capacity	/ Size	Minimum Operator Qualification		
	2 x Excavators	20T		CPCS		
-	4 x Excavators 30T			CPCS		
	2 x Dozers D6			CPCS		
	2 x Wheeled dumpers	9Т		CPCS		
Plant and Equipment:	6 x Wheeled dumpers	30Т		CPCS		
	4 x Tractors	New Holland T	7	CPCS		
	2 x bowsers	6000 litre towa	ble	N/A		
	3 x Single-drum Rollers	30T		CPCS		
	Paving machine	N/A		CPCS		
	Delivery lorries	20T / 28T		CPCS		
	Drainage Drainage pipework Precast manhole materials Drainage 1 road sto		r fill one	Fencing Acoustic fencing Weld-mesh fencing		
Materials:	Precast concrete headwalls	6F2 granular fil Geogrids	I	Gates		
	Silt fencing	Geo-membrane	es	Other		
	Ready-mixed concrete	Sand		Tarmac		
	Gully grates	Cement / lime		Gas oil		



PART P4 – Key Operational Risks Identification

Key Operational Risks	Reference	Applicable to this activity Y/N		
Site Access, Deliveries and removal of materials	OP8/1.3	Y		
Avoidance of buried underground services	OP8/3.2	Y		
Stability of structures	OP8/4.5	Ν		
Demolition Operations	OP8/4.6	Ν		
Temporary Works	OP8/4.5	Y		
Prevention of falls / work at height	OP8/4.2	Y		
Work near fragile materials	OP8/4.2	Ν		
Control of lifting operations	OP8/5.1	Y		
Plant and machinery / Quick Hitches	OP8/5.2	Y		
Excavations	OP8/4.5	Y		
Confined spaces	OP8/4.1	Ν		
Working near water	NA	Y		
Work in caissons or cofferdams	OP8/4.5	Ν		
Working with compressed air	NA	Y		
Cutting / Grinding Operations / breaking	NA	Y		
Personal protective equipment	PPUEP (Policy)	Y		
Asbestos	WI6/6.22	Ν		
Electrical (Severn Trent Water sites)	STSSOW (NMCN)	Ν		
Working on Electrical Systems	OP6/6.20	Ν		
Ionizing radiation / Exposure to UV radiation	NA	Ν		
Contaminated land	NA	Ν		
Manual handling	OP8/6.6	Y		
Control of substances hazardous to health (COSHH)	COSHH Manual	Y		
Noise	OP8/6.3	Y		
Vibration	OP8/6.2	Y		
Non-English Speakers	OP8/1.7	Ν		
Sharps and Needle sticks	OP8/6.5	Ν		
Environment Risk Assessment	Aspects & Impacts on line	Y		
Site Waste Management	OP9/1	γ		
Site Pollution or Water Contamination	OP9/3	Y		
Site Flooding	OP9/4	Y		
Site – Protected Animals	OP9/5	Y		
Site – Hedgerows	OP9/6	Y		
Oil Storage	OP9/7	Y		
Refuelling	OP9/8	Y		

Where Y has been selected, the item identified **MUST** be included in the risk assessment for this operation



PART P5 – Critical Ri	sk Study									
	Behavioural Iss	ues								
	Alpha	Ν	Time v Ri	sk	N	Habit	N	7+/-2		N
Effect of Human Factors	Repetitive tasks and high competence increase the of alpha mode.	levels of chance	Potential for compliance taken.	"time savers" due to shortcu	, lack of ts being	Have those involved dev habits. I've always done	veloped e it this way.	Overloadi much info instruction tasks,	ng people with t rmation, keep n simple, break	too down
(Insert "Y" for those that	Human Factors	;				•				
apply, "N" for those that	Workplace Layout	Y	Physical C	apability	N	Environment	Y	Langua	ge	N
don't)	People in ALPHA do not head height or below kn housekeeping, identified etc.	see above ee level, routes	Are the peo doing the ta size an issue	ple involved ca sks, is special s	pable of trength or	Housekeeping, heat, col noise, air quality and lig create environmental h	at, cold, weather, and lighting all ntal hazards			
	List PPE provid	ed in <u>A</u> l	DDITION	to standa	ard PPE	for the task <u>ANI</u>	<u>o</u> identifi	ed in th	e RA.	
PPE:	Eye and hearin	g prote	ction wh	en cuttin	g.					
	Eye protection	when o	off-loadin	g concret	te.					
	Skin protection when using concrete.									
	Is demolition/o	lismant	ling requ	ired? (OF	°8/4.6 a	pplies)?			No	
	Description of	demolit	ion/dism	antling r	equired	:				
Demolition Operations	N/A									
	Using OP8/4.6 demolition operations have been identified as Category: N/A								A	
Tomporary Works	Is temporary works design required? (OP8.4 applies) No)		
	What Level of	Design?							N/.	A
Temporary Work	Name		N/A			Contact No		N//	N N	
Coordinator (TWC)	Nume		N/A							
Temporary Works	Name		N/A			Contact No		N/A	2	
Supervisor (TWS)	Nume		N/A			contact No.		14/7	`	
Access / Egress	Use of podium	s, restri	cted acce	ess, cham	ber acc	ess, special requ	irements	s etc.		
arrangements to specific place of work:	N/A									
	If work at height control risks?	has bee	n identifie	ed as part	of this ac	tivity, how will th	e work be	planned	to reduce	/
Work at Height:	 Avoid the need to work at height 	2. Use exist place	an ing safe e of work	3. Provid equipr PREVE	e work nent to NT falls	 Mitigate distance / consequence of fall 	5. Instruction and tra	ction aining	6. Other	
	Using OP8/4.2 ensure that work at height risks are included in the risk assessment									
	Are mechanica	l lifting	operatio	ns being	carried	out for this task	?			
Lifting operations:	1. Machine Lifts		2. Lorry	Mounted	(HIAB)	3. Simple Crane	e Lift	4. Cor	nplex Cran	ie Lift
Litting operations.	Unloading / loac materials	ing	Unloadi materia	ng / loadir Is	ng	N/A		N/A		
Manual Handling	Can manual ha	ndling l	pe avoide	d? Yes. N	Леchani	cal lifts where p	ossible			
	If NO, ensure t	hat the	manual	handling	risks ar	e included in th	e risk as	sessmer	nt	



PART P6 -	PART P6 – COSHH											
сознн							(!)		\Diamond			
Assessment	Explosive	Oxidising	Highly Flammable	Acutely Toxic	Corrosive	Hazardous to Environment / Aquatic Life	Skin / Eye Irritant	Long Term Health Hazard	Gas under Pressure			
Applicable	Y		Y			Y	Y	Y				
	со	SHH ASSESSN	IENT MUST B	E ATTACHED V	VHEREVER SU	JBSTANCES AR						



PART P7 - Record of Amendments Form – Change 1 To be used for recording MINOR changes: (To be used to get the right balance between controlling the new risks and not unnecessarily holding up the work. For major changes a new / revised RAMS is required) **RAMS RECORD OF MINOR CHANGE RAMS Ref:** Work Activity: **DESCRIPTION / EFFECT Proposed Change:** New Risks Considered / existing risks reduced: **Proposed / New Control Measures: Requested By:** Signature: Date: Time: Agreed By: Signature Date: Time: PART P8 - Record of Amendments Form – Change 2 To be used for recording MINOR changes: (To be used to get the right balance between controlling the new risks and not unnecessarily holding up the work. For major changes a new / revised RAMS is required) **RAMS RECORD OF MINOR CHANGE RAMS Ref:** Work Activity: **DESCRIPTION / EFFECT Proposed Change:** New Risks Considered / existing risks reduced: **Proposed / New Control Measures: Requested By:** Time: Signature: Date: Agreed By: Signature Date: Time:



PART P9 - Record	PART P9 - Record of Reviews of RAMS							
RAMS Review Record								
The RAMS	The RAMS must be reviewed upon a significant change and after a maximum of every 30 days.							
	Following each review the RAMS must be re-briefed to the team							
Date of Review	Notes	Signature						
21/12/2016	21/12/2016 Rev 1 - First issue							



PART RA1 – Ris	k Assessment										
Activity / Task	Hazard Anything with the potential to cause harm.	People Affected E=employee	Potential Outcome	Pre-Control Risk Assessment			Control Measures required Control measures must be effectively implemented if they are to work as intended	Post Control Risk Assessment Have risks been reduced as far as reasonably practical			Risk
being carried out	Environmental, Operational / Process and Design hazards	V=visitor P=public O=other	e.g. injury, damage etc.	Likelihood 1 - 5	Severity 1 - 5	Risk Score 1 - 25	Include the title and controls of the applicable Operating Procedures identified in Part P4	Likelihood 1 - 5	Severity 1 - 5	Risk Score 1 - 25	Ranking
							 Access to site will be via the new Welfare Access, off B1416. 				
Access to site Live traff	Live traffic	Live traffic E/S/V/P	Road traffic accident causing injury	2	5	10	• Signage will be in place to forewarn vehicles of the site access junction.	1	5	5	Low
							 Deliveries are to be staggered to prevent large numbers of vehicles accessing site at the same time. 				
							 Compound Manager to be employed to control all deliveries. 				
Deliveries	Offloading and storage	- (-) - (-	Injury due to materials being			12	 Offloading to be undertaken using Hiab or forklift with Lift Plan in place. 		4	4	
	of materials	E/S/V/P	offloaded / stored incorrectly	3	4		 Loose items to be palletized, where possible. 	1			Low
							Materials to be stacked securely.				
							 Stacking heights to be limited to 2m. 				

LIKELIHOOD	RATING	SEVERITY - HEALTH	SEVERITY - SAFETY			
Almost Certain (>90%)	5	Multiple worker deaths e.g. Asbestos / Silica dust	Fatal accident to member of public or worker			
Probable (50% - 90%)	4	Single worker death / life shortening health effect e.g. Lung disease	Major injury (RIDDOR) resulting in lost time. Irreversible disability			
Possible (10% - 50%)	3	Irreversible health effects e.g. Loss of hearing, HAVS, Serious dermatitis	Injury resulting in over 7 days lost time			
Remote (1% - 10%)	2	Reversible health effects e.g. Minor dermatitis, respiratory, treatment off site	Injury resulting in 1 to 7 days lost time			
Unlikely (<1%)	1	Minor health effect for short period, no lost time e.g. skin irritation	Injury requiring First Aid but no lost time			

	5	5	10	15	20	25	RISK RANKING	ACTION REQUIRED		
	4	4	8	12	16	20	High	Do NOT start task; either engineer or design out the		
veritv	3	3	6	9	12	15	(12 – 25)	hazard, look at alternative methods		
Se	2	2	4	6	8	10	Medium	Do NOT start task; impose further control measures		
	1	1	2	3	4	5	(7 – 11)	such as alternative methods or plant / materials		
		1	2	3 4 5 L		4 5 Low		No additional control measures required		
			Lik	eliho	od		(1 – 6)	No additional control measures required		



PART RA1 – Ris	k Assessment										
Activity / Task	Hazard Anything with the potential to cause harm. Include H&S,	People Affected E=employee S=Sub-contractor	Potential Outcome	Pre-Cont	rol Risk As	ssessment	Control Measures required Control measures must be effectively implemented if they are to work as intended	Post As Have risks reas	Control F seessmen been reduced conably practic	Risk t as far as al	Risk
being carried out	Environmental, Operational / Process and Design hazards	V=visitor P=public O=other	e.g. injuly, danlage etc.	Likelihood 1 - 5	Severity 1 - 5	Risk Score 1 - 25	Include the title and controls of the applicable Operating Procedures identified in Part P4	Likelihood 1 - 5	Severity 1 - 5	Risk Score 1 - 25	Kaliking
Use of plant	Plant	E/S/V/P	Severe injury or death	2	5	10	 Segregation of plant and people where possible, e.g. pedestrian walkways. Designated haul routes to be established across site. Working areas to be fenced using pedestrian fencing. All reversing on site to be controlled by a banksman. All plant to have reversing beepers. Operatives to maintain a safe distance from operated plant (e.g. outside of slew area of excavators). All plant to be operated in line with manufacturer's guidance (e.g. seat belts). 	1	5	5	Low
							• All people on site to wear high-visibility PPE.				

LIKELIHOOD	RATING	SEVERITY - HEALTH	SEVERITY - SAFETY
Almost Certain	5	Multiple worker deaths e.g. Asbestos /	Fatal accident to member of
(>90%)		Silica dust	public or worker
Probable	4	Single worker death / life shortening	Major injury (RIDDOR) resulting
(50% - 90%)		health effect e.g. Lung disease	in lost time. Irreversible disability
Possible	3	Irreversible health effects e.g. Loss of	Injury resulting in over 7 days lost
(10% - 50%)		hearing, HAVS, Serious dermatitis	time
Remote (1% - 10%)	2	Reversible health effects e.g. Minor dermatitis, respiratory, treatment off site	Injury resulting in 1 to 7 days lost time
Unlikely (<1%)	1	Minor health effect for short period, no lost time e.g. skin irritation	Injury requiring First Aid but no lost time

	5	5	10	15	20	25	RISK RANKING	ACTION REQUIRED				
	4	4	8	12	16	20	High	Do NOT start task; either engineer or design out the				
veritv	3	3	6	9	12	15	(12 – 25)	hazard, look at alternative methods				
Se	2	2	4	6	8	10	Medium	Do NOT start task; impose further control measures such as alternative methods or plant / materials				
	1	1	2	3	4	5	(7 – 11)					
		1	2	3	4	5	Low	No additional control measures required				
		Likelihood					(1 – 6)					



PART RA1 – Ris	sk Assessment										
Activity / Task	Hazard Anything with the potential to cause harm. Include H&S.	People Affected E=employee S=Sub-contractor	Potential Outcome	Pre-Cont	rol Risk As	ssessment	Control Measures required Control measures must be effectively implemented if they are to work as intended	Post As Have risks reas	Risk		
being carried out	Environmental, Operational / Process and Design hazards	V=visitor P=public O=other	e.g. injury, damage etc.	Likelihood 1 - 5	Severity 1 - 5	Risk Score 1 - 25	Include the title and controls of the applicable Operating Procedures identified in Part P4	Likelihood 1 - 5	Severity 1 - 5	Risk Score 1 - 25	Natikilig
			Injury				 Excavations to be backfilled as soon as possible, and fenced when open (refer to "open excavations" risk for more details). 		4	4	
Construction works	Slips, trips and falls	S/E/V		4	4	16	 Materials and other equipment not in use are to be stored appropriately and not congest the working area. 	1			Low
							 Loading/unloading to be carried out on level ground, within designated areas. 				
							• Operatives to be informed of the presence of swales and drainage ditches.				
Excavation works	Open excavations	e/s/v/p	Injury caused by falling into	3	4	12	 Excavations to be backfilled as soon as possible / at the end of each shift, if practicable (e.g. drainage trenches). 	1	4	4	Low
			excavation				• Excavations to be fenced using pedestrian barrier while works ongoing.				

LIKELIHOOD	RATING	SEVERITY - HEALTH	SEVERITY - SAFETY			
Almost Certain (>90%)	5	Multiple worker deaths e.g. Asbestos / Silica dust	Fatal accident to member of public or worker			
Probable (50% - 90%)	4	Single worker death / life shortening health effect e.g. Lung disease	Major injury (RIDDOR) resulting in lost time. Irreversible disability			
Possible (10% - 50%)	3	Irreversible health effects e.g. Loss of hearing, HAVS, Serious dermatitis	Injury resulting in over 7 days lost time			
Remote (1% - 10%)	2	Reversible health effects e.g. Minor dermatitis, respiratory, treatment off site	Injury resulting in 1 to 7 days lost time			
Unlikely (<1%)	1	Minor health effect for short period, no lost time e.g. skin irritation	Injury requiring First Aid but no lost time			

	5	5	10	15	20	25	RISK RANKING	ACTION REQUIRED					
	4	4	8	12	16	20	High	Do NOT start task; either engineer or design out the					
veruv	3	3	6	9	12	15	(12 – 25)	hazard, look at alternative methods					
ň	2	2	4	6	8	10	Medium	Do NOT start task; impose further control measures					
	1	1	2	3	4	5	(7 – 11)	such as alternative methods or plant / materials					
		1 2 3 4 5		Low	No additional control measures required								
		Likelihood								(1-6)			



PART RA1 – Ris	sk Assessment										
Activity / Task	Hazard Anything with the potential to cause harm. Include H&S.	People Affected E=employee S=Sub-contractor	Potential Outcome	Pre-Control Risk Assessment			Control Measures required Control measures must be effectively implemented if they are to work as intended	Post As Have risks reas	Risk		
being carried out	Environmental, Operational / Process and Design hazards	V=visitor P=public O=other	e.g. injury, damage etc.	Likelihood 1 - 5	Severity 1 - 5	Risk Score 1 - 25	Include the title and controls of the applicable Operating Procedures identified in Part P4	Likelihood 1 - 5	Severity 1 - 5	Risk Score 1 - 25	Kaliking
Use of COSHH materials (concrete, tarmac, etc.)	COSHH materials	E/S	Injury	5	3	15	 Use of COSHH materials to be avoided where possible. All COSHH materials to be stored in a lockable, bunded COSHH store at Doves Nest Farm compound when not in use. COSHH Assessments to be produced for all COSHH materials, including gas oil, lime, cement, concrete and tarmac. Only trained and competent operatives to use COSHH materials, in line with COSHH Assessment. 	2	3	6	Low
Lifting of heavy / bulky objects	Manual handling	E/S	Injury	4	3	12	 Manual handling to be avoided where practicable (e.g. through mechanical lifting). Manual handling training to be given to all operatives involved in lifting works. For bulky objects which can be safely lifted by hand (e.g. small drainage pipes), use 2-person lifting. 	2	3	6	Low

LIKELIHOOD RATING		SEVERITY - HEALTH	SEVERITY - SAFETY			
Almost Certain (>90%)	5	Multiple worker deaths e.g. Asbestos / Silica dust	Fatal accident to member of public or worker			
Probable (50% - 90%)	4	Single worker death / life shortening health effect e.g. Lung disease	Major injury (RIDDOR) resulting in lost time. Irreversible disability			
Possible (10% - 50%)	3	Irreversible health effects e.g. Loss of hearing, HAVS, Serious dermatitis	Injury resulting in over 7 days lost time			
Remote (1% - 10%)	2	Reversible health effects e.g. Minor dermatitis, respiratory, treatment off site	Injury resulting in 1 to 7 days lost time			
Unlikely (<1%)	1	Minor health effect for short period, no lost time e.g. skin irritation	Injury requiring First Aid but no lost time			

	5	5	10	15	20	25	RISK RANKING	ACTION REQUIRED					
	4	4	8	12	16	20	High	Do NOT start task; either engineer or design out the					
veritv	3	3	6	9	12	15	(12 – 25)	hazard, look at alternative methods					
Se	2	2	4	6	8	10	Medium	Do NOT start task; impose further control measures such as alternative methods or plant / materials					
	1	1	2	3	4	5	(7 – 11)						
		1	2	3	4	5	Low	No additional control measures required					
			Lik	eliho	od		(1 – 6)						



PART RA1 – Risk Assessment												
Activity / Task	Hazard Anything with the potential to cause harm. Include H&S.	People Affected E=employee	Potential Outcome	Pre-Cont	rol Risk As	ssessment	Control Measures required Control measures must be effectively implemented if they are to work as intended	Post Control Risk Assessment Have risks been reduced as far as reasonably practical			Risk	
being carried out	Environmental, Operational / Process and Design hazards	V=visitor P=public O=other	e.g. injury, damage etc.	Likelihood 1 - 5	Severity 1 - 5	Risk Score 1 - 25	Include the title and controls of the applicable Operating Procedures identified in Part P4	Likelihood 1 - 5	Severity 1 - 5	Risk Score 1 - 25	капкіпд	
Specialist works	Various	E/S/V/P	Various	-	-	-	Risk assessments to be produced by appointed contractors for all specialist works, including tree removal, earthworks, surfacing and fencing.	-	-	-	-	

LIKELIHOOD	RATING	SEVERITY - HEALTH	SEVERITY - SAFETY			
Almost Certain	5	Multiple worker deaths e.g. Asbestos /	Fatal accident to member of			
(>90%)		Silica dust	public or worker			
Probable	4	Single worker death / life shortening	Major injury (RIDDOR) resulting			
(50% - 90%)		health effect e.g. Lung disease	in lost time. Irreversible disability			
Possible	3	Irreversible health effects e.g. Loss of	Injury resulting in over 7 days lost			
(10% - 50%)		hearing, HAVS, Serious dermatitis	time			
Remote (1% - 10%)	2	Reversible health effects e.g. Minor dermatitis, respiratory, treatment off site	Injury resulting in 1 to 7 days lost time			
Unlikely	1	Minor health effect for short period, no	Injury requiring First Aid but no			
(<1%)		lost time e.g. skin irritation	lost time			

5	5	10	15	20	25	RISK RANKING	ACTION REQUIRED			
4	4	8	12	16	20	High	Do NOT start task; either engineer or design out the hazard, look at alternative methods			
3	3	6	9	12	15	(12 – 25)				
2	2	4	6	8	10	Medium	Do NOT start task; impose further control measure			
1	1	2	3	4	5	(7 – 11)	such as alternative methods or plant / materials			
	1		3	4	5	Low	No additional control measures required			
	Likelihood					(1 – 6)				



PART MS1 – Contacts and Emergency										
Emergency Contact Numbers	Name:	Contact Number:								
Person Responsible For Works	Chris West									
Supervisor	Chris Davis									
Hospital	Scarborough General (A&E) Whitby Community Hospital (medical treatment only)									
First Aider	ТВС									
Location of First Aid Box	Site welfare at Doves Nest Farm, N	MC vans								
Process Impact Assessment Contacts	N/A									
Gas Emergency Call Out	National Grid									
Electricity Emergency Call Out	Northern Power Grid									
Water Emergency Call Out	Yorkshire Water									
Sewage Emergency Call Out	Yorkshire Water									
Emergency Procedures & Permits Required	Permit to Excavate, Permit to Lift									



PART MS2 – Management Arrangements, Emergency and Communication

Describe the management arrangements for undertaking the works:

(including arrangements prior to the start of work, welfare, first aid, change sanctioning arrangements, inspection and testing arrangements and details of subcontract arrangements, how sub-contractors will be managed)

NMC Management Team

The following shows the NMC management structure for this scheme:



This structure chart is to be updated once "TBC" positions have been filled

Site Inductions

Prior to accessing site, all operatives and visitors working on this scheme are to receive a site induction at NMC's Site Office at Doves Nest Farm.



Welfare

Welfare facilities comprising toilets, washing facilities, canteen, and a drying room, are located at Doves Nest Farm. Access is via the Doves Nest Farm Access, off B1416. Please refer to the appended "Doves Nest Farm Compound Layout Plan".

First Aid

First Aid equipment is located within the Site Office at Doves Nest Farm, and within all NMC vans.

A First Aid-trained nominated person will be located either on site or at NMC's compound during working hours.

Change Sanctioning

Changes to the method of work stipulated within this RAMS can only be sanctioned through completion of the "Record of Amendments Form" located within this RAMS, with the Project Manager's authorisation.

Inspection & Test Arrangements

Inspection & Test forms for the following will be undertaken throughout construction of these works:

- Site clearance.
- Bulk excavation.
- Bulk filling.
- Cement stabilisation.
- Membrane installations.
- Drainage pipework.
- Manhole construction.
- Road stone.
- Kerbs.
- Surfacing.
- Fencing.

Subcontract Arrangements

Specialist contractors will be appointed for the following elements of work.

- Tree and vegetation removal.
- Earthworks.
- Surfacing.
- Fencing & landscaping.

Works undertaken by specialist contractors will be subject to separate Method Statements covering each element of the above works.

Describe the emergency arrangements for any special risks:



(Include any special arrangement with emergency services, work at height rescue, confined spaces rescue etc.)

Fuel deliveries are to be undertaken in bulk loads to reduce the number of deliveries to site.

10,000 litre bowsers are to be used at the compound to provide adequate storage in case of inclement weather affects planned deliveries.

Describe how the safe system of work will be communicated to those undertaking the activity and any others needing to be informed:

(Including briefings, toolbox talks, KSAW and other forms of communication. Communication may increase based on risk of work being carried out)

Communication of Safe System of Work

- This RAMS will be briefed to all operatives involved with this scheme, prior to commencing any associated works. Re-briefings will be undertaken for all changes to this RAMS, plus at least monthly.
- Daily "Keep Safe & Well" briefings will be undertaken at the start of each shift, summarising the works in hand plus associated hazards.
- Where applicable, toolbox talks will be given in order to update on changing risks that may arise as the work progresses (for example hazards presented by changing weather conditions).

PART MS3 – Step by Step Sequence incorporating control measures

Provide a step by step sequence for the task, describing how the controls developed in the Risk Assessment are to be implemented:

(Description should be concise and bullet pointed for use when briefing the workforce as to how the task will be undertaken safely without risk to their health, safety or the environment.

Include 'Hold Points' at the end of each activity or 7 +/- 2 bullets, to segregate phases.

There should be no jargon, abbreviations or acronyms. There should be no uncertainty about what needs to be done, how it is to be done and what is required. Taboo words and phrases like 'where necessary', 'as approved', 'as appropriate' etc. are **not acceptable**)

Overview of Works

The purpose of this project is to construct access, working and storage infrastructure for future shaft construction works. The works comprise:

- Tree removal and de-vegetation.
- Site clearance.
- Cut & fill operations.
- Drainage construction (drainage blankets, filter drains, swales, carrier drains, catchpits and manholes).
- Access / haul road.
- Fencing (acoustic barrier and weld-mesh) and access gates.



The Site Aerial view of site:



Housekeeping

- This scheme involves the co-ordination of a number of complex elements of work, including bulk earthworks, drainage construction and fencing; as such, high standards of housekeeping are of particular importance.
- All materials not being used during the day's work must be transported and stored at the designated location within the site compound.
- Materials transported onto site for incorporation into the works must be stored close to the relevant working area.
- Daily inspections on housekeeping will be undertaken by NMC's nominated person.

Delivery and Storage of Materials

- Materials will be delivered to the site compound at Doves Nest Farm, via the newly-constructed Welfare Access on the south end of the site (please refer to attached site layout drawing).
- Materials will be offloaded at the designated offloading area and stored either within the compound, or taken directly to the required location on site.

Re-fuelling (generally)

 Fuel deliveries and re-fuelling of plant and equipment will be undertaken in accordance with NMC's Operating Procedure OP 9/8 "Re-Fuelling".



- Re-fueling of small plant and equipment will be undertaken only at the designated re-fuelling area (as shown on the attached "Doves Nest Farm Compound Layout Plan"), with a spill-kit in place at all times during the re-fuelling operation.
- Should any spillages occur, the process of "Stop, Contain, Notify, Clean Up", will be followed, as detailed within OP 9/8.

Re-fuelling on site (earthworks plant)

- A towable bowser will be taken to a suitable locations and secured.
- The machine shall approach the bowser with care; assisted by a banksman when necessary
- Adequate space will be maintained between the machine and bowser, ensuring space for the pump operator without being so far away that the hose becomes stretched or a trip hazard.
- The machine shall apply its parking breaks and the engine turned off; on level, firm ground.
- Plant nappies will be placed between the bowser and the machine to catch any drips / spills.
- The machine's bonnet/hatch door will be secured to prevent it swinging shut.
- The cap from the machine's fuel tank will be removed.
- The bowser's generator will be switched on.
- The hose will be extended and the hose nozzle locked into the fuel tank when possible.
- Refuelling the machine will be undertaken at an appropriate flow speed to prevent overfilling.
- The refuelling of machines should always be supervised throughout the whole process, even at automatic refuelling bowsers.
- Upon refuelling the machine, the bowser's generator will be switched off, the nozzle will be shaken into the machine fuel tank, the fuel tank cap secured, and the hose will be placed back into the designated location.
- The machine and the ground around the refuelling point will be inspected for spillages.
- Should any spillages occur, the process of "Stop, Contain, Notify, Clean Up", will be followed, as detailed within OP 9/8.

Permit to Excavate

 A Permit to Excavate will be issued ahead of all mechanical excavation works; the Permit will detail all known underground utilities and stipulate a safe system of work for excavation which includes CAT scanning and trail holes to locate all known services.

Temporary Fencing

- 2m tall anti-climb fencing will be erected to the perimeter of the earthworks and drainage working areas.
- Additional fencing will be erected within the working areas as follows:
 - Areas of deep excavations (e.g. during drainage works) 2m tall anti-climb fencing.
 - \circ $\;$ Working areas without deep excavations but with other hazards Pedestrian barrier.
 - $\circ~$ At the interface with steep changes in gradient High visibility Netlon fencing.







2m tall anti-climb fencing



High-visibility Netlon fencing

Pedestrian barrier

Principal Items of Plant

The following plant will be used to undertake the drainage works:

Excavators

- Excavators will be used for mechanical excavation works associated with drainage installation, earthworks, and road construction works.
- Excavators will also be used for archaeological investigation / sign-off purposes.

Dozers

- Dozers will be used for earthmoving and aggregates spreading across the earthworks and road construction works.
- Dozers will <u>not</u> be used to excavate / move earth until after archaeological inspections have been completed at the bottom-of-subsoil level. Excavation to this point will be undertaken by excavators only.

Tractors

 Tractors will be used for towing during, vegetation removal, cement stabilisation, re-fuelling and dust suppression activities.









Dumpers (small)

• Small dumpers (e.g. 9T) will be used to transport spoil and materials during drainage works.

Dumpers (large, up to 30T)

• Large dumpers will be used to transport spoil during largescale cut & fill operations, attenuation pond construction and road construction activities.

Single-drum rollers

• Single-drum rollers will be used to compact of the formation, clay and granular layers during cut & fill operations and placement of platforms.

Vibrating rollers

• Vibrating rollers will be used to compact of the formation, road stone and tarmac of the haul road.










Paving machine

• A paving machine will be used by the surfacing contractor to lay tarmac ahead of compaction.







Fence Auger

• Used to auger holes for fence post foundations.

• Located on the access road between site and the Welfare Access. See appended specification sheet for details.

Setting Out

Wheel Wash

- All works will be undertaken to a line and level marked on site by NMC's Setting-out Engineer.
- GPS models of the cut & fill profile will be set within earthworks plant, with the plant operated to achieve the model ("Trimble" or similar to be used).

Tree Removal and De-vegetation

- The existing trees and vegetation which fall within the footprint of the works will be removed by a competent tree surgeon, in accordance with a separate site-specific Method Statement.
- Tree trunks will be stored in the designated location at Doves Nest Farm; vegetation will be shredded and spread across adjacent wooded areas.

RAMS Issue J July 2015



Archaeological Excavation

- A 25m x 25m grid will be established across the site for the recording of archaeological excavations, inspections and hand-over of areas; there will be approx. 100No grids across the Phase 2 area.
- Excavation will proceed across all areas using an excavator, under the supervision of an archaeologist from Cotswold Archaeology; dozers will not be used at this stage of the works.
- Once 10No grids are excavated to the required level, archaeological investigations will proceed with all plant excluded for the area.
- Following archaeological inspection, areas will be handed back for works to continue; at this stage, dozers can be used, as required.
- The area of the haul road will be excavated and inspected over a minimum of 4No visits, i.e. 25% of the area will be excavated, inspected for archaeology and then handed back for works to continue.
- Should any archaeology be encountered at any stage of the works, works within a 25m x 25m section will stop, an exclusion zone established using high visibility Netlon fencing, and the guidance of Cotswold Archaeology will be followed.

The Importance of Surface Water Management During Construction

- High levels of silt suspended in water can suffocate fish by clogging their gills, can remove essential oxygen from the water and can kill plants, animals and insects living in the water by stopping sunlight reaching them.
- Silt pollution spoils the appearance of watercourses, is easily traceable to the site from where it originated and in the past has been a major cause of prosecution.
- When a site is water logged, water accumulates on the surface which is associated with several types of hazards and inconveniences, including:
 - Unsafe surfaces for vehicle traffic.
 - \circ $\;$ The concealment of trip hazards on the ground or excavations.
 - Aiding in the transportation of contaminated or polluted water.
 - Hosting wildlife such as rats, exposing site operatives to disease.
 - Halting progression of works.
 - Erosion of surfaces.
 - Pollution of watercourses.
 - Reduction of stability and bearing capacity of excavations, slopes or cuttings.

IT IS ILLEGAL TO ALLOW SILTY WATER TO ENTER SNEATON THORPE BECK OR OTHER WATERCOURSES

Measures to Reduce Silt Generation

- Excavation works will not be undertaken during periods of heavy rainfall.
- Areas of exposed subsoil and stockpiles will be compacted no later than at the end of each shift.
- Where granular fill be being applied, this will be undertaken the same day as exposing the formation.
- Works will be phased to reduce the overall area of site exposed at any one time.



Surface Water Drainage – Sequence of Works

The order in which the proposed surface water drainage measures are implemented will have a bearing on the protection of Seaton Thorpe Beck; the proposed surface water drainage design will be constructed, in general, working from the downstream end towards the upstream end. The following sequencing will be undertaken (start date on site of 03/04/17 is assumed).

- (03/04 to 05/04) Secondary silt fences will be constructed downstream of the working area and within the Seaton Thorpe Beck Tributary.
- (03/04 to 05/04) A settlement basin will be established downstream of the eastern attenuation pond to prevent discharge into the Sneaton Thorpe Beck Tributary ahead of the discharge consent being in place.
- (06/04 to 12/04) The eastern attenuation pond will be constructed during a dry period to prevent silt run-off during construction of this element of the scheme.
- (13/04 to 18/04) The proposed silt removal facility will be constructed and a carrier drain installed to connect this with the attenuation pond.
- (17/04 to 21/04) Before starting works to the platforms, the proposed perimeter ditches, plus ditch to the silt removal facility, will be established, with check dams installed for de-silting purposes.
- (24/04 to 05/05) The proposed oil interceptors will be installed.
- (24/04 to 28/04) Swales with silt fences will be constructed to the perimeter of all earth bunds.
- Check dams and silt fences will be inspected weekly and de-silting will be undertaken as required.
- De-watering of excavations and working areas will be undertaken using submersible pumps with discharge directed into the silt removal facility or a suitable area within the site upstream of this.

Drainage – Construction Methods

- Excavation of drainage trenches, ponds and swales will be undertaken using an excavator or dozer, as detailed in the "Earthworks" section below.
- Spoil will be transported by dumper and incorporated into the earthworks cut & fill operations, as detailed below.
- Precast concrete pipes, culverts and headwalls will be lifted into position using an excavator and set to level by an experienced pipe-layer.
- Silt fencing will be erected, with timber stakes driven into the ground using a sledge hammer, to suit the profile of the surrounding ground.

Earthworks

Bulk earthworks will commence on 01/05, following implementation of the surface water drainage measures (as detailed above).



<u>Cut & Fill</u>

- The areas of cut will be trimmed with a D6 dozer and excess material loaded on dump trucks by 360 excavators. This material will then be transported to the fill areas where it will be tipped and levelled under the instruction of a D6 who will then level the material ready for compaction by a ride on roller.
- No areas of formation will be cut and left open to the weather.
- All materials will be placed and compacted in accordance with clause 612 of the Specification for Highways Works.
- Dust generation will be kept to an absolute minimum; damping down will be carried out using a tractor and bowser, as required by site conditions.

Bulk Fill Modification

- As the earthworks progress, material that is not suitably competent as fill in its current form will be modified with lime.
- This material will be pushed out into the areas of fill on top of good material.
- This none suitable material will be pushed out in a layer approx. 300mm thick, this will be done with the use of the D6 dozer.
- Quicklime will be applied to the surface in an accurate and uniform dosage using a spreader/ mixer.
- Wind speed and direction will be monitored using a windsock, with operations suspended in high winds.
- Mixing of the quicklime with the unacceptable material shall be carried out using a Gutzwiller mixing drum to produce a homogenous mixture throughout the full depth of treatment.
- The treated material will be compacted to ensure that reaction occurs about each particle of soil.
- Buxton lime has a very quick reaction time but it may be necessary to let it slake a while longer and even rotovate the material again to achieve the correct pulverisation.
- The material will then be compacted in accordance with clause 612 of the Specification for Highway Works.
- After all sampling has been taken and the layer has passed all post checks, another 300mm layer of excavated material will be placed and treated, if required, as previously described.

<u>Cement Binder</u>

- Quicklime will be applied and mixed to ameliorate the soil prior to the addition of the cement binder.
- It will be added and mixed to the soil not less than 24 hours or more than 72 hours before the subsequent addition; during this period it will be ensured that any quicklime added to the soil has been fully hydrated.
- Thereafter, mixing of the cement binder will be carried out by one or more passes of the purpose made mixer until uniformity has been achieved.
- Water will be added as determined by the MCV results.
- Degree of pulverisation and MCV (OMC) will be monitored.
- At final compaction the moisture content of the cohesive mixture shall not be less OMC determined in accordance with the 2.5 kg Proctor method of BS1924.



- Final compaction, including finishing rolling, will be completed within 2 hours of mixing of cement.
- On completion of final compaction, the surface layer shall be well closed, free from movement under the compaction plant and free from ridges, cracks and loose material.
- The full depth of the layer shall be compacted to an average density of 95% of the average fresh wet density.

Placement and compaction of granular materials

- Each area of the site, building/yard/car park etc. will be finished with the correct depth of stone.
- The stone will be imported by 8 wheeled / articulated lorries, tipped and levelled under the instruction of a D6 dozer, who will then level the material ready for compaction by a ride on roller.
- All materials will be placed and compacted in accordance with clause 612 of the Specification for Highways Works.
- Movements in and out of site will be monitored with the traffic restrictions of a maximum 63 movements a day for HGVs and 24 light vehicle movements per day being adhered to.
- The imported aggregate will be laid and compacted then trimmed in preparation for the drainage works.
- The following measures will be taken to avoid contamination of the sub base with subsoil.
 - Designated haul routes will be established.
 - Materials will be segregated at all stages of construction (when delivered, excavated and stored on site).
 - Plant will not access areas of granular stone during inclement weather without suitable cleaning taking place ahead, to prevent mud.

Access Road Construction

Excavation works for the access road will not commence until the proposed perimeter ditches have been formed, with check dams installed for de-silting purposes.

- (03/04 to 07/04) The proposed drainage ditches will be established, with check dams installed for desilting purposes.
- (03/04 to 07/04) Culvert pipes and headwalls will be installed to maintain existing watercourses.
- (From 10/04) Excavation and placement of road stone to the access road will be undertaken as part of the earthworks operations, as detailed above.
- The final layer of road stone will be placed, trimmed and compacted not more than 48 hours ahead of the surfacing works, to prevent contamination or weather damage.
- Kerbs will be placed on a concrete bed and haunch to form the kerb-line to the haul road.
- An air gap (2mm maximum) will be left between adjacent kerbs to prevent spalling at joints.
- Installation and compaction of base, binder and surface course will be undertaken by a specialist surfacing contractor, in accordance with a separate site-specific Method Statement.
- All surfacing will be machine-laid using a paving machine and compacted using a vibrating roller.



Fencing and Gate Installation

- Acoustic fencing will be erected to the west end of the site.
- Perimeter fencing (weld mesh) will be erected to the perimeter of the site, with access gates at each access point.
- Holes for foundations will be formed using a fence auger, with concrete inserted into each excavation using a hand-shovel.
- Gates posts will be installed, with the gate lifted into position using an excavator and bolted into position.

The following image shows black mesh fencing, as per the perimeter fencing:





PART MS4 – Documents Required as Part of the RAMS Pack										
	Document	Required	Attached or Location							
	Environmental Risk Assessment (Aspects & Impacts)	Yes	Attached							
	Process Impact Assessment	No								
	Design Risk Assessment / Health & Safety File	No								
ched Documents	Permits required for the work:									
	Gonfined Spaces	No								
	📕 Hot Work	Yes	Issued as required							
	🖶 Electrical	No								
	Excavate and Break Ground	Yes	Issued for all excavations							
	4 Lifting Operations & Lift Plan	Yes	Issued ahead of mechanical lifting operations							
Atta	4 Demolition Operations	No								
	Restricted Access / Restricted Operations	No								
	Other	No								
	Drawings relevant to work taking place	Yes	Site Office							
	Emergency Procedures	Yes	Site Office							
	Service drawings and other utility identification	Yes	Attached to Permit to Excavate, and in Site Office							



PART MS5 – Post Activity Review									
Look at how	the task was d	one, can we imp	prove the metho	bd?					
RAMS Ref No.	44394-PH2-RAN	15-01	Rev:	1					
Contract No.	44394.002		Contract Name:	York Potash Phase 2, Doves Nest Farm Enabling Works					
Brief description task	n of								
Are there any lessons for next time? Did the task cre any new bazard	ate								
What could we change to make task safer next	the time?								



BRIEFING RECORD

REMEMBER TO RE-BRIEF THE WORKFORCE WHEN THINGS CHANGE OR A MAXIMUM OF EVERY 30 DAY

PART BR1 - Briefing R	ecord for	RAMS 443	94-PH2-RAM	IS-01		Revision	1		
By signing this Briefing Record 1. Have had the briefing 2. Understand how the 3. Will complete the tas	you are accept on the date t task is to be c	oting that you: stated, completed, d or STOP if it ca	annot he co	mnlated as described					
Name (Please Print)	Consulted Y/N	Job / Ro (During Ta	le isk)	Signature	Date	Briefed By	Position	Original, Change 1, Change 2, Review	

Personnel who are consulted in the preparation of the RAMS should indicate this by inserting Y in the consulted column.

RAMS Issue J July 2015

Appendix C

Drawings

Proposed Welfare Facilities at Doves Nest Farm for Phase 2 Enabling Works (40m x 160m overall)



- 1. Site Office, meeting room, canteen / kitchen, 2 x toilets (3+1), washing facilities and drying room. (13m x 20m)
- 2. Materials delivery and offloading area. (6m x 45m)
- 3. Materials storage areas / disposal skips. (13m x 10m + 10m x 7m)
- 4. Fuel and COSHH storage, concrete wash-out and re-fuelling area. (10m x 13m)
- 5. Storage containers. (15m x 7m)
- 6. Storage area for excavated soils. (10m x 20m)
- 7. Car park 1, 16 x vehicles. (20m x 10m), 8. Car park 2, 14 x vehicles. (20m x 8m), 9. Car park 3, 30 x vehicles. (4m x 75m)
- 10. Emergency access / egress point.
- 11. Layby / holding area for exiting vehicles. (10m x 3m)

Note: Areas of existing hardstanding will be used where available; where car parking / storage is located on existing grassed areas, the area will be stripped of topsoil and a 200mm of compacted road stone will be placed on a geotextile membrane.











2 South Platform	5,360				1,340									2,080	new construction provided on top. It is assumed that top, sub and sperficial soil cut volumes from this area are currently stored in the landscaped bunds surrounding the northern platform. 0.25m depth of existing platform to be removed and new construction provided on top. Assumes all material provided to top.		Admiral House, Rose Wharf, 78 East Street, Leeds, LS9 8EE www.arup.com
															area is stockpiled in Area 4.		Sirius Minerals Plc
3 Middle Extension	3,285		657	1,643			3,160							1,970			
4 Existing spoil bund	16,545														No impact on this area during phase 4.		
5 North Extension	5,600		1,120	2,800			9,730							3,360			
6 East (Lower) Extension	23,420		4,684	11,710		6,330	9,610					2,257	6,770	14,052			
7 Slope	2,625		525	1,313			2,190	788					100				
8 Slope	4,835		967	2,418			990	1,451			4,720						Job Title
9 Slope	1,290		258	645			1,160	387					110				York Potash
10 Access Road	7,290		1,458	3,645			6,330	1,550			2,080			6,197	Assume 30% of area top soiled		
11 Pond	7,626		1,525				2,323	2,290			3,963						
13 Bund A	5,518		1,104	2,759				310	1,245	14,543					Assumed Scrub planting for basis of restoration		
14 Temp Top Soil Bund 1	5 790		1 158												8 779		
15 Tomp Sub Soil Bund 1	6 301		1,138												21 177		
16 Temp Top Soil Bund 2	2 421		484												3 631		Dovo's Nost Farm
17 Temp Sub Soil Bund 2	2,421		53/												9,510		Dove sinest Failin
18 Clay Stockpile	7,160		1,432												24,730		Construction Phase 2
																	Earthworks Strategy
Total	110,883	611	17,185 1	1,528 26,932	2,257	11,110	35,493	6,775	1,245	14,543	10,763	2,257	<mark>6,98</mark> 0	28,974	67,827		
				95,114						35,583			35 <i>,</i> 954		67,827		
																	Scale at A1 1:2000
					Cut	Bulking	Cut (Total)	Fill St	tockpile							//	
Cut Top Soil	0.2		Top Soi	il	17,185	1.05	18,044	6,775	10,410							K //	Discipline Highwavs
Sub Soil	0.5		Sub Soi	il	26,932	1.10	29,625	1,245	25,687								
FILL Platform Construction	0.6		Superfi	icial / Clay	35,493	1.10	39,042	10,763	24,730								
Road Construction	0.85		Existing	g Platform	2,257	1.00	2,257	2,257	-1								234376 Issue
			Tip	Top Soil	611	1.05	642	14,543	0								Drawing No
				Sub Soil	1,528	1.10	1,680										
				Other	11,110	1.10	12,221										
			Total		95,114		103,510	35,583	60,825								

Do not scale

13

Appendix D

Wheel Washing Facilities



LEWI RI





No 'Movement Order 'required for delivery or collection

Nationwide Service 24/7 Next Day Delivery



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WHEELWASH

At **Cross Plant Hire** we provide a number of Wheel Washing Systems, our **innovative** 'Cross Wash' which provides your site with a very effective and low cost wheel-cleaning system for your equipment and vehicles.

Our **innovative** patented system means that you no longer need a 'movement order' when having your wash delivered or removed from site. Saving valuable time and money. It also means that you can adjust the width of the wash and ramps to accommodate virtually any size of vehicle using the wash, such as large articulated dump trucks etc.

We can advise you on the best Wheel Washing System to meet your site needs, whether that is an Elevated Wheel Wash System that is ideal if you cannot excavate the ground to install, eg: city centres, tarmac etc. We also provide Wheel Wash Systems that can be installed into the ground if you have the option to excavate. All our Wheel Washing Systems are available in various sizes to suit your needs and available for hire or sale.

2













LANT HIRE

For pricing information on hire and sale of our complimentary wheel wash products such as Header Tanks, Bootwash Pro & Jetters



WHEELWASH



Cross Plant Wheel Washes



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